Canon

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imageRUNNER ADVANCE 4051/4045/4035/4025 Series

Service Manual



Product Overview
Technology
Periodic Service
Parts Replacement and Cleaning
Adjustment
Troubleshooting
Error Code
Service Mode
Installation
Appendix

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Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation
	Check.
	Check visually.
	Check the noise.
	Disconnect the connector.
	Connect the connector.
	Remove the cable/wire from the cable guide or wire saddle.
	Set the cable/wire to the cable guide or wire saddle.
	Remove the screw.
	Tighten the screw.

Symbols	Explanation
	Remove the claw.
	Insert the claw.
	Use the bundled part.
	Push the part.
	Plug the power cable.
	Turn on the power.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.
   In the diagrams, ▮▮▮ represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow ⟶ indicates the direction of the electric signal.
   The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

   2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.
   In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.
All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine.

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Safety Precautions

- CDRH Act
- Laser Safety
- Handling of Laser System
- Turn power switch ON
- Safety of Toner
- Notes When Handling the Lithium and Ni-MH Batteries
- Notes Before it Works Serving
- Points to Note at Cleaning
- Notes On Assembly/ Disassembly

CDRH Act

The Center for Devices and Radiological Health of the US Food and Drug Administration put into force regulations concerning laser products on August 2, 1976. These regulations apply to laser products manufactured on and after August 1, 1976, and the sale of laser products not certified under the regulations is banned within the Untied States. The label shown here indicates compliance with the CDRH regulations, and its attachment is required on all laser products that are soled in the United States.

CANON INC.
30-2,SHIMOMARUKO,3-CHOME,OHTA-KU,TOKYO,JAPAN

MANUFACTURED:

THIS PRODUCT CONHORMS WITH DHHS RADIATION PERFORMANCE STANDARD 21CFR CHAPTER 1 SUBCHAPTER J.

F-0-1

A different description may be used for a different product.

Laser Safety

Laser beam radiation may pose a danger to the human body. A laser scanner mounted on the machine is sealed with the protection housing and external cover to prevent the laser beam from leaking to the outside. The laser beam never leaks out of the scanner as far as users operate the machine normally.
The following warnings are given to comply with Safety Standard (EN60950-1).

Sicherheit des Lasers

Laserstrahlen können für den menschlichen Körper gefährlich sein. Aus diesem Grund ist das optische Lasersystem mit einem Schutzgehäuse und einer Außenabdeckung dicht verschlossen und hat eine Struktur, die keine Laserstrahlen nach außen dringen lässt. Unter der Voraussetzung, dass der Benutzer dieses Gerät normal bedient, ist ein Austritt von Laserstrahlen daher ausgeschlossen.

Handling of Laser System

When servicing the area around the laser assembly, be sure to turn off the main power.
If you must servicr while the power is turned on, be sure to keep the followings:
- Do not use a screwdriver or tools that have a high level of reflectance in the laser path.
- Remove watches and rings before starting the work. (They can reflect the laser beam, possibly hitting the eye.)
The machine's covers that can reflect laser light are identified by means of a warning label (Figure). If you must detach a cover showing the label, be sure to take
extra caution during the work.
The following warnings are given to comply with Safety Standard (EN60950-1).

Handhabung des Laserteils

Bei Servicearbeiten am oder in der Nähe des Laserteils zuerst das Hauptgerät abschalten.

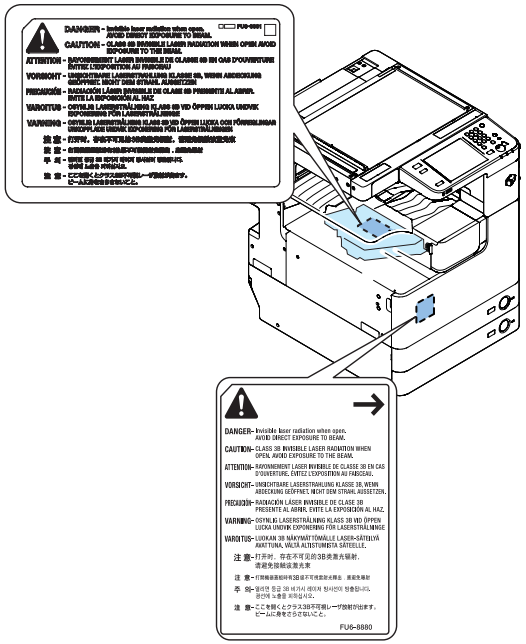
Bei Servicearbeiten, die unbedingt bei eingeschaltetem Gerät durchgeführt werden müssen, auf jeden Fall die folgenden Vorsichtsmaßnahmen beachten.

• Keine stark reflektierenden Schraubenzieher oder ähnliche Werkzeuge direkt in den Lichtpfad des Laserstrahls bringen.

• Vor Beginn der Arbeit Uhren, Ringe und ähnliche Gegenstände abnehmen. (Reflektierte Laserstrahlen könnten sonst in die Augen geraten.)

Abdeckungen, die möglicherweise Laserstrahlen reflektieren, haben in der auf dem Bild gezeigten Position einen Aufkleber. Bei Servicearbeiten auf der Innenseite von Abdeckungen mit Aufkleber ist besondere Vorsicht erforderlich.

F-0-2



F-0-3

This product is certificated as a Class 1 laser product under IEC60825-1:2007.

Turn power switch ON

The machine is equipped with 2 power switches: main power switch and control panel power switch.

The machine goes on when the main power switch is turned on (i.e., other than in low power mode, sleep mode).

⚠

Do not turn off the main power switch while the progress bar is indicated, during which access is made to the HDD. If deprived of power, the HDD can suffer a fault (E602).



F-0-4

Safety of Toner

About Toner

- When disposing of the waste toner, be sure to follow all applicable regulations of the local government.
- The machine's toner is a non-toxic material made of plastic, iron, and small amounts of dye.

⚠

Do not throw toner into fire. It may cause explosion.

Toner on Clothing or Skin

- If your clothing or skin has come into contact with toner, wipe it off with tissue; then, wash it off with water.
- Do not use warm water, which will cause the toner to jell and fuse permanently with the fibers of the cloth.
- Tonner is easy to react with plastic material, avoid contact with plastic.

Notes When Handling the Lithium and Ni-MH Batteries

⚠
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

The following warnings are given to comply with Safety Principles (EN60950).

⚠
Wenn mit dem falschen Typ ausgewechselt, besteht Explosionsgefahr.
Gebrauchte Batterien gemäß der Anleitung beseitigen.

⚠ 警告
如果更換不正確之電池型式會有爆炸的風險
請依製造商說明書處理用過之電池

Notes Before it Works Serving

⚠
- If the power plug is exposed to dust, humidity, or oily smoke, the resulting buildup can prove to be a fire hazard. (The buildup of dust, for instance, can absorbmoisture and suffer insulating failure.) Be sure to disconnect the power plug on a periodical basis, and remove any buildup of dust and dirt with a dry cloth.
- At servicing, be sure to turn OFF the power source according to the specified steps and disconnect the power plug.

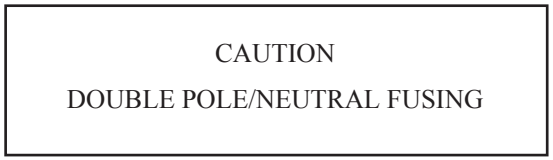
Points to Note at Cleaning

⚠
When performing cleaning using organic solvent such as alcohol, be sure to check that the component of solvent is vaporized completely before assembling.

Notes On Assembly/Disassembly

Follow the items below to assemble/disassemble the device.

1. Disconnect the power plug to avoid any potential dangers during assembling/disassembling works.
2. If not specially instructed, reverse the order of disassembly to reinstall.
3. Ensure to use the right screw type (length, diameter, etc.) at the right position when assembling.
4. To keep electric conduction, binding screws with washers are used to attach the grounding wire and the varistor. Ensure to use the right screw type when assembling.
5. Unless it is specially needed, do not operate the device with some parts removed.
6. Never remove the paint-locked screws when disassembling.



F-0-5



Product Overview

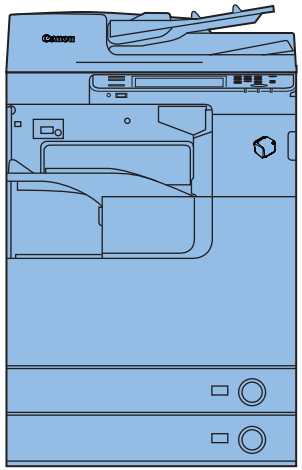
- Product Lineup
- Feature
- Specifications
- External View/Internal View
- Operation

Product Lineup

Main Body

imageRUNNER ADVANCE 4051 / 4045 / 4035 / 4025

The underlined numerical value indicates the print speed (ppm: print per minute).



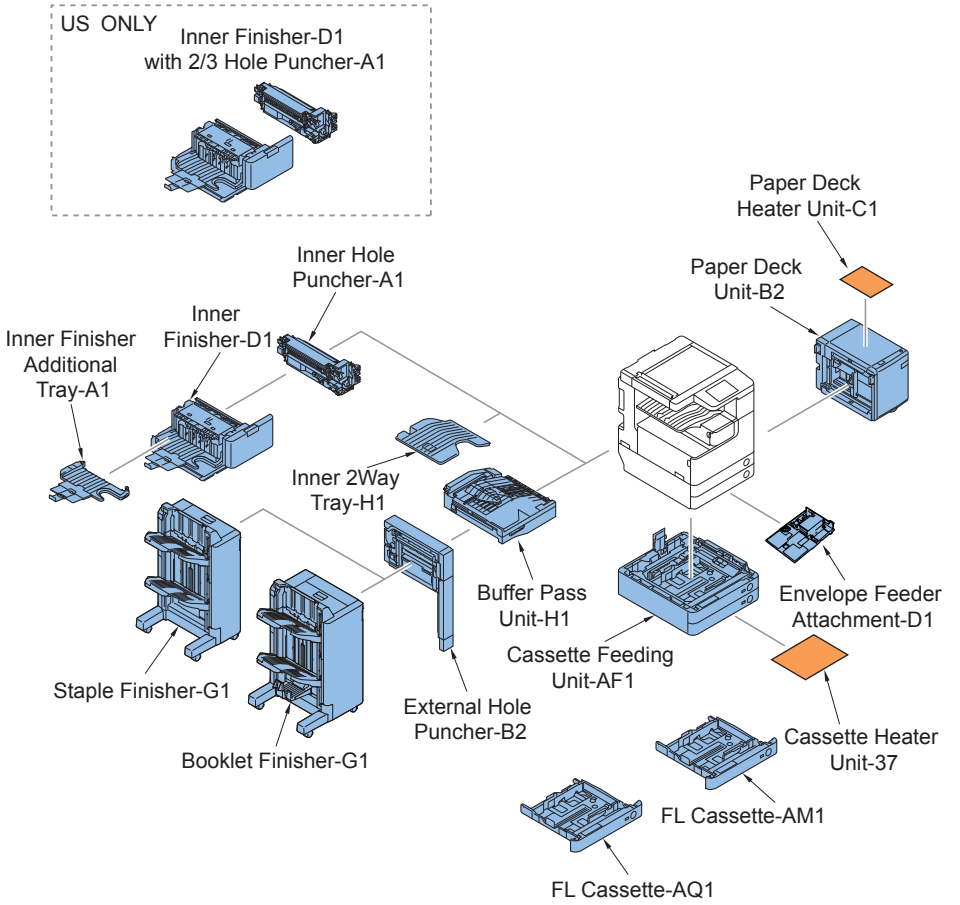
F-1-1

	imageRUNNER ADVANCE 4051	imageRUNNER ADVANCE 4045	imageRUNNER ADVANCE 4035	imageRUNNER ADVANCE 4025
Print speed	51 ppm	45 ppm	35 ppm	25 ppm
Positioning	Target machine: iR5055/5050	Target machine: iR3245/3235/3230/3225 Series		
Control Panel	Flat Control Panel			
HDD	Standard: 80 GB, Maximum: 250 GB			
Communication method with pickup/delivery option	IPC (Inter Process Communication)			

T-1-1

Pickup/Delivery System Option

Applicable Option for Each Model



F-1-2

Required Options/Conditions

Pickup System Options

Product name	Required options, conditions, etc.
Paper Deck Unit-B2	Pickup capacity:2,700 sheets (80 g/m^2), 3,000 sheets (64 g/m^2) Paper size: A4, LTR Paper weight: 60 to 128 g/m^2 Paper type: plain paper 1 (60 to 63 g/m^2), plain paper 2 (64 to 90 g/m^2), recycled paper, color paper, heavy paper 1 (91 to 105 g/m^2) ,heavy paper 2 (106 to 128 g/m^2), pre-punched paper
Paper Deck Heater Unit-C1	Option for Paper Deck Unit-B2 Use it to suppress the moisture absorption of the paper in the paper deck.
Cassette Feeding Unit-AF1	Pickup capacity:550 sheets (80 g/m^2), 680 sheets (64 g/m^2) Paper size: Standard (universal) A3, B4, A4, B5, 279mmX432mm(11"X17"), LGL, LTR, A4R, B5R, LTRR, A5R, STMTR, 8K, 16K, 16KR, EXEC Paper weight: 64 to 128 g/m^2 Paper type: plain paper 1 (60 to 63 g/m^2), plain paper 2 (64 to 90 g/m^2), recycled paper, color paper, heavy paper 1 (91 to 105 g/m^2) ,heavy paper 2 (106 to 128 g/m^2), pre-punched paper
Cassette Heater Unit-37	Option for cassette of main body and Cassette Feeding Unit-AF1 Use it to suppress the moisture absorption of the paper in the cassette. Heater Kit-K1 is required.
FL Cassette-AM1	Option for 2nd cassette of the main body
FL Cassette-AQ1	Option for 1st cassette of the main body
Envelope Feeder Attachment-D1	Option for 2nd cassette of the main body or easy envelope feeding. Holds up to 50 envelopes.

T-1-2

Delivery System Options

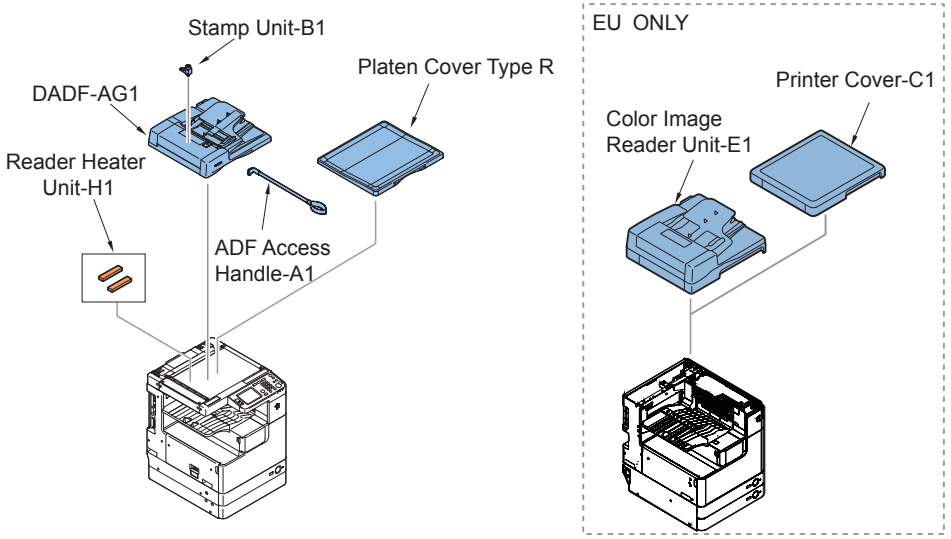
Product name	Required options, conditions, etc.
Inner Finisher Additional Tray-A1	Option for Inner Finisher-D1 Stacking capacity Non-collate/collate/group mode:100 sheets (12.5 mm or less in height) Staple mode:60 sheets (8.1 mm or less in height)

Product name	Required options, conditions, etc.
Inner Finisher-D1	Stacking capacity: 1,000 sheets (81.4 g/m^2; A4, B5, A5R, LTR, STMTR, EXEC, 16K) Paper weight: 52 to 220 g/m^2 Stapling capacity: 50 sheets (81.4 g/m^2; A4, B5, A5R, LTR, STMTR, EXEC, 16K)
Inner 2 Hole Puncher-A1 Inner 2/3 Hole Puncher-A1 Inner 2/4 Hole Puncher-A1 Inner 4 Hole Puncher-A1	Option for Inner Finisher-D1. Hole type: 2 holes (AB), 2 holes/3 holes (Inch), FRN, 2 holes /4 holes, SWE/4 holes Paper size: A3, B4, A4, A4R, B5, B5R, 279mmX432mm(11"X17"), LGL, LTR, LTRR Paper weight: 52 to 220 g/m2
Inner Finisher-D1 with 2/3 Hole Puncher-A1	US only Refer to Inner Finisher-D1 and Inner 2/3 Hole Puncher-A1.
Buffer Pass Unit-H1	Staple Finisher-G1 or Booklet Finisher-G1 is required.
Inner 2Way Tray-H1	Tray capacity: Tray A: A4, B5, LTR: 250 sheets (80 g/m^2) A3, B4, 279mmX432mm(11"X17"), LGL: 100 sheets (80 g/m^2) Tray B: A4, B5, LTR: 100 sheets (80 g/m^2) A3, B4, 279mmX432mm(11"X17"), LGL: 50 sheets (80 g/m^2)
External 2 Hole Puncher-B2 External 2/3 Hole Puncher-B2 External 2/4 Hole Puncher-B2 External 4 Hole Puncher-B2	Option for Staple Finisher-G1/Booklet Finisher-G1. Hole type: 2 holes (AB), 2 holes/3 holes (Inch), FRN, 2 holes /4 holes, SWE/4 holes Paper size: A3, B4, A4, A4R, B5, B5R, 279mmX432mm(11"X17"), LGL, LTR, LTRR, EXEC Paper weight: 52 to 220 g/m^2
Staple Finisher-G1	Using with Booklet Finisher-G1 is not available. Paper weight: 52 to 220 g/m^2 Maximum stacking capacity: 3,000 sheets (A4, B5, A5R, LTR, STMTR, EXEC, 16K) Stapling capacity: 50 sheets (81.4 g/m^2; A4, B5, LTR, EXEC)
Booklet Finisher-G1	Using with Staple Finisher-G1 is not available. Paper weight: 52 to 220 g/m^2 Maximum stacking capacity: 3,000 sheets (A4, B5, A5R, LTR, STMTR, EXEC, 16K) Stapling capacity: 50 sheets (81.4 g/m^2; A4, B5, LTR, EXEC) Saddle capacity: 16 sheets (81.4 g/m^2; A3, B4, A4R, 279mmX432mm(11"X17"), LGL, LTRR)

T-1-3

Scanning System Options

Required Options and Conditions



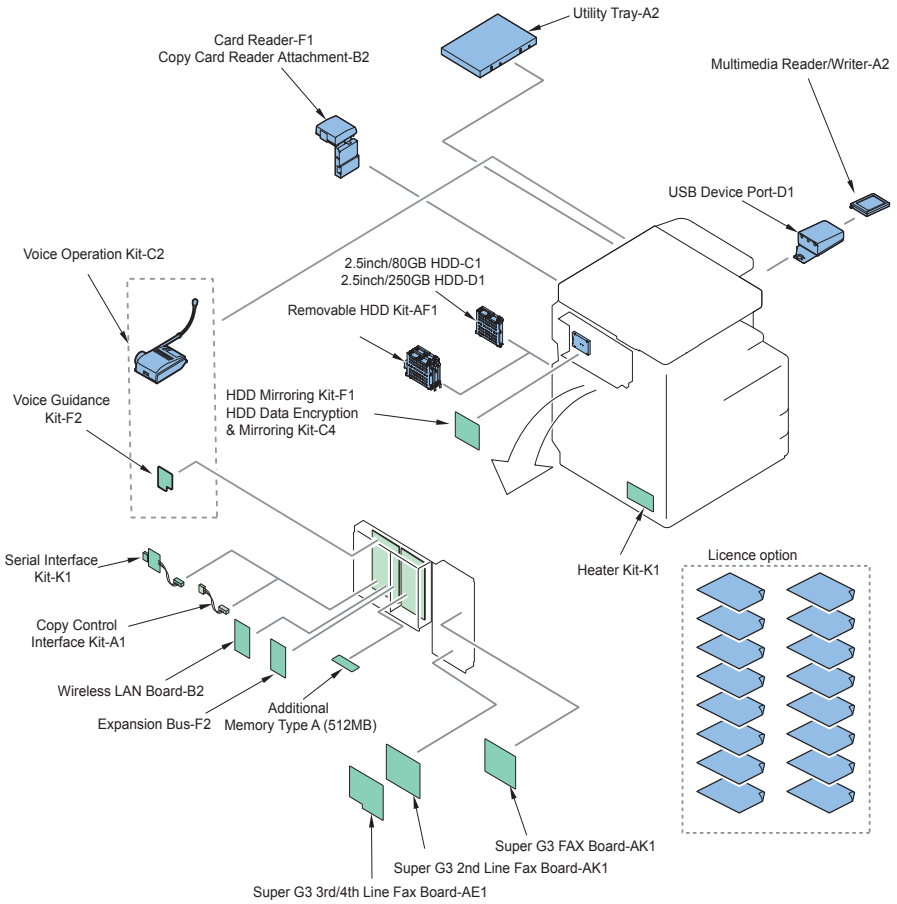
F-1-3

Product name	Required options, conditions, etc.
DADF-AG1	Paper weight: <1-sided> AB configuration: 42 to 128 g/m^2, Inch configuration: 50 to 128 g/m^2 <2-sided> 50 to 128 g/m^2 Stacking capacity: 100 sheets (50 to 80 g/m^2)
Platen Cover Type R	
ADF Access Handle-A1	It is the cover to be installed at the top of the host machine when using this equipment as a printer model.
Stamp Unit-B1	Option for ADF
Reader Heater Unit-H1	For 200V Use it to suppress the dew condensation in the reader unit. Heater Kit-K1 is required.
Color Image Reader Unit-E1	ADF+Reader EU only
Printer Cover-C1	It is the handle to support opening and closing the Feeder. EU only

T-1-4

Function Expansion System Options

Required Options and Conditions



F-1-4

Hardware Products

Product name	Required options, conditions, etc.
Utility Tray-A2	Using with Handset-G2 or Voice Operation Kit-C2 is not available.
Card Reader-F1	Copy Card Reader Installation Kit-A2 is required. Using with Serial Interface Kit-K1 and Control Interface Kit-A1 is not available.
Copy Card Reader Attachment-B2	Required when Card Reader-F1 is installed.
Super G3 FAX Board-AK1	Fax transmission and reception are available. It is also possible to send a document created using the application by fax directly from a computer via the network.
Super G3 2nd Line Fax Board-AK1	A board used when expanding and adding a second line to Super G3 FAX Board-AK1. Super G3 FAX Board-AK1 is required.
Super G3 3rd/4th Line Fax Board-AE1	A board used when expanding and adding a third or fourth line to Super G3 FAX Board-AK1. Super G3 FAX Board-AK1 , Super G3 2nd Line Fax Board-AK1 and Additional Memory Type A (512MB) is required.
Voice Guidance Kit-F2	Using with Voice Operation Kit-C2 is not available. Recorded voice provides confirmation of basic copy menu settings, making the system easier to use for the visually impaired.
Voice Operation Kit-C2	Using with Voice Guidance Kit-F2 or Utility Tray-A2 is not available.Enables the user to set various functions on the device using verbal instructions and audible feedback.
USB Device Port-D1	An option required when adding a USB port. When this equipment is connected, 2 USB ports can be added. No particular options and conditions are required.
Additional Memory Type A (512MB)	An option for increasing the memory installed as standard to this product. It is also required when using 600dpi color scan or when adding a third or fourth fax line.
Heater Kit-K1	It is needed Heater Kit-K1 when installing the optional heater.
2.5inch/80GB HDD-C1	This is used when the mirroring function is used with HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4. No particular options and conditions are required.
2.5inch/250GB HDD-D1	This is used when the mirroring function is used with HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4. No particular options and conditions are required.
Removable HDD Kit-AF1	A kit used to house the built-in HDD in the dedicated case.
HDD Mirroring Kit-F1	Option HDD (2.5 inch/80 GB)-C1 or Option HDD (2.5 inch/250 GB)-D1 are required.

Product name	Required options, conditions, etc.
HDD Data Encryption & Mirroring Kit-C4	An option used for reducing the risk of leakage of important data by encrypting the data stored in the HDD and for backing up the data in the HDD to the added Option HDD. When executing the mirroring function, either 2.5inch/80GB HDD-C1 or 2.5inch/250GB HDD-D1 is required.
Expansion Bus-F2	Required when /Wireless LAN Board-B2 is installed.
Wireless LAN Board-B2	Installing the Wireless LAN Board will allow the machine to connect to a network without using cables, and transfer data in infrastructure mode via an access point. Setting a password and authentication method reduces the risk of stolen data or unauthorized access by a third party. No particular options and conditions are required.
Multimedia Reader/Writer-A2	An option required when using an SD card, memory stick, CF card, or Microdrive. To install this equipment, USB Device Port-A1 needs to be installed.
Serial Interface Kit-K1	Required when the coin manager is connected. Using with Card Reader-F1 and Control Interface Kit-A1 is not available.
Copy Control Interface Kit-A1	Required when the coin manager is connected. Using with Card Reader-F1 and Serial Interface Kit-K1 is not available.
NE Controller-C1	No particular options and conditions are required.
eM Controller-C1	No particular options and conditions are required.
iR-ADV Security Kit-B1 for IEEE 2600.1 Common Criteria Certification	No particular options and conditions are required.
Drum Heater-C1	Heater Kit-K1 is required.

T-1-5

License Products

At the time of installation, obtain the license number according to the license certificate included. Then, enter the obtained license number from the Control Panel of the machine, so that the applicable functions are enabled.

There is no physical installation work at the time of installation.

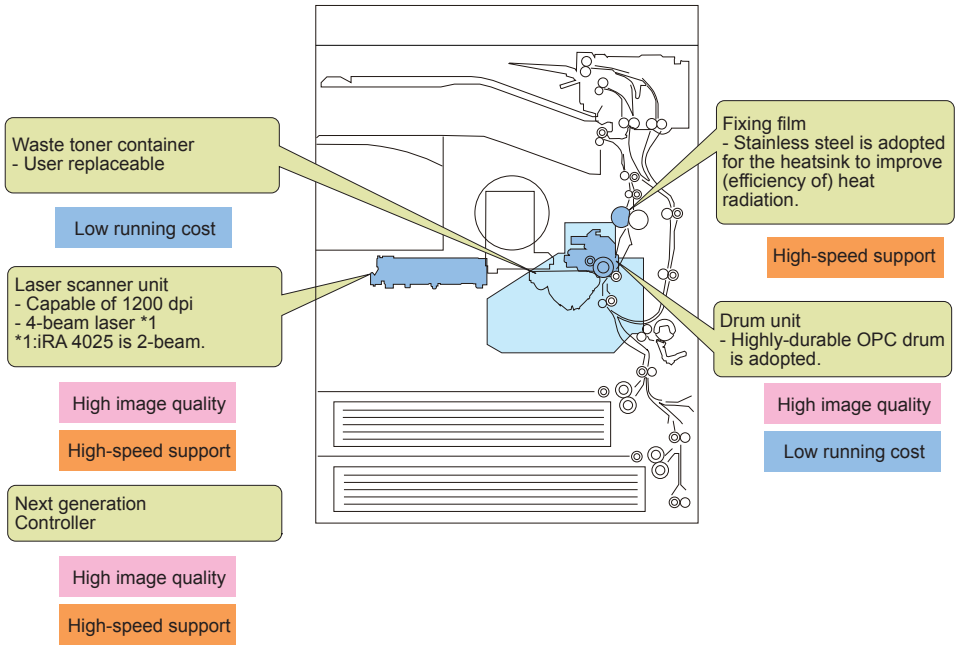
Product name	Required options, conditions, etc.
PCL Printer Kit-AN1/AN1e	The PCL Printer Kit supports PCL emulation printing solutions. It supports PCL5c/PCL6 emulation printing solutions.
PS Printer Kit-AN1/AN1e	The PS Printer Kit enables you to use the machine as a PS printer. It is also necessary when printing PDF files from memory media or the Advanced Space.
Universal Send Advanced Feature Set-E1/E1e	Trace & Smooth PDF Searchable PDF or Searchable XPS Reader Extensions PDF
Universal Send Security Feature Set-D1/D1e	Encrypted PDF Device Signature PDF or Device Signature XPS
Direct Print Kit (for PDF/XPS)-H1/H1e	The Direct Print Kit (for PDF/XPS) enables you to print PDF and XPS files from the Remote UI. It is also necessary when printing PDF files from memory media or the Advanced Box.
Direct Print Kit (for PDF)-H1	The Direct Print Kit (for PDF) enables you to print PDF files from the Remote UI. It is also necessary when printing PDF files from memory media or the Advanced Box.
Direct Print Kit (for XPS)-H1	The Direct Print Kit (for XPS) enables you to print XPS files from the Remote UI.
Universal Send Digital User Signature Kit-C1/C1e	PDF/XPS with Digital User Signature.
Universal Send Searchable PDF/XPS Kit-D1e	US only No particular options and conditions are required
Universal Send PDF Encryption Kit-D1e	US only No particular options and conditions are required
Remote Operators Software Kit-B1/B1e	The Remote Operator's Software Kit enables you to access settings or process job from a personal computer by displaying the machine's control panel on the computer screen.
Data Erase Kit-C1/C1e	The Data Erase Kit enables you to erase the data stored on the hard disk of the machine.
Encrypted Secure Print Software-D1/D1e	The Encrypted Secure Print Software enables you to encrypt print data ent from a computer using the Secured Print function, and decrypt it at the machine. This enables you to strengthen the security of print data by preventing the contents of your printed documents from being seen by other users, and preventing the unauthorized use of confidential information.
Encrypted Printing Software-D1	The Encrypted Secure Print Software enables you to encrypt print data ent from a computer using the Secured Print function, and decrypt it at the machine. This enables you to strengthen the security of print data by preventing the contents of your printed documents from being seen by other users, and preventing the unauthorized use of confidential information.
Barcode Printing Kit-D1/D1e	The Barcode Printing Kit enables you to print bar codes.
Watermark Expansion Kit-B1/B1e	The Secure Watermark mode enables you to embed hidden text in the background of copies.
Document Scan Lock Kit-B1	Offers embedded security to prevent copying of sensitive printed documents whilst providing the ability to analyse any security breach of the document.

Product name	Required options, conditions, etc.
Access Management System Kit-B1/B1e	The Access Management System Kit enables you to restrict the use of various functions for each user. Restricting the Send function enables you to reduce the risk of confidential information being leaked, and restricting users from making one-sided printing of multiple page documents enables printing costs to be reduced.
Web Access Software-H1/H1e	The Remote Fax Kit is needed to use the Remote Fax function. Even if the machine is not equipped with the fax board, you can send fax documents via another imageRUNNER ADVANCE series machine with the fax board installed on the same network.
Remote Fax Kit-A1/A1e	Enables the device to send and receive fax from another device connected with a fax board.
PCL International Font Set-A1/A1e	Adds PCL support for Andalé Mono WT J/K/S/T(Japanese/Korean/ Simplified Chinese/ Traditional Chinese)
Universal Send Advanced/Security Feature Set & PS/PCL Print Package-E1	US/CLA/CAN only The following options are bundled. • PCL Printer Kit-AN1 • PS Printer Kit-AN1 • Universal Send Advanced Feature Set-E1 • Universal Send Security Feature Set-D1

T-1-6

Feature

Product feature

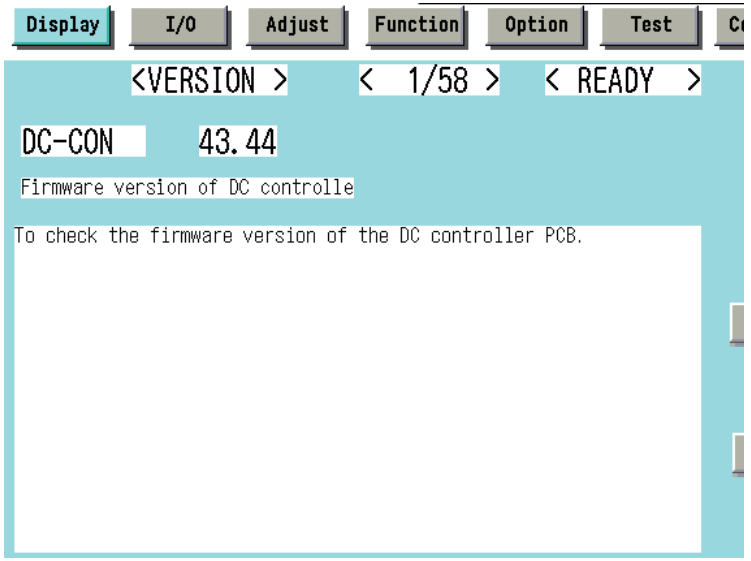


F-1-5

Service Features

Service Mode

The description of each service mode item is displayed as well.



F-1-6

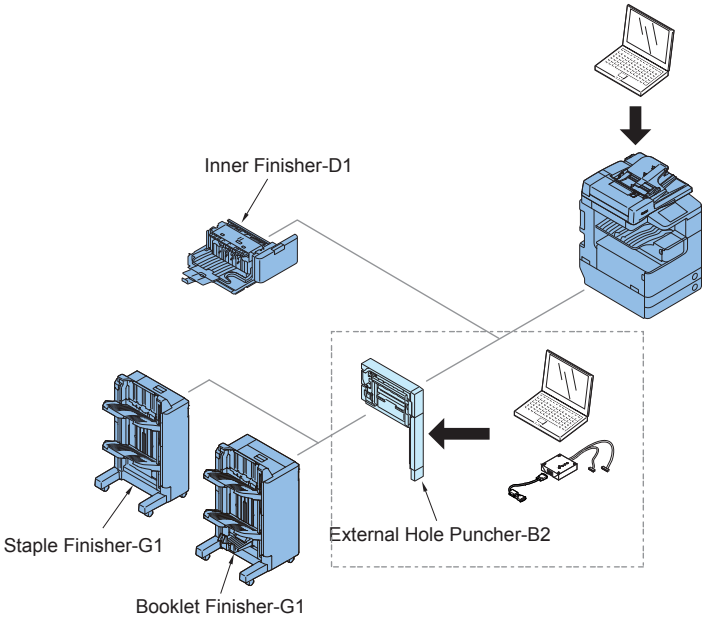
Features

- Display in natural language
- Items in the following are newly classified: COPIER > OPTION > BODY
- Enhanced I/O information
- The description of error code/alarm code is displayed.
- Easy switching of screens between Level 1 and Level

Improved Upgrading Operability

Almost all of the options (*) can be upgraded through the host machine.
SST (Service Support Tool) is used for upgrading as usual.

* Excluding External Puncher-B2.

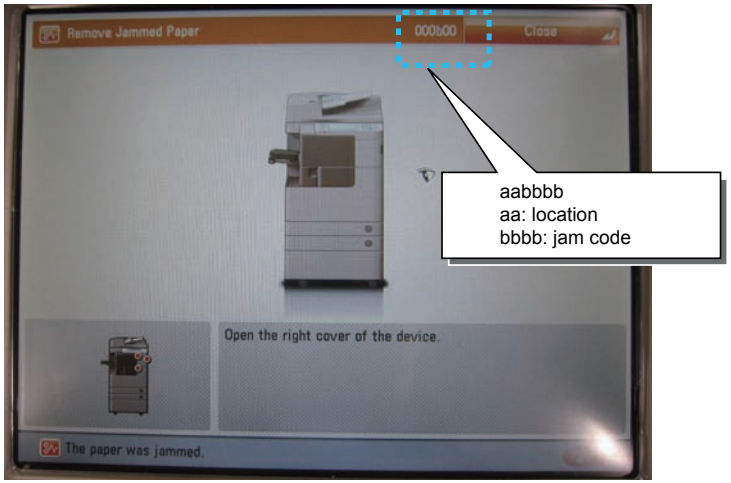


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Jam/Error Code Display Specifications

Jam code:

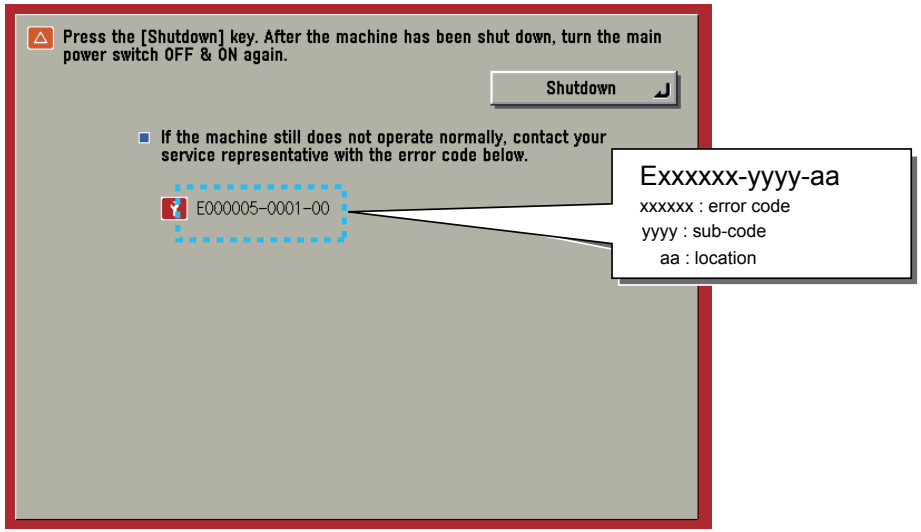
"Jam Code" and "Location Code" are displayed on the screen (*) when a paper jam occurs.



F-1-8

Error Code

In addition to “Error Code”, “Location Code” is displayed on the screen when an error occurs.



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Service Advantage

When a paper jam/error is reported from the user:

- The location (device) causing the paper jam/error can be recognized before the service technician is sent to the user site.
- The cause of trouble and the remedy can be assumed before the service technician is sent to the user site.
- Depending on the cause of the paper jam (e.g.: paper jam caused by wrong operation by the user), support can be completed by the phone or e-mail. (Visiting to the user site is not necessary.)

Specifications

Product Specifications

Item	Specifications
Copyboard	Stream reading, original fixed reading
Body	Desktop
Light source type	LED (white)
Photosensitive medium	OPC drum (30 mm dia)
Image reading method	CCD
Reproduction method	Indirect electrostatic method
Exposure method	Laser exposure system
Charging method	Roller charge
Development method	Dry single component projection developing
Transfer method	By transfer roller
Separation method	Curvature and static eliminator
Pickup method	Cassette: Retard separation method Manual feed pickup tray: Pad separation method
Fixing method	On demand
Delivery method	Face down delivery (in-body delivery)
Reproduction ratio	25% to 400%
Drum cleaning method	By cleaning blade
Toner type	Magnetic negative charge toner
Toner replenish method	Toner cartridge
Toner level detection function	Yes
Image margin	Top margin: 4.0 +1.5mm/-1.0mm Left margin: 2.5±1.5mm
Non-Image Width	Leading Edge Non-Image Width: 4.0 +1.5mm/-1.0mm Left Non-Image Width: 2.5±1.5mm (2.5±2.0mm in ADF mode)
Warm-up time	38 sec. or less (*1) When the room temperature is 20 degree C *1: Until the copy button is displayed on the top menu from when the operation display becomes effective after turning the power supply ON.
Number of gradations	256 gradations
Reading resolution	600×600dpi
Writing resolution	1200×1200dpi
First print time	iR ADVANCE 4051: 3.7 sec or less iR ADVANCE 4045/4035: 3.8 sec or less iR ADVANCE 4025: 5.2 sec or less
Paper type (Cassette)	plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper, heavy paper 1 (91 g/m^2 to 105 g/m^2), heavy paper 2 (106 g/m^2 to 128 g/m^2)

Item	Specifications
Paper type (Manual feed pickup tray)	transparency (52 g/m^2 to 59 g/m^2),plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper, heavy paper 1 (91 g/m^2 to 105 g/m^2), heavy paper 2 (106 g/m^2 to 128 g/m^2), heavy paper 3 (129 g/m^2 to 163 g/m^2), heavy paper 4 (164 g/m^2 to 220 g/m^2), bond paper, labels, OHP, Envelopes (No.10 (COM10), ISO-B5, Monarch, ISO-C5, DL)
Paper size (Cassette 1)	A4, A4R, A5R, B4, B5, B5R, LTR, LTTR, LGL, STMTR, 8K, 16K, 16KR, EXEC
Paper size (Cassette 2)	Standard size (A3, B4, A4, A4R, B5, B5R, A5R, 8K, 16K,16KR, 279mmX432mm(11"X17"), LGL, LTR, LTRR, STMTR, EXEC, 304mmX457mm(12"X18")) Envelopes* (No.10 (COM10), ISO-B5, Monarch, ISO-C5, DL) * The optional Envelope Feeder Attachment-D1 is required.
Paper size (Manual feed pickup tray)	Cassette feedable size Custom paper size (99 mm x 148 mm to 297 mm x 431 mm)
Pickup capacity	Cassette: 550 sheets (80g/m2), 680 sheets (64g/m2) Manual feed pickup tray: 80 sheets (80g/m2)
Duplex method	Through path duplex
Memory capacity	For Main Controller 1: 1GB (standard)
	For Main Controller 2: Max. 1GB (standard: 256MB, option: 768MB)
HDD capacity	Standard: 80GB, Maximum: 250 GB
Environment temperature range	Refer to "Installation" in Chapter
Environment humidity range	
Environment atmosphere range	610 to 1013 hpa (0.6 to 1.0 atmospheric pressure)
Noise (At the time of printing)	iR ADVANCE 4051: 76.85 dB or less iR ADVANCE 4045: 74.75 dB or less iR ADVANCE 4035: 71.25 dB or less iR ADVANCE 4025: 67.75 dB or less
Rated power supply	iR ADVANCE 4051: AC120V/10.4A, AC230V/5.6A iR ADVANCE 4045/35: AC120V/9.3A, AC230V/5.2A iR ADVANCE 4025: AC120V/7.0A, AC230V/4.3A *All the optional power supplies are supplied by the main body.

Item		Specifications
Power consumption	Maximum power consumption	120-127V: iR ADVANCE 4051/4045/4035: 1.5kW or less iR ADVANCE 4025: 1.3kW or less 220-240V: iR ADVANCE 4051/4045/4035: 1.5kW or less iR ADVANCE 4025: 1.2kW or less
	At the time of printing	120-127V: iR ADVANCE 4051/4045/4035: 1050.0Wh (Reference) iR ADVANCE 4025: 688.4Wh (Reference) 220-240V: iR ADVANCE 4051/4045/4035: 944.0Wh (Reference) iR ADVANCE 4025: 681.8Wh (Reference)
	At the time of sleep (Deep Sleep)	1.0 W or less (In environmental heater switch OFF)
	At the time of standby	120-127V: iR ADVANCE 4051/4045/4035: 80.9Wh (Reference) iR ADVANCE 4025: 78.2Wh (Reference) 220-240V: iR ADVANCE 4051/4045/4035: 101.9Wh (Reference) iR ADVANCE 4025: 103.2Wh (Reference)
Dimension (WxDxH)		565mm × 708mm × 769mm (with the platen cover) 565mm × 708mm × 902mm (with the DADF)
Weight		Max (with the DADF): Approx. 77.9 kg Min (without the reader for EU): Approx 58 kg

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Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
imageRUNNER ADVANCE 4051 / 4045/ 4035/ 4025 (with the DADF)	565	708	902	77.9
Paper Deck Unit-B2	372	603	473	37
Staple Finisher-G1	648	646	1097	46
Booklet Finisher-G1	766	646	1097	75
External 2 Hole Puncher-B2	107	623	908	7.2
Color Image Reader Unit-E1	565	540	201	15.0
ADF-AG1	565	540	140	7.9
Inner Finisher-D1	697	554	295	12.0
Inner Hole Puncher-A1	144	531	216	7.7
Cassette Feeding Unit-AF1	565	650	248	27.5
Inner Finisher Additional Tray-A1	384	450	70	1.5
Inner 2Way Tray-H1	427	407	76	0.57

T-1-8

Productivity (Print speed)

iR ADVANCE 4051

Fixing mode	Size	iR ADVANCE 4051					
		1-sided			2-sided		
		Cassette	Multi-purpose Tray	Deck	Cassette	Multi-purpose Tray	Deck
Transparency* (52 g/m^2 to 59 g/m^2), plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper *The 2-sides print are impossible. And the paper feed is possible only from the multi-purpose tray.	A4,LTR	51	30	51	51	30	51
	B5,EXEC,16K	51	30	-	51	30	-
	A4R,LTRR	37	21	-	37	21	-
	A3,279mmX432mm(11"X17"),8K	22	15	-	22	15	-
	B4,LGL	25	17	-	25	17	-
	B5R,A5R,STMTR,16KR	20/18/14	17	-	20/18/14	17	-
BOND	A4,LTR,EXEC,16K	-	25	-	-	25	-
	A3,279mmX432mm(11"X17"),A4R,LTRR	-	14	-	-	14	-
	B4,LGL,8K	-	13	-	-	13	-
	B5R,A5R,STMTR,16KR	-	17	-	-	17	-
Heavy paper 1 (91 to 105 g/m^2)	A4,LTR	30	30	30	30	30	30
	B5,EXEC,16K	30	30	-	30	30	-
	A4R,LTRR	21	21	-	21	21	-
	A3,279mmX432mm(11"X17"),8K	14	14	-	14	14	-
	B4,LGL	17	17	-	17	17	-
	B5R,A5R,STMTR,16KR	17/16	17/16	-	17/16	17/16	-
Heavy paper 2 (106 to 128 g/m^2)	A4,LTR,EXEC,16K	28	28	28	-	-	-
	A4R,LTRR	17	17	-	-	-	-
	A3,279mmX432mm(11"X17"),B4,LGL,8K,B5R,A5R,STMTR,16KR	14	14	-	-	-	-
Heavy paper 3 (129 to 163 g/m^2), heavy paper 4 (164 to 220 g/m^2), labels	A4,LTR,B5,EXEC,16K	-	20, 30(label)	-	-	-	-
	LTRR,A4R,B5R,A5R,STMTR,16KR	-	14, 21(label)	-	-	-	-
	B4,LGL,8K	-	11, 17(label)	-	-	-	-
	A3,279mmX432mm(11"X17")	-	10, 14(label)	-	-	-	-
OHP	A4/LTR	-	25	-	-	-	-
Envelope mode	Monarch	12/10/8	12/10/8	-	-	-	-
	ISO-C5	12/10/8	12/10/8	-	-	-	-
	COM10	12/10/8	12/10/8	-	-	-	-
	DL	12/10/8	12/10/8	-	-	-	-
Postcard mode	Postcard	-	18/14/10	-	-	-	-
S postcard mode	Postcard	-	18/14/10	-	-	-	-

T-1-9

iR ADVANCE 4045

Fixing mode	Size	iR ADVANCE 4045					
		1-sided			2-sided		
		Cassette	Multi-purpose Tray	Deck	Cassette	Multi-purpose Tray	Deck
Transparency* (52 g/m^2 to 59 g/m^2), plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper *The 2-sides print are impossible. And the paper feed is possible only from the multi-purpose tray.	A4,LTR	45	30	45	45	30	45
	B5,EXEC,16K	45	30	-	45	25	-
	A4R,LTRR	32	21	-	32	30	-
	A3,279mmX432mm(11"X17"),8K	22	15	-	22	15	-
	B4,LGL	25	17	-	25	17	-
	B5R,A5R,STMTR,16KR	20/18/14	17	-	20/18/14	17	-
BOND	A4,LTR,EXEC,16K	-	25	-	-	25	-
	A3,279mmX432mm(11"X17"),A4R,LTRR	-	14	-	-	14	-
	B4,LGL,8K	-	13	-	-	13	-
	B5R,A5R,STMTR,16KR	-	17	-	-	17	-
Heavy paper 1 (91 to 105 g/m^2)	A4,LTR	30	30	30	30	30	30
	B5,EXEC,16K	30	30	-	30	30	-
	A4R,LTRR	21	21	-	21	21	-
	A3,279mmX432mm(11"X17"),8K	14	14	-	14	14	-
	B4,LGL	17	17	-	17	17	-
	B5R,A5R,STMTR,16KR	17/16	17/16	-	17/16	17/16	-
Heavy paper 2 (106 to 128 g/m^2)	A4,LTR,EXEC,16K	28	28	28	-	-	-
	A4R,LTRR	17	17	-	-	-	-
	A3,279mmX432mm(11"X17"),B4,LGL,8K,B5R,A5R,STMTR,16KR	14	14	-	-	-	-
Heavy paper 3 (129 to 163 g/m^2), heavy paper 4 (164 to 220 g/m^2), labels	A4,LTR,B5,EXEC,16K	-	20, 28(label)	-	-	-	-
	LTRR,A4R,B5R,A5R,STMTR,16KR	-	14, 17(label)	-	-	-	-
	B4,LGL,8K	-	11, 13(label)	-	-	-	-
	A3,279mmX432mm(11"X17")	-	10, 14(label)	-	-	-	-
OHP	A4/LTR	-	25	-	-	-	-
Envelope mode	Monarch	12/10/8	12/10/8	-	-	-	-
	ISO-C5	12/10/8	12/10/8	-	-	-	-
	COM10	12/10/8	12/10/8	-	-	-	-
	DL	12/10/8	12/10/8	-	-	-	-
Postcard mode	Postcard	-	18/14/10	-	-	-	-
S postcard mode	Postcard	-	14/10	-	-	-	-

T-1-10

iR ADVANCE 4035

Fixing mode	Size	iR ADVANCE 4035					
		1-sided			2-sided		
		Cassette	Multi-purpose Tray	Deck	Cassette	Multi-purpose Tray	Deck
Transparency* (52 g/m^2 to 59 g/m^2), plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper *The 2-sides print are impossible. And the paper feed is possible only from the multi-purpose tray.	A4,LTR	35	30	35	35	30	35
	B5,EXEC,16K	35	30	-	35	25	-
	A4R,LTRR	32	21	-	32	30	-
	A3,279mmX432mm(11"X17"),8K	22	15	-	22	15	-
	B4,LGL	25	17	-	25	17	-
	B5R,A5R,STMTR,16KR	20/18/14	17	-	20/18/14	17	-
BOND	A4,LTR,EXEC,16K	-	25	-	-	25	-
	A3,279mmX432mm(11"X17"),A4R,LTRR	-	14	-	-	14	-
	B4,LGL,8K	-	13	-	-	13	-
	B5R,A5R,STMTR,16KR	-	17	-	-	17	-
Heavy paper 1 (91 to 105 g/m^2)	A4,LTR	30	30	30	30	30	30
	B5,EXEC,16K	30	30	-	30	30	-
	A4R,LTRR	21	21	-	21	21	-
	A3,279mmX432mm(11"X17"),8K	14	14	-	14	14	-
	B4,LGL	17	17	-	17	17	-
	B5R,A5R,STMTR,16KR	17/16	17/16	-	17/16	17/16	-
Heavy paper 2 (106 to 128 g/m^2)	A4,LTR,EXEC,16K	28	28	28	-	-	-
	A4R,LTRR	17	17	-	-	-	-
	A3,279mmX432mm(11"X17"),B4,LGL,8K,B5R,A5R,STMTR,16KR	14	14	-	-	-	-
Heavy paper 3 (129 to 163 g/m^2), heavy paper 4 (164 to 220 g/m^2), labels	A4,LTR,B5,EXEC,16K	-	20, 28(label)	-	-	-	-
	LTRR,A4R,B5R,A5R,STMTR,16KR	-	14, 17(label)	-	-	-	-
	B4,LGL,8K	-	11, 13(label)	-	-	-	-
	A3,279mmX432mm(11"X17")	-	10, 14(label)	-	-	-	-
OHP	A4/LTR	-	25	-	-	-	-
Envelope mode	Monarch	12/10/8	12/10/8	-	-	-	-
	ISO-C5	12/10/8	12/10/8	-	-	-	-
	COM10	12/10/8	12/10/8	-	-	-	-
	DL	12/10/8	12/10/8	-	-	-	-
Postcard mode	Postcard	-	18/14/10	-	-	-	-
S postcard mode	Postcard	-	14/10	-	-	-	-

T-1-11

iR ADVANCE 4025

Fixing mode	Size	iR ADVANCE 4035					
		1-sided			2-sided		
		Cassette	Multi-purpose Tray	Deck	Cassette	Multi-purpose Tray	Deck
Transparency* (52 g/m^2 to 59 g/m^2), plain paper 1 (60 g/m^2 to 63 g/m^2), plain paper 2 (64 g/m^2 to 90 g/m^2), recycled paper, color paper, pre-punched paper *The 2-sides print are impossible. And the paper feed is possible only from the multi-purpose tray.	A4,LTR	25	25	25	25	25	25
	B5,EXEC,16K	25	25	-	25	25	-
	A4R,LTRR	17	17	-	17	17	-
	A3,279mmX432mm(11"X17"),8K	15	15	-	15	15	-
	B4,LGL	12	17	-	13	13	-
	B5R,A5R,STMTR,16KR	17/14	17/14	-	17/14	17/14	-
BOND	A4,LTR,EXEC,16K	-	25	-	-	25	-
	A3,279mmX432mm(11"X17"),A4R,LTRR	-	14	-	-	14	-
	B4,LGL,8K	-	13	-	-	13	-
	B5R,A5R,STMTR,16KR	-	17/14	-	-	17/14	-
Heavy paper 1 (91 to 105 g/m^2)	A4,LTR	25	25	25	25	25	25
	B5,EXEC,16K	25	25	-	25	25	-
	A4R,LTRR	17	17	-	17	17	-
	A3,279mmX432mm(11"X17"),8K	14	14	-	14	14	-
	B4,LGL	13	13	-	13	13	-
	B5R,A5R,STMTR,16KR	17/16	17/16	-	17/16	17/16	-
Heavy paper 2 (106 to 128 g/m^2)	A4,LTR,EXEC,16K	25	25	25	-	-	-
	A4R,LTRR	17	17	-	-	-	-
	A3,279mmX432mm(11"X17")	14	14	-	-	-	-
	B4,LGL,8K	13	13	-	-	-	-
	B5R,A5R,STMTR,16KR	17/16	17/16	-	-	-	-
Heavy paper 3 (129 to 163 g/m^2), heavy paper 4 (164 to 220 g/m^2), labels	A4,LTR,B5,EXEC,16K	-	20, 25(label)	-	-	-	-
	LTRR,A4R,B5R,A5R,STMTR,16KR	-	14, 17(label)	-	-	-	-
	B4,LGL,8K	-	11, 13(label)	-	-	-	-
	A3,279mmX432mm(11"X17")	-	10, 14(label)	-	-	-	-
OHP	A4/LTR	-	25	-	-	-	-
Envelope mode	Monarch	12/10/8	12/10/8	-	-	-	-
	ISO-C5	12/10/8	12/10/8	-	-	-	-
	COM10	12/10/8	12/10/8	-	-	-	-
	DL	12/10/8	12/10/8	-	-	-	-
Postcard mode	Postcard	-	18/14/10	-	-	-	-
S postcard mode	Postcard	-	14/10	-	-	-	-

T-1-12

NOTE:
The copy speed changes by temperature of the fixing unit and paper size.
The value "*/*" in the list express a greatest / minimum.

Paper Type

Following shows the types of usable papers.

See the table below for the custom paper size.

Type	Feeding direction (mm)	Width direction (mm)
Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6
Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6
Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9
Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9
Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0
Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0
Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0

T-1-13

Kinds of usable paper

Yes: It is possible to feed paper. / Under guarantee

Yes*1: It is possible to feed paper. / Out of guarantee

No: It is impossible to feed paper.

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Thin paper (52 to 59 g/m^2)	A3	420.0	297.0	Yes	No	Yes *1	Yes *1	Yes *1	No
	B4	364.0	257.0	Yes	Yes *1	Yes *1	Yes *1	Yes *1	No
	A4R	297.0	210.0	Yes	Yes *1	Yes *1	Yes *1	Yes *1	No
	A4	210.0	297.0	Yes	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1
	B5R	257.0	182.0	Yes	Yes *1	Yes *1	Yes *1	Yes *1	No
	B5	182.0	257.0	Yes	Yes *1	Yes *1	Yes *1	Yes *1	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	11x17	431.8	279.4	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	LGL	355.6	215.9	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	LTR	215.9	279.4	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1
	LTRR	279.4	215.9	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	STMTR	215.9	139.7	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	E-OFFICIO	320.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	B-OFFICIO	355.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	M-OFFICIO	341.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-OFFICIO	340.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-LTRR	280.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR-R	266.7	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR	203.2	266.7	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLGL	330.2	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	AFLS	337.0	206.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FLS	330.2	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	K16	195.0	270.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	K16R	270.0	195.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	F4A	342.9	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Thin paper (52 to 59 g/m^2)	Free size	148.0 to 431.8	99.0 to 297.0	Yes *1	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No
Recycled paper (64 to 80 g/m^2) Color paper (64 to 80 g/m^2) Plain paper 1 (60 to 63 g/m^2) Plain paper 2 (64 to 90 g/m^2)	A3	420.0	297.0	Yes	No	Yes	Yes	Yes	No
	B4	364.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	No
	A4	210.0	297.0	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	No
	B5	182.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	No
	11x17	431.8	279.4	Yes	No	Yes	Yes	Yes	No
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	No
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	No
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	Yes	Yes	Yes	Yes	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	E-OFFICIO	320.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	B-OFFICIO	355.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	M-OFFICIO	341.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-OFFICIO	340.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-LTRR	280.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR-R	266.7	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR	203.2	266.7	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLGL	330.2	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	AFLS	337.0	206.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FLS	330.2	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Recycled paper (64 to 80 g/m^2) Color paper (64 to 80 g/m^2) Plain paper 1 (60 to 63 g/m^2) Plain paper 2 (64 to 90 g/m^2)	K8	390.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16	195.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16R	270.0	195.0	No	Yes	Yes	Yes	Yes	No
	F4A	342.9	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	Yes	Yes	Yes	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	Yes	Yes	Yes	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No
Heavy paper 1 (91 to 105 g/m^2)	A3	420.0	297.0	Yes	No	Yes	Yes	Yes	No
	B4	364.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	No
	A4	210.0	297.0	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	No
	B5	182.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	No
	11x17	431.8	279.4	Yes	No	Yes	Yes	Yes	No
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	No
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	No
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	Yes	Yes	Yes	Yes	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	E-OFFICIO	320.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	B-OFFICIO	355.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	M-OFFICIO	341.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-OFFICIO	340.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-LTRR	280.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR-R	266.7	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Heavy paper 1 (91 to 105 g/m^2)	GLTR	203.2	266.7	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLGL	330.2	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	AFLS	337.0	206.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FLS	330.2	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16	195.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16R	270.0	195.0	No	Yes	Yes	Yes	Yes	No
	F4A	342.9	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	Yes	Yes	Yes	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	Yes	Yes	Yes	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
Heavy paper 2 (106 to 128 g/m^2)	A3	420.0	297.0	Yes	No	Yes	Yes	Yes	No
	B4	364.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	No
	A4	210.0	297.0	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes	Yes	Yes	Yes	Yes	No
	B5	182.0	257.0	Yes	Yes	Yes	Yes	Yes	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes	Yes	Yes	Yes	Yes	No
	11x17	431.8	279.4	Yes	No	Yes	Yes	Yes	No
	LGL	355.6	215.9	Yes	Yes	Yes	Yes	Yes	No
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	No
	STMTR	215.9	139.7	Yes	Yes	Yes	Yes	Yes	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	Yes	Yes	Yes	Yes	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	E-OFFICIO	320.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	B-OFFICIO	355.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	M-OFFICIO	341.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Heavy paper 2 (106 to 128 g/m^2)	A-OFFICIO	340.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-LTRR	280.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR-R	266.7	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR	203.2	266.7	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLGL	330.2	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	AFLS	337.0	206.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FLS	330.2	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16	195.0	270.0	Yes	Yes	Yes	Yes	Yes	No
	K16R	270.0	195.0	No	Yes	Yes	Yes	Yes	No
	F4A	342.9	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	Yes	Yes	Yes	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	Yes	Yes	Yes	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
Heavy paper 3 (129 to 163 g/m^2)	A3	420.0	297.0	Yes	No	No	No	No	No
	B4	364.0	257.0	Yes	No	No	No	No	No
	A4R	297.0	210.0	Yes	No	No	No	No	No
	A4	210.0	297.0	Yes	No	No	No	No	No
	B5R	257.0	182.0	Yes	No	No	No	No	No
	B5	182.0	257.0	Yes	No	No	No	No	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes	No	No	No	No	No
	11x17	431.8	279.4	Yes	No	No	No	No	No
	LGL	355.6	215.9	Yes	No	No	No	No	No
	LTR	215.9	279.4	Yes	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No
	STMTR	215.9	139.7	Yes	No	No	No	No	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Heavy paper 3 (129 to 163 g/m^2)	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	No	No	No	No	No
	E-OFFICIO	320.0	220.0	No	No	No	No	No	No
	B-OFFICIO	355.0	216.0	No	No	No	No	No	No
	M-OFFICIO	341.0	216.0	No	No	No	No	No	No
	A-OFFICIO	340.0	220.0	No	No	No	No	No	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	No	No	No	No	No
	A-LTRR	280.0	220.0	No	No	No	No	No	No
	GLTR-R	266.7	203.2	No	No	No	No	No	No
	GLTR	203.2	266.7	No	No	No	No	No	No
	GLGL	330.2	203.2	No	No	No	No	No	No
	AFLS	337.0	206.0	No	No	No	No	No	No
	FLS	330.2	215.9	No	No	No	No	No	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes	No	No	No	No	No
	K16	195.0	270.0	Yes	No	No	No	No	No
	K16R	270.0	195.0	No	No	No	No	No	No
	F4A	342.9	215.9	No	No	No	No	No	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
Heavy paper 4 (164 to 220 g/m^2)	A3	420.0	297.0	Yes	No	No	No	No	No
	B4	364.0	257.0	Yes	No	No	No	No	No
	A4R	297.0	210.0	Yes	No	No	No	No	No
	A4	210.0	297.0	Yes	No	No	No	No	No
	B5R	257.0	182.0	Yes	No	No	No	No	No
	B5	182.0	257.0	Yes	No	No	No	No	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes	No	No	No	No	No
	11x17	431.8	279.4	Yes	No	No	No	No	No
	LGL	355.6	215.9	Yes	No	No	No	No	No
	LTR	215.9	279.4	Yes	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Heavy paper 4 (164 to 220 g/m^2)	STMTR	215.9	139.7	Yes	No	No	No	No	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	No	No	No	No	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	No	No	No	No	No
	E-OFFICIO	320.0	220.0	No	No	No	No	No	No
	B-OFFICIO	355.0	216.0	No	No	No	No	No	No
	M-OFFICIO	341.0	216.0	No	No	No	No	No	No
	A-OFFICIO	340.0	220.0	No	No	No	No	No	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	No	No	No	No	No
	A-LTRR	280.0	220.0	No	No	No	No	No	No
	GLTR-R	266.7	203.2	No	No	No	No	No	No
	GLTR	203.2	266.7	No	No	No	No	No	No
	GLGL	330.2	203.2	No	No	No	No	No	No
	AFLS	337.0	206.0	No	No	No	No	No	No
	FLS	330.2	215.9	No	No	No	No	No	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes	No	No	No	No	No
	K16	195.0	270.0	Yes	No	No	No	No	No
	K16R	270.0	195.0	No	No	No	No	No	No
	F4A	342.9	215.9	No	No	No	No	No	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
Bond paper (75 to 90 g/m^2)	A3	420.0	297.0	Yes	No	No	No	No	No
	B4	364.0	257.0	Yes	No	No	No	No	No
	A4R	297.0	210.0	Yes	No	No	No	No	No
	A4	210.0	297.0	Yes	No	No	No	No	No
	B5R	257.0	182.0	Yes	No	No	No	No	No
	B5	182.0	257.0	Yes	No	No	No	No	No
	A5	148.0	210.0	No	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Bond paper (75 to 90 g/m^2)	A5R	210.0	148.0	Yes	No	No	No	No	No
	11x17	431.8	279.4	Yes	No	No	No	No	No
	LGL	355.6	215.9	Yes	No	No	No	No	No
	LTR	215.9	279.4	Yes	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No
	STMTR	215.9	139.7	Yes	No	No	No	No	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes	No	No	No	No	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	No	No	No	No	No
	E-OFFICIO	320.0	220.0	No	No	No	No	No	No
	B-OFFICIO	355.0	216.0	No	No	No	No	No	No
	M-OFFICIO	341.0	216.0	No	No	No	No	No	No
	A-OFFICIO	340.0	220.0	No	No	No	No	No	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	No	No	No	No	No
	A-LTRR	280.0	220.0	No	No	No	No	No	No
	GLTR-R	266.7	203.2	No	No	No	No	No	No
	GLTR	203.2	266.7	No	No	No	No	No	No
	GLGL	330.2	203.2	No	No	No	No	No	No
	AFLS	337.0	206.0	No	No	No	No	No	No
	FLS	330.2	215.9	No	No	No	No	No	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes	No	No	No	No	No
	K16	195.0	270.0	Yes	No	No	No	No	No
	K16R	270.0	195.0	No	No	No	No	No	No
	F4A	342.9	215.9	No	No	No	No	No	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes	No	No	No	No	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes	No	No	No	No	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
Labels	A3	420.0	297.0	Yes *1	No	No	No	No	No
	B4	364.0	257.0	Yes	No	No	No	No	No
	A4R	297.0	210.0	Yes	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Labels	A4	210.0	297.0	Yes	No	No	No	No	No
	B5R	257.0	182.0	Yes *1	No	No	No	No	No
	B5	182.0	257.0	Yes *1	No	No	No	No	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes *1	No	No	No	No	No
	11x17	431.8	279.4	Yes *1	No	No	No	No	No
	LGL	355.6	215.9	Yes *1	No	No	No	No	No
	LTR	215.9	279.4	Yes	No	No	No	No	No
	LTRR	279.4	215.9	Yes	No	No	No	No	No
	STMTR	215.9	139.7	Yes *1	No	No	No	No	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes *1	No	No	No	No	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	No	No	No	No	No
	E-OFFICIO	320.0	220.0	No	No	No	No	No	No
	B-OFFICIO	355.0	216.0	No	No	No	No	No	No
	M-OFFICIO	341.0	216.0	No	No	No	No	No	No
	A-OFFICIO	340.0	220.0	No	No	No	No	No	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	No	No	No	No	No
	A-LTRR	280.0	220.0	No	No	No	No	No	No
	GLTR-R	266.7	203.2	No	No	No	No	No	No
	GLTR	203.2	266.7	No	No	No	No	No	No
	GLGL	330.2	203.2	No	No	No	No	No	No
	AFLS	337.0	206.0	No	No	No	No	No	No
	FLS	330.2	215.9	No	No	No	No	No	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes *1	No	No	No	No	No
	K16	195.0	270.0	Yes *1	No	No	No	No	No
	K16R	270.0	195.0	No	No	No	No	No	No
	F4A	342.9	215.9	No	No	No	No	No	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes *1	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Pre-Punched paper	A3	420.0	297.0	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	B4	364.0	257.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	A4R	297.0	210.0	Yes	Yes	Yes	Yes	Yes	No
	A4	210.0	297.0	Yes	Yes	Yes	Yes	Yes	Yes
	B5R	257.0	182.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	B5	182.0	257.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	11x17	431.8	279.4	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	LGL	355.6	215.9	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	LTR	215.9	279.4	Yes	Yes	Yes	Yes	Yes	Yes
	LTRR	279.4	215.9	Yes	Yes	Yes	Yes	Yes	No
	STMTR	215.9	139.7	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	E-OFFICIO	320.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	B-OFFICIO	355.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	M-OFFICIO	341.0	216.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-OFFICIO	340.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	A-LTRR	280.0	220.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR-R	266.7	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLTR	203.2	266.7	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	GLGL	330.2	203.2	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	AFLS	337.0	206.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	FLS	330.2	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	K16	195.0	270.0	Yes *1	Yes *1	Yes *1	Yes *1	Yes *1	No
	K16R	270.0	195.0	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	F4A	342.9	215.9	No	Yes *1	Yes *1	Yes *1	Yes *1	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes *1	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes *1	No	No	No	No	No

Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Pre-Punched paper	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes *1	No	Yes *1	Yes *1	Yes *1	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	No	No	No	No	No	No
OHP	A4	210.0	297.0	Yes	No	No	No	No	No
	LTR	215.9	279.4	Yes	No	No	No	No	No
Postcard	Postcard	148	100	Yes	No	No	No	No	No
	Reply Postcard	200	148	Yes	No	No	No	No	No
	4 On 1 Postcard	200	296	Yes	No	No	No	No	No
Envelope	COM10	241.3	104.7	Yes	No	Yes	No	No	No
	Monarch	190.5	98.4	Yes	No	Yes	No	No	No
	ISO-C5	229	162	Yes	No	Yes	No	No	No
	ISO-B5	250	176	Yes	No	Yes	No	No	No
	DL	220	110	Yes	No	Yes	No	No	No
Transparency (64 to 80 g/m^2)	A3	420.0	297.0	Yes	No	No	No	No	No
	B4	364.0	257.0	Yes	No	No	No	No	No
	A4R	297.0	210.0	Yes	No	No	No	No	No
	A4	210.0	297.0	Yes	No	No	No	No	No
	B5R	257.0	182.0	Yes	No	No	No	No	No
	B5	182.0	257.0	Yes	No	No	No	No	No
	A5	148.0	210.0	No	No	No	No	No	No
	A5R	210.0	148.0	Yes *1	No	No	No	No	No
	11x17	431.8	279.4	Yes *1	No	No	No	No	No
	LGL	355.6	215.9	Yes *1	No	No	No	No	No
	LTR	215.9	279.4	Yes *1	No	No	No	No	No
	LTRR	279.4	215.9	Yes *1	No	No	No	No	No
	STMTR	215.9	139.7	Yes *1	No	No	No	No	No
	STMT	139.7	215.9	No	No	No	No	No	No
	SRA3	450.0	320.0	No	No	No	No	No	No
	304mmX457mm(12"X18")	457.2	304.8	No	No	No	No	No	No
	EXEC	184.1	266.7	Yes *1	No	No	No	No	No
	EXEC-R	266.7	184.1	No	No	No	No	No	No
	OFFICIO	317.5	215.9	No	No	No	No	No	No
	E-OFFICIO	320.0	220.0	No	No	No	No	No	No
	B-OFFICIO	355.0	216.0	No	No	No	No	No	No
	M-OFFICIO	341.0	216.0	No	No	No	No	No	No

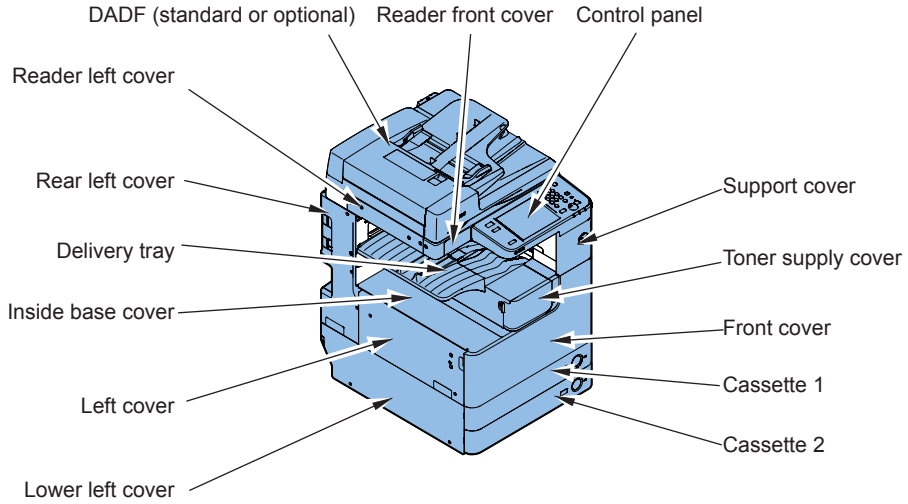
Type	Size	Feeding direction (mm)	Width direction (mm)	Pickup position					
				Multi-purpose Tray	Cassette 1	Cassette 2	Cassette 3	Cassette 4	Side Paper Deck
Transparency (64 to 80 g/m^2)	A-OFFICIO	340.0	220.0	No	No	No	No	No	No
	FOLIO	330.0	210.0	No	No	No	No	No	No
	A-LTR	220.0	280.0	No	No	No	No	No	No
	A-LTRR	280.0	220.0	No	No	No	No	No	No
	GLTR-R	266.7	203.2	No	No	No	No	No	No
	GLTR	203.2	266.7	No	No	No	No	No	No
	GLGL	330.2	203.2	No	No	No	No	No	No
	AFLS	337.0	206.0	No	No	No	No	No	No
	FLS	330.2	215.9	No	No	No	No	No	No
	330mmX483mm(13"X19")	482.6	330.2	No	No	No	No	No	No
	K8	390.0	270.0	Yes *1	No	No	No	No	No
	K16	195.0	270.0	Yes *1	No	No	No	No	No
	K16R	270.0	195.0	No	No	No	No	No	No
	F4A	342.9	215.9	No	No	No	No	No	No
	Free size	148.0 to 431.8	99.0 to 297.0	Yes *1	No	No	No	No	No
	Free size (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 1-1	148.0 to 181.9	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 1-2	182.0 to 431.8	99.0 to 139.6	Yes *1	No	No	No	No	No
	Custom paper size 2-1	148.0 to 181.9	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 2-2	182.0 to 431.8	139.7 to 147.9	Yes *1	No	No	No	No	No
	Custom paper size 3-1	148.0 to 181.9	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 3-2	182.0 to 431.8	148.0 to 297.0	Yes *1	No	No	No	No	No
	Custom paper size 5 (long length)	431.9 to 630.0	99.0 to 297.0	Yes *1	No	No	No	No	No

T-1-14

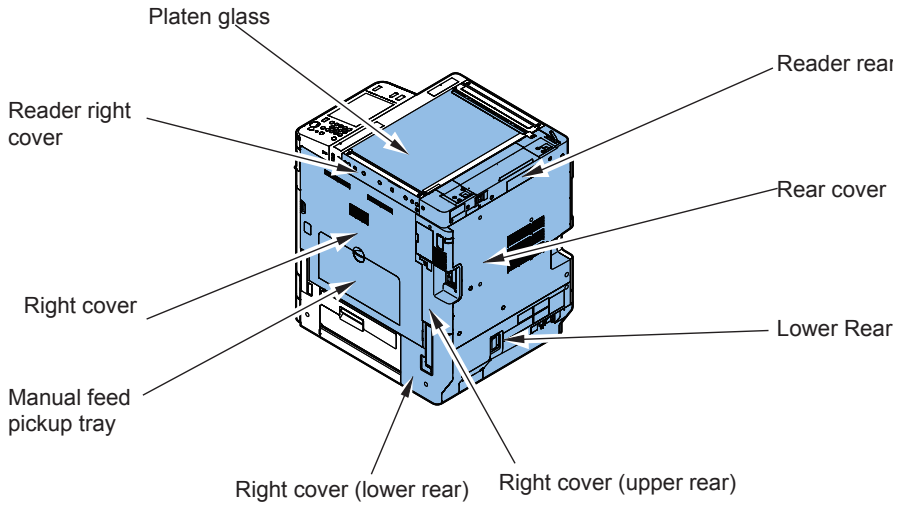
External View/Internal View

External View

External Cover

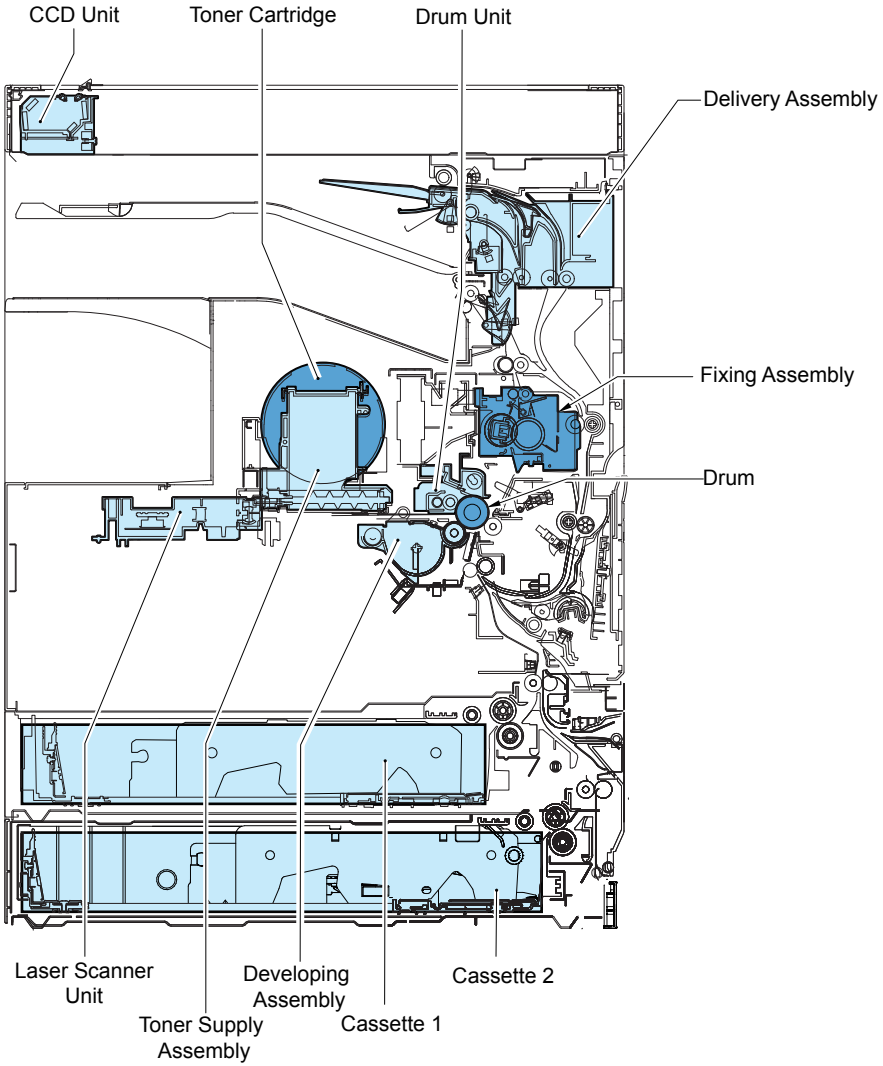


F-1-10



F-1-11

Cross Sectional View



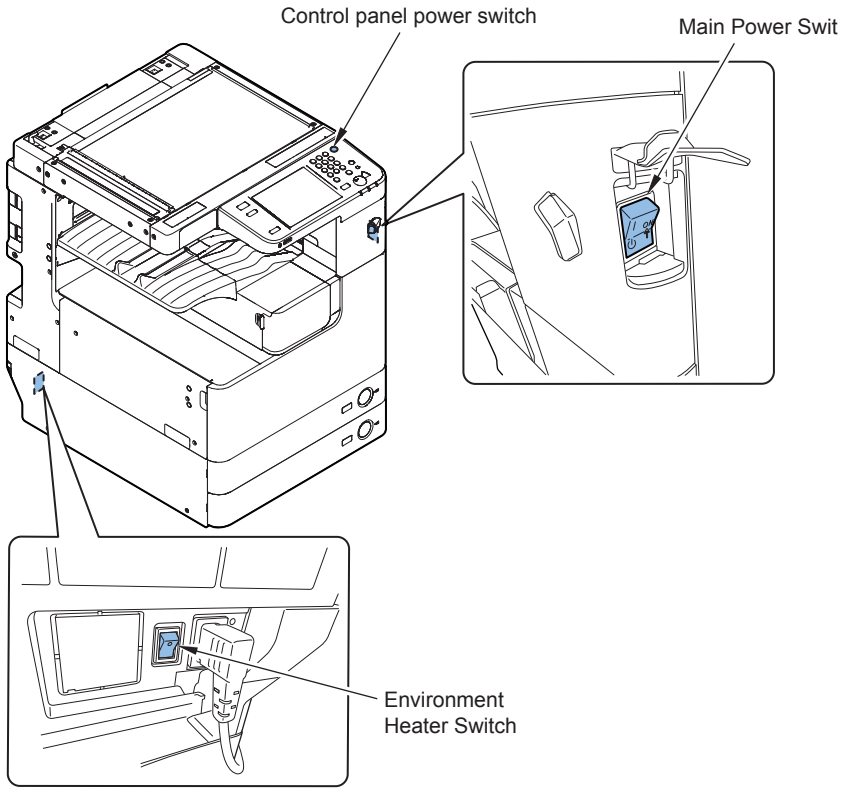
F-1-12

Operation

Power Switch

Types of power switch

This machine has the Main Power Switch, the Control Panel Power Switch and the Environment Heater Switch.
Turning ON the Main Power Switch supplies the power in the usual case (except when the machine is in sleep mode).
The Environment Switch supplies or blocks the power to the Drum Heater, the Cassette Heater and the Reader Heater.



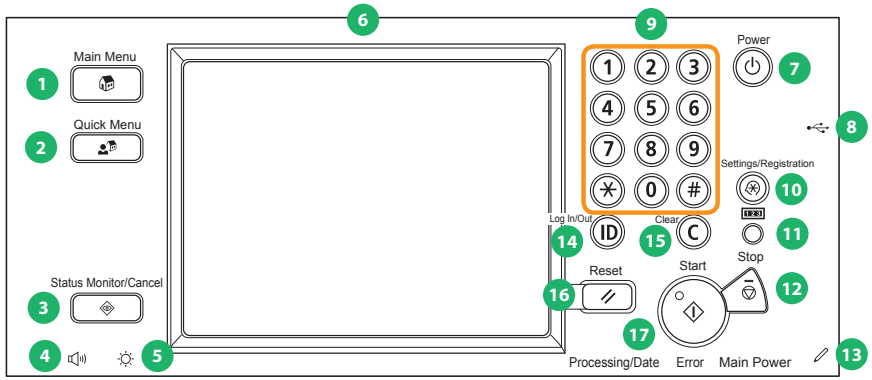
F-1-13

Points to Note on Turning ON/OFF the Power Switch

- Do not turn OFF the Main Power Switch while the progress bar (to be displayed when the power is turned ON) is displayed, which indicates access to the HDD.
- Be sure to turn OFF the Main Power Switch to cut the power (there is no need to perform the shutdown sequence which has been performed with the conventional machines).
- After turning OFF the power (after turning OFF the Main Power Switch), do not turn ON the Main Power Switch unless the screen disappears.
- Do not turn OFF the power during downloading.

Control Panel

Control Panel

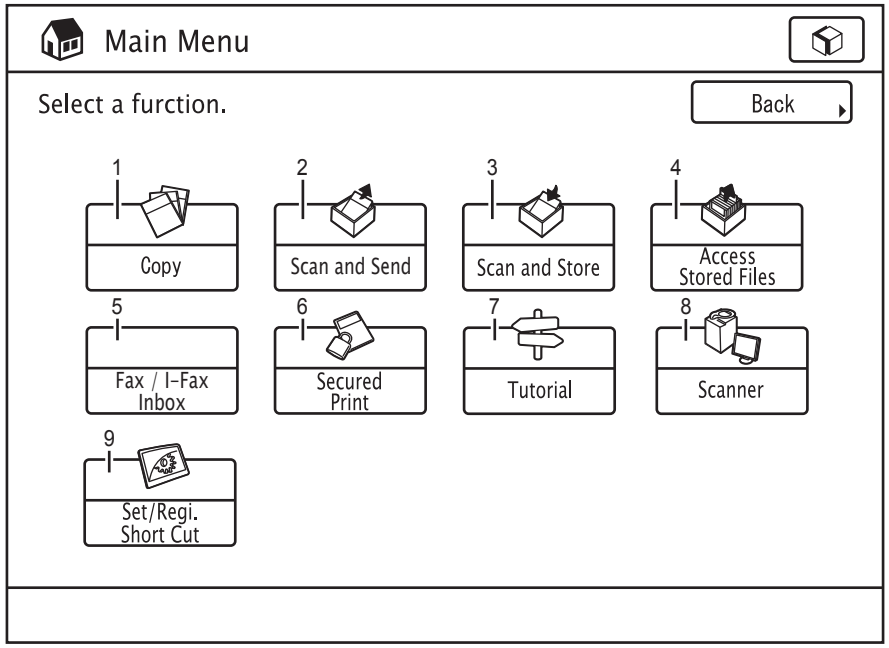


F-1-14

[1] Main Menu Key
[2] Custom Menu Key
[3] Check/Stop Status Key
[4] Volume Adjustment Key
[5] Brightness Adjustment Key
[6] Touch Panel Display
[7] Control Panel Power Switch (Sub-power)
[8] USB Slot
[9] Numeric Key
[10] Settings/registration Key
[11] Check Counter Key
[12] Stop Key
[13] Operation Pen
[14] ID Key
[15] Clear Key
[16] Reset Key
[17] Start Key

Main Menu

Menu screen



F-1-15

[1] Copy
[2] Scan and Send
[3] Scan and Save
[4] Access Stored F
[5] Fax/I-Fax Inbox
[6] Secured Print
[7] Introduction to Useful Features
[8] Remote Scanner
[9] Shortcut to Settings/Registration

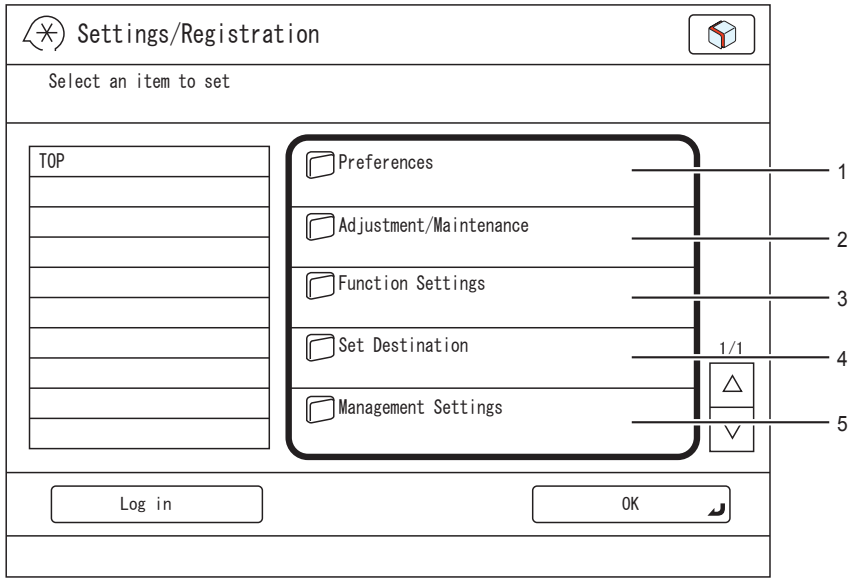
Differences in Main Menu

iR 3245 Series	iR ADVANCE 4051 Series
Copy	Copy
Send/Fax	Scan and Send
Box	Scan and Save (New)
	Access Stored Files (New)
	Fax/I-Fax Inbox
Menu Switch Key	-----
-----	Secured Print
Remote Scanner	Remote Scanner
-----	Shortcut to Settings/Registration (New)
-----	Introduction to Useful Features

T-1-15

Settings/Registration Menu

Menu screen



F-1-16

[1] Preferences
[2] Adjustment/Maintenance
[3] Function Settings
[4] Set Destination
[5] Management Settings

Differences in Settings/Registration Menu

iR 3245 Series	iR ADVANCE 4051 Series
Common Settings	Preferences
Timer Setting	
Adjustment/Cleaning	Adjustment/Maintenance
System Settings	Management Settings
Output Report	Function Settings
Copy Settings	
Send/Receive Settings	
Mail Box Settings	
Address Book Settings	Set Destination

T-1-16

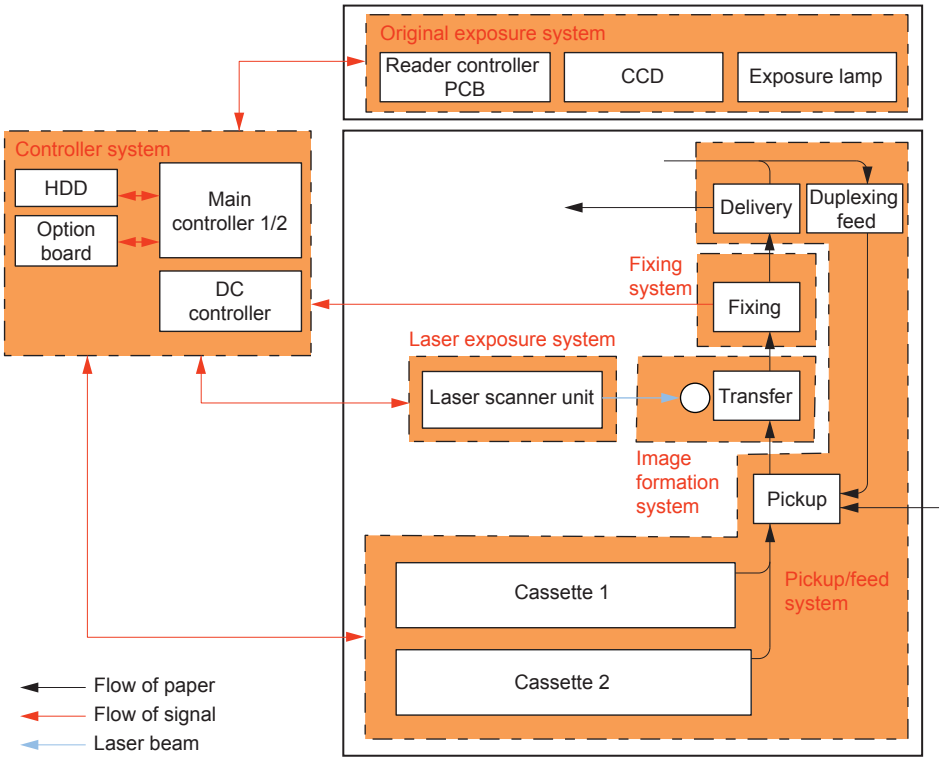
2 Technology

- Basic Configuration
- Original Exposure System (Reader)
- Main Controller
- Laser Exposure System
- Image Formation System
- Fixing System
- Pickup Feed System
- External Auxiliary System
- MEAP
- Embedded RDS
- Updater

Basic Configuration

Functional Configuration

The machine may broadly be divided into the following functional system blocks; document exposure system block, controller system block, laser exposure system block, image formation system block, fixing system block and pickup/feed system block.



F-2-1

Original Exposure System (Reader)

Features (Reader)

- Adapting new CCD unit, allows low power consumption.
- Improvement of the CCD unit disassembly

Specifications (Reader)

Specifications

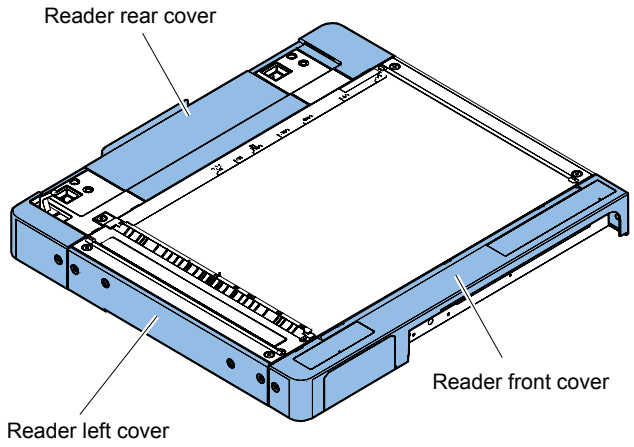
Item		Specification/function
Original exposure		Indirect exposure by LED (LED & photoconductive body)
Original scan	In book mode	Scan by movement of CCD
	In ADF mode	Stream reading with CCD fixed
Read resolution		600 dpi (main scanning) x 600 dpi (sub scanning)
Gradation		256 gradation
Carriage position detection		CCD HP sensor (S11)
Magnification		25% to 400%
	Main scanning direction	Image is processed on main controller PCB 2
	Sub scanning direction	In book mode: speed change by carriage travel, image process on main controller PCB *1 In ADF mode: original feed speed change, image process on main controller PCB *1
Lens		ST lens
CCD		Number of lines: 4 (R, G, B, B/W)
		Number of pixels: 7500 x 3 color lines, 7500 x 1 B/W line
		Maximum original read width: 317.5mm
CCD unit drive control		By scanner motor (M14)
Original size detection	In book mode	Main scanning direction: by CCD
		Sub scanning direction: by reflection sensor
	In ADF mode	Main scanning direction: by photo interrupter on DADF
		Sub scanning direction: by photo interrupter on DADF

T-2-1

*1 Controls differ depending on magnifications. Refer to [Magnifications] for more information.

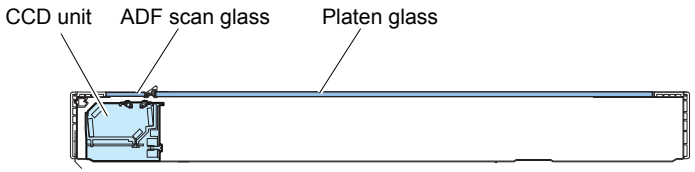
Names of Parts (Reader)

External View



F-2-2

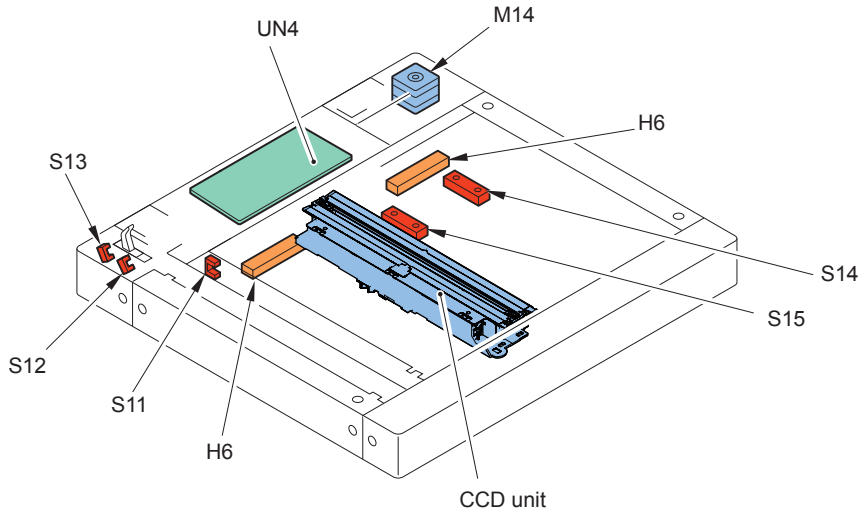
Cross Section



F-2-3

Major Components

Following shows major components of document exposure system.



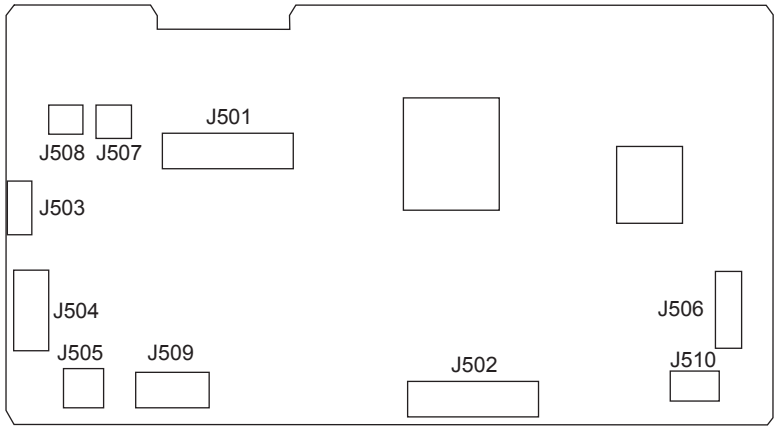
F-2-4

Item	Notation	Specification/function
Scanner motor	M14	Pulse motor: controls the carriage drive
CCD HP sensor	S11	Detects CCD home position
Copyboard Cover Open/ Closed Sensor (front)	S12	Ends original size identification with the copy board cover at 5 deg
Copyboard Cover Open/ Closed Sensor (rear)	S13	Detects the copyboard cover open/close. Starts original size identification with the copy board cover at 30 deg.
Original Size Sensor 1	S15	Helps identify original size(AB, INCH/AB/K, A)
Original Size Sensor 2	S14	Helps identify original size(INCH/AB/K, INCH/A)
CCD unit	-	Indirect exposure by LED (LED & photoconductive body)
Reader Heater (Option)	H6	Prevents condensation on the copyboard glass
Reader controller PCB	UN4	Controls the reader unit drive and image process

T-2-2

Reader Relay PCB

The function configuration of reader controller PCB is described below.



F-2-5

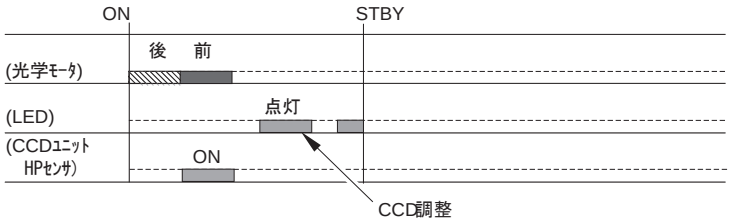
Jack No	Description
J501	Communication with CCD
J502	Communication with main controller PCB
J503	Connection to Scanner motor
J504	Receives power from the machine (printer unit)
J505	Power supply to DADF
J506	Connection to copyboard cover open/close sensor and CCD HP sensor
J507	Connection to original size sensor 2
J508	Connection to original size sensor 1
J509	Communication with DADF
J510	Not used

T-2-3

Controls (Reader)

Basic Sequence

Basic Sequence at Power-On

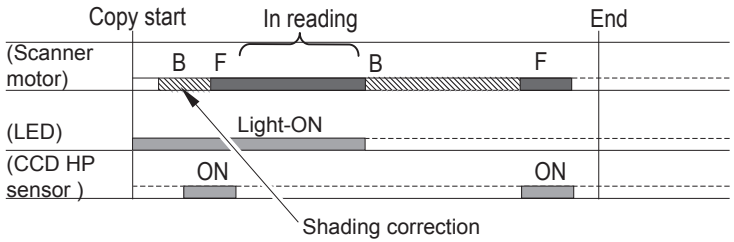


F-2-6

Footnote

- F: Scanner motor moves forward (toward right).
- B: Scanner motor moves backward (toward left).
- Light-ON: LED on CCD unit lights-on.
- ON: When CCD HP sensor (photo interrupter type) detects.

Basic Sequence at Start Key ON (book mode/1 original)

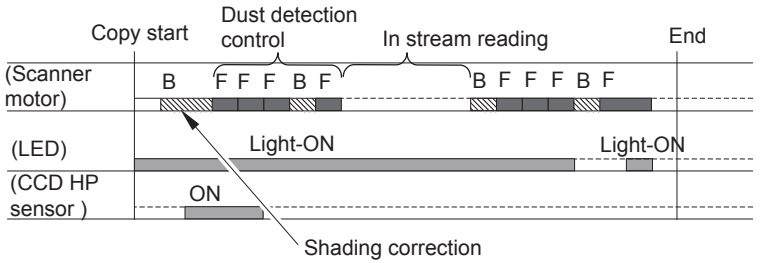


F-2-7

Footnote

- F: Scanner motor moves forward (toward right).
- B: Scanner motor moves backward (toward left).
- Light-ON: LED on CCD unit lights-on.
- ON: When CCD HP sensor (photo interrupter type) detects.

Basic Sequence at Start Key ON (ADF mode/1 original)



F-2-8

Dust detection control

This is activated when any of the following conditions is true.

- Dust has been detected in all 3 locations at previous 1 job.
- Dust detection could not be activated due to JAM etc at previous job.

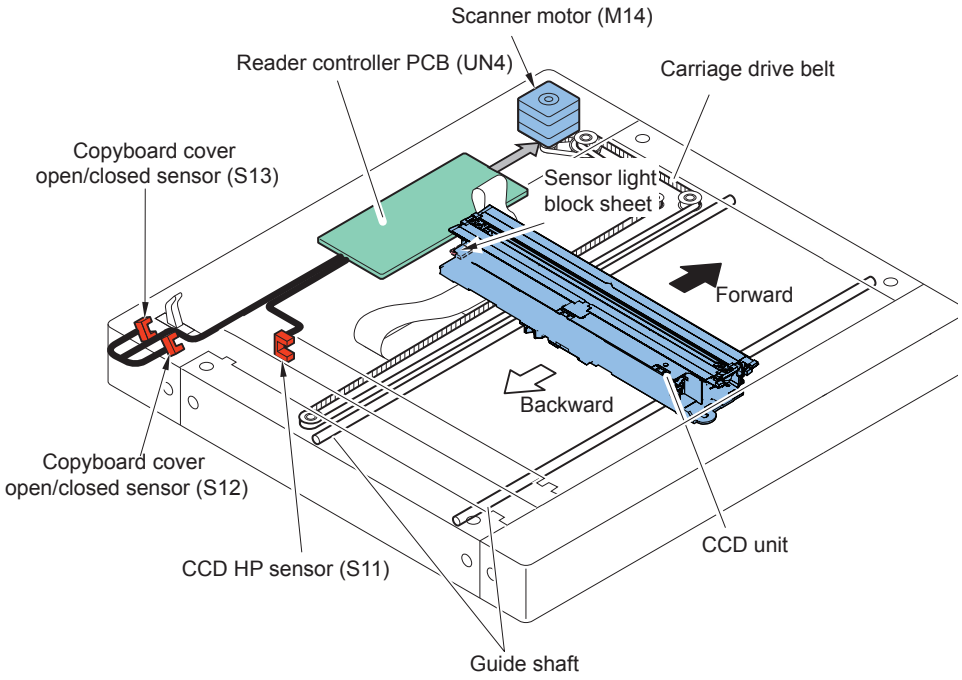
Footnote

- F: Scanner motor moves forward (toward right).
- B: Scanner motor moves backward (toward left).
- Light-ON: LED on CCD unit lights-on.
- ON: When CCD HP sensor (photo interrupter type) detects.

■ Controlling the Scanner Drive System

● Configuration of drive system

Parts configuration of scanner drive is described below.



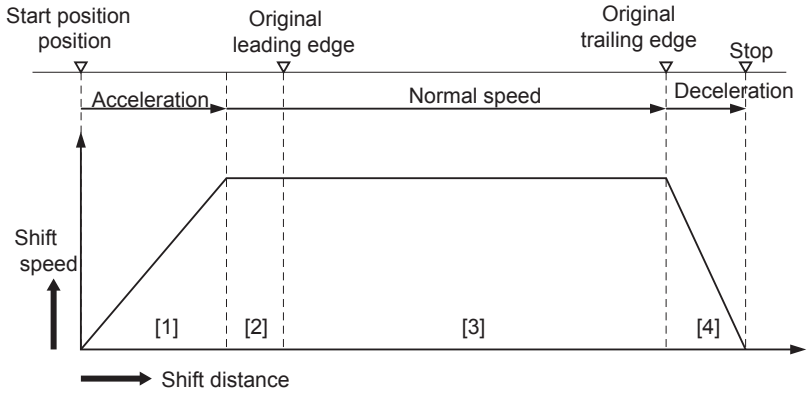
F-2-9

- Scanner motor (M14) drive signal
  Turns on/off the motor and controls its direction/speed of rotation.
- CCD HP sensor (S11) detection signal
  Checks if CCD is at home position.
- Copyboard cover open/closed sensor (front: S12/rear: S13) detection signal
  Detects the open/close status of the copyboard cover

● Scanner Motor Control

1) Forward movement when scanning an image

CCD operation is controlled by the following sensors when scanning the image.



[1]Acceleration area: Accelerates until a speed suited to the selected mode is reached
[2]Run-up speed area: Run-up margin to ensure a stable speed.
[3]Image reading area: Reads an image at a specific speed.
[4]Deceleration area: Decelerates and stops promptly once the image end is reached.

F-2-10

NOTE:
The scanning speed of this machine is as follows.
Black/white (600dpi x 600dpi):260 mm/sec
Color SEND(600dpi x 300dpi):140 mm/sec

2) Backward movement after scanning an image

After scanning an image, CCD moves backward to CCD shading position at a specific speed (260 mm/sec).

CCD Unit

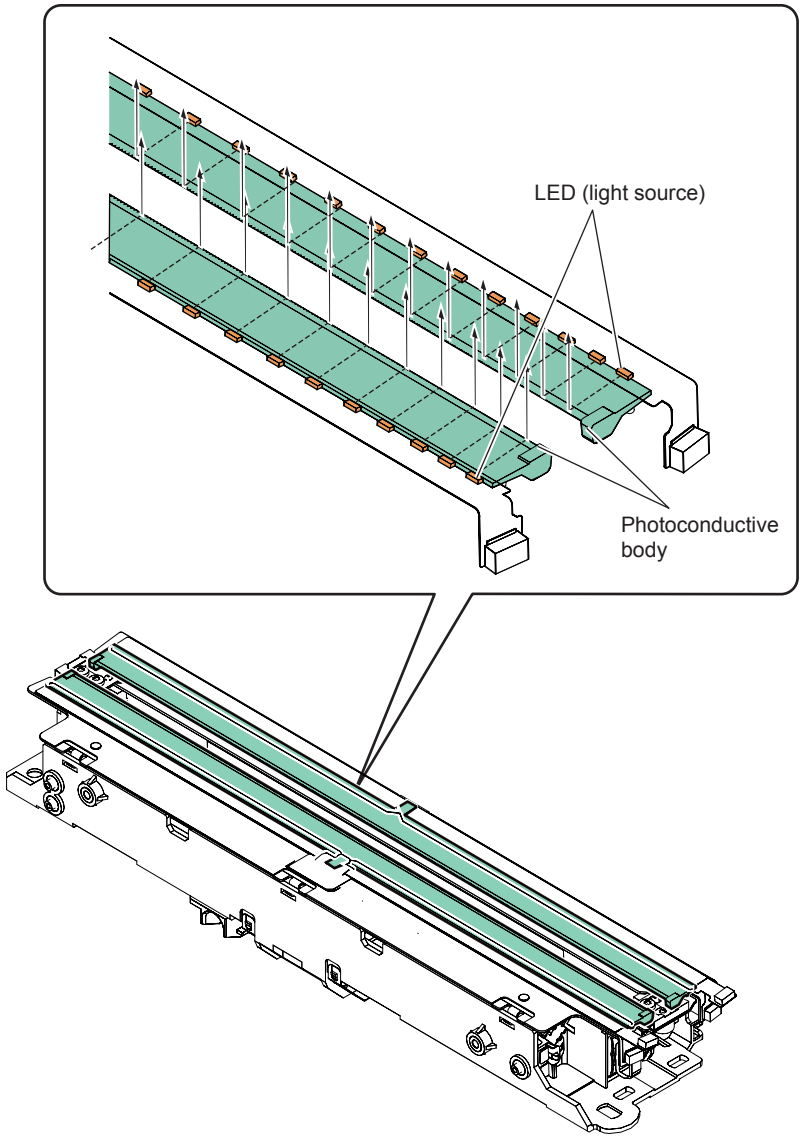
Overview

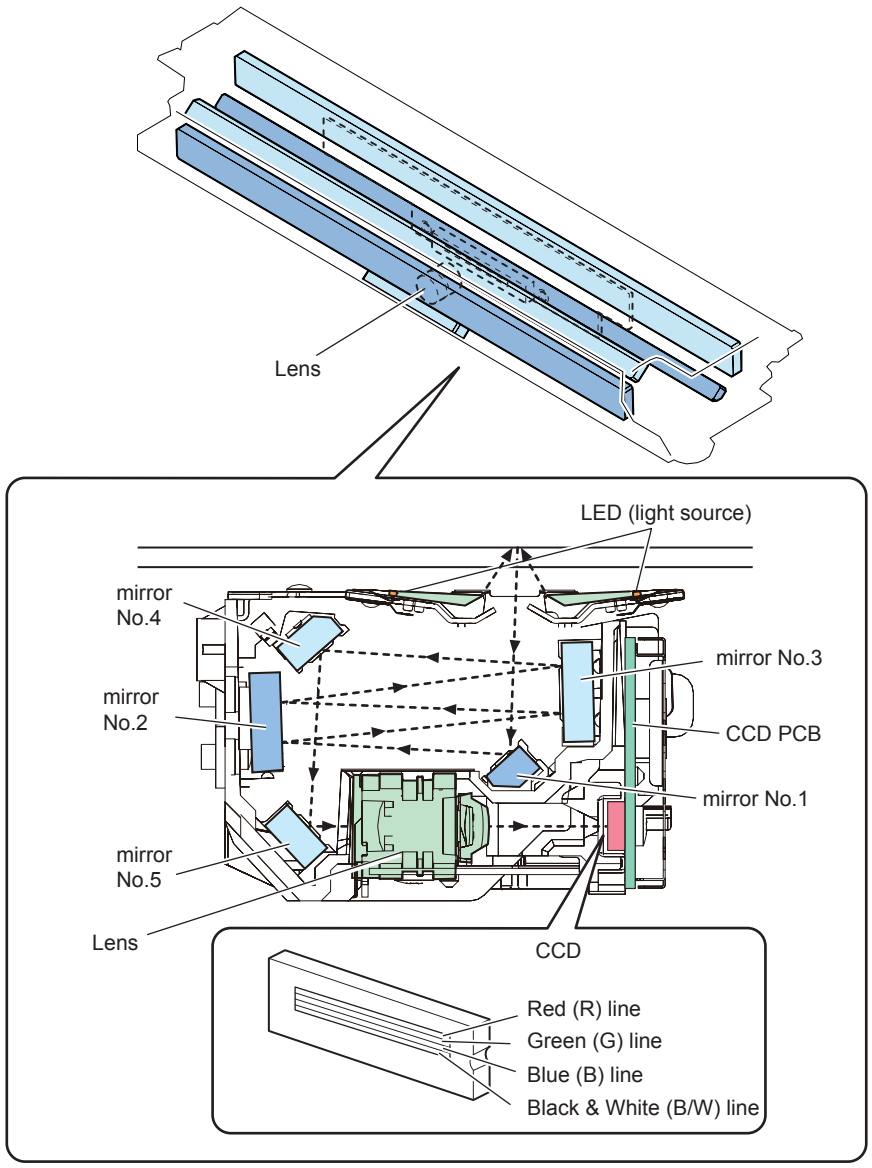
The machine uses the CCD to expose and read an image and the image is read on a line-by-line basis.
CCD features 4 lines (R, G, B, B/W) and B/W line is used in B/W copy and R, G, B lines are used at color scan.

CCD overview

1. Integrated scanning configuration; CCD, lens, light source and mirror are integrated.
2. Light source: LED
3. Effective number of pixel: 7500 pix x 3 color lines, 7500 pix x 1 B/W line
4. Color filter: Colored filter (Red/Green/Blue)

[Optical path from LED]
The light generated from LED is reflected by an original and by the 5 mirrors. And then it is irradiated to the CCD through the lens.





F-2-12

F-2-11

Items	Description
CCD	Receives the reflected light that has gone through the lens and converts it into electric signal to output it.
Lens	Collects the light reflected by an original.
LED(light source)	Light source to expose an original to laser
Mirror No. 1 - 5	Return the light
CCD PCB	CCD drive, analog image process, A/D conversion, A/D conversion, backup of the service mode about the reader and ADF

T-2-4

Enlargement/Reduction

Magnifications in Main Scanning Direction

In book mode/ADF mode

An image is read at 100% in main scanning direction. Magnification variation and its data process are controlled on main controller PCB 2.

Magnification in Sub Scanning Direction

To vary the magnification of sub scanning direction, the machine operates as below depending on the original reading methods and the magnifications.

1) Magnifications in book mode

To suite the selected rate of magnification, the machine changes the speed of original reading and executes data processing on main controller PCB 2.

e.g.) Reduction to 25%: an original is read at 260mm/s, and the data is processed for 25% reduction (skipping for 4/1) by the main controller PCB 2.

e.g.) at 100%: an original is read at 260mm/s.

Operation	Magnifications		
	25% to 50%	50.1% to 199.9%	200% to 400%
Speed change of original reading (mm/sec)	260	260	130
Digital magnification process (%) on the main controller PCB 2	25 to 50	50.1 to 199.9	100 to 200

T-2-5

2) Magnifications in ADF mode

To suite the selected rate of magnification, the machine changes the speed of original reading and executes data processing on main controller PCB 2.

e.g.) Reduction to 25%: an original is read at 260mm/s and the data is processed for 25% reduction (skipping 4/1) by the main controller PCB.

e.g.) Enlargement to 200%: an original is read at 130mm/s and the data is processed for 100% direct reproduction by main controller PCB.

Operation	Magnifications		
	25% to 50%	50.1% to 199.9%	200% to 400%
Speed change of original reading (mm/sec)	260	260	130
Digital magnification process (%) on the main controller PCB 2	25 to 50	50.1 to 199.9	100 to 200

T-2-6

Detecting the Size of Originals

Overview

The machine identifies the original size by the combination of measurement result of reflection light from the reflection sensor and specific points of CCD. Also to identify it accurately even though an original moves when ADF is closed, the machine measures 2 points for each size.

- Main scanning direction: CCD (AB type: 12 points measurement, inch type: 6 points measurement)
- Sub scanning direction: Reflection type photo sensor (AB type: 1 point, inch type: 1 point, AB/inch type: 2 point)

The followings are the procedures of original size identification.

1) External light search (main scanning direction only)

According to the LED status, the machine identifies the CCD level of each detection position in main scanning direction.

2) Output level detection of each sensor

The machine turns on the LED on CCD unit and measures the CCD level of each detection position in main scanning direction.

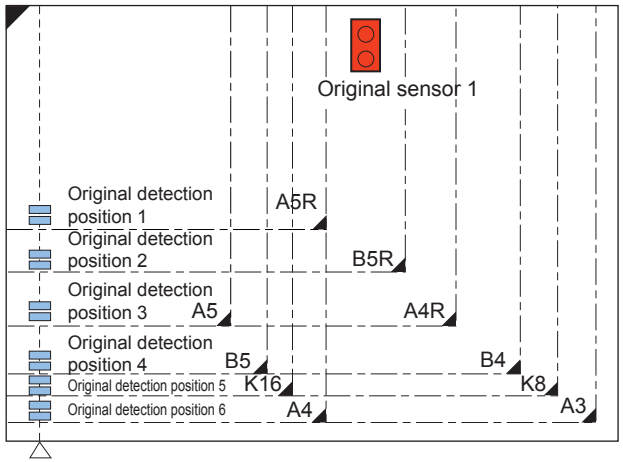
Also, turns on the LED on reflection type photo sensor in sub scanning direction and measures the sensor output.

The original size is identified by the combination of these output result.

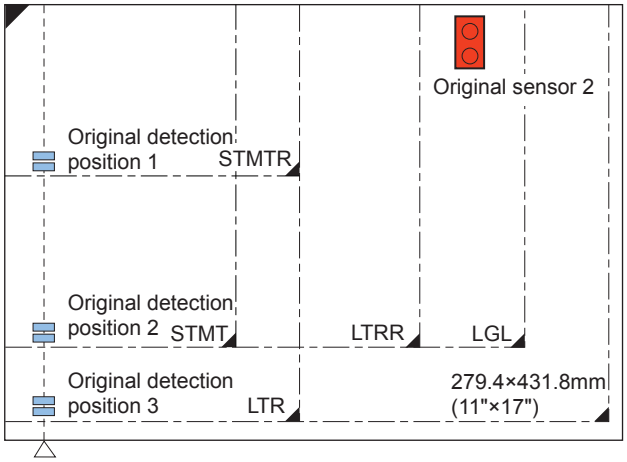
Control Details

For main scanning direction, the machine moves the CCD unit to the following CCD original detection positions according to the location of original to measure the CCD level of each detection position. For sub scanning direction, the machine uses the original sensor 1, 2 to identify sizes.

AB type



Inch type



F-2-13

1. 2 points original detection at each detection position

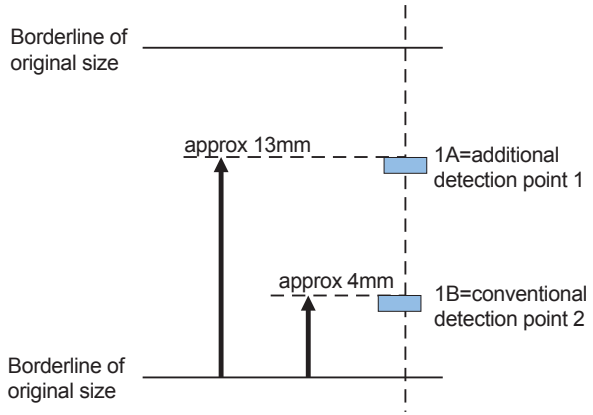
For each point of measurement in main scanning direction, the machine checks the presence/absence of an original with reference to the CCD output at 2 points near the point of measurement.

* The machine checks if the signal is changed or not from ADF (pressure plate) open to close at both points of 1A and 1B.

Change in the signal: Yes

Change in the signal: No

Judgment is done by the measurement results of 1A and 1B, and it indicates the presence of original if either point shows No (absence). It indicates absence of original if both signals show Yes (presence).



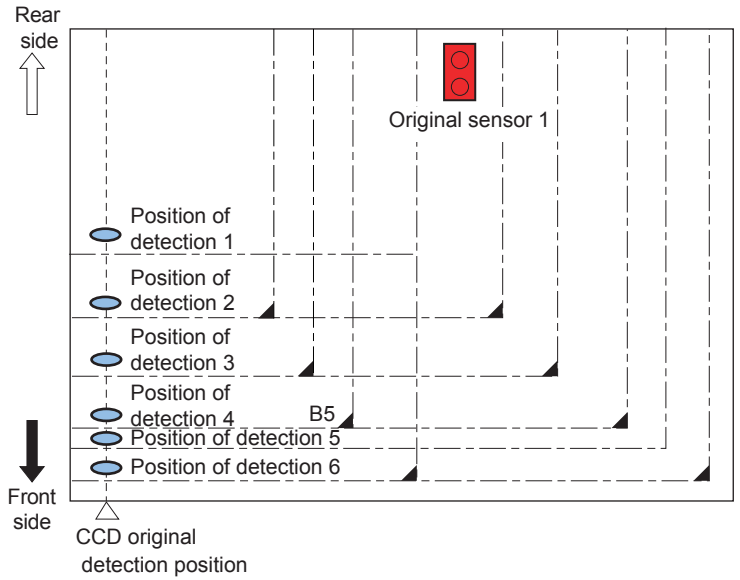
F-2-14

Change		Result of detection
1A	1B	
Yes	Yes	Original absence
No	Yes	Original presence
Yes	No	Original presence
No	No	Original presence

T-2-7

2. Priority on the front sensor

When checking the measurements for main scanning direction, if the absence of an original is indicated at the rear while the presence of an original is indicated at the front, the machine will give priority to the indication at the front.



F-2-15

In case of B5 size original

Position of detection	Result of detection	Result of identification
1	Yes	Yes
2	No	Yes
3	Yes	Yes
4	Yes	Yes
5	No	No
6	No	No

T-2-8

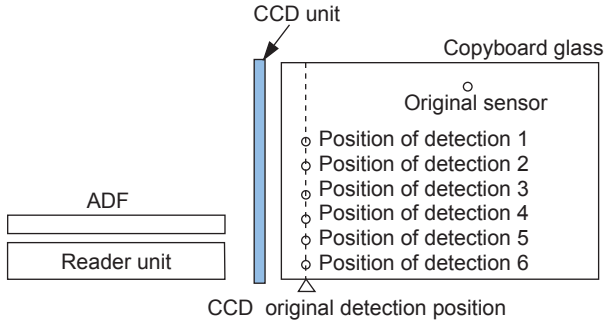
Detection Operation Overview

1) Standby state (The following is in case that the AB type, A4R size is set.)

CCD unit: shading position

LED: OFF

Original sensor: OFF



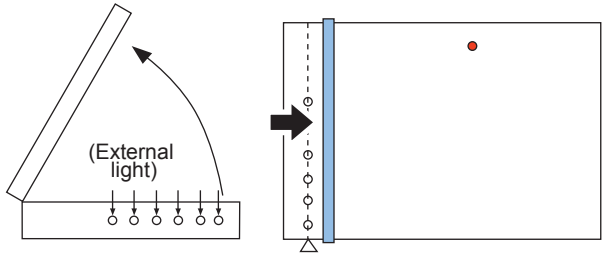
F-2-16

2) ADF opened

CCD unit: moves to original detection position

LED: OFF

Original sensor: OFF



F-2-17

3) ADF closed

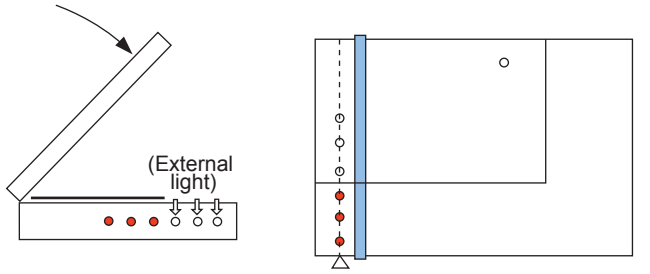
CCD unit: in original detection position

LED: OFF to ON

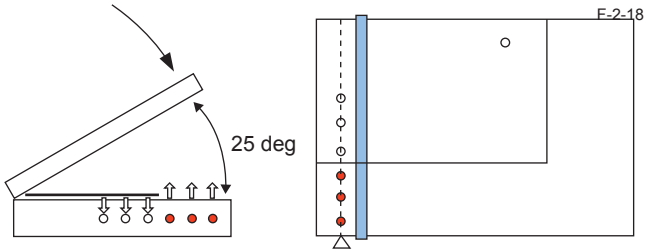
Original sensor: in original detection operation

- With the ADF angle at 25 deg or less, the external light is blocked at the original width area. Then, the machine determines that the original is absent at the points that the external light is detected (external light search operation). When the original mount sensor (rear) detects [close], original size detection is started. In this case, B5/B4/A4/A3 size is eliminated at this point.
- After external light search, LED is turned ON at main scanning side and the CCD

checks the reflection light (4 points). For sub scanning direction, original sensor detects the size.



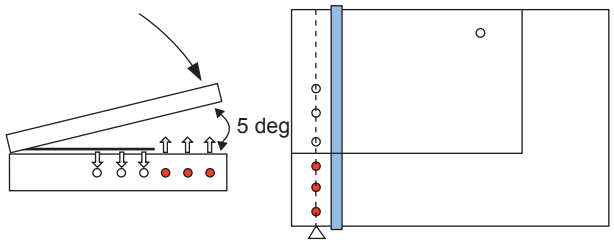
F-2-18



F-2-19

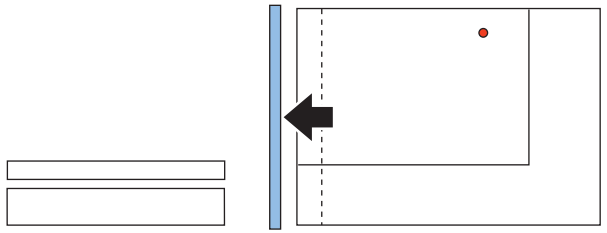
4) ADF fully closed (5 deg or less)
CCD unit: in original detection position
LED: ON
Original sensor: in original detection operation

- For 2 sec from the original mount sensor (front) detected [close], this monitors the changes of output level of each sensor. The machine determines that the original is present in the position where the level is not changed.
  The machine identifies the original size by the combination of level changes at 5 points (in case of AB type size).



F-2-20

5) Standby status (waiting for start key)
CCD unit: in original detection position
LED: OFF
Original sensor: OFF



F-2-21

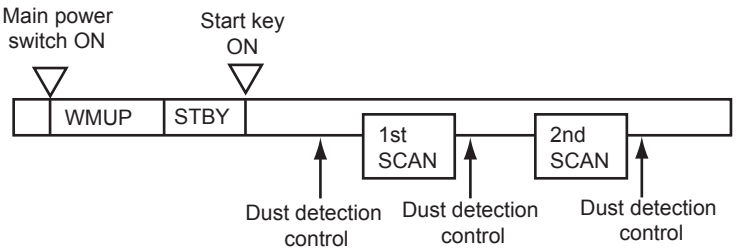
Dirt Sensor Control

Overview

The machine changes the original read point or executes image correction depending on the presence/absence of dust on the stream reading glass or the platen roller of the ADF to prevent the dust from showing up in the output. These operations are carried out only when the ADF is in use and, in addition, is closed.

[Control timing]

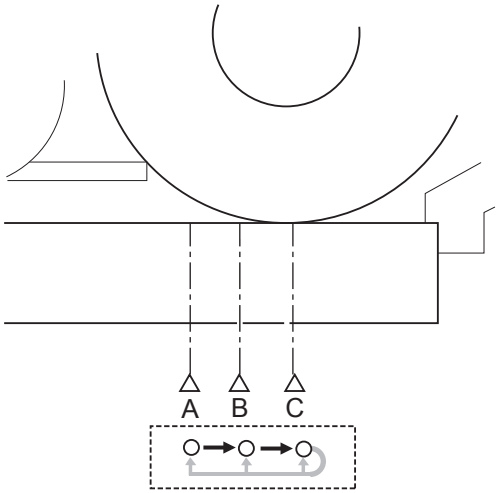
- At the end of a job
- Between sheets (for each reading of a sheet)
- At the start of a job (only when any of the following conditions is true.)
  Dust detected at all points of detection at the end of the previous job
  Dust detection failed to end normally at the end of the previous job (e.g., ADF opened)



F-2-22

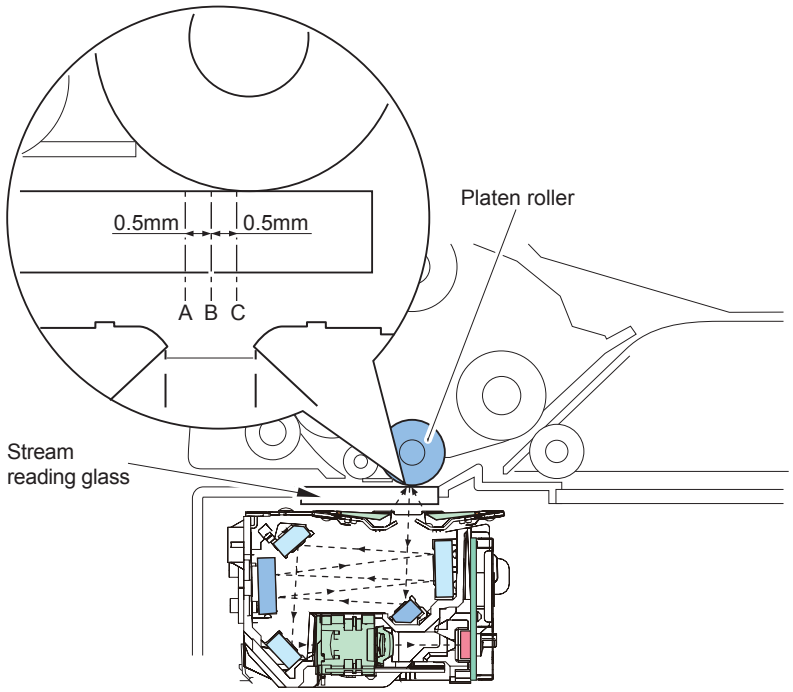
[Particulars of control]

- At the end of a job (dust detection)
  CCD checks the light reflected by the surface of the platen roller of the ADF at the read point to detect the presence/absence of dust. Presence of dust is detected at points A, B, and C in this order. The point where least dust is detected will be used as the read position for the next job. The point selected here will be used as the read position for the next job.
- At the start of a job (dust bypass)
  Presence of dust is detected at points A, B, and C in this order in the same manner as at the end of the job. Read will take place at the point where least dust is detected.



F-2-23

- Between sheets
  The machine does not move CCD.
  It reads the original using the position determined at the end or start of a job; however, if the presence of dust is still detected at the position, the machine will execute image correction.



F-2-24

Service Mode
(Lv1) COPIER > OPTION > IMG-RDR > DFDST-L1
(used to adjust the dust detection level between sheets)
(Lv1) COPIER > OPTION > IMG-RDR > DFDST-L2
(used to adjust the dust detection level at the end of a job)

Image Processing

Overview

The functions of image processing system's PCB are described below.

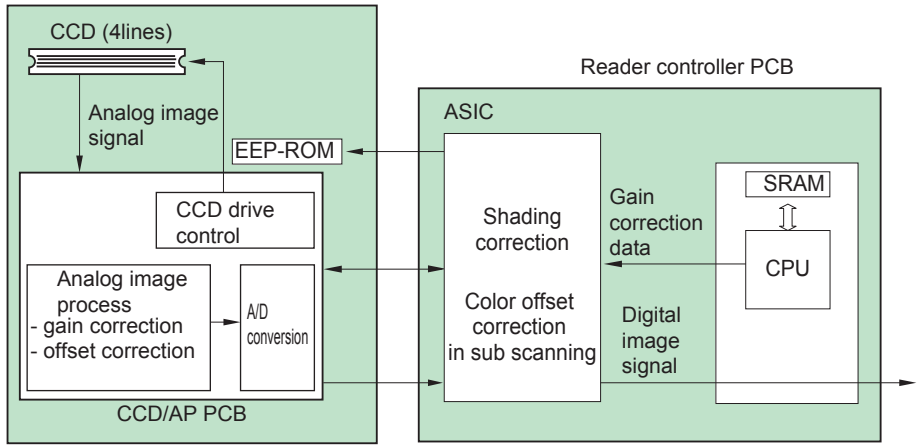
- Main controller PCB — Shading correction (executed per each job),
- CCD PCB — CCD drive, analog image process, A/D conversion, A/D conversion, backup of the service mode about the reader and ADF

The machine uses the main controller PCB to process images for every single image line.
Specific functions are as follows.

a. Main controller PCB
- Shading correction
- Color offset correction in sub scanning

b. CCD PCB (inside CCD unit)
- CCD drive
- CCD output gain correction, offset correction

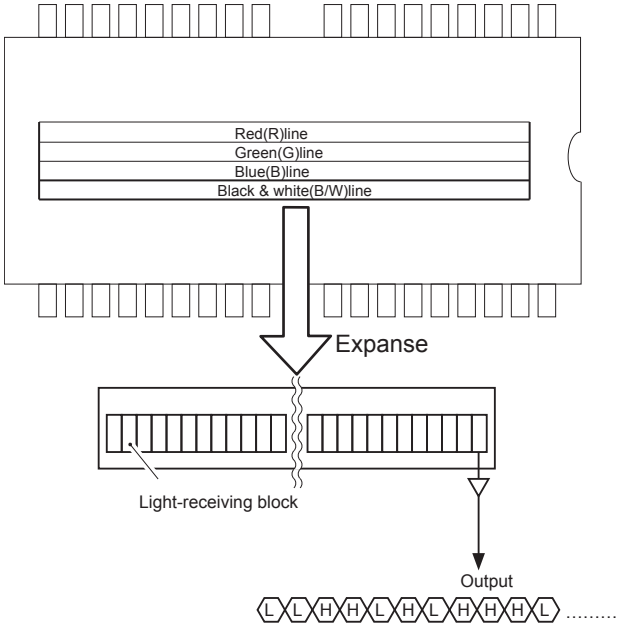
CCD PCB



F-2-25

CCD Drive

The machine's CCD sensor is a 4-line linear image sensor consisting of 7500 pixels. After completion of photoelectric conversion in the light-receiving block, the signals are output to the analog front end PCB unit on CCD PCB in parallel for each channel (Color scan: R, G, B B/W scan: B/W) of the CCD array.



F-2-26

Gain Correction and Offset Correction of CCD Output

The analog video signal generated by the CCD is corrected so that it will have a specific level (gain correction); moreover, the output voltage occurring in the absence of incident light is also corrected so that it will have a specific level (offset correction).

A/D Conversion of CCD Output

The corrected analog video signal is converted into a digital signal that is suited to the voltage level of individual pixels by the A/D converter.

Shading Correction (Overview)

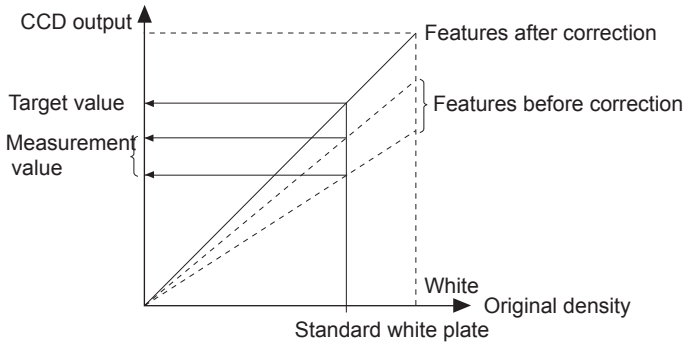
The output of the CCD is not necessarily even for the following factors even when the density of the original is uniform:

1) Variation in the sensitivity of the CCD among pixels
2) Variation in the intensity of the rod lens array
3) Variation in the intensity of light that goes through the center and surroundings of lens
4) Variation in the intensity of light at the center and surroundings of LED
5) LED deterioration

The machine executes shading correction to even out the output of the CCD.
Shading correction may be the shading correction executed for each job.

Shading Correction

The machine executes the shading correction for every scan made.
In this correction, the analog image process unit on CCD PCB digitalizes the LED light reflected by the standard white board. After the reflected light is digitalized, it is held in the shading correction circuit on main controller PCB as a shading coefficient.
Shading correction circuit compares the stored target value with the shading coefficient. The difference between the two will be held as the shading correction value for use in correcting variation among CCD pixels when scanning the original, thus evening out the density levels of the image.

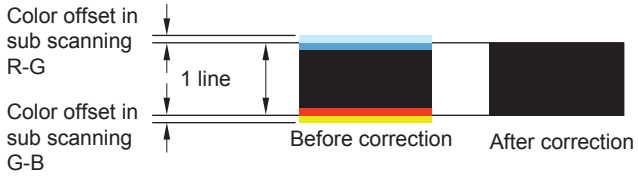


F-2-27

Color offset correction in sub scanning

When R, G and B are not accurately synchronized in sub scanning, the color offset correction will be made so that RED and BLUE synchronize with GREEN by shifting RED and BLUE image within single pixel in the sub scanning direction.

Example)
For GREEN, RED offsets upward and BLUE offsets downward in the scan for black line image.



F-2-28

MEMO:
Outstanding point of this CCD unit:
- Corrective values are different by the position in the main scanning.

There are 12 corrective values in the book scan and 4 values in the ADF scan for the color offset correction. The color offset corrections have been made at the factory and all the corrective values have been stored in the service mode. (In COPIER > ADJUST > CCD)

At the beginning of job, color offset correction is performed based on the stored corrective values.

	Book scan		ADFADF scan	
	100%	50%	100%	50%
Main scanning position 0 (rear)	100-RG 100-GB	50-RG 50-GB	100DF-RG 100DF-GB	50DF-RG 50DF-GB
Main scanning position 1 (center)	100-RG-2 100-GB-2	50-RG-2 50-GB-2		
Main scanning position 2 (front)	100-RG-3 100-RG-3	50-RG-3 50-GB-3		

T-2-9

Servicing (Reader)

Periodically Replaced Parts

None

Consumable Parts

None

Periodical Servicing

None

Action to take when replacing parts

Part name	Action
CCD unit	• Platen board cover white level automatic adjustment • ADF white level adjustment (This action is applicable only when the DADF is installed in the host machine.) • The values input of the label included to the new CCD unit
Copyboard glass	• White plate data adjustment • Platen board cover white level automatic adjustment • ADF white level adjustment (This action is applicable only when the DADF is installed in the host machine.)
Stream reading glass	• Platen board cover white level automatic adjustment • ADF white level adjustment

T-2-10

Major Adjustments

None

Troubleshooting

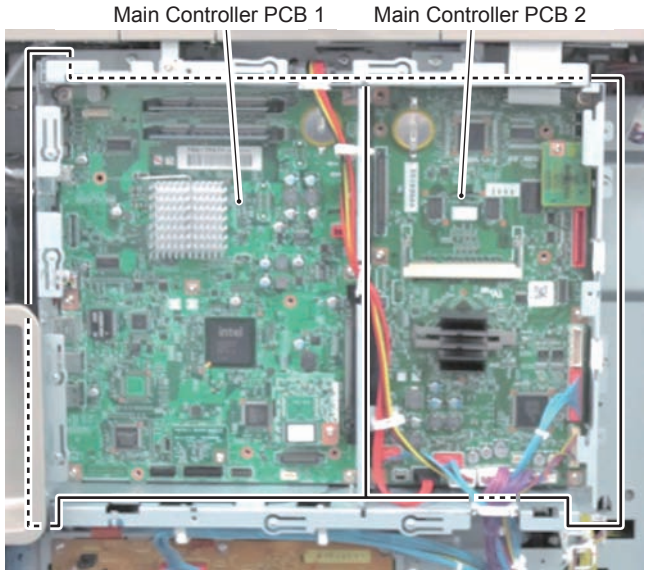
None

Main Controller

Overview

Features

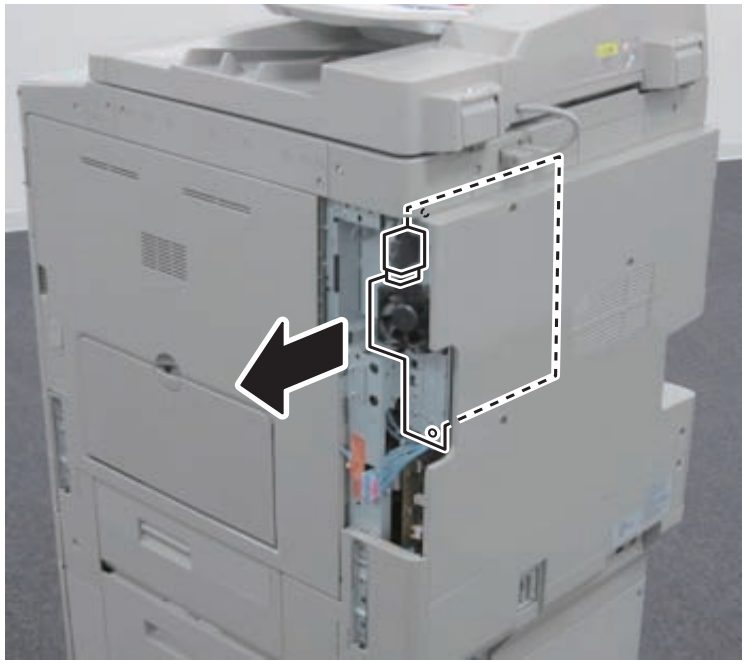
Using a new controller enables high speed PDL processing, high image quality and high functionality.



F-2-29

Main Controller PCB 1 controls the entire system while Main Controller PCB 2 mainly controls image processing.

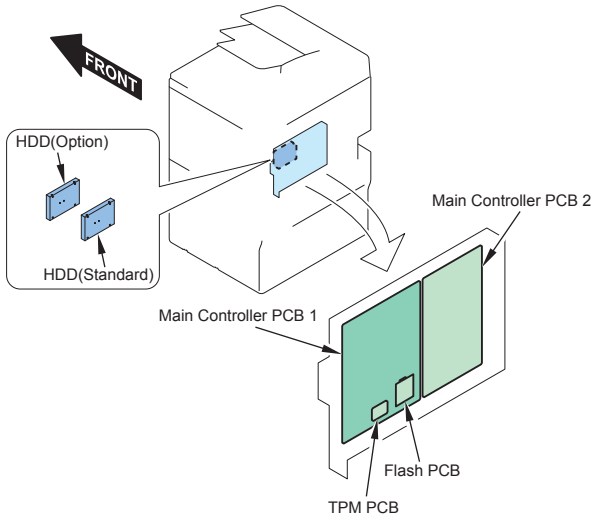
Main Controller PCBs 1 and 2 are connected through the Riser (connector for interface). Removability/installability of Main Controller PCB 1 has been improved by introducing this configuration (Slot-in/out)



F-2-30

Specifications/configuration

PCBs



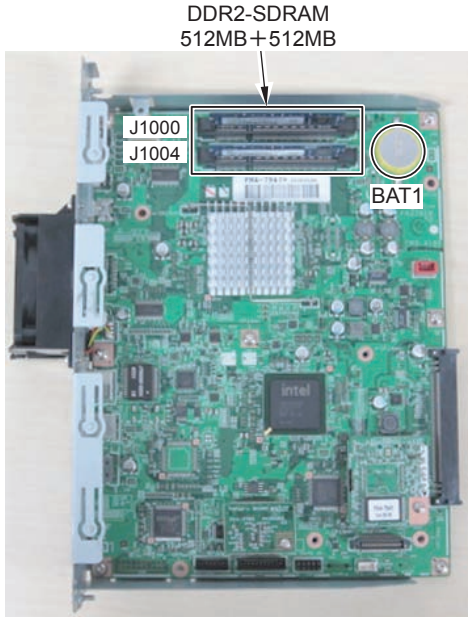
F-2-31

Parts name	Function, specifications, features
Main controller PCB 1	CPU: 1.2 GHz, Control of the entire system Various controls (HDD control, memory, control panel, electric power, voice), I/Fs (PCI, USB(host), USB(devise), LAN), RTC
Flash PCB	Boot program
TPM PCB	To generate and save encryption key Available only when TPM settings is ON: Management Settings> Data Management> TPM Settings (default: OFF) Not available with China models
Main controller PCB 2	CPU: 400 MHz, Image control Image processing (resolution conversion, image rotation, halftone process, scanner image process, printer image process, compression/ decompression, decoding, direct mapping, image area determination, generation of histogram, Trimming, Masking) , USB(devise) control, I/F (Reader, Printer, FAX, HDD, Power supply)
HDD	2.5 inch SATA I/F Standard: 80 GB Up to 2 HDDs can be mounted in the case of mirroring configuration. BOX data, Address book, security information (password, certificate) Op.: (2.5 inch / 80 GB) HDD-C1, (2.5 inch / 250 GB) HDD-D1

T-2-11

Memory

Main controller PCB 1

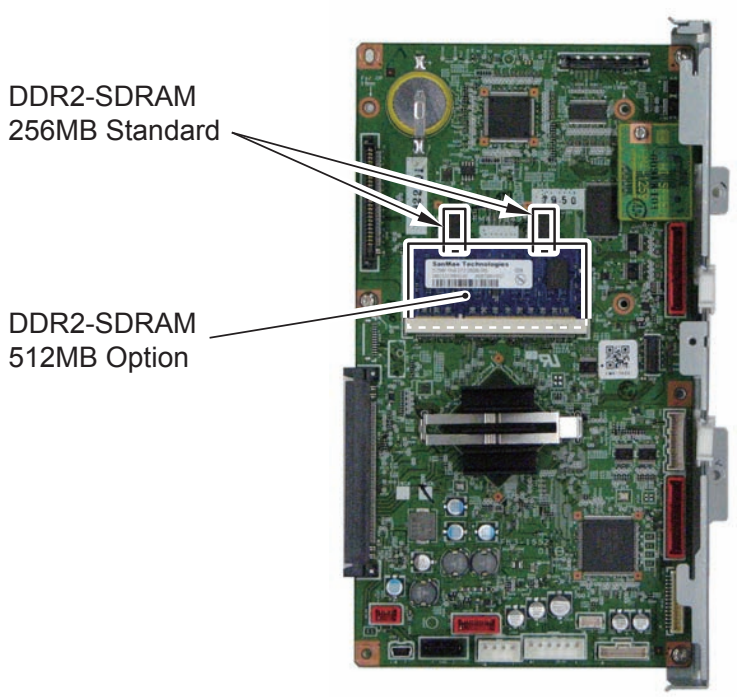


F-2-32

Parts name	Function, specifications, features
DDR2-SDRAM	2 slot / 1GB (standard) J1000: 512 MB J1004: 512 MB Clock frequency: 333 MHz Used for saving image, program data
Lithium battery (BAT1)	For RTC Life: approx. 10 years

T-2-12

Main controller PCB 2



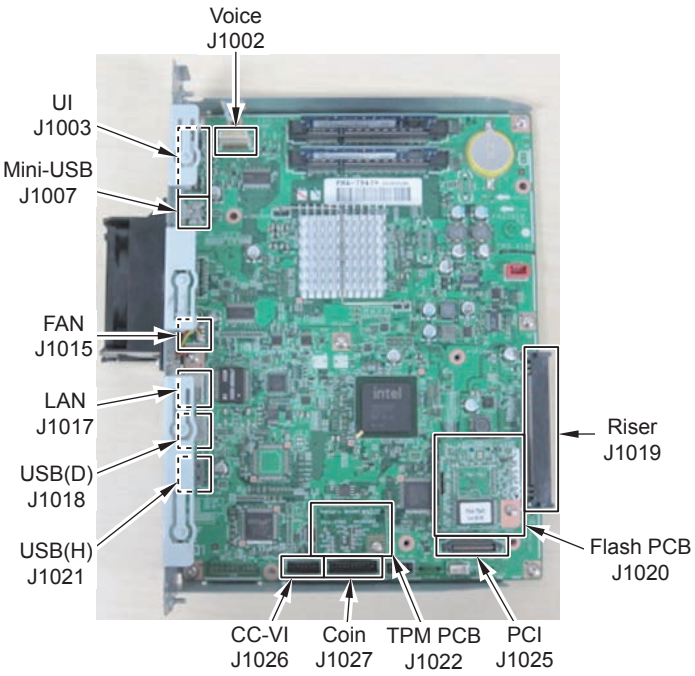
F-2-33

Parts name	Function, specifications, features
DDR2-SDRAM	256 MB (standard) / clock frequency: 200MHz Scanner image process, printer image process, resolution conversion, compression/decompression, coding/decoding
DDR2-SDRAM	512 MB (Op) / clock frequency: 200MHz Product name: Additional Memory Type A (512MB) Rasterizing, rendering, resolution conversion, coding/decoding Required when 600dpi color scanning (mode) is used or Super G3 3rd/4th Line Fax Board-AE1
SRAM	16 Mbit To save data in Settings/Registration Mode/ Service Mode and image data management information in HDD
Lithium battery (BAT1)	For SRAM backup, Life: approx. 10 years

T-2-13

I/F, connector

Main controller PCB 1

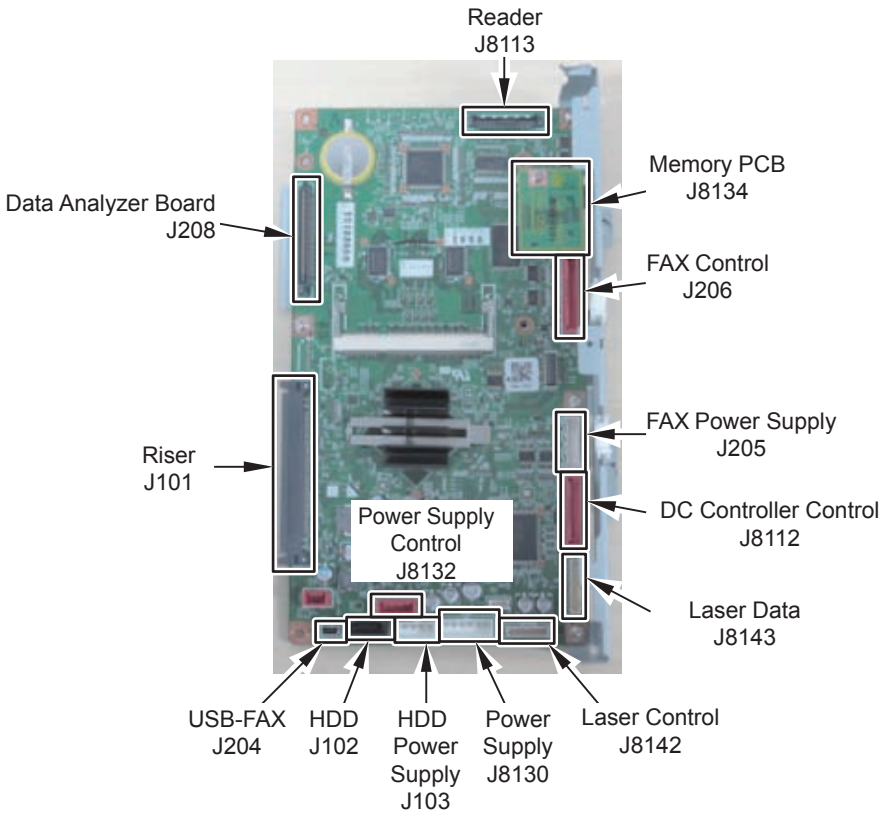


F-2-34

No.	Function, specifications	No.	Function, specifications
J1002	Voice I/F (Op.)	J1020	Flash PCB I/F
J1003	UI:Control panel I/F	J1021	USB I/F (Host) For MEAP, For USB keyboard (Op.)
J1007	Mini-USB I/F Connect USB Device Port-D1(Op.) USB Device Port-D1 is required when using Mobile Connect Kit-A1 (sold separately).	J1022	TPM PCB I/F
J1015	FAN:Fan I/F	J1025	PCI expansion PCB I/F (Op.)
J1017	LAN I/F 1000BASE-T/100BASE-TX/10BASE-T	J1026	CC-VI:I/F for control interface kit (Op.)
J1018	USB I/F (Device)	J1027	Coin:I/F for card reader, I/F for serial interface kit, I/F for coin manager (all Op.)
J1019	Raiser I/F To connect Main Controller PCB 2		

T-2-14

Main controller PCB 2



F-2-35

No.	Function, specifications	No.	Function, specifications
J101	Riser I/F To connect Main Controller PCB 1	J8112	DC Controller Control data I/F
J102	HDD I/F	J8113	Reader I/F
J103	HDD Power Supply I/F	J8130	Power Supply I/F
J204	USB-FAX I/F for 2 to 4-lines FAX Product name: Advanced G3 2nd Line Fax Board-AK1, Advanced G3 3rd/4th Line Fax Board-AE1	J8134	Memory PCB I/F
J205	FAX Power Supply I/F	J8142	Laser Control I/F
J206	FAX I/F 1-line FAX Product name:Super G3 FAX Board-AK1	J8143	Laser Data I/F
J208	Image analysis PCB I/F Product name: Image Data Analyzer Board-A1		

T-2-15

● Function expansion options

Main controller PCB1



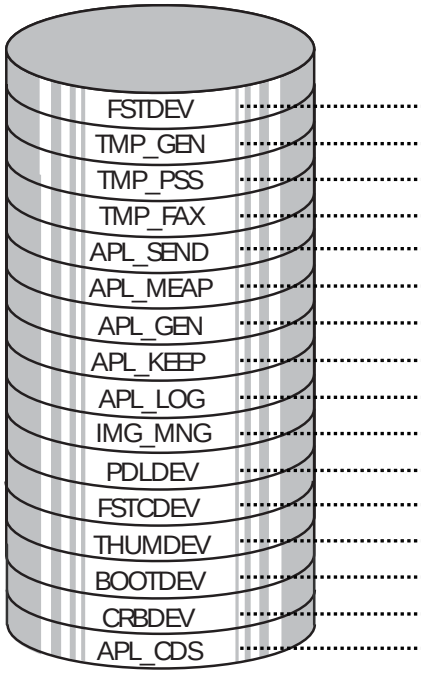
F-2-36

Name	Function, specifications, features
Voice guidance PCB Voice Operation PCB	Product name: Voice Guidance Kit-F2 (only for non-Japanese models),Voice Operation Kit-C2(only for Japanese models)
Expansion Bus PCB	Product name: Expansion Bus -F2 Required when PCI option (Wireless LAN Board-B1) is installed
Wireless LAN PCB	Product name: Wireless LAN Board-B2 Expansion Bus -F2 is required. Only for non-Japanese models.

T-2-16

HDD

The partitions for Advanced Box and the distribution server are added.
User Box area is 23 GB (same as the existing machine) and Advanced Box area is 9.6 GB.
Advanced Box area can be increased by installing the high-capacity HDD option.

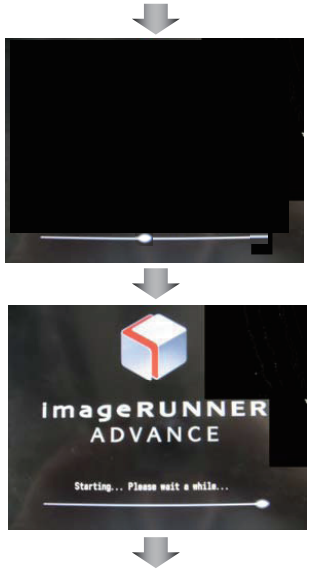


- FSTDEV: Image data (User Box)
- TMP_GEN: Universal data (temporary file)
- TMP_PSS: For PDL spooling
- TMP_FAX: FAX data
- APL_SEND: Address book, filter
- APL_MEAP: MEAP application
- APL_GEN: Universal data
- APL_KEEP: MEAP saving data
- APL_LOG: System log
- IMG_MNG: Text management table
- PDLDEV: PDL-related file (font, registration form, etc.)
- FSTCDEV: Job archiving (chasing)
- THUMDEV: Thumbnail
- BOOTDEV: System software (System, language, RUI, etc.)
- CRBDEV: For Advanced Box
- APL_CDS: For distribution server

F-2-37

Boot/Shutdown sequence

Boot sequence



[ ]: program storage location

- Starting BIOS
  [Main controller PCB 1]
- Starting IPL, OS
  [Flash PCB]
- Starting system software for main/sub CPU
  [HDD -> DDR2-SDRAM]
- Starting application

Standby screen display

F-2-38

NOTE:
Due to the high speed startup, the progress bar and the activating PCB are not synchronized.
For this reason, the progress bar cannot be utilized for troubleshooting.
See the following error code list for the troubleshooting.

Related error codes (major error codes):

Error code	Detail Code	Description	Remedy
E602		Hard disk error	
	0001	HDD detection error. Unable to detect HDD, not become Ready, return an error.	1. Connection of the HDD cable. 2. Reinstall the system. 3. HDD. 4. Main Controller PCB.
	0002	There is no startup file. There is no program for main CPU in /BOOTDEV/BOOT/ on HDD.	1. Reinstall the system. 2. HDD.
	0006	There is no SubBootable for the PDL type in / BOOTDEV/BOOT.	1. Reinstall the system. 2. HDD.
	4000	Unable to install OS.	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
	4001	No OS startup script.	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
E604		Insufficient memory	
	0000	Insufficient memory (require 1024 MB).	DDR2-SDRAM

T-2-17

NOTE:
When the following errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
E602-0001, 0002, 0006, 4000, 4001

Shutdown sequence

Before turning OFF the main power switch, it is necessary to perform HDD completion processing (to preventdamage on the HDD), cooling of the internal printer (to prevent fixed toner due to high temperature) and exhaust (to prevent smeared image due to chemical reaction of ozone in the machine and photosensitive drum). This sequential processing is called “shutdown sequence” and was executed on the legacy models manually (by holding down the power supply switch on the Control Panel for a specific duration).

When the main power switch is turned OFF on the main body, Main Controller PCB 1 detects this operation and then the shutdown sequence starts/executes automatically.

NOTE:
On the assumption that the shutdown sequence was not completed normally, the host machine is shut down by the Relay PCB in approx. 120 seconds.

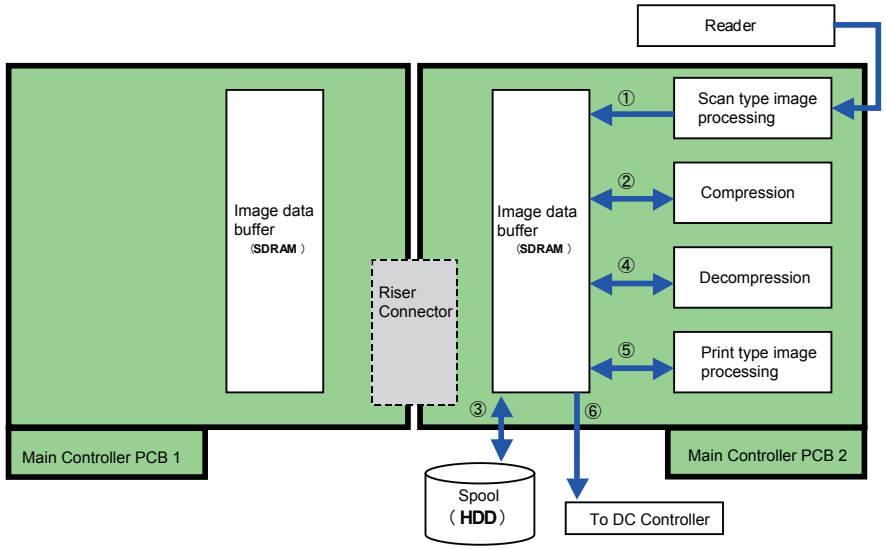
Controls

Flow of Image Data

Following shows major image data flow.

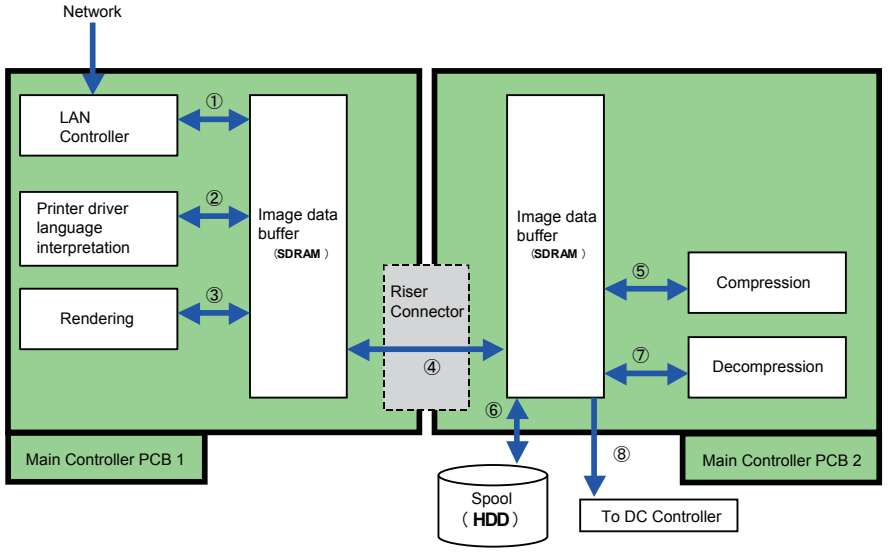
- The arrow mark indicates the flow of image data.
- Numbers (1, 2, etc.) indicate processing order.

Copy



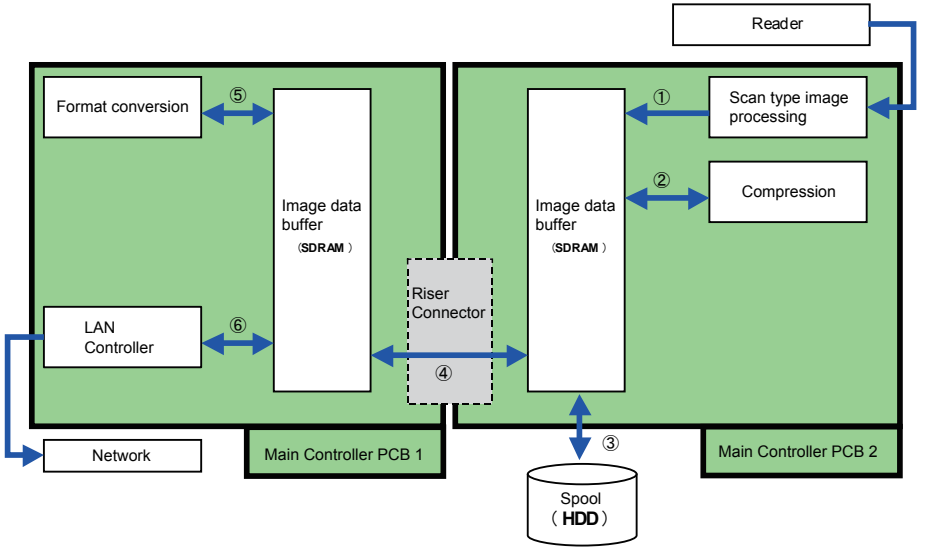
F-2-39

Print



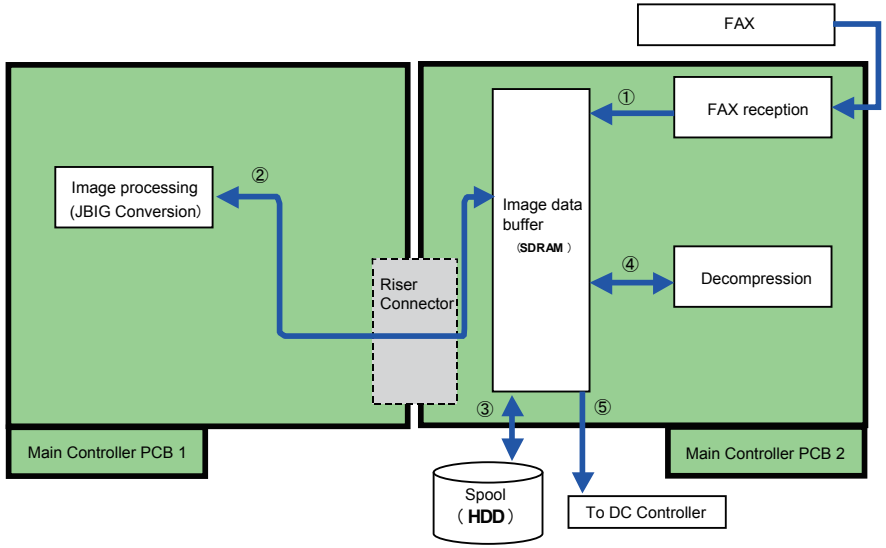
F-2-40

SEND



F-2-41

● FAX

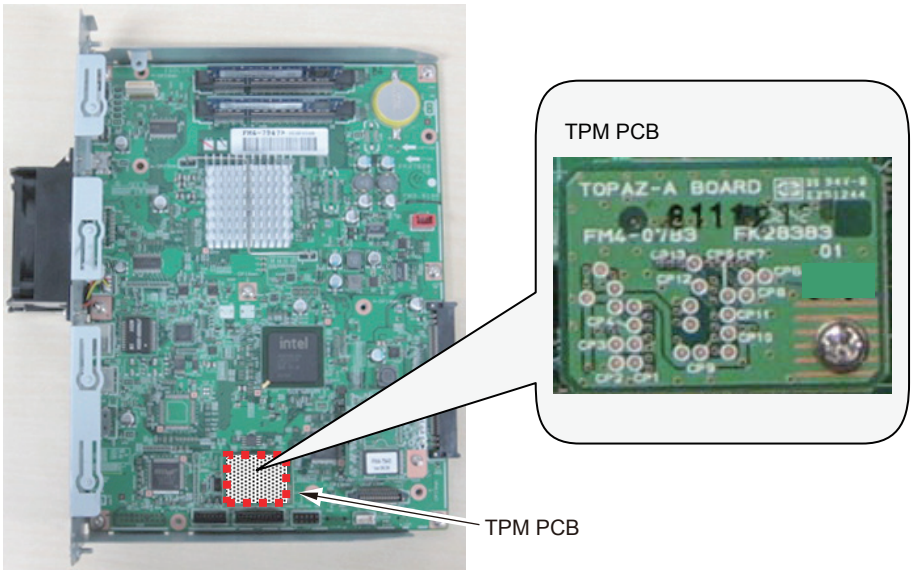


F-2-42

■ Security features (encryption key and certificate, password protection)

● Overview

The Main Controller PCB 1 of the host machine holds a new PCB named “TPM PCB”. TPM stands for “Trusted Platform Module”, which collectively refers to the chip set for generating and storing encryption keys and computing public key encryption.



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The TPM PCB protects security information (passwords, certificates, and encryption keys) stored in the HDD and SRAM. Note that this PCB does not protect set, registered or stored data other than security information.

The TPM key embedded in the chip is used to encrypt / decrypt security information. The TPM key is protected from illegal access in a virtually perfect manner, thus the security information of the host machine is securely protected even in the following conditions.

- When the HDD and / or the main controller PCB is taken out from the host machine and installed in the MFP with the different serial number (the model information held in the TPM PCB is specific to the machine originally enabled the TPM setting)
- When the system of the host machine is hacked via the network

Enable this function in Setting/Registration mode.

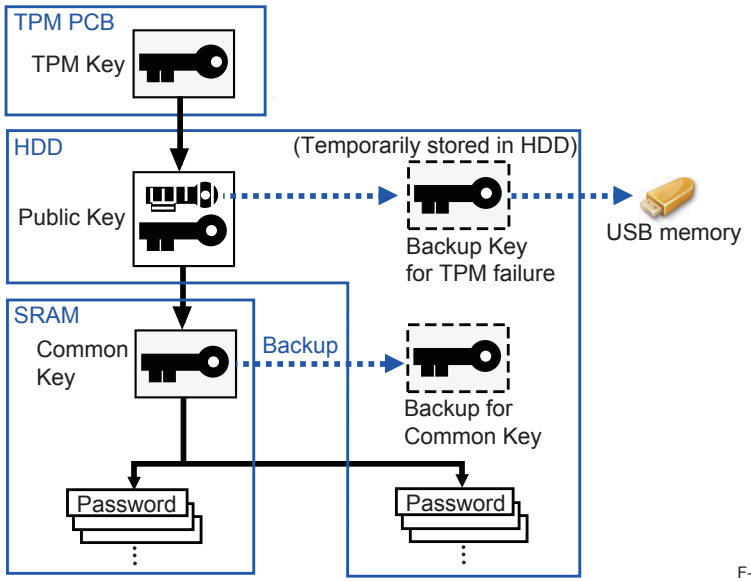
Management Settings > Data Management > TPM Settings -> ON (OFF by default)

Configuration of Security Information

The security functionality behaves differently depending on the TPM settings.

When the TPM setting is ON, the TPM key is enabled to secure information with the three keys. Therefore, the security information held in each machine is safely protected.
The security information can be accessed by the three keys and multiple passwords stored in the SRAM and HDD. Each data is stored in the specified location (enclosed with blue dots in the figure below). Since the data in the upper layer are linked to those in the lower layer, security information is activated only when data in all the layers are linked.
For the backup purpose, the backup key is temporarily stored also in the HDD to be prepared for a TPM failure (only for the initial failure after the TPM setting is ON). This key can be backed up using the USB memory. Once backed up, the backup key is deleted from the HDD.
The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the Main Controller PCB 2 (SRAM) is replaced or after MN-CON clear. However, the common key stored in the HDD automatically restores that in the SRAM so that the security information is decodable even after servicing. Note that the security information is not decodable correctly in case the HDD is failed or formatted because the public key information stored in the HDD is cleared. If this occurs, execute “Initialize All Data / Settings” in user mode to set the TPM setting to OFF. This will maintain the password information in the SRAM even after the password information is initialized.

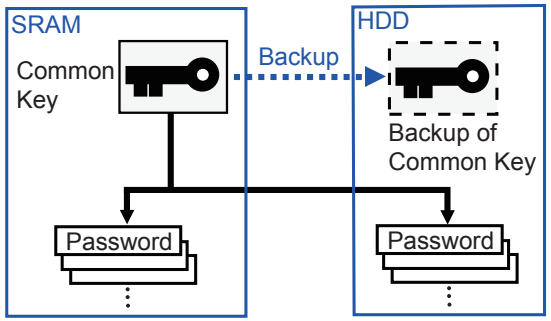
- When the TPM setting is ON



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When the TPM setting is OFF, the TPM key is disabled. Thus, the security information is protected only by the common key.
The security information held in this machine is protected at the level equivalent to the conventional machines.
The security functionality in this setting is configured by the common key and multiple passwords stored in the SRAM and HDD.
The common key information is stored in the HDD as well as the SRAM. The common key stored in the SRAM is cleared when the Main Controller PCB 2 (SRAM) is replaced or after MN-CON clear. Since the common key stored in the HDD will automatically restore the common key in the SRAM, the security information is decodable correctly even after servicing. Unlike the case that the TPM setting is set to ON, the password information stored in the HDD is initialized when the HDD is replaced or formatted. However, the password information is maintained in the SRAM.

- When the TPM setting is OFF:



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TPM Setting for Security Information

The security information can be protected with or without TPM by switching between TPM settings in Setting / Registration mode.

- When the TPM setting is ON
  The security functionality is enabled in 4 levels (TPM key, public key, common key and password).
- When the TPM setting is OFF
  The security functionality is enabled in 2 levels (common key and password).

Preparation before Installing TPM

Before installing TPM, ask the user to back up data.

Follow the steps below to back up data.

1) From Remote UI, execute Settings/Registration> Management Settings> Data Management> Import/Export.
   The following data types should be backed up.
   - Address book [*1]
   - Device settings (transfer settings, address book, frequently-used Send functions) [*2]
   - Settings/Registration
   - Printer settings can be exported
   - Favorites stored in the web browser (only when the web browser is enabled) [*3]

   *1 Each of address books can be exported. If the address book is seen as a part of device settings, this step can be disregarded.
   *2 Among settings in the main menu, only “Frequently-used Setting” under “Scan and Send” can be backed up.
   *3 These are available only in the specific models or configurations.

2) Select “Export” from Custom Menu of the Remote UI to back up “Custom Menu Setting Information”.

3) Log in to the system as Administrator from User Management of Advanced Box on Remote UI. Then, execute “Export” to back up “User Information of Advanced Box”.

Works before / after introduction

The works above are basically done by users.

Execute the following in Setting / Registration mode (“TPM setting” is OFF by default).

1. Enable the feature
2. Backup the TPM key
3. Restore the TPM key
4. Disable the feature

CAUTION:

When the TPM setting is set to “ON”, advice users on the following:

- Back up the TPM key swiftly after the setting is ON
- Keep the password used at backup securely
- Never lose the USB flash drive with the backup TPM key file saved

The TPM key should be restored after the TPM PCB is replaced due to failures or the like. (TPM key restoration is enabled only at TPM PCB replacement.)

Unless the key is restored, the security information (passwords, encryption key, and certificates) cannot be used.

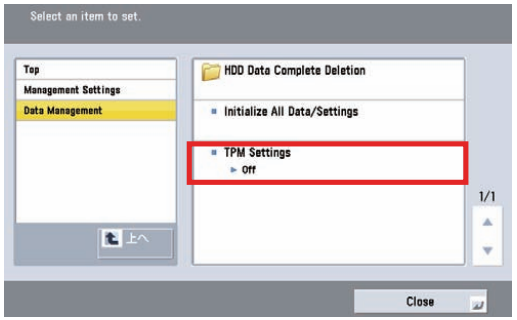
When the key restoration is failed due to the USB flash drive lost or others, “Initialize All Data / Settings” should be executed to reactivate TPM functionality. The security may be undermined if the old Setting / Registration data are maintained as it is.

1. Enable Functionality

CAUTION: Setup of “System Management PIN”

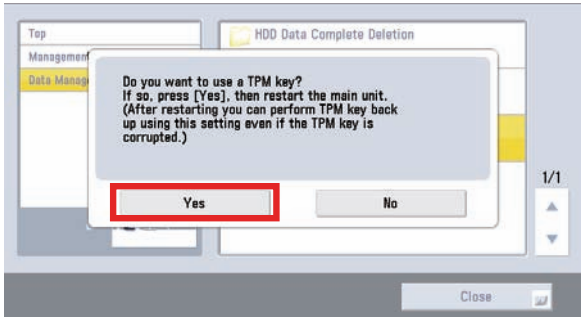
It is recommended for users (administrators) to set the system management PIN before installing TPM. The TPM key is backed up after the TPM setting is set to “ON”. However, the key backup is permitted only once. Unless the key is properly backed up, users other than administrators may illegally obtain the backup file. To avoid such risks effectively, the system management PIN should be set.

1) Set Management Settings> Data Management> TPM Settings to ON.



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2) Click [Yes], and restart the machine.



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This setting is enabled after the machine is restarted.

2.TPM Key Backup

The TPM key backup file can be stored only in USB memory (supported file system: FAT32).

Note that this file requires the memory free space of several MBs.



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1) Insert the USB memory to the machine.

The USB I/F (host) is found at the side of the Control Panel as well as the Main Controller PCB 1.

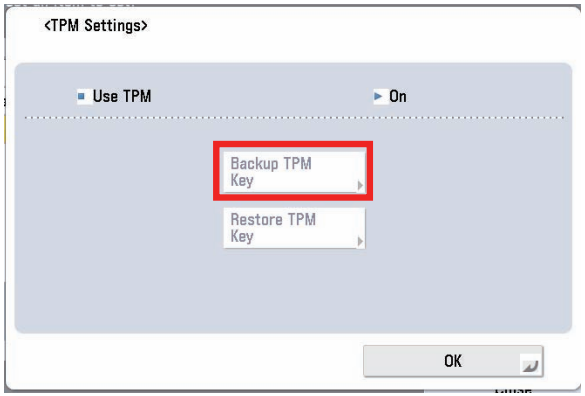
CAUTION:

Ensure to insert only one USB memory.

If the backup job is started with 2 or more USB memories connected, the message is shown to notify that the backup is failed.

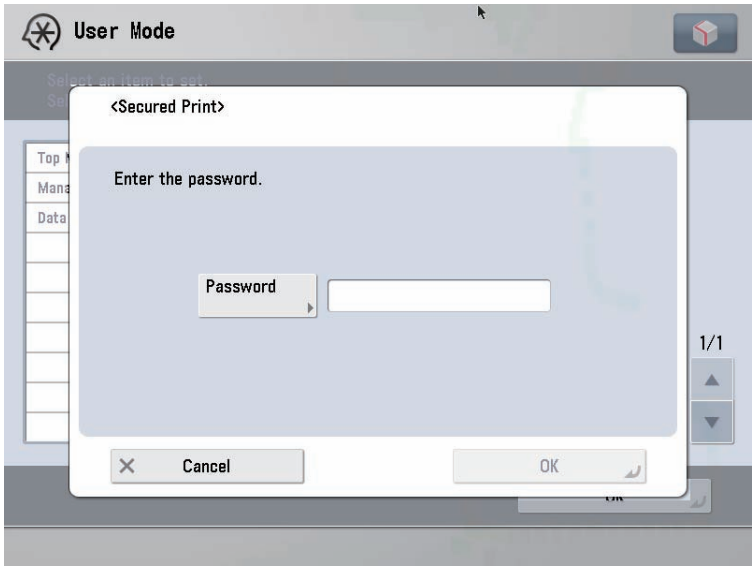
NOTE:
The USB memory holds the TPM key backup files by serial number. Thus, backup files for multiple machines can be saved in a USB memory.

2) Click [Backup TPM Key] in Management Settings> Data Management> TPM Settings.



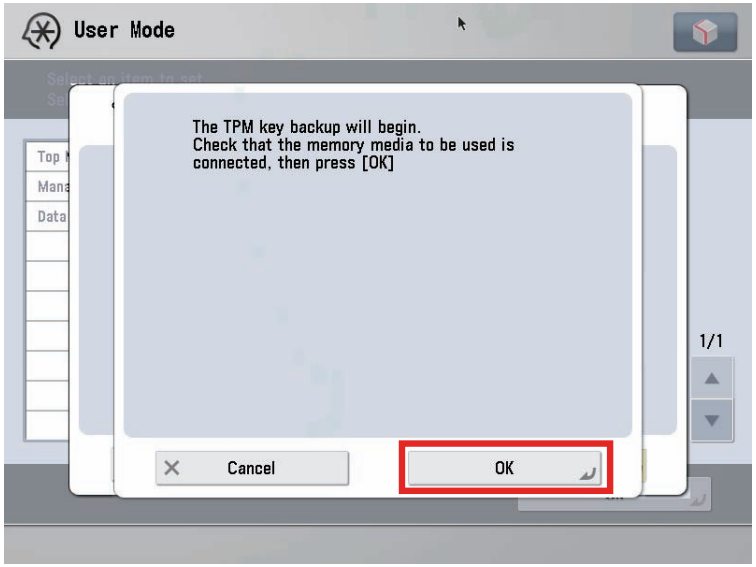
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3) Click [Password] to enter the password (4-12 digits). Then, enter the password for confirmation.



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4) Click [OK] to initiate TPM key backup.



F-2-51

5) Click [OK] on Backup Completion Screen and remove the USB memory.

CAUTION: The following may cause failures in backup.

If any of the following is detected, the backup process is aborted and the message and the cause for the failure are shown on the screen.

Take an appropriate measure to recover this.

- The USB memory is not inserted to the machine
- 2 or more USB memories are inserted to the machine
- The USB memory has insufficient free memory space
- The USB memory is write-protected
- No key is found

CAUTION: The USB memory should be securely stored.

Give advice users on the following points.

- The USB memory should be securely stored
- Once the TPM key backup file is saved in the USB memory, never save the backup file on a server or the like accessible to unanimous users.

NOTE: Name of TPM key backup file
The serial number for the machine is automatically assigned as the backup file name.

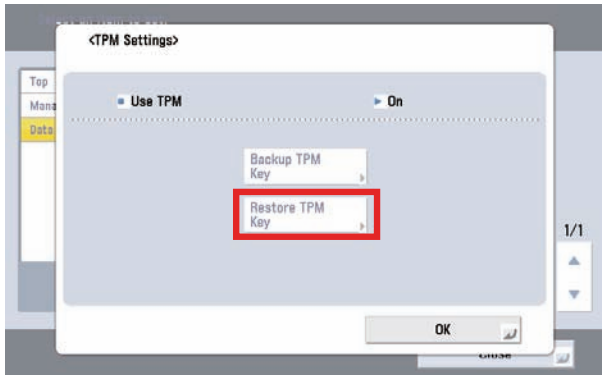
3. Restore of TPM key

Procedure is about the same as the backup work.

Difference between restore work and backup work:

Rebooting is necessary (turn OFF and then ON the main power) after completion of restore work.

1) Connect the USB memory that saves TPM key.
2) Select the following: Management settings> Data management> TPM settings; and click [Restore TPM key].



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3) Enter the password set in the backup process.
4) Click [OK] on Start Restoration Screen. The restoration process is started.
5) Click [OK] on Restoration Completion Screen. Remove the USB flash drive and turn OFF/ ON the main power.

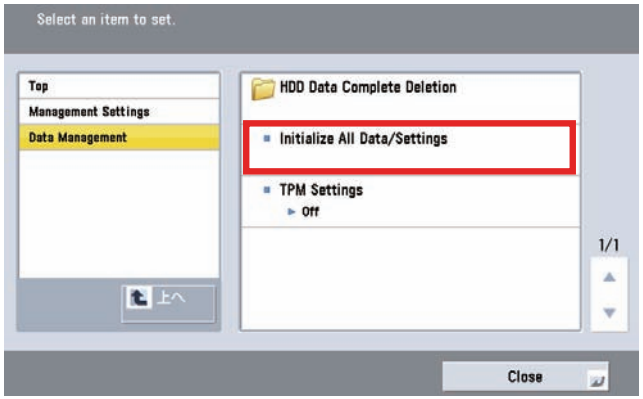
CAUTION: The following may cause failures in restoration.

If any of the following is detected, the restoration process is aborted and the message and the cause for the failure are shown on the screen. Take an appropriate measure for recovery.

- The USB memory is not inserted to the machine
- 2 or more USB flash memories are inserted to the machine
- The USB memory is security-protected
- No TPM key is saved in the USB memory
- The TPM key saved in the USB memory is not for the machine
- The wrong password is entered
- After the TPM key was backed up, [Initialize All Systems/ Settings] was executed
- SRAM (the Main Controller PCB 1) or HDD is crashed

4. Disable the feature

To set OFF for the TPM setting, execute [Initialize All Data/Settings].



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CAUTION: Points to caution when disabling functionality

To disable the use of TPM, all data and settings should be initialized. If this is executed, user information saved in the HDD/ SRAM is totally cleared. Ensure to back up the data before disabling TPM settings.

List of data to be cleared

- Data saved in BOX/ Advanced Box
- Data saved in Inbox (Fax Box/ System Box)
- Destination data registered in Address Book
- Read mode registered using Send function
- Mode memory registered using Copy/ Box function
- MEAP applications and their license files
- Data saved using MEAP applications
- Password for MEAP SMS (Service Management Service)
  (The password is returned to default if any change is made.)
- User authentication information registered by local device authentication via SSO-H (Single Sign-On H)
- Unsent documents (documents for scheduled transmission and reserved transmission)
- Job logs
- Contents set in Settings/Registration
- Image-composite registration form
- Registered transfer settings
- Key pair and server certificate registered in Management Setting (Settings/Registration)> Device Management> Certificate Settings

Steps of data restoration after recovery

The restoration process triggers Settings/Registration> Management Setting> Data Management> Import/Export.

The data listed below cannot be restored, thus should be set again.

- Environment Settings
  - Paper settings
  - Display settings in the destination to save
  - Time fine-adjustment for timer/ power settings
  - Date/ time settings (excluding time zone and daylight-saving settings)
  - User settings for SNMPv3
  - Context settings
  - Firewall settings (excluding MAC address filter)
- Adjustment/Maintenance
- Function Settings
  - Image-composite form for the common print operation
  - Printer settings
  - Transfer settings for the common receipt/ transfer settings
  - Inbox settings
  - Frequently-used Copy settings
  - Registered short-cuts in “Other Functions”
  - Frequently-used Send settings
  - Frequently-used settings for saving/ using files
- Address Settings
  - Address Book
- Management Settings
  - Sheet counts in Department ID Management
  - Settings for device information distribution
  - Certificate settings
  - License registration
  - Remote operation settings
  - Box backup/ restoration
  - TPM Settings

Overview of Actions taken against Troubles

Location with failure	TPM Setting: ON	TPM Setting: OFF	Relevant Error Code
TPM PCB	1. Check the TPM PCB connection 2. Replace the TPM PCBs 3. Turn OFF/ ON the power 4. See the section of “Restoring TPM Key” to restore the TPM key. 5. Turn OFF/ ON the main power for recovery	N/A (TPM PCB is not in use when the TPM setting is set to OFF.)	Initially E746-0031 error is shown on the screen. When the power is turned OFF/ON after the TPM PCB is replaced, E746-0032 error is shown (only when the TPM setting is set to ON).
HDD	1. Replace the HDDs. 2. Format the HDD. 3. Download the system software. 4. See the section of “Disabling Functionality” to execute “Initialize All Data/ Settings”. 5. Turn OFF/ON the power. The TPM setting is automatically set to OFF. 6. Set the TPM setting to ON (the public key and the common key are automatically set).	1. Replace the HDDs. 2. Format the HDD. 3. Download the system software. 4. Restore the password information stored in the HDD.	Initially E602-xxxx error is shown (the different extension is shown depends on cases). After the system software is reinstalled, E746-0033 error is shown.
Main Controller PCB 2 (SRAM)	1. Replace the main controller PCB 2. The common key backed up in the HDD will be automatically restored in the SRAM. 2. The TPM setting on the control panel is reset to OFF. Manually set the TPM setting to ON (the machine is operated in the TPM setting ON). 3. Restore the password information stored in the SRAM *.	1. Replace the main controller PCB 2. The common key backed up in the HDD will be automatically restored in the SRAM. 2. Restore the password information stored in the SRAM *.	E747-xxxx error (the different extension is shown depends on cases).

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* If “No” is indicated in the field of Backup Column in the table of “Security Information Storage Location”, the relevant information should be set manually again.

Related Error Code

Error Code	Detail Code	Description	Remedy
E746		Error in encryption	
	0031	Hardware error (TPM) The TPM PCB is not installed, the TPM PCB for other model is installed, or failure of TPM Chip.	Install a TPM PCB for this machine. Replace the TPM PCB with a new one.
	0032	Error occurs, but system recovery is possible (TPM) Mismatch of key.	Execute restoration of the TPM key.
	0033	Error which the system recovery is not possible occurs (TPM) Location of security information in HDD/SRAM is unknown.	Execute "Initialize All Data/ Settings".
	0034	Error occurs, but auto recovery of system is possible (TPM) Mismatch of key occurs. However, recovery by restart is possible.	Turn OFF and then ON the power.

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Security Information Storage Location

Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	BOX	BOX Password	Yes
HDD	Password/ PIN	BOX	Password for Fax BOX	Yes
HDD	Password/ PIN	SEND	Password for a file destination of Address Book	Yes
HDD	Password/ PIN	MEAP	Authentication information registered by local device authentication via SSO-H	Yes
HDD	Certificate/ Secret Key	SSL,AMS	Device key pair (SSL, AMS)	No
HDD	Certificate/ Secret Key	Signature SEND	User key pair	No
HDD	Others	User setting information	Key information linked to user (password)	No
SRAM	Password/ PIN	BOX	Password for encryption at BOX backup	No
SRAM	Password/ PIN	BOX	Password for SMS server at BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for Advanced BOX backup	No
SRAM	Password/ PIN	Advanced BOX	Password for SMS server at Advanced BOX backup	No
SRAM	Password/ PIN	SEND	Password for LDAP server	Yes

Storage Location	Data Type	Function	Name of Data	Backup Availability
SRAM	Password/ PIN	SEND	Password for POP3 server	Yes
SRAM	Password/ PIN	SEND	Password for time-stamped PDF	Yes
SRAM	Password/ PIN	SEND	Password for Adobe ES Rights Management Server	Yes
SRAM	Password/ PIN	SEND	PIN for destination list (in destination setting)	Yes
SRAM	Password/ PIN	UI	Password for service mode	No
SRAM	Password/ PIN	Network	Password for IPP authentication	Yes
SRAM	Password/ PIN	Network	Password for FTP authentication	Yes
SRAM	Password/ PIN	Network	User name and password for client in Proxy authentication	Yes
SRAM	Password/ PIN	Network	Login password for Netware print server	Yes
SRAM	Password/ PIN	Network	Policy common key for IPSec	Yes
SRAM	Password/ PIN	Network	User name and password for PEAP/TTLS authentication	Yes
SRAM	Password/ PIN	Others	Password for FAX receipt	Yes
SRAM	Password/ PIN	Others	Department management data (including System Manager password)	Yes
SRAM	Encryption key	MIB	Authentication and encryption keys for SNMPv3	No

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Security Information Storage Location (data managed under the mechanism other than TPM management)

Storage Location	Data Type	Function	Name of Data	Backup Availability
HDD	Password/ PIN	MEAP	SMS login password	No
HDD	Password/ PIN	Advanced BOX	User information in Advanced BOX	Yes

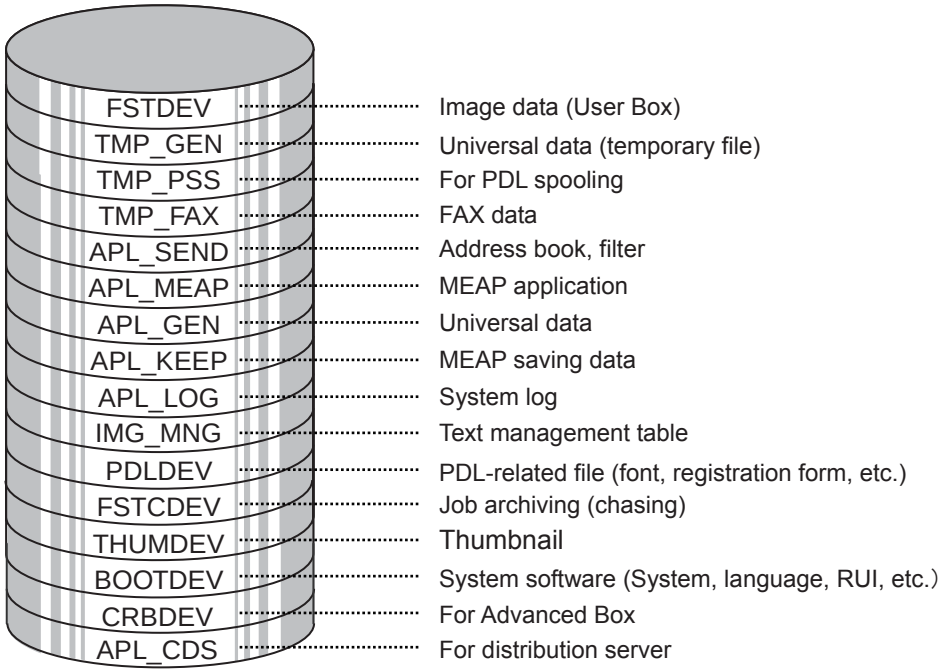
T-2-21

Option HDD

The HDD capacity mounted on this machine is 80 GB as standard. Mounting a 2.5 inch/250 GB HDD-D1 (option) makes 250 GB in HDD capacity.
High capacity is required in the case of saving large amounts of data with “Advanced Box” Mounting this option increases capacity for Advanced Box.

9.6 GB: in the case of 80 GB HDD capacity
112.7 GB *: in the case of 250 GB HDD capacity

* Although simple calculation says: 250 GB - 80 GB = 170 GB, it requires 20 % of snapshot area and the data area to be used for internal processing in the system. Therefore, 112.7 GB can be actually used for text storage area.

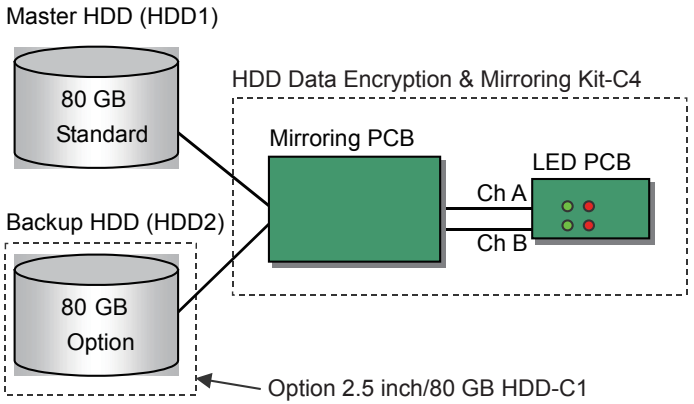


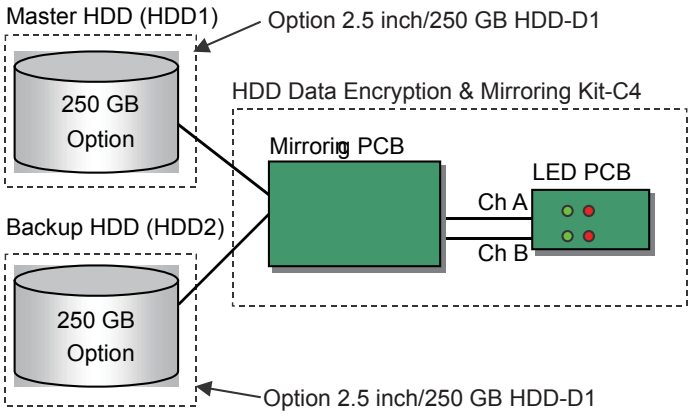
F-2-54

HDD mirroring feature (option)

This option enables mirroring of HDD data (RAID1).
In the case of failure in one HDD, the operation is performed with the other HDD. This feature minimizes downtime as well as improves reliability as the document server.

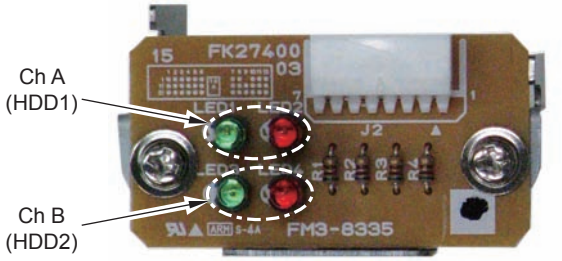
There are 2 types of mirroring configurations according to the HDD capacity (80/250 GB):





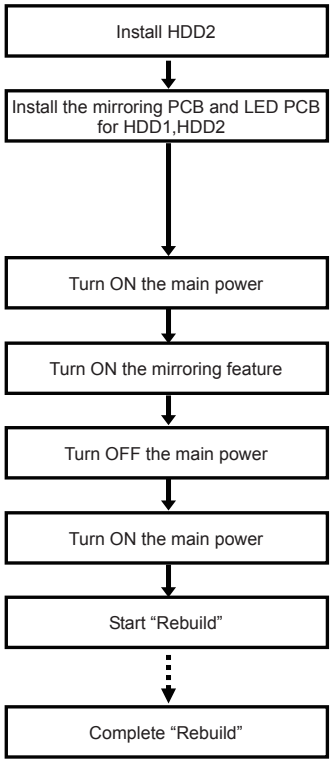
F-2-55

Mirroring PCB controls reading/writing timing of HDD data.
LED PCB makes the LED show operation status of the HDDs.

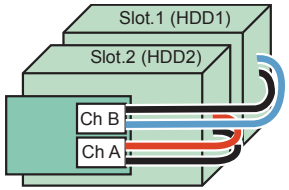


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To start using this feature (installation)



HDD1 is connected to Ch A on the mirroring PCB.
HDD2 is connected to Ch B on the mirroring PCB.



(Lv.1) COPIER> OPTION> FNC-SW> W/RAID -> “1”

The storage data of the 1st HDD is automatically copied to the 2nd HDD (this operation is called “Rebuild”).

Time needed:
80 GB HDD Approx. 20 minutes
250 GB HDD Approx. 60 minutes

F-2-57

“Rebuild” progress is shown in a massage at the status line on the control panel.

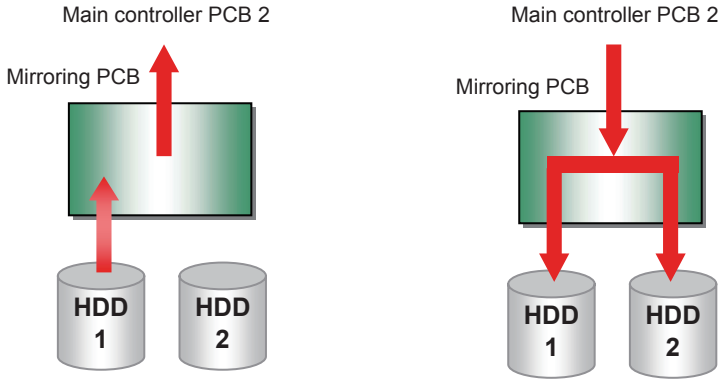
“Copying hard disk data... xx%“

NOTE:
- This machine can be used even during “rebuild” process (operation is performed with HDD1)
- The HDD will not be damaged even if turning OFF the power during “rebuild” process. “Rebuild” is resumed once the power is turned ON the next time. This does not apply in the case of blackout or disconnecting the power code during “rebuild” process

HDD reading/writing operation

At reading:
Data is read by HDD1 (master HDD) only

At writing:
The same data is written to each HDD at the same timing



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The LED (green) on the LED PCB is lighted up/blinking if reading/writing to each HDD is performed properly.
In the case of failure, the LED (red) on the LED PCB is blinking.
If only one HDD is faulty, the operation is continued by the other HDD.
If both two HDDs are faulty, E602 error is shown on the control panel to stop the operation.

List of operation status (LED)

Status	HDD 1 (Ch A)		HDD 2 (Ch B)	
	Green LED	Red LED	Green LED	Red LED
At normal operation	OFF	OFF	OFF	OFF
During access with HDD1	ON	OFF	OFF	OFF
During access with HDD2	OFF	OFF	ON	OFF
HDD1 is faulty	OFF	ON	OFF	OFF
HDD2 is faulty	OFF	OFF	OFF	ON
During data copy to HDD1 (rebuild)	OFF/ON	blinking	OFF/ON	OFF
During data copy to HDD1 (rebuild)	OFF/ON	OFF	OFF/ON	blinking

T-2-22

Description of Modes

The mirroring system of this machine consists of 4 modes. The status flows among the modes below during operation.

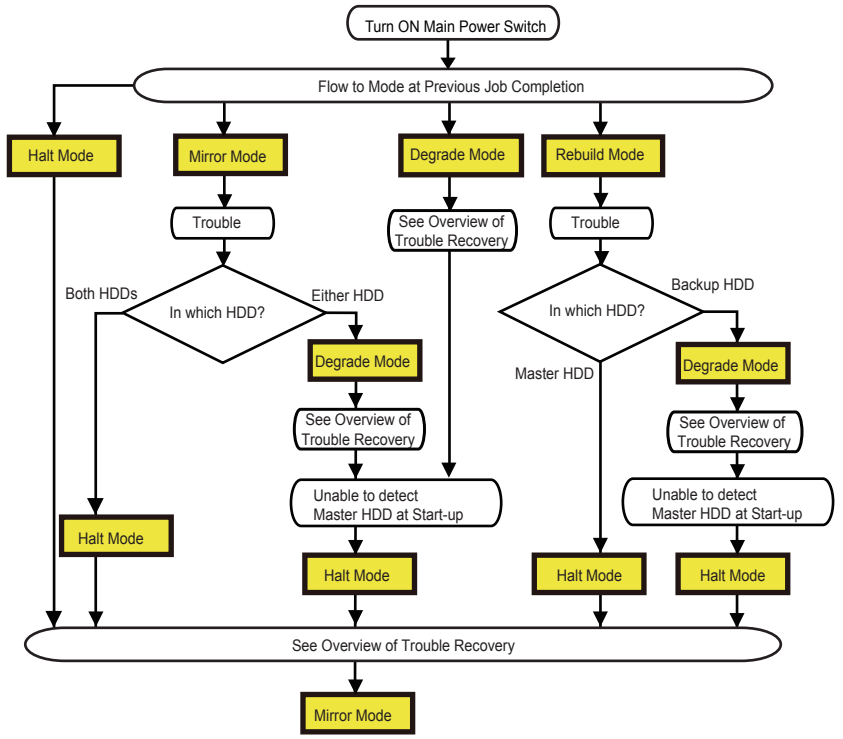
The modes in parentheses show the mirroring system statuses.

Name of Mode	Description	Master HDD Status	Backup HDD Status
Mirror Mode	Both HDDs are normally operated	In normal operation	In normal operation
Degrade Mode	Any trouble occurred in the backup HDD suspends mirroring operation. The machine can be used under this condition, however, the backup HDD should be replaced at the earliest convenience.	In normal operation	With troubles (HDD not installed/ HDD in trouble)
Rebuild mode	The data of the master HDD is copied (rebuilt) to the backup HDD. The machine can be used under this condition.	In normal operation	In recovery from the trouble (Copying data of Master HDD)
Halt mode	Both HDDs are in trouble *	In trouble (HDD not installed/ HDD installed not registered/ HDD disconnected while the Mirroring PCB is in operation)	With troubles (HDD not installed/ HDD installed not registered/ HDD disconnected while the Mirroring PCB is in operation)

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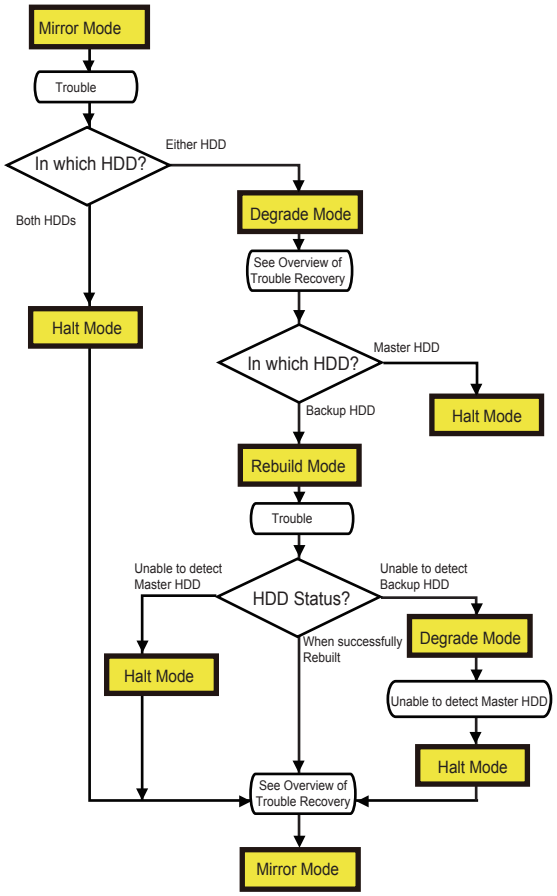
* Turn OFF/ ON the power in this mode, the mode returns to the previous mode.

Mode Flow at Start-up



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Mode Flow during Operation



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Overview of Trouble Recovery

When any trouble occurs in the mirroring system, take the action for recovery appropriate to each mode.

The HDD in trouble can be located by the red LED on the LED PCB.

In case the master HDD cannot be located, turn OFF/ ON the power to check whether the green LED is lit on the LED PCB. The firstly blinked green LED (Ch A/Ch B) in a high speed tells the Master HDD, which is accessed firstly. The green LED not lit on a channel tells the location of Backup HDD.

Mode	Status	Action for Recovery	HDD1 (Ch A) Red LED	HDD2 (Ch B) Red LED
Mirror Mode	Normal (at standby)	Under normal operation	OFF	OFF
Degrade Mode *1	HDD1 in trouble	1. Check the connection between HDD1 and Mirroring PCB or Main Controller PCB 2. 2. When the trouble is not recovered, replace the HDD1.	ON	OFF
	HDD2 in trouble	1. Check the connection between HDD2 and Mirroring PCB or Main Controller PCB 2. 2. When the trouble is not recovered, replace HDD2.	OFF	ON
Rebuild mode	Copying data to HDD1 (Rebuild)	Copying (under Rebuild)	*	OFF
	Copying Data to HDD2 (Rebuild)	Copying (under Rebuild)	OFF	*
Halt mode	Both HDDs in trouble	1. Check Master HDD and Backup HDD *2 2. When the trouble is not recovered, replace the two HDDs (format the replaced HDD and download the system software).	ON	ON

* Blinking at an interval of 0.5 seconds

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*1 This mode shows the message, “Need to replace hard disks (contact your service engineer)”, on the control panel. In addition, “310006” is indicated in CODE field of Alarm Log in service mode (COPIER> DISPLAY> ALARM-2).

*2 Never install the HDD used in the other model. The used HDD holds the ID specific to the firstly-installed machine, thus this machine is unable to recognize it. If done, you need to reinstall the HDD recognized in this machine.

Points to Note in Servicing concerning Mirroring Functionality

- The modes other than Mirror Mode indicate troubles, which require swift recovery.
  The power can be turned OFF even during Rebuild process. However, it is recommended not to turn off the power and wait until the mode flows to Mirror Mode. In addition, HDD removal after power-OFF is guaranteed only in Mirror Mode.

- The mirroring PCB controls Master HDD and Backup HDD. This control is performed based on the HDD serial number and the model serial number instead of slot locations.
  - If HDDs are replaced in a careless manner during servicing in the field, the Master and Backup HDDs may be switched.
  - When the master HDD is in trouble, the mirroring PCB automatically recognizes the backup HDD as the master. Thus, the master and backup HDDs are switched even without changing the slot locations.

  If the Master HDD cannot be located, turn OFF/ ON the power to check on which channel the green LED is lit on the LED PCB. The firstly-blinked LED (Ch A/Ch B) shows the Master HDD, which is accessed firstly after power-on.

- For users who intend to use the removable and mirroring functionality concurrently, instruct them not to change the removable HDD location in advance.
  Change of HDD locations after power-OFF is allowed as specifications only in Mirror Mode. Otherwise, HDD removal or change of location is not guaranteed.

- The following conditions are required to replace HDDs at power-ON.
  - Removable HDD is extended
  - Either HDD is in trouble

  CAUTION:
  Be sure to use a new HDD when replacing the HDD.

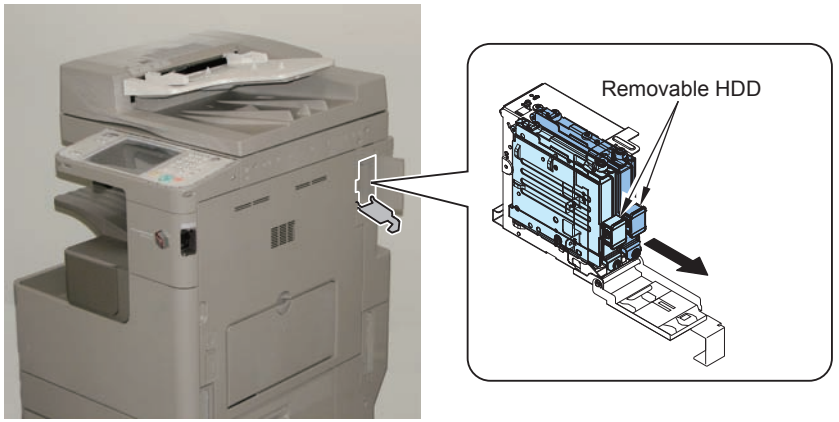
- Upgrading should be done only in Mirror Mode while mirroring in ongoing. Upgrading in Degrade/Rebuild mode is basically prohibited. Always prioritize Mirror Mode when you take any actions.

Removable HDD (option)

With this option, users can easily install or remove the HDD (slot-in/out).
Moreover, the HDD slot opening can be locked.

This option is assumed to be used for: enhancing information security at government/public offices or private

- Remove the HDD at the end of the working hours and keep it in a safe.
- Install the HDD at the beginning of the working hours. Lock it during the working hours.



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NOTE:
- To use this option, no setting is required with the software.
- The user needs to prepare a key because there is no key with this kit.

■ HDD Data Encryption & Mirroring Kit (option)

This option enables to generate the encryption key inside the Encryption PCB and to encrypt the whole HDD including the system software.
Encryption allows leaks of confidential data, even when the HDD is stolen, including image data (temporarily generated at Copy or Print jobs) and user data stored in BOX/ Advanced BOX.
In addition, the data written into the two hard disks are also encrypted when the HDD mirroring functionality is enabled.
The following descriptions focus on the HDD encryption function. See the previous section for the mirroring functionality.

● HDD Encryption Functionality

The HDD of the host machine holds temporary image data including scanned images or PDL data as well as user data in BOX and Advanced BOX. Such images or user file information are saved in the HDD only with system information cleared. Under this condition, the data or images can be restored by accessing directly to the stolen HDD using the access editor and the like.
To counter such threats against securities, data written to the disk should be always encrypted to protect them from illegal restoration of image data or others. This product employs an unconventional approach to achieve HDD encryption and mirroring functionality with the dedicated chipset on a board (Canon MFP Security Chip Version 2.00). Since the two functions are operated in a HDD, the encryption functionality can be independently enabled.

● Data Encryption Mechanism

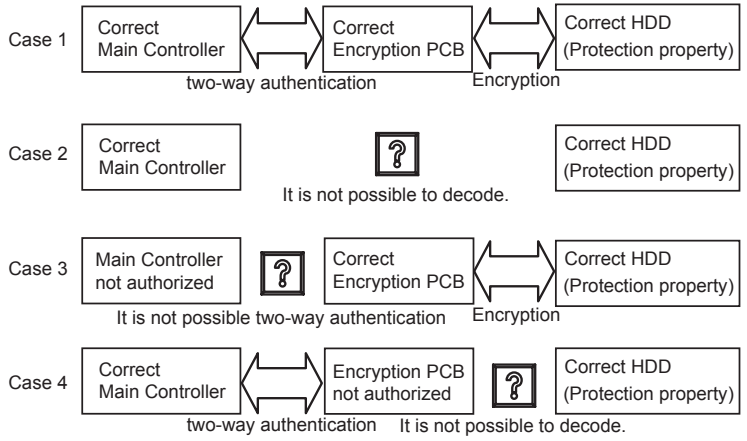
The encryption PCB receives signals transmitted from the Main Controller PCB, and encrypts and saves them in the HDD. The encryption PCB receives the encrypted data saved in the HDD to decode and send them to the Main Controller PCB.
The encryption PCB can be configured with a HDD and an encryption/ mirroring PCB, or with 2 HDDs and an Encryption/Mirroring PCB.

● Conditions for Encryption PCB Operation

The Encryption PCB has the function to recognize and authenticate the host machine. An error is triggered if a second-hand HDD Encryption/Mmirroring PCB is installed to the other machine.

● Compatibility among Device, Encryption PCB and HDD

E602-2000 error may occur if the unmatched authentication information is found between the controller and the HDD Encryption PCB and the Encryption PCB is mounted.
The device, the Encryption PCB and HDD can be connected in 4 use cases.



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Case 1: Normally operated
Case 2: HDD-related error (other than E602-2000) occurs because the system on the HDD cannot be read
Case 3: E602-2000 error is triggered by failure in mutual authentication
Case 4: Unable to decode properly due to unmatched key for the Encryption PCB

● Actions against Troubles – Overview

Servicing	User data	Recovery	Action
HDD replacement	cleared	Replace HDDs	1) Format the HDD 2) Install the system software
Encryption PCB replacement	cleared	Install HDD Data Encryption Kit	1) Replace Encryption PCB 2) Initialize Encryption PCB *1 3) Format the HDD 4) Install the system
Main Controller PCB 2 replacement (SRAM)	cleared	Clear the key for HDD Data Encryption kit and install HDD Data Encryption Kit	1) Initialize the Encryption PCB *1 2) Format the HDD 3) Install the system
Main Controller PCB 1 replacement	not cleared	N/A	N/A
Main Controller clear (COPIER> FUNCTION> MN-CON)	Information held in SRAM cleared	After MN-CON clear process is done	MN-CON clear does not clear authentication information; no work is required specifically for HDD Encryption kit

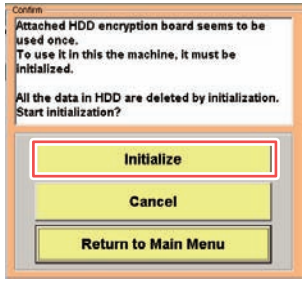
T-2-25

* How to Initialize Encryption PCB

1) Initialize the Encryption PCB via SST.
   This step makes the disk unformatted (E602-0001 error is triggered if the unformatted disk is started).
2) Format the HDD and reinstall SYSTEM via SST.
   When you start the HDD formatting, the message is shown to confirm whether to initialize the Encryption PCB (Key Clear).
   Key Clear will disable accesses to HDD data permanently. Cautions should be taken in Key Clear execution.

Points to Note in Initialization via SST

The screen below is shown when you gain access to SST in safe mode due to E602-2000 error. Poor PCB connection also causes this error. Check the board connection to seek error recovery. Initialization of the Encryption PCB will disable accesses to HDD data permanently. Cautions should be taken in initialization.

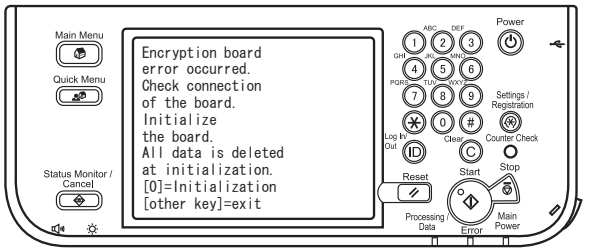


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Points to Note in Initialization using USB memory

The message below is shown on the control panel when E602-2000 error occurred and the machine is started in safe mode using the USB memory with system data stored.

Select [0] when you are ready to initialize the Encryption PCB.

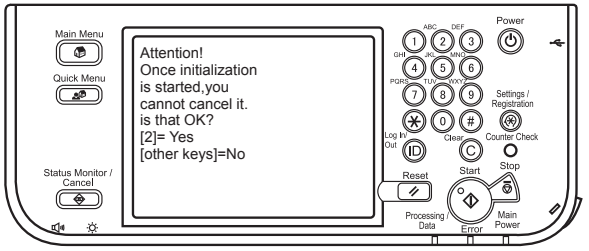


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The message below shows the final screen in initializing the Encryption PCB.

Select [2] when you initialize the Encryption PCB.

We recommend checking the PCB connection before starting initialization



F-2-65

● Relevant Error Codes

E602 and detailed codes

Error code	Detail Code	Description	Remedy
E602	2000	Authentication error between Host Machine and Encryption PCB.	1. Connection error between the Encryption PCB and the Main Controller PCB (turn OFF and then ON the power). 2. Execute the key clear of the Encryption PCB using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation).
	2001	Although the Host Machine does not have the authentication information of the Encryption PCB, the authenticated Encryption PCB is installed.	Although the Host Machine does not have the authentication information of the Encryption PCB, the authenticated Encryption PCB is installed.
	2002	Failure of Encryption PCB, others.	1. Connection error between the Encryption PCB and the Main Controller PCB (turn Off and then ON the power). 2. Execute the key clear of the Encryption PCB using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation). 3. After replacing the Encryption PCB, execute HDD format and system reinstallation using SST. 4. Main Controller PCB.

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E610 and detailed codes

Error code	Detail Code	Description	Remedy
E610		Failure of the HDD encryption key (hardware configuration error/initialization error/ encryption key error/encryption processing error)	
	0001	The Encryption Board does not exist.	Check the hardware configuration.
	0002	Not meeting the memory configuration to execute encryption operation.	
	0101	Failed to initialize the memory of key storage area.	Turn OFF and then ON the power.
	0102	Failed to initialize the encryption processing part.	
	0201	Error in the encryption processing part.	
	0202	Error in the encryption processing part.	
	0301	Failed to create the encryption key.	
	0302	Failure of the encryption key is detected.	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
	0303		
	0401	Error is detected during encryption.	Turn OFF and then ON the power.
	0402	Error is detected during decryption.	
	0501	Error in document management information on / FSTDEV.	

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Service Operations

HDD

<Procedure of parts replacement>

HDD 4-40

<Procedure of adjustment>

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Management Settings > Data Management > Back Up/Restore

Target data:

	User	Service
Address Lists	Remote UI Import/Export	None
Settings/Registration > Paper Type Management Settings	Remote UI Import/Export	None
Quick Menu Settings	Remote UI Import/Export	SST (Meapback)
Default setting	None	SST (Meapback)
Other Register Options Shortcuts	None	SST (Meapback)
History of the setting	None	SST (Meapback)
Quick Menu Settings	Remote UI Import/Export	SST (Meapback)
Certificate Settings	None	None
Mail Box Settings *1	Remote UI Back Up/Restore Settings	SST (SramImg)
Advanced Box Settings	Remote UI Back Up/Restore Settings	SST (SramImg)
Printer Settings	Remote UI Back Up/Restore Settings	SST (SramImg)
Web Access Favorites	Remote UI Import/Export	None
MEAP Settings	SMS	SST (Meapback)
Document of non-transmission	None	None
Settings/Registration : Management Settings : Device Management > Display Log	None	None
Settings/Registration : Management Settings : Device Management > Key and Certificate Settings	None	None
PS font	None	None
Key information to TPM to use for coding	Settings/Registration Administrator Management Settings TPM Settings	SST (SramImg)

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Box settings *1.

There is the following in Box settings.

- User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)
- Image data of User Box, Confidential Fax Box, and System Box Image Data
- Image forms stored in the Form Composition mode

2) Printing the set/registered data

Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

2. After Replacing

1) HDD format

1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)

1-2) Use SST to format all partitions.

2) Downloading system software

2-1) Use SST to download the system software (System, LANG, RUI and others).

3) Initializing the key, certificate and CA certificate

(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY

4) Turning OFF and ON the main power switch

5) Restoring the backup data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Management Settings > Data Management > Back Up/Restore

6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

7) When the user generates and adds the encryption key, certificate and/or CA ertificate, request the user to generate them again.

8) Executing “Auto Adjust Gradation (Full Adjust)”

Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabledafter the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

1) Go to COPIER > FUNCTION> INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press “OK” button.(e.g.: If No.1 to No.1000 cards are used for Department ID, enter “1” of the leading card.)
2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.
   In Management Settings > User Management > Department ID Management > Page Totals, be sure that “ID00000001” to “ID00001000” are created.
   Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings> IP Address Settings > IP Address, Gateway Address, Subnet Mask
   In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.
   If “System Manager ID” and “System PIN” are not registered, “card registration to device” cannot be executed for the imageWARE Accounting Manager setting operation.
3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.
5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION:Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

■ Main Controller PCB 1

<Procedure of parts replacement>

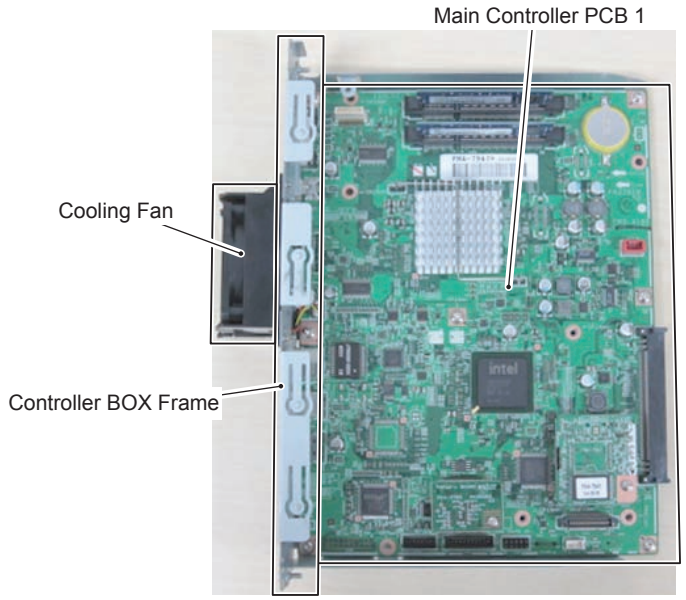
Main Controller PCB 1 4-35

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).

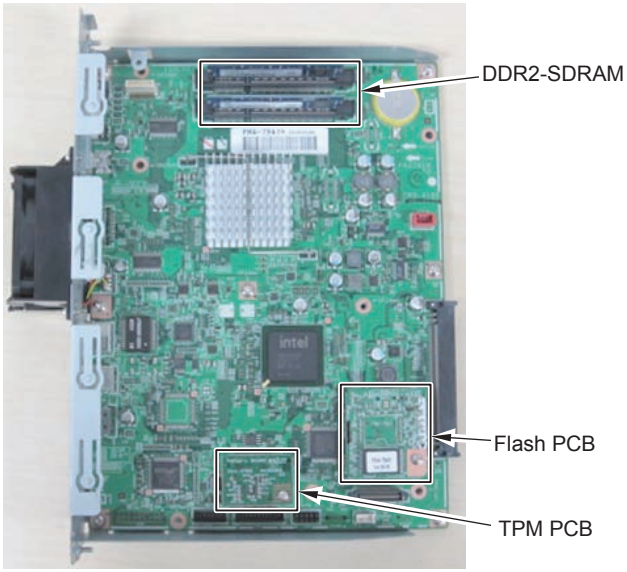


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In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB

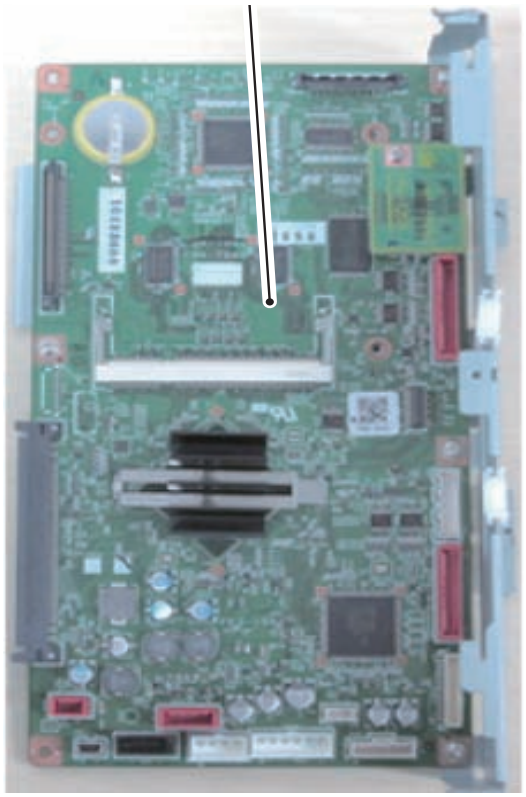
- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-2-67

NOTE:
Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

Main Controller PCB 2



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■ Main Controller PCB 2

<Procedure of parts replacement>

Main Controller PCB 2 4-36

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame

1. Before Replacing

HDD can evacuate in SRAM of Main Controller PCB 2 with a service mode.
Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK[5] BACKUP
But You cannot use this function when there is HDD Encryption Board.
When there is HDD Encryption Board, like before, I back it up in the following procedures.

a) Back up contents of the SRAM by SST; and re-after board exchange; store it.
Refer to "SRAM backup method when there is HDD Encryption Board".
b) Back up contents of the SRAM by USB memory; and re-after board exchange; store it.
Refer to "Backup SRAM of Main controller 2 by USB memory".
c) Like before, You back it up in a procedure as follows.

Perform the following operations. Be sure to get an approval from the user beforehand.
1) Backup of the set/registered data
Use the Remote UI.
Management Settings > Data Management > Import/Export
Target data:

	User	Service
Forwarding Settings	Remote UI (Import/Export)	SST(SramImg)
Settings/Registration(Except Paper Type Management Settings)	Remote UI (Import/Export)	SST(SramImg)
Mail Box Memory RX Inbox Confidential Fax Inbox	Remote UI (Back Up/Restore Settings)	SST(SramImg)
Form for Superimpose Image	Remote UI (Back Up/Restore Settings)	SST(SramImg)
Auto Adjust Gradation	Enforcement of Auto Adjust Gradation	SST(SramImg)
Key information to TPM to use for coding	Settings/Registration Administrator Management Settings TPM Settings	SST(SramImg)
Service mode MN-CON Settings	None	SST(SramImg)

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Note:
Back Up/Restore of the SRAM at the time of replacement of the Main Controller 2 is available provided that the HDD is not replaced.

2) Printing the set/registered data Use the service mode.
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT
List of the set/registered data which cannot be backed up is printed.

SRAM backup method when there is HDD Encryption Board

When the HDD Encryption Board is installed while the version of SST is Ver. 4.41 or later, you do not need to format the HDD or install the system even if you replace Main Controller PCB 2 as long as you can restore the SRAM image.
Procedure:
SST Ver.4.41or later, obey Steps to Upload Data; Single > Upload Data > SramImg.bin > Save

When the HDD Encryption Board is installed:
Data in the HDD is encrypted when the HDD Encryption Board is installed.
For Main Controller PCB 2 to access to data in the HDD, the file description of the Encryption key on the HDD Encryption Board needs to be the same as that of SRAM on Main Controller PCB 2; otherwise, Main Controller PCB 2 cannot access to the data in the HDD and this causes failure in startup of the machine.

When the following parts are replaced, the procedure is as follows:
- Replacement of the HDD Encryption Board
  > Inconsistent description of encryption key file between Main Controller PCB 2 and SRAM on the HDD Encryption Board.
- Replacement of Main Controller PCB 2
  > Inconsistent description of encryption key file between Main Controller PCB 2 and SRAM on the HDD Encryption Board.
- Replacement with a new HDD
  > Select the following because there is no system data in the HDD: Format ALL > Download the system software

With SST Ver. 4.31 or before, it was necessary to format the HDD (Format ALL), and then install the system in any case.
With SST Ver.4.41 or later, if the description of SRAM (SramImg.bin) on Main Controller PCB 2 is kept in the PC, you can restore SramImg.bin on Main Controller PCB 2 by using SST after holding down 2 and 8 to start the machine.
When the description of SRAM on Main Controller PCB 2 can be restored, it means that the file description is the same as that of the encryption key on the HDD Encryption Board, which enables access to the HDD.

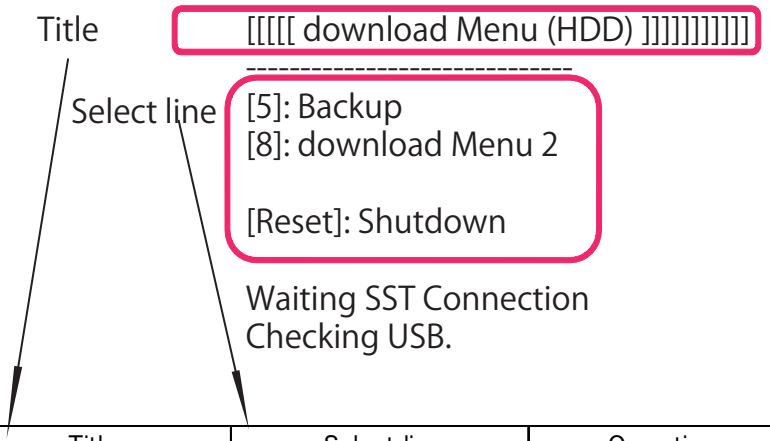
Therefore, you do not need to format the HDD or install the system when the file description of SRAM can be restored even if replacing Main Controller PCB 2.

Backup SRAM of Main controller 2 by USB memory:

Prepare for:
"USB memory storage device, which the system software for this machine is stored."
or
The USB memory recognize it in the Host machine.
On USB memory, You make the blank folder of the same name to recognize USB memory on a service mode when You registered a system software for Host machine by SST.

Ex: iA4045

Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK
[5] BACKUP
According to a list, perform a Backup Restore as follows.
Viewpoint of the Table:



	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	"5"
3	download Menu (USB)	/[5] has been selected. E>	"0"
4	Backup Menu (USB)	[7]: SRAM(USB)	"7"
5	Backup Menu (USB)	/[7] has been selected. E>	"0"

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Backup SRAM of Main controller 2 by USB memory			
	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	"5"
3	download Menu (USB)	/[5] has been selected. Execute?/-(OK):0	"0"
4	Backup Menu (USB)	[7]: SRAM(USB)	"7"
5	Backup Menu (USB)	/[7] has been selected. Execute?/-(OK):0	"0"
6	[SramImg.bin] Backup OK. ---Please hit any key---		"0"
7	Backup Menu (USB)	[C]: Return to Main Menu	"C"
8	download Menu (USB)	[Reset]: Shutdown	"Reset"
9	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
10	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
11	A power supply is cut automatically.		

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SRAM Restore
While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.

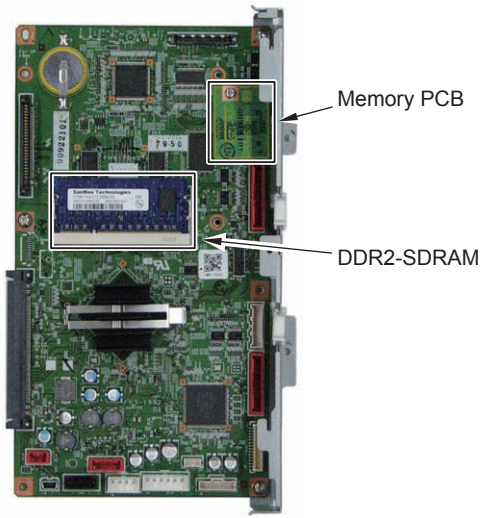
Restore in SramImg.bin in the USB memory			
	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[8]: download Menu 2	"8"
3	download Menu (USB)	/[8] has been selected. Execute?/-(OK):0	"0"
4	download Menu 2nd (USB)	[2]: Restore	"2"
5	download Menu 2nd (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
6	Restore Menu (USB)	[2]: SRAM(USB)	"2"
7	Restore Menu (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
8	[SramImg.bin] Restore OK. ---Plese hit any key---		"0"
9	Restore Menu (USB)	[C]: Return to download Menu 2nd	"C"
10	download Menu 2nd (USB)	[C]: Return to Main Menu	"C"
11	download Menu (USB)	[Reset]: Shutdown	"Reset"
12	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
13	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
14	A power supply is cut automatically.		

T-2-31

2. When Replacing

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



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Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

3. After Replacing

1) After installing the parts, turn ON the main power switch.

2) Restoring the backup data

Perform following either:

a) You download it if You upload SramImg.bin by SST.

SST Ver.4.41or later, obaey Steps to Download Data; Single > Download Data > SramImg.bin > Start

b) Carry out Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK [8]
Download Menu 2 > [2] Restore
if You carry out [5]BACKUP

c) Use the Remote UI.
Management Settings > Data Management > Import/Export

3) Resetting/registering the data

While referring to the list of set/registered data which was printed out before replacement, reset/register the data.

4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

■ TPM PCB

<Procedure of parts replacement>

.Main Controller PCB 1 4-35

<Procedure of adjustment>

When TPM setting is “OFF”

Any operation is not necessary at replacement.

When TPM setting is “ON”

It is necessary to restore the TPM key which was backed up after changing the setting to “ON”.

1) Removing the network cable

Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.

2) Connecting the USB Memory after turning ON the main power switch

3) Restoring the TPM key

Management Settings > Data Management >TPM Settings> Restore of TPM Key

4) Turning OFF and ON the main power switch

Laser Exposure System

Overview

Specifications/Controls/Functions

Laser light

	iR4051 / iR4045 / iR4035	iR4025
The number of laser light	4	2
Output	10mW	5mW
Wave length	775nm to 899nm (Infrared laser)	785nm to 800nm (Infrared laser)

T-2-32

Polygon motor

	iR4051 / iR4045 / iR4035	iR4025
Motor type	DC brushless motor	DC brushless motor
The number of rotation	Approx 27000 rpm/16000 rpm	Approx 32000 rpm

T-2-33

Polygon mirror

The number of facet	6 (Φ40)

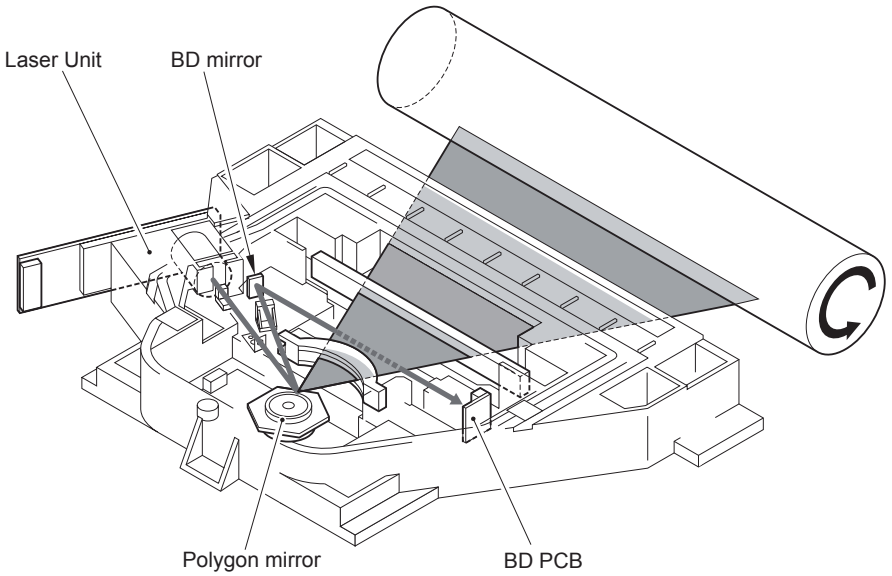
T-2-34

Controls

Synchronous control	Main scanning direction synchronous control
Laser intensity control	APC control
Others	Laser ON/OFF control
	Polygon motor control
	Laser shutter control

T-2-35

Main Configuration Parts



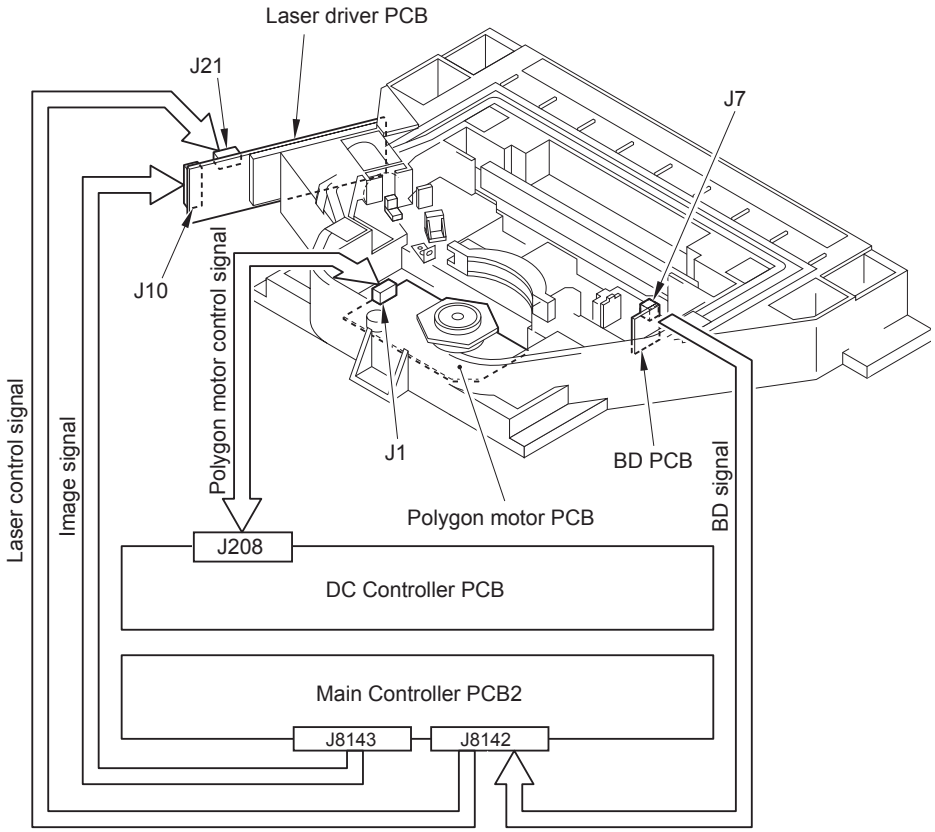
F-2-71

Name	Function
Laser Unit	Emits laser
Polygon mirror	Scans the laser light in the main scanning direction
BD mirror	Reflects the laser light in the BD PCB direction
BD PCB	Generates the BD signa

T-2-36

Control System Configuration

Controls for the laser exposure system are mainly performed by the DC controller PCB and image PCB.



F-2-72

Various Controls

Overview

Basic Sequence

Initial rotation (INTR):After the control panel key is ON, the machine starts the polygon motor and rotates the laser polygon motor until it reaches the number of target rotation while keepingall laser OFF.

Once it reaches the target, the machine enters stand-by mode(FG control).

If pressing the start key before the control panel key is ON*, standby time gets shorter after the polygon motor reaches the target.

Print (PRINT):When copy start key is ON, the machine drives A laser.

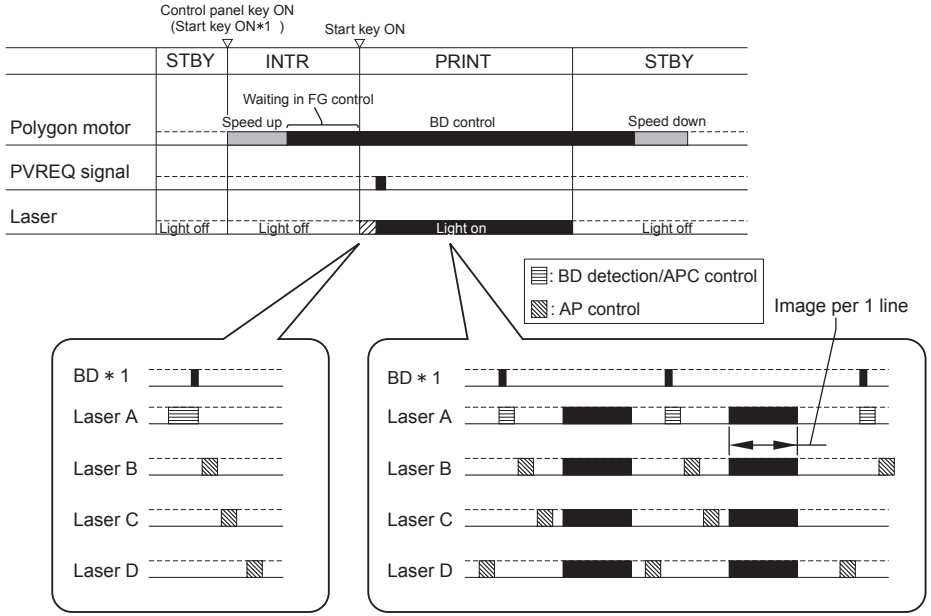
After BD PCB detects A laser, the machine performs the APC (laser intensity) control of each laser.

Oncethe BD signal reaches the specified cycle, the machine is ready to print.

Image data is output from the main controller based on the synchronous signal and laser isemitted corresponding to it.

But iR4025 is based on a C laser(The substitute of the A laser) for 2 beam (C, a D laser).

<In the case of A4, 1 sheet>



*1: BD signal is generated based on A laser light. Only A laser light reaches BD sensor on BD PCB and B/C/D laser does not reach.

F-2-73

Controlling the Laser Activation Timing

Laser ON/OFF Control

Laser ON/OFF control is dependent on the combination of the laser control signal (A/B laser: CNT1-0/1-1/1-2, C/D laser: CNT0-0/0-1/0-2) from the image PCB.

NOTE:
Because iR4025 is a 2 beam, the CD laser becomes the same control as an A B laser.

<A laser/B laser>

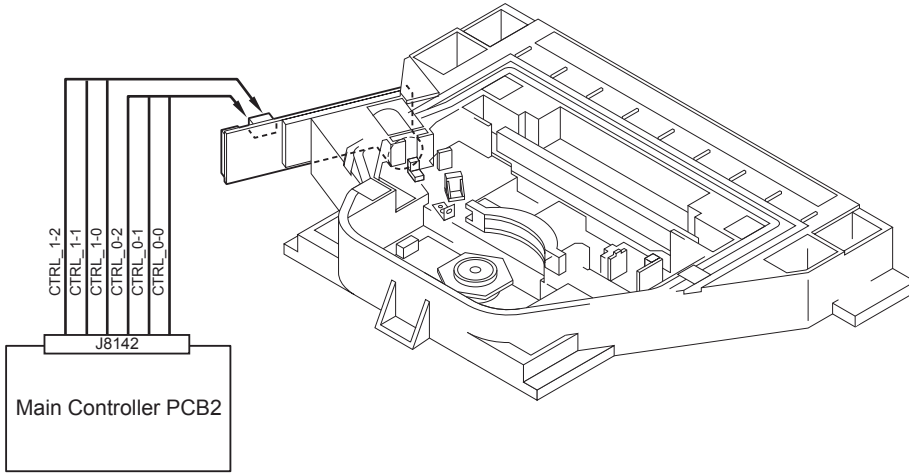
Laser control signal			Laser status	
CNT1-2	CNT1-1	CNT1-0	A Laser	B Laser
0	1	0	ON (For APC control)	OFF
0	1	1	OFF	OFF
0	0	1	OFF	ON (For APC control)
0	1	1	OFF	OFF
1	1	1	Video signal entry arrowed	Video signal entry arrowed
0	1	1	OFF	OFF
0	0	1	OFF	ON (For APC control)
0	1	1	OFF	OFF

T-2-37

<C laser/D laser>

Laser control signal			Laser status	
CNT1-2	CNT1-1	CNT1-0	C Laser	D Laser
0	0	1	ON (For APC control)	OFF
0	1	1	OFF	OFF
0	1	0	OFF	ON (For APC control)
0	1	1	OFF	OFF
1	1	1	Video signal entry arrowed	Video signal entry arrowed
0	1	1	OFF	OFF
0	0	1	OFF	ON (For APC control)
0	1	0	OFF	OFF

T-2-38



Main Scanning Synchronous Control

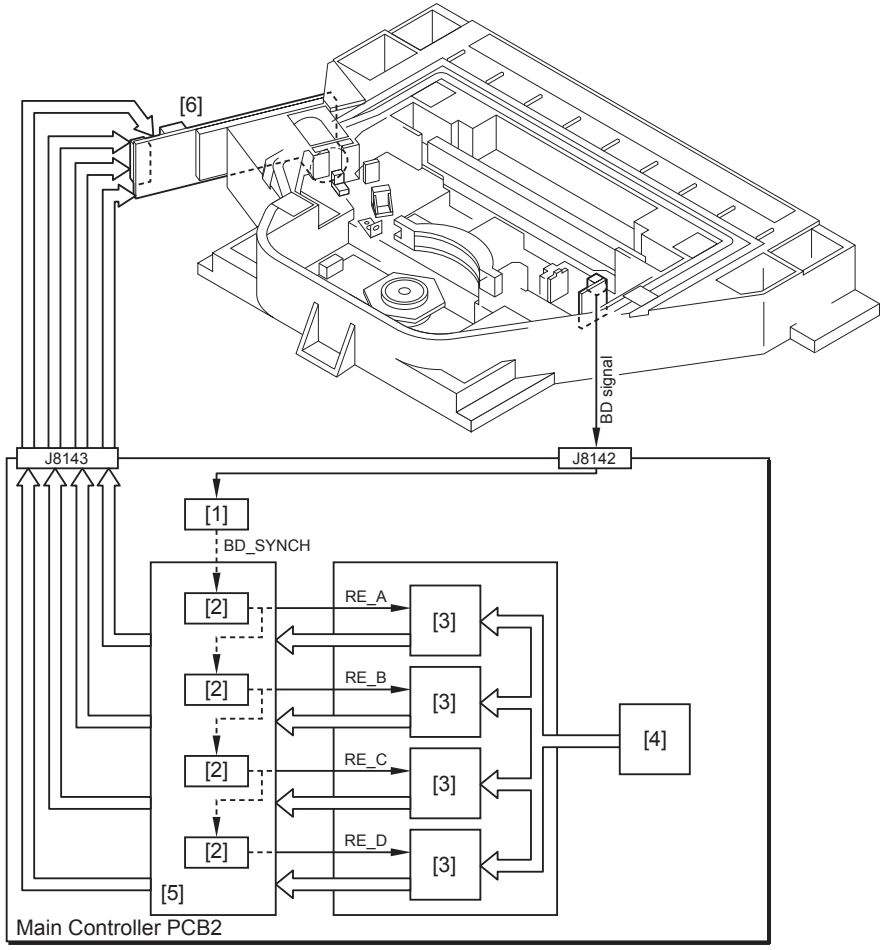
Main scanning synchronous control is operated at synchronous PCB based on BD synchronous signal.

Based on BD signal that is formed from A laser light detected by BD PCB, BD synchronous signal for each laser is formed inside image PCB.

Image data written in the line memory is read out by the readable signal (RE_A, RE_B, RE_C, RE_D) according to the 4 phase differences formed inside the delayPCB based on the BD synchronous signal (BD_SYNCH) and is sent to the laser driver.

Because iR4025 is a 2 beam, the reading possibility signal becomes RE_C and RE_D.

NOTE:
Regarding BD signal formation
Not B laser but A laser only reaches BD sensor on BD PCB. BD signal is formed based on A laser light.
About iR4025 the BD signal is formed based on C laser light.



F-2-74

[1] Synchronous PCB
[2] Delay PCB
[3] Line memory
BD_SYNCH: BD synchronous signal
RE_A/B/C/D: Readable signal
[4] VDO
[5] VDO signal process unit
[6] Laser driver PCB

Controlling the Intensity of Laser Light

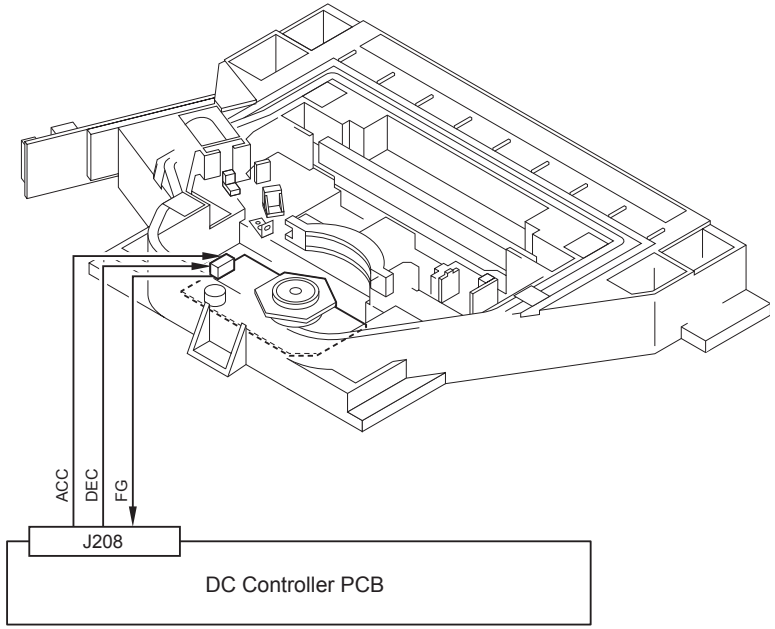
APC Control

The machine monitors the laser light that is emitted to the built-in photo diode of laser diode and adjusts the laser to appropriate intensity.

Controlling the Polygon Motor

Controlling the Polygon Motor

From when the polygon motor starts and the polygon motor reaches the number of target rotation to before image formation starts, the machine controlsthe rotation speed by referring to the polygon motor rotation speed signal (FG signal).
During image formation, it controls the polygon motor rotationspeed based on BD signal.
Polygon motor rotation speed is controlled by speed-up signal (ACC signal) and speed-down signal (DEC signal).

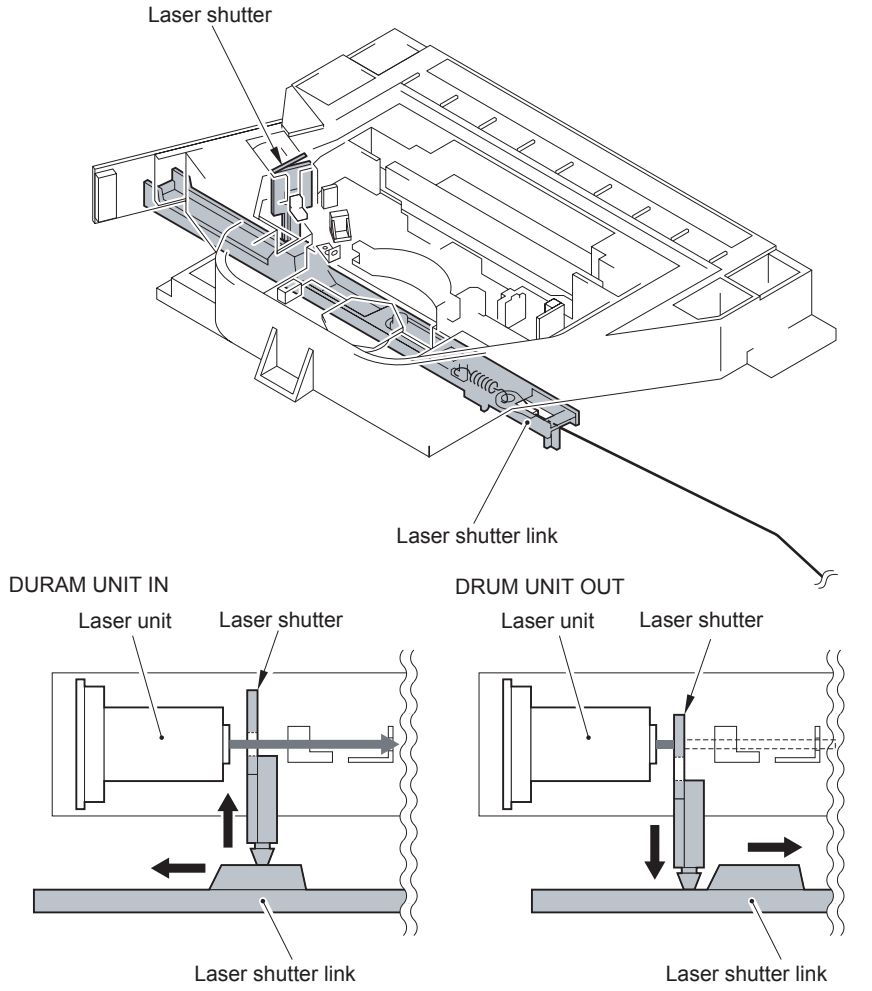


F-2-75

Controlling the Laser Shutter

Laser Shutter Control

When a drum unit was drawn, laser shutter will be closed by laser shutter link that works in conjunction with the drum unit and the laser light is blocked. Also, when the front door or right door open is detected, polygon motor and the laser emission will be turned OFF.



F-2-76

Work of the service

Scheduled Servicing

Periodically Replaced Parts

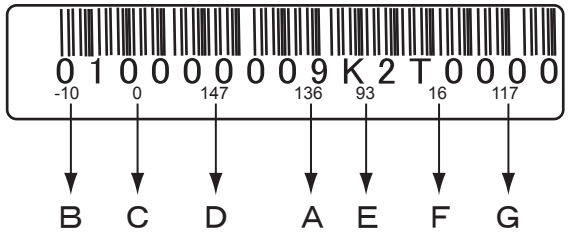
- none

Consumable parts

- none

Measures in the Parts Replacement

- When replacing the laser unit, enter the values recorded on the label affixed to the laser unit to be replaced for the following in the service mode:



F-2-77

Input example

- Adjust of write start position of laser
  - A. (LV1) COPIER > ADJUST > LASER > PVE-OFST > 136
- Difference in magnification between the lasers.
  - B. (LV1) COPIER > ADJUST > LASER > LDADJ1-K > -10
  - C. (LV1) COPIER > ADJUST > LASER > LDADJ2-K > 0
  - D. (LV1) COPIER > ADJUST > LASER > LDADJ3-K > 147
- Difference in the phase between the lasers
  - E. (LV1) COPIER > ADJUST > LASER > LDADJ4-K > 93
  - F. (LV1) COPIER > ADJUST > LASER > LDADJ5-K > 16
  - G. (LV1) COPIER > ADJUST > LASER > LDADJ6-K > 117

NOTE:
There are two kinds of laser units of four beams (iRA4051/4045/4035) and two beams (iRA4025).
Changed the number of the pins of the connection connector as incompatible measures.

Adjustment

- none

Troubleshooting

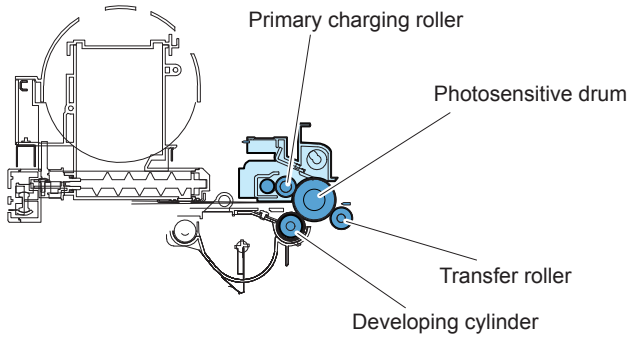
- none

Image Formation System

Overview

Features

- High image quality is supported.
  Charge control and the parts for image formation process are optimized.
- High durability drum
  E drum is adopted.



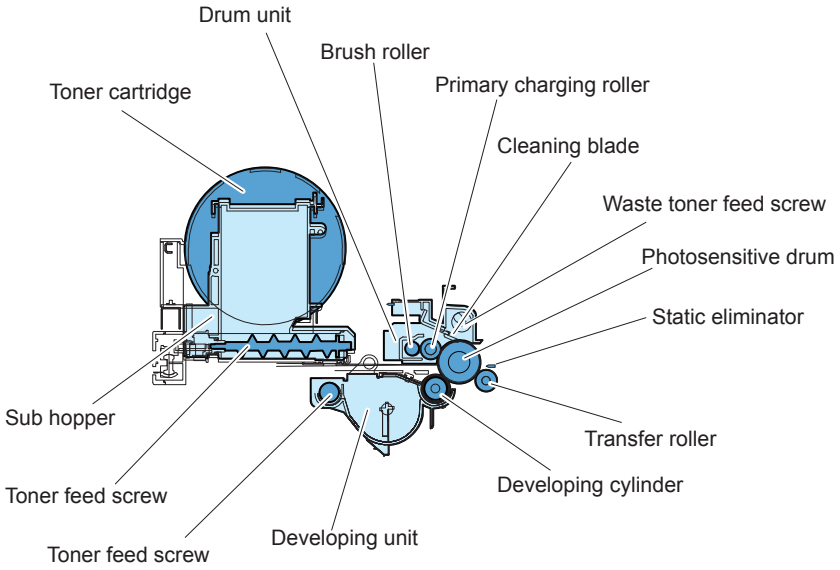
F-2-78

Specifications

Item		Specifications/Mechanism/Method
Photosensitive drum	Material	OPC drum (E-drum)
	Drum diameter	φ30
	Cleaning method	Cleaning blade
	Process speed	At cassette pickup: 51/45/35cpm model: 230mm/sec 25cpm model: 137mm/sec At manual feeder pickup 51/45/35/25cpm model: 137mm/sec
Primary charging	Charging method	Primary charging roller AC bias constant voltage control: approx. 600 to 2600Vp-p DC bias constant voltage control: approx. -400 to -800V DC bias switch control (variable according to environment sensor detection)
	Roller diameter	φ14
	Charging method	Brush roller (φ10)
Developing	Developing method	Dry one-component jumping development AC bias constant voltage control: approx. 800Vp-p DC bias control: approx. -300 to -700V DC bias switch control (variable according to density setting, environment sensor detection)
	Developing cylinder diameter	φ20
	Toner	Magnetic negative toner
	Toner level detection	Toner detection by toner level sensor (inside sub hopper and developing unit)
Transfer	Transfer method	Transfer roller DC constant current control: approx. 20 μA Cleaning bias control: -2700V (DC constant voltage control) DC current level control (variable according to environment sensor detection, paper type, paper width, source of paper)
	Roller diameter	Φ16
	Charging method	Cleaning bias application
Separation	Separation method	Static separation (Static eliminator) + Curvature separation DC constant voltage control: -2800V (high bias), -2300 (low bias)
Waste toner		Collected into waste toner container Waste toner container capacity: approx. 750g

T-2-39

Major Components of Image Formation System



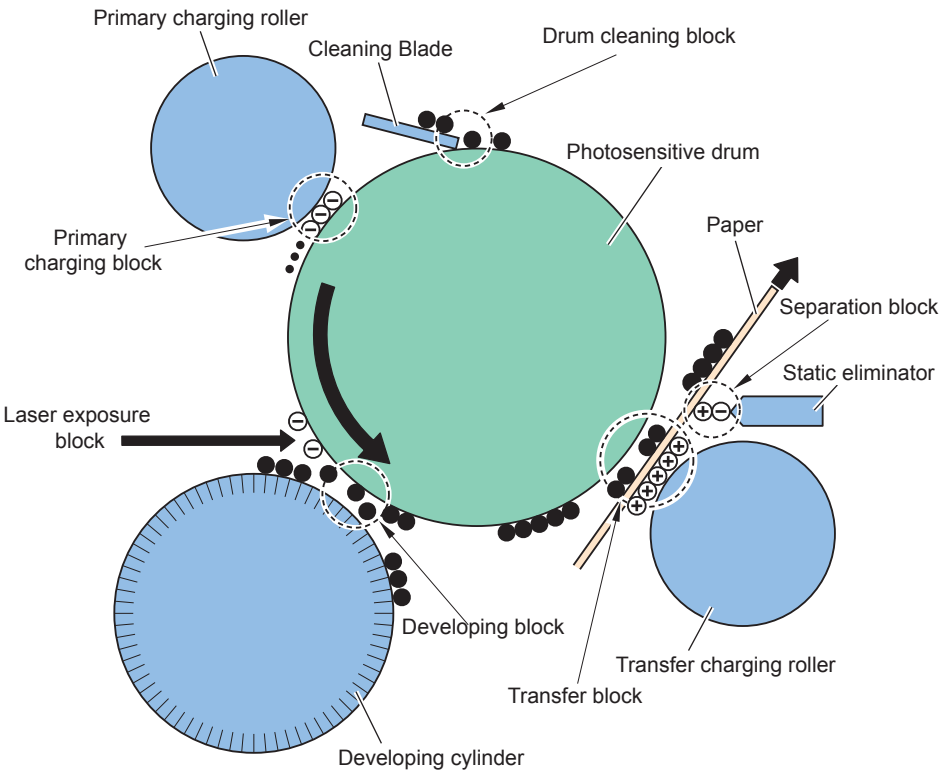
F-2-79

Name	Function
Toner cartridge	Toner cartridge filled with the toner for supply
Drum unit	Unit consisting of the photosensitive drum, primary charging roller, etc.
Brush roller	Rotates in connection with the primary charging roller to clean its surface.
Primary charging roller	Rotates in connection with the photosensitive drum to cause it negatively charged.
Cleaning blade	Scrapes off the residual toner on the photosensitive drum.
Waste toner feed screw	Feeds the toner scraped off by the cleaning blade to the waste toner container.
Photosensitive drum	Forms images on the surface of the photosensitive drum.
Static eliminator	Applies negative charge to the back of paper to cause it separated from the photosensitive drum.
Transfer roller	Applies positive charge to the back of a paper to cause the toner to be transferred to it.
Developing cylinder	Transfers the toner in the developing unit to the photosensitive drum.
Developing assembly	Unit consisting of the developing cylinder, developing blade, etc.
Toner feed screw (Inside developing unit)	Feeds the toner supplied from the sub hopper into the developing unit.
Toner feed screw (Inside sub hopper)	Feeds the toner supplied from the toner cartridge to the developing unit.
Sub hopper	Stores the toner supplied from the toner cartridge.

T-2-40

Image Formation Process

The image formation system of the machine mainly consists of the photosensitive drum, primary charging roller, developing cylinder, transfer charging roller, static eliminator, and cleaning blade. The image formation process around the drum unit contains the six blocks.



F-2-80

Image Formation Process	Description
Primary charging block	Charges the surface of the photosensitive drum to a uniform negative potential.
Laser exposure block	Exposes laser beam on the surface of the drum for charge neutralization to form the latent image formation.
Developing block	Causes the negatively-charged toner on the developing cylinder to adhere to the latent image formation on the surface of the photosensitive drum to form a visible image.
Transfer block	Applies positive charge to the back of a paper to transfer the toner on the drum to the paper.
Separation block	Separates a paper from the photosensitive drum with its elastic force and at the same time applies negative charge to the back of paper to facilitate paper separation.
Drum cleaning block	Scrapes off the residual toner on the surface of the drum using the cleaning blade and feeds it to the waste toner container.

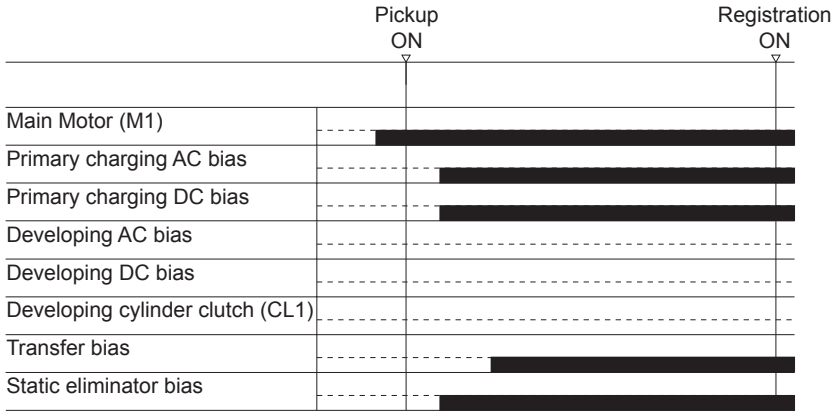
T-2-41

Basic Sequence

The basic sequence is as follows.

Sequence of Operation (initial rotation)

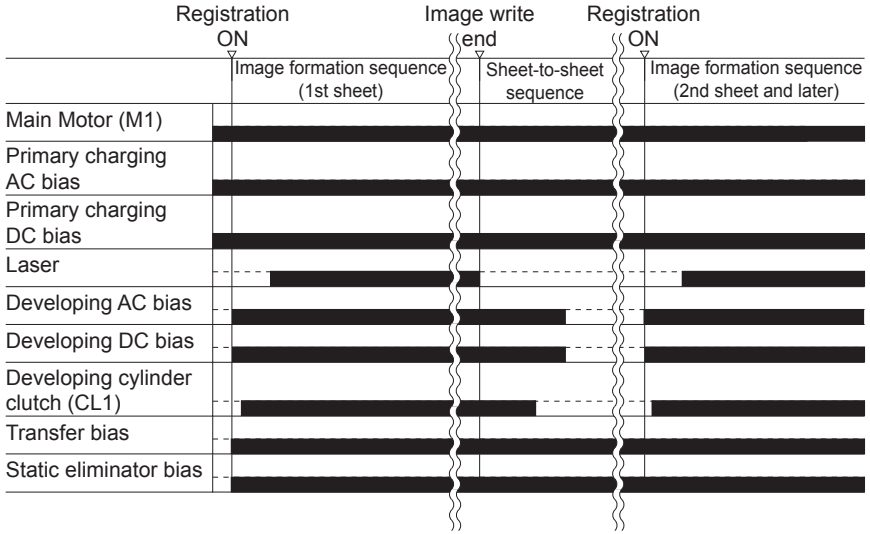
- Pickup from cassette 1 (fixing mode: plain paper 1)



F-2-81

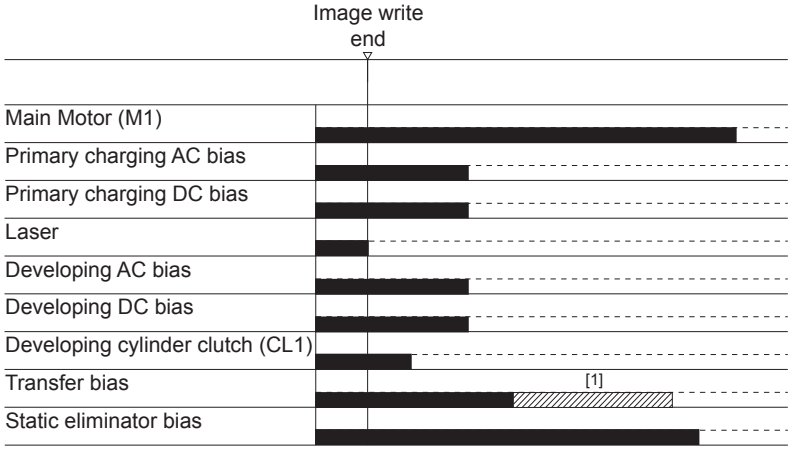
Sequence of Operation (printing)

- Pickup from cassette 1 (fixing mode: plain paper 1)



F-2-82

Sequence of Operation (last rotation)



In [1] above, a cleaning bias (-2700V) is applied.

F-2-83

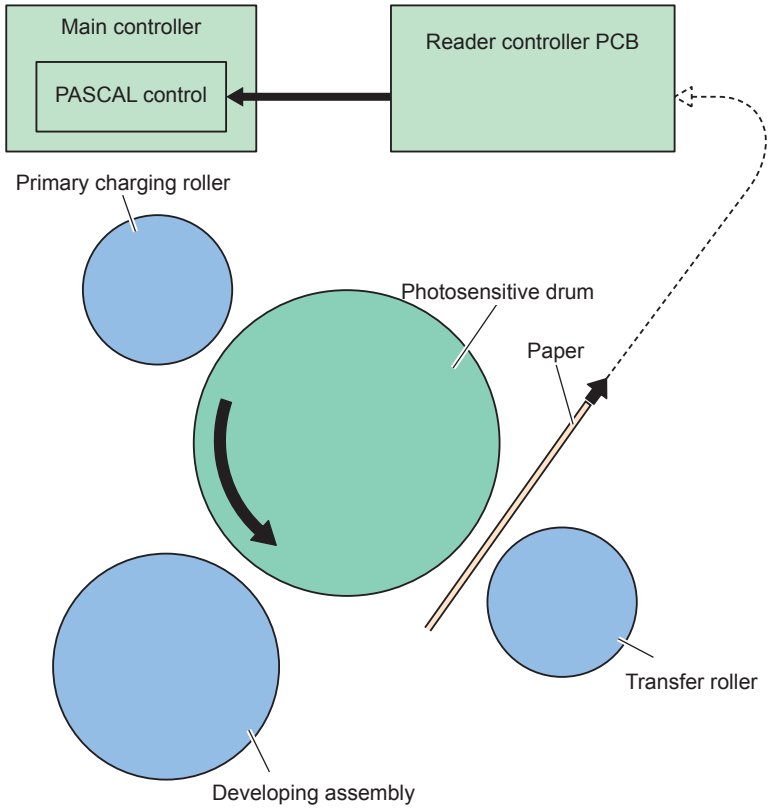
Controls

Image Stabilization Control

Overview

At times, changes in the environment or wear on the machine can cause its image output to become unstable. To obtain a stable image, the machine uses the following control mechanisms.

PASCAL control: Corrects the gradation density of an image.



F-2-84

PASCAL Control

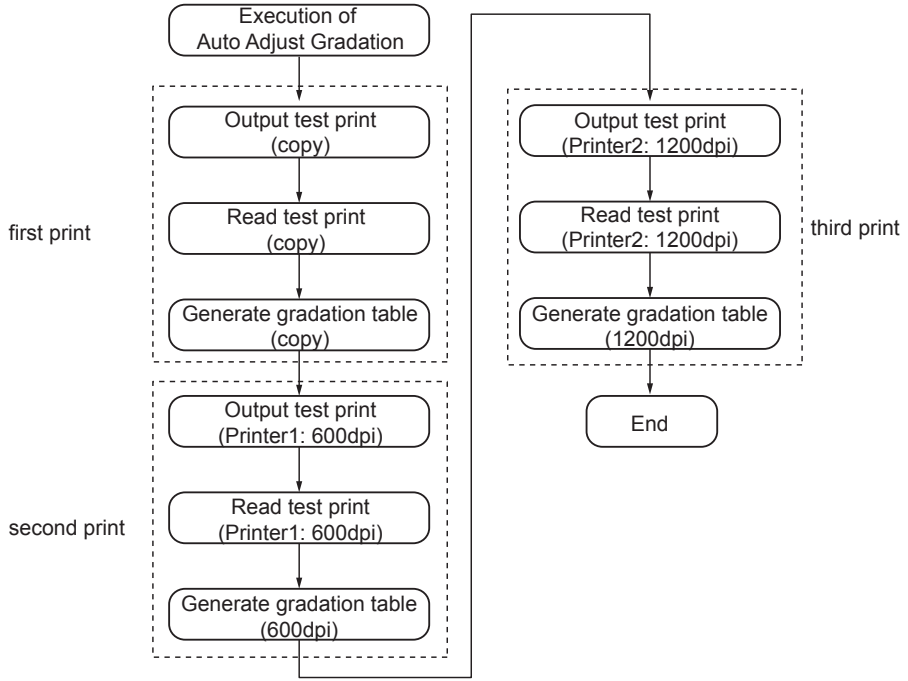
This control stabilizes gradation density characteristics on the image.

This control is executed when the following is selected in user mode: Auto Adjust Gradation > Full Adjust

Patch pattern on the test print is scanned by the Reader to create a gradation table.

Execution timing

During execution of Full Adjust: User mode > Settings/Registration > Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

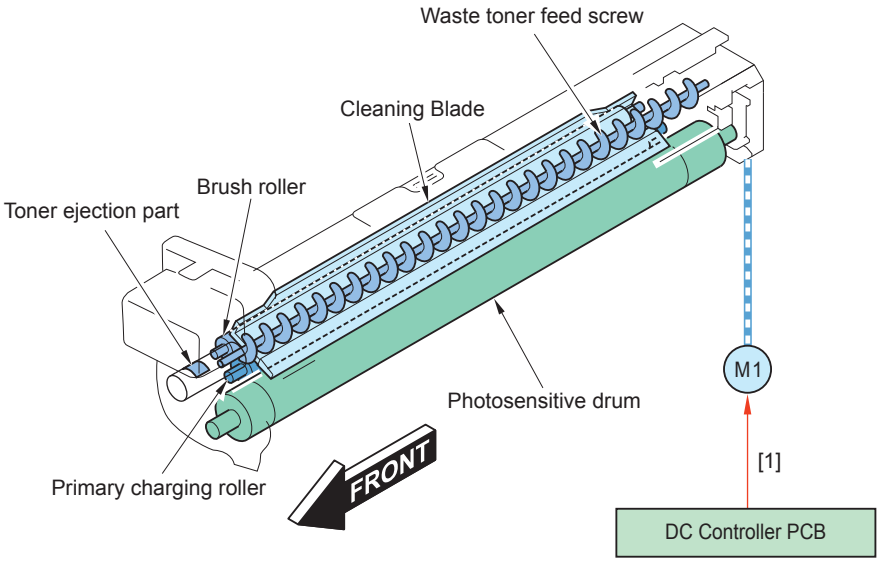


F-2-85

Drum Unit

Outline

The drum unit mainly consists of the photosensitive drum, primary charging roller, brush roller, cleaning blade, and waste toner feed screw, and is driven by the main motor (M1).
Cleaning blade in contact with the photosensitive drum scrapes off the residual toner on its surface without being transferred to a paper. The residual toner scraped off by the cleaning blade is fed from the toner ejection part into the waste toner container by the waste toner feed screw. The primary charging roller is cleaned by the brush roller in contact with it.

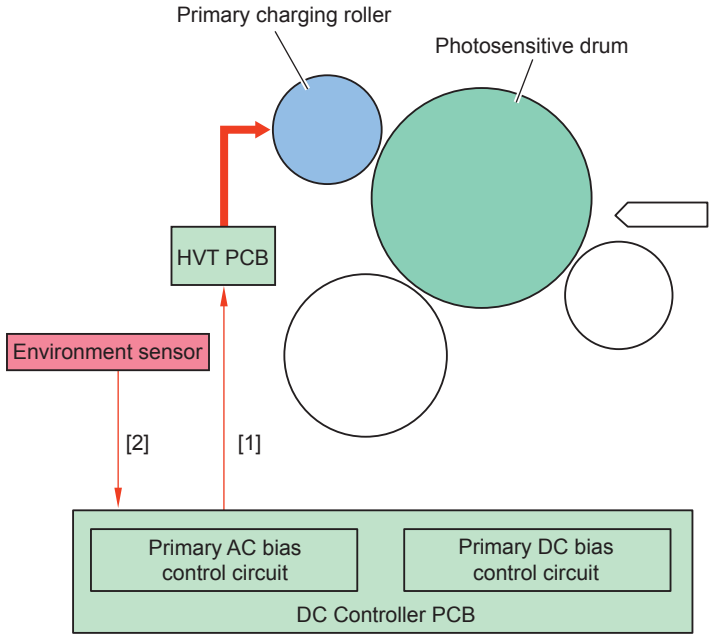


F-2-86

M1 Main motor
[1] Main motor drive signal

Primary Charging Bias Control

The machine is directly charged by the charging roller. DC bias and AC bias that stabilized the charge is applied to the primary charging roller.



F-2-87

[1] Primary charging bias control signal
[2] Environment sensor detection signal

Constant voltage control of DC bias and AC bias

The primary AC bias control circuits on the DC controller PCB control the DC bias and AC bias applied to the primary charging roller to keep their voltage at the fixed level.
The primary AC bias control circuits control constant voltage control and current quantity of electric discharge control of the AC bias by the environment.

* The current quantity of electric discharge control minimizes charged AC bias to lengthen drum life. Electric discharge product on the drum decreases by decreasing the primary AC bias. Therefore, the image smear by fusion with the water decrease.

DC/AC bias switch control

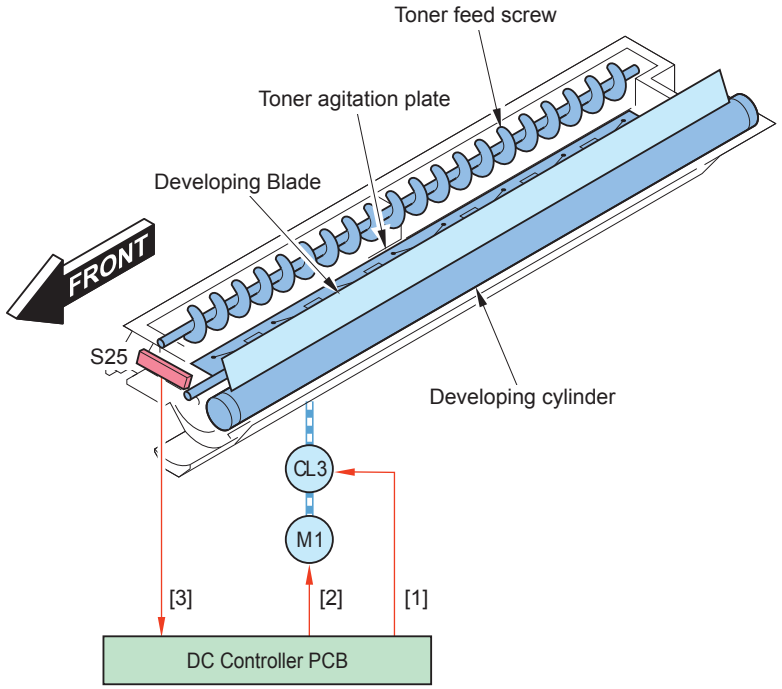
The DC/AC bias output varies according to the environment detected by the environment sensor (S16).

Developing Assembly

Outline

The developing assembly mainly consists of the developing cylinder, developing blade, toner agitation plate, and toner feed screw, and driven by the main motor (M1) and developing cylinder clutch (CL1).

The toner supplied from the toner cartridge is fed into the developing assembly by the toner feed screw and toner agitation plate. The toner presence/absence in the developing assembly is detected by the developing assembly toner sensor (S25) which is a magnetic permeability sensor.

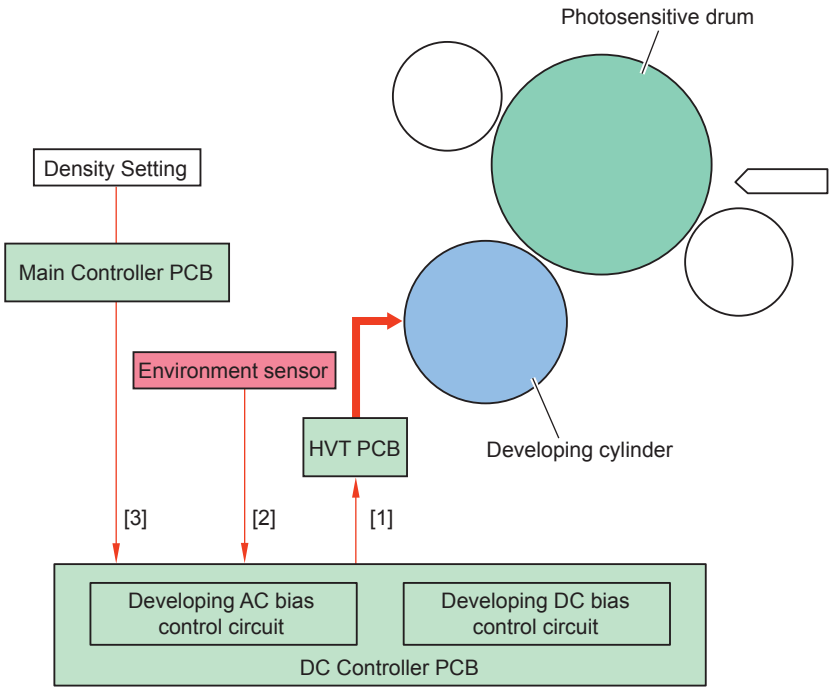


F-2-88

S25 Developing assembly toner sensor
CL1 Developing cylinder clutch
M1 Main motor
[1] Developing cylinder clutch drive signal
[2] Main motor drive signal
[3] Developing assembly toner sensor detection signal

Developing Bias Control

The DC bias and AC bias are applied to the developing cylinder.



F-2-89

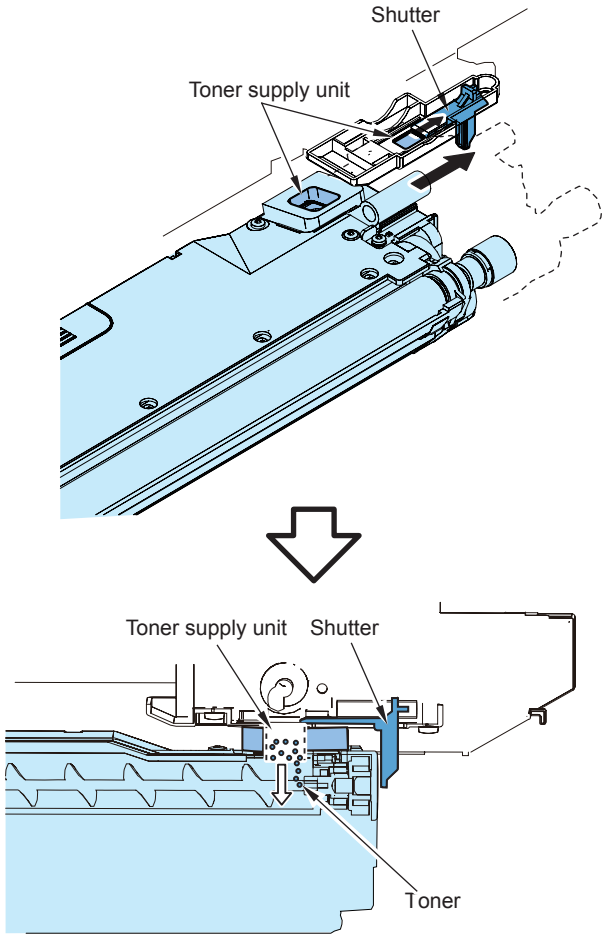
[1] Developing bias control signal
[2] Environment sensor detection signal
[3] Density setting signal

Constant voltage control of DC bias and AC bias

The DC bias and AC bias control circuits on the DC controller PCB control the DC bias and AC bias applied to the developing cylinder to keep their voltage at the fixed level.

● Toner Supply Shutter Opening/Closing Mechanism

There are shutters at the supply mouths of the toner supply unit to prevent toner scattering. The shutter is opened/closed in conjunction with push-in and pull-out of the developing assembly.

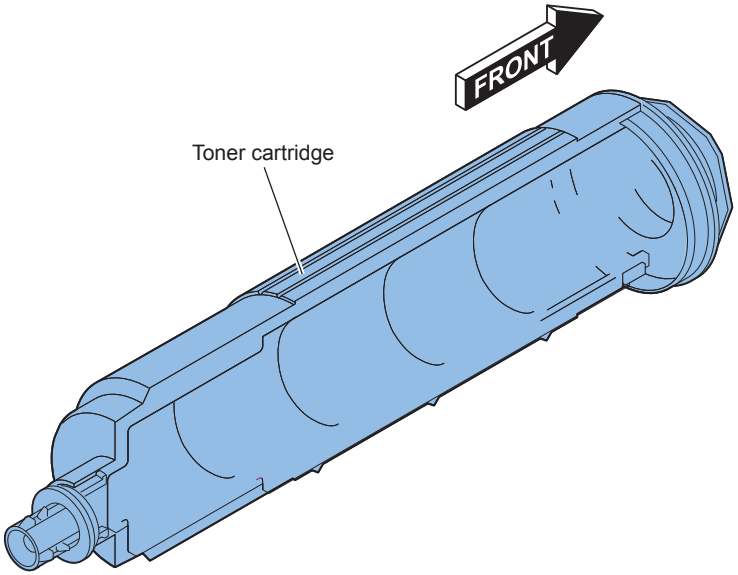


F-2-90

■ Toner cartridge

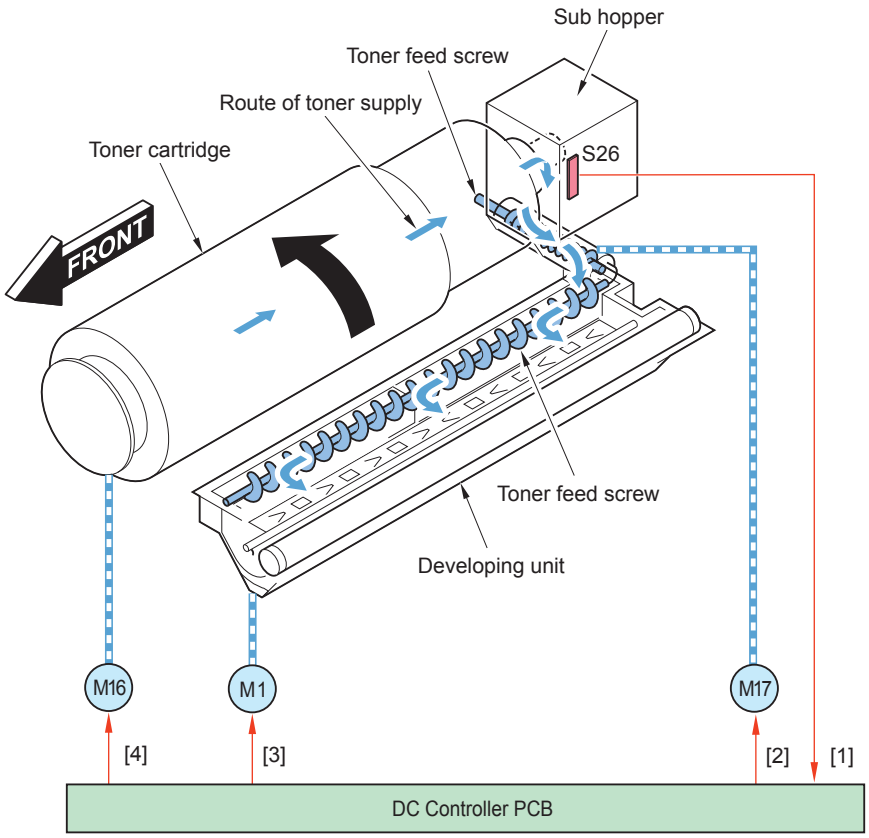
● Outline

Toner cartridge is filled with toner and supplies to the developing assembly.



F-2-91

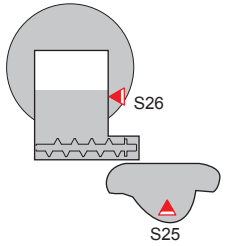
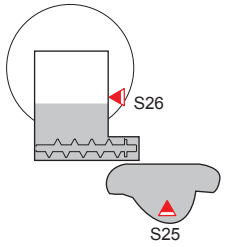
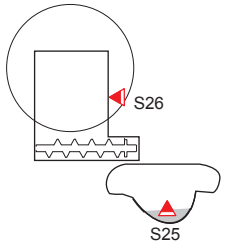
The toner in the toner cartridge is fed to the sub hopper and then to the developing assembly by the toner feed screw. The toner presence/absence in the sub hopper is detected by the sub hopper toner sensor (S26) which is a magnetic permeability sensor.
If the developing assembly toner sensor (S25) detects the absence of the toner in the developing assembly, the hopper motor (M16) drives to rotate the toner feed screw to feed toner in the sub hopper to the developing assembly. Also, if the sub hopper toner sensor (S26) detects the absence of the toner in the sub hopper, the bottle motor (M17) drives to rotate the toner cartridge to feed the toner in the Toner cartridge to the sub hopper.
If the sub hopper toner sensor (S26) keeps detecting the absence of the toner for more than the specified period of time, no toner in the toner cartridge is assumed and the message to replace the Toner cartridge will be displayed. Also, if the developing assembly toner sensor (S25) keeps detecting the absence of the toner for more than the specified period of time, no toner in the developing assembly is assumed and a No Toner error message will be displayed.



F-2-92

S26 Sub hopper toner sensor
M1 Main motor
M16 Hopper motor
M17 Bottle motor
[1] Sub hopper toner sensor detection signal
[2] Hopper motor drive signal
[3] Main motor drive signal
[4] Bottle motor drive signal

Toner Level Detection

Toner level	Status	Message	Operation
100 to 11%		No	When the sub hopper toner sensor (S26) detects absence of toner, the bottle motor (M17) is driven. Once the sub hopper toner sensor (S26) detects presence of toner, the bottle motor (M17) is stopped (to prevent toner leak).
10 to 1%		Replace the toner cartridge. (Continuous printing is enabled.)	If the sub hopper toner sensor (S26) keeps detecting the absence of the toner for more than 90 seconds after the drive of the bottle motor (M17) has been started, a message is displayed in the bottom of control panel because the system determines that there is no toner in the toner cartridge. This state continues during printing and the toner cartridge can be replaced during printing. After the Toner cartridge is replaced, the toner level returns to 100%.
0%		Replace the toner cartridge. (Job is stopped.)	If the developing assembly toner sensor (S25) keeps detecting the absence of the toner for more than 40 sec after the drive of the hopper motor (M16) has been started, a message is displayed in the bottom of control panel because the system determines that there is no toner in the toner cartridge. The print operation stops. After the toner cartridge is replaced, the toner level returns to 100%. NOTE: After "Replace the toner cartridge."message is displayed, and approx. 2,000 sheets* are printed, *A4 6% image

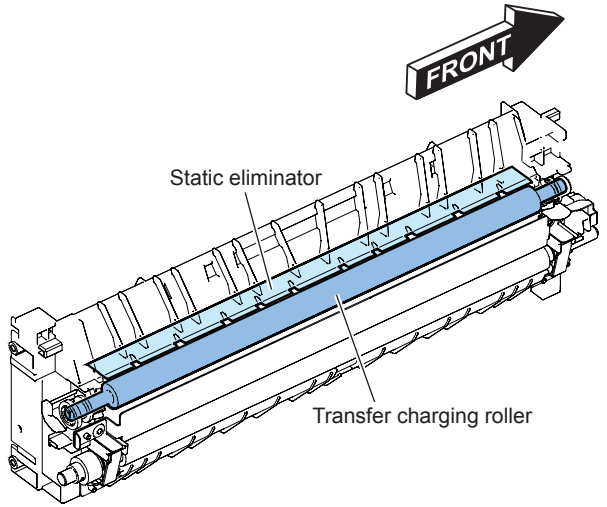
T-2-42

<Related error code>
E020-0000: The path between the sub hopper and the developing assembly is clogged with toner.
E024-0000: The connector (J209) of developing assembly Toner Sensor (S25) is disconnected.
E024-0001: The developing assembly Toner Sensor (S25) is disconnected.
E025-0000: The connector (J207) of Sub Hopper Toner Sensor (S26) is disconnected.
E025-0001: Failure of the Bottle Motor (M17)

■ Transfer Unit

● Outline

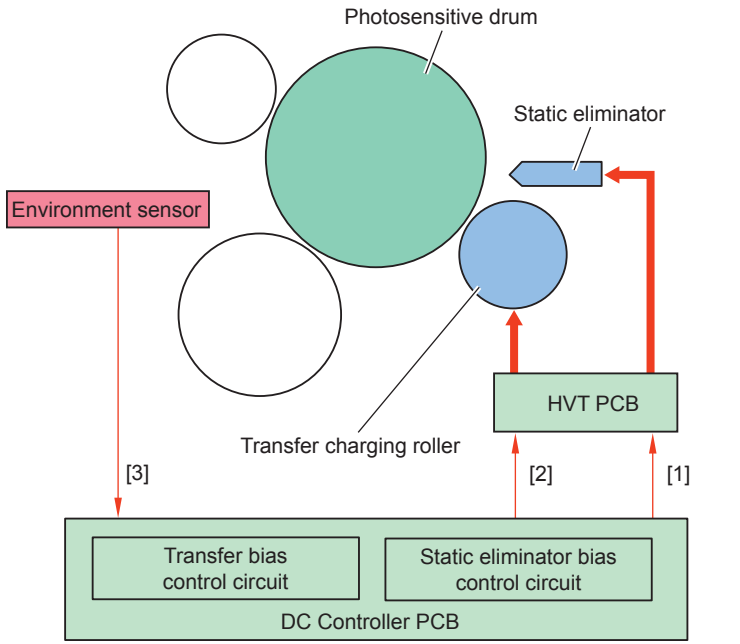
The transfer unit mainly consists of the static eliminator and transfer roller which rotates in connection with the drum unit.



F-2-93

Transfer Bias/Separation Static Eliminator Bias Control

DC bias is applied to the transfer roller and static eliminator.



F-2-94

[1] Separation static eliminator bias control signal
[2] Transfer bias control signal
[3] Environment sensor detection signal

Transfer Bias Constant Current Control

The transfer bias control circuit on the DC controller PCB controls the transfer bias applied to the transfer roller to keep the constant current.

Transfer bias level control

The transfer bias output varies according to the environment, paper type, paper width, and/or source of paper detected by the environment sensor (S16).

Cleaning Bias Control

To return the toner adhered on the transfer roller to the photosensitive drum, negative voltage is applied at the last rotation.

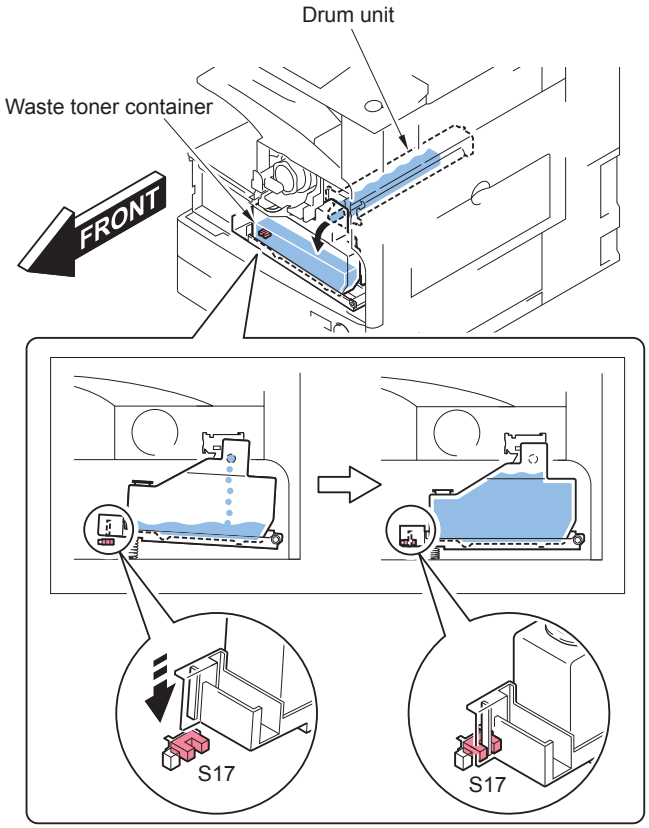
Separation Static Eliminator Bias Control

Either of the two types of negative voltage (low bias or high bias) is applied to the static eliminator depending on the print mode and sequence for reducing electrostatic suction to facilitate separation of paper from the photosensitive drum.

Waste toner container

Outline

Residual toner adhered on the photosensitive drum without being transferred to a paper is scraped off by the cleaning blade in contact with the photosensitive drum, then fed into the waste toner container by the waste toner feed screw.
The waste toer container is supported by a spring. If the waste toner container sinks down lower than specified with the weight of collected toner, the waste toner full sensor (S17) detects the waste toner container full.



F-2-95

S17 Waste toner full sensor

Waste Toner Full Level Detection

Status	Detection timing	Detecting to (location)	Operation
Warning for full level of waste toner (Approx. 99% of the full criterion)	When the Switch is pressed and the total counter value exceeds 50,000 sheets	Waste toner full sensor (S17)	Continuous printing is enabled. (Please prepare a waste toner container)
Full level of waste toner (Full criterion)	When 2,000 sheets are printed since the full level warning.	The number of prints	Host machine is stopped (error display).
	When the Switch is pressed and the total counter value fails 50,000 sheets *1	Waste toner full sensor (S17)	

T-2-43

When replacing it for a new waste toner container after the waste toner full sensor detected presence of a waste toner container, the internal counter for full detection is cleared automatically. And the warning/indication message on the operation panel disappears.
But the parts counter (WST-TNR) of the waste toner container in the service mode is not cleared for another management with the inside counter of the full detection automatically.
When replacing a waste toner container before the alert, be sure to clear the following in service mode.

- COUNTER > DRBL-1 > WST-TNR

*1: Special full level detection
When attaching a waste toner container that has been used by the other machine, or the counter information is lost for some reason, it is necessary to notify full level before an alert is given. (The counter shows less than 50,000 although the sensor detects full level of waste toner) In such a case, it is determined as full level without an alert and the machine cannot continue printing.
Explain the user that there will be no alert when any of the above is executed.

Servicing

Periodically Replaced Parts

None

Consumable Parts

No	Items	Parts Number	Q'ty	Life	Remarks
1	Transfer roller	FC9-0693	1	240,000 sheets	
2	Separation static charge eliminator	FM3-9296	1	240,000 sheets	
3	Developing assembly	FM4-9730	1	600,000 sheets: 51/45/35cpm model 500,000 sheets: 25cpm model	
4	Waste toner container	FM3-9276	1	80,000 sheets	Defined by 6% document If service engineer removes the waste toner from the Waste Toner Container, the Waste Toner Container can be reused.

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Periodical Servicing

No	Items	Interval	Remarks
1	Transfer guide	120,000 sheets	Dry wiping
2	Pushing wheel (developing assembly)	120,000 sheets	Dry wiping

T-2-45

Action to take when replacing parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > DRBL-1)

Major Adjustments

None

Troubleshooting

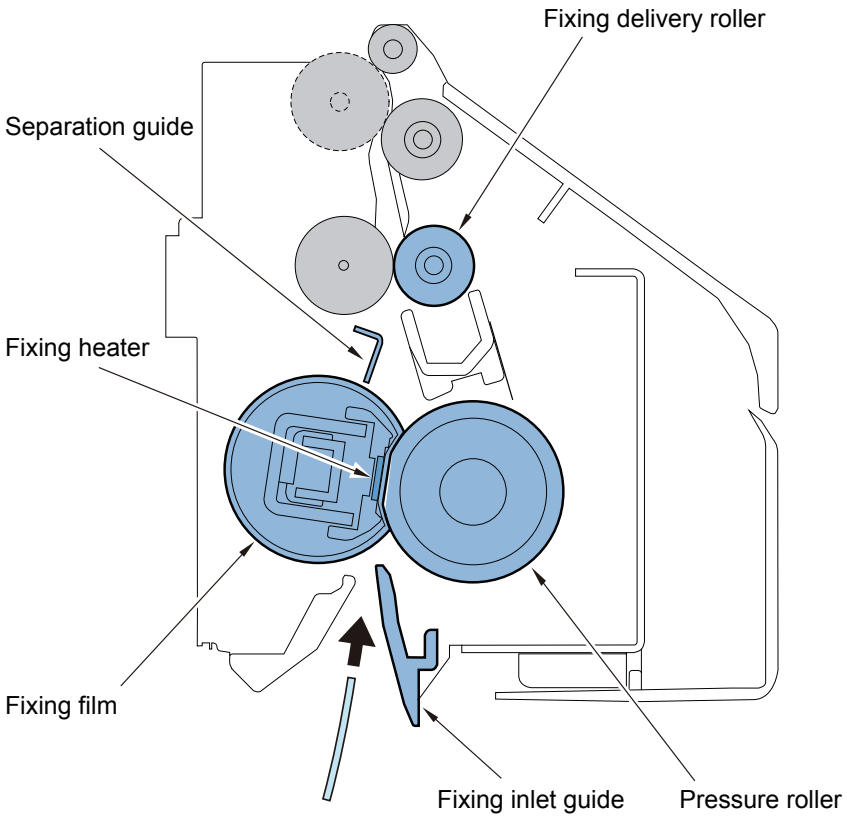
None

Fixing System

Overview

Features

This machine introduces the on-demand fixing method.



F-2-96

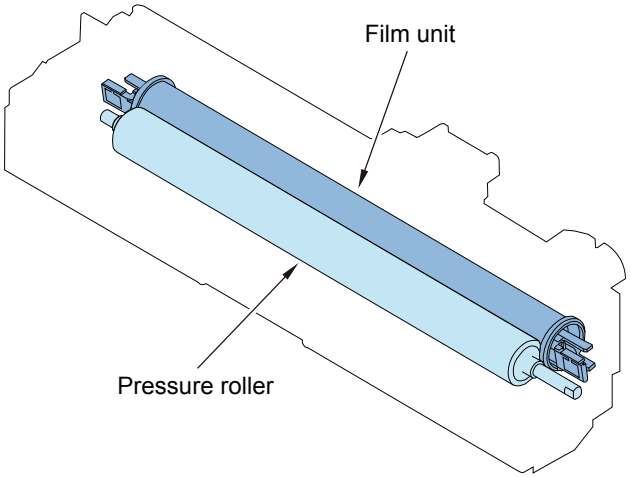
Specifications

Item	Function/method	
Fixing method	On-demand fixing	
Fixing speed	Process Speed H	233mm/sec (1/1-high speed: 1.4% speed-up)
		233mm/sec (1/1-end speed: 0.9% speed-up)
		230mm/sec (1/1-speed)
		224mm/sec (1/1-slow speed: 4.5% speed-down)
	Process Speed L	139mm/sec (1/1-high speed: 1.4% speed-up)
		139mm/sec (1/1-end speed: 0.9% speed-up)
		137mm/sec (1/1-speed)
		131mm/sec (1/1-slow speed: 4.5% speed-down)
Fixing heater	Ceramic heater	
Control temperature	215 deg C (Process speed H, plain paper 1, single sided) *1	
Temperature detection	By the main thermistors and the sub thermistors (front) and (rear)	
Cleaning control	Cleaning sequence control	
Edge heat rising prevention control	Paper edge cooling fans (front)/(rear) and sequence control	
Fixing loop control	Loop sensor	
Protective Function	"Main thermistor and Sub thermistors (front)/(rear) Thermo Switch (operating temperature: 250 deg C)"	

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*1. Target temperature is specified depending on the process speed, the fixing mode and the fixing temperature at the start of warm-up control.

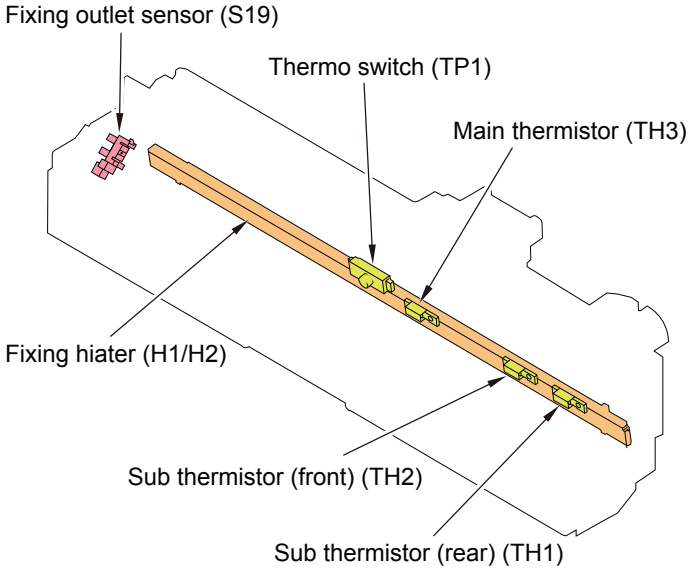
Major parts configuration



Part name		Function / method
---	Film unit	Applying heat and pressure makes the toner image on paper fixed (fused).
---	Pressure roller	
H1/H2	Fixing heater	Ceramic heater
TH3	Main thermistor	To be in contact with the heater Temperature control, detection of abnormal temperature rise
TH2	Sub thermistor (front)	To be in contact with the heater (non-feeding area) Temperature control, detection of abnormal temperature rise, temperature detection/cooling control on the edges
TH1	Sub thermistor (rear)	To be in contact with the heater (non-feeding area) Temperature control, detection of abnormal temperature rise, temperature detection/cooling control on the edges
TP1	Thermo Switch	Non-contact type with the heater To block AC electric power supply when a failure is detected.
S19	Fixing outlet sensor	Jam detection

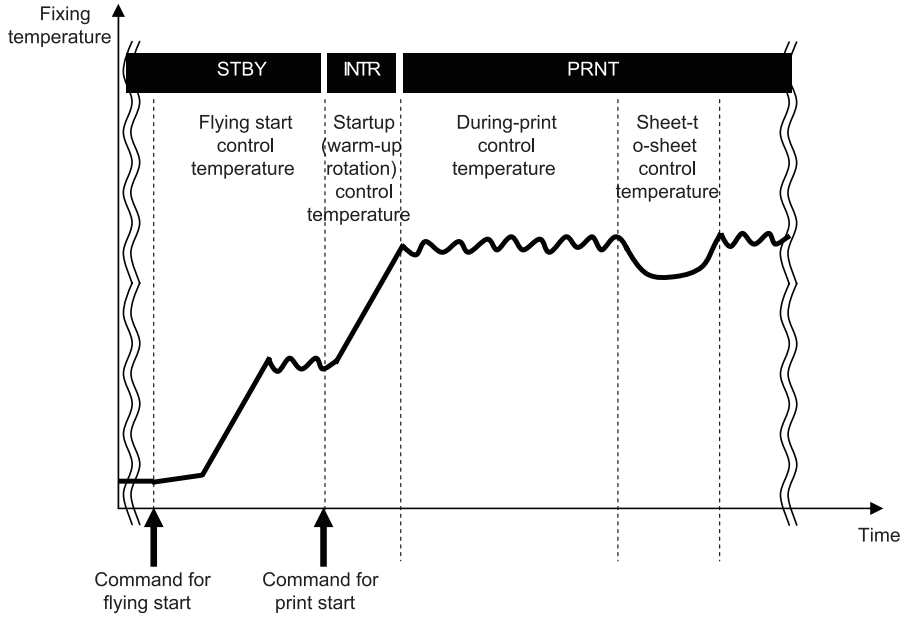
T-2-47

control.



Controls

Fixing temperature control: overview



F-2-97

Standby temperature control

To preheat the fixing assembly to reduce time for starting print.

- Flying start temperature control

Print temperature control

To increase temperature to meet the fixing target temperature and keep the target temperature during printing.

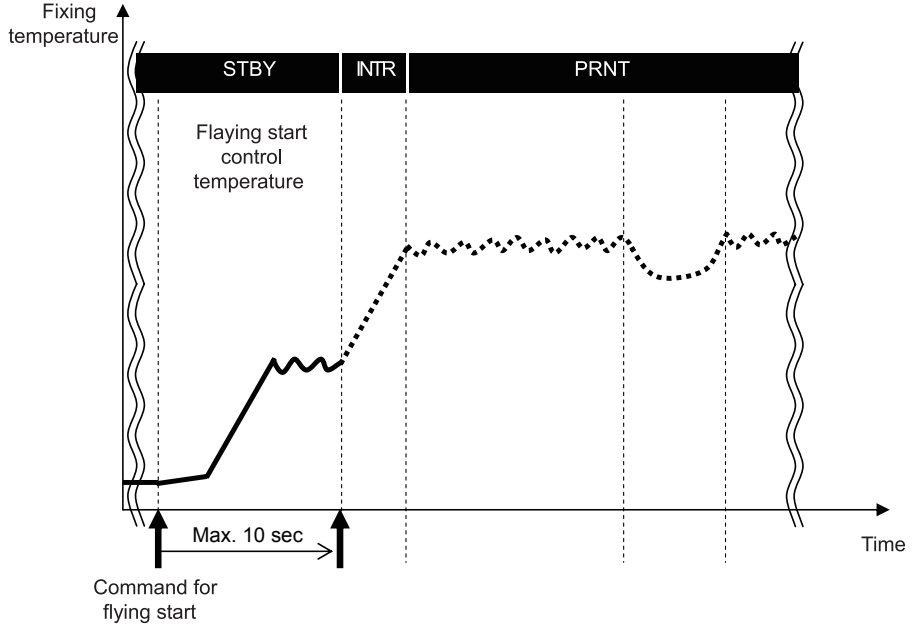
- Startup (warm-up rotation) temperature control
- Print temperature control
- Sheet-to-sheet temperature control

Down sequence control

To prevent fixing failure due to rising temperature at the edge or fall in temperature. This control causes reduced the productivity (through-put).

- Down sequence when feeding small size paper
- Down sequence when switching paper size

Standby temperature control



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Flying start temperature control

Purpose:

To reduce the print time (FPOT) of the 1st sheet

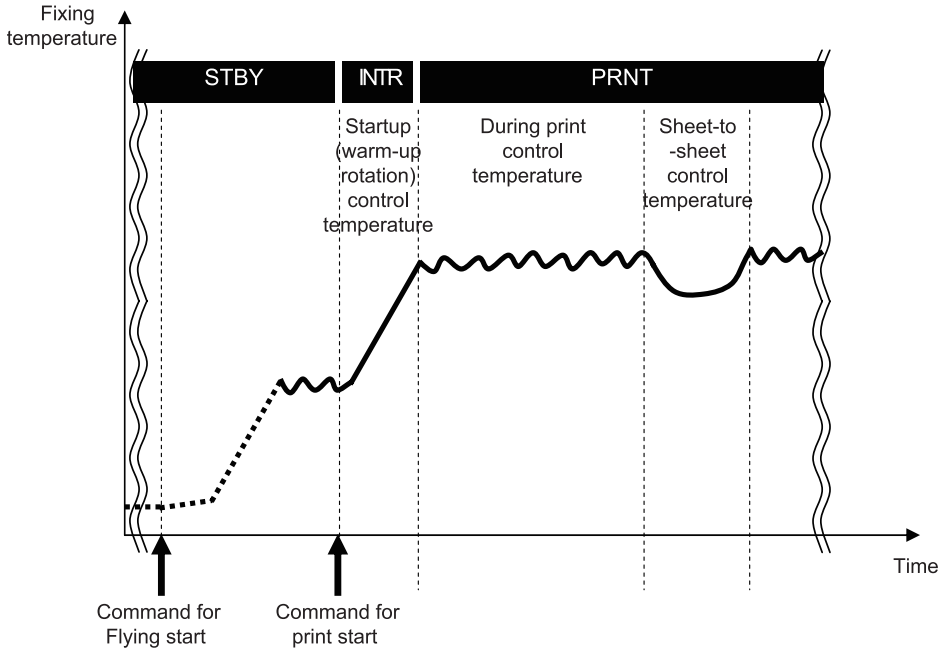
Starting conditions

- When opening the copyboard cover or ADF, and also the detection temperature of the main thermistor is less than 100 deg C.
- When the original sheet is set on the ADF tray, and also the detection temperature of the main thermistor is less than 100 deg C.
- When the main power switch is turned ON or the machine condition is shift from the sleep mode to standby, and also the detection temperature of the main thermistor is less than 180 deg C.

Control description:

- The target control temperature is set to 155 deg C and the fixing motor starts to rotate with a half speed. The control continues for maximum 10 seconds.

Print temperature control



F-2-99

Startup (warm-up rotation) temperature control

To increase fixing temperature to be ready for printing after receiving the print-start command

Print temperature control

To set optimal target temperature to prevent fixing failure or offset, and keep the specified target temperature during printing

A.Setting target temperature

Target temperature is specified depending on the paper type, paper size, elapsed time since the last control (including the standby control) of fixing temperature and fixing temperature at the start of warm-up control.

B.Temperature control during printing

When the paper passes in the fixing unit, the fixing temperature is controlled to keep the target value (see the table on the next page) according to the detection result of main thermistor.

C.Sheet-to-sheet distance temperature control

To prevent the excessive temperature rise and to save the power consumption, the target temperature is set 5 deg C low (in case of plain paper *1) from the printing temperature.

*1. When the fixing mode is the plain paper 1, plain paper 2 or thin paper, set to -5 dec C. In the other cases, set to -15 or -20 deg C low or +5 deg C high according paper type

Target temperature during printing

The control temperature is determined according to the fixing mode and to the fixing temperature at the start of warm-up control. The following 16 modes are provided as the fixing mode. The fixing modes are changed by the paper setting and the service mode setting.

The following table is the control temperature when the fixing temperature is less than 55 deg C at the start of warm-up control.

Fixing Mode

No.	Fixing mode	Paper setting	Weight (g/m2)	Remarks
1	Thin paper	Thin paper	52 to 59	
2	Plain paper 1	Plain paper 1	60 to 63	
		Translucent paper	64 to 80	
3	Plain paper 1_N1	Plain paper 1	60 to 63	The control temperature is lower than the normal temperature. Service mode "TMP-TBLC" is set to 2.
		Translucent paper	64 to 80	
4	Plain paper 1_N3	Plain paper 1	60 to 63	The control temperature is lower than the N1 mode. Service mode "TMP-TBLC"is set to 3.
		Translucent paper	64 to 80	
5	Plain paper 2	Recycled paper	64 to 80	
		Color paper		
		Punch hole paper		
		Plain paper 2	81 to 90	
6	Plain paper 2_N1	Recycled paper	64 to 80	The control temperature is lower than the normal temperature. Service mode "TMP-TBLC"is set to 2.
		Color paper		
		Punch hole paper		
		Plain paper 2	81 to 90	
7	Plain paper 2_N3	Recycled paper	64 to 80	The control temperature is lower than the N1 mode. Service mode "TMP-TBLC"is set to 3.
		Color paper		
		Punch hole paper		
		Plain paper 2	81 to 90	
8	Heavy paper 1	Heavy paper 1	91 to 105	
		Label paper	151 to 181	Japan
9	Heavy paper 2	Heavy paper 1	106 to 128	
		Label paper	151 to 181	except Japan
10	Heavy paper 3	Heavy paper 3	129 to 163	
11	Heavy paper 4	Heavy paper 4	164 to 220	
12	OHP film	OHP film	15 to 181	
13	Bond paper	Bond paper	75 to 90	
14	Postcard	Postcard	---	Speed priority (18cpm) Service mode "PSP-PR2"is set to 1.
15	S-Postcard	Postcard	---	(Fixing grade priority (14cpm) Service mode "PSP-PR2"is set to 0.
16	Envelope	Envelope	---	

T-2-48

51/45/35 cpm machine (Process speed H)

Fixing mode	Control Temperature (deg C)	
	1-sided/first of 2-sided	Second of 2-sided
Plain paper 1	215	205
Plain paper 2	225	215
Plain paper 1_N1	189	174
Plain paper 2_N1	180	170
Thin paper	180	170

T-2-49

51/45/35/25 cpm (Process speed L)

Fixing mode	Control Temperature (deg C)	
	1-sided/first of 2-sided	Second of 2-sided
Plain paper 1	170	165
Plain paper 2	180	175
Plain paper 1_N1	168	158
Plain paper 1_N3	137	135
Plain paper 2_N1	142	139
Plain paper 2_N3	137	135
Thin paper	142	132
Heavy paper 1	185	180
Heavy paper 2	190	185
Heavy paper 3	190	185
Heavy paper 4	205	200
Bond paper	190	185
OHP film	170	165
Postcard	195	---
S-Postcard	205	---
Envelope	195	---

T-2-50

Related Service Mode
Offset of fixing control temperature (High and low of control temperature)
COPIER > OPTION > IMG-FX
> FIX-TEMP (Setting of control temperature (Plain paper 1, Cassette))
> TEMP-CON (Setting of control temperature (Heavy paper 1))
> TEMPCON2 (Setting of control temperature (Plain paper 1, Manual feed))
> FX-S-TMP (Setting of control temperature (Curl correction in high humidity))
> TMP-TBL2 (Setting of control temperature (Heavy paper 2))
> TMP-TBL4 (Setting of control temperature (Heavy paper 3))
> TMP-TBL6 (Setting of control temperature (Envelope/Postcard/S-Postcard))
> TMP-TBL7 (Setting of control temperature (Plain paper 2, Cassette))
> TMP-TB12 (Setting of control temperature (Plain paper 2, Manual feed))
> TMP-TB13 (Setting of control temperature (Thin paper, Cassette))
> TMP-TB14 (Setting of control temperature (Thin paper, Manual feed))
> TMP-TB15 (Setting of control temperature (Plain paper 1, Second of 2-sided))
> TMP-TB16 (Setting of control temperature (Plain paper 2, Second of 2-sided))

<Setting value>
0 to 2: +15 deg C
3 to 11: +12 to -12 deg C (each 3 deg C) [Default: 7]
12 to 14: -15 deg C

■ Down sequence control

● Down sequence when feeding small size paper

Purpose:

To prevent temperature rise of non-feeding area in the case of continuous print of small size paper (less than A4 of length in width direction), fixing offset or deterioration of fixing film.

Starting conditions:

1. Normal down sequence

(1) When the detected temperature of sub thermistor (front) or (rear) reaches 255 deg C or higher for 400 msec continuously during printing

(2) Whenever the thermistor detects 255 deg C or higher for 400 msec continuously, the down sequence is carried out with the maximum 4 steps.

2. Heavy paper down sequence

(3) When one minute have passed with the heavy paper mode 1/2/3/4, or when the detected temperature of sub thermistor (front) or (rear) reaches 255 deg C or higher for 400 msec continuously

(4) When the detected temperature of sub thermistor (front) or (rear) reaches 255 deg C or higher for 400 msec continuously with the heavy paper down sequence, the productivity is compared with the normal down sequence. If the productivity of the normal down sequence is low, the sequence is shift to the normal down sequence.

Operation:

The fixing temperature is reduced by making wider sheet-to-sheet distance to control the temperature at lower than the target temperature for normal print.

(Unit: sheets)

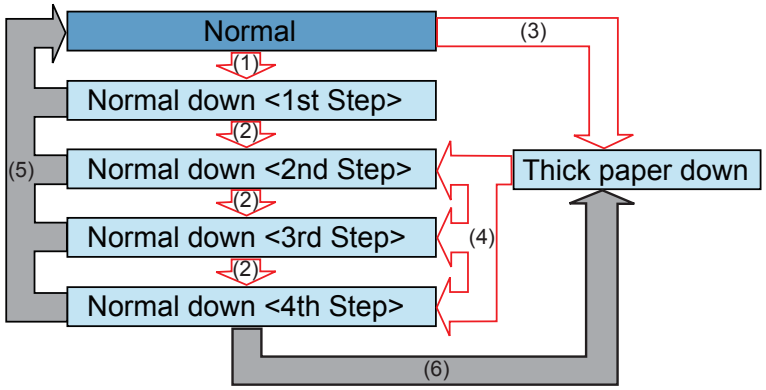
Down sequence	A4/ LTR	B4/ LGL	B5/ A5	A4R/ LTRR	A5R/ B5R/ EXE-R	Post -card	S-Post -card/ Envelo -pe	Free size
Normal down 1	12	20	20	20	18	14	10	12
Normal down 2	10	12	12	12	14	10	8	10
Normal down 3	8	10	10	10	14	10	8	8
Normal down 4	8	8	8	8	14	10	8	8
Heavy paper down	16	8	16	10	16	10	8	8

T-2-51

Completion conditions:

(5) When the fixing temperature reaches 175 deg C and lower for 400 msec continuously, the productivity returns to normal.

(6) When the fixing temperature reaches 175 deg C and lower for 400 msec continuously after shifting from the heavy paper down sequence to the normal down sequence, the sequence is shifted to the heavy paper down sequence.



F-2-100

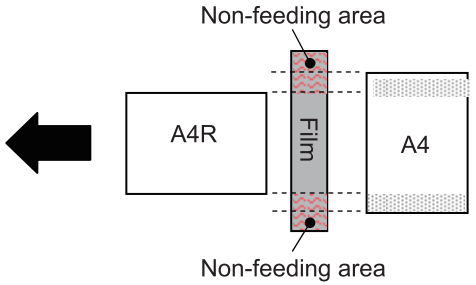
Related Service Mode
Setting for down sequence start temperature
COPIER > OPTION > IMG-FX
> EDG-WAIT (Change of detection temperature for fixing edge)

<Setting value>
0: +20 deg C, 1: +10 deg C, 2: 0 deg C [Default: 2], 3: -10 deg C, 4: -20 deg C

Down sequence when switching paper size

Purpose:

This down sequence prevents temperature rise of non-feeding area: there can be possible fixing offset or wrinkle of the succeeding paper due to increased temperature of non-feeding area of the preceding paper when continuously making prints or feeding wider length of paper than the preceding paper.



F-2-101

Starting conditions:

If the temperature difference between sub thermistor (front) and main thermistor or between sub thermistor (rear) and main thermistor exceeds 20 deg C (*1) when switching to the paper which has longer width than the preceding paper.

Operation:

Pickup of the succeeding paper and power distribution to the heater are stopped as well to decrease the fixing temperature.Completion conditions:
When the temperature difference between sub thermistor (front) and main thermistor or between sub thermistor (rear) and main thermistor reaches 20 deg C and less (*1) *1. It is different according to setting value of the user mode (Special mode S or Rotation/collation adjustment).

*1. It is different according to setting value of the service mode (Productivity priority mode or Productivity priority in rotation collation mode).

Related Service Mode
Setting for down sequence start temperature
COPIER > OPTION > IMG-SPD
> PSP-PR1 (Set productivity priority mode)
> PSP-PR4 (Set productivity priority in rotation collation mode)

Change of the fixing grade with the other service modes

The following service modes influence the fixing grade in addition to the service modes described above.

Service mode	Outline	Setting value	Fixing temperature control / Throughput
Curl correction mode for plain paper COPIER >OPTION >IMG-FX >TMP-TBLC	The fixing temperature is changed in the plain paper 1 mode and plain paper 2 mode. The fixing grade is improved by lowering the productivity.	0 (Auto)	Change the normal temperature control and N1 mode (*1) according to the environment (temperature/ humidity)
		1 (Off) (Default)	Normal temperature control (plain paper mode control)
		2 (Medium)	N1 mode temperature control
		3 (High)	N3 mode (*2) temperature control
Curl correction mode for thin paper COPIER >OPTION > IMG-FX >TMP-TBL5	The fixing temperature is changed in the thin paper mode. The fixing grade is improved by lowering the productivity.	0 (Off) (Default)	Normal temperature control (plain paper mode control)
		1 (Medium)	S-thin paper mode temperature control (The control temperature of thin paper mode is lowered by 10 deg C uniformly.)
		2 (High)	SS-thin paper mode temperature control (The control temperature of thin paper mode is lowered by 15 deg C uniformly.)
Fixing grade improvement mode COPIER >OPTION >IMG-FX >FIX-PR	The fixing temperature is changed in the thick paper 1/2/3/4 mode and bond paper mode, and also the plain paper 1/2 mode and thin paper mode under the prescribed environment.	1 (Off) (Default)	Normal control
		2 (On)	The throughput of every size paper is lowered by 4 cpm in the thick paper 1/2/3/4 mode and bond paper mode. The throughput of every size paper is lowered by 5 cpm in the plain paper 1/2 mode and thin paper mode when the environment sensor detects less than 18 dreg C.
Loosened down sequence mode COPIER >OPTION >IMG-SPD>PSP-PR1	The print speed-down is loosened at the temperature rise of non-feeding area. The productivity has priority over the fixing grade by shortening the wait time at the size change. (*3)	Off (Default)	The temperature difference between the main thermistor and the sub thermistor for allowing the pick up operation is 20 degree C.
		On (Productivity improvement)	The temperature difference between the main thermistor and the sub thermistor for allowing the pick up operation is 30 degree C.
Productivity priority mode in rotation collation COPIER >OPTION >IMG-SPD>PSP-PR4	The productivity has priority over the fixing grade by shortening the wait time at the rotation collation mode.	0:OFF (Default)	Normal control
		Image Priority	The temperature difference between the main thermistor and the sub thermistor for allowing the pick up operation is 20 degree C.
		Speed Priority 1 (Productivity improvement)	The temperature difference between the main thermistor and the sub thermistor for allowing the pick up operation is 40 degree C.
		Speed Priority 2 (Productivity improvement-high)	The temperature difference between the main thermistor and the sub thermistor for allowing the pick up operation is 60 degree C.

*1. N1 mode: "Normal control temp." - 15 degree C (when the fixing temperature is 100 degree C or more at the start of warm up control)

*2. N3 mode: "Normal control temp." - 48 degree C (when the fixing temperature is 100 degree C or more at the start of warm up control)

*3. The set value of the productivity priority mode has priority at the rotation collation mode.

Fixing pressure roller cleaning sequence

Purpose:

To prevent the dirt of the pressure roller causing the dirt of the paper back side.

Starting conditions:

When the detected temperature of sub thermistor (front) or (rear) is higher 18 deg C or more than the one of the main thermistor.

Operation:

After completion of the last rotation, the temperature control is executed so that the fixing heater turns on and the toner on the pressure roller is melted to transfer it to the fixing film. After transferring the toner to the fixing film, the fixing motor is rotated slightly to shift the nip area, so that re-transferring the toner to the pressure roller is prevented.

Completion conditions:

This sequence is finished when either following condition is satisfied.

- After 5 seconds (maximum 10 sec) from shifting to the pressure roller cleaning sequence.
- When the next job is started during the pressure roller cleaning sequence.

Fixing film edge cooling control

When making prints with the paper that the width is shorter than A4, to prevent temperature rise of non-feeding area, the fan attached near the fixing assembly sends air and cools to the front and rear side of the fixing film.

For details of the fixing film edge cooling control, see Technology > Controller System > Controls > Fan.

Related Service Mode

Setting for down sequence start temperature

COPIER > OPTION > IMG-FX

> EDG-WAIT (Change of detection temperature for fixing edge)

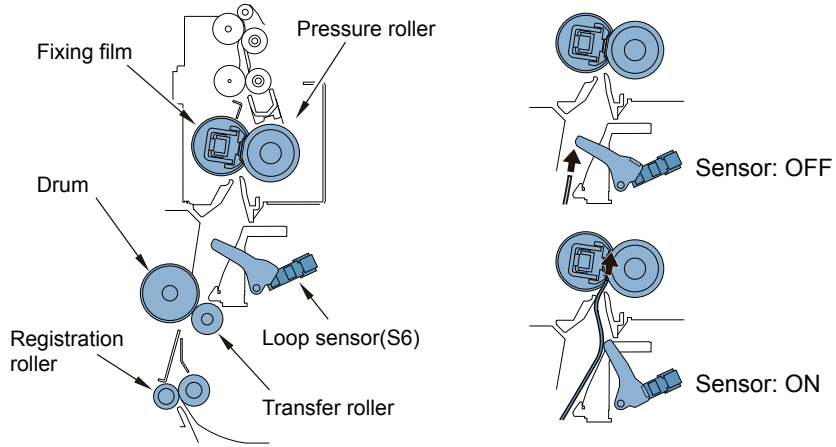
<Setting value>

0: +20 deg C, 1: +10 deg C, 2: 0 deg C [Default: 2], 3: -10 deg C, 4: -20 deg C

Paper loop amount control before fixing

Purpose:

To get a proper image by avoiding a shock when the trailing edge of paper comes out of the registration roles, an appropriate paper loop is formed between transfer roller and fixing roller.



F-2-102

Starting conditions:

This control is performed at every paper feeding.

Operation:

The fixing motor drive speed is controlled as follows by detecting the paper loop between transfer roller and fixing roller with the loop sensor.

1) The fixing motor drive speed is reduced by 4.5% when the reading edge of paper is fed 35mm from the transfer roller. The reduced speed is kept until the loop sensor is turned on by the formed paper loop.

2) After detecting the ON condition of the loop sensor for 50 msec continuously, the fixing motor drive speed is increased by 1.4% compared with the process speed. The increased speed is kept until the loop sensor is turned off by the deleted paper loop.

3) After detecting the OFF condition of the loop sensor for 50 msec continuously, the fixing motor drive speed is reduced by 4.5% compared with the process speed. The reduced speed is kept until the loop sensor is turned on by the formed paper loop.

4) Repeat steps 2) and 3). The fixing motor drive speed is increased by 0.9% compared with the process speed when the trailing edge of paper reaches 65 mm before coming out of the registration roller.

5) When continuously making prints, return to step 1). When making a single print, shift to the last rotation.

Protection features

Code		Description	Error Clear
E000	Fixing temperature abnormal rise		
	0001	The temperature detected by the main thermistor does not rise to the specified value during startup control.	Yes
E001	Fixing unit temperature rise detection		
	0000	The reading of the main thermistor is 250 deg C or more continuously for 200 msec.	Yes
	0001	The hardware circuit detects overheating of the main or sub thermistor for 200 msec.	Yes
	0002	The reading of the sub thermistor is 295 deg C or more continuously for 200 msec.	Yes
E002	Fixing unit temperature insufficient rise		
	0000	1.The reading of the main thermistor is less than 115 deg C continuously for 400 msec 1.3 sec after it has indicated 100 deg C. 2.The reading of the main thermistor is less than 150 deg C continuously for 400 msec 1.3 sec after it has indicated 140 deg C.	Yes
E003	Low fixing temperature detection after standby		
	0000	The reading of the main thermistor is less than 140 deg C continuously for 400 msec or more.	Yes
E004	Thermistor disconnection detection error		
	0000	When disconnection is detected with connector (J214) for 30 sec continuously.	No
E014	Unstable rotation of the Fixing Motor (M2)		
	0001	Detection is executed every 100 msec after the start of motor rotation; however, the drive detection signal is absent for 2 sec.	
	0002	During motor rotation, detection is executed every 100 msec; however, the drive signal is absent 5 times in sequence.	No
E261	Error in Zero Cross		
	0000	Zero Cross failed to be detected for 500ms or more while the relay was ON. * The same condition is detected after the error retry is performed.	No

T-2-52

Related Service Mode
- Error code clear
  COPIER > FUNCTION > CLEAR > ERR

Work of Service

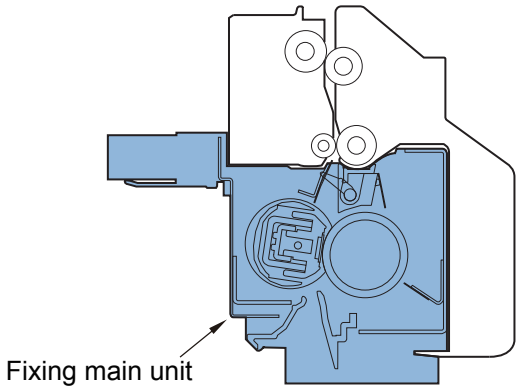
Periodical ServicePeriodical Service

None

Consumable Parts

No	Item	Parts No.	Q'ty	Life	Remarks
1	Fixing main unit	FM4-9733	1	240,000 sheets	120V: 51cpm
		FM4-9734			230V: 51cpm
		FM4-9736			120V:45/35/25cpm
		FM4-9737			230V:45/35/25cpm

T-2-53



F-2-103

Periodical Servicing

No	Items	Interval	Remarks
1	Fixing inlet guide cleaning	120,000 sheets	Wipe with dry cloth

T-2-54

Action to take when replacing parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > DRBL-1)

Major Adjustments

None

Troubleshooting

None

Pickup Feed System

Overview

Overview

- Free size correspondence.(Manual feed pickup tray only.)
  99 mm x 148 mm to 297 mm x 431.8 mm
- Expansion of paper grammage which can print.
  Cassette: 64g/m2-90g/m2 => 60g/m2-128g/m2
  Manual feed pickup tray: 64g/m2-128g/m2 => 52g/m2-220g/m2

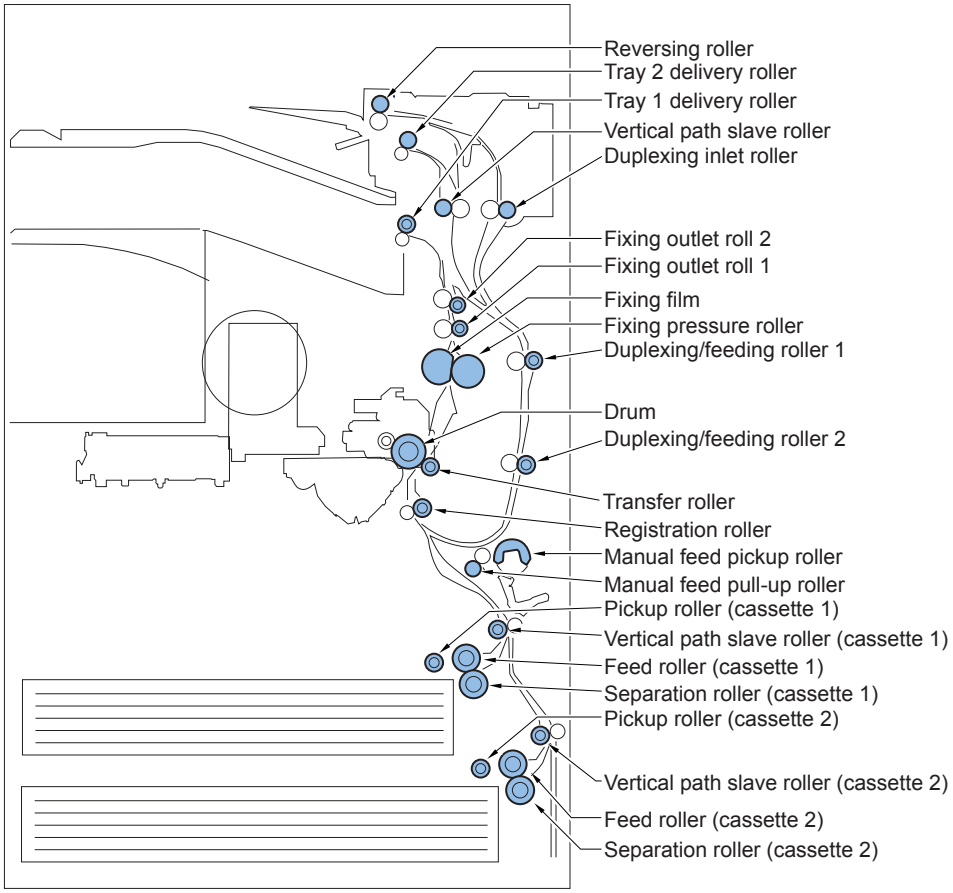
Specification

Item		Description
Paper storage method		Front loading method
Pickup method	Cassette	Retard separation method
	Manual feed pickup tray	Pad separation method
Paper stack capacity	Cassette	550 sheets (80 g/m2), 650 sheets (64 g/m2)
	Manual feed pickup tray	80 sheets (80 g/m2), 80 sheets (64 g/m2)
Paper feed reference		Center reference
Paper size	Cassette 1	A4,A4R,A5R,B4,B5,B5R,LTR,LTTR,LGL,STMTR,EXEC, 8K,16K,16KR
	Cassette 2	A4,A4R,A3,A5R,B4,B5,B5R,LTR,LTTR,LGL,11"" x 17"", STMTR,EXEC,8K,16K,16KR, Free size(139.7 mm x 182 mm to 297 mm x 431.8 mm) envelope (No.10(COM10),ISO-B5,ISO-C5,Monarch,DL) *The optional Envelope Feeder Attachment-D1 is required.
	Manual feed pickup tray	A4,A4R,A3,A5R,B4,B5,B5R,LTR,LTTR,LGL,11"" x 17"", STMTR,EXEC,8K,16K,16KR, Free size (99 mm x 148 mm to 297 mm x 431.8 mm) envelope (No.10(COM10),ISO-B5,ISO-C5,Monarch,DL) Label (B4,A4R,A4,LTR,LTRR)
Paper grammage	Cassette	60g/m2 to 128g/m2
	Manual feed pickup tray	52 g/m2 to 220 g/m2
Paper size switch	Cassette	By the user
	Manual feed pickup tray	By the user
Duplexing method		Through path

T-2-55

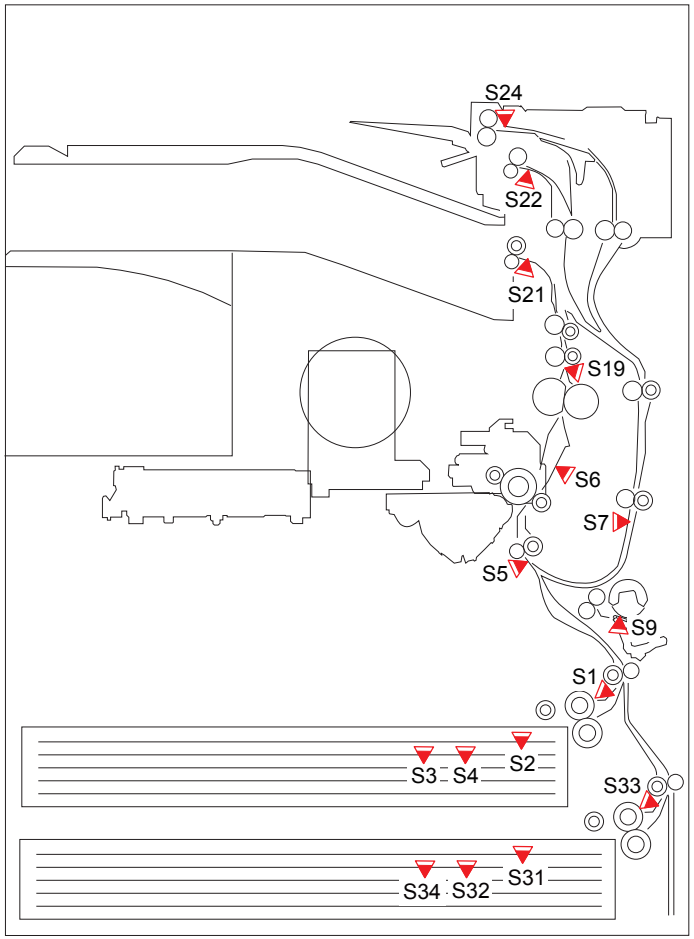
Parts Configuration

Arrangement of Rollers



F-2-104

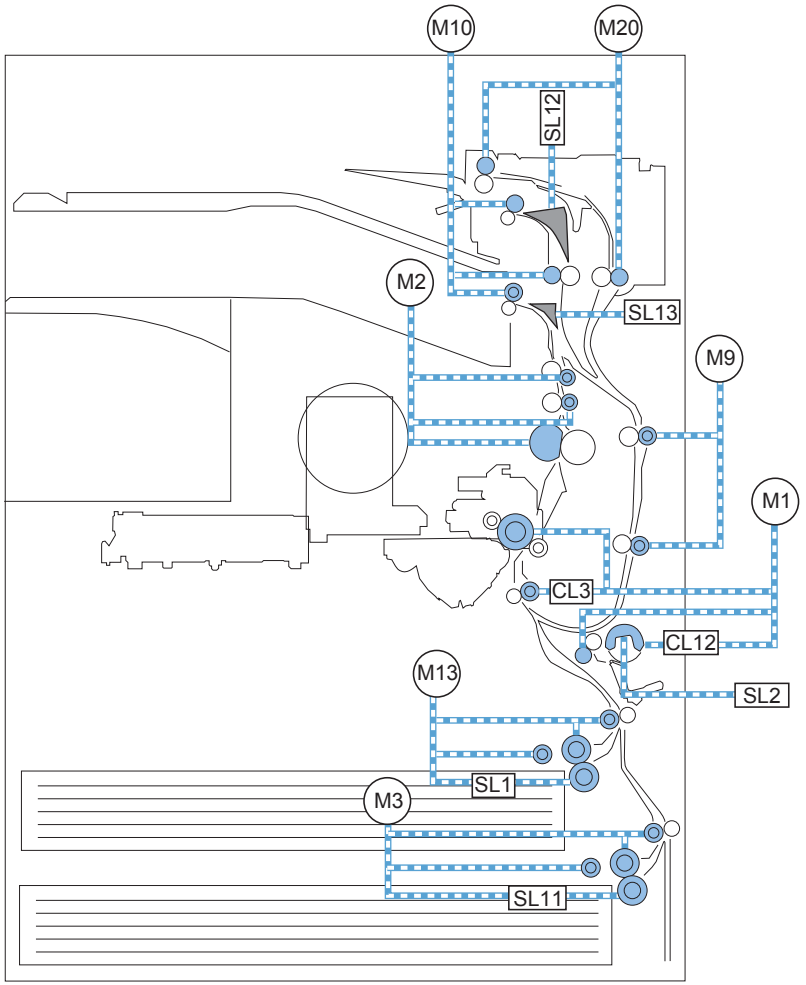
Arrangement of Sensors



F-2-105

S1	Cassette 1 pickup sensor	S19	Fixing Outlet Sensor
S2	Cassette 1 paper sensor	S21	No.1 delivery sensor
S3	Cassette 1 paper level sensor B	S22	No.2 Delivery Sensor
S4	Cassette 1 paper level sensor A	S24	Reversal Sensor
S5	Pre-registration sensor	S31	Cassette 2 paper sensor
S6	Loop sensor	S32	Cassette 2 paper level sensor A
S7	Duplex feed sensor	S33	Cassette 2 pickup sensor
S9	Manual feeder paper sensor	S34	Cassette 2 paper level sensor B

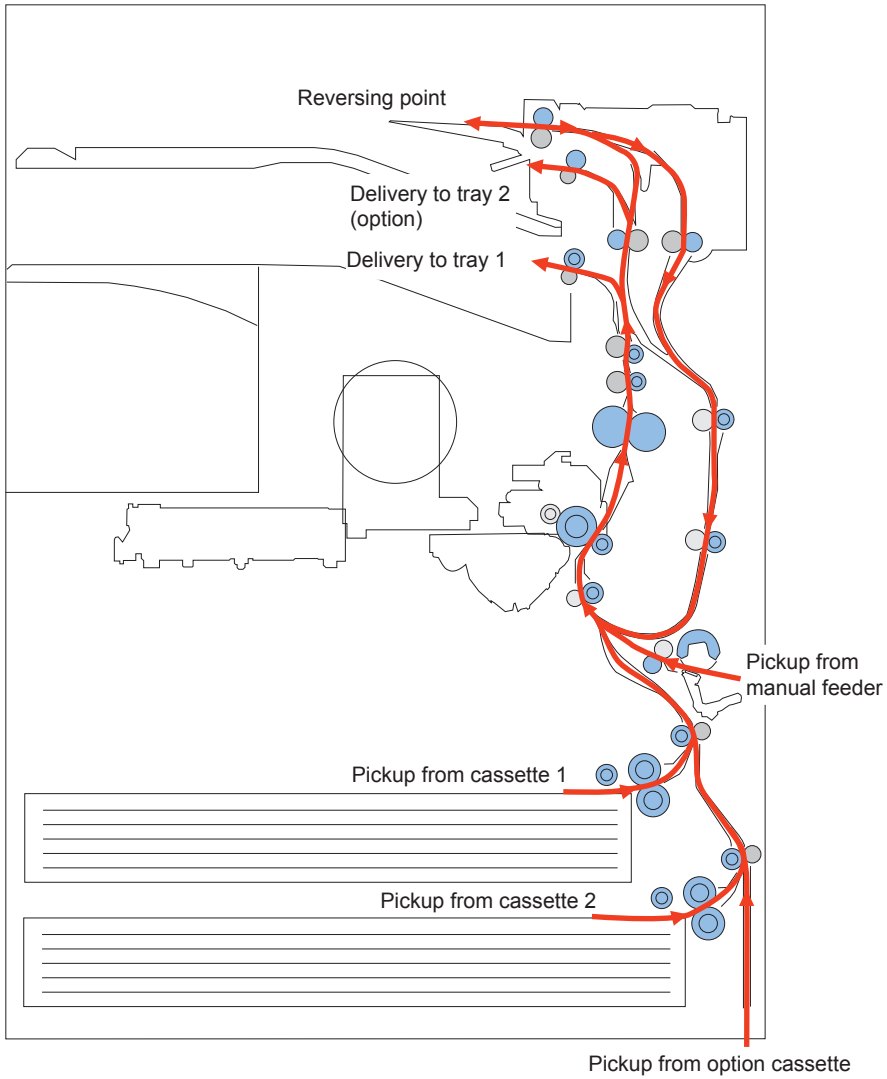
Route of Drive



F-2-106

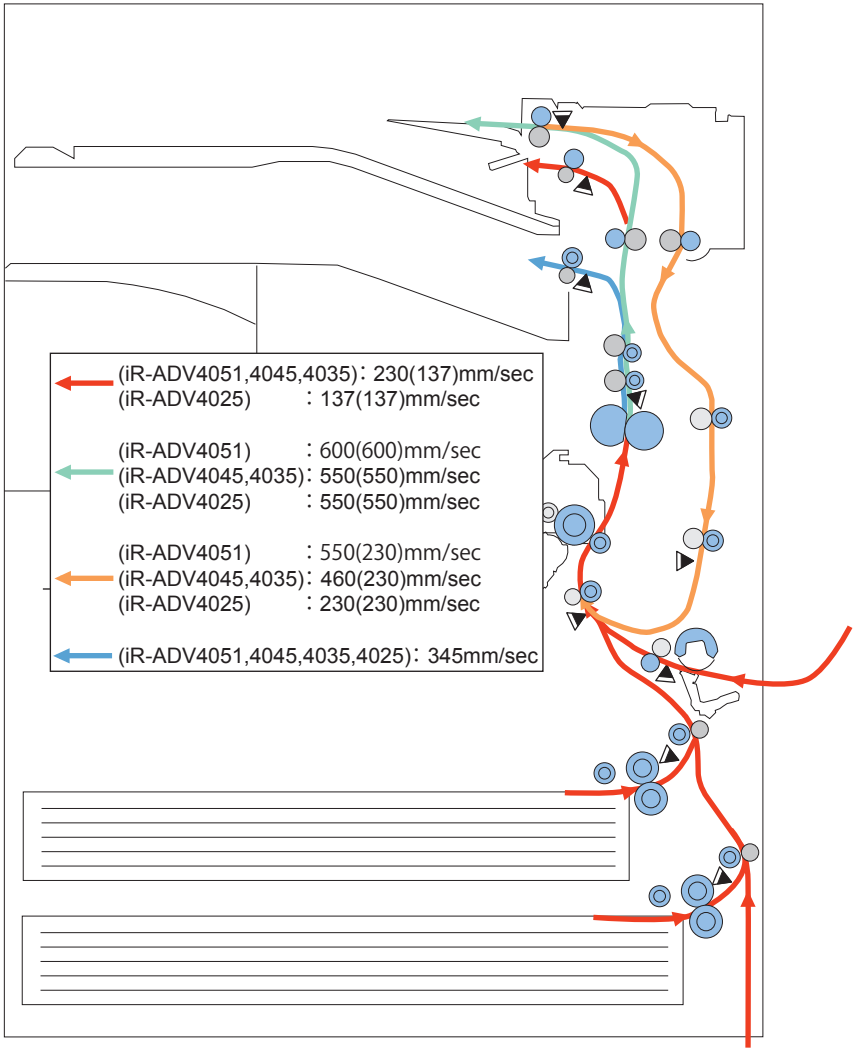
M1	Main motor	SL1	Cassette 1 Pickup solenoid
M2	Fixing motor	SL2	Manual feed pickup solenoid
M3	Cassette 2 pickup motor	SL11	Cassette 2 Pickup solenoid
M9	Duplex Feed Motor	SL12	Reversal solenoid
M10	No.1 Delivery Motor	SL13	No.2 delivery solenoid
M13	Cassette 1 Pickup motor	CL3	Registration clutch
M20	Reversal motor	CL12	Manual feed pickup clutch

Diagram of Paper Paths



F-2-107

Interval speed

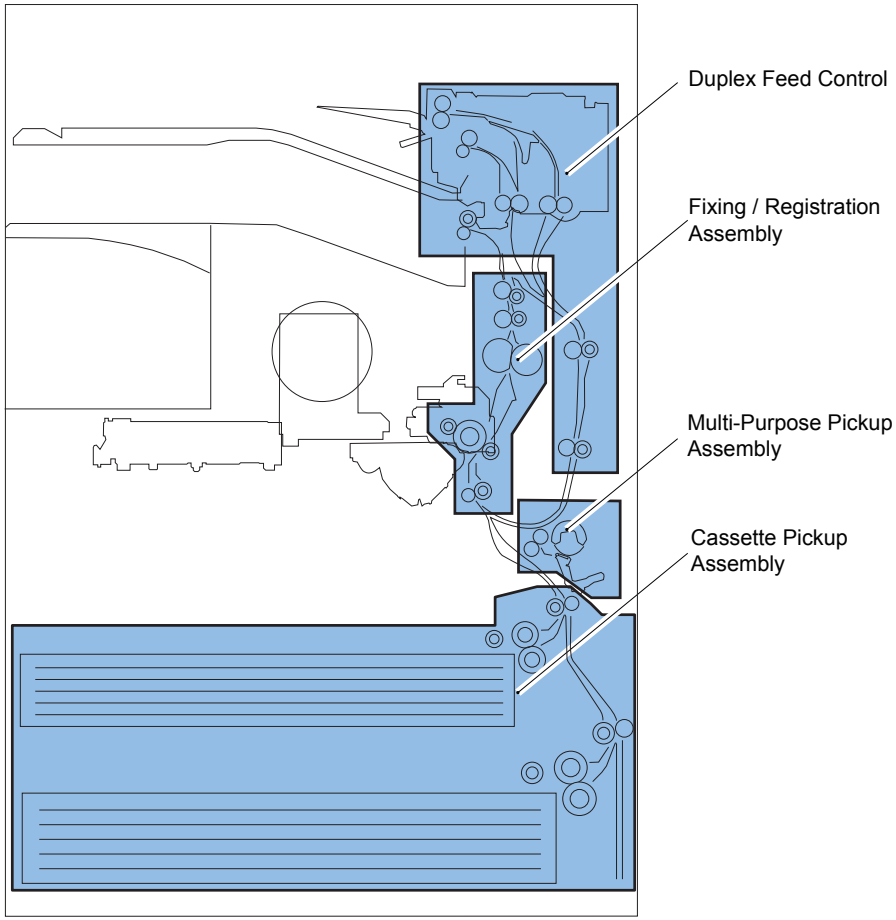


F-2-108

( ): in the case of manual feeder.

Controls

Overview



F-2-109

Area	Detection, Control
Cassette Pickup Assembly	Outline
	Paper Level / Presence Detection
	Paper Size / Cassette Presence Detection
Multi-Purpose Pickup Assembly	Outline
	Paper Presence Detection
	Paper Size Detection
Fixing / Registration Assembly	Registration Control
Duplex / Delivery Assembly	Duplex Feed Control
JAM Detection	JAM Detection

T-2-56

Cassette Pickup Assembly

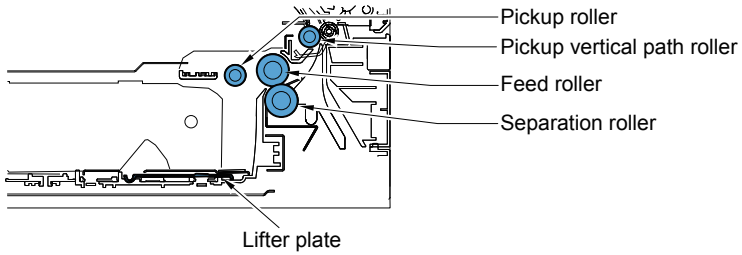
Overview

The paper inside the cassette is held up by the lifter plate.

When pickup takes place, the pickup solenoid (SL1/SL11) is turned on, and the pickup roller is moved down. When the pickup roller comes into contact with the surface of paper, the sheet is picked up by rotation of the roller.

Only a single sheet of paper picked up is moved to the feed path by the feed roller and the separation roller, and moved as far as the registration roller by the pickup vertical path roller.

The pickup vertical path roller, pickup roller, feed roller, and separation roller are driven by the cassette pickup motor (M3/M13)



F-2-110

Paper Size Detection

Paper Size Detection

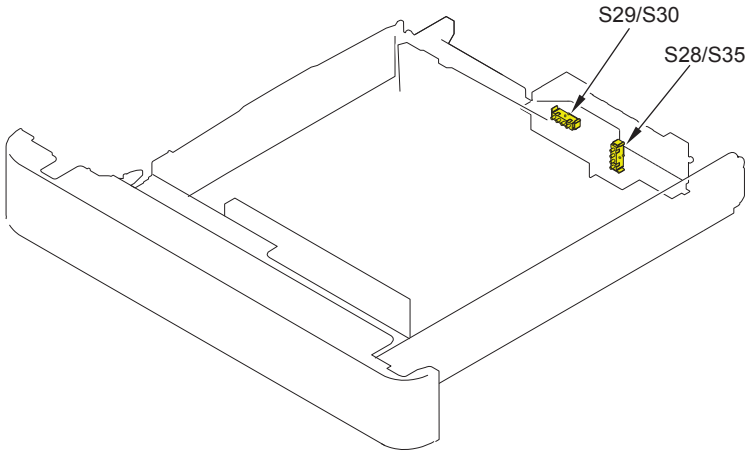
Paper size of the cassette can be automatically detected by adjusting the position of the guide plate.

Concavo-convex area of the cassette dial is switched when the guide plate is shifted and two Size Switches on a printer are switched.

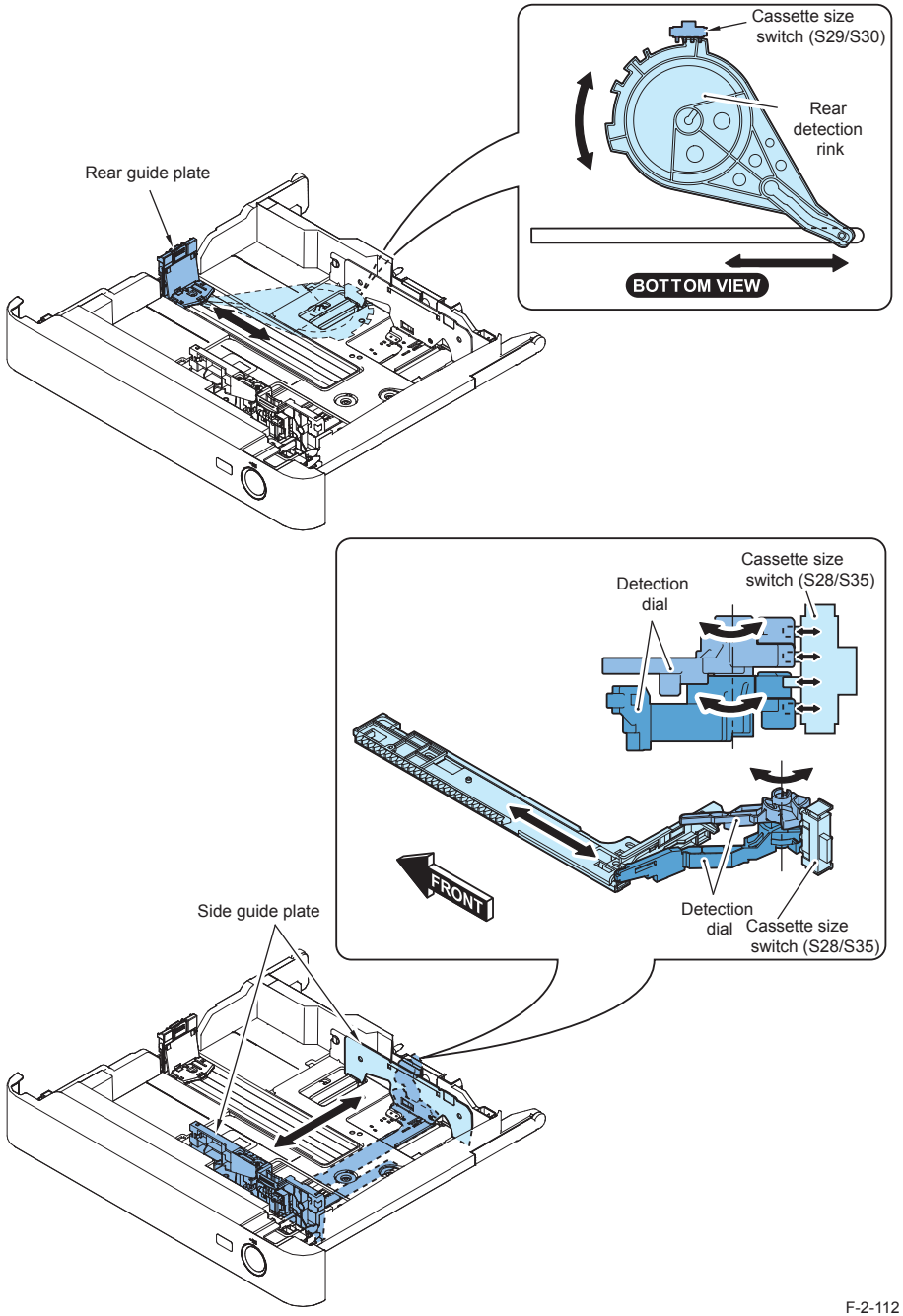
Length and width are detected according to the ON / OFF combination of switches.

As long as standard paper, both AB type and inch type can be used.

However, size should be found manually on the check screen for the combination of A5-Rand STMT-R or the combination of B5-R and EXEC.



F-2-111



F-2-112

			Width detection(S29/S30)				Length detection(S28/S35)			
	Width	Length	1	2	3	4	1	2	3	4
B5	257.0	182.0	0	ON	ON	0	0	0	0	0
EXEC	267.0	184.0	0	ON	ON	0	0	0	0	0
16K	270.0	195.0	0	ON	ON	0	ON	0	0	0
A5-R	148.5	210.0	ON	0	ON	0	ON	ON	0	0
A4	297.0	210.0	0	ON	0	0	ON	ON	0	0
STMT-R	139.7	215.9	ON	0	ON	0	ON	ON	0	0
LTR	279.4	215.9	0	ON	ON	0	ON	ON	0	0
B5-R	182.0	257.0	ON	0	ON	0	0	ON	ON	ON
LTR-R	215.9	279.4	0	0	ON	0	ON	0	0	ON
A4-R	210.0	297.0	0	0	ON	0	0	ON	ON	0
LGL	215.9	355.6	0	0	ON	0	ON	ON	0	ON
B4	257.0	364.0	0	ON	ON	0	ON	ON	ON	0
8K	270.0	390.0	0	ON	ON	0	ON	ON	ON	ON
A3	297.0	420.0	0	ON	0	0	0	0	ON	ON
LDR	279.4	431.8	0	ON	ON	0	0	0	ON	ON

T-2-57

Also, the cassette presence is detected when the size switch is pushed.
(If no switch is pushed, it is determined as no cassette.)

Setting method when the size detection patterns are overlapped

ASize should be found manually on the check screen for the combination of A5-Rand STMT-R or the combination of B5-R and EXEC.
Specify the ecognition method for the special paper with user setting.
The setting size is indicated below.

Related Service Mode
PRINT> CST> CASX> CSTX-UY> Number
X shows Cassette Number. Y shows size category. (X, Y is one of the number 1/2/3/4.)

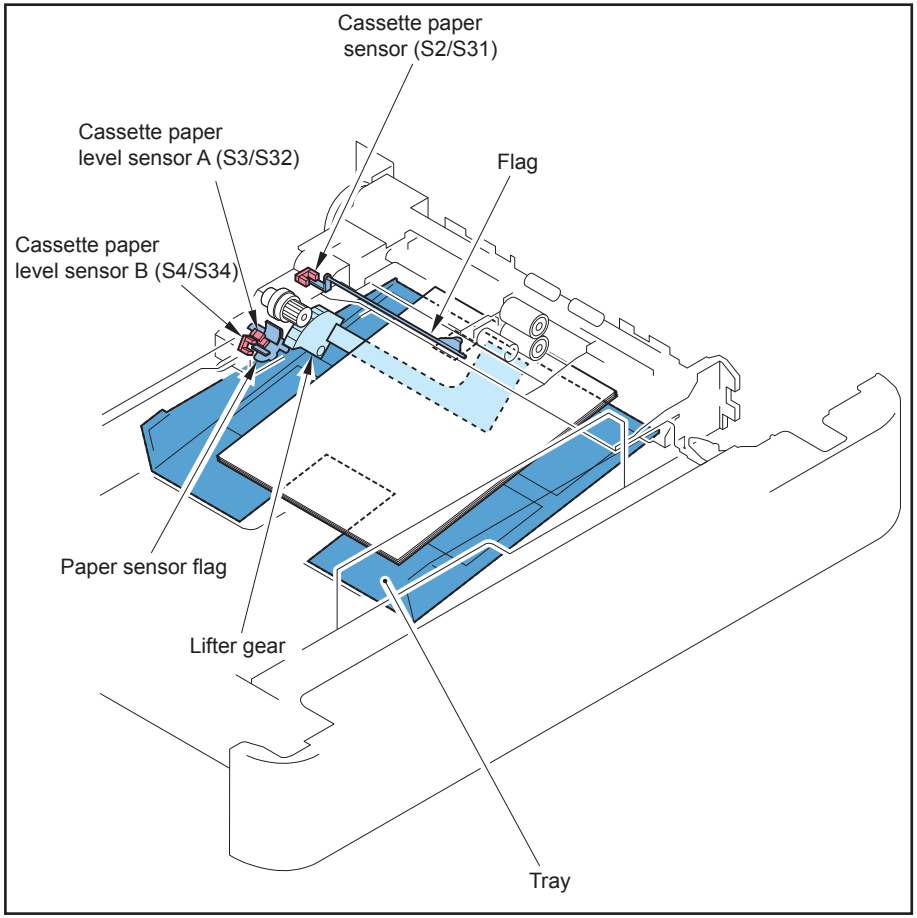
U-size.	Size
U1	26: OFI, 27: E-OFI, 37: M-OFI, 36: A-OFI, 24: FLSP, 25: A-FLSP, 30: A-LTRR, 42: FA4, 34: G-LGL 0: default
U2	32: G-LTR-R, 34: G-LGL, 23: K-LGL-R, 0: default
U3	22: K-LGL, 31: G-LTR, 29: A-LTR, 0: default
U4	28: B-OFI, 0: default

T-2-58

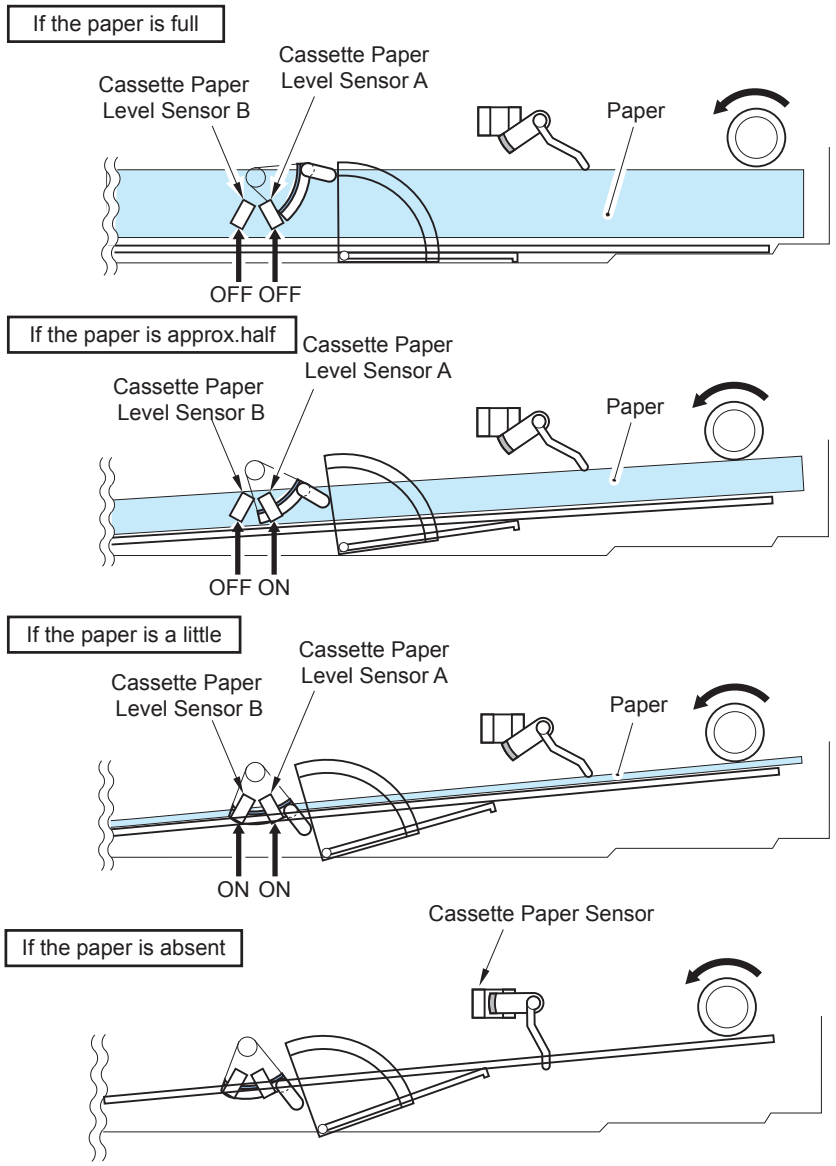
Paper level sensor

Paper level in a cassette is detected with the sensor indicated below.

Cassette paper level sensor A	S4/S32
Cassette paper level sensor B	S3/S34
Cassette paper sensor	S2/S31



F-2-113



F-2-114

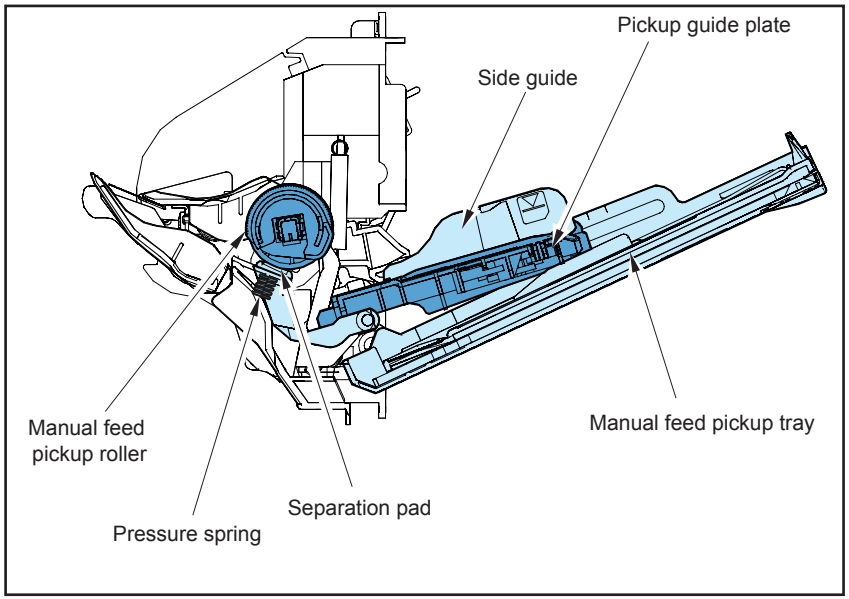
Cassette paper level sensor A	Cassette paper level sensor B	Cassette paper sensor	Paper level	Display
ON	ON	ON	100% to 50%	
OFF	ON	ON	50% to 50 sheets	
OFF	OFF	ON	50 sheet or less	
---	---	OFF	no paper	

T-2-59

Multi-Purpose Pickup Assembly

Overview

The paper in the tray of the manual feed pickup unit is forced against the manual feed pickup roller by the work of the pickup guide plate, and only a single sheet of paper is separated and moved into the machine by the work of the manual feed pickup roller and the separation pad.



F-2-115

Paper Presence Detection

The paper presence is detected by the Multi-Purpose Tray Paper Presence Sensor.
When the paper absence is detected, if there is the same size & same type paper exists in other cassette, auto cassette change is executed.

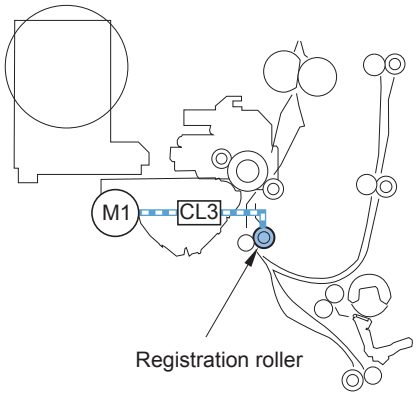
Paper Size Detection

This machine does not have the paper size detection function.
The user must set the size of the paper in the multi manual feed tray using the operation panel, or the user must register a fixed size in the user mode.
Image masking area is regulated based on the result of paper width detection so that the image to be reproduced does not beyond the paper width

Fixing / Registration Assembly

Registration Control

The registration roller is driven by the main motor (M1).
In between the registration roller and the main motor is the registration clutch (CL1), servicing to turn on and off the registration roller so that the paper will be matched in relation to the image on the drum at correct registration.



F-2-116

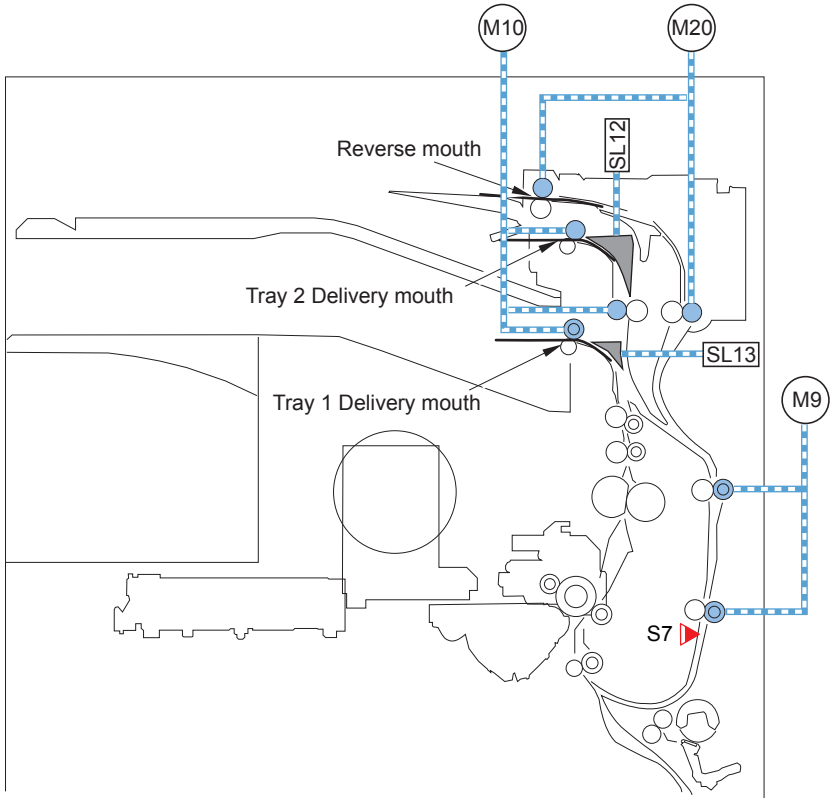
Duplex / Delivery Assembly

Duplex Feed Control

On this machine, the paper is revered outside the machine with using the reverse mouth.
Delivery mouth is determined depending on whether or not the 2 way tray is installed.
Following is the number of sheet circulation by size.

- With 2way tray

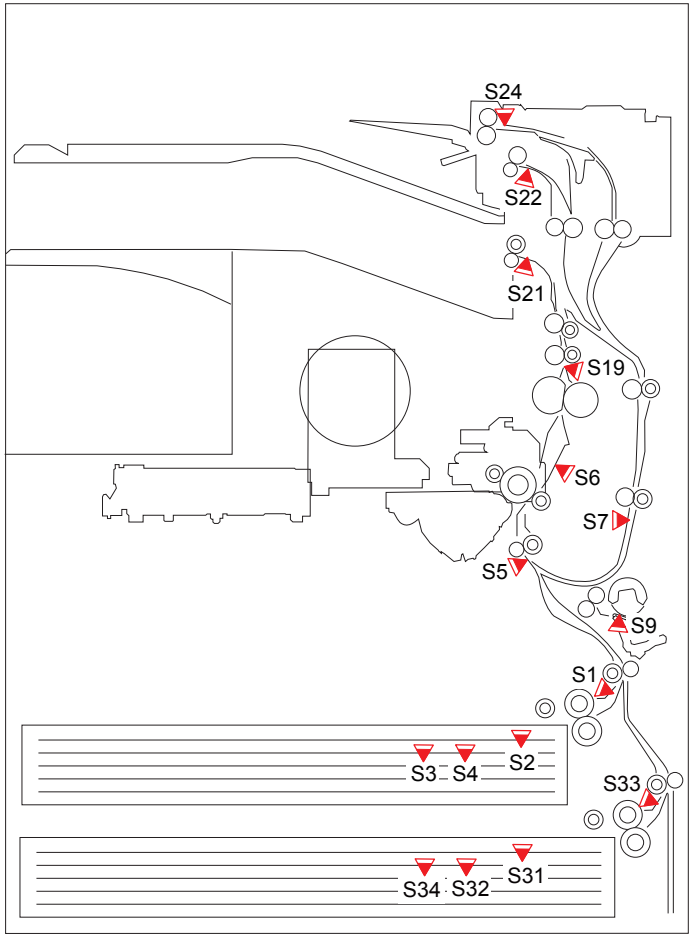
	No.1 delivery tray	No.2 delivery tray
All size	3	3



F-2-117

Detecting Jams

Jam Code List



F-2-118

- Jam in Feed System

  xx = 01: Delay, 02: Stationary, 0A: Residue

  Yes: Detects, -: Does not detect

Sensor No.	Sensor name		Jam type		
			Delay	Stationary	Residue
xx01	S1	Cassette 1 Pickup Sensor	○	○	○
xx02	S33	Cassette 2 Pickup Sensor	○	○	○
xx05	S5	Pre-Registration Sensor	○	○	○
xx07	S19	Fixing Outlet Sensor	○	○	○
xx08	S21	No.1 Delivery Sensor	○	○	○
xx09	S22	No.2 Delivery Sensor	○	○	○
xx09	S24	Reversal Sensor	-	-	○
xx0A	S24	Reversal Sensor	○	○	○
xx0D	S7	Duplex Feed Sensor	○	○	○

T-2-60

- Other Jams

Sensor No.	Sensor name		Jam type
01FF	S1	Cassette 1 Pickup Sensor	Sequence error jam
02FF	S33	Cassette 2 Pickup Sensor	Sequence error jam
05FF	S5	Pre-Registration Sensor	Sequence error jam
07FF	S19	Fixing Outlet Sensor	Sequence error jam
08FF	S21	No.1 Delivery Sensor	Sequence error jam
09FF	S22	No.2 Delivery Sensor	Sequence error jam
0AFF	S24	Reversal Sensor	Sequence error jam
0DFF	S7	Duplex Feed Sensor	Sequence error jam
0B00	(SW2)	Front Door Switch	Door Open jam(TThe sensor ID is non-display.)
0CA0	-	time out error jam	command is not received
0CF1	-	error re-try jam	-

T-2-61

Work of Service

Maintenance service

Periodically replaced parts

None

Consumable parts

No	Item	Parts No.	Q'ty	Life	Remarks
1	Manual feed pickup roller	FL3-1352	1	150,000 sheets	
2	Manual feed separation pad	FL3-3469	1	150,000 sheets	
3	Cassette pickup roller	FB6-3405	2	150,000 sheets	
4	Cassette feed roller	FC6-7083	2	150,000 sheets	
5	Cassette separation roller	FC6-6661	2	120,000 sheets	

T-2-62

Periodically Servicing parts

No	Item	Parts No.	Q'ty	Life	Remarks
1	Pre-registration guide (Static charge eliminator)	-	1	As needed	Dry wiping with the lint-free paper

T-2-63

Action to take when replacing parts

When replacing the Periodically Replaced Parts and Consumable Parts, be sure to clear the Parts Counter (COPIER > COUNTER > DRBL-1)

Major Adjustments

None

Troubleshooting

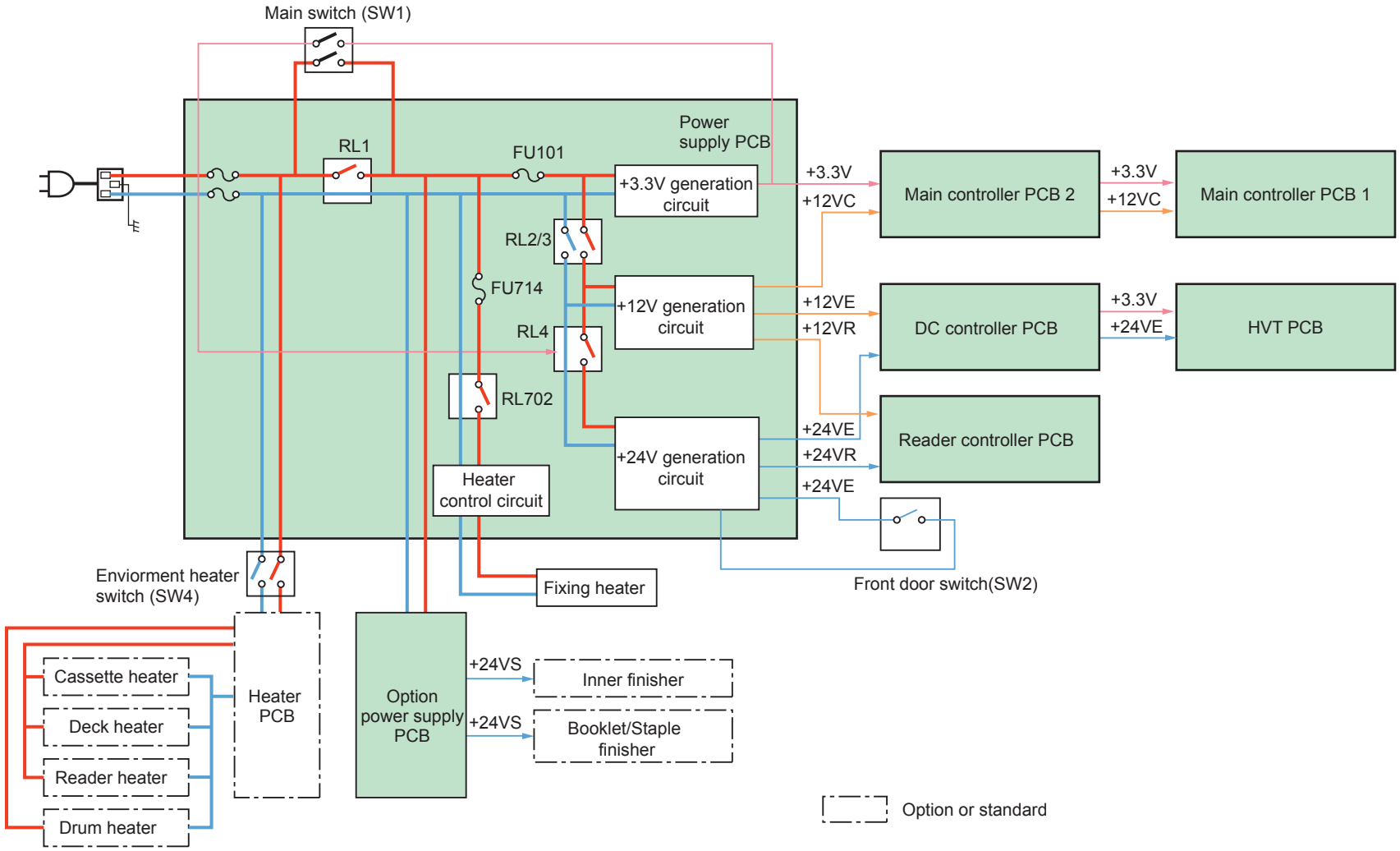
None

External Auxiliary System

Overview

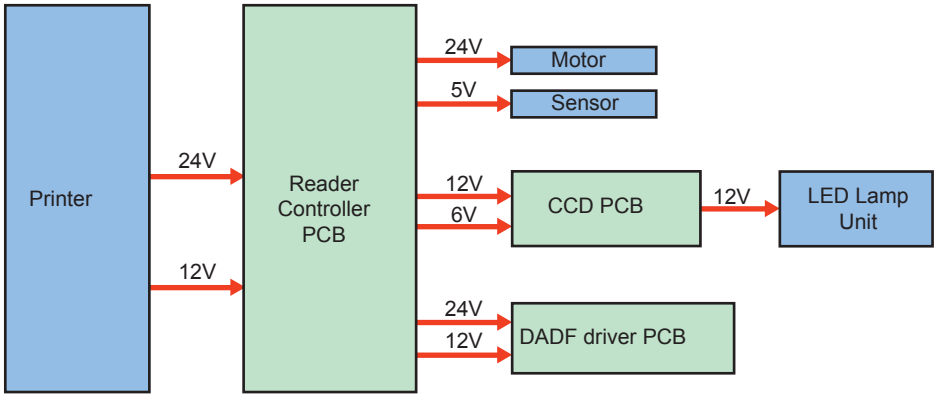
Power Supply Configuration

Power Supply Configuration inside the Host Machine



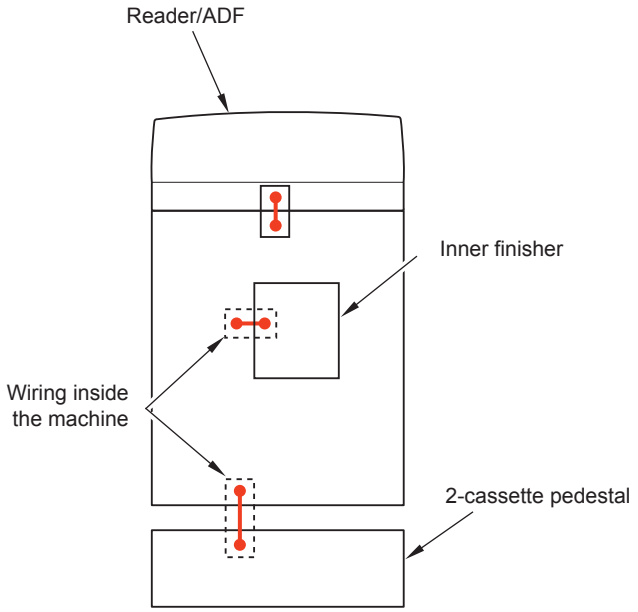
F-2-119

Power Configuration of the Reader Unit



F-2-120

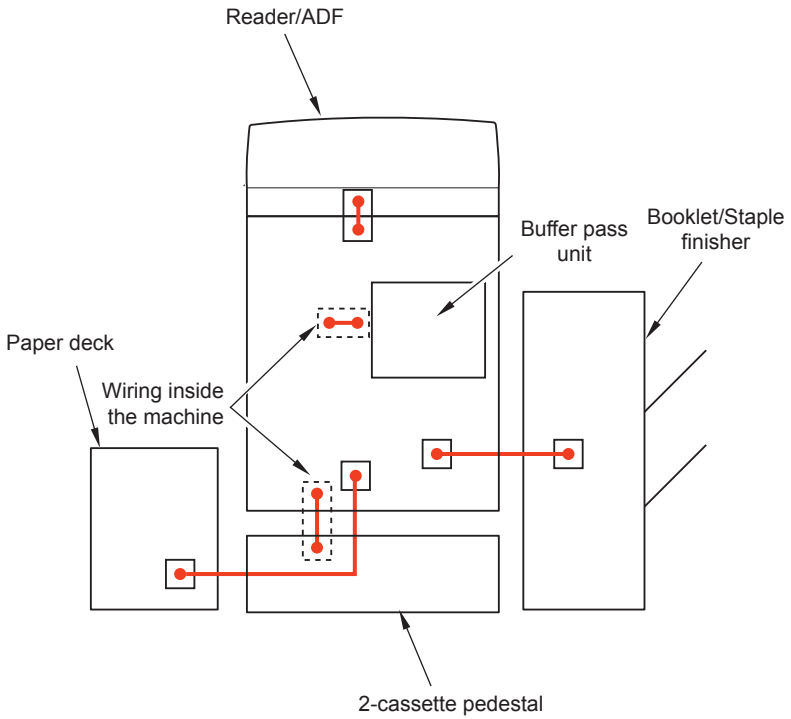
Power wire connection from the Host Machine to the Options



F-2-121

The inner finisher and the 2-cassette pedestal are connected to the host machinel with the connectors inside the covers.

It is connected to the ADF with a cable outside the machine.



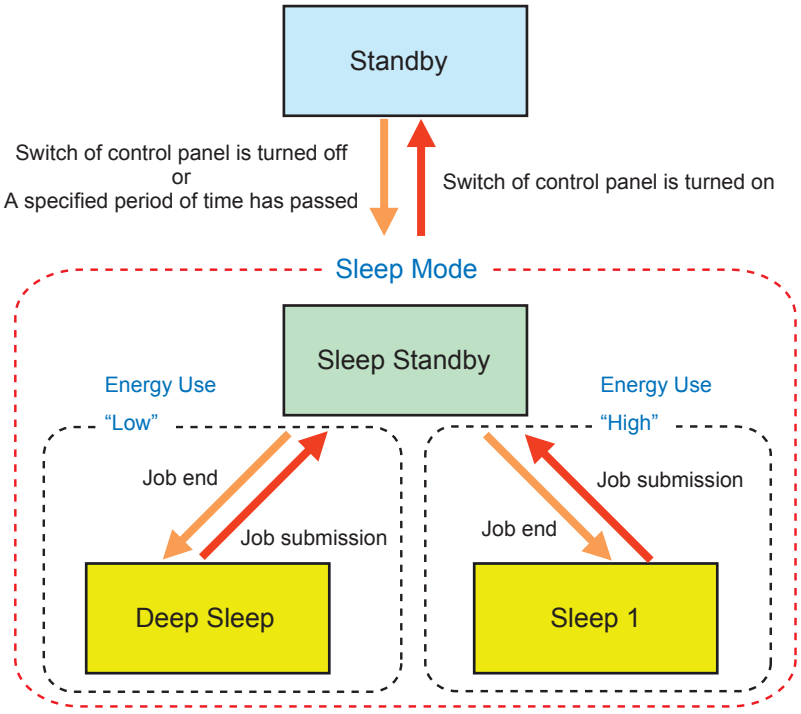
F-2-122

The buffer pass unit and 2-cassette pedestal are connected to the host machinel with the connectors inside the covers.
It is connected to the ADF, the paper deck and the staple/booklet finisher with a cable outside the machine.

Controls

Power-saving Function

The power supply mode of this equipment is divided into "Standby" mode and "Sleep" mode. Further, "Sleep" mode is divided into the followings: "Sleep Standby", "Deep Sleep", and "Sleep 1".



F-2-123

* The time specified in Settings/Registration> Preferences> Timer/Energy Settings> Auto Sleep Time. By default, it takes a minute after completion of printing, scanning or fax job.

Standby Mode

The state that the machine is running or can start operation immediately and all the power is supplied in this mode.
When turning OFF the Control Panel Power Switch or the specified period of time has passed, the mode is shifted to Sleep mode.
When turning ON the Control Panel Power Switch while in Sleep Standby mode, the mode is shifted to this mode.

Sleep Standby Mode

The state that only the Control Panel is off while the power is supplied to all other parts.
In the case of shifting to Sleep mode from Standby mode, the machine goes through this mode. Presence of a job is determined and if there is no job, the mode is shifted to Deep Sleep/Sleep 1 mode.
When a job is submitted during sleep (Deep Sleep/Sleep 1 mode), the mode is shifted to this mode.

Deep Sleep Mode

The state that the Control Panel is off while only all-night power (3.3 V) is supplied.
When "Low" (default) is set in Settings/Registration> Preferences> Timer/Energy Settings> Sleep Mode Energy Use, the mode is shifted from Sleep Standby mode at sleep state. However, when the host PC is connected to the USB device interface, it is not shifted to Sleep 1 mode even if "Low" is set.
The mode is shifted to Sleep Standby mode when a job is submitted during this mode, and is shifted to Standby mode when the Control Panel Power Switch is pressed.

Sleep 1 Mode

The state that the power is not supplied to the printer and scanner but all-night/non-all-night power is supplied to the controller while the Control Panel is off.
When "High" is set in Settings/Registration> Preferences> Timer/Energy Settings> Sleep Mode Energy Use, the mode is shifted from Sleep Standby mode at sleep state.
The mode is shifted to Sleep Standby mode when a job is submitted during this mode, and is shifted to Standby mode when the Control Panel Power Switch is pressed.
When "0" (default) is set in COPIER> OPTION> USER> SLEEP1SW, power supply to a printer or scanner is stopped at this mode; thus, it takes time for recovery after job reception.
When "1" is set, power is supplied during sleep so that the machine recovers faster.

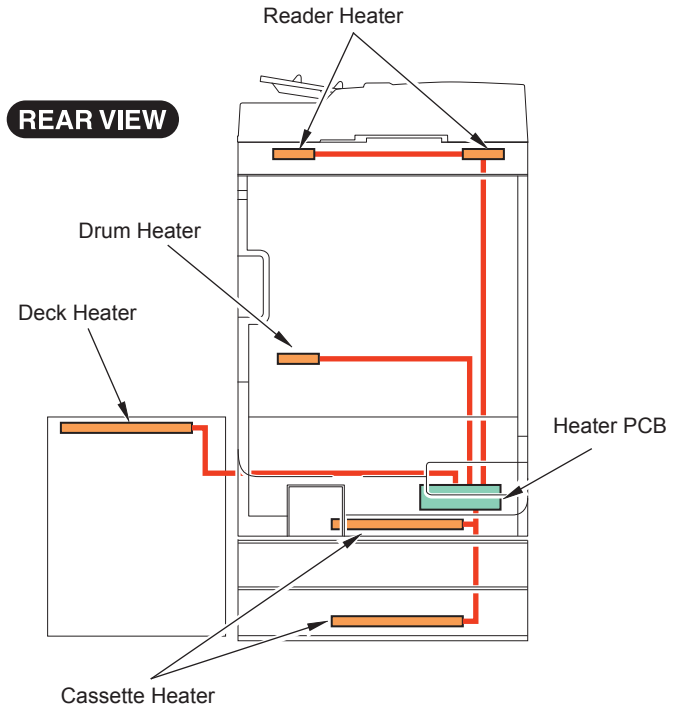
Effects of Spanning Tree-supported Hub

If you set the network as a loop, data keeps staying in this loop and efficiency of data transfer might be decreased. In order to prevent this symptom, some hubs have the function called “spanning tree”. If this function is enabled, the device newly connected to the hub can make data communication with network 10 to 50 seconds (time changes due to the conditions) after the connection. When the machine enters Deep sleep mode and restores from the sleep mode, the machine electrically disconnects with the network once. Therefore, if the machine connects with the spanning tree-installed hub, the machine cannot communicate with network for approximately 1 minute at a maximum after restoring from the Deep sleep mode.
For this reason, right after restoring from the Deep sleep mode, the following symptoms might occur: Device status cannot be collected, printing cannot be made, and login using a login application cannot be made. If such symptoms become any problems, perform the following operations.

- Using user mode, set not to enter the Deep sleep mode.
  Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High
- Disable the spanning tree function of hub.
- Request users to use the hub which supports Rapid Spanning-Tree
- Protocol (RSTP) that resolved such problems.

Heater control

Power Configuration of the Heater



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Name	Description	Reference value
Heater PCB	The heater PCB is not available as a product for USA/ CAN/ EUR. There is an exclusive built-in cassette heater PCB in the host machine for CSPL/ CHK/ CLA/ CA/ CCN. When installing a heater other than the cassette heater, the cassette heater PCB must be replaced by the heater PCB-K1.	
Reader heater	Reader heater is not available as a product for USA/ CAN/ EUR/ TW.	Surface temperature: About 120-140 deg C Power consumption: About 8.3W (120V) /9.7W(200V)
Drum heater	Drum heater is not available as a product for USA/ CAN/ EUR.	Surface temperature: About 80 deg C Power consumption: About 20W or less
Cassette heater	Cassette heater is not available as a product for USA/ CAN/ EUR. There is a cassette heater in the host machine as a standard feature for CSPL/ CHK/ CLA/ CA/ CCN.	Surface temperature: About 60 deg C Power consumption: About 16W
Deck heater	Deck heater is not available as a product for USA/ CAN/ TW. Deck heater is available as a service part for EUR.	Surface temperature: About 73 deg C Power consumption: About 20W

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● Heater operating condition

		Reader heater	Drum heater*1	Cassette heater	Deck heater
Turning on the environment heater switch (SW4)	Standby mode	OFF	ON	OFF	OFF
	Printing	OFF	OFF	OFF	OFF
	Turning off the main power switch	ON	ON	ON	ON
	Sleep mode*1	ON	ON	ON	ON

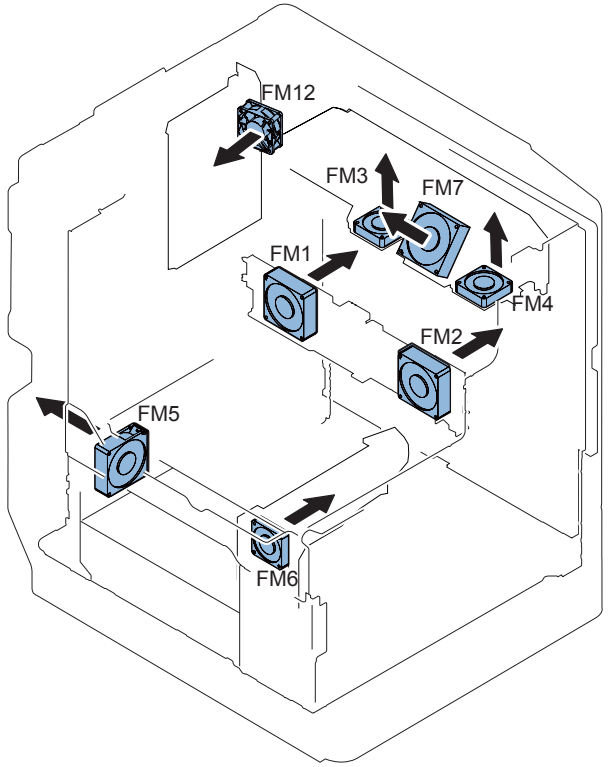
*1: Sleep Standby mode/Deep Sleep mode/Sleep 1 mode

T-2-65

■ Fan Control

● Overview

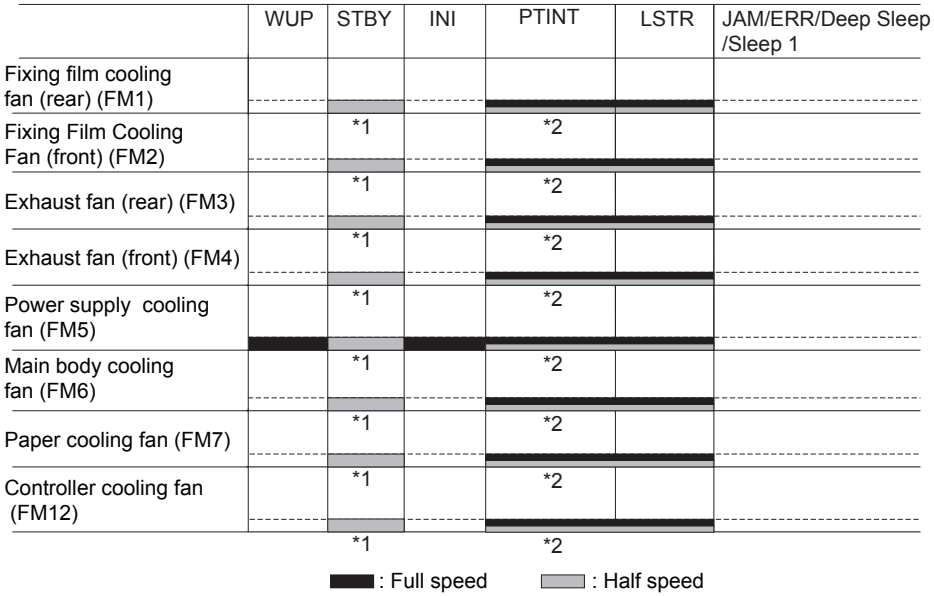
Fan layout



F-2-125

No.	Name	Function	Error code
FM1	Fixing film cooling fan (rear)	Cools the fixing unit. Cool paper on the delivery tray	E840-0001 E840-0002
FM2	Fixing film cooling fan (front)		E840-0003 E840-0004
FM3	Exhaust fan (rear)	Cools the fixing unit.	E805-0000 E805-0001
FM4	Exhaust fan (front)	Cools the fixing unit.	E805-0002 E805-0003
FM5	Power supply cooling fan	Cools the power supply.	E804-0000
FM6	Main body cooling fan	Cools the power supply. Circulate air in the host machine.	E806-0000 E806-0001
FM7	Paper cooling fan	Cool paper.	E806-0002 E806-0003
FM12	Controller cooling fan	Cools the main controller.	E880-0001

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*1: The fan operates at half speed only when the machine enters the standby mode after running for more than 8 minutes for fixing.

*2: The fan control in PRINT/LSTR performs full speed/half speed drive/stop depending on print mode and fix control temperature.

<Related service modes>

- Change of rotational speed for paper edge cooling fan
  (Lv.2) COPIER> ADJUST> FIXING> FN-MV-SW
  0: OFF, 1: Half speed (default), 2: Full speed
- Fan drive extension mode after job
  (Lv.2) COPIER> OPTION> FNC-SW> FAN-EXTN
  0:OFF, 1:ON

● Fixing film edge cooling fan (rear)/(front) control

Purpose

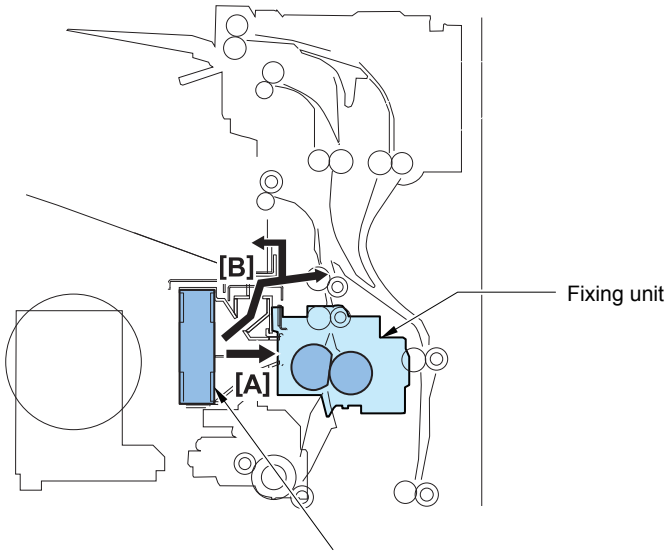
These fans are used to prevent the sections where paper is not fed from heating excessively when narrow paper (narrower than the A4 size (297 mm)) is fed.

These fans are used for the following purpose when paper wider than the A4 width (297 mm) is fed.

- Cool paper that has passed through the fixing unit.
- Cool paper to prevent the adhesion of paper interval on the delivery tray.

Overview

- [A]: When paper narrower than the A4 width (297 mm) is fed, the air outlet of the paper edge cooling fan (rear)/(front) opens to blow air to both ends of the fixing film, thus cooling the sections where paper is not fed.
- [B]: When paper wider than the A4 width (297 mm) is fed, the air outlet of the fixing film edge cooling fan (rear)/(front) closes to cool paper that has passed through the fixing unit and paper on the delivery tray.



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Control sequence

1) The shutter motor (M8) is energized and the shutter HP sensor (S10) detects the edge cooling shutter.

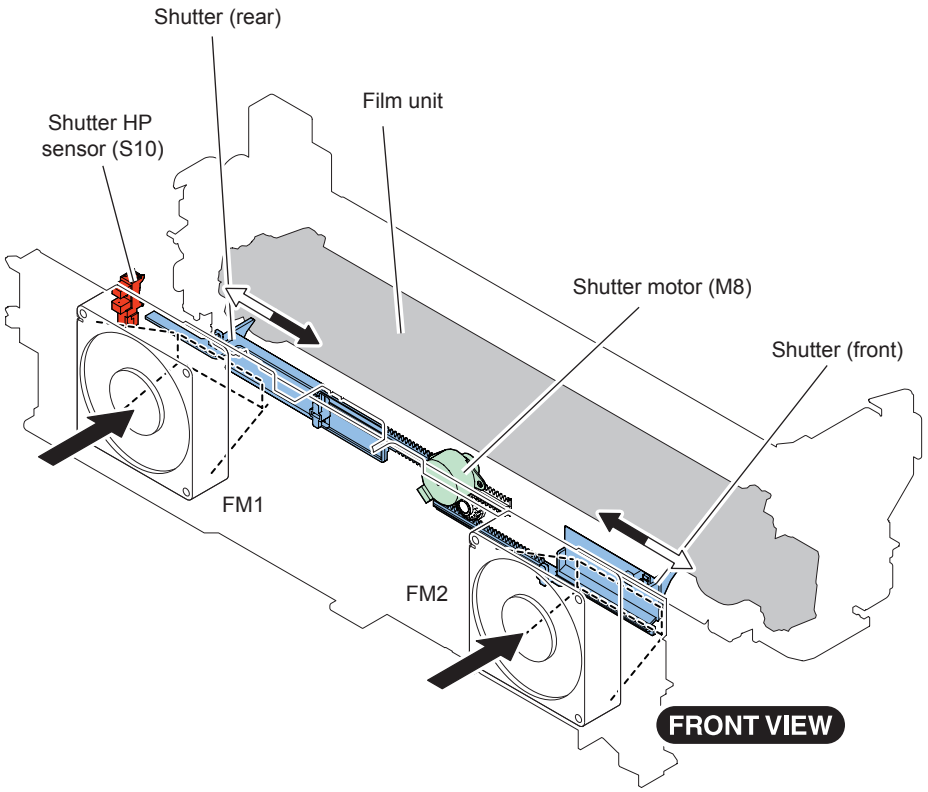
2) Aperture width of the edge cooling shutter is depending on the paper size. The edge cooling shutter starts to move when the registration clutch turns ON.

Opening width of the shutter	Paper size
0mm (closed)	A3, A4 (in respective mode other than N1/N3) A3, A4 (in N1/N3 mode and the surface temperature of the pressure roller is 95 degrees C or more.)
18mm	LDR, LTR, A-LTR
23mm	K8, K16
24mm	EXEC, G-LTR, K-LGL
29mm	B4, B5
30mm	A3, A4 (in N1/N3 mode and the surface temperature of the pressure roller is less than 95 deg C.)*1
50mm	LTR-R, LGL, A-LTR-R, OFFICIO, A-OFFICIO, B-OFFICIO, E-OFFICIO, M-OFFICIO, FOOLSCAP, F4A
53mm	A4-R, FOLIO
58mm (opend)	Other than the above-mentioned sizes

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*1: The width of the edge cooling shutter aperture can be adjusted by service mode;
SERVICE MODE > COPIER > ADJUST > FIXING > ADJ-FNSH (Open width adj of paper edge cooling fan shutter; in N1/N3 mode, A3/A4).
Adjusting value; "0"-"6": Aperture width changes in 0mm – 24mm by 4mm steps.
Adjusting value; "7"-"14": Aperture width changes in 30mm – 58mm by 4mm steps.

3) When Fixing film edge cooling fans (rear/front) (FM1/FM2) and the main body cooling fan (FM6) are ON, their power (full speed, half speed and stop) and width of the edge cooling shutter aperture are controlled by the subthermistor (TH1/TH2).



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Counter control

Count-up timing differs according to the following.

- Print mode (1-sided page, 2nd side of 2-sided page, 1st side of 2-sided page)
- Delivery position (Finisher).

Target of delivery		Print mode	
		Single-sided/Doublesided (2nd side)	Double-sided (1st side)
		Count-up timing	
Host machine	1st delivery tray	No.1 delivery sensor (S12)	Duplex feed sensor (S7)
	2nd delivery tray	No. 2 delivery sensor (S42)	
Inner finisher		Inner finisher inlet sensor (S1)	
Staple Finisher / Booklet Finisher	Tray A (Upper Tray)	Reference Sensor: Feed Path Sensor (S102)	
	Tray B (Lower Tray)		
	Saddle area	Reference Sensor: Saddle inlet sensor (S201)	

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Default counters for each country (model) are listed below.

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
JP model Type1 (Conventional method)	Total 1	*1	*1	*1	*1	*1	JP
	101	000	000	000	000	000	
JP model Type 2 (New method)	Total 2	Copy (Total 2)	Total A 2	*1	*1	*1	JP
	102	231	148	000	000	000	
Taiwan model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	TW
	101	103	201	203	000	000	

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
UL model Type1 (Conventional method)	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	US
	101	103	201	203	000	000	
UL model Type 2 (New method)	Total 2	Copy (Total 2)	*1	*1	*1	*1	US
	102	202	000	000	000	000	
General model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	SG/KO/ CN
	101	103	201	203	000	000	
UK model Type1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	GB
	112	113	501	301	000	000	
240V UK model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	GB
	101	000	000	000	000	000	
CA model	Total 1	Total (Large)	Copy (Total 1)	Copy (Large)	*1	*1	AU
	101	103	201	203	000	000	
FRN model Type1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	FR
	112	113	501	301	000	000	
FRN model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	FR
	101	000	000	000	000	000	
GER model Type1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	DE
	112	113	501	301	000	000	
GER model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	DE
	101	000	000	000	000	000	
AMS model Type1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	112	113	501	301	000	000	
AMS model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/ GR/EE/ RU/NL/ SK/RO/ HR/BG/ TR
	101	000	000	000	000	000	
ITA model Type1 (Conventional method)	Total (Black/ Large)	Total (Black/ Small)	Scan (Total 1)	Print (Total 1)	*1	*1	IT
	112	113	501	301	000	000	
ITA model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	IT
	101	000	000	000	000	000	

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<Explanation of the list>

- Large: Large size paper (when paper length exceeds 364 mm in paper feed direction)
- Small: Small size paper (when paper length is 364 mm or less in paper feed direction)
- Total: Copy + Print; 1 count up
- 2-Sided: 1 count up when auto 2-sided copy
- Country code change of CONFIG is executed from COPIER > OPTION > FNC-SW > CONFIG.
- Three-digit number in the counter column shows the setting value of the following service mode items.
  (Lv.1) COPIER > OPTION > USER > COUNTER 1 to 6
- COUNTER2 to 6 can be changed from the service mode (COPIER > OPTION > USER).
- The change of the counter display type (New method/Conventional method) can be changed from the service mode (COPIER > OPTION > USER> CNT-SW).

*1: Nothing is displayed as default. However, you can change this setting from the service mode.

Restricted function

The restricted function mode is activated when several specific errors are detected so the surviving functions still can operate.

Item	Copy	ADF Scan	Book Scan	Print	Finisher
Specific error in ADF	Book copy : enabled ADF copy: disabled	Disabled	Enabled	Enabled	Enabled
Specific error in Reader	Disabled	Disabled	Disabled	Enabled	Enabled
Specific error in Host machine	Disabled	Enabled	Enabled	Disabled	Disabled
Specific error in Finisher	Enabled	Enabled	Enabled	Enabled	Enabled*1

*1: Only the straight pass delivery is available. Stapling, aligning, punching are not available.

ADF restriction error code

E413

Reader restriction error code

E202, E225, E227, E248, E280, E400

Printer restriction error code

E000, E001, E002, E003, E004, E010, E014, E020, E024, E025, E110, E261, E800, E805, E806, E840

Finisher restriction error code

- Staple/Booklet finisher
  E514, E530, E531, E532, E535, E537, E540, E542, E590, E591, E592, E593
  *E590 to E593: for the puncher unit (option).
  <Related service modes>
  - Restricted operation at Finisher error (for Staple Finisher-G1/Booklet Finisher-G1)
    (Lv.1) SORTER> OPTION> FIXING> MD-SPRTN
    0: Normal, 1: Restricted operation

- Inner finisher
  E505-0002, E531, E551, E590, E5F3, E5F4, E5F6

Servicing

Periodically Replaced Parts

No	Items	Interval	Remarks
1	Air filter	240,000 sheets	

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Consumable Parts

None

Periodical Servicing List

None

Action to take when replacing parts

Part name	Action
DC Controller PCB	1. Before Replacing 1)Backup of the Service Mode data (Lv.2) COPIER>FUNCTION>SYSTEM>DSRAMBUP 2. After Replacing 1)Restoring the backup data (Lv.2)COPIER>FUNCTION>SYSTEM>DSRAMRES 2)Switch OFF and then ON the main power. 3)Execute auto gradation adjustment. 4)Test print
Air Filter	When replacing the Periodically Replaced Parts, be sure to clear the Parts Counter. (COPIER>COUNTER>DRBL-1>OZ-FIL1)

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Major Adjustments

None

Troubleshooting

None

MEAP

Changes

Overview

This section introduces specification changes and functions added in iR-ADV 6075 series / 8105 PRO series earlier than Ver.20.xx, as well as iR-ADV C5051 series/C9075 PRO series/ C7065 series earlier than Ver.50.xx.

SSL Always Enabled

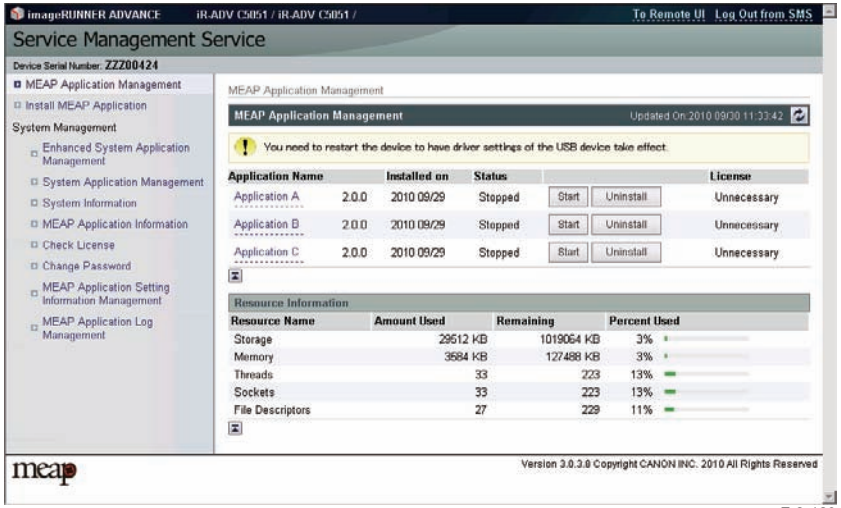
Although SSL setting of the device is disabled, SSL is always enabled when accessing to SMS.
Due to this specification change, URL for accessing to SMS was changed as follows.

Old URL http://< Device IP Address>:8000/sms/
New URL https://< Device IP Address>:8443/sms/

When accessing to the old URL, the new URL is redirected.

Message Display by USB Driver Setting Change

By starting, stopping and uninstalling the MEAP application, driver settings of the USB device may be changed. Due to this setting change, when the device needs to be restarted, a message prompting to restart is displayed.



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Addition of Functions

3 functions

For the built-in applications in iR-ADV models, 3 functions (services) were added.
These functions support the platform which was reinforced in terms of management. In detail, information which the MEAP applications manage respectively (setting information, user setting information, a bunch of keys, and log) can be managed effectively and collectively.

These 3 functions are shown below.

1) MEAP User Preference Service (MEAP Spec Ver 56)
Management service of customized information for each user which MEAP application retains

2) MEAP Application Configuration Service (MEAP Spec Ver 57)
Management service of the application's setting information

3) MEAP Application Log Service (MEAP Spec Ver 58)
Service to collect the application log (debug log and authentication log)

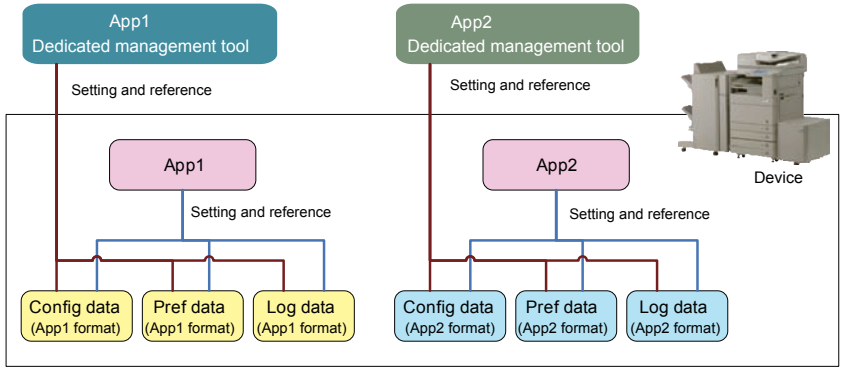
Note:
- Registration method of application data to each service and its usage method are disclosed in MEAP SDK V.4.3.
  However, as for the authentication log only, they are disclosed in MEAP Login SDK V.3.1.

Management service of the application data which was stored in each service is provided.
- iW EMC Plug-in(DAM Plug-in)、RUI、SMS

Differences in MEAP Application Data Management when Using New Functions

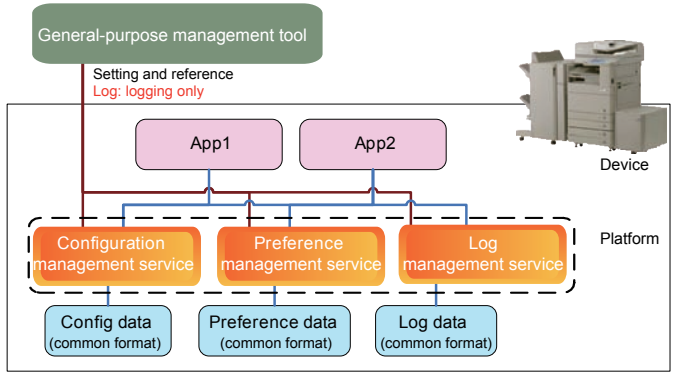
By using the 3 functions which were newly added, MEAP applications can be managed collectively as follows. (Only for MEAP applications which support new functions)

Devices and MEAP applications which do not support new functions



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Devices and MEAP applications which support new functions



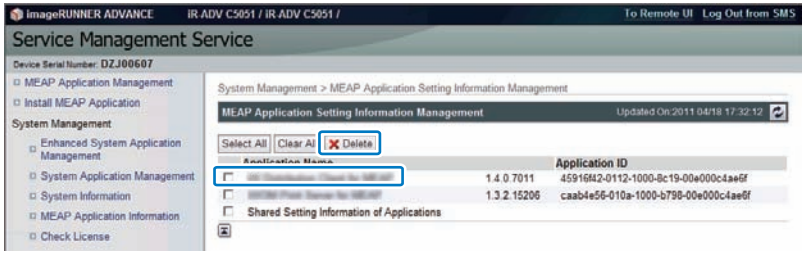
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Addition of SMS Functions

Due to the foregoing additional 3 functions, functions for MEAP application were added to SMS.

Management of the MEAP application's setting information

MEAP application's setting information management function which the application data can be deleted was added.

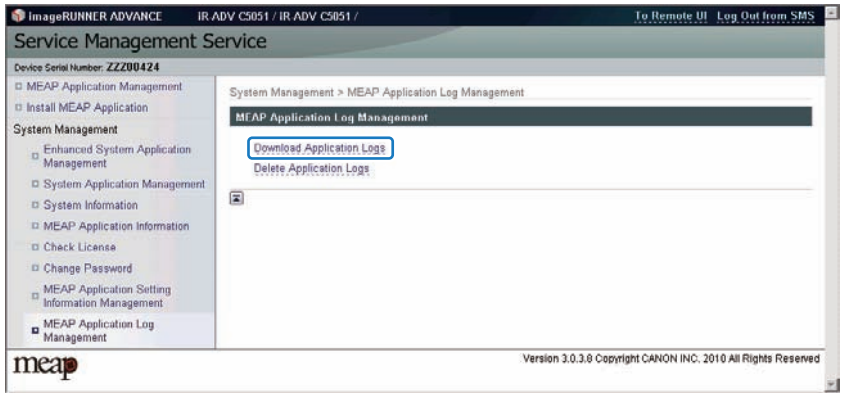


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Log management of MEAP application

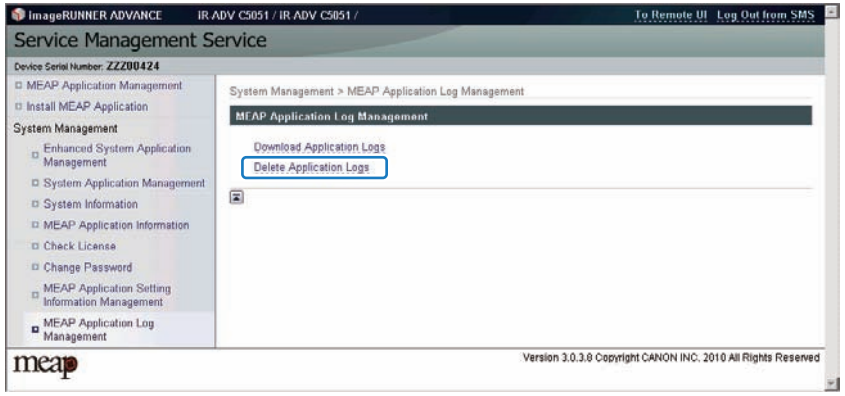
Since collective management of MEAP application data became available, a log management function has been added to allow download/deletion of application logs collected by the log management service (MEAP application log service).
The settings such as the log level to be saved cannot be made from SMS. These settings depend on the MEAP application. For detailed information, refer to the manual for the application.

Screen example: Download of MEAP application log



F-2-133

Screen example: Deletion of MEAP application log



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Authentication Information Sharing Function

Sharing the authentication information

Authentication information at login and authentication information for MEAP application were managed separately, so it was very inconvenient because authentication was executed many times.
In the MEAP environment, the unified authentication function which authentication information can be shared even between MEAP applications was added.
Supported MEAP Specifications is Ver.59 and both device and MEAP application need to support this version in order to use this function.

There are 2 types for authentication information sharing: Volatile Credential which the registered information is discarded at logout or shutdown of the device, and Persistent Credential which the registered information is not discarded even at logout.

Volatile Credential

Volatile Credential is used when sharing the authentication information between applications which log in (authenticate) to the same security domain.
Credential is registered using a login application, so the application which accesses to the security domain used for authentication by login application can use the Credential.

Persistent Credential

Persistent Credential is used to help entry of authentication information when logging in (authenticating) to a different security domain.
Credential is registered using a general MEAP application, so the authentication information can be reused when the same user logs in for the second time or later.

● Comparison of functions

		Volatile Credential	Persistent Credential
Registered information		Character strings and arbitrary Java object	Character strings only User ID/ Password/Domain/Arbitrary character strings
Lifetime	Registration	At login (login application), and at any timing registered by application	At any timing registered by application
	Deletion	Can be used until logout/shutdown.	Can be used until deletion by application or management tool.
Encryption of Credential data		Not supported	Data retained on the HDD is encrypted.
Store (Save) to		Memory in the device	HDD in the device

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● Service mode

For the reason of security, if not preferring to use Volatile Credential, it can be disabled using the service mode. (Persistent Credential cannot be disabled.)

Service switch can be found in the following.

[SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [FNC-SW] > [UA-OFFSW]

Setting value: 0 = Enabled, 1 = Disabled



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■ Function Supporting Deep Sleep Mode

Once the device shifted to the deep sleep mode, the USB device could not be controlled after recovery from the deep sleep mode. For this reason, it was necessary to control the application not to shift to the deep sleep mode.

With this function, the USB device control is enabled after recovery from the deep sleep mode as in the case when the USB device is inserted and removed (occurrence of disconnection/ connection event) at recovery from the deep sleep mode.

In addition, this function enables the USB device control after shifting to the deep sleep mode, so the application needs to perform reconnection processing.

This function can be used with the device which MEAP Specifications Ver.54 is supported.

Preparation for Using SSO-H

Outline

When using Single Sign On-H (hereinafter referred to as SSO-H) as login service for the MEAP device, the system environment required differs depending on whether domain authentication is used for management or local device authentication is used for management.
The system requirements of each authentication method are shown below.

Domain authentication management

In order to use domain authentication in SSO-H, the following system environments are required.

Domain authentication server

To use domain authentication in SSO-H, the following system environments are required.

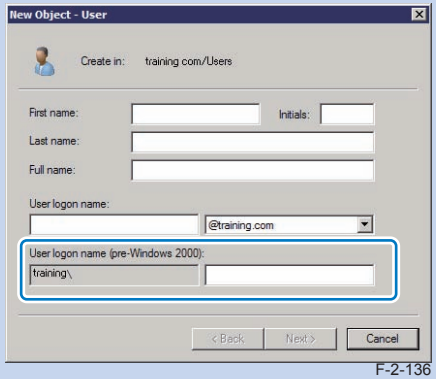
1) Domain authentication server (Windows Server)
- Active Directory and DNS are installed in the server.
- A group named "Canon Peripheral Admins" has been created on the Active Directory.
- One of the following OSs has been installed.
  - Microsoft Windows Server 2003 SP2
  - Microsoft Windows Server 2003 R2 SP2
  - Microsoft Windows Server 2008 SP2
  - Microsoft Windows Server 2008 R2

2) Users accessing the domain authentication server (Windows Server)
- They belong to the "Canon Peripheral Admins" group on the Active Directory.
- Use name contains only single-byte alphanumeric characters, - (hyphen), _ (low line), or % (percent).

Note:
The difference in time setting of the domain authentication server and the machine (and the computer for login) should be within 30 minutes. (If the difference in time setting is longer than 30 minutes, an error will occur during the domain authentication process at login.)

Note:
For the machine's login user name, use the name registered in "User logon name (pre-Windows 2000)" on the Active Directory.

User registration screen example (Windows Server 2003)



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PC environment of administrator users and general users

The following environment is required to use a MEAP device (managed by SSO-H) from a PC on the network.

OS and other PC environments (when using IPv4 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later *
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	
Mac OS X v10.3	Safari 1.3.2	Sun Java Runtime Environment 5.0 *
Mac OS X v10.4	Safari 2.0.4	
Mac OS X v10.5	Safari 3.1.2	
Mac OS X v10.6	Safari 4.0.3	

T-2-74

* Visit the URL of Sun Microsystems to learn how to obtain Java Runtime Environment.

Note:
- In case either of the following OS is installed in a client computer, Java Runtime Environment should be installed separately.
  - Windows XP Professional Japanese version (Service Pack 1a and later)
  - Windows Server 2003 Japanese version, Windows Server 2003 R2 Japanese version
- If [Internet Option]>[Securities]>[Customizing Levels]>[Run ActiveX controller and Plug-in] is disabled in a computer, Internet Explorer prompts the warning message, “Java Runtime Environment not Installed”.
- Use Update 6 or later for Java Runtime Environment 6.

OS and other PC environments (when using IPv6 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later *
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	

T-2-75

* Visit the URL of Sun Microsystems to learn how to obtain Java Runtime Environment.

Note:
- In case either of the following OS is installed in a client computer, Java Runtime Environment should be installed separately.
  - Windows XP Professional Japanese version (Service Pack 1a and later)
  - Windows Server 2003 Japanese version, Windows Server 2003 R2 Japanese version
- If [Internet Option]>[Securities]>[Customizing Levels]>[Run ActiveX controller and Plug-in] is disabled in a computer, Internet Explorer prompts the warning message, “Java Runtime Environment not Installed”.
- Use Update 6 or later for Java Runtime Environment 6.

Network ports used

Port No.	Application
53	Communication with DNS server (fixed)
88	Kerberos authentication with KDC (Key Distribution Center)
389	Communication with directory service using LDAP (default is 389, may be changed to any port on LDAP service side)

T-2-76

Local Device Authentication Management

Outline

If the device is used via local device authentication, user registration and editing is performed from a PC on the network.

Required PC environment

OS and other PC environments (when using IPv4 communication)

Operating System	Supported browser	Java Runtime Environmen
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later *
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	
Mac OS X v10.3	Safari 1.3.2	Sun Java Runtime Environment 5.0 *
Mac OS X v10.4	Safari 2.0.4	
Mac OS X v10.5	Safari 3.1.2	
Mac OS X v10.6	Safari 4.0.3	

T-2-77

* Visit the URL of Sun Microsystems to learn how to obtain Java Runtime Environment.

OS and other PC environments (when using IPv6 communication)

Operating System	Supported browser	Java Runtime Environment
Windows XP Professional SP3	Microsoft Internet Explorer 7	Sun Java Runtime Environment 1.5 or later *
Windows Vista SP2	Microsoft Internet Explorer 8	
Windows 7	Microsoft Internet Explorer 8	
Windows Server 2003 SP2	Microsoft Internet Explorer 7	
Windows Server 2003 R2 SP2	Microsoft Internet Explorer 7	
Windows Server 2008 SP2	Microsoft Internet Explorer 8	
Windows Server 2008 R2	Microsoft Internet Explorer 8	

T-2-78

* Visit the URL of Sun Microsystems to learn how to obtain Java Runtime Environment.

Preparation for Using SMS

To use SMS, you need to set up network settings for the PC, browser, and devices that are used to access SMS.

Preparation of PC for Accessing SMS

Checking of operation environment

The PC and browser used to access SMS require the following system environment.

Operating System	Supported browser
Windows XP Professional	Microsoft Internet Explorer 7
Windows Vista SP2	Microsoft Internet Explorer 8
Windows 7	Microsoft Internet Explorer 8
Mac OS X 10.3	Safari 1.3.2
Mac OS X 10.4	Safari 2.0.4
Mac OS X 10.5	Safari 3.1.2
Mac OS X 10.6	Safari 4.0.3

T-2-79

CAUTION:

For the following operations in the combined environment of Windows XP and Internet Explorer 6, Java 2 Runtime Environment Standard Edition 1.5 or later is required.

- User registration / edit in SSO-H local device
- Use of remote login in SSO-H.

PC and browser settings

The PC and browser used to access SMS must meet the following conditions.

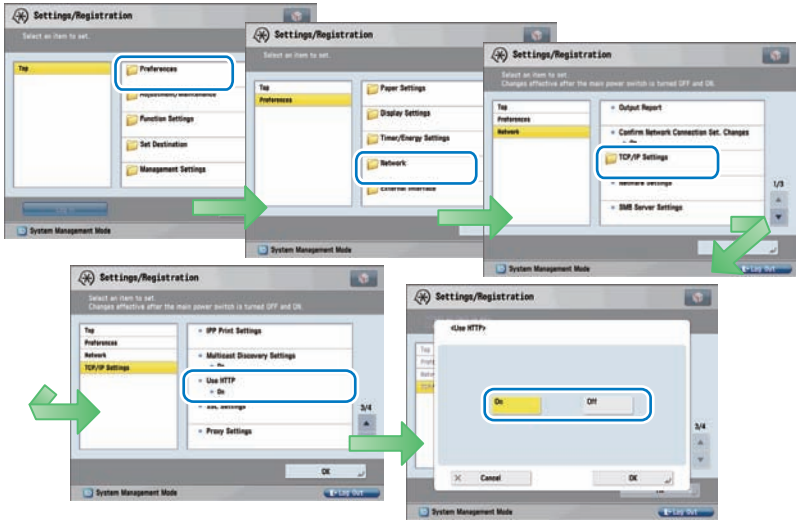
- Session cookie is enabled.
- Java Script is enabled.

Device Settings

Network configuration process

To support a MEAP-enabled iR device via network (SMS, etc.), set up the network setting on the touch panel of the iR device (this setting is [ON] by default).

1) Press [Settings/Registration] button, select [Preferences] > [Network] > [TCP/IP Settings] > [Use HTTP] and press [On] button.



F-2-137

Note:
In iR-ADV series, the System Manager ID and the System PIN are configured by default, so “Network” and the items that follow are grayed out and cannot be selected. Return to the top screen, press “Login” button at the lower left of the screen, login as the system manager, and configure the settings.
The default setting for the System Manager ID is “7654321”, and the password is” 7654321”.



F-2-138

Note:
When using SSL, press [Settings/ Registration] button, select [Management Settings]>[License / Other] > [MEAP Settings] > [SSL Settings] and press [On] button. (This setting is applied to SSL setting on RUI. Vice versa, [On] set for SSL on RUI is also applied to the touch panel.)
When [Use SSL] is set to On, the message dialog, [The Default Key is not set. Check the Key and Certificate List settings in Certificate Setting.], is shown. Press [OK] button for this message.



F-2-139

2) Press [OK] button to return to Main Menu screen.

3) Restart the device.

CAUTION:

- The setting [Use HTTP] is not actually enabled/disabled until you have restarted the device.
- You cannot make a connection through a proxy server. If a proxy server is in use, enter the IP address of the MEAP device in the Exceptions field for the browser. Open Internet Options dialog of Internet Explorer and select Connections tab, LAN Settings button, Use a proxy server option, and Advanced button of Proxy server group. Proxy Settings dialog will opens. The Exceptions field is in the dialog. As network settings vary among environments, consult the network administrator.
- If Cookie and JavaScript are not enabled in the Web browser, you will not be able to use SMS.
- To type text using the Web browser, use the characters compatible with the MEAP device's touch panel display. The MEAP device may not properly recognize some characters.
- When [Use SSL] is made available, it is necessary to set the key and the certificate necessary for the SSL communication. Set the key and the certificate by SSL with [SSL Settings] that exists in [Preferences] > [Network] > [TCP/IP Settings] > [SSL Settings] on the iR device.

Key Pair and Server Certificate when Using Encrypted SSL Communication

SMS is always SSL-connected, so it is required to specified a key pair and a server certificate as the key to be used.

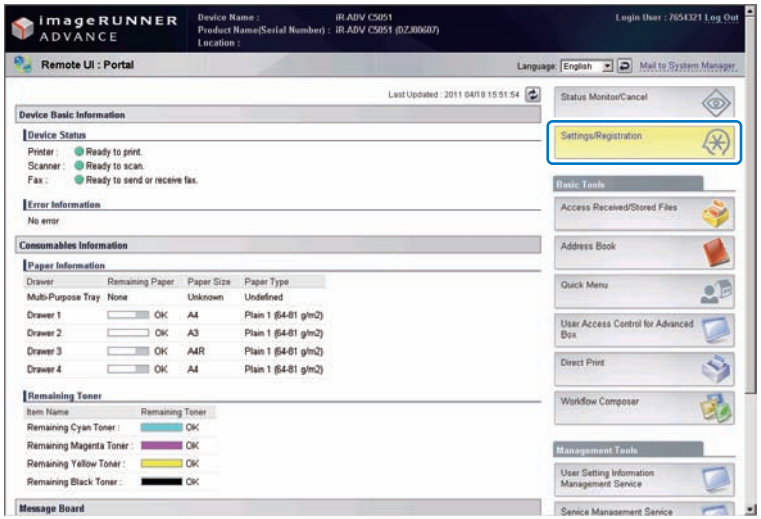
The device has [Default Key] as the installed key pair and server certificate. However, if you want to use another key or if you have deleted the existing key by accident, you can use the following procedure to specify a key pair and a server certificate necessary for encrypted SSL communication.

Note:
- MFP has a server certificate registered as standard.
- For detailed procedures of the Default Key setting, refer to [e-Manual > Security].
- As for SMS, by setting a Default Key, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] (Settings/Registration) > [MEAP Settings] > [SSL Settings]: ON/OFF.

Generating a key pair

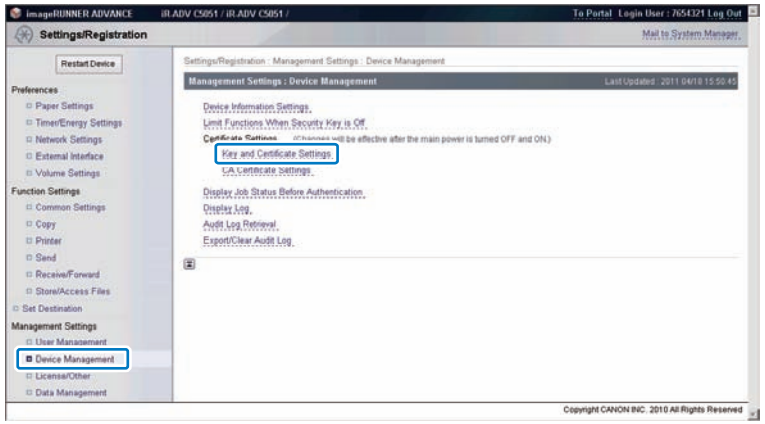
1) From a PC on the same network as the device, use a web browser to access the remote UI's portal page. Then, select [Settings/Registration] from the menu on the right side of the screen.

URL to access: http://<device's IP address>:8000/



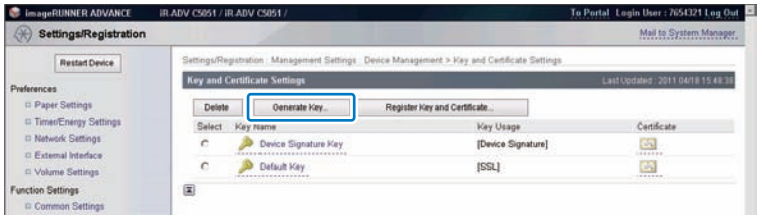
F-2-140

2) Click [Management Settings] > [Device Management] > [Certificate Settings] > [Key and Certificate Settings].



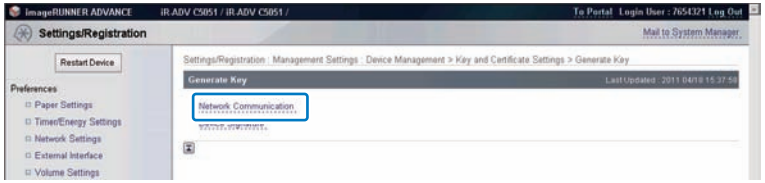
F-2-141

3) Click [Generate Key...] button.



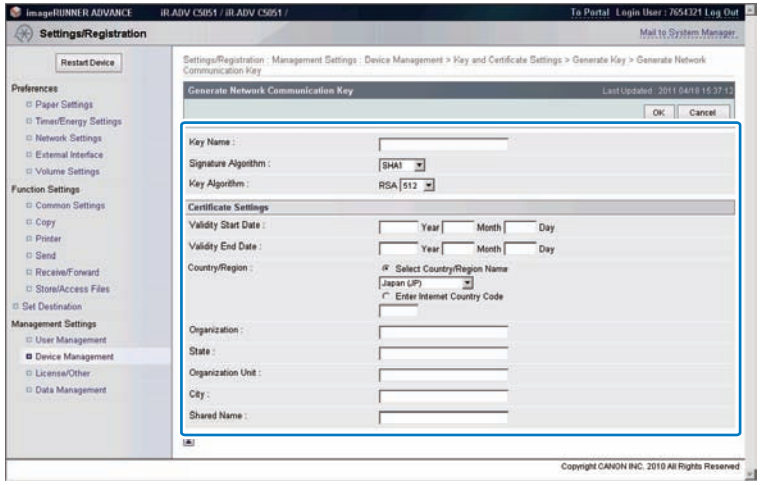
F-2-142

4) Click [Network communication].



F-2-143

5) Enter the necessary information, and then click the [OK] button.



F-2-144

Input example

Item name		Type	Content	Entry
Key Settings				
	Key Name	Compulsory	An arbitrary character string	Default Key
	Signature Algorithm	Compulsory	Selected from:SHA1/SHA256/SHA384/SHA512	RSA
	Key Algorithm	Compulsory	Selected from:512/1024/2048/4096	512
Certificate Settings				
	Validity Start Date	Compulsory	Date	15/5/2011
	Validity End Date	Compulsory	Date	15/5/2036
	Country/Region	Compulsory	Country or region name	US
	Organization	Arbitrary	Organization name	-
	State	Arbitrary	State name	-
	Organization Unit	Arbitrary	Organization unit	-
	Shared Name	Arbitrary	Shared Name*	-

T-2-80

Note:
When the IP address of the device has been entered in the [Shared Name] entry field, if you install a server certificate to the browser (See "Installing a server certificate (reference information)"), the message "Certificate Error" that usually appears when access is made from Internet Explorer 7 or later will not be displayed.

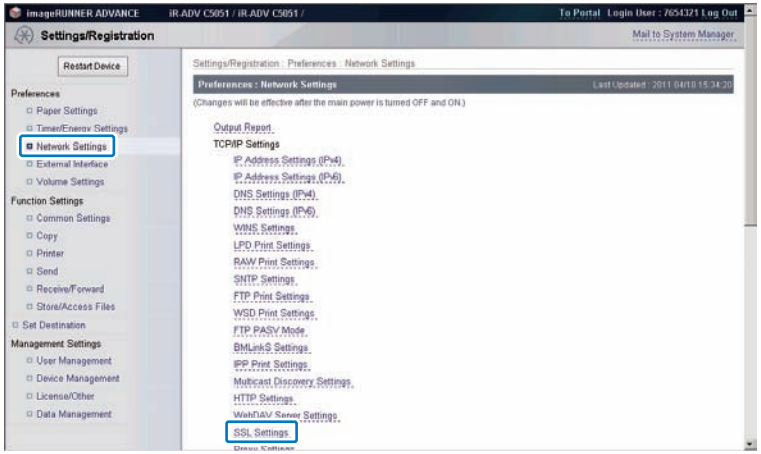
6) Check to see that the generated key appears in [Key and Certificate Settings].



F-2-145

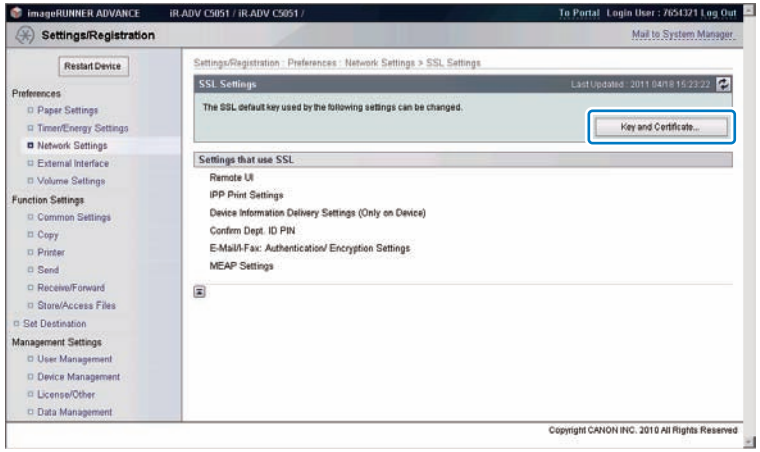
Default Key Settings

1) Click [Management Settings] > [Network Settings] > [TCP/IP Settings] > [SSL Settings].



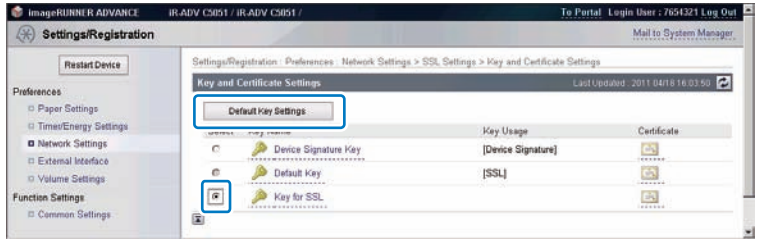
F-2-146

2) Click [Key and Certificate...] button.



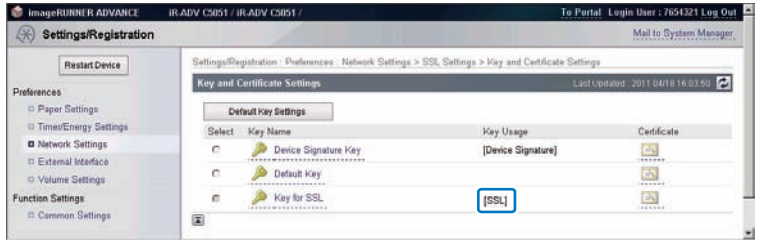
F-2-147

3) Select the generated key, and then click the [Default Key Settings] button.



F-2-148

4) Check that [SSL] is displayed in the [Key Usage] entry field.



F-2-149

5) Log out from the remote UI, and then restart the device.

Installing a server certificate (reference information)

On Internet Explorer 7 (IE) or later, if [Default Key] installed as standard on the device is used, "Certificate Error" appears during access due to "Internet Explorer Enhanced Security Configuration".

Error display example



F-2-150

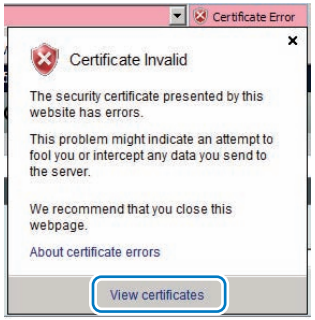
To disable display of "Certificate Error", use the following procedure (for IE8) to set the key generated in "Key Pair and Server Certificate when Using Encrypted SSL Communication" (i.e. the key with the IP address of the device specified as the shared name) as an SSL key.

1) Access SMS from the browser, and then click "Certificate Error" in the URL entry field.



F-2-151

2) Click [View certificates].



F-2-152

3) Click the [Install Certificate...] button on the [General] tab.



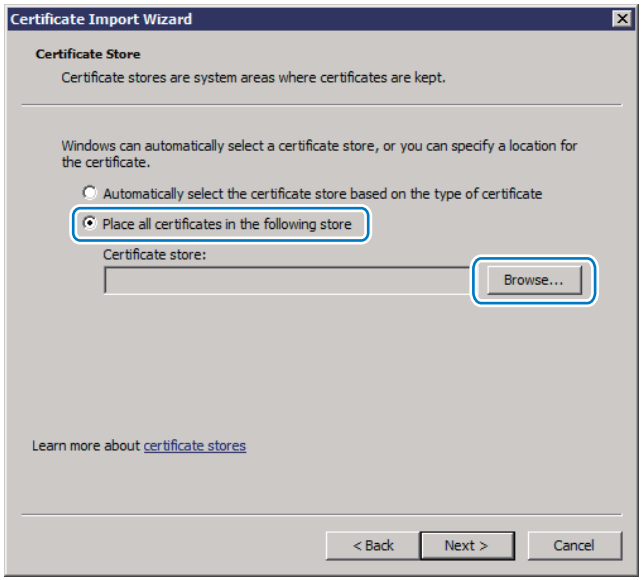
F-2-153

4) [Certificate Import Wizard] will appear. Click the [Next] button.



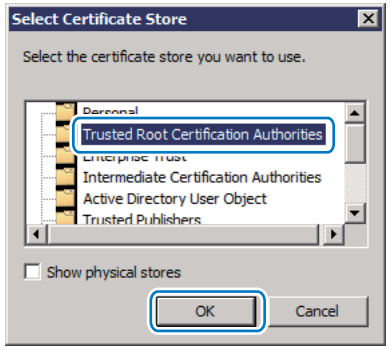
F-2-154

5) In [Certificate Store] , select the [Place all certificates in the following store] option, and then click the [Browse] button.



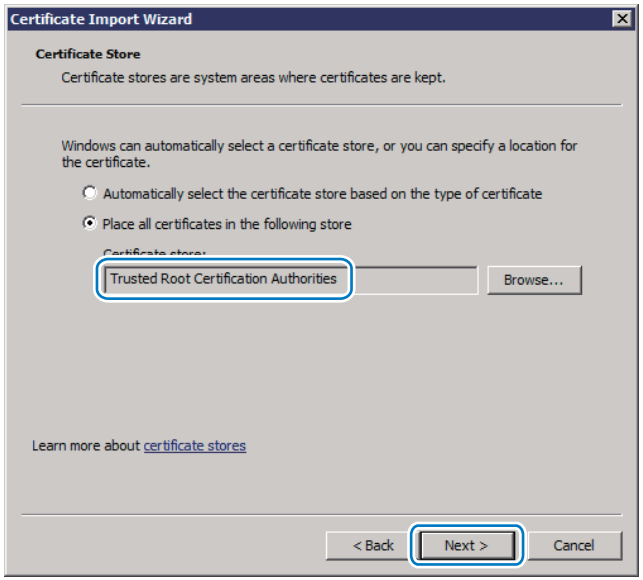
F-2-155

6) In [Select Certificate Store] , select [Trusted Root Certification Authorities] , and then click the [OK] button.



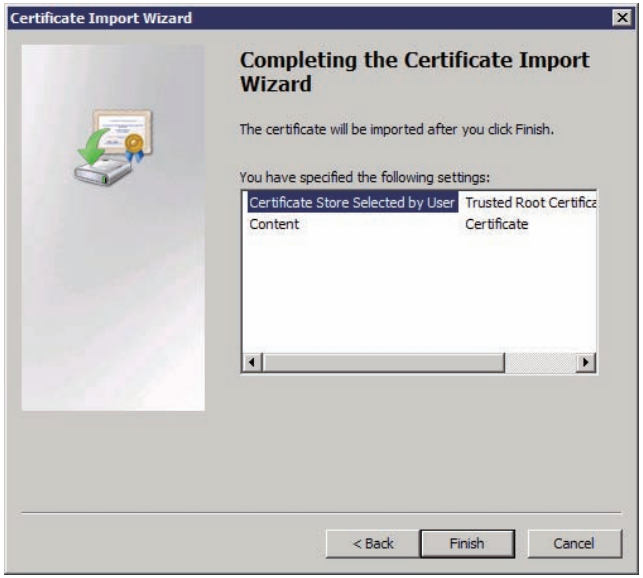
F-2-156

7) You will return to the [Certificate Store] dialog. Check that "Trusted Root Certification Authorities" appears in [Certificate] , and then click the [Next] button.



F-2-157

8) [Completing the Certificate Import Wizard] will appear. Click the [Finish] button.



F-2-158

9) A message will appear to indicate that import has been completed successfully. Click the [OK] button.

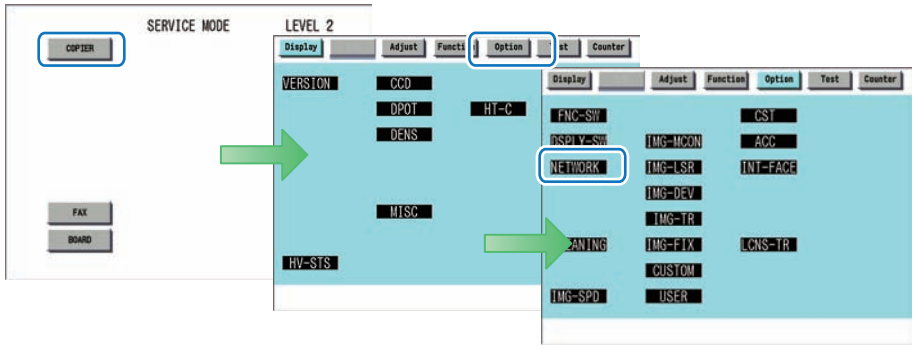


F-2-159

Network Port Settings

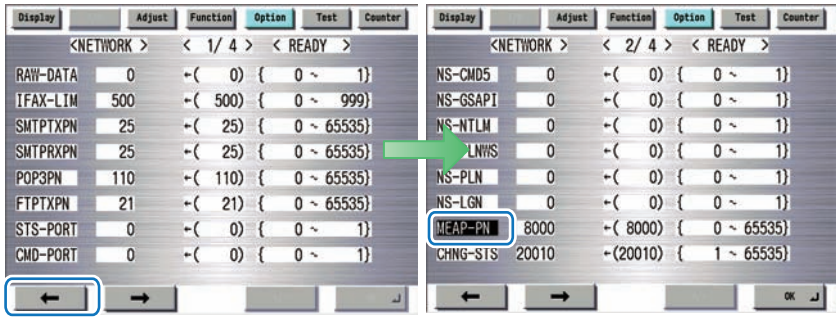
The default port of the HTTP server used for MEAP and MEAP applications to provide the servlet function is 8000, and the HTTPS server's default port is 8443. In the case that these ports have already used by the customer who is to introduce this application, the MEAP application cannot use the HTTP (or HTTPS) server(s).
By changing the following ports to use, however, the MEAP application can be used as well as the existing system.

1) Startup level 2 of [SERVICE MODE].
2) Press [COPIER] > [Option] > [NETWORK].



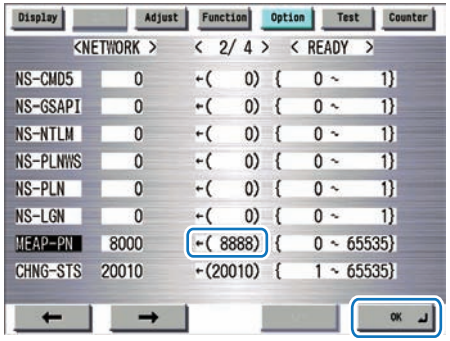
F-2-160

3) To specify the HTTP server port, click the [MEAP-PN]. To specify the HTTPS (SSL) server port, click the [MEAP-SSL].



F-2-161

4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-162

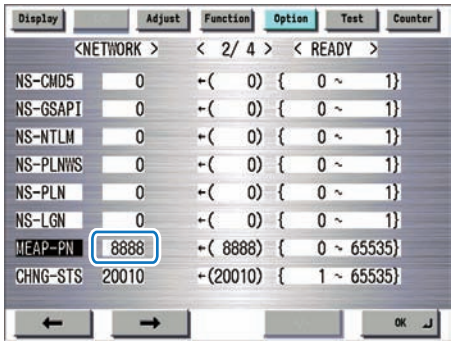
Note:
A port number can be any integer from 0 to 65535. To avoid port numbers that are frequently used, do not use any integer from 0 to 1023.

Server	Setting value	Default value / Value after RAM clear
HTTP Server	1024 to 65535	8000
HTTPS Server	1024 to 65535	8443

T-2-81

Note:
- If PS Print Server Unit is connected, do not specify port 8080.
  If port 8080 is specified, the RUI of the device where the MEAP authentication application is running cannot be displayed. (Port 8080 is reserved to allow the PS Print Server Unit to redirect to the iR device.)
- The HTTPS server port can be used only for devices that support the SSL function.

5) Check to see that it is reflected in setting field, and turn off the main power, and then, restart the device.



F-2-163

How to Check the Serial Number

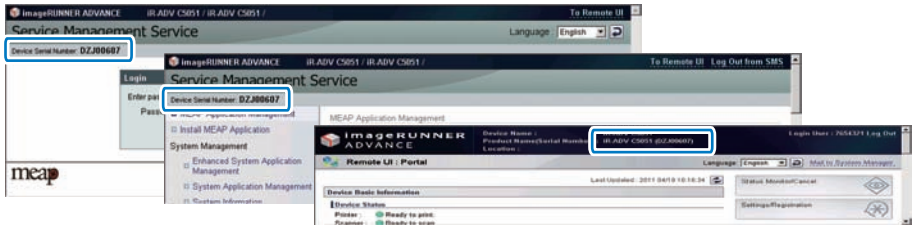
When performing MEAP device support, the serial number of the device is necessary in some cases.

Examples of where the serial number is necessary
- When initializing SMS login password (obtaining a switch license)
- When obtaining a MEAP application license from LMS
- When obtaining a transfer license of MEAP application
- When obtaining a special license for reinstalling MEAP application

If a problem occurs in the MEAP device and you want to contact the support department of the sales company, you need to provide the serial number. Perform the following procedure to get the serial number.

Checking from the PC browser

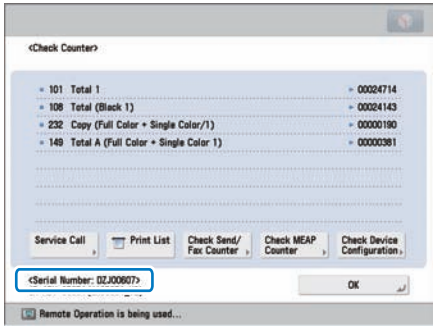
The serial number of the device is displayed on the SMS login screen, SMS screen, and remote UI portal screen.



F-2-164

Checking from the device's Control Panel

You can see the number by pressing the counter key on the Control Panel of the device.



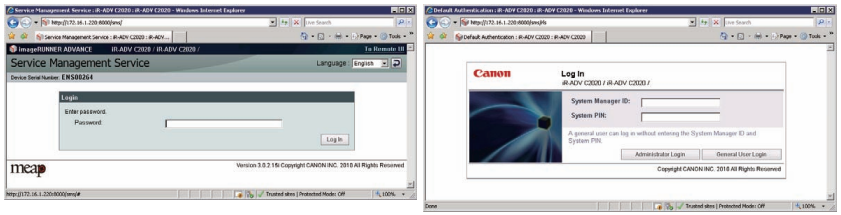
F-2-165

Login to SMS

Outline

SMS login may be done by entering a password for authentication, or by authentication via the Remote Login Service (RLS) login window (RLS authentication). Settings can be changed to allow either only one of these methods or both of them.

SMS login window (password auth) RLS login window (user name/ password auth)



F-2-166

Login method	Authentication method	Authentication service name	Users who may log in
Password authentication	Password authentication	SMS Installer Service (Password Authentication)	Users who know the SMS login password
RLS login	SSO-H	SMS Installer Service (Remote Login Service Authentication)	Users registered as administrators with SSO-H

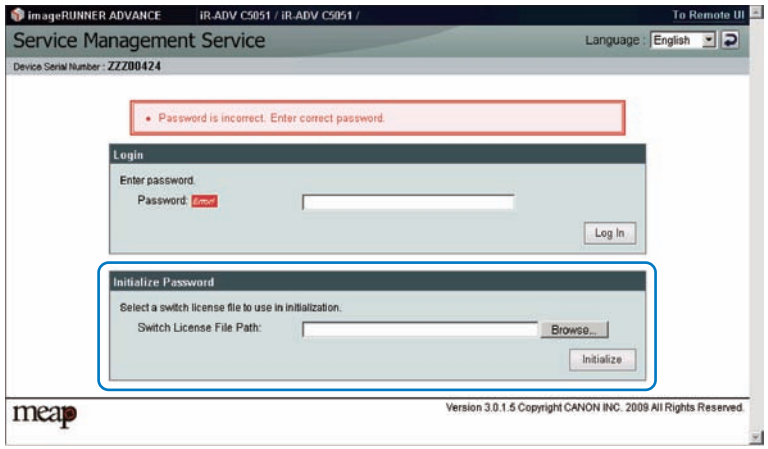
T-2-82

Note:
If Default Authentication is selected as the device authentication method, 'RLS Authentication' is not selectable as SMS Login method. Also, if 'RLS Authentication' is selected, the device authentication method (Default Authentication, SDL, SSO) cannot be changed.

When SMS Cannot Be Accessed

If you forgot the password (SMS login password initialization)
After changing the default SMS login password, if you forgot the new password and cannot log in to SMS, you can use a switch license for password initialization to change the password back to the default value "MeapSmsLogin".
Note that there is no special password for service.

1) Obtain a switch license file for password initialization.
   Contact the person in charge of support at the sales company, give the device's serial number, and have a switch license file for password initialization issued.
2) Load the switch license file.
   With nothing entered, click the [Log in] button to display the area for specifying a switch license file for password initialization.



F-2-167

3) Specify the switch license file.
   Click the [Browse] button and specify the switch license file.

4) Initialize the login password.

Click the [Initialize] button to display an initialization confirmation page, and click the [OK] button.

Note:
- The default password is “MeapSmsLogin.” (The password is case-sensitive.)
- If you click the [Cancel] button on the initialization confirmation page, password initialization is not performed and the login page appears.

If login is not possible due to exclusive control

Because SMS uses exclusive control, if there is another user already logged in to the SMS of the same device, then you cannot log in.

Exclusive control message example



F-2-168

If you cannot log in due to exclusive control, you need to ask the other user to log out before you can try again.

Note:
If you close the browser without logging out, the session remains active. In this case, you cannot log in again.
If this problem occurs, you can wait for 5 minutes so that the session is disconnected. Or, you can restart the device to force the session to disconnect.

If [Key and Certificate Settings] is not set

If [Key and Certificate Settings] is not set correctly, you cannot access the URL for SMS (https://<devices's IP address>:8443/sms/). In this case, you can use the following procedure to solve the problem.

1. Go to http://<device's IP address>:8000/sms/, and check to see that "HTTP 500 Internal Server Error" appears.
2. If the message is displayed, see the procedure described in " Key Pair and Server Certificate when Using Encrypted SSL Communication " in this manual to deal with the problem.

Note:
As for SMS, by setting the key to be used, encrypted SSL communication is always executed regardless of the following setting: (Settings/Registration) > [Management Settings] > [License/Other] > [MEAP Settings] > [Use SSL] > ON/OFF.

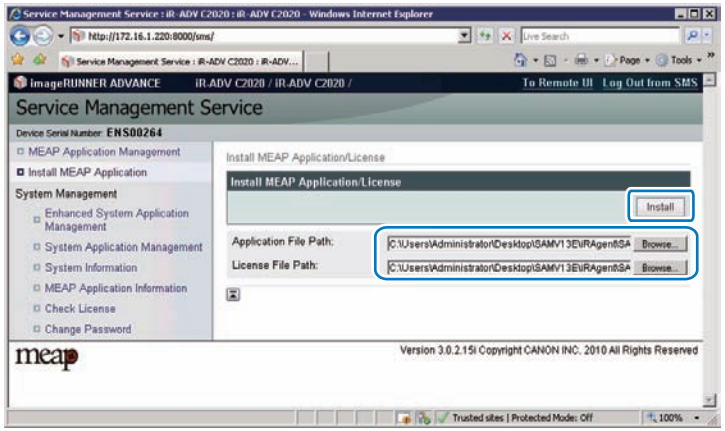
How to deal with a message "Certificate Error" appearing during access

If "Certificate Error" appears when you access SMS from a browser, refer to the procedure described in " Installing a server certificate (reference information) " in this manual to deal with the problem.

Installing an MEAP Application

Outline

From the MEAP application installation screen, you can install the MEAP application as well as the license file.



F-2-169

Before installing the MEAP application, be sure to check the following items.

Device compatibility with the MEAP application

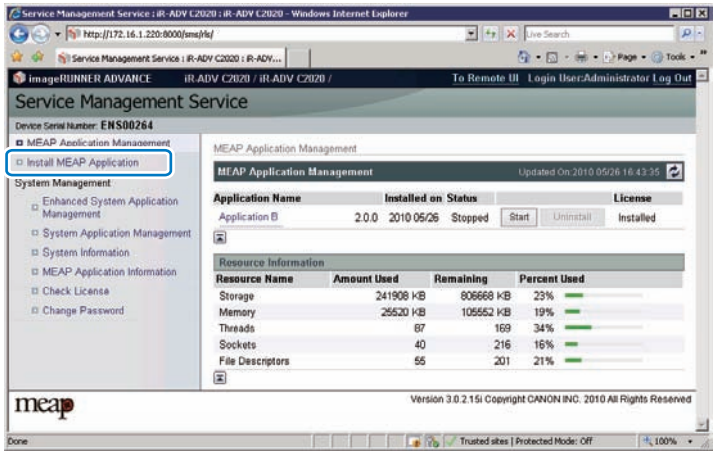
To find out whether the device is compatible with the MEAP application, check the devices supported by the MEAP application. Depending on the application, the device's firmware may require version upgrade.

Resources availability (remaining amount)

The necessary resources (free storage space and free memory available) must be secured for an MEAP application to run; otherwise, you cannot install the MEAP application.
To check the resource information, see "Device's resources" in this manual.

Procedure to install applications

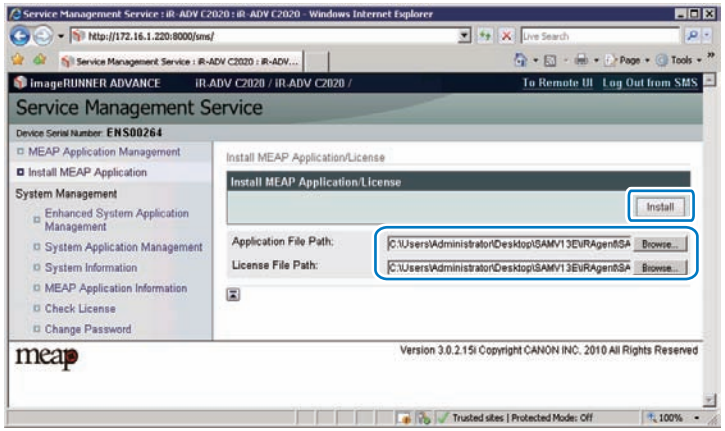
1) Long on to SMS.
2) Click [Install MEAP Application] on the menu.



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3) Check [Install MEAP Application/License] page appears.
4) Click [Browse..] button, and select the application file and the license file of the application; then, click [Install] button.

Note:
Application File: identified by the extension “jar”.
License File: identified by the extension “lic”.

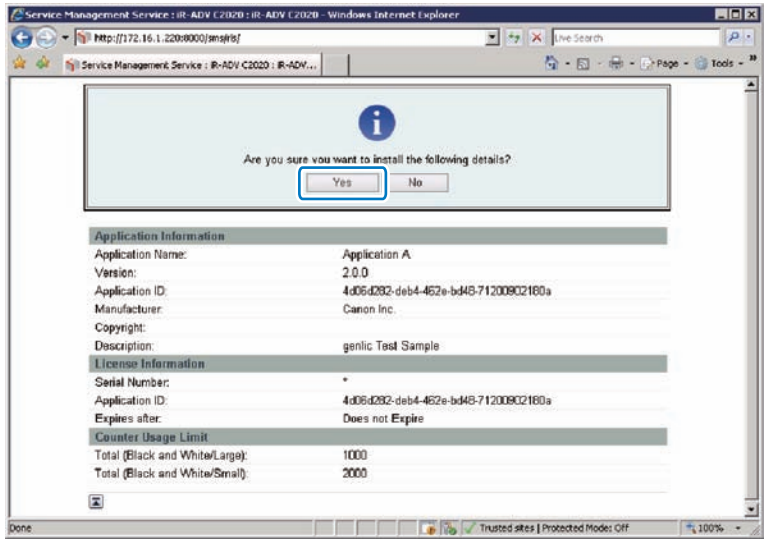


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CAUTION:

- You cannot install only the license.
- You will not be able to install the application without using the appropriate license. Be sure to select its license file.
- If you are adding a license to an existing application, see "Procedure adding a license file".
- If you are updating an existing application, stop the application; then, install the new application or its license file. You will not be able to update an application while it is running.

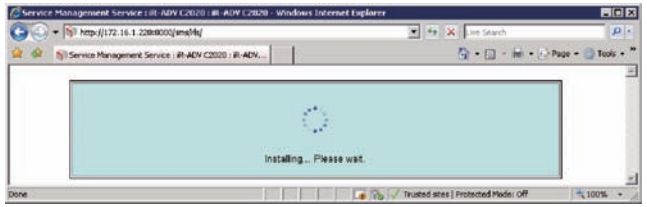
5) Check the contents of the Confirm page; then, click [Yes] button.



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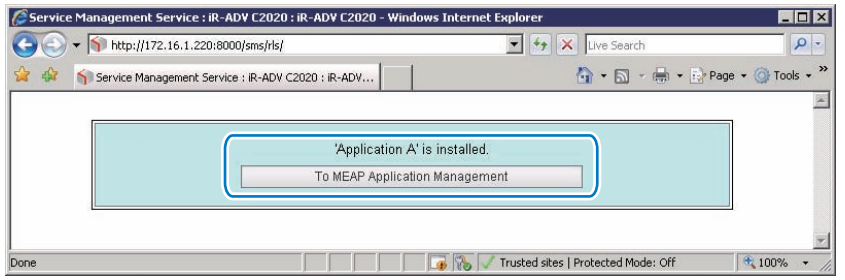
6) Some applications show a screen to indicate the terms of agreement. Read the terms, and click [OK].

7) Check the message "Installing...Please wait." appears, beginning the installation.



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8) Upon installation completed, click [To MEAP Application Management] button shown on the screen to view MEAP Application Management page.

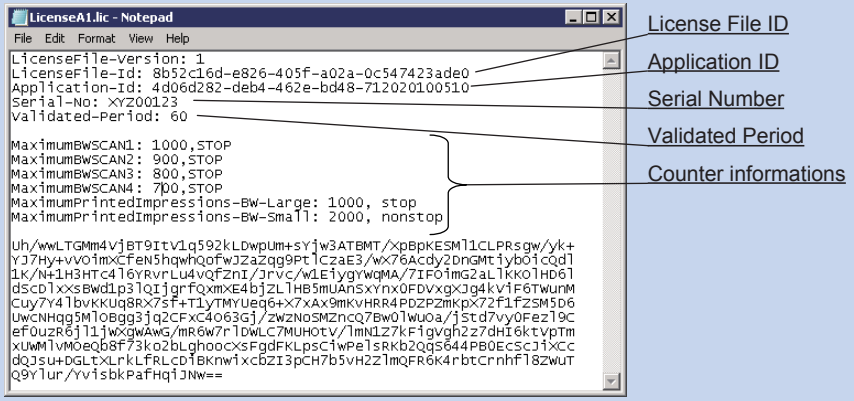


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Note:
To use the application that you have just installed, you must make sure that the application status is Started.

Note:
The license file is provided in text file format, enabling to view in a text editor. The application ID and device serial number shown in the file allow users to confirm which device to install with the license file.
Note that any changes added to the license file may disable installation. Cares should be taken when confirming the contents of the license file.

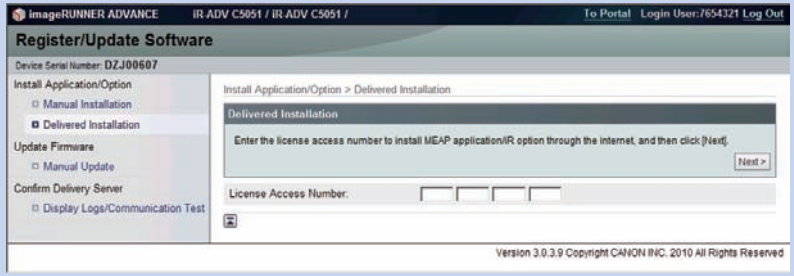
Sample file



License File ID
Application ID
Serial Number
Validated Period
Counter informations

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Note:
There are two ways to install an MEAP application. You can install using SMS, or install using the [Register/Update Software] screen of the remote UI.
Screen example



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[Register/Update Software] provides two types of installations. One is [Manual Installation] where you specify a jar file and a license file and then install. The other is [Delivered Installation] where you enter a license access number.
For details of the procedures, please refer to the e-Manual.

Resource Information

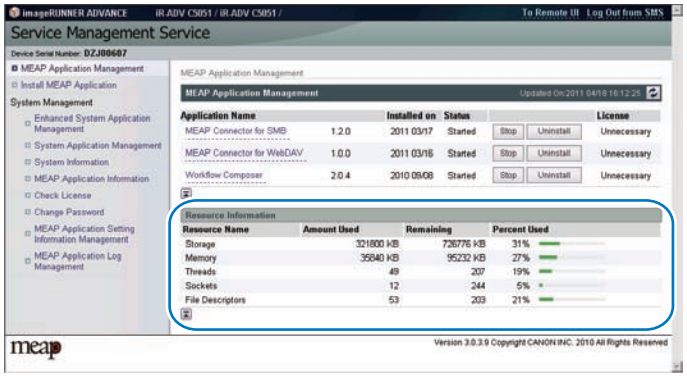
About MEAP Application Management Page

Application Management page shows [resource information] for information of the whole device resources including Amount Used, Remaining, and Percent Used.
This function enables users to judge the remaining resources before installing the additional application. Such resource information is shown based on the manifest header stated at the top of each application, which declares the resources required in the application. Therefore, the information does not necessarily show the resources actually in use.
The following resource information is shown:

- Storage
- Memory
- Threads
- Sockets
- File Descriptors

You will not be able to install an application if the size of the remaining disk space falls short of the size declared by the application. Moreover, the specifications have been designed so that an application will not be able to start up if there is a shortage of memory for any of the foregoing items (i.e., memory, thread, socket, file descriptor).
Follow the steps below to check the remaining memory:

1) Log in to SMS.
2) Click [MEAP Application Management].
3) Check [Resource Information] for information of the whole device resources.



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Device's resources

When 1 MEAP application operates, the resource volume allocated to each device is as follows (loaded resource list). Since the following value is an estimate, when installing the MEAP applications, it needs to check the available resource of SMS.
Since the indication of SMS resource volume fluctuates by the login service (authentication function) and configuration (future model), which the user selected, it may show a bigger value than the following values.

List of Available Resources

Product Name		Storage	Memory	Thread	Socket	File Description
iR-ADV C5051 series		1024MB	128MB	256	256	256
iR-ADV C9075 series		1024MB	128MB	256	256	256
iR-ADV 6075 series		1024MB	128MB	256	256	256
iR-ADV 8105 PRO series		1024MB	128MB	256	256	256
iR-ADV C2030/ C2025/ C2020 Series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 4051 series		1024MB	128MB	256	256	256

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Note:
- As for memory, check the available resource when starting up the application. For other resources other than memory, check them when installing.
- Some applications call for a specific set of conditions for installation. For details, see the User's Guide that comes with the individual applications.
- Maximum installable application is up to 20 even if the remaining resource is adequate. (However, the Send function consumes 1, it must be 19 in practice.) Authentication application is not included in this number.
- The MEAP application, which can be started simultaneously, is up to 19. (Authentication application is not included in this number.)

CAUTION:
To install an application, the user needs to use the following URL when accessing the license control system to obtain a license file. In doing so, he/she needs to register the license access number of the application and the serial number of the device.

http://www.canon.com/lms/license/

MEAP Specifications

What is MEAP Specifications (MEAP Spec Version)?

MEAP Specifications is one of the information required to judge whether MEAP applications can be operated or not. With MEAP Specifications, you can prevent an application that uses a specific function of device from being installed onto the device that does not have the function.

About Name

MEAP Specification is shown as 'MEAP Specifications' in the screen to check the version on the side of device that supports MEAP (counter confirmation button) and MEAP platform (SMS). On the other hand, in the manifest file of MEAP application, it is shown as 'MeapSpecVersion' (described in the same way in the SDK document)
(Note) 'MEAP Specifications' hereafter in this document.

Mechanism

MEAP platform judges whether MEAP applications can be operated on it using on the 2 information below:

- Device Specification ID
- MEAP Specifications

Device Specification ID shows information such as the original functions of MFP (including print, scan, and copy), and one that differs by model such as maximum copy number, thus each model has a different ID. (It is easy to determine the IDs for this reason.) MEAP application declares 1 or more Device Specification ID required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the models declared. Upon installation of MEAP application in (using) SMS or MEAP Enterprise Service Manager, matching of Device Specification ID is executed on the side of MEAP platform machine. The machine which doesn't support the ID declared by the application rejects installation of such an application.
Meanwhile, MEAP Specifications shows other information than defined by Device Specification ID above, including network and security. Thus each model does not always have the same version.

MEAP application declares 1 or more MEAP Specifications required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the environments declared. Upon installation of MEAP application in SMS or MEAP Enterprise Service Manager, matching of MEAP Specifications is executed on the side of MEAP platform machine. The machine which doesn't support the version declared by the

application rejects installation of such an application.

MEAP Specifications for each model

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C5051 iR-ADV C5045 iR-ADV C5035 iR-ADV C5030	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5,6,7,9,10,11,13,14,15,17,18,19,25,26,27,29,30,31,32,33,34,35,36,37,38,39,40,41,42,44,45,46,47,49,50,51,52,53,54,55,56,57,58,59
iR-ADV C9075 iR-ADV C9070 iR-ADV C9065 iR-ADV C9060 iR-ADV C7065 iR-ADV C7055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59
iR-ADV 6075 iR-ADV 6065 iR-ADV 6055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59
iR-ADV 8105 PRO iR-ADV 8095 PRO iR-ADV 8085 PRO	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 , 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59
iR-ADV C2030 iR-ADV C2025 iR-ADV C2020	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49	Ver.10.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19,25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV 4051 iR-ADV 4045 iR-ADV 4035 iR-ADV 4025	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59	

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MEAP Specifications List

Ver	Description
1	MEAP basic function
2	MEAP Spec Version 1 function and SSL/TSL + Proxy
5	MEAP Spec Version 1 function and CPCA V2 + ERS (Error Recovery Service) + New SSL/TSL
6	Reserved
7	MEAP Spec Version 5 function and Compact PDF + OCR PDF (Text Searchable) + USB Host (Buffering of Interrupt Transfer)
9	Reserved
10	MEAP Spec Version 5 function and USB-Host (Exception + Clear Feature + Set Feature+ Hot Plug) + WINS address acquisition using MIB Agent + Timer Service + SSL client authentication
11	MEAP Spec Version 5 function and AMS
13	MEAP Spec Version 5 function and J2ME1.1 Support + Encrypted PDF + Trace and smooth PDF + CTK2.0
14	Device signature PDF
15	IMI + ERS (API addition for IMI) , IPv6, Extended encryption function (AES/RC4)
17	Acquiring images of JBIG format
18	Parsing XML documents (XML parser)
19	Enhancement of IMI function (IMI Version1.2 series)
21	Reserved
25	API to access the HID/Mass Storage class devices.
26	MEAP driver preference function
27	Symbols that can be used with MibAgent added. (symbols for IPv6 address acquisition)
29	IMI API added (IMI version 1.2.1 enabled)
30	Extended address book function. (e-mail/group/i-FAX/file)
31	Integrated ERS function
32	Extended Imaging function (function to generate PDF/OOXML (PowerPoint) with visible signature)
33	Extended function for imageRUNNER / iR ADVANCE series (API for address book/ CTK/ TopMenu)
34	Extended IMI Box function (v1.3.0)
35	Extended SIS function (function to check the network cable status, function to check PS print server unit status)
36	Reserved
37	CLS (Contextual Login Service) Supporting API Added
38	imageRUNNER / iR ADVANCE Series administrative privileges supported
39	MEAP Specifications added according to Jcrypto API Specification Change
40	ImagingAPI (Creation API of Visible Signature PDF) added
41	Reserved

Ver	Description
42	Reserved
44	imageRUNNER / iR ADVANCE Series Remote Address Book Supported, RemoteFAX Supported.
45	Addition of API that allows acquisition of the HID installation status
46	Multilingualization of the USB keyboard of the System Driver
47	Addition of API which executes a print order from the MEAP application of the IMI encryption PDF document
48	ID expressing the scan function for iR-ADV C2030/C2025/C2020 series
49	Reserved
50	SecurityOptionalPackage
51	IMI function expansion of iR-ADV C5051 series (Ver.50.xx or later) or later
52	(iR-ADV C5051 series (Ver.50.xx or later)) Addition of registered API to enable SSL communication setting (On/Off) for each URL
53	Disclosure of registration/deletion function to/from Quick Menu
54	Function to notify an event to the application at recovery from the sleep mode.
55	System account release function
56	MEAP User Preference Service
57	MEAP Application Configuration Service
58	MEAP Application Log Service
59	Reserved

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MEAP Application Management

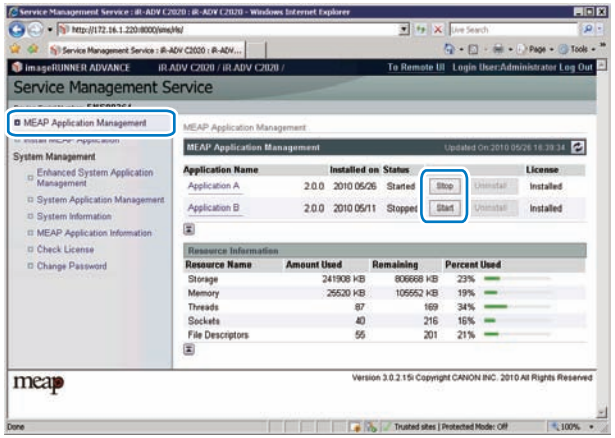
Outline

You can use the MEAP application management screen to perform basic management tasks of the MEAP application (start, stop, uninstall), or check the device's resource information.

Starting, Stopping, or Uninstalling the MEAP Application

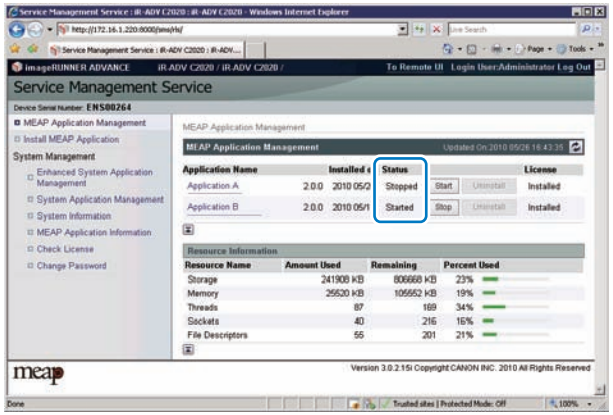
Procedure to start and stop a MEAP application

1) Log in to the SMS. (Refer to 'Login to SMS' in this manual.)
2) Click [Application List]. (If the Application List is already being displayed, this operation is not necessary.)
3) Click [Start] or [Stop] button shown for the MEAP application to be started or stopped.



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4) Check to see that the status of the MEAP application in question is either [Started] or [Stopped].



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If the MEAP application cannot be started

If the conditions to start the MEAP application are not satisfied, the MEAP application cannot be started.

If the MEAP application cannot be started, check the following items.

Is a valid license installed?

If the license has expired, you cannot start the application. If the license has already expired, obtain a new license and then update the license. (See "Managing the License File" in this manual.)

Are the necessary resources available?

If the resources such as memory capacity or number of threads are not sufficient, the application also cannot be started.

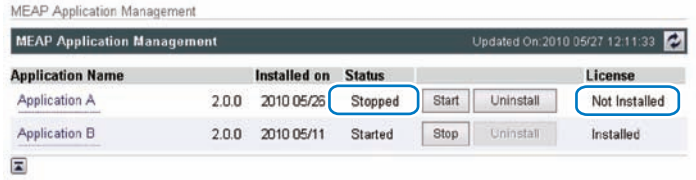
Delete any unnecessary data to secure sufficient resources.

If the application still cannot be started after checking the foregoing conditions, contact the support department of the sales company.

Procedure to uninstall the MEAP application

Before uninstalling the MEAP application, check that the following conditions are met.

- The MEAP application has stopped.
- The license has been disabled or deleted. (The status is "Not Installed".)

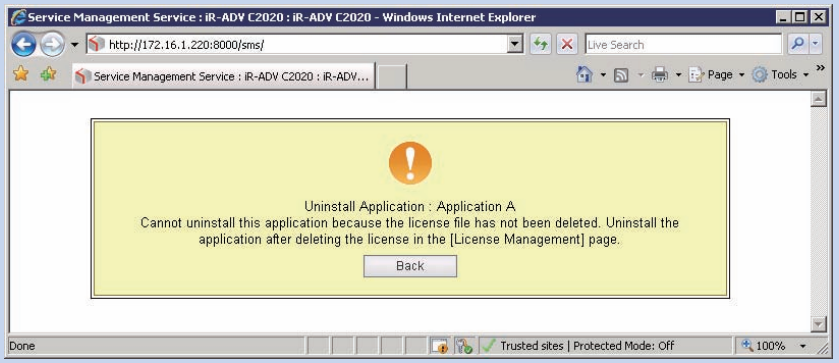


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For information on the procedure to stop the MEAP application, see the previous section " ".

For information on the procedure to delete the license file, see the following section " Starting, Stopping, or Uninstalling the MEAP Application ".

Note:
When a user tries to uninstall an application before deleting the license, the following message is shown.



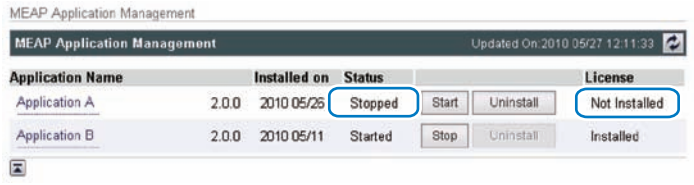
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If the license file of the selected application cannot be deleted, the [Uninstall] button is grayed out and therefore the application cannot be uninstalled.

CAUTION:

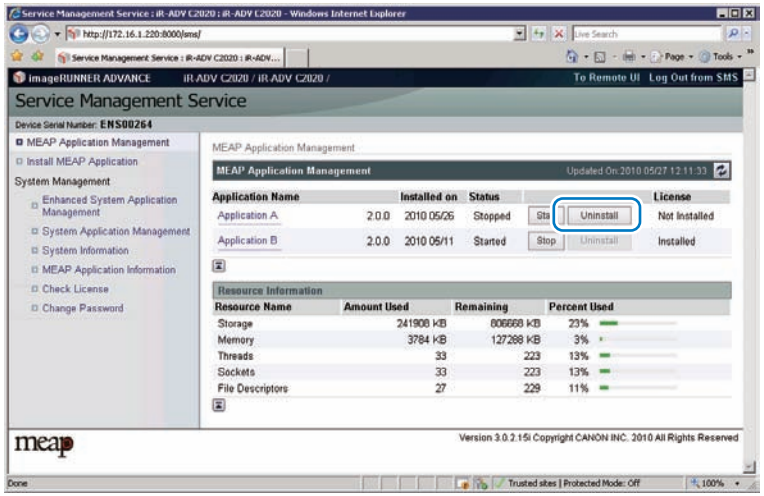
If the application you are uninstalling is associated with another application, a message will appear to indicate that the package exported by the application will no loner be available. Uninstalling such an application may also disable its associated applications.

1) Log in to SMS to click [MEAP Application Management] on the menu.
2) Check that the status of the application you want to uninstall is [Stop] and the license has been disabled. (The status is "Not Installed".)



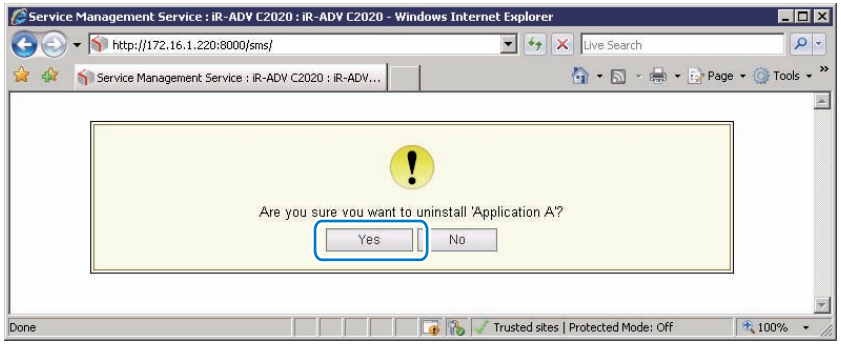
F-2-182

3) Click [Uninstall] button for the application to be uninstalled.



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4) Check the application name to be uninstalled shown on the screen to click [Yes] button. Upon [Yes] button clicked, uninstallation process is started.



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■ Managing the License File

● Outline

The license file management functions allow you to perform the following operations related to the license file necessary for the MEAP application to run.

- Update the license which has already expired.
- Disable or delete the license file in order to uninstall the MEAP application.

These license management functions can be performed from the [MEAP Application Management] screen.
The main license management functions are as follows:

Adding a license

When the license has expired, you can add a license file.

Disabling a License File

Before uninstalling the MEAP application, the license needs to be deleted. In that case, you must first disable the license file because a license file which has not been disabled cannot be downloaded or deleted.

Downloading / Removing an Invalidated License File

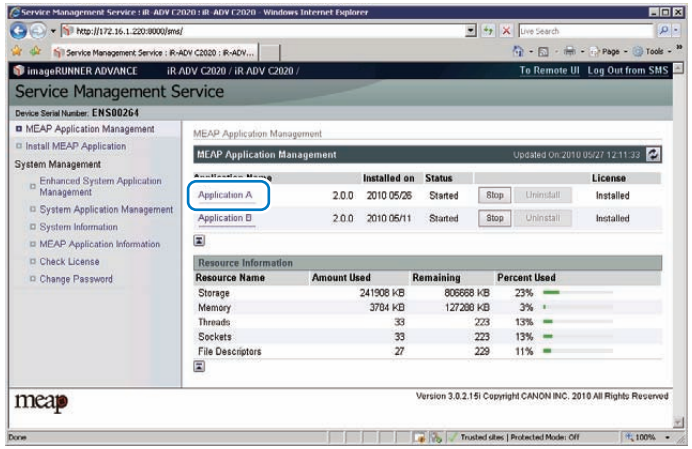
Before uninstalling the MEAP application, you need to delete its license file which has already been disabled.
By downloading the license file to your PC before it is deleted, you can use it when installing the application again to the same device.

WARNING:
After deleting the license file which has been disabled, you can no longer download the license file.

Procedure adding a license file

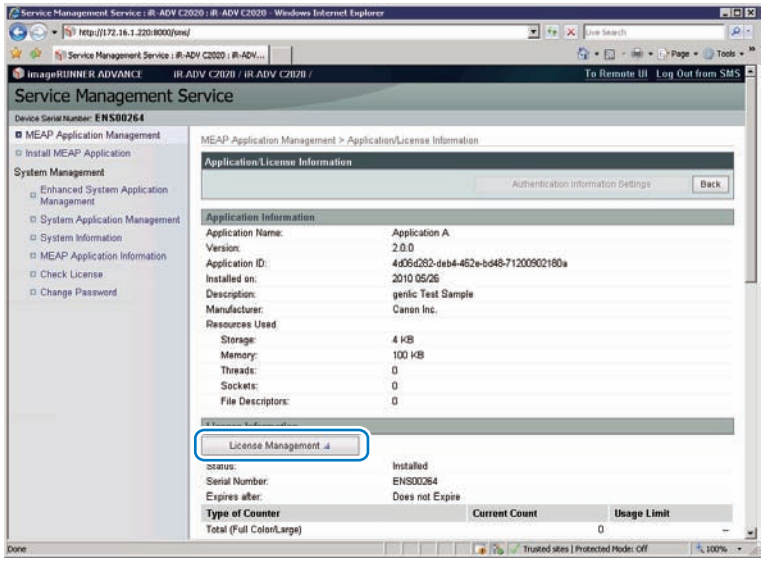
1) Log on to SMS.

2) On MEAP Application Management, click the name of the application to which you want to add a license file.



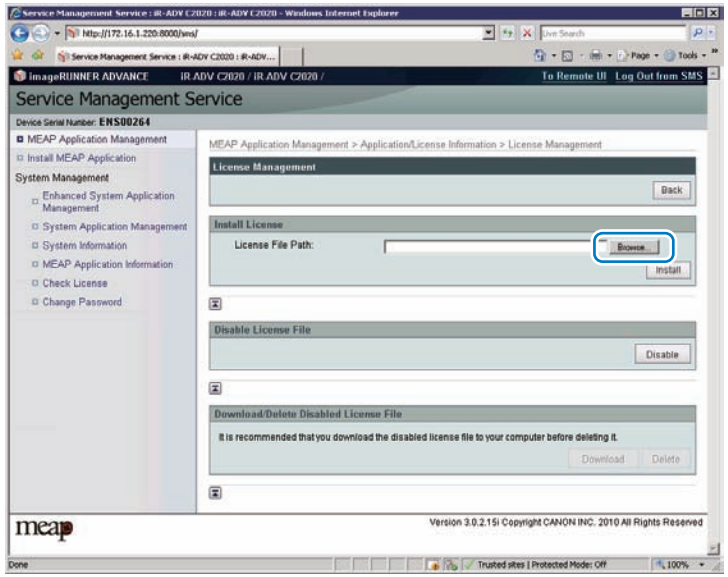
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3) In [Application / License Information] page shown on the screen, click [License Management] button.



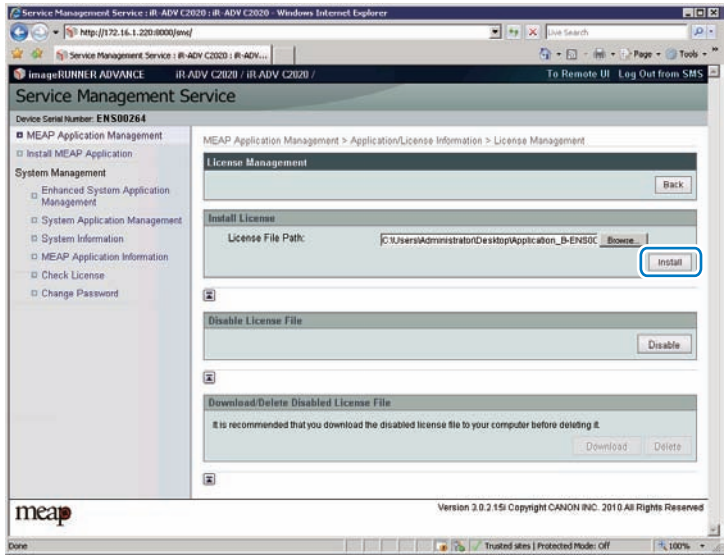
F-2-186

4) Click [Browse] button, and select the license file you want to install.



F-2-187

5) Click [Install] button.



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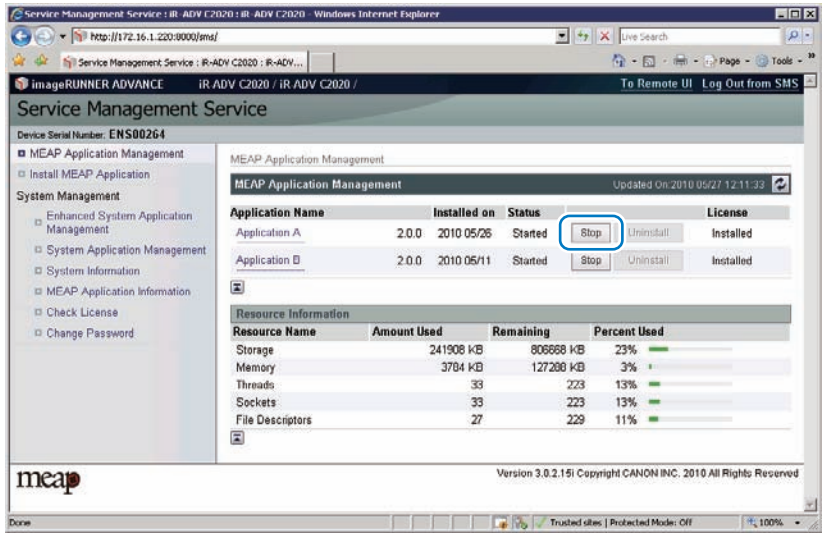
6) Check the content of the confirmation page, and click [Yes] button

Procedure disabling a license file (suspending a license)

CAUTION:

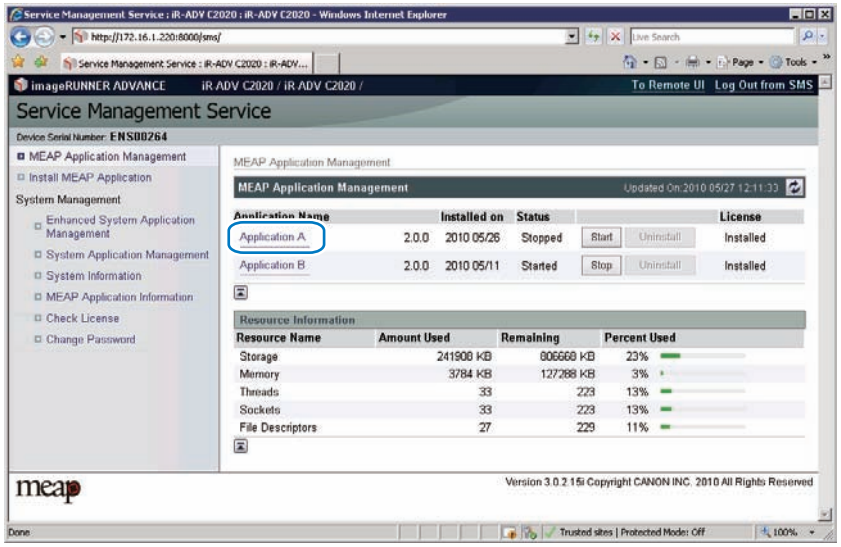
- Since the license file cannot be disabled when the application is still running, the application needs to be stopped before disabling the license file.
- Once suspended, the status of the license will be 'Not Installed', and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same iR, the device with the same device serial number.
- If the machine needs to be replaced due to a device failure, use the transfer license during the replacement. (See "License for forwarding" in this manual.)

1) Stop the application you want to uninstall on MEAP Application Management page.



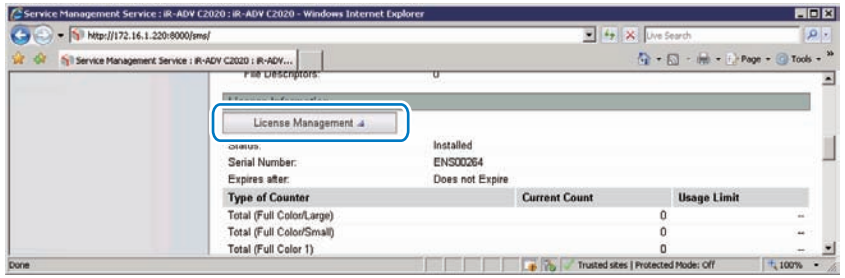
F-2-189

2) Click the name of the application that you want to disable.



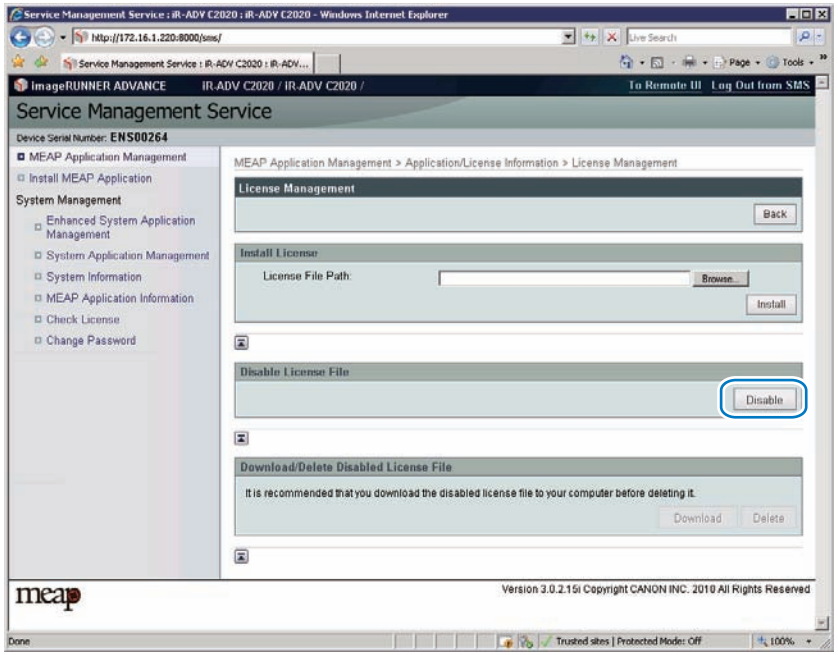
F-2-190

3) On Application/ License Information page, click [License Management] button.



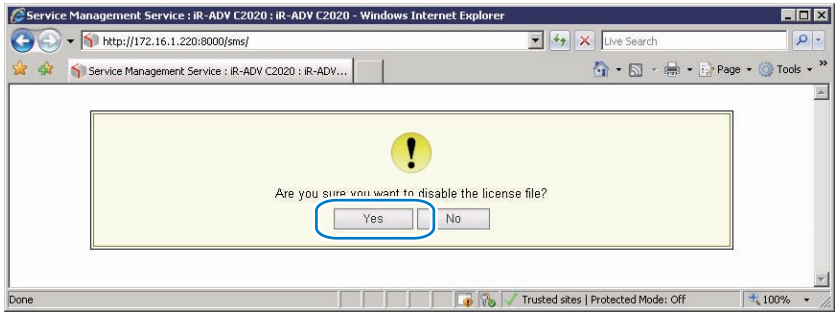
F-2-191

4) License Management page appears. Click [Disable] button.



F-2-192

5) Click [Yes] button.

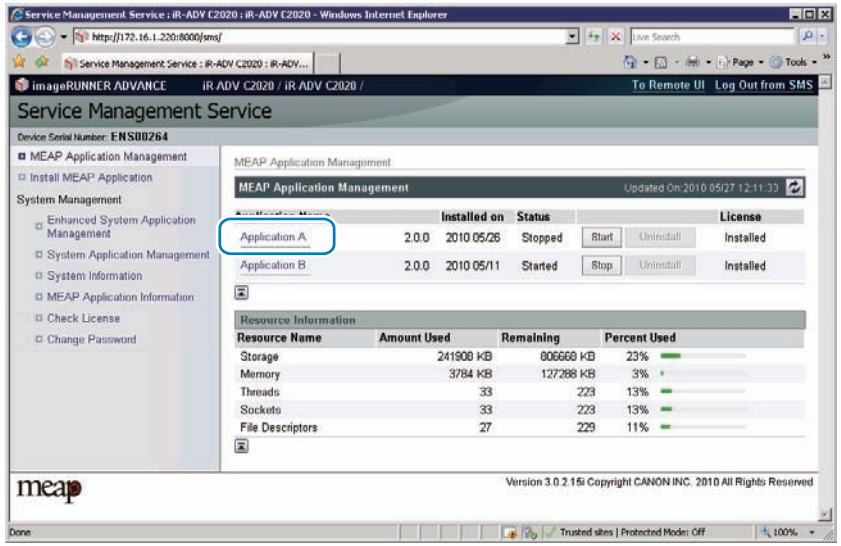


F-2-193

Procedure downloading / removing an invalidated license file

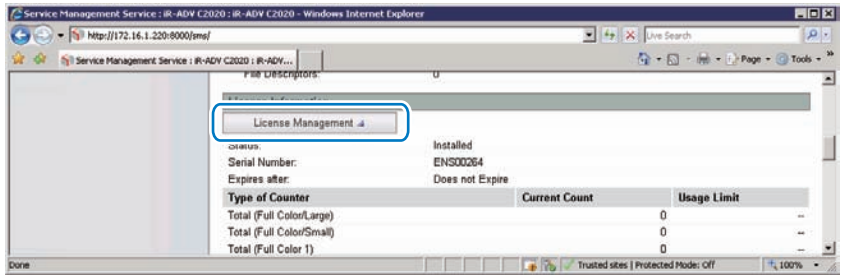
Note:
The downloaded license file can be used for reinstallation only in the same iR device (with the same device serial number).

1) Login to SMS.
2) Application List page appears. On MEAP Application Management page , click the name of the application you want.



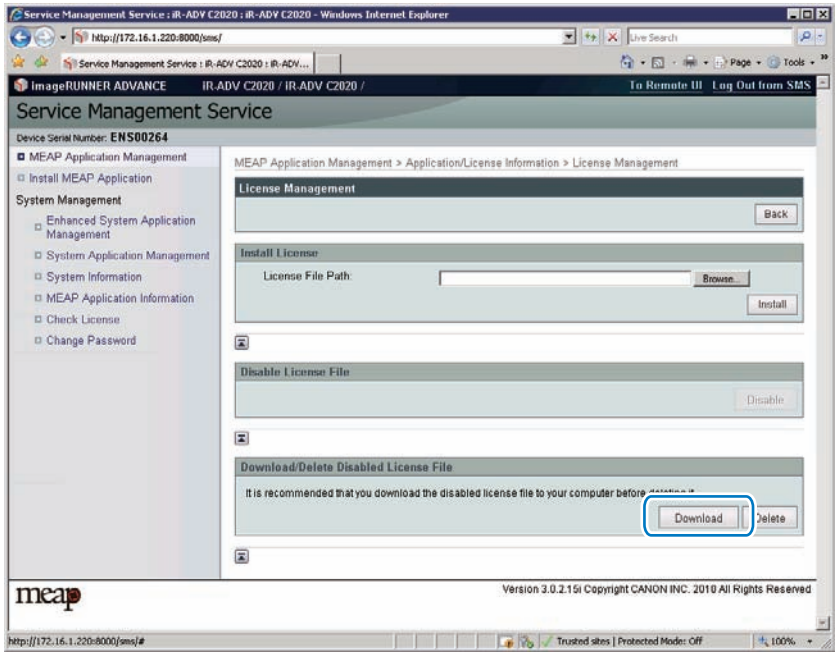
F-2-194

3) Check Application/ License Information page appears.
4) On Application / License Information page, click [License Management] button.



F-2-195

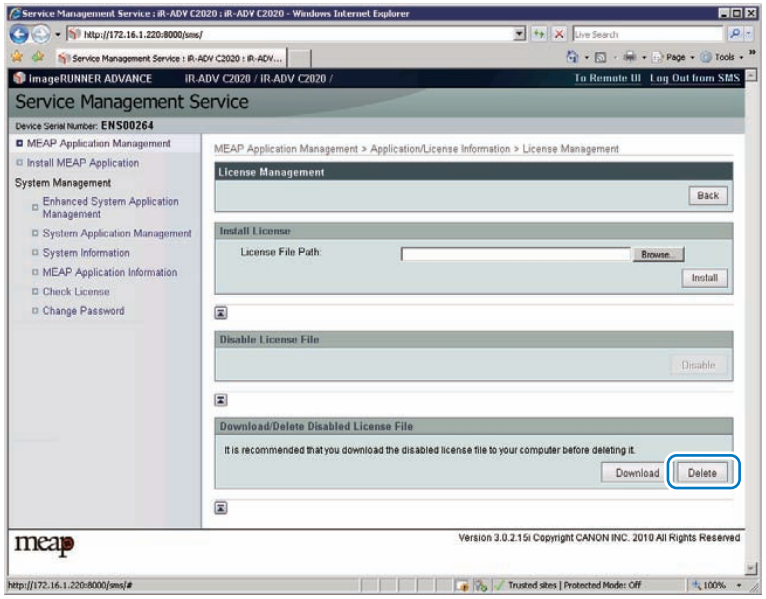
5) License Management page appears. To download, click [Download] button.



F-2-196

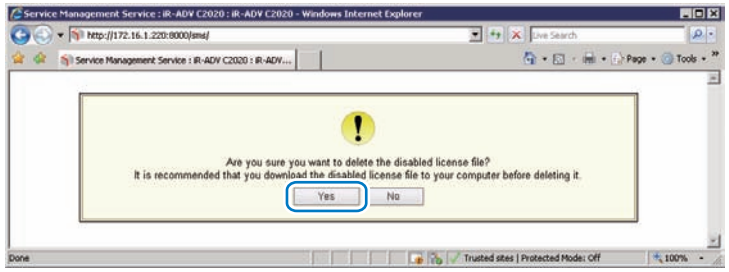
6) When you have selected [Download] button, specify where you want to store the file by following the instructions on the screen.

7) To delete, click [Delete] button.



F-2-197

8) When the dialog to confirm deletion is shown, click [Yes] button.



F-2-198

WARNING:

Without the license file, an application cannot be reinstalled even to the MEAP de-vice that the application had been installed last time. Download and save the license file before deleting the application.

Other License File Management Functions

Reusable license

When reinstalling, Disable License file should be downloaded (See "Procedure disabling a license file (suspending a license)" and "Procedure downloading / removing an invalidated license file" in this manual) or a license for reinstallation should be obtained from LMS, before reinstallation.

This specification aims to prevent misuse of applications.

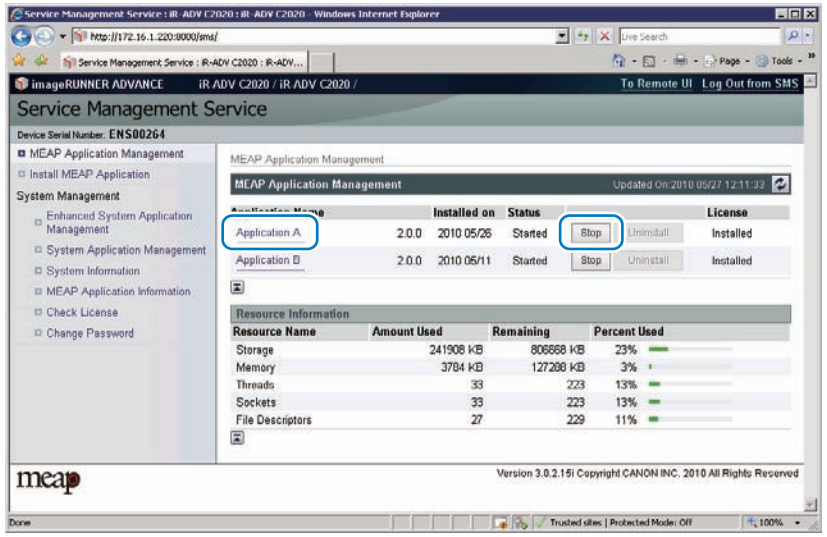
To increase convenience of users, only application with unlimited validity date and application counter (e.g. Portal Service, SDL, SSO) has been made to be able to install as many times as needed by the same license file. This kind of license is called 'Reusable license'.

License for forwarding

If the machine needs to be replaced due to a device failure, you can transfer the license information used in the MEAP application to the new machine and continue its usage. Service engineers are responsible for license transfer as this task requires the SMS hidden page (not open to users).

The procedure is shown below.

1) Log in to SMS, stop the application to be forwarded (See "Starting, Stopping, or Uninstalling the MEAP Application" in this manual).



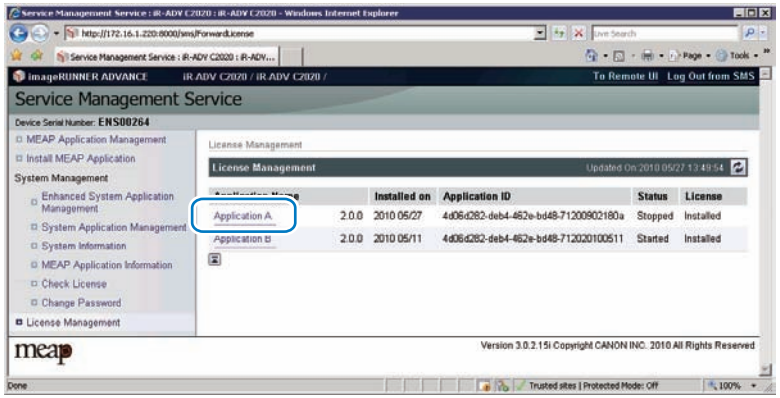
F-2-199

2) Move to the download page of license forwarded for the device as sender (https:// IP address of device: 8443/sms/ForwardLicense).



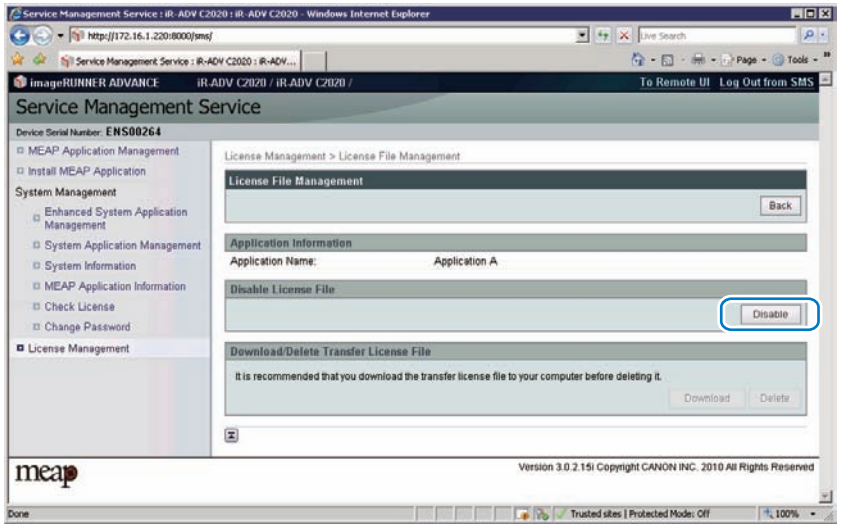
F-2-200

3) Specify the application to be forwarded.



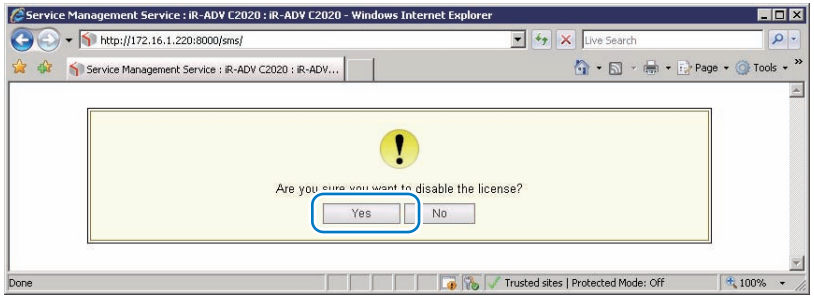
F-2-201

4) Click [Disable] at Create Transfer License File.



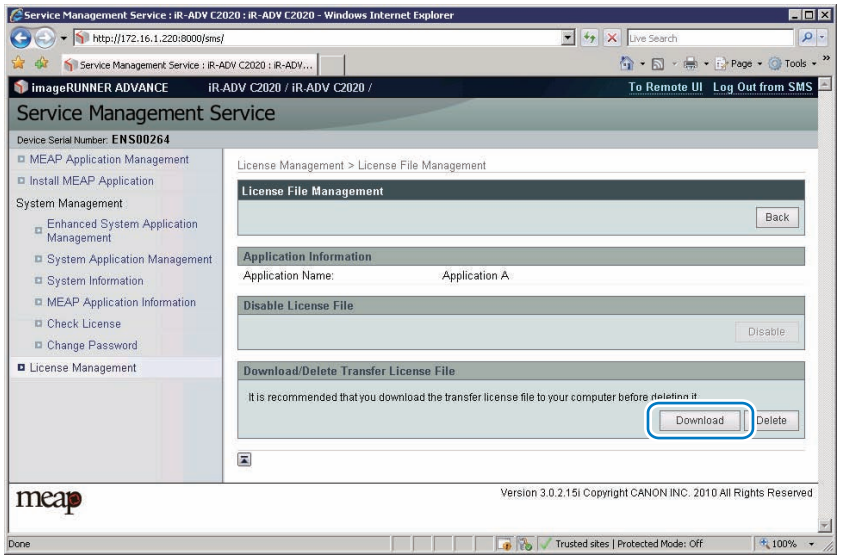
F-2-202

5) The window to confirm whether to create a transfer licence will be displayed. Click [Yes].



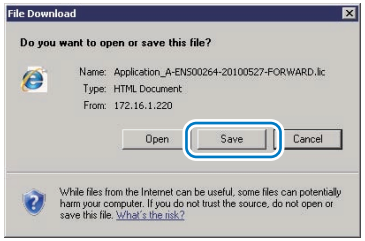
F-2-203

6) Icon of license file for forwarding is displayed in the box of license file downloading. Click [Download].



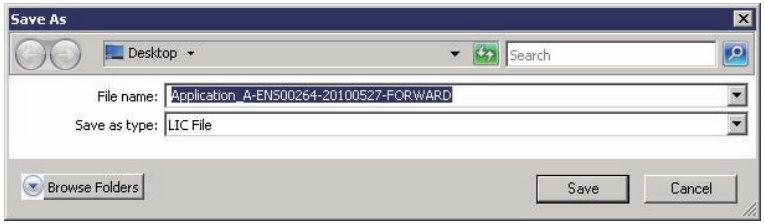
F-2-204

7) The dialog [File Download] is displayed. Click [Save] button.



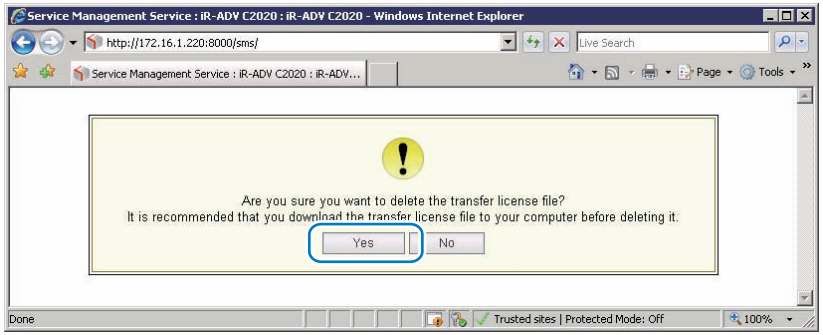
F-2-205

8) Specify the download destination, click [Save] button.



F-2-206

9) After downloading the license file for forwarding, click [Delete] to display the confirmation screen and click [Yes] to delete the file (in consideration of breakage of license for forwarding, deleting disabled license can be executed after all steps have been completed).



F-2-207

10) Log out of SMS.

11) Since this downloaded transfer license is the file only to prove the license invalidation, it cannot be used for installation to the other device as it is. Send the transfer license to the service support contact of your nearest sales company to request issuance of the new license for installation in the new device.

Note:
When requesting issuance of license for forwarding, inform the sales company of the name of product name and serial No. of the device as sender, and of the name of product name and serial No. of the forwarding destination.

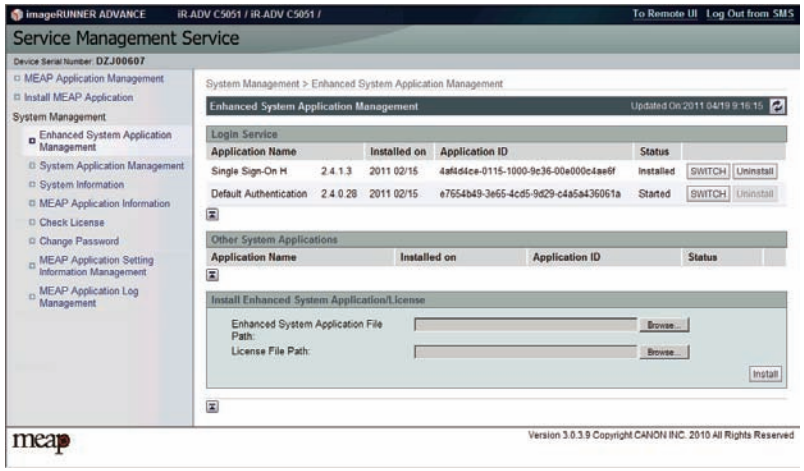
12) Install application using the license for forwarding issued by the sales company.

Enhanced System Application Management

Outline

[Enhanced System Application Management] mainly manages the login services for logging in to devices.

- Installing and uninstalling Enhanced System Application Management (login services, etc.)
- Switching login services (switching the method to log in to devices)
- Checking installation status of other System Applications



F-2-208

About Login Service

The login service is started up to authenticate the user when MEAP-enabled iR device is booted up. Login service changes and install/ uninstall are carried out from the 'System Management' page. The pre-install applications and those provided on the accessory CD are as follows. Default Authentication is used as the default at the time of shipment from the factory.

CAUTION:

- When the login service is set to SSO-H, Department ID management needs to be [OFF] before changes can be made. To use SSO-H local device authentication and Department ID management at the same time, after allocation of the department ID to the Administrator, switch the authentication method to local device authentication and then turn Department ID management ON.
- To use Department ID management in domain authentication, the option image-WARE accounting manager is required.
- When the setting is SSO-H, the card reader for the option controller card cannot be used.
- When using SSO-H, the clock settings of the server managing the Active Directory and the MEAP device (and the PC used to log in), must be matched. If there is a time difference of greater than five minutes in the clock settings, an error will be generated when login is attempted.
- When the setting is SSO-H, start up takes a little longer when compared to Default Authentication (because of the time required for object initialization).
- To use the SEND function when the setting is for SSO-H, when sending email, mail addresses need to be programmed against each user. If they are not, email cannot be sent. Note, however, that when sending i-Fax, the mail addresses set in the device are used.
- This device does not support SDL, conventional SSO and Security Agent. In addition these are not packaged in Administrator's CD.

Default Authentication overview

This login service is selected when the department ID management is enabled or no authentication function is set. Set the department ID management to [ON] on Setting / Registration (Additional Functions mode) of this device and register 7-digit ID and PIN by department. This setting restricts the use of this device only to users keying the registered ID and PIN. Department IDs/ and PINs can be registered on the touch panel of this device or Remote UI.

SSO-H (Single Sign-On-H) overview

This is a merger of the existing SDL and SSO login services and has the following features.

- Both the domain authentication and local device authentication login services can be used.
- There is no need to have a separate SA server.
- Login is not via SA, so SSO-H refers directly to DNS for authentication.
- Kerberos and NTML protocols are supported.
- The following three authentication methods may be selected from.
  - Domain authentication
  - Local device authentication
  - Domain authentication + local authentication

CAUTION:

- The system configuration is different from previous SSO, so individual management is required.
- Data porting of user information that was being used with the earlier SSO local device authentication and SDL can be done by exporting/ importing. However, application settings information cannot be ported.

Authentication methods of SSO-H

SSO-H can use multiple authentication methods, and the user can toggle between them from a Web browser. (Refer to the MEAP Authentication System Settings Guide 'User Authentication Method Settings'.)

CAUTION:

The factory shipment setting is ‘Domain authentication + local device authentication’.

In order to provide increased security, as soon as SSO is used, it is recommended that the administrator’s user name and password in local device authentication be changed from the factory shipment settings as soon as possible.

Local device authentication

This is an authentication method that is used for single iR devices. The authenticating users are registered in the iR device's database. User management is performed on the Web application provided by the device, or from the imageWARE Enterprise Management Console/ iW Management Console. The login destination is [This device].

Domain authentication

This is a form of user authentication which operates in collaboration with the domain controller on the Active Directory environment network and, as soon as the iR device is logged into, carries out authentication of the domain on the network. In addition to users belonging to the domain that includes the iR device, users belonging to domains that have a reliable relationship with the domain (multi-domain) can also be authenticated. The domain name of the login destination can be selected by the users themselves upon login.

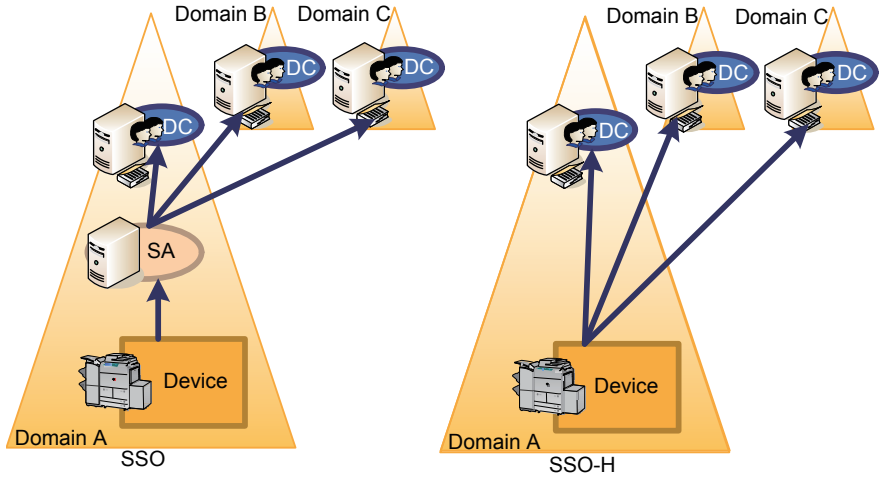
The function makes use of options iW EMC Accounting Management Plig-in to enable analysis and management of the iR device usage status.

The protocol used is as follows.

- Kerberos:LLS/RLS/ILS
- NTLMV2:WLS(Web Service Login Service)

User information acquisition is done by LDAP, so the Active Directory LDAP port needs to be made accessible. If LDAP connection fails, the authentication will end in error.
No. of supported domains: 200 (unchanged from SSO) Site access supported.

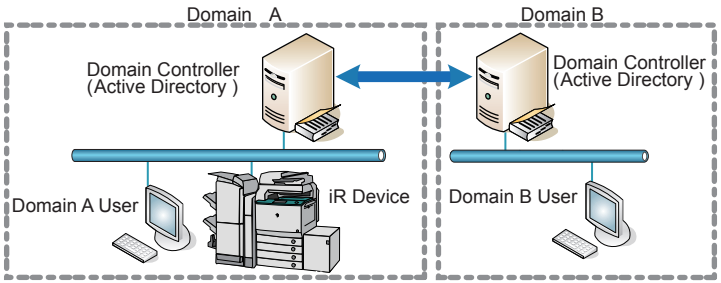
Differences from conventional SSO



F-2-209

Domain authentication + local device authentication

This is a user authentication method that provides both domain authentication and local device authentication functionalities. Principally, domain users who are registered/ managed by the Active Directory are authenticated by domain authentication, and local device authentication can be used when it is necessary to authenticate a temporary user that cannot be added to the Active Directory. Also, should there be any kind of a problem with the domain controller or Security Agent (SSO only), local device authentication can be used in emergency situations, while waiting for normal status to be restored.
In the figure shown below, users belonging to Domain A, which includes the iR device, and users belonging to Domain B, which has a reliable relationship with Domain A, can be authenticated, and users registered with the iR device itself can also be registered. The login destination (domain name or [This device]) is se lected by the user upon login.



F-2-210

CAUTION:

- To run domain authentication and Department ID management at the same time, the options Net Spot Accountant, iW Accounting Manager or iW EMC Accounting Management Plug-in are required. If domain authentication is selected as the authentication method without linkage to these systems, login will be disabled and Department ID management will not come ON. If Department ID management cannot be turned ON when using domain authentication and login is disabled, switch the login service to Default Authentication and turn Department ID management OFF.

CAUTION:

- In order to link local device authentication and Department ID management and manage print pages and scan pages per department ID, Department ID management must be set ON. To run local device authentication and Department ID management at the same time, the information registered in local device authentication must match the Department ID management user information (department ID and password).
- In local device authentication the card reader for the option control card cannot be used.

Linkage with Department ID management when using SSO-H

SSO-H has collaborative linkage with imageWARE/iW Enterprise Management Console Access Management Plug-in, imageWARE/iW Enterprise Management Console Accounting Management Plug-in. Only when used with 'Local device authentication', can department ID/ passwords be allocated to users.
In the event that these are allocated, authentication can be performed even when the main unit's department management is ON. Department ID and department passwords are not allocated to domain users.
When the main unit's department management function is ON, domain users cannot be authenticated.

Note:
With SSO, linkage with imageWARE/iW Enterprise Management Console Accounting Management Plug-in was assumed and department management linkage was enabled even in domain authentication, but with SSO-H, this is now unsupported.

System Manager Linkage (automatic ID allocation to System Managers)

SSO provided the automated function conventionally on Security Agent (hereinafter “SA”) to authenticate System Manager by allocating IDs set on SA to domain authentication managers (users belonging to Canon Peripheral Admins group). However, SSO-H does not support this function.

Access Mode in Sites

With SSO-H, access to Active Directory within site can be prioritized or restricted, so there is a setting called 'Access Mode in Sites'. Sites programmed in Active Directory comprise multiple subnets. In this mode, SSO-H uses site information to access the same site as the device, or the subnet Active Directory.

- The SSO-H default setting is with the site internal access mode OFF.
- Access Active Directory within same site only.
- If there is no Active Directory within the same site, or if connection fails, there will be an authentication error.
- Access another site if Active Directory within the same site cannot be located.
- If there is no Active Directory within the same site, or if connection fails, an Active Directory external to the site will be accessed.
- If all attempts to access Active Directory fail, there will be an authentication error.

The operating specifications of the site internal access mode are as described below.
When first logging in to the login service after booting iR, the domain controller (DC) is obtained from the site list.
However, upon the first login, even if the site functionality is active, connection to DC is random. (This is because, if connection to DC should fail, the site to which the device belongs cannot be ascertained.)
If the device IP address or the domain name are changed, the site settings are acquired once more.

In this mode, at the first login (first authentication of domain to which the device belongs) LDAP-Bind is performed directly to DC and site information acquired by LDAP from DC.

From the acquired site list, the site to which the device subnet belongs is extracted and this becomes the site to which device belongs. Active Directory address is acquired (retrieved from DNS)

Note:
- The Active Directory subnet is assumed to be the same subnet as the device sub-net.
- In the Active Directory addresses, the Active Directories of the same site are listed.
- Active Directories of the same subnet as the device are listed first.
- If there is no Active Directory with the same subnet as the device, Active Directories belonging to different subnets than the device are listed.
- The Active Directories within the same site are accessed in order. Note, however, that where there are multiple Active Directories within the same site, access to those Active Directories will be in the order in which the address list was obtained.

Note:
- If there is no Active Directory within the same site, if access outside of the site is programmed, Active Directories outside of the site will be accessed in the order in which the address list was obtained.

Site list acquisition

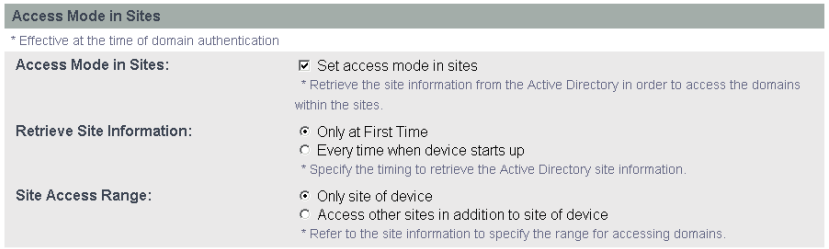
After booting up, upon the first login by LLS or ILS/ RLS, the site list is obtained from the Active Directory. In order to obtain the site list from the Active Directory, Active Directory needs to be accessed in LDAP, so SASL-Kerberos-Bind is used by the login user account. If authentication by Active Directory should fail, an authentication error will be generated and the site list will be acquired again from Active Directory upon the next login.

In SSO-H, the Active Directory to be accessed when acquiring the site list cannot be specified. In other words, if there is no site list, which site's Active Directory is accessed depends upon the order of the Active Directory addresses returned by DNS. Therefore, when acquiring the site list, LDAP may access the Active Di rectory of a different site. Therefore, in such cases, it is sometimes necessary to access across sites or subnets, which means that LDAP protocol needs to have continuity across sites (subnets) (normally, LDAP is port No. 389). Further, if connection with Active Directory fails when acquiring site information, another Active Directory will be accessed.
Site information, once it has been acquired, is cached within the device. The life settings of the cache can be set so that site information in the cache is updated upon the first login after the device boots up, or so that the cache is not updated once acquired.

Settings for access mode in sites

Switching between site internal access mode/ non site internal access mode, as well as detailed mode settings, are done via DMS or iWEMC.

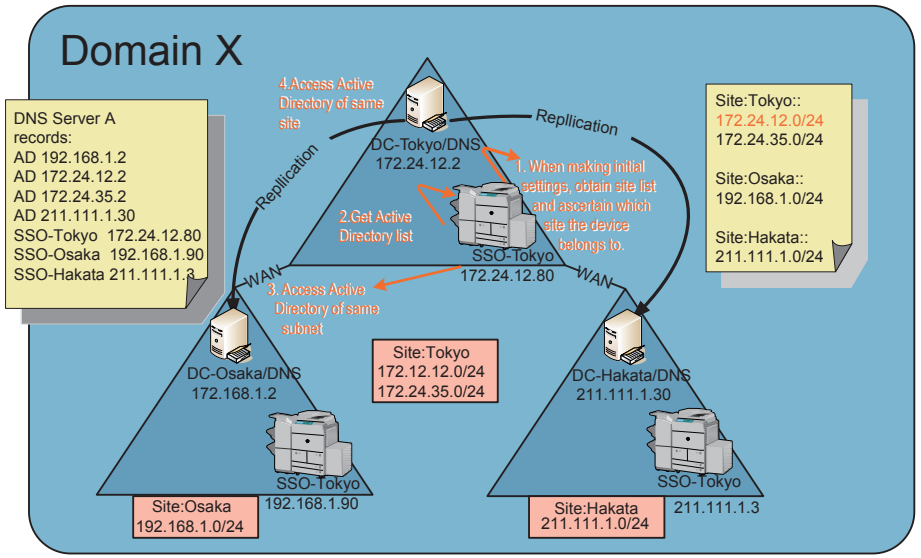
Site internal access mode settings window (DMS)



F-2-211

The figure below shows a sample of processing Access Mode in Sites.

Sample of Processing Access Mode in Sites



F-2-212

1) SSO-Tokyo acquires site lists from Active Directories.
Note, however, that the Active Directories accessed in order to acquire site lists are in the order in which they were returned by DNS, so there is no guarantee that the same Active Directory will be accessed as in the initial settings (upon device settings or changes to NW settings, etc.).
[Site subnet list]
Site: Tokyo: = 172.24.12.0/24, 172.24.35.0/24
Site: Osaka: = 192.168.1.0/24
Site: Hakata: = 211.111.1.0/24
As a result, since SSO-Tokyo is 172.24.12.80, the subnet is 172.24.12.0/24, and is judged as belonging to site Tokyo.
2) The DNS server obtains its Active Directory list from the primary or secondary DNS, as set in the device.
[Active Directory]
172.24.12.2, 172.24.35.2, 192.168.1.2, 211.111.1.30
3) Of the Active Directories in 2), above, the ones that belong to the same site (Tokyo) are 172.24.12.2 and 172.24.35.2.
Of these, the Active Directory that is the same subnet as SS-Tokyo is 172.24.12.2.
Therefore, this one will be accessed.
4) If access fails at step 3), above, the other Active Directory of the same site, 172.24.35.2, will be accessed.
5) If access fails at step 4), above, also, SSO-Osaka and SSO-Hakata will be accessed (the order will depend on the order of the Active Directories in DNS). Note, however, that this is an optional operation.

Logging into other domains at multi-domain

At multi-domain, if another domain is logged into, based on the site/ subnet information retrieved in the home domain, the Active Directories of the login destination domain/ KDC address list are computed. In the event that the domain controller IP addresses of other domains are outside of the site access range, and only the domain controller within the site is programmed for access, an error message will be displayed to the effect that the site information is incorrect.

Environment confirmation

Refer to the section of “Checking the Operating Environment” of this manual for system requirements needed in each login service.

Specification of SSO-H

Item	Specification
No. of local device users	Up to 5000
Maximum number of domains	200 domains (“this device” not included)
Supported device	All the MEAP-enabled iR devices (different SSO-H versions are supported depending on machine types)
IPv6	Authentication provided in IPv6 supports AD/KDC/DNS of Windows Server 2008 only)
Memory (KB) / thread (numbers)	3584/33
Supported Active Directory	Windows 2000 Server SP4/ Windows Server 2003 SP1/ Windows Server 2003 R2/ Windows 2008 Server(64BitOS not supported)
Availability of Department Management Linkage	Available only in local authentication
Site access	Supported

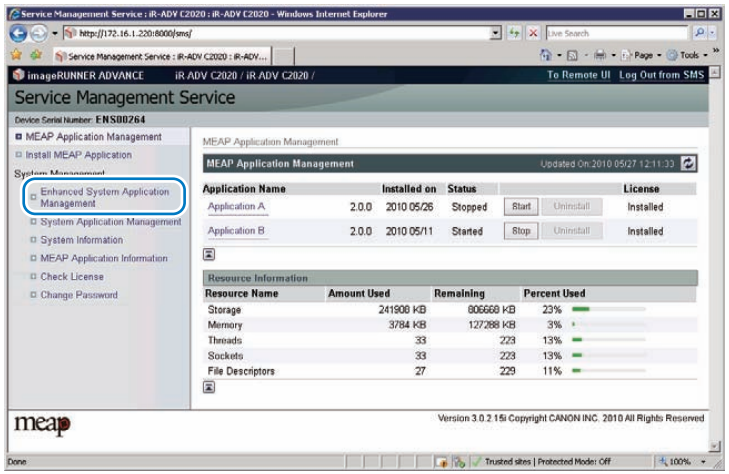
T-2-86

SSO/SDL handling

Conventional SSO and SDL are not packaged in Administrator's CD of this model. In addition, this model does not support older versions of SSO or SDL released in the past.

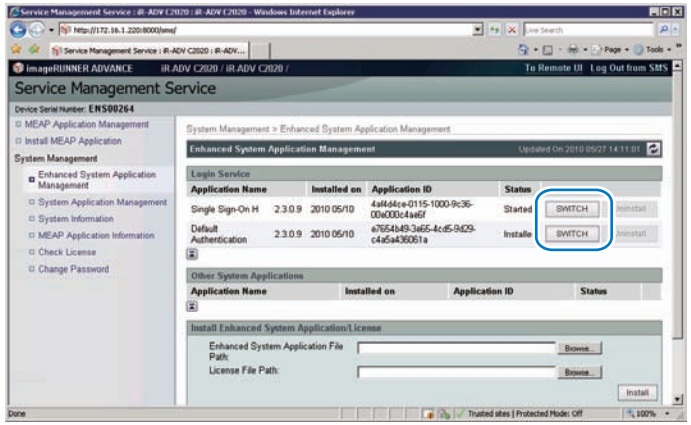
Procedure Changing Login Services

1) Click [Enhanced System Application Management] on [System Management].



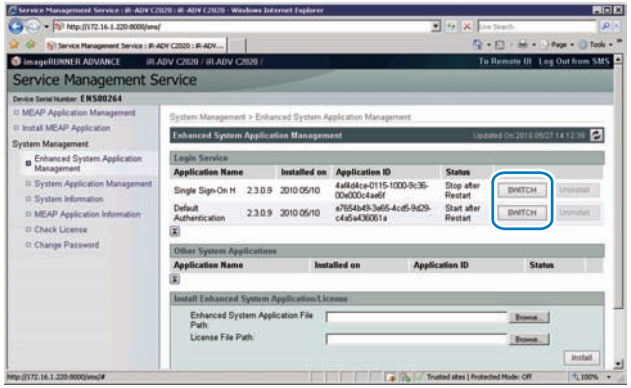
F-2-213

2) A page will appear showing the various selections you can make for the login service. Click [SWITCH] button for the login service to be used.



F-2-214

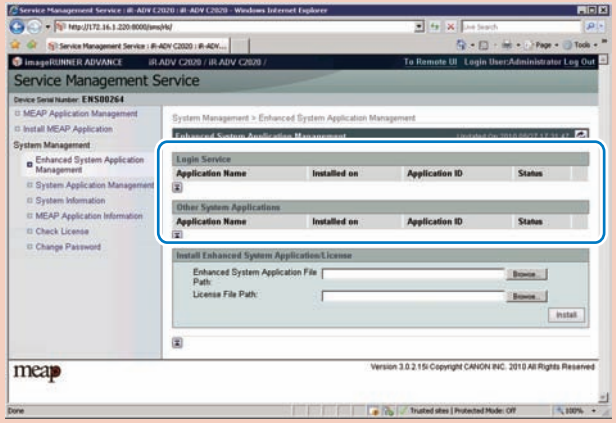
3) When login service application you have selected turns to [Start after Restart] , restart the device.



F-2-215

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-216

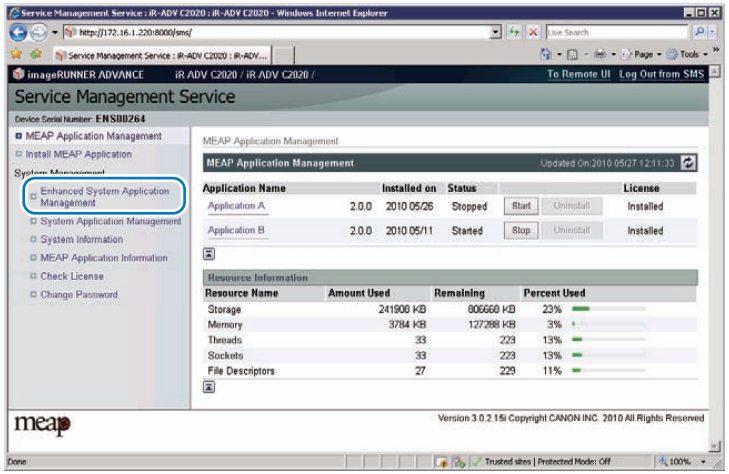
This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

Procedure Installing Login Services

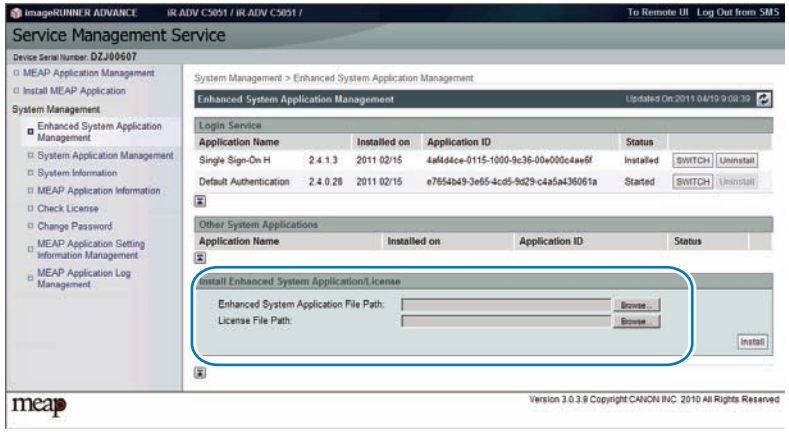
Use the following procedure to install the login services.

1) Access SMS, and then click [System Management] > [Enhanced System Application Management].



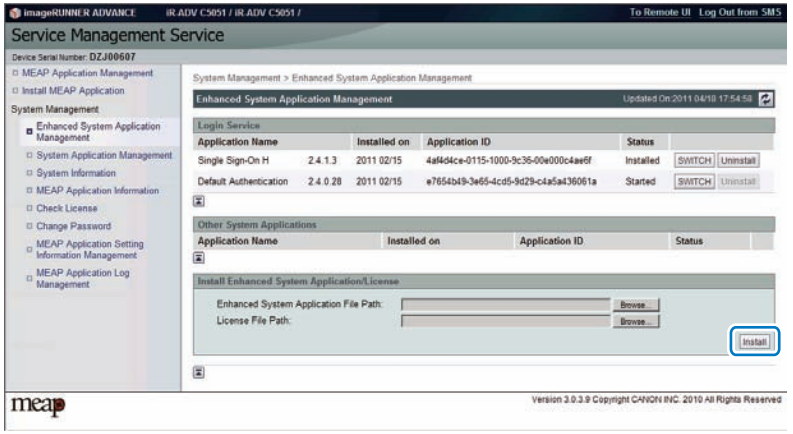
F-2-217

2) Click the [Browse] button, and specify the Enhanced System Application file/License file.



F-2-218

3) Click [Install] button.

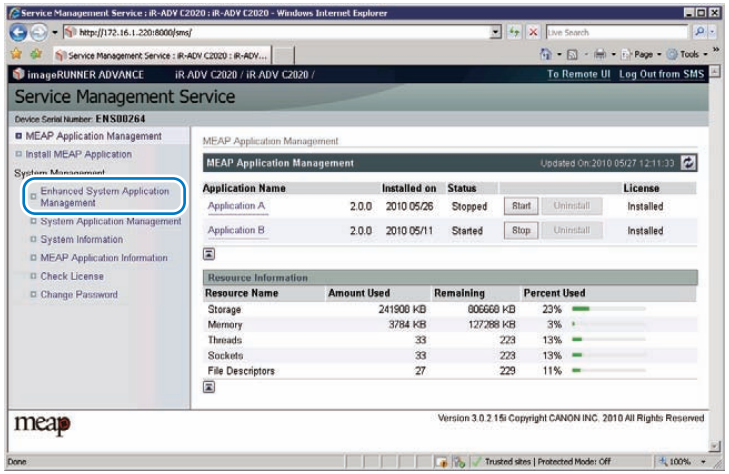


F-2-219

Procedure Uninstalling Login Services

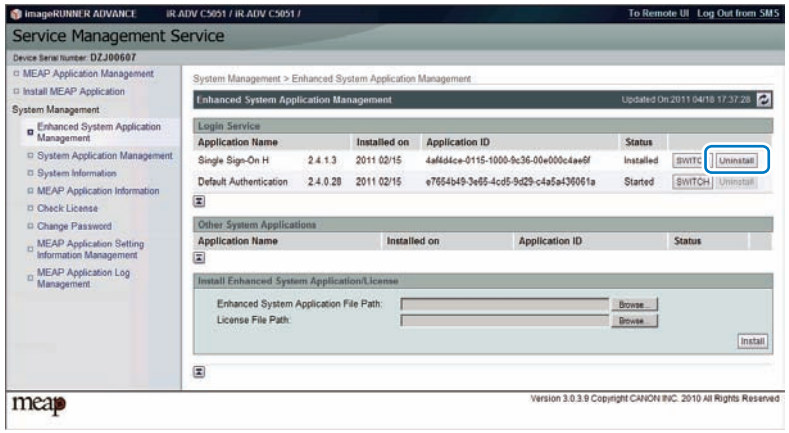
Use the following procedure to uninstall the login services.
Also, note that the services need to be stopped ("Installed" status) in order to uninstall the login services.

1) Access SMS, and then select [System Management] > [Enhanced System Application Management].



F-2-220

2) Click the [Uninstall] button of the login service you want to uninstall.



F-2-221

System Application Management

This function manages the login services for logging in to SMS.
For the login services, you can use "Password Authentication" where you enter an SMS original password on the SMS login screen and log in. You can also use "RLS Authentication" where you do not use the SMS login screen but enter the user ID and password on the RLS (Remote Login Service) screen and conduct authentication.

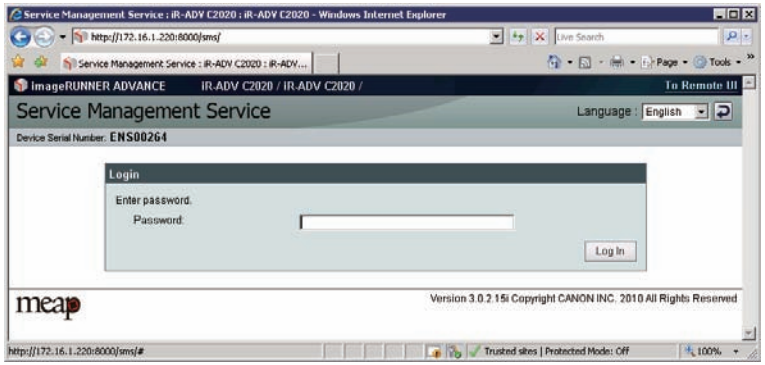
Login by Password Authentication

In the SMS login window, enter the password for authentication. Only one password can be registered with SMS. The login procedures are as follows.

1) Access SMS from the browser of a PC on the same network as the MEAP device. The URL is as follows.
URL: https://<MEAP Device IP address>:8443/sms/
Ex.) https://172.16.188.240:8443/sms/

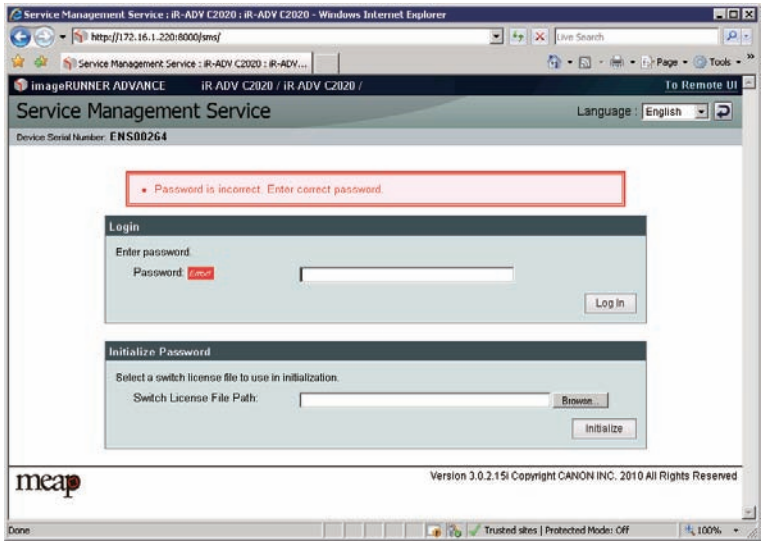
Note:
- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

Note:
- The default password is “MeapSmsLogin.” (The password is case-sensitive.)
- When you want to change the display original language, change in the box in the right of the screen. This setting is not affect by the setting of the language of the device.



F-2-222

2) If the wrong password is entered, the following window is displayed. The user's system administrator may have changed the password, so confirm the password with the system administrator. Note that there is no special password for service.



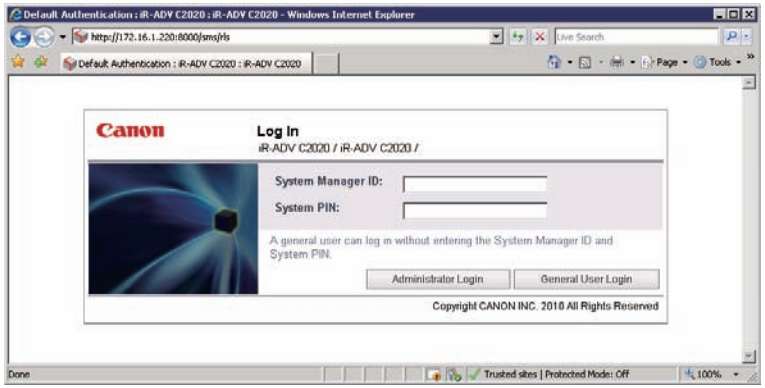
F-2-223

Login by RLS Authentication

Login without using the SMS login window but by entering the user ID and password for authentication in the RLS (Remote Login Service) window. The user information (user name and password) used is the information for domain authentication or local device authentication. The login procedures are as follows.

1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls/

Note:
- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

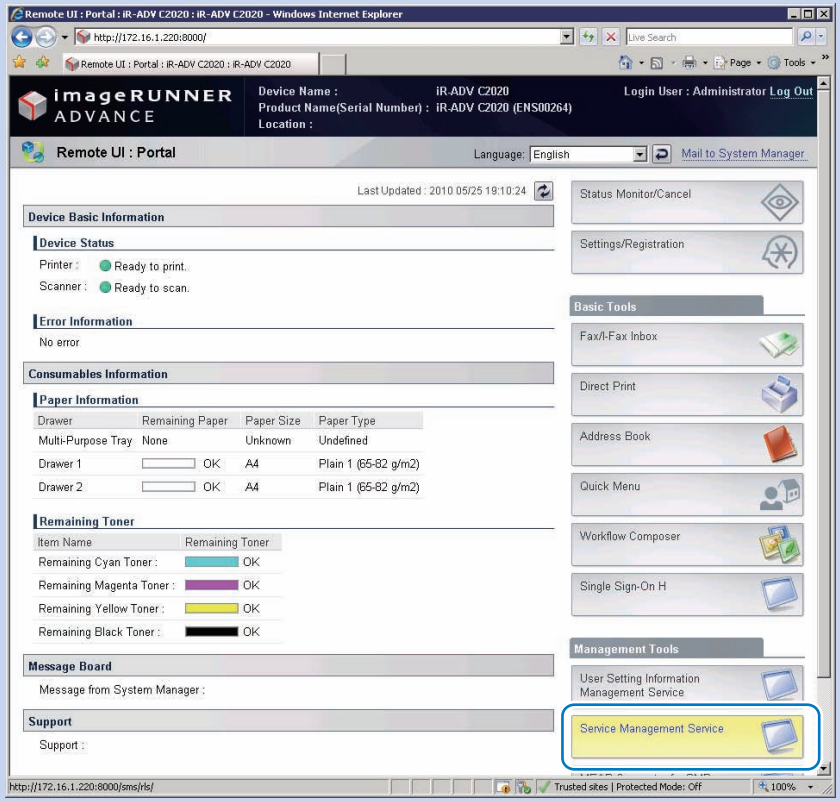


F-2-224

Note:
- When the device authentication method used is domain authentication, enter the user name, password and login destination registered with Active Directory and then click ‘Log In’.
- If the authentication method used is local device authentication, enter the user name, password and login destination registered in the device and click ‘Log In’. - When using SDL as the login service, enter the user information registered in the device, as per local device authentication.
- The user information is set as below for local device authentication by default. Both are case sensitive.
  - User Name: Administrator
  - Password: password

Note:

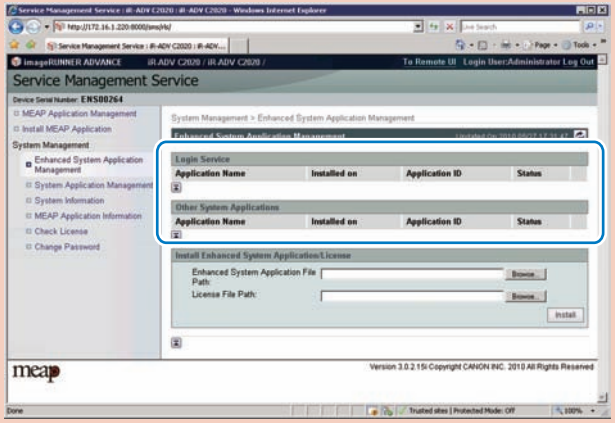
- Only the following users may us SMS via RLS.
  - In the case of domain authentication, users belonging to the Canon Peripheral Admins Group.
  - For local device authentication, users with Administrator or Device Admin authority.
- SMS Access can be gained also from Remote UI.
  Access Remote UI and click on SMS shortcut shown on the lower right of the screen to gain access to SMS.
  When only the password authentication is enabled, the password authentication screen is shown.
  When only the RLS authentication is enabled, no further authentication is needed to access SMS. This is because users have already authorized upon accessing to Remote UI.



F-2-225

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



F-2-226

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

■ Setting the method to login to SMS

The method to log in to SMS can be specified by one of the following methods.

- If you want to change the password authentication settings: Use RLS Authentication to log in, and change the settings.
- If you want to change the RLS authentication settings: Use Password Authentication to log in, and change the settings.

The following table shows the start/stop combinations of the two login methods.

Combination of Login Methods

	Start RLS Authentication	Stop RLS Authentication
Start Password Authentication	Login available with either method	Login available only with
Stop Password Authentication	Login available only with RLS Authentication	Setting unavailable

T-2-87

CAUTION:

If only login via RLS is programmed, login may be disabled for the following reasons.

- Authentication server is down
- Network problem, no communication with authentication server

In the event of either of these cases, try the following.

1. If local device authentication is active, try logging in with local device authentication.
2. If only domain authentication is active, launch in MEAP safe mode from the device service mode.

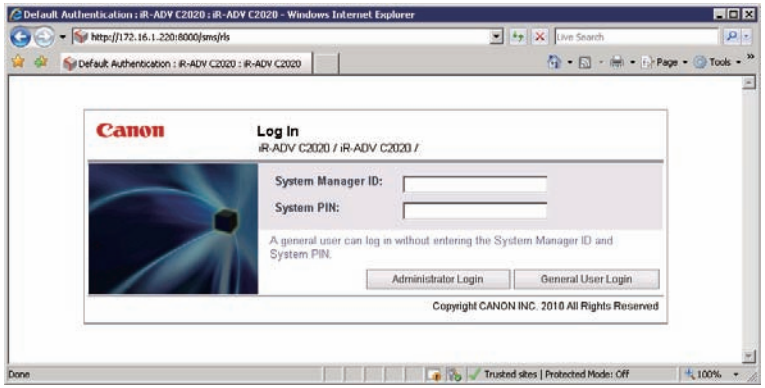
After launching in MEAP safe mode, the Default Authentication will become active, and you will be able to login to SMS with password authentication. After logging into SMS, set the password authentication login to ON (active) and restore the device from MEAP safe mode to normal mode. Until the problem blocking authentication is resolved, log into SMS with password authentication.

● Setting for login by Password Authentication

The procedures for changing the password authentication Start/ stop settings are as follows.

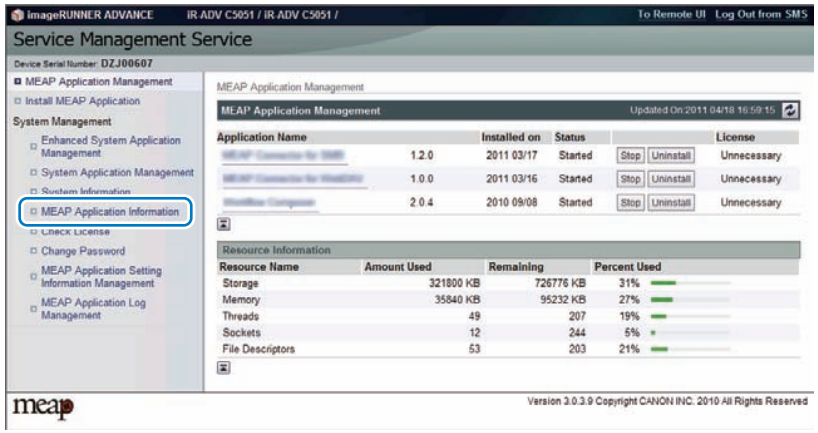
1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

Login screen (In case authentication method is SSO-H)



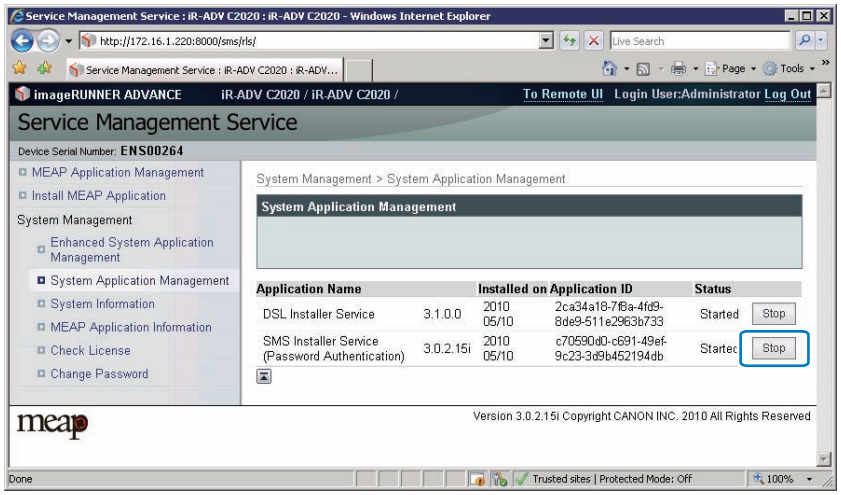
F-2-227

2) Select [System Application Management]



F-2-228

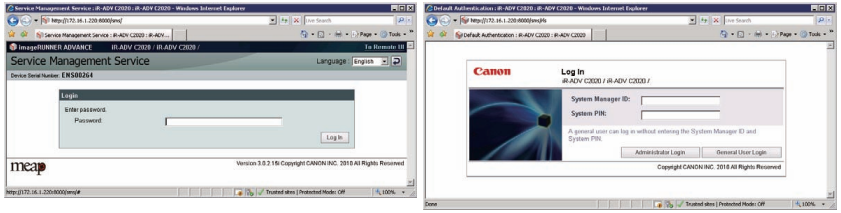
3) Click [Start] or [Stop] button shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



F-2-229

4) Logout once and login again to check to see that the setting is applied properly.
When clicking [Stop] to change the status to [Start] , another password authentication login screen is firstly shown. When trying to access the password authentication screen after clicking [Start] to change the status to [Stop] , the user is automatically redirected to RLS authentication screen.

Password authentication started screen and Password authentication stopped screen



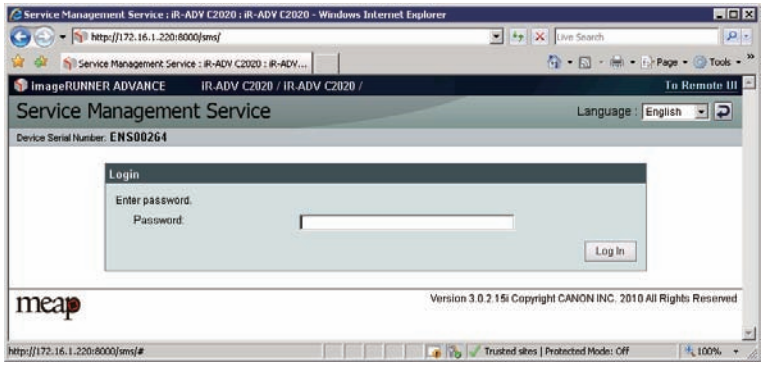
F-2-230

Setting for login by RLS Authentication

The procedures for changing the RLS authentication Start/ Stop settings are as follows.

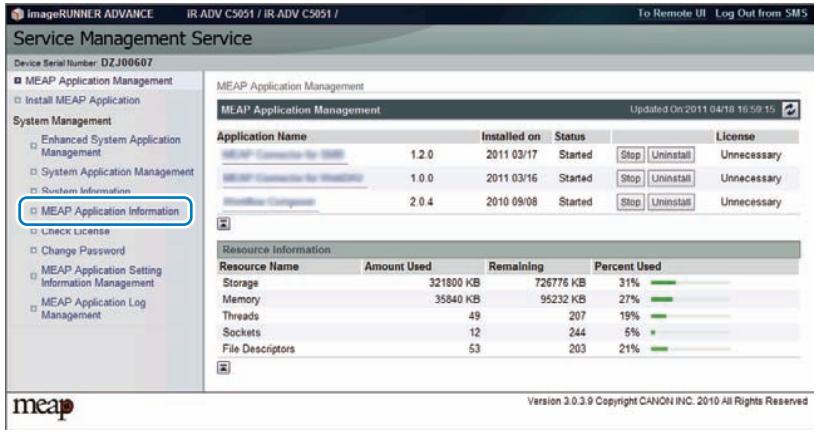
1) In order to make a setting for Login by RLS Authentication, you need to Login by Password Authentication.
URL: https://<IP address of MEAP device>:8443/sms/rls/
Ex.) https://172.16.188.240:8443/sms/rls

Login screen by Password Authentication



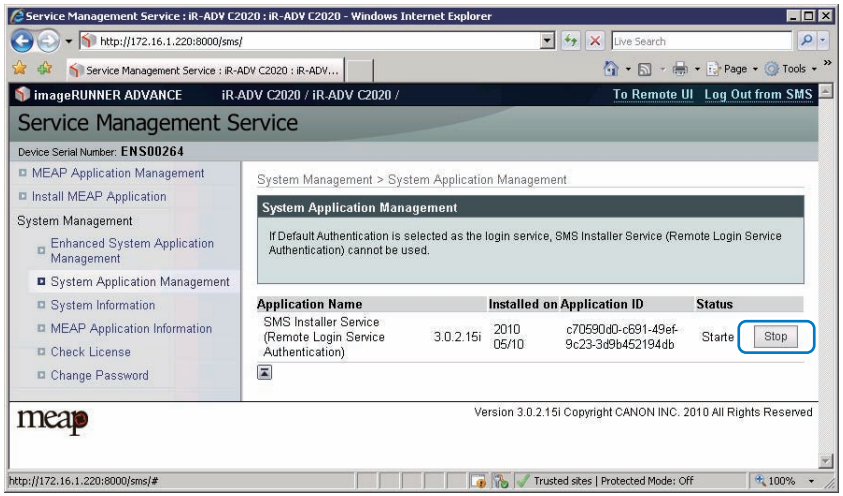
F-2-231

2) Select [System Application Management] on System Management menu.



F-2-232

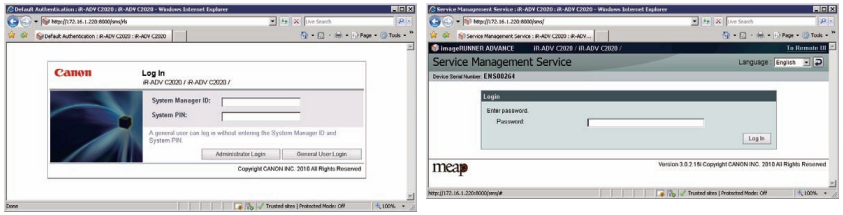
3) Click on [Start] or [Stop] button shown on Status field of SMS Installer Service (Remote Login Service Authentication) to check if the status is changed.



F-2-233

4) Log out and then log in again and access via the RLS authentication login window.
When RLS authentication is set to [Start] , another RLS login screen is firstly shown.
When accessing to RLS status screen with the setting of [Stop] , the user will be redirected to the password authentication screen.

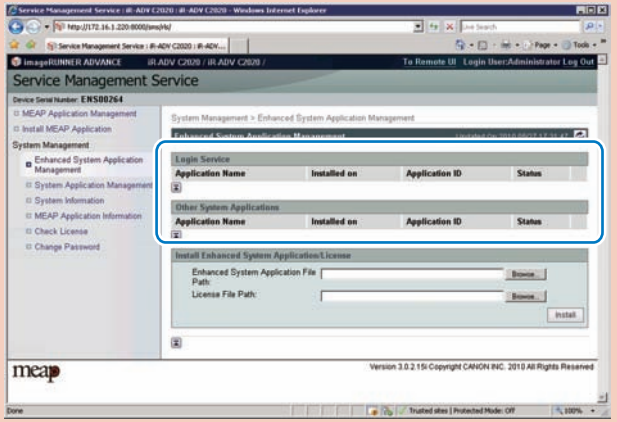
RLS authentication started screen and RLS authentication stopped screen



F-2-234

CAUTION:

In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



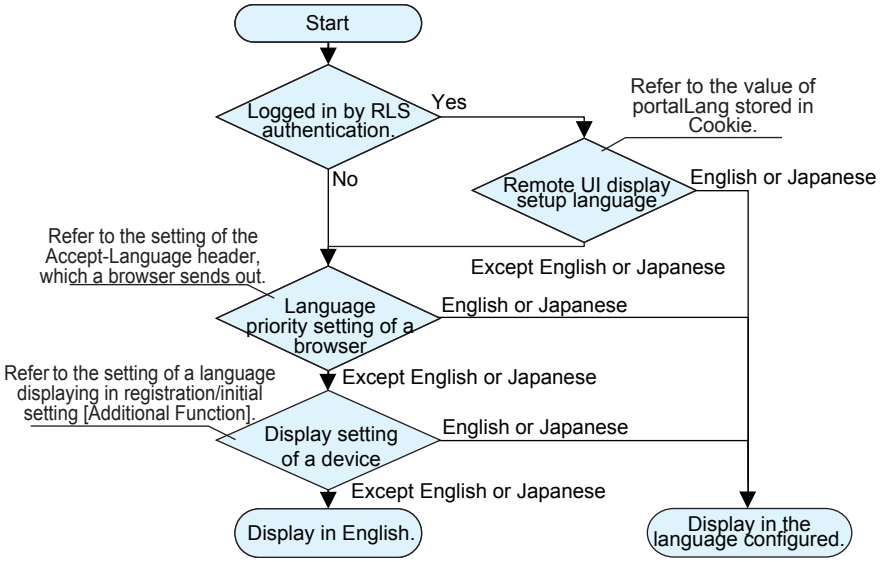
F-2-235

This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

Initial Display Languages of SMS

SMS supports English and Japanese. Display language can be changed with selecting by the drop down list on a login page.
The initial display language at the time of accessing SMS depends on the setting.
In former SMS, the language setting of "initial setting/registration (user mode)" was used.
However, when the language setting is other than English or Japanese, it displays in English.
After changed, it will be as follows.



F-2-236

When accessing by SMS Installer Service (Password Authentication)

It is referred in order of the language priority (setting of the Accept-Language header which a browser sends out) and the display-language setting in the "user mode". When the language setup is other than English or Japanese, it is displayed in English.

When accessing by SMS Installer Service (Remote Login Service Authentication).

Initial display language is set by the language setting (value of portalLang storing in Cookie) selected by the remote UI screen. When the setting is other than English or Japanese, Selection of display language is performed in a similar way with the SMS Installer Service (Password Authentication) mentioned above.

System Information

Outline

You can check the device's platform information and the MEAP application's system information.

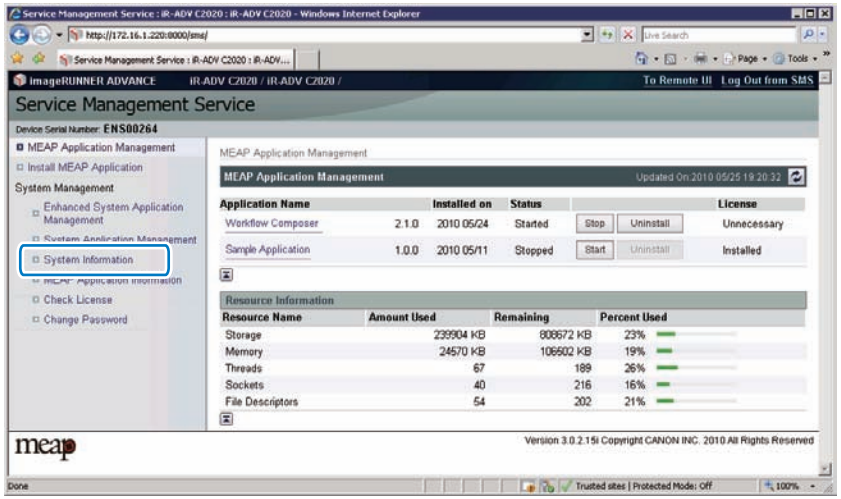
Checking the System Information

System information that can be checked from the screen:

- Platform information
  - MEAP Specifications version (MEAP Spec Ver)
  - MEAP Contents version
  - Java Virtual Machine version
- System application information
  - The name of the installed system application
  - The installation date of the installed system application
  - Application ID of the installed system application
  - The status of the installed system application

The checking procedure is shown below.

1) Log in to SMS.
2) On System Management menu, click [System Information] button.

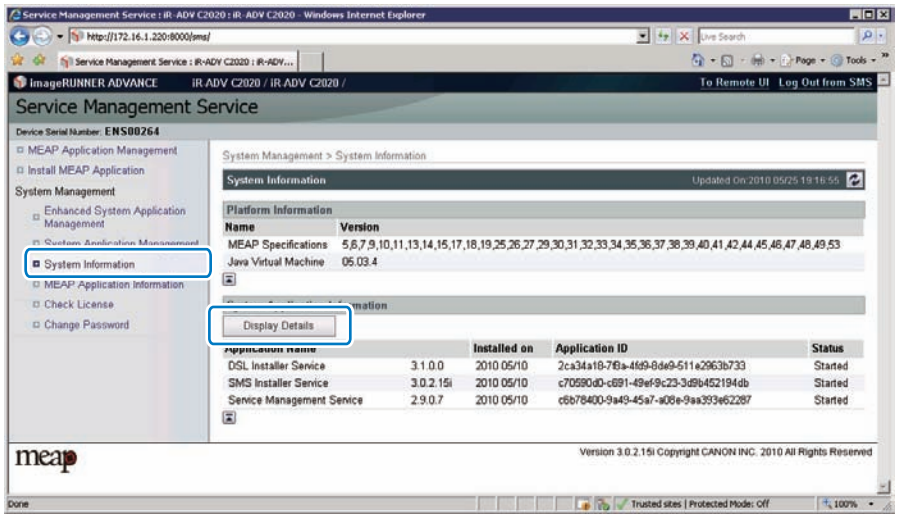


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Display of System Information Details

The system information details can be displayed to check more than one pieces of information all at the same time: platform information, system application information, information on the installed MEAP applications, etc.

1) Log in to SMS.
2) On System Management menu, click [System Information]
3) Click [Display Details] button.



F-2-238

4) The system information of each application (including System Application) is shown in a separate window. Copy and paste all the information in a file to attach to AR reports as text information. This function is useful to check status information of each application.

Printing the System Information of a MEAP Application

MEAP system information can be printed out with iR device for confirmation.

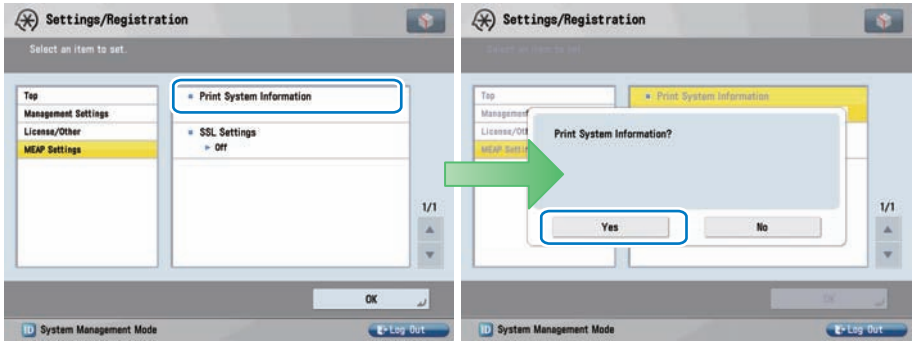
Note:
The system information of the MEAP application that you checked in the previous section is exactly the same as the system information of the MEAP application that is output.

Follow the steps below when confirming information:

1) Select [Settings/ Registration] > [Management Settings] > [License/ Other] > [MEAP Settings] > [Print System Information].

Note:
When System Manager ID and PIN are set, go to Top screen and log in as System Manager to continue jobs.

2) Press [Yes] button.



F-2-239

Note:
MEAP system information was printed out in PDL format conventionally. However, the information has been printed out in text format instead of PDL format, enabling iR devices without PDL installation to print out information (iR C3220 and later).

Content of MEAP system information

Application System Information

```
Application Name: C-Cabinet Gateway for MEAP
Application ID/System Application Name: 03a46668-63e4-4636-9cbb-492b6cef05d5
Application Version: 1.0.0
Status: Resolved
Installed on: Tue Oct 21 14:00:11 GMT+09:00 2003
Vendor : Canon Inc.
License Status : Installed
Maximum Memory Usage : 1024
Registered Service :
```

Item	Content
Application Name	It is the name (bundle-name) declared in a statement within the application program. It may not necessarily be identical to the name of the program.
Application ID/System Application Name	Application ID (application-id) items which are declared on the declaration statement in the application program are printed.
Application Version	It is the version of the application (bundle-version) declared in a statement within the application program.
Status	It indicates the status of the application in question; specifically, Installed: the application has been installed. Active: the application is being in use. Resolved: the application is at rest.
Installed On	It indicates the date on which the application was installed.
Vendor	It is the name of the vendor that developed the application, and is the name (bundle-vendor) declared in a statement within the application program.
License Status	It indicates the status of the license; specifically, None: no license is needed. Not Installed: no license has been installed. Installed: the appropriate license has been installed. Invalid: the license has been invalidated. Overlimt: the license has been used beyond its permitted limit.
License Expires After	It indicates the date after which the license expires. If the status of the license is 'none', this item will not be printed.
License Upper Limit	It indicates the limit imposed on individual counter readings. If the status of the license is 'none', this item will not be printed.
Counter Value	It is the current counter reading of a specific counter. If the status of the license is 'none', this item will not be printed.
Maximum Memory Usage	It indicates the maximum amount of memory that the application uses. It is the amount (maximum memory usage) declared in a statement within the application program, and is expressed in kilobytes.
Registered Service	It is a list of services that have been registered by the application with the MEAP framework. Some services may not have printable data.

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MEAP Application Information

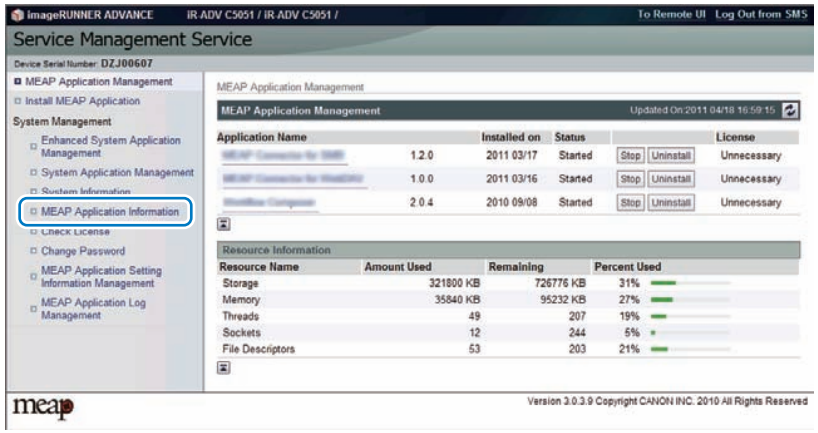
Outline

You can use this function to check the MEAP application installed on the device.
The following information can be checked on the MEAP application information screen.

- Application Name
- Application ID
- Installed on:
- Status:
- License Status:
- Counter Information

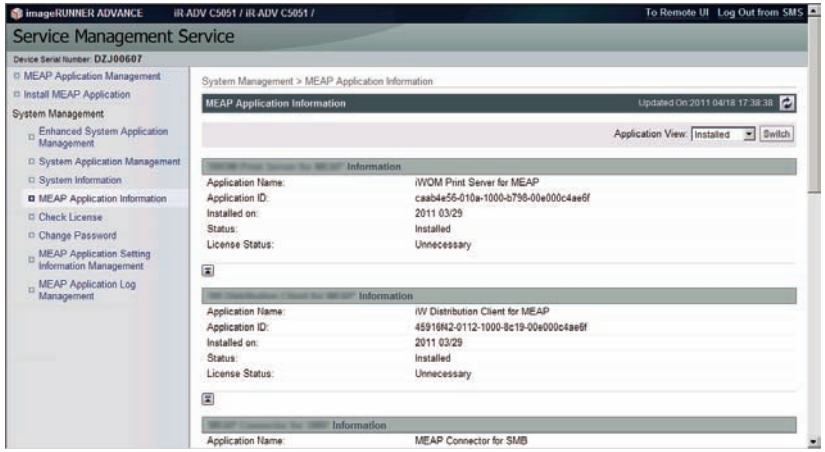
Procedure to Check MEAP Application Information

1) Log in to SMS.
2) On System Management menu, click [MEAP Application Information].



F-2-240

3) The MEAP Application Information screen appears.



F-2-241

Check License

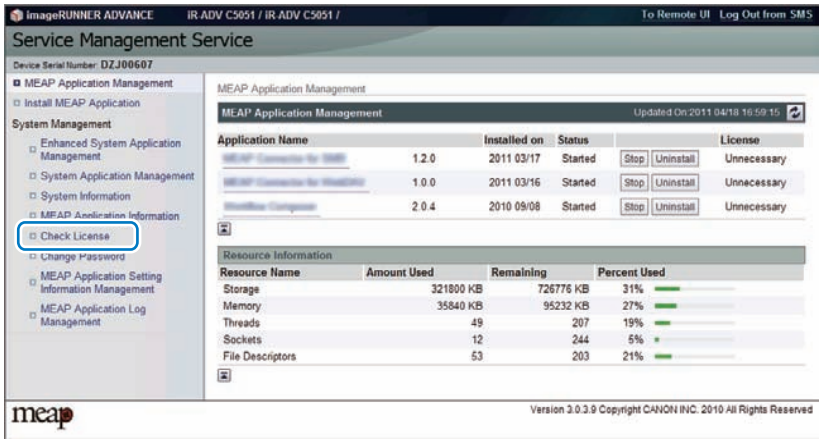
Outline

You can use this function to check the contents of the license file.

Procedure to Check the License File

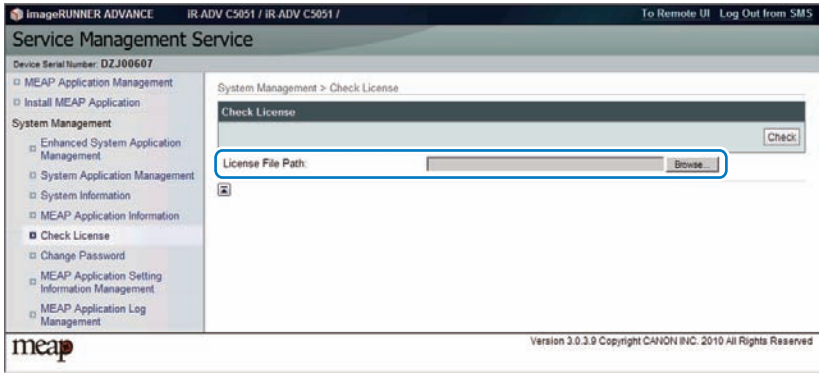
1) Log in to SMS.

2) On System Management menu, click [Check License].



F-2-242

3) Click the [Browse..] button, specify a license file, and click the [Check] button.



F-2-243

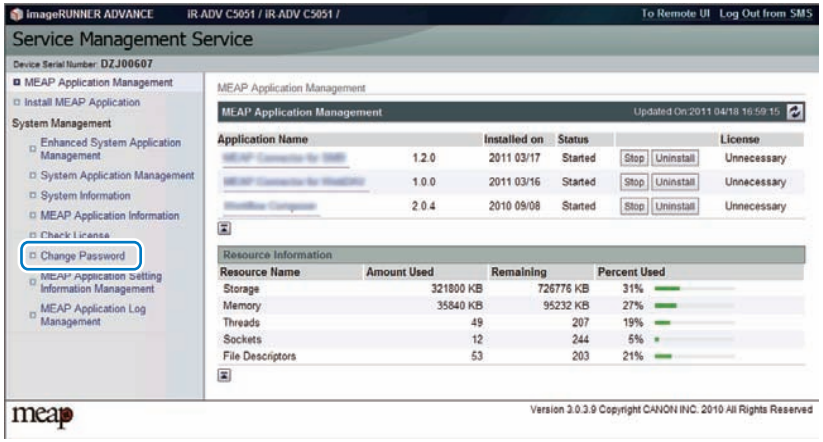
Changing SMS Login Password

Outline

You can change the password for logging in to SMS.
If you forgot the login password and you want to change the password back to the default value (MeapSmsLogin), see "When SMS Cannot Be Accessed" in this manual.

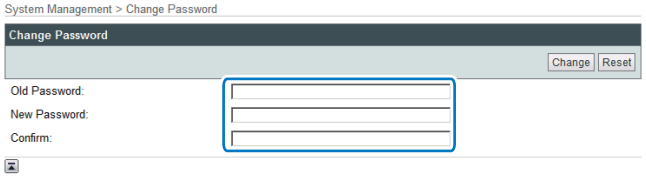
Procedure to Change the SMS Login Password

1) Log in to SMS.
2) On System Management menu, click [Change Password] button.



F-2-244

3) Enter both the current password and a new password, and then click the [Change] button.



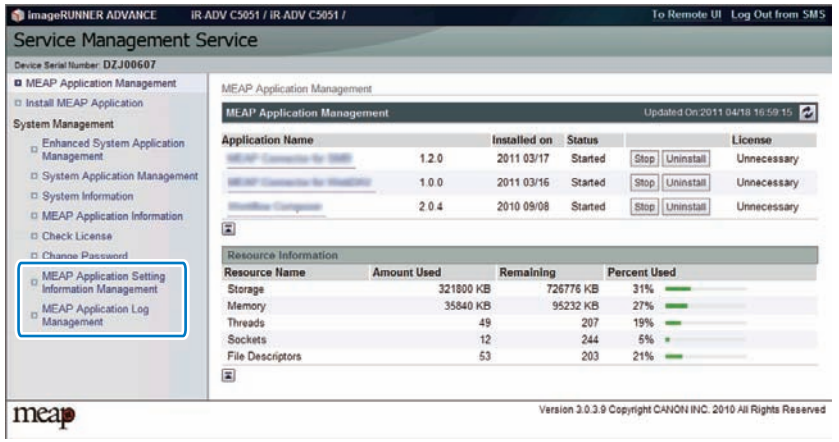
F-2-245

Note:
The [Reset] button on the [Change Password] screen is used to clear the value entered in the text field. It is not a button for changing the SMS login password back to the default value.

MEAP Application Setting Information Management and Log Management

Outline

The MEAP Application Setting Information Management page and the MEAP Application Log Management page provide menu related to "MEAP Application Configuration Service" for managing MEAP application setting information and "MEAP Application Log Service" for managing log information respectively.



F-2-246

MEAP Application Configuration Service

This service manages the MEAP application setting information. It has functions such as saving setting information to the MEAP area. Ver 57 of MEAP Specifications supports this service.

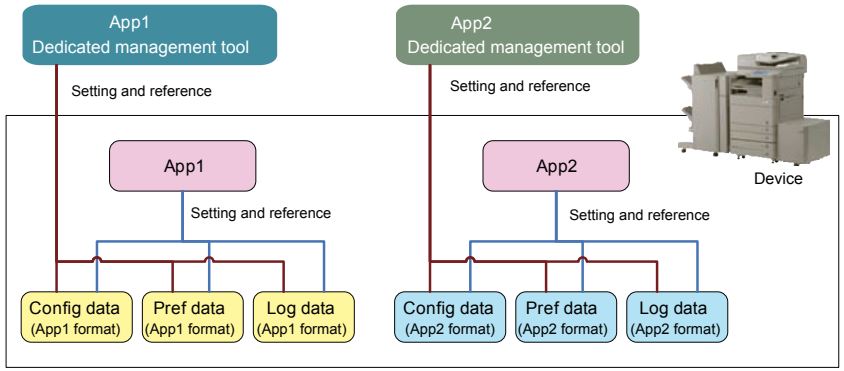
MEAP Application Log Service

This service is used to collect MEAP application logs (debug logs and authentication logs). Ver 58 of MEAP Specifications supports this service.]
The collected logs can be downloaded or deleted in user mode.
The settings such as the log level to be saved cannot be made from SMS. These settings depend on the MEAP application. For detailed information, refer to the manual for the application.

Advantages Obtained When Using the Services

By using MEAP Application Configuration Service and MEAP Application Log Service, as long as the MEAP application supports these services, you can perform data management tasks all together.

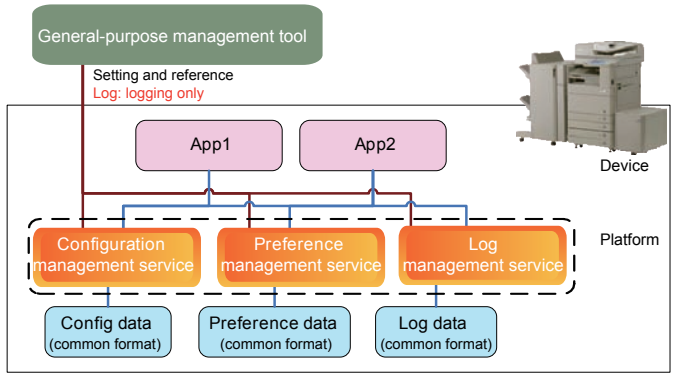
In case of devices and MEAP application that do not support the service



F-2-247

As for devices and MEAP application that do not support the service, the setting information and log data are managed separately by application.

In case of devices and MEAP application that support the service



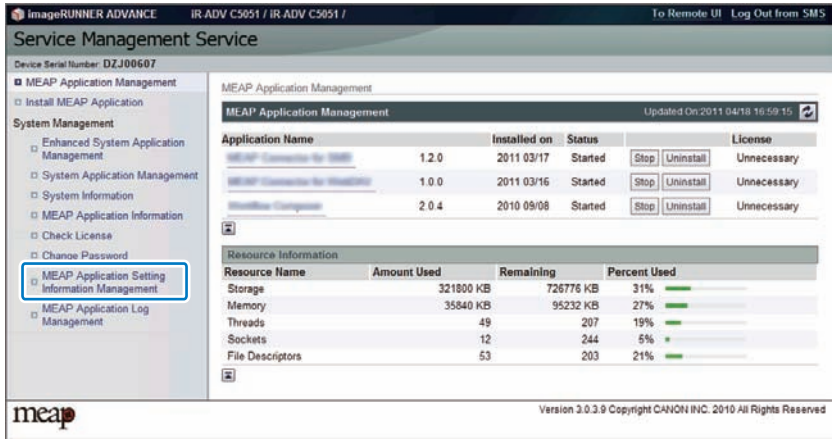
F-2-248

As for devices and MEAP application that support the service, information can be managed all together.

MEAP Application Setting Information Management

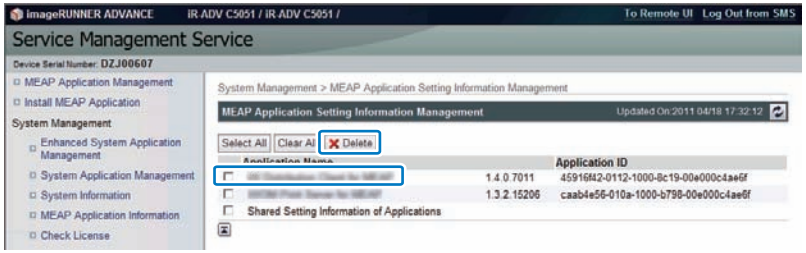
The setting data (stored on the device) of the MEAP application which supports the Configuration Service can be deleted. The procedure is shown below.

1) Log in to SMS.
2) On System Management menu, click [MEAP Application Setting Information Management] button.



F-2-249

3) Select an application you want to delete, and then click the [Delete] button.



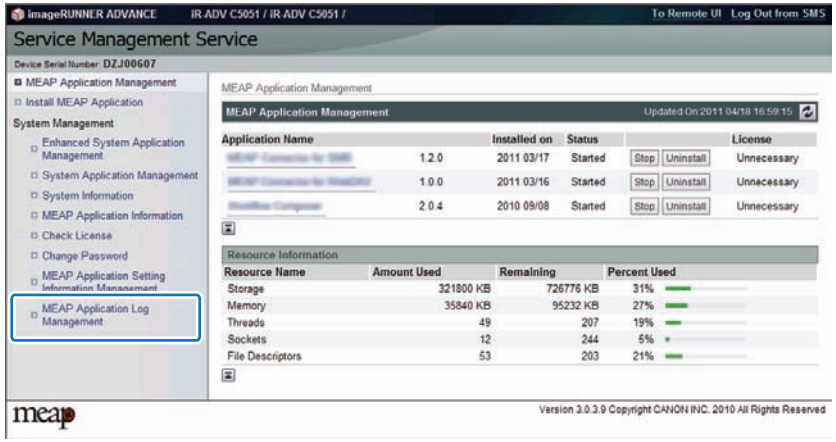
F-2-250

Note:
If the installed MEAP application contains setting data which is not dedicated to the application but can be shared, the application name [Shared Setting Information of Applications] will be displayed.

MEAP Application Log Management

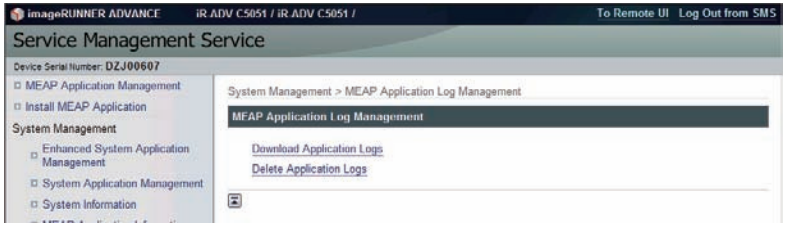
The log data (stored on the device) of the MEAP application which supports the Log Service can be downloaded or deleted. The procedure is shown below.

1) Log in to SMS.
2) On System Management menu, click [MEAP Application Log Management] button.



F-2-251

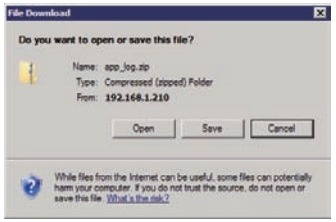
3) Click [Download Application Logs] or [Delete Application Logs].



F-2-252

4) To download the log

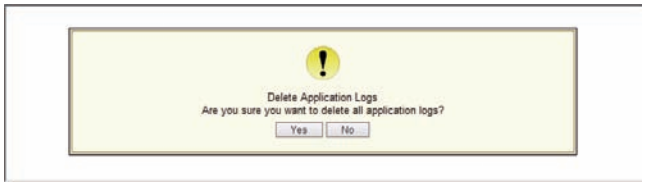
The file save dialog for the log file will appear. Specify a destination and save the file.



F-2-253

5) To delete the log

The confirmation screen will appear to prompt you to delete the log. Click the [Yes] button to delete the log.



F-2-254

Maintenance

Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

Outline

When replacing or formatting the hard disk, the data in the MEAP application area needs to be temporarily saved to your PC.
This chapter describes information on backing up the data in the MEAP application area and recovering the backup data.

In the case of MEAP-installed devices, the application is license-managed, so the application needs to be reinstalled and reconfigured when replacing or formatting the hard disk.
In that case, a license for reinstallation needs to be downloaded and the customer data and configuration information need to be recovered, and these procedures pose heavy burdens on the service technician.

The area used for the MEAP application can be easily saved/recovered by using the backup function of SST (Service Support Tool).
This greatly reduces the work burden on the service technician.
Please note that the application cannot be illegally copied because the backup data can be recovered only when the iR device has the same serial number.

WARNING:
You must not perform any other work (including checking operation) until the storage drive has been backed up. This arrangement is to prevent a mismatch of MEAP counter readings and the storage drive contents, and any fault in operation arising as the result of failure to observe this will not be covered by the guarantee of operation.

Note:
The application that is installed with a reusable license can be reinstalled by using the same license.

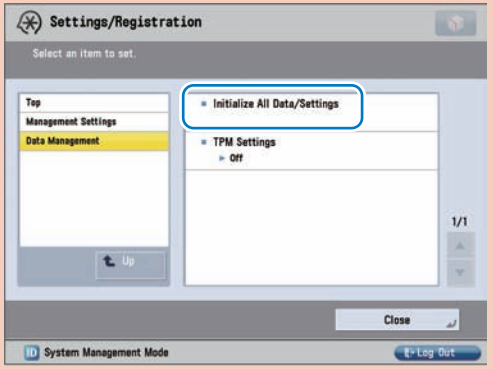
Backup Item Automatically Copied

The following data are backed up using SST:

The following data are backed up (saved as Meapbackup.bin) using SST.

- MEAP applications.
- Setup data generated by MEAP applications (Note that image data stored in BOX will not be saved for MEAP applications using BOX function).
- User information data registered for local device authentication in SSO-H
- SMS password

WARNING:
Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-255

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS, password, etc.) is initialized, which makes it impossible to combine the data. It means that SMS cannot be accessed even when the backup data has been recovered using SST. If [Initialize All Data/Settings] was executed and SMS cannot be accessed, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

Data backed up using SST in the case of iR-ADV devices

In the case of iR-ADV devices, menus are implemented as MEAP application. Therefore the following items can be also backed up (stored as Meapbackup.bin).

- Setting items of each menu in the main menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox,).
  - Favorite settings
  - Default settings
  - Settings of option shortcuts
  - Previous settings
- Settings of quick menu
  - Button size information
  - Wallpaper settings
  - Quick menu button information
  - Restrict quick menu use

Requirements for Backup Using the SST

The following conditions must be met for use of the function:

1) Device Firmware Version

Device Firmware Version for SST (Ver4.2x)

	Boot ROM	System	SST
iR-ADV C2030/C2020 series	Boot ROM is not equipped.	Already supported since the 1st version.	The version supporting the corresponding devices.
imageRUNNER ADVANCE series other than iR-ADV C2030/C2020 series	Already supported since the 1st version.	Already supported since the 1st version.	The version supporting the corresponding devices.

T-2-89

2) SST Version

Version 4.2.x or later. An earlier version will not permit the use of the function. If needed, upgrade the SST.

3) Space for backup

To back up the HDDof the iR, the PC must have approx 1024MB of free space at maximum. Sizes of backup files depend on actual data capacities to be backed up.

Procedure for backing up the MEAP application area using SST

1) Switching Login Service / Backup of Login User Information

If SSO-H is used for the login service, switch to default authentication before backing up the user information. Although SST will back up local device user information, it is recommended to export the user information just in case. For local device user information backup, go to User Management page of SSO-H site and export the data. (The SSO-H login page opens with the URL "https://<device IP address>:8443/sso/").

CAUTION:

- If a hard disk of a system that uses SSO-H is formatted without changing the login service to the default authentication, the error message “The login service must be set again with SMS” appears and the system cannot start up when you attempt to restart the system after formatting.
- If this problem occurs, change the login service to SSO-H with SMS. If you cannot access to SMS since you do not have the IP address of the device, start the system with FIXIP mode -hold down the numeric keys 1 and 7 and turn the power switch on. The IP address “172.16.1.100” will be automatically assigned for the device. Then log in to SMS specifying the address.

2) Starting the device in Download Mode

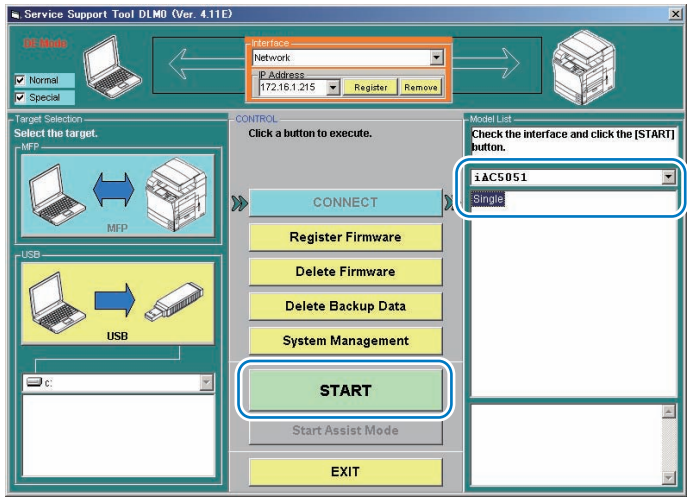
Press [2] and [8] buttons at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

3) Connecting the main unit to the PC to start SST

Connect the main unit to the PC with SST installed using the crossing cable and the like to start SST on the PC.

4) Connecting the device using SST

When starting SST, select the target device type as Single and click [Start] button.



F-2-256

5) Generating backup data to transfer it to the PC (uploading)

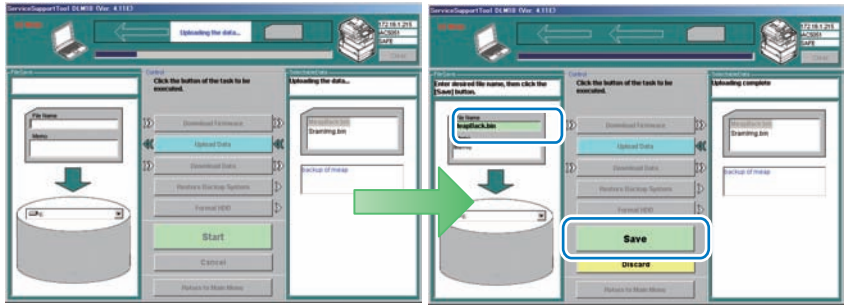
Click [Upload Data] button of SST and select “Meapback.bin” as the item to be backed up to click [Start] button.



F-2-257

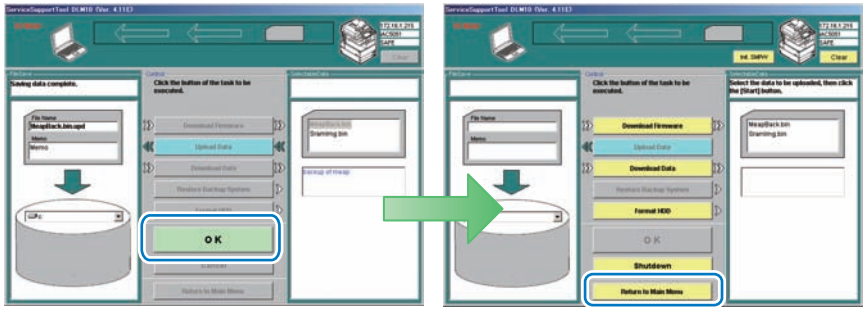
6) Saving backup data

Upon the backup data transferred to the PC, enter an appropriate file name and click [OK] to save the backup data on the PC.



F-2-258

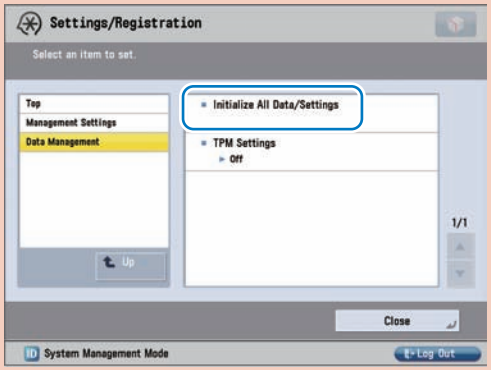
When the file is successfully saved, click [OK] button, and then click [Return to Main Menu] button.



F-2-259

WARNING:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



F-2-260

When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS, password, etc.) is initialized, which makes it impossible to combine the data. It means that SMS cannot be accessed even when the backup data has been recovered using SST. If [Initialize All Data/Settings] was executed and SMS cannot be accessed, the SMS login password needs to be initialized by following the procedure shown in "When SMS Cannot Be Accessed" in "Login to SMS" in this manual.

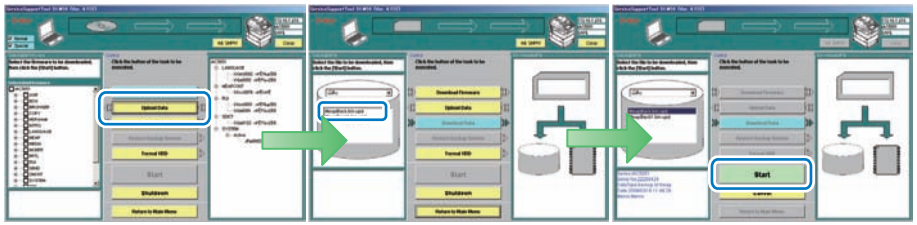
Procedures to Restore Backup Data

1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of the Procedure for backing up the MEAP application area using SST.

2) Restoring backup file

Click [Upload Data] button and select the data backed up in the previous step (Meapback.bin) to click [Start]. Note that the data backed up in a different version cannot be restored.



F-2-261

3) Transferring Data

When the data is successfully transferred, click the [OK] button shown on the screen. To continue other jobs, click [Return to Menu] button.



F-2-262

4) Turn off and on the main power switch of the device to gain access in SMS to check that MEAP applications are surely restored.

5) Restore the backup data and setting saved. Note that the user information of the local device is included in the backup data, thus does not need to be restored.

Formatting and Replacing the HDD

Outline

If the HDD is broken or does not function correctly due to failure of the system (excluding the MEAP application), it needs to be formatted or replaced.
When the HDD is formatted or replaced, the files of the MEAP application stored in it will be lost, so make a backup of the MEAP application area according to “Procedure for backing up the MEAP application area using SST” if possible. If a backup cannot be made, the MEAP application and the license files need to be reinstalled.
As for the MEAP counter information, it will not be lost because it is backed up just like the conventional counter.

If a backup cannot be made, a special license file (a license file for installation with the expiration date carried over from the current counter value) is required to reinstall the MEAP application. This special license file is treated as a service tool and cannot be obtained by a general user.
In order to obtain a special license file, a service technician needs to contact a person in charge of support of a sales company.
When contacting the person in charge of support, the service technician also needs to provide the serial number of the device and the name of the MEAP application installed.

In the support departments of regional headquarters of Canon, all license files of the applications that have been issued are filed according to device serial numbers, enabling you to obtain a series of license files through a single screen as long as you can identify the serial number of the device in question.

Note:
The application that is installed with a reusable license can be reinstalled by using the same license.

Formatting the HDD

Follow the following procedure to format the HDD.

1) Connecting to the device
Connect the device using SST by following step 1 to step 4 of "Procedure for backing up the MEAP application area using SST".

2) Formatting the HDD
Select “Format HDD” from SST menu to format the HDD.

Note:
HDD can be formatted also by starting Download mode using the USB memory and executing formatting from the displayed menu.

HDD replacement procedure

Outline

The procedure for replacing the HDD differs according to whether the HDD functions normally or not.

If the MEAP application area cannot be backed up

If the HDD does not function correctly due to failure or for other reason, the MEAP application area cannot be backed up. It is therefore necessary to reinstall the application after replacing the HDD. The procedure is shown below.

1) Preparation for replacement
   Copy a set of license files for reinstalling the MEAP application (special licenses and reusable licenses) to a laptop for service operation.
   Register a set of system files of a target product to SST. Or, prepare USB thumb drive of the System file transfer settlement.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Formatting the HDD.

4) Reinstalling the MEAP application
   When the device has started normally, obtain the jar files of the MEAP applications from the user, and install them using the license files for reinstallation.
   Installation method is the same as normal installation.

5) Importing user information
   As necessary, make login service selections and import user information.

Note:
When you replace the HDD without uninstalling MEAP applications, make sure to reinstall the previously installed applications. Unless reinstalling them, MEAP counter will not be released and the message “The number of applications that can be installed has exceeded the limit. Try to install this application after uninstalling other applications.” is displayed so that the installation of new applications may not be accepted. If you want to install new applications in this case, once reinstall the applications in-stalled before formatting and uninstall unnecessary applications.

If the MEAP application area can be backed up

If the MEAP application area can be backed up, it can be recovered after replacing the HDD, so it is not necessary to prepare the special licenses for reinstallation.

1) Preparation for replacement
   Back up the MEAP application area of the device according to the procedure for backing up the MEAP application area using SST.

2) Replacing the drive
   Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD
   Format the HDD referring to Formatting the HDD.

4) Restorering the backup file
   Restore the backup data referring to the Procedures to Restore Backup Data.

5) Importing user information
   As necessary, make login service selections and import user information.

MEAP Safe Mode (level 2)

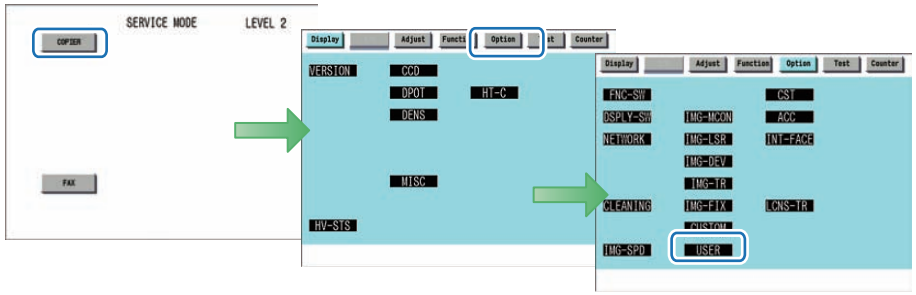
Outline

Use safe mode if you need to start up the system without worrying about extra applications. It will start up only those system software files (including SMS) that normally start up as default files while preventing MEAP applications and the like from starting up. When you have made changes and restart the device, the control panel will indicate 'MPSF' in its upper left corner.

The MEAP applications that may have been active before you shut down the equipment will not start up on their own. Make use of safe mode when restoring the system software as when MEAP applications or services cause a fault as the result of a conflict or wrong sequence of registration/use. You can access to SMS in this condition so that you can take necessary measures, for example, you can stop application that may cause the trouble.
If default authentication has been selected, the mode of authentication remains valid; otherwise, the message "The login service must be set again with SMS" ap pears. Change the login service as necessary.

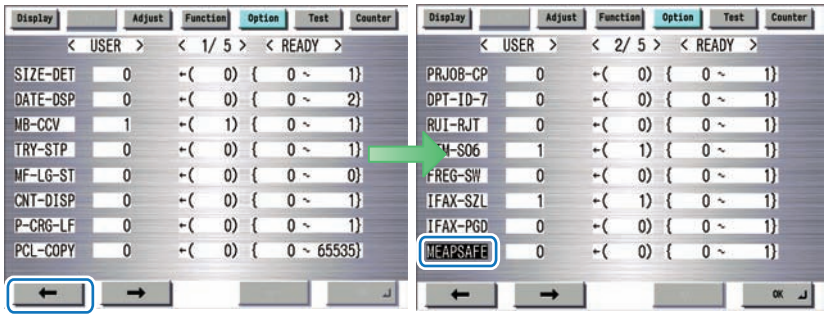
Starting in Safe Mode

1) Startup level 2 of [SERVICE MODE].
2) Press [COPIER] > [Option] > [USER].



F-2-263

3) Press ← or → button for several times until [MEAPSAFE] is shown. Click [MEAPSAFE].



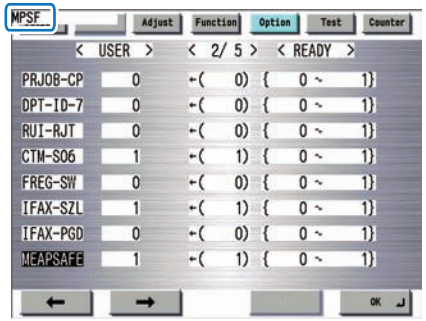
F-2-264

4) Press the 1 key on the control panel keypad to change the setting to '1'; then, click [OK] button.



F-2-265

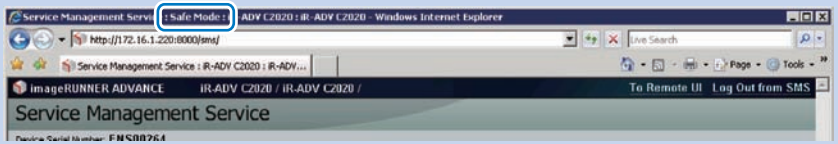
5) Check that the notation ‘MPSF’ has appeared in the upper left corner of the screen; then, restart the device.



F-2-266

Note:
If accessed to SMS in MEAP SAFE mode, the device started mode is shown on the title bar of the browser.

Example of display when starting in MEAP SAFE mode:
Service Management Service : <Device Name>:<Product Name>: Safe Mode

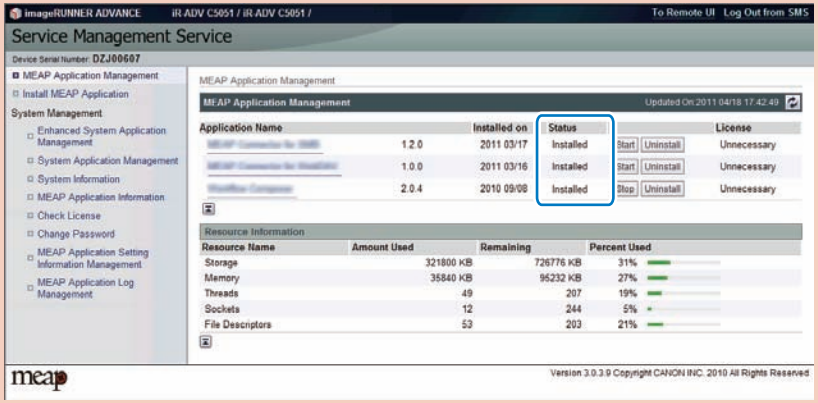


F-2-267

WARNING :

If the device has been started in the MEAP SAFE mode, all MEAP applications stop and the status becomes "Installed".

This status remains unchanged even if the MEAP SAFE mode is cancelled and the device is started again in normal mode. It is therefore necessary to access SMS after normal startup, and start the MEAP application.

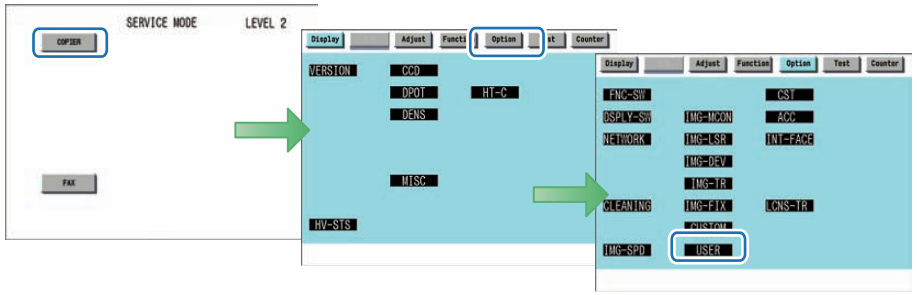


F-2-268

How to cancel MEAP SAFE mode

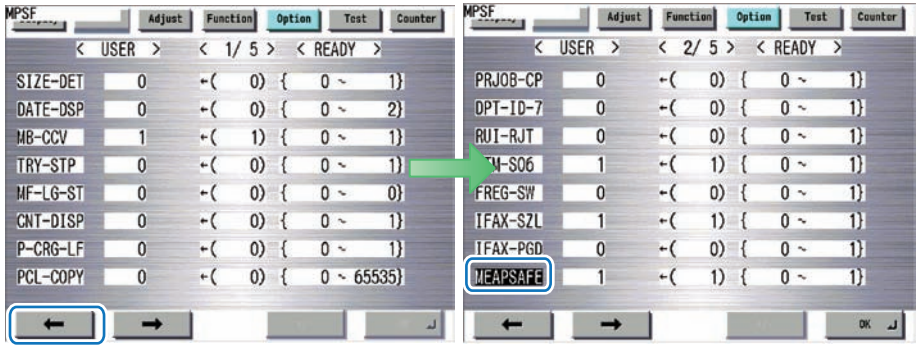
1) Startup level 2 of [SERVICE MODE].

2) Press [COPIER] > [Option] > [USER].



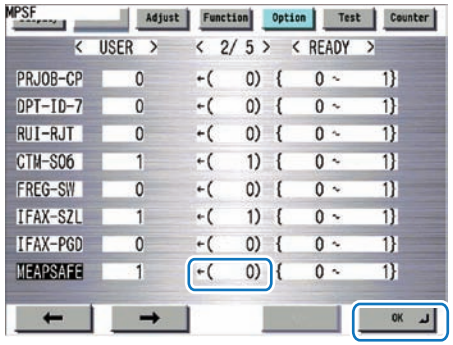
F-2-269

3) Press ← or → button for several times until [MEAPSAFE] is shown. Click [MEAPSAFE].



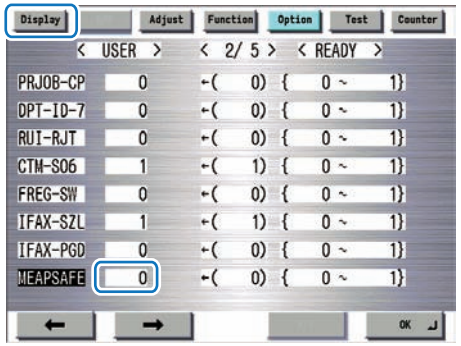
F-2-270

4) Press the 0 key on the control panel keypad to change the setting to '0'; then, click [OK] button.



F-2-271

5) Check that the notation ‘MPSF’ has appeared in the upper left corner of the screen; then, restart the device.



F-2-272

Collection of MEAP Console Logs

Overview

When debugging a MEAP application, console logs need to be collected in some cases. The following shows how to collect MEAP console logs using commercially available terminal software and service mode.

What to Prepare

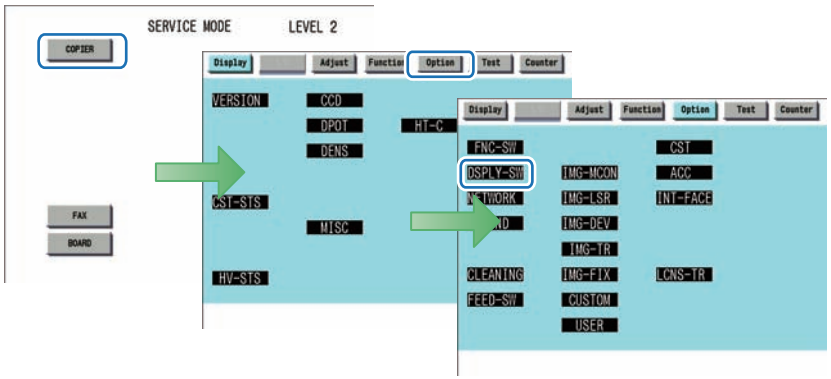
- PC connected with the same network as the device
- Commercially available terminal software

Note:
In the procedure shown in this manual, "Tera Term Pro" and "Hyper Terminal" are used as the terminal software.

Work Procedure

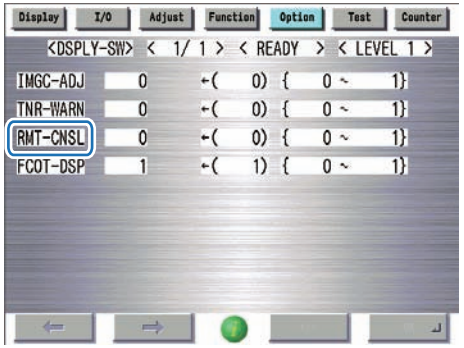
Device Setting Procedure

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



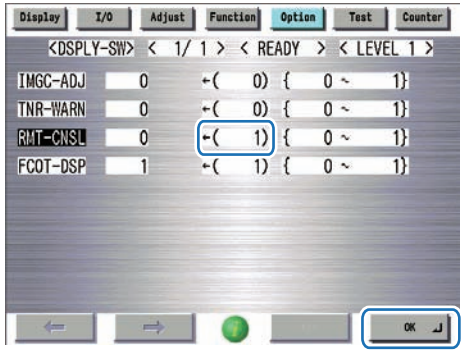
F-2-273

3) Press [RMT-CNSL] button.



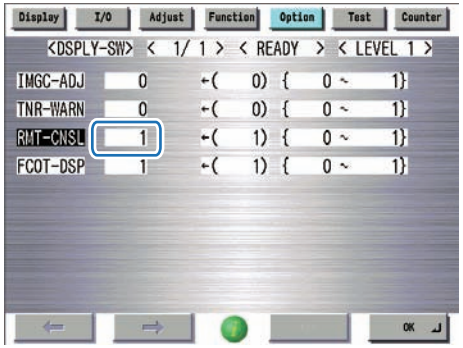
F-2-274

4) Press either 1 (activate remote console function) on control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-275

5) Check to see that it is reflected in setting field, and restart the device.

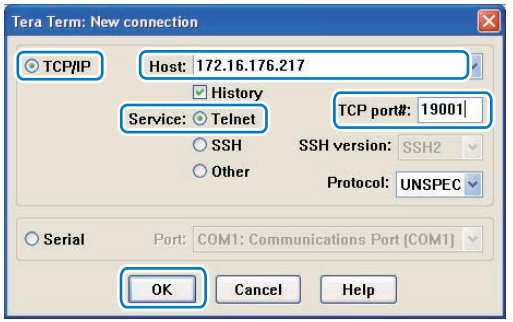


F-2-276

PC setting procedure (when Tera Term is used)

1) Install the terminal software on the PC.

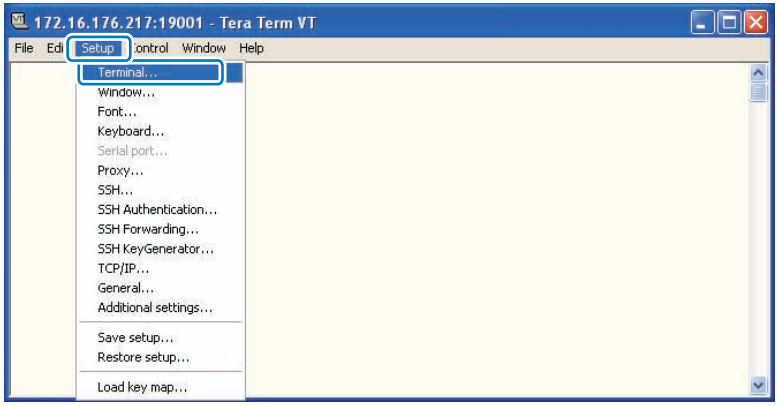
2) Start the terminal software, make the following settings, and then click the "OK" button.



F-2-277

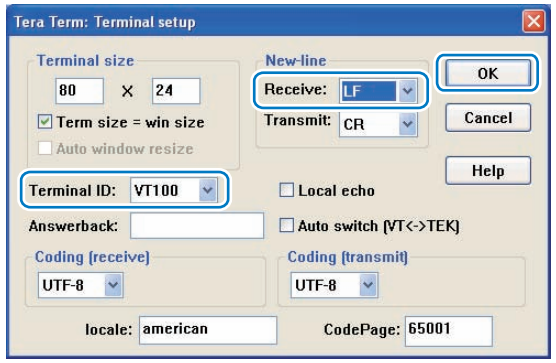
Connection	: Select [TCP/IP] (Default)
Host	: Device Host Name or IP Address
Service	: Select "Telnet"
TCP port#	: Enter 19001

3) The connection window will open. Select [Terminal…] from the [Setup] menu.



F-2-278

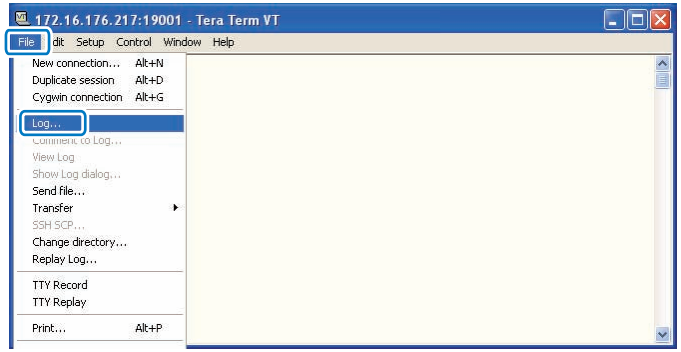
4) The terminal setting screen will appear. Make the following settings, and then click the "OK" button.



F-2-279

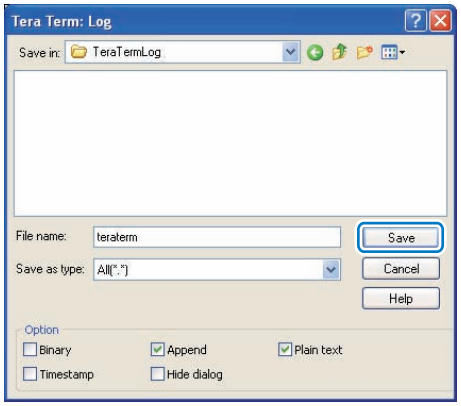
Terminal ID : VT100
New-line Receive : LF

5) Select [Log...] from the [File] menu.



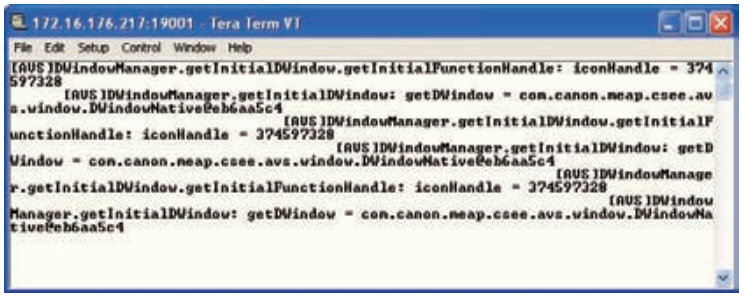
F-2-280

6) The dialog for specifying the save destination of the log file will appear. Set the save destination path and the file name, and then click the [Save] button.



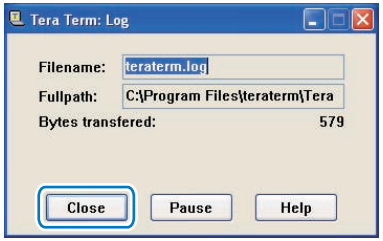
F-2-281

7) Perform the operation whose log you want to collect.



F-2-282

8) Click the [Close] button in the log dialog.

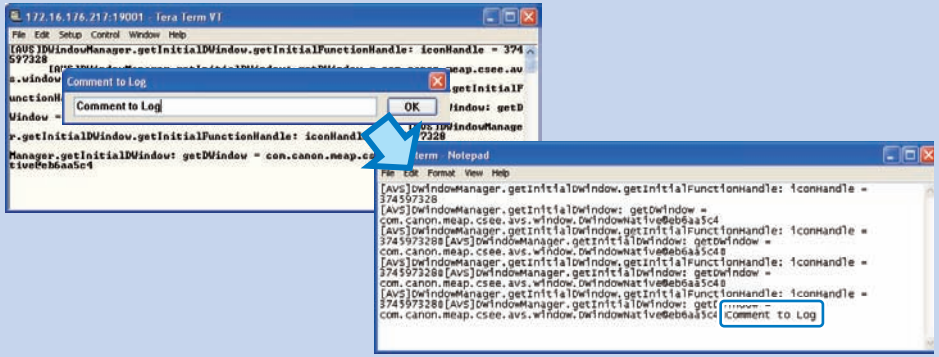


F-2-283

Note:
To suspend log collection, click the [Pause] button.

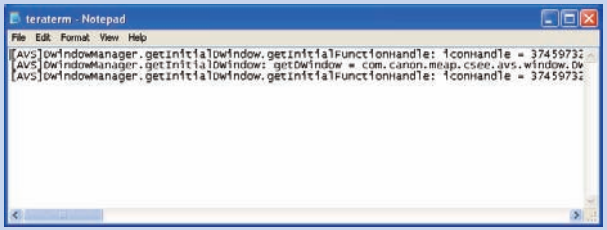
Note:
While collecting logs, the following operations are available from the [File] menu.

Comment to Log... :
You can add a comment to the log being collected. The added comment is reflected in the log file.



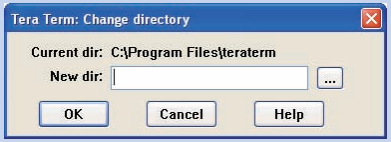
F-2-284

Show Log dialog... :
The logs that have been collected are pasted on Notepad and displayed.



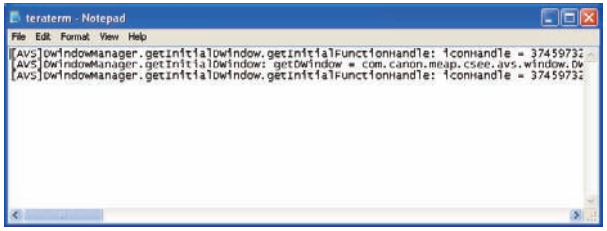
F-2-285

Change directory... :
The preliminarily set save destination of the log file can be changed.



F-2-286

9) Open the file saved in the save destination, and check that the logs are stored correctly.



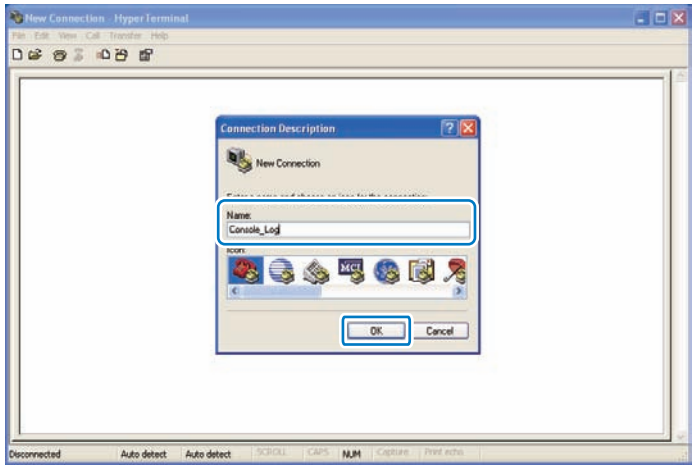
F-2-287

Note:
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:
After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

PC setting procedure (when Hyper Terminal is used)

1) Start Hyper Terminal, set the connection name in the [Connect Description] dialog that appears on the screen, and then click the OK button.



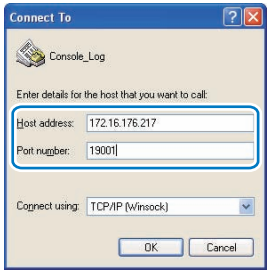
F-2-288

2) Set [TCP/IP(Winsock)] for [Connect using].



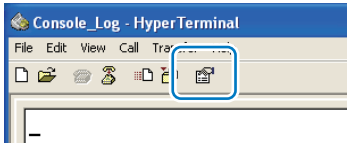
F-2-289

3) Enter the IP address of the target device in [Host address], and enter "19001" (fixed) in [Port number].



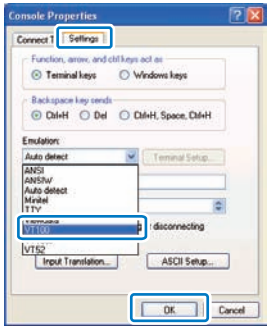
F-2-290

4) Click the "Properties" icon on the Hyper Terminal screen.



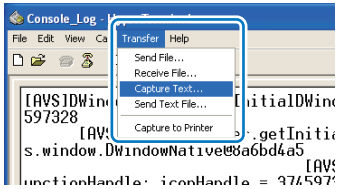
F-2-291

5) The [Console Properties] dialog will appear. Select the [Settings] tab, select [VT100] for [Emulation], and then click the [OK] button.



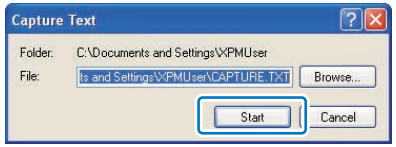
F-2-292

6) Return to the Hyper Terminal window, and select [Transfer] > [Capture Text...] from the menu.



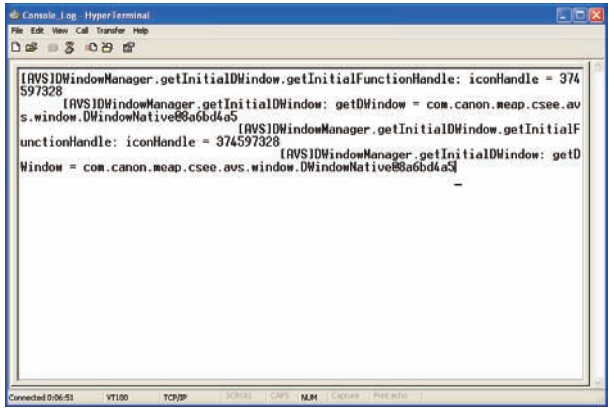
F-2-293

7) The dialog for specifying the save destination of the log file will appear. Specify the save destination.



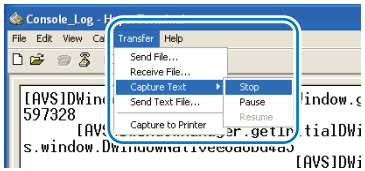
F-2-294

8) Perform the operation whose log you want to collect.



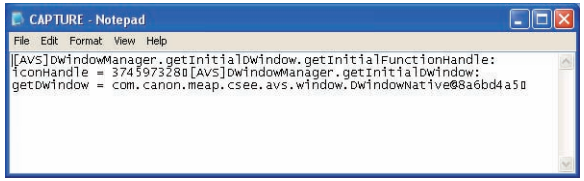
F-2-295

9) Select [Transfer] > [Capture Text...] > [Stop] from the menu.



F-2-296

10) Open the file saved in the save destination, and check that the logs are stored correctly.



F-2-297

Note:
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:

After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

■ Using USB Devices

● USB Driver

Two types of USB drivers

While the USB driver that can be used in iR series is only the USB driver designed exclusively for MEAP application (hereinafter referred to as “MEAP driver”), not only MEAP driver but also USB system driver (hereinafter referred to as “system driver”) can be used in iR-ADV series.

System driver and MEAP driver cannot be used together. When either of them is used, the other driver cannot be used.

USB driver setting (iR-ADV series):

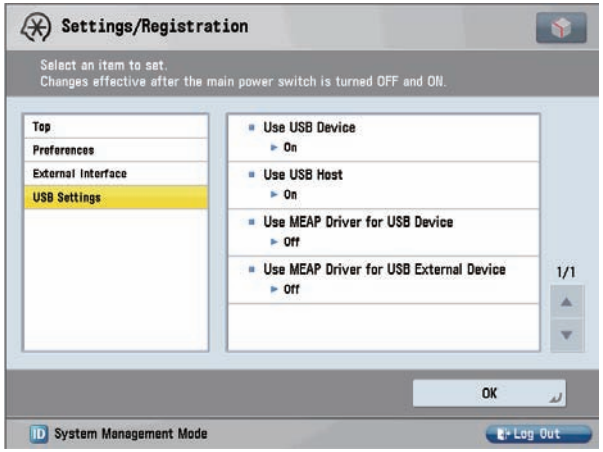
System driver is active by default in iR-ADV series.

The driver can be changed in Settings/Registration (user mode).

Usually, It is not necessary to change the setting because it is specified in the MEAP application side.

Only in the case of a special MEAP application, it is necessary to change the USB driver setting.

For details, refer to specifications of MEAP application side.



F-2-298

Note:
The "Use USB Host" menu on the screen is hidden at the time of shipment. To display this menu, start [SERVICE MODE] at Level 2, and then change the value of [COPIER] > [Option] > [USER] > [USBH-DSP] from 0 to 1.

Operating mode settings [Use MEAP driver as USB input device]	Conventional USB keyboard enabled MEAP application	Software keyboard application (System Driver/ MEAP Driver)	System driver supported MEAP application
ON * MEAP driver (conventional compatibility mode)	Can use USB keyboard. Can work only on the conventional applications that support the MEAP application driver.	Cannot use USB keyboards. (Device cannot be detected.)	Cannot use USB keyboards.
OFF (*default) * Native driver	Cannot use USB keyboards. (Device cannot be detected.)	Can use USB keyboards.	Can use USB keyboards. Via software keyboards only.

T-2-90

Note:
When any settings changes are made, the device must be restarted.

Setting the USB driver for each USB device (MEAP driver preference registration)

If it is set to use the system driver, the conventional applications that support the MEAP application driver cannot use the USB input device.
Therefore, for the USB drivers used by USB devices/MEAP applications, there is setting function (MEAP driver preference registration) to give priority to the MEAP driver.
If you register the ID of the USB device by using this function, the USB device can use the MEAP driver despite the Additional Function settings.

Using this function requires the conditions below:

- Supported MEAP SpecVer: 26
- Describe the idVendeor(VID) and idProdutc(PID) of USB device in the manifest or activate/ deactivate the VID and PID by calling API from MEAP applications.

The driver setting that is used in a manifest file is reflected in the following timing.

When registering from a manifest file.

- The registration will be enabled when an application is activated and device is restarted.
- The registration will be disabled when an application is stopped and device is restarted.

Note:
You can display/check the used driver setting at “USB device report print” described below regardless of whether it is registered from a manifest file or is registered from API.

Availability for MEAP application of the USB device A (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device A	USB Setting [Use MEAP driver for USB input device]	Native application	MEAP application		
			System driver supported application	System driver not supported/ conventional application	Application with VID/PID declared in Manifest for x
Not registered	OFF	YES	YES	NO	
	ON	NO	NO	YES	
Registered	OFF	NO	NO	YES	YES
	ON	NO	NO	YES	YES

T-2-91

YES: USB device available NO: USB device not available

Availability for MEAP applications of USB devices B and C (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device B	Setting to use MEAP driver (Additional Functions mode)	USB device	Native application	MEAP application		
				System driver supported application	System driver not supported / conventional application	Application with VID/PID declared in Manifest for B
Registered	Not used (Native driver to be used)	B	YES	YES	NO	
		C	YES	YES	NO	
	To be used	B	NO	NO	YES	
		C	NO	NO	YES	
Not registered	Not used (Native driver to be used)	B	NO	NO	YES	YES
		C	YES	YES	NO	NO
	To be used	B	NO	NO	YES	YES
		C	NO	NO	YES	YES

T-2-92

YES: USB device available NO: USB device not available

Specifications for the use of USB keyboards

Characters that could be entered on the software keyboard displayed on the conventional control panel can be entered using a USB connected keyboard.

- When the software keyboard window is displayed, characters can be entered from the USB keyboard (in-line entry not possible).
- When the software keyboard window is not displayed, entered characters will not be remembered.
- The characters, which can be entered from a USB keyboard, is only a character, which can be entered from the software keyboard.
- Even if characters are entered from the USB keyboard, the software keyboard window will not change (the corresponding key does not invert or change color).
- Input from the USB keyboard can be accepted at the same time as input from the software keyboard or numeric keys.
- Since the device supports Plug and Play, the USB keyboard can be disconnected/ connected freely. However, do not disconnect and connect during in deep sleep (when in sleep with setting "low" at "the power consumption in sleep"). It is out of an operation guarantee to disconnect and connect the USB keyboard in deep sleep.
- When USB device is attached to iR device, iR devices do not shift to deep sleep mode.
- Keyboard layout changes according to the keyboard layout settings in the Settings/ Registration screen. In addition, function keys and ten keys which are not displayed in the software keyboard cannot be used. (Keyboard which the operation check was conducted is 84-key Keyboard, but this does not mean that the operation of all 84-key Keyboards is guaranteed.)

Note:
The factory shipment default setting is to enable the use of native (main unit functionality) USB keyboards. Therefore, in order to use MEAP application keyboards, [Use MEAP driver for USB input device] under [System management settings (initial settings/ registration)] needs to be set to ON (factory shipment setting is OFF).
Operations change as described below in accordance with ON/ OFF settings.

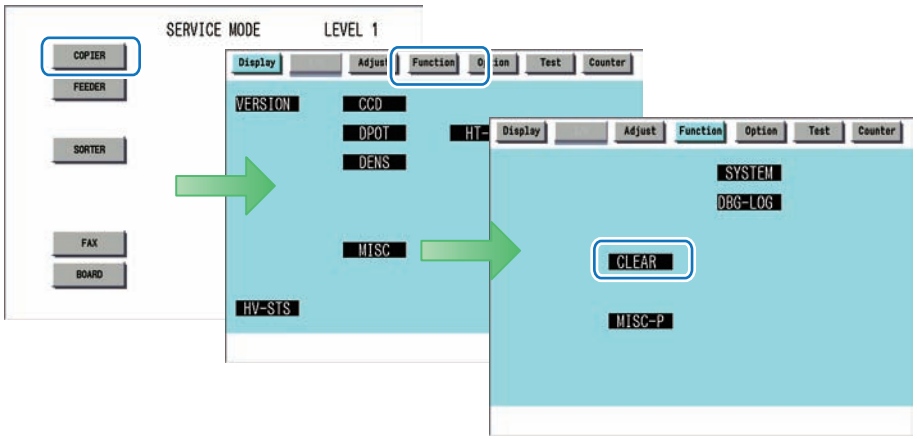
- ON: when using MEAP application keyboard
- OFF: when using native (main unit functionality) keyboard (factory shipment default)

Initialization of MEAP driver priority registration

When any trouble occurs regarding USB driver settings and it is necessary to reset the setting information, you can reset the MEAP driver preference registration by using service mode.

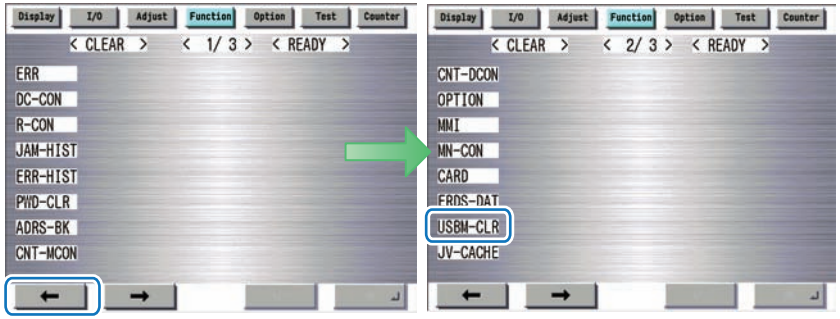
Steps to initialize preference use registration

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Function] > [CLEAR].



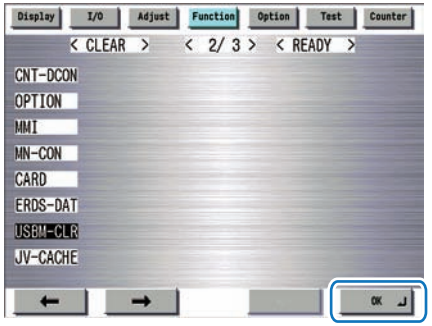
F-2-299

3) Press ← or → button for several times until [USBM-CLR] is shown on the screen. Press [USBM-CLR].



F-2-300

4) Press [OK] button and restart this device.



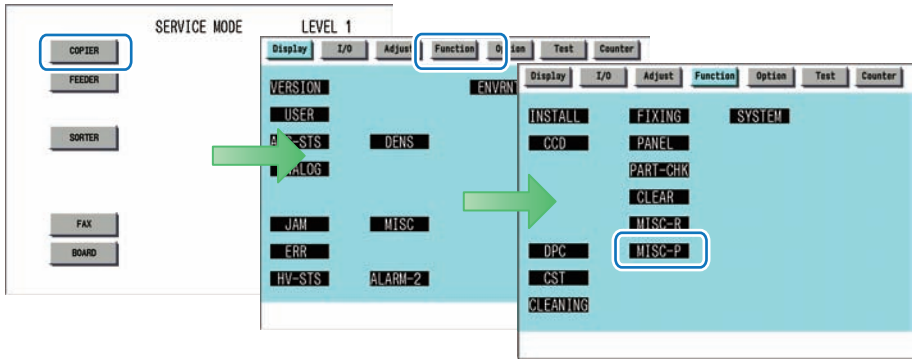
F-2-301

USB Device report print

To check the vendor IDs (idVendor) and the product IDs (idProduct) registered in this device by means of declaration in Manifest file of MEAP applications, output the USB Device repot report print.

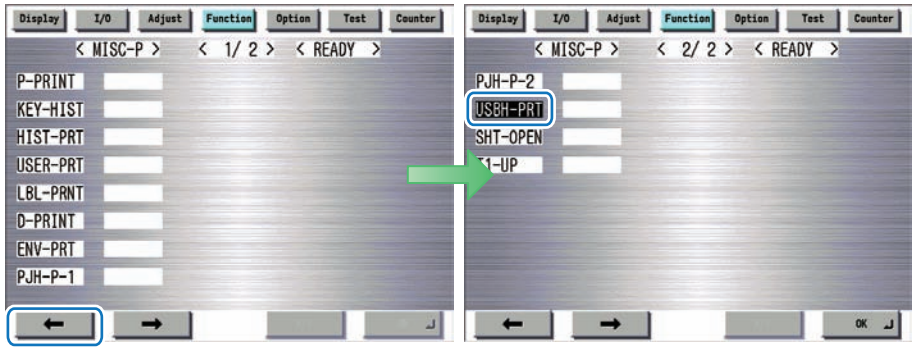
Steps to output the USB Device report print

1) Start [SERVICE MODE] in Level 1.
2) Press [COPIER] > [Function] > [MISC-P].



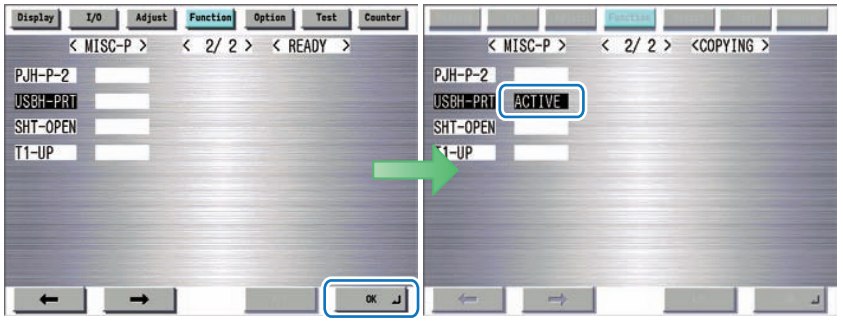
F-2-302

3) Press ← or → button for several times until [USBH-PRT] is shown. Press [USBH-PRT].



F-2-303

4) When pressing [OK] button, [ACTIVE] blinks on the status field.



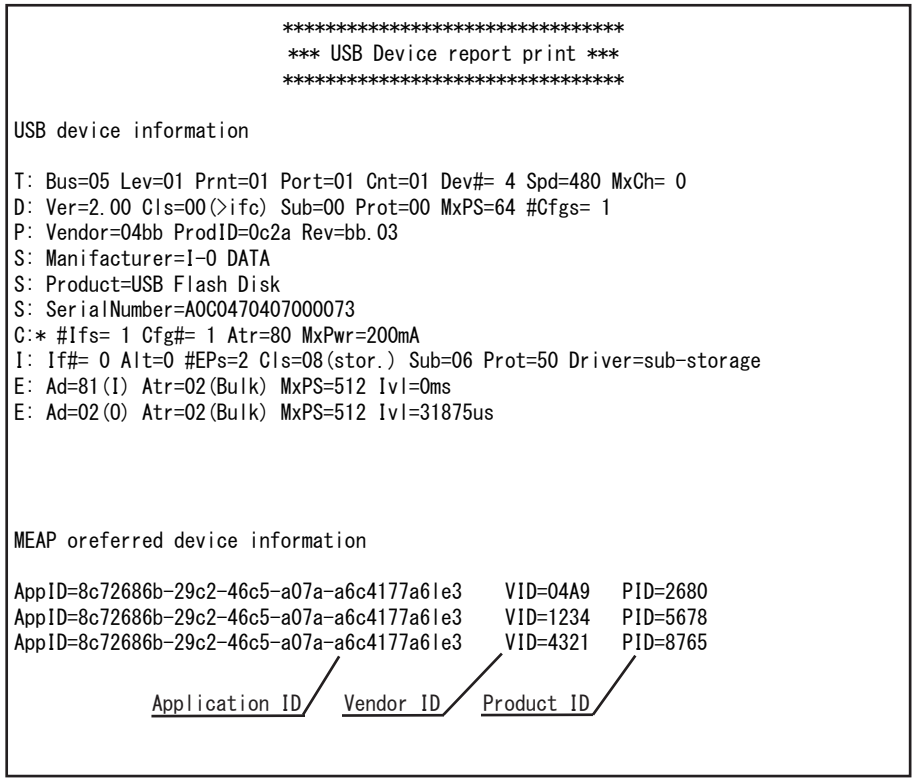
F-2-304

5) When [OK] is shown on the status field, the status print is output. Check the contents of the print.



F-2-305

Example of output result



F-2-306

USB device information Content

Display the information of the USB device, which the device recognized.
If not displayed, there may be some fault occurred.
Some of standard optional devices are not displayed on a report.
The details of each item are as follows.

T : Topology

Internal hierarchical structure, which a USB device is connected, is shown. The number of a connected bus, the hierarchical structure and connection speed can be indicated.

D : Device

Information of USB devices is shown.

P : Product

Product information of USB devices is shown. Vendor ID and Product ID can be recognized here.

S : String

The character string embedded in a USB device is shown. A manufacture name and a product name can be recognized here.

C : Configure

The configuration information of a USB device is shown. * mark is to know whether it is active.

I : Interface

The interface information of a USB device is shown. Interface class and the driver to handle can be recognized.

The value and the content of Driver are as follows.

Labeling	Content
usbhid	It is displayed when the USB system driver is assigned to the input device connected.
usb-storage	It is displayed when storage devices (USB memory storage etc.) are connected.
irda-usb IrDA	It is displayed when the dongle is connected.
hub	It is displayed when HUB is connected.
gpusb	It is displayed when the USB driver only for MEAP application is assigned to the input device connected.
gpusbex	It is displayed when a USB device, which specific vendor ID/ Product ID are preferentially registered using a manifest and MEAP API, is connected and the USB driver only for MEAP application is assigned.

T-2-93

E:Endpoint

The Endpoint information of a USB device is shown.

Right or wrong of report output

Connecting device		User installation	Report printing
HID		Available	Yes
Storage		Available	Yes
FAX		Not available	No
USB Device Port	IrDA	Not available	Yes
	Multimedia Card Reader	Not available	Yes
	IC Card Reader	Not available	Yes
Image Data Analyzer Board-A1		Not available	No
Hub	Internal Hub*	Not available	No
	External Hub	Available	Yes

T-2-94

* USB Device Port-B1 Hub for device ports installed at the introduction

The content of MEAP preferred device information

Display the information of the application or a USB device, which preferentially registered with MEAP application.

By seeing this information, it can check which Application ID of the MEAP application is in the status using a specific USB device.

AppID : Application ID
VID : Vendor ID
PID : Product ID

Reference material

Glossary

Terms & Acronyms	Definitions and Explanations
Application	A program unit to provide users with solutions.
Application ID	An identifier assigned to each application. A unique ID is assigned to each MEAP application.
Applet (Applet Type Application)	A MEAP application type created in Java. This type of applications show buttons on the touch panel display.
Code Sign	Information to check if an application is genuine. An application marketed in the normal procedure has a code sign assigned by LMS. MEAP platform rejects applications without Canon code signs for being installed or executed on the device.
CPCA (Common Peripheral Controlling Architecture)	Common Peripheral Controlling Architecture. CPCA defines an object model of peripheral deices. A client can control a device by creating or modifying objects in the device.
CPCA Java CL (Class Library)	CPCA Java Class Library. A Java class library, which is used to control a device.
Default Authentication -Department ID Management	The login service used when the department ID control is used but other authentication controls are not used. When the Department ID control is turned on, the login dialog prompts the users to enter the department ID and password. The dialog appears the initial screen of both the control panel on the MEAP device and Remote UI
Device Specification ID	ID allocated to each device type. This represents CPCA API specification and the version number to use MFP generic functions or obtain information including maximum allowable copies.
Esplet (Esplet Type Application)	A MEAP application type created in Java. This type of applications do not show user interfaces either on Local UI or Web. Esplet is a coined word created by Canon, consisting of [Espresso] or Italian coffee and [let] derived from Applet/Service.
File Description	An identifier for the OS to identify the destination file requested by a program. A program descriptor includes an identifier and information such as a file name and size, which helps OS to judge the file to be edited.
HID class	HID stands for Human Interface Device, representing man-machine interfaces of PC components and peripheral devices. HID class means USB class classified as HID.
iR Native application	The functionalities that existing imageRUNNER has such as Copy, Universal Send and Mailbox.
ISV (Independent Software Vendor)	Independent Software Vender. Software manufacturer who develops and/or sells applications and tools but does not entire computer systems. Refers application developer in this document.

Terms & Acronyms	Definitions and Explanations
J2ME (Java2 Platform Micro Edition)	Java 2 Platform Micro Edition. One of Java Platforms licensed by Sun Microsystems, Inc. It is applied for MEAP. Other devices such as cellular phones and PDA.
J2RE (Java 2 Runtime Environment)	A set of basic programs to run applications developed in the programming language of Java2. This set includes Java virtual machine providing runtime environment for Java applications among others. Java applets do not require J2RE since these are executed on Web browsers using Java runtime environment provided on browsers. However, standalone Java applications require Java runtime environment such as J2RE for execution. Runtime environments can be downloaded for free of charge from the Web site of Sun Microsystems, the Java developer.
Java	A programming language developed by Sun Microsystems, in the U. S. A. Low dependent on models and OSes and runs on various platforms. Taking advantage of this feature, many applications that runs on web servers uses Java. The MEAP platform uses J2ME - a type of Java.
JavaScript	A script language developed by Netscape Communications, in the U.S. A., runs on web browsers such as Netscape Navigator and Internet Explorer. Allows web designers to create interactive pages with HTML files such as animated buttons and display of timetables.
Java VM (Java Virtual Machine)	JAVA Virtual Machine. The Java byte code interpreter. The Virtual Machine acts as an interpreter for processing the byte code using the native instruction set.
License Access Number	A number issued for accessing license file. The Licensing server requires entries of application ID, expiration date/times information, and the number of access numbers, to issue license access numbers
Licensae File	A software manufacture of a MEAP application provides the users with the license files. Specifies the terms of agreement that a user concludes with the manufacturer. Required for installing a MEAP application.
LMS (License Management System)	The license is required for installing a MEAP application in a MEAPenabled iR device. LMS is the server issuing [License Files] as well as license access numbers.
Login Service	Manages user information of MEAP device. Authenticates users with user names and passwords. Three login services are available for MEAP device - Default Authentication, which provides department ID control, SDL (Simple Device Login) and SSO (Single Sign-On).
Mass Storage class	Mass Storage means a storage device with large capacity, generally secondary storage devices. Mass Storage class means USB class classified in the secondary storage device group.
MEAP (Multifunction Embedded Application Platform)	Multifunctional Embedded Application Platform. Provides an environment for executing application programs on a peripheral device. Uses the Java platform (J2ME - Java 2 platform Micro Edition) to run Java application for MEAP.
MEAP Contents	Required to install an MEAP application to a MEAP device.

Terms & Acronyms	Definitions and Explanations
MEAP Specifications (MEAP Spec Version)	MEAP Spec Version, the term used for the SDK. The version number that shows the APIs of the MEAP platform other than CPCA, such as network and security. The version number is not assigned for each device model. MEAP Application Runs on MEAP platform. Consists of application files (*.jar) and the license file (*.lic).
MEAP-enabled iR device	imageRUNNER (iR) devices with built-in MEAP platform.
MFP (Multi Function Peripheral)	Multi Function Peripheral. Peripheral device that supports more than one function, such as digital copier, printer, scanner, and fax.
OSGi (Open Service Gateway Initiative)	Open Service Gateway Initiative. See "http://www.osgi.org/".
Portal Service	The web portal to gain access to a MEAP-enabled device. This service has been integrated in Remote UI top page in iR ADVANCE series.
Protocol	A set of rules applied to data transmission procedures over network. Major communication protocols include: • FTP: File Transfer Protocol. This is a communication protocol or protocolimplemented commands to provide file transfer between a host and clients over TCP/IP network. • DHCP: An upward compatible protocol of BOOTP. This communication protocol allocates a dynamic IP address to each client machine upon communication startup on TCP/IP network and collects the allocated IP address when communication is completed. The server allocates one of multiple IP addresses and notifies the setup information to a client. • BOOTP: A communication protocol to automatically load setup information including IP address and a domain name from the server to a client on TCP/IP network. • RARP: A communication protocol to request IP address information via the network adaptor address (MAC address) of a client. • IPP: A communication protocol to execute remote printing between the print server and clients via Internet. • TCP/IP: A standard communication protocol required to access to Internet and other large-scale network.
Proxy Server	Provides functions to store data fetched from remote servers. When a user request to display a web page that has been displayed and stored in the proxy, the proxy server read the stored data but does not access the remote server where the original page is present, for efficient access services. When a proxy server receives a URL from a PC, it searches the file in the cache and sends it to the PC if the requested file is found. If the requested file is not stored in the cache, it accesses the remote server of the URL to acquire the file and, at the same time, stores the acquired file in the cache so that the proxy server can quickly send the file at the next request.
Redistribution module	A built-in module of an application created with SDK. Applications without this module cannot work on MEAP platform.

Terms & Acronyms	Definitions and Explanations
SDK (Software Development Kit)	The kit containing information and tools required for software development.
Service	A functional unit or an application program working on MEAP platform. [Applications] are generally termed [Services] in Java world.
Servlet (Servlet Type Application)	A MEAP application type created in Java. This type of applications is designed to show user interface on the Web browser.
SMS (Service Management Service)	The web-base service to provide user interfaces for application life cycle management.
Socket	A virtual interface of an application for network communication. A user only needs to specify a socket as a unit of an address and a port from an application. This establishes the network connection for data transmission, eliminating complication related to detailed communication procedures.
SSO-H (Single Sign-On H)	Login service providing features of both local device authentication and domain authentication. The former is the method that iR device independently authorizes users; whereas the latter is that iR device links to the domain controller on the network in the Active Directory environment to authorize users.
Thread	A unit for program execution. A multi-task system allowing multiple programs to run concurrently assigns a memory space and other resources independently to each program, providing users with a feel as if only a program is running. At least one thread is generated upon a program generated.
URL (Uniform Resource Locator)	The method to denote Web page locations on Internet and the like. For instance, a URL on the Web is denoted as [http://www.w3.org/default. html]. [http] at the beginning means that an address following this is in a web page on the Internet.
USB	Abbreviation of Universal Serial Bus. This is the interface standard to link between information devices.
USB system driver	The general-purpose driver that control the behavior of the device, there are HID class driver, Mass Storage class driver and so on.

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■ Option for exclusive individual measure

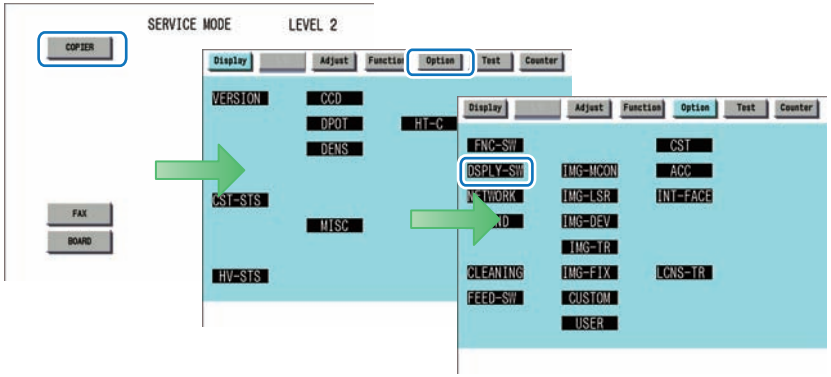
● Display Setting of Copy Icon (level2)

Make a setting as to whether to display/hide the copy screen (copy tab) on the control panel.
This is the specification for users who want to customize hiding it on control panel.

Default value
1: display
Setting range, item
0: hide 1: display

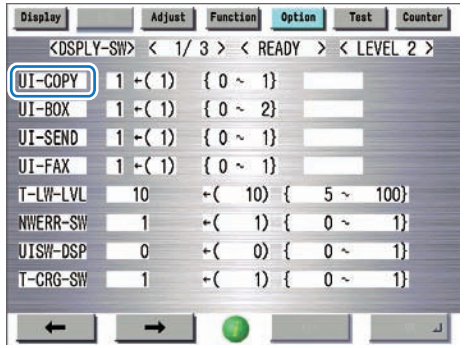
Setting Procedure

1) Start [SERVICE MODE] in Level 2.
2) Press [COPIER] > [Option] > [DSPLY-SW].



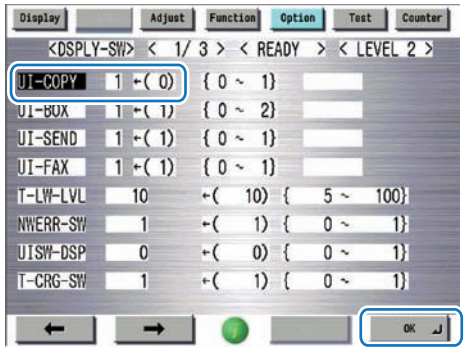
F-2-307

3) Press [UI-COPY].



F-2-308

4) Press either 0 (hide) or 1 (display) on control panel (the numerical value input in the field is displayed), and press [OK] button.



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5) Check to see that it is reflected in setting field, and restart the device.

Error at starting up the MEAP application/Setting to hide JAM screen (level 2)

In the case that operation is restricted by MEAP application, hide the warning screen of error/ JAM (such as JAM screen, door opening, no-toner). In the case that these errors occur, there will be a display indicating 'call the service personnel' etc.

Note:
Part of the warning screens is displayed if shifting to the device screen.
- As for the screens for jam and no-toner, the warning screen (animation) can be displayed by pressing the followings: [Device Screen] > [Recovery Procedure]
- As for the screen for door opening, the warning screen cannot be displayed because there is no display for [[Device Screen] > [Recovery Procedure]

Default value

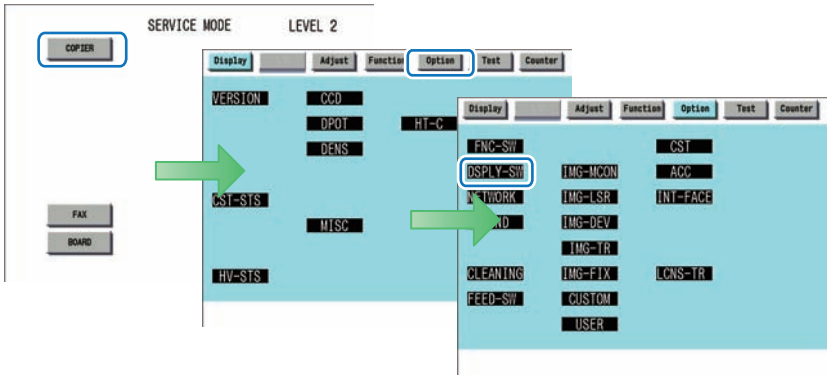
1: No activation of warning display

Setting range, item

0: display warning screen 1: hide warning screen

Setting Procedure

1) Start [SERVICE MODE] in Level 2.
2) Press [COPIER] > [Option] > [DSPLY-SW].



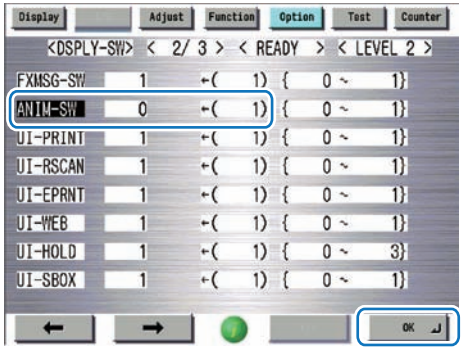
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3) Press [ANIM-SW].



F-2-311

4) Press either 0 (display warning screen) or 1 (hide warning screen) on control panel (the numerical value input in the field is displayed), and press [OK] button.



F-2-312

5) Check to see that it is reflected in setting field, and restart the device.

Embedded RDS

Product Overview

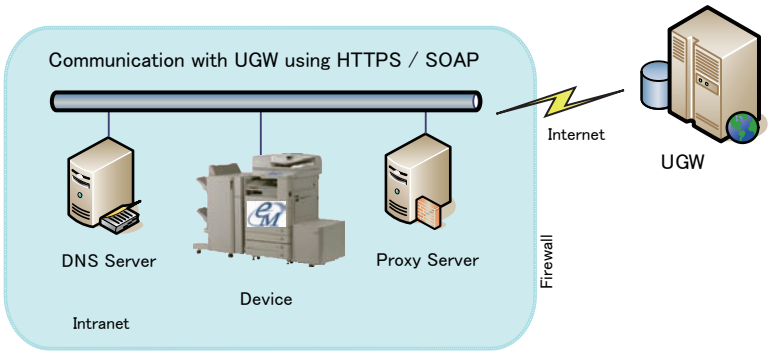
Overview

Embedded RDS (hereafter, referred to as E-RDS, which stands for EMBEDDED-RDS) is a network module embedded with a customer's device and enables imageWARE Remote (Remote Diagnosis System), which can collect and transmit status changes, counter values, error logs, and consumable information such as the toner low/ out of the device to a remote maintenance server called UGW (Universal Gateway Server) via Internet.

The following device information/ status can be monitored.

- Service mode counter (Billing counts)
- Global click counter
- Parts counter
- Mode counter
- Firmware info
- Environment log
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between a device and the UGW using HTTPS/ SOAP protocol.



The imageWARE Remote system using E-RDS

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Features and benefits

E-RDS embedded with a network module in advance can realize a front-end processing of imageWARE Remote system without attaching any extra hardware equipment.

Major Functions

Service Browser

Service browser is a web browsing functionality only for service technicians in charge, and is used for referring to the FAQ contents which is connected to UGW.
To grasp a device of which service browser has been enabled, E-RDS sends browser information to UGW in the following cases.

- When the service browser is enabled in the condition where it had been disabled (OFF)

Service mode menu Transmission

E-RDS sends the target service mode menu data to UGW in the following cases:

- When a specific alarm and service call error are detected
- When the setting is changed in service mode

The following shows the transmission timing and the target data for transmission in service mode menu:

Transmission timing	Transmitting data			Error retry
When the following alarm is detected. Alarm codes for transmission: 0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0x109999, // Development 0x300001 - 0x309999 // High voltage	COPIER	Display	ANALOG	No
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	

Transmission timing	Transmitting data			Error retry
When the following service call error is detected. Error codes for transmission: E000 - E00F, // Fixing E020, // Development ATR E060 - E06F // High voltage	COPIER	Display	ANALOG	No
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
When a value is set to [COPIER - Adjust] subordinate's Service mode menu. (Transmission will be done at 60 min, later of setting)	COPIER	Adjust		Yes
When the first communication test is done. (For transmission process, 5 minutes after the execution)	COPIER	Display	ANALOG	Yes
			HV-STS	
			CCD	
			DPOT	
			DENS	
			FIXING	
			SENSOR	
			MISC	
			HT-C	
			HV-TR	
			P-PASCAL	
		Adjust		

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NOTE:
Target transmission data are only the items under LEVEL1 and 2 in the service mode.

Limitations

Service Mode Menu Transmission Function

1) At the time of transmission when an alarm/ service call error is detected, even if the alarm log or service call log detected is the target code for service mode menu transmission, transmission of service mode menu data is not performed in the following cases.
   - An alarm log or service call log which has been detected by E-RDS as an unsent log at the time of power-on
   - An alarm log or service call log waiting for retry after its transmission failed
   - When service mode menu transmission (when an alarm log or service call error was detected) failed
   - Service mode menu data of which processing for acquisition has been already performed when an alarm or service call error subject to service mode menu transmission occurred

2) When an alarm/ service call error occurred continuously AND when time correction/ change was performed to the device main unit during the target log transmission processing, a link number may be applied to the old log although it should be applied to the new log.

3) Transmission of the data of changes made in service mode menu settings is not performed instantly, but performed when a specified period of 60 minutes elapse after the change of service mode menu settings is detected or when a communication test is performed at the time of power-on. (There is a time lag.)

4) When service mode menu settings ([COPIER] > [Adjust]) are made, transmission is performed even when no change is made in the target data to be transmitted. Transmission of service mode data is also performed when changes are made in the service mode setting value not subject to transmission (items other than Level 1, 2) or when settlement of a value is performed without changing the setting value.

Service cautions

1) After performing the following service actions, it is necessary to perform initializing E-RDS settings (ERDS-DAT) and communication test (COM-TEST).
Failure to do so will result that the counter transmitting value to the UGW may become unusual.
   - RAM clear of MNCON PCB SRAM Board :
     [SERVICE MODE] > [COPIER] > [Function] > [CLEAR] > [MN-CON]

Also, after replacing the main controller board, all settings must be reprogrammed.

2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
   - Set port number of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-PORT]
     Default : 443

   - URL setting of UGW
     [SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-ADR]
     Default : https://a01.ugwdevice.net/ugw/agentif010

E-RDS Setup

Confirmation and preparation in advance

To monitor a device with imageWARE Remote, the following settings are required.

(1) Advance confirmation

Confirm with the UGW administrator that the device to be monitored with imageWARE Remote is registered in the UGW.

(2) Advance preparations

Interview the user's system administrator in advance to find out the following information about the network.

Information item 1

IP address settings
- Automatic setting : DHCP, RARP, BOOTP
- Manual setting : IP address, subnet mask and gateway address to be set

Information item 2

Is there a DNS server in use?
If there is a DNS server in use, find out the following.
- Primary DNS server address
- Secondary DNS server address

Information item 3

Is there a proxy server?
If there is a proxy server in use, find out the following.
- Proxy server address
- Port No. for proxy server

Information item 4

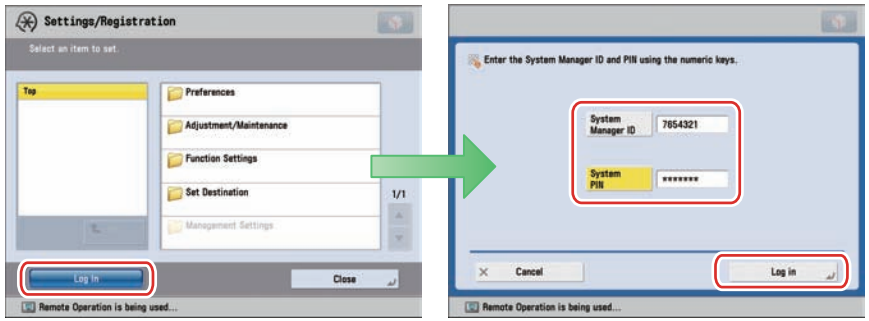
Is proxy server authentication required?
If proxy server authentication is required, find out the following.
- User name and password required for proxy authentication

(3) Network settings

Based on the results of the information obtained in (2) Advance preparations, make the device network related settings in accordance with the following procedures.

1) Displaying the Settings/ Registration screen

1. Touch the [Settings/Registration (User Mode)] button.
2. When a system management department ID and system management password are set up, touch the [Log In] button and enter the System Management ID and System PIN to perform a log-in.

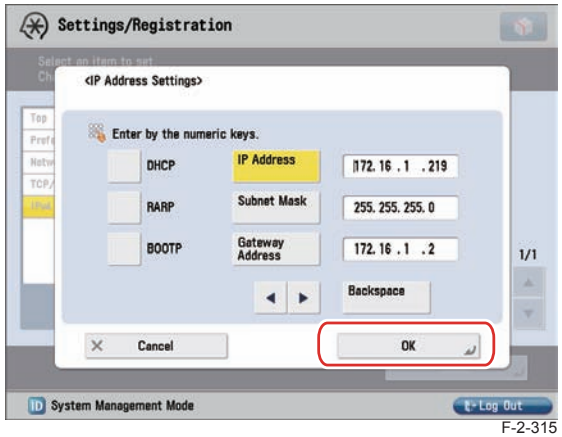


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2) Setting IP address-related items (* In case of IPv4)

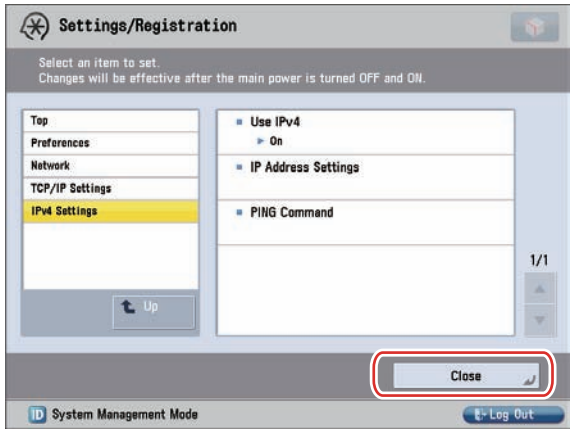
1. Touch the [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [IP Address Settings] buttons.
2. Set the IP address based on the result obtained in “(2) Advance preparations - Information item 1”, and touch the [OK] button.

- For automatic acquisition, select from [DHCP], [RARP], [BOOTP].
- For manual setting, set the IP address, subnet mask and gateway address.



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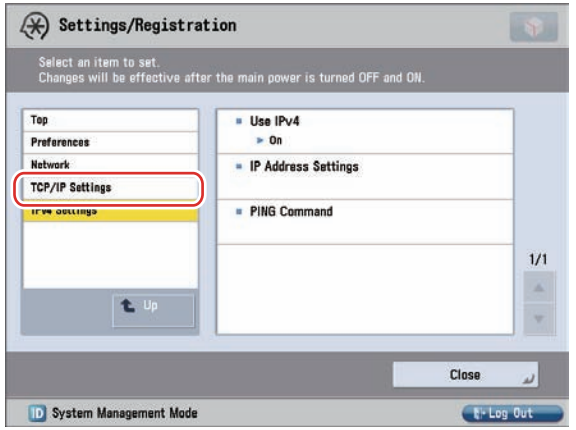
3. When DNS settings and proxy settings are not made, touch the [Close] button to reboot the device.



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3) DNS Settings

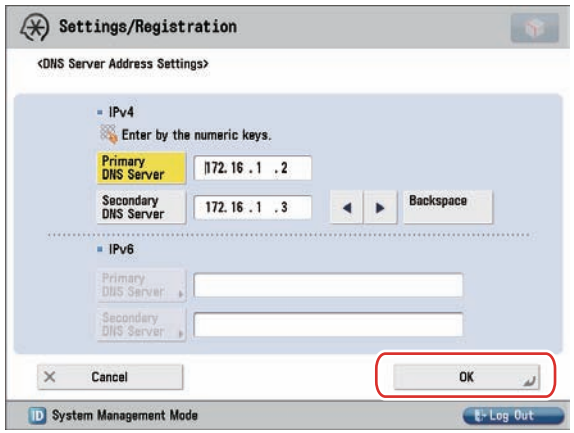
1. Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



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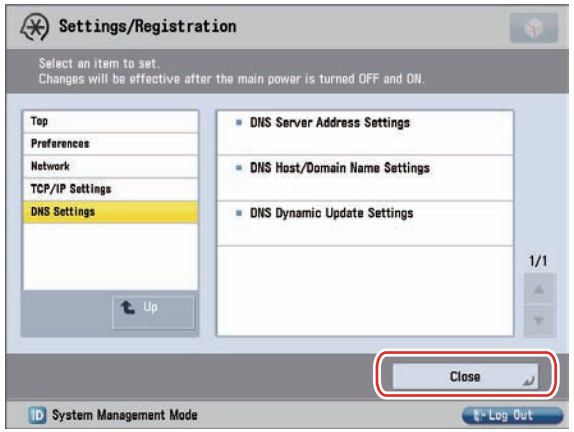
2. Touch the [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings] buttons.

3. Set the DNS server address based on the result obtained in “(2) Advance preparations - Information item 2” and touch the [OK] button.
- Select [Primary DNS Server] and make settings.
- When the secondary DNS server is installed, select [Secondary DNS Server] and make settings.



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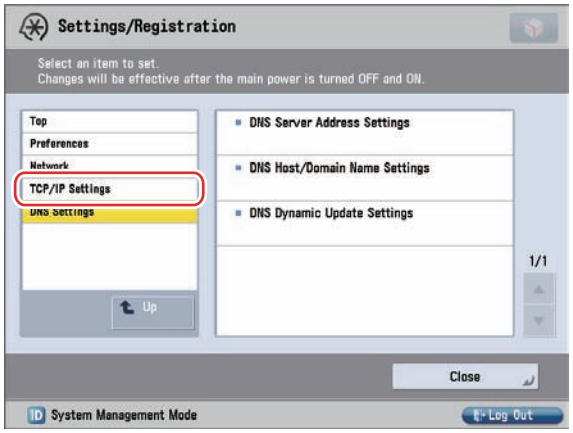
4. When proxy settings are not made, touch the [Close] button to reboot the device.



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4) Proxy Settings

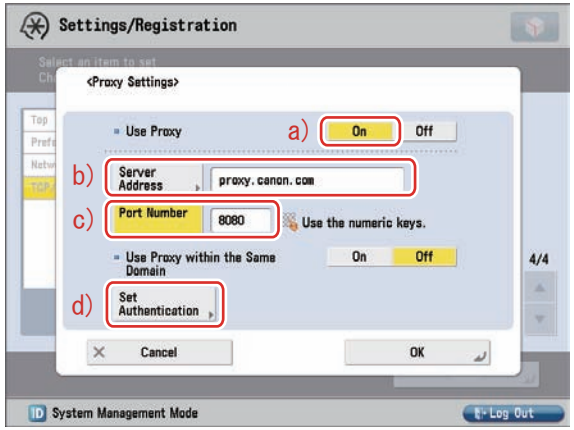
1. Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



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2. Touch the [TCP/IP Settings] > [Proxy Settings].

3. Set the proxy server based on the result obtained in “(2) Advance preparations - Information item 3”.
   a) Use Proxy to [On].
   b) Enter the server address.
   c) Enter port Number (Validation: 1 to 65,535).



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d) If proxy server authentication is required, Touch [Set Authentication].(see figure above)

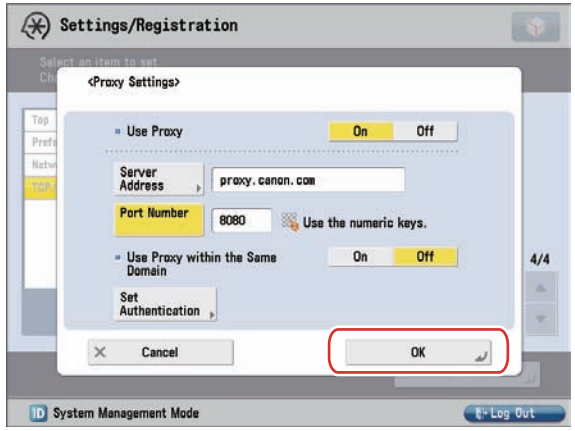
e) Set the following items based on the result obtained in “(2) Advance preparations - Information item 4”.

- Set Use Proxy Authentication to [On].
- Enter User name and Password, and touch the [OK] button.



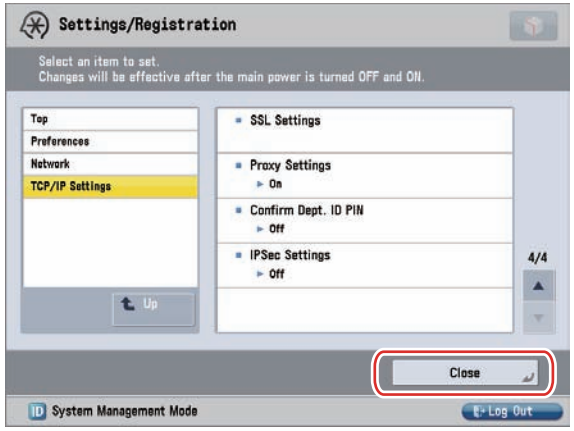
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f) Touch the [OK] button.



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4. Touch the [Close] button.



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5. Reboot the device.

CAUTION:

When changes are made to the above-mentioned network settings, be sure to reboot the device.

■ E-RDS-related setting items (service mode)

● E-RDS setting items

Item	Description
E-RDS ([Lv.1] COPIER > Function > INSTALL)	Set use/ no use of Embedded-RDS function 0: Function not used / 1: Function used imageWARE Remote system to send device information, counter data, error statuses to the UGW. Default : 0 (Function not used)
RGW-ADR ([Lv.1] COPIER > Function > INSTALL)	URL setting of UGW Max 128 characters Default : https://a01.ugwdevice.net/ugw/agentif01
RGW-PORT ([Lv.1] COPIER > Function > INSTALL)	Set port number of UGW Validation : 1 to 65535 Default : 443
COM-TEST ([Lv.1] COPIER > Function > INSTALL)	Execution of a communication test with UGW / Display of the result Perform Communication test with UGW and set "OK!" or "NG!" as the result.
COM-LOG ([Lv.1] COPIER > Function > INSTALL)	Display of detailed information about a communication error with UGW Error information of a connection failure with UGW is displayed. Error occurrence date and time, error code, and detailed error information are displayed. Max 30 latest loggings retained Max 128 characters for Error information.
ERDS-DAT ([Lv.1] COPIER > Function > CLEAR)	Initialization of E-RDS SRAM data SRAM data of E-RDS is initialized and returned to the factory setting value at shipment.
CA-KEY ([Lv.2] COPIER > Function > CLEAR)	Initialization of CA certificate When the power is turned OFF/ ON after execution, the CA certificate in the factory setting is automatically installed.

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● SERVICE BROWSER setting items

Item	Description
BRWS-ACT ([Lv.1] COPIER > Function > INSTALL)	Execution of activation/ inactivation of service browsing Browsing info is sent to UGW when OFF (BRWS-ACT=0) is changed to ACTIVE. Setting result is displayed as "OK!" or "NG!".
BRWS-STS ([Lv.1] COPIER > Display > USER)	Display of Service Browser use status 0: OFF / 1: Active / 2: Suspend The status is changed from 0 to 1, from 1 to 2, and from 2 to 1 by execution of BRWS-ACT. Default : 0 (OFF)

T-2-98

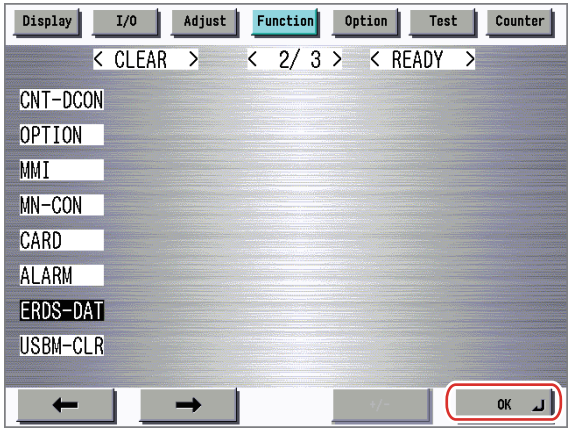
NOTE:
Generally, once service browsing is enabled, it cannot be disabled again.
To disable service browsing, clear SRAM.

■ Steps to E-RDS settings

1. Start [Service Mode] at Level 1.
   1) Press [Settings/Registration (User Mode)] button on the control panel.
   2) Press [2] and [8] buttons at a time on the control panel.
   3) Press [Settings/Registration (User Mode)] button on the control panel.
   4) [Service Mode] screen is shown. Touch the [Mode List] button or the [Mode List Classic] button.

2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and touch the [OK] button.

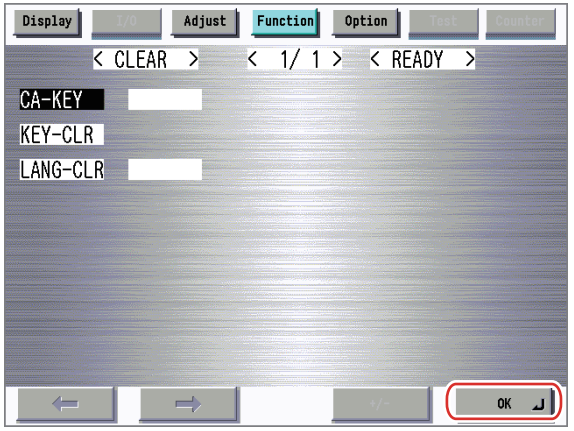
NOTE:
This operation initializes the E-RDS settings to factory setting values.
For the setting values to be initialized, see the section of “Initializing E-RDS settings”.



F-2-325

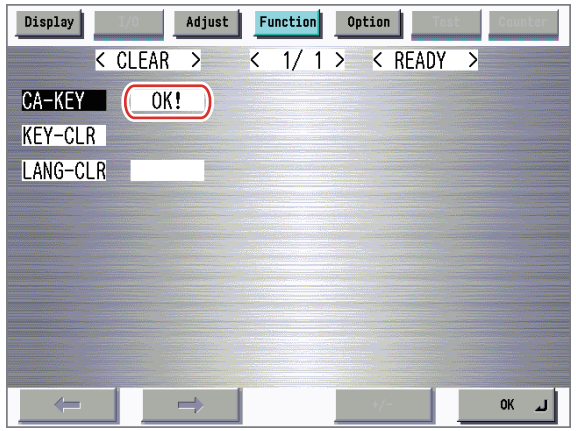
3. Perform installation or deletion of the CA certificate if necessary, and reboot the device.
- Installation of the CA certificate: Perform installation from SST.
- Deletion of the CA certificate: When the following operation is performed, the CA certificate in the factory setting is automatically installed.
   (1) Start [Service Mode] at Level 2.
      1) Press [Settings/Registration (User Mode)] button on the control panel.
      2) Press [2] and [8] buttons at a time on the control panel.
      3) Press [Settings/Registration (User Mode)] button on the control panel.
      4) Touch the [Mode List] button or the [Mode List Classic] button on the [Service Mode] screen.
      5) Press [Settings/Registration (User Mode)] button on the control panel.
      6) Press [2] button on the control panel.

   (2) Select [COPIER] > [Function] > [CLEAR] > [CA-KEY] and touch the [OK] button.



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"OK!" is displayed if the CA certificate is initialized. When "NG!" is displayed, see the section of "Troubleshooting" to execute the remedy, and then perform initialization of the CA certificate again and check to see if the CA certificate is initialized.

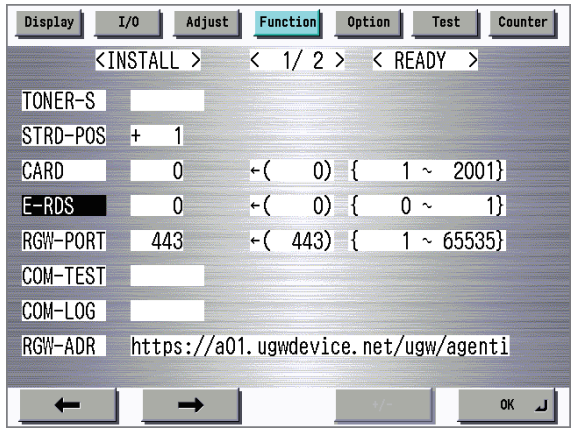


F-2-327

(3) Reboot the device.

4. Activate [SERVICE MODE] in LEVEL 1. (See 1. for the procedure.)

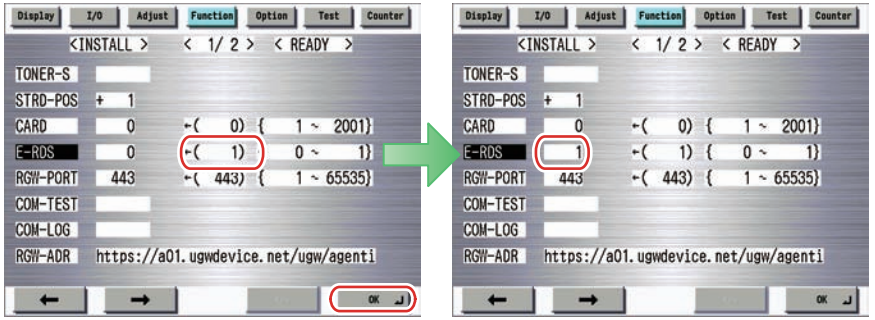
5. Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



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6. Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:
This operation enables the communication function with UGW.



F-2-329

CAUTION:

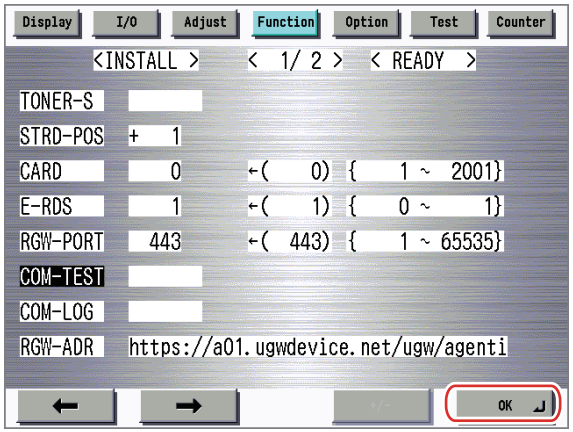
The following settings i.e. RGW-PORT and RGW-ADR in Service mode must not be change unless there are specific instructions to do so.

Changing these values will cause error in communication with UGW.



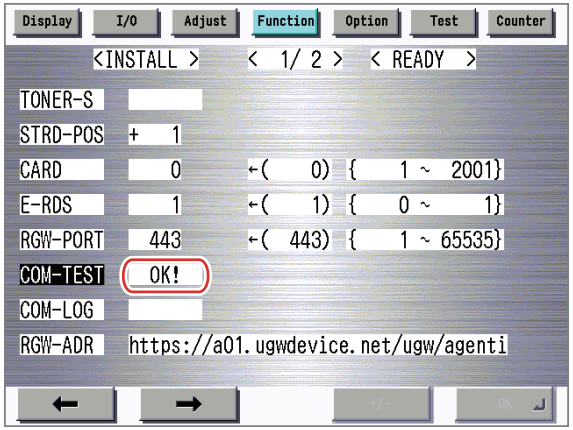
7. Select [COM-TEST] and then touch [OK].

NOTE:
This initiates the communication test between the device and the UGW.



F-2-330

If the communication is successful, “OK!” is displayed. If “NG!” (failed) appears, refer to the “Troubleshooting“ and repeat until “OK!” is displayed.



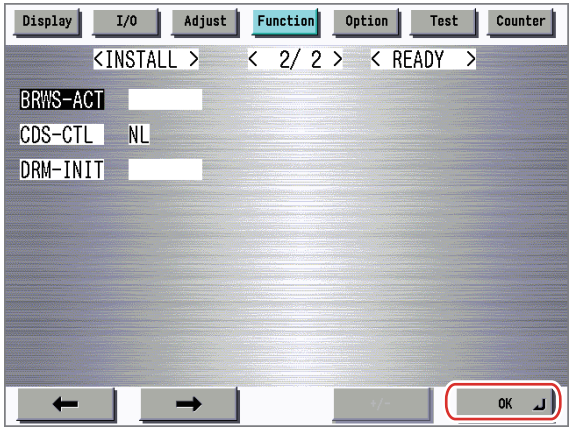
F-2-331

NOTE:
The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

Steps to Service Browser settings

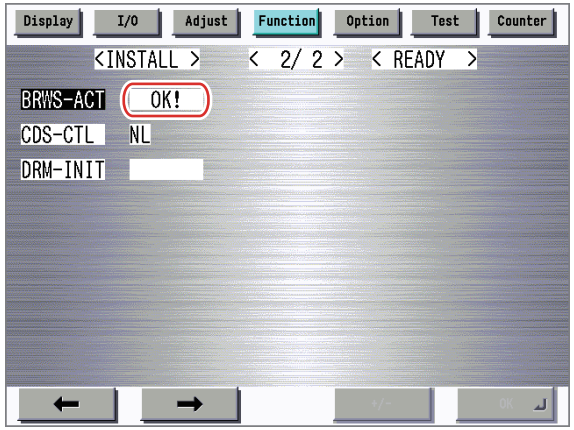
1. Start [Service Mode] at Level 1.
   For the procedures, see “Steps to E-RDS settings - step 1.“.
2. Select [COPIER] > [Function] > [INSTALL] > [BRWS-ACT] and then touch [OK].

NOTE:
E-RDS sends browser information to UGW at this timing.



F-2-332

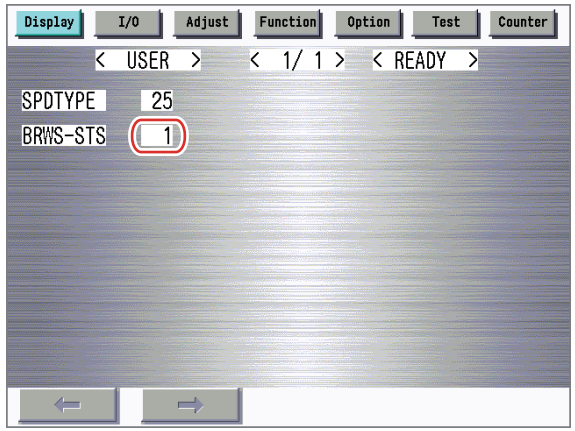
If the connection is established with UGW successfully, “OK!” is displayed. When “NG!” is displayed, perform the steps referring to “Troubleshooting” until connection is established with UGW.



F-2-333

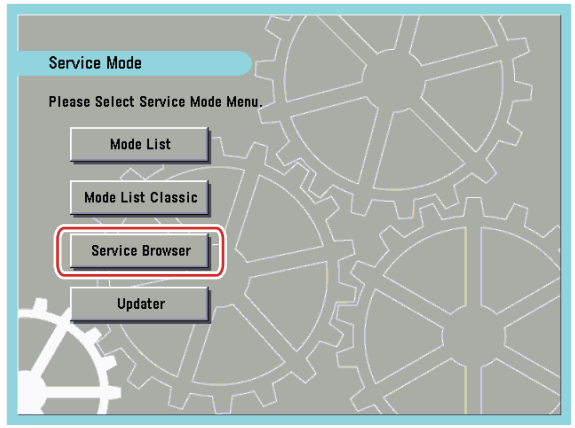
3. Reboot the device.

4. Make sure that “1 (: ACTIVE)” is set under [COPIER] > [Display] > [USER] > [BRWS-STS].



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5. When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



F-2-335

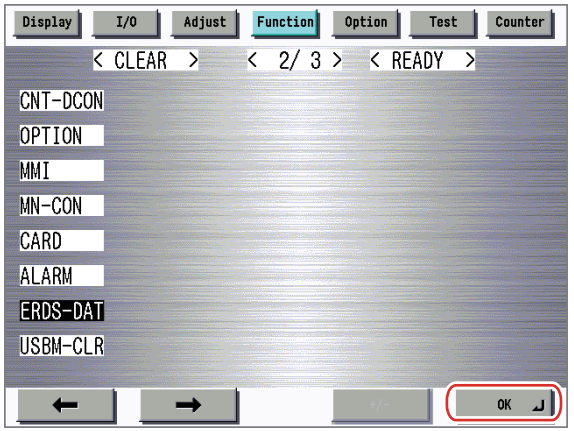
Initializing E-RDS settings

It is possible to return E-RDS Settings to factory-shipments value.

Initialization procedure

1. Start [Service Mode] at Level 1.
   For the procedures, see “Steps to E-RDS settings - step 1.“.

2. Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and then touch [OK].



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Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > Function > INSTALL > E-RDS
- COPIER > Function > INSTALL > RGW-ADR
- COPIER > Function > INSTALL > RGW-PORT
- COPIER > Function > INSTALL > COM-LOG

CAUTION:

In case of replacing the CA certificate file, even if initialization of E-RDS is executed, the status is not returned to the factory default.

When installing the certificate file other than the factory default CA certificate file, it is required to delete the certificate file after E-RDS initialization and install the factory default CA certificate file.

For detailed procedures, see "Steps to E-RDS settings - step 3.".

FAQ

No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming “NG!“ case.

1. Name resolution was failed due to an incorrect host name or DNS server has been halted.
2. Network cable is blocked off.
3. Proxy server settings is not correct.

No.2

Q: I want to know the interval of data transmitting from E-RDS to the UGW, and what data size is sent to the UGW?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The timing is once per 16 hours by default, and counter data volume could be maximum 250 bytes.

No.3

Q: Does error-retry carry out at the time of a communication error with the UGW?

A: Retry of SOAP communication is performed as follows.

- In the case of an error in SOAP communication (i.e. a trouble at UGW side) at transmission of the alarm code list and the service mode counter (postAlert) due to change of device status, the data failed in transmission equivalent to 3 retries is to be stored in the HDD. In the case of anther transmission error (the 4th error), the oldest data of the stored data is deleted and the newly-generated retry data is stored in the HDD.
- In the case of SOAP transmission errors as described below, the unsent (and remaining) data is sent again depending on the storage status of CPCA data:
  - At transmission of a jam log and service mode counter (postJamLog) when the jam log was obtained from the device.
  - At transmission of a service call log and service mode counter (postServiceCallLog) when the service log was obtained from the device.
  - At transmission of an alarm log and service mode counter (postAlarmLog) when the alarm log was obtained from the device.
- In the case of a SOAP transmission error at transmission of a service mode menu list (postServiceModeMenu) due to change of the setting value in the service mode menu, the service mode data is obtained at every retry to be sent.
- In the case of a SOAP transmission error at transmission of browser information (postBrowserInfo) due to change of the license status of the device’s web browser option, the browser information is stored in the retry information to send the stored data again.

  In the case that the device is rebooted while the retry information is specified, however, another browser information is obtained to be sent.

NOTE:
The retry data will be sent at interval of 5*n minutes. (n: retries, 5, 10, 15 minutes…up to 30 minutes)

No.4

Q: How many log-data can be stored?

A: Up to 30 log data can be saved. The data size of error information is maximum 128 characters.

No.5

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?

A: E-RDS must comply with “Basic” while “Integrated” authentication is used for Microsoft ISA (as default); therefore, authentication with E-RDS is available if you change the setting to “Basic” authentication on the server.

No.6

Q: Can I turn the device power off during the imageWARE Remote system operation?

A: While operating the imageWARE Remote system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time.
It will become “Device is busy, try later” errors if the power supply of network equipment such as HUB is made prolonged OFF.

No.7

Q: Although a Service call error may not be notified to UGW, the reason is what?

A: If a service technician in charge turns off the power supply of a device immediately after error occurred once, It may be unable to notify to UGW because data processing does not take a time from the controller of the device to NIC though, the data will be saved on the RAM.
If the power supply is blocked off while starting up, the data will be inevitably deleted.

No.8

Q: How does E-RDS operate while the device is placed in the sleep mode?

A: While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again.
However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won't be done if the next data transmission will be done within 10 minutes.

No.9

Q: Is E-RDS compatible with Section counter (Department counter)?

A: No, E-RDS does not support Section counter.

No.10

Q: Is there any setting to be made on the device side to enable the service mode menu transmission function? Moreover, what is Service mode menu set as the object of transmission?

A: No steps peculiar to Transmitting Service mode menu. As for the data that applies to transmission of the service mode, see the "Service mode menu Transmission".

No.11

Q: What service browser data is transmitted to UGW by E-RDS in what timing?

A: The service browser data to be transmitted and the transmission timing are shown below.

Transmission timing	Detailed procedure	Transmission information	Error occurs
When the service browser is enabled from the disabled state [OFF]	1) Specify the service browser setting in the service mode menu. 2) Send browser information to UGW. 3) Once obtaining OK response from UGW, enable the service browser mode [ACTIVE]. (To use the setting, it is necessary to reboot the device)	Service browser mode: [Register] WEB browser option: [ON] or [OFF] according to the license status	Retransmission is not performed. ("Disabling [OFF]" continues to be set.)

T-2-99

Troubleshooting

No.1

Symptom: A communication test (COM-TEST) results NG!

Cause: Initial settings or network conditions is incomplete.

Remedy 1: Check and take actions mentioned below.

1) Check network connections

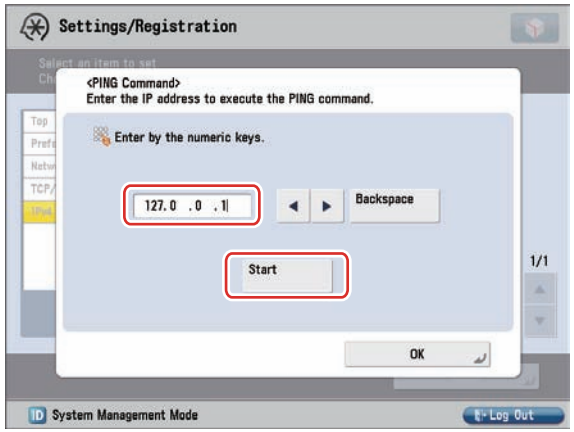
Is the status indicator LED for the HUB port to which the main unit is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address (* In case of IPv4)

Select [Settings/Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.

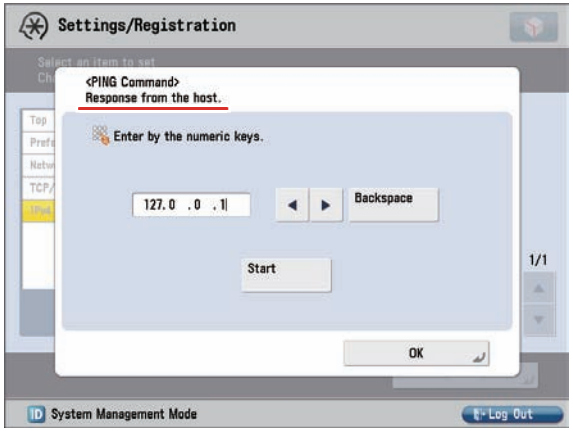


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Does the screen display "Response from the host."? (See the next figure.)

YES: Proceed to Step 3).

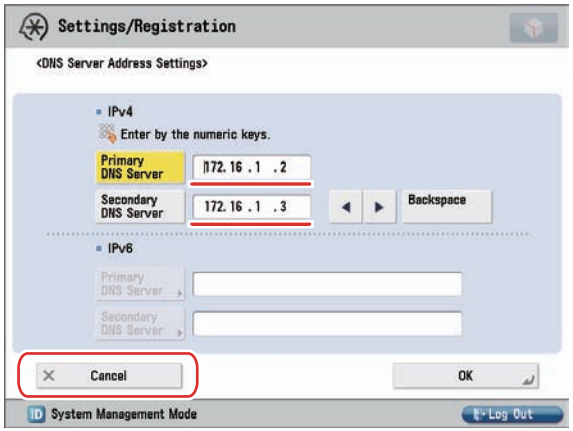
NO: There is a possibility that the main unit's network settings are wrong. Check the details of the IPv4 settings once more.



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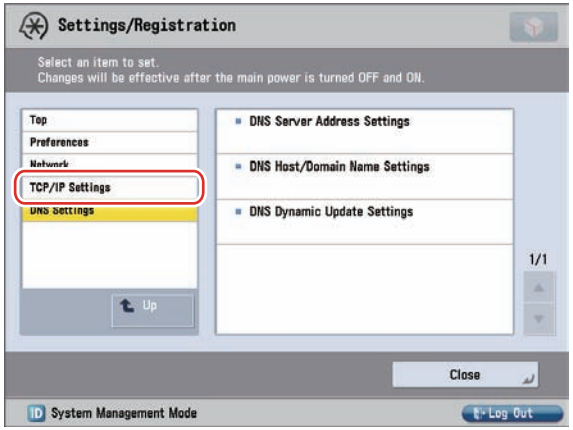
3) Confirmation from another PC connected to same network.
Request the user to ping the main unit from a PC connected to same network.
Does the main unit respond?
YES: Proceed to Step 4).
NO: Confirm the details of the main unit's IP address and subnet mask settings.

4) Confirm DNS connection
(a) Select [Settings/Registration (User Mode)] > [Preferences] > [Network] > [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings], write down the primary and secondary addresses of the DNS server, and touch the [Cancel] button.



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(b) Select [TCP/IP Settings] from breadcrumbs of the left columns, and then Touch it.



F-2-340

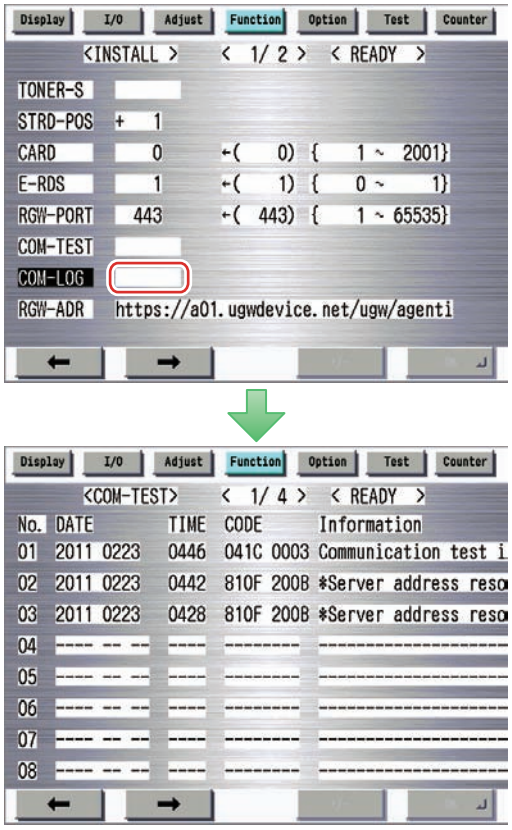
(c) Select [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and touch the [Start] button.

Does the screen display "Response from the host."?
YES: Proceed to Remedy 2.
NO: Enter the secondary DNS server noted down in step a) as the IP address, and then touch Start.

Does the screen display "Response from the host."?
YES: Proceed to Remedy 2.
NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

Remedy 2: Troubleshooting using communication log (COM-LOG)

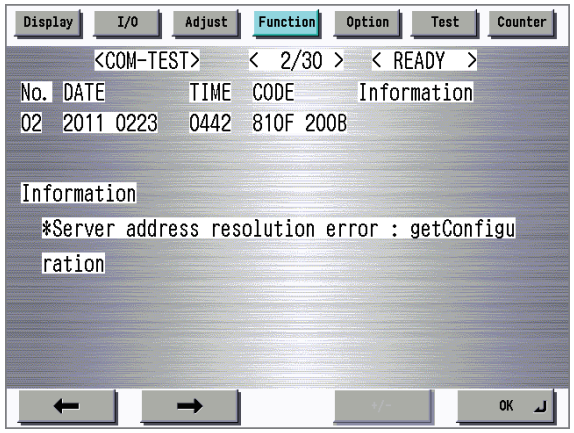
1) Start [Service Mode] at Level 1.
   1) Press [Settings/Registration (User Mode)] button on the control panel.
   2) Press [2] and [8] buttons at a time on the control panel.
   3) Press [Settings/Registration (User Mode)] button on the control panel.
   4) [Service Mode] screen is shown. Touch the [Mode List] button or the [Mode List Classic] button.
2) Select [COPIER] > [Function] > [INSTALL] > [COM-LOG] and touch the blank field on the right side. The communication log list screen is displayed.



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NOTE:
- Only the initial part of error information is displayed in the communication log list screen.
- "*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

3) When each line is selected, the communication log detailed screen is displayed as shown in the figure below. (Example: No. 02)



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NOTE:
- A detailed description of the error appears below 'Information'. (Max 128 characters)
- Touch the [OK] button to return to the log screen.

4) When a message is displayed, take an appropriate action referring to "Error code and strings".

No.2

Symptom: A communication test results NG! even if network setting is set properly.

Causes: The network environment is inappropriate, or RGW-ADR or RGW-PORT settings for E-RDS have been changed.

Remedy: The following points should be checked.

1) Check network conditions such as proxy server settings and so on.
2) Check the E-RDS setting values.
- Check the communication log from COM-LOG.
- Check whether RGW-ADR or RGW-PORT settings has changed. If RGW-ADR or RGW-PORT settings has changed, restore initial values. For initial values, see "E-RDS setting items".

No.3

Symptom: Registration information of the E-RDS machine was deleted from the device information on Web Portal, and then registered again. After that, if a communication test is left unperformed, the device setting in the UGW becomes invalid.

Causes: When the registration information of the E-RDS machine is deleted, information related to E-RDS is also deleted.
Therefore, when 7 days have passed without performing a communication test after registering the E-RDS machine again, the device setting becomes invalid.

Remedy: Perform a communication test before the device setting becomes invalid.

No.4

Symptom: There was a log, indicating “Device is not ready, try later” in error details of COM-LOG list.

Cause: A certain problem occurred in networking.

Remedy: Check and take actions mentioned below.

1) Check networking conditions and connections.
2) Turn on the power supply of a device and perform a communication test about 60 seconds later.

No.5

Symptom: “Unknown error” is displayed though a communication test (COM-TEST) has done successfully.

Cause: It could be a problem at the UGW side or the network load is temporarily faulty.

Remedy: Try again after a period of time. If the same error persists, check the UGW status with a network and UGW administrator.

No.6

Symptom: Enabling Service Browser (BRWS-ACT) results NG!

Cause: A communication test with UGW has not been performed, or a communication test result is NG!

Remedy: Perform a communication test, and check that the test with UGW finishes successfully.

No.7

Symptom: Initializing the CA certificate (CA-KEY) results in NG!

Cause: Initialization process of the CA certificate has completed abnormally.

Remedy: Initialize the HDD.

Error code and strings

The following error information is output in the communication error log details display screen. (Here, “a server” means UGW.)

- The error information are displayed in the following form.
  [*] [Error strings] [Method name] [Error details provided by UGW]

NOTE:
“*” is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

No.	Code	Error strings	Cause	Remedy
1	0000 0000	SUSPEND: mode changed.	Unmatched Operation Mode	Initialize the E-RDS setting (ERDS-DAT).
2	0500 0003	SUSPEND: Communication test is not performed.	Rebooting the device while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
3	0xxx 0003	E-RDS switch is setted OFF	A communication test has been attempted with the E-RDS switch being OFF.	Set E-RDS switch (E-RDS) to 1, and then perform a communication test (COM-TEST).
4	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Perform and complete a communication test (COM-TEST).
5	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
6	8000 0002 8000 0003 8000 0101 8000 0201 8000 0305 8000 0306 8000 0401 8000 0403 8000 0414 8000 0415	Event Registration is Failed	Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software. (Upgrade)
7	8000 0101	Server response error (NULL)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.

No.	Code	Error strings	Cause	Remedy
8	8300 0306	SRAM version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
9	8300 0306	SRAM AeRDS version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of Ae-RDS.	Turn the device OFF/ ON.
10	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
11	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support section. And then, after the UGW side has responded, try the communication test again.
12	8xxx 0207 8xxx 0208	Internal Schedule is broken	The schedule data in the inside of E-RDS is not right.	Perform a communication test (COM-TEST).
13	8xxx 0221	Server specified list is too big	Alert filtering error: The number of elements of the list specified by the server is over restriction value.	Alert filtering is not supported by UGW.
14	8xxx 0222	Server specified list is wrong	Alert filtering error: Unjust value is included in the element of the list specified by the server.	Alert filtering is not supported by UGW.
15	8xxx 0304	Device is busy, try later	The semaphore consumption error at the time of a communication test.	Try again a communication test after a period of time.
16	8xxx 0709	Tracking ID is not match	When upgrading firmware, the Tracking ID notified by Updater differs from the thing of UGW designates.	Obtain the sublog, and contact the support department of the sales company.
17	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Try again after a period of time. If the error persists, check the UGW status with the UGW administrator.
18	8xxx 2001	URL Scheme error (not https)	The header of the URL of the registered UGW is not in https format.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
19	8xxx 2002	URL server specified is illegal	A URL different to that specified by the UGW has been set.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
20	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after booting up a device in which the network preparations are not ready.	Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device.
21	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in the UGW] *1)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding.	Try again after a period of time. Check detailed error code (Hexadecimal) and [Error details in UGW] from UGW displayed after the message.
22	8xxx 200A	Server connection error	• TCP/IP communication fault • The IP address of device is not set.	Check the network connection, as per the initial procedures described in the troubleshooting.
23	8xxx 200B	Server address resolution error	Server address name resolution has failed.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
24	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address and re-enter as needed.
25	8xxx 2015	Proxy address resolution error	Could not connect to proxy server due to name resolution error of proxy address.	Check that the proxy server name is correct. If the proxy server name is correct, check the DNS connection, as per the initial procedures described in the troubleshooting.
26	8xxx 201E	Proxy authentication error	Proxy authentication is failed.	Check the user name and password required in order to login to the proxy, and re-enter as needed.
27	8xxx 2028	Server certificate error	• No route certificate installed in device. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.	Install the latest device system software. (Upgrade)
28	8xxx 2029	Server certificate verify error	The server certificate verification error occurred.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.

No.	Code	Error strings	Cause	Remedy
29	8xxx 2046	Server certificate expired	• The route certificate registered with the device has expired. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. • The device time and date is outside of the certificated period.	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
30	8xxx 2047	Server response time out	Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out)	If this error occurs when the communication test is being run or Service Browser is being set, try again after a period of time.
31	8xxx 2048	Service not found	There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong)	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
32	8xxx 2052	URL error	The data which is not URL is inputted into URL field.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
33	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
34	xxxx xxxx	Device internal error	An internal error, such as memory unavailable, etc., has occurred during a device internal error phase.	Turn the device OFF/ ON. Or replace the device system software. (Upgrade)
35	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.

T-2-100

*1) [Hexadecimal]: indicates an error code returned from UGW.
[Error details in UGW]: indicates error details returned from UGW.

Updater

Overview

Updater provides functions that enable network communication with Content Delivery System V1.0 (hereinafter CDS) to install firmware, MEAP applications and system options.

- Firmware Installation
  Updater function enables users to distribute firmware through CDS via Internet. Particularly on e-Maintenance/UGW (called NETEYE in Japan)-enabled devices, firmware can be updated remotely, which effectively slashes costs incurred in field services.

- MEAP Application/System Option Installation
  By linking devices to CDS and License Management System (providing the function to manage licenses; hereinafter LMS), applications can be installed in devices via Updater, regardless of those not embedded (MEAP application) or embedded (system options) in devices.

Installing Firmware

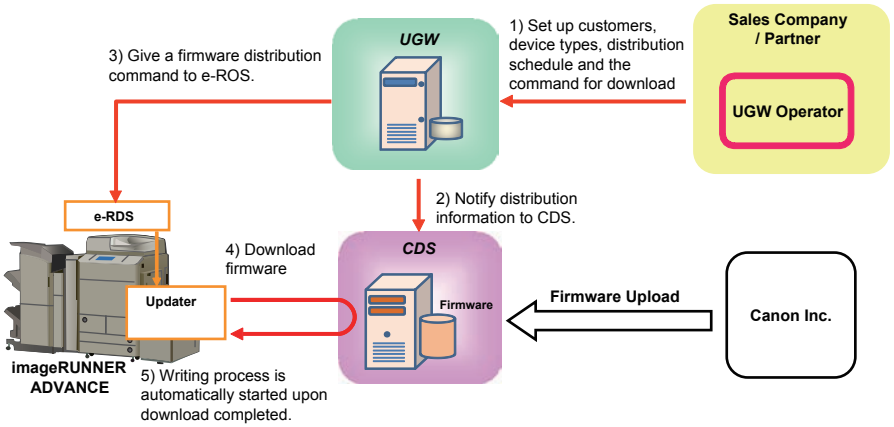
With link to Updater, service technicians provide firmware install services in the following 3 methods.

Distribution Method	Download Commanded by:	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
a. UGW-linked Download / Update (Full-remote update)	UGW	Auto	No	Yes	Yes*1
b. UGW-linked Download (Remote Distribution / Update)	UGW	Manual	Yes	Yes	Yes
c. Manual Download / Update (On-site Update via Service mode)	Local UI	Auto	No	Yes	Yes*1
		Manual	Yes	Yes	Yes

*1:You can select the version allowed Remote Update.

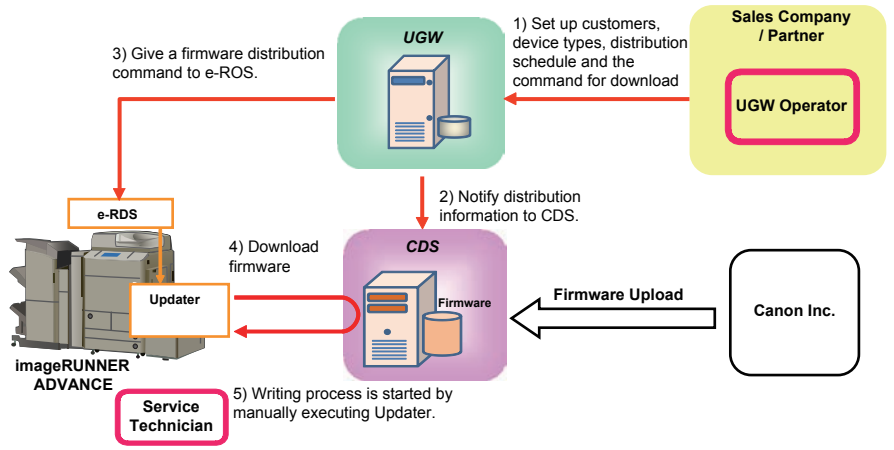
T-2-107

a. UGW-linked Download and Update (Full-Remote Update)
If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



F-2-385

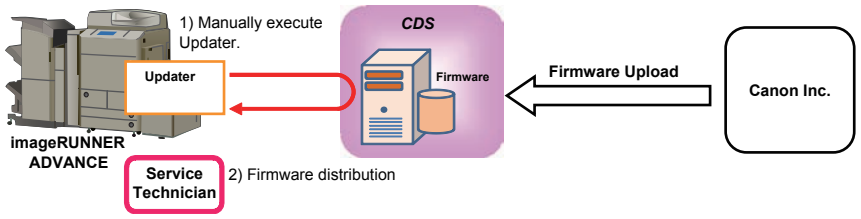
b. UGW-linked Download (Remote Distribution / Update)
If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service technician to update the firmware manually immediately after completing device inspection.



F-2-386

c. Manual Download and Update (On-site Update via Service Mode)

If an imageRUNNER ADVANCE-series device has connection with the external network, a service technician can gain access to CDS via Service mode to download and update firmware. This allows service technicians to update the firmware as needed on the customer site even without PCs.



F-2-387

NOTE:
"External network" here means the network connecting the device to CDS via Internet.

NOTE:
Users are able to gain firmware distribution in the following 4 methods by introducing CDS. See User Manual for detailed information.

Distribution Method	Download Commanded by	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
Manual download/ update via Local UI	Local UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Manual download/ upload via Remote UI	Remote UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Special download/ upload via Remote UI	Remote UI	-	Specific version only (Obtain it separately)		
Periodical update via Local UI	Local UI	Auto	No	No	Yes *1

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*1: Only the latest version of Remote update-enabled version is downloadable.

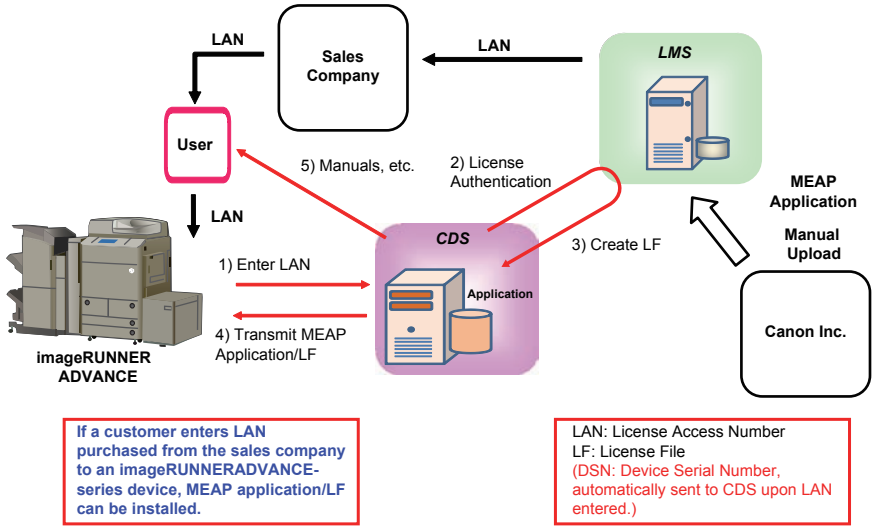
Installing MEAP Application/System Option

The following is the installation method of MEAP application/system option which is enabled by applying CDS.

a. LMS-linked MEAP Application/System Option Installation

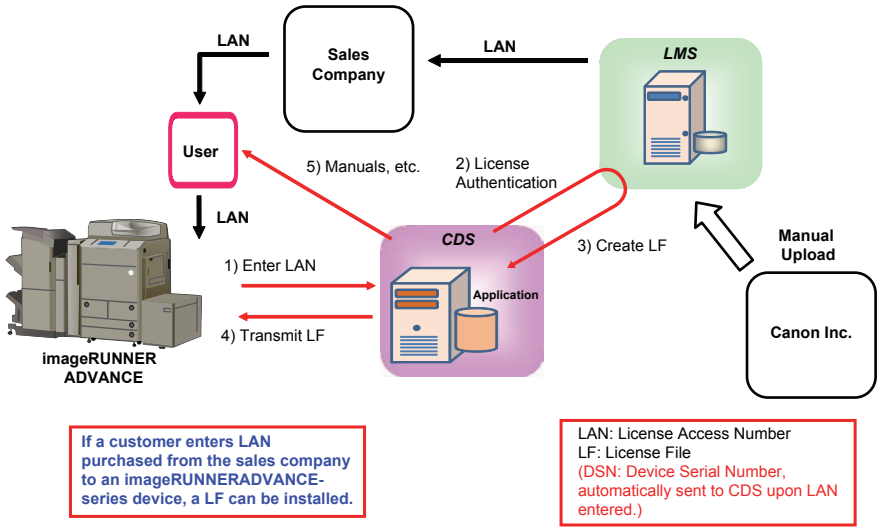
If an imageRUNNER ADVANCE-series device is connected to the external network, user or service technician can gain access to CDS from User mode to install a MEAP application or a system option.

Installing MEAP Application



F-2-388

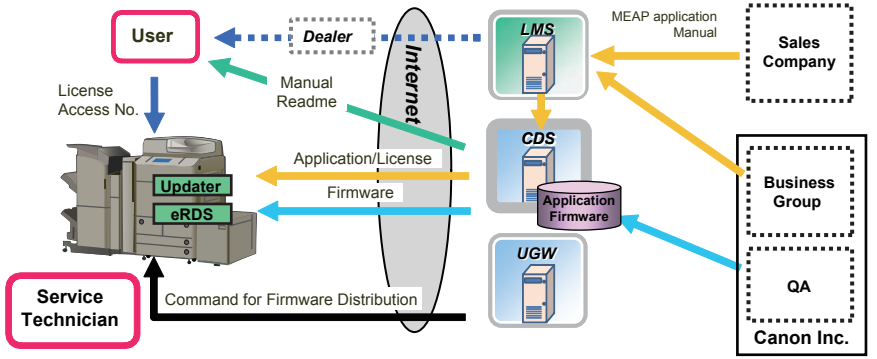
Installing System Option



F-2-389

System Configuration

The figure below schematically shows the system configuration.



F-2-390

List of Functions

The matrix below shows the list of functions provided by Updater.

Category	Function	Service Mode	User Mode	Remote UI	UGW-linked
Firmware	Checking firmware compatibility	Yes	-	-	-
	Checking special firmware	Yes	-	-	-
	Checking latest firmware version	-	Yes	Yes	-
	Registering/deleting firmware distribution schedule	Yes	Yes	Yes	-
	Confirming and downloading firmware	Yes	Yes	Yes	Yes
	Updating downloaded firmware	Yes	Yes	Yes	-
	Cancelling downloaded firmware	Yes	Yes	Yes	-
	Acquiring firmware distribution information registered from UGW	-	-	-	Yes
	Notifying firmware version information	-	-	-	Yes
	Periodical update*	-	Yes	-	-
MEAP application/ system option	Inquiring license for MEAP application/system option	-	Yes	Yes	-
	Installing MEAP application / system option	-	Yes	Yes	-
System Management	Settings	Yes	-	-	-
	Testing communications	Yes	Yes	Yes	-
	Displaying update logs	Yes	Yes	Yes	-
	Displaying system logs	Yes	Yes	Yes	-
Internal system error notification	Notifying internal system error occurrence to distribution server	Yes	Yes	Yes	Yes

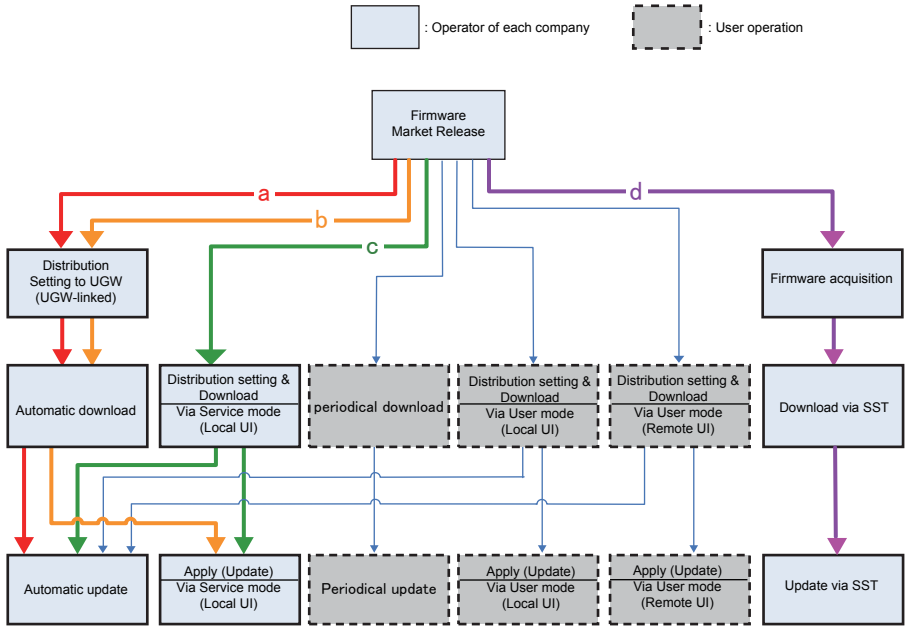
T-2-109

Distribution Flow

Firmware Installation Flow

Service technicians provide firmware install services in the following 4 methods.

a: UGW-linked download and update
b: UGW-linked download
c: Manual download and update
d: Update via SST

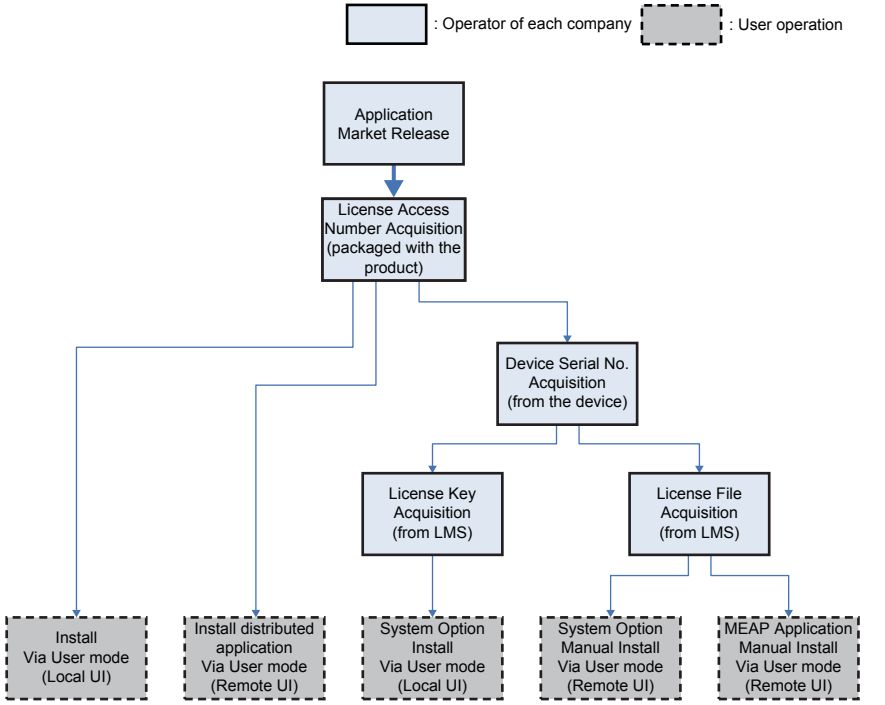


F-2-391

*1: Schedules for UGW-linked distribution are maintained on CDS.

MEAP Application/System Option Installation Flow

MEAP application/system option installation method using service mode is not provided.
Be sure to use the user mode to install.



F-2-392

Limitations and Cautions

Limitations

Changing Date/Time on Device

When a user changes the date/time setting on the device (including change of the setting according to daylight saving time), the firmware distribution may not be performed as scheduled.
But there is not the problem if it is time adjustment of several minutes with NTP servers.

Change of Setting from Service mode

Any settings from Service mode will be enabled after restarting the device.

Cautions

Concurrent use of Updater functions

Multiple users cannot use Updater functions on a device concurrently by using it together with Remote UI.

Coexistence of Remote UI and other tools

Users logged in SMS (Service Management Service) are unable to use Update functions from Remote UI.

Using Updater function from Remote UI

Upon the following operations done, Updater functions are suspended from Remote UI for certain duration.

- When a user exits Web browser without clicking [Portal] or [Log Out] button in the setting of Remote Login Service via SMS
- When a user exits Web browser without clicking [Portal] button in the setting of not to use Remote Login Service via SMS.
- When a user exits Web browser without clicking [Log out from SMS] or [To Remote UI] button.

Wait for EOJ (end of job) Function

Firmware update will be triggered only after the following jobs are completed.
This is the Updater-specific specification.

Job/Function type	Receiving	Printing	Queued print jobs	Sending	Queued send jobs
COPY	-	Wait for EOJ	Wait for EOJ	-	-
PRINT	Wait for EOJ (end of job)	Wait for EOJ	Wait for EOJ	-	-
FAX	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
I-FAX Receipt	Cancel processing to trigger update *	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
Report Print	-	Wait for EOJ	Wait for EOJ	-	-
SEND	-	-	-	Cancel processing to trigger update *	Cancel processing to trigger update *

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*The data are guaranteed even if cut off in the middle of a job.It becomes the recovery object after the device reboot and carry out send / reception again.

Even during transfer, Pull SCAN job processing is cancelled soon after scanning is completed.
Firmware update is cancelled if the jobs are not completed within 10 minutes. If this occurs, the error code, 8x001106, will be returned (different numbers will be shown for x depending on the execution modes).
Firmware update is executed if the jobs stated above are not in the queue.
Follow the shutdown sequence to reboot the device after the firmware is updated.

Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

T-2-111

- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

T-2-112

Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

T-2-113

Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL

NOTE:
The list below shows the setting of Sales Company's HQ for CDS-CTS by market.
Check and adhere to the appropriate setting for your market.
<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
Latin America= LA

Network Settings

Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

NOTE:
- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.
  "Enabling UGW Link"
  "Enabling [Update Firmware] Button of User Mode"
  "Enabling [Install Application/Options] Button of User Mode"

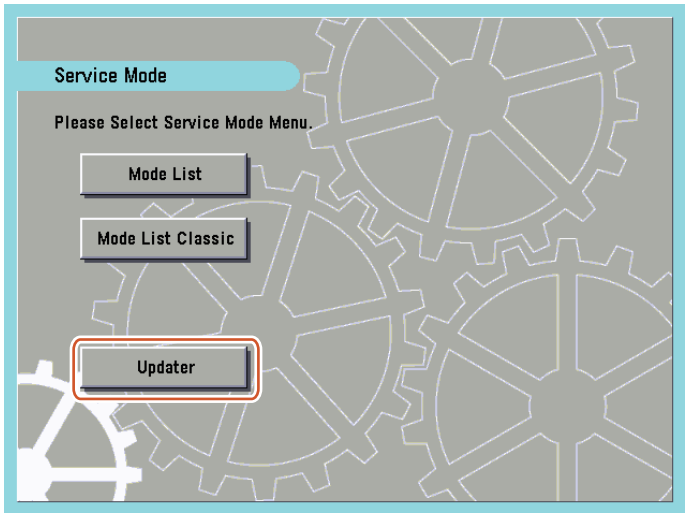
NOTE:
“External Network” here means the network connecting the device to CDS via Internet.

Confirming URL Setting of Distribution Server

This section describes how to confirm the URL setting of the distribution server.

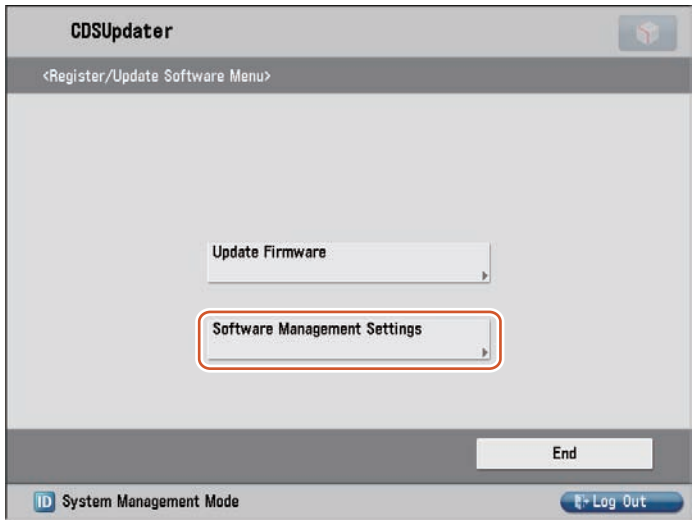
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



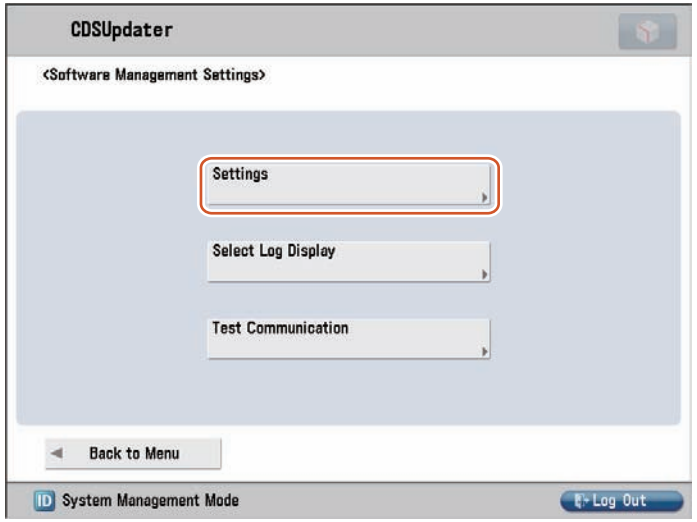
F-2-393

3. Press [Software Management Settings] button.



F-2-394

4. Press [Settings] button.



F-2-395

5. Ensure to enter “https://device.c-cdsknn.net/cds_soap/updaterif” in the field beside the [Delivery Server URL] button.
If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



F-2-396

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

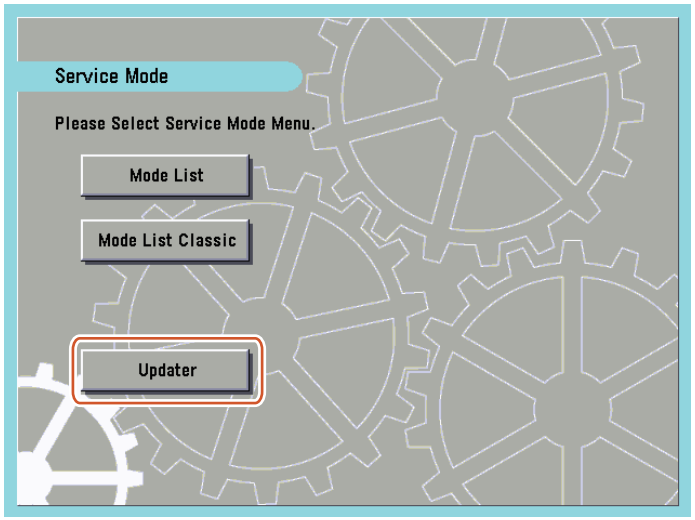
Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

NOTE:
CDS and RDS are another servers.You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

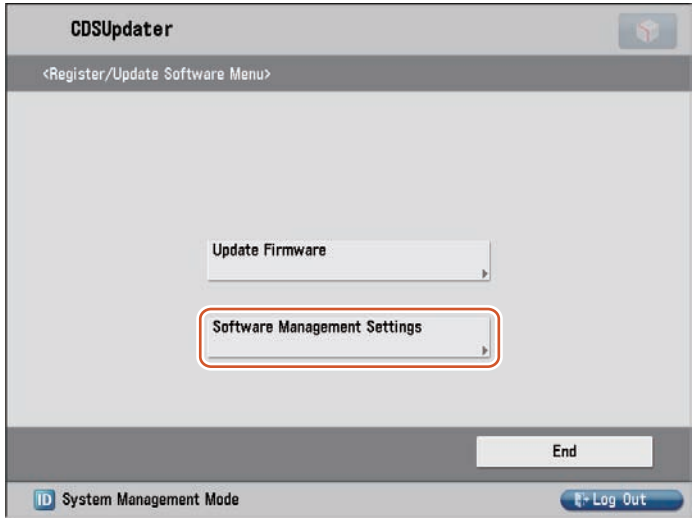
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



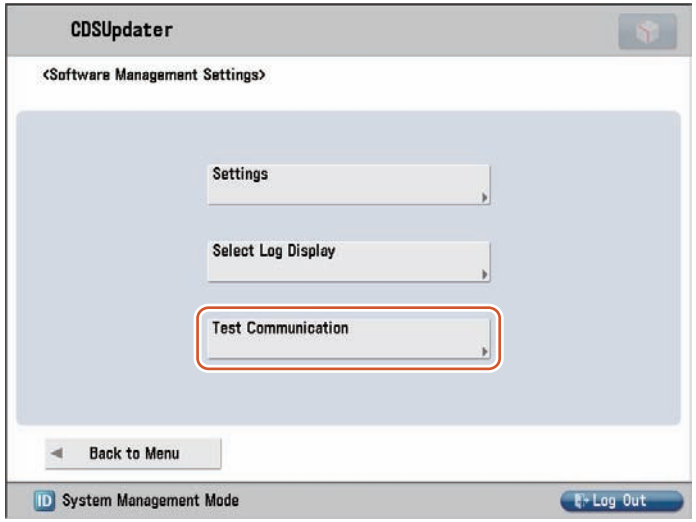
F-2-397

3. Press [Software Management Settings] button.



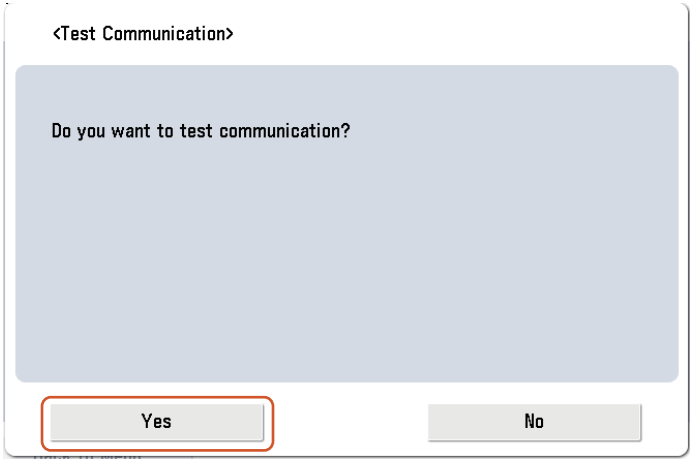
F-2-398

4. Press [Test Communication] button.



F-2-399

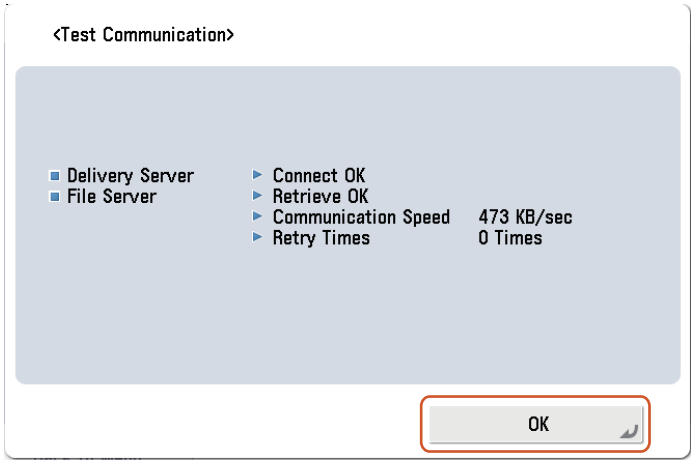
5. Press [Yes] button.



F-2-400

Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



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Enabling UGW Link

When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

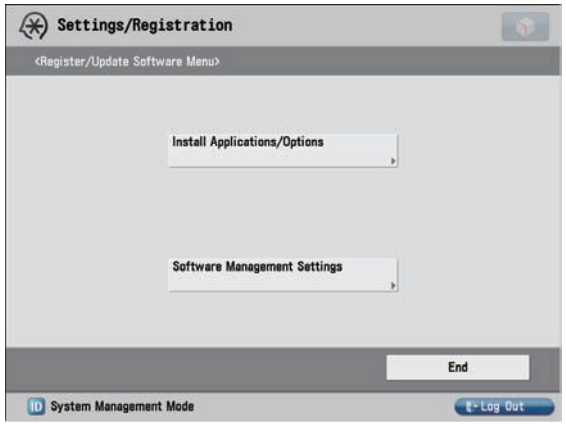
NOTE:
- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual“ for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.
- If [Distribute Firmware] is not shown on [Customer Management] screen of UGW WebPortal, appropriate authorities may not be set to each account in Firmware Distribution Information. Contact the Sales Company HQ concerned for confirmation.

Enabling [Update Firmware] Button of User Mode

To allow users to install firmware using Updater, the setting of firmware installation should be set to ON for users in advance.

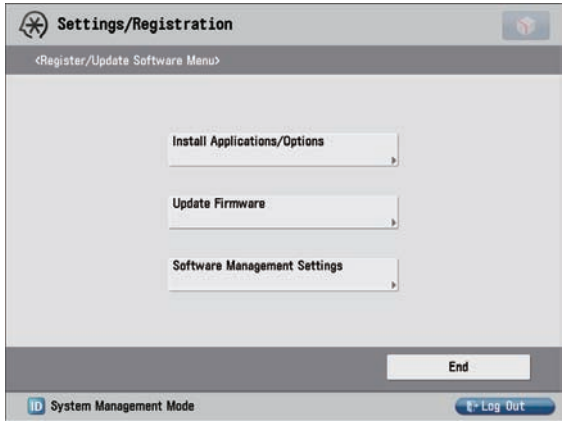
Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (0 -> 1)

- User Mode screen for Updater when the setting is not enabled (CDS-FIRM(0)):



F-2-402

- User Mode screen for Updater when the setting is enabled (CDS-FIRM(1)):



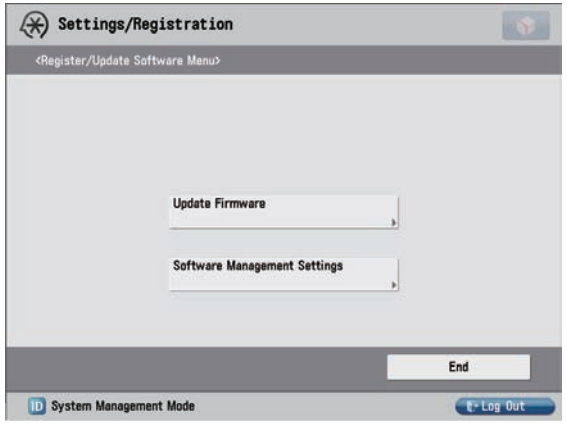
F-2-403

Enabling [Install Application/Options] Button of User Mode

To allow users to install applications using Updater, the setting of application installation should be set to ON for users in advance.

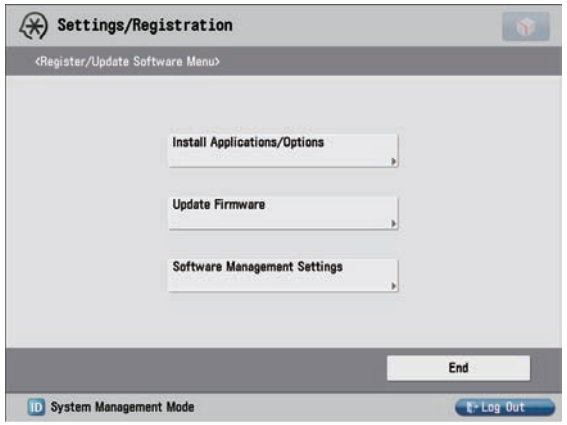
Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (0 -> 1)

- User Mode screen of Updater when the setting is not enabled (CDS-MEAP(0)):



F-2-404

- User Mode screen of Updater when the setting is enabled (CDS-MEAP(1)):



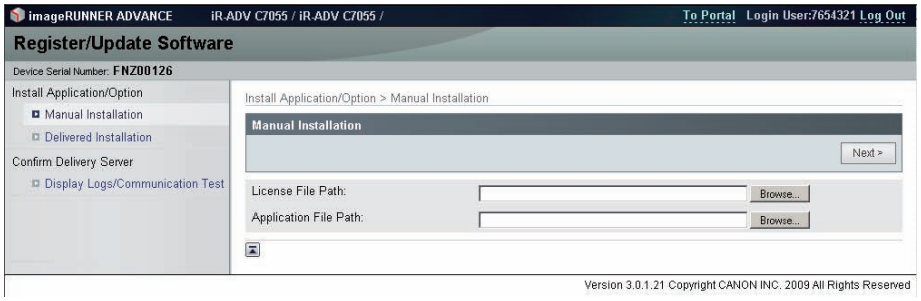
F-2-405

Enabling [Manual Update] Button of User Mode (Remote UI)

To allow users to install firmware from Updater using the file on Local PCs, the setting of firmware installation should be set to ON for users in advance.

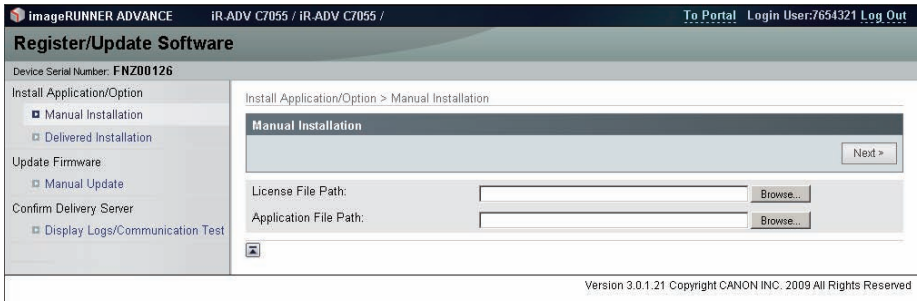
Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (0 -> 1)

- Remote UI screen of Updater when the setting is not enabled (LOCLFIRM (0)):



F-2-406

- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):



F-2-407

- Periodical validation

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-LVUP (0 -> 1)

System Management Operations

Various Setting

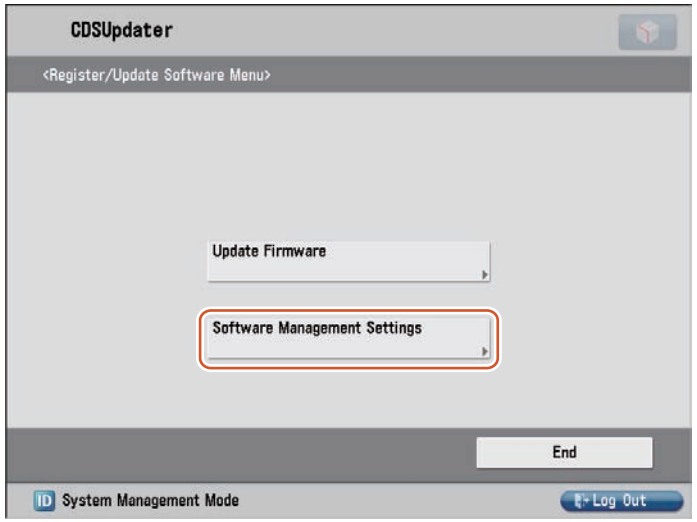
■ Setting URL of Distribution Server

This section describes how to set URL of the distribution server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

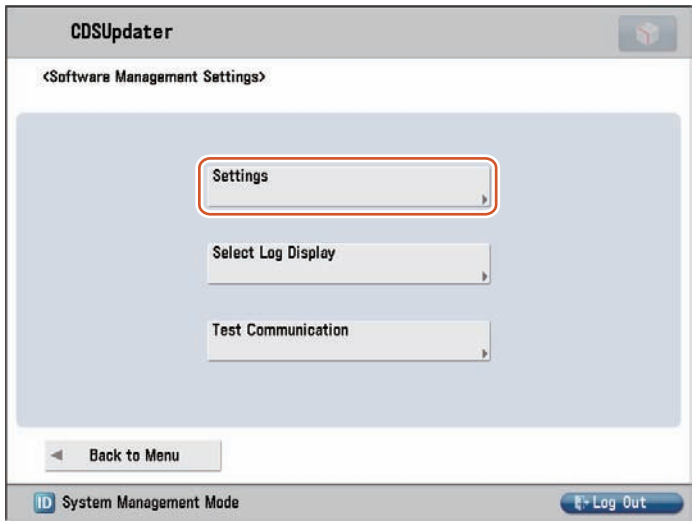
2. Press [Updater] button.

3. Press [Software Management Settings] button.



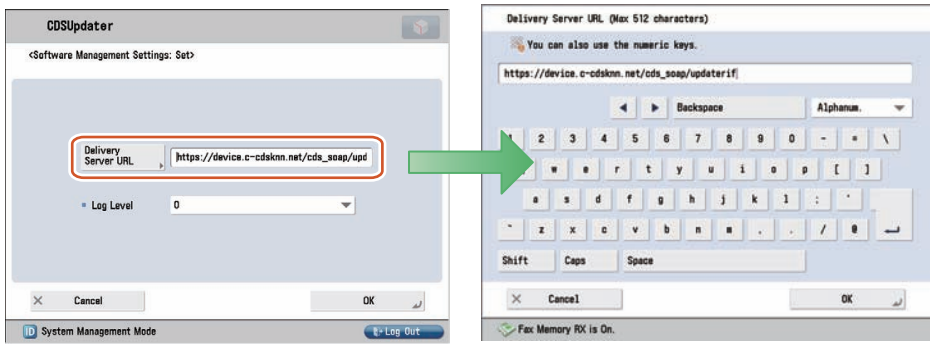
F-2-408

4. Press [Settings] button.



F-2-409

5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.



F-2-410

- [Delivery Server URL]:
  Enter the "https://device.c-cdsknn.net/cds_soap/updaterif"

6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

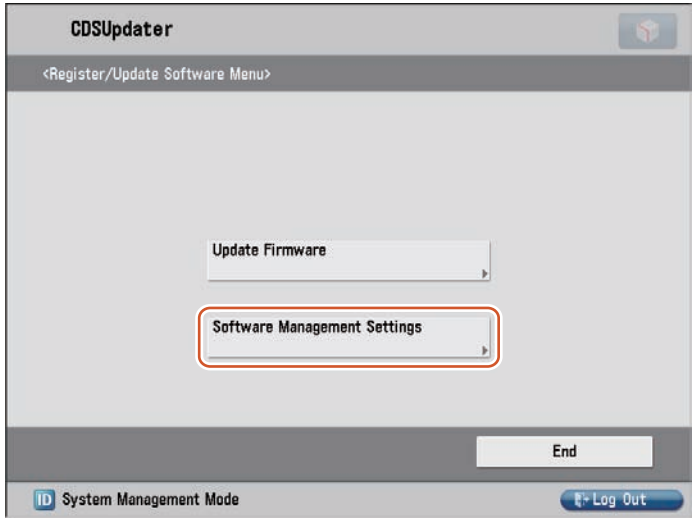
Setting Log Level

This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

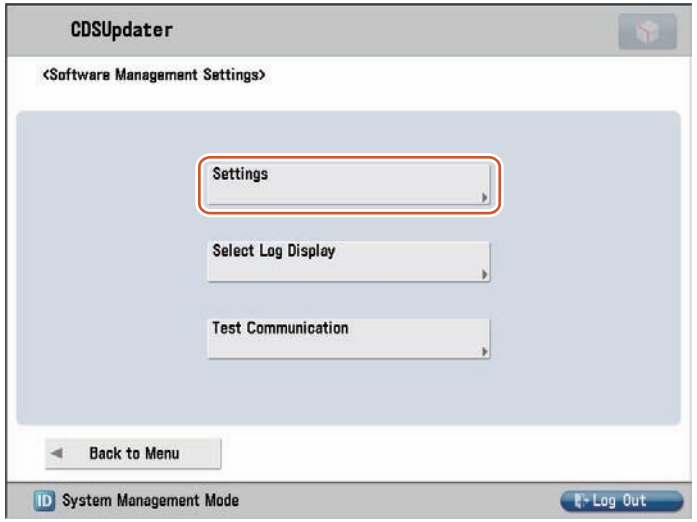
2. Press [Updater] button.

3. Press [Software Management Settings] button.



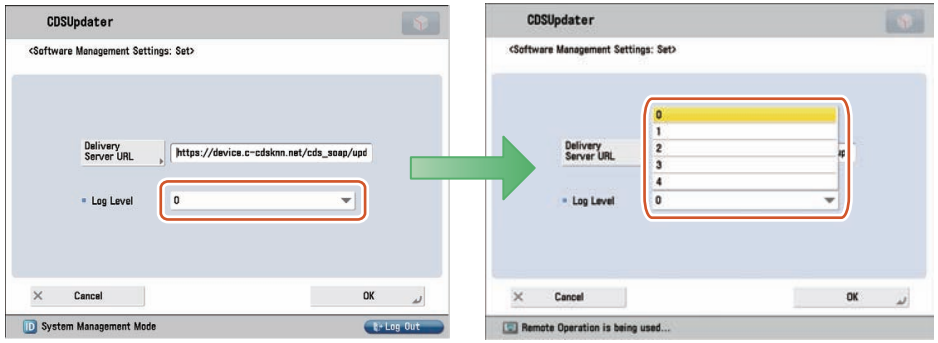
F-2-411

4. Press [Settings] button.



F-2-412

5. Select a log level from [Log Level] dropdown list.



F-2-413

- [Log Level]:
  Select one of 5 levels ranging from [0] to [4].
  See the table below for logs output in each level.

Log Level	Log Output				
	Trace	Information	Important Message	Ordinary Error	System Error
0	-	-	-	-	Yes
1	-	-	-	Yes	Yes
2	-	-	Yes	Yes	Yes
3	-	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes

T-2-114

NOTE:
This list shows the contents of the Log Output.

Log Output	Description
Trace	Detailed logs for debug
Information	Logs related to operations done on the system
Important Message	Update logs output by firmware type Installation logs by MEAP application Logs related to enabled functions by system option
Ordinary Error	Logs for ordinary errors
System Error	Logs for internal system errors

T-2-115

6. Press [OK] button to set the selected log level. Now the log level is successfully set.

Displaying Logs

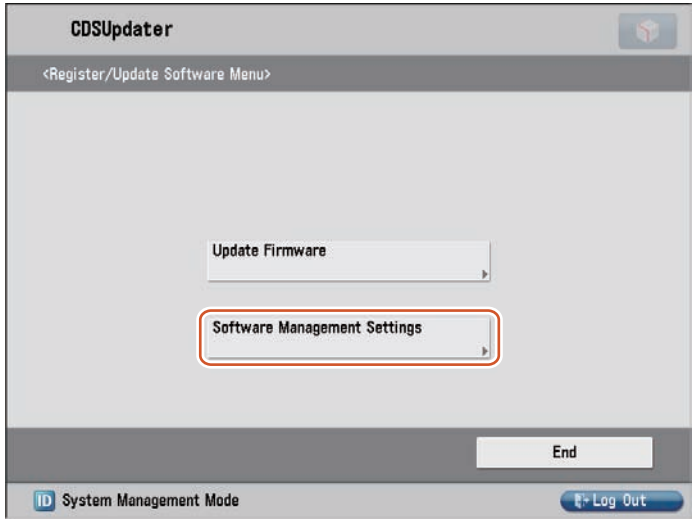
Update Logs

This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

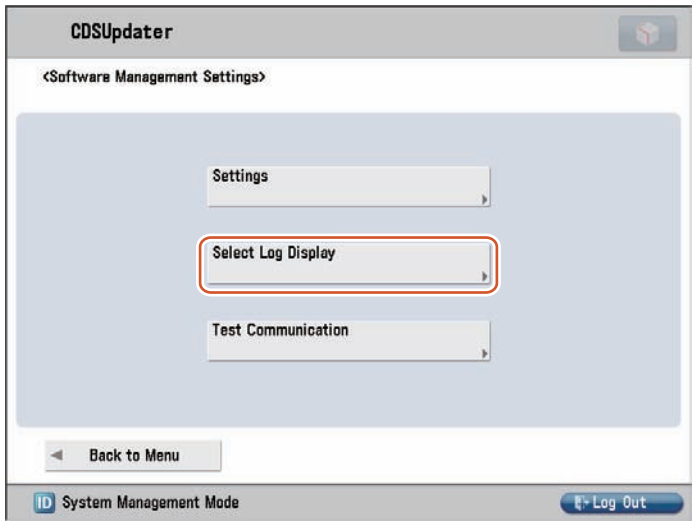
2. Press [Updater] button.

3. Press [Software Management Settings] button.



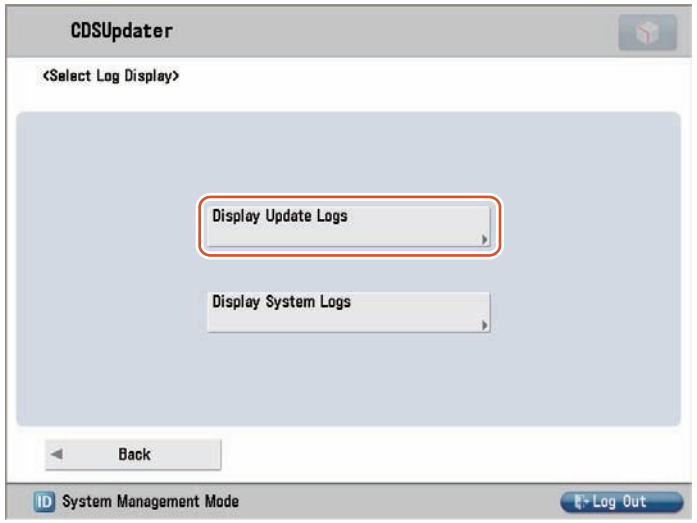
F-2-414

4. Press [Select Log Display] button.



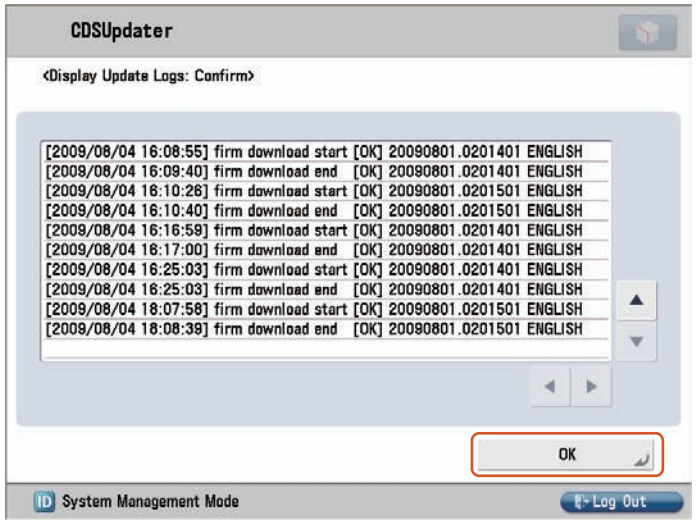
F-2-415

5. Press [Display Update Logs] button.



F-2-416

6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown. Press [OK] button to exit this operation.



F-2-417

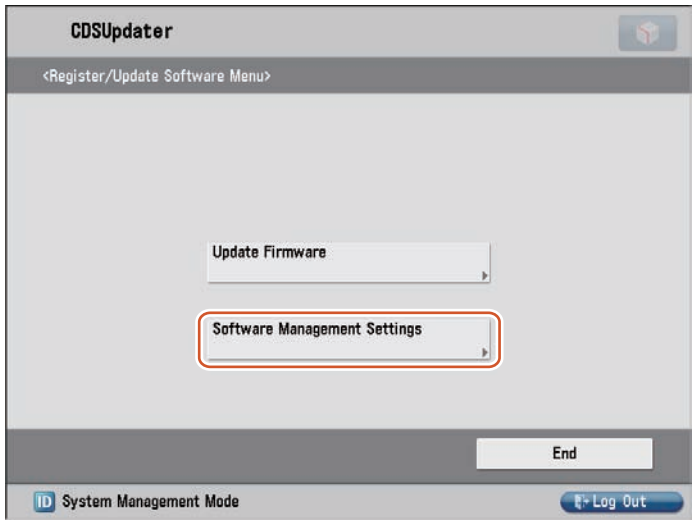
System Logs

This section describes how to confirm System Logs.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

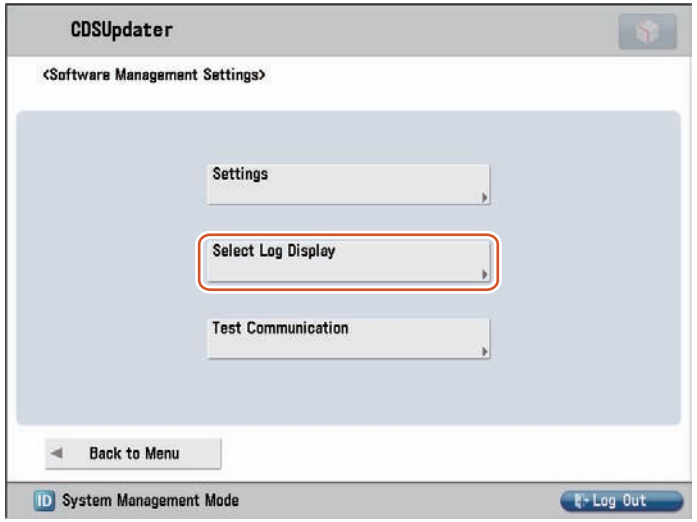
2. Press [Updater] button.

3. Press [Software Management Settings] button.



F-2-418

4. Press [Select Log Display] button.



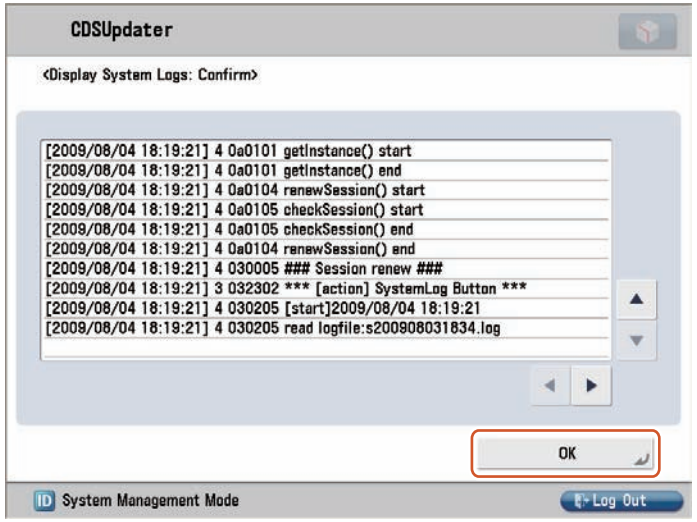
F-2-419

5. Press [Display System Logs] button.



F-2-420

6. Updater internal logs are displayed.
Press [OK] button to exit this operation.



F-2-421

NOTE:
See Chapter6 "Debug Logs" for how to obtain System Log.

Communication Test

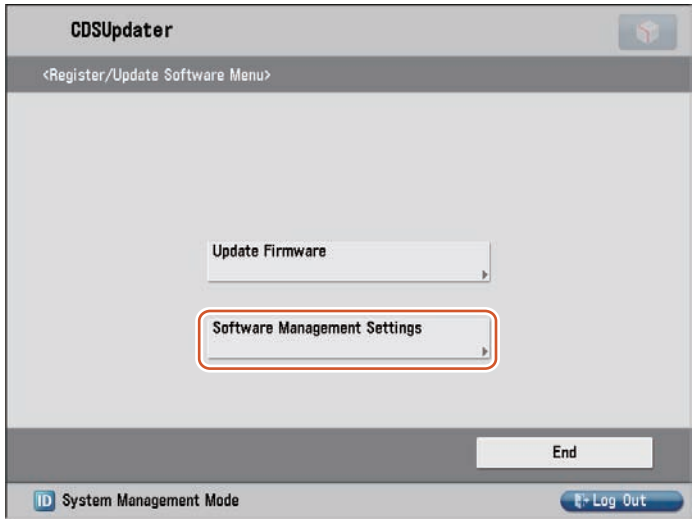
This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

NOTE:
CDS and RDS are another servers.
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

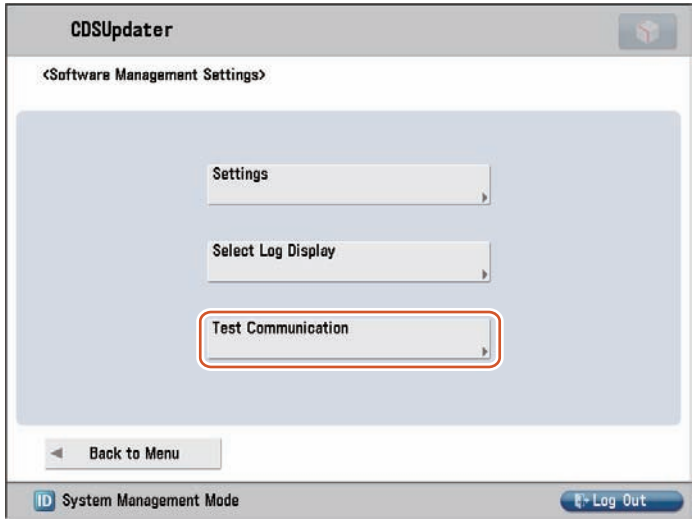
2. Press [Updater] button.

3. Press [Software Management Settings] button.



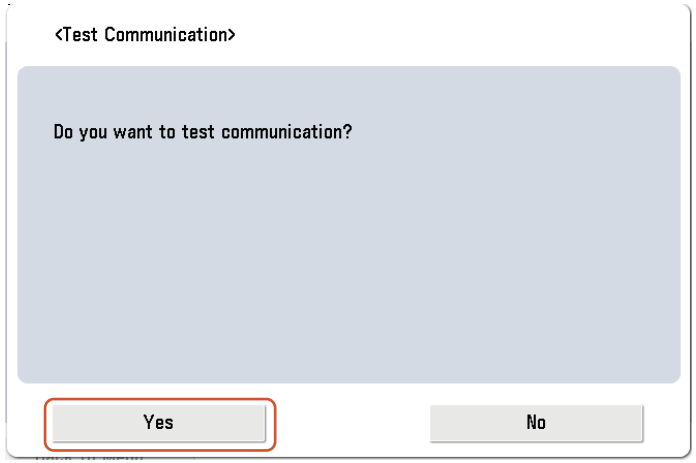
F-2-422

4. Press [Test Communication] button.



F-2-423

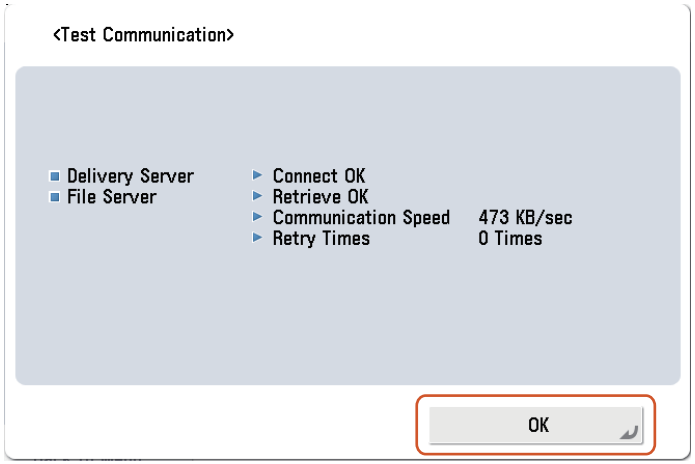
5. Press [Yes] button.



F-2-424

Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown.
   Press [OK] button to exit this operation.



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Upgrading Updater

The firmware installed in the device should be also upgraded when upgrading Updater. See "Overview" in chapter 3 of this manual for how to update firmware.
The setting information and logs (update logs/system logs) are inherited in the upgraded version.

Formatting Hard Disk

Since Updater is a MEAP application, its contents can be temporarily saved in the MEAP application storage area on PC via SST during formatting or replacing HDD. See MEAP Service Manual for further information.
The settings initialized in format or replacement should be restored. See "Overview of Preparation" in chapter 2 of this manual for details.

NOTE:
When formatting or replacing HDD, distribution schedule, downloaded firmware (not updated yet) and logs (update/system logs) will be deleted.

How to Replace Controller Boards

The steps are different depending on which of 2 controller boards are to be replaced.

- Main Controller Board PCB 1
  No steps follow.

- Main Controller Board PCB 2 (including SRAM)
  The network and service mode setting should be set again after initialization. See "Overview of Preparation" in chapter 2 of this manual for details.

How to Replace Devices

All settings should be set again because no data are inherited. See "Overview of Preparation" in chapter 2 of this manual for details.

FAQ on Installing Firmware

No.1

Q: Is it also possible to downgrade firmware with using CDS?

A: Firmware can be downgraded in some methods shown in the table below.
If download and update are performed consecutively, firmware can't be downgraded.

Distribution Method	Downgrade Possibility
UGW-linked Download and Update	No
UGW-linked Download	Yes
Manual Download and Update(Timing to Apply : Manual)	Yes
Manual Download and Update(Timing to Apply : Automatic)	No

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No.2

Q: When installing firmware, does it take less time in "manual download and update" compared to "update via SST"?

A: It depends on the number of devices to update firmware.
When updating the firmware on a device, it takes more time in "manual download and update" compared to "update via SST" (It depend on network environment.).
As for the time to update firmware to multiple devices, "manual download and update" takes less time compared to "update via SST" because updating the firmware to multiple devices can be executed simultaneously.

When the network line of the user is slow, update via CDS becomes slow in comparison with the SST. Because speed is displayed by a communication test, You refer to it.
As for the aim of the downloading time, transmission rate is 6 or 7 minutes in the case of 1000KB/sec. (There is a difference in a device and a version of Firmware, accessories and the quantity of the language files).

No.3

Q: How can we confirm that the firmware is properly updated after "UGW-linked download and update" done?

A: You can confirm this in E-mail or the Device List on UGW-linked screen.
E-mail to notify firmware update will be sent from CDS server to the addresses set as destinations at the time of distribution setting to notify update completion.
On UGW-linked screen, search the device of your interest on [Select Device] screen to find the distribution status per device as shown in the search result.

No.4

Q: In the course of "UGW-linked download", what will happen if the user downloads the firmware before the service technician update the firmware downloaded with "UGW-linked download" before?

A: The previously downloaded firmware in the method of "UGW-linked download" will be overridden by the subsequently downloaded one.
This is because only one downloaded firmware can be held on the device.
The firmware downloaded in the method of "Service mode-linked download" and "UGW-linked download" can be checked/deleted from User mode, but cannot be updated, so it cannot be updated by the user unnoticed by the service technician.

No.5

Q: What happens if the user registers another distribution schedule when the distribution schedule has been set in "manual download and update"?

A: The distribution schedule subsequently registered by the user will override the existing schedule. This is because only one distribution schedule can be held. Any existing distribution schedule is deleted and the newly registered distribution schedule is made valid.

No.6

Q: How is an individual response edition of firmware distributed?

A: Any individual response edition of firmware can be installed in all the methods provided by service technicians. Before installing the individual response edition, ensure to obtain the ID and password separately.

No.7

Q: If the device is down during firmware update, can the device be started using the older firmware version?

A: No, it is impossible to start the device using older versions. If this occurs, the service technician in charge should reinstall the firmware via SST. See "Troubleshooting on Firmware Installation" in chapter 6 of this manual for details.

No.8

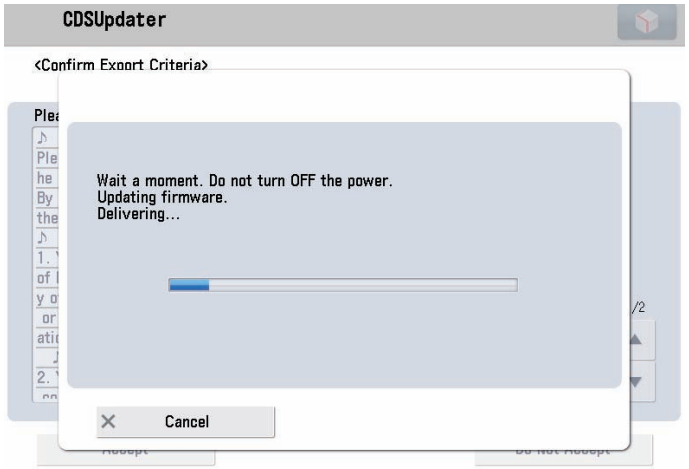
Q: If the device is down during firmware download, is it possible to download the firmware again?

A: Firmware cannot be downloaded again automatically. Instead, the error is notified in E-mail.
The user should register the firmware distribution schedule again accordingly.

No.9

Q: Can we cancel the operation during firmware download?

A: Yes. [Cancel] button is shown.



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No.10

Q: E-mail is sent to users to notify update completion. Can service technicians also receive such a notification?

A: Yes. The notification E-mail is also set for the service technician in charge if the user enters his/her E-mail address at the time of firmware distribution setting.
Multiple E-mail addresses can be entered in the field.Delimit each E-mail address with “,” (comma) or “;” (semicolon) when you enter multiple E-mail addresses in the field.

No.11

Q: How long does the firmware update take?

A: Approx. 30 min. However, this does not include the download time. Download time relies on the network environment.

FAQ on Installing MEAP Application/System Option

No.1

Q: What happens if a MEAP application is installed in the system with insufficient HDD free space?

A: An error message is shown. Upon starting installation, the MEAP application checks the required space against free space to judge installation availability.

No.2

Q: Can we cancel the operation during installation of MEAP application?

A: Yes: [Cancel] button is shown.

No.3

Q: Is the device automatically restarted after the system option is enabled?

A: The device is not automatically restarted. Users should restart the device manually.

FAQ on General Matters of Updater

No.1

Q: What preparation is needed in each installation method?

A: See the table below for preparation required in each installation method.

- For updating firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

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- For install Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

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No.2

Q: How can operations using Updater be masked on the users' side?

A: Be sure to perform the following from the service mode.

- Masking Firmware Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (1 -> 0)
Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (1 -> 0)

- Masking Application Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (1 -> 0)

No.3

Q: Can the communication be cancelled during the communication test?

A: Yes. During the communication test, “Cancel” button is displayed.

3 Periodic Service

Periodical Service Operation Item

Periodical Service Operation Item

♦: Replacement (Periodical replacement) ●: Replaced (consumables) Δ: Cleaned

No.	System	Items	Parts No.	Q'ty	Life	Interval						Counter		Remarks
						80,000 sheets	120,000 sheets	150,000 sheets	240,000 sheets	500,000 sheets	600,000 sheets			
1	Image formation system	Waste toner container	FM3-9276	1	80,000 sheets	●						DRBL-1	WST-TNR	Defined by 6% document If service engineer removes the waste toner from the Waste Toner Container, the Waste Toner Container can be reused.
2		Transfer guide	-	1	120,000 sheets		Δ					-	-	Wipe with dry cloth.
3		Transfer roller	FC9-0693	1	240,000 sheets				●			DRBL-1	TR-ROLL	
4		Separation static charge eliminator	FM3-9296	1	240,000 sheets				●			DRBL-1	SP-SC-EL	
5		Developing assembly	FM4-9730	1	600,000 sheets: 51/45/35cpm 500,000 sheets: 25cpm					●	●	DRBL-1	DV-UNT-K	
6		Pushing wheel (developing assembly)	-	1	120,000 sheets		Δ					-	-	Dry wiping
7	Fixing system	Fixing inlet guide	-	1	120,000 sheets		Δ					-	-	Wipe with dry cloth. If dirt cannot come off, wipe it with alcohol.
8		Fixing main unit	FM4-9733 (120V_51cpm) FM4-9734 (230V_51cpm) FM4-9736 (120V_45/35/25cpm) FM4-9737 (230V_45/35/25cpm)	1	240,000 sheets				●			DRBL-1	FX-UNIT	
9	Pickup feed system	Cassette pickup roller	FB6-3405 FC7-9381 (For CHN)	2	150,000 sheets			●				DRBL-1	C1-PU-RL C2-PU-RL	
10		Cassette feed roller	FC6-7083 FC7-9502 (For CHN)	2	150,000 sheets			●				DRBL-1	C1-FD-RL C2-FD-RL	
11		Cassette separation roller	FC6-6661	2	120,000 sheets		●					DRBL-1	C1-SP-RL C2-SP-RL	
12		Manual feed pickup roller	FL3-1352	1	150,000 sheets			●				DRBL-1	M-FD-RL	
13		Manual feed separation pad	FL3-3469	1	150,000 sheets			●				DRBL-1	M-SP-PD	
14		Pre-registration guide (Static charge eliminator)	-	1	As needed		Δ					-	-	Dry wiping with the lint-free paper

No.	System	Items	Parts No.	Q'ty	Life	Interval						Counter		Remarks
						80,000 sheets	120,000 sheets	150,000 sheets	240,000 sheets	500,000 sheets	600,000 sheets			
15	External Auxiliary System	Air filter	FC0-3078	1 set (2 pcs.)	240,000 sheets			♦				DRBL-1	OZ-FIL1	

T-3-1

CAUTION:
The value is the mean value collected from the results of evaluation. The value may vary depending on the site environment or user habit. The parts number may change because of changes in design.

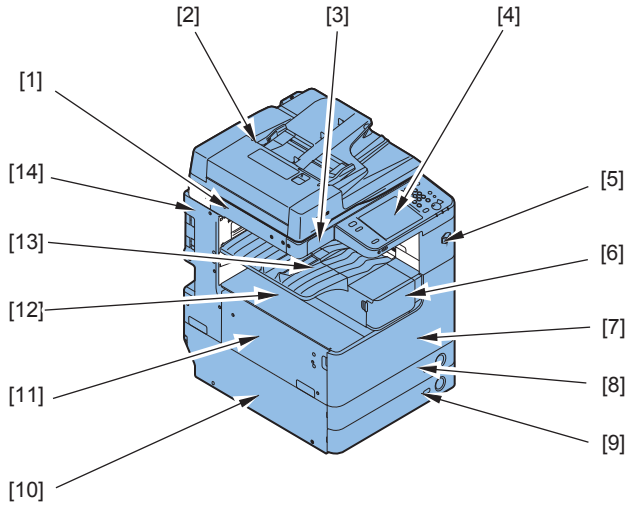


Parts Replacement and Cleaning

- List of Parts:
- External Covers
- Original Exposure System (Reader)
- Controller System
- Laser Exposure System
- Image Formation System
- Fixing System
- Pickup Feed System
- External Auxiliary System

List of Parts:

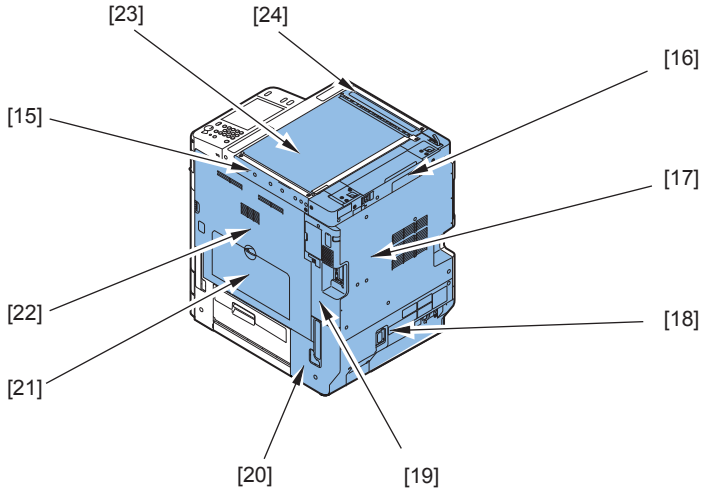
List of External / Internal Cover



F-4-1

Symbol	Part name	Reference
[1]	Reader Left Cover	p. 4-19
[2]	DADF (Optional or Standard)	-
[3]	Reader Front Cover	p. 4-15
[4]	Control Panel	p. 4-74
[5]	Support Cover	p. 4-15
[6]	Toner Supply Cover	p. 4-16
[7]	Front Cover	p. 4-18
[8]	Cassette 1	-
[9]	Cassette 2(Optional or Standard)	-
[10]	Lower Left Cover	-
[11]	Left Cover	p. 4-19
[12]	Inside Base Cover	p. 4-19
[13]	Delivery Tray	p. 4-20
[14]	Rear Left Cover	p. 4-20

T-4-1

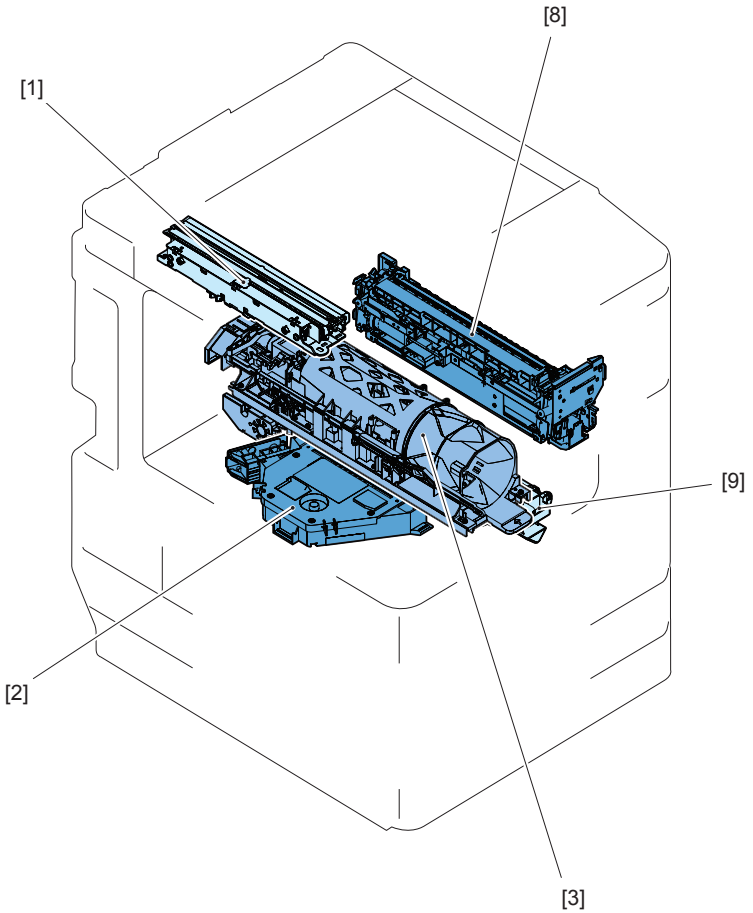


F-4-2

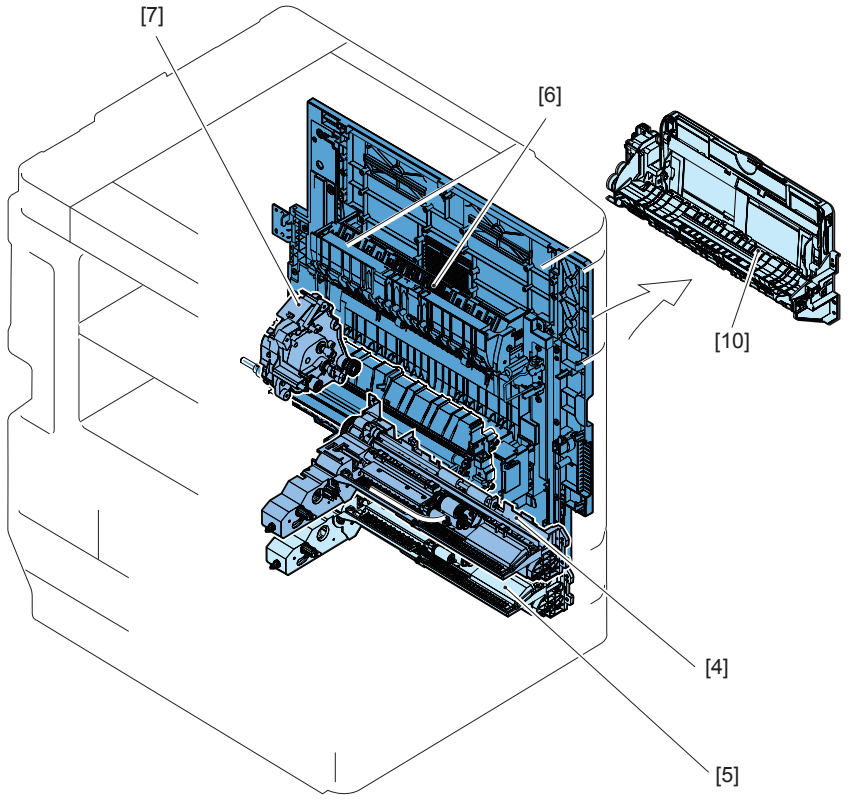
Symbol	Part name	Reference
[15]	Reader Right Cover	p. 4-20
[16]	Reader Rear Cover	p. 4-21
[17]	Rear Cover	p. 4-21
[18]	Lower Rear Cover	p. 4-22
[19]	Rear Right Cover (Upper)	p. 4-23
[20]	Rear Right Cover (Lower)	p. 4-23
[21]	Multi Pickup Assembly	-
[22]	Right Cover	-
[23]	Platen Glass	p. 4-24
[24]	ADF Scan Glass	p. 4-25

T-4-2

List of Main Units / Parts



F-4-3

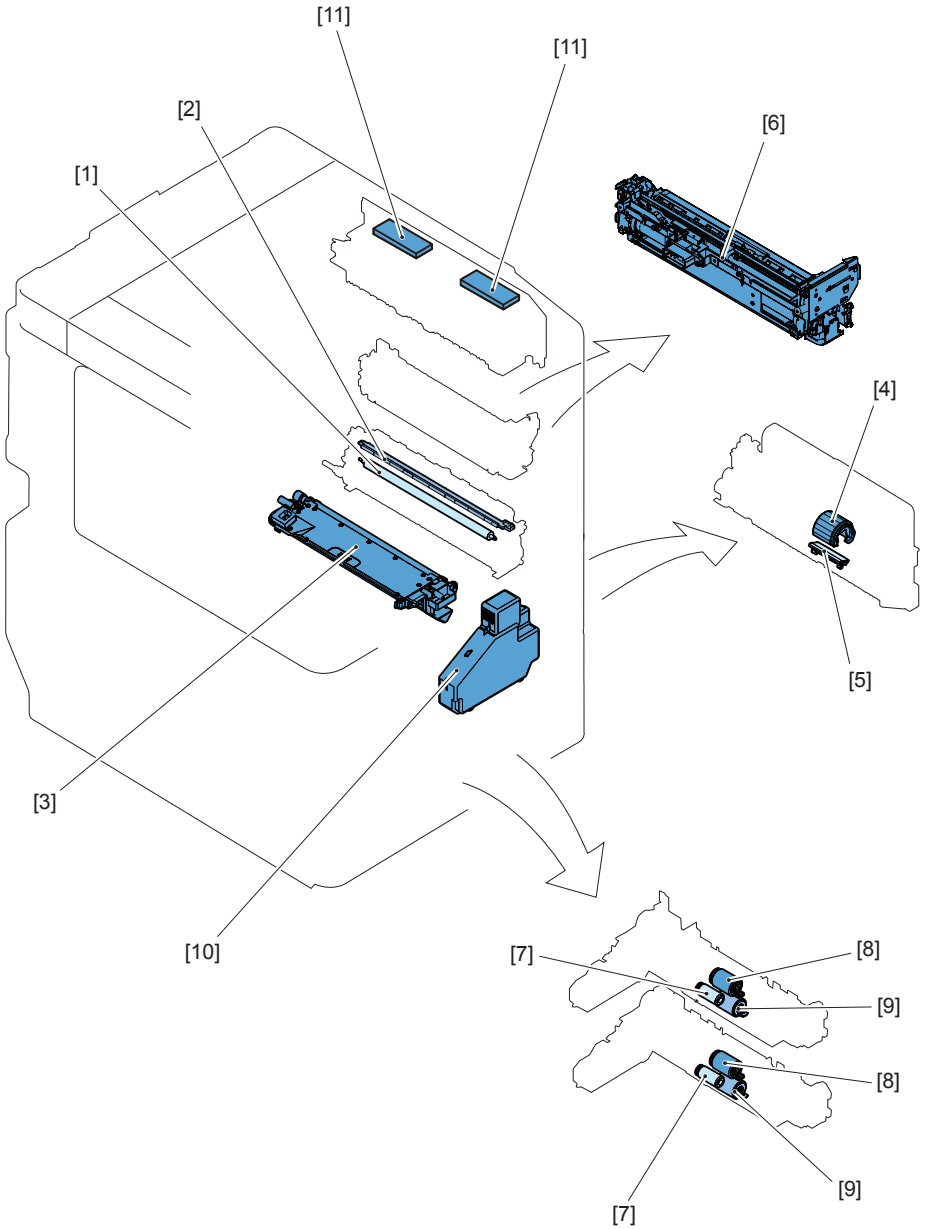


F-4-4

Symbol	Part name	Part number	Reference
[1]	CCD Unit	FM	p. 4-26
[2]	Laser Scanner Unit	FM3-9406 (iR-ADV 4025 SERIES), FM3-9407 (iR-ADV 4051,4045,4035 SERIES)	p. 4-45
[3]	Toner Supply Assembly	FM4-7913 (iR-ADV 4051,4045 SERIES), FM4-7914 (iR-ADV 4035,4025 SERIES)	p. 4-53
[4]	Casstte Pickup Assembly(1)	FM4-9175	p. 4-67
[5]	Casstte Pickup Assembly(2)	FM4-9177	p. 4-69
[6]	Right Cover Unit	FM4-9154	p. 4-67
[7]	Main Drive Assembly	FM4-9179	-
[8]	Fixing Assembly	-	p. 4-56
[9]	Developing Assembly	FM4-9730	p. 4-47
[10]	Multi Pickup Assembly	FM4-7333	-

T-4-3

Consumable Parts

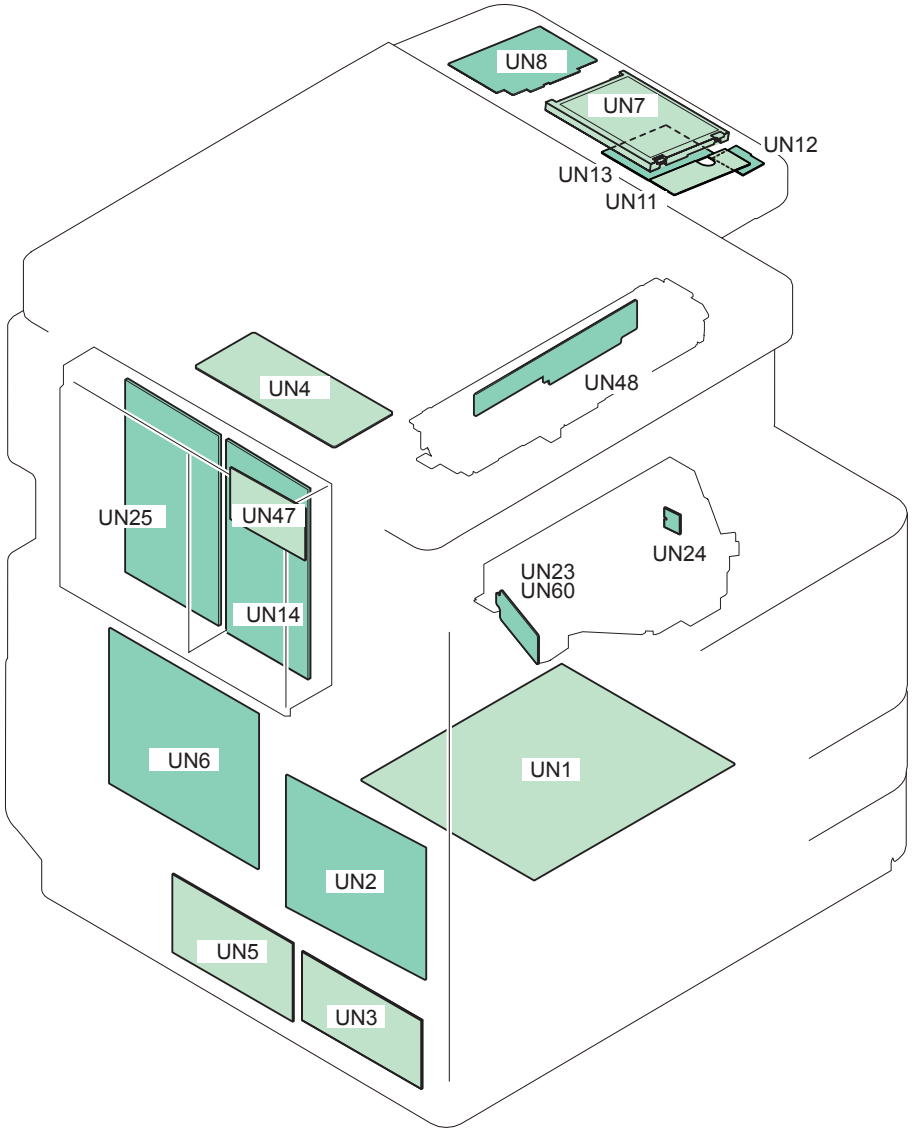


F-4-5

Symbol	Part name	Part number	Reference
[1]	Transfer Roller	FC9-0693	p. 4-50
[2]	Separation Static Eliminator	FM3-9296	p. 4-51
[3]	Developing Assembly	FM4-9730	p. 4-47
[4]	Manual Feed Pickup Roller	FL3-1352	p. 4-69
[5]	Manual Feed Separation Pad	FL3-3469	p. 4-72
[6]	Fixing Main Assembly	FM4-9732(100V_51cpm) FM4-9733(120V_51cpm) FM4-9734(230V_51cpm) FM4-9735(100V_45/35/25cpm) FM4-9736(120V_45/35/25cpm) FM4-9737(230V_45/35/25cpm)	p. 4-57
[7]	Cassette Pickup Roller	FB6-3405(Except for CHN) FC7-9381 (CHN)	p. 4-71
[8]	Cassette Feed Roller	FC6-7083(Except for CHN) FC7-9502(CHN)	p. 4-71
[9]	Cassette Separation Roller	FC6-6661	p. 4-72
[10]	Waste Toner Container	FM3-9276	p. 4-52
[11]	Air Filter	FC0-3078	p. 4-75

T-4-4

List of PCBs

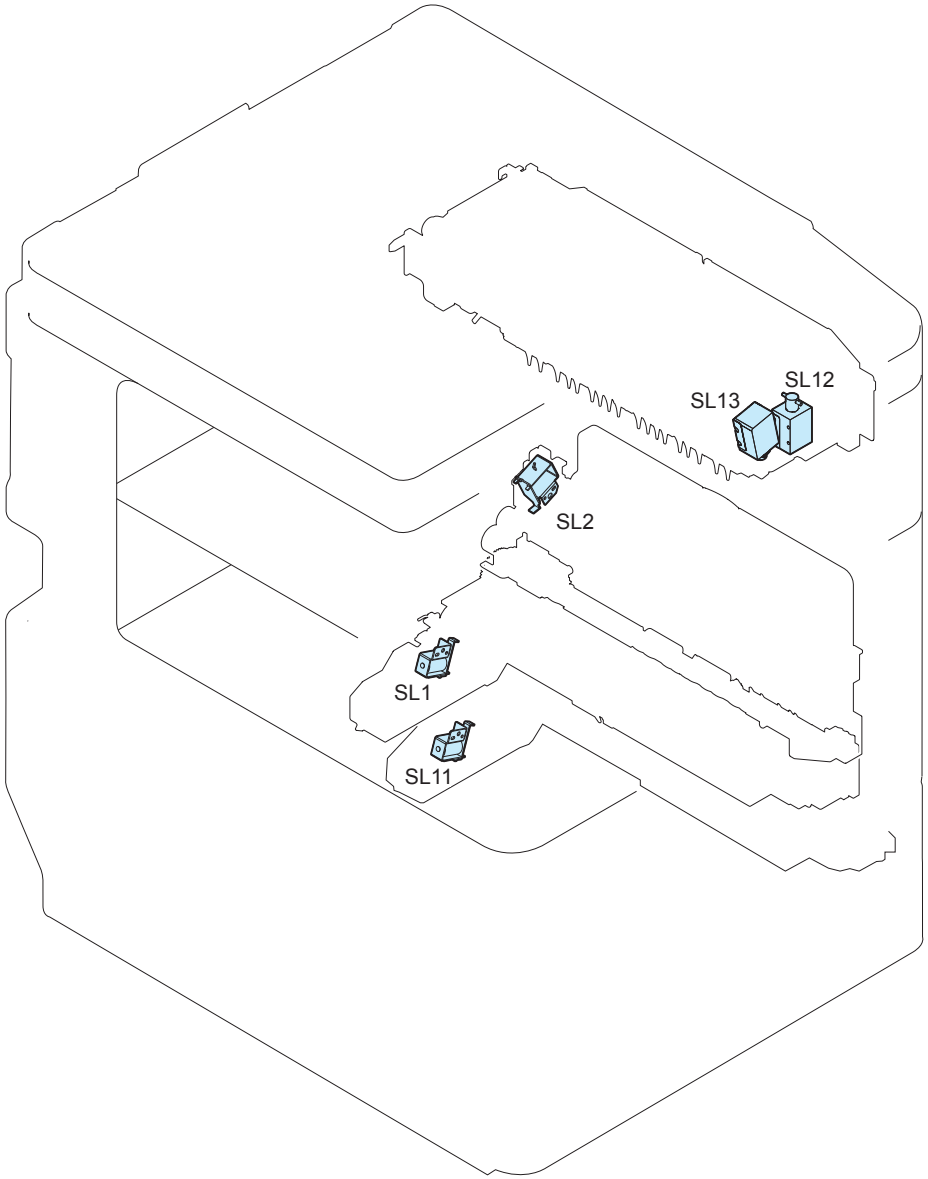


F-4-6

Symbol	Part name	Reference
UN1	Power Supply PCB	
UN2	DC Controller PCB	p. 4-73
UN3	Heater PCB	-
UN4	Reader Controller PCB	p. 4-31
UN5	Option Power Supply PCB	-
UN6	HVT PCB	p. 4-73
UN7	LCD Unit	-
UN8	Key Top PCB Assembly	-
UN11	Sub Key PCB	-
UN12	Volume Key PCB	-
UN13	Control Panel CPU PCB	-
UN14	Main Controller PCB 2	p. 4-36
UN23	Laser Driver PCB (4 Beams)	-
UN24	BD PCB	-
UN25	Main Controller PCB 1	p. 4-35
UN47	Image data analyzer PCB	-
UN48	CCD PCB	-
UN60	Laser Driver PCB (2 Beams)	-

T-4-5

List of Solenoids

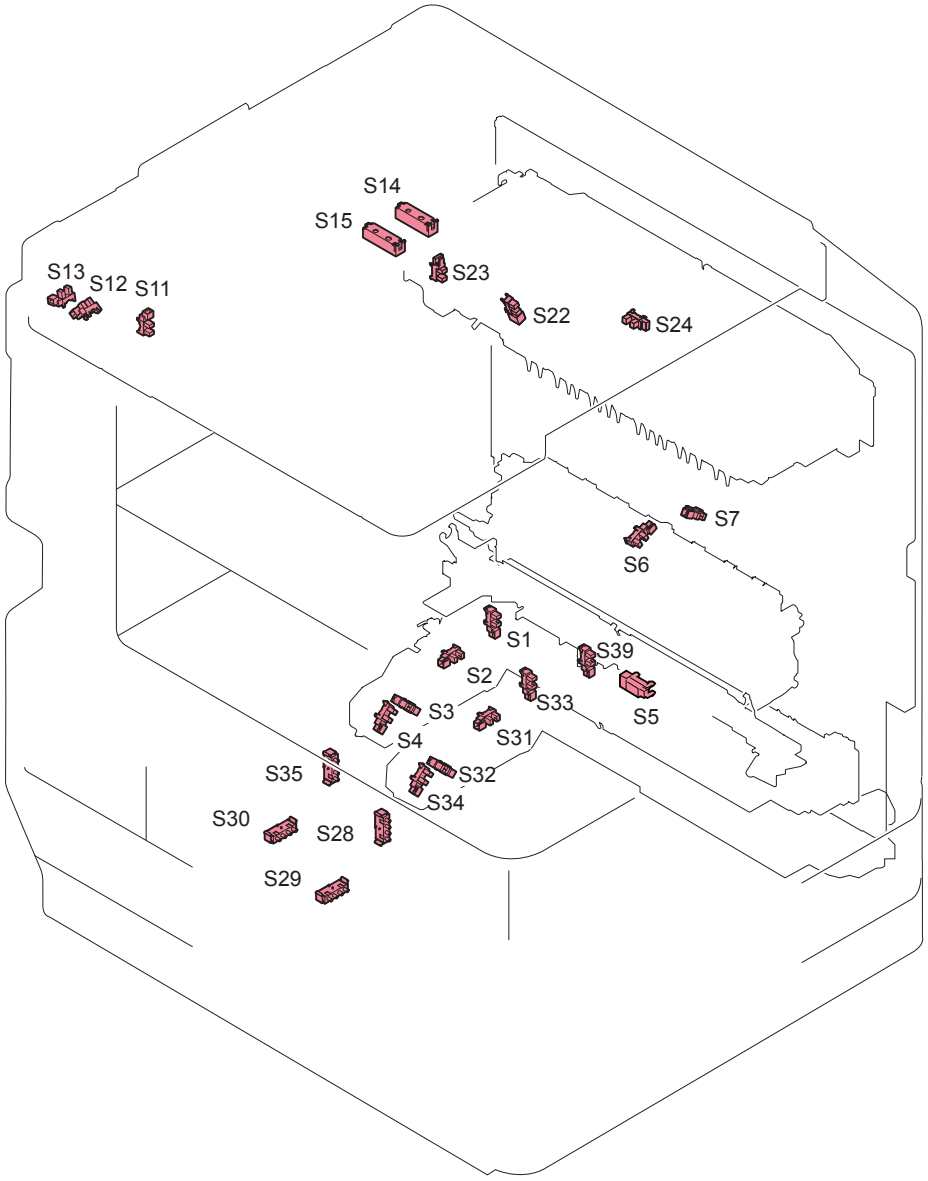


F-4-7

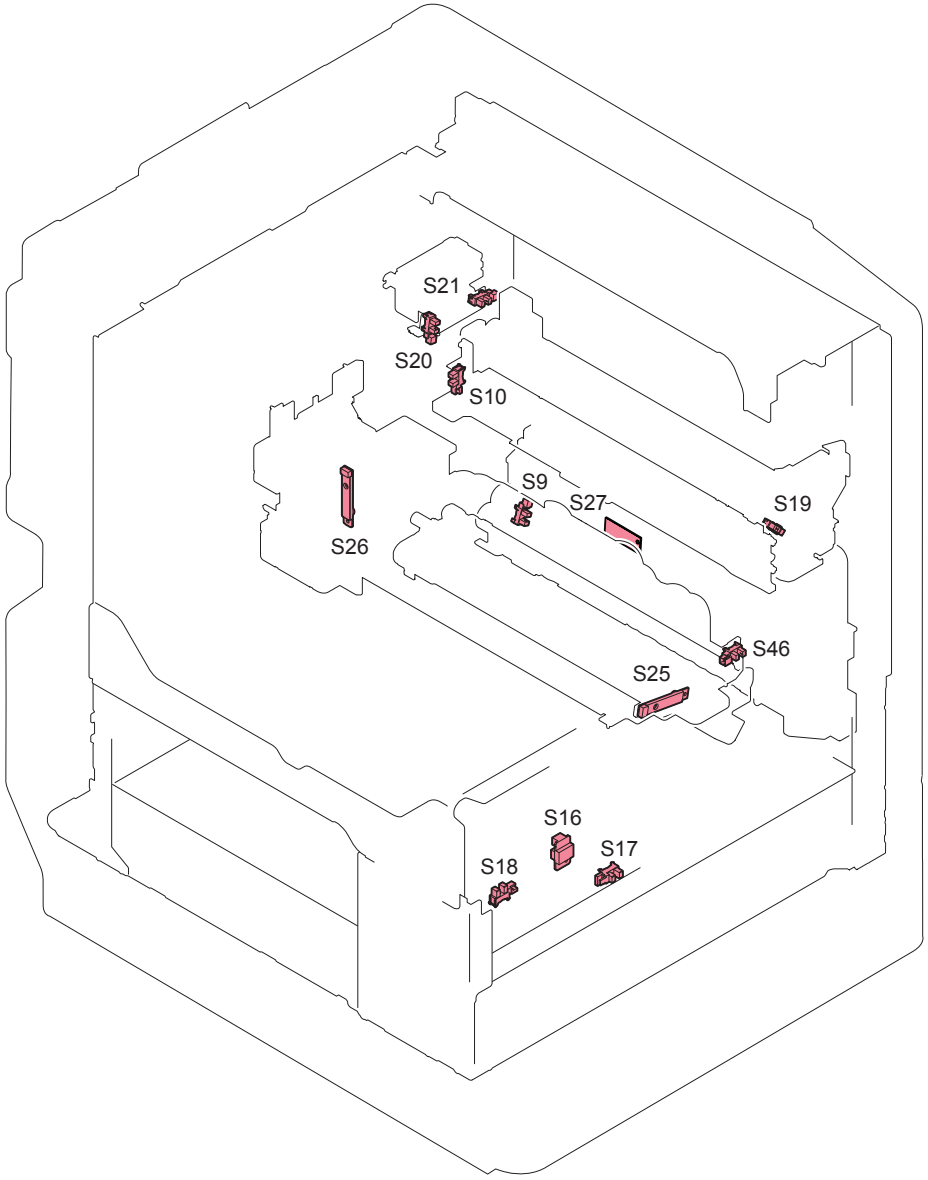
Symbol	Part name	Reference
SL1	Cassette 1 Pickup Solenoid	-
SL2	Manual Feed Pickup Solenoid	-
SL11	Cassette 2 Pickup Solenoid	-
SL12	Reversal Solenoid	-
SL13	No. 2 Delivery Solenoid	-

T-4-6

List of Sensors



F-4-8

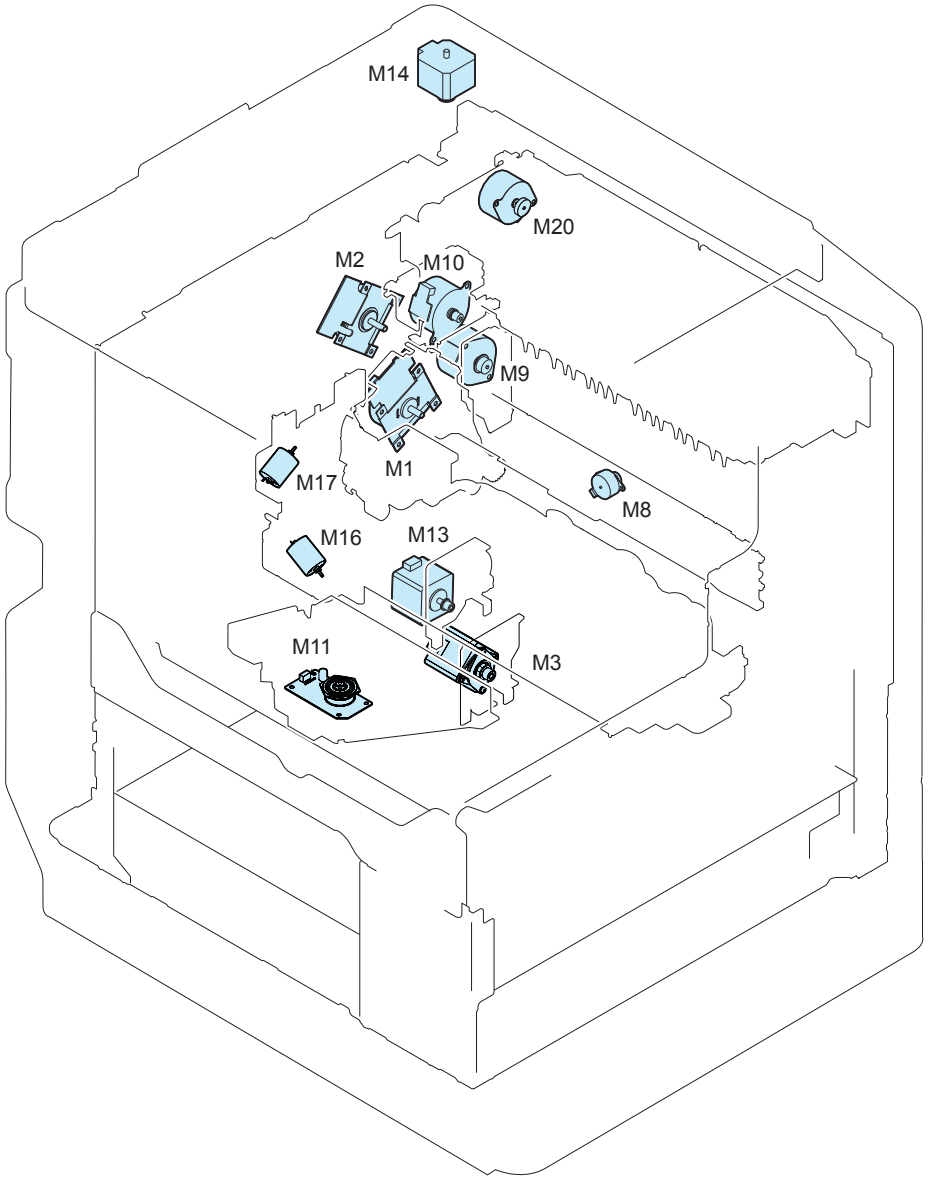


F-4-9

Symbol	Part name	Reference
S1	Cassette 1 Pickup Sensor	-
S2	Cassette 1 Paper Sensor	-
S3	Cassette 1 Paper Level Sensor B	-
S4	Cassette 1 Paper Level Sensor A	-
S5	Pre-Registration Sensor	-
S6	Loop Sensor	-
S7	Duplex Feed Sensor	-
S9	Manual Feeder Paper Sensor	-
S10	Fixing Film Shutter HP Sensor	-
S11	CCD Unit HP Sensor	-
S12	Copyboard Cover Open/Closed Sensor 1	-
S13	Copyboard Cover Open/Closed Sensor 2	-
S14	Original Size Sensor 2	-
S15	Original Size Sensor 1	-
S16	Enviorment Sensor	-
S17	Waste Toner Sensor	-
S18	Front Cover Open/Closed Sensor	-
S19	Fixing Outlet Sensor	-
S20	No.1 Delivery Full Sensor	-
S21	No.1 Delivery Sensor	-
S22	No.2 Delivery Sensor	-
S23	No.2 Selivery Full Sensor	-
S24	Reversal Sensor	-
S25	Developing Assembly Toner Sensor	-
S26	Sub Hopper Toner Sensor	-
S27	Manual Feeder Paper Size Sensor	-
S28	Cassette 2 Paper Width Detection Switch	-
S29	Cassette 2 Paper Length Detection Switch	-
S30	Cassette 1 Paper Length Detection Switch	-
S31	Cassette 2 Paper Sensor	-
S32	Cassette 2 Paper Level Sensor A	-
S33	Cassette 2 Pickup Sensor	-
S34	Cassette 2 Paper Level Sensor B	-
S35	Cassette 1 Paper Width Detection Switch	-
S39	Cassette Cover Sensor	-
S46	Toner Cover Open/Closed Sensor	-

T-4-7

List of Motors

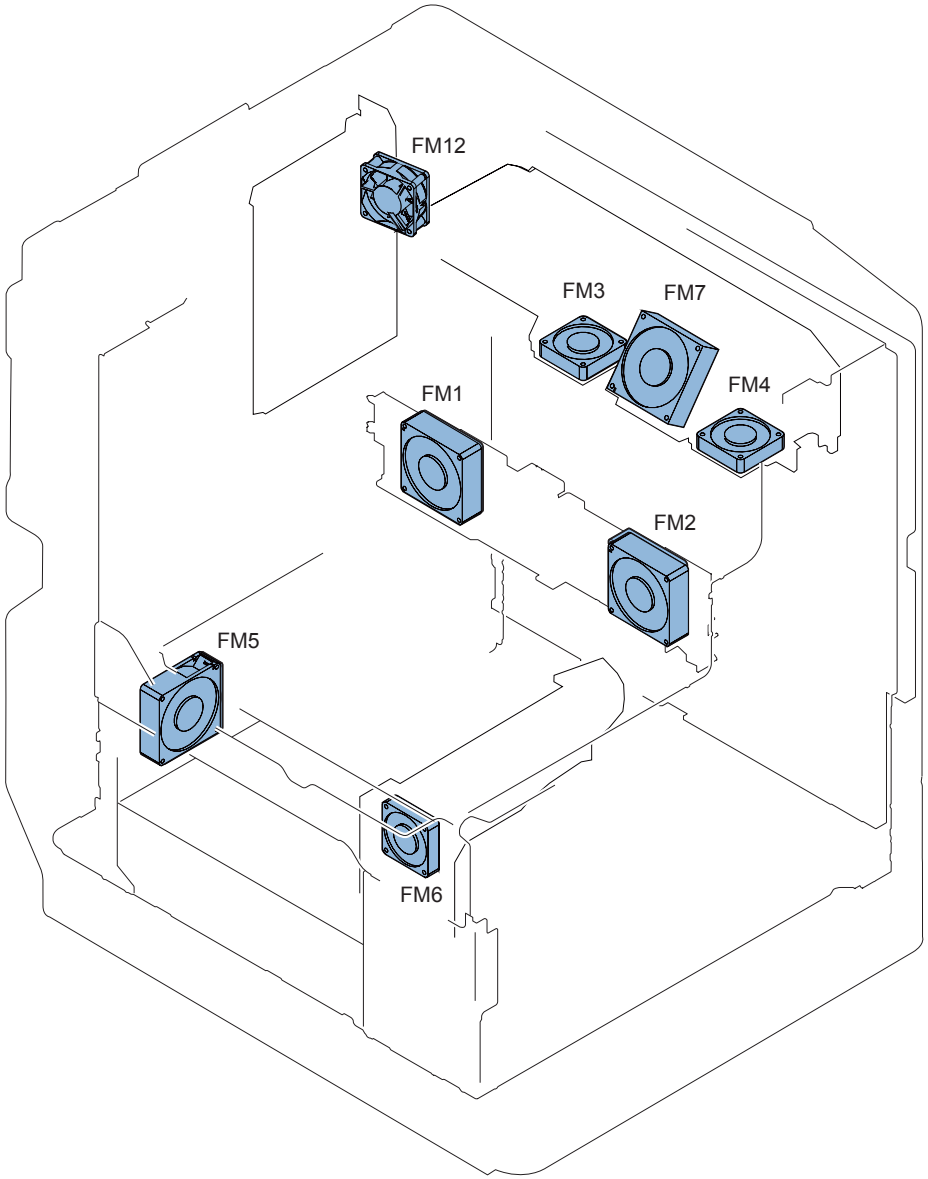


F-4-10

Symbol	Part name	Reference
M1	Main Motor	-
M2	Fixing Motor	-
M3	Cassette 2 Pickup Motor	-
M8	Fixing Film Shutter Motor	-
M9	Duplex Feed Motor	-
M10	No.1 Delivery Motor	-
M11	Polygon Motor	-
M13	Cassette 1 Pickup Motor	-
M14	Reader Motor	-
M16	Hopper Motor	-
M17	Bottle Motor	-
M20	Reversal Motor	-

T-4-8

List of Fans

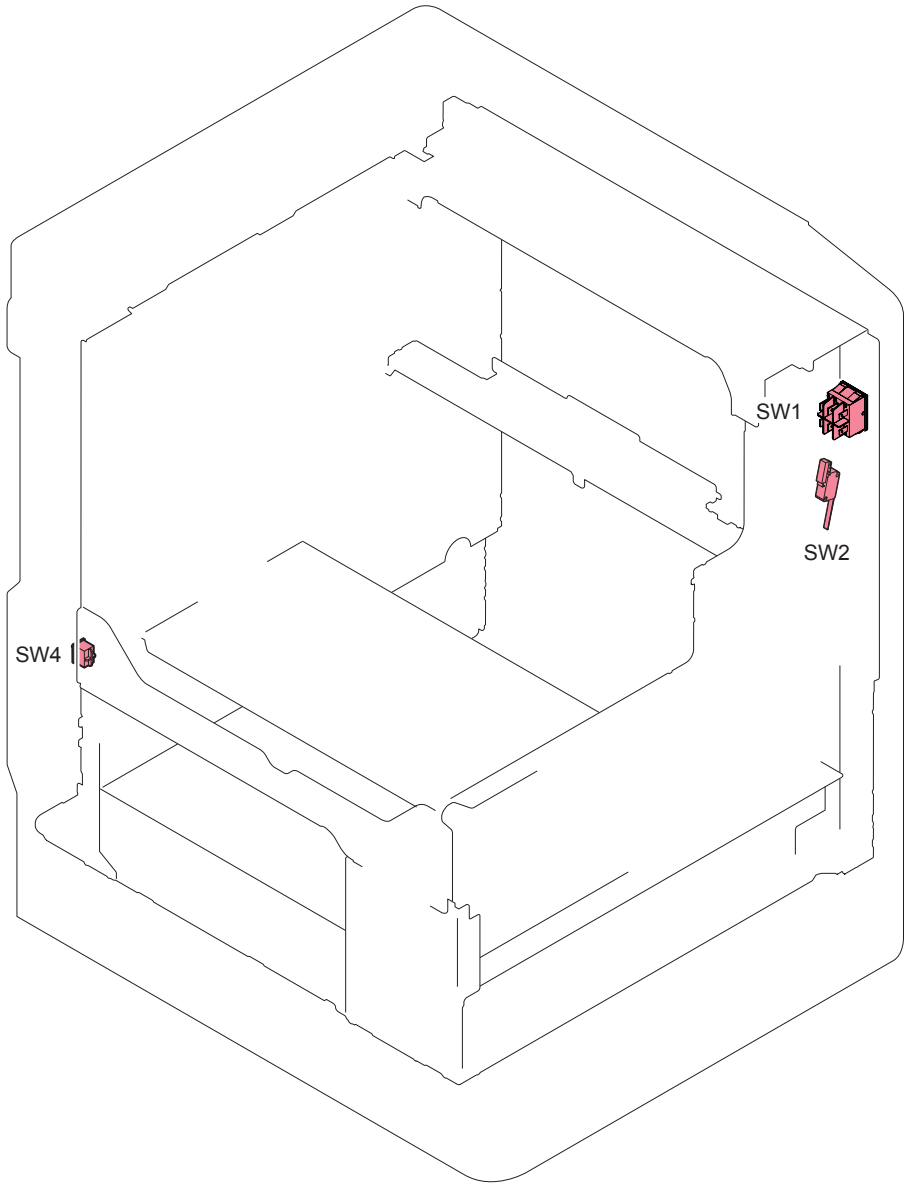


F-4-11

Symbol	Part name	Reference
FM1	Fixing Film Cooling Fan (Rear)	-
FM2	Fixing Film Cooling Fan (Front)	-
FM3	Exhaust Fan (Rear)	-
FM4	Exhaust Fan (Front)	-
FM5	Power Supply Cooling Fan	-
FM6	Main Body Cooling Fan	-
FM7	Paper Cooling Fan	-
FM12	Controller Cooling Fan	-

T-4-9

List of Switches

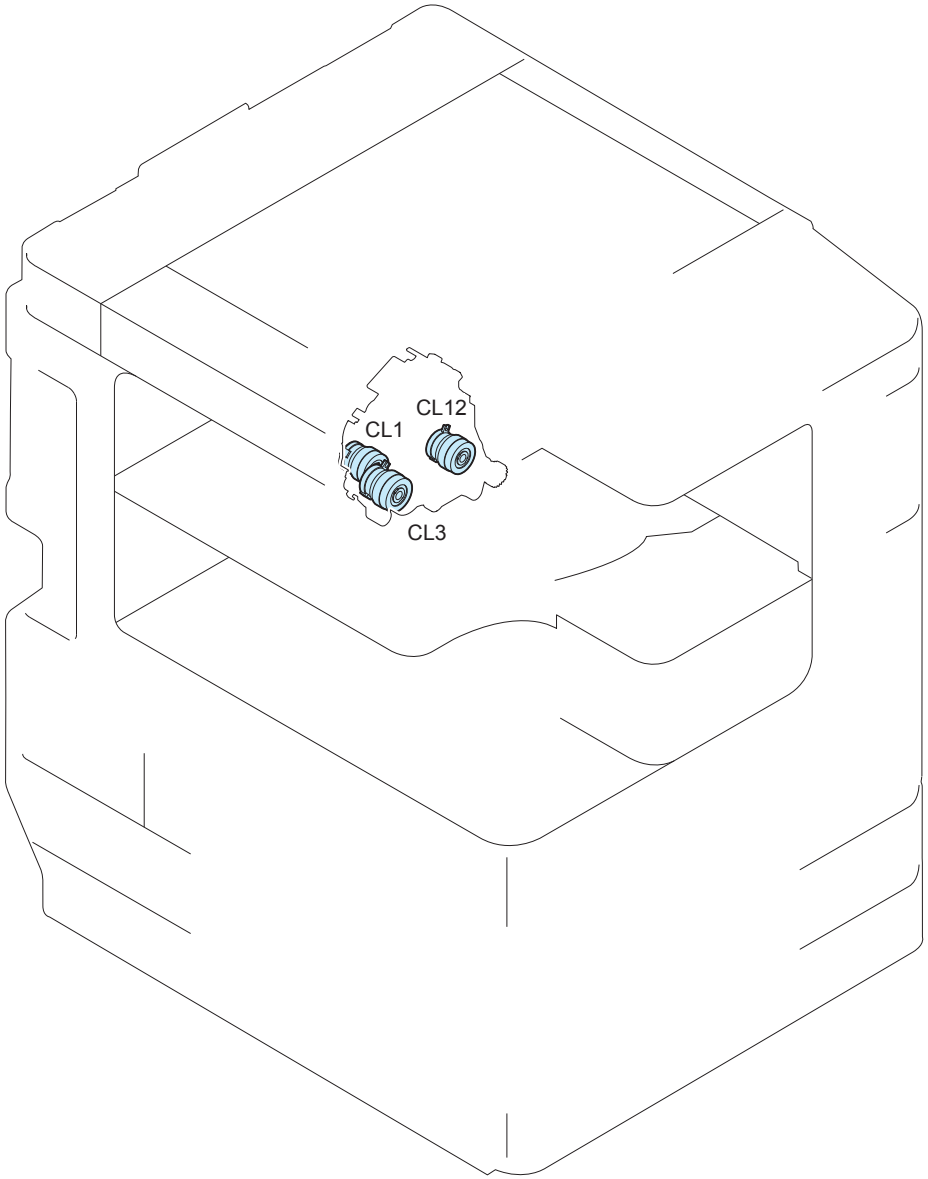


F-4-12

Symbol	Part name	Reference
SW1	Main Switch	-
SW2	Front Door Switch	-
SW4	Enviorment Switch	-

T-4-10

List of Clutches

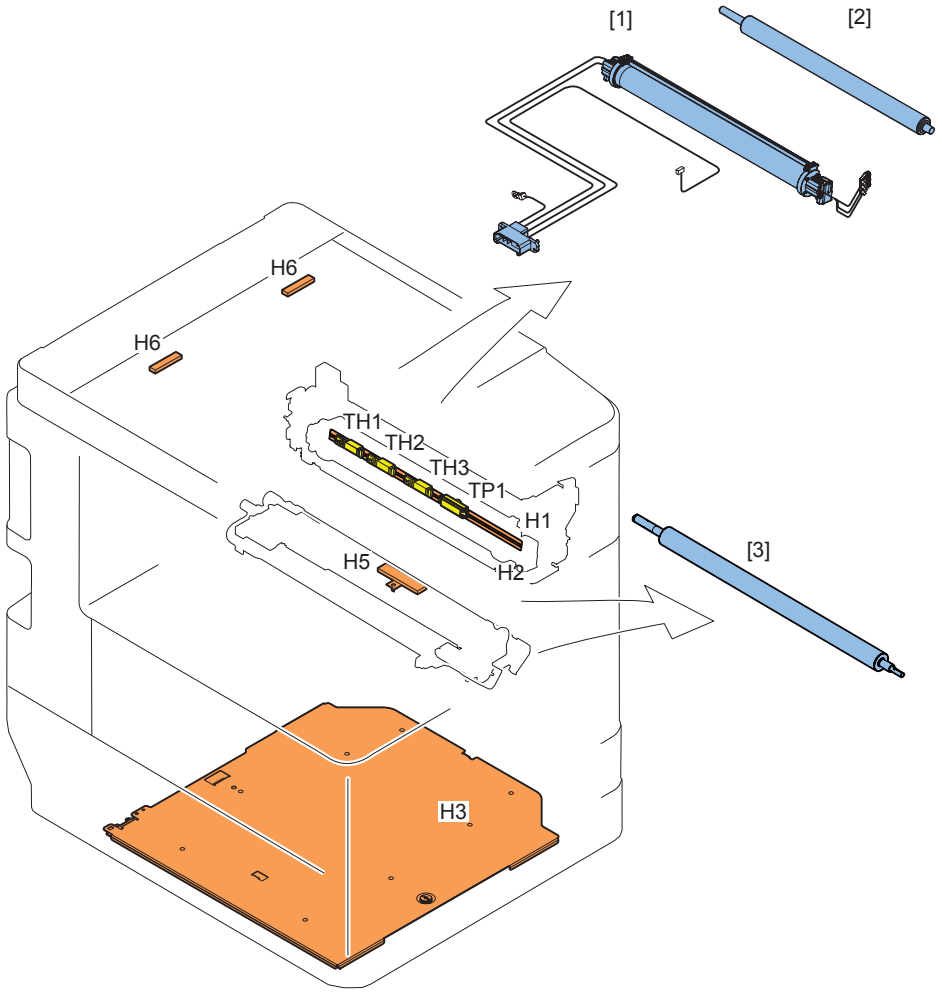


F-4-13

Symbol	Part name	Reference
CL1	Developing Cylinder Clutch	-
CL3	Registration Clutch	-
CL12	Manual Feed Pickup Clutch	-

T-4-11

Others



F-4-14

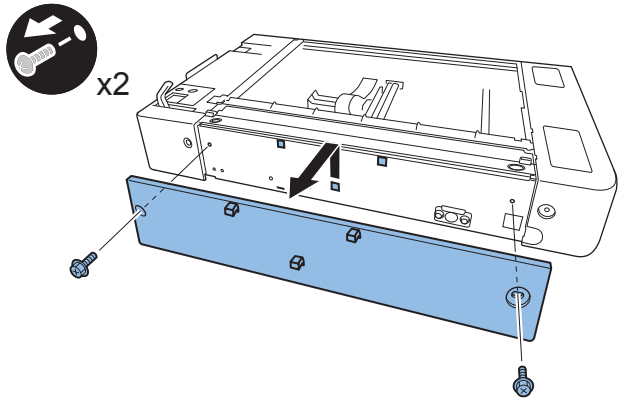
Symbol	Part name	Reference
[1]	Fixing Film Unit	p. 4-58
[2]	Pressure Roller	p. 4-64
[3]	Developing Cylinder	p. 4-48
TH1	Fixing Main Thermistor	-
TH2	Fixing Sub Thermistor 1	-
TH3	Fixing Sub Thermistor 2	-
H1	Fixing Heater 1	-
H2	Fixing Heater 2	-
H3	Cassette Heater	-
H5	Drum Heater (Option)	-
H6	Reader Heater (Option)	-
TP1	Thermal Switch	-

T-4-12

External Covers

Removing the Reader Left Cover

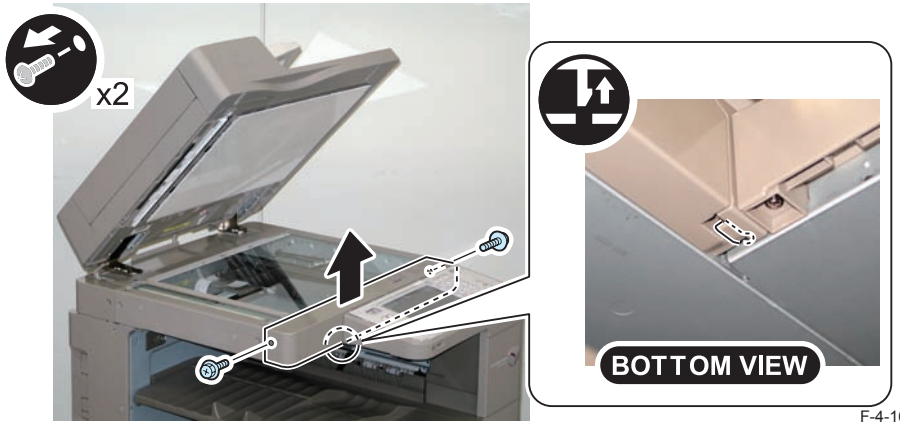
1) Remove the reader left cover.
- 2 Screws



F-4-15

Removing the Reader Front Cover

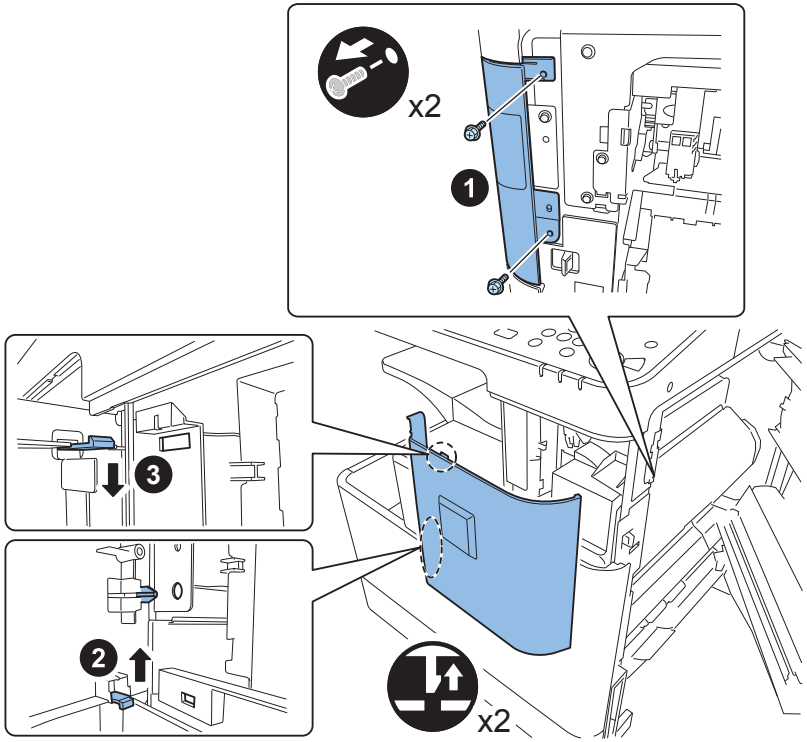
1) Open the ADF and remove the Reader Front Cover while pushing the claw at the bottom of the cover.
- 2 Screws
- 1 Claw



F-4-16

Removing the Support Cover

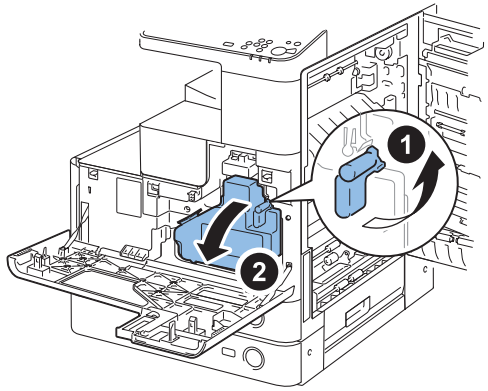
1) Open the front cover.
2) Open the right cover.
3) Remove the support cover.
- 2 Screws
- 2 Claws



F-4-17

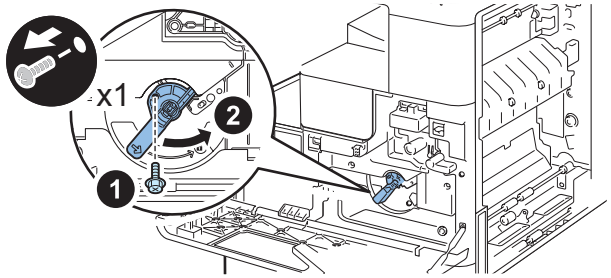
Removing the Toner Supply Cover

1) Open the front cover.
2) Open the right cover.
3) Turn the lock lever as shown to release the lock of the waste toner container.
4) Remove the waste toner container.



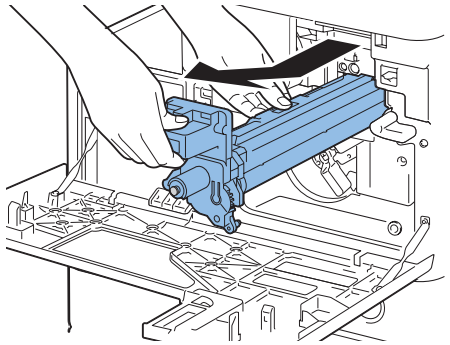
F-4-18

5) Remove the screw securing the developing assembly pressure lever.
6) Turn the lever in the direction of the arrow to release the drum unit lock.



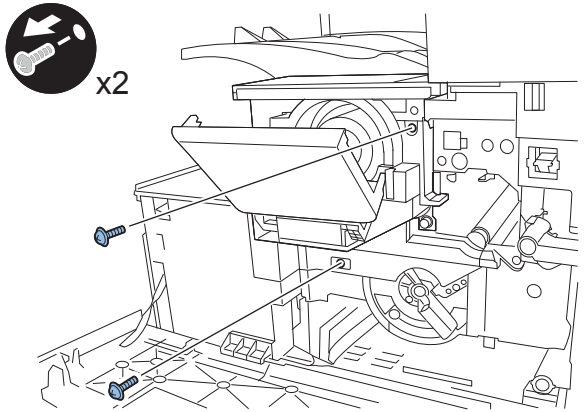
F-4-19

7) Remove the drum unit.



F-4-20

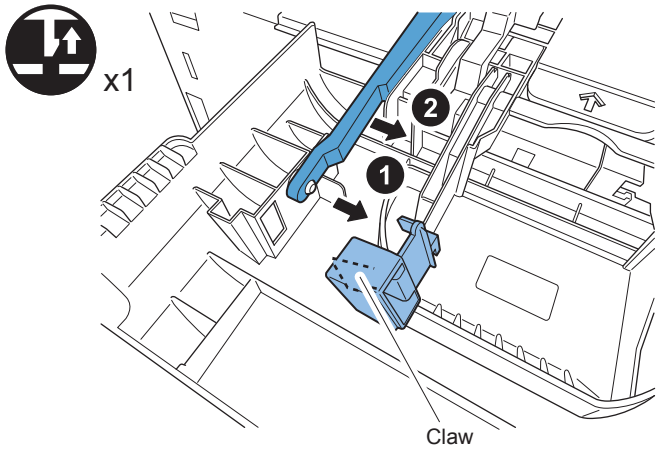
8) Open the toner supply cover.
9) Remove the toner container.
10) Remove the 2 Screws.



F-4-21

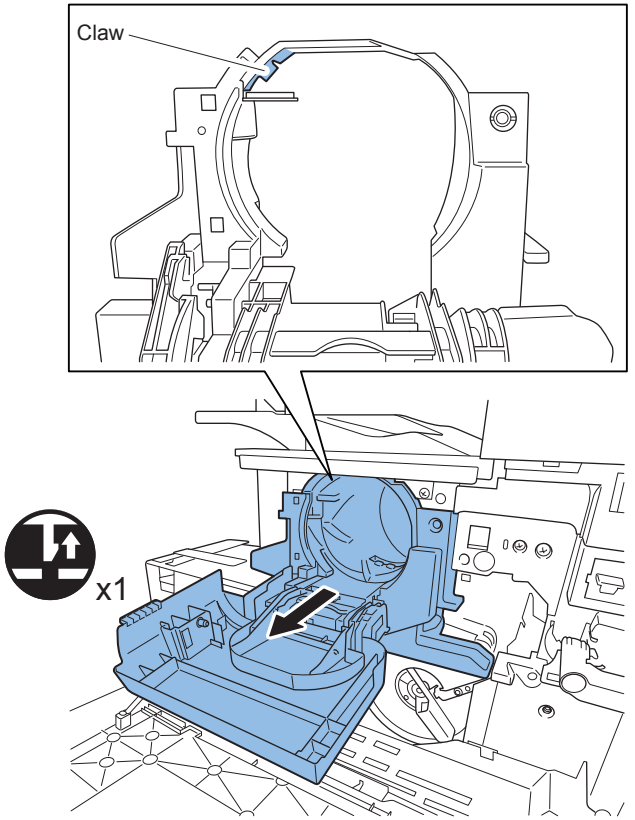
11) Remove the link cover.
- 1 Claw

12) Disengage the Link Lever from the shaft.



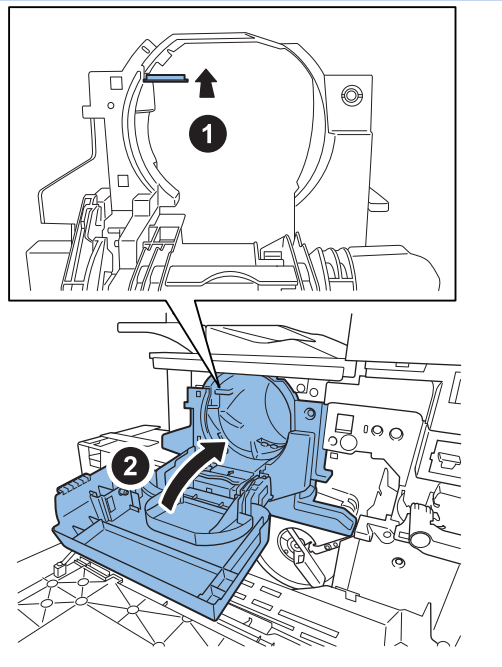
F-4-22

13) Remove the toner supply cover.
- 1 Claw



F-4-23

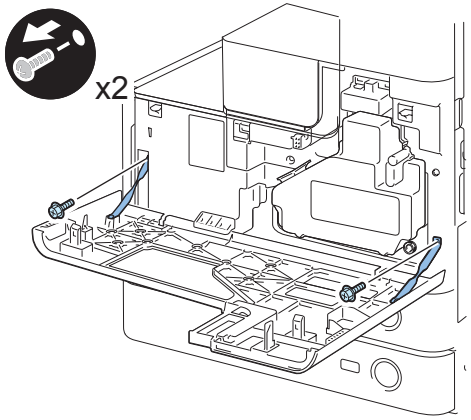
NOTE:
When closing the toner cover without the toner container, push the lock release lever.



F-4-24

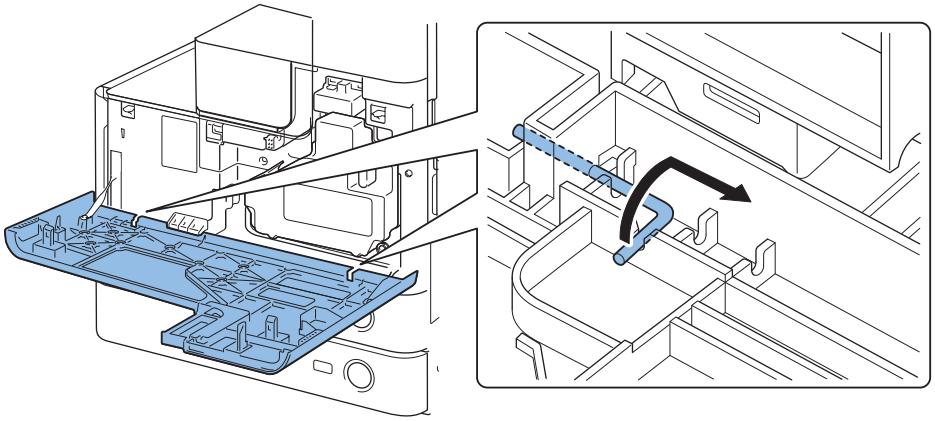
Removing the Front Cover

1) Open the front cover.
2) Remove the front cover belt.
- 2 Screws



F-4-25

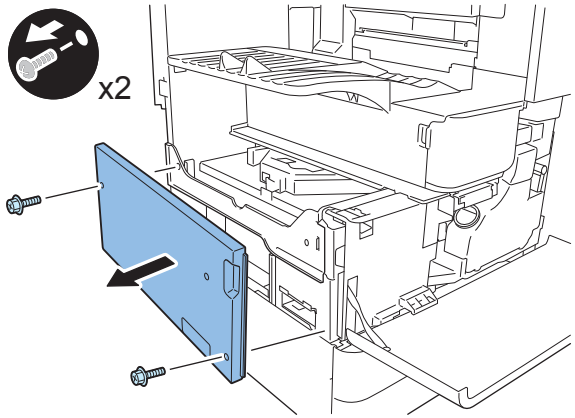
3) Remove the front cover.
- 2 Hinge Pins



F-4-26

Removing the Left Cover

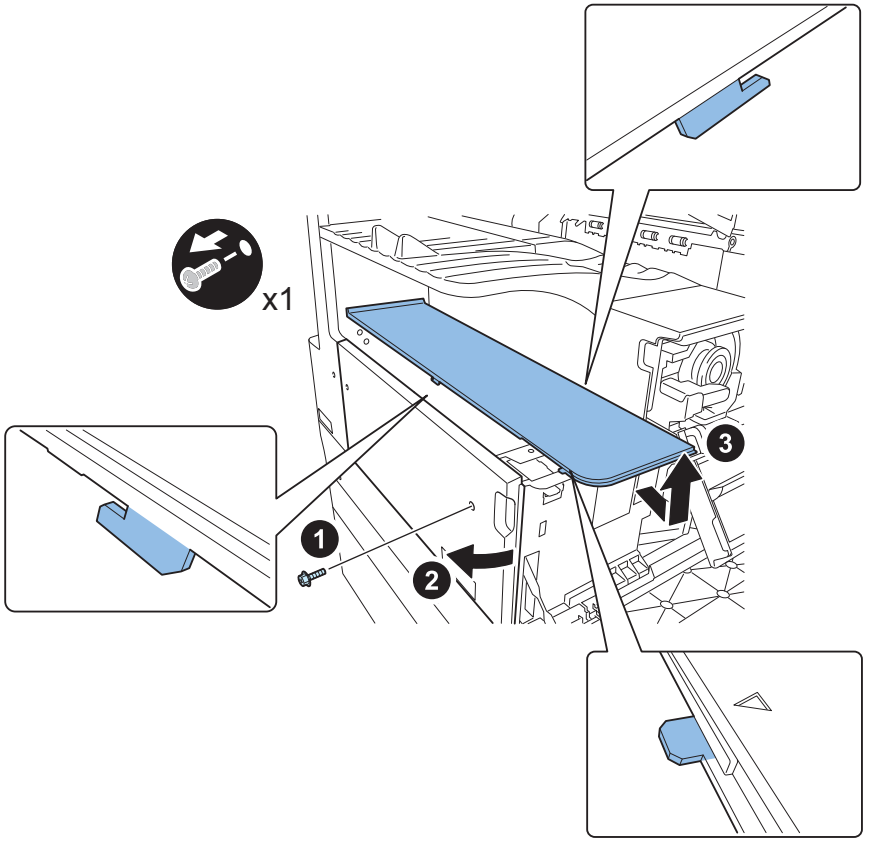
1) Open the front cover.
2) Remove the inside base cover. (Refer to page 4-19)
3) Remove the left cover.
- 2 Screws



F-4-27

Removing the Inside Base Cover

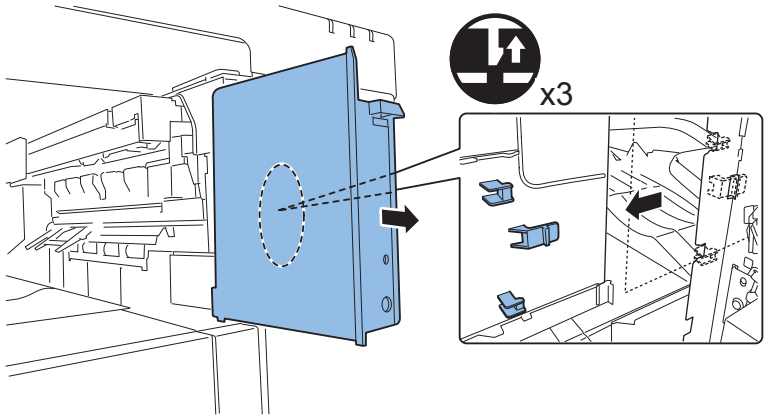
1) Open the front cover.
2) Bend the left cover and remove the inside base cover.
- 1 Screw



F-4-28

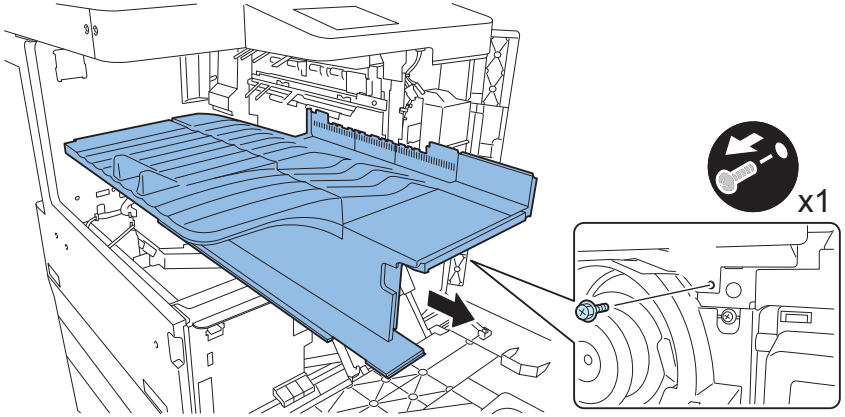
Removing the Delivery Tray

1) Remove the support cover. (Refer to page 4-15)
2) Remove the toner supply cover. (Refer to page 4-16)
3) Remove the inside base cover. (Refer to page 4-19)
4) Remove the support cover (left).



F-4-29

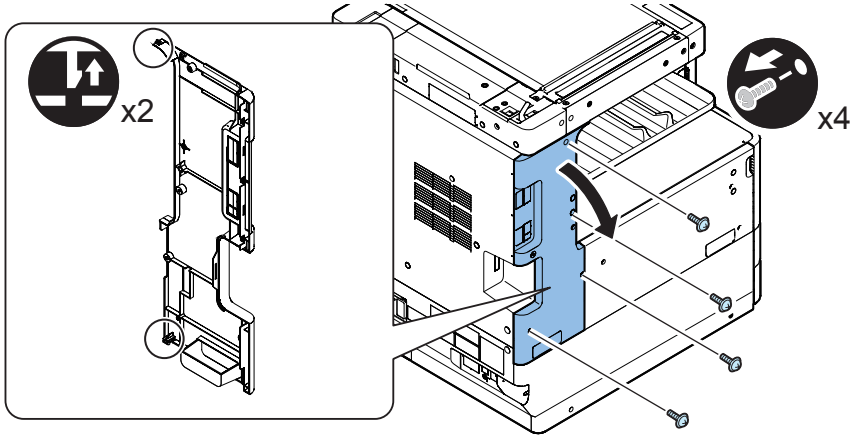
5) Remove the delivery tray.
- 1 Screw



F-4-30

Removing the Left Rear Cover

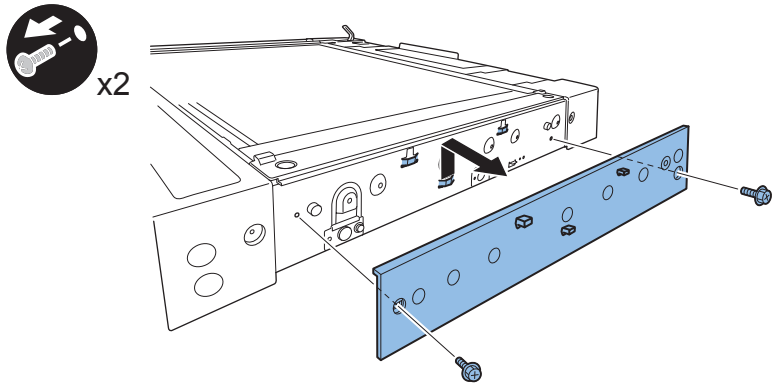
1) Remove the left rear cover.
- 4 Screws
- 2 Claws



F-4-31

Removing the Reader Right Cover

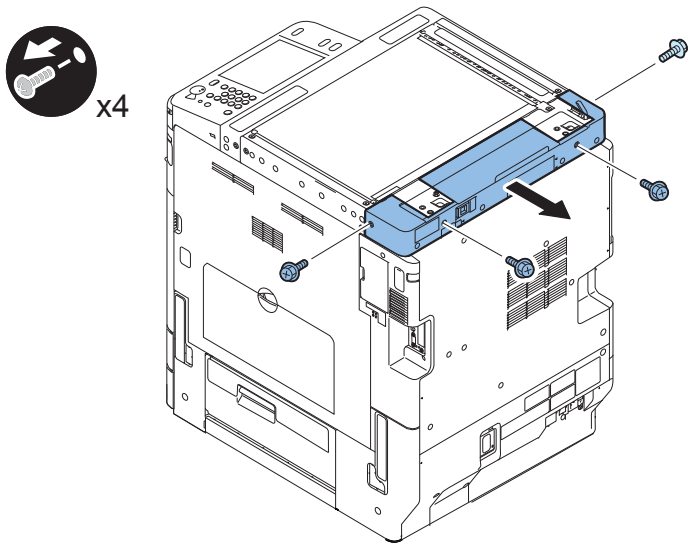
1) Remove the reader right cover.
- 2 Screws



F-4-32

Removing the Reader Rear Cover

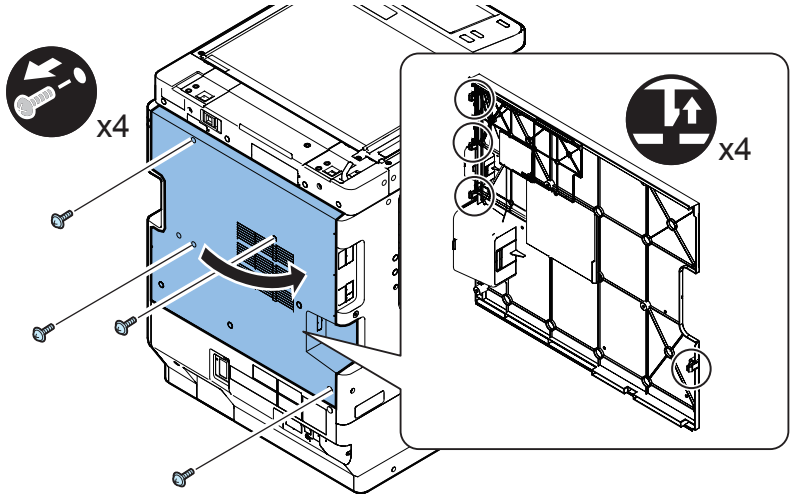
1) Open the platen cover (ADF/platen board cover).
2) Remove the ADF cable.
3) Remove the reader rear cover.
- 4 Screws



F-4-33

Removing the Rear Cover

1) Remove the rear cover.
- 4 Screws
- 4 Claws



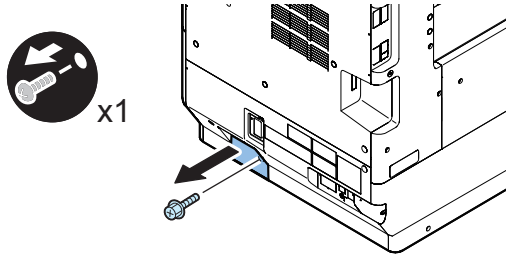
F-4-34

MEMO:
When installing the rear cover, tighten the screws in the following order: upper left, lower left, upper right, and then lower right.

Removing the Lower Rear Cover

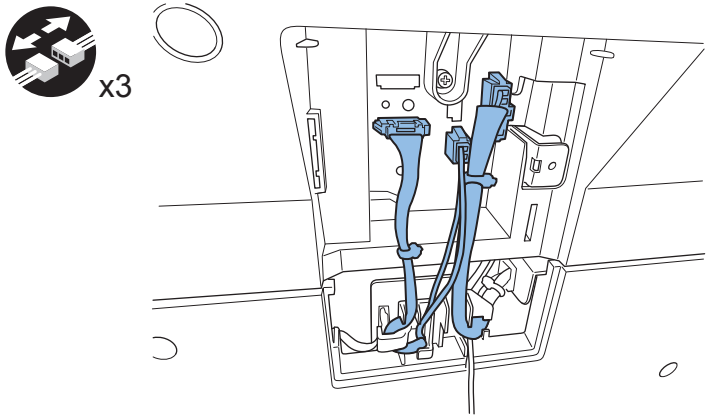
1) Remove the connector cover.

- 1 Screw



F-4-35

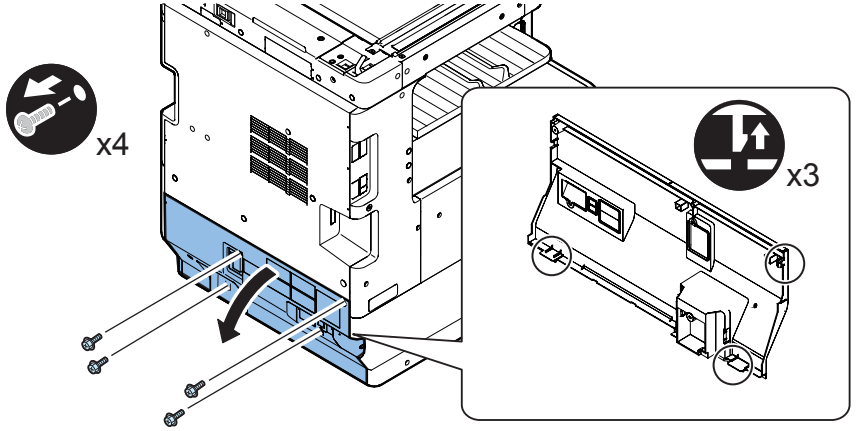
2) When the cassette pedestal is installed, remove the connector.



F-4-36

3) Remove the lower rear cover.

- 4 Screws
- 3 Claws

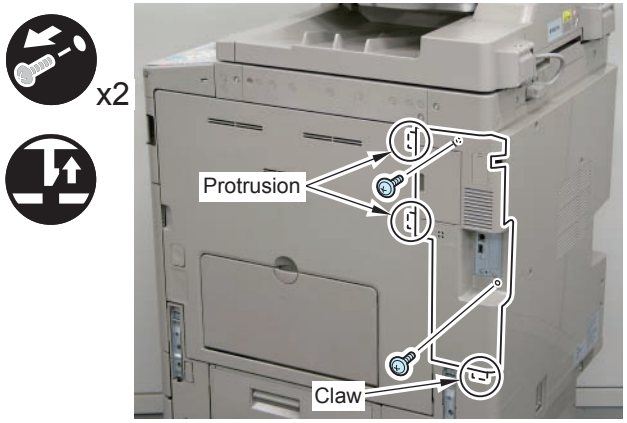


F-4-37

Removing the Rear Right Cover (Upper)

1) Remove the rear right cover (upper).

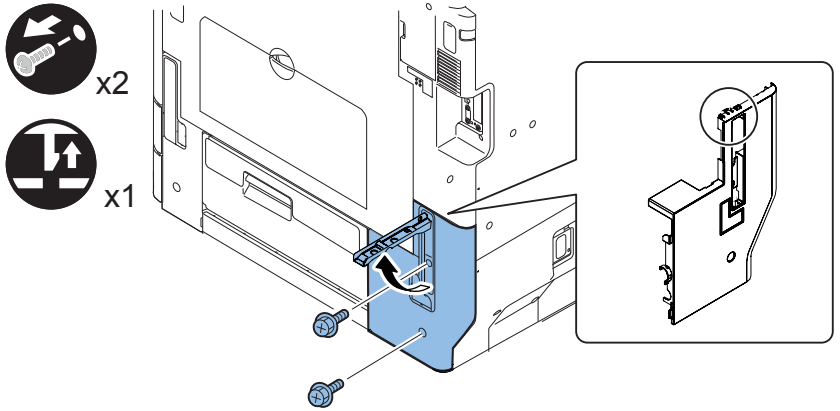
- 2 Screws
- 2 Protrusions
- 1 Claw



F-4-38

Removing the Rear Right Cover (Lower)

1) Remove the handle cover.
2) Open the Cassette right cover(upper).
3) Raise the handle at the rear right, and then remove one screw.
4) Release one claw with a flat-blade screwdriver, and then remove the rear right cover (lower).



F-4-39

Original Exposure System (Reader)

Removing the Platen Glass

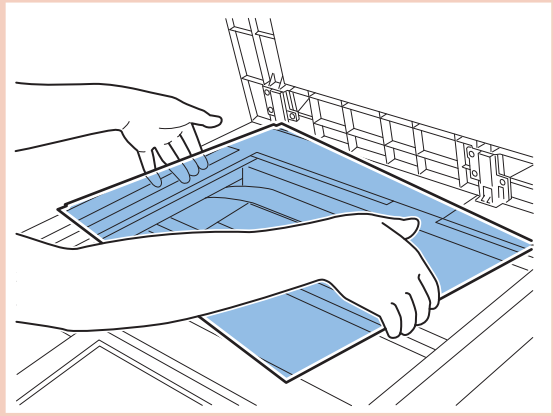
CAUTION:

When removing the platen glass, take care not to touch the following parts with your fingers:

- Glass surface
- Standard white plate

Soils on these parts may cause white/black lines on images.

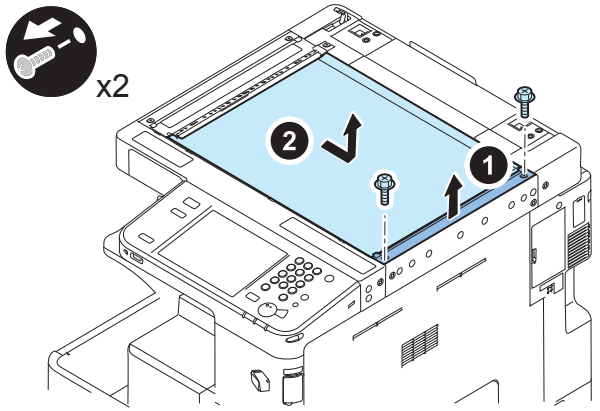
If they are soiled, clean them with a lint-free paper moistened with alcohol.



F-4-40

<Procedure>

1) Open the platen cover (platen board cover/ADF).
2) Remove the glass retainer.
- 2 screws



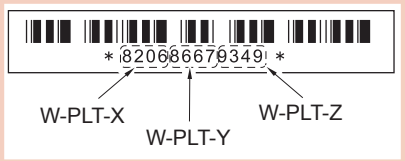
F-4-41

<Processing after replacing the parts>

Take the action stated below in the service mode.

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-4-42

1. Enter the value indicated on the platen glass in the following service mode:
   (Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (Input of standard white plate data)
2. Enter the service mode, and then select the following:
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1
   Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
2) Place a sheet of paper that the user usually uses on the DF, enter the following

servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

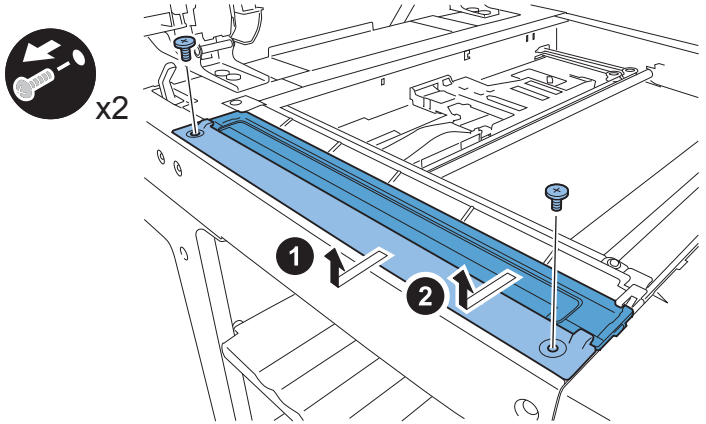
3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)

4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

Removing the ADF Scan Glass

CAUTION:
- When removing the ADF scan glass, take care not to touch the glass surface with bare hand.
- Soils on the glass surface may cause white/black lines on images.
- If the glass surface is soiled, clean them with a lint-free paper moistened with alcohol.

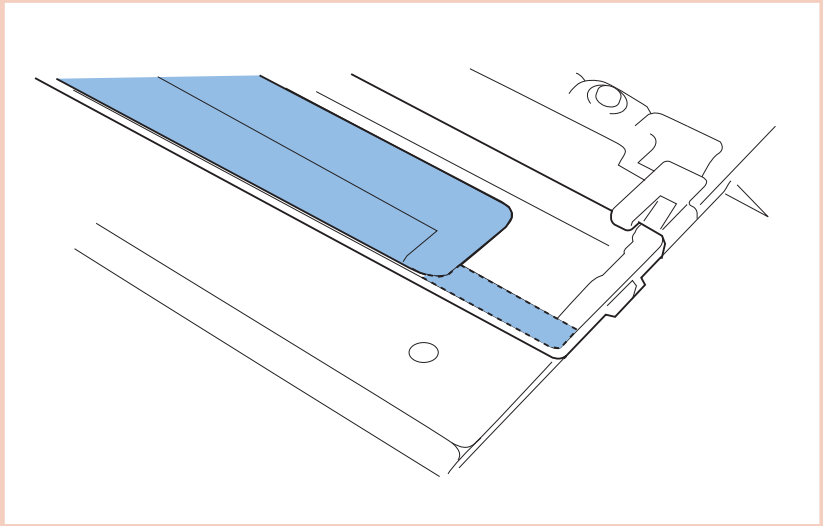
<Procedure>
1) Open the platen cover (platen board cover/ADF).
2) Remove the glass retainer.
- 2 screws
3) Remove the ADF scan glass.



F-4-43

CAUTION:

- Be sure to install the ADF scan glass so that its sheet comes to the front and left side of the glass.



F-4-44

<Processing after replacing the parts>

1. Enter the service mode, and then select the following:
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1
   Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
2) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2
   Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)
3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3
   Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4
   Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

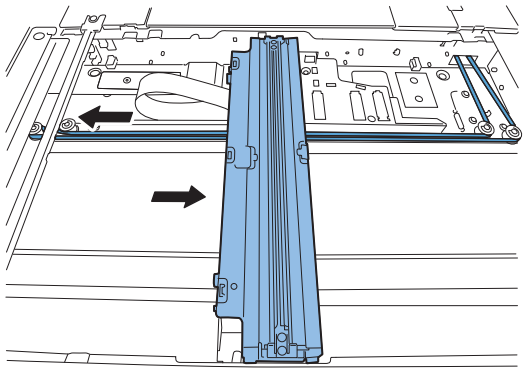
Removing the CCD Unit

<Preparation>

1) Backup of the Service Mode data
   (Lv.2) COPIER> FUNCTION> SYSTEM> RSRAMBUP

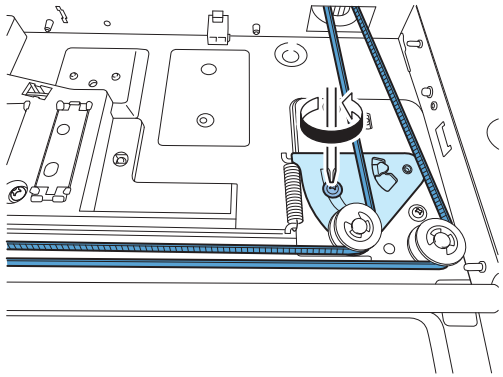
<Procedure>

1) Open the platen cover (ADF/platen board cover).
2) Remove the platen glass. (Refer to page 4-24)
3) Move the belt and move the CCD Unit to the position where the machine frame is cut out.



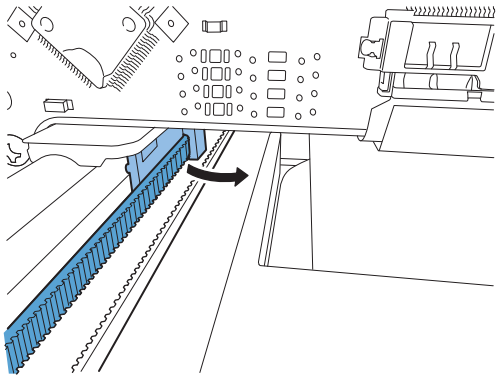
F-4-45

5) Loosen the screw, and then loosen the belt.



F-4-46

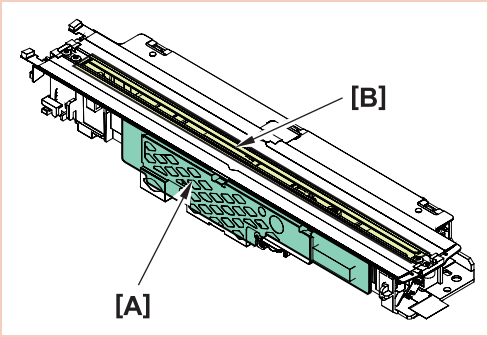
6) Unload the belt from the fixture in the bottom of the CCD Unit.



F-4-47

CAUTION:

- Do not touch the PCB [A].
- Do not touch the LED area [B] on the CCD unit.

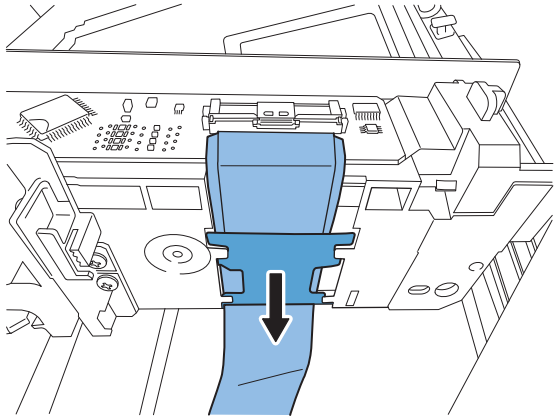


F-4-48

7) Remove the CCD unit.

- Cable retainer
- CCD flexible cable





F-4-49

<Processing after replacing the parts>

NOTE:
The EEPROM on the CCD PCB memorizes the reader-related service mode.
The CCD unit of the service part is supplied in the state that adjustment value was written.

1.If uploading of backup data succeeds before replacement

1) Restoring the backup data
(Lv.2) COPIER>FUNCTION>SYSTEM>RSRAMRES

2) Input the service label value packaged in the service parts content.
When changing the setting value, write a changed value in the service label inside the reader rear cover.

COPIER> ADJUST> CCD>	(Lv.1)	MTF3-M1
	(Lv.1)	MTF3-M2
	(Lv.1)	MTF3-M3
	(Lv.1)	MTF3-M4
	(Lv.1)	MTF3-M5
	(Lv.1)	MTF3-M6
	(Lv.1)	MTF3-M7
	(Lv.1)	MTF3-M8
	(Lv.1)	MTF3-M9
	(Lv.1)	100-RG
	(Lv.1)	100-GB
	(Lv.1)	50-RG
	(Lv.1)	50-GB
	(Lv.1)	100-RG-2
	(Lv.1)	100-GB-2
	(Lv.1)	50-RG-2
	(Lv.1)	50-GB-2
	(Lv.1)	100-RG-3
	(Lv.1)	100-GB-3
	(Lv.1)	50-RG-3
	(Lv.1)	50-GB-3

T-4-13

3) Make an output of P-PRINT.
(Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT

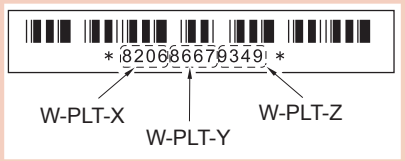
4) Store the outputted P-PRINT into the service book.

5) After turning OFF/ON the power, make a copy and check the copied image.

2.If uploading of backup data fails before replacement

1) Enter the value indicated on the platen glass in the following service mode:
(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (Input of standard white plate data)

CAUTION:
Be sure to make the white plate data adjustment before ADF white level adjustment.



F-4-50

2) Perform the following in the service mode:
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

2-1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)

2-2) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

2-3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)

2-4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

3) Enter the service mode, and then select the following:
(Lv.1) COPIER> FUNCTION> INSTALL> STRD-POS CCD (stream reading position

adjustment)

4) Adjust tray width. Perform either AB system or Inch system.

a. AB system adjustment

1) Adjust the slide guide to the index "A4/A3".

2) Select the item in the service mode.

(Lv.1) FEEDER > FUNCTION > TRY-A4

3) Press OK, and register the A4 width.

4) Adjust the slide guide to the index "A5R".

5) Select the item in the service mode.

(Lv.1) FEEDER > FUNCTION > TRY- A5R

6) Press OK, and register the A5R width.

b. Inch system adjustment

1) Adjust the slide guide to the index "LTR/11x17".

2) Select the item in the service mode.

(Lv.1) FEEDER > FUNCTION > TRY-LTR

3) Press OK, and register the LTR width.

4) Adjust the slide guide to the index "STMT/LTRR/LGL".

5) Select the item in the service mode.

(Lv.1) FEEDER > FUNCTION > TRY- LTRR

6) Press OK, and register the LTRR width.

5) Finalize the setting in the following service mode.

(Lv.1) COPIER> ADJUST> CCD> CCD-CHNG> 1 (Data at factory shipment is not used)

6) Make an output of P-PRINT.

(Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT

7) Store the outputted P-PRINT into the service book.

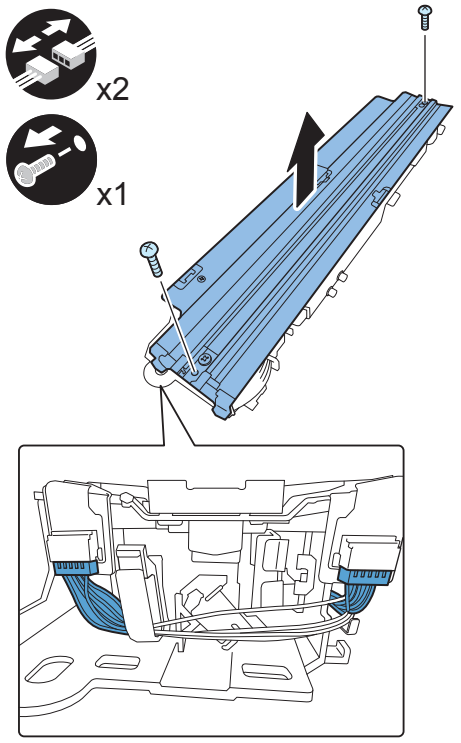
8) After turning OFF/ON the power, make a copy and check the copied image.

Cleaning in the CCD unit (Mirror No. 1 - 5)

1) Remove the CCD unit. (Refer to page 4-26)

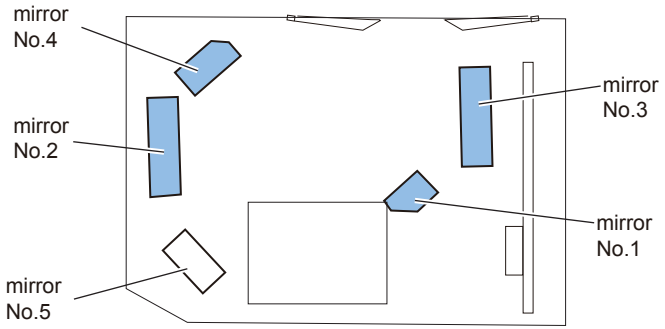
2) Remove the LED unit.

- 2 screws
- 2 connectors



F-4-51

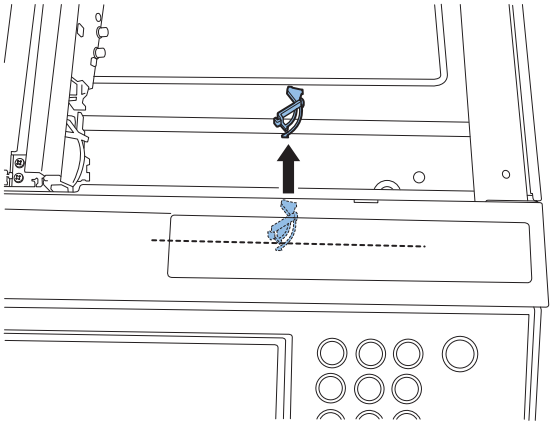
3) Clean mirror No. 1 - 4 with lint-free paper.



F-4-52

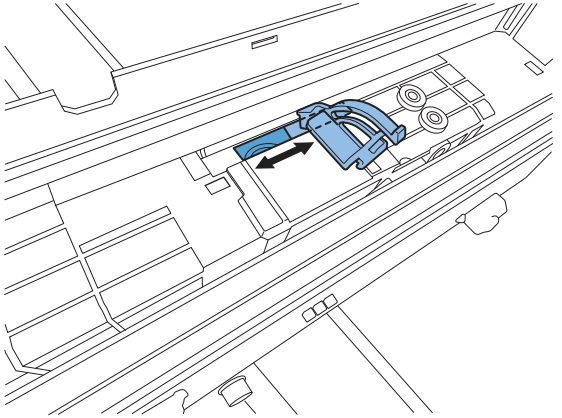
4) Clean the mirror No. 5 with its dedicated cleaning tool.

4-1) Remove the cleaning tool inside the reader unit.



F-4-53

4-2) Dry-clean the mirror No. 5 with the cleaning tool.



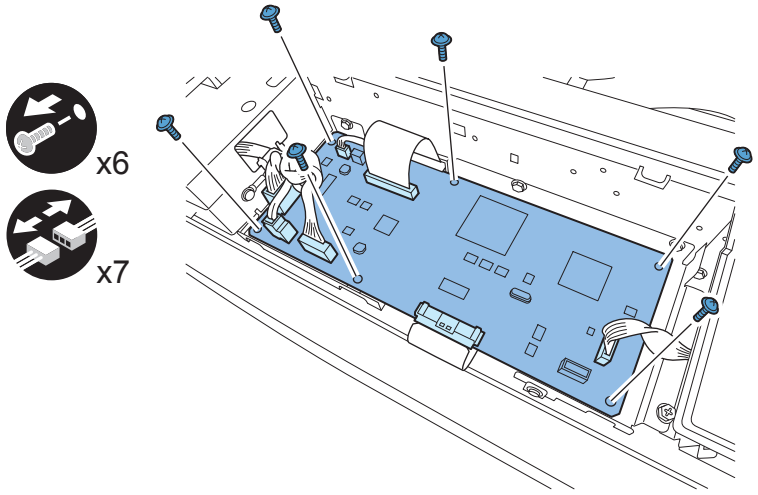
F-4-54

Removing the Reader Controller PCB

NOTE:
The reader controller PCB does not memorize a reader-related service mode.
Therefore the measures after replacing the PCB are not necessary.

<Procedure>

1) Remove the reader rear cover. (Refer to page 4-21)
2) Remove the reader controller PCB.
- 3 flexible cables
- 4 connectors
- 6 screws

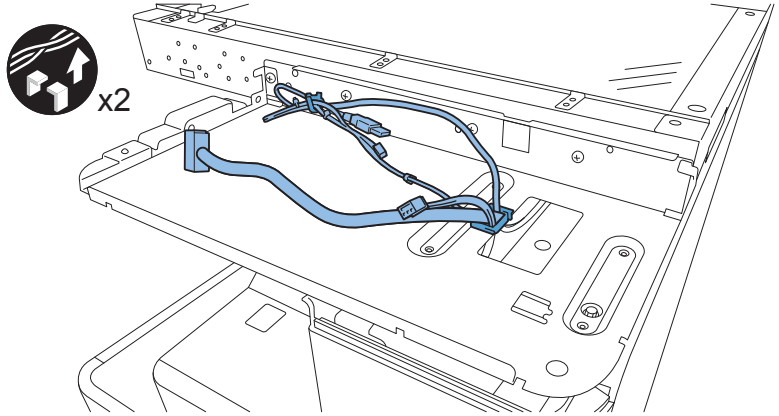


F-4-55

Removing the Reader Assembly

<Procedure>

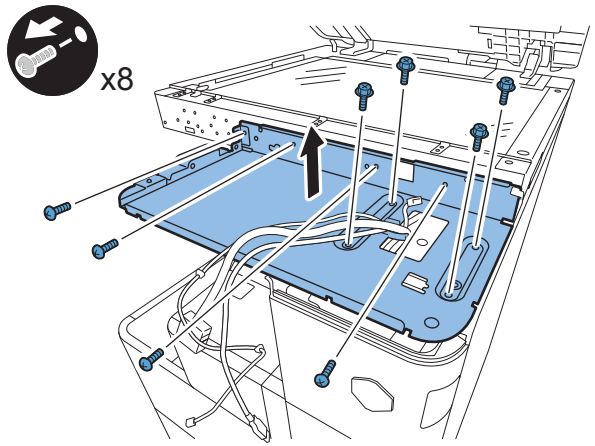
1) Disconnect the ADF cable.
2) Remove the reader left cover. (Refer to page 4-15)
3) Remove the reader right cover. (Refer to page 4-20)
4) Remove the reader rear cover. (Refer to page 4-21)
5) Remove the rear cover. (Refer to page 4-21)
6) Remove the controller cover.
7) Remove the reader front cover. (Refer to page 4-15)
8) Remove the operation panel. (Refer to page 4-74)
9) Release the cables from the wire saddle.



F-4-56

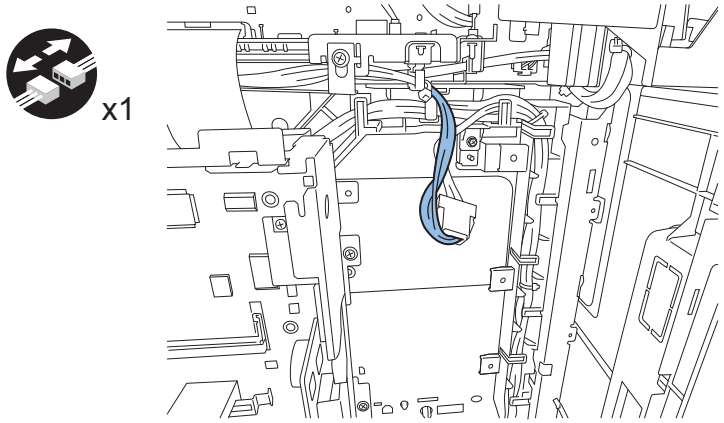
10) Remove the operation panel fixing plate .

- 8 Screws



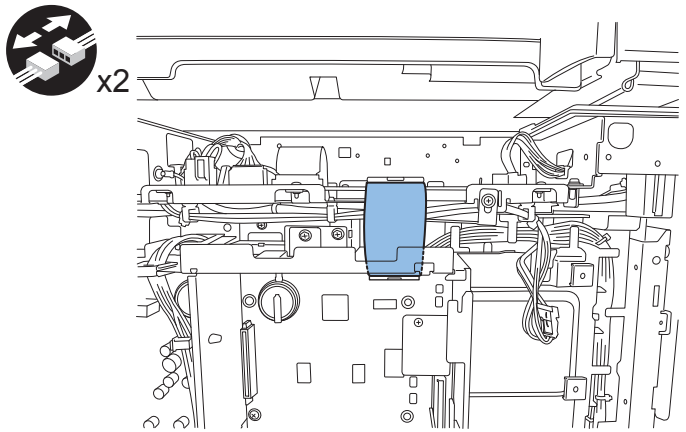
F-4-57

11) Disconnect the connector of the reader.



F-4-58

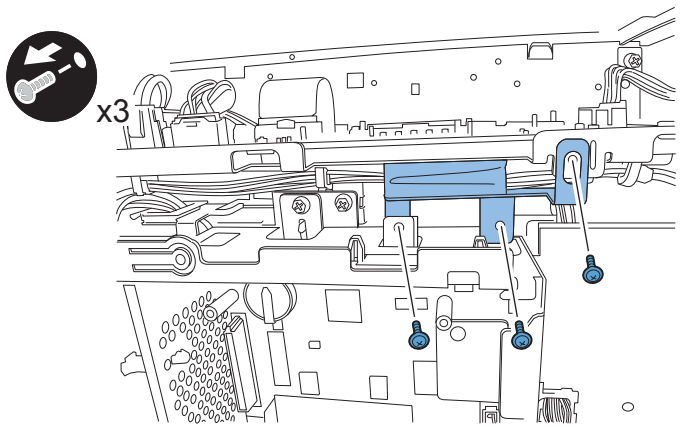
12) Connect the flexible cable.



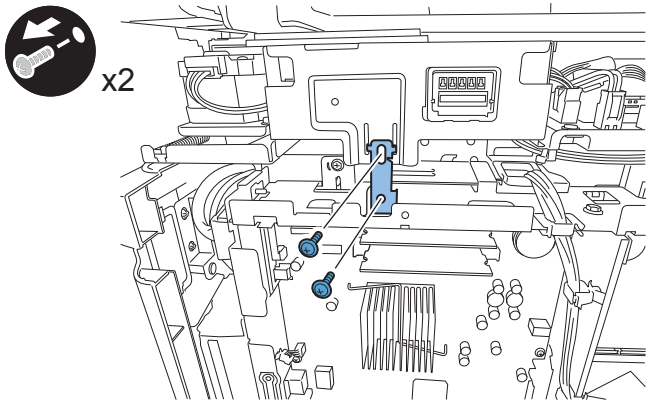
F-4-59

13) Attach the grounding plate (L/R).

- 5 Screws

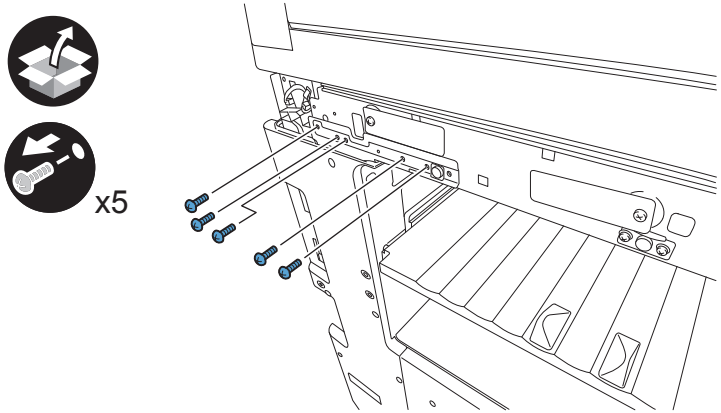


F-4-60



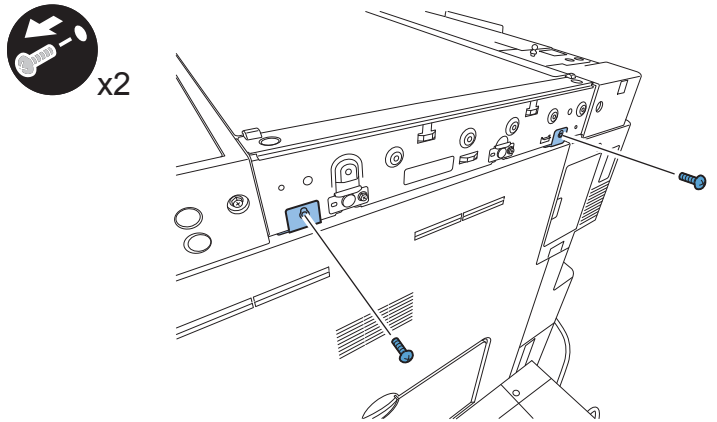
F-4-61

14) Remove the 5 screws from the left side of the host machine.



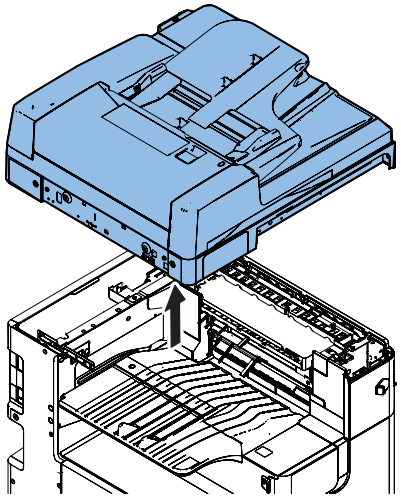
F-4-62

15) Remove the 2 screws from the right side of the host machine.



F-4-63

16) Remove the reader assembly.



F-4-64

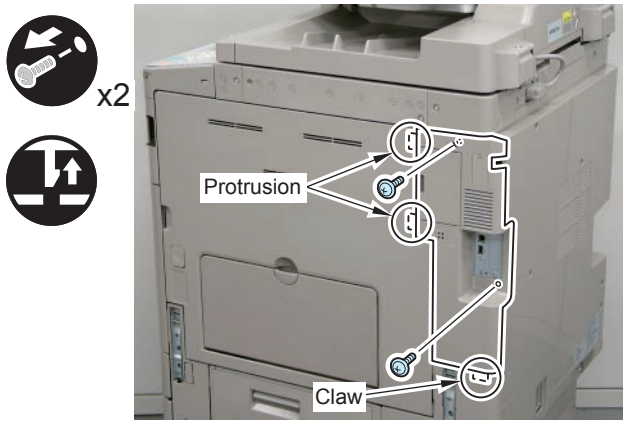
Controller System

Main Controller PCB 1

<Preparation>

1) Remove the Right Rear Cover (Upper).

- 2 Screws
- 2 Protrusions
- 1 Claw



F-4-65

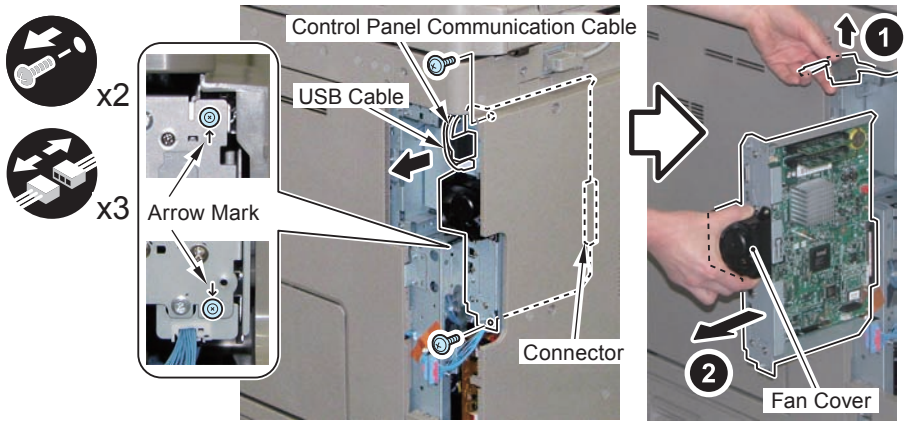
<Procedure>

1) Disconnect the USB Cable and the Control Panel Communication Cable.
2) Remove the Main Controller PCB 1.

- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:

Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.

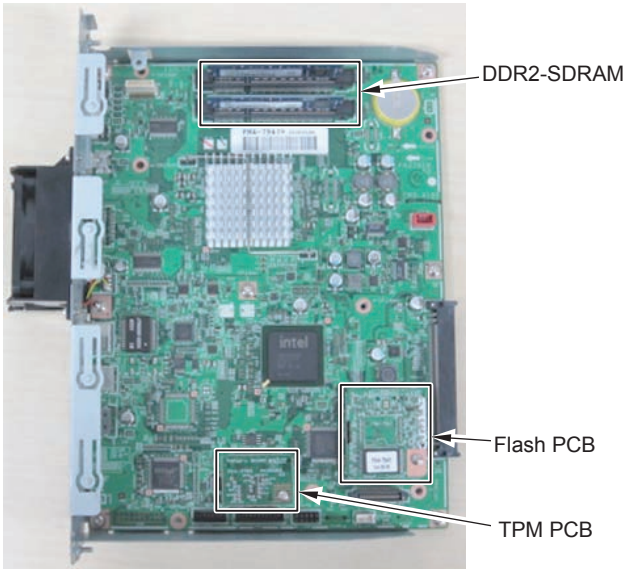


F-4-66

<Actions after Parts Replacement>

1) Transfer the parts from old PCB to new PCB.

- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-4-67

NOTE:
Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

Main Controller PCB 2

<Actions before Parts Replacement>

HDD can evacuate in SRAM of Main Controller PCB 2 with a service mode.

(Lv.1) COPIER> FUNCTION> SYSTEM> DOWNLOAD> OK

[5] BACKUP

But You cannot use this function when there is HDD Encryption Board. Perform any of the following methods.

a) Back up contents of the SRAM by SST; and re-after board exchange; store it.
Refer to "SRAM backup method when there is HDD Encryption Board".

b) Back up contents of the SRAM by USB memory; and re-after board exchange; store it.
Refer to "Backup SRAM of Main controller PCB 2 by USB memory".

c) Like before, You back it up in a procedure as follows.
Be sure to get an approval from the user beforehand.

c-1) Backup the Settings/Registration data

Use the Remote UI.

Management Settings> Data Management> Import/Export

Target data	User	Service
Forwarding Settings	Remote UI (Import/Export)	SST(Sramimg)
Settings/Registration (Except Paper Type Management Settings)	Remote UI (Import/Export)	
Mail Box Memory RX Inbox Confidential Fax Inbox	Remote UI (Back Up/Restore Settings)	
Form for Superimpose Image	Remote UI (Back Up/Restore Settings)	
Auto Adjust Gradation	Enforcement of Auto Adjust Gradation	
Key information to TPM to use for coding	Settings/Registration> Management Settings> Data Management> TPM Settings	
Service mode MN-CON Settings	None	

T-4-14

c-2) Printing the Settings/Registration data by using the service mode.

(Lv.1) COPIER> FUNCTION> MISC-P> USER-PRT

List of the set/registered data which cannot be backed up is printed.

SRAM backup method when there is HDD Encryption Board:

With SST Ver.4.41or later, obey steps to upload the description of SRAM (Sraming.bin).

Single> Upload Data> Sraming.bin> Save

Data in the HDD is encrypted when the HDD Encryption Board is installed.
For Main Controller PCB 2 to access to data in the HDD, the file description of the Encryption key of the HDD Encryption Board needs to be the same as that of SRAM on Main Controller PCB 2; otherwise, Main Controller PCB 2 cannot access to the data in the HDD and this causes failure in startup of the machine.

- Replacement of the HDD Encryption Board / Main Controller PCB 2
  Inconsistent the description between SRAM on Main Controller PCB 2 and the encryption key file of the HDD Encryption Board.
- Replacement with a new HDD
  There is no system data in the HDD

With SST Ver. 4.31 or before, it was necessary to format the HDD (Format ALL), and then install the system (Download the system software) in any case.
With SST Ver.4.41 or later, if the description of SRAM (Sraming.bin) on Main Controller PCB 2 is kept in the PC, you can restore Sraming.bin on Main Controller PCB 2 by using SST after holding down 2 and 8 to start the machine.
When the description of SRAM can be restored, it means that the file description is the same as that of the encryption key of the HDD Encryption Board, which enables access to the HDD. Therefore, you do not need to format the HDD or install the system.

Backup SRAM of Main controller PCB 2 by USB memory:

Prepare for:
USB memory storage device, which the system software for this machine is stored.
or the USB memory recognize it in the Host machine.

On USB memory, You make the blank folder of the same name (e.g.: iA4045) to recognize USB memory on a service mode when You registered a system software for Host machine by SST.

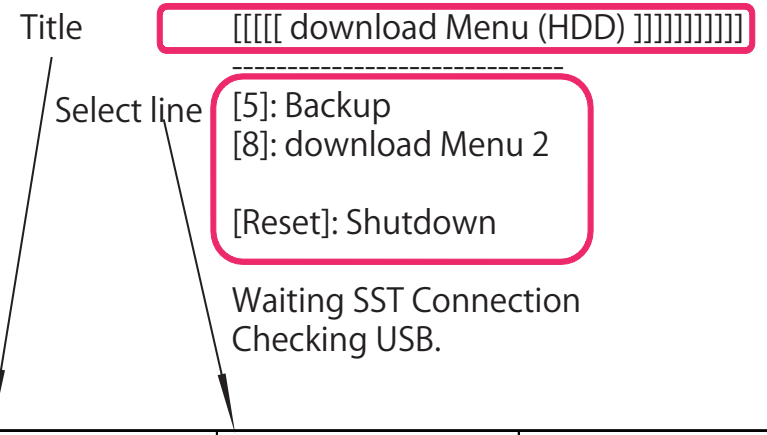
Service Mode:

(Lv.1) COPIER> FUNCTION> SYSTEM> DOWNLOAD> OK

[5] BACKUP

According to a list, perform a Backup Restore as follows.

Viewpoint of the Table:



	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	″5″
3	download Menu (USB)	/[5] has been selected. E>	″0″
4	Backup Menu (USB)	[7]: SRAM(USB)	″7″
5	Backup Menu (USB)	/[7] has been selected. E>	″0″

F-4-68

1) Backup SRAM of Main controller 2 to USB memory

	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	"5"
3	download Menu (USB)	/[5] has been selected. Execute?/-(OK):0	"0"
4	Backup Menu (USB)	[7]: SRAM(USB)	"7"
5	Backup Menu (USB)	/[7] has been selected. Execute?/-(OK):0	"0"
6	[SramImg.bin] Backup OK. ---Please hit any key---		"0"
7	Backup Menu (USB)	[C]: Return to Main Menu	"C"
8	download Menu (USB)	[Reset]: Shutdown	"Reset"
9	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
10	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
11	Power is automatically turned OFF.		

T-4-15

2) After replacement, while pressing 2 + 8 keys at the same time, turn ON the main power.

3) Restore Sraming.bin in the USB memory.

	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[8]: download Menu 2	"8"
3	download Menu (USB)	/[8] has been selected. Execute?/-(OK):0	"0"
4	download Menu 2nd (USB)	[2]: Restore	"2"
5	download Menu 2nd (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
6	Restore Menu (USB)	[2]: SRAM(USB)	"2"
7	Restore Menu (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
8	[SramImg.bin] Restore OK. ---Plese hit any key---		"0"
9	Restore Menu (USB)	[C]: Return to download Menu 2nd	"C"
10	download Menu 2nd (USB)	[C]: Return to Main Menu	"C"
11	download Menu (USB)	[Reset]: Shutdown	"Reset"
12	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
13	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
14	Power is automatically turned OFF.		

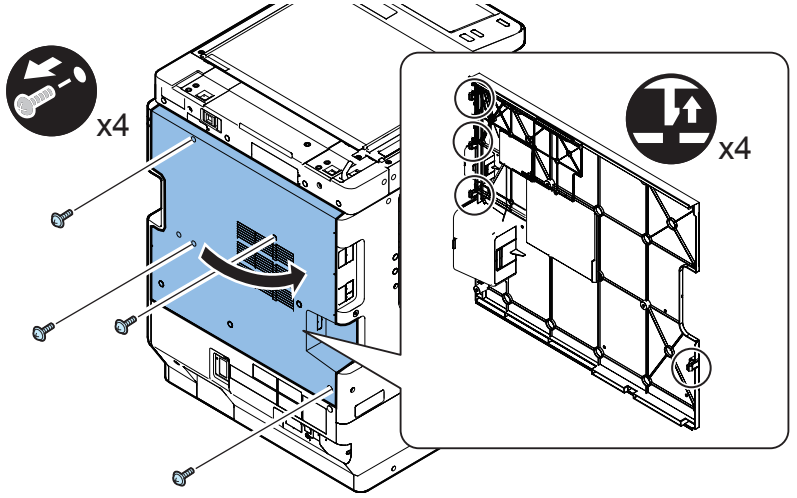
T-4-16

<Preparation>

1) Remove the Right Rear Cover (Upper). (Main Controller PCB 1 4-35)

2) Remove the Rear Cover.

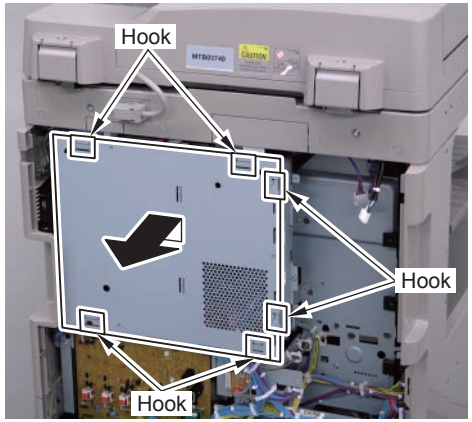
- 4 Screws
- 4 Claws



F-4-69

3) Remove the Controller Box Cover.

- 6 Hooks

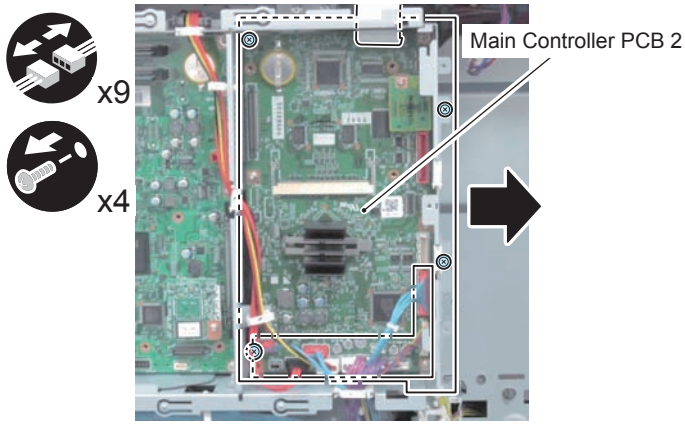


F-4-70

<Procedure>

1) Remove the Main Controller PCB 2.

- 9 Connectors
- 4 Screws (TP)

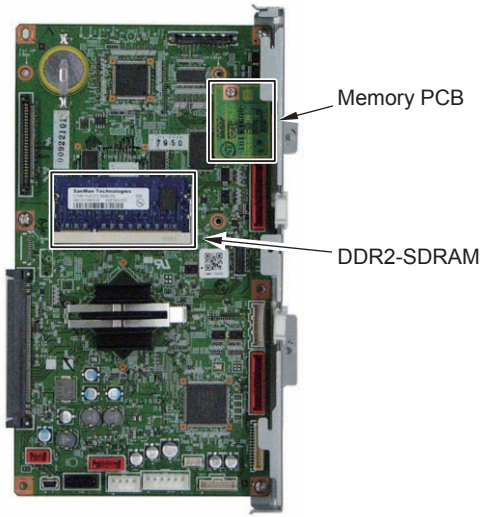


F-4-71

<Actions after Parts Replacement>

1) Transfer the parts from old PCB to new PCB.

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed)
- Memory PCB



F-4-72

Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)

<Actions after Parts Replacement>

1) After installing the parts, turn ON the main power.
2) Restoring the backup data by any of the following methods.
   a) When uploading Sraming.bin by SST Ver.4.41or later
      Single> Download Data> Sraming.bin> Start
   b) When backing up data by the service mode (Lv.1) COPIER> FUNCTION> SYSTEM> DOWNLOAD> OK, [5] BACKUP
      (Lv.1) COPIER> FUNCTION> SYSTEM> DOWNLOAD> OK
      [8] Download Menu 2> [2] Restore
   c) When backing up data by using the Remote UI.
      Management Settings> Data Management> Import/Export
3) While referring to the list of Settings/registration data which was printed out before replacement, reset/register the data.
4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

HDD

Keep the following in mind when attaching/removing the hard disk.
1. Take countermeasures against electrostatic before work to prevent the hard disk from being damaged by electrostatic discharge.
2. Do not give a shock to the hard disk.

<Actions before Parts Replacement>

Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data by using the Remote UI.
   Management Settings> Data Management> Import/Export

Target data	User	Service
Address Lists	Remote UI (Import/Export)	None
Settings/Registration> Paper Type Management Settings	Remote UI (Import/Export)	None
Quick Menu Settings	Remote UI (Import/Export)	SST (Meapback)
Default setting	None	SST (Meapback)
Other Register Options Shortcuts	None	SST (Meapback)
History of the setting	None	SST (Meapback)
Quick Menu Settings	Remote UI (Import/Export)	SST (Meapback)
Certificate Settings	None	None
Mail Box Settings	Remote UI (Back Up/Restore Settings)	SST (Sramimg)
Advanced Box Settings	Remote UI (Back Up/Restore Settings)	SST (Sramimg)
Printer Settings	Remote UI (Back Up/Restore Settings)	SST (Sramimg)
Web Access Favorites	Remote UI (Import/Export)	None
MEAP Settings	SMS	SST (Meapback)
Document of non-transmission	None	None
Settings/Registration> Management Settings> Device Management> Display Log	None	None
Settings/Registration> Management Settings> Device Management> Key and Certificate Settings	None	None
PS font	None	None
Key information to TPM to use for coding	Settings/Registration> Management Settings> Data Management> TPM Settings	SST (Sramimg)

T-4-17

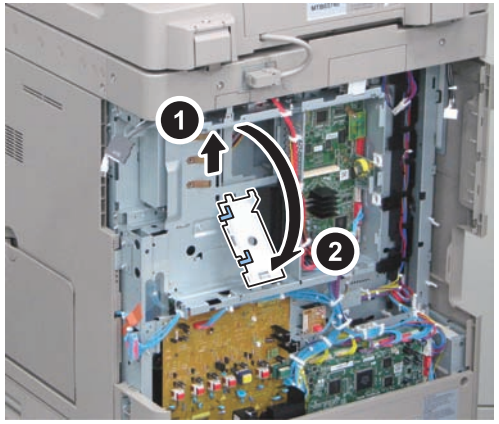
2) Printing the Settings/Registration data by using the service mode.
(Lv.1) COPIER> FUNCTION> MISC-P> USER-PRT
List of the set/registered data which cannot be backed up is printed.

<Preparation>

1) Remove the Right Rear Cover (Upper). (Main Controller PCB 1 4-35)
2) Remove the Rear Cover. (Main Controller PCB 2 4-36)
3) Remove the Controller Box Cover. (Main Controller PCB 2 4-36)
4) Disconnect the USB Cable and the Control Panel Communication Cable. (Main Controller PCB 1 4-35)
5) Remove the Main Controller PCB 1. (Main Controller PCB 1 4-35)

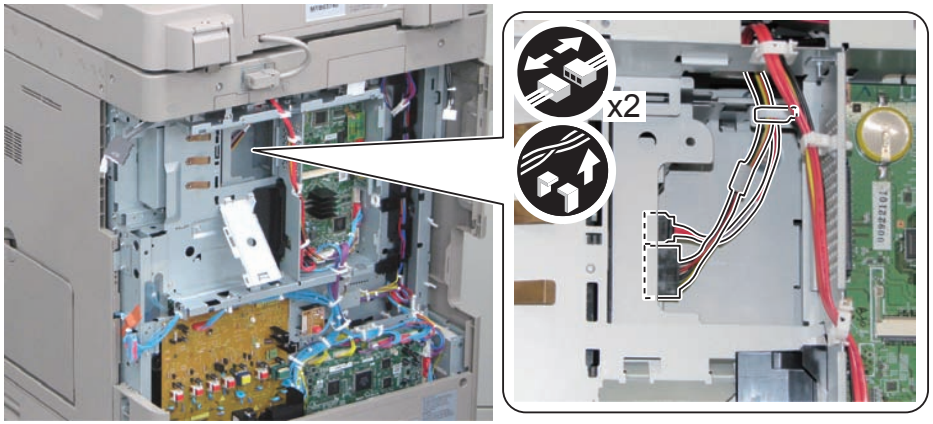
<Procedure>

1) Open the plate in the direction of the arrow.
- 2 Hooks



F-4-73

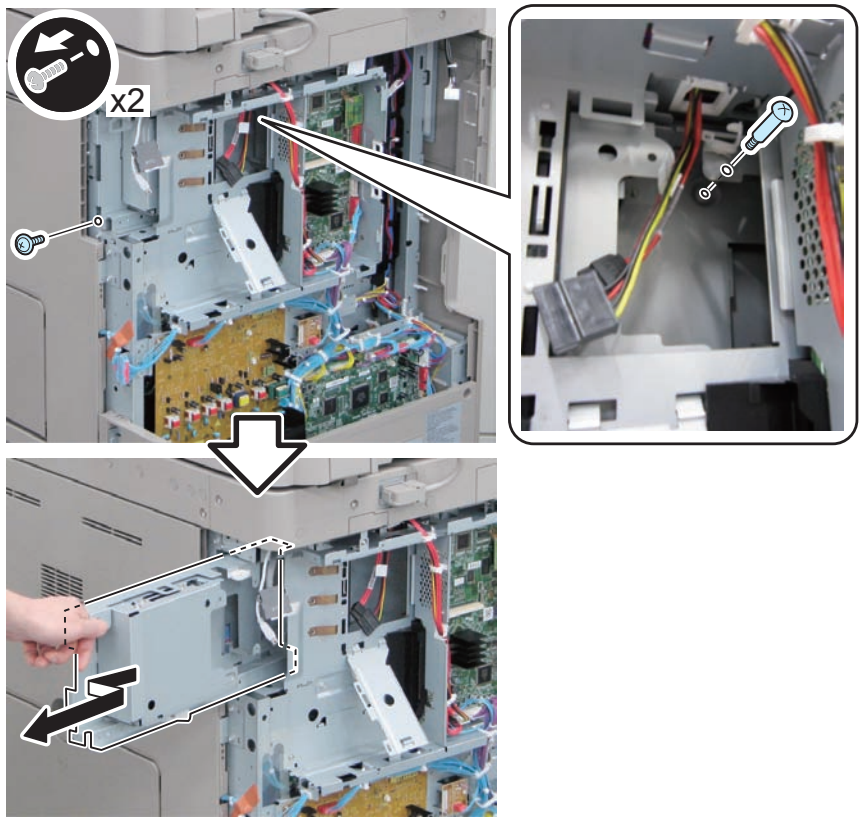
2) Disconnect the 2 cables.
- 2 Connectors
- 1 Wire Saddle



F-4-74

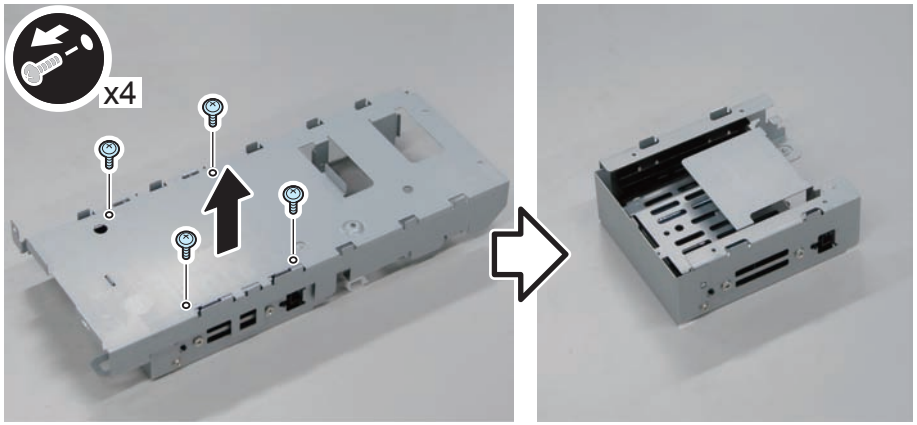
3) Remove the HDD Unit.
- 2 Screws

CAUTION:
- Be careful not to drop the screws.
- Pull out the HDD Unit until it stops, and then move it in the direction of the arrow to remove.
- Be careful not to drop the HDD Unit.



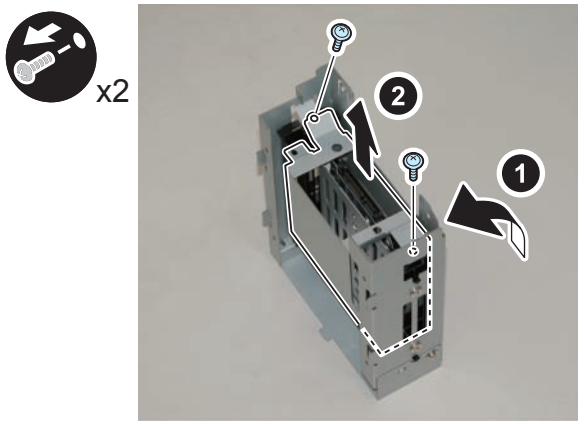
F-4-75

4) Remove the HDD Slide Rail from the HDD Unit.
- 4 Screws



F-4-76

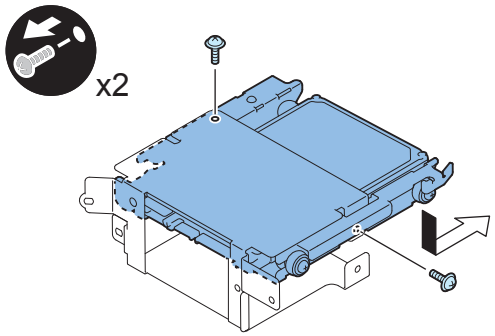
5) Remove the HDD Unit from the HDD Box.
- 2 Screws



F-4-77

6) Remove the HDD from the HDD Fixation Plate.

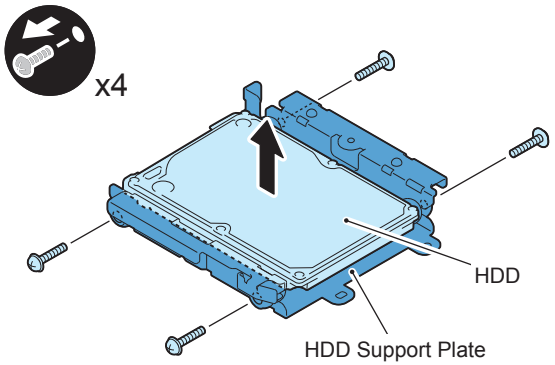
- 2 Screws



F-4-78

7) Remove the HDD from the HDD Support Plate.

- 4 Screws



F-4-79

<Actions after Parts Replacement>

1) format the HDD.
   1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power.)
   1-2) Use SST to format all partitions.
2) Use SST to download the system software (System, LANG, RUI and others).
3) Initializing the key, certificate and CA certificate.
   (Lv.2) COPIER> FUNCTION> CLEAR> CA-KEY
4) Turning OFF and ON the main power.
5) Restoring the backup data using the Remote UI.
   Management Settings> Data Management> Import/Export
6) Resetting/registering the data.
   While referring to the list of set/registered data which was printed before replacement, reset/register the data.
7) When the user generates and adds the encryption key, certificate and/or CA ertificate, request the user to generate them again.
8) Executing “Auto Adjust Gradation (Full Adjust)”.
   Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Auto Adjust Gradation

CAUTION: When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabled after the HDD replacement.

After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

1) Go to COPIER> FUNCTION> INSTALL> CARD and enter the numerical value of the leading card which is used for Department ID. Then, press “OK” key.
   Example: If No.1 to 1000 cards are used for Department ID, enter “1” of the leading card.
2) After turning OFF and ON the main power, perform the following operations from Settings/Registration mode.
   2-1) In Management Settings> User Management> Department ID Management> Page Totals, be sure that ID00000001 to ID00001000 are created.
   2-2) Set the following: Preferences> Network> TCP/IP Settings> IPv4 Settings> IP Address Settings> IP Address, Gateway Address, Subnet Mask.
   2-3) In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power.
   If “System Manager ID” and “System PIN” are not registered, “card registration to device” cannot be executed for the imageWARE Accounting Manager setting operation.
3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
4) After downloading is completed, go to Management Settings> User Management> Department ID Management> Page Totals. Be sure that only the downloaded card ID is displayed.
5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION: Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

Laser Exposure System

Removing the Laser Scanner Unit

CAUTION:

When servicing the area around the laser assembly, be sure to turn off the main power.

CAUTION:

Do not disassemble the Laser Scanner Unit because it needs adjustment.

Disassembling the unit may cause functional problems.

<Preparation>

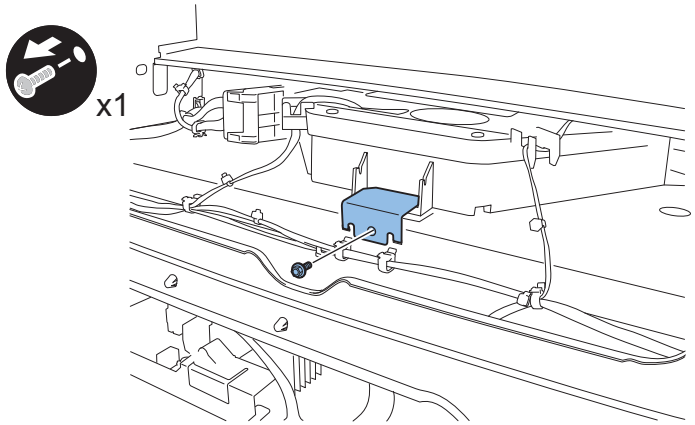
1) Remove the inside base cover. (Refer to page 4-19)

2) Remove the left cover. (Refer to page 4-19)

<Procedure>

1) Remove the scanner retaining plate.

- 1 screw



F-4-80

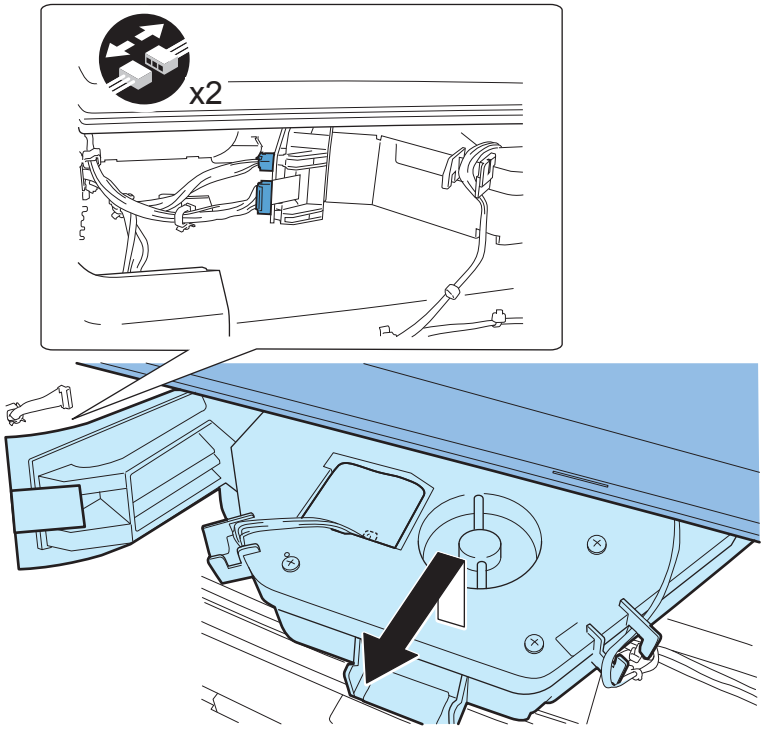
2) Draw the Laser Scanner Unit slightly.

- 2 connectors

CAUTION:

Do not touch the PCB on the laser scanner unit.

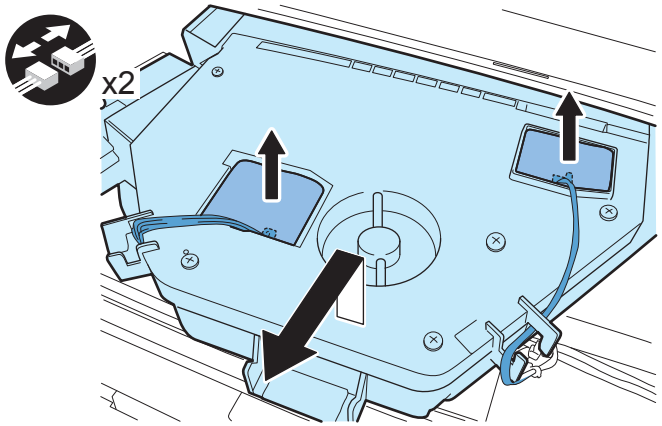
Do not change the setting of the variable resistor on the PCB.



F-4-81

3) Remove the laser scanner unit.

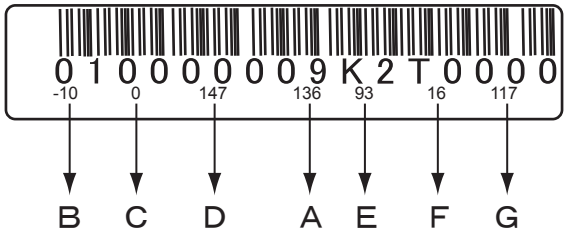
- 2 pieces of sponge
- 2 connectors



F-4-82

<Actions after Parts Replacement>

- When replacing the laser unit, enter the values recorded on the label affixed to the laser unit to be replaced for the following in the service mode:



F-4-83

Input example

- Adjust of write start position of laser
  - A. (LV1) COPIER > ADJUST > LASER > PVE-OFST > 136
- Difference in magnification between the lasers.
  - B. (LV1) COPIER > ADJUST > LASER > LDADJ1-K > -10
  - C. (LV1) COPIER > ADJUST > LASER > LDADJ2-K > 0
  - D. (LV1) COPIER > ADJUST > LASER > LDADJ3-K > 147
- Difference in the phase between the lasers
  - E. (LV1) COPIER > ADJUST > LASER > LDADJ4-K > 93
  - F. (LV1) COPIER > ADJUST > LASER > LDADJ5-K > 16
  - G. (LV1) COPIER > ADJUST > LASER > LDADJ6-K > 117

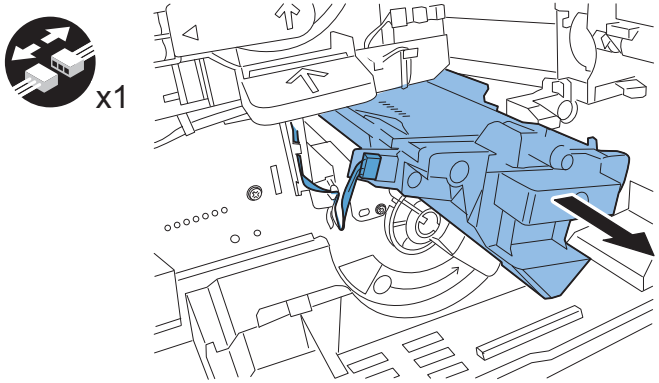
Image Formation System

Removing the Developing Assembly

<Procedure>

1) Open the right cover.
2) Open the front cover.
3) Remove the waste toner container. (Refer to page 4-52)
4) Remove the drum unit. (Refer to page 4-52)
5) Remove the toner supply cover. (Refer to page 4-16)
6) Remove the developing assembly

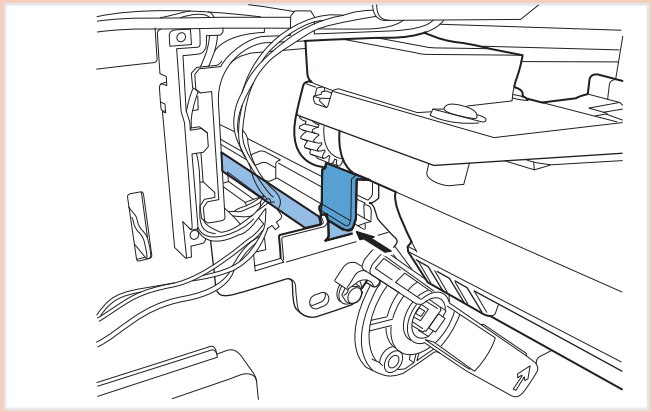
- 1 connector



F-4-84

CAUTION:

When installing the developing assembly, insert the developing assembly while its guide engages with the rail of the host machine.



F-4-85

Removing the Developing Cylinder

<Procedure>

Caution:

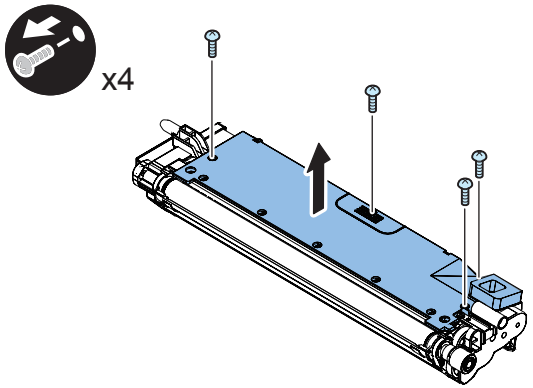
Take note of the following points when removing the developing cylinder from the developing assembly:

- Lots of self-tapping screws are used. Be careful not to damage the screw holes by tightening the self-tapping screws.
- Do not touch nor give a shock to the developing cylinder.

1) Remove the developing assembly. (Refer to page 4-47)

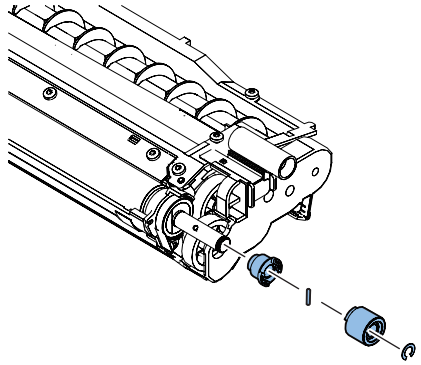
2) Remove the top cover.

- 4 screws



F-4-86

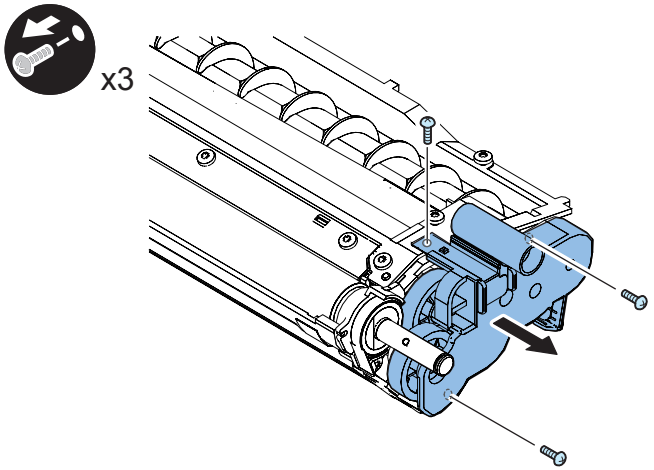
3) Remove the ring, the gear, the parallel pin and the gear.



F-4-87

4) Remove the gear unit.

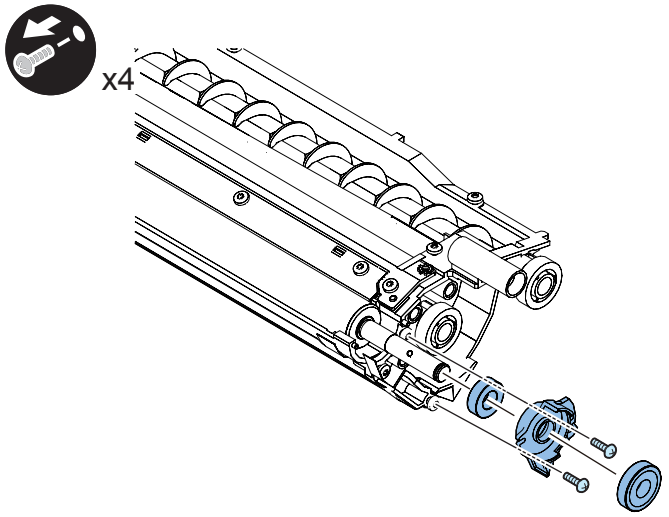
- 3 screws



F-4-88

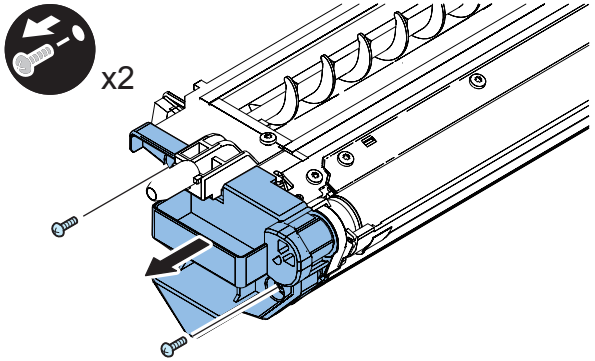
5) Remove the holder.
- 2 screws
- 1 pushing wheel

6) Remove the bearing.



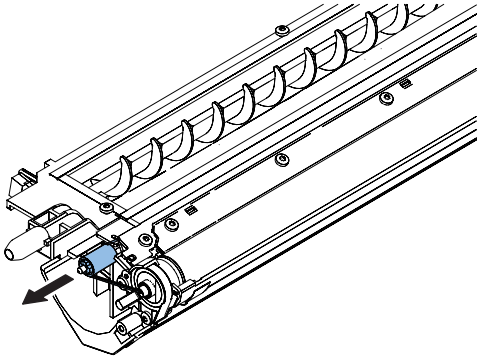
F-4-89

7) Remove the holder.
- 2 screws



F-4-90

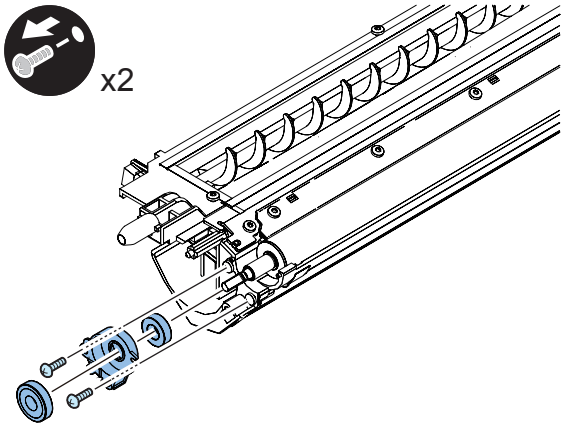
8) Remove the developing contact spring.



F-4-91

9) Remove the holder.
- 2 screws
- 1 pushing wheel

10) Remove the bearing.



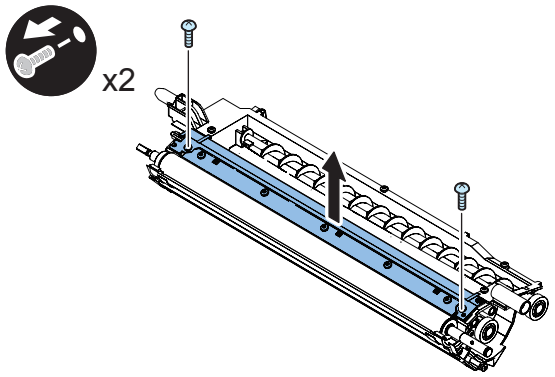
F-4-92

11) Remove the blade unit.

- 2 screws

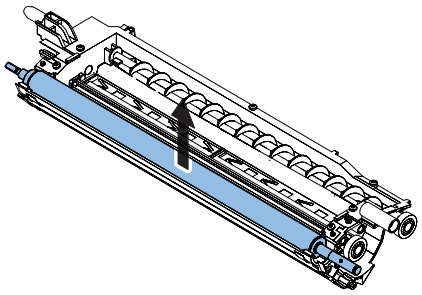
CAUTION:

Remove the Developing Cylinder after removing the Developing Blade on a blade unit basis.



F-4-93

12) Remove the developing cylinder.



F-4-94

Removing the Transfer Roller

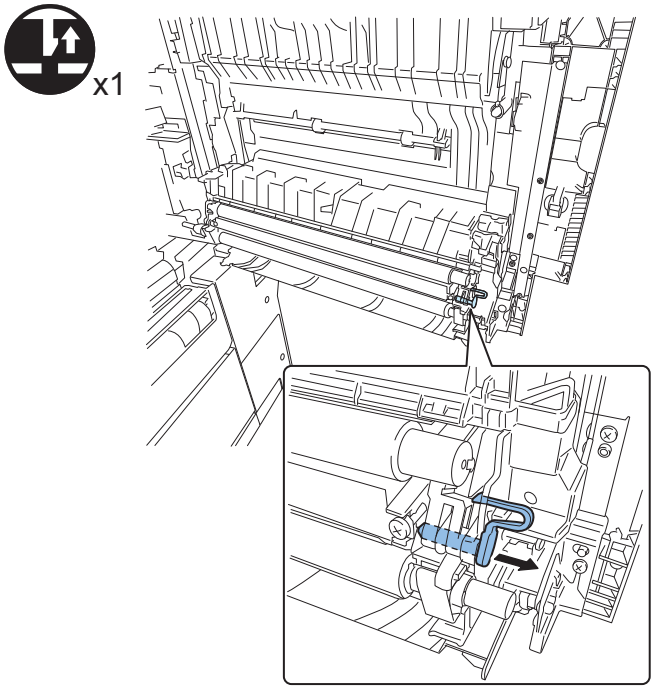
CAUTION:

Do not touch the roller surface during work.

<Procedure>

1) Open the right cover.
2) Remove the transfer roller.

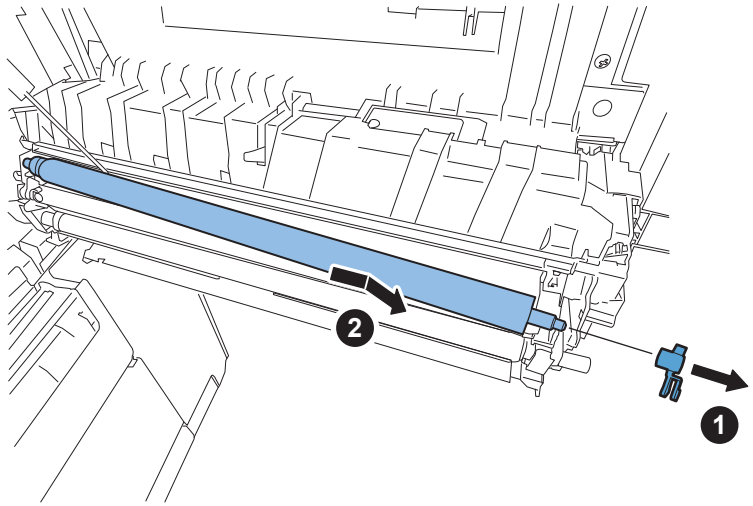
- 1 stopper (front)
- 1 claw



F-4-95

3) Remove the transfer roller.

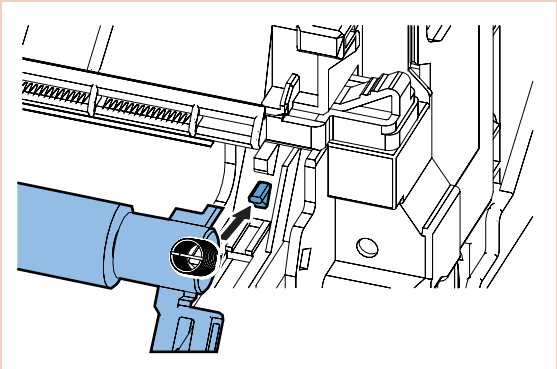
- 1 bushing (front)



F-4-96

CAUTION:

- When restoring the transfer roller, have the transfer roller fixed so its longer shaft comes to the machine rear side.
- When restoring the transfer roller, install the spring of the transfer roller to the boss of the figure.



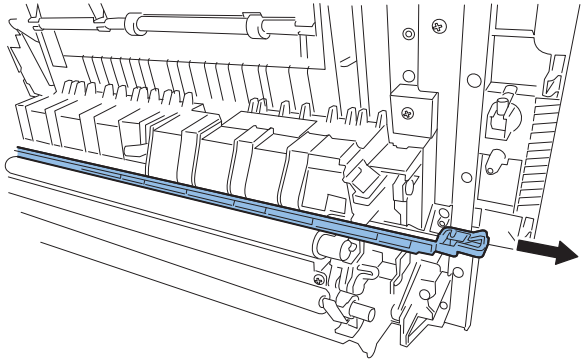
F-4-97

Removing the Separation Static Charge Eliminator

<Procedure>

1) Open the right cover.
2) Remove the separation static charge eliminator.

- 1 claw

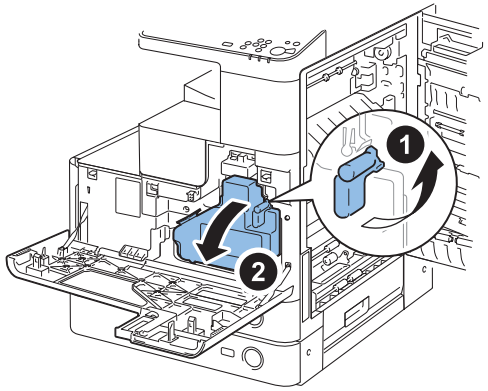


F-4-98

Removing the Waste Toner Container

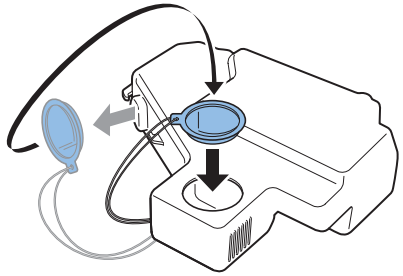
<Procedure>

1) Open the front cover.
2) Turn the lock lever as shown to release the lock of the waste toner container.
3) Remove the waste toner container.



F-4-99

4) Remove the cap attached to the waste toner container, and then attach the cap to the opening so that the waste toner does not spill out.

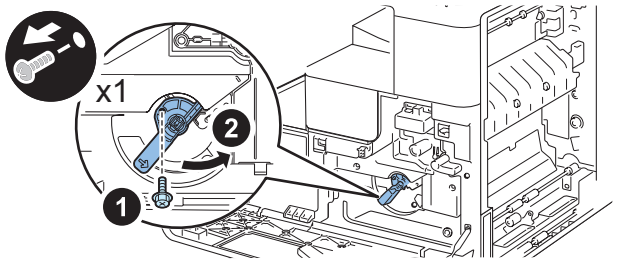


F-4-100

Removing the Drum Unit

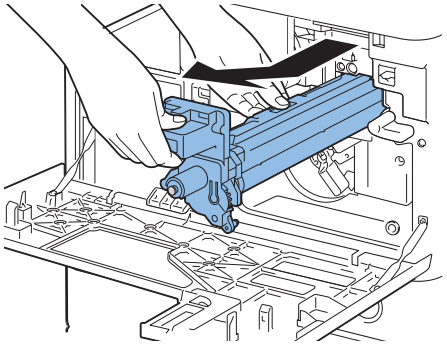
<Procedure>

1) Open the right cover.
2) Remove the waste toner container. (Refer to page 4-52)
3) Remove the screw securing the developing assembly pressure lever.
4) Turn the lever in the direction of the arrow to release the lock of the drum unit.



F-4-101

5) Pull out the drum unit slightly upward.



F-4-102

CAUTION:

- Do not touch the drum surface during the work.
- Cover the Drum Unit with paper not to expose the drum.
- When inserting the drum unit, check that the drum unit is securely engaged with the rail of the host machine.

Removing the Toner Supply Assembly

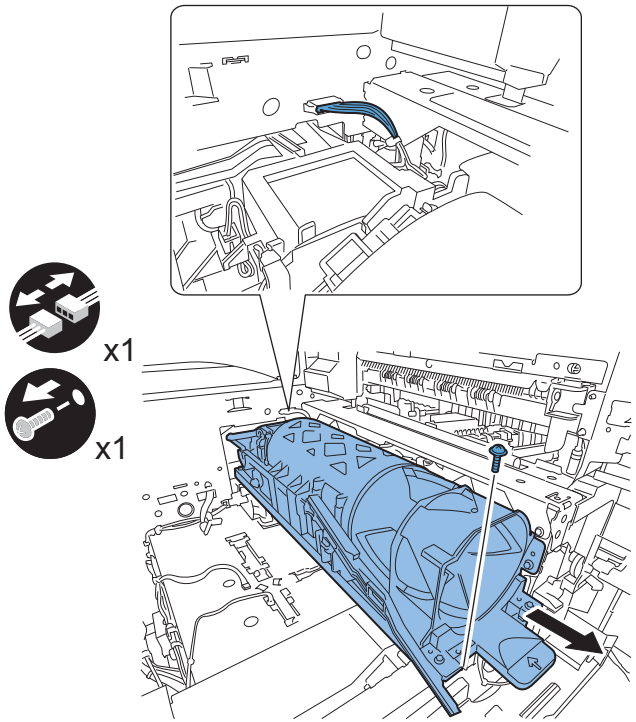
<Procedure>

1) Remove the inside base cover. (Refer to page 4-19)
2) Remove the left cover. (Refer to page 4-19)
3) Remove the waste toner container. (Refer to page 4-52)
4) Remove the drum unit. (Refer to page 4-52)
5)Remove the toner cartridge.
6) Remove the toner supply cover. (Refer to page 4-16)
7) Remove the delivery tray. (Refer to page 4-20)
8) Remove the developing assembly. (Refer to page 4-47)
9) Remove the laser scanner unit.(Refer to page 4-45)

10) Remove the toner supply assembly.

- 1 connectors
- 1 screw

CAUTION:
When removing the toner supply unit, do not incline the toner supply unit not to shed toner.



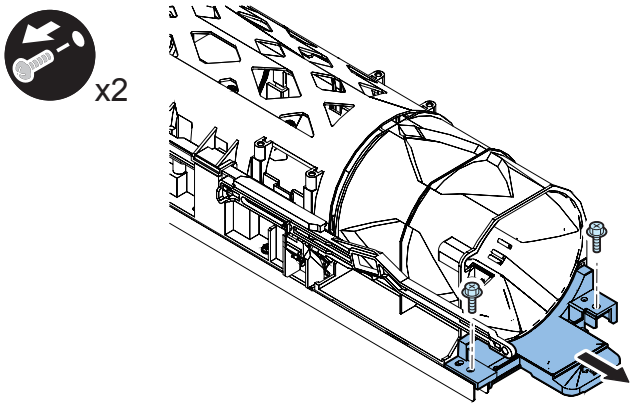
F-4-103

<Processing after replacing the parts>

NOTE:
The service parts for toner supply unit do not come with a bottle ring. Remove the bottle ring from the old toner supply unit and attach it to the new one.

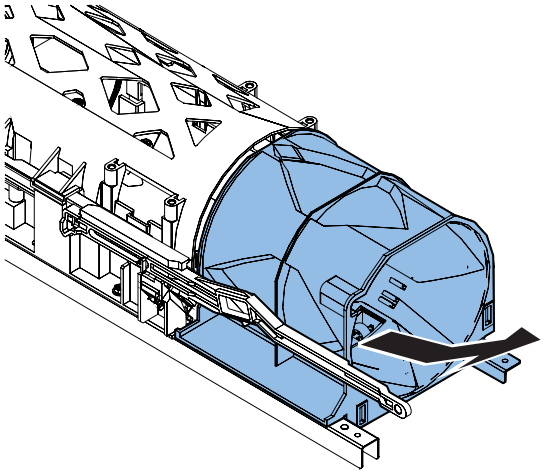
1) Remove the bottle base.

- 2 screws



F-4-104

2) Remove the bottle ring.



F-4-105

Fixing System

Removing the Fixing Unit

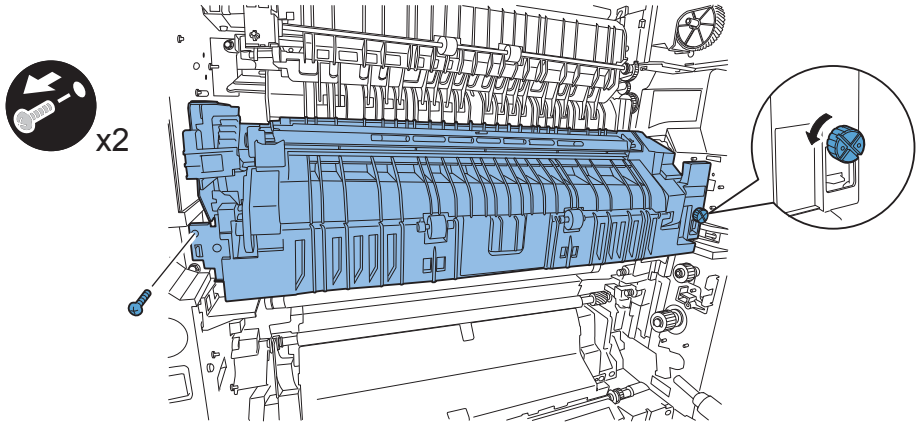
CAUTION:

The fixing unit may cause burn injury. Be sure to perform the operation after the unit is surely cooled.

1)Open the right cover.

2)Remove the fixing unit.

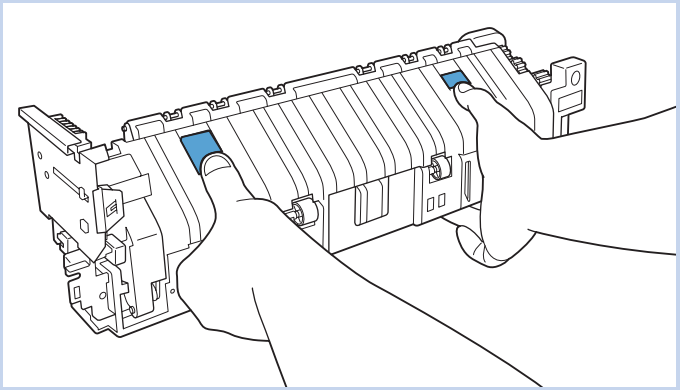
- 1 screw (front side)
- 1 knurled screw (rear side)



F-4-106

MEMO:

Hold the fixing unit at the position shown below.

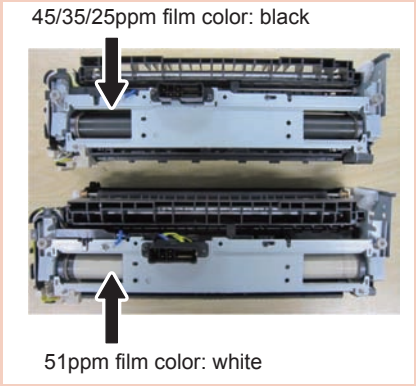


F-4-107

Removing the Fixing Main Unit

CAUTION:

There are two kinds of film units for the fixing unit. One is for the 51 ppm machine and another one is for the 45/35/25 ppm machine. Attach the right fixing main unit.

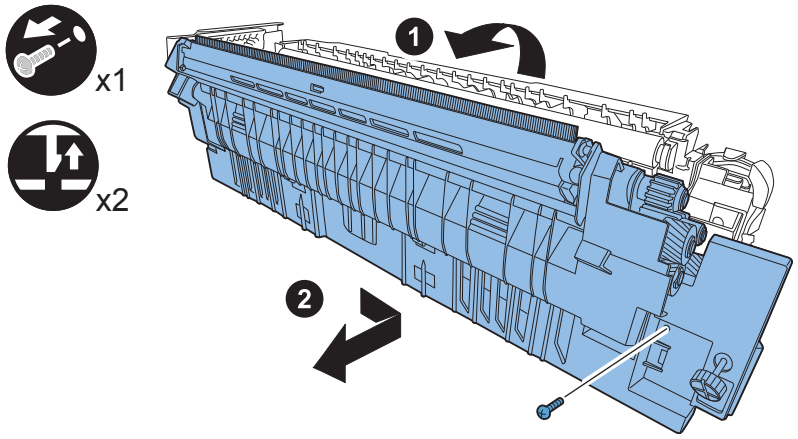


F-4-108

1)Remove the fixing unit. (Refer to page 4-56)

2)Open the fixing outer delivery unit and remove the fixing outer delivery unit.

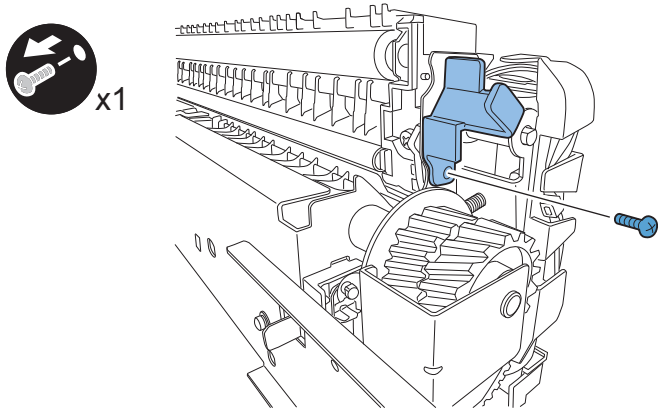
- 1 screw
- 2 claws



F-4-109

3)Remove the positioning guide.

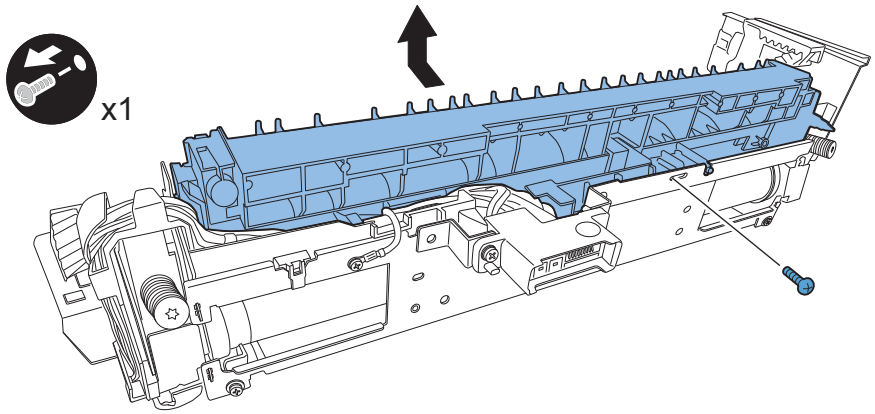
- 1 screw



F-4-110

4)Remove the fixing inner delivery unit.

- 1 screw



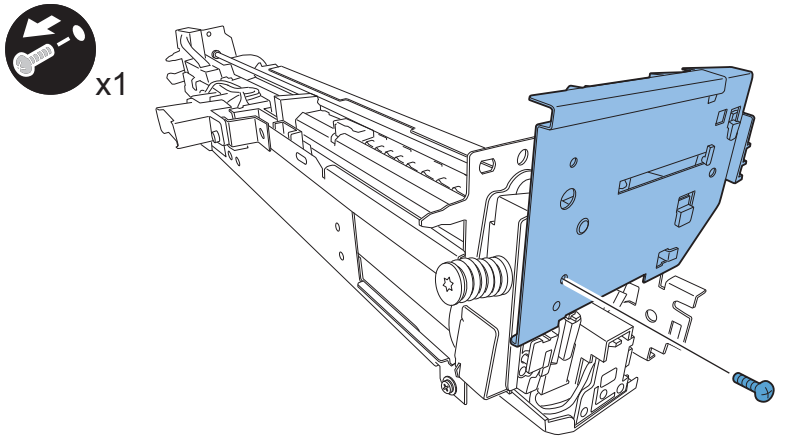
F-4-111

Removing the Fixing Film Unit

1)Remove the Fixing Main Unit.(Refer to page 4-57)

2)Remove the support plate.

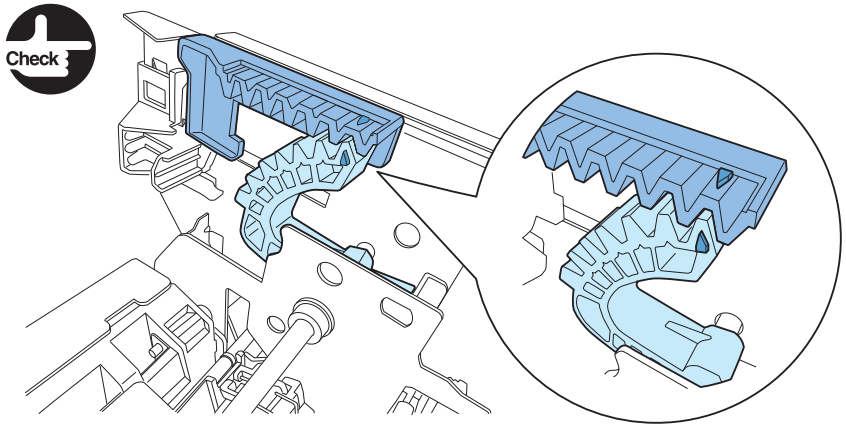
- 1 screw



F-4-112

CAUTION:

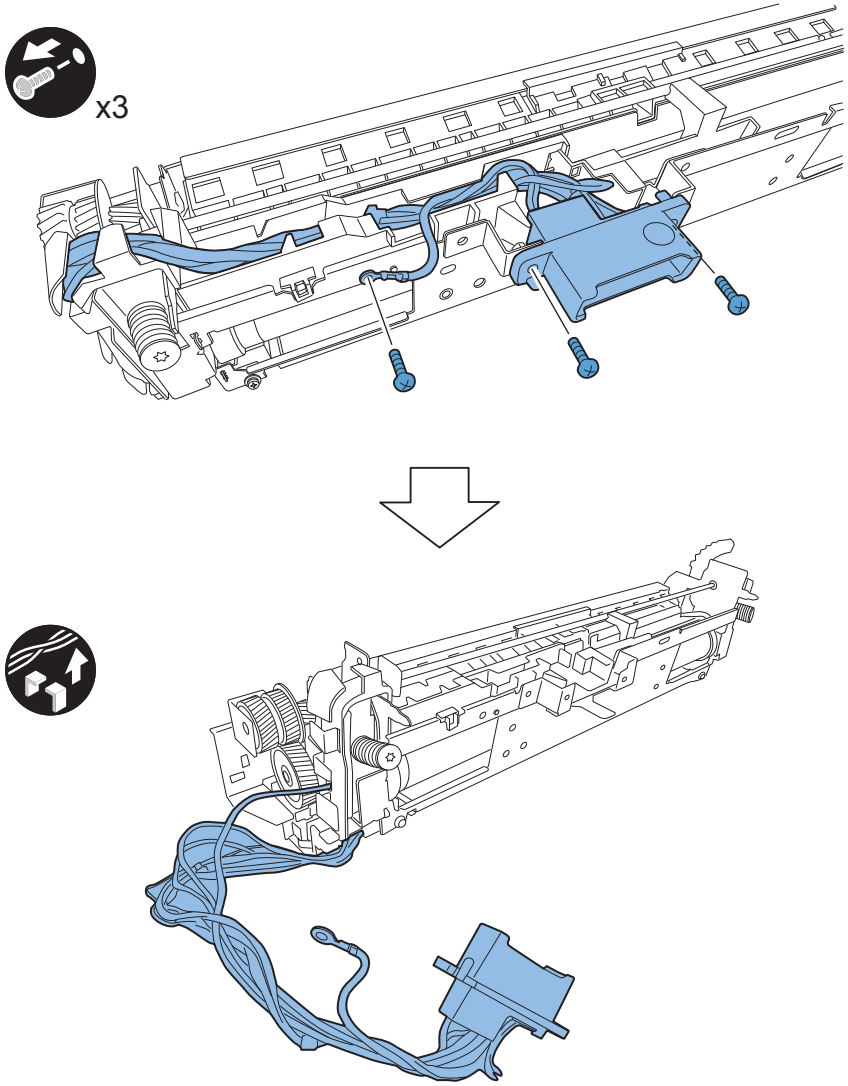
When installing the support plate, install it to engage the teeth with the locking lever at the position shown in the figure.



F-4-113

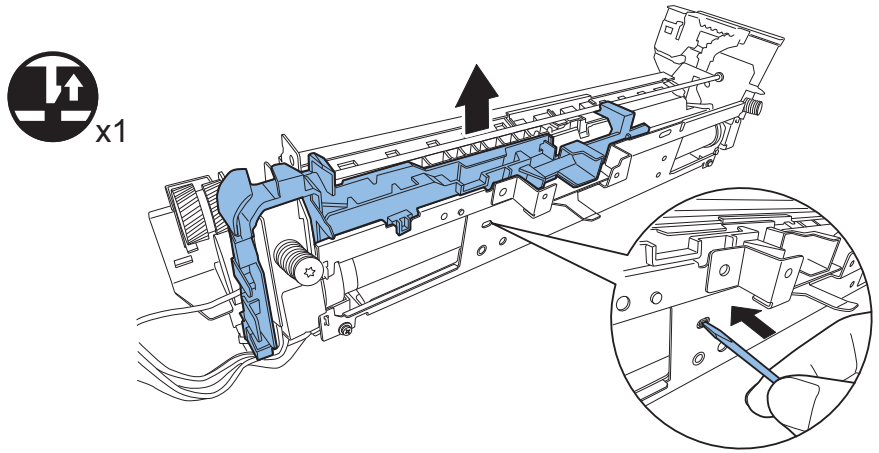
3)Remove the drawer connector and the earth wire, and then release the fixing harness from the cable guide.

- 3 screws



F-4-114

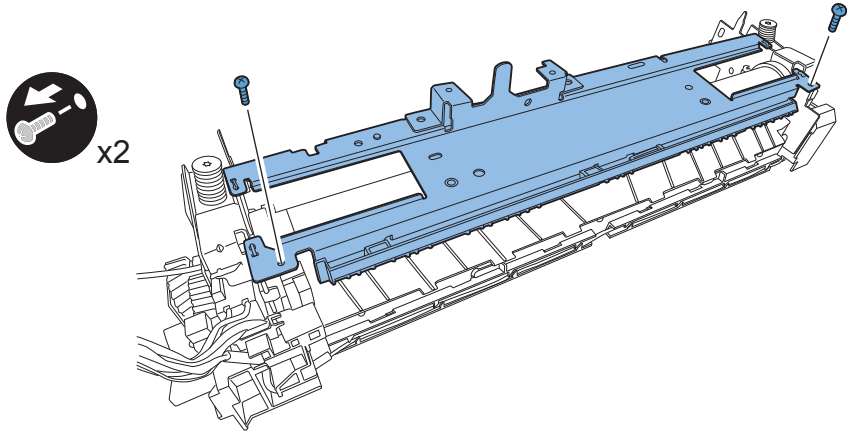
4)Remove the cable guide by pressing the embossment.



F-4-115

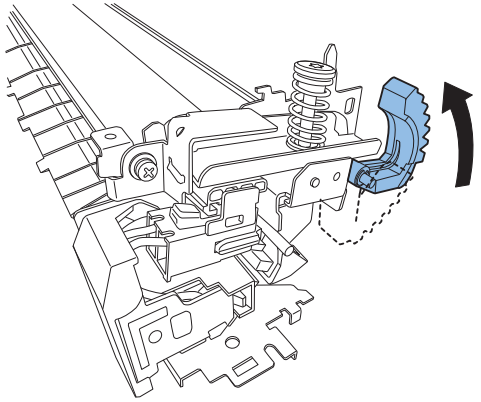
5)Remove the fixing film cover.

- 2 screws



F-4-116

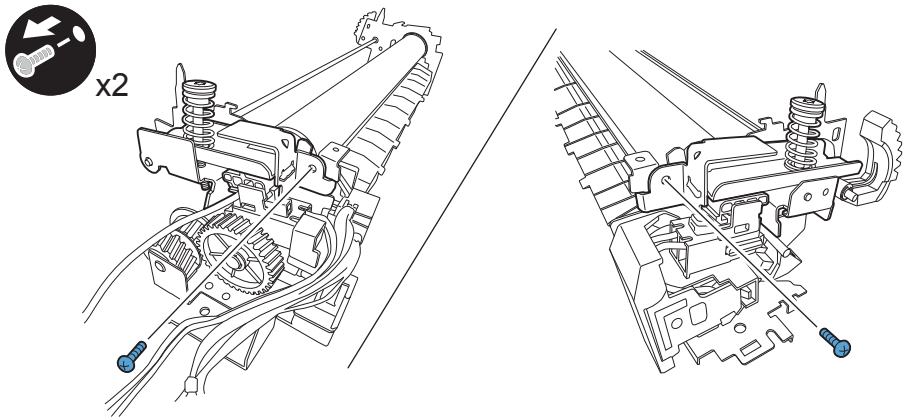
6)Turn the pressure release arm to pressurize the fixing film.



F-4-117

7)Remove the 2 screws retaining the pressure plate units (front/rear).

CAUTION:
Never turn the screws pressurizing the fixing film unit. Turning the screws causes to change the pressure of the fixing film unit and results in the replacement of the fixing unit because the pressure adjustment cannot be performed in the field.

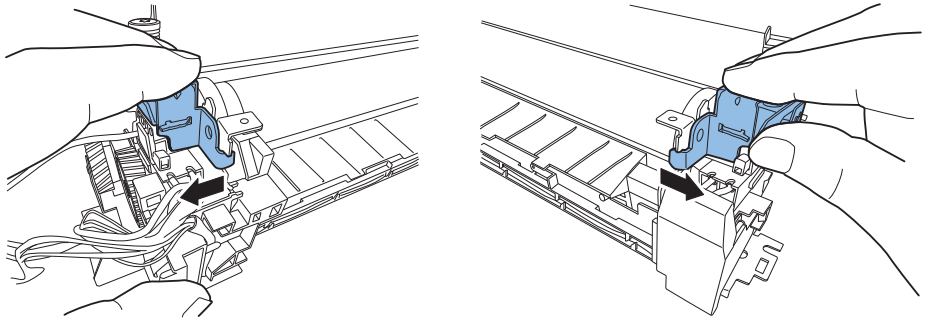


F-4-118

8)Release the pressure plate units (front/rear) to the arrow direction.

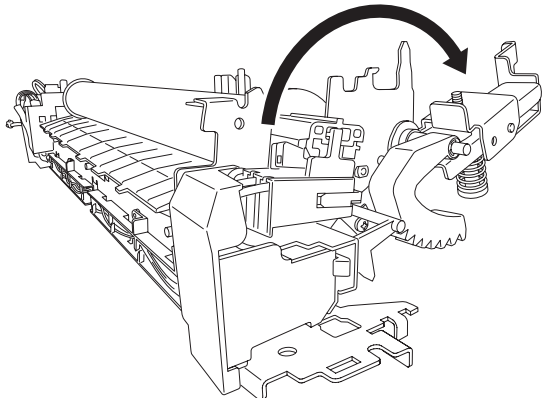
CAUTION:

Release the pressure plate units while pressing the upper part of them, because the units are pressurized.



F-4-119

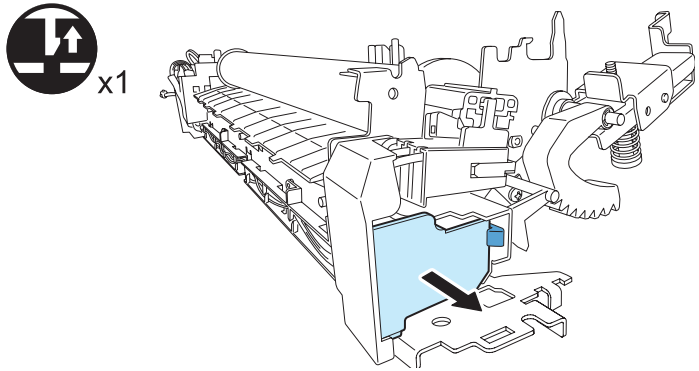
9)Turn the pressure plate units and separate them from the fixing film.



F-4-120

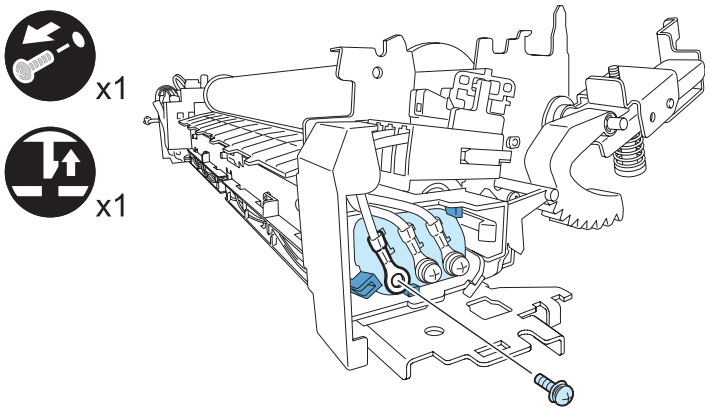
10)Remove the terminal cover.

- 1 claw



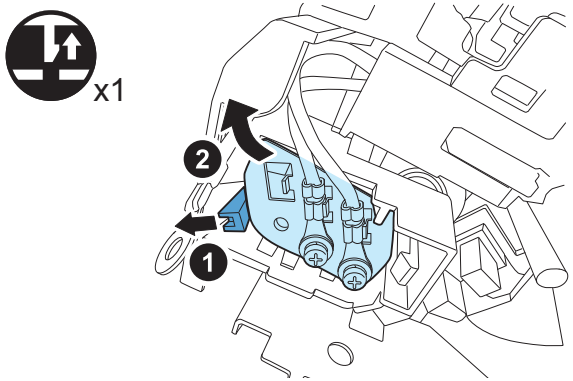
F-4-121

11)Remove the 1 screw retaining the terminal.



F-4-122

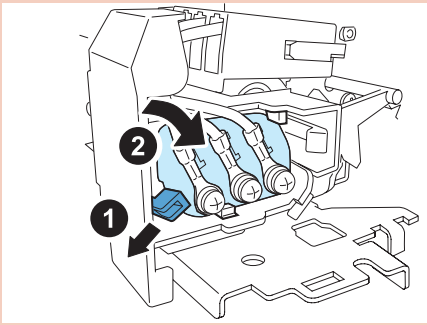
12)Releasing the claw, take out the terminal plate to the arrow direction.



F-4-123

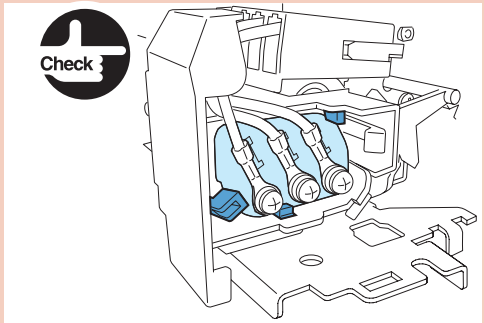
CAUTION: Points to Caution when installing the terminal plate

- Install the terminal plate while releasing a nail.



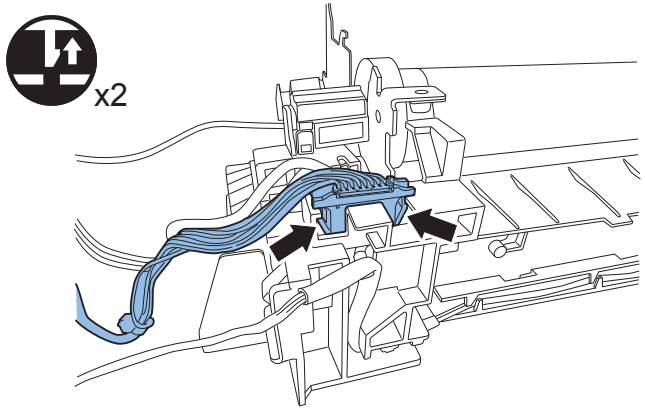
F-4-124

- Confirm that the terminal plate is fixed by 3 nails.



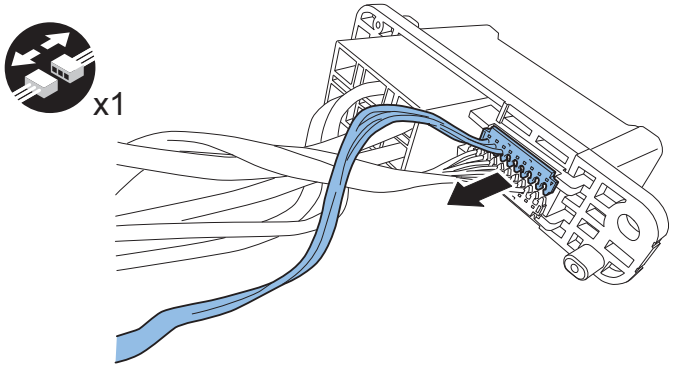
F-4-125

13)Press the both sides of the connector holder with the condition that the connector is attached, and then remove the connect holder.



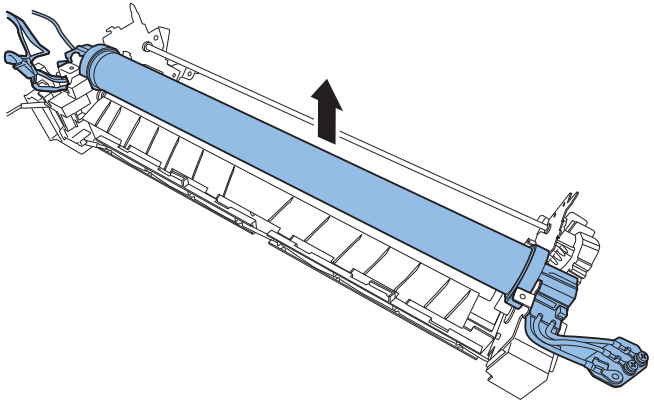
F-4-126

14)Disconnect the connector from the drawer connector.



F-4-127

15)Take out the fixing film unit.



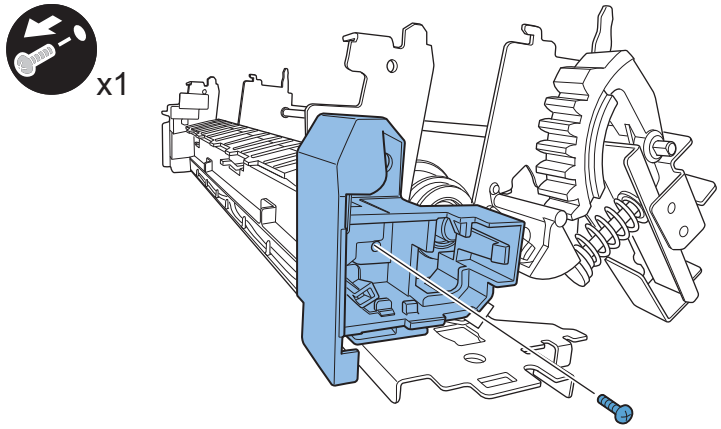
F-4-128

Removing the Pressure Roller

1)Remove the fixing film unit. (Refer to page 4-58)

2)Remove the cable holder.

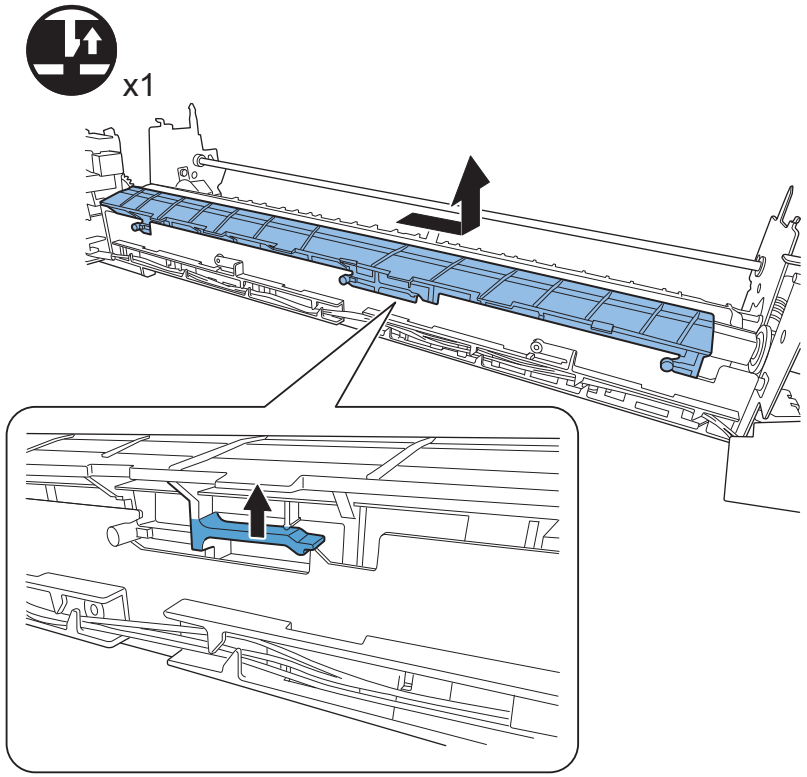
- 1 screw



F-4-129

3)Remove the fixing entrance guide.

- 1 claw

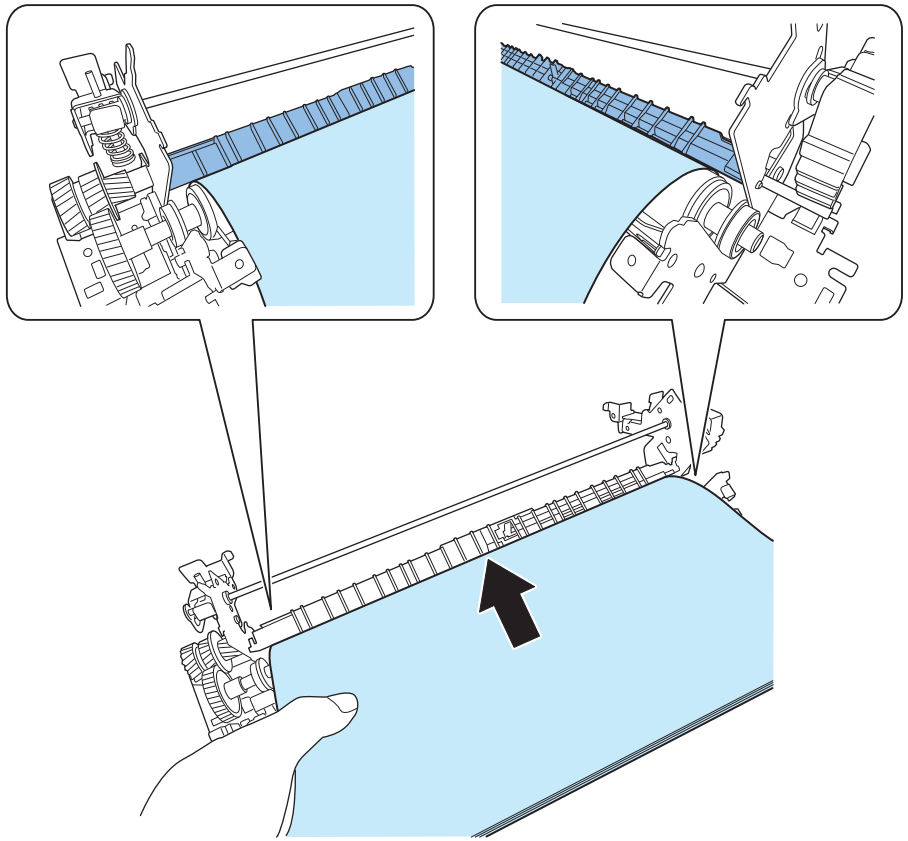


F-4-130

4) Insert the 5 to 6 sheets of plain paper between the fixing entrance guide and the pressure roller so that all ribs of the exit guide are covered with the paper.

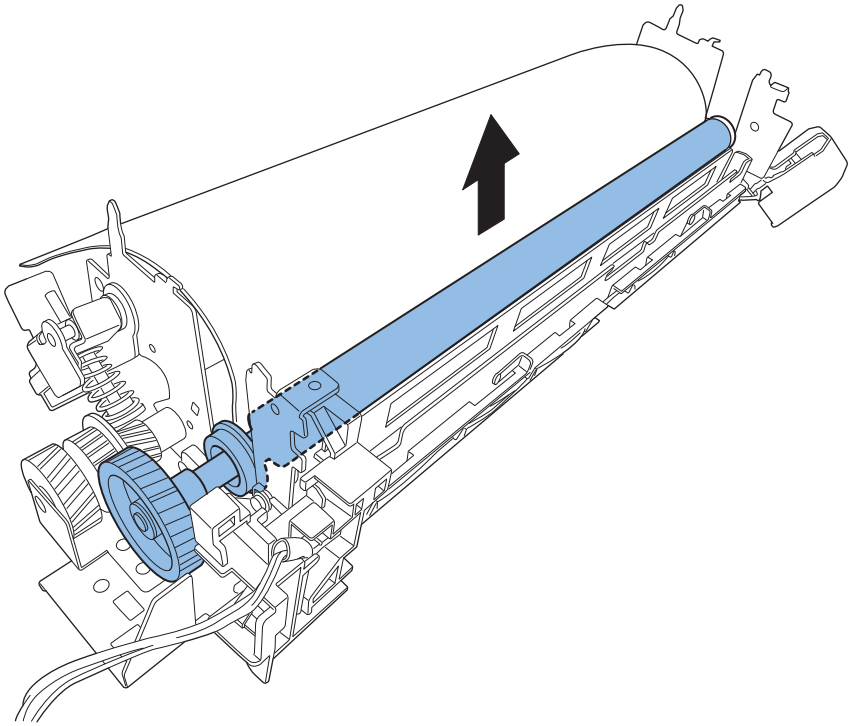
CAUTION:

If the pressure roller is removed without inserting paper, the pressure roller will contact with the ribs on the exit guide so that the surface of the pressure roller is damaged. Surely insert the 5 to 6 sheets of paper between the fixing entrance guide and the pressure roller before removing the pressure roller.



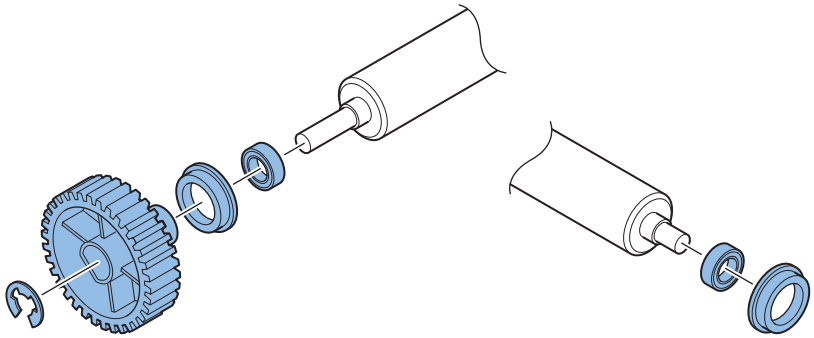
F-4-131

5) Remove the pressure roller.



F-4-132

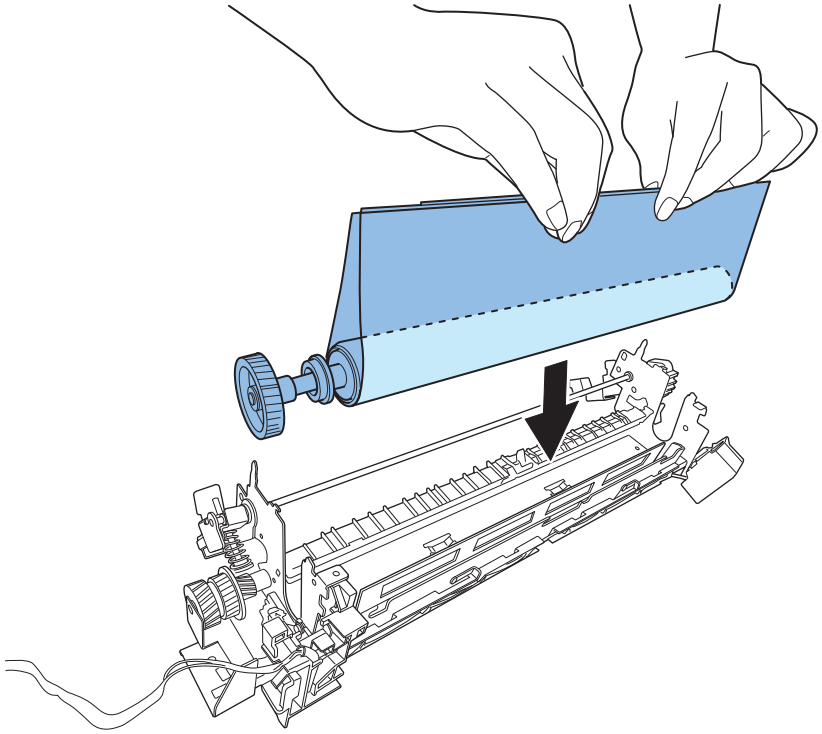
6)Remove the E ring, pressure roller gear, bushings and bearings.



F-4-133

CAUTION:

When the pressure roller is installed, set the pressure roller after covering the whole surface of the roller with 5 to 6 sheets of plain paper.
Pull out the paper by turning the pressure roller gear with a hand.



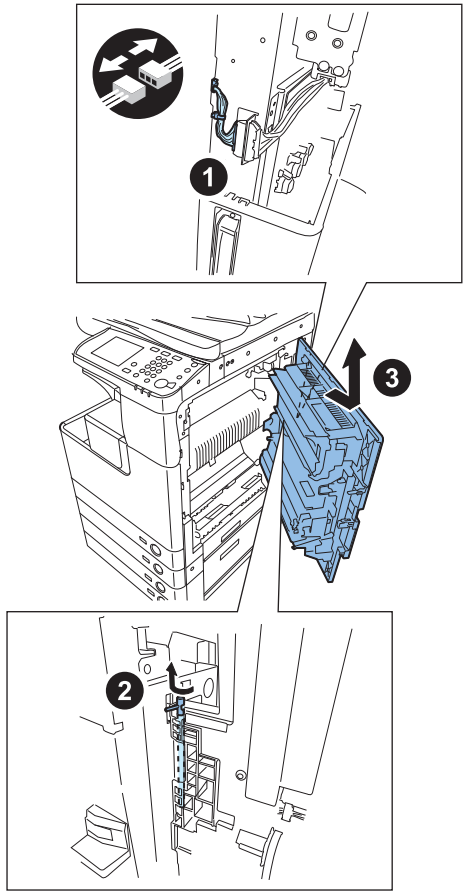
F-4-134

Pickup Feed System

Removing the Right Cover Unit

1) Open the right cover.
2) Open the rear right cover (Lower).(Refer to page 4-67)
3) Remove the right cover unit.

- 1 connector-
- 1 pin

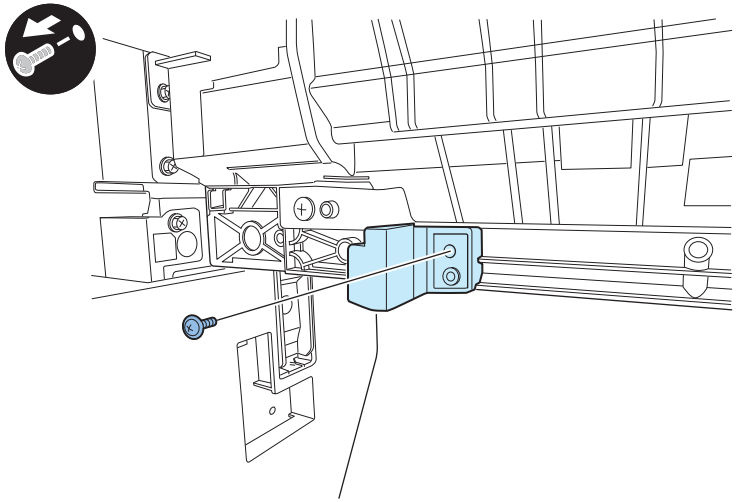


F-4-135

Removing the Cassette Pickup Unit 1

1) Draw out the cassette.
2) Open the right cover.
3) Remove the stopper cover.

- 1 screw



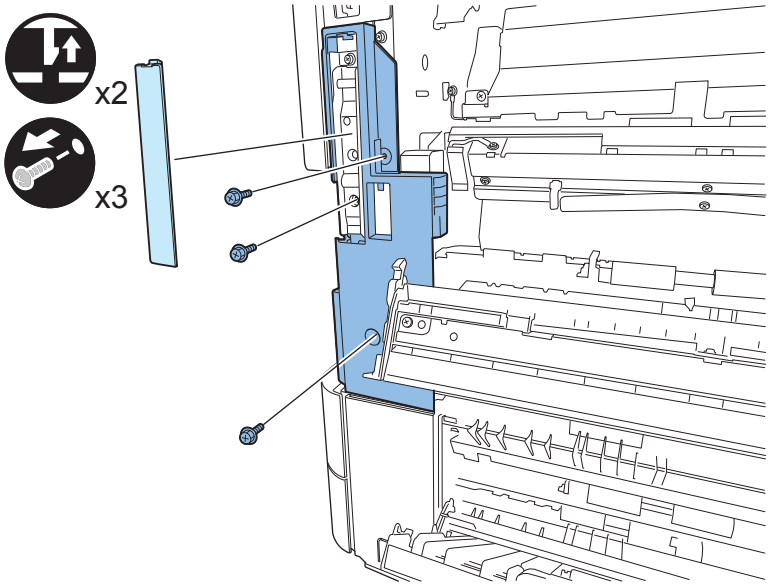
F-4-136

4) Remove the right cover (lower).(only when the cassette feeding unit is not installed)
5) Remove the rear right cover (lower).(Refer to page 4-23)

6) Remove the handle cover.

7) Remove the front right cover (lower)

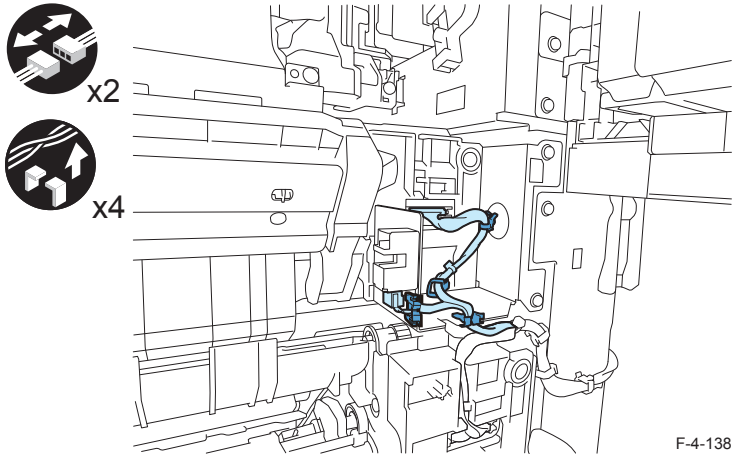
- 3 screws
- 2 claws



F-4-137

8) Remove the connection cable.

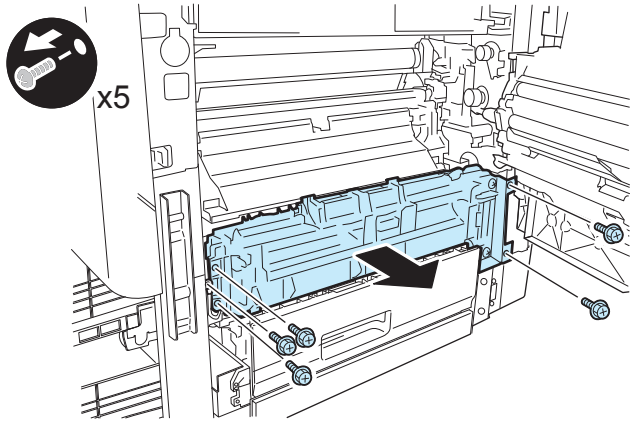
- 2 connector
- 4 clamps



F-4-138

9) Remove the cassette pickup unit 1.

- 5 screws

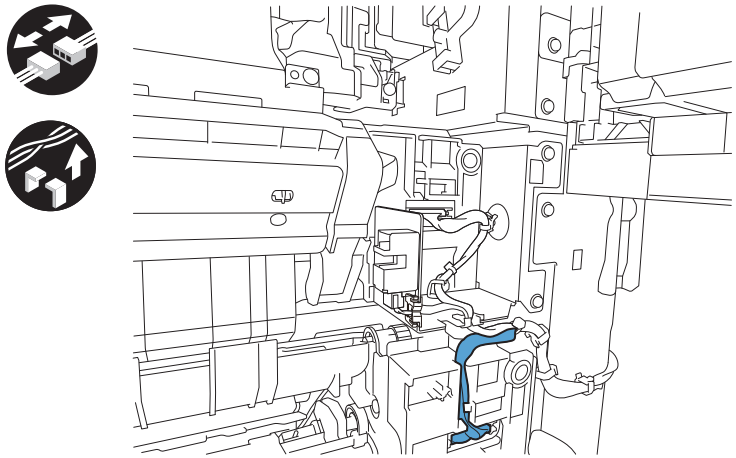


F-4-139

NOTE:
Open the right cover unit to the maximum, and remove it while lifting the rear side of the paper pickup unit 1.

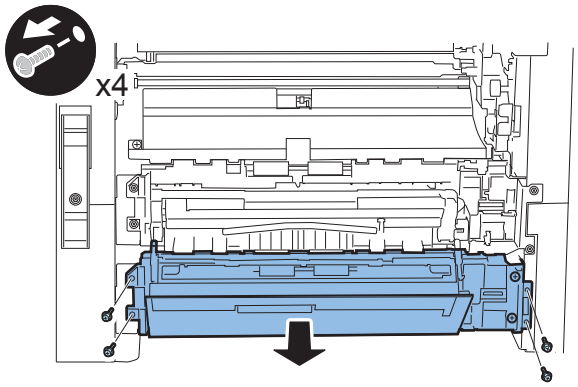
Removing the Cassette Pickup Unit 2

1) Draw out the cassette.
2) Open the right cover.
3) Remove the right cover (lower).(only when the cassette feeding unit is not installed)
4) Remove the rear right cover (lower).(Refer to page 4-23)
5) Remove the front right cover (lower).(Refer to page 4-68)
6) Unload the cable harness from the cable guide.
- 1 connector



F-4-140

7) Remove the cassette pickup unit 2.
- 4 screws

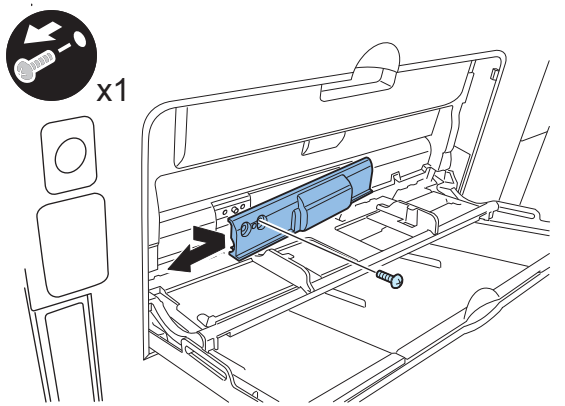


F-4-141

Removing the Manual Feed Pickup Roller

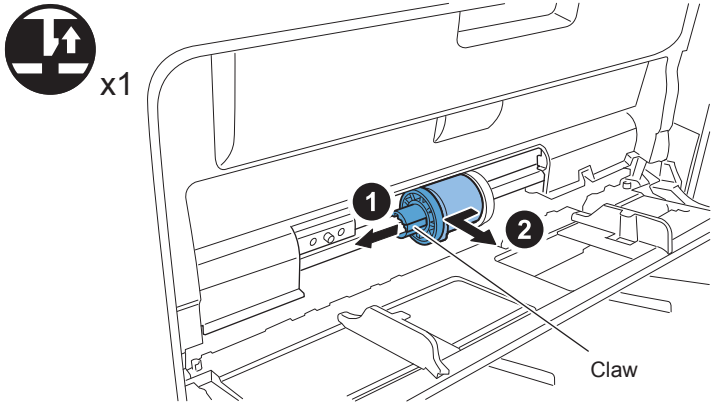
CAUTION:
Do not touch the roller surface during work.

1) Remove the manual feed pickup roller cover.
- 1 screw



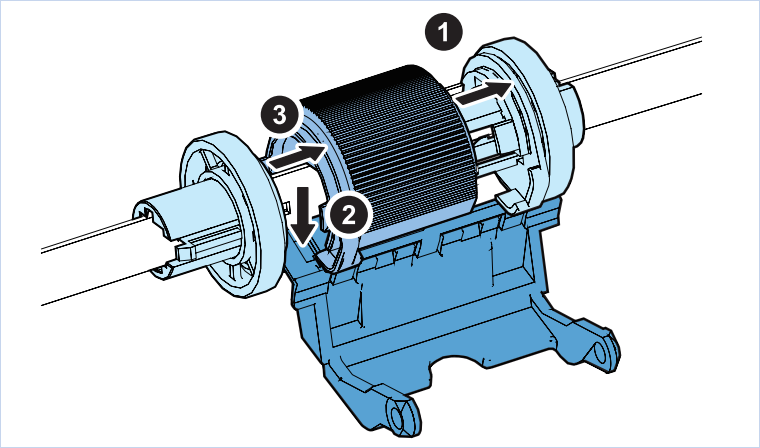
F-4-142

2) Release the claws, and then slide the bushing (front).
3) Remove the manual feed pickup roller.
- 1 claw



F-4-143

NOTE:
Reassemble the manual feed pickup roller as shown.
1. Fit the hole of the manual feed pickup roller to the projection of the bushing (rear) and attach it.
2. Press down the separation pad.
3. Attach the bushing (front) to the manual feed pickup roller.

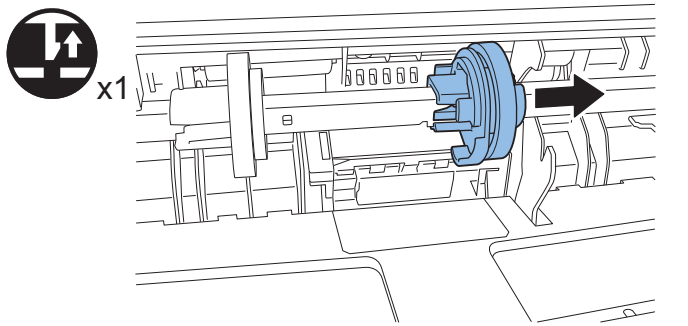


NOTE:
When replacing the consumable parts, be sure to clear the parts counter.
(COPIER > COUNTER > DRBL-1 > M-FD-RL)

Removing the Manual Feed Separation Pad

CAUTION:
Do not touch the pad surface during work.

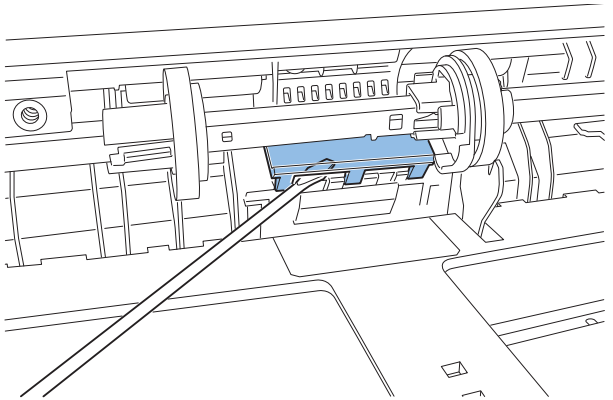
1) Remove the manual feed pickup roller. (Refer to page 4-69)
2) Slide the bushing (rear) backward.
- 1 claw



F-4-144

3) Remove the separation pad with a flat-blade screwdriver.

NOTE:
Insert a screwdriver diagonally.



F-4-145

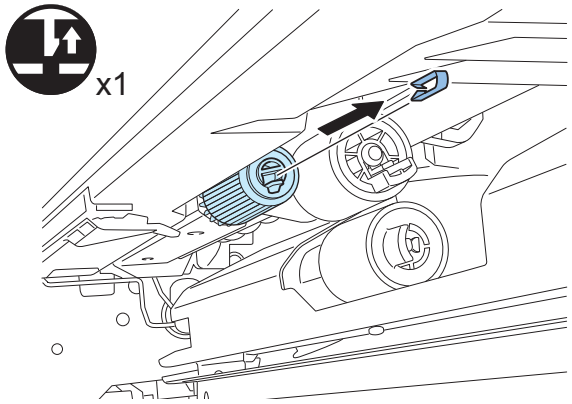
NOTE:
When replacing the consumable parts, be sure to clear the parts counter.
(COPIER > COUNTER > DRBL-1 > M-SP-PD)

Removing the Cassette Pickup Roller

CAUTION:

Do not touch the roller surface during work.

1) Draw out the cassette from the main unit.
2) Open the right cover.
3) Remove the leaf spring with your fingers.
4) Remove the cassette pickup roller.
- 1 claw



F-4-146

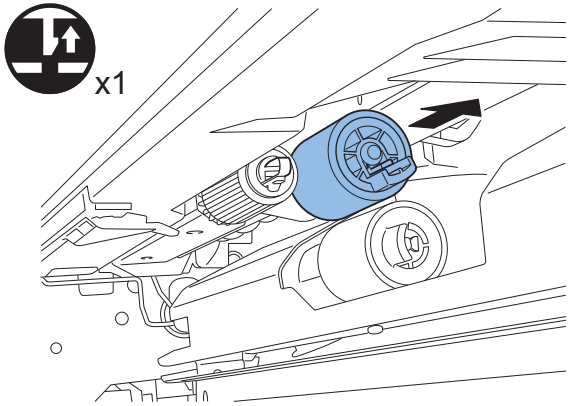
NOTE:
When replacing the consumable parts, be sure to clear the parts counter.
- Cassette 1 (COPIER > COUNTER > DRBL-1 > C1-PU-RL)
- Cassette 2 (COPIER > COUNTER > DRBL-1 > C2-PU-RL)

Removing the Cassette Feed Roller

CAUTION:

Do not touch the roller surface during work.

1) Draw out the cassette from the main unit.
2) Open the right cover.
3) Remove the cassette transfer roller.
- 1 claw



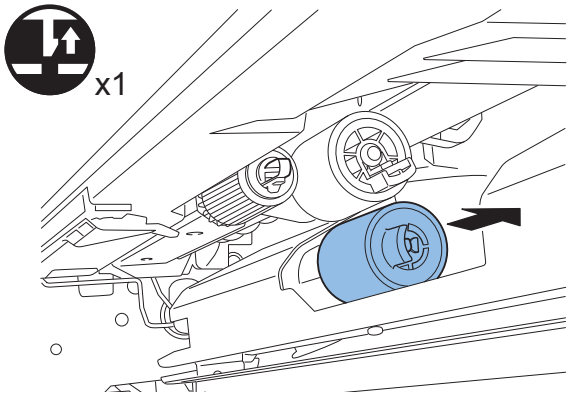
F-4-147

NOTE:
When replacing the consumable parts, be sure to clear the parts counter.
- Cassette 1 (COPIER > COUNTER > DRBL-1 > C1-FD-RL)
- Cassette 2 (COPIER > COUNTER > DRBL-1 > C2-FD-RL)

Removing the Cassette Separation Roller

CAUTION:
Do not touch the roller surface during work.

1) Draw out the cassette from the main unit.
2) Open the right cover.
3) Remove the cassette separation roller.
- 1 claw



F-4-148

NOTE:
When replacing the consumable parts, be sure to clear the parts counter.
- Cassette 1 (COPIER > COUNTER > DRBL-1 > C1-SP-RL)
- Cassette 2 (COPIER > COUNTER > DRBL-1 > C2-SP-RL)

External Auxiliary System

Removing the DC Controller PCB

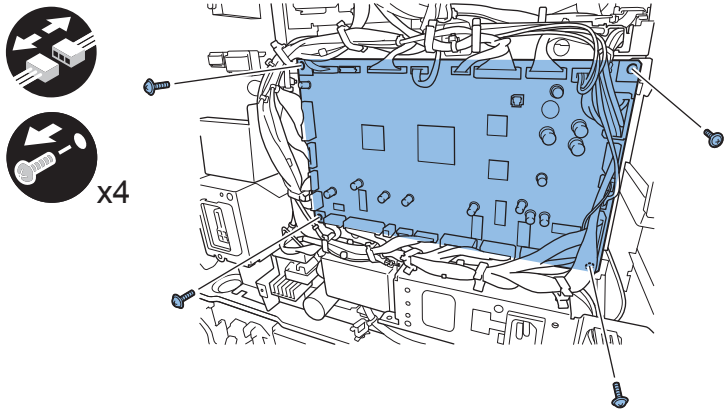
<Preparation>

1) Backup of the Service Mode data
   (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMBUP

<Procedure>

1) Remove the rear cover. (Refer to page 4-21)
2) Remove the lower rear cover. (Refer to page 4-22)
3) Disconnect all connectors on the DC controller PCB.
4) Remove the DC controller PCB.

- 4 screws



F-4-149

<Processing after replacing the parts>

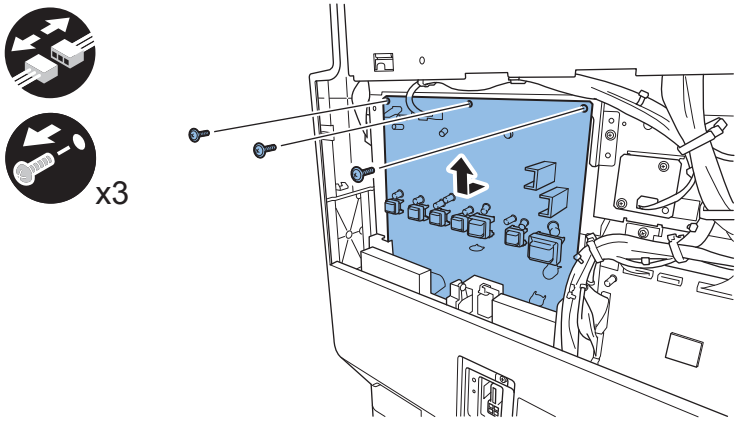
1) Restoring the backup data
   (Lv.2) COPIER>FUNCTION>SYSTEM>DSRAMRES
2) If uploading of backup data fails before replacement due to the damage to the DC controller PCB, enter the values of service mode items recorded on the service label.
3) Turn OFF and then ON the main power switch. (Turning OFF/ON the main power switch allows the values entered for the service mode items to take effect.)

Removing the HVT PCB

<Procedure>

1) Remove the rear cover. (Refer to page 4-21)
2) Disconnect all connectors on the HVT PCB.
3) Remove the HVT PCB.

- 1 connector
- 3 screws



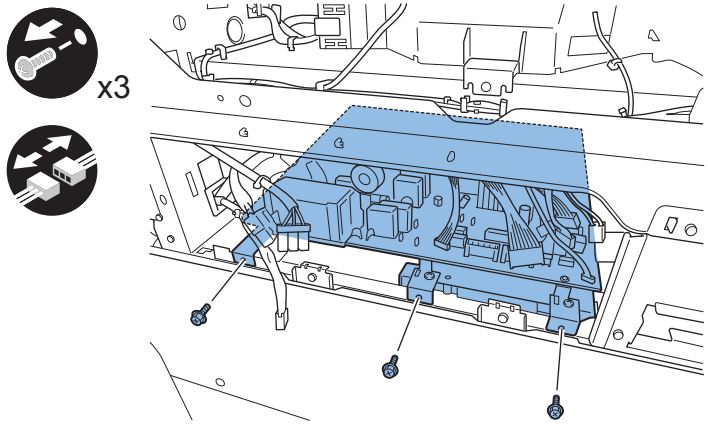
F-4-150

Removing the Power Supply PCB

<Procedure>

1) Remove the inside base cover. (Refer to page 4-19)
2) Remove the left cover. (Refer to page 4-19)
3) Remove the left rear cover. (Refer to page 4-20)
4) Remove the power supply PCB.

- All connectors on the PCB
- 3 screws



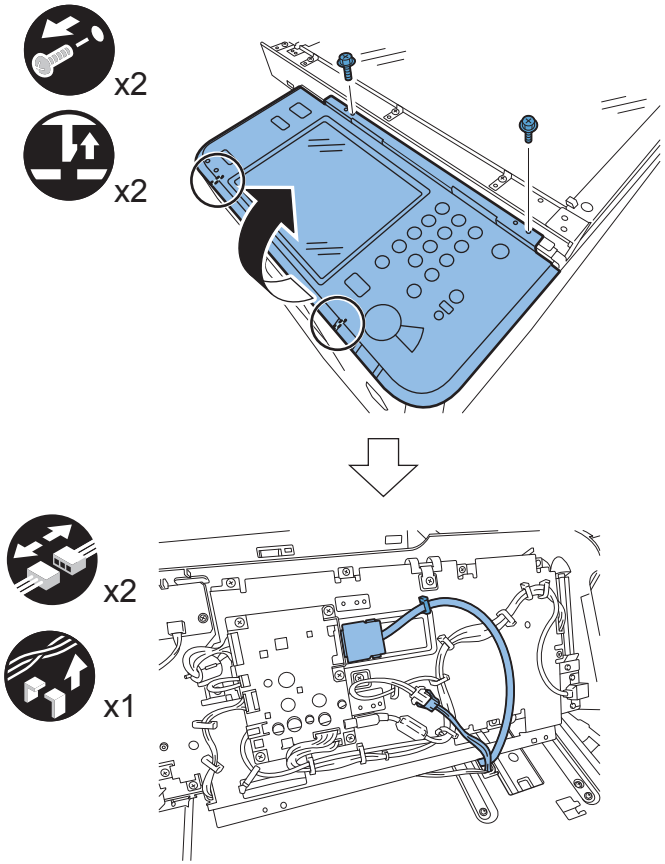
F-4-151

Removing the Control Panel Assembly

<Procedure>

1) Remove the reader front cover. (Refer to page 4-15)
2) Remove the control panel assembly.

- 2 screws
- 2 connectors
- 2 Claws



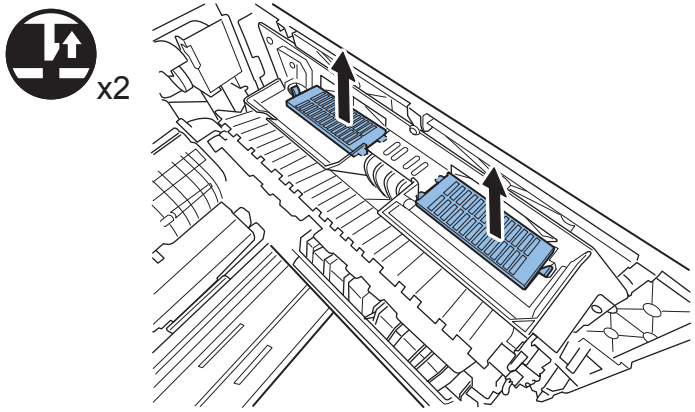
F-4-152

Removing the Air Filter

<Procedure>

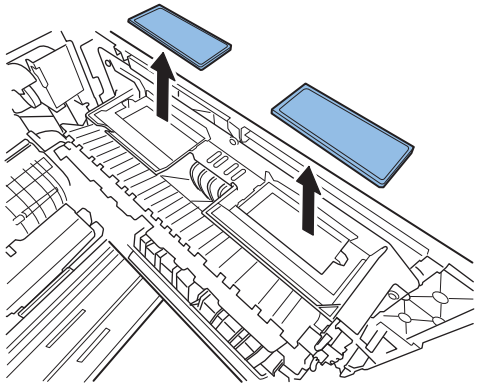
1) Open the right cover.

2) Remove the filter cover (fornt/rear).



F-4-153

3) Remove the air filter (fornt/rear).



F-4-154

5 Adjustment

- Overview
- When replacing parts

Overview

In this chapter, measures of adjustment when replacing parts in servicing operation are mentioned. Parts to be replaced are categorized into 3 blocks based on their related technology as shown below.

Parts Name	Actions at Parts Replacement	Reference
Original Exposure System	Platen Glass	p. 5-2
	ADF Scan Glass	p. 5-3
	CCD Unit	p. 5-3
	Laser Scanner Unit	p. 5-5
Controller System	HDD	p. 5-4
	Main Controller PCB 1	p. 5-6
	Main Controller PCB 2	p. 5-7
	TPM PCB	p. 5-10
External Auxiliary System	DC Controller PCB	p. 5-6

T-5-1

When replacing parts

Original Exposure System

Platen Glass

<Procedure>

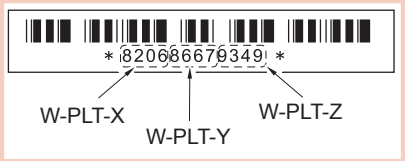
"Removing the Platen Glass"(page 4-24).

<Processing after replacing the parts>

Take the action stated below in the service mode.

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-5-1

1. Enter the value indicated on the platen glass in the following service mode:
   (Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (Input of standard white plate data)
2. Enter the service mode, and then select the following:
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1
   Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
2) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
   (Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2
   Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

■ ADF Scan Glass

<Procedure>
"Removing the Platen Glass"(page 4-24).

<Processing after replacing the parts>
1. Enter the service mode, and then select the following:
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
2) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)
3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3
Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)
4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.
(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4
Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

■ CCD Unit

<Preparation>
1) Backup of the Service Mode data
(Lv.2) COPIER> FUNCTION> SYSTEM> RSRAMBUP

<Procedure>
"Removing the CCD Unit"(page 4-26).

<Processing after replacing the parts>

NOTE:
The EEPROM on the CCD PCB memorizes the reader-related service mode.
The CCD unit of the service part is supplied in the state that adjustment value was written.

1.If uploading of backup data succeeds before replacement
1) Restoring the backup data
(Lv.2) COPIER>FUNCTION>SYSTEM>RSRAMRES
2) Input the service label value packaged in the service parts content.
When changing the setting value, write a changed value in the service label inside the reader rear cover.

COPIER> ADJUST> CCD>	(Lv.1)	MTF3-M1
	(Lv.1)	MTF3-M2
	(Lv.1)	MTF3-M3
	(Lv.1)	MTF3-M4
	(Lv.1)	MTF3-M5
	(Lv.1)	MTF3-M6
	(Lv.1)	MTF3-M7
	(Lv.1)	MTF3-M8
	(Lv.1)	MTF3-M9
	(Lv.1)	100-RG
	(Lv.1)	100-GB
	(Lv.1)	50-RG
	(Lv.1)	50-GB
	(Lv.1)	100-RG-2
	(Lv.1)	100-GB-2
	(Lv.1)	50-RG-2
	(Lv.1)	50-GB-2
	(Lv.1)	100-RG-3
	(Lv.1)	100-GB-3
	(Lv.1)	50-RG-3
	(Lv.1)	50-GB-3

T-5-2

3) Make an output of P-PRINT.

(Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT

4) Store the outputted P-PRINT into the service book.

5) After turning OFF/ON the power, make a copy and check the copied image.

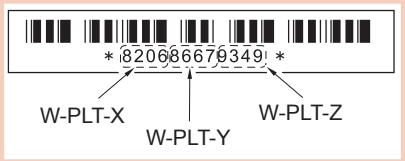
2.If uploading of backup data fails before replacement

1) Enter the value indicated on the platen glass in the following service mode:

(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (Input of standard white plate data)

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



F-5-2

2) Perform the following in the service mode:

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (DF white level adjustment)

2-1) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)

2-2) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

2-3) Place a sheet of paper that the user usually uses on the platen glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level in the BOOK mode. (Check the transparency of the glass for BOOK mode.)

2-4) Place a sheet of paper that the user usually uses on the DF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level in the DF mode (stream reading). (Check the transparency of the glass for stream reading.)

3) Enter the service mode, and then select the following:
(Lv.1) COPIER> FUNCTION> INSTALL> STRD-POS CCD (stream reading position adjustment)
4) Adjust tray width. Perform either AB system or Inch system.
a. AB system adjustment
1) Adjust the slide guide to the index "A4/A3".
2) Select the item in the service mode.
(Lv.1) FEEDER > FUNCTION > TRY-A4
3) Press OK, and register the A4 width.
4) Adjust the slide guide to the index "A5R".
5) Select the item in the service mode.
(Lv.1) FEEDER > FUNCTION > TRY- A5R
6) Press OK, and register the A5R width.
b. Inch system adjustment
1) Adjust the slide guide to the index "LTR/11x17".
2) Select the item in the service mode.
(Lv.1) FEEDER > FUNCTION > TRY-LTR
3) Press OK, and register the LTR width.
4) Adjust the slide guide to the index "STMT/LTRR/LGL".
5) Select the item in the service mode.
(Lv.1) FEEDER > FUNCTION > TRY- LTRR
6) Press OK, and register the LTRR width.
5) Finalize the setting in the following service mode.
(Lv.1) COPIER> ADJUST> CCD> CCD-CHNG> 1 (Data at factory shipment is not used)
6) Make an output of P-PRINT.
(Lv.1) COPIER > FUNCTION > MISC-P > P-PRINT
7) Store the outputted P-PRINT into the service book.
8) After turning OFF/ON the power, make a copy and check the copied image.

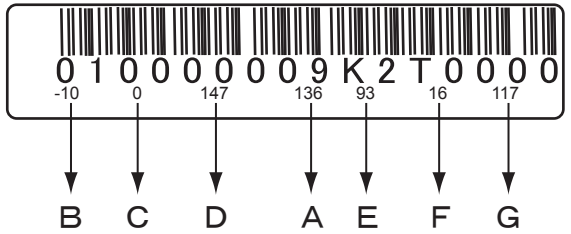
Laser Scanner Unit

<Procedure>

"Removing the Laser Scanner Unit"(page 4-45).

<Processing after replacing the parts>

- When replacing the laser unit, enter the values recorded on the label affixed to the laser unit to be replaced for the following in the service mode:



F-5-3

Adjust of write start position of laser
A.(LV1) COPIER > ADJUST > LASER > PVE-OFST > 136
Difference in magnification between the lasers.
B.(LV1) COPIER > ADJUST > LASER > LDADJ1-K > -10
C.(LV1) COPIER > ADJUST > LASER > LDADJ2-K > 0
D.(LV1) COPIER > ADJUST > LASER > LDADJ3-K > 147
Difference in the phase between the lasers
E.(LV1) COPIER > ADJUST > LASER > LDADJ4-K > 93
F.(LV1) COPIER > ADJUST > LASER > LDADJ5-K > 16
G.(LV1) COPIER > ADJUST > LASER > LDADJ6-K > 117

External Auxiliary System

DC Controller PCB

<Preparation>

1) Backup of the Service Mode data
   (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMBUP

<Procedure>

"Removing the DC Controller PCB"(page 4-73).

<Processing after replacing the parts>

1) Restoring the backup data
   (Lv.2) COPIER>FUNCTION>SYSTEM>DSRAMRES
2) If uploading of backup data fails before replacement due to the damage to the DC controller PCB, enter the values of service mode items recorded on the service label.
3) Turn OFF and then ON the main power switch. (Turning OFF/ON the main power switch allows the values entered for the service mode items to take effect.)

Overview

In this chapter, measures of adjustment when replacing parts in servicing operation are mentioned. Parts to be replaced are categorized into 4 blocks based on their related technology as shown below.

When replacing parts

Controller System

HDD

<Procedure of parts replacement>

HDD 4-40

<Procedure of adjustment>

1. Before Replacing

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Management Settings > Data Management > Back Up/Restore

Target data:

	User	Service
Address Lists	Remote UI Import/Export	None
Settings/Registration > Paper Type Management Settings	Remote UI Import/Export	None
Quick Menu Settings	Remote UI Import/Export	SST (Meapback)
Default setting	None	SST (Meapback)
Other Register Options Shortcuts	None	SST (Meapback)
History of the setting	None	SST (Meapback)
Quick Menu Settings	Remote UI Import/Export	SST (Meapback)
Certificate Settings	None	None
Mail Box Settings *1	Remote UI Back Up/Restore Settings	SST (SramImg)
Advanced Box Settings	Remote UI Back Up/Restore Settings	SST (SramImg)
Printer Settings	Remote UI Back Up/Restore Settings	SST (SramImg)
Web Access Favorites	Remote UI Import/Export	None
MEAP Settings	SMS	SST (Meapback)
Document of non-transmission	None	None
Settings/Registration : Management Settings : Device Management > Display Log	None	None
Settings/Registration : Management Settings : Device Management > Key and Certificate Settings	None	None
PS font	None	None
Key information to TPM to use for coding	Settings/Registration Administrator Management Settings TPM Settings	SST (SramImg)

T-5-3

Box settings *1.
There is the following in Box settings.
- User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)
- Image data of User Box, Confidential Fax Box, and System Box Image Data
- Image forms stored in the Form Composition mode

2) Printing the set/registered data
Use the service mode.
(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT
List of the set/registered data which cannot be backed up is printed.

2. After Replacing
1) HDD format
1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main powerswitch.)
1-2) Use SST to format all partitions.
2) Downloading system software
2-1) Use SST to download the system software (System, LANG, RUI and others).
3) Initializing the key, certificate and CA certificate
(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY
4) Turning OFF and ON the main power switch
5) Restoring the backup data
Use the Remote UI.
Management Settings > Data Management > Import/Export
Management Settings > Data Management > Back Up/Restore
6) Resetting/registering the data
While referring to the list of set/registered data which was printed before replacement, reset/register the data.
7) When the user generates and adds the encryption key, certificate and/or CA ertificate, request the user to generate them again.
8) Executing “Auto Adjust Gradation (Full Adjust)”
Settings/Registration mode: Adjustment/Maintenance > Adjust Image Quality > Auto Adjust Gradation

When using the Card Reader and imageWARE Accounting Manager

Card ID used for imageWARE Accounting Manager is stored in the HDD, so NSA collection control is not enabledafter the HDD replacement. After the HDD is replaced, reinstall the card ID from imageWARE Accounting Manager using the following procedures.

1) Go to COPIER > FUNCTION> INSTALL > CARD and enter the numerical value of the leading card which is used for Department ID. Then, press “OK” button.(e.g.: If No.1 to No.1000 cards are used for Department ID, enter “1” of the leading card.)
2) After turning OFF and ON the main power switch, perform the following operations from Settings/Registration mode.
In Management Settings > User Management > Department ID Management > Page Totals, be sure that “ID00000001” to “ID00001000” are created.
Set the following: Preferences > Network > TCP / IP Settings > IPv4 Settings> IP Address Settings > IP Address, Gateway Address, Subnet Mask
In Management Settings > User Management> System Manager Information Settings> System Manager ID and System PIN, register any number for them. Then, turn OFF and ON the main power switch.
If “System Manager ID” and “System PIN” are not registered, “card registration to device” cannot be executed for the imageWARE Accounting Manager setting operation.
3) Download the card ID from imageWARE Accounting Manager to the Main Body again.
4) After downloading is completed, go to Management Settings > User Management > Department ID Management > Page Totals. Be sure that only the downloaded card ID is displayed.
5) Print using the user card registered from imageWARE Accounting Manager. Be sure that the card information used for the target devices of imageWARE Accounting Manager is collected.

CAUTION:Points to Caution when Using the System Software-installed HDD

When using the HDD which was installed the system software of the other achine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

■ Main Controller PCB 1

<Procedure of parts replacement>

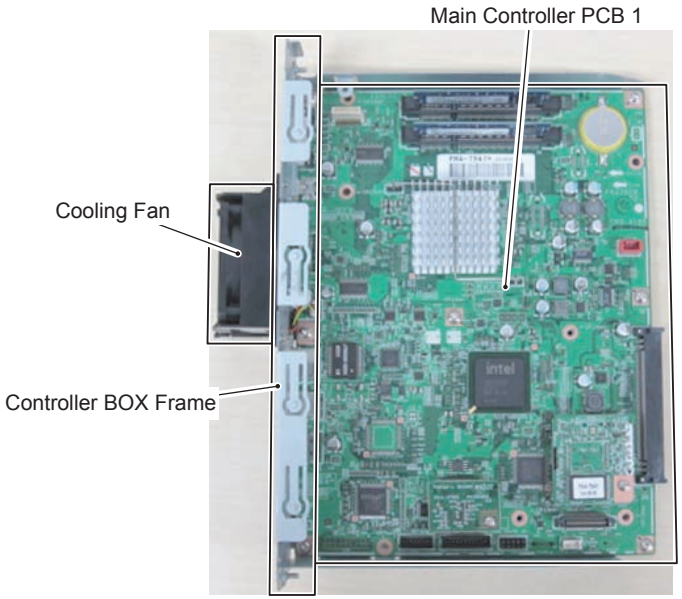
Main Controller PCB 1 4-35

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 1 + Controller Box Frame + Cooling Fan

Parts number differs on a model basis (speed basis).

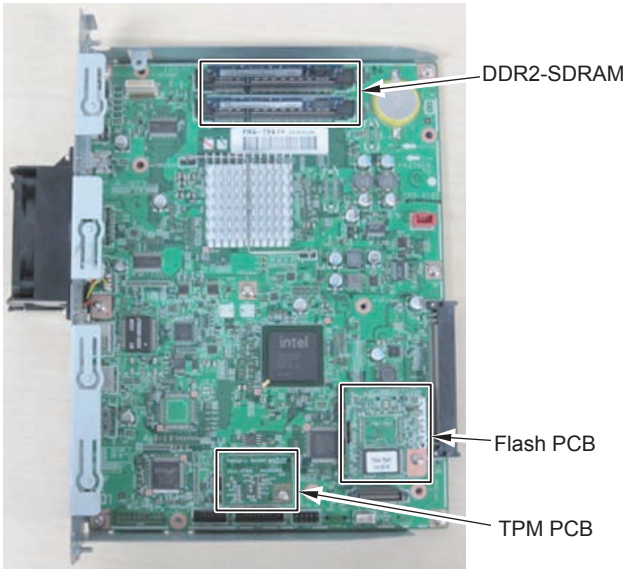


F-5-4

In order to secure the accuracy of connector connection when slotting in, this service part is provided with the PCB being installed to the frame.

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (2 pc.)
- Flash PCB
- TPM PCB



F-5-5

NOTE:
Resetting/registering the data is not necessary after Main Controller PCB 1 is replaced.

■ Main Controller PCB 2

<Procedure of parts replacement>

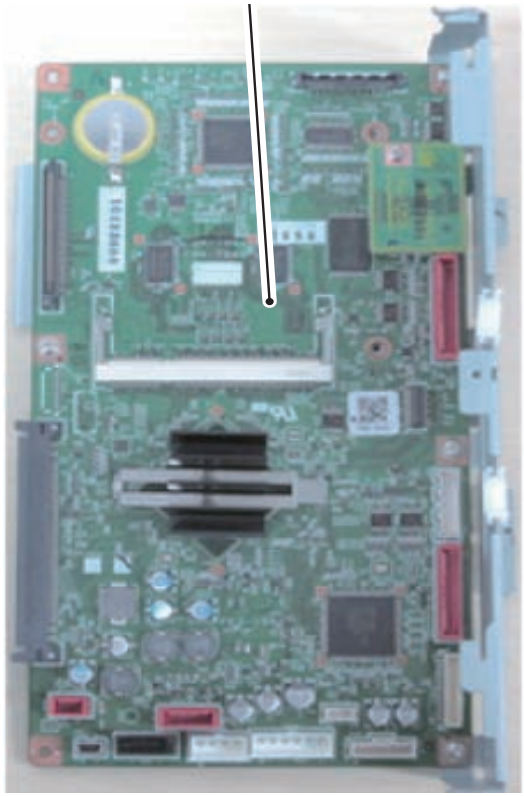
Main Controller PCB 2 4-36

<Procedure of adjustment>

Service part:

Setting unit: Main Controller PCB 2 + Controller Box Frame

Main Controller PCB 2



F-5-6

1. Before Replacing

HDD can evacuate in SRAM of Main Controller PCB 2 with a service mode.

Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK[5] BACKUP

But You cannot use this function when there is HDD Encryption Board.

When there is HDD Encryption Board, like before, I back it up in the following procedures.

a) Back up contents of the SRAM by SST; and re-after board exchange; store it.

Refer to "SRAM backup method when there is HDD Encryption Board".

b) Back up contents of the SRAM by USB memory; and re-after board exchange; store it.

Refer to "Backup SRAM of Main controller 2 by USB memory".

c) Like before, You back it up in a procedure as follows.

Perform the following operations. Be sure to get an approval from the user beforehand.

1) Backup of the set/registered data

Use the Remote UI.

Management Settings > Data Management > Import/Export

Target data:

	User	Service
Forwarding Settings	Remote UI (Import/Export)	SST(SramImg)
Settings/Registration(Except Paper Type Management Settings)	Remote UI (Import/Export)	SST(SramImg)
Mail Box Memory RX Inbox Confidential Fax Inbox	Remote UI (Back Up/Restore Settings)	SST(SramImg)
Form for Superimpose Image	Remote UI (Back Up/Restore Settings)	SST(SramImg)
Auto Adjust Gradation	Enforcement of Auto Adjust Gradation	SST(SramImg)
Key information to TPM to use for coding	Settings/Registration Administrator Management Settings TPM Settings	SST(SramImg)
Service mode MN-CON Settings	None	SST(SramImg)

T-5-4

Note:
Back Up/Restore of the SRAM at the time of replacement of the Main Controller 2 is available provided that the HDD is not replaced.

2) Printing the set/registered data Use the service mode.

(Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed.

SRAM backup method when there is HDD Encryption Board

When the HDD Encryption Board is installed while the version of SST is Ver. 4.41 or later, you do not need to format the HDD or install the system even if you replace Main Controller PCB 2 as long as you can restore the SRAM image.
Procedure:
SST Ver.4.41or later, obey Steps to Upload Data; Single > Upload Data > SramImg.bin > Save

When the HDD Encryption Board is installed:

Data in the HDD is encrypted when the HDD Encryption Board is installed.
For Main Controller PCB 2 to access to data in the HDD, the file description of the Encryption key on the HDD Encryption Board needs to be the same as that of SRAM on Main Controller PCB 2; otherwise, Main Controller PCB 2 cannot access to the data in the HDD and this causes failure in startup of the machine.

When the following parts are replaced, the procedure is as follows:

- Replacement of the HDD Encryption Board
  > Inconsistent description of encryption key file between Main Controller PCB 2 and SRAM on the HDD Encryption Board.
- Replacement of Main Controller PCB 2
  > Inconsistent description of encryption key file between Main Controller PCB 2 and SRAM on the HDD Encryption Board.
- Replacement with a new HDD
  > Select the following because there is no system data in the HDD: Format ALL > Download the system software

With SST Ver. 4.31 or before, it was necessary to format the HDD (Format ALL), and then install the system in any case.
With SST Ver.4.41 or later, if the description of SRAM (SramImg.bin) on Main Controller PCB 2 is kept in the PC, you can restore SramImg.bin on Main Controller PCB 2 by using SST after holding down 2 and 8 to start the machine.
When the description of SRAM on Main Controller PCB 2 can be restored, it means that the file description is the same as that of the encryption key on the HDD Encryption Board, which enables access to the HDD.

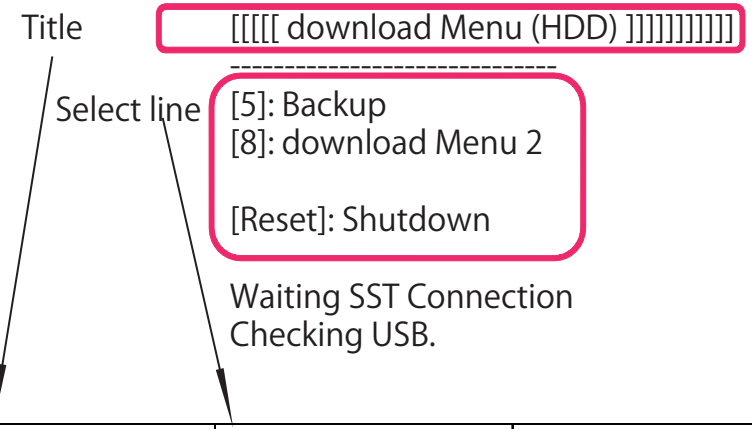
Therefore, you do not need to format the HDD or install the system when the file description of SRAM can be restored even if replacing Main Controller PCB 2.

Backup SRAM of Main controller 2 by USB memory:

Prepare for:
"USB memory storage device, which the system software for this machine is stored."
or
The USB memory recognize it in the Host machine.
On USB memory, You make the blank folder of the same name to recognize USB memory on a service mode when You registered a system software for Host machine by SST.

Ex: iA4045

Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK
[5] BACKUP
According to a list, perform a Backup Restore as follows.
Viewpoint of the Table:



	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	″5″
3	download Menu (USB)	/[5] has been selected. E>	″0″
4	Backup Menu (USB)	[7]: SRAM(USB)	″7″
5	Backup Menu (USB)	/[7] has been selected. E>	″0″

F-5-7

Backup SRAM of Main controller 2 by USB memory			
	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[5]: Backup	"5"

Backup SRAM of Main controller 2 by USB memory			
	Title	Select line	Operation
3	download Menu (USB)	/[5] has been selected. Execute?/-(OK):0	"0"
4	Backup Menu (USB)	[7]: SRAM(USB)	"7"
5	Backup Menu (USB)	/[7] has been selected. Execute?/-(OK):0	"0"
6	[SramImg.bin] Backup OK. ---Please hit any key---		"0"
7	Backup Menu (USB)	[C]: Return to Main Menu	"C"
8	download Menu (USB)	[Reset]: Shutdown	"Reset"
9	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
10	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
11	A power supply is cut automatically.		

T-5-5

SRAM Restore

While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.

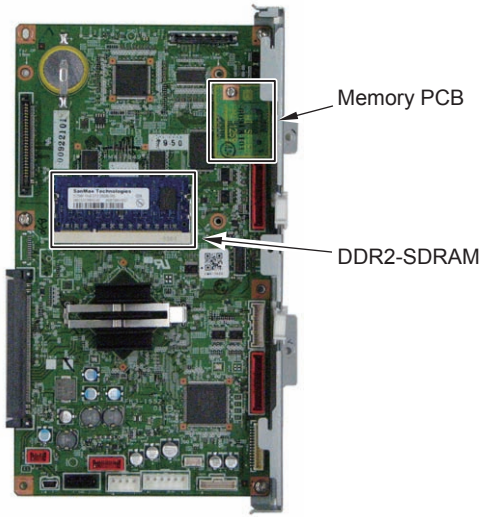
Restore in SramImg.bin in the USB memory			
	Title	Select line	Operation
1	download Menu (HDD)		Connect USB memory.
2	download Menu (USB)	[8]: download Menu 2	"8"
3	download Menu (USB)	/[8] has been selected. Execute?/-(OK):0	"0"
4	download Menu 2nd (USB)	[2]: Restore	"2"
5	download Menu 2nd (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
6	Restore Menu (USB)	[2]: SRAM(USB)	"2"
7	Restore Menu (USB)	/[2] has been selected. Execute?/-(OK):0	"0"
8	[SramImg.bin] Restore OK. ---Plese hit any key---		"0"
9	Restore Menu (USB)	[C]: Return to download Menu 2nd	"C"
10	download Menu 2nd (USB)	[C]: Return to Main Menu	"C"
11	download Menu (USB)	[Reset]: Shutdown	"Reset"
12	download Menu (USB)	/[Reset] has been selected. Execute?/-(OK):0	"0"
13	download Menu (USB)	Remove USB Device then shut down. ---Please hit Reset Key to start shutdown.---	Remove USB memory. "Reset"
14	A power supply is cut automatically.		

T-5-6

2. When Replacing

1) Transferring the parts from old PCB to new PCB

- DDR2-SDRAM (1 pc.) (When option DDR2-SDRAM is installed: 2 pc.)
- Memory PCB



F-5-8

Prohibited Operation:

Do not transfer the following parts to another model (which has a different serial number).If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.

- Main Controller PCB 1
- Main Controller PCB 2 (with Memory PCB installed)
- Memory PCB

3. After Replacing
1) After installing the parts, turn ON the main power switch.
2) Restoring the backup data
Perform following either:
a) You download it if You upload SramImg.bin by SST.
SST Ver.4.41or later, obaey Steps to Download Data; Single > Download Data > SramImg.bin > Start
b) Carry out Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK [8]
Download Menu 2 > [2] Restore
if You carry out [5]BACKUP
c) Use the Remote UI.
Management Settings > Data Management > Import/Export
3) Resetting/registering the data
While referring to the list of set/registered data which was printed out before replacement, reset/register the data.
4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again

■ TPM PCB

<Procedure of parts replacement>
.Main Controller PCB 1 4-35
<Procedure of adjustment>
When TPM setting is “OFF”
Any operation is not necessary at replacement.

When TPM setting is “ON”
It is necessary to restore the TPM key which was backed up after changing the setting to “ON”.
1) Removing the network cable
Until the TPM key is restored, information might be leaked due to the inappropriate access via network, so be sure to perform this operation appropriately.
2) Connecting the USB Memory after turning ON the main power switch
3) Restoring the TPM key
Management Settings > Data Management >TPM Settings> Restore of TPM Key
4) Turning OFF and ON the main power switch

6 Troubleshooting

- Initial Check
- Test Print
- Troubleshooting items
- Version upgrade
- Controller Self Diagnosis
- Version Upgrade via CDS
- Debug log

Initial Check

Initial check items list

Item	No.	Detail	Check
Site Environment	1	The voltage of the power supply is as rated (+/-10%).	
	2	The site is not a high temperature / humidity environment (near a water faucet, water boiler, humidifi er), and it is not in a cold place. The machine is not near a source of fi re or dust.	
	3	The site is not subject to ammonium gas.	
	4	The site is not exposed to direct rays of the sun. (Otherwise, provide curtains.)	
	5	The site is well ventilated, and the floor keeps the machine level.	
	6	The machine's power plug remains connected to the power outlet.	
Checking the Paper	1	The paper is of a recommended type.	
	2	The paper is not moist. Try paper fresh out of package.	
Checking the Placement of Paper	1	Check the cassette and the manual feed tray to see if the paper is not in excess of a specific level.	
	2	If a transparency is used, check to make sure that it is placed in the correct orientation in the manual feed tray.	
Checking the Durables	1	Check the table of durables to see if any has reached the end of its life.	
Checking the Periodically Replaced Parts	2	Check the scheduled servicing table and the periodically replaced parts table, and replace any part that has reached the time of replacement.	

T-6-1

Checking Each Unit/Each Function System

Item	No.	Detail	Check
Reader	1	Check that there is no cut, dirt or any foreign particle on the scanner system parts.	
	2	Check that the CCD unit moves smoothly and there is no dirt on the rail.	
	3	Check that the lump light does not blink.	
	4	Check that there is no dew condensation found on the scanning system parts.	
Image formation system	1	Check that the drum unit and developing assembly are properly installed.	
	2	Check that there is no cut and dirt on the photosensitive drum.	
	3	Check that the transfer roller is not worn and deformed and has no cut/dirt.	
Fixing system	1	Check that the fixing film and pressure roller is not worn and deformed and has no cut/dirt.	
	2	Check that the fixing thermistor wire is not cut.	
	3	Check that there is electrical conductivity among thermoswitch.	
Pickup feed system	1	Check that there is no foreign particle such as paper dust etc.	
	2	Check that the pickup/feed/separation roller does not accumulate the paper dust. Check that these rollers are not worn and deformed and have no cut/dirt.	
	3	Check that the registration roller/paper path roller is not worn and deformed and has no cut/dirt.	
	4	Check that the feed guide is not worn and deformed and has no cut/dirt.	
	5	Check that there is no edge fold/curl/wave/moisture absorption occurred on the paper.	
	6	Check if using Canon recommended paper/transparency makes it better or not.	
Drive system	1	Check that the drive system does not get heavy load.	
	2	Check that the gear is not worn and not get chipped.	
Cassette	1	Check that the cassette is installed properly and the paper size is configured properly. Check if the symptom appears or not after replacing the cassette with the cassette that works normally.	
	2	Check that the cassette middle plate moves smoothly and is not deformed.	
	3	Check that the cassette side guide plate/ trailing edge guide plate is properly set.	
	4	Check that the cassette heater switch is ON (When the cassette heater is installed.).	
General	1	Check that the sensor/clutch/motor/solenoid works properly (Make sure to check the power source and signal transmission route with the general circuit diagram.).	
	2	Check that there is no wire wedged/screw loosened.	
	3	Check that all the external covers are installed.	
	4	Check that the main power switch/control panel power switch is ON.	
	5	Check that the wiring of power cable/signal cable to each option is properly installed.	
	6	Check that the fuse on each PCB does not burn out.	
	7	Check that there is no error in customer's usage method.	
Others	1	If moving the machine from the cold place such as storage etc to a warm place abruptly, dew condensation is generated inside machine and it may cause various troubles. • E100 occurs due to dew condensation on BD sensor. • Low image density in the vertical scanning direction due to dew condensation on the dust-proof glass. • Low image density due to dew condensation on the reader CCD and copyboard glass. • Paper feed failure due to dew condensation on the pickup, feed guide.	
	2	If the symptom d appears, wipe the pickup/feed unit with dry cloth. Moreover, if storing the toner container/developing assembly/drum unit in the cold place and unpacking them abruptly in warm place, dew condensation may be generated. To prevent dew condensation, place them in warm place sufficiently (for 1 to 2 hours) before unpacking.	

T-6-2

Test Print

Overview

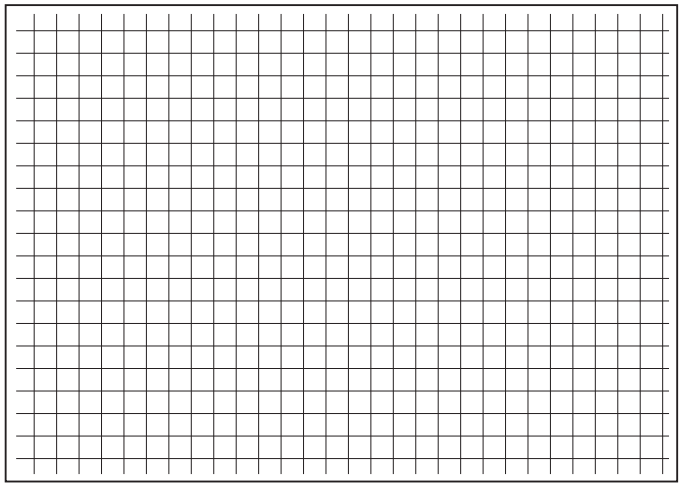
PG TYPE	Pattern	Image check item											PCB to generate PG
		Gradation	Fogging	Transfer failure	Black line	White line	Uneven pitch	Uneven density (rear/ front)	Right angle accuracy Straight line accuracy	Side registration	Shock	Magnification ratio	
0	Normal copy/print												---
1	Grid								Yes	Yes		Yes	Main Controller PCB 2
2	17 gradations Tbic rank 2	Yes			Yes	Yes							Main Controller PCB 2
3	17 gradations 600dpi (134-line screen or 141-line screen)	Yes			Yes	Yes							Main Controller PCB 2
4	Solid white		Yes										Main Controller PCB 2
5	Halftone (density: 80H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
6	Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
7	Solid black			Yes		Yes	Yes	Yes					Main Controller PCB 2
8	Horizontal line (4 dots, 27 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
9	Horizontal line (6 dots, 50 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
10	Horizontal line (2 dots, 3 spaces)				Yes	Yes	Yes	Yes					Main Controller PCB 2
11	Halftone (density: 60H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes		Yes	Yes		Main Controller PCB 2
12	Halftone (density: 60H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
13	Halftone (density: 30H, Tbic rank 2, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
14	Halftone (density: 30H, 134-line screen or 141-line screen, without image correction)			Yes	Yes	Yes	Yes	Yes			Yes		Main Controller PCB 2
15	15 to 50: For development												---

T-6-3

NOTE:
When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.
1. When checking the image of side registration adjustment, use PG TYPE:11.
2. When the setting value of the following service mode is "2" (TBIC is used for both the photo part and the text part), use PG TYPE:5.
   COPIER > OPTION > USER > PH-D-SL2

How to View the Test Print

Grid (TYPE=1)

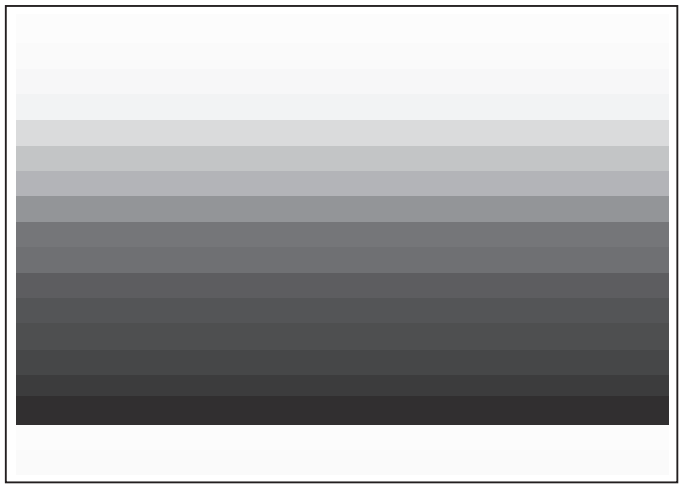


F-6-1

Check item	Check method	Assumed cause
Right angle accuracy/ Straight line accuracy	Check whether lines in the horizontal/ vertical scanning directions are paralleled to the paper and these lines are at right angles to one another.	Feed system failure or Laser Scanner Unit failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Magnification ratio	Check whether the grid is printed at 9.99mm intervals. (Check the image on the second side at duplex printing.)	Rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

T-6-4

17 gradations (TYPE=2/3)

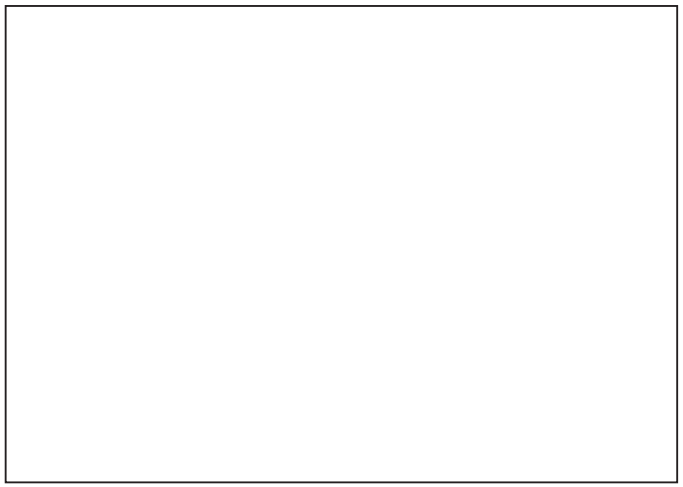


F-6-2

Check item	Check method	Assumed cause
Gradation	Check whether gradation in density is made appropriately.	Drum failure, laser exposure system failure or developing system failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.

T-6-5

■ Solid white (TYPE=4)



F-6-3

Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.

T-6-6

■ Halftone (TYPE=5/6/11/12/13/14)



F-6-4

NOTE:
- When outputting a halftone test print, be sure to use PG TYPE:6 except in the following cases.
  1. When checking the image of side registration adjustment, use PG TYPE:11.
  2. When the setting value of the following service mode is "2" (TBIC is used for both the photo part and the text part), use PG TYPE:5.
     COPIER > OPTION > USER > PH-D-SL2

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or transfer roller failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Shock	Check whether horizontal lines appear on the image.	Rollers' feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

T-6-7

■ Solid black (TYPE=7)

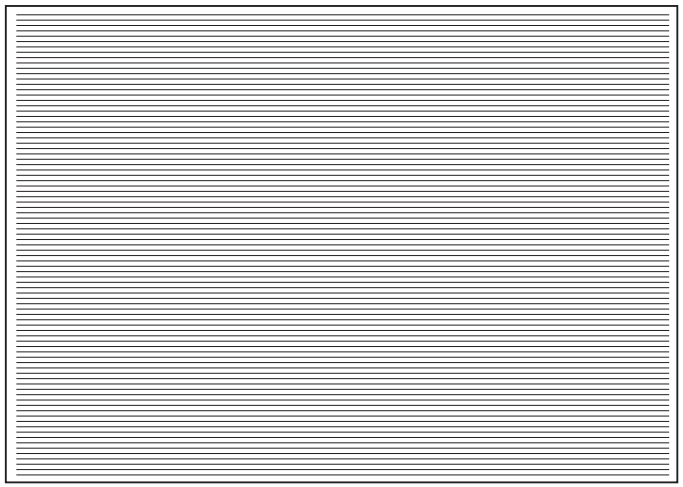


F-6-5

Check item	Check method	Assumed cause
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.

T-6-8

■ Horizontal line (TYPE=8/9/10)



F-6-6

Check item	Check method	Assumed cause
Black line	Check whether black lines appear on the image.	Laser light path failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density (rear/front)	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.

T-6-9

Troubleshooting items

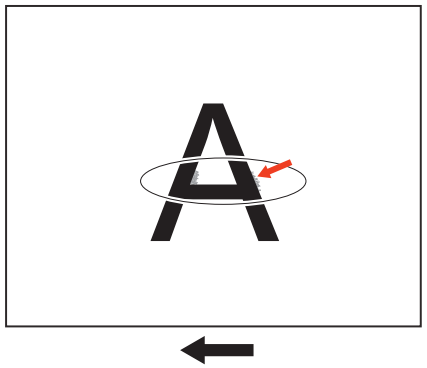
Troubleshooting items

Category		Item	Reference
Image failure	Dirt	Central image tail trace	6-7
		Paper reverse side stained with toner	6-7
		Stained leading/trailing edge of paper	6-8
	Blur/Void	Image transfer wrong/text void	6-8
		Image deletion/blur/dew condensation	6-9
Operation failure	Paper jam	Too large curl	6-9
		Paper jam due to solid image printed on paper with small leading-edge margin (1-4 mm)	6-9
		Thin paper jam (63g/m2 or less)	6-10

T-6-10

Image Faults

Scattered image at center



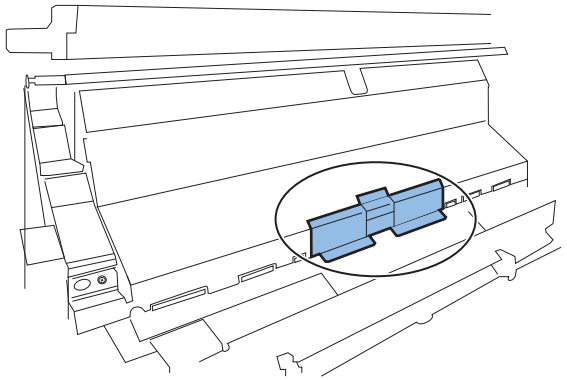
F-6-7

[Occurrence area]
Pre-registration guide (Static eliminator)

[Cause]
An image is scattered by paper dust stuck on the static eliminator of the pre-registration guide.

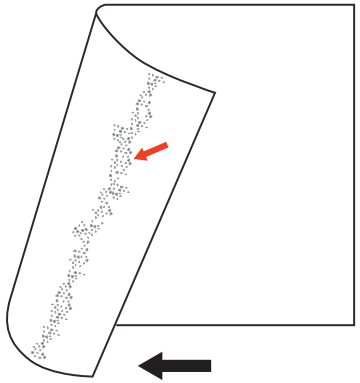
[Occurrence condition]
(A lump of) paper dust is stuck on the static eliminator of the pre-registration guide.

[Remedy]
Cleaning of the static eliminator of the pre-registration transfer guide
1) Remove the right cover.
2) Lightly tap a contaminated part of the static eliminator to remove the paper dust.



F-6-8

Paper Reverse Side Stained with Toner



F-6-9

[Occurrence area]
Fixing assembly (circumference of the roller: approx.94mm)
Transfer roller (circumference: approx.50mm)

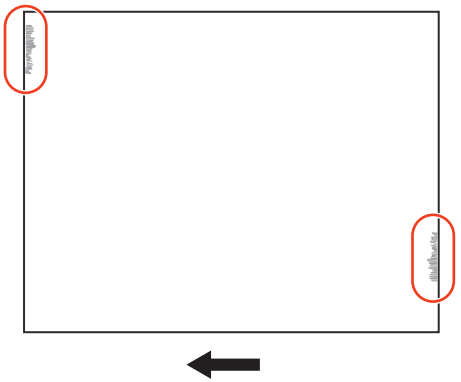
[Cause]

Fixing assembly: Toner came off the paper sticks to the pressure roller, and then the toner sticks to the reverse side of the paper.
Transfer roller: Toner remained on the drum that had stopped at occurrence of a jam. During the recovery operation performed later, the toner sticks to the transfer roller.

[Occurrence condition]
Fixing assembly: When fixing ability is poor due to low temperature, a halftone image has been printed on a lot of sheets of paper, or the time for replacement of the transfer unit is near
Transfer roller: When a paper jam has occurred or the time for replacement of the transfer roller is near.

[Remedy]
Fixing assembly: Service mode(Lv.2)> COPIER> FUNCTION> CLEANING> FIX-CLN> OK
Transfer Roller: Service mode(Lv.2)> COPIER> FUNCTION> CLEANING> TR-CLN> OK

Stained Leading/Trailing Edge of Paper



F-6-10

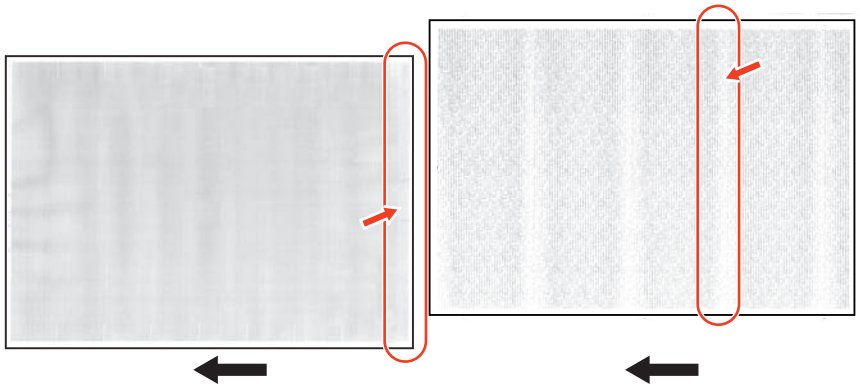
[Occurrence area]
Transfer front guide
Fixing inlet guide

[Cause]
Transfer front guide: The leading or trailing edge of paper touches the toner stuck to the transfer front upper guide.
Fixing inlet guide: The leading or trailing edge of paper touches the toner stuck to the fixing inlet guide.

[Occurrence condition]
When halftone or solid-black images are printed in succession

[Remedy]
Using lens-cleaning paper or the like, clean the guide stained with toner.

Image Transfer Wrong/Text Void



[Occurrence area]
Transfer roller (circumference: 50mm)

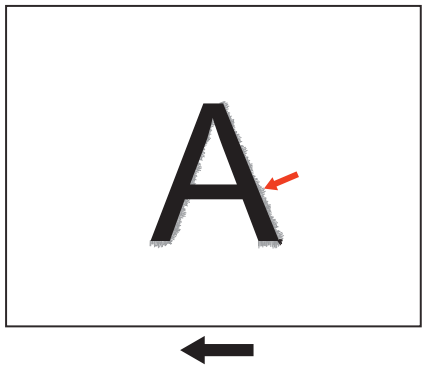
[Cause]
Resistance of paper increases due to reduction in paper water content, resulting in insufficient transfer output.
Resistance of paper decreases due to increase in paper water content, resulting in excessive transfer output.

[Occurrence condition]
Paper left alone in a low-humidity environment
Paper left alone in a high-humidity environment

[Remedy]
- Service mode (Lv.2)> COPIER> OPTION> IMG-TR> TROPT-SW> -2 to 1
  -2/-1: Transfer output voltage decreases.
  0: OFF

1: Transfer output voltage increases.

Image Deletion/Blur/Dew Condensation



F-6-11

[Occurrence area]
Drum (circumference: 94mm)

[Cause]
Corona products generated on the charging roller stick to the drum, and then water molecules adsorb onto them, resulting in reduction in resistance.
Therefore, a desired latent image cannot be formed, resulting in a blurred image.
[Occurrence condition]
When the machine is operated first in the morning under the high-temperature and high humidity environment.

[Remedy]
- Service mode (Lv.2)> COPIER> OPTION> ENV-SET> IMG-BLD1> 1 to 3
  0: OFF
  1: Two minutes extension in the initial rotation
  2: Four minutes extension in the initial rotation
  3: Six minutes extension in the initial rotation
- Install the optional drum heater.

Too Large Curl

[Occurrence area]
Fixing assembly

[Cause]
The water content on the front surface of paper becomes different from that on the reverse side of paper, making the curl larger.

[Occurrence condition]
When the paper has been left alone in a high-humidity environment.

[Remedy]
- Service mode (Lv.2)> COPIER> OPTION> IMG-FIX> TMP-TBLC> 0 to 3
  0: Auto
  1: OFF
  2: N1 mode with plain paper 1/2 (Target temperature becomes low.)
  3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)
- Machine shipped with cassette heater: Turn on the heater.
- Install an optional cassette heater.

Paper Jam due to Solid Image Printed on Paper with Small Leading-Edge Margin (1-4 mm)

[Occurrence area]
Fixing assembly

[Cause]
When a solid image is printed on the paper with a small leading-edge margin (1-4 mm), paper cannot be easily separated from the fixing film, causing a paper jam.

[Occurrence condition]
When the paper has been left alone in a high-humidity environment or when a solid image is printed on the paper with a small leading-edge margin.

[Remedy]
- Service mode (Lv.2)> COPIER> OPTION> FEED-SW> SP-SW> 0 to 2
  0: OFF
  1: Separation priority mode
  2: Not used
- Service mode (Lv.2)> COPIER> OPTION> IMG-FIX> TMP-TBLC> 0 to 3
  0: Auto
  1: OFF

2: N1 mode with plain paper 1/2 (Target temperature becomes low.)
3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)

Thin Paper Jam (63g/m2 or Less)

[Occurrence area]
Drum
Fixing assembly

[Cause]
The separation power reduces due to low elasticity of paper, causing a jam in the drum assembly or fixing assembly.

[Occurrence condition]
When paper thinner than 64g/cm2 paper is used.

[Remedy]

- Service mode (Lv.1)> COPIER> OPTION> IMG-FIX> TMP-TBL5> 0 to 2
  0: OFF
  1: S-thin paper mode (-10 degC compared with Thin paper mode table)
  2: SS-thin paper mode (-15 degC compared with Thin paper mode table)

Version upgrade

Overview

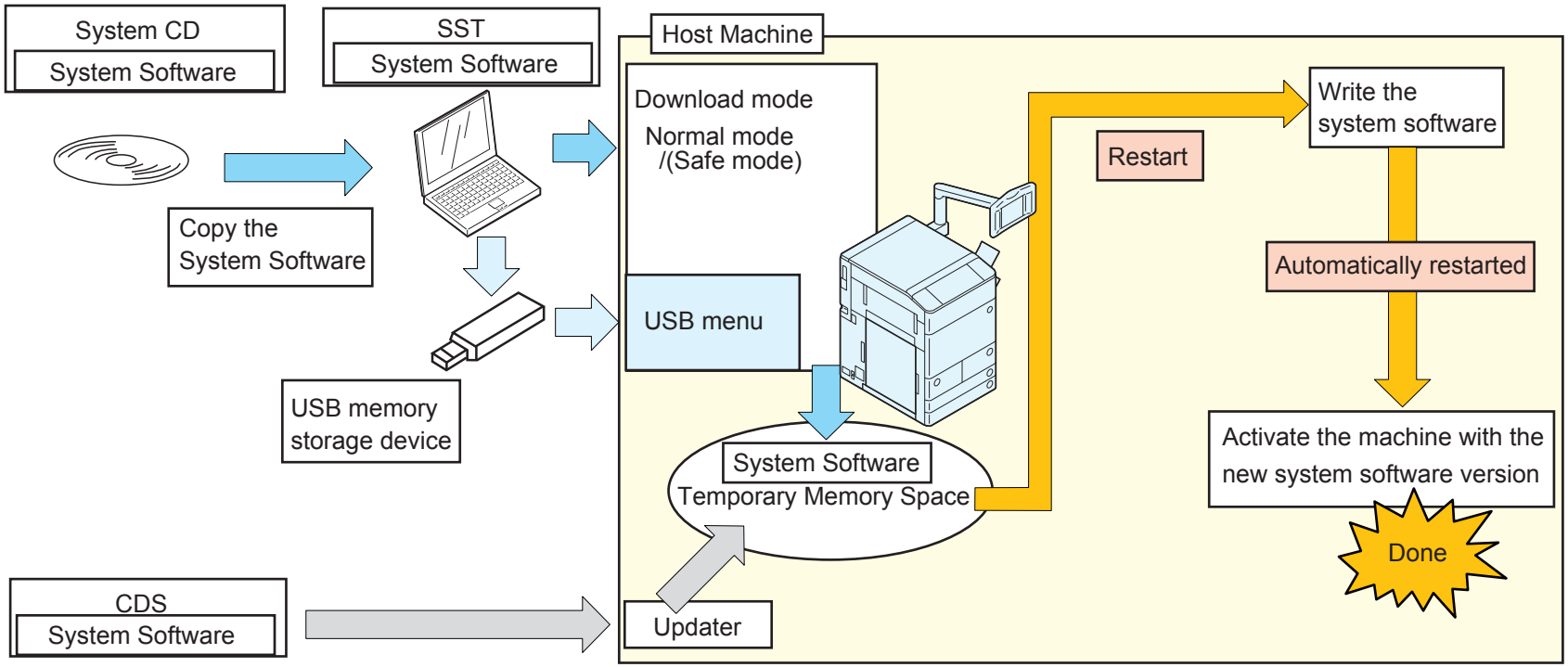
Overview of Version Upgrade

The system software version is upgraded in 2 steps, downloading and writing the new version of the system software.

Downloading System Software

This machine supports the following 3 downloading methods.

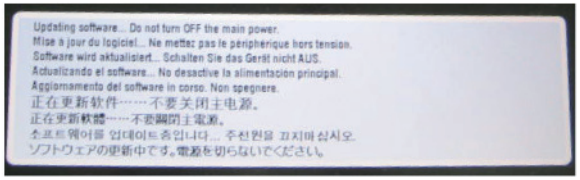
1. Download via the service support tool (hereinafter “SST”)
   Connect this machine to the PC by the cross cable to download the system software using SST installed in the PC.
2. Download using the USB memory storage device
   Insert the USB memory storage device storage device to the slot of the machine and download the system software stored in the device.
3. Download via Contents Delivery System (hereinafter “CDS”)
   Access to CDS via Internet to download the system software directly to the machine.



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Writing System Software

The system software downloaded in either of the above-mentioned methods is stored in the temporary memory space.
After the system software is successfully downloaded, restart the machine to write the software in the machine.
In case the main power switch is turned OFF during the writing process, the machine may not be started.
This machine supports the remote version upgrade via CDS. When upgrading the system software via CDS, the warning message is shown on the control panel to alert the user not to turn OFF the power switch.



F-6-13

When the system software is successfully written, the machine is automatically restarted to activate the downloaded system software.
If any error occurs during the writing process, the error code, E753-0001, is shown.
The name of the system software component is shown to the left of the error log message, “version up…..error”. Check the name if the software is for the option not attached to the machine. If so, turn OFF / ON the machine to recover the error (see Troubleshooting for details).



F-6-14

■ Download Mode

When the version is upgraded via SST or with the USB memory storage device storage device, start the machine in Download mode. This machine has the following 2 Download modes similarly with other iR-series models.

● Normal mode(recommend):

- Start from Copier > FUNCTION > SYSTEM > Download.

● Safe mode:

- Press 2 and 8 keys simultaneously on the numeric keypad when turning on the power.

Note
Usually use Normal mode.
Use Safe mode when you cannot use a service mode or an HDD format.

The normal mode of iR-ADV is different from the conventional iR series in two points of the following.

- It is not necessary to do ON of power switch with while pushing 1+7 keys to 10 key.
  With a service mode, You can start a normal mode.
- When entering Download mode, be sure to go into Service mode after all items of main menu have been displayed.
  This machine reads the version information of system software when it starts. You must start Download mode after the version information has been obtained.

System Software Components

The table below shows the system software components for this machine.

This machine holds the increased number of system software components compared to conventional iR machines to meet vastly extended functionality.

Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	Others	
Host Machine	Main Controller	iA4045	SYSTEM	○	○	-	
	MEAP Controller		MEAPCON	○	○	-	
	Language Module		LANGUAGE	○	○	-	
	Controller System Error Diagnosis		BCT	○	○	-	
	Remote UI Contents		RUI	○	○	-	
	RUI portal		RPTL	○	○	-	
	UI-BOX		BOX	○	○	-	
	UI-COPY		COPY	○	○	-	
	UI-Intro		INTRO	○	○	-	
	UI-SEND		SEND	○	○	-	
	Voice Synthesis Dictionary		TTS	○	○	-	
	Paper Type Information File		MEDIA	○	○	-	
	Service Mode Contents		SMCNT	○	○	-	
	Printer Controller		DCON	○	○	-	
	WebDAV Contents		WEBDAV	○	○	-	
	Resources for Web Browser		BROWSER	○	○	-	
	Reader Controller(2-sided Double Pass)		RCONS	○	○	-	DADF-AG1
	FAX Board Boot Program		G3CCB	○	○	-	Super G3 FAX Board-AK1/Super G3 2nd Line Fax Board-AK1/Super G3 3rd/4th Line Fax Board-AE1
	Fax Board Main Program		G3CCM	○	○	-	Super G3 FAX Board-AK1/Super G3 2nd Line Fax Board-AK1/Super G3 3rd/4th Line Fax Board-AE1

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Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	Others	
Host Machine	Key/ Certificatefor Encrypted Communication	iAxxxx	KEY	○	○	-	
	OCR Libraly		SDICT	○	○	-	
Staple Finisher-G1/ Booklet Finisher-G1	Finisher Controller	FIN_G1	FIN_CON	○	○	-	Staple Finisher-G1/ Booklet Finisher-G1
	Saddle Controller		SDL_CON	○	○	-	Booklet Finisher-G1
External 2-hole Puncher B1	Punch Controller	EXP_B1	EXP_ CON	-	-	○	External 2-hole Puncher B1
Inner Finisher-D1	Finisher Controller	IFN_D1	FIN_CON	○	○	-	Inner Finisher-D1
Inner 2 Hole Puncher-A1				-	-	○	Inner 2 Hole Puncher-A1

T-6-12

■ Note on Download Process

Warning: Never turn OFF the power during the download / writing process.

Turning off the power during the download / writing process may cause a failure of machine start-up at power-on.

If this occurs, start the machine in Safe mode (by pressing 2 and 8 keys simultaneously on the numeric keypad).

When the machine is successfully started in Safe mode, execute formatting of BOOTDEV partition, retry downloading the system software.

CAUTION:

Be sure to use normal mode when using download mode except in a case where it is not possible to start this machine and enter service mode.

In safe mode, version information of SYSTEM, MEAPCONT, LANGUAGE, RUI, and SDICT can be obtained, but version information of other system software such as DCON and RCON cannot be obtained. Therefore the following points to note are required when downloading in safe mode.

[RCON]

The version is not upgraded except in a case where Single mode of SST is used or when "Overwrite all" of USB download menu is used.

[DCON and others]

The following symptoms occur when SST (Single mode) or USB download menu (Auto) is used.

- The time for download/write becomes longer because the software is overwritten even when system software of the same version is being written.
- A confirmation message is not displayed when a lower version is going to be downloaded.

Version Upgrade via SST

Overview

The system software can be downloaded either of the two modes below via SST.

- Assist mode(recommended)
- Single mode

Assist mode provides the following features.

- Attached option types are automatically recognized.
- The new versions of the system software for attached option types are automatically searched.
- The set of system software with interactive behavior confirmed is automatically downloaded.
- The accessories attached to the host machine are automatically recognized to download the system software for each accessory.

Single mode provides the following features.

- The system software download individually are possible.
- The HDD format by manual operation are possible.
- The service mode password reset are possible.
- Upload and the download of data are possible.

This machine holds a number of system software components that mutually interacts during operation. Behaviors of such system software should be confirmed when these are downloaded as the set. Thus, Assist mode is basically recommended to download the system software for this machine.

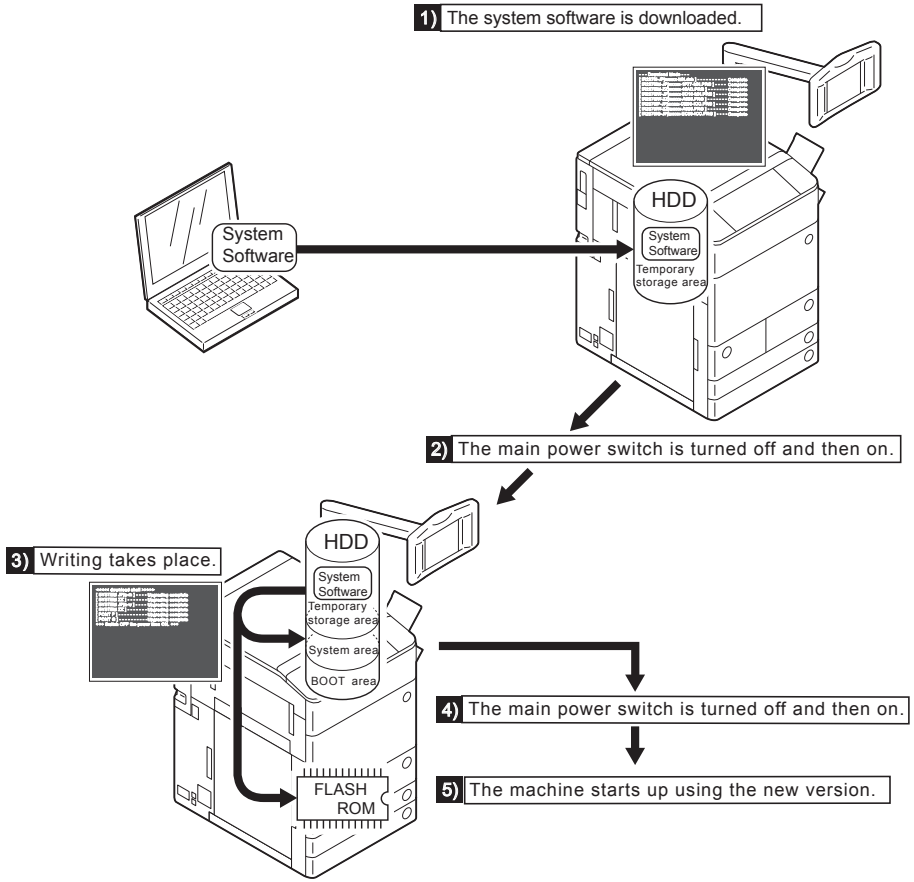
NOTE:
Use Single mode only when any of the following conditions is met.

- When downloading some the system software components, i.e. DCON, RCON or options.
- When reloading the system software after HDD is formatted

Downloading the System Software

System software is saved in the temporary storage area on HDD after downloaded with SST. Restart the machine after download so that it will be written to the system area, and the flash ROM.

After the writing has been completed normally, this machine automatically restarts with the new system software.



F-6-15

■ Copying System Software

● System CD -> SST

Copy the system software stored in the system CD to SST.

NOTE:
The system software is compressed if the file size exceeds the CD memory capacity.
If the above is the case, decompress the file before copying it to SST.

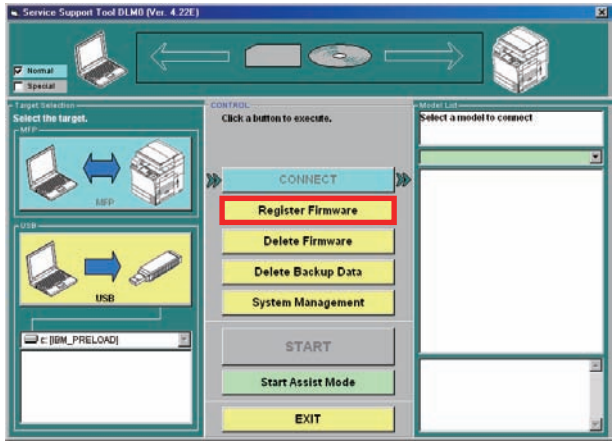
Preparation

Requirements:

- PC with SST Ver.4.41 or later installed
- The system CD for this machine

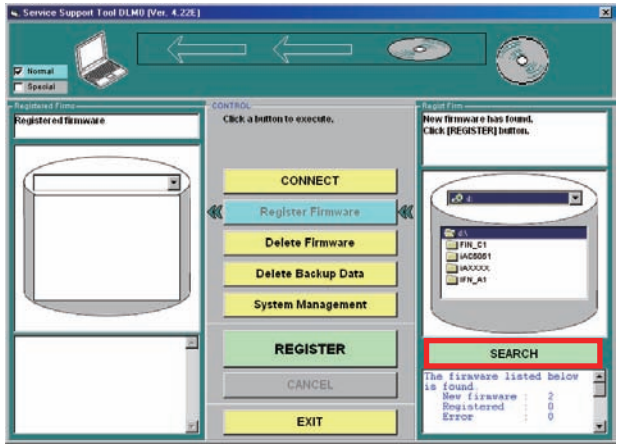
Steps to copy the system software

1) Start the PC
2) Set the system CD in the PC
3) Start SST
4) Click “Register Firmware” button.



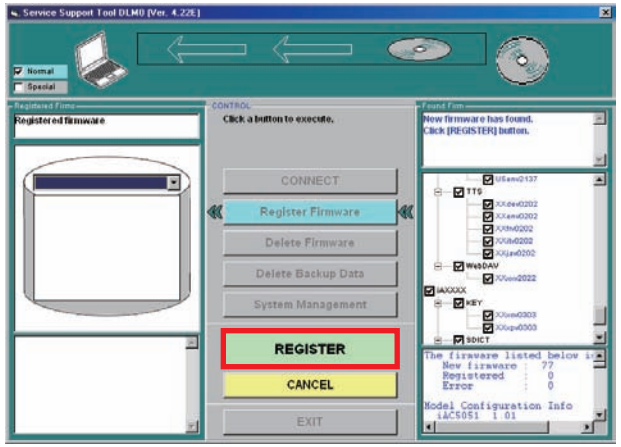
F-6-16

5) Select the drive where the system CD is set and click “Search” button.



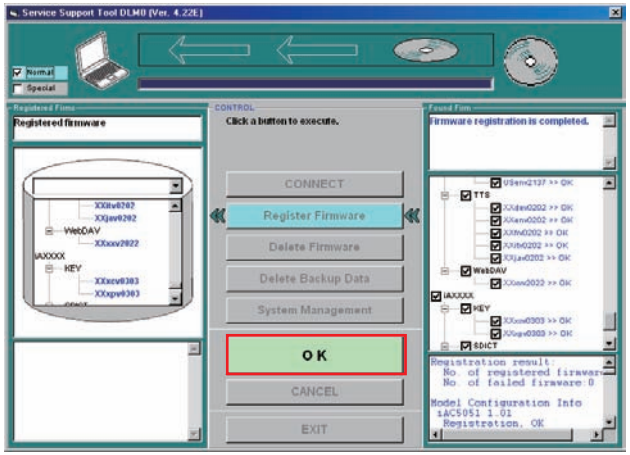
F-6-17

6) The system software stored in the system CD is listed.
Uncheck the box(es) for unnecessary folder(s) and/or system software and click “Copy” button.



F-6-18

7) The message is shown when the system software is successfully copied. Click “OK” button.



F-6-19

Connection

The following IP address is automatically set for this machine at start-up in Download mode.

- IP address:172.16.1.100
- Subnet mask:255.255.255.0

When the PC with SST installed is connected to this machine, change the PC network address to the following.

- IP address:172.16.1.160
- Subnet mask:255.255.255.0
- Default gateway: arbitrary

CAUTION:

If the PC has the connection to the network, the settings changed to the above-mentioned may cause network failures due to redundant IP addresses, etc. Ensure that the PC is disconnected from the network when you change the PC network settings. Alternatively use the cross cable to connect the PC to this machine.

Preparation

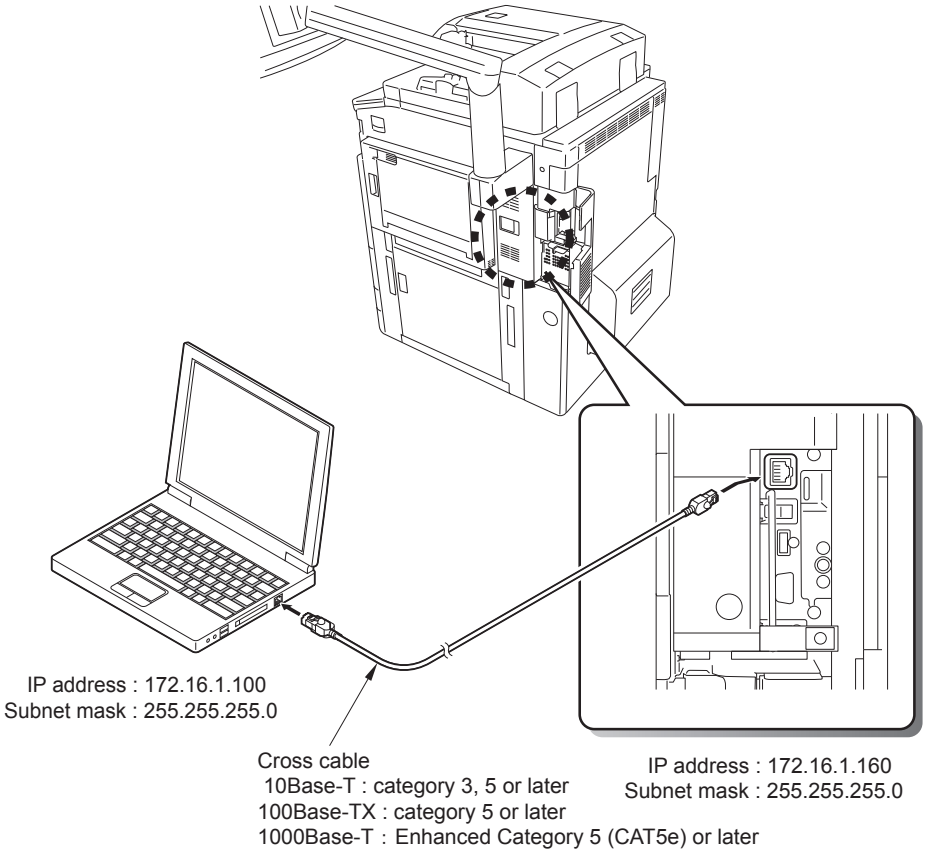
Requirements

- PC with SST Ver. 4.41 or later installed and the system software for this machine is stored
- Cross cable
  10Base-T: Category 3 or 5
  100Base-T: Category 5
  1000Base-T: Enhanced Category 5 (CAT5e) or later

CAUTION:

Disconnect USB memory storage device storage devices if connected.

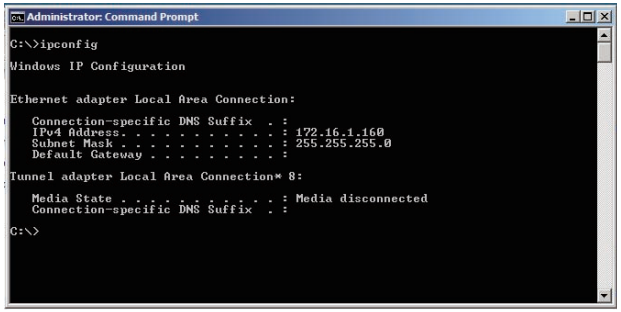
Communication to SST is disabled in this machine if any USB memory storage device storage device is recognized. SST and the USB memory storage device storage device cannot be used concurrently.



F-6-20

Steps

1) Use the cross cable to connect the machine to the PC with SST installed.
2) Turn on the main power switch of this machine.
3) Enter Service mode to start the machine in Download mode.
   Select COPIER > FUNCTION > SYSTEM > DOWNLOAD and press [OK].
4) Check the IP address of the PC.
   Go to Start menu to select Program > Accessory > Command Prompt.
   Type IPCONFIG and press [Return] to see the network settings of the PC.
   If any discrepancies from the description in the figure below are found, change the network settings of the PC.



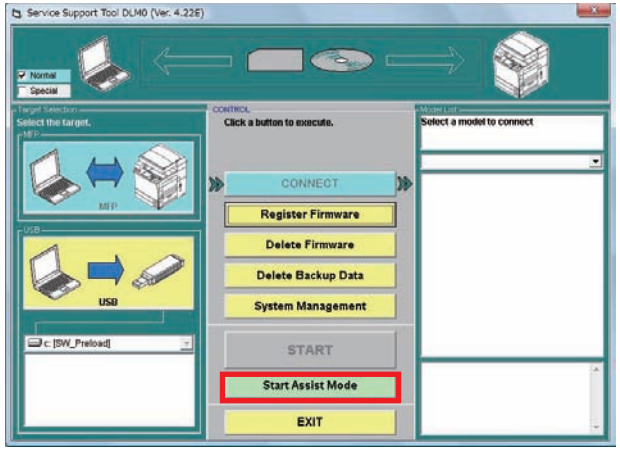
F-6-21

CAUTION:

The network settings are not shown with IPCONFIG if the PC is disconnected from the network. To check the settings, connect the PC to this machine at power-on by the cross cable.

■ Downloading System Software (Assist mode)

1) Start this machine and enter Download mode (COPIER > FUNCTION > SYSTEM > DOWNLOAD).
2) Connect the PC to this machine and start SST.
3) Click “Start Assist mode” button.
Skip this step when starting SST in Assist mode.

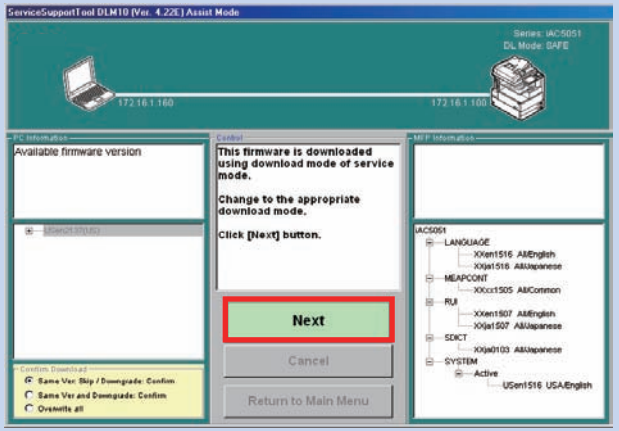


F-6-22

If the upgraded set of the system software is stored in SST, the new set is automatically selected.

NOTE:
If no upgrade is stored, the existing system software set is unchanged. At any rate, any versions of the system software can be downloaded by manual selection.

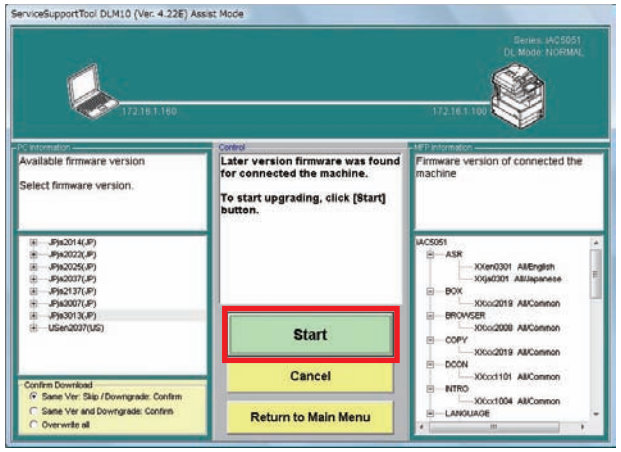
NOTE:
If the PC in Assist mode is connected to the machine in Safe mode,when click "Start" botton, the following message is shown.



F-6-23

Click “Next” button to restart the machine. Enter Service mode upon the main menu displayed and start Normal mode as Download mode.

4) Click “Start” button



F-6-24

When download is completed, the machine is automatically restarted to initiate the writing process.
The machine may repeat restarting several times depending on option configuration.

Upon the system software written, the machine is restarted again and the main menu is displayed.

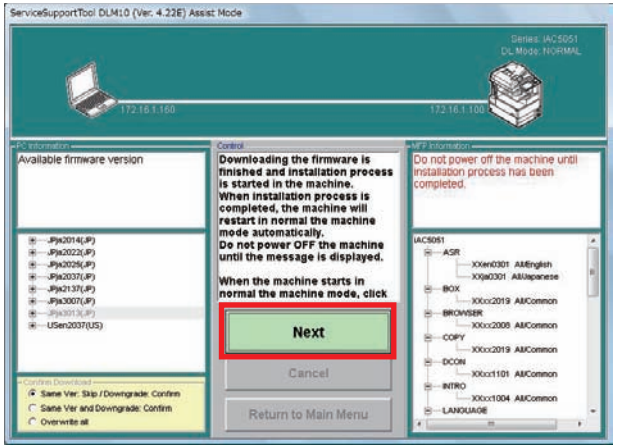
NOTE:Download Confirmation Message Modes
Download is confirmed in any of the three message modes.

- Skip the existing versions and confirm whether to download downgraded versions
  Upgraded versions are downloaded without message.
  Skip download of the existing versions.
  Confirm whether to download downgraded versions.

- Confirm whether to download the existing versions / downgraded versions
  Upgraded versions are downloaded without message.
  Confirm whether to download and overwrite the existing versions.
  Confirm whether to download downgraded versions.
- Overwrite all versions
  Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.

By default, “Skip the existing versions and confirm whether to download downgraded versions” is selected.

5) Click"Next"button.



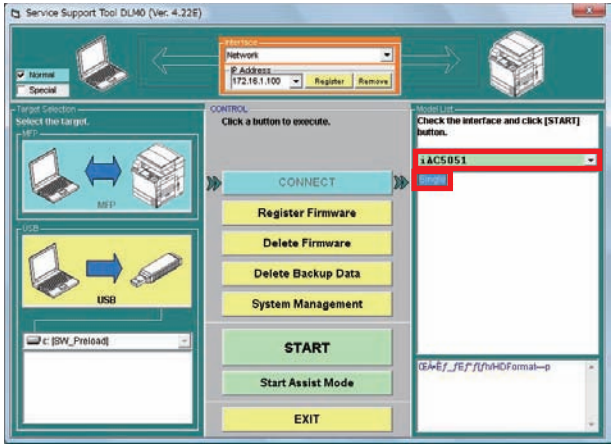
F-6-25

6) Disconnect the cross cable from the machine.
7) Enter Service mode to check the system software versions.
8) Click"OK"button.
The main menu is displayed.

Downloading System Software (Single mode)

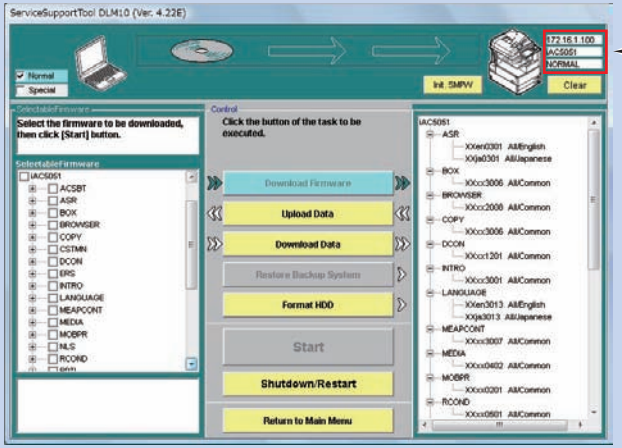
The following is the sample steps to download DCON (the other components of the system software can be downloaded similarly).

1) Start the machine in an appropriate Download mode.
2) Connect the PC to this machine to start SST.
3) Select the model to be connected and “Single”, check the network settings. Click “Start” button.



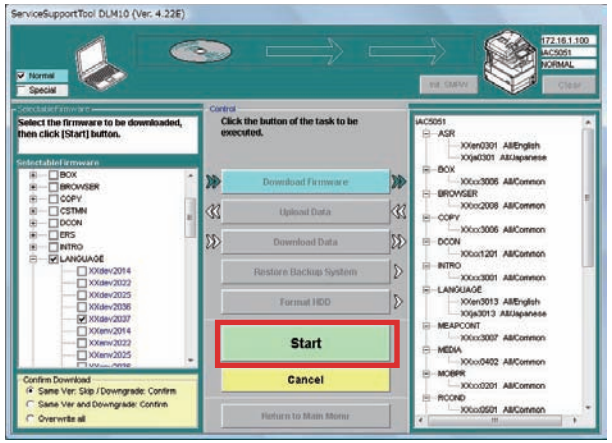
F-6-26

NOTE:
The following device information is shown at the right top of SST screen.
- IP address
- Model name
- Download mode



F-6-27

4) Select the DCON version to be downloaded and click “Start” button.
Multiple files can be selected in this step.

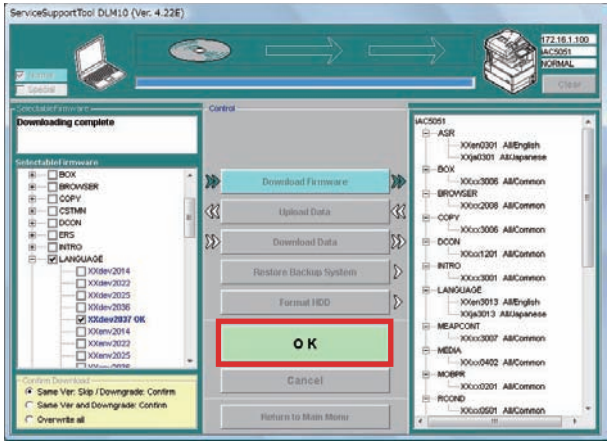


F-6-28

NOTE:Download Confirmation Message Modes
Download is confirmed in any of the three message modes.
- Skip the existing versions and confirm whether to download downgraded versions
  Upgraded versions are downloaded without message.
  Skip download of the existing versions.
  Confirm whether to download downgraded versions.
- Confirm whether to download the existing versions / downgraded versions
  Upgraded versions are downloaded without message.
  Confirm whether to download and overwrite the existing versions.
  Confirm whether to download downgraded versions.
- Overwrite all versions.
  Regardless of version upgrade or downgrade, all versions of the system software are downloaded without message.

By default, “Skip the existing versions and confirm whether to download downgraded

5) When download is completed, click “OK” button.

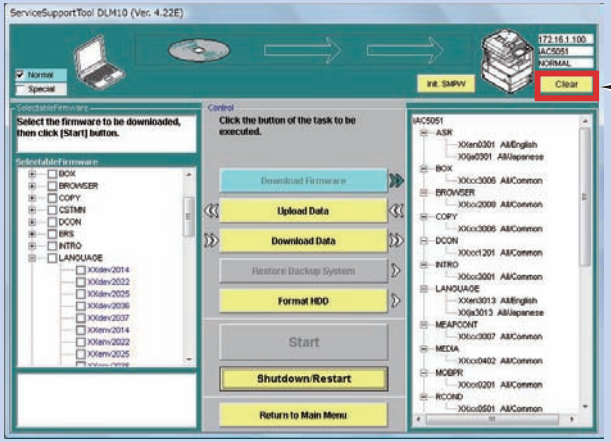


F-6-29

The main menu is displayed.

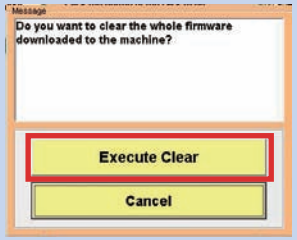
NOTE:
If it is before restarting the machine, the downloaded system software can be deleted not written on HDD or Flash ROM.

1) Click “Clear” button.



F-6-30

2) Click “Execute Clear” button.
The system software, which is stored in the temporary memory space of HDD, is deleted.



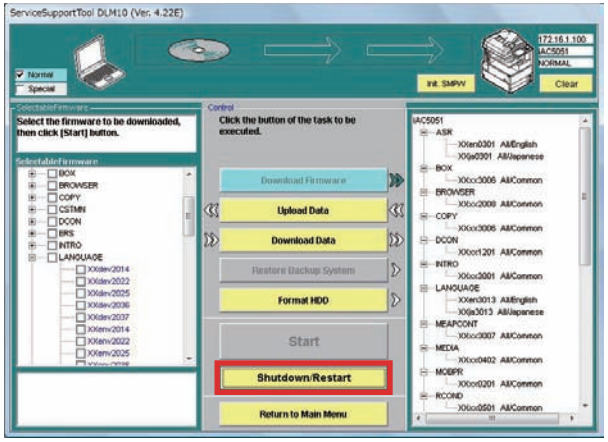
F-6-31

3) Click“OK”button.
Return to the previous screen.



F-6-32

6) Click “Shutdown / Restart” button.



F-6-33

7) Click “Restart” button.



F-6-34

The machine is restarted.
The downloaded system software is written on HDD or Flash ROM.

8) Click"OK"button.

9) Enter Service mode to check the versions.

Formatting HDD

Overview

This machine probides the following two types of HDD Formatting.

- ALL:to format the whole HDD
  - When HDD set as the service parts (the new HDD) is mounted
  - When clearing the system software and data completely from HDD and reloading the system software.

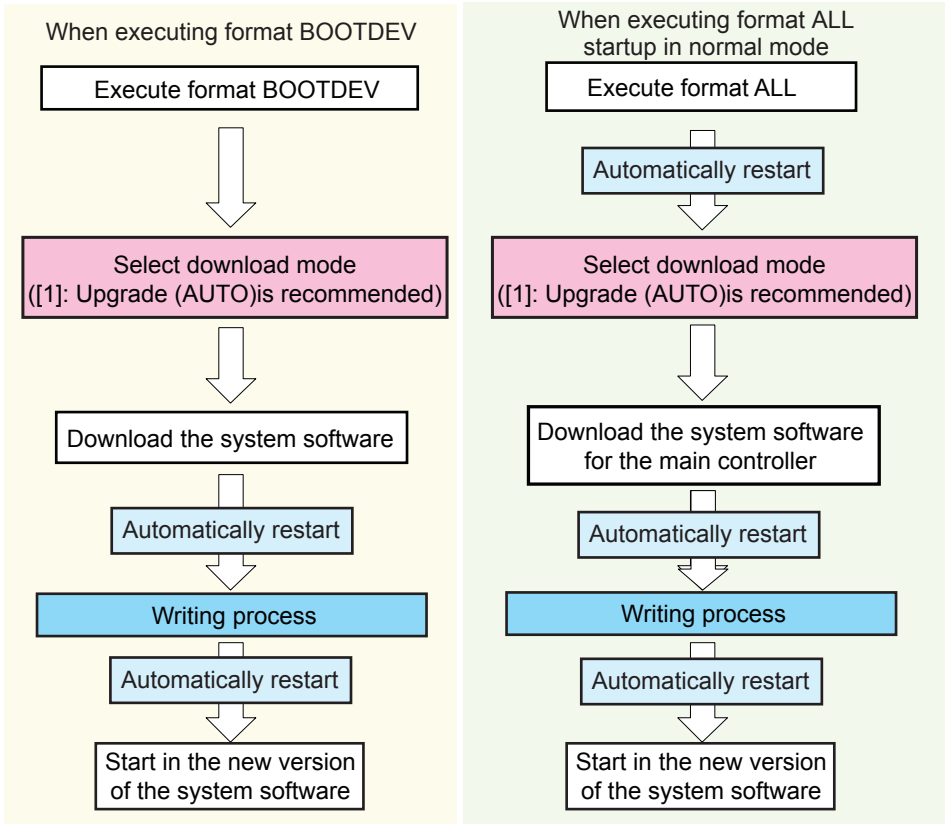
  Once Format ALL is executed in your machine, all the user data and MEAP applications held in HDD will be cleared. Ensure to gain an agreement from the user before formatting.

- BOOTDEV: to format the system software storage area on HDD.
  - When clearing the system software storage area and reloading the system software

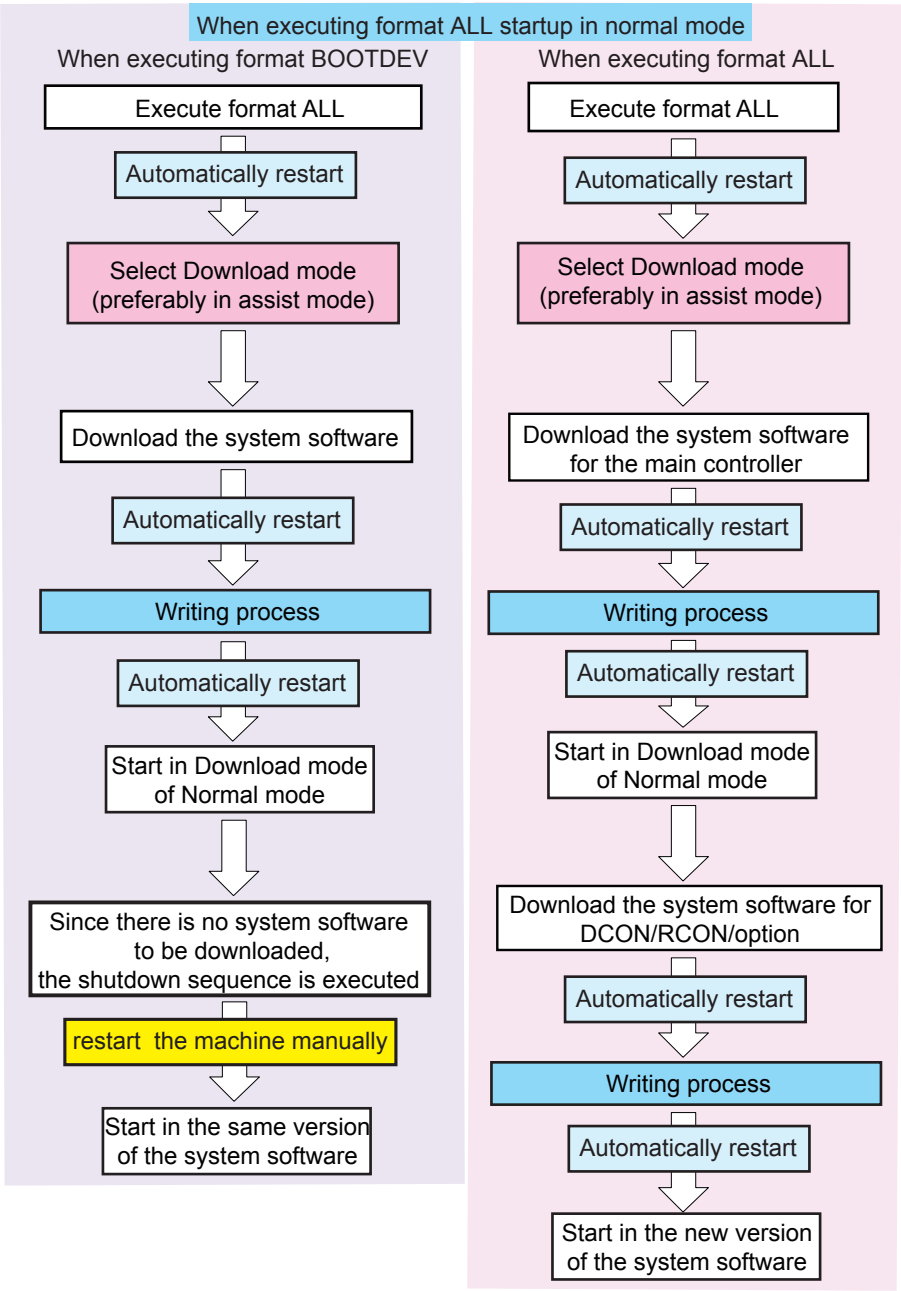
HDD needs not to be formatted at version upgrade.

HDD can be formatted only in Single mode.
After HDD is formatted, the machine cannot be started before the system software is downloaded.

After Format ALL is executed, the machine is automatically restarted to reflect formatting to HDD. At this time, the machine automatically starts in Download mode. For BOOTDEV format, the machine is ready to download the system software without restarting.
After formatting, enter either Assist mode(recommended) or Single mode to download the system software.

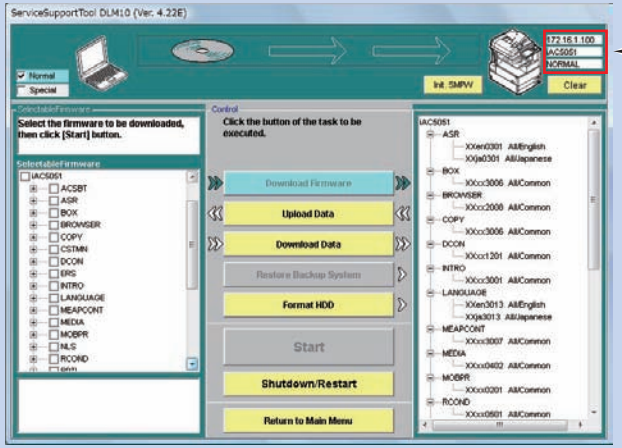


F-6-35



F-6-36

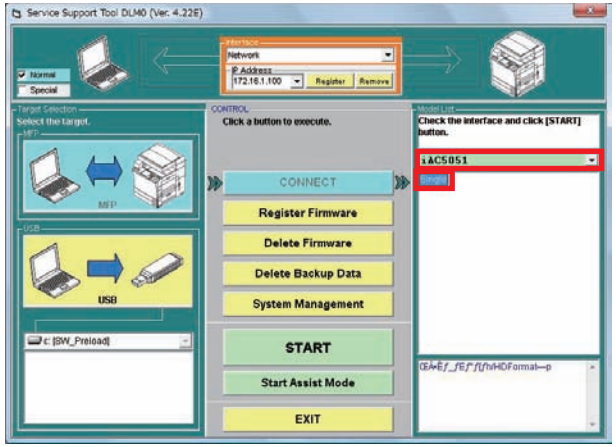
NOTE:
With SSTv4.22, due to sharing the simple mode processing with the existing models, the following screen is displayed.
As for the iR ADVANCE series models (or this machine), the procedure displayed on the screen is not necessary; thus, click the “Next” button to go on to the next screen.



F-6-37

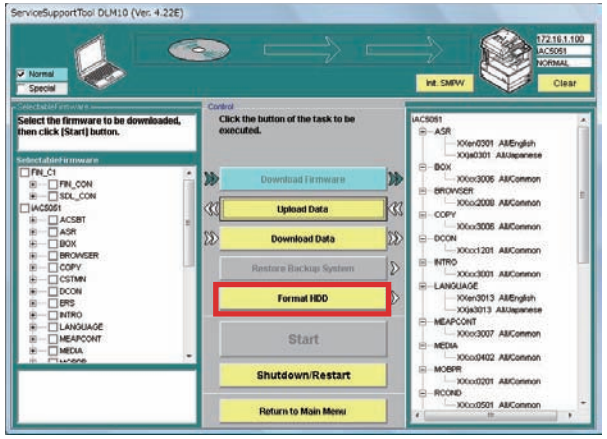
Steps of Formatting

1) Enter Download mode. (Enter Safe mode when you mount the new HDD or when the machine is unable to start normally due to HDD failures, etc.)
2) Connect the PC to the machine to start SST.
3) Select the model to be connected and the information file (“single”) for individual download. Check the network settings and click “Start” button.



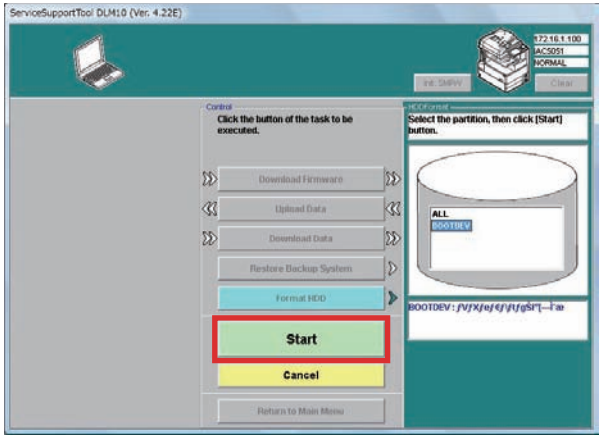
F-6-38

4) Click“Format HDD”button



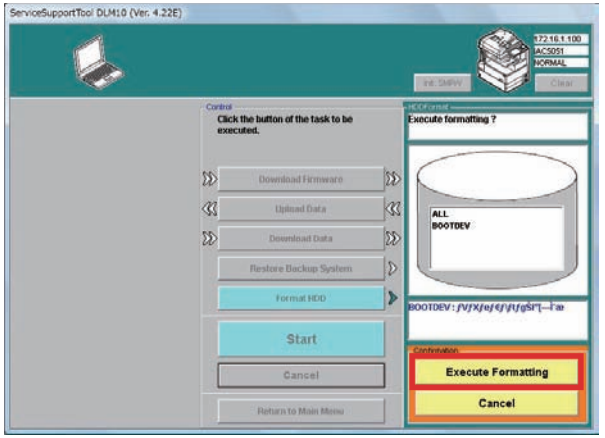
F-6-39

5) Select "BOOTDEV" or "ALL" to click "Start".



F-6-40

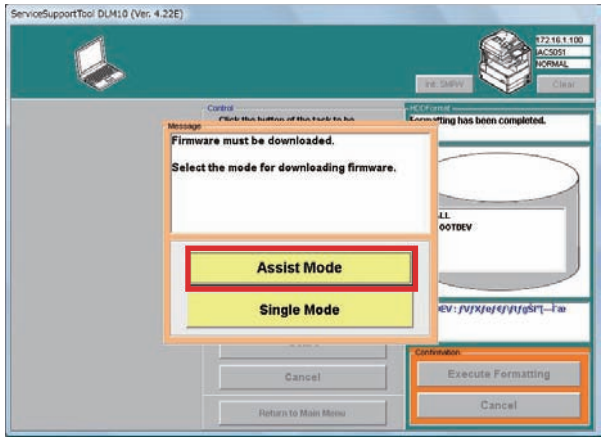
6) Click "Execute Format" button.



F-6-41

HDD is formatted.

7) Download the system software in any Download mode (Assist mode recommended). See the steps to download the system software for details.



F-6-42

CAUTION:

After HDD is formatted, ensure to download the system software. If the system software is not downloaded, E602 error is triggered at power-on.

CAUTION:

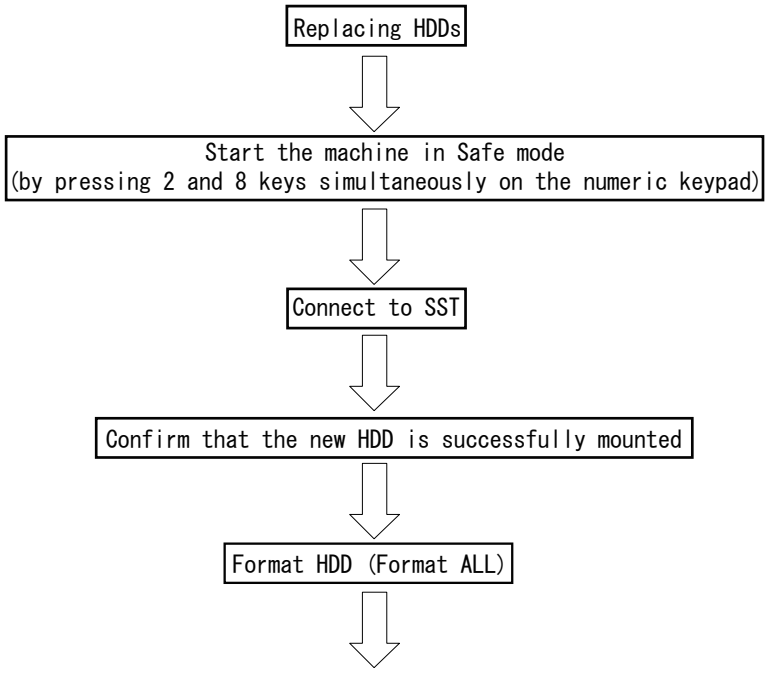
Restarting takes more time after HDD is formatted and the system software is downloaded (to write the downloaded software).

Down time may be approx. 5 minutes in maximum to proceed the writing process. Never turn OFF the machine while Starting screen is shown.

Mounting New HDD

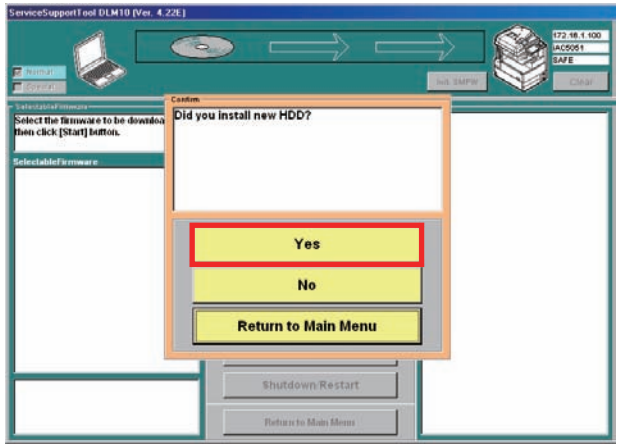
After HDD set as the service parts is mounted, the new HDD should be formatted initially. In this case, the message is shown to confirm if the new HDD is mounted.

The figure below shows the abbreviated steps.



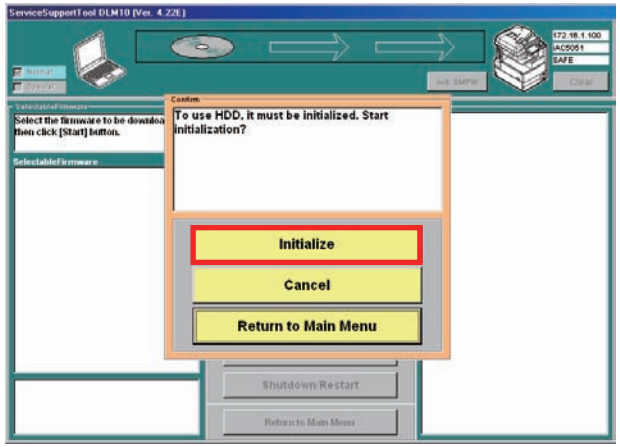
F-6-43

When the new HDD is mounted, the machine cannot be started in the normal procedure. Start the machine in Safe mode as Download mode. When gaining connection to SST, the message is shown to confirm if the new HDD is mounted.



F-6-44

Click "Yes" and the message is shown, confirming whether to format HDD.



F-6-45

Click “Initialize” button to initialize HDD (Format ALL). Follow the steps described in Format ALL section to download the system software.

Backup

Overview

At the time of replacing controller PCBs, the backup function enables to save data held in the PCB to migrate them to the new PCB.
As for the SRAM of the Main Controller 2, SramImg.bin can be backed up in one of the three ways: via SSI or Download Menu (HDD/USB device). If SramImg.bin has been backed up, when the Main Controller 2 is replaced with a new one and SramImg.bin is restored, the Main Controller 2 operates the same way as before. The setting values entered from service mode and the values set in Settings/Registration, etc. by the user are migrated.
In the case of a machine with an Encryption Board, backup/restoration using SST or Download Menu (USB device) is available. The machine needs to be started with the 2 and 8 keys with the HDD installed.

- Backup via SST

Backup data	Downloaded/Uploaded file names
Backup data RAM	SramImg.bin(to be uploaded / downloaded)
MEAP applications	MeapBack.bin(to be uploaded / downloaded)
For investigation in Dev	Sublog.bin(Do not select this file)

T-6-13

  - Backup RAM holds the data from Backup RAM of the Main Controller PCB 2. (Before replacing the Main Controller PCBs, DC Controller PCB, be sure to back up the data because Backup RAM holds the parts durable counter data and service mode setting data in the Main Controller.)
  - MeapBack holds MEAP applications and their data stored in HDD
- Backup via Service mode

Backup data	Service mode
Backup of Reader Controller PCB	COPIER > FUNCTION > SYSTEM RSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM RSRAMRES (Restore)
Backup of DC Controller PCB	COPIER > FUNCTION > SYSTEM DSRAMBUP (Backup) COPIER > FUNCTION > SYSTEM DSRAMRES (Restore)
Backup of Main controller PCB 2	COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK [5] BACKUP

T-6-14

Data is stored in HDD

NOTE:
Before replacing the Reader Controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Reader Controller PCB.

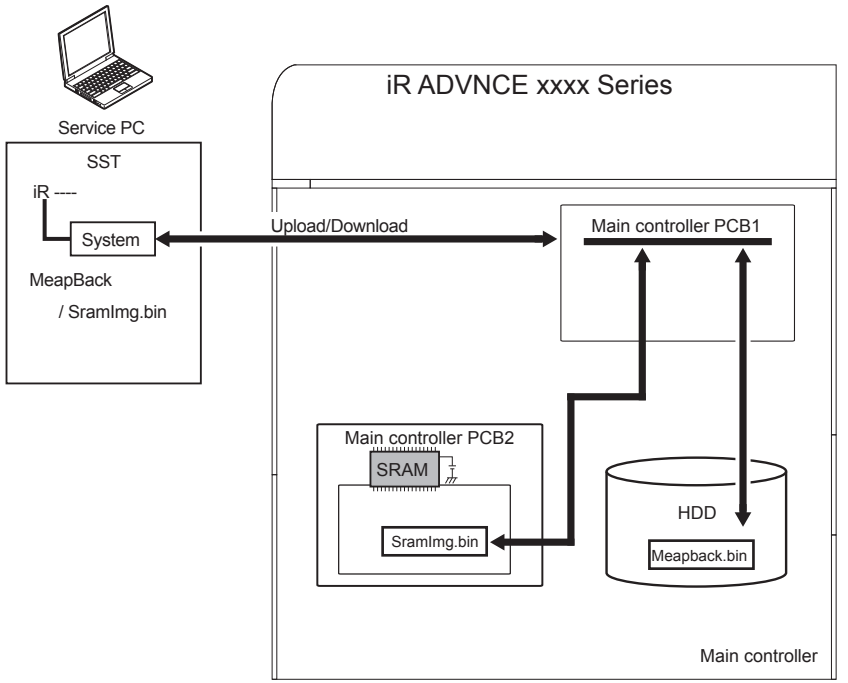
Before replacing the DC controller PCBs, back up the data from Service mode. The backup data can be restored from Service mode when the PCBs are replaced. This enables to maintain the setting data including Service mode stored in the old Controller PCB.

When there is an HDD Encryption Board, SRAM backup of Main Controller PCB2 is not possible with a service mode.Upload SramImg.bin beforehand and download SramImg. bin after exchange the Main Controller PCB2.
Main Controller PCB2 can succeed the setting data such as stored service modes when You carry out this activity.

Steps to Upload Data

CAUTION:

- Do not select Sublog.bin.
- The backup data can be downloaded only on the machine from which the data were uploaded.
- This machine does not use SramRCON and SramDcon



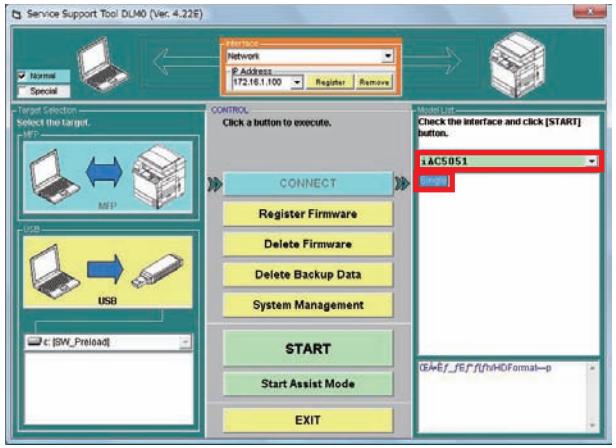
F-6-46

Listed below are the sample steps to upload MeapBack.

1) Enter Download mode.

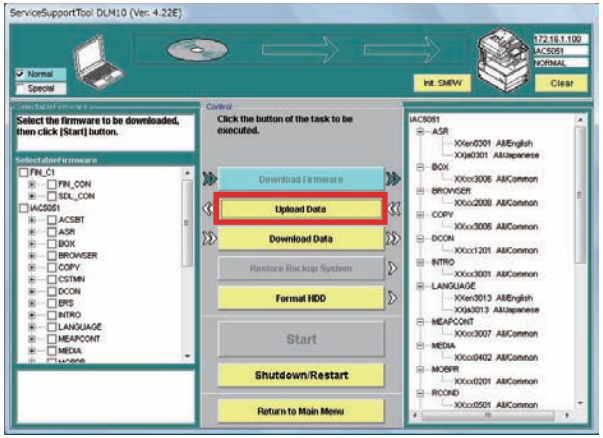
2) Connect the PC to the machine to start SST.

3) Select the model to be connected and the information file for individual download (“Single”). Check the network settings and click “Start”.



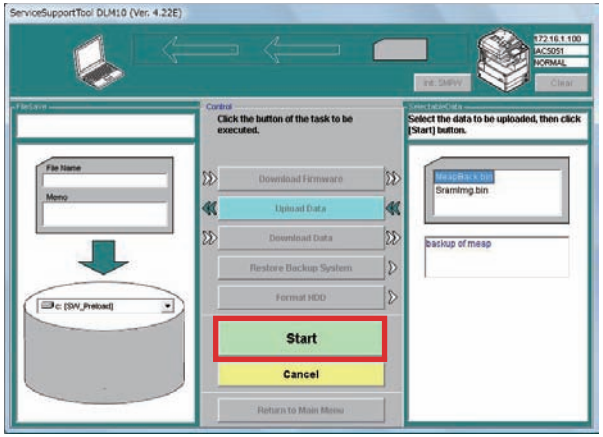
F-6-47

4) Click “Upload Data” button.



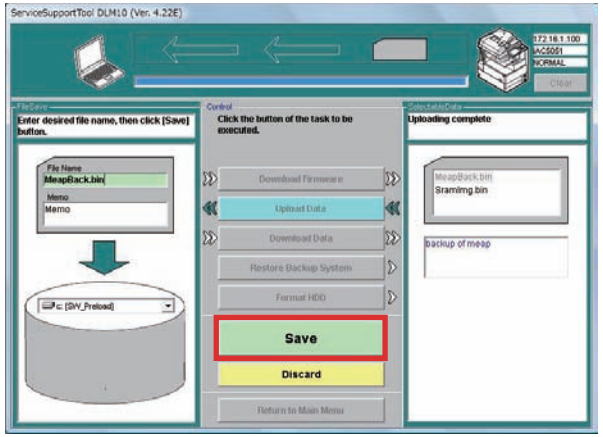
F-6-48

5) Select “MeapBack.bin” to click “Start” button.



F-6-49

6) Enter the file name to be saved and comments when necessary. Click “Save” button.



F-6-50

7) Click “OK” button.

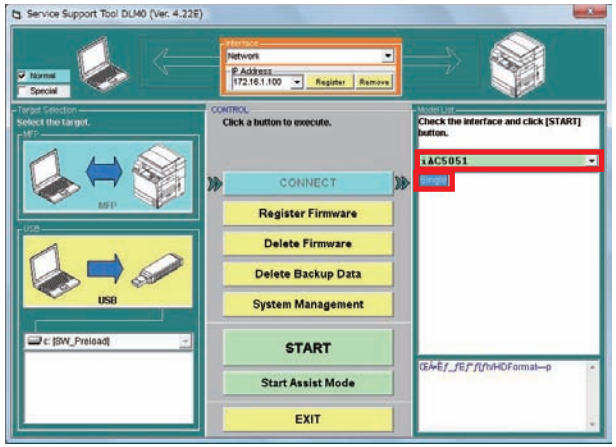
Steps to Download Data

CAUTION:

The backup data can be downloaded to the machine from which the data were uploaded

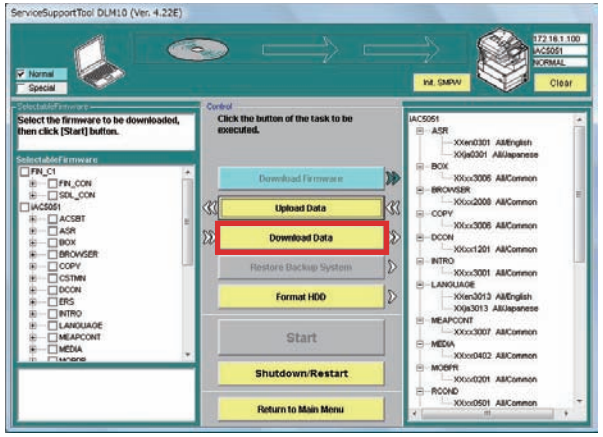
Listed below were the sample steps to download MeapBack.

1) Enter Download mode
2) Connect the PC to the machine and start SST.
3) Select the model to be connected and “Single”. Check the network setting and click “Start” button.



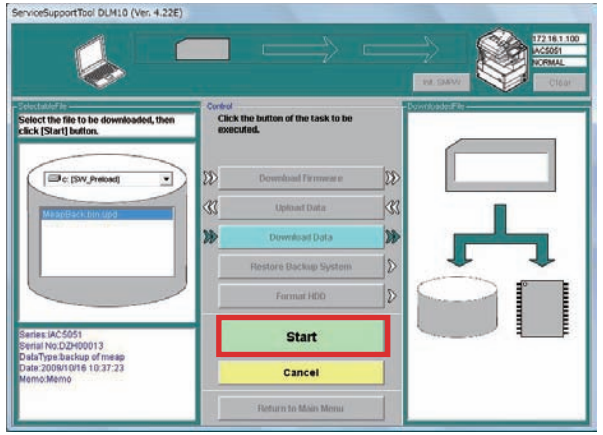
F-6-51

4) Click “Download Data” button.



F-6-52

5) Select the data to be downloaded and click “Start” button.



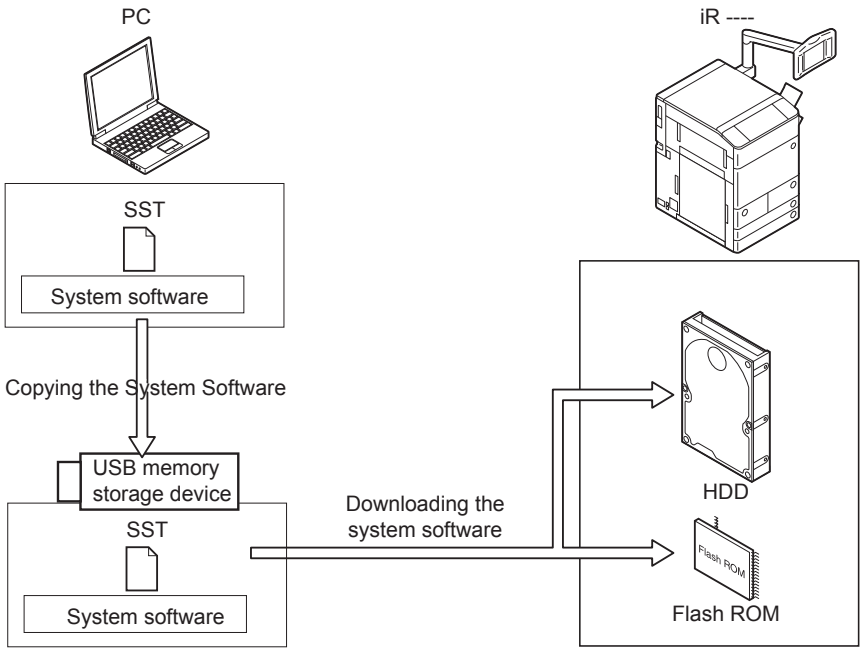
F-6-53

6) When the data are successfully downloaded, click “OK” button.
7) Restart the machine

Version Upgrade using USB memory Storage Device

Relation between SST and USB memory Storage Device

When using the USB memory storage device storage device for version upgrade, the system software should be copied to the USB memory storage device storage device. By inserting the USB memory storage device storage device to the slot of the machine, the system software can be upgraded.
The figure below shows the relation between SST and USB memory storage device storage device.



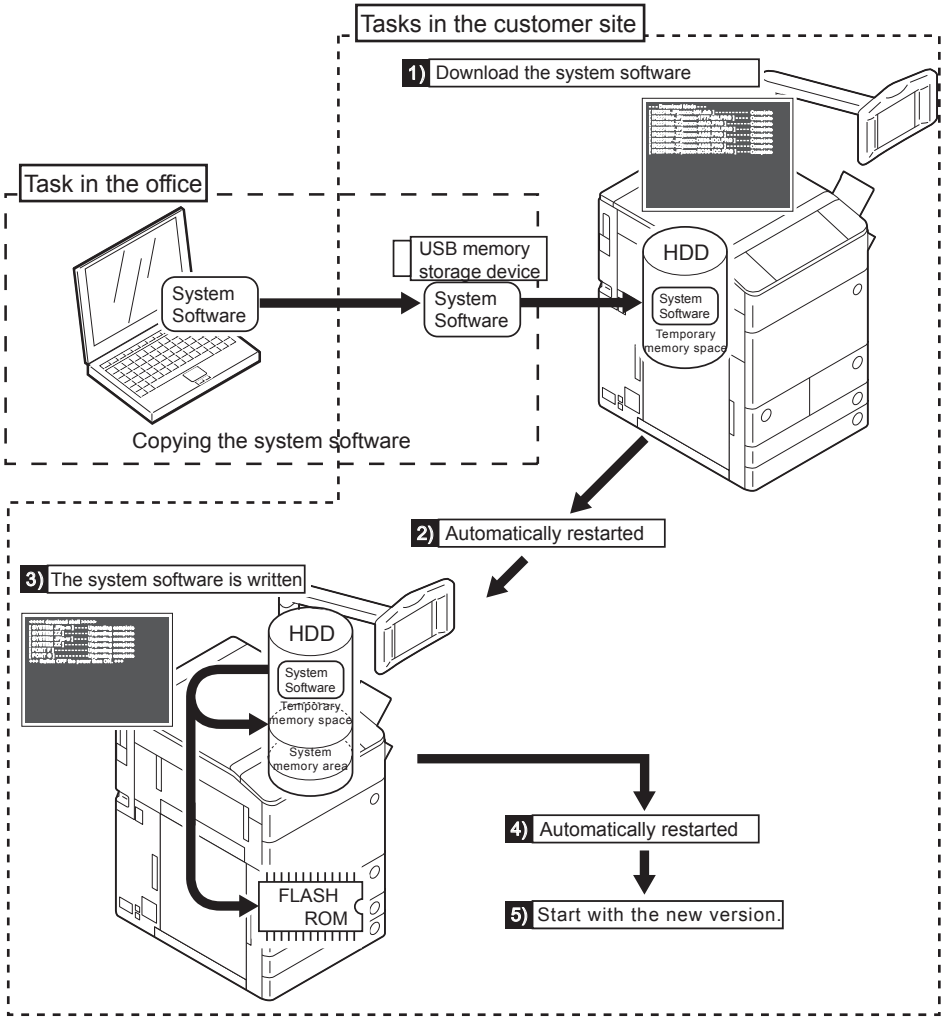
F-6-54

When downloading the system software, enter any of Download modes below.

- Normal mode (recommended)
  Select COPIER > FUNCTION > SYSTEM > Download in Service mode and press [OK].
- Safe mode (only when any system error occurs or the machine is unable to start normally; turn ON the main power switch by pressing 2 and 8 keys simultaneously on the numeric keypad)

Downloading System Software

Copy the system software from SST to the USB memory storage device storage device.
Right after download from the USB memory storage device storage device, the system software is stored in the temporary memory space in HDD.
The system software is written in the system memory area, Boot area and Flash ROM upon the machine restarted.
When the writing process is successfully completed, the machine is automatically restarted with the new version of the system software.



F-6-55

■ Copying System Software

● System CD to SST

Copy the system software stored in the system CD to SST.

NOTE:
The system software is compressed if the file size exceeds the CD memory capacity.
If the above is the case, decompress the file before copying it to SST.

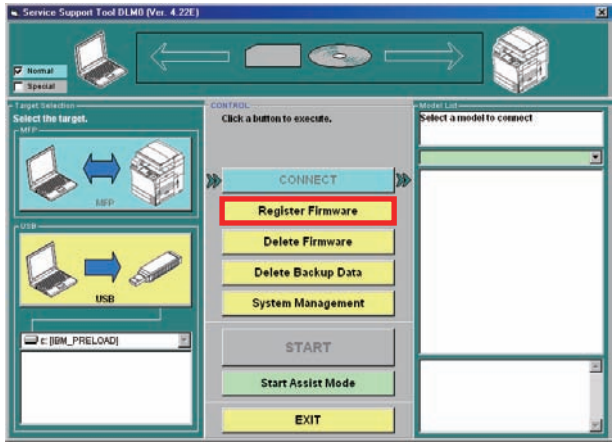
Preparation

Requirements:

- PC with SST Ver. 4.41 or later installed
- The system CD for this machine

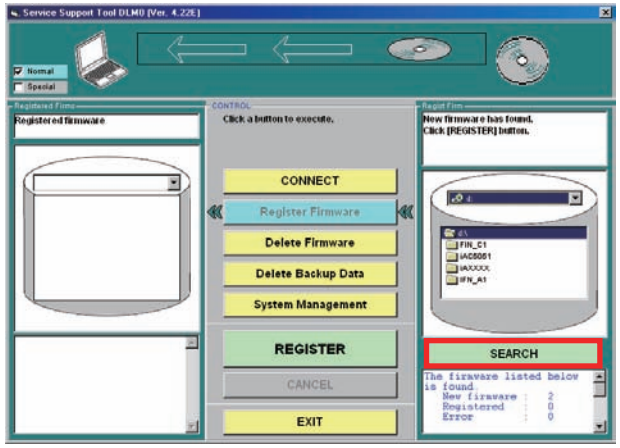
Steps to copy the system software

1) Start the PC.
2) Set the system CD to the PC.
3) Start SST.
4) Click “Register Firmware” button.



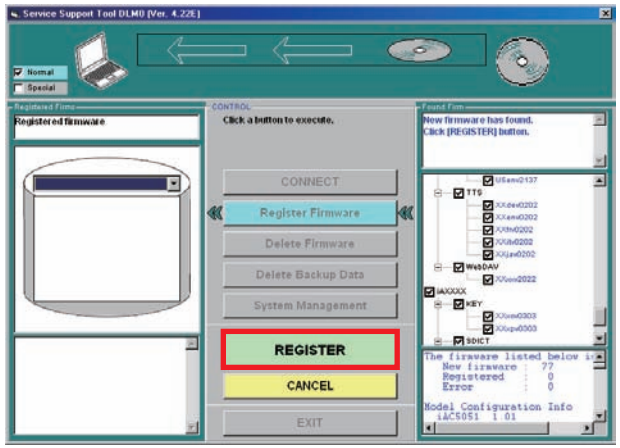
F-6-56

5) Select the drive where the system CD is set and click “Search” button.



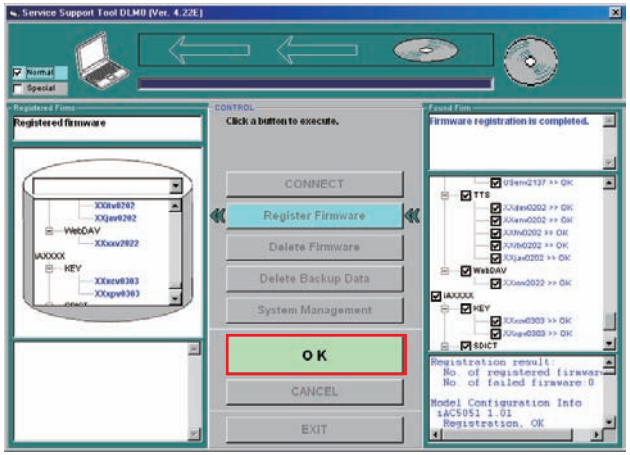
F-6-57

6) The list of the system software components stored in the system CD is shown on the screen.
Uncheck the box(es) of unnecessary folder(s) and/or system software component(s) and click “Copy” button.



F-6-58

7) The message is shown when the system software is copied. Click “OK” button.



F-6-59

SST to USB memory Storage Device

Copy the system software stored in SST to the USB memory storage device storage device.

Preparation

Requirements:

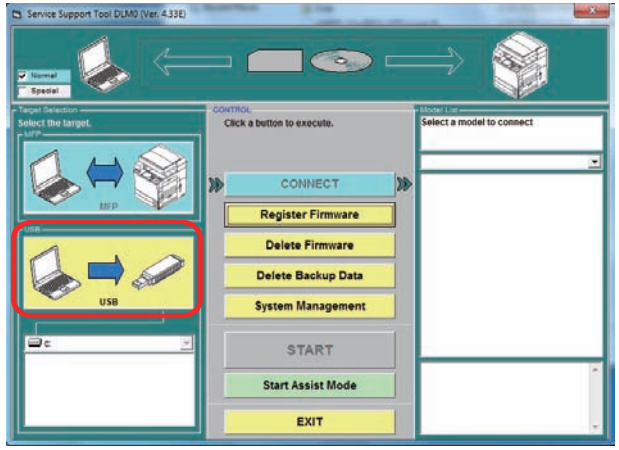
- PC with SST Ver. 4.41 or later installed
- USB memory storage device (*)

Requirements for USB memory storage device:
Interface: USB 1.1 or later (USB 2.0 is recommended)
Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 500MB).
Format: FAT (FAT 16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)
Unavailable USB memory: memory that is protected by a password or the encryption technology.

Steps to copy the system software

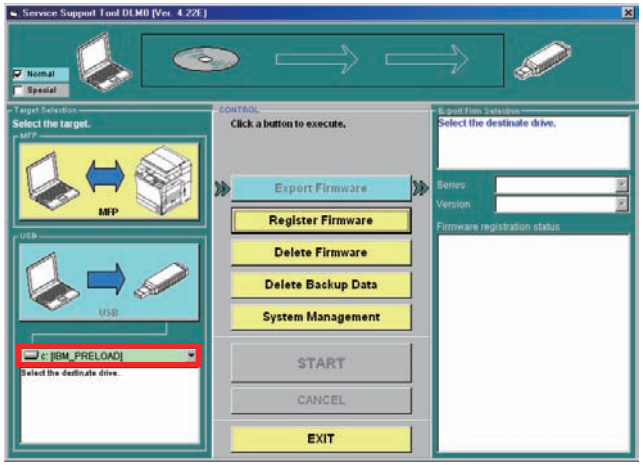
1) Start the PC.
2) Insert the USB memory storage device storage device to the slot of the PC.
3) Start SST.

4) Click the USB icon shown in "Select the target" Screen.



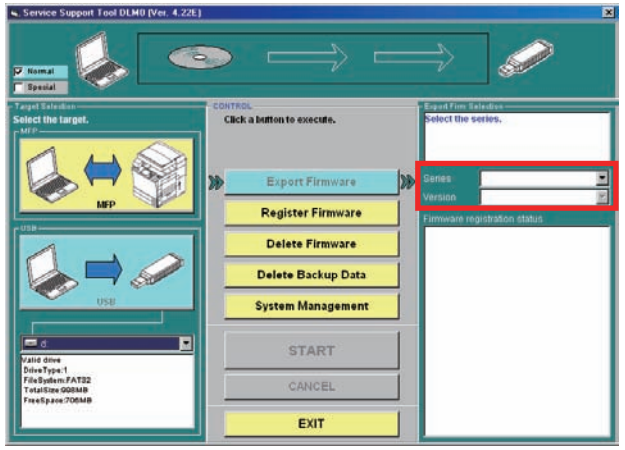
F-6-60

5) Select the drive (removable disk) where the USB memory storage device storage device is inserted.



F-6-61

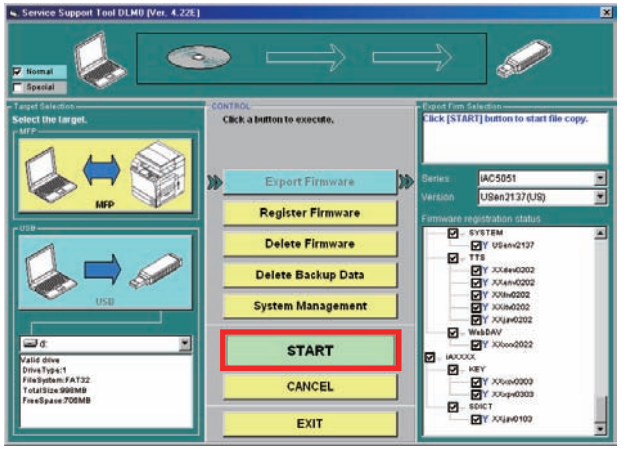
6) Select “Series” and “Version” (the System Version).



F-6-62

NOTE:
The signs shown in the field of “Firmware registration static” indicate the following:
Y: Stored in SST
N: Not stored in SST

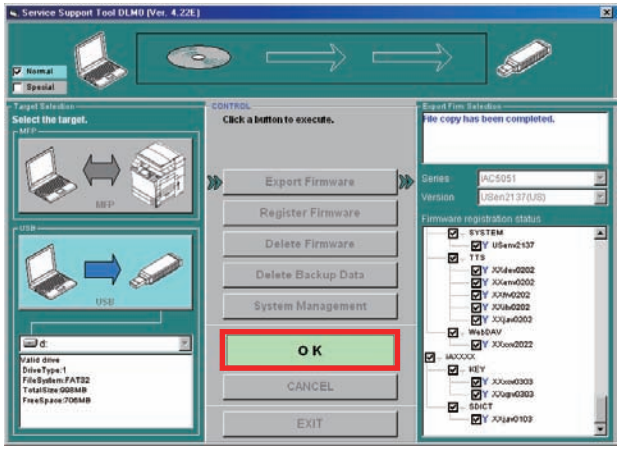
7) Click “Start” button.
Start copying the system software to the USB memory storage device storage device.



F-6-63

NOTE:
When the accessory configuration is known for the machine where the system software is to be downloaded, uncheck the boxes of unnecessary accessories.

8) Click “OK” when the system software is successfully copied in the USB memory storage device storage device.

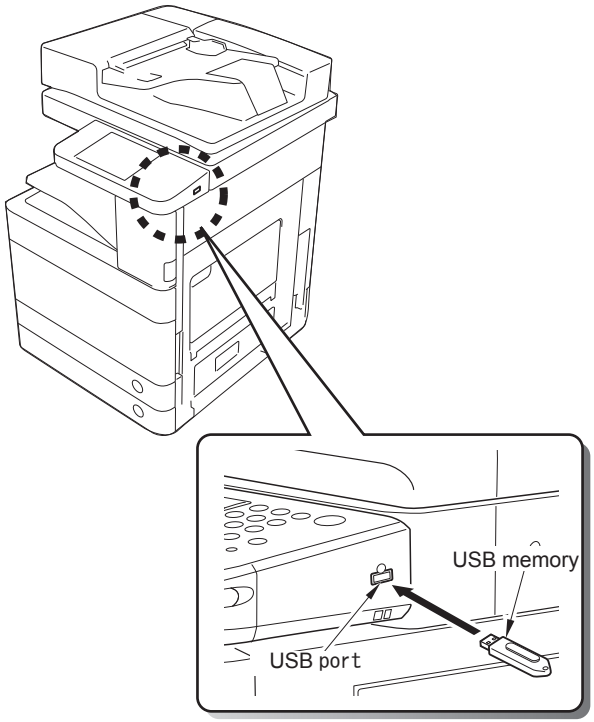


F-6-64

Connection

CAUTION:
This machine does not communicate with SST once it recognizes a USB memory storage device; therefore, SST and a USB memory storage device cannot be used at the same time.

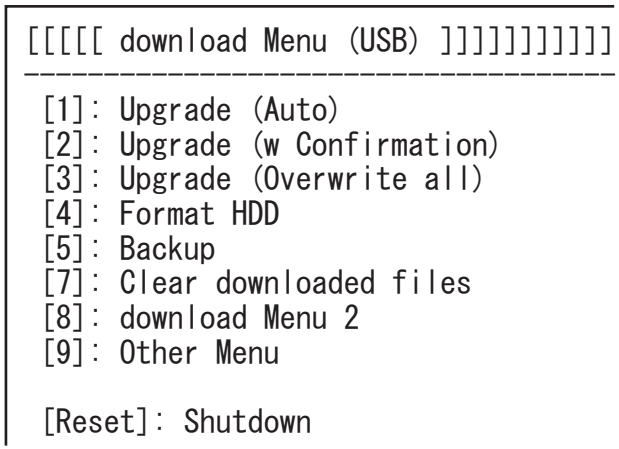
Preparation
Item to prepare: a USB memory storage device, which the system software for this machine is stored.
Procedure
1) If a cross cable is connected to this machine, remove the cross cable.
2) Connect the USB memory storage device to the USB port.



F-6-65

3) Switch to the download mode to use.

- In the case of normal mode (Recommended)
  Select the following in Service Mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and then press [OK].
- In the case of safe mode (This mode should not be used as general rule. To be used only when normal startup fails, such as a system error, etc.)
  While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.
  Once this machine recognizes the USB memory storage device, the following menu is displayed on the Control Panel.



F-6-66

CAUTION:

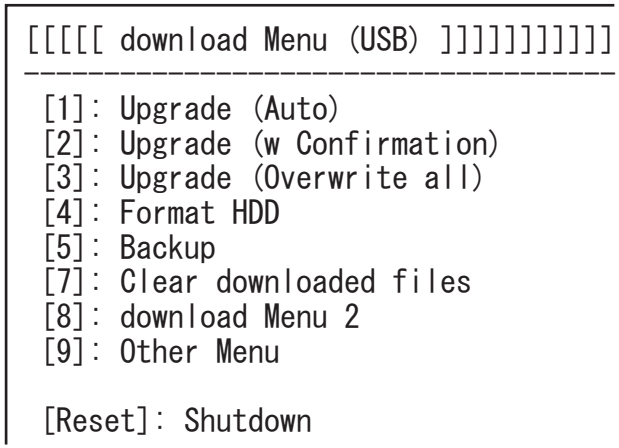
Depending on the manufacturer or the model, this machine may not recognize the USB memory storage device.

This machine retries the detection of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the recognition of a USB memory storage device is failed within the time period.

In such a case, use another USB memory storage device.

■ Upgrading System Software

● Menu/Function Overview



F-6-67

Downloading System Software

[1]: Upgrade(Auto)
To download/write the system software (automatic)

[2]: Upgrade (w Confirmation)
To download the system software (confirmation)

[3]: Upgrade (Overwrite all)
To download the system software (overwriting)

[4]: Format HDD
To format the HDD/BOOTDEV partition

[5]: Backup
Backup of ServicePrint, SRAM(HDD/USB)

[7]: Clear downloaded files
To clear the system software immediately after downloading (before writing)

[8]: Download Menu 2
To move to Download Menu 2

[9]: Other Menu
Others (e.g.: version information)

[Reset]: Shutdown
To execute shutdown sequence

Press the key on the Control Panel to select/execute the functions.

Points to Note When Operating/Using System Software

NOTE:
The following download method is recommended to execute normal download of the system software (any download work other than downloading after replacing/formatting the HDD):
Download mode --- Normal mode
Download menu --- [1]: Upgrade (Auto)

CAUTION:Prohibition to turn OFF the power during downloading/writing

Do not turn OFF the power during downloading or writing of the system software; otherwise, this machine may not be started even if the power is turned ON.

If the machine fails to be started even if the power is turned ON, start the machine in safe mode (pressing 2 + 8 keys).

When the machine can be started in safe mode, be sure to download the system software once again.

If the machine fails to be started, replace the HDD and then download the system software.

CAUTION:Caution when the power is turned OFF

Be sure to execute shutdown sequence to quit download mode.

Pressing the [Reset] key and then the [0] key on the menu screen executes the shutdown sequence.

Once the message on the touch panel disappears, turn OFF the Main Power Switch.



F-6-68

■ Downloading/Writing System Software (Automatic)

● [1]: Upgrade (Auto)

The version is compared between the host machine/option and the system software in the USB memory storage device to download only the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.
In safe mode, only the following system software can retrieve the version information (the version is compared).

SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT

As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:
<In the case of startup in normal mode (Recommended)>

For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>

The system software of the options which are not connected are not downloaded.

After downloading is complete, this machine is automatically restarted to write the downloaded system software to the HDD system area/flash ROM.

Operation procedure
1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
[1] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]
------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 [Reset]: Shutdown
```

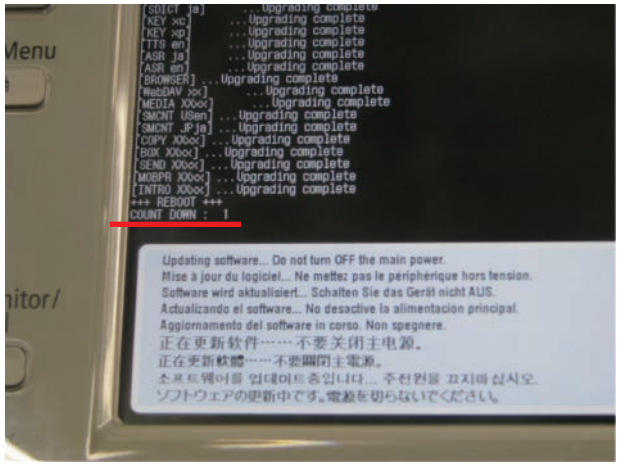
F-6-69

During downloading, download status is displayed on the Control Panel.



F-6-70

Once downloading is complete, this machine is automatically restarted to start writing to the HDD system area/flash ROM.
The screen shows the countdown once writing process is properly complete.



F-6-71

Once the countdown shows 0, this machine is automatically restarted.

4) When the main menu is displayed, press the removal key at the lower right on the touch panel and select removal of the memory media, and then remove the USB memory storage device.

CAUTION:
After HDD formatting and downloading, this machine takes a long time (for writing the software).
This machine, in some cases, stays in standby screen up to 10 min during writing. At this time, do not turn off the main power switch.

■ Downloading System Software (Confirmation)

● [2]: Upgrade (w Confirmation)

The version is compared between the host machine/option and the system software in the USB memory storage device to download the system software with newer version in the USB memory storage device to the temporary storage area of the HDD.
When the system software version in the USB memory storage device is the same or older, a confirmation message is displayed on the Control Panel so that the user can select whether to overwrite or not.

In safe mode, only the following system software can retrieve the version information (the version is compared).
SYSTEM, LANGUAGE, RUI, MERAPCONT, SDICT
As for system software of the host machine whose version information cannot be obtained, the software for RCON is not downloaded, but other software are downloaded.

For the system software of the option that is not connected, it is handled as follows:
<In the case of startup in normal mode (Recommended)>
For the option that is not connected, the system software is not to be downloaded.

<In the case of startup in safe mode>
The system software of the options which are not connected are not downloaded.

Unlike menu [1], this machine is not automatically started despite completion of downloading. By manually turning OFF/ON the power, the system software is written at the time of startup. In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [2] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]
------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[2] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-6-72

During downloading, download status is displayed on the Control Panel.

NOTE:
When the system software version in the USB memory storage device is the same or older than the system software in the HDD, a message is displayed in each case to confirm whether to overwrite or not.
Press the key on the Control Panel.
[0]: To overwrite/Any key other than [0]: Not to overwrite

```
////Copying files from USB-dev.///
[Warning] Same version or old version.
--------------------------------
[BOOT XXxx]...Same. OVERWRITE?
   -- (YES):0 /(NO):The other keys—
```

F-6-73

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.



F-6-74

4) Press the “Reset” key.
   Shutdown sequence is executed.
5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
6) Remove the USB memory storage device.
7) Ensure the LED at the lower right on the Control Panel is turned OFF, and turn ON the Main Power Switch.
   Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly completed.
   The screen shows the countdown once the writing process is properly completed. This machine is restarted with the downloaded system software at the count of 0.

■ Downloading System Software (Overwriting)

● [3]: Upgrade (Overwrite all)

Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.
Regardless of the system software version in the host machine, all the system software in the USB memory storage device is downloaded.
Unlike menu [1], this machine is not automatically started despite completion of downloading. By manually turning OFF/ON the power, the system software is written at the time of startup. In this case, starting the machine in safe mode deletes the downloaded system software saved in the temporary storage area; therefore, do not press the numeric keys (2 + 8), but execute normal startup to execute writing.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [3] -> [0]: To execute downloading/Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]
------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[3] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-6-75

During downloading, download status is displayed on the Control Panel.

CAUTION:

In overwriting download mode of the USB memory storage device, all the system software stored in the USB memory storage device is downloaded as well.

Uncheck the applicable system software so that the system software of the non-connecting option is not downloaded when downloading the system software from SST to USB.

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.



F-6-76

4) Press the “Reset” key.
   Shutdown sequence is executed.
5) Once the message on the touch panel disappears, turn OFF the Main Power Switch.
6) Remove the USB memory storage device.
7) After checking that the LED is turned OFF at the lower right on the Control Panel, turn ON the Main Power Switch.
   Writing to the HDD system area/flash ROM is started after the startup. The screen shows the countdown once the writing process is properly complete.
   When the countdown shows 0, this machine is restarted with the downloaded system software.

■ Formatting HDD

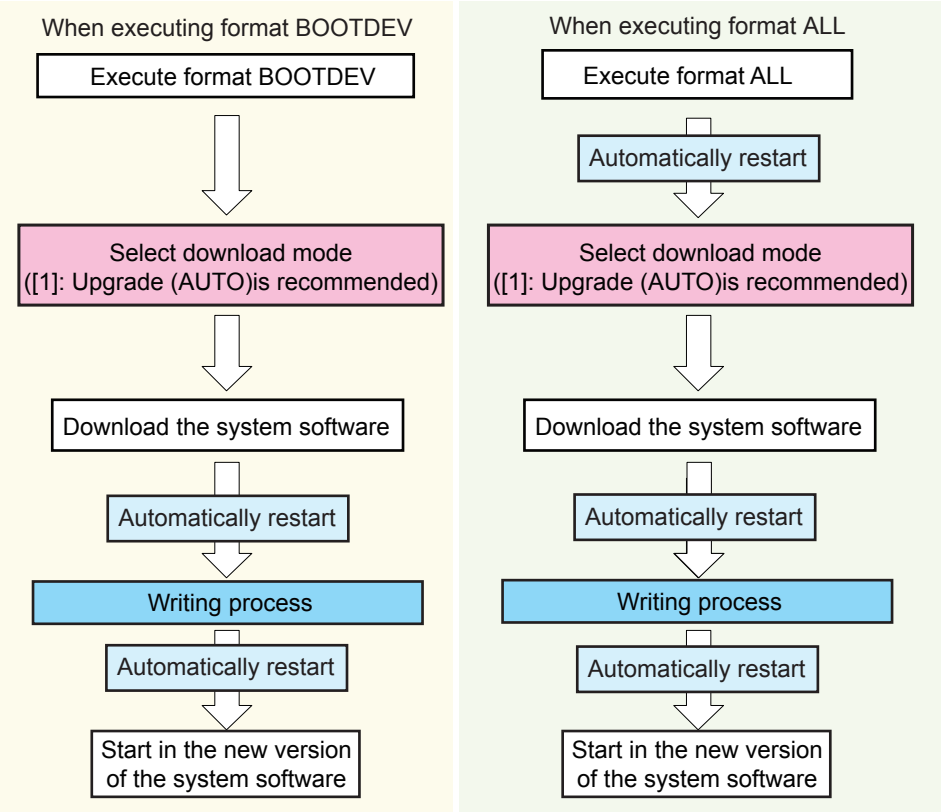
● HDD Format Overview

The following 2 types of formatting methods are available with this machine:

- ALL: To initialize the entire HDD
  - In the case of installing the HDD provided as a service part (a new HDD).
  - In the case of cleaning the entire software and data in the HDD to reinstall the system software.

  All the user data and MEAP application in the HDD is deleted when executing Format ALL with the machine in use; therefore, be sure to obtain agreement from the user to execute Format ALL.
- BOOTDEV: to format the system software storage area on HDD.
  - In the case of normal upgrading by cleaning the storage area of the system software to reinstall the system software, HDD formatting is not required.
  - User data is not erased.

After formatting, this machine cannot be started unless the system software is downloaded.
When Format ALL is executed, initialization process is reflected to the HDD so that this machine is automatically restarted to automatically enter download mode. In the case of formatting BOOTDEV, the machine is not automatically restarted, but the system software can be downloaded.
After formatting is executed, be sure to download the system software by “[1]: Upgrade (AUTO)” in main menu.



F-6-77

[4]: Format HDD

This mode executes formatting of BOOTDEV partition or the entire HDD.

Operation procedure

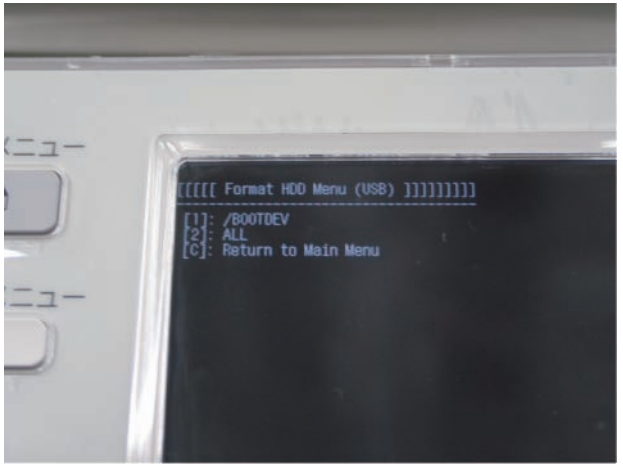
1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [4] -> [0]: To execute formating /Any key other than [0] key: To return to the menu screen.

```
[[[[[ download Menu (USB) ]]]]]]]]]]
--------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[4] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-6-78

4) Press the key on the Control Panel.
   [1] -> [0]: To execute formatting BOOTDEV/Any key other than [0]: To return to the menu screen.
   [2] -> [0]: To execute formatting the entire HDD/Any key other than [0]: To return to the menu screen.
   [C]: To return to the menu screen.



F-6-79

Once downloading is complete, a message is displayed to encourage pressing the “Reset” key.

5) Press any key to return to the menu screen.
6) Download the system software.
   Refer to “Separate Download” for details.

■ Backup

● [5]: Backup

CAUTION:

This function includes R&D review.

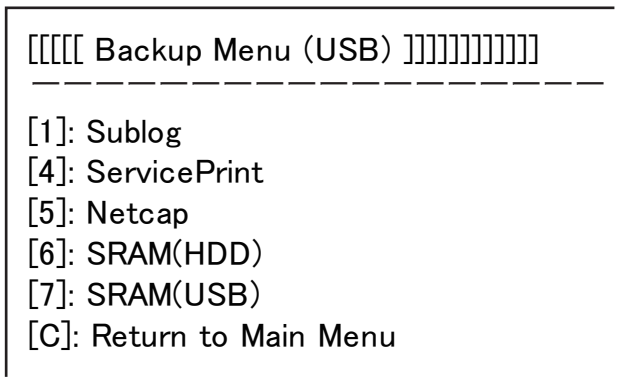
Do not usually use it other than the following function.

When the data is sent to the USB memory device:

USB memory where the system software for this machine has been registered using the SST.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [5] -> [0]



F-6-80

4) SRAM backup of Main Controller PCB2.
   [4] ServicePrint -> Save the service data which P-PRINT output to paper with a text format.
   [6] SRAM(HDD) -> Save it to the Host Machine HDD
   [7] SRAM(USB) -> Save it in USB memory.

■ Clearing Download File

● [7]: Clear downloaded files

This menu clears the system software stored in the temporary storage area of the HDD.
This function is used to clear the downloaded file without writing it after downloading the system software in menu [2] or [3].
Operation procedure
1) After downloading by menu [2] or [3], press the “Reset” key to execute shutdown sequence, and then turn OFF the main power once the screen display disappears.
2) Start the machine in safe mode (while pressing 2 + 8 keys at the same time, turn ON the Main Power Switch).

If the system software is stored in the HDD temporary storage area when starting the machine in safe mode, the system software is deleted. In such a case, the following message is displayed on the touch panel.
“All downloaded file is deleted.”

3) Turn OFF the Main Power Switch.
4) Remove the USB memory storage device.

■ Download Menu 2

● [8]: Download Menu 2

Move to download Menu 2:

Operation procedure
1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [8]→[0] Move to download Menu 2

```
[[[[[ download Menu (USB) ]]]]]]]]]]
------------------------------------
 [1]: Upgrade (Auto)
 [2]: Upgrade (w Confirmation)
 [3]: Upgrade (Overwrite all)
 [4]: Format HDD
 [5]: Backup
 [7]: Clear downloaded files
 [8]: download Menu 2
 [9]: Other Menu

 /[8] has been selected. Execute?/
 - (OK):0 / (CANCEL):Any other keys -
```

F-6-81

4) Restore the data which backed up in USB memory

[2]: Restore

```
[[[[[ download Menu 2nd (USB) ]]]]]]
------------------------------------
[1]: Service Mode Password Clear
[2]: Restore
[C]: Return to Main Menu
```

F-6-82

■ Other Menu

● [9]: Other Menu

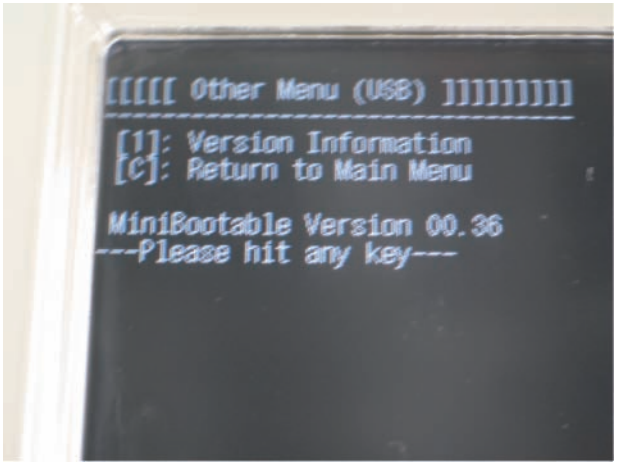
This mode displays other menu.

Operation procedure

1) Enter download mode.
2) Connect the USB memory storage device to the USB port.
3) Press the key on the Control Panel.
   [9] -> [0]: To display other menu/Any key other than [0] key: To return to the menu screen.

● [1]: Version Information

This mode displays the version of download mode.



F-6-83

Press any key to return to the main menu.

Troubleshooting

■ Error Code: E753-0001

● Cause

In the case of an error during writing process of the system software or in the case of writing the system software of the option that is not installed, an error is determined to display E753-0001.

● Remedy

The result of writing process is displayed at the upper side of E753-0001 error display.
Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.

● Upgrading by SST

Be sure to use Assist mode as a general rule because the system software of the non-connecting option is not to be downloaded in Assist mode.
In Single mode, it is available to download the system software of the option that is not installed.
In the case of downloading the Finisher's system software, make the download mode of the Host Machine in normal mode and connect to SST, and then download just the system software of the Finisher with the version information displayed at the right side of the SST screen.

Optional language support

This is the explanation on how to download optional language firmware prepared locally by sales company.

The following basic languages and a normal languages are installed in this machine at the time of factory shipment.

General area	
Basic languages	English, Japanese
Normal languages	German, French, Italy, Spanish

T-6-15

Asian area	
Basic languages	English, Japanese
Normal languages	Simplified Chinese, Traditional Chinese, Korean

T-6-16

Besides these languages, you can install optional languages for which sales company prepared.

You can install basic languages, normal languages, optional languages, collectively 8 languages. The optional languages are prepared for in European area and Asian area.
The optional languages are shown below:

- European area
  Bulgarian, Catalan, Czech, Danish, Greek, Estonian, Finnish, Croatian, Hungarian, Dutch, Norwegian, Polish, Portuguese, Romanian, Russian, Slovak, Slovenian, Swedish, Turkish,

- Asian area
  Vietnamese and Thai.

The number of the installable languages

The number of the installable languages in this machine which are basic languages, normal languages, optional languages, collectively 8 languages.
2 basic languages and 4 normal languages are already installed. So you can install only 2 optional languages.

First, select the optional language to be downloaded in the Assist Mode and exported to the USB memory.
Optional language confirmation message appears in the Assist Mode.
The firmware of the selected optional language is exported to the USB memory.

The elimination of normal languages and optional languages

There are 2 kinds of language modules. One is the basic module which saved in system area, the other is the indication module which saved in other area.
Usually the indication module is used in UI. If there is not the indication module, it is made from the basic module.
If you want to eliminate languages from this machine, you have to delete both of the basic module and the indication module.
You can delete the indication module only in the normal mode. The deletion of the basic module is only in the download mode.

To eliminate normal languages and optional languages, you select following service mode.
Copier > FUNCTION > CLEAR > LANG-CLR (Level-2)
By selecting this service mode, the indication module of normal languages and optional languages are deleted, then the download mode is activated automatically.

At this time, installing firmware set(including SYSTEM) without the deletion languages by SST or USB memory, the basic module is deleted.
The basic languages(English and Japanese) are included in SYSTEM and these languages cannot be deleted.

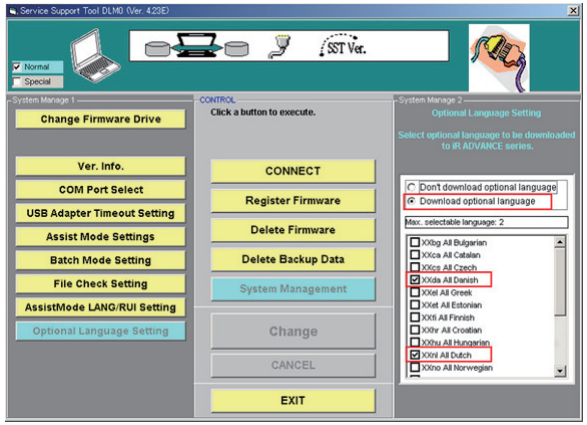
The use case and execution methods

Work contents	SST	USB	CDS
Installing the optional languages to the machine of the normal languages.	Available	Available	Available
Eliminating the optional languages and restore to the normal languages	Available	Available	N/A
Interchanging the optional languages	Available	Available	N/A
Installing the more than 3 optional languages after eliminating the normal languages	Available	Available	N/A
Updating the machine of the optional languages	Available	Available	Available

T-6-17

Optional language selection

"Optional Language Setting" is added to "System Management".
By default, "Don't download optional language" is selected.
When "Download optional language" is selected, up to two optional languages can be selected.
The firmware of the optional languages on the list are excluded from Assist Mode necessary firmware.
Assist Mode can be executed without registering the optional language firmware to SST.



F-6-84

Optional language confirmation

When either of the following conditions is satisfied, the optional language confirmation message appears when "Start" button is clicked.

Optional language is selected in the "Optional Language Setting" of "System Management".
Any optional language is installed to the connected machine.

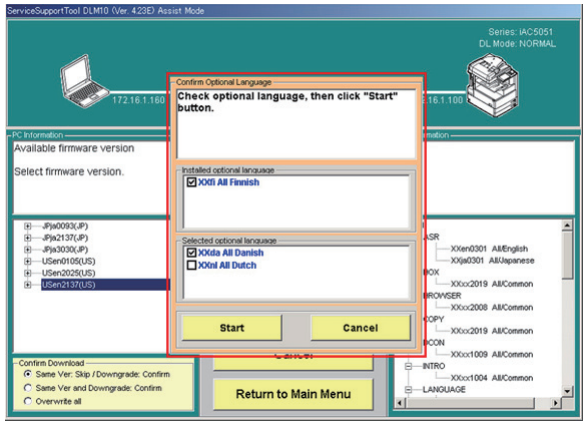
Maximum number of the optional languages installed to the machine is two.
The optional language already installed to the connected machine is always selected, and it cannot be removed from the machine with SST.

Even if the firmware of the installed optional language is not registered to SST, it is counted as the installed optional language.

The number of the selectable optional languages in the "Optional Language Setting" is equivalent to the maximum number of optional languages.
The number of the optional languages to be added to the machine is equivalent to the maximum number of optional languages minus the number of the optional languages installed to the machine.
Error will not occur even the number of the installed optional languages is greater than the maximum number of the optional languages.

In such a case, any new optional language cannot be added, but the firmware of the installed optional language is downloaded in the Assist Mode.

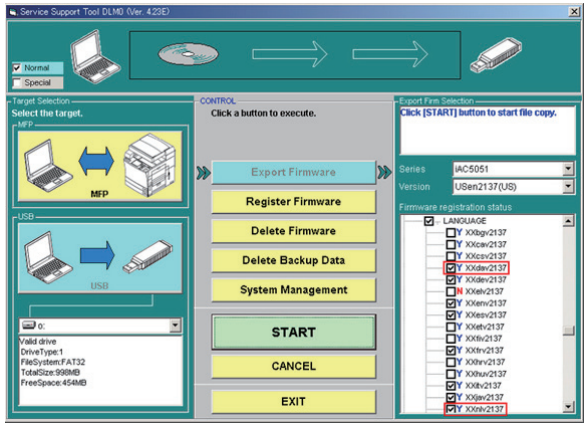
The picture shown below is the example of the case that Finnish is installed to the machine, and Danish and Dutch are selected in the "Optional Language Setting".
Only two optional languages can be installed to the machine and Finnish is already installed.
Therefore, either Danish or Dutch can be installed to the machine.



F-6-85

Firmware to be exported to USB memory

When the firmware of the selected optional language in "Optional Language Setting" is installed to SST, it is exported to the USB memory.
The firmware of the other optional languages are not exported to the USB memory.
When Danish and Dutch are selected in the "Optional Language Setting", the firmware of these languages are exported to the USB memory as shown below.



F-6-86

Controller Self Diagnosis

Introduction

Operation of the (2 types of) error diagnosis tools added to the main body and remedy for errors are described. These tools can reduce time to determine cause of errors occurred in field and improve the accuracy of specifying error locations.
This manual can be applied when the main body is placed in the following conditions.

- The main body does not boot. (In such a case that the Control Panel is not displayed or the progress bar does not work, etc.)
- An error is suspected to have occurred in the Main Controller PCB 1/2 and other related PCBs (child PCBs such as SDRAM or TPM mounted in the Main Controller PCB 1/2).

PCBs and units diagnosed by each tool are as follow:

Boot System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, FLASH Memory PCB, PCI Expansion PCB (option)>
- Control Panel
- All-night Power Supply, Non-all-night Power Supply

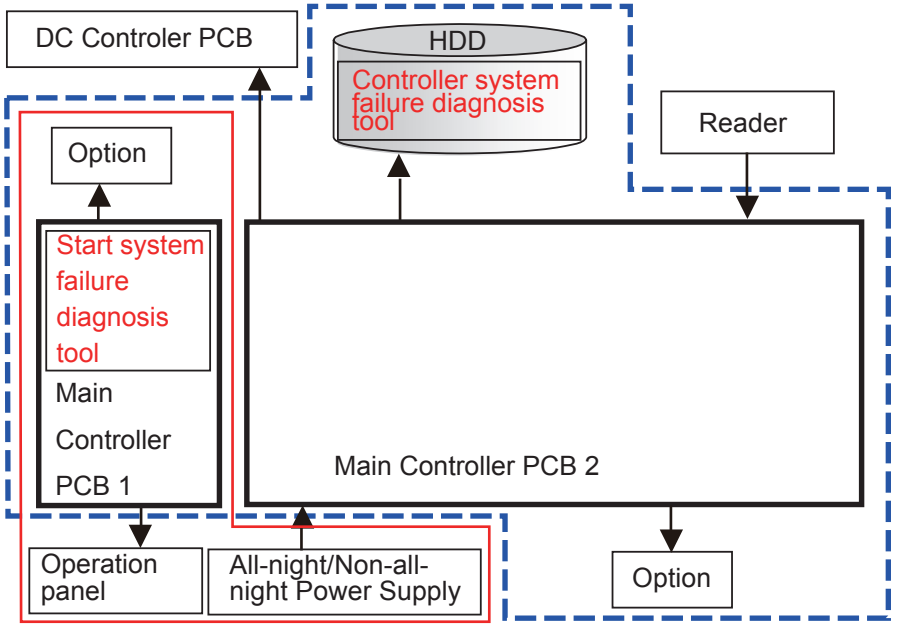
Controller System Error Diagnosis Tool

- Main Controller PCB 1 side <Main Controller PCB 1, SDRAM, TPM PCB, PCI Expansion PCB (option)>
- Main Controller PCB 2 side <Main Controller PCB 2, SDRAM (J11/J13), SDRAM (P), Memory PCB, Open I/F PCB (option), HDD>

* SDRAM (M0) is an option.

Overview

Two types of error diagnosis tools are installed in this machine, and stored in the locations shown below.



F-6-87

Boot System Error Diagnosis Tool covers the components shown in the red frame (solid line) in the figure. Controller System Error Diagnosis Tool covers the components shown in the blue frame (dotted line).

Boot System Error Diagnosis Tool

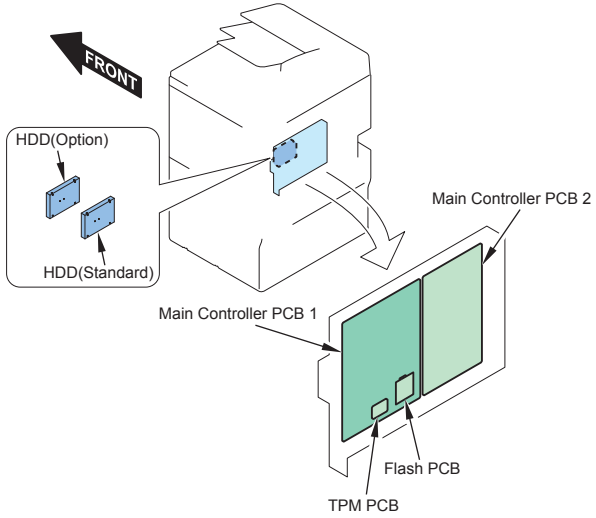
This tool automatically checks the Control Panel, Main Controller PCB 1, All-night Power Supply, and Non-all-night Power Supply, and notifies the result by the number of light-out and blinking interval of the lamp on the Control Panel.
This tool is installed in the ROM of Main Controller PCB 1.
Therefore, regardless the version of MN-CNT, this tool can be used even when an error occurs in child PCBs or when the Controller System Error Diagnosis Tool cannot be booted.

Controller System Error Diagnosis Tool

This tool automatically checks the Main Controller PCB 1/2, child PCBs mounted on the Main Controller PCB 1/2, and HDD, and display the result on the Control Panel.
This tool is installed in HDD.
Therefore, this tool cannot be used when an error occurred in HDD or HDD cannot be accessed.

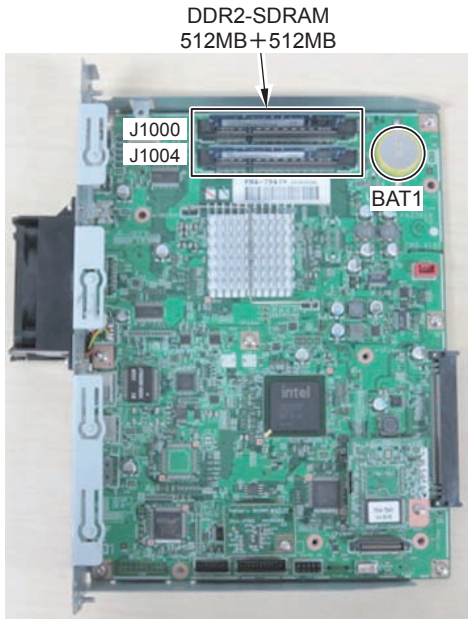
Layout Drawing

Layout Drawing of PCBs Subject to Diagnosis



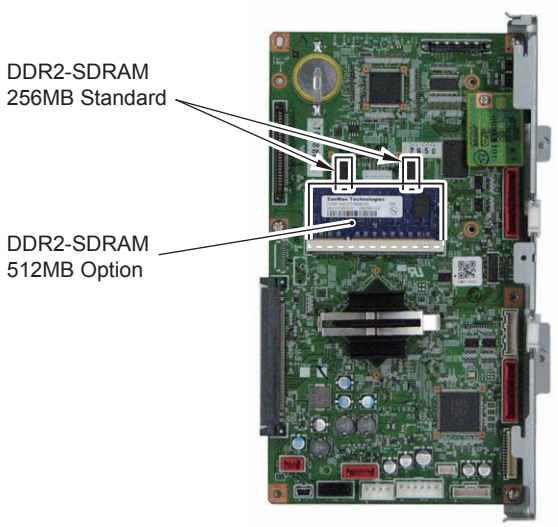
F-6-88

Main Controller PCB 1



F-6-89

Main Controller PCB 2

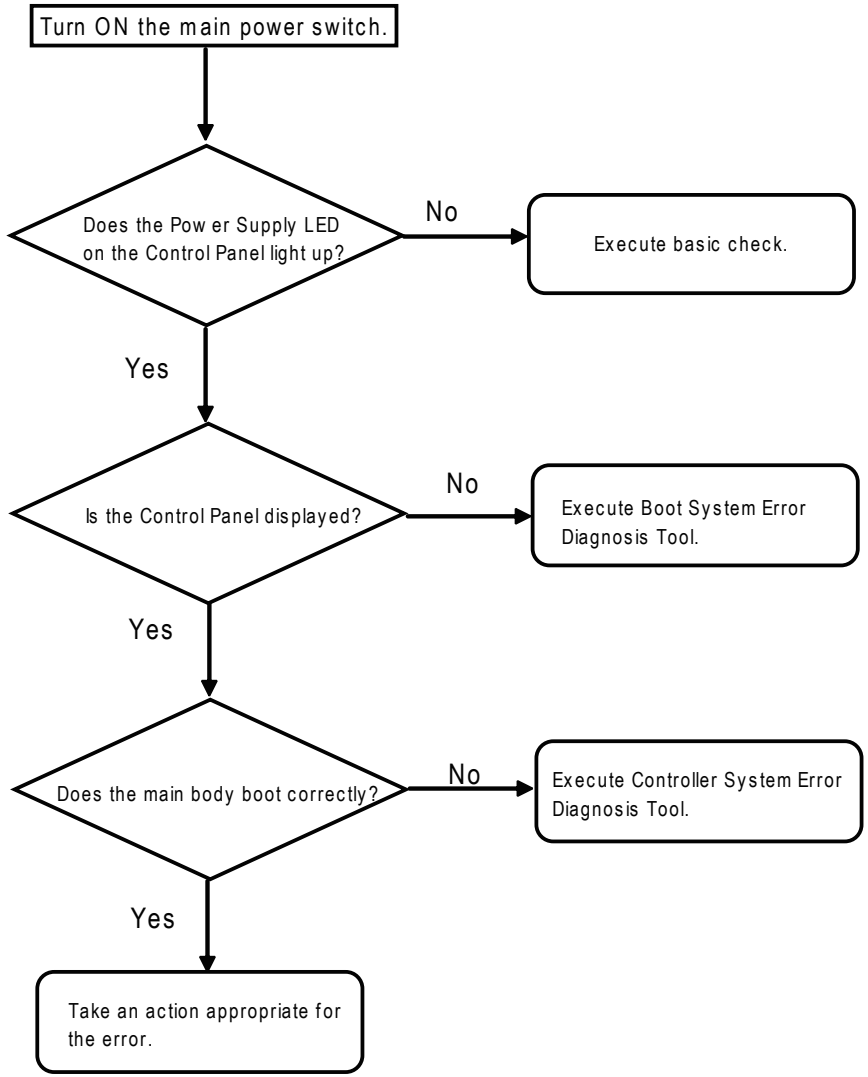


F-6-90

Basic Flowchart

Basic Check Items

Check all of the items shown below.



F-6-91

Basic Check Items

1. Check if the Leakage Breaker is turned OFF.
2. Check if the Power Supply Plug is disconnected.
3. Check if the Connection Cable between the Main Controller PCB 1 and Control Panel is disconnected.
4. Check if the Connection Main Controller PCB 1 and Main Controller PCB 2 definitely?
5. Check if the Connection An All-night Power Supply. Change Non-all-night Power Supply if not recovered.

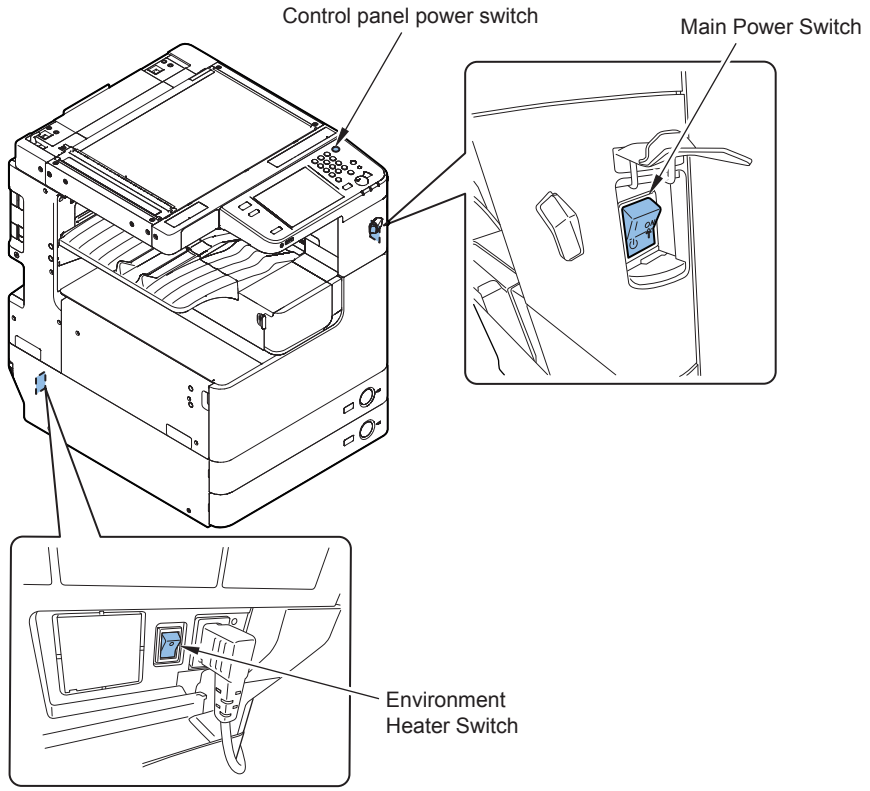
Operation

Operations of the two diagnosis tools are explained below.
Use each tool according to the following purposes.

- When the main body does not boot (the Control Panel is not displayed): Execute Boot System Error Diagnosis.
- When an error is suspected to have occurred in the Main Controller PCB 1/2 or child PCBs mounted on the Main Controller PCB 1/2: Execute Controller System Error Diagnosis.

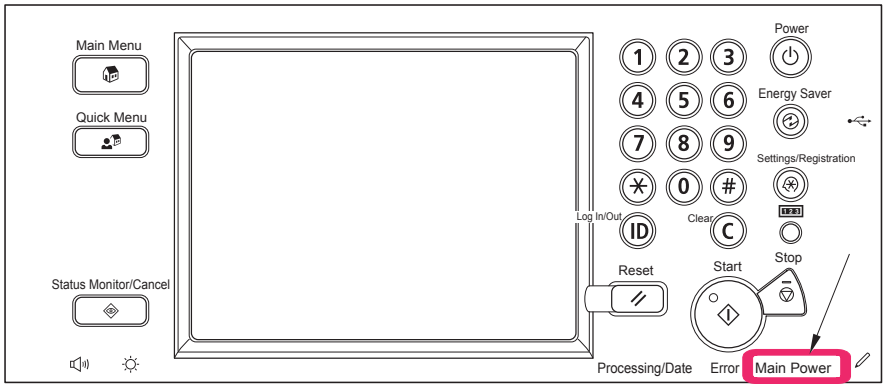
Boot System Error Diagnosis

1) Turn ON the Main Power Supply Switch while pressing the Control Panel Power Supply Switch.



F-6-92

2) Right after the Main Power Supply Lamp lights up once, it lights out instantly, and diagnosis starts.
(When the Main Power Supply Lamp lights out, you can release your finger from the Control Panel Switch.)



F-6-93

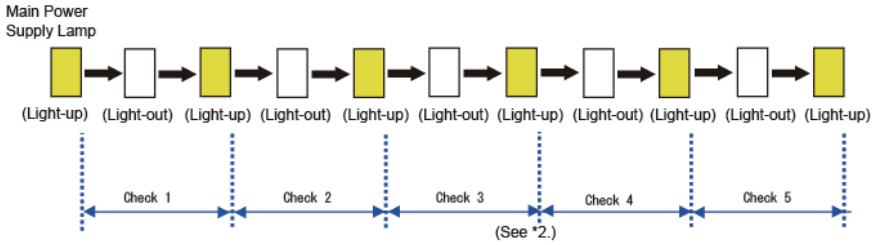
Diagnosis Time

Diagnosis is completed in approx. 1 minute.

<When the diagnosis result is normal>

After the Main Power Supply Lamp repeatedly lights out 5 times, it lights up and the diagnosis is completed.

After completion of the diagnosis, this machine executes normal boot sequence.



F-6-94

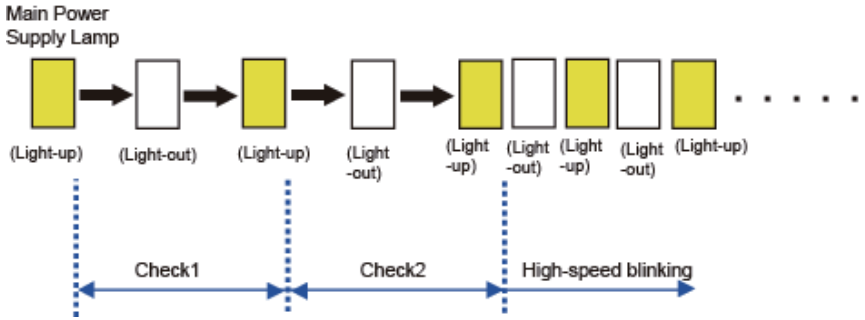
<When an error is detected by diagnosis>

The Main Power Supply Lamp repeats high-speed blinking after completion of a check in which an error is detected. (See *1.)

For example, when an error is detected in Check 2, the Main Power Supply Lamp lights out twice and repeats high-speed blinking (ON/OFF in 0.3 seconds interval).

When an error is detected, be sure to count the number of times the Main Power Supply Lamp lights out.

For detailed results, see "Error Diagnosis".



F-6-95

*1: When an error is detected, there is a possibility that the Main Power Supply Lamp may not perform high-speed blinking but perform other operation (continuous light-up, light-out). In this case, remove and then install the 2 SDRAMs on the Main Controller PCB 1.
If the error is not resolved, execute the remedy of the Check No. which is not completed normally. (For details, see "Error Diagnosis".)

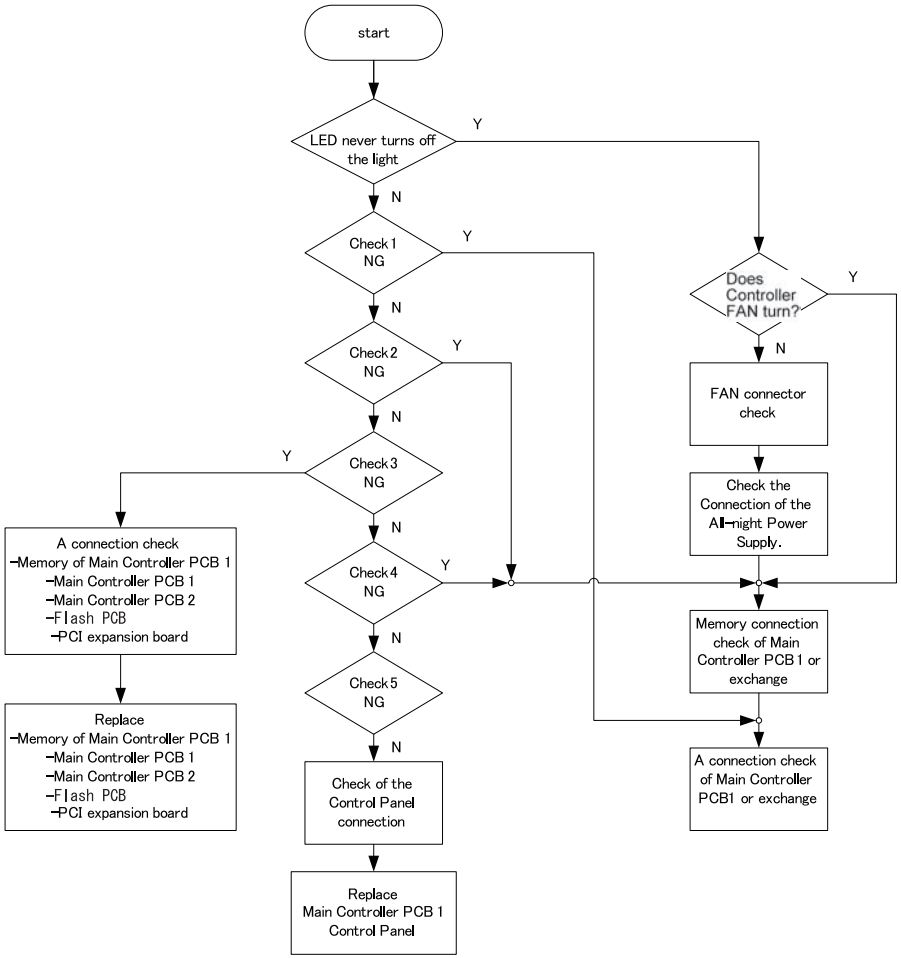
*2: Although diagnosis time for Check 3, and Check 4 is longer than that of other Checks, it is correct operation.

*3: When the 2 SDRAMs are not mounted on the Main Controller PCB 1, this diagnosis is not completed. In this case, install the appropriate 2 SDRAMs.

■ Error Diagnosis

<Boot System Error Diagnosis Table>

The error locations are identified according to the following table.

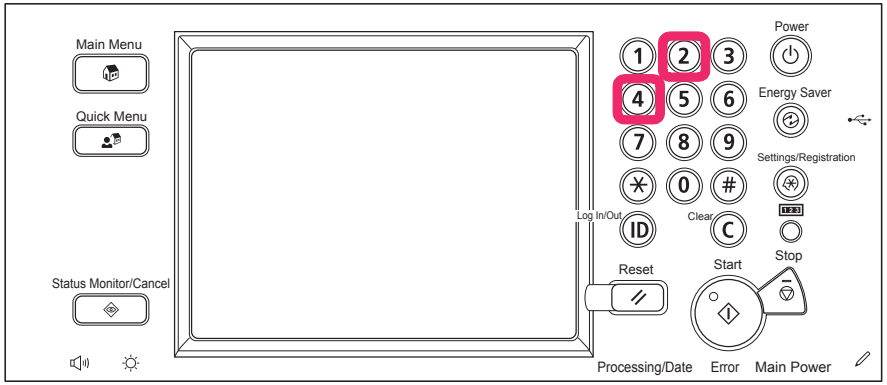


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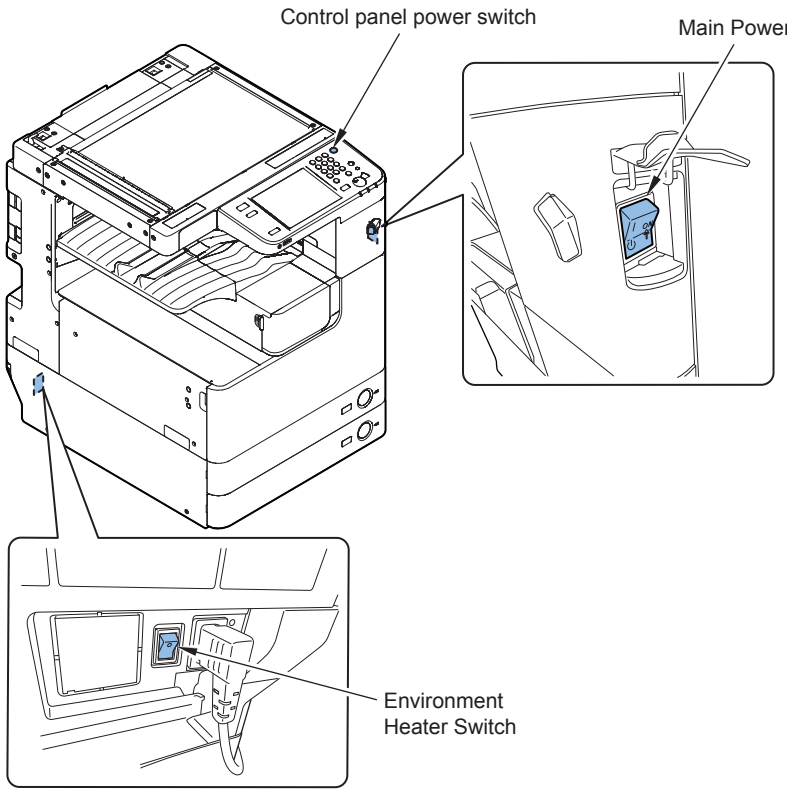
Controller System Error Diagnosis

■ Boot Method

1) Turn ON the Main Power Supply Switch while pressing the numeric keys '2' and '4' simultaneously.

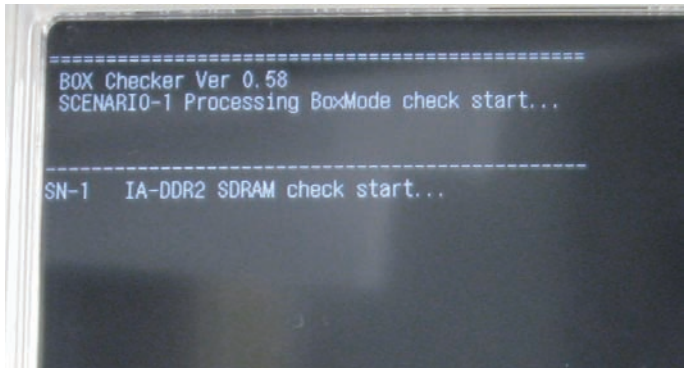


F-6-97



F-6-98

2) Keep pressing the numeric keys (for approx. 20 seconds) until the following screen appears on the Control Panel.



F-6-99

Note:
When this tool is not installed correctly, the following regular screen is displayed.
In this case, perform the following remedy.
Turn OFF the Main Power Supply Switch again, and execute step 1 and 2 shown above.
If this tool still does not boot, it means that BCT is deleted. So, install BCT.
If BCT is not installed correctly, "--.--" is displayed in Service Mode (COPIER>DISPLAY>VERSION>BCT) in the main body.

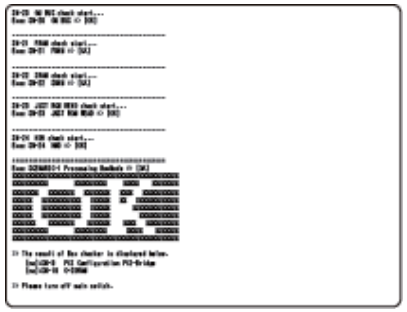


F-6-100

Diagnosis Time

Diagnosis is completed in approx. 3 minutes.
The result is displayed on the Control Panel.

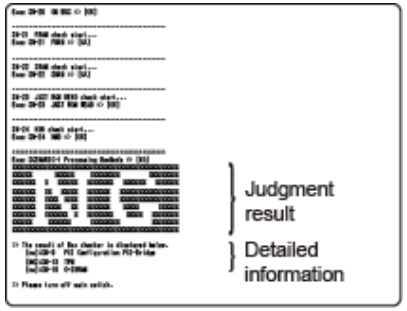
<When the diagnosis result is normal>



F-6-101

<When an error is detected by diagnosis>

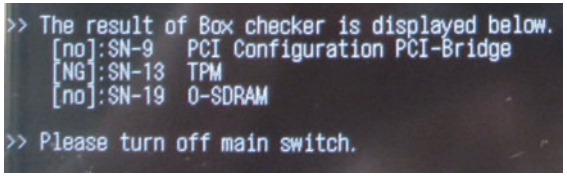
Detailed information is displayed under the judgment result. In detailed information, the name of the test where an error was detected is indicated.



F-6-102

<How to view the error result>

The following screen is an enlarged view of the detailed information indicated above.
Explanation of the detailed error information is described.



F-6-103

[no] means that optional PCBs are not mounted.
When [no] is displayed although an optional PCB is mounted, it means that an error has been occurring.
[NG] means that an error occurred to PCBs mounted as standard.

Note:
Once the tool is activated, this machine reboots after approx. 2 minutes.
After completion of the diagnosis, be sure to turn OFF and then ON the main power.
By turning the power OFF, the operation of this tool completes.

<Controller System Error Diagnosis Table>

The error locations are identified according to the following table.

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-1 IA-SDRAM	Check an error between the Main Controller PCB 1 and SDRAM on the Main Controller PCB 1	Main Controller PCB 1 SDRAM on Main Controller PCB 1	1.Check the installation of SDRAM on the Main Controller PCB. 2. Replace SDRAM on the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-2 SM BUS IA DIMM1	Check an SM bus error in SDRAM (outside) on the Main Controller PCB 1	Main Controller PCB 1 SDRAM (outside) on Main Controller PCB 1	1. Check the installation of SDRAM on the Main Controller PCB. 2. Replace SDRAM (outside) of the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-3 SM BUS IA DIMM2	Check an SM bus error in SDRAM (inside) on the Main Controller PCB 1	Main Controller PCB 1 SDRAM (inside) on Main Controller PCB 1	1. Check the installation of SDRAM on the Main Controller PCB 1. 2. Replace SDRAM (inside) of the Main Controller PCB 1. 3. Replace the Main Controller PCB 1.	-
SN-4 SM BUS IA Clock Gen	Check an SM bus error in Clock Generator on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-5 SM BUS SOC DIMM1	Check an SM bus error in the Main Controller PCB 1 and SDRAM (M1) on the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M1) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Check the installation of SDRAM (M1) on the Main Controller PCB 2. 3. Replace SDRAM (M1) on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	-

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-6 SM BUS SOC DIMM2	Check an SM bus error in the Main Controller PCB 1 and SDRAM (M0) on the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M0) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Check the installation of SDRAM (M0) on the Main Controller PCB 2. 3. Replace SDRAM (M0) on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1. Supplementary Information: If SDRAM (M0) on the Main Controller PCB 2 is not installed, [no] is displayed for the diagnosis result.	-
SN-7 PCI Config Maestro	Check a PCI bus error in the Main Controller PCB 1 and the Main Controller PCB 2	Main Controller PCB 1 PCI Expansion PCB Main Controller PCB 2 SDRAM (M0/M1) on Main Controller PCB 2	1. Check the connection of the Main Controller PCB 1, and the Main Controller PCB 2. 2. Replace the Main Controller PCB 1. 3. Replace the Main Controller PCB 2.	-
SN-8 PCI Config LANC	Check a LAN chip error on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-9 PCI Config PCI-Bridge	Check a PCI bus error between the Main Controller PCB 1 and the PCI Expansion PCB	Main Controller PCB 1 PCI Expansion PCB	1. Check the installation between the Main Controller PCB 1 and PCI Expansion PCB. 2. Replace PCI Expansion PCB. 3. Replace the Main Controller PCB 1. Supplementary Information: If the PCI Expansion PCB is not installed, [no] is displayed for the diagnosis result.	-
SN-10 CPLD	Check failure of CPLD chip on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-11 LANC SPI	Check failure of LANC SPI on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-
SN-12 RTC CHECK	Check failure of RTC on the Main Controller PCB 1	Main Controller PCB 1	1. Replace the Main Controller PCB 1.	-

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-13 TPM	Check failure of the TPM PCB on the Main Controller PCB 1 * TPM PCB is not installed in products for China. So, the diagnosis results NG.	Main Controller PCB 1 TPM PCB	1. Check the installation of the TPM PCB. 2. Replace the TPM PCB. 3. Replace the Main Controller PCB 1.	E746
SN-14 SOC-DDR2 SDRAM	Check an error between SDRAMs on the Main Controller PCB 2	Main Controller PCB 2 SDRAM (J11/J13) on Main Controller PCB 2	1. Check the installation of SDRAM (J11/J13) on the Main Controller PCB 2. 2. Replace SDRAM (J11/J13) on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E748
SN-15 SRI CHECK	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	-
SN-16 JUST ROM READ	Check On-board ROM on the Main Controller PCB 2	Main Controller PCB 2	It is always no indication. A result does not become NG	
SN-17 FRAM	Check Main Controller PCB 2 and the connection of the memory PCB	Main Controller PCB 2 Memory PCB	1. Check the installation of Memory PCB on the Main Controller PCB 2. 2. Replace Memory PCB on the Main Controller PCB 2. 3. Replace the Main Controller PCB 2.	E355
SN-18 SRAM	Check failure of SRAM on the Main Controller PCB 2. A battery emptied check	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	E246 E350 E355
SN-19 GS	Check On-board BUS on the Main Controller PCB 2	Main Controller PCB 2	1. Replace the Main Controller PCB 2.	
SN-20 HDD	Check an HDD I/F error	Main Controller PCB 2 PCI Expansion PCB HDD Cable HDD	1. Check the cable connection of the HDD. 2. Check the connection between the Main Controller PCB 2 and the Main Controller PCB 1. 3. Replace the HDD. 4. Replace the Main Controller PCB 2. 5. Replace the Main Controller PCB 1.	E602
SN-21 BOARD CONNECT IA-SOC	Check failure between the Main Controller PCB 2 and the Main Controller PCB 1	Main Controller PCB 1 Main Controller PCB 2	1. Check failure between the Main Controller PCB 2 and the the Main Controller PCB 1. 2. Replace the Main Controller PCB 2. 3. Replace the Main Controller PCB 1.	E748

Test Name	Description	Assumed Error Location	Remedy	Error Code
SN-22 BOARD CONNECT SOC-ChLink	Check failure between the Main Controller PCB 2 and the channel link PCB	Main Controller PCB 2 Channel link PCB	1. Check failure between the Main Controller PCB 2 and the Channel link PCB. 2.Replace the Channel link PCB. 3. Replace the Main Controller PCB 2.	
SN-23 BOARD CONNECT SOC-DCON	Check failure between the Main Controller PCB 2 and the DC controller PCB	Main Controller PCB 2 DC controller PCB	1. Check failure between the Main Controller PCB 2 and DC controller PCB. 2.Replace the DC controller PCB 3. Replace the Main Controller PCB 2.	-

T-6-18

■ Restrictions

<Boot System Error Diagnosis>

- If an error cannot be resolved by executing remedy according to the error diagnosis table described above, consider boot failure of the main power supply and take appropriate actions.

<Controller System Error Diagnosis>

- Regarding the diagnosis for the test names (SN-1, 2, 7, 17, 20), if an error occurs in the diagnosis under the test names, this diagnosis tool will not boot.
- When no PCBs are installed on the Main Controller PCB 1/2, the following judgment results are displayed.

Standard PCB: [NG]
Optional PCB: [OK]
However, [no] is displayed in detailed error information for optional PCBs.

Version Upgrade via CDS

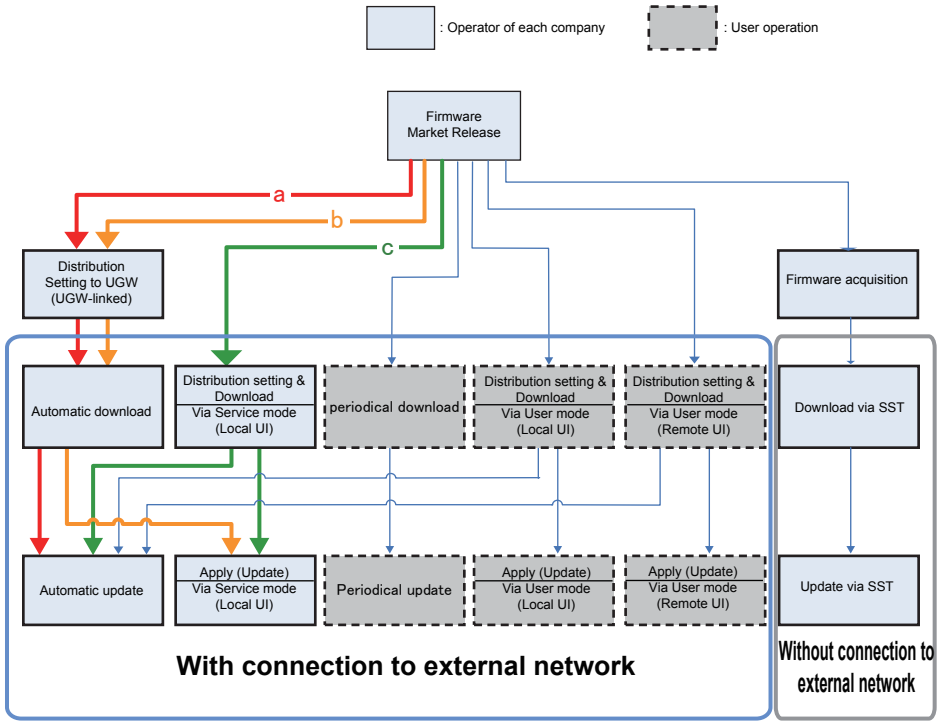
Overview

Among the 4 methods in which service technicians provide firmware install services, the following 3 methods are available using Updater functions.

a. UGW-linked Download and Update (Full-remote Update)

b. UGW-linked Download (Remote Distribution Update)

c. Manual Download and Update (On-site Update from Service Mode)



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*1: Schedules for UGW-linked distribution are maintained on CDS.

NOTE:
- See User Manual of the device for how to connect the device to the external network.
- When needed, perform the communication test before actual download to check if the communication with the distribution server is normal.

Preparation

Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)	Periodical update validation
UGW-linked Download and Update	Yes	Yes	Yes	-	-	-
UGW-linked Download	Yes	Yes	Yes	-	-	-
Manual Download and Update	Yes	Yes	-	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes	-
Periodical update	Yes	Yes	-	-	-	Yes

T-6-19

- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/ Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

T-6-20

Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

T-6-21

Go to the following screen to change the setting of Sales Company's HQ.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL

NOTE:
The list below shows the setting of Sales Company's HQ for CDS-CTS by market.
Check and adhere to the appropriate setting for your market.
<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP
USA = US
Singapore = SG
Europe = NL
Korea = KR
China = CN
Hong Kong = HK
Australia = AU
Canada = CA
Latin America= LA

Network Settings

1. Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

NOTE:
- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.
  "Enabling UGW Link"
  "Enabling [Update Firmware] Button of User Mode"
  "Enabling [Install Application/Options] Button of User Mode"

NOTE:
“External Network” here means the network connecting the device to CDS via Internet.

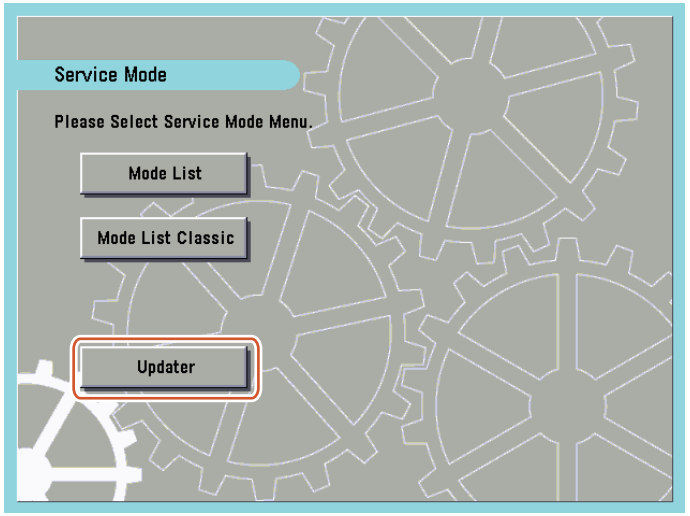
2. Confirming URL Setting of Distribution Server

This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

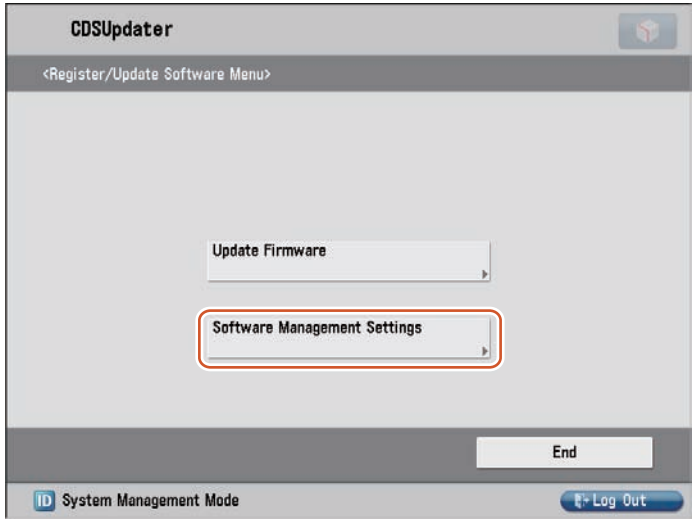
NOTE:
CDS and RDS are another servers.You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

2. Press [Updater] button.



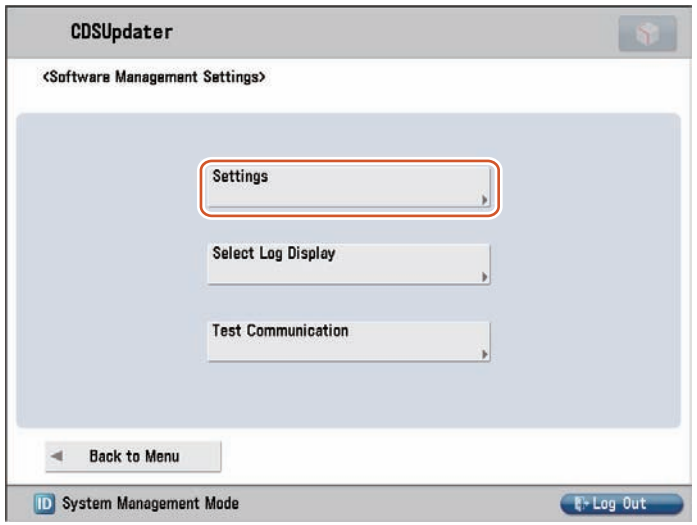
F-6-105

3. Press [Software Management Settings] button.



F-6-106

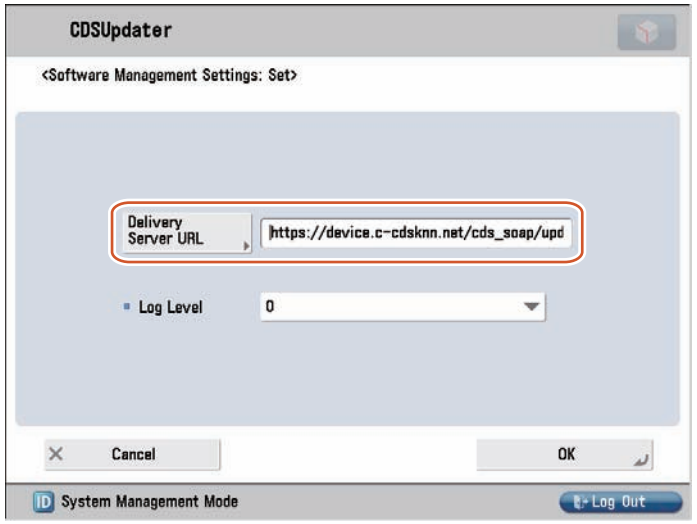
4. Press [Settings] button.



F-6-107

5. Ensure to enter “https://device.c-cdsknn.net/cds_soap/updaterif” in the field beside the [Delivery Server URL] button.

If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



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6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

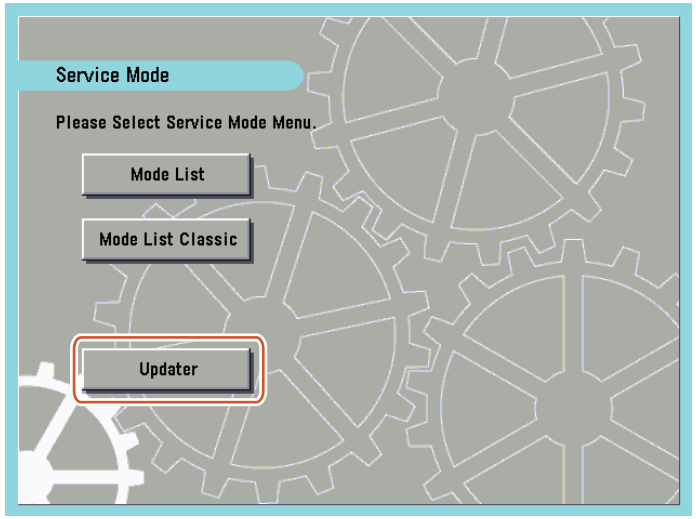
3. Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

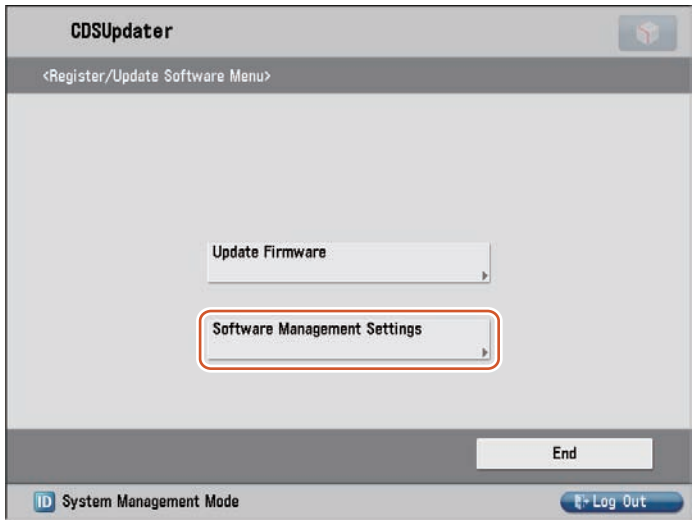
NOTE:
CDS and RDS are another servers.
You need the communication test of CDS by all means even if You succeed in a communication test of the RDS.

2. Press [Updater] button.



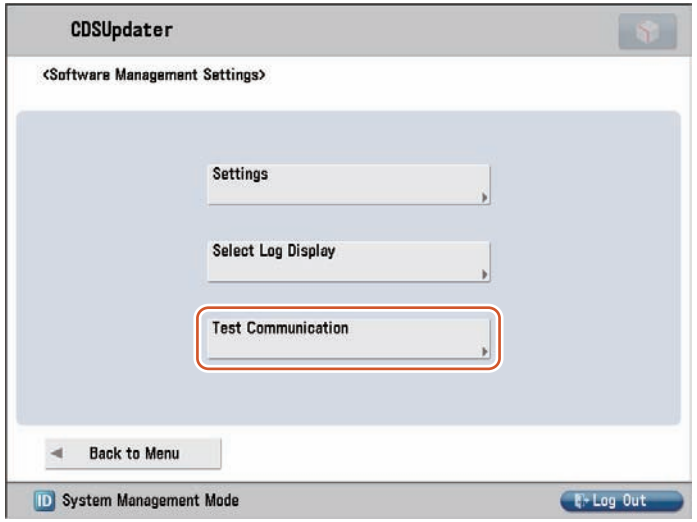
F-6-109

3. Press [Software Management Settings] button.



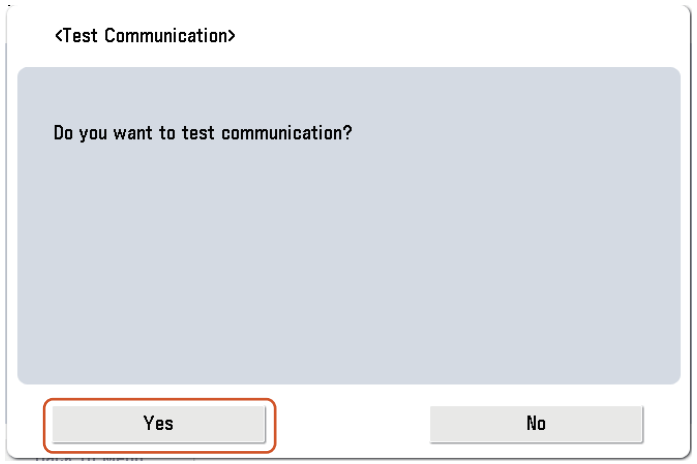
F-6-110

4. Press [Test Communication] button.



F-6-111

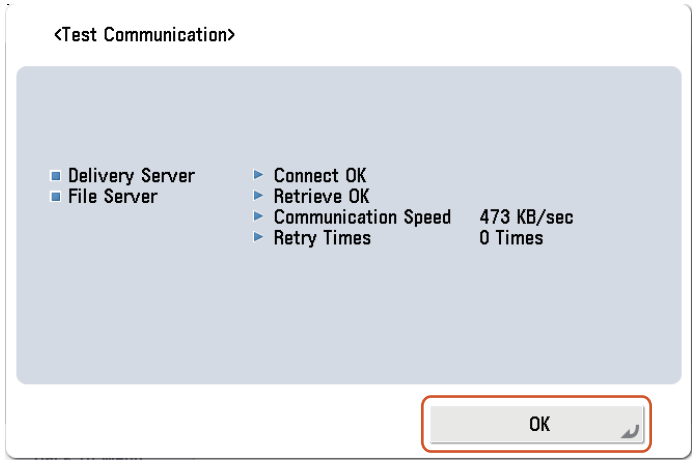
5. Press [Yes] button.



F-6-112

Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).
Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown. Press [OK] button to exit this operation.



F-6-113

■ Enabling UGW Link

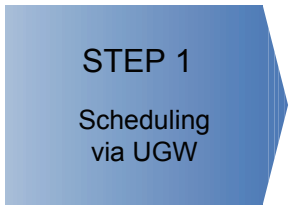
When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

NOTE:
- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual“ for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.

a. UGW-linked Download and Update (Full-remote Update)

See the figure below for the operational flow of “UGW-linked Download and Update”.



F-6-114

STEP1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW.
See “UGW-linked Download and Update” in chapter 5 of Operation Manual of Content Delivery System V1.0 for Firmware Distribution for details.

The device checks the schedule concerned every 12 hours on UGW. This allows the device to register the firmware distribution setting, enabling automatic firmware download and update.

CAUTION:

[Devices without Wait for EOJ (end of job) Function]

Firmware update will delete print jobs in the queue. Ensure to notify users of this before you start updating. It is recommended to perform firmware update during non-business hours.

[Devices with Wait for EOJ Function]

Firmware update will not be triggered when any of the following jobs remains in the queue.

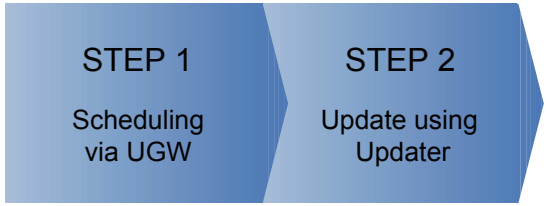
- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

NOTE:
To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

b. UGW-linked Download (Remote Distribution Update)

See the figure below for the operational flow of “UGW-linked download”.



F-6-115

STEP 1: Scheduling via UGW

The firmware distribution schedule to the certain device should be set on UGW.
See “UGW-linked Download” in Operation Manual of CDS V1.0 (for Firmware Distribution) for details.

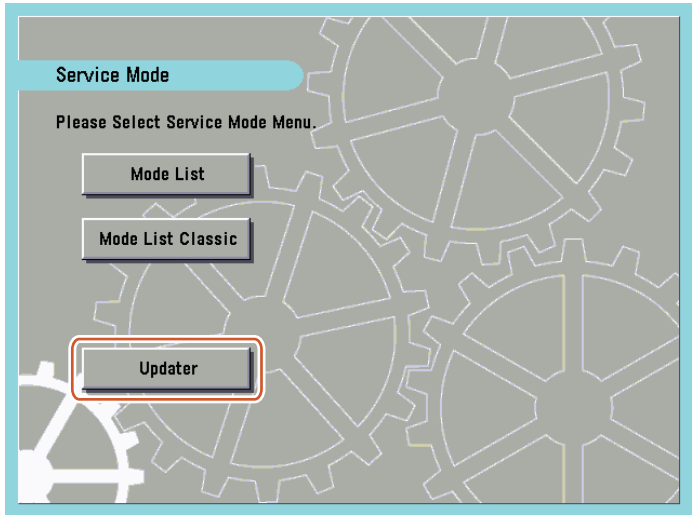
NOTE:
The firmware downloaded by scheduling via UGW can be checked/deleted from User mode, but cannot be updated. If a user download the other firmware, the firmware downloaded with "UGW-linked Download" is overwritten.

STEP 2: Update using Updater

The firmware downloaded on the device can be updated using Updater functions.

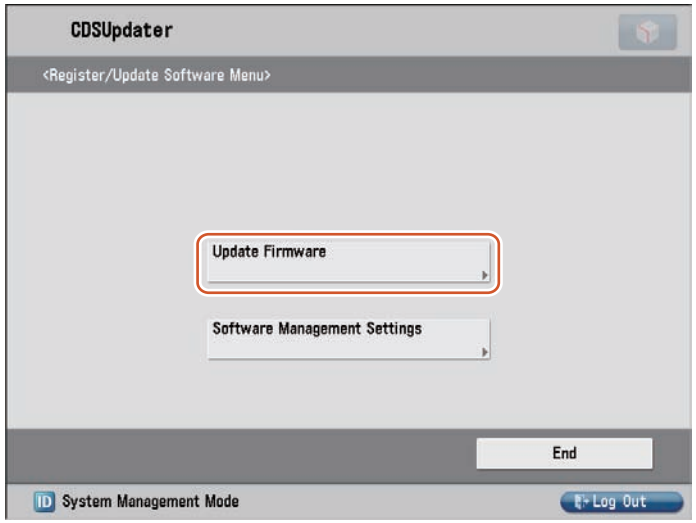
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



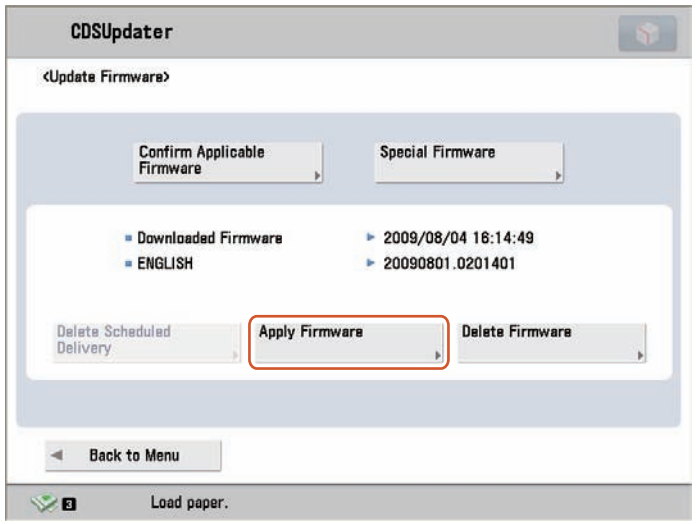
F-6-116

3. Press [Update Firmware] button.



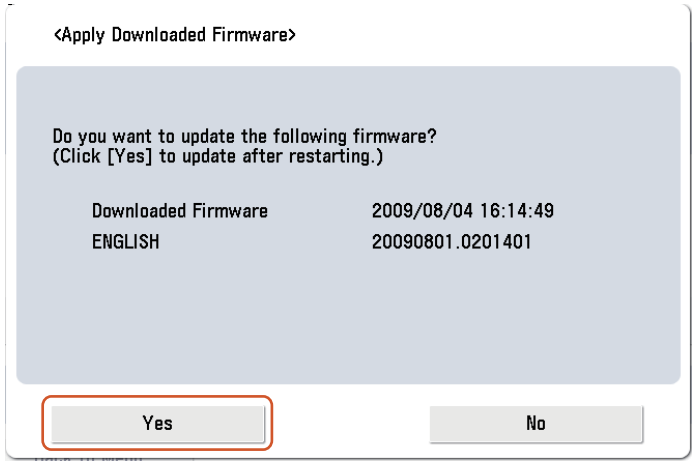
F-6-117

4. Press [Apply Firmware] button.



F-6-118

5. Confirm the downloaded firmware and press [Yes] button.



F-6-119

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of “Manual Download and Update”.

CAUTION:

[Devices without Wait for EOJ (end of job) Function]

Firmware update will delete print jobs in the queue. Ensure to notify users of this before you start updating. It is recommended to perform firmware update during non-business hours.

[Devices with Wait for EOJ Function]

Firmware update will not be triggered when any of the following jobs remains in the queue.

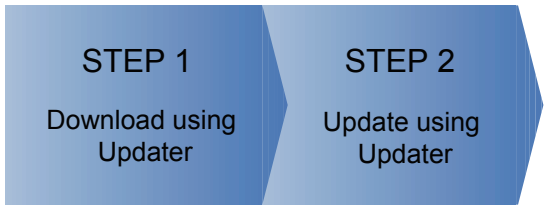
- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

NOTE:
To contacts registered for E-mail notification on UGW, the E-mail is sent from UGW upon completing firmware update.

c. Manual Download and Update (On-site Update from Service Mode)

The figure below shows the operational flow of “Manual Download and Update”.



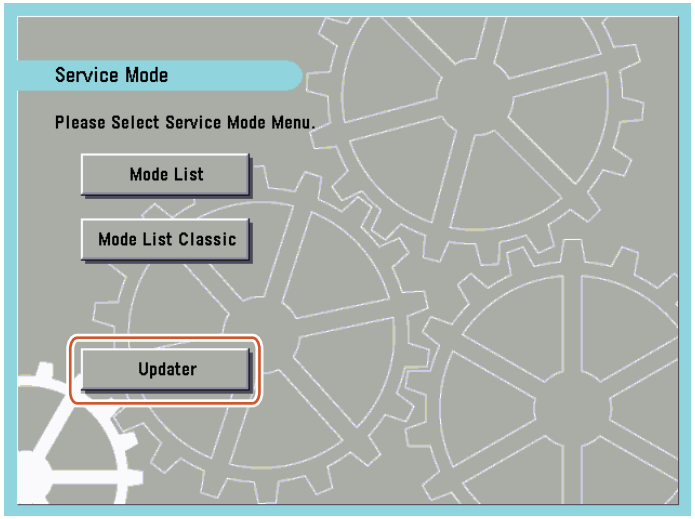
F-6-120

STEP 1: Download using Updater

The firmware can be downloaded from CDS to the device using Updater.

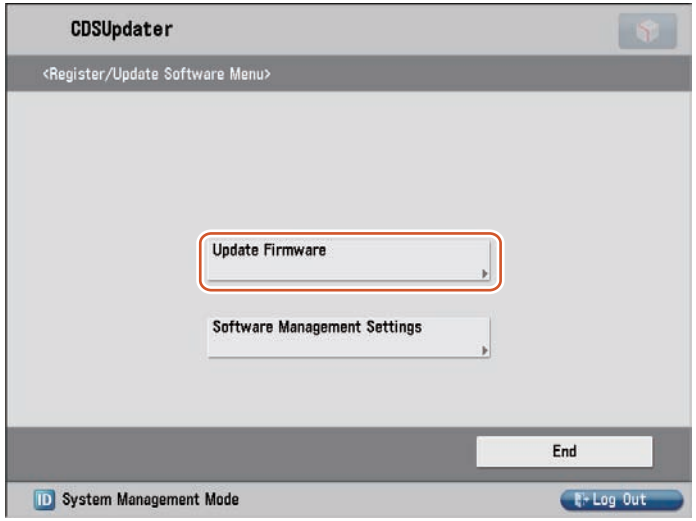
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



F-6-121

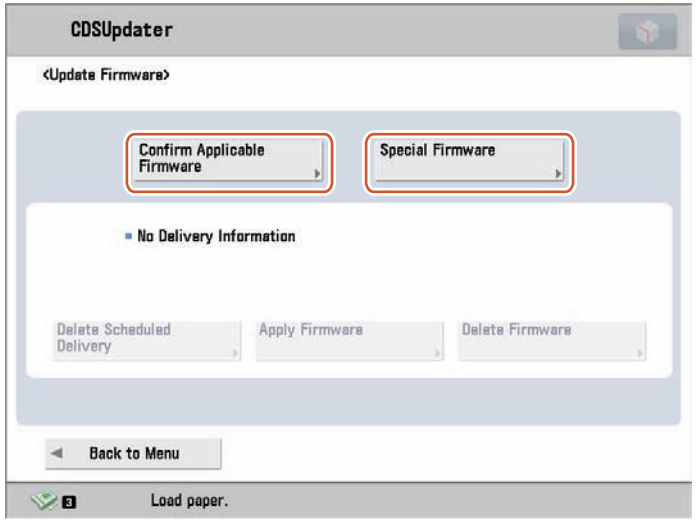
3. Press [Update Firmware] button.



F-6-122

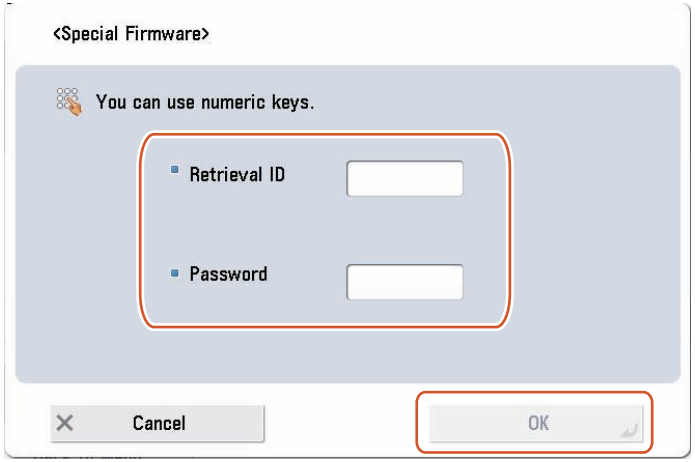
4. Confirm the firmware to be updated in either of the following 2 ways.

- To update to the official edition, press [Confirm Applicable Firmware] button and go to Step 6.
- To update to the individual response edition, press [Special Firmware] and go to Step 5.



F-6-123

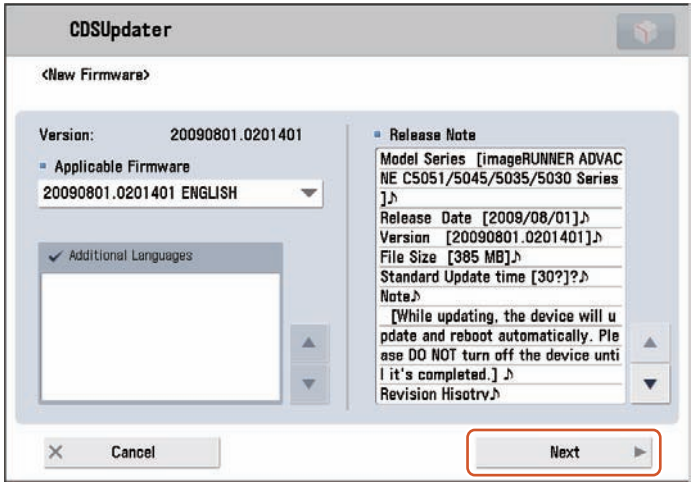
5. [Special Firmware] screen is shown as below. Enter the fields and press [OK] button.



F-6-124

- [Retrieval ID]:
  Enter numeric up to 8 characters.
- [Password]:
  Enter numeric up to 8 characters.

6. [New Firmware] screen is shown as below. Check the contents and press [Next] button.

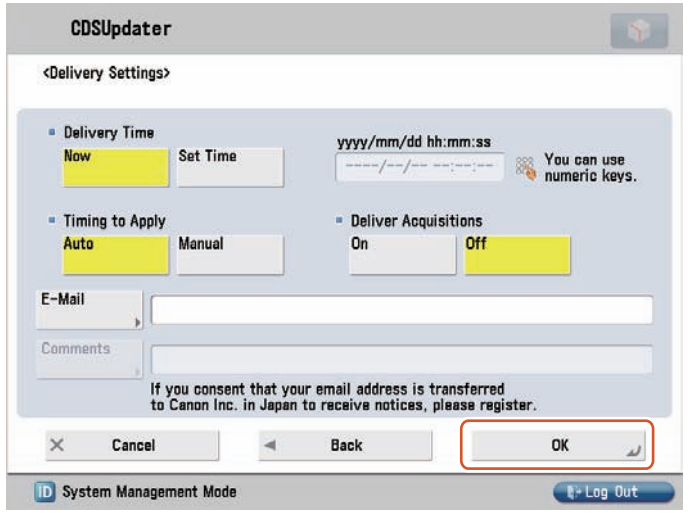


F-6-125

- [Version]:
  The current firmware version is shown.
- [Applicable Firmware]:
  Select the firmware applicable to the device from the dropdown list.
- [Additional Languages]:
  If there are any addtional languages, they are displayed.
  More than 1 language can be selected, and it is possible to add another language when upgrading the firmware.
  Up to 8 languages can be added. The languages already registered in the device are always selected, and SST is used to delete an unnecessary language from the device.
  Include English and Japnese in eight languages.
- [Release Note]:
  If any release note is published, the contents are shown here.

NOTE:
To update to the individual response edition, the firmware corresponding to the ID and password that you input is displayed in [Applicable Firmware].

7. [Delivery Settings] screen is shown as below. Enter the fields and press [OK] button.



F-6-126

- [Delivery Time]:
  Press either [Now] or [Set Time] button.

- [Now]:
  The firmware is downloaded immediately after distribution schedule is set.
- [Set Time]:
  Be sure to specify the date (within 30 days) and time. The firmware is downloaded on the specified date and time.
  Enter the date and time using the numeric keypad in the format of “yyyy/mm/dd hh:mm:ss”

- [Timing to Apply]:
  Press either [Auto] or [Manual] button.
  - [Auto]:
    The firmware is applied automatically upon firmware downloaded.
  - [Manual]:
    The firmware is automatically downloaded. Go to [Apply Firmware] to set up for updating the downloaded firmware.
- [Updated Module Only]:
  Press either [On] or [Off] button.
  - [On]:
    Only difference between the current and new firmware is downloaded.
  - [Off]:
    The firmware to be applied is wholly downloaded.
- [E-mail]:
  E-mails concerning update statuses are sent from the device to the contact registered here.
  Enter the E-mail address of the service technician in charge.
  Enter 1-byte alphanumeric or symbols up to 64 characters.
- [Comments]:
  Enter the comment in 1-byte alphanumeric or symbols up to 128 characters.
  Enter the comment to be automatically included in E-mail. Model Name in the comment will be helpful to identify the device relevant to the E-mail.

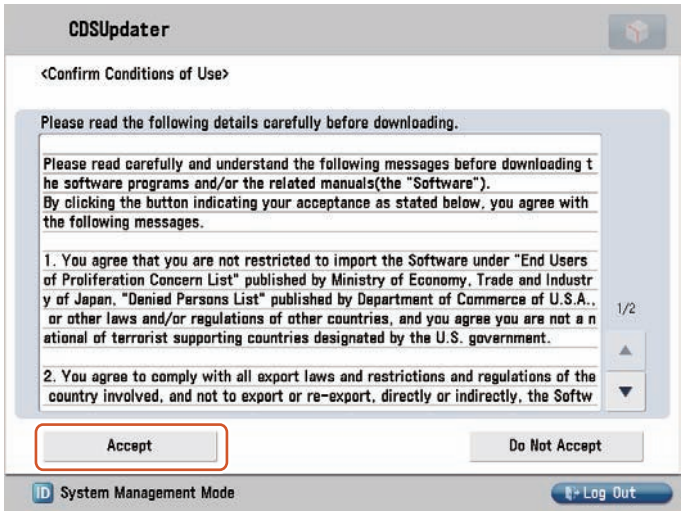
NOTE:
[Timing to Apply]
- For firmware versions with no remote update permission, [Auto] cannot be selected in [Timing to Apply]

[Updated Module Only]
- For firmware versions with difference-only delivery disabled, only [OFF] can be selected in [Updated Module Only].

[E-mail]
- To send E-mails to multiple destinations, each E-mail address should be delimited with comma (,) or semi-colon (;).
- For E-mail addresses entered in this field, a notification E-mail is sent at the following timing.

  -Distribution Set
  -Distribution Started
  -Distribution Finished
  -Update Started
  -Update Finished
  -Error Occurred

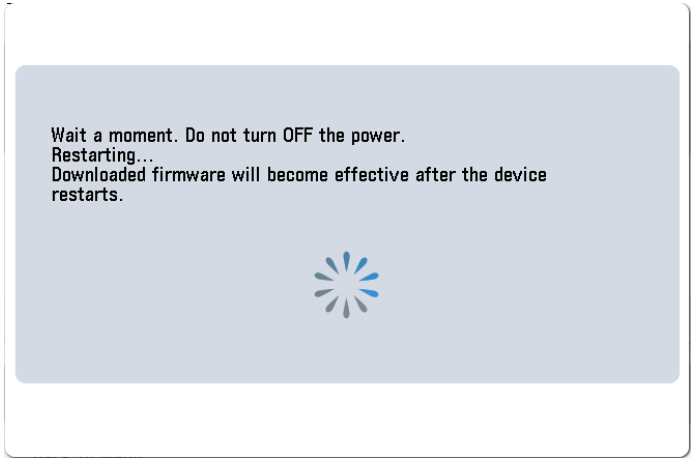
8. Confirm Export Criteria screen is shown as below. Check the contents and press [Accept] button.



F-6-127

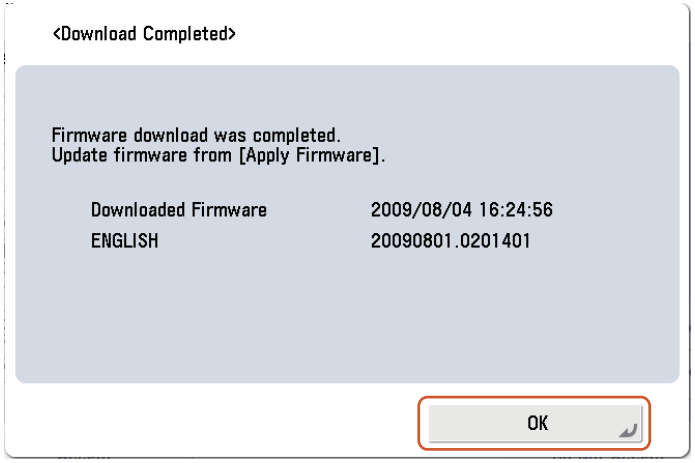
9. One of the screens below is shown according to the setting.

- When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Auto], respectively:
  Firmware is downloaded and updated automatically to the device. The device is automatically restarted upon update completed. Now STEP 1 is successfully completed.



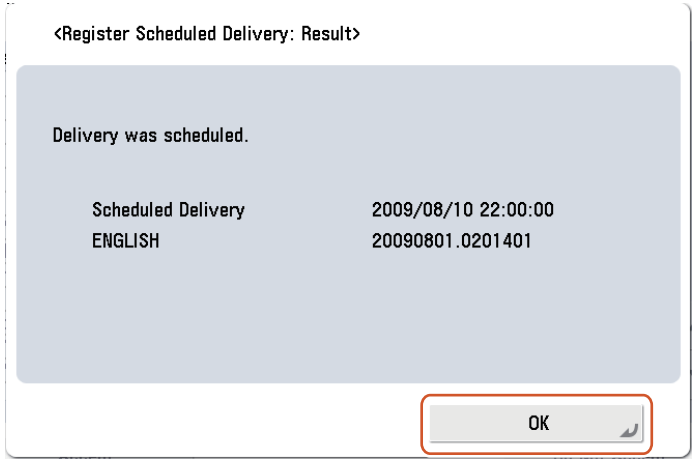
F-6-128

When Distribution Time and Timing to Apply of Distribution Setting are set to [Now] and [Manual], respectively:
Confirm the firmware and press [OK] button. Now STEP 1 is successfully completed.



F-6-129

- When Distribution Time is set to [Set Time] in Distribution Setting:
  Confirm the distribution schedule and press [OK] button. Now STEP 1 is successfully completed.



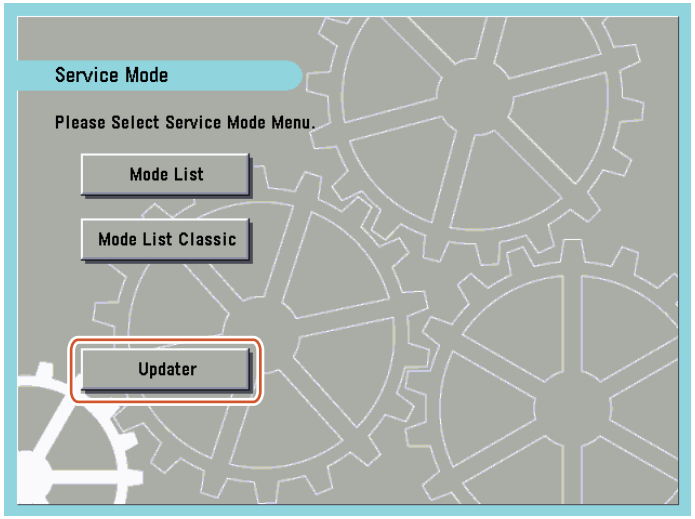
F-6-130

STEP 2: Update using Updater

The firmware downloaded to the device can be updated using Updater functions.
When Timing to Apply is set to [Auto] in Distribution Setting in STEP 1, the firmware is updated automatically. Only when Timing to Apply is set to [Manual], follow the steps below to update the firmware.

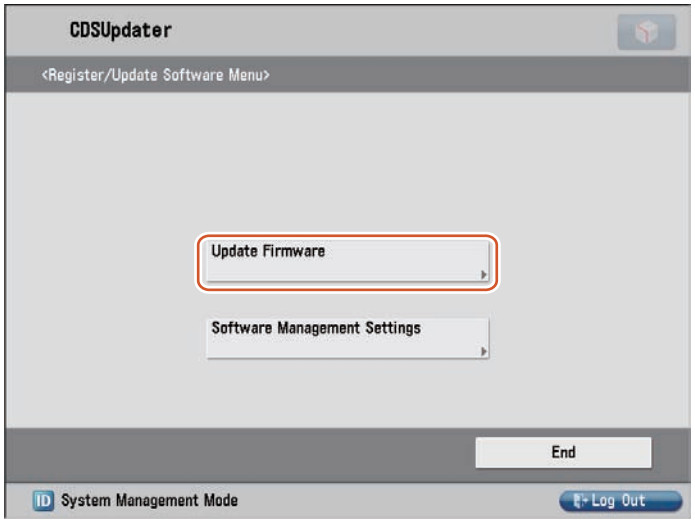
1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

2. Press [Updater] button.



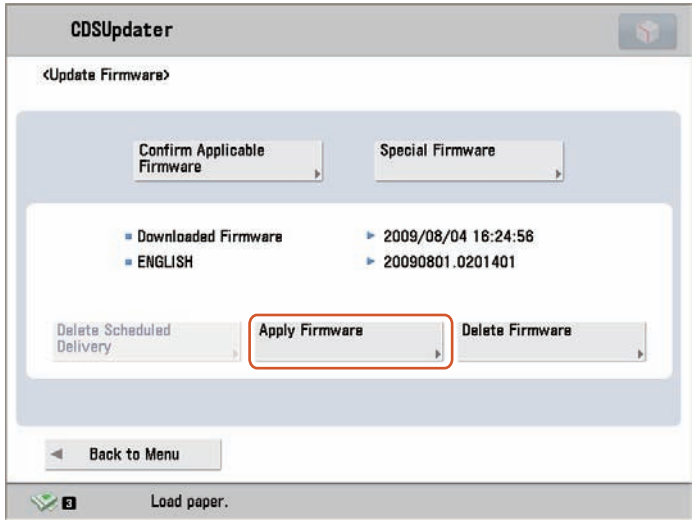
F-6-131

3. Press [Update Firmware] button.



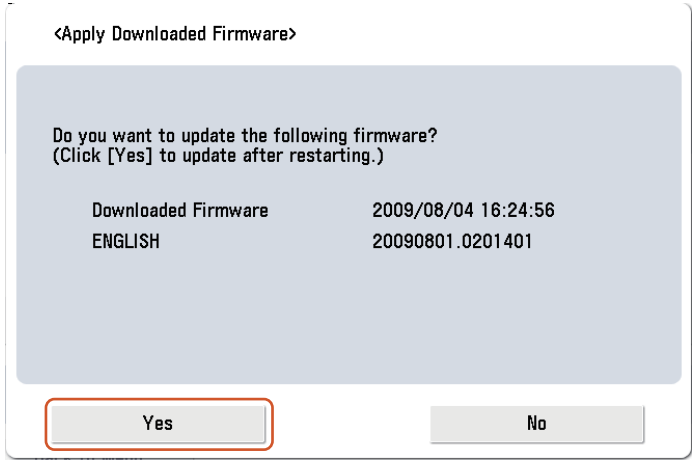
F-6-132

4. Press [Apply Firmware] button.



F-6-133

5. Confirm the downloaded firmware and press [Yes] button.



F-6-134

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.
7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method of “Manual Download and Update”.

CAUTION:

[Devices without Wait for EOJ (end of job) Function]

Firmware update will delete print jobs in the queue. Ensure to notify users of this before you start updating. It is recommended to perform firmware update during non-business hours.

[Devices with Wait for EOJ Function]

Firmware update will not be triggered when any of the following jobs remains in the queue.

- Print
- Scan
- Fax (except I-FAX; this function is enabled for I-FAX only during Print/Scan operation)

See the section of "Wait for EOJ (end of job) Function" under “Limitations and Cautions”, “Updater” of Chapter 2 “Technical Information” of this manual for more detailed information.

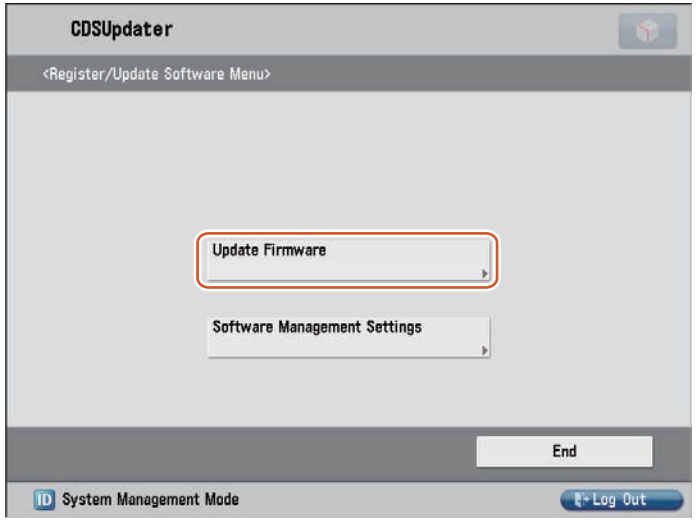
Deleting Firmware Distribution Schedule

This section describes how to delete firmware distribution schedule set by Updater.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] button at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

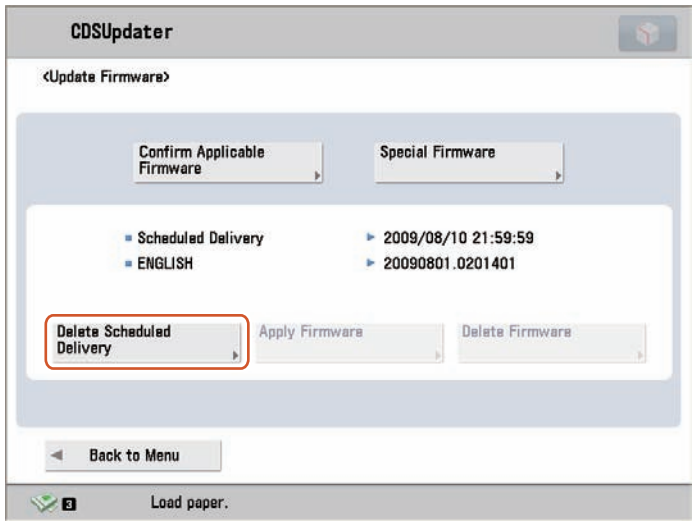
2. Press [Updater] button.

3. Press [Update Firmware] button.



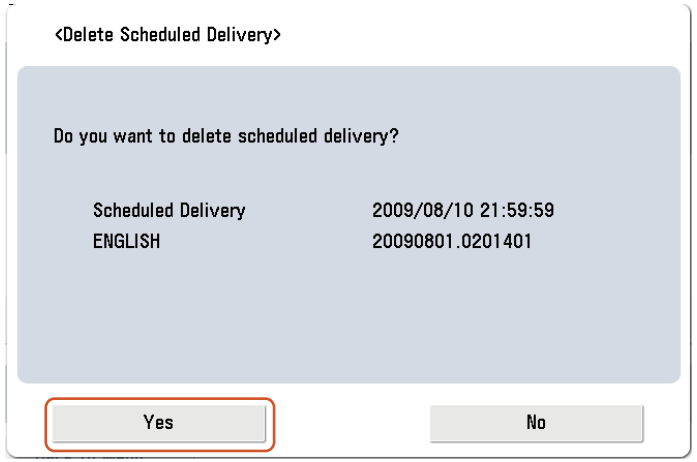
F-6-135

4. Press [Delete Scheduled Delivery] button.



F-6-136

5. Confirm the contents of the distribution schedule and press [Yes] button.



F-6-137

6. Confirm the result of deletion shown on the screen and press [OK] button. Now the firmware distribution schedule is successfully deleted.

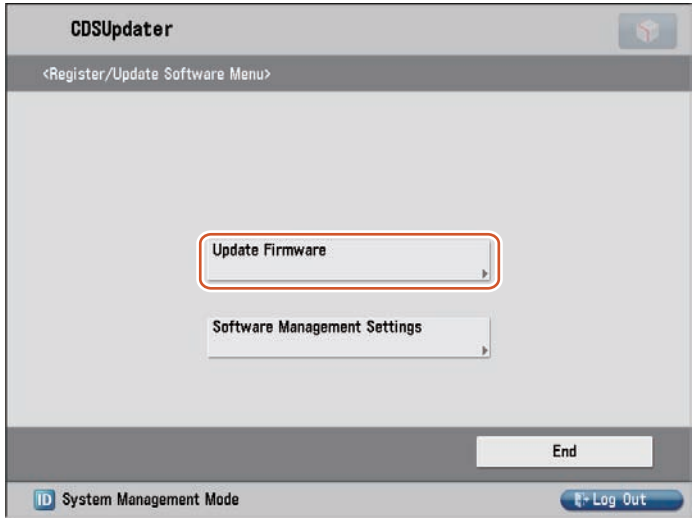
Updating Downloaded Firmware (Applying Firmware)

This section describes how to update the downloaded firmware.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User mode)] button on the control panel.
   2). Press [2] and [8] buttons at a time on the control panel.
   3). Press [Setting/Registration (User mode)] button on the control panel.
   4). [Service Mode] screen is shown.

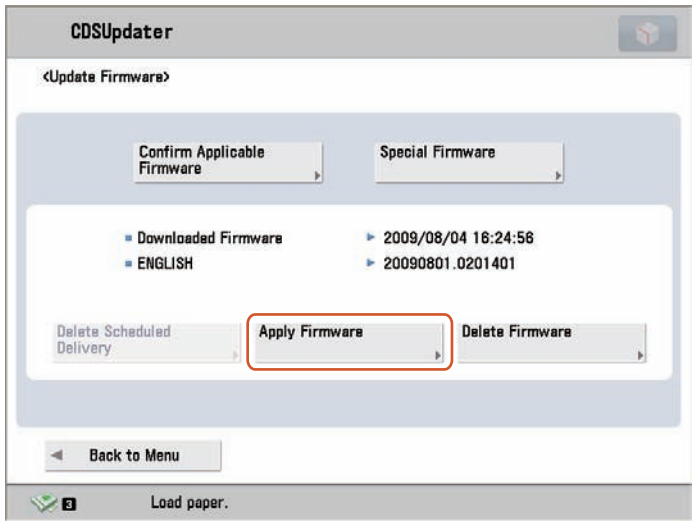
2. Press [Updater] button.

3. Press [Update Firmware] button.



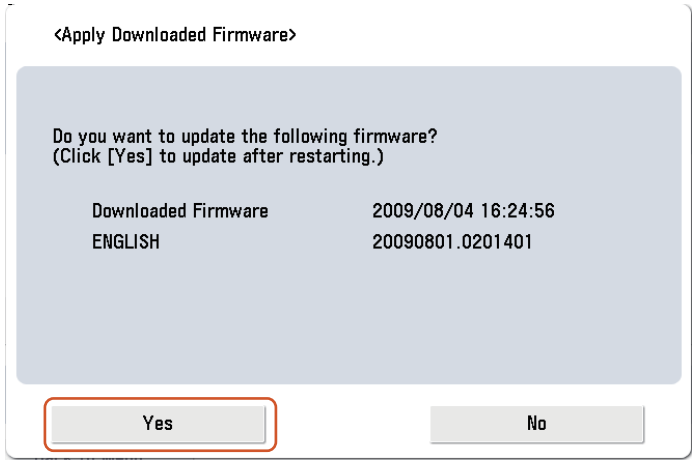
F-6-138

4. Press [Apply Firmware] button.



F-6-139

5. Confirm the downloaded firmware and press [Yes] button.



F-6-140

6. The firmware is applied to the device. The device is automatically restarted when the firmware is successfully applied.

7. When the device is restarted, confirm the version of the firmware.
   1). Press [Check Counter Key] button on the control panel.
   2). Press [Check Device Configuration] button.
   3). Confirm if the updated firmware version corresponds to [Controller Version].

Now the firmware is successfully updated in the method.

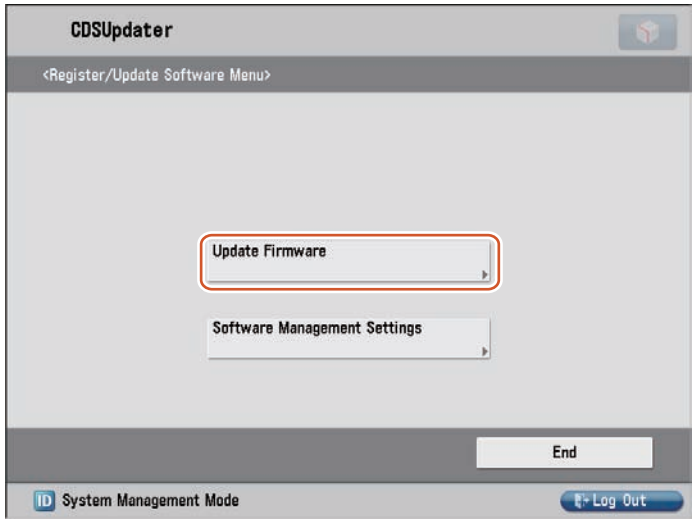
Deleting Downloaded Firmware

This section describes how to delete the downloaded firmware using Updater.

1. Start [Service Mode] at Level 1.
   1). Press [Setting/Registration (User Mode)] button on the control panel.
   2). Press [2] and [8] button at a time on the control panel.
   3). Press [Setting/Registration (User Mode)] button on the control panel.
   4). [Service Mode] screen is shown.

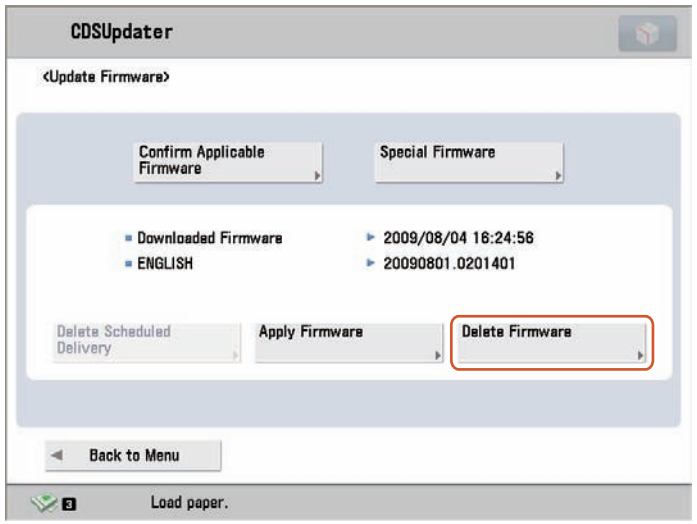
2. Press [Updater] button.

3. Press [Update Firmware] button.



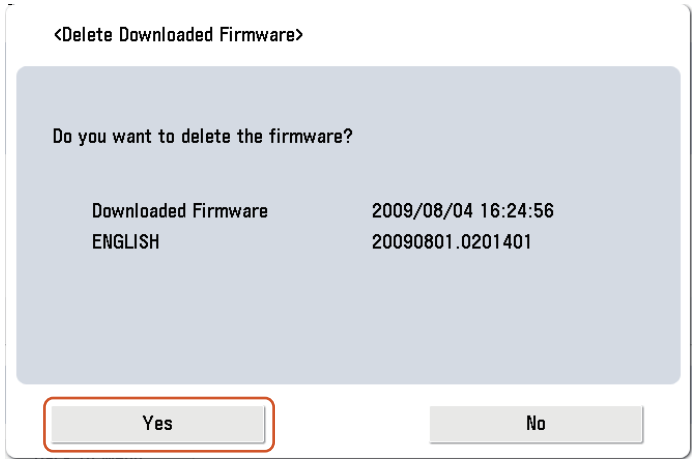
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4. Press [Delete Firmware] button.



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5. Confirm the downloaded firmware to be deleted and press [Yes] button.



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6. Confirm the result of deletion and press [OK] button. Now the downloaded firmware is successfully deleted.

Troubleshooting on Firmware Installation

No.1

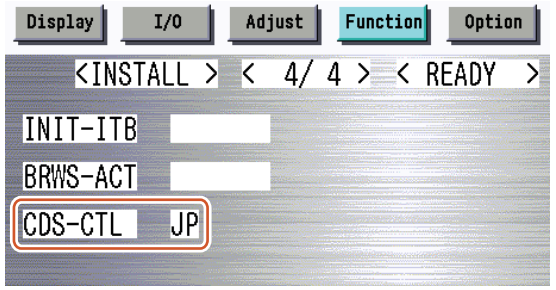
Symptom: I can't find the firmware to be updated using Updater.

Cause: Preparation has not been properly done.

Action: Confirm the setting of Sales Company's HQ bellow.

Setting of Device [SERVICE MODE] (Level1)

COPIER > FUNCTION > INSTALL > CDS-CTL



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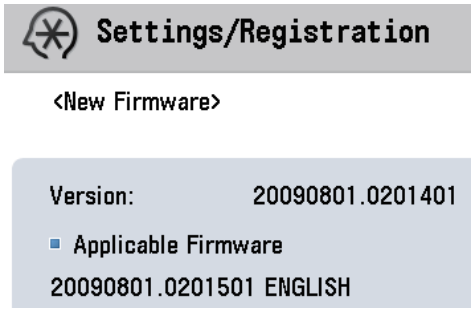
Cause: The version currently in use is not available for update.

Action: Download the release note from CDS separately to upgrade to the version available for update.

Cause: You try to download firmware from User mode.You can download only the latest version of firmware from User mode.

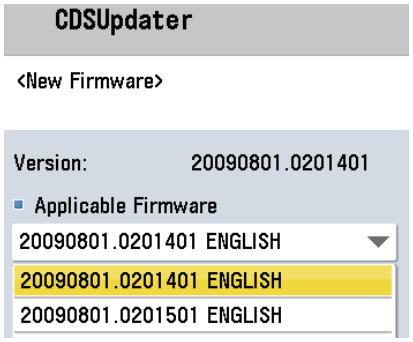
Action: Download from Service mode.

<User Mode>



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<Service Mode>



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No.2

Symptom: Firmware download is aborted during operation using Updater functions.
Cause: The network cable is disconnected or the power went off due to blackout and the like.
Action: Retry download. Firmware under download is cancelled upon aborted.

No.3
Symptom: Firmware update is aborted during operation using Updater functions and the device cannot be started.
Cause: The power went off due to blackout and the like.
Action: Service technicians should follow the steps below via SST.
1. Press [2] and [8] buttons at a time to start the device.
   1) Turn on the power and hold down [2] and [8] buttons at a time on the control panel.
   2) [Download Mode] is shown on Local UI.
      If the operation above does not trigger the download mode, BOOT (Flash Memory, service parts) should be replaced (takes up to 1 minute for rewriting).
      If the operation above successfully triggers the download mode, go to the next steps below.

2. Via SST, format the HDD of BOOT Dev only.

3. Via SST, install the firmware in the device.

No.4
Symptom: Firmware has not been downloaded according to the distribution schedule.
Cause: Other firmware distribution schedule is set.Since only 1 distribution schedule is held, the registered schedule may be overridden by the new firmware distribution schedule.
Action: Once the schedule is overridden, the firmware cannot be downloaded. Distribution should be rescheduled for the firmware.

Cause: At the scheduled distribution date and time, the firmware registered was not found on CDS.
Action: Distribution should be rescheduled for the firmware.

Cause: After distribution is scheduled, device is updated to other version of firmware via SST. (Status of the firmware in the device is changed.)
Action: Distribution should be rescheduled for the firmware.

Cause: The power of the device was off at scheduled date and time.
Action: Distribution should be rescheduled for the firmware.

No.5
Symptom: The firmware presumed to be downloaded to the device cannot be found.
Cause: Since only 1 firmware can be held on the device, the firmware previously downloaded was overridden by the newly downloaded one.
Action: Retry the firmware download.

Information required for Reports

Information required for Service Technicians to Obtain on Site

- Update Logs
- System Logs (Log Level: 4)

Information to Report

- Symptom occurred
- Location of the device
- Date and Time that symptom occurred
- Steps taken for reproduction
- Firmware / Application you tried to install
- Occurrence frequency
- Model dependency (if the same symptom occurred in other models)
- Dependency on firmware/MEAP application/system option
- Conditions of symptom occurrence
  - Model
  - Firmware version installed on the device
  - List of MEAP applications installed on the device
  - Network setting information of the device
  - Service mode setting information

Setting of device service mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
	COPIER > OPTION > FNC-SW > CDS-UGW
	COPIER > OPTION > FNC-SW > CDS-FIRM
	COPIER > OPTION > FNC-SW > CDS-MEAP
	COPIER > OPTION > FNC-SW > LOCLFIRM

* As many as the items listed above should be obtained on site. More information provided will be helpful for investigation.

Debug Logs

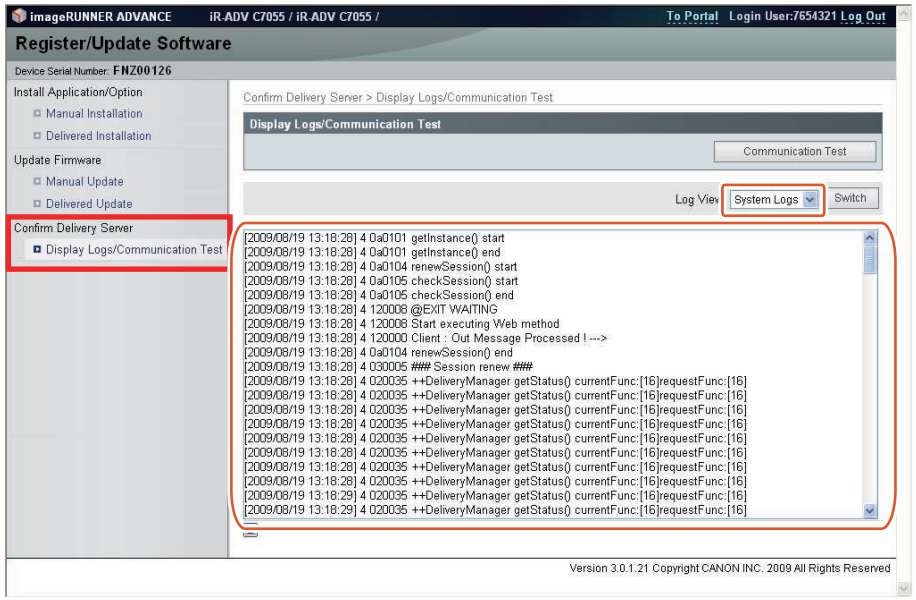
Obtaining Log Files

Updater log files can be obtained by copy & paste from remote UI.
This procedure is shown below.

1. Check that the “CDS-MEAP” or “CDS-FIRM” is enabled in the service mode. If they are not enabled, change the value to “1” and then restart the device.
   Service mode (Level1) > Mode List
   - COPIER > OPTION > FNC-SW > CDS-MEAP: 1
   - COPIER > OPTION > FNC-SW > CDS-FIRM: 1

2. Log in the remote UI (URL: http://<device’s IP address or host name>) using the system administrator right.

3. From “Display Logs/Communication Test” screen, obtain System Logs (log level 4) and Update Logs by copy & paste.
   Top page (Remote UI) > [Settings/Registration] > [Management Settings] > [License/Others] > [Register/Update Software] > “Display Logs/Communication Test”



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NOTE:
- See "Setting Log Level" in chapter 3 for details of changing Log Level

4. If the value of CDS-MEAP or CDS-FIRM was changed in the service mode, return to the original value and then restart the device to enable this setting.

Obtaining the log files is completed.

Error Messages

Error messages displayed in LUI on a device are shown below. As to error codes, see the next list.

No.	Messages	Timing of display	Cause	Remedy
1	An error occurred with the delivery server. Contact your sales representative. Error Code: [xxx]	In communicating with the delivery server.	System error occurred in server.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
2	Delivery server is stopped. Wait a while and then try to perform the operation again. Check the following URL for details. <Stopped Delivery Server URL>	In communicating with the delivery server.	Delivery server stopped.	Check the delivery server stop information. After the delivery server starts, perform the operation from this application. When the delivery server stop information is not available, contact the sales company's Support Department.
3	Failed to connect to delivery server. Check the delivery server and network.	In communicating with the delivery server.	Communication error due to incorrect settings of CDS URL.	Set correct CDS URL in the Updater settings.
			Excluding delivery server stop, communication error to the delivery server occurred.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
4	Download was stopped because an error occurred with the file server. Check the network.	At the time of file download	Communication error to the delivery server occurred.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
5	Downloaded files are invalid. Check the network.	At the time of file download	The received file is broken.	After checking the network environment of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
6	Failed to retrieve information of special firmware. Check the retrieval ID and password.	Acquisition of applicable firmware information	No information exists about firmware for special firmware retrieval ID or Password is invalid.	Enter the correct firmware ID or Password applicable to the firmware information. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
7	Scheduled delivery information of firmware does not exist. Check it because it may already have been deleted.	Acquisition of applicable firmware information	Delivery information with specified delivery ID does not exist.	Register the delivery schedule again. If this occurs at the time of canceling file download, deleting downloaded firmware or deleting scheduled delivery, no remedy is required.
8	Failed to apply firmware.	Firmware application error	Error due to the application (NLM)	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
9	Delivery Server : Connect Failed File Server : Retrieve Failed Error Code: [xxxx]	Communication test, etc. (communication test result dialogue)	In the communication test, failed to connect to the delivery server. In SOAP communication, failed to success after 1 min retry.	Check the network environment of the device, and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			ID and Password required for proxy to connect to the internet are not configured in device.	Set proxy and restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The access to the network is limited.	Set the user environment to make the access to the following domain available. https://device.cdsknn.net/ http://cdsknn.net.edgesuite.net/ If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact Field Support Group in the sale company. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company again.
10	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [xxxx]	Delivery Server : Connect OK File Server : Retrieve Failed Error Code: [XXXX]	Due to no return of data for the communication test, time-out (in HTTP communication, no response for 1min) occurred. After that, retried but failed to connect to server.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The network cable was disconnected during data download in the communication test.	Reconnect the network cable and then restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The file server stopped during data download in the communication test.	Contact the sales company's Support Department. After confirmation that the delivery server has been restored, restart the communication test. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company again.
			Hash value in the communication test file is incorrect.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	communication test, etc. (main screen)	The max value (space/file) was exceeded and new log was not accepted. Normally an old log file is deleted before the max value (space/file) is exceeded, but error may occur due to other element (e.g. I/O error).	Check if the log file exceeded the max value. <Update log> Max space: 128KB/file Max file number: 4 <System log> Max space: 512KB/file Max file number: 4 If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Notice of version information (main screen)	Failed to acquire version information of device due to no CDS registration of firmware version of device.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			At the time of notifying version information, failed to connect to the delivery server.	Check if the network environment is correct to solve the cause of the error occurrence. If the network environment of the device is correct, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			No return of notifying version information	
			Network cable was disconnected during notice of version information.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Failed to send notice of version information since the main power was turned OFF and then ON during the sending.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Server stopped at the time of sending notice of version information.	Check the network environment of the device and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of sending notice of version information.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
11	An error occurred. Error Code: [xxx]	UGW linkage (main screen)	UGW linkage was turned ON when eRDS was OFF.	For a device using eRDS, turn ON the eRDS. For a device not using eRDS, turn OFF the UGW linkage. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of acquiring delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		On-site (error dialogue)	An internal error occurred at the time of acquiring applicable firmware information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of sending approval information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			An internal error occurred at the time of delivery order	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (error dialogue)	An internal error occurred at the time of requesting firmware delivery information.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			During the download, all space in the storage disk was occupied. (DiskFull)	After adding vacant space of the storage disk, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			At the end of receipt, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Manual update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company
		Automatic update (error dialogue)	At the update start, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Deletion of downloaded firmware	At the time of notifying cancellation, an internal error occurred.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

No.	Messages	Timing of display	Cause	Remedy
12	An error occurred. Check the Update Firmware screen.	UGW linkage (main screen)	eRDS sent an order but Updater failed to connect to server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Scheduled date and time acquired from the delivery server was before current time (15 or more min had passed.)	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			Scheduled data and time acquired from the delivery server did not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (main screen)	At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Manual update (main screen) Automatic update (main screen)	Updated version was different from the ordered version.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, failed to connect to the delivery server.	Check the network environment and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, the network cable was disconnected.	Re-connect the network cable and re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, server returned an error.	Obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			After the update, an internal error occurred.	If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.

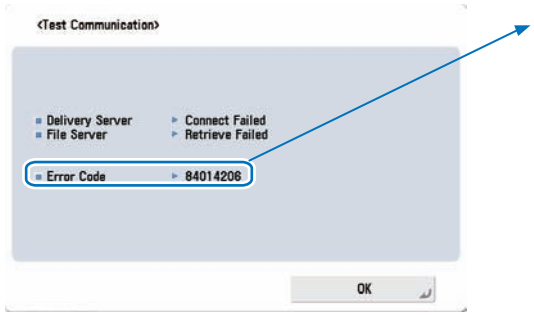
No.	Messages	Timing of display	Cause	Remedy
13	Delivery Error Error Code: [xxx]	UGW linkage (Update Firmware screen)	eRDS sent an order but Updater failed to connect to the server.	Conduct a communication test to analyze the cause of the error. After solving the cause, resend the order from the eRDS. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The delivery server stopped.	Contact the sales company's Support Department. After confirming restoration of the delivery server, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
			The scheduled data and time acquired from delivery server does not exist.	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
14	Delivery Error Delivery Time Delivery Firmware Label Delivery Firmware version Error Code: [xxx]	UGW linkage (Update Firmware screen)	The scheduled date and time acquired from delivery server was before current time (15 or more min had passed).	Do the delivery setting from UGW again. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Immediate download (Update Firmware screen)	At the time of immediate download, turned OFF and then ON the power of device main body.	Re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
15	Applicable firmware is not registered.	On-site (error dialogue)	At the user site, no latest firmware exists.	This means the current firmware is the latest, so this error has no impact. But when the latest firmware to be retrieved must exist e.g. released new firmware information has been notified, contact Field Support Group in the sales company.
			No applicable firmware exists on CDS, so the service person can't select any applicable firmware.	Contact the sales company's Support Department.
16	Restart failed. Turn the main power OFF and ON.	Manual update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
		Automatic update (error dialogue)	An error occurred at the time of the device restart.	After turning OFF and then ON the main power of the device, re-execute the job. If it recurs, obtain the log etc. (Refer to "Version Upgrade via CDS" under “Version Upgrade”of Chapter 6 “Troubleshooting” of this manual.) and contact Support Div. of the sales company.
17	Specify [E-Mail Address] with up to 64 characters.	At the time of periodical update setting	The specified E-mail address exceeded 64 characters.	Specify E-mail address within 64 characters.
18	The following characters cannot be used for the [E-Mail Address]: , : ; “ ( ) [ ] < > \	At the time of periodical update setting		
19	Specify [Comments] with up to 128 characters.	At the time of periodical update setting	Comments exceeded 128 characters.	Specify comments within 128 characters.
20	The [Delivery Server URL] is incorrect.	In setting with the deliver server URL.	The specified deliver server URL is wrong.	Enter the right URL(https://device.c-cdsknn.net/cds_soap/updaterif)

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Error Codes

Error Codes displayed on LUI in a device and how to read them.

How to read an error code



84014206

Code	Value	Contents
The first digit Error field	8	Error
The second digit Operator	0 1 2 3 4 5	Not defined. CDS server Updater UGW Service person IT administrator (User)
The 3rd - 4th digits Method category	xx	Method
The 5th digit Category code	0 1 2 3 4 5 6 7	Category code
The 6 - 8th digits Description code	000-	See Error code list

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Error Code

The error code list is shown below. Remedy are error codes of "-", and for all the error codes out of the list, contact Field Suppot Group in the sales company.

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
8	Error												
	0	Not defined.											
	1	CDS server											
		x	x	Relating method code									
				0	Not categorized								
					0	0	1	No value is set in a mandatory data entry item	-	-	✓	-	-
					0	0	2	In a string type of a data entry item, digit number and/or character type is/are set against the regulations	-	-	✓	-	-
					0	0	3	In an data entry item, the value is set against the regulations (E.g. the set value is other than "Operator: 4. Service person, 5. User")	-	-	✓	-	-
					0	0	4	No applicable delivery information exists	-	✓	-	-	-
				1	Operation								
					0	0	1	Inconsistency between the current firmware component in the data entry item and delivery information (E.g. the conditions for automatic update are not met. The settings of a mandatory additional set are invalid)	-	✓	✓	-	-
					0	0	2	In a notice of delivery-allowed information, an install-set was release to the market, but the market release was stopped during the delivery	-	✓	-	-	-
					0	0	3	No mail template file exists	-	✓	-	-	-
					0	0	4	The device serial number in the data entry item differs from that in delivery information	-	✓	-	-	-
					0	0	5	User is selected as Operator in the data entry items and the retrieval type is other than the latest	-	✓	-	-	-
					0	0	6	The retrieval type in the data entry item is special and registration ID and individual Password are not set (* Operator did not enter registration ID and individual Password)	-	✓	-	-	-
					0	0	7	The retrieval type in the data entry item is special and Operator is not Service person	-	✓	-	-	-
					0	0	8	As to the device serial number in the data entry items, there is no applicable device code product	-	✓	-	-	-
					0	0	9	The retrieval type in the data entry items is special and there are no basic-set applicable to the registration ID and Password (* When wrong registration ID or Password was entered by an operator)	-	✓	-	-	-
					0	0	A	The delivery status is Applying	-	✓	-	-	-
					0	0	B	No approval information exists about EULA or the export criteria when the delivery is determined	-	✓	-	-	-
					0	0	C	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-
					0	0	D	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					0	0	E	The delivery status is New/Waiting to Distribute/Distributed/ Applying/Finished/Failed	-	✓	-	-	-
					0	0	F	The delivery code is other than Distributing. (Firmware delivery)	-	✓	-	-	-
					0	0	0	The delivery status is New/Waiting to Distribute/Distributing/ Applying/Finished/Failed	-	✓	-	-	-
					0	0	1	The delivery status is Distributing/Distributed/Applying/ Finished/Failed	-	✓	-	-	-
					0	0	2	Device is "Not applicable to CDS" (Firmware delivery)	-	✓	-	-	-
				2	I/O								
					0	0	1	The specified license access number does not exist in LMS	-	✓	-	-	-
					0	0	2	The specified license access number has been deauthorized	-	✓	-	-	-
					0	0	3	The package product of the entered license access number doesn't include MEAP application/System Option	-	✓	-	-	-
					0	0	4	The sales company for the MEAP application isn't identical with the sale company for the package product	-	✓	-	-	-
					0	0	5	The number of licenses to be issued will exceed the limit number allowed to register	-	✓	-	-	-
					0	0	6	As for System Option for the same function, the license keys were issued more than the defined number of times for the same device serial number	-	✓	-	-	-
					0	0	7	No device product exists applicable to the optional product	-	✓	-	-	-
					0	0	8	No product exists applicable to the device serial number	-	✓	-	-	-
					0	0	9	The product of the entered license access number cannot be used with this device because the settings of the sales company are incorrect	-	✓	-	-	-
					0	0	A	No product linked to the license access number is registered in CDS for delivery	-	✓	-	-	-
					0	0	B	Although the product linked to the license access number is registered in CDS for delivery, the delivery is stopped now	-	✓	-	-	-
					0	0	C	No existence of optional product applicable to the device serial number.	-	✓	-	-	-
					0	0	D	The license access number has been registered for another device	-	✓	-	-	-
					0	0	E	For the device product applicable to the device serial number, no available software (MEAP application, System Option) exists	-	✓	-	-	-
					0	1	0	LMS system error	-	✓	-	-	-
	2~5												
		x	x	Relating method code									
				0	Not cartelized								
					0	0	0	Not defined	Normally not indicated				
					1	0	0	Unknown error	Normally not indicated				
				1	Operation								
					0	0	1	Processing exclusively	Start the operation again after terminating other Updater operations being executed simultaneously	-	✓	-	-
					1	0	1	Failed to process preparation for use	-	-	✓	-	-

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					1	0	2	Failed to process use end	-	-	✓	-	-
					1	0	3	Time out during restart of readiness preparation	-	-	✓	-	-
					1	0	4	Session time-out excluding after application inquiry (after issuing delivery ID)	Start the operation again from the beginning		✓	-	-
					1	0	5	CDS URL is not set	Set CDS URL	-	✓	-	-
					1	0	6	There is another job	Start the operation again after terminating the job of the device	-	✓	-	-
				2	I/O								
					1	x	x	An internal error about file operation	-	-	✓	-	-
					2	x	x	An internal error about xML file operation	-	-	✓	-	-
					3	0	1	Failed to output the license file	-	-	✓	-	-
				3	Device								
					1	x	x	An internal error in CPCA	-	-	✓	-	-
					2	x	x	An internal error in IMI	-	-	✓	-	-
					3	x	x	An internal error in SMS	-	-	✓	-	-
					4	x	x	An internal error in NLM	-	-	✓	-	-
				4	SOAP communication								
					1	0	1	The processing thread stopped	-	-	✓	-	-
					1	0	2	Processing SOAP communication now	-	-	✓	-	-
					1	0	3	The function type is not matched	-	-	✓	-	-
					1	0	4	An invalid SOAP response error	-	✓	-	-	-
					2	0	1	An internal error about application information	-	-	✓	-	-
					2	0	2	config.xml is NOT FOUND	-	-	✓	-	-
					2	0	3	type.xml is NOT FOUND	-	-	✓	-	-
					2	0	4	An error in binding type.xml	-	-	✓	-	-
					2	0	5	An error in creating a service tab	-	-	✓	-	-
					2	0	6	A runtime error in performing the web method	-	-	✓	-	✓
					2	0	7	An unknown host error in performing the web method	• Check the network environment of the device and start the operation again • Check if the URL settings of the CDS server are correct, and start the operation again after resetting	✓	✓	-	✓
					3	0	1	The delivery server is stopped	-	✓	-	-	-
					3	0	2	An error occurrence in the delivery server	-	✓	✓	-	-
				5	HTTP communication								
					1	0	1	Specified Hash Algorithm is unknown	-	-	✓	-	-
					2	0	1	Invalid HTTP request	-	-	✓	✓	✓
					2	0	2	Failed to connect to the server	Check the network environment of the device and start the operation again	-	✓	✓	✓
					2	0	3	Failed to find the server	Check the network environment of the device and start the operation again	-	✓	✓	✓
					2	0	4	An input/output error occurred during the connecting process to the server	-	-	✓	✓	✓
					2	0	5	Failed to read a HTTP response	-	-	✓	✓	✓
					2	0	6	Error in a HTTP response	-	-	✓	✓	✓
					3	0	1	Failed to retrieve the data stream	-	-	✓	-	✓
					3	0	2	Failed to create the file object for receipt	-	-	✓	-	✓
					3	0	3	Failed to create the data stream of the file for receipt	-	-	✓	-	✓
					3	0	4	Failed to receive the data	Check the network environment of the device and start the operation again	-	✓	✓	✓

Error Code (hex number)								Description	Remedy	Cause of error			
The first digit Error field	The second digit Operator	The 3rd - 4th digits Method category		The 5th digit Category code	The 6 - 8th digits Description code					CDS delivery server	UP DATER	CDS file server	Network
					3	0	5	An error about reserving the file data for receipt	-	-	✓	-	-
					3	0	6	Failed to close the data stream	-	-	✓	-	-
					3	0	7	Failed to close the file data for receipt	-	-	✓	-	-
					3	0	8	Invalid hash code of the download file	Check the network environment of the device and start the operation again	✓	✓	✓	✓
					3	0	9	The prosy authorization method is not applicable	Check the proxy authentication method used, and start the operation again after changing the settings to use the corresponding proxy anthentication	-	✓	-	✓
				6	Socket communication								
					1	0	1	Failed to connect the eRDS	-	-	✓	-	✓
					1	0	2	No response from eRDS	-	-	✓	-	✓
					1	0	3	No notice of start from the eRDS	-	-	✓	-	✓
					1	0	4	Error of socket reading	-	-	✓	-	✓
					1	0	5	Socket communication time-out	-	-	✓	-	✓
				7	Other internal codes								
					0	0	2	One of installation, start or authorization failed (When installation or authorization failed, it is regarded as an error) *	-	-	✓	-	-
					0	3	x	An internal error in processing the installation	-	-	✓	-	-
					1	x	x	An error by using invalid API	-	-	✓	-	-
					2	x	x	An internal error in SMS	-	-	✓	-	-
					3	0	1	No existence of delivery ID	-	-	✓	-	-
					3	0	2	Invalid delivery ID	-	-	✓	-	-
					3	0	3	The updated firmware information is not identical with the firmware information after activation of the Updater	-	-	✓	-	-
					3	0	4	The process of firmware download is incomplete	-	-	✓	-	-
					3	0	5	The update process is incomplete	-	-	✓	-	-
					3	0	6	The installment process is incomplete	-	-	✓	-	-
					4	0	1	Failed to retrieve delivery information	-	-	✓	-	-
					5	0	1	Failed to execute the delivery process	-	-	✓	-	-
					5	0	2	The scheduled delivery was not executed within the defined period of time	Scheduled deliveries not executed within the defined period of time are abandoned, so register a scheduled delivery again. When setting the date and time of the scheduled delivery, be sure to designate a time when the device is ON	-	✓	-	-

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* Not displayed on a device UI

Debug log

Scope of Application

Purpose

- When the Canon quality-appointed staff determines the need for an analysis of debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.
- This is intended to improve efficiency in log collection when a trouble occurs.

Adding Users for Log Collection

Collecting logs previously required operation in service mode.

Automatic Storage:

To set the types of logs to be stored and the timing to store logs in the HDD.

Lev2 COPIER > FUNCTION > SYSTEM > DOWNLOAD > DEBUG-1

Default value:3:

Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode

The details refer to an item of DEBUG-1.

Manual Storage:

Execute "Counter Key(10 sec. or longer) + 1.2.3" to save the debug log.

Collecting logs:

SST or place USB memory

COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK

Overview

Function Overview

Debug log is an integrated log for failure analysis that gathers logs prepared by the software modules in the device for debug purpose.

In the case of a field failure that is hard to be reproduced, this measure is intended to improve efficiency in failure analysis and reduce the time for failure support by collecting debug log at the user site (which was created immediately after the failure) and sending it to the R&D.

When the Canon quality-appointed staff determines the need for an analysis of firmware debug log by the R&D department, we ask the field to collect log for an investigation to determine the cause.

Effective Instances of Collecting Debug Log

- The error occurs only at the customer site and cannot be reproduced by the sales company or the Canon staff who is in charge of quality follow-up.
- When the error frequency is low.
- When the error is suspected of links with firmware rather than a mechanical/electrical failure.

  * Collection of Sublog is not necessary when the reproduction procedure is identified and the error can be reproduced by the sales company HQ or the Canon staff who is in charge of quality follow-up.

With imageRUNNER ADVANCE, Sublog can be saved in the HDD using the standard function of the machine without using the Sublog Board.

The Sublog Board is also assigned as a tool with imageRUNNER ADVANCE. The Sublog Board is required for an error that requires rebooting because the Sublog Board has a battery.

Storing System Information

Storage Method of System Information

Automatic Storage

At the time of shipment, 101 is specified in service mode Lev2: COPIER > FUNCTION > SYSTEM > DEBUG-1 to 3.

Debug log is automatically stored in the case of the following:

Exception + E-code + reboot

The log consists of the number of 10 logs from the latest log extended to the older logs.

Manual Storage

Counter Key + 1.2.3

Execute "Counter Key + 1.2.3" to save the debug log.

Note that the Control Panel is locked during the saving process; therefore, the screen does not change even though you press the OK button on <Check Counter>.

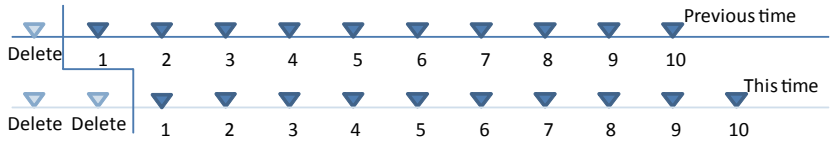
Description of Log to be Collected

The log consists of the number of 10 logs from the latest log extended to the older logs.

Latest log ten are always left.

Logs older than the specified period are overwritten (deleted).

When collecting logs from the machine, the log file in the machine is deleted.



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Collecting System Information

Collection Destination

To retrieve debug log to an external location from the device, use a USB memory device, FTP server or SST (Ver. 4.41 or later).

Collection Method

Retrieve debug log from the machine by any of the following methods.

- Make the machine recognize the USB memory device. Select the following in service mode Lev2: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click OK.
- Start the machine with the 2 and 8 keys and use SST on a PC with the network cable connected to transfer the debug log.
- Start the machine with the 2 and 8 keys and transfer the debug log to a USB memory device that stores the system of the machine.

Method	Storage
Holding down the counter + 1.2.3	Store log to an HDD
SST	The data is collected as a set of operation.
Starting the machine with the 2 and 8 keys and using a USB memory device	The data is collected as a set of operation.

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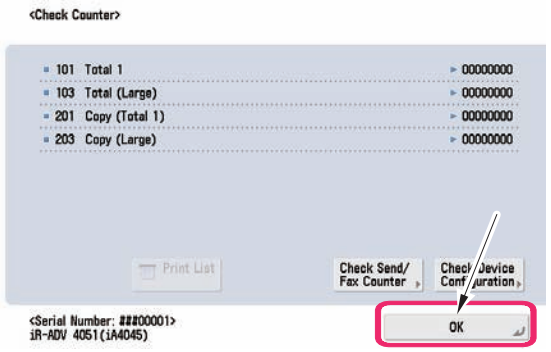
Collecting Debug Log (USB memory device)

NOTE:
When the data is sent to the USB memory device:
USB memory where the system software for this machine has been registered using the SST.

Manual Saving by Holding Down the Counter + 1.2.3

1. Reproduce the error.
2. Hold down the [Counter] button (10 sec. or longer).
3. Press 1 on the numeric keypad.
4. Press 2 on the numeric keypad.
5. Press 3 on the numeric keypad. (UI is locked at this stage) The machine starts generation of the file that was converted from Log data on the HDD into text-based data.

The screen does not change even though you press the OK button on the touch panel of the machine. If the screen changes by pressing the OK button, data transfer has been completed.



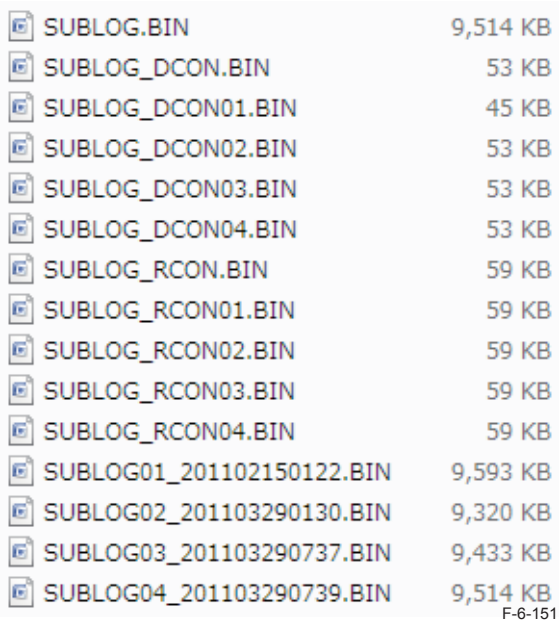
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Lev1 COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK
[5] Execute [BACKUP].
[1] Execute [Sublog].

When the data is sent to the USB memory device:

The file name is "file name ** + year date time.BIN".

Example:
SUBLOG02_201103290130.BIN



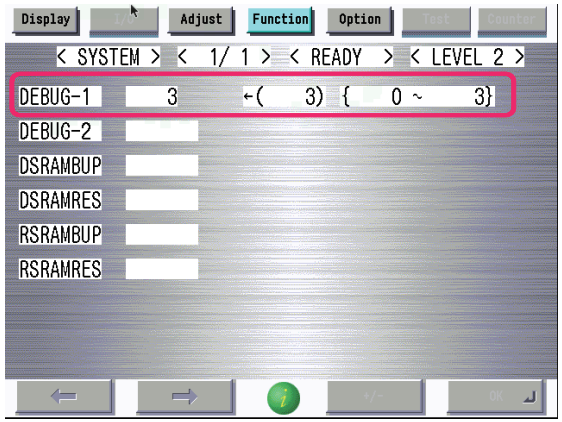
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Note:
Date to be added to the file name shows the date that the log was transferred.
Display it by time of local Time.

DEBUG-1

Function

Service Mode Lev.2
COPIER > FUNCTION > SYSTEM > DOWNLOAD > DEBUG-1



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DEBUG-1		Setting of log type and save timing
Lv.2	Details	To set the types of logs to be stored and the timing to store logs in the HDD.
		Logs are used to analyze the cause of a trouble.
	Use case	When analyzing the cause of a problem
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service. Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 3
		0: Save PLOG at detection of Reboot/Exception
		1: Save PLOG at detection of Reboot/Exception/Encode
		2: Save SUBLOG at detection of Reboot/Exception/Encode
		3: Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode
	Default value	3

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Uploading Data by SST

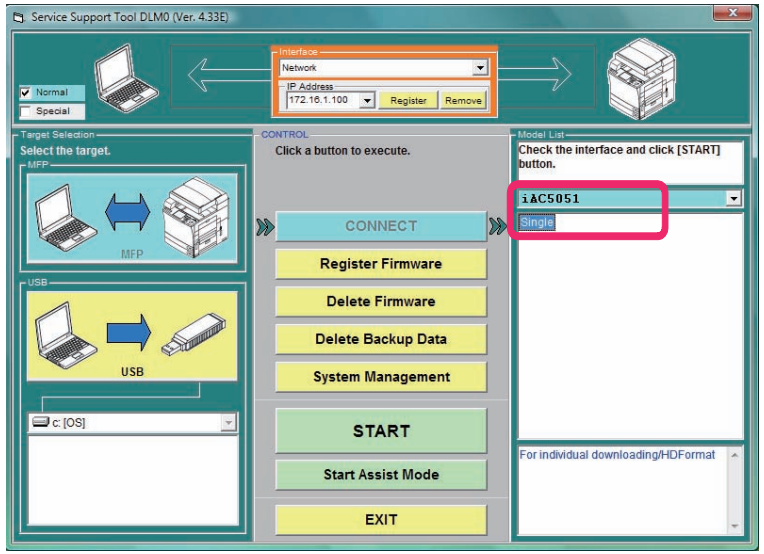
The following shows a method to collect a log by connecting a PC with SST (Ver. 4.41 or later) running to the machine.

Preconditions:

The log is stored in the machine by holding down the counter + 1.2.3 or the automatic log collection function.
A PC with SST running is connected to the machine and the machine is at download mode by starting it with the 2 and 8 keys.

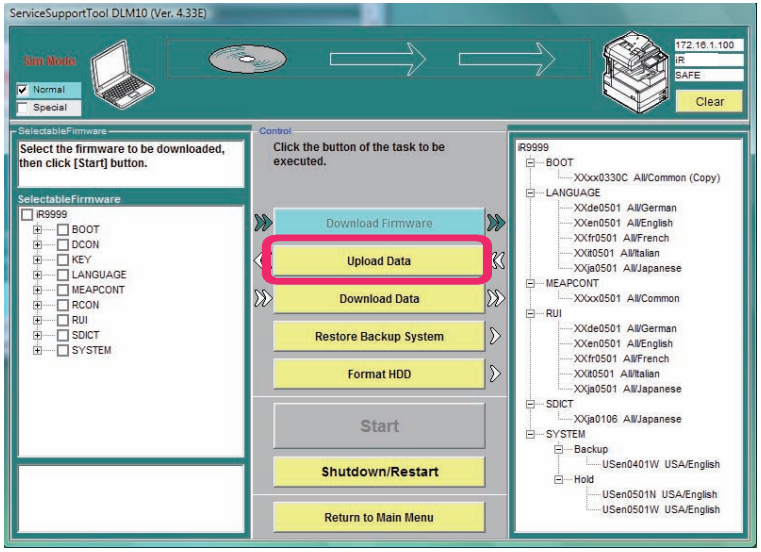
Note:
Executing a log collection by SST deletes logs in the machine.

1. Start SST (Ver. 4.41 or later) and select iRC5051 from Model List. Press the Start button.



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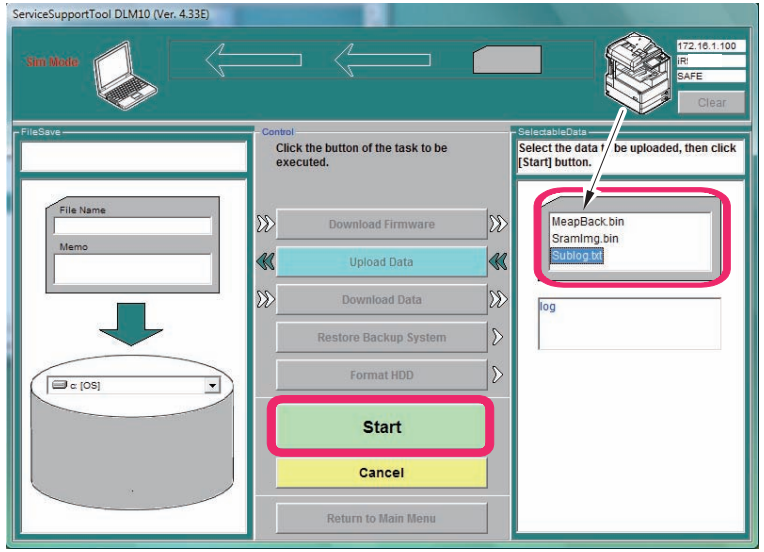
2. Press the Upload Data button.



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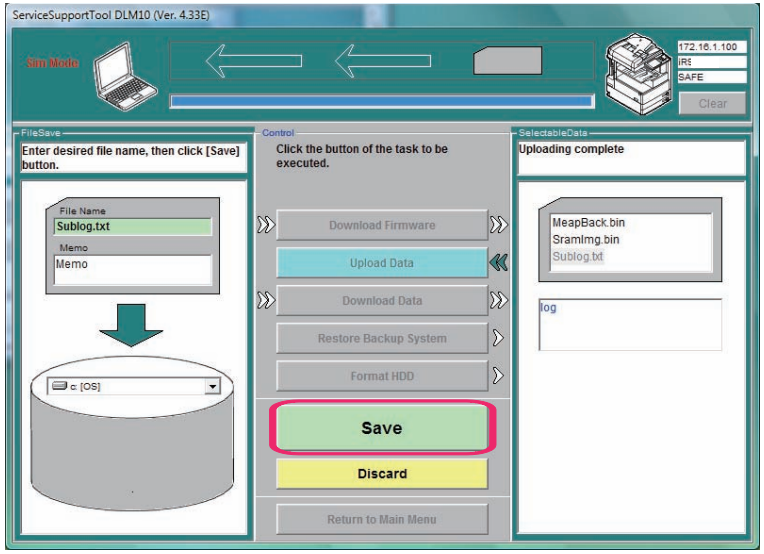
3. Select the data to be uploaded, then click [Start] button.
When there is no log in the machine, it results in blank option items for "data to upload".
When the file name is longer than the frame, it displays that it is a log in the comment column just below.
It is displayed as "log" in the figure below.

Note:
The log is not stored when You cancel it before pushing the Start button.
It is deleted from the main body.



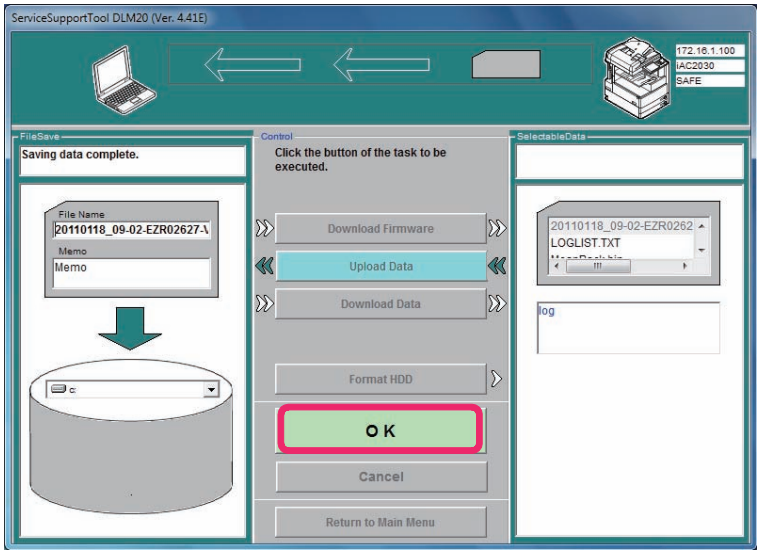
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4. Press the "Save" button.



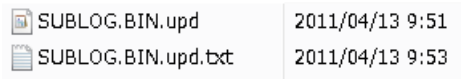
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5. Check that the data storage is completed and click the "OK" button.



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6. Check that the log is stored in the specified location in the PC.
   In the initial setting:
   Windows(C:) > ServData > iRC5051 >EXR02627 (Serial number)



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Q&A

	Question	Answer	Explanation
1	With the machine to which the HDD Encryption Board is installed, I would like to replace the Main Controller PCB 2. How can I back up the user data?	Usually, SRAM of the Main Controller PCB is backed up to HDD in download mode. If the machine has the HDD Encryption Board, upload Sraming.bin using SST or USB memory, and download it after replacing the PCB.	With the existing models, HDD cannot be accessed using SST if data in HDD is encrypted by the HDD Encryption Board so that Sraming. bin cannot be downloaded. With this model, system software supports SST so that download becomes possible.
2	Select the following in service mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and press [OK]. I retrieved P-PRINT-RPT.TXT by connecting the USB memory to the machine and making the following selection: [5]: Backup > [4] Service Print -> P-PRINT. How can I check the contents efficiently?	Open Word Pad, and drug P-PRINT-RPT.TXT.	Line feed code of P-PRINT-RPT.TXT is not entered with Note Pad. With Word Pad, line feed is inserted, but it will be left alignment.
3	Sraming.bin was uploaded when the setting of TPM PCB was "OFF". Then, user performed "Initialize All Data/ Settings". Because the Main Controller PCB was replaced, Sraming. bin was downloaded. Will this cause any problem?	Login by SMS of MEAP cannot be performed. Select the following to make the machine condition as the one at the time of factory shipment: Service Mode (Level 2) > COPIER > FUNCTION > CLEAR > JV-CACHE. Then, perform the MEAP-related installation work which was performed at the time of installation.	Even the setting of TPM PCB is "OFF", the TPM key is used for internal processing. Difference between "ON" and "OFF" is whether the TPM key is backed up in the USB memory. To log in to MEAP SMS, it must be connected with https. Since SSL key is managed by TMP key, the TPM key is updated when all data is initialized. TPM key in Sraming.bin becomes old, so it cannot be used.
4	HDD Encryption & Mirroring Kit has been installed. HDD format is performed with SST. Does it cause any inconvenience?	When executing HDD format, partition of the master HDD is deleted, and partition of HDD at the slave side is also deleted automatically. All the mirrored user information will be deleted.	If the master HDD is formatted while mirroring is executed, the change is reflected to the HDD at the slave side. Therefore, the HDD at the slave side is also formatted. Because of that, user data is deleted.
5	I can back up the address book only from the remote UI. Which export method is correct? Remote UI > Settings/ Registration : Management Settings : Data Management > Import/Export	In Import/Export, export the address book or device settings.	Address book is also included in the device settings. When importing it to the same machine, use the data in the exported device settings. When importing the address book to another model, export the address book.
6	When restoring data of Advanced Box which was backed up with iR ADVANCE C5051/5045/5035/5030 Series to iR ADVANCE 4051/4045/4035/4025 Series, what is the correct procedure?	Restore data which was backed up at Settings/Registration : Management Settings : Data Management to iR ADVANCE 4051/4045/4035/4025 Series. Import data which was exported at user management of Advanced Box to iR ADVANCE 4051/4045/4035/4025 Series.	For personal space, ID and password are set. This information is managed by the file which was exported at user management of Advanced Box, instead of by character strings. By backing up data of Advanced Box, data can be restored. However, it cannot be open without importing the file exported at user management of Advanced Box.
7	A user deleted the SSL default key by an operational mistake. I am in trouble with not able to login with https. What is the easiest recovery method?	Select Service Mode (Level 2) > COPIER > FUNCTION > CLEAR > CA-KEY, and delete the CA certificate and key pair to return to the factory settings.	CA-KEY in service mode is a function to overwrite the SSL key (Default Key) backed up in the HDD. At that time, the CA certificate is also overwritten; thus, the CA certificate which was added from the remote UI by user is also deleted. Please request reinstallation.
8	I saved Meapback.bin of MEAP-related information recorded in HDD to a PC using SST. Which condition is correct for restoration?	Restoration can be performed after replacing and formatting HDD and then installing the system.	Meapback.bin can be restored when replacing or formatting HDD.
9	In SRAM on the Main Controller PCB 2, information related to service mode and user settings are stored. If uploading Sraming.bin (information related to service mode and user settings) to a PC using SST, it can be downloaded after replacing the Main Controller PCB 2. When downloading Sraming. bin with the machine to which the HDD Encryption Board is installed, what is the correct procedure?	Even the HDD Encryption Board is installed, start the machine using the numeric keys 2+8, and restore the data in Single mode.	With the existing models, HDD cannot be accessed using SST if data in HDD is encrypted by the HDD Encryption Board so that Sraming. bin cannot be downloaded. With this model, system software supports SST so that download becomes possible.

	Question	Answer	Explanation
10	I'm trying to replace the DC Controller PCB. Which procedure is correct to back up the service mode setting values stored in SRAM on the DC Controller before replacement and restore it after the replacement?	COPIER > FUNCTION > SYSTEM DSRAMBUP (backup) COPIER > FUNCTION > SYSTEM DSRAMRES (restoration)	Service mode setting values stored in SRAM on the DC Controller are backed up in HDD in service mode. They cannot be saved using SST.
11	I'm trying to replace the Reader Controller PCB. Which procedure is correct to back up the service mode setting values stored in SRAM on the Reader Controller before replacement and restore it after the replacement?	COPIER > FUNCTION > SYSTEM RSRAMBUP (backup) COPIER > FUNCTION > SYSTEM RSRAMRES (restoration)	Service mode setting values stored in SRAM on the Reader Controller are backed up in HDD in service mode. They cannot be saved using SST.
12	HDD was replaced with a new one when the setting of TPM PCB was "ON". Which is the correct action after normal startup?	After the system installation is completed normally, set the TPM to "ON" and execute backup of TPM.	The TPM key is in SRAM on the Main Controller PCB 2. It is valid even if HDD is replaced. However, when replacing HDD and installing the system software, the setting of TPM PCB is displayed as "OFF" on the remote UI. Thus, change the setting to "ON". There is no need to backup TPM key to the USB memory again. The key which was backed up before can be used.
13	In SRAM on the Main Controller PCB 2, information related to service mode and user settings are stored. If uploading Sraming.bin (information related to service mode and user settings) to a PC using SST, it can be downloaded after replacing the Main Controller PCB 2. Among the items in "Settings/ Registration" which a user set/ registered, which item is not backed up with Sraming.bin?	Since address book and paper settings are not the target of Sraming. bin, export them from the remote UI.	Because address book is important data for user, it is excluded from the target of backup to perform service work. The same is applied to the paper settings.
14	I connected the USB memory which was recognized by another model to the machine. The USB memory can be recognized in user mode. Select the following in service mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and press [OK]. When connecting the USB memory to the machine, it is not recognized. What should I do to make the USB memory being recognized?	Copy the system software to the USB memory using SST.	To make the machine to recognize the USB memory in download mode, a folder that can be recognized by the machine is required. A folder which is created by copying the system software to the USB memory using SST is the folder.

T-6-26

7 Error Code

- Overview
- Error Code
- Jam Code
- Alarm Code

Overview

Outline

Outline

This chapter describes various codes which are displayed when a failure occurs on the product. These are classified into 3 codes as follows.

Code type	Explanation	Reference
Error code	This code is displayed when an error occurs on the machine.	(Refer to page 7-3)
Jam code	This code is displayed when a jam occurs inside the machine.	(Refer to page 7-63)
Alarm code	This code is displayed when a function of the machine is malfunctioned.	(Refer to page 7-69)

T-7-1

Error code notation

An error code is shown in 7-digit [E000XXX] on the display on the operation panel. However, [000] in 2 to 4 digit is not used. Thus, an error code is described as [EXXX] using 5 to 7 digit in the service manual. (e.g.: E012 = E000012)

Location code

Error code, jam code, and alarm code include the location information.
Location information is displayed as 2-digit numbers as follows.

Device	JAM	ERR	ALARM
imageRUNNER ADVANCE 4051/4045/4035/4025 Series	Printer engine = 00 ADF=01	Main Controller = 00 Reader+ADF=04 Printer engine = 05	Others of listed below
Image Reader Unit-E1 DADF-AG1	ADF=01	Reader+ADF=04	02
Paper Deck Unit-B2	00	05	04
Cassette Feeding Unit-AF1	00	05	-
Buffer Pass Unit-H1	00	05	-
Staple Finisher-G1/Booklet Finisher-G1	02	02	61, 62
External 2, 2/3, 2/4, 4 Hole Puncher-B2	02	02	65
Inner Finisher-D1	02	02	61, 62
Inner 2, 2/3, 2/4, 4 Hole Puncher-A1	02	02	65

T-7-2

Pickup position code

When jam occurs, pickup location is indicated with the following pickup position code.

Pickup position	Pickup position code
At Finisher jam/At error avoidance jam/At ADF jam without pickup operation (at SEND, Inbox, etc.)	00
Cassette 1	01
Cassette 2	02
Multi-purpose Tray	05
Side Paper Deck	06
Duplex (At duplex printing, jam occurs after paper passes through the Duplex Feed Sensor (S7).)	F0

T-7-3

Points to Note When Clearing MN-CON

- Execution of clearing MN-COM deletes all data in Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. Before execution of this operation, ask user to back up the data and get approval for this operation.
- When clearing MN-CON while any login application other than Default Authentication is, error such as not displayed login screen occurred. In this case, access SMS once and switch login application to Default Authentication to recover to the normal status.

Points to Note When Clearing HDD

As a remedy for error codes (E602-XXXX, E611-0000), HDD partition is selected and the target partition may be cleared.
When clearing partition, be sure to check which data will be deleted by referring Detail of HDD partition and explain to the user before starting work.

Error Code

Error Code Details

E000 to E5F6

E Code	Detail Code	Location	Item	Description
E000	0001	05	Title	Fixing temperature abnormal rise
			Description	The temperature detected by the main thermistor does not rise to the specified value during startup control.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Check connection of the Connectors (Thermistor Connector: J2063/J2510/J214, AC Connector: J105). 3. Replace the Fixing Main Thermistor (Film Unit). 4. Replace the Fixing Main Unit. 5. Replace the DC Controller PCB (UN2).
E001	0000	05	Title	Fixing unit temperature rise detection
			Description	The reading of the main thermistor is 250 deg C or more continuously for 200 msec.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Check connection of the Connectors (Thermistor Connector: J2063/J2510/J214, AC Connector: J105). 3. Replace the Fixing Main Thermistor (Film Unit). 4. Replace the Fixing Main Unit. 5. Replace the DC Controller PCB (UN2).
E001	0001	05	Title	Fixing unit temperature rise detection
			Description	The hardware circuit detects overheating of the main or sub thermistor for 30 msec.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Replace the DC Controller PCB (UN2).
E001	0002	05	Title	Fixing unit temperature rise detection
			Description	The reading of the sub thermistor is 295 deg C or more continuously for 200 msec.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Check connection of the Connectors (Thermistor Connector: J2063/J2510/J214, AC Connector: J105). 3. Replace the Fixing Main Thermistor (Film Unit). 4. Replace the Fixing Main Unit. 5. Replace the DC Controller PCB (UN2).
E002	0000	05	Title	Fixing unit temperature insufficient rise
			Description	1. The reading of the main thermistor is less than 115 deg C continuously for 400 msec 2.5 sec after it has indicated 100 deg C. 2. The reading of the main thermistor is less than 150 deg C continuously for 400 msec 1.3 sec after it has indicated 140 deg C.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Check connection of the Connectors (Thermistor Connector: J2063/J2510/J214, AC Connector: J105). 3. Replace the Fixing Main Thermistor (Film Unit). 4. Replace the Fixing Main Unit. 5. Replace the DC Controller PCB (UN2).
E003	0000	05	Title	Low fixing temperature detection after standby
			Description	The reading of the main thermistor is less than 100 deg C continuously for 200 msec or more.
			Remedy	1. Go through the following to clear the error: COPIER> FUNCTION> CLEAR> ERR; and then turn OFF and then ON the power. 2. Check connection of the Connectors (Thermistor Connector: J2063/J2510/J214, AC Connector: J105). 3. Replace the Fixing Main Thermistor (Film Unit). 4. Replace the Fixing Main Unit. 5. Replace the DC Controller PCB (UN2).
E004	0000	05	Title	Thermistor disconnection detection error
			Description	When disconnection is detected with connector for 30 sec continuously.
			Remedy	1. Check connection of the Connector (J2063/J2510/J214). 2. Replace the Film Unit. 3. Replace the Fixing Main Unit. 4. Replace the DC Controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E010	0001	05	Title	Unstable rotation of the Main Motor (M1)
			Description	Detection is executed every 100 msec after the start of motor rotation; however, the drive detection signal is absent for 2 sec.
			Remedy	1. Check connection of the Connector (J2002/J2255/J203). 2. Replace the Main Motor (M1). 3. Replace the DC Controller PCB (UN2).
E010	0002	05	Title	Unstable rotation of the Main Motor (M1)
			Description	During motor rotation, detection is executed every 100 msec; however, the drive signal is absent 5 times in sequence.
			Remedy	1. Check connection of the Connector (J2002/J2255/J203). 2. Replace the Main Motor (M1). 3. Replace the DC Controller PCB (UN2).
E014	0001	05	Title	Unstable rotation of the Fixing Motor (M2)
			Description	Detection is executed every 100 msec after the start of motor rotation; however, the drive detection signal is absent for 2 sec.
			Remedy	1. Check connection of the Connector (J2001/J203). 2. Replace the Fixing Motor (M2). 3. Replace the DC Controller PCB (UN2).
E014	0002	05	Title	Unstable rotation of the Fixing Motor (M2)
			Description	During motor rotation, detection is executed every 100 msec; however, the drive signal is absent 5 times in sequence.
			Remedy	1. Check connection of the Connector (J2001/J203). 1. Replace the Fixing Motor (M2). 2. Replace the DC Controller PCB (UN2).
E020	0000	05	Title	The path between the sub hopper and the developing assembly is clogged with toner.
			Description	The Developing Assembly Toner Sensor (S25) detects the absence of toner, while the Sub Hopper Toner Sensor (S26) detects the presence of toner. With the Developing Cylinder Clutch (CL3) turned on, the hopper feed screw motor (M16) is rotated for 1 sec intermittently 194 times; still, the Developing Assembly Toner Sensor (S25) does not detect the presence of toner. * Error occurs after the delivery if a paper in passage exists.
			Remedy	1. Check the rotation of hopper motor gear. (If rotating, false detection by the sensor is doubted. Feed the toner to the developing unit in service mode: COPIER > FUNCTION > INSTALL > TONER-S.) 2. Replace the Developing Assembly Toner Sensor (S25). 3. Replace the Sub Hopper Toner Sensor (S26). 4. Replace the DC Controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E024	0000	05	Title	The connector of Developing Assembly Toner Sensor (S25) is disconnected.
			Description	The Developing Assembly Toner Sensor (S25) connection detection signal is absent for 100 msec 10 times in sequence. * Error occurs after the delivery if a paper in passage exists.
			Remedy	1. Check connection of the Connector (J2013/J209). 2. Replace the Developing Assembly Toner Sensor (S25). 3. Replace the DC Controller PCB (UN2).
E024	0001	05	Title	The Developing Assembly Toner Sensor (S25) is disconnected.
			Description	<At LOW SPEED> The Developing Assembly Toner Sensor (S25) ON counter is checked every 2.5 seconds, and the counter increments 1 count every 25 times when the sensor goes on, and 300 counts are reached. <At HIGH SPEED> The Developing Assembly Toner Sensor (S25) ON counter is checked every 1.5 seconds, and the counter increments 1 count every 15 times when the sensor goes on, and 300 counts are reached.
			Remedy	1. Check connection of the Connector (J2013/J209). 2. Replace the Developing Assembly Toner Sensor (S25). 3. Replace the DC Controller PCB (UN2).
E025	0000	05	Title	The connector of Sub Hopper Toner Sensor (S26) is disconnected.
			Description	The Sub Hopper Toner Sensor (S26) connection detection signal is absent for 100 msec 10 times in sequence. * Error occurs after the delivery if a paper in passage exists.
			Remedy	1. Check connection of the Connector (J2115/J2503/J207). 2. Replace the Sub Hopper Toner Sensor (S26). 3. Replace the DC Controller PCB (UN2). 4. Replace the Power Supply PCB (UN1).
E025	0001	05	Title	Failure of the Bottle Motor (M17)
			Description	When the disconnection status of the bottle motor (M17) is detected 15 times or more continuously with the 100ms cycle during the intermittent rotation When the disconnection status of the bottle motor (M17) is detected 75 times continuously with the 100ms cycle during the continuous rotation * Error occurs after delivering the remaining paper.
			Remedy	1. Check connection of the Connector (J2216/J2503/J207). 2. Replace the Bottle Motor (M17). 3. Replace the DC Controller PCB (UN2). 4. Replace the Power Supply PCB (UN1).

E Code	Detail Code	Location	Item	Description
E032	0001	00	Title	Failure of NE Controller Counter
			Description	Detection of open circuit of count pulse signal.
			Remedy	Disconnection of cable.
E110	0001	05	Title	Failure of the Polygon Motor (M11)
			Description	The Polygon Motor (M11) speed lock signal does not indicate a locked state a specific period of time after the Polygon Motor (M11) has been started. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connector (J1/J7/J10/J21/J208/J8142/J8143). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (UN2).
E110	0002	05	Title	Failure of the Polygon Motor (M11)
			Description	The speed lock signal indicates a deviation 10 times in sequence at intervals of 100 msec after the signal has indicated a locked state. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connector (J1/J7/J10/J21/J208/J8142/J8143). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (UN2).
E110	0003	05	Title	Failure of the Polygon Motor (M11)
			Description	The Polygon Motor (M11) speed lock signal does not indicate a locked state for 6.5 sec. after a switchover is made from low to normal speed or for 8 sec. after a switchover is made from normal to low speed. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connector (J1/J7/J10/J21/J208/J8142/J8143). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (UN2).
E196	0000	05	Title	Error in EEPROM access
			Description	20 retries failed after error occurred during communication with EEPROM. * Error occurs after the delivery if a paper in passage exists.
			Remedy	Replace the DC Controller PCB (UN2).
E196	0001	05	Title	Main ROM reading/writing error
			Description	The main ROM reading or writing error occurs.
			Remedy	Replace the DC controller PCB (UN2).
E196	0002	05	Title	Option ROM reading/writing error
			Description	The option ROM reading or writing error occurs.
			Remedy	Replace the DC controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E197	0000	05	Title	Error in communication of Laser Driver PCB Communication time out error between DC Controller PCB and Main Controller PCB 2
			Description	Communication error with image PCB (For factory) Communication time out error between DC Controller PCB and Main Controller PCB 2
			Remedy	1. Check the cable. 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (UN2). 4. Replace the Main Controller PCB 2 (UN14)
E197	0001	05	Title	Error in communication of Laser Driver PCB
			Description	Communication error with image PCB for factory (Serial communication error)
			Remedy	1. Check the cable. 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (UN2).
E202	0001	04	Title	There is an error in the detection of the CCD home position.
			Description	The attempt to detect the home position fails when the CCD is moved forward.
			Remedy	1. Disconnect and then connect the flexible cable(Reader Controller PCB (UN4)-Main Controller PCB 2 (UN14)). 2. Replace the flexible cable. 3. Replace the CCD HP sensor (S11). 4. Replace the Polygon Motor (M11). 5. Replace the Reader Controller PCB (UN4). 6. Replace the Main Controller PCB 2 (UN14).
E202	0002	04	Title	There is an error in the detection of the CCD home position.
			Description	The attempt to detect the home position fails when the CCD is moved back.
			Remedy	1. Disconnect and then connect the flexible cable(Reader Controller PCB (UN4)-Main Controller PCB 2 (UN14)). 2. Replace the flexible cable. 3. Replace the CCD HP sensor (S11). 4. Replace the Polygon Motor (M11). 5. Replace the Reader Controller PCB (UN4). 6. Replace the Main Controller PCB 2 (UN14).
E225	0000	04	Title	The light intensity of the CCD is faulty.
			Description	The light intensity of the CCD during shading is under the specified level.
			Remedy	1. Disconnect and then connect the flexible cable. 2. Replace the flexible cable. 3. Replace the CCD Unit. 4. Replace the Reader Controller PCB (UN4). 5. Replace the Main Controller PCB 2 (UN14).

E Code	Detail Code	Location	Item	Description
E227	0001	04	Title	The reader unit power supply (24V) is faulty.
			Description	At time of power-on, the 24V port is off.
			Remedy	1. Disconnect and then connect the power supply harness connector. (J504/J3/J114) 2. Replace the Power Supply PCB (UN1).
E227	0002	04	Title	The reader unit power supply (24V) is faulty.
			Description	At the start of a job, the 24V port is off.
			Remedy	1. Disconnect and then connect the power supply harness connector.(J504/J3/J114) 2. Replace the Power Supply PCB (UN1).
E227	0003	04	Title	The reader unit power supply (24V) is faulty.
			Description	At the end of a job, the 24V port is off.
			Remedy	1. Disconnect and then connect the power supply harness connector.(J504/J3/J114) 2. Replace the Power Supply PCB (UN1).
E227	0004	04	Title	The reader unit power supply (24V) is faulty.
			Description	When a load is being driven, the 24V port is off.
			Remedy	1. Disconnect and then connect the power supply harness connector.(J504/J3/J114) 2. Replace the Power Supply PCB (UN1).
E240	0000	05	Title	Error in controller communication
			Description	The serial communication error such as parity error or overrun error is constantly detected.
			Remedy	1. Check the Connectors. 2. Replace the DC Controller PCB (UN2).
E240	0001	05	Title	Error in controller communication
			Description	The serial communication error such as parity error or overrun error is detected while printing.
			Remedy	1. Check the Connectors. 2. Replace the DC Controller PCB (UN2).
E246	0001	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E246	0002	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E246	0003	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E246	0005	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E247	0001	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E247	0002	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E247	0003	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E247	0004	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E248	0000	00	Title	SRAM error
			Description	SRAM check error when the power is turned ON.
			Remedy	Main Controller PCB 2.
E248	0001	04	Title	EEPROM error of the CCD unit
			Description	An error has occurred at power-on.
			Remedy	1. Disconnect and then connect the flexible cable(CCD unit-Reader Controller PCB (UN4)). 2. Replace the flexible cable. 3. Replace the CCD unit.
E248	0002	04	Title	EEPROM error of the CCD unit
			Description	An error has occurred during write operation.
			Remedy	1. Disconnect and then connect the flexible cable(CCD unit-Reader Controller PCB (UN4)). 2. Replace the flexible cable. 3. Replace the CCD unit.
E248	0003	04	Title	EEPROM error of the CCD unit
			Description	An error has occurred during read operation following write operation.
			Remedy	1. Disconnect and then connect the flexible cable(CCD unit-Reader Controller PCB (UN4)). 2. Replace the flexible cable. 3. Replace the CCD unit.
E261	0000	05	Title	Error in Zero Cross
			Description	Zero Cross failed to be detected for 500ms or more while the relay was ON. * The same condition is detected after the error retry is performed.
			Remedy	1. Check the Connectors. (J113/J202) 2. Replace the Power supply PCB (UN1). 3. Replace the DC Controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E280	0003	05	Title	Reading unit communication error
			Description	Reading error after writing.
			Remedy	1. Disconnect and then connect the flexible cable(Reader Controller PCB (UN4)-Main Controller PCB 2 (UN14)). 2. Disconnect and then connect the flexible cable(CCD unit-Main Controller PCB 2 (UN14)). 3. Replace the flexible cable. 4. Replace the Reader Controller PCB (UN4). 5. Replace the Main Controller PCB 2 (UN14).
E315	0007	00	Title	Codec error
			Description	JBIG encode error.
			Remedy	Replacement of the Main Controller PCB.
E315	0025	00	Title	Codec error
			Description	ROTU hardware error.
			Remedy	Replacement of the Main Controller PCB.
E315	0027	00	Title	Codec error
			Description	ROTU timeout error.
			Remedy	Replacement of the Main Controller PCB.
E315	0033	00	Title	MemFill hardware error
			Description	MemFill hardware error.
			Remedy	Replacement of the Main Controller PCB.
E315	0035	00	Title	Codec error
			Description	MemFill timeout error.
			Remedy	Replacement of the Main Controller PCB.
E315	0100	00	Title	Codec error
			Description	PrcOverRun error.
			Remedy	Replacement of the Main Controller PCB.
E315	0500	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0501	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0510	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0511	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0520	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.

E Code	Detail Code	Location	Item	Description
E315	0521	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0530	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0531	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0540	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0541	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0550	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0551	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	0560	00	Title	Codec error
			Description	Interruption does not occur although 2 minutes have passed after starting the operation.
			Remedy	jcdImage device.
E315	0561	00	Title	Codec error
			Description	Abnormal interruption is detected after starting the operation.
			Remedy	jcdImage device.
E315	000d	00	Title	Codec error
			Description	JBIG decode error
			Remedy	1. Replace the SDRAM. 2. Replace the HDD. 3. Replace the Main Controller PCB.
E315	000e	00	Title	Codec error
			Description	Soft decode error
			Remedy	1. Replace the SDRAM. 2. Replace the HDD. 3. Replace the Main Controller PCB.
E350	0000	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.

E Code	Detail Code	Location	Item	Description
E350	0001	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E350	0002	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E350	0003	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E350	3000	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E351	0000	00	Title	Main Controller PCB 2 communication error
			Description	Main Controller PCB 2 communication error.
			Remedy	1. Disconnect and then connect the connector of the Main Controller PCB 2. 2. Replace the Main Controller PCB 2.
E354	0001	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E354	0002	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E355	0001	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E355	0003	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E355	0004	00	Title	System error
			Description	-
			Remedy	Contact to the sales companies.
E400	0001	04	Title	Communication error between Reader Controller PCB (UN4) and DADF
			Description	Check sum error occurs at the time of communication between the Reader Controller PCB and the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (UN4). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (UN4).

E Code	Detail Code	Location	Item	Description
E400	0002	04	Title	Communication error between Reader Controller PCB (UN4) and DADF
			Description	Reception status error occurs at the time of communication between the Reader Controller PCB and the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (UN4). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (UN4).
E400	0003	04	Title	Communication error between Reader Controller PCB (UN4) and DADF
			Description	Reception interrupt error occurs at the time of communication between the Reader Controller PCB and the DADF.
			Remedy	1. Connection error between the DADF Driver PCB (PCB1) and the Reader Controller PCB (UN4). 2. Failure of the DADF Driver PCB (PCB1). 3. Failure of the Reader Controller PCB (UN4).
E413	0001	04	Title	Release Motor (M2) error
			Description	The sensing level of the release motor HP sensor (SR11) does not change within a specified period when the release motor (M2) is driven.
			Remedy	1. Replace the Release Motor HP Sensor (SR11). 2. Replace the Release Motor (M2). 3. Replace the ADF Driver PCB.
E413	0002	04	Title	Release Motor (M2) error
			Description	The sensing level of the release motor HP sensor (SR11) does not change within a specified period when the release motor (M2) is driven.
			Remedy	1. Replace the Release Motor HP Sensor (SR11). 2. Replace the Release Motor (M2). 3. Replace the ADF Driver PCB.
E490	0001	04	Title	Different DADF model error
			Description	Not proper DADF is installed.
			Remedy	1. Installed DADF is a different model. 2. Replace the Reader Controller PCB (UN4). 3. Replace the DC Controller PCB (UN2). 4. Replace the Main Controller PCB 2 (UN14).
E500	0000	02	Title	Communication error (Staple/Booklet Finisher)
			Description	The communication with the host machine is interrupted.
			Remedy	1. Check the cable. 2. Replace the Finisher Controller PCB. 3. Replace the DC Controller PCB.
E500	0001	02	Title	Communication error (Inner Finisher)
			Description	The communication with the host machine is interrupted.
			Remedy	1. Check the cable. 2. Replace the Finisher Controller PCB. 3. Replace the DC Controller PCB.

E Code	Detail Code	Location	Item	Description
E503	0002	02	Title	Communication error
			Description	Communication between the Saddle Controller and the Finisher Controller is suspended.
			Remedy	1. The wiring between the finisher controller PCB and saddle controller PCB is faulty. 2. The finisher controller PCB is faulty. 3. The saddle stitcher controller PCB is faulty.
E503	0003	02	Title	Communication error
			Description	Communication between the Punch Controller and the Finisher Controller is suspended.
			Remedy	1. The wiring between the finisher controller PCB and punch Controller PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty. 4. The host machine DC Controller PCB is faulty.
E505	0001	02	Title	EEPROM error
			Description	The checksum data for the EEPROM on the finisher controller PCB has an error.
			Remedy	Replace the Finisher Controller PCB.
E505	0002	02	Title	EEPROM error
			Description	The checksum data for the EEPROM on the punch controller PCB has an error.
			Remedy	Replace the Punch Controller PCB.
E514	8001	02	Title	Rear end assist home position error
			Description	The stapler does not leave the rear end assist home position when the Rear End Assist Motor has been driven for 3 seconds.
			Remedy	1. The Rear End Assist Home Position Sensor (PI109) is faulty. 2. The wiring between the Finisher Controller PCB and Rear End Assist Motor is faulty. 3. The end assist mechanism is faulty. 4. The Rear End Assist Motor (M109) is faulty. 5. The Finisher Controller PCB is faulty.
E514	8002	02	Title	Rear end assist home position error
			Description	The stapler does not return to the rear end assist home position when the Rear End Assist Motor has been driven for 3 seconds.
			Remedy	1. The Rear End Assist Home Position Sensor (PI109) is faulty. 2. The wiring between the Finisher Controller PCB and Rear End Assist Motor is faulty. 3. The end assist mechanism is faulty. 4. The Rear End Assist Motor (M109) is faulty. 5. The Finisher Controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E520	0001	02	Title	Shift Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M4) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Shift Roller HP Sensor (S2) Connector is physically removed. 4. Check if the Shift Roller HP Sensor (S2) failure occurs.
E520	0002	02	Title	Shift Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M4) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Shift Roller HP Sensor (S2) Connector is physically removed. 4. Check if the Shift Roller HP Sensor (S2) failure occurs.
E530	8001	02	Title	Front aligning plate home position error
			Description	The aligning plate does not leave the aligning plate front home position sensor when the alignment plate front motor has been driven for 4 seconds.
			Remedy	1. The front aligning plate home position sensor (PI106) is faulty. 2. The wiring between the finisher controller PCB and front aligning plate motor is faulty. 3. The front aligning plate is faulty. 4. The front aligning plate motor (M103) is faulty. 5. The finisher controller PCB is faulty.
E530	8002	02	Title	Front aligning plate home position error
			Description	The aligning plate does not return to aligning plate front home position sensor when the alignment plate front motor has been driven for 4 seconds.
			Remedy	1. The front aligning plate home position sensor (PI106) is faulty. 2. The wiring between the finisher controller PCB and front aligning plate motor is faulty. 3. The front aligning plate is faulty. 4. The front aligning plate motor (M103) is faulty. 5. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E531	8001	02	Title	Staple home position error
			Description	Stapler fails to move from the staple home position although the Staple Motor is driven for a specified period of time.
			Remedy	1. The wiring between the finisher controller PCB and stapler is faulty. 2. The stapler is faulty. 3. The finisher controller PCB is faulty.
E531	8002	02	Title	Staple home position error
			Description	Stapler fails to move from the staple home position although the Staple Motor is driven for a specified period of time.
			Remedy	1. The wiring between the finisher controller PCB and stapler is faulty. 2. The stapler is faulty. 3. The finisher controller PCB is faulty.
E532	0001	02	Title	STP Move Motor fails to move from HP (Inner Finisher)
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M1) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Stapler Move HP Sensor (S10) Connector is physically removed. 4. Check if the Stapler Move HP Sensor (S10) failure occurs.
E532	0002	02	Title	STP Move Motor fails to return to HP (Inner Finisher)
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M1) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Stapler Move HP Sensor (S10) Connector is physically removed. 4. Check if the Stapler Move HP Sensor (S10) failure occurs.
E532	8001	02	Title	Stapler shift home position error (Staple/Booklet Finisher)
			Description	The stapler does not leave the stapler shift home position when the stapler shift motor has been driven for 5 seconds.
			Remedy	1. The stapler drive home position sensor (PI110) is faulty. 2. The wiring between the finisher controller PCB and stapler shift motor is faulty. 3. The stapler shift base is faulty. 4. The stapler shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E532	8002	02	Title	Stapler shift home position error (Staple/Booklet Finisher)
			Description	The stapler does not return to the stapler shift home position when the stapler shift motor has been driven for 20 seconds.
			Remedy	1. The stapler drive home position sensor (PI110) is faulty. 2. The wiring between the finisher controller PCB and stapler shift motor is faulty. 3. The stapler shift base is faulty. 4. The stapler shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E535	8001	02	Title	Swing home position error
			Description	The stapler does not leave the swing home position when the swing motor has been driven for 3 seconds.
			Remedy	1. The swing home position sensor (PI105) is faulty. 2. The wiring between the finisher controller PCB and swing motor is faulty. 3. The swing mechanism is faulty. 4. The swing motor (M106) is faulty. 5. The finisher controller PCB is faulty.
E535	8002	02	Title	Swing home position error
			Description	The stapler does not return to the swing home position when the swing motor has bee driven for 3 seconds.
			Remedy	1. The swing home position sensor (PI105) is faulty. 2. The wiring between the finisher controller PCB and swing motor is faulty. 3. The swing mechanism is faulty. 4. The swing motor (M106) is faulty. 5. The finisher controller PCB is faulty.
E537	8001	02	Title	Rear aligning plate home position error
			Description	The aligning plate does not leave the aligning plate rear home position sensor when the alignment plate rear motor has been driven for 4 seconds.
			Remedy	1. The aligning plate rear home position sensor (PI107) is faulty. 2. The wiring between the finisher controller PCB and aligning plate rear motor is faulty. 3. The rear aligning plate is faulty. 4. The rear aligning plate motor (M104) is faulty. 5. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E537	8002	02	Title	Rear aligning plate home position error
			Description	The aligning plate does not return to aligning plate rear home position sensor when the alignment plate rear motor has been driven for 4 seconds.
			Remedy	1. The aligning plate rear home position sensor (PI107) is faulty. 2. The wiring between the finisher controller PCB and aligning plate rear motor is faulty. 3. The rear aligning plate is faulty. 4. The rear aligning plate motor (M104) is faulty. 5. The finisher controller PCB is faulty.
E540	0001	02	Title	Tray Lift Motor timeout error (Inner Finisher)
			Description	Unable to complete the operation even after the specified period of time during initial rotation. When the Motor remains in the same area for the specified period of time and the same symptom occurs again after the first retry, it is detected as an error.
			Remedy	1. Check if the Motor (M11) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Stack Tray Clock Sensor (S14) Connector is physically removed. 4. Check if the Stack Tray Clock Sensor (S14) failure occurs.
E540	0005	02	Title	Tray Lift Motor clock error (Inner Finisher)
			Description	At initial rotation, when the Tray Lift Motor rotates and clock input is not detected within the specified period of time, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M11) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Stack Tray Clock Sensor (S14) Connector is physically removed. 4. Check if the Stack Tray Clock Sensor (S14) failure occurs.
E540	8001	02	Title	Tray 1 time out error (Staple/Booklet Finisher)
			Description	If the tray does not return to home position when the tray 1 shift motor is driven for 25 seconds. If the tray does not move to other area when tray 1 shift motor is driven for 5 seconds.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E540	8002	02	Title	Tray 1 shift area error
			Description	The dangerous area is reached before the tray 1 paper surface sensor detects paper surface during the paper surface detection operation. A discontinuous area is detected during tray operation.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.
E540	8003	02	Title	Swing guide switch/Staple safety switch error
			Description	The swing guide switch or staple safety switch is activated while the tray is operating.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.
E540	8004	02	Title	The tray 1 shift motor clock error
			Description	The FG input cannot be detected when the tray 1 shift motor has been driven for 0.2 second.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.
E540	8005	02	Title	The tray 1 shift motor speed error (Staple/Booklet Finisher)
			Description	The lock detection signal turns OFF 150 ms after the lock detection signal turned ON.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E540	8006	02	Title	The tray 1 shift motor acceleration error
			Description	The lock detection signal does not turn ON when the tray 1 shift motor has been driven for 1 second.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.
E540	8007	02	Title	The tray 1 shift motor error
			Description	The lock detection signal does not turn OFF when the tray 1 shift motor is at a stop.
			Remedy	1. The tray 1 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 1 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 1 shift motor (M107) is faulty. 5. The finisher controller PCB is faulty.
E542	0001	02	Title	Additional Tray Lift Motor timeout error
			Description	Unable to complete the operation even after the specified period of time during initial rotation. When the Motor remains in the same area for the specified period of time and the same symptom occurs again after the first retry, it is detected as an error.
			Remedy	1. Check if the Motor (M12) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Additional Tray Clock Sensor (S23) Connector is physically removed. 4. Check if the Additional Tray Clock Sensor (S23) failure occurs.
E542	0002	02	Title	Additional Tray Lift Motor clock error
			Description	At initial rotation, when the Tray Lift Motor rotates and clock signal is not detected within the specified period of time, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M12) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Additional Tray Clock Sensor (S23) Connector is physically removed. 4. Check if the Additional Tray Clock Sensor (S23) failure occurs.

E Code	Detail Code	Location	Item	Description
E542	8001	02	Title	Tray 1 time out error
			Description	If the tray does not return to home position when the tray 1 shift motor is driven for 25 seconds. If the tray does not move to other area when tray 2 shift motor is driven for 5 seconds.
			Remedy	1. The Tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E542	8002	02	Title	Tray 2 shift area error
			Description	The upper limit area is reached before the tray 2 paper surface sensor 1 detects the paper surface during paper surface detection operation. A discontinuous area is detected during tray operation. During evacuation operation, arrival at the area beyond the tray 2 paper surface sensor 2 is detected before this sensor detects paper surface.
			Remedy	1. The tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E542	8004	02	Title	The tray 2 shift motor clock error
			Description	The FG input cannot be detected when the tray 2 shift motor has been driven for 0.2 second.
			Remedy	1. The Tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The Tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E542	8005	02	Title	The tray 2 shift motor speed error
			Description	The lock detection signal turns OFF 150 ms after the lock detection signal turned ON.
			Remedy	1. The tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E542	8006	02	Title	The tray 2 shift motor acceleration error
			Description	The lock detection signal does not turn ON when the tray 2 shift motor has been driven for 1 second.
			Remedy	1. The tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E542	8007	02	Title	The tray 2 shift motor error
			Description	The lock detection signal does not turn OFF when the tray 2 shift motor is at a stop.
			Remedy	1. The tray 2 shift area sensor PCB is faulty. 2. The wiring between the finisher controller PCB and tray 2 shift motor is faulty. 3. The tray up/down mechanism is faulty. 4. The tray 2 shift motor (M105) is faulty. 5. The finisher controller PCB is faulty.
E567	0001	02	Title	Shift Roller Release Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M5) Connector is physically removed. 2. Check if the Motor failure occurs. 3. Check if the Shift Roller Release Sensor (S3) Connector is physically removed. 4. Check if the Shift Roller Release Sensor (S3) failure occurs.
E551	0001	02	Title	Front Fan lock error
			Description	While the front fan is rotating, this machine stops the front fan after detecting the lock signal. Then this machine retries to rotate the front fan, but lock signal is detected again, this machine displays the error.
			Remedy	1. Check the Fan (M8). 2. Replace the finisher controller PCB.
E551	0002	02	Title	Rear Fan lock error
			Description	While the rear fan is rotating, this machine stops the front fan after detecting the lock signal. Then this machine retries to rotate the rear fan, but lock signal is detected again, this machine displays the error.
			Remedy	1. Check the Fan (M9). 2. Replace the finisher controller PCB.

E Code	Detail Code	Location	Item	Description
E567	0001	02	Title	Shift Roller Release Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry
			Remedy	1. Check if the Motor (M5) Connector is physically removed. 2. Replace the Motor. 3. Check if the Shift Roller Release Sensor (S3) Connector is physically removed. 4. Replace the Shift Roller Release Sensor (S3).
E567	0002	02	Title	Shift Roller Release Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M5) Connector is physically removed. 2. Replace the Motor. 3. Check if the Shift Roller Release Sensor (S3) Connector is physically removed. 4. Replace the Shift Roller Release Sensor (S3).
E56F	0001	02	Title	Entrance Roller Release/Stopper HP Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M6) Connector is physically removed. 2. Replace the Motor. 3. Check if the Entrance Roller Release/Stopper HP Sensor (S5) Connector is physically removed. 4. Replace the Entrance Roller Release/Stopper HP Sensor (S5).
E56F	0002	02	Title	Entrance Roller Release/Stopper HP Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M6) Connector is physically removed. 2. Replace the Motor. 3. Check if the Entrance Roller Release/Stopper HP Sensor (S5) Connector is physically removed. 4. Replace the Entrance Roller Release/Stopper HP Sensor (S5).

E Code	Detail Code	Location	Item	Description
E571	0001	02	Title	Gripper Open/Close Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M7) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Arm HP Sensor (S13) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).
E571	0002	02	Title	Gripper Open/Close Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M7) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Arm HP Sensor (S13) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).
E575	0001	02	Title	Gripper Unit Move Motor fails to move from HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot move from HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M2) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Unit HP Sensor (S7) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).
E575	0002	02	Title	Gripper Unit Move Motor fails to return to HP
			Description	At initial rotation, when the Motor rotates for specified period of time and cannot return to HP, it is detected as an error if the same symptom occurs again after the first retry.
			Remedy	1. Check if the Motor (M2) Connector is physically removed. 2. Replace the Motor. 3. Check if the Gripper Unit HP Sensor (S7) Connector is physically removed. 4. Replace the Gripper Unit HP Sensor (S7).

E Code	Detail Code	Location	Item	Description
E584	8001	02	Title	Shutter Home Position Error
			Description	The stapler does not return to the shutter home position when the Stack Ejection Motor has been driven for 3 seconds.
			Remedy	1. The Shutter Home Position Sensor (PI113) is faulty. 2. The wiring between the Finisher Controller PCB and Stack Ejection Motor, and between the Finisher Controller PCB and Shutter Clutch is faulty. 3. The shutter mechanism is faulty. 4. The Stack Ejection Motor (M102), Shutter Clutch (CL101), and Stack Ejection Lower Roller Clutch (CL102) is faulty. 5. The Finisher Controller PCB is faulty.
E584	0002	02	Title	Shutter home position error
			Description	The stapler does not return to the shutter home position when the stack ejection motor has been driven for 3 seconds.
			Remedy	1. The shutter home position sensor (PI113) is faulty. 2. The shutter mechanism is faulty. 3. The stack ejection motor (M102), shutter clutch (CL101), and stack ejection lower roller clutch (CL102) is faulty. 4. The finisher controller PCB is faulty.
E590	8001	02	Title	Punch home position error
			Description	The puncher does not detect the punch home position sensor when the puncher motor has been driven for 20 msec.
			Remedy	1. The punch home position sensor and punch motor clock sensor is faulty. 2. The wiring between the punch controller PCB and sensor is faulty. 3. The punch mechanism is faulty. 4. The puncher motor is faulty. 5. The punch controller PCB is faulty. 6. The finisher controller PCB is faulty.
E590	8002	02	Title	Punch home position error
			Description	After the motor has been stopped at time of punch motor initialization, the puncher does not detect punch home position sensor.
			Remedy	1. The punch home position sensor and punch motor clock sensor is faulty. 2. The wiring between the punch controller PCB and sensor is faulty. 3. The punch mechanism is faulty. 4. The puncher motor is faulty. 5. The punch controller PCB is faulty. 6. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E591	8001	02	Title	Scrap full detection error
			Description	The voltage of the light received is 3.0 V or less even when the light emitting duty of the scrap full detector sensor has been increased to 66% or more.
			Remedy	1. The wiring between the scrap full detector PCB and punch controller PCB is faulty. 2. The scrap full detector PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty."
E591	8002	02	Title	Scrap full detection error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the scrap full detector sensor has been decreased to 0%.
			Remedy	1. The scrap full detector PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty.
E592	8001	02	Title	Trailing edge sensor error
			Description	The voltage of the light received is 3.0 V or less even when the light emitting duty of the trailing edge sensor (LED5,PTR5) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/photosensor PCB and punch controller PCB is faulty. 2. The LED PCB and photosensor PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty."
E592	8002	02	Title	Trailing edge sensor error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the trailing edge sensor has been decreased to 0%.
			Remedy	1. The LED PCB and photosensor PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty."
E592	8003	02	Title	Horizontal registration sensor 1 error
			Description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the horizontal registration sensor 1 (LED1,PTR1) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/photosensor PCB and punch controller PCB is faulty. 2. The LED PCB and photosensor PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty.
E592	8004	02	Title	Horizontal registration sensor 1 error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the horizontal registration sensor 1 (LED1,PTR1) has been decreased to 0%.
			Remedy	1. The LED PCB and photosensor PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty.
E592	8005	02	Title	Horizontal registration sensor 2 error
			Description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the horizontal registration sensor 2 (LED2,PTR2) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/photosensor PCB and punch controller PCB is faulty. 2. The LED PCB and photosensor PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty.
E592	8006	02	Title	Horizontal registration sensor 2 error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the horizontal registration sensor 2 (LED2,PTR2) has been decreased to 0%.
			Remedy	1. The LED PCB and photosensor PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty.
E592	8007	02	Title	Horizontal registration sensor 3 error
			Description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the horizontal registration sensor 3 (LED3,PTR3) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/photosensor PCB and punch controller PCB is faulty. 2. The LED PCB and photosensor PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty.
E592	8008	02	Title	Horizontal registration sensor 3 error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the horizontal registration sensor 3 (LED3,PTR3) has been decreased to 0%.
			Remedy	1. The LED PCB and photosensor PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E592	8009	02	Title	Horizontal registration sensor 4 error
			Description	The voltage of the light received is 2.5 V or less even when the light emitting duty of the horizontal registration sensor 4 (LED4,PTR4) has been increased to 66% or more.
			Remedy	1. The wiring between the LED PCB/photosensor PCB and punch controller PCB is faulty. 2. The LED PCB and photosensor PCB is faulty. 3. The punch controller PCB is faulty. 4. The finisher controller PCB is faulty.
E592	800A	02	Title	Horizontal registration sensor 4 error
			Description	The voltage of the light received is 2.0 V or more even when the light emitting duty of the horizontal registration sensor 4 (LED4,PTR4) has been decreased to 0%.
			Remedy	1. The LED PCB and photosensor PCB is faulty. 2. The punch controller PCB is faulty. 3. The finisher controller PCB is faulty.
E593	8001	02	Title	Horizontal registration home position error
			Description	At time of horizontal registration motor initialization, the punch slide unit does not leave the horizontal home position sensor even when it has been driven for the specified distance.
			Remedy	1. The horizontal registration home position (PI61) is faulty. 2. The wiring between the punch controller PCB and sensor is faulty. 3. The horizontal registration mechanism is faulty. 4. The horizontal registration motor (M62) is faulty. 5. The punch controller PCB is faulty. 6. The finisher controller PCB is faulty.
E593	8002	02	Title	Horizontal registration home position error
			Description	At time of horizontal registration motor initialization, the punch slide unit does not return to the horizontal registration home position sensor even when the unit has been driven for the specified distance.
			Remedy	1. The horizontal registration home position (PI61) is faulty. 2. The wiring between the punch controller PCB and sensor is faulty. 3. The horizontal registration mechanism is faulty. 4. The horizontal registration motor (M62) is faulty. 5. The punch controller PCB is faulty. 6. The finisher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F0	8001	02	Title	Paper positioning plate home position error
			Description	The paper positioning plate home position sensor does not turn ON when the paper positioning plate motor has been driven for 1500 pulses.
			Remedy	1. The paper positioning plate home position sensor (PI7) is faulty. 2. The positioning plate drive mechanism is faulty. 3. The paper positioning plate motor (M4) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F0	8002	02	Title	Paper positioning plate home position error
			Description	The paper positioning plate home position sensor does not turn OFF when the paper positioning plate motor has been driven for 300 pulses.
			Remedy	1. The paper positioning plate home position sensor (PI7) is faulty. 2. The wiring between the Finisher Controller PCB and Stack Ejection Motor, and between the Finisher Controller PCB and Shutter Clutch is faulty. 3. The positioning plate drive mechanism is faulty. 4. The paper positioning plate motor (M4) is faulty. 5. The saddle stitcher controller PCB is faulty.
E5F1	8001	02	Title	Paper folding motor lock error
			Description	The feed speed of the paper fold roller reaches 5 mm/sec or less.
			Remedy	1. The paper folding motor clock sensor (PI4) and paper folding home position sensor (PI21. is faulty. 2. The paper folding roller drive mechanism is faulty. 3. The paper folding motor (M2) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F1	8002	02	Title	Paper positioning plate home position error
			Description	The status of Paper Fold Home Position Sensor does not change although the Paper Fold Motor is driven for a specified period of time.
			Remedy	1. The paper folding motor clock sensor (PI4) and paper folding home position sensor (PI21) is faulty. 2. The paper folding roller drive mechanism is faulty. 3. The paper folding motor (M2) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F2	8001	02	Title	Guide home position error
			Description	The guide home position sensor does not turn ON when the guide motor has been driven for 700 pulses.
			Remedy	1. The guide home position sensor (PI13) is faulty. 2. The guide plate drive mechanism is faulty. 3. The guide Motor (M3) is faulty. 4. The saddle stitcher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F2	8002	02	Title	Guide home position error
			Description	The guide home position sensor does not turn OFF when the guide motor has been driven for 50 pulses.
			Remedy	1. The guide home position sensor (PI13) is faulty. 2. The guide plate drive mechanism is faulty. 3. The guide Motor (M3) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F3	8001	02	Title	Aligning plate home position error
			Description	The aligning plate home position sensor does not turn ON when the aligning plate motor has been driven for 500 pulses.
			Remedy	1. The aligning plate home position sensor (PI5) is faulty. 2. The aligning plate drive mechanism is faulty. 3. The aligning motor (M5) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F3	8002	02	Title	Aligning plate home position error
			Description	The aligning plate home position sensor does not turn OFF when the aligning plate motor has been driven for 50 pulses.
			Remedy	1. The aligning plate home position sensor (PI5) is faulty. 2. The aligning plate drive mechanism is faulty. 3. The aligning motor (M5) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F4	8001	02	Title	Stitcher (rear) home position error
			Description	The stitching home position sensor does not turn ON when the stitch motor (rear) has been driven backward for 0.5 sec.
			Remedy	1. The stitcher home position sensor (rear) (SW5) is faulty. 2. The stitcher (rear) is faulty. 3. The saddle stitcher controller PCB is faulty.
E5F4	8002	02	Title	Stitcher (rear) home position error
			Description	The stitching home position sensor does not turn OFF when the stitch motor (rear) has been driven forward for 0.5 sec.
			Remedy	1. The stitcher home position sensor (rear) (SW5) is faulty. 2. The stitcher (rear) is faulty. 3. The saddle stitcher controller PCB is faulty.
E5F5	8001	02	Title	Stitcher (front) home position error
			Description	The stitching home position sensor does not turn ON when the stitch motor (front) has been driven forward for 0.5 sec.
			Remedy	1. The stitcher home position sensor (front) (SW7) is faulty. 2. The stitcher (front) is faulty. 3. The saddle stitcher controller PCB is faulty.
E5F5	8002	02	Title	Stitcher (front) home position error
			Description	The stitching home position sensor does not turn OFF when the stitch motor (front) has been driven backward for 0.5 sec.
			Remedy	1. The stitcher home position sensor (front) (SW7) is faulty. 2. The stitcher (front) is faulty. 3. The saddle stitcher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F6	8001	02	Title	Paper pushing plate home position error
			Description	The paper pushing plate home position sensor does not turn ON when the paper pushing plate motor has been driven for 0.5 sec.
			Remedy	1. The paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15), and paper pushing plate motor clock sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The paper pushing plate motor (M8) is faulty.
E5F6	8002	02	Title	Paper pushing plate home position error
			Description	The paper pushing plate home position sensor does not turn OFF when the paper pushing plate motor has been driven for 150 ms.
			Remedy	1. The paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15), and paper pushing plate motor clock sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The paper pushing plate motor (M8) is faulty.
E5F6	8003	02	Title	Paper pushing plate motor clock error
			Description	The number of pulses detected by the paper pushing plate motor clock sensor is 6 pulses or less.
			Remedy	1. The paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15), and paper pushing plate motor clock sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The paper pushing plate motor (M8) is faulty. 4. The saddle stitcher controller PCB is faulty.
E5F6	8004	02	Title	Pushing position error
			Description	The paper pushing plate leading edge position sensor does not turn ON when the paper pushing plate motor has been driven for 0.1 sec.
			Remedy	1. The paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15), and paper pushing plate motor clock sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The paper pushing plate motor (M8) is faulty. 4. The saddle stitcher controller PCB is faulty.

E Code	Detail Code	Location	Item	Description
E5F6	8005	05	Title	Pushing position error
			Description	The paper pushing plate leading edge position sensor does not turn OFF when the paper pushing plate motor has been driven for 0.5 sec.
			Remedy	1. The paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15), and paper pushing plate motor clock sensor (PI1) is faulty. 2. The paper pushing plate drive mechanism is faulty. 3. The paper pushing plate motor (M8) is faulty. 4. The saddle stitcher controller PCB is faulty.

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E602 to E880

E Code	Detail Code	Location	Item	Description
E602	0001	00	Title	Hard disk error
			Description	HDD detection error. Unable to detect HDD, not become Ready, return an error. When the errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Connection of the HDD cable. 2. Reinstall the system. 3. HDD. 4. Main Controller PCB.
E602	0002	00	Title	Hard disk error
			Description	There is no startup file. There is no program for main CPU in /BOOTDEV/BOOT/ on HDD. When the errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Reinstall the system. 2. HDD.
E602	0003	00	Title	Hard disk error
			Description	HDD WriteAbort error. Unable to read /BOOTDEV sector on HDD.
			Remedy	1. Reinstall the system. 2. HDD.
E602	0006	00	Title	Hard disk error
			Description	There is no SubBootable for the PDL type in /BOOTDEV/BOOT. When the errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Reinstall the system. 2. HDD.
E602	0007	00	Title	Hard disk error
			Description	No ICC profile corresponding to PDL type exists in /BOOTDEV/PDL
			Remedy	1. Reinstall the system. 2. HDD.
E602	0009	00	Title	Hard disk error
			Description	There is no FONT file which is required when executing report print, FAX/IFAX transmission and reception, or stamp print in /BOOTDEV/BOOT.
			Remedy	1. Reinstall the system. 2. HDD.
E602	0012	00	Title	Hard disk error
			Description	The file on HDD in which the Web browser refers to is corrupted or deleted.
			Remedy	1. Reinstall the system. 2. HDD.
E602	0100	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0101	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0102	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0103	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.

E Code	Detail Code	Location	Item	Description
E602	0104	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0105	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0110	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0111	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0112	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0113	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0114	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0115	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0121	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0122	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0123	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0124	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0125	00	Title	Hard disk error
			Description	Error in /FSTDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0200	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0201	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0202	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0203	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0204	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0205	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0210	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0211	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0212	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0213	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0214	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0215	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0221	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0222	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0223	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0224	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0225	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0300	00	Title	Hard disk error
			Description	Error in /IMG_MNG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0301	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0302	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0303	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0304	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0305	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0310	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0311	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0312	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0313	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0314	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0315	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0321	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0322	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0323	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0324	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0325	00	Title	Hard disk error
			Description	Error in /FSTCDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0400	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0401	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0402	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0403	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0404	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0405	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0410	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0411	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0412	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0413	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0414	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0415	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0421	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0422	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0423	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0424	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0425	00	Title	Hard disk error
			Description	Error in /THUMDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0500	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0501	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0502	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0503	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0504	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0505	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0510	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0511	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0512	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0513	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0514	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0515	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0521	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0522	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0523	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0524	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0525	00	Title	Hard disk error
			Description	Error in /APL_GEN.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0600	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0601	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0602	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0603	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0604	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0605	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0610	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0611	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0612	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0613	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0614	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0615	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0621	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0622	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0623	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0624	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0625	00	Title	Hard disk error
			Description	Error in /TMP_GEN.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0700	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0701	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0702 0703	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602		00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0704	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0705	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0710	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0711	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0712	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0713	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0714	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0715	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0721	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0722	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0723	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0724	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0725	00	Title	Hard disk error
			Description	Error in /TMP_FAX.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0800	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0801	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0802	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0803	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	0804	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0805	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0810	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0811	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0812	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0813	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0814	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0815	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0821	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0822	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0823	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0824	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0825	00	Title	Hard disk error
			Description	Error in /TMP_PSS.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0900	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0901	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0902	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0903	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.

E Code	Detail Code	Location	Item	Description
E602	0904	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0905	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0910	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0911	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0912	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0913	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0914	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0915	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0921	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	0922	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0923	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0924	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	0925	00	Title	Hard disk error
			Description	Error in /PDLDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1000	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1001	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1002	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1003	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	1004	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1005	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1010	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1011	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1012	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1013	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1014	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1015	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1021	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1022	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1023	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1024	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1025	00	Title	Hard disk error
			Description	Error in /BOOTDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1100	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1101	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1102	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1103	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. If possible, ask the customer to retrieve the data in the Address Book from the remote UI. 2. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 3. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.
E602	1104	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1105	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1110	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1111	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1112	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1113	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1114	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1115	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1121	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1122	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1123	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1124	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1125	00	Title	Hard disk error
			Description	Error in /APL_MEAP.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1200	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1201	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1202	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1203	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, move to the download mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power.
E602	1204	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1205	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Recovery of Boot partition must be executed in Safe Mode using SST. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1210	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1211	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1212	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1213	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1214	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1215	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1221	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1222	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1223	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1224	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1225	00	Title	Hard disk error
			Description	Error in /APL_SEND.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1300	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1301	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1302	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1303	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	1304	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1305	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1310	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1311	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1312	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1313	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1314	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1315	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1321	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1322	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1323	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1324	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1325	00	Title	Hard disk error
			Description	Error in /APL_KEEP.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1400	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1401	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1402	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1403	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	1404	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1405	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1410	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1411	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1412	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1413	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1414	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1415	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1421	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1422	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1423	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1424	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1425	00	Title	Hard disk error
			Description	Error in /APL_LOG.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1500	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1501	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1502	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1503	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	1504	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1505	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1510	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1511	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1512	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1513	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1514	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1515	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1521	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1522	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1523	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1524	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1525	00	Title	Hard disk error
			Description	Error in /CRBDEV.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1600	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1601	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1602	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1603	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power.
E602	1604	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1605	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1610	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1611	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1612	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1613	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1614	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1615	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1621	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1622	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1623	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	1624	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	1625	00	Title	Hard disk error
			Description	Error in /APL_CDS.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	2000	00	Title	Authentication error between Host Machine and Encryption Board
			Description	Authentication error between Host Machine and Encryption Board.
			Remedy	1. Connection error between the Encryption Board and the Main Controller PCB (turn OFF and then ON the power). 2. Execute the key clear of the Encryption Board using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation).
E602	2001	00	Title	Discrepancy in the Encryption Board operation
			Description	Although the Host Machine does not have the authentication information of the Encryption Board, the authenticated Encryption Board is installed.
			Remedy	Although the Host Machine does not have the authentication information of the Encryption Board, the authenticated Encryption Board is installed.
E602	2002	00	Title	Failure of Encryption Board, others
			Description	Failure of Encryption Board, others.
			Remedy	1. Connection error between the Encryption Board and the Main Controller PCB (turn Off and then ON the power). 2. Execute the key clear of the Encryption Board using SST (at this time, HDD becomes unformatted; thus, it is necessary to execute HDD format and system reinstallation). 3. After replacing the Encryption Board, execute HDD format and system reinstallation using SST. 4. Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E602	4000	00	Title	OS startup error
			Description	Unable to install OS. When the errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
E602	4001	00	Title	OS startup error
			Description	No OS startup script. When the errors occur, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Cable connection error. 2. After HDD All Format, reinstall the system software. 3. HDD.
E602	FF00	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF01	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF02	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	FF03	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	1. Execute HDD-CHECK (duration: several dozen minutes) with CHK-TYPE = 0, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, execute HDD-CLEAR with CHK-TYPE = 1, 2, 3, 5, and then turn OFF and then ON the power.
E602	FF04	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF05	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	This is the error which does not occur usually. 1. Execute HDD-CLEAR with CHK-TYPE = 1, 2, 3, 5, and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF10	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF11	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF12	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF13	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF14	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF15	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	FF21	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	This is the error which usually does not occur in Read/Write level. 1. Check the Cable and Power Connector. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF22	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF23	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.
E602	FF24	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	Error due to data corruption or software bug. 1. Start up in Safe Mode to perform All Format using SST and reinstall the system (SYSTEM, LANGUAGE, RUI), and then turn OFF and then ON the main power. 2. If the measures above do not solve the problem, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system.

E Code	Detail Code	Location	Item	Description
E602	FF25	00	Title	Hard disk error
			Description	Unidentified partition error.
			Remedy	"The document data (such as Box on the HDD) can be damaged. 1. Enter the corresponding CHK-TYPE in the partition to execute HDD-CHECK (duration: several minutes to several dozen minutes); and then turn OFF and then ON the power. 2. If the measures above do not solve the problem, enter the corresponding CHK-TYPE in the partition to execute HDD-CLEAR, and then turn OFF and then ON the main power. (Use SST to perform reformat/reinstallation in the case of the following: BOOTDEV, BOOTDEV2 and APL_SEND) 3. If the error still remains, it can be caused by HDD failure; therefore, replace the HDD and reinstall the system."
E604	0000	00	Title	Insufficient memory
			Description	Insufficient memory (require 1024 MB).
			Remedy	DDR2-SDRAM
E609	0008	00	Title	Insufficient memory
			Description	Temperature of the HDD does not rise to the specified temperature within the specified period of time at the time of startup.
			Remedy	HDD.
E609	0009	00	Title	Hard disk error
			Description	At the time of recovery from sleep, it does not reach to the specified temperature.
			Remedy	HDD.
E610	0001	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	The Encryption Board does not exist.
			Remedy	Check the hardware configuration.
E610	0002	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Not meeting the memory configuration to execute encryption operation.
			Remedy	Check the hardware configuration.
E610	0101	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Failed to initialize the memory of key storage area.
			Remedy	Turn OFF and then ON the power.

E Code	Detail Code	Location	Item	Description
E610	0102	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Failed to initialize the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	0201	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Error in the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	0202	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Error in the encryption processing part.
			Remedy	Turn OFF and then ON the power.
E610	0301	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Failed to create the encryption key.
			Remedy	Turn OFF and then ON the power.
E610	0302	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Failure of the encryption key is detected.
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
E610	0303	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Failure of the encryption key is detected.
			Remedy	Turn OFF and then ON the power. Due to this error, HDD content is initialized.
E610	0401	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Error is detected during encryption.
			Remedy	Turn OFF and then ON the power.
E610	0402	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Error is detected during decryption.
			Remedy	Turn OFF and then ON the power.

E Code	Detail Code	Location	Item	Description
E610	0501	00	Title	Failure of the HDD encryption key (hardware configuration error/initialization error/encryption key error/encryption processing error)
			Description	Error in document management information on /FSTDEV.
			Remedy	Turn OFF and then ON the power.
E611	0000	00	Title	Rebooting due to SRAM corruption when executing a transmission job that secures disconnection of the power
			Description	In the case that reboot is repeated at recovery from power down because SRAM information is corrupted and the job information saved on SRAM cannot be read, the phenomenon that the communication is repeated occurs.
			Remedy	Clear SRAM to erase the job that secures disconnection of the power.
E615	0001	00	Title	Self test error of encryption module
			Description	A self test of the Ipsec Board was conducted, and an error was detected. The encryption module is broken.
			Remedy	Upgrade the system after HDD format. When this error occurs, normal network communication cannot be guaranteed.
E674	0001	00	Title	FAX error
			Description	Communication error with the FAX PCB.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	0004	00	Title	FAX error
			Description	Error in access of the modem IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	0008	00	Title	FAX error
			Description	Error in access of the port IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E674	0010	00	Title	FAX error
			Description	FAX error
			Remedy	Replace the Main Controller PCB.
E674	0011	00	Title	FAX error
			Description	FAX error
			Remedy	Replace the Main Controller PCB.
E674	0030	00	Title	FAX error
			Description	Checksum error.
			Remedy	Download the system software for 2-line FAX.
E674	0100	00	Title	FAX error
			Description	Logging is failed after completion of FAX communication, and unable to read.
			Remedy	Turn OFF and then ON the power.

E Code	Detail Code	Location	Item	Description
E674	0200	00	Title	HDD access error
			Description	An error occurred when accessing the HDD.
			Remedy	1. Turn OFF/ON the main power switch. 2. Reinstall all the formats and the system. 3. Replace the HDD. 4. Replace the Main Controller PCB 1.
E674	000C	00	Title	FAX error
			Description	Error in access of the modem IC/port IC.
			Remedy	Check the cable connection, replace the FAX PCB, replace the Main Controller PCB.
E677	0001	00	Title	Print server error
			Description	Exhaust Fan operation error on the print server is detected.
			Remedy	1. Check power supply to the Exhaust Fan. 2. Replace the Exhaust Fan.
E677	0003	00	Title	Print server error
			Description	Error is detected at the configuration check performed at startup.
			Remedy	Check the cable connection, reinstallation.
E677	0004	00	Title	Print server error
			Description	CPU Fan operation error on the print server is detected.
			Remedy	1. Check power supply to the CPU Fan. 2. Replace the CPU Fan.
E677	0010	00	Title	Print server error
			Description	Not proper print server is connected.
			Remedy	Replace the print server with the proper one.
E677	0080	00	Title	Print server error
			Description	Communication error at startup.
			Remedy	Check the cable connection, reinstallation.
E710	0001	00	Title	Printer IPC error
			Description	Error is detected by IPC communication IC of the printer engine at power ON.
			Remedy	Disconnection of cable.
E711	0001	05	Title	UFDI communication error
			Description	Communication system error (reception time out error/ checksum error etc.)
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E711	0002	05	Title	IPC communication error
			Description	Communication system error (packet error occurs without the request of initialization)
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.

E Code	Detail Code	Location	Item	Description
E713	0000	05	Title	Erroneous communication with finisher (retry error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0001	05	Title	Erroneous communication with finisher (transmission retry error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0002	05	Title	Erroneous communication with finisher (transmission data error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0004	05	Title	Erroneous communication with finisher (reception error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0010	05	Title	Erroneous communication with finisher (reception error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0011	05	Title	Erroneous communication with finisher (reception error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0020	05	Title	Erroneous communication with finisher (reception data error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.

E Code	Detail Code	Location	Item	Description
E713	0021	05	Title	Erroneous communication with finisher (reception time out error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E713	0022	05	Title	Erroneous communication with finisher (reception data error)
			Description	The communication does not restart by the error retry after the communication failure with the finisher.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Finisher Controller PCB.
E716	0000	05	Title	Erroneous communication with cassette pedestal
			Description	After the presence of a cassette pedestal has been detected, the communication fails to be normal for 5 sec.
			Remedy	1. Check the cable. 2. Replace the DC Controller PCB (UN2). 3. Replace the Cassette Pedestal Driver PCB.
E717	0001	00	Title	Communication error with the NE Controller
			Description	Error when the NE Controller is started. The NE Controller which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E717	0002	00	Title	Communication error with the NE Controller
			Description	IPC error at NE Controller operation. Open circuit of IPC, unable to recover the IPC communication.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E719	0001	00	Title	Error in coin manager
			Description	Error when the coin manager is started. The coin manager which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.

E Code	Detail Code	Location	Item	Description
E719	0002	00	Title	Error in coin manager
			Description	IPC error at coin manager operation. Open circuit of IPC, unable to recover the IPC communication. When open circuit of the pickup/delivery signal cable is detected. Invalid connection is detected.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E719	0003	00	Title	Error in coin manager
			Description	Communication error with the coin manager occurs during unit price acquisition at startup.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E719	0011	00	Title	Error when the Card Reader is started
			Description	The Card Reader which was connected before turning OFF the power is not connected at power-on.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E719	0012	00	Title	IPC error at Card Reader operation
			Description	Open circuit of IPC, unable to recover the IPC communication.
			Remedy	Check the cable, and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.
E719	0031	00	Title	Communication error when the Card Reader (serial) is started
			Description	Unable to start communication with the Card Reader at startup.
			Remedy	1. Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR. 2. After removing the Card Reader, execute the following service mode, and then reinstall the Card Reader. • COPIER>FUNCTION>CLEAR>CARD • COPIER>FUNCTION>CLEAR>ERR"
E719	0032	00	Title	Communication error after the Card Reader (serial) is started
			Description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of it.
			Remedy	Check the cable connection of the Card Reader (connector connection error, open circuit), and then go through the following to clear the error: Service Mode > COPIER > FUNCTION > CLEAR > ERR.

E Code	Detail Code	Location	Item	Description
E730	1001	00	Title	PDL software error
			Description	Systematic fatal error, such as initialization failure, occurs.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
E730	9004	00	Title	Third party PDL communication error
			Description	Communication error with the print server.
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.
E730	9005	00	Title	Third party PDL communication error
			Description	Error in video cable connection with the print server.
			Remedy	1. Turn OFF and then ON the power. 2. Check the cable connection. 3. Replace the Open I/F PCB, F Link PCB (Main/Sub). 4. Replace the Main Controller PCB.
E730	100A	00	Title	PDL software error
			Description	Systematic fatal error, such as initialization failure, occurs.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power.
E730	A006	00	Title	PDL communication error
			Description	No reply from PDL. Due to failure of Subbootable, or no existence, there is no reply from PDL.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. Check the connection of the Main Controller PCB. 4. Reinstall the firmware. 5. Replace the Main Controller PCB.
E730	A007	00	Title	Mismatched PDL version
			Description	Version of the host machine control software and version of PDL control software are different.
			Remedy	1. PDL reset processing. 2. Turn OFF and then ON the power. 3. System All Format and installation.
E730	B013	00	Title	PDL embedded font error
			Description	Font data is corrupted.
			Remedy	1. Turn OFF and then ON the power. 2. Reinstall the system. 3. System All Format and installation.
E732	0000	00	Title	Reader communication error
			Description	Negotiation failure.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E732	0001	00	Title	Reader communication error
			Description	Communication error.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
E732	0010	00	Title	Reader communication error
			Description	Unable to detect Vsync from the Reader Controller although 2 minutes have passed after the completion of register setting of the Main Controller.
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
E732	0021	04	Title	Reader communication error
			Description	Communication error
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Controller PCB and the Main Controller PCB.
E732	8888	00	Title	Error in the reader type
			Description	When a scanner for the different model is detected during the communication with the reader.
			Remedy	Replace to the proper reader.
E732	9999	00	Title	Detection of Reader
			Description	The Reader is detected for the first time with the printer model. (On the user screen, only the message "Turn OFF and then ON the power again", instead of an error code, is displayed. It is recorded as an error log in Service Mode > DISPLAY > ERR.)
			Remedy	---
E733	0000	00	Title	Printer communication error
			Description	Unable to communicate with printer at startup.
			Remedy	1. Check the connection of the Connector with the printer. 2. Check the power of the printer (check if the initialization operation is executed at startup). 3. Replace the DC Controller or the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E733	0001	00	Title	Printer communication error
			Description	Communication error between the Main Controller and the DC Controller.
			Remedy	1. Check the connection between the DC controller PCB (J210) and the main controller PCB2 (I8112). 2. Check the power of the printer (check if the initialization operation is executed at startup). 3. Replace the DC Controller or the Main Controller PCB 2.
E733	0002	00	Title	Printer communication error
			Description	Communication error between the Main Controller and the DC Controller.
			Remedy	1. Check the connection between the DC controller PCB (J210) and the main controller PCB2 (I8112). 2. Check the power of the printer (check if the initialization operation is executed at startup). 3. Replace the DC Controller or the Main Controller PCB 2.
E733	0010	00	Title	Printer communication error
			Description	Error to detect printer vertical synchronous signal.
			Remedy	1. Check the connection between the DC controller PCB (J210) and the main controller PCB2 (I8112). 2. Check the power of the printer (check if the initialization operation is executed at startup). 3. Replace the DC Controller or the Main Controller PCB 2.
E740	0002	00	Title	Network Controller error
			Description	Invalid MAC address.
			Remedy	1. Check the connection of the LAN Connector. 2. Check the connection of the Main Controller PCB 1. 3. Replacement of the Main Controller PCB 1.
E743	0000	05	Title	DDI communication error
			Description	The Reader Controller PCB detected the communication error between the Main Controller PCB and the Reader Controller PCB.
			Remedy	1. Connection error between the Main Controller PCB and the Reader Controller PCB. 2. Failure of the Reader Controller PCB (PCB1). 3. Failure of the Main Controller PCB.
E744	0001	00	Title	Error in language file/BootROM
			Description	Version of language in HDD and version of Bootable are different.
			Remedy	Download the correct version of the language file.
E744	0002	00	Title	Error in language file/BootROM
			Description	Size of the language in HDD is too big.
			Remedy	Download the correct version of the language file.

E Code	Detail Code	Location	Item	Description
E744	0003	00	Title	Error in language file/BootROM
			Description	Unable to find the language to be switched to that is described in the Config.txt in HDD.
			Remedy	Download the correct version of the language file.
E744	0004	00	Title	Error in language file/BootROM
			Description	Unable to switch to the language in HDD.
			Remedy	Download the correct version of the language file.
E744	1000	00	Title	Error in language file/BootROM
			Description	The Boot ROM for the different model is installed.
			Remedy	Replace the Boot ROM with the one for the correct model.
E744	2000	00	Title	Error in language file/BootROM
			Description	When the engine ID described in Soft ID is invalid.
			Remedy	Replace the Soft ID with the one for the correct model.
E744	4000	05	Title	Engine ID error
			Description	The Main Controller PCB model and the DC Controller PCB (UN2) model are not matched.
			Remedy	Replace the DC Controller PCB (UN2) or redownload.
E746	0003	00	Title	Different Image Analysis PCB model
			Description	Different Image Analysis PCB model.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	0021	00	Title	Image Analysis PCB self-check error detection
			Description	Image Analysis PCB self-check error detection.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	0022	00	Title	Invalid Image Analysis PCB version
			Description	Invalid Image Analysis PCB version.
			Remedy	1. Upgrade the Image Analysis PCB software. 2. Replace the Image Analysis PCB.
E746	0023	00	Title	No reply from Image Analysis PCB
			Description	No reply from Image Analysis PCB.
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	0024	00	Title	Image Analysis PCB operation error
			Description	Image Analysis PCB operation error
			Remedy	1. Check the connection of the Image Analysis PCB. 2. Replace the Image Analysis PCB.
E746	0031	00	Title	Hardware error (TPM)
			Description	Hardware error (TPM).
			Remedy	The TPM PCB is not installed, the TPM PCB for other model is installed, or failure of TPM Chip.

E Code	Detail Code	Location	Item	Description
E746	0032	00	Title	Error in engine ID of SoftID
			Description	Mismatched data in TPM
			Remedy	Format the system. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.

E Code	Detail Code	Location	Item	Description
E746	0033	00	Title	Error in engine ID of SoftID
			Description	Error that can be recovered
			Remedy	When the TPM key was backed up, it can be restored. 1. Connect the USB memory which stores the TPM key. 2. Go to Management Settings > Data Management > TPM Settings, and then click "Restore TPM Key". 3. Enter the password set at backup operation. 4. When the restoration completion screen is displayed, click "OK". Remove the USB memory, and turn OFF and then ON the main power. When the TPM key was not backed up, formatting the system is required. Format the HDD using SST or USB memory, and download the system software. For details, see "Chapter 6: Upgrading". For your reference, the method using USB memory is described below. 1. Prepare the USB memory which system software was registered. 2. Execute the following service mode: COPIER>FUNCTION>SYSTEM>DOWNLOAD to enter the download mode. 3. Insert the USB memory to the equipment. 4. Execute [4]: Format HDD in the main menu. After formatting is completed, the machine reboots automatically and starts with the download mode. 5. Execute [1]: Upgrade (Auto) in the main menu. System software is downloaded and the machine restarts automatically.
E746	0034	00	Title	Error occurs, but auto recovery of system is possible (TPM)
			Description	Error occurs, but auto recovery of system is possible (TPM).
			Remedy	Mismatch of key occurs. However, recovery by restart is possible. Turn OFF and then ON the power.
E748	2000	00	Title	Main Controller PCB access error
			Description	Main Controller PCB Chip access error.
			Remedy	Replace the Main Controller PCB 1/2.
E748	2001	00	Title	Main Controller PCB access error
			Description	Main Controller PCB memory access error.
			Remedy	1. Remove and then reinstall the DDR2-SDRAM(M0/M1/P). 2. Replace the Main Controller PCB 1/2.

E Code	Detail Code	Location	Item	Description
E748	2010	00	Title	Flash PCB error / HDD error
			Description	Flash PCB error has occurred, or the HDD cannot be recognized.
			Remedy	1. After turning OFF the main power, disconnect the HDD interface connector (J102) of the Main Controller PCB 2 and turn ON the main power. 2. If the error code E748-2010 remains unchanged, it means a Flash PCB error, so replace the Flash PCB, and install the system using SST or USB. 3. When it changed to another error code such as E602, refer to the remedy of the applicable code
E748	2011	00	Title	Flash board error
			Description	OS is not found
			Remedy	Flash board replacement
E748	2012	00	Title	Flash board error
			Description	Cannot mount the OS in safe mode startup or No OS startup script
			Remedy	Flash board replacement
E748	2021	00	Title	Main controller board 2 access errors
			Description	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement
E748	2023	00	Title	Main controller board 2 access errors
			Description	Main controller board 2 access errors
			Remedy	DDR2-SDRAM (M0/M1/P) removing and inserting, replacement
E748	2024	00	Title	Main controller board 2 access errors
			Description	Main controller board 2 access errors
			Remedy	Main controller board 1/2 removing and inserting, replacement
E748	4910	00	Title	Main controller board 2 access errors
			Description	Main controller board 2 access errors
			Remedy	Replace the Main Controller PCB 2.
E748	9000	00	Title	System error
			Description	---
			Remedy	Contact to the sales companies

E Code	Detail Code	Location	Item	Description
E753	0001	05	Title	Download error
			Description	System Software Update Error Error occurs when updating system software of uninstalled options
			Remedy	Check the log to find where the download error has been occurred. FIN_G1 Staple Finisher-G1/Booklet Finisher-G1 IFN_D1 Inner Finisher-D1 G3CCB Super G3 FAX Board-AK1/Super G3 2nd Line Fax Board-AK1/Super G3 3rd/4th Line Fax Board-AK1 G3CCM Super G3 FAX Board-AK1/Super G3 2nd Line Fax Board-AK1/Super G3 3rd/4th Line Fax Board-AK1 When any of the above system software is displayed, check if the target option has been installed. When the target option has not been installed: Turn OFF and then ON the main power supply to restore (since there is no system software to be updated.). When the target option has been installed: Check if the accessory is correctly installed and if the target system software to be downloaded is for the installed option. Then download the appropriate system software again.
E760	0001	00	Title	Main Controller PCB 2 internal error
			Description	1. Turn OFF and then ON the main power. 2. Remove and then install the DDR2-SDRAM (J201) on the Main Controller PCB 2. 3. Replace the DDR2-SDRAM on the Main Controller PCB 2. 4. Replace the Main Controller PCB 2. NOTE: If the error occurs periodically or it occurs with specific jobs although it can be solved by turning OFF and then ON the power, upgrade the system software to the latest version.
			Remedy	Error was detected in the Image Processing Chip on the Main Controller PCB 2.
E800	0000	05	Title	Power condition unmatched error between Main Controller PCB and DC Controller PCB
			Description	The power of DC controller PCB still keep ON even if it reaches 90 sec after detecting the power OFF by the main controller PCB.
			Remedy	1. Wait till the power is turned off. 2. Turn the main power switch ON.

E Code	Detail Code	Location	Item	Description
E804	0000	05	Title	Failure of the Power Supply Cooling Fan
			Description	When lock signal is detected for 5 sec while the Power Supply Cooling Fan (FM5) is stopped. * The same condition is detected after the error retry is performed.
			Remedy	1. Disconnect and then connect the connector (J205) on the DC Controller PCB (UN2). 2. Replace the Power Supply Cooling Fan (FAN6). 3. Replace the DC Controller PCB (UN2).
E804	0001	05	Title	Unstable rotation of the Power Supply Cooling Fan (FAN6)
			Description	The fan stop signal is detected for 5 minutes or more and the retry operation fails 4 times continuously after generating the ON signal of the Power Supply Cooling Fan (FAN5).
			Remedy	1. Check connection of the Connectors (J2003/J119). 2. Replace the Power Supply Cooling Fan (FM5).
E805	0000	05	Title	Failure of the Exhaust Fan (Rear) (FM3)
			Description	When lock signal is detected for 15 sec while the Exhaust Fan (Rear) (FM3) is stopped. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2010/J2501/J206). 2. Replace the Exhaust Fan (Rear) (FM3). 3. Replace the DC Controller PCB (UN2).
E805	0001	05	Title	Unstable rotation of the Exhaust Fan (Rear) (FM3)
			Description	When lock signal failed to be detected for 15 sec while the Exhaust Fan (Rear) (FM3) is driven. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2010/J2501/J206). 2. Replace the Exhaust Fan (Rear) (FM3). 3. Replace the DC Controller PCB (UN2).
E805	0002	05	Title	Failure of the Exhaust Fan (Front) (FM4)
			Description	When lock signal is detected for 15 sec while the Exhaust Fan (Front) (FM4) is stopped. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2009/J2501/J206). 2. Replace the Exhaust Fan (Front) (FM4). 3. Replace the DC Controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E805	0003	05	Title	Unstable rotation of the Exhaust Fan (Front) (FM4)
			Description	When lock signal failed to be detected for 15 sec while the Exhaust Fan (Front) (FM4) is driven. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2009/J2501/J206). 2. Replace the Exhaust Fan (Front) (FAN4). 3. Replace the DC Controller PCB (UN2).
E806	0000	05	Title	Failure of the Main Body Cooling Fan (FM6)
			Description	When lock signal is detected for 5 sec while the Main Body Cooling Fan (FM6) is stopped. *The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2210/J222). 2. Replace the Main Body Cooling Fan (FM6). 3. Replace the DC Controller PCB (UN2).
E806	0001	05	Title	Unstable rotation of the Main Body Cooling Fan (FM6)
			Description	When lock signal failed to be detected for 15 sec while the Main Body Cooling Fan (FM6) is driven. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2210/J222). 2. Replace the Main Body Cooling Fan (FM6). 3. Replace the DC Controller PCB (UN2).
E806	0002	05	Title	Failure of the Paper Cooling Fan (FM7)
			Description	When lock signal is detected for 15 sec while the Paper Cooling Fan (FM7) is stopped. *The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2209/J2509/J206). 2. Replace the Paper Cooling Fan (FM7). 3. Replace the DC Controller PCB (UN2).
E806	0003	05	Title	Unstable rotation of the Paper Cooling Fan (FM7)
			Description	When lock signal failed to be detected for 15 sec while the Paper Cooling Fan (FM7) is driven. * The same condition is detected after the error retry is performed.
			Remedy	1. Check connection of the Connectors (J2209/J2509/J206). 2. Replace the Paper Cooling Fan (FM7). 3. Replace the DC Controller PCB (UN2).

E Code	Detail Code	Location	Item	Description
E840	0000	05	Title	Edge Shutter Home Position error
			Description	When the home position of the shutter is not detected
			Remedy	1. Check connection of the Connectors (J2039/J2037/J2507/J215). 2. Replace the fixing film edge shutter HP sensor (S10). 3. Replace the fixing film edge shutter motor (M8). 4. Replace the DC controller PCB (UN2).
E840	0001	05	Title	Failure of Fixing Film Edge Cooling Fan (Rear) (FM1)
			Description	When the lock signal is detected for 15 sec while the fixing film edge cooling fan (rear) stops. * The same status is detected again after the retry operation.
			Remedy	1. Check connection of the Connectors (J2036/J215). 2. Replace the fixing film edge cooling fan (rear) (FM1) 3. Replace the DC controller PCB (UN2).
E840	0002	05	Title	Rotation error of Fixing Film Edge Cooling Fan (Rear) (FM1)
			Description	When the lock signal is detected for 15 sec while the fixing film cooling fan (rear) operates. * The same status is detected again after the retry operation.
			Remedy	1. Check connection of the Connectors (J2036/J215). 2. Replace the fixing film edge cooling fan (rear) (FM1) 3. Replace the DC controller PCB (UN2).
E840	0003	05	Title	Failure of Fixing Film Edge Cooling Fan (Front) (FM2)
			Description	When the lock signal is detected for 15 sec while the fixing film edge cooling fan (front) stops. * The same status is detected again after the retry operation.
			Remedy	1. Check connection of the Connectors (J2035/J215). 2. Replace the fixing film edge Cooling fan (front) (FM2) 3. Replace the DC controller PCB (UN2).
E840	0004	05	Title	Rotation error of Fixing Film Edge Cooling Fan (Front) (FM2)
			Description	When the lock signal is detected for 15 sec while the fixing film edge cooling fan (front) operates. * The same status is detected again after the retry operation.
			Remedy	1. Check connection of the Connectors (J2035/J215). 2. Replace the fixing film edge cooling fan (front) (FM2). 3. Replace the DC controller PCB (UN2).
E880	0001	00	Title	Controller Cooling Fan error
			Description	The failure of the controller cooling fan (FM12) is detected.
			Remedy	1. Check the connector (J1015). 2. Replace the controller cooling fan (FM12). 3. Replace the main controller PCB 1 (UN25).
E880	0005	00	Title	Controller Cooling Fan error
			Description	1. Check the connector (J1015). 2. Replace the controller cooling fan (FM12). 3. Replace the main controller PCB 1 (UN25).
			Remedy	Controller Cooling Fan (FM12) is detected.

T-7-5

Jam Code

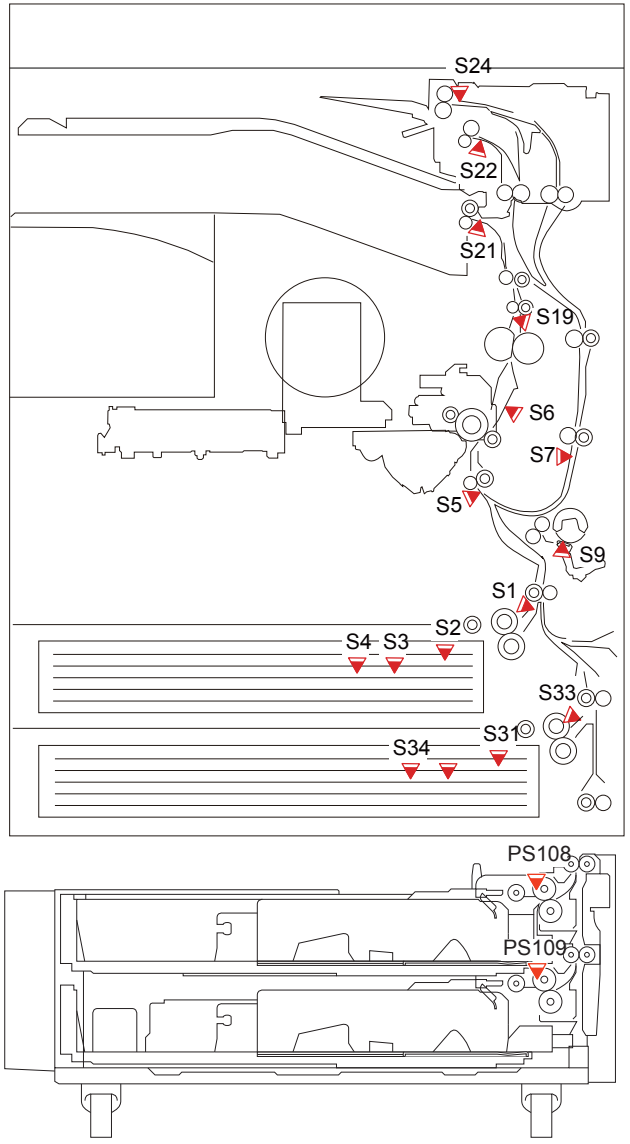
Jam Type

Jam types are shown below.

Type	Meaning
DELAY	Delay jam
STNRY	Stationary jam
OVERLAP	Double feed detection
TIMING NG	Timing error
OHP NG	Incorrect paper
ADF OP	ADF open
COVER OP	Cover open
RESIDUAL	Residual jam
PICKUP NG	Pickup error
POWER ON	Power ON
DOOR OP	Door open
SEQ NG	Sequence jam
DELAY ESC	Delay jam while ejecting to the escape delivery tray
OTH JAM	Other jams
STNRY ESC	Stationary jam while ejecting to the escape delivery tray
STP	Staple
SDL STP	Saddle stitch staple
INIT ROT	Residual (at initial rotation)
UP DEVICE	Upper stream device jam
OTHER	Others
ERROR	Error
RETRY ERR	Retry error
STOP	Press Stop key
ROT	Keeps rotating
PROGRAM	Program
TIME OUT	Time-out
PUNCH	Punch
MEDIA NG	Misprint

T-7-6

Host machine + Cassette Feeding Unit-AF1



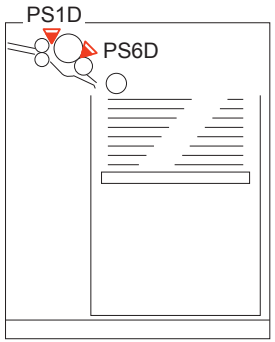
F-7-1

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
00	0101	DELAY	S1	Cassette 1 pickup sensor
00	0102	DELAY	S33	Cassette 2 pickup sensor
00	0103	DELAY	PS108	Cassette 3 pickup sensor
00	0104	DELAY	PS109	Cassette 4 pickup sensor
00	0105	DELAY	S5	Pre-registration sensor
00	0107	DELAY	S19	Fixing outlet sensor
00	0108	DELAY	S21	No.1 delivery sensor
00	0109	DELAY	S22	No.2 delivery sensor
00	010A	DELAY	S24	Reversal sensor
00	010D	DELAY	S7	Duplex feed sensor
00	0201	STNRY	S1	Cassette 1 pickup sensor
00	0202	STNRY	S33	Cassette 2 pickup sensor
00	0203	STNRY	PS108	Cassette 3 pickup sensor
00	0204	STNRY	PS109	Cassette 4 pickup sensor
00	0205	STNRY	S5	Pre-registration sensor
00	0207	STNRY	S19	Fixing outlet sensor
00	0208	STNRY	S21	No.1 delivery sensor
00	0209	STNRY	S22	No.2 delivery sensor
00	020A	STNRY	S24	Reversal sensor
00	020D	STNRY	S7	Duplex feed sensor
00	0A01	POWER ON	S1	Cassette 1 pickup sensor
00	0A02	POWER ON	S33	Cassette 2 pickup sensor
00	0A03	POWER ON	PS108	Cassette 3 pickup sensor
00	0A04	POWER ON	PS109	Cassette 4 pickup sensor
00	0A05	POWER ON	S5	Pre-registration sensor
00	0A07	POWER ON	S19	Fixing outlet sensor
00	0A08	POWER ON	S21	No.1 delivery sensor
00	0A09	POWER ON	S22	No.2 delivery sensor
00	0A0A	POWER ON	S24	Reversal sensor
00	0A0D	POWER ON	S7	Duplex feed sensor
00	0B00	DOOR OP	-	Door open jam
00	0CA0	SEQ NG*1	-	Communication error jam with the controller
00	9901	SEQ NG*1	-	Communication error jam with the finisher
00	9902	SEQ NG*1	-	Communication error jam with the finisher
00	FF01	SEQ NG*1	S1	Cassette 1 pickup sensor
00	FF02	SEQ NG*1	S33	Cassette 2 pickup sensor
00	FF03	SEQ NG*1	PS108	Cassette 3 pickup sensor
00	FF04	SEQ NG*1	PS109	Cassette 4 pickup sensor
00	FF05	SEQ NG*1	S5	Pre-registration sensor
00	FF07	SEQ NG*1	S19	Fixing outlet sensor
00	FF08	SEQ NG*1	S21	No.1 delivery sensor
00	FF09	SEQ NG*1	S22	No.2 delivery sensor
00	FF0A	SEQ NG*1	S24	Reversal sensor
00	FF0D	SEQ NG*1	S7	Duplex feed sensor
00	FF90	SEQ NG*1	-	Communication error jam with the finisher

T-7-7

*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If it is not recovered by the above operation, it is considered an error near the target sensor. Disconnect and then connect the connectors around the target sensor, check if the cable is open circuit, and replace the sensor.

Paper Deck Unit-B2

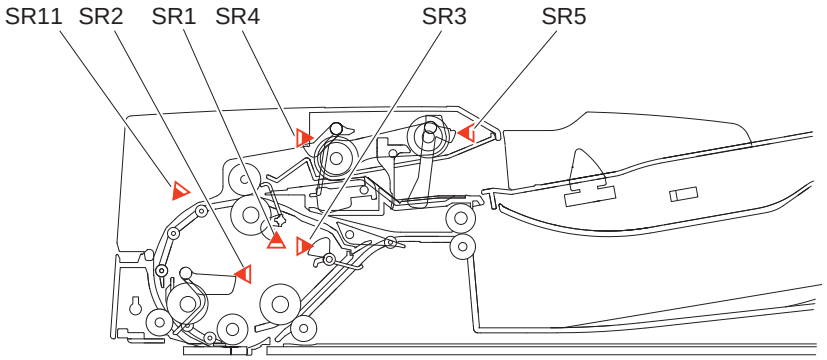


F-7-2

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
00	010F	DELAY	PS6D	Deck pickup sensor
00	020F	STNRY	PS6D	Deck pickup sensor
00	0A0F	POWER ON	PS6D	Deck pickup sensor
00	FF0F	SEQ NG*1	PS6D	Deck pickup sensor

*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If it is not recovered by the above operation, it is considered an error near the target sensor. Disconnect and then connect the connectors around the target sensor, check if the cable is open circuit, and replace the sensor.

DADF-AG1

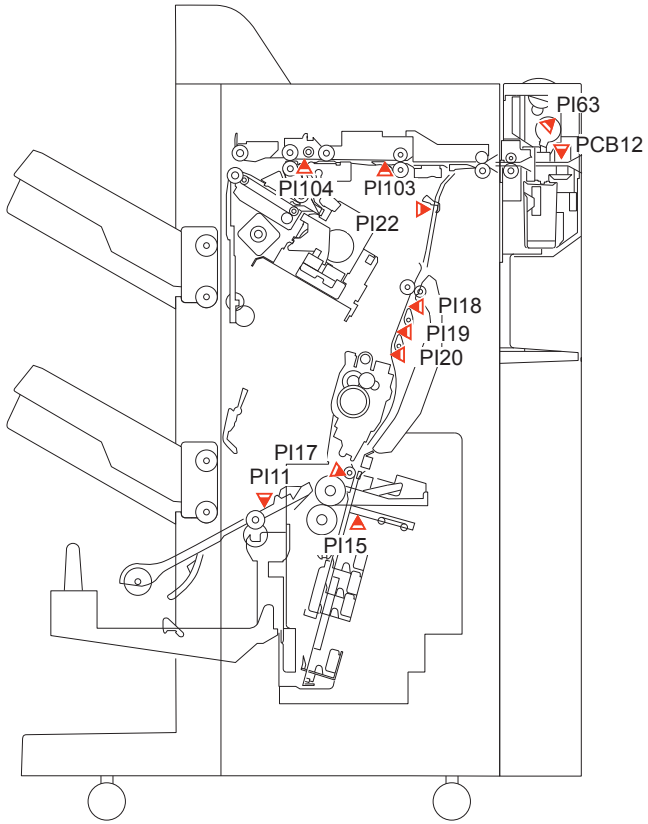


F-7-3

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
01	0003	DELAY	SR1	Registration sensor
01	0004	STNRY	SR1	Registration sensor
01	0005	DELAY	SR1,SR2	Registration sensor/Read sensor
01	0006	STNRY	SR2	Read sensor
01	0007	DELAY	SR2,SR3	Registration sensor/Delivery reversal sensor
01	0008	STNRY	SR3	Delivery reversal sensor
01	0044	STNRY	SR1	Registration sensor
01	0045	DELAY	SR1,SR2	Registration sensor/Read sensor
01	0046	STNRY	SR2	Read sensor
01	0047	DELAY	SR2,SR3	Registration sensor/Delivery reversal sensor
01	0048	STNRY	SR3	Delivery reversal sensor
01	0071	TIMING NG	-	Timing NG jam
01	0073	HP NG	SR11	Release motor HP sensor
01	0084	STNRY	SR1	Registration sensor
01	0090	ADF OP	ADF OP	ADF open jam
01	0091	ADF OP	ADF OP	ADF open jam
01	0092	COVER OP	SR6	Cover open/closed sensor
01	0093	COVER OP	SR6	Cover open/closed sensor
01	0094	RESIDUAL	SR1,SR2,SR3	Registration sensor/Read sensor/Delivery reversal sensor
01	0095	PICKUP NG	-	Pickup NG jam

T-7-9

Staple Finisher-G1/Booklet Finisher-G1 + External Hole Puncher-B2



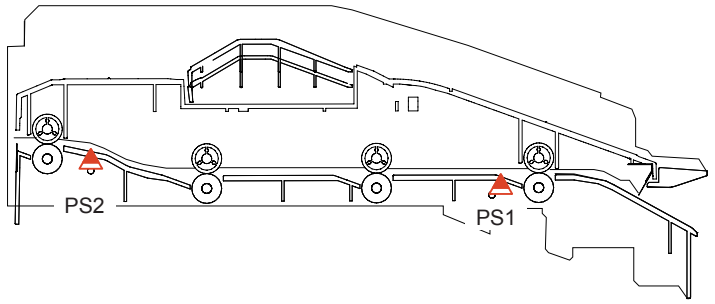
F-7-4

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
02	1001	DELAY	PI103	Inlet sensor
02	1002	DELAY	PCB12	Photosensor PCB
02	1004	DELAY	PI104	Feed path sensor
02	1101	STNRY	PI103	Inlet sensor
02	1102	STNRY	PCB12	Photosensor PCB
02	1104	STNRY	PI104	Feed path sensor
02	1200	EARLY	PI103	Inlet sensor
02	1300	POWER ON	PI104	Feed path sensor
02	1400	DOOR OP	-	Door open jam
02	1500	STP	-	Staple jam
02	1604	PUNCH	PI63	Punch jam
02	1605	POWER ON	PCB12	Power on jam
02	110F	ERROR	-	Error evasion jam
02	1F86	SDL STP	-	Saddle staple jam
02	1F87	POWER ON	PI1, PI17, PI18, PI19, PI20, PI22	Power on jam
02	1F88	DOOR OP	-	Door open jam
02	1F8F	ERROR*1	-	Error evasion jam
02	1F91	DELAY	PI18	No.1 paper sensor
02	1F92	DELAY	PI11	Delivery sensor
02	1F93	DELAY	PI22	Saddle inlet sensor
02	1FA1	STNRY	PI18,PI19,PI20	No.1/2/3 paper sensor
02	1FA2	STNRY	PI11,PI17	Delivery sensor/Vertical pat paper sensor
02	1FA3	STNRY	PI22	Saddle inlet sensor

*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If the same jam is detected regardless of the operation above, the error code is displayed.

T-7-10

Buffer Pass Unit-H1

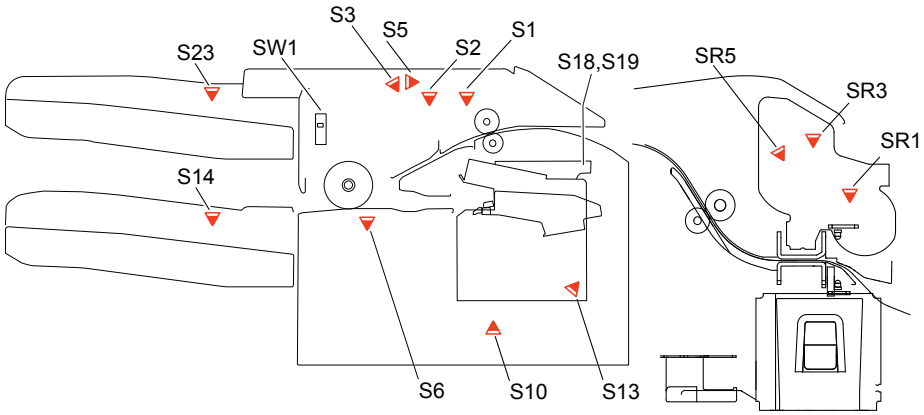


F-7-5

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
00	0111	DELAY	PS1	Paper in sensor
00	0112	DELAY	PS2	Paper out sensor
00	0211	STNRY	PS1	Paper in sensor
00	0212	STNRY	PS2	Paper out sensor
00	0A11	POWER ON	PS1	Paper in sensor
00	0A12	POWER ON	PS2	Paper out sensor
00	FF11	SEQ NG*1	PS1	Paper in sensor
00	FF12	SEQ NG*1	PS2	Paper out sensor

*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
If it is not recovered by the above operation, it is considered an error near the target sensor. Disconnect and then connect the connectors around the target sensor, check if the cable is open circuit, and replace the sensor.

Inner Finisher-D1 + Inner Hole Puncher-A1



F-7-6

ACC ID	Jam Code	Type	Sensor ID	Sensor Name/Description
02	1001	DELAY	S1	Entrance sensor
02	1002	DELAY	SR3	Punch path sensor
02	1101	STNRY	S1	Entrance sensor
02	1102	STNRY	SR3	Punch path sensor
02	1300	POWER ON	S1/S6	Entrance sensor/Processing tray sensor
02	1400	DOOR OP	SW1	Front cover switch
02	1500	OTHER	S18/S19	Stapler HP sensor/Stapler edging sensor
02	1701	INIT ROT	S1/SR3	Entrance sensor/Punch path sensor
02	1644	OTH JAM	SR5	Punch HP sensor
02	1646	OTH JAM	SR1	Punch solenoid sensor
02	1C20	POWER ON	S2	Shift roller HP sensor
02	1C32	POWER ON	S10	Stapler move HP sensor
02	1C40	POWER ON	S14	Stack tray clock sensor
02	1C42	POWER ON	S23	Additional tray clock sensor
02	1C67	POWER ON	S3	Shift roller release sensor
02	1C6F	POWER ON	S5	Entrance roller release /stopper HP sensor
02	1C71	POWER ON	S13	Gripper arm sensor
02	1C75	POWER ON	S7	Gripper unit HP sensor
02	1F00	OTH JAM	S1	Entrance sensor

T-7-12

Alarm Code

List of Alarm Code

Alarm Code			Title	A. movement /B. cause /C. measures
00	-	0246	Error code display (4-digit)	Soft counter PCB cannot write normally
00	-	0247	Error code display (4-digit)	Soft counter PCB cannot restore data
04	-	0008	Paper Deck Lifter error	Movement: The Paper Deck Main Motor (M1D) stops. CAUSE: The Deck Lifter does not rise or the Deck Lifter Position Sensor (PS4D) is failure. Measure: Turn OFF/ON the power swtch to release the error.
04	-	0011	Cassette 1 Paper Feed Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the pick-up/paper feed/separation rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	-	0012	Cassette 2 Paper Feed Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the pick-up/paper feed/separation rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	-	0013	Cassette 3 Paper Feed Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the pick-up/paper feed/separation rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	-	0014	Cassette 4 Paper Feed Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the pick-up/paper feed/separation rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04	-	0017	Manual Feeder Paper Feed Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the paper feed roller and the separation pad. -> Check whether a scrap of paper remains around the paper feed area or not.
04	-	0018	Paper Deck Retry error	Movement: No change. CAUSE: The paper does not picked up even if the paper feed retry operation is carried out 4 times. MEASURE: Check the pick-up/paper feed/separation rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
11	-	0001	Waste Toner Container full (Photosensitive Drum)	Movement: A message ""The waste toner container is full."" is displayed on the Control Panel, and the machine is stopped. Cause: The Waste Toner Container becomes full. Measures: Clean the Waste Toner Container. Reset the Waste Toner Counter.
31	-	0005	Environment Sensor reading alarm	Movement: It becomes as follow: environment temperature= 0 degC, environment humidity= 0%. Cause: Connection of the Environment Sensor cannot be detected. Measures: 1) Check the connection of the Environment Sensor (THU1). 2) Replace the Environment Sensor (THU1).
31	-	0008	HDD failure prediction alarm	Movement: HDD failure is expected to occur in a short time due to occurrence of physical error in HDD. It does not occur in the HDD of mirroring configuration. Cause: Error in the S.M.A.R.T. value of HDD Measures: 1. Back up the data stored in HDD. 2. Replace the HDD. 3. Restore the data. S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology): Self-diagnosis function built in the HDD. The occurrence rate of reading error, reading and writing speed, the total number of Motor start-up and stop times, the total length of power-on time, etc. are monitored.
33	-	0011	Fixing Film Edge Cooling Fan error	Movement: No change. CAUSE: Disconnection of the Fixing Film Edge Cooling Fans (FAN1/2) or Failure of the Fixing Film Edge Cooling Fans (FAN1/2) Measure: Check the connector. -> Replace the Fixing Film Edge Cooling Fans (FAN1/2).
37	-	0001	For R&D	For R&D
37	-	0002	For R&D	For R&D
37	-	0003	For R&D	For R&D
37	-	0004	For R&D	For R&D
37	-	0005	For R&D	For R&D
37	-	0006	For R&D	For R&D
37	-	0007	For R&D	For R&D
37	-	1000	For R&D	For R&D
37	-	2000	For R&D	For R&D
38	-	0001	For R&D	For R&D
38	-	0002	For R&D	For R&D

Alarm Code			Title	A. movement /B. cause /C. measures
50	-	0010	Alarm due to original separation failure	Movement: Nothing in particular. Cause: Condition unable to separate 1st sheet of original from the ADF occurs 3 times. Measures: Check rotation of the Pickup Motor (M1) -> Check the life of the Pickup Roller -> Check if paper lint is at the Pickup Slot.
50	-	0012	Feed Motor Fan alarm	Movement: No change. CAUSE: Disconnection of the ADF Exhaust Fan (FM1) or the failure of ADF Exhaust Fan (FM1) Measures: Check the connector -> Replace the ADF Exhaust Fan (FM1)
61	-	0001	Finisher Staple alarm	Movement: A user message is displayed on the Control Panel. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
62	-	0001	Saddle Staple alarm	Movement: A user message is displayed on the Control Panel, and printing is stopped. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
65	-	0001	Punch alarm	Movement: A user message is displayed on the Control Panel. If punching is being operated during a print job, operation varies depending on the detection level. • Level 1: Continue operation. • Level 2 (in case that punching operated 1000 times after the detection level 1): Stop printing. Measures: Remove the punched trash.
73	-	0006	LIPS	Error in configuration acquisition/management
73	-	0007	LIPS	Memory management error in LIPS
73	-	0008	LIPS	File management error in LIPS
73	-	0009	LIPS	Reception data management error
73	-	0011	LIPS	Macro management error
73	-	0014	LIPS	Font management error
73	-	0015	LIPS	Letter drawing error
73	-	0017	LIPS	Image drawing error
73	-	0021	LIPS	Utility execution control error
73	-	0024	LIPS	Boot error in LIPS
73	-	0026	LIPS	Data format error of image mode
75	-	0001	Error occurred in Yukon	-
75	-	0002	Error occurred due to invalid SVG analysis from Yukon	-
76	-	0001	Font	No memory for internal font
76	-	0002	Font	Fails to access to the file that stores the font.
76	-	0003	Font	Fails to allocate the FM work memory.
76	-	0004	Font	Fails to allocate the FM work memory.
76	-	0005	Font	Fails to analyze the internal font.
76	-	0006	Font	Alignment of font data is wrong.
76	-	0007	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
76	-	0008	Font	Fails to allocate work memory with scalar. There are 3 types depending on where to occur.
78	-	0003	GL	Invalid GL entry
78	-	0005	GL	System memory full
79	-	0001	Canon-made PCL	PCL initialization error
79	-	0002	Canon-made PCL	PCL processing error
79	-	0003	Canon-made PCL	Overflow of work memory for translator
79	-	0004	Canon-made PCL	Download overflow
80	-	0001	BDL	Admin error
80	-	0003	BDL	Data Area error
80	-	0004	BDL	Wrapper error
80	-	0007	BDL	Resource error
80	-	0008	BDL	Attribute error
80	-	0009	BDL	Volatile Resource error
80	-	0010	BDL	Graphics error
80	-	0011	BDL	Char error
80	-	0012	BDL	Image error
80	-	0013	BDL	Image error
80	-	0015	BDL	Print data cannot process this version.
80	-	0016	BDL	Overflow of work memory for translator
80	-	0019	BDL	In case of invalid data format in BDL custom mode
81	-	0001	Imaging	Fails to allocate the memory.
81	-	0002	Imaging	Rendering error
81	-	0003	Imaging	Overflow of work memory for translator
81	-	0004	Imaging	Imaging initialization error
81	-	0005	Imaging	Imaging processing error
81	-	0006	Imaging	Error when the setting is long length paper + 1200dpi. (Because of memory, long length paper + 1200dpi is not available.)
81	-	0007	Imaging	Error when long length paper + color is set.
83	-	0005	PDF	PDF memory full
83	-	0015	PDF	PDF data decoding error
83	-	0016	PDF	Page range error
83	-	0017	PDF	PDF error
84	-	0001	XPS memory full error	-
84	-	0002	XPS spool full error	-
84	-	0003	XPS print range error	-
84	-	0004	XPS document data error	-
84	-	0005	XPS page data error	-
84	-	0006	XPS image data error	-
84	-	0007	XPS font data error	-
84	-	0008	XPS non-support image error	-
84	-	0009	XPS rendering error	-

T-7-13

8 Service Mode

- Overview
- COPIER
- FEEDER
- SORTER
- BOARD

Overview

Overview

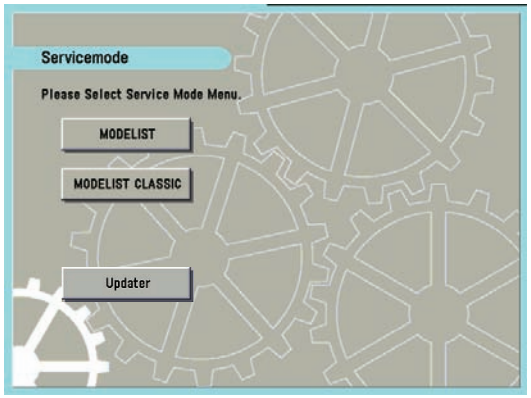
Instructions on how to use service mode items can be found within the service mode itself.
The information explains what items have been added or changed from previous models.

Entering Service Mode

Contact the sales company for the method to enter service mode

Service Mode Menu

TOP Screen



F-8-1

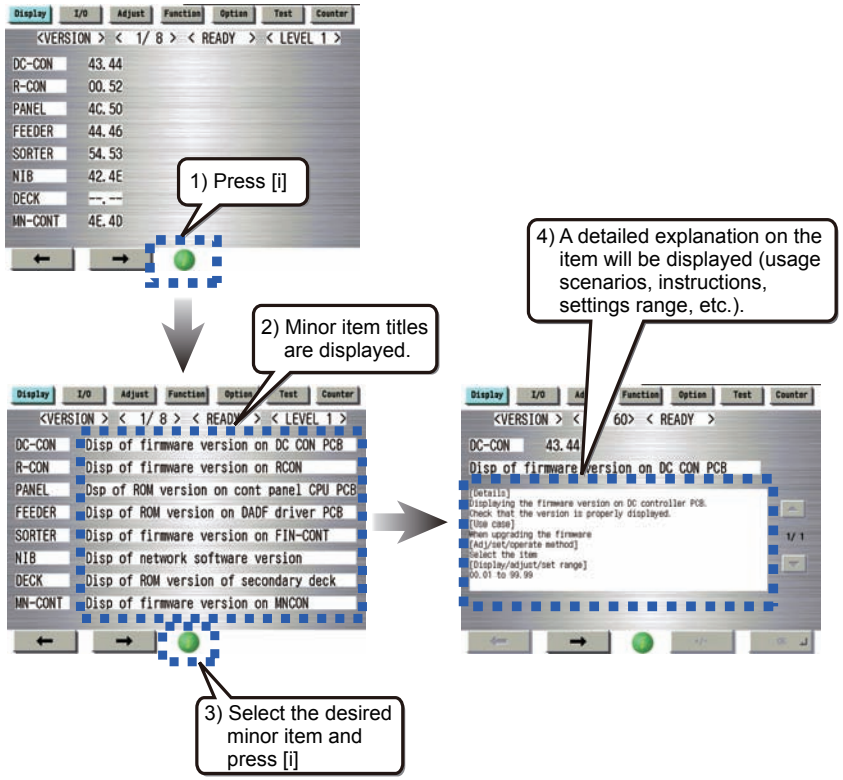
"MODELIST"	A brand new additional mode in the host machine. A function that can be used as a reference on how to use each item in Service Mode is installed. The new function, which will be described later, is available in MODELIST Mode.
"MODELIST CLASSIC"	This mode is same as the old machine. The new function, which will be described later, is not available in the MODELIST CLASSIC Mode.
“Updater”	This is a MEAP application with functions of network communication to Content Delivery System V1.0 (hereinafter CDS) and installation of firmware, MEAP applications or system options. (Refer to Updater V1.0 service manual.)

If " MODELIST " or " MODELIST CLASSIC " or “Updater” is pressed, the screen will switch to initial screen for each mode.

Service mode item explanations

Explanatory texts for the initial window, main items, sub items and minor items can be displayed.
Select the desired initial window, main item, sub item or minor item, then pres [i] (Information button) to display an explanatory text (hereafter, service mode contents) on the selected item.

E.g., COPIER > DISPLAY > Version window

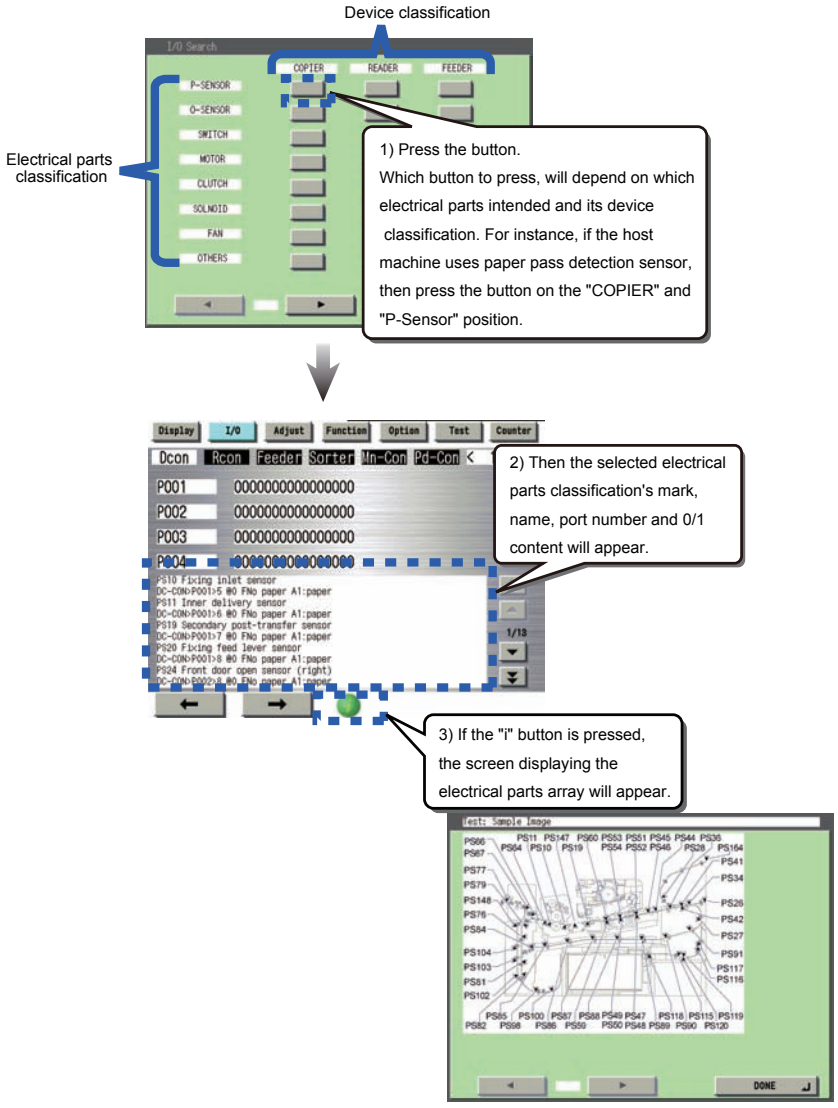


F-8-2

- The service mode contents can be displayed in J/E/F/I/G/S languages.
- Service mode contents, like system software, can be upgraded by SST.

• I/O information enhancement

On the COPIER > I/O, the mode to confirm input output signal of electrical parts used (sensor, motor, fan, etc), makes it easier to look for the intended electrical part.
And the screen will also display the input output signal.

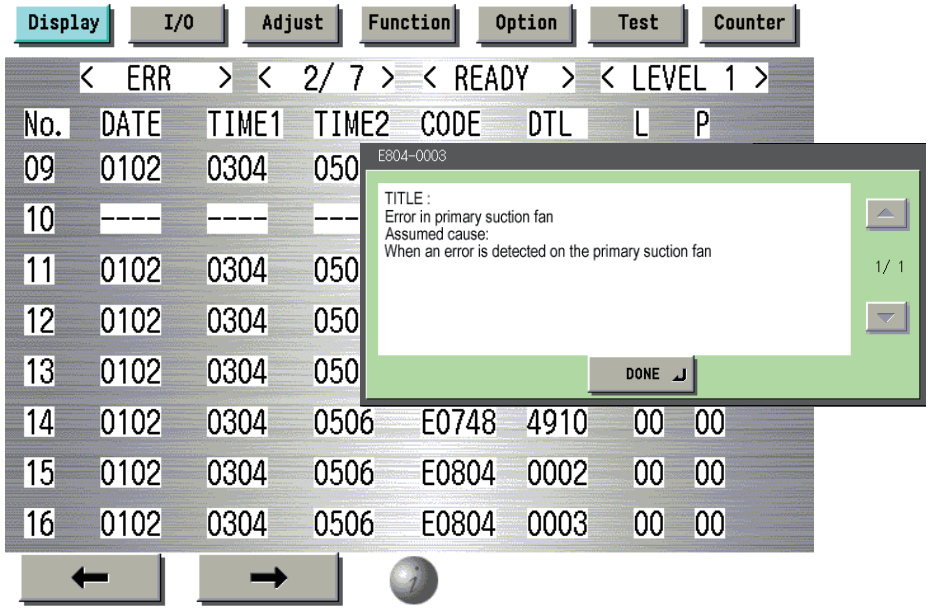


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Display of Error Code/Alarm Code description

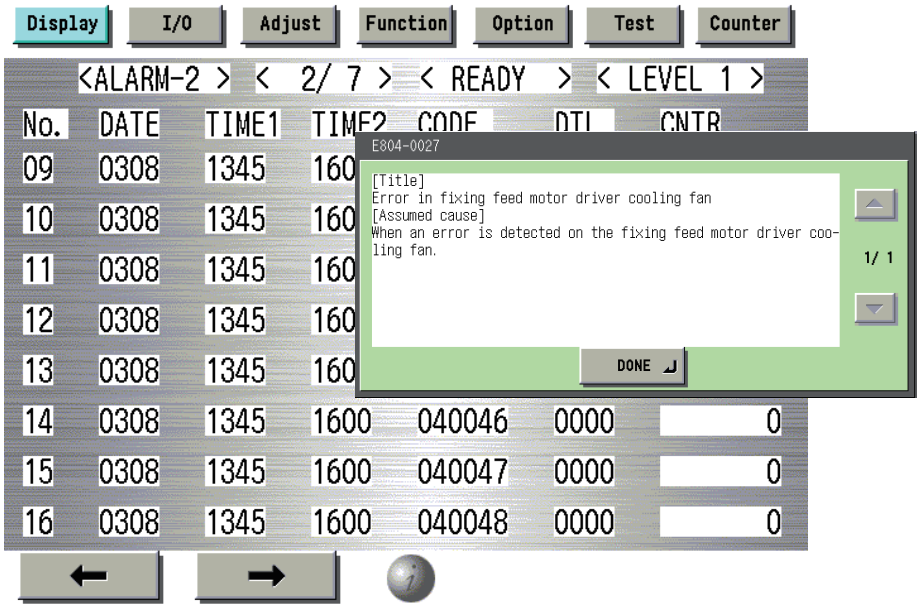
The detail description of each code can be viewed on the error code and alarm code occurrence record screen.

ERROR CODE : COPIER > DISPLAY >ERR



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ALARM CODE : COPIER > DISPLAY >ERR



F-8-5

COPIER > OPTION > BODY, Item Segmentation

On the current machine, there are extremely many items in the COPIER > OPTION > BODY (in related to host machine specification), that it is difficult to reach the intended item.
In order to reach the intended item in shorter time, all items inside the BODY is classified to 15 categories.

Classification	Name	Description
Function switching	FNC-SW	Language, cassette, paper size type, NAVI/ DA connection, count-up spec., document size detection, dirt detection level
Display switching/ display timing	DSPLY-SW	UI (User Interface) display related
Image related (fixing)	IMG-FIX	Fixing related
Image related (transfer)	IMG-TR	Transfer related
Image related (developing)	IMG-DEV	Developer related
Image related (laser/ latent image)	IMG-LSR	Laser, latent image related
Image related (reader/ ADF)	IMG-RDR	Reader, ADF image related
Image related (controller, other general items)	IMG-MCON	MN-CON image related, and image related items other than those referred to above.
Image quality/ copy speed	IMG-SPD	Power down sequence
Cleaning	CLEANING	Cleaning of charging unit, drum, transfer roller, etc.
Environment settings	ENV-SET	Temperature, humidity, environmental heater, condensation, log acquisition
Paper feed (pickup, delivery)	FEED-SW	Stack performance, motor speed adjustment, delivery functions, etc.
Noise reduction	SOUND	Noise related
Network	NETWORK	Network settings, IFAX, SEND, E-RDS, etc.
Customization	CUSTOM	Customization

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Security features

To prevent unauthorized access to Service Mode, Password set is enabled.

Related service modes

- COPIER > OPTION > FNC-SW > PSWD-SW (Level1)
  Set password type for transition to service mode.
  <Setting range>
  0: No password (default)
  1: Service engineer
  2: System administrator and Service engineer.

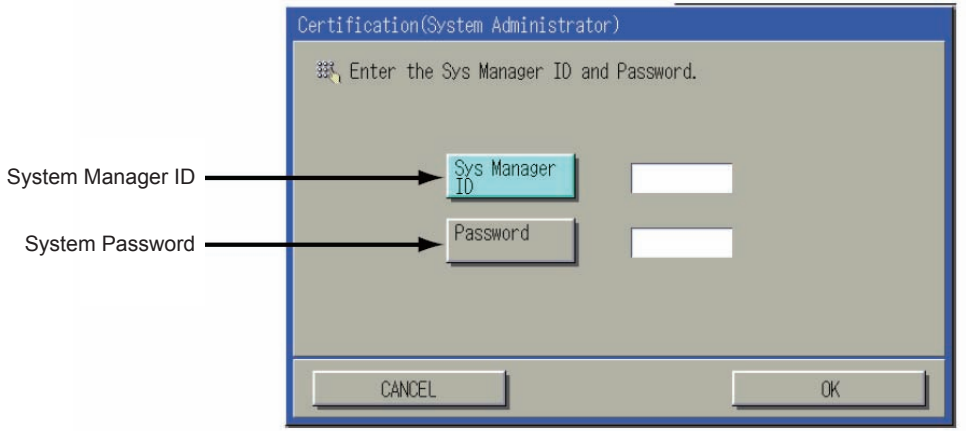
- COPIER > OPTION > FNC-SW > SM-PSWD (Level2)
  Password for service engineer for transition to service mode.
- <Setting range>

To reinforce the security, change the password from a default.

******** (eight digit numeral) [default: 11111111]

After the above setting, to enter Service Mode, enter password screen will appear.

1) Additional Functions > System Settings > System Manager Settings > enter System Manager ID > enter System Password Settings > press OK button.



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2) After entering the password for service technician (Service mode: COPIER > Option > FNC-SW > SM-PSWD), press OK button.

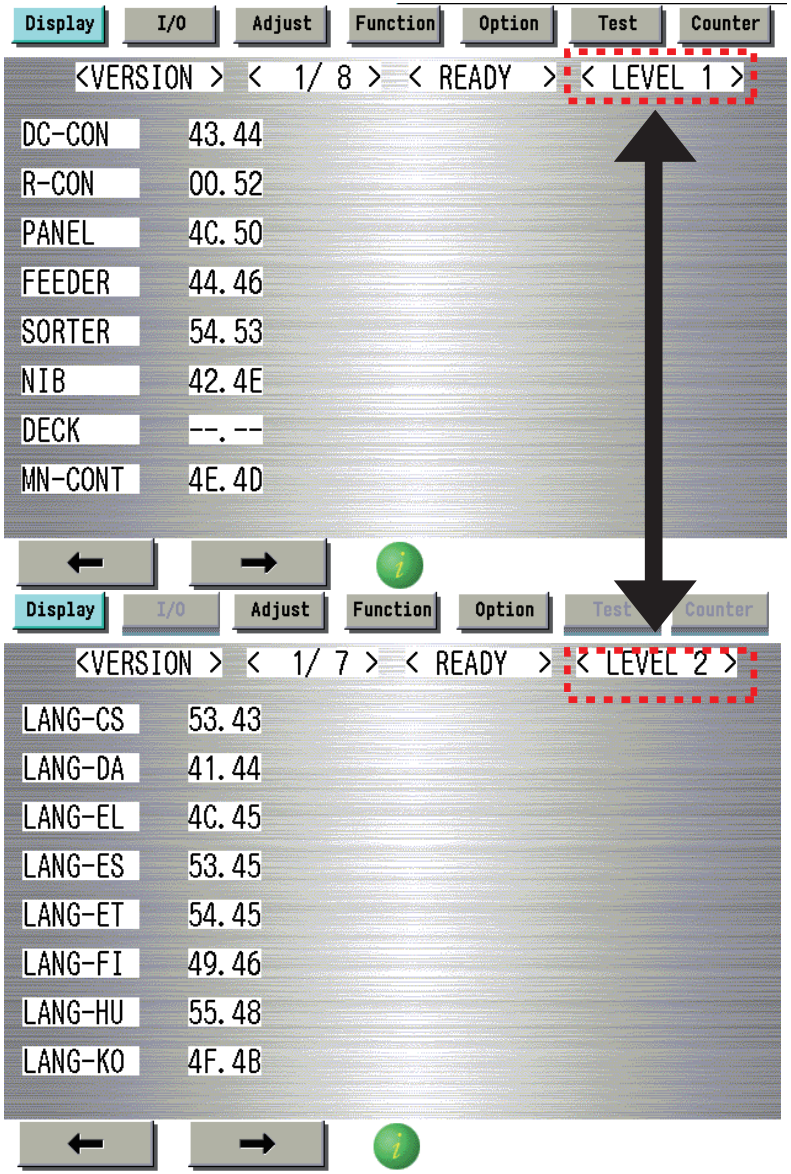


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MEMO :
If Service Engineer's password is forgotten, password function is cancelable by using Service Support Tool (SST).

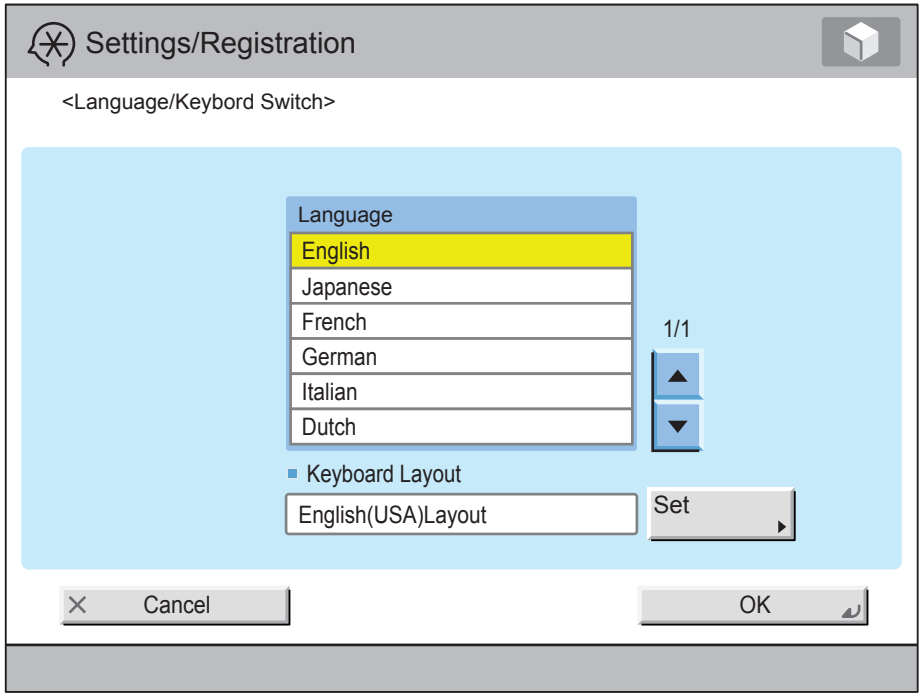
Switching Screen (Level 1 < - > 2)

Switching screens between level 1 and 2 has been made easier.
When level 1 screen is displayed, press <LEVEL 1> in the right upper side of the screen, and it will switch to level 2.



Language switch

The language of the explanatory text displayed in the Service Mode can be switched by performing the below languange switch operation in User Mode
The explanatory text can be displayed by installing the Service Mode Content (SCMNT) in HDD.
Service Mode Content (SCMNT) can be installed and upgraded on SST.
Additional Functions > Common Settings > Language Switch



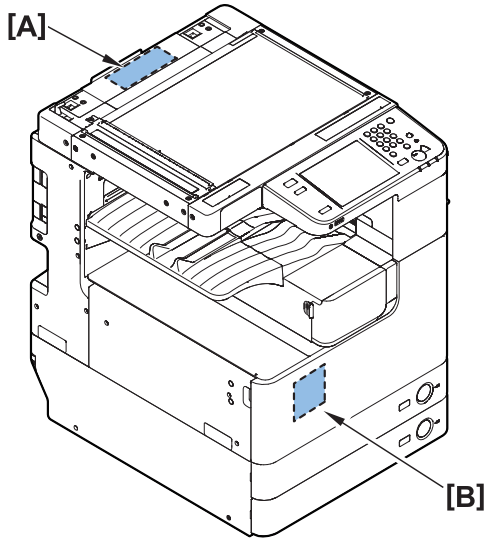
NOTE:
If the Service Mode Content (SMCNT) of the concerned language is not installed, English explanatory text will be displayed.
If English-language Service Mode Content (SMCNT) is not installed either, explanatory text can't be displayed.

Back-up of service mode

In factory setting, adjustments are made for each machine, and adjustment values are written in the service label.

When you replaced the CCD unit (CCD PCB) or the DC controller PCB, or executed the RAM clear function, adjustment values for ADJUST or OPTION return to default. Therefore, when you made adjustments and changed values of the Service Mode in the field, be sure to write down the changed values in the service label. When there is no relevant field in the service label, write down the values in a blank field.

- Service label [A] of the reader assembly: inside of the reader rear cover
- Service label [B] of the printer assembly: inside of the front cover



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Service Label

- Service label of the reader assembly

COPIER>ADJUST>ADJ-XY	1	2	COPIER>ADJUST>CCD	1	2	COPIER>ADJUST>CCD	1	2
ADJ-X			100-RG			MTF3-M1		
ADJ-Y			100-GB			MTF3-M2		
ADJ-S			50-RG			MTF3-M3		
ADJ-X-MAG			50-GB			MTF3-M4		
ADJ-Y-DF			100DF-RG			MTF3-M5		
STRD-POS			100DF-GB			MTF3-M6		
FEEDER>ADJUST>	1	2	50DF-RG			MTF3-M7		
DOCST			50DF-GB			MTF3-M8		
LA-SPEED			100-RG-2			MTF3-M9		
COPIER>ADJUST>PASCAL	1	2	100-GB-2					
OFST-P-K			50-RG-2					
			50-GB-2					
			100-RG-3					
			100-GB-3					
			50-RG-3					
			50-GB-3					
No.								FL3-5312

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- Service label of the printer assembly

		FACTORY	1	2	3
COPIER > ADJUST					
LASER	PVE-OFST	xxx			
	LA-OFF	xxx			
	LDADJ1-K	xxx			
	LDADJ2-K	xxx			
	LDADJ3-K	xxx			
	LDADJ4-K	xxx			
	LDADJ5-K	xxx			
	LDADJ6-K	xxx			
DEVELOP	DE-OFST	xxx			
BLANK	BLANK-T	xxx			
	BLANK-B	xxx			
HV-PRI	OFST1-DC	xxx			
	OFST1-AC	xxx			
FEED-ADJ	REGIST	xxx			
	ADJ-REFE	xxx			
	RG-HF-SP	xxx			
CST-ADJ	MF-A4R	xxx			
	MF-A6R	xxx			
	MF-A4	xxx			
MISC	C1-ADJ-Y	xxx			
	C2-ADJ-Y	xxx			
	C3-ADJ-Y	xxx			
	C4-ADJ-Y	xxx			
	MF-ADJ-Y	xxx			
	DK-ADJ-Y	xxx			
Body No :					

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COPIER

DISPLAY

VERSION

COPIER>DISPLAY>VERSION		
DC-CON		Display of DCON firmware version
Lv.1	Details	To display the firmware version of DC Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
R-CON		Display of RCON firmware version
Lv.1	Details	To display the firmware version of Reader Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PANEL		Dis of Control Panel CPU PCB ROM version
Lv.1	Details	To display the ROM version of Control Panel CPU PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FEEDER		Display of DADF Driver PCB ROM version
Lv.1	Details	To display the firmware version of DADF Driver PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SORTER		Display of FIN-CONT firmware version
Lv.1	Details	To display the firmware version of Finisher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NIB		Display of network software version
Lv.1	Details	To display the version of the network software.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PS/PCL		Dis of UFR Board (PS/PCL func) version
Lv.1	Details	To display the version of UFR Board (PS/PCL function).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
SDL-STCH		Dis of Saddle Sttch Ctrollr PCB ROM version
Lv.1	Details	To display the ROM version of the Saddle Stitcher Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MN-CONT		Display of MNCON firmware version
Lv.1	Details	To display the firmware version of Main Controller PCB.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
DIAG-DVC		Dis of self diagnosis device ROM version
Lv.1	Details	To display the ROM version of self diagnosis device.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RUI		Display of remote UI version
Lv.1	Details	To display the version of remote UI.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
PUNCH		Display of Finisher Inner Punch Unit
Lv.1	Details	To display the version of Finisher Inner Punch Unit.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EN		Display of English language file version
Lv.1	Details	To display the version of English language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-FR		Display of French language file version
Lv.1	Details	To display the version of French language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DE		Display of German language file version
Lv.1	Details	To display the version of German language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
LANG-IT		Display of Italian language file version
Lv.1	Details	To display the version of Italian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-JP		Display of Japanese language file version
Lv.1	Details	To display the version of Japanese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CS		Display of Czech language file version
Lv.2	Details	To display the version of Czech language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-DA		Display of Danish language file version
Lv.2	Details	To display the version of Danish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-EL		Display of Greek language file version
Lv.2	Details	To display the version of Greek language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ES		Display of Spanish language file version
Lv.2	Details	To display the version of Spanish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-ET		Display of Estonian language file version
Lv.2	Details	To display the version of Estonian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-FI		Display of Finnish language file version
Lv.2	Details	To display the version of Finnish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-HU		Display of Hungarian language file version
Lv.2	Details	To display the version of Hungarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
LANG-KO		Display of Korean language file version
Lv.2	Details	To display the version of Korean language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NL		Display of Dutch language file version
Lv.2	Details	To display the version of Dutch language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-NO		Display of Norwegian language file version
Lv.2	Details	To display the version of Norwegian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PL		Display of Polish language file version
Lv.2	Details	To display the version of Polish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-PT		Display of Portuguese language file version
Lv.2	Details	To display the version of Portuguese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RU		Display of Russian language file version
Lv.2	Details	To display the version of Russian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SL		Display of Slovenian language file version
Lv.2	Details	To display the version of Slovenian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SV		Display of Swedish language file version
Lv.2	Details	To display the version of Swedish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TW		Display of Chinese language file version: traditional
Lv.2	Details	To display the version of Chinese language file (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
LANG-ZH		Display of Chinese language file version: smple
Lv.2	Details	To display the version of Chinese language file (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-BU		Display of Bulgarian language file version
Lv.2	Details	To display the version of Bulgarian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CR		Display of Croatian language file version
Lv.2	Details	To display the version of Croatian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-RM		Display of Romanian language file version
Lv.2	Details	To display the version of Romanian language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-SK		Display of Slovak language file version
Lv.2	Details	To display the version of Slovak language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TK		Display of Turkish language file version
Lv.2	Details	To display the version of Turkish language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEAP		Display of MEAP contents version
Lv.2	Details	To display the version of MEAP contents in HDD.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-CN		Display of Chinese OCR version : simplified
Lv.2	Details	"To display the version of Chinese OCR (simplified). ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
OCR-JP		Display of Japanese OCR version
Lv.1	Details	"To display the version of Japanese OCR. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-KR		Display of Korean OCR version
Lv.1	Details	To display the version of Korean OCR. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
OCR-TW		Display of Chinese OCR version : traditional
Lv.1	Details	To display the version of Chinese OCR (traditional). ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-JA		Dis of Japanese voice dictionary version
Lv.1	Details	To display the version of Japanese voice dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-EN		Dis of English voice dictionary version
Lv.1	Details	To display the version of English voice dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-IT		Dis of Italian voice dictionary version
Lv.1	Details	To display the version of Italian voice dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-FR		Dis of French voice dictionary version
Lv.1	Details	To display the version of French voice dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
TTS-ES		Dis of Spanish voice dictionary version
Lv.1	Details	To display the version of Spanish voice dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TTS-DE		Dis of German voice dictionary version
Lv.1	Details	"To display the version of German voice dictionary. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEB-BRWS		Display of Web browser version
Lv.1	Details	"To display the version of Web browser. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
HELP		Display of easy NAVI version
Lv.1	Details	To display the version of "EASY NAVI" file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-CA		Display of Catalan language file version
Lv.2	Details	To display the version of Catalan language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
WEBDAV		Display of WebDAV version
Lv.1	Details	"To display the version of ""WebDAV"" file. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TIMESTMP		Display of timestamp version
Lv.1	Details	"To display the version of ""Time Stamp"" file. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ASR-JA		Display of Japanese ASR dictionary version
Lv.1	Details	"To display the version of Japanese automatic speech recognition dictionary. ""--.--"" is displayed when no file is found."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-EN		Dis of English ASR dictionary version
Lv.1	Details	To display the version of English automatic speech recognition dictionary. ""--.--"" is displayed when no file is found.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-JA		Display of Japanese media information version
Lv.2	Details	To display the version of Japanese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EN		Display of English media information version
Lv.2	Details	To display the version of English media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-DE		Display of German media information version
Lv.2	Details	To display the version of German media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-IT		Display of Italian media information version
Lv.2	Details	To display the version of Italian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-FR		Dis of French media information version
Lv.2	Details	To display the version of French media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ZH		Display of Chinese media info version : smple
Lv.2	Details	To display the version of Chinese media information (simplified).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
MEDIA-SK		Display of Slovak media information version
Lv.2	Details	To display the version of Slovak media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-TK		Display of Turkish media information version
Lv.2	Details	To display the version of Turkish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CS		Display of Czech media information version
Lv.2	Details	To display the version of Czech media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-EL		Display of Greek media information version
Lv.2	Details	To display the version of Greek media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ES		Display of Spanish media information version
Lv.2	Details	To display the version of Spanish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-ET		Display of Estonian media information version
Lv.2	Details	To display the version of Estonian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-FI		Display of Finnish media information version
Lv.2	Details	To display the version of Finnish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-HU		Display of Hungarian media information version
Lv.2	Details	To display the version of Hungarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-KO		Display of Korean media information version
Lv.2	Details	To display the version of Korean media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
MEDIA-NL		Display of Dutch media information version
Lv.2	Details	To display the version of Dutch media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-NO		Display of Norwegian media information version
Lv.2	Details	To display the version of Norwegian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PL		Display of Polish media information version
Lv.2	Details	To display the version of Polish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-PT		Display of Portuguese media information version
Lv.2	Details	To display the version of Portuguese media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RU		Display of Russian media information version
Lv.2	Details	To display the version of Russian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SL		Display of Slovenian media information version
Lv.2	Details	To display the version of Slovenian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-SV		Display of Swedish media information version
Lv.2	Details	To display the version of Swedish media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-TW		Display of Chinese media info version:traditional
Lv.2	Details	To display the version of Chinese media information (traditional).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
MEDIA-BU		Display of Bulgarian media information version
Lv.2	Details	To display the version of Bulgarian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CR		Display of Croatian media information version
Lv.2	Details	To display the version of Croatian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-RM		Display of Romanian media information version
Lv.2	Details	To display the version of Romanian media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MEDIA-CA		Display of Catalan media information version
Lv.2	Details	To display the version of Catalan media information.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
FAX1		Display of 1-line FAX PCB ROM version
Lv.2	Details	"To display the ROM version of 1-line FAX PCB. ""NULL"" is displayed if the PCB is not connected."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (21 digits)
FAX2/3/4		Display of 2/3/4-line FAX PCB ROM version
Lv.2	Details	"To display the ROM version of 2/3/4-line FAX PCB. ""NULL"" is displayed if the PCB is not connected."
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	ASCII character string (21 digits)
IOCS		Display of BIOS version
Lv.2	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SYSTEM		Display of Linux kernel/tool/driver/file version
Lv.2	Details	To display the version of Linux kernel/tool/driver/file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ROOT		Display of ROOT version
Lv.2	Details	To display the ROOT version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-JP		Display of service mode Japanese file version
Lv.1	Details	To display the version of Japanese language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-EN		Display of service mode English file version
Lv.1	Details	To display the version of English language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-FR		Display of service mode French file version
Lv.1	Details	To display the version of French language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-IT		Display of service mode Italian file version
Lv.1	Details	To display the version of Italian language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
S-LNG-GR		Display of service mode German file version
Lv.1	Details	To display the version of German language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
S-LNG-SP		Display of service mode Spanish file version
Lv.1	Details	To display the version of Spanish language file in service mode.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
UI-RES		Display of UI resource file version
Lv.1	Details	"To display the UIRES version. UIRES consists of the resource file which is necessary to display the native screen (top screen and software keyboard screen) of UI."
	Use case	When checking the version at the time of downloading UIRES to MFP
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-AP		Display of COPY (JAVA UI) version
Lv.1	Details	To display the version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-AP		Display of SEND (JAVA UI) version
Lv.1	Details	To display the version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-AP		Display of BOX (JAVA UI) version
Lv.1	Details	To display the version of BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
MOBPR-AP		Display of mobile print(JAVA UI) version
Lv.1	Details	To display the version of the mobile print application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
RPTL-AP		Display of RUI portal version
Lv.1	Details	To display the RUI portal version.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
INTRO-AP		Dis of useful func introduce appli ver
Lv.1	Details	To display the version of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
TSP-JLK		Display of PCAM Option Board version
Lv.1	Details	To display the version of the PCAM Option Board.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FR		Display of COPY appli French file version
Lv.1	Details	To display the French language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-IT		Display of COPY appli Italian file version
Lv.1	Details	To display the Italian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DE		Display of COPY appli German file version
Lv.1	Details	To display the German language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ES		Display of COPY appli Spanish file version
Lv.1	Details	To display the Spanish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ZH		Display COPY appli Chinese file version: simple
Lv.2	Details	To display the simplified Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
COPY-TW		Display of COPY appli Chinese file ver:traditional
Lv.2	Details	To display the traditional Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-KO		Display of COPY appli Korean file version
Lv.2	Details	To display the Korean language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CS		Dis of COPY appli Czech file version
Lv.2	Details	To display the Czech language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-DA		Display of COPY appli Danish file version
Lv.2	Details	To display the Danish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-EL		Display of COPY appli Greek file version
Lv.2	Details	To display the Greek language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ET		Display of COPY appli Estonian file version
Lv.2	Details	To display the Estonian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-FI		Display of COPY appli Finnish file version
Lv.2	Details	To display the Finnish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
COPY-HU		Display of COPY appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NL		Display of COPY appli Dutch file version
Lv.2	Details	To display the Dutch language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-NO		Display of COPY appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PL		Display of COPY appli Polish file version
Lv.2	Details	To display the Polish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-PT		Display of COPY appli Portuguese file version
Lv.2	Details	To display the Portuguese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RU		Display of COPY appli Russian file version
Lv.2	Details	To display the Russian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SL		Display of COPY appli Slovenian file version
Lv.2	Details	To display the Slovenian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
COPY-SV		Display of COPY appli Swedish file version
Lv.2	Details	To display the Swedish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-ID		Display of COPY appli Indonesian file version
Lv.2	Details	To display the Indonesian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-BU		Display of COPY appli Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-CR		Display of COPY appli Croatian file version
Lv.2	Details	To display the Croatian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-RM		Display of COPY appli Romanian file version
Lv.2	Details	To display the Romanian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-SK		Display of COPY appli Slovak file version
Lv.2	Details	To display the Slovak language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TK		Display of COPY appli Turkish file version
Lv.2	Details	To display the Turkish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
COPY-CA		Display of COPY appli Catalan file version
Lv.2	Details	To display the Catalan language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-TH		Display of COPY appli Thai file version
Lv.2	Details	To display the Thai language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
COPY-VN		Dis of COPY appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-FR		Display of SEND appli French file version
Lv.2	Details	To display the French language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-IT		Display of SEND appli Italian file version
Lv.2	Details	To display the Italian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DE		Display of SEND appli German file version
Lv.2	Details	To display the German language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ES		Display of SEND appli Spanish file version
Lv.2	Details	To display the Spanish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
SEND-ZH		Display SEND appli Chinese file version: simple
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TW		Display of SEND appli Chinese file ver:traditional
Lv.2	Details	To display the traditional Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-KO		Display of SEND appli Korean file version
Lv.2	Details	To display the Korean language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CS		Display of SEND appli Czech file version
Lv.2	Details	To display the Czech language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-DA		Display of SEND appli Danish file version
Lv.2	Details	To display the Danish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-EL		Display of SEND appli Greek file version
Lv.2	Details	To display the Greek language file version of the SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ET		Display of SEND appli Estonian file version
Lv.2	Details	To display the Estonian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
SEND-FI		Display of SEND appli Finnish file version
Lv.2	Details	To display the Finnish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-HU		Display of SEND appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NL		Display of SEND appli Dutch file version
Lv.2	Details	To display the Dutch language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-NO		Display of SEND appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PL		Display of SEND appli Polish file version
Lv.2	Details	To display the Polish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-PT		Display of SEND appli Portuguese file version
Lv.2	Details	To display the Portuguese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RU		Display of SEND appli Russian file version
Lv.2	Details	To display the Russian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
SEND-SL		Display of SEND appli Slovenian file version
Lv.2	Details	To display the Slovenian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SV		Display of SEND appli Swedish file version
Lv.2	Details	To display the Swedish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-ID		Display of SEND appli Indonesian file version
Lv.2	Details	To display the Indonesian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-BU		Display of SEND appli Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CR		Display of SEND appli Croatian file version
Lv.2	Details	To display the Croatian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-RM		Display of SEND appli Romanian file version
Lv.2	Details	To display the Romanian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-SK		Display of SEND appli Slovak file version
Lv.2	Details	To display the Slovak language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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SEND-TK		Display of SEND appli Turkish file version
Lv.2	Details	To display the Turkish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-CA		Display of SEND appli Catalan file version
Lv.2	Details	To display the Catalan language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-TH		Display of SEND appli Thai file version
Lv.2	Details	To display the Thai language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
SEND-VN		Dis of SEND appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FR		Display of useful func intro French file version
Lv.2	Details	To display the version of French language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-IT		Display of useful func intro Italian file version
Lv.2	Details	To display the version of Italian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DE		Display of useful func intro German file version
Lv.2	Details	To display the version of German language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-ES		Display of useful func intro Spanish file version
Lv.2	Details	To display the version of Spanish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ZH		Display of useful func intro Chinese file version: simple
Lv.2	Details	To display the version of simplified Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TW		Display of useful func intro Chinese file version: traditional
Lv.2	Details	To display the version of traditional Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-KO		Display of dis of useful func intro Korean file version
Lv.2	Details	To display the version of Korean language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Display of useful func intro Czech file version
Lv.2	Details	To display the version of Czech language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-DA		Display of useful func intro Danish file version
Lv.2	Details	To display the version of Danish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-EL		Display of useful func intro Greek file version
Lv.2	Details	To display the version of Greek language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-ET		Display useful func intro Estonian file version
Lv.2	Details	To display the version of Estonian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Display useful func intro Finnish file version
Lv.2	Details	To display the version of Finnish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-HU		Display useful func intro Hungarian file version
Lv.2	Details	To display the version of Hungarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NL		Display of useful func intro Dutch file version
Lv.2	Details	To display the version of Dutch language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Display useful func intro Norwegian file version
Lv.2	Details	To display the version of Norwegian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Display of useful func intro Polish file version
Lv.2	Details	To display the version of Polish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-PT		Display useful func intro Portuguese file version
Lv.2	Details	To display the version of Portuguese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-RU		Display useful func intro Russian file version
Lv.2	Details	To display the version of Russian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Display useful func intro Slovenian file version
Lv.2	Details	To display the version of Slovenian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-SV		Display of useful func intro Swedish file version
Lv.2	Details	To display the version of Swedish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-ID		Display of useful func intro Indonesian file version
Lv.2	Details	To display the version of Indonesian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Display useful func intro Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Display useful func intro Croatian file version
Lv.2	Details	To display the version of Croatian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-RM		Display useful func intro Romanian file version
Lv.2	Details	To display the version of Romanian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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INTRO-SK		Display of useful func intro Slovak file version
Lv.2	Details	To display the version of Slovak language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Display useful func intro Turkish file version
Lv.2	Details	To display the version of Turkish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-CA		Display useful func intro Catalan file version
Lv.2	Details	To display the version of Catalan language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-TH		Display useful func intro Thai file ver
Lv.2	Details	To display the version of Thai language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
INTRO-VN		Dis usful func intro Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Display of custom menu French file version
Lv.2	Details	To display the version of French language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-IT		Display of custom menu Italian file version
Lv.2	Details	To display the version of Italian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-DE		Display of custom menu German file version
Lv.2	Details	To display the version of German language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Display of custom menu Spanish file version
Lv.2	Details	To display the version of Spanish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Display of custom menu Chinese file ver: simple
Lv.2	Details	To display the version of simplified Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TW		Dis of custom menu Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-KO		Display of custom menu Korean file version
Lv.2	Details	To display the version of Korean language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Display of custom menu Czech file version
Lv.2	Details	To display the version of Czech language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-DA		Display of custom menu Danish file version
Lv.2	Details	To display the version of Danish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-EL		Display of custom menu Greek file version
Lv.2	Details	To display the version of Greek language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Display of custom menu Estonian file version
Lv.2	Details	To display the version of Estonian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Display of custom menu Finnish file version
Lv.2	Details	To display the version of Finnish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-HU		Display of custom menu Dutch file version
Lv.2	Details	To display the version of Dutch language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NL		Display of custom menu Dutch file ver
Lv.2	Details	To display the version of Dutch language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Display of custom menu Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-PL		Display of custom menu Polish file version
Lv.2	Details	To display the version of Polish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-PT		Display of custom menu Portuguese file version
Lv.2	Details	To display the version of Portuguese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Display of custom menu Russian file version
Lv.2	Details	To display the version of Russian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Display of custom menu Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SV		Display of custom menu Swedish file version
Lv.2	Details	To display the version of Swedish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-ID		Display of custom menu Indonesian file version
Lv.2	Details	To display the version of Indonesian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Dis of custom menu Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CR		Dis of custom menu Croatian file version
Lv.2	Details	To display the version of Croatian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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CSTMN-RM		Dis of custom menu Rumanian file version
Lv.2	Details	To display the version of Rumanian language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-SK		Display of custom menu Slovak file version
Lv.2	Details	To display the version of Slovak language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		Display of custom menu Turkish file version
Lv.2	Details	To display the version of Turkish language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-CA		Display of custom menu Catalan file version
Lv.2	Details	To display the version of Catalan language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-TH		Display of custom menu Thai file version
Lv.2	Details	To display the version of Thai language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
CSTMN-VN		Dis of custom menu Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for custom menu application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-FR		Display of accessibility French file version
Lv.2	Details	To display the version of French language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-IT		Display of accessibility Italian file version
Lv.2	Details	To display the version of Italian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		Display of accessibility German file version
Lv.2	Details	To display the version of German language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		Display of accessibility Spanish file version
Lv.2	Details	To display the version of Spanish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ZH		Display Accessibility Chinese file version: simple
Lv.2	Details	To display the version of simplified Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		Display accessibility Chinese file version:traditional
Lv.2	Details	To display the version of traditional Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		Display of accessibility Korean file version
Lv.2	Details	To display the version of Korean language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CS		Display of accessibility Czech file version
Lv.2	Details	To display the version of Czech language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-DA		Display of accessibility Danish file version
Lv.2	Details	To display the version of Danish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		Display of accessibility Greek file version
Lv.2	Details	To display the version of Greek language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		Display of accessibility Estonian file version
Lv.2	Details	To display the version of Estonian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-FI		Display of accessibility Finnish file version
Lv.2	Details	To display the version of Finnish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		Display of accessibility Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NL		Display of accessibility Dutch file version
Lv.2	Details	To display the version of Dutch language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-NO		Display of accessibility Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-PL		Display of accessibility Polish file version
Lv.2	Details	To display the version of Polish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		Display of accessibility Portuguese file version
Lv.2	Details	To display the version of Portuguese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		Display of accessibility Russian file version
Lv.2	Details	To display the version of Russian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SL		Display of accessibility Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		Display of accessibility Swedish file version
Lv.2	Details	To display the version of Swedish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		Display of accessibility Indonesian file version
Lv.2	Details	To display the version of Indonesian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-BU		Display of accessibility Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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ACSBT-CR		Display of accessibility Croatian file version
Lv.2	Details	To display the version of Croatian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		Display of accessibility Romanian file version
Lv.2	Details	To display the version of Romanian language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		Display of accessibility Slovak file version
Lv.2	Details	To display the version of Slovak language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TK		Display of accessibility Turkish file version
Lv.2	Details	To display the version of Turkish language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		Display of accessibility Catalan file version
Lv.2	Details	To display the version of Catalan language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-TH		Display of accessibility Thai file ver
Lv.2	Details	To display the version of Thai language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ACSBT-VN		Dis of accessibility Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for Accessibility application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ERS-FR		Display of ERS French file version
Lv.2	Details	To display the version of French language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-IT		Display of ERS Italian file version
Lv.2	Details	To display the version of Italian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DE		Display of ERS German file version
Lv.2	Details	To display the version of German language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ES		Display of ERS Spanish file version
Lv.2	Details	To display the version of Spanish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ZH		Display of ERS Chinese file version:simple
Lv.2	Details	To display the version of simplified Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TW		Display of ERS Chinese file version:traditional
Lv.2	Details	To display the version of traditional Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-KO		Display of ERS Korean file version
Lv.2	Details	To display the version of Korean language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ERS-CS		Display of ERS Czech file version
Lv.2	Details	To display the version of Czech language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-DA		Display of ERS Danish file version
Lv.2	Details	To display the version of Danish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-EL		Display of ERS Greek file version
Lv.2	Details	To display the version of Greek language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ET		Display of ERS Estonian file version
Lv.2	Details	To display the version of Estonian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-FI		Display of ERS Finnish file version
Lv.2	Details	To display the version of Finnish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-HU		Display of ERS Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-NL		Display of ERS Dutch file version
Lv.2	Details	To display the version of Dutch language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ERS-NO		Display of ERS Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PL		Display of ERS Polish file version
Lv.2	Details	To display the version of Polish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-PT		Display of ERS Portuguese file version
Lv.2	Details	To display the version of Portuguese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-RU		Display of ERS Russian file version
Lv.2	Details	To display the version of Russian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SL		Display of ERS Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SV		Display of ERS Swedish file version
Lv.2	Details	To display the version of Swedish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-ID		Display of ERS Indonesian file version
Lv.2	Details	To display the version of Indonesian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ERS-BU		Display of ERS Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CR		Display of ERS Croatian file version
Lv.2	Details	To display the version of Croatian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-RM		Display of ERS Romanian file version
Lv.2	Details	To display the version of Romanian language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-SK		Display of ERS Slovak file version
Lv.2	Details	To display the version of Slovak language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TK		Display of ERS Turkish file version
Lv.2	Details	To display the version of Turkish language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-CA		Display of ERS Catalan file version
Lv.2	Details	To display the version of Catalan language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ERS-TH		Display of ERS Thai file version
Lv.2	Details	To display the version of Thai language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
ERS-VN		Display of ERS Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for ERS application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-FR		Display of UAC French file version
Lv.1	Details	To display the version of French language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-IT		Display of UAC Italian file version
Lv.1	Details	To display the version of Italian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-DE		Display of UAC German file version
Lv.1	Details	To display the version of German language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-ES		Display of UAC Spanish file version
Lv.1	Details	To display the version of Spanish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-ZH		Display of UAC Chinese file version:simple
Lv.2	Details	To display the version of simplified Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-TW		Display of UAC Chinese file version:traditional
Lv.2	Details	To display the version of traditional Chinese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
NLS-KO		Display of UAC Korean file version
Lv.2	Details	To display the version of Korean language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-CS		Display of UAC Czech file version
Lv.2	Details	To display the version of Czech language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-DA		Display of UAC Danish file version
Lv.2	Details	To display the version of Danish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-EL		Display of UAC Greek file version
Lv.2	Details	To display the version of Greek language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-ET		Display of UAC Estonian file version
Lv.2	Details	To display the version of Estonian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-FI		Display of UAC Finnish file version
Lv.2	Details	To display the version of Finnish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-HU		Display of UAC Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
NLS-NL		Display of UAC Dutch file version
Lv.2	Details	To display the version of Dutch language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-NO		Display of UAC Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-PL		Display of UAC Polish file version
Lv.2	Details	To display the version of Polish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-PT		Display of UAC Portuguese file version
Lv.2	Details	To display the version of Portuguese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-RU		Display of UAC Russian file version
Lv.2	Details	To display the version of Russian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-SL		Display of UAC Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-SV		Display of UAC Swedish file version
Lv.2	Details	To display the version of Swedish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
NLS-ID		Display of UAC Indonesian file version
Lv.2	Details	To display the version of Indonesian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-BU		Display of UAC Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-CR		Display of UAC Croatian file version
Lv.2	Details	To display the version of Croatian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-RM		Display of UAC Romanian file version
Lv.2	Details	To display the version of Romanian language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-SK		Display of UAC Slovak file version
Lv.2	Details	To display the version of Slovak language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-TK		Display of UAC Turkish file version
Lv.2	Details	To display the version of Turkish language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
NLS-CA		Display of UAC Catalan file version
Lv.2	Details	To display the version of Catalan language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BCT		Display of self diagnosis tool version
Lv.2	Details	To display the version of self diagnosis tool.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-ES		Display of Spanish voice dictionary version
Lv.2	Details	To display the version of Spanish voice dictionary.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-FR		Display of French voice dictionary version
Lv.2	Details	To display the version of French voice dictionary.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-IT		Display of Italian voice dictionary version
Lv.2	Details	To display the version of Italian voice dictionary.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
ASR-DE		Display of German voice dictionary version
Lv.2	Details	To display the version of German voice dictionary.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-TH		Display of Thai language file version
Lv.2	Details	To display the version of Thai language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
LANG-VN		Display of Vietnamese language file ver
Lv.2	Details	To display the version of Vietnamese language file.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FR		Display of BOX appli French file version
Lv.2	Details	To display the version of French language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-IT		Display of BOX appli Italian file version
Lv.2	Details	To display the version of Italian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-DE		Display of BOX appli German file version
Lv.2	Details	To display the version of German language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ES		Display of BOX appli Spanish file version
Lv.2	Details	To display the version of Spanish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Display of BOX appli Chinese file version:simple
Lv.2	Details	To display the version of simplified Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TW		Display of BOX appli Chinese file version:traditional
Lv.2	Details	To display the version of traditional Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-KO		Display of BOX appli Korean file version
Lv.2	Details	To display the version of Korean language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CS		Display of BOX appli Czech file version
Lv.2	Details	To display the version of Czech language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-DA		Display of BOX appli Danish file version
Lv.2	Details	To display the version of Danish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-EL		Display of BOX appli Greek file version
Lv.2	Details	To display the version of Greek language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ET		Dis of BOX appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-FI		Dis of BOX appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-HU		Display of BOX appli Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NL		Display of BOX appli Dutch file version
Lv.2	Details	To display the version of Dutch language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-NO		Display of BOX appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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BOX-PL		Display of BOX appli Polish file version
Lv.2	Details	To display the version of Polish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-PT		Display of BOX appli Portuguese file version
Lv.2	Details	To display the version of Portuguese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RU		Display of BOX appli Russian file version
Lv.2	Details	To display the version of Russian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SL		Display of BOX appli Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SV		Display of BOX appli Swedish file version
Lv.2	Details	To display the version of Swedish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-ID		Display of BOX appli Indonesian file version
Lv.2	Details	To display the version of Indonesian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-BU		Display of BOX appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
BOX-CR		Display of BOX appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-RM		Display of BOX appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-SK		Display of BOX appli Slovak file version
Lv.2	Details	To display the version of Slovak language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TK		Display of BOX appli Turkish file version
Lv.2	Details	To display the version of Turkish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-CA		Display of BOX appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-TH		Display of BOX appli Thai file version
Lv.2	Details	To display the version of Thai language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
BOX-VN		Dis of BOX appli Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99

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NLS-TH		Display of UAC Thai file version
Lv.2	Details	To display the version of Thai language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control
NLS-VN		Display of UAC Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for UAC application.
	Use case	When upgrading the firmware
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	UAC: User Access Control

T-8-2

■ USER

COPIER>DISPLAY>USER		
SPDTYPE		Dis of Ctrollr Board engine speed type
Lv.1	Details	To display the engine speed type (ppm) of Controller Board.
	Use case	When checking the engine speed type of Controller Board
	Adj/set/operate method	N/A (Display only)
BRWS-STS		Display of service browser use status
Lv.1	Details	To display the use status of the browser for service engineers in the service mode initial screen. Go to COPIER> FUCNTION> INSTALL> BRWS-ACT to turn ON/OFF the browser for service engineers.
	Use case	When checking the operation mode of the browser for service engineers
	Adj/set/operate method	N/A (Display only)
	Related service mode	COPIER> FUNCTION> INSTALL> BRWS-ACT

T-8-3

■ ACC-STS

COPIER>DISPLAY>ACC-STS		
FEEDER		Display of DADF connection state
Lv.1	Details	To display the connecting state of DADF.
	Use case	When checking the connection between the machine and DADF
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
SORTER		Display of connect state of Finisher-related option
Lv.1	Details	To display the connecting state of Finisher-related options.
	Use case	When checking the connection of Finisher-related options
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	Left column (connecting state of Finisher-related options): 1 to 5 1: Without Saddle 2: With Saddle, without Folding Unit 3: With Saddle and Inserter, without Folding Unit 4: With Saddle and Folding Unit, without Inserter 5: With Saddle, Inserter and Folding Unit Right column (connecting state of Finisher-belonged Inserter): 0 to 4 0: no hole, 1: 2-hole, 2: 2/3-hole, 3: 4-hole, 4: 4-hole (SW)
DECK		Display of Paper Deck connection state
Lv.1	Details	To display the connecting state of the Paper Deck.
	Use case	When checking the connection between the machine and the Paper Decks
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 8 0: Not connected 1: Connected (small) (Display is hidden on this machine.) 2: Connected (large) 3: POD Deck Lite (with Multi-purpose Tray) 4: POD Deck Lite (without Multi-purpose Tray) 5: Multi-purpose Tray only 6: POD deck 7: 2-POD deck connected 8: 3-POD deck connected (Display is hidden on this machine.)

COPIER>DISPLAY>ACC-STS		
CARD		Dis of connection state of Card Reader
Lv.1	Details	To display the connecting state of Card Reader.
	Use case	When checking the connection between the machine and the Card Reader
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: No card is inserted while the Card Reader is connected. (Copy is not available.) 1: Card Reader is not connected, or card is inserted while the Card Reader is connected. (Copy is available.)
DATA-CON		Display of NE Controller connection state
Lv.1	Details	To display the connecting state of NE Controller.
	Use case	When checking the connection between the machine and the NE Controller
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
RAM		Display of MNCON PCB memory capacity
Lv.1	Details	To display the memory capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the machine
	Adj/set/operate method	N/A (Display only)
	Unit	MB
	Default value	256
COINROBO		Display of Coin Manager connection state
Lv.1	Details	To display the connecting state of the Coin Manager.
	Use case	When checking the connection between the machine and the Coin Manager
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
NIB		Display of Network PCB connection state
Lv.1	Details	To display the connecting state of the Network PCB.
	Use case	When checking the connection between the machine and the Network PCB
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 3 0: Not connected, 1: Ethernet PCB connected, 2: Token Ring PCB connected, 3: Ethernet PCB + Token Ring PCB connected

COPIER>DISPLAY>ACC-STS		
PS/PCL		Display of PS/PCL firmware install state
Lv.1	Details	To display the installation state of PS/PCL firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2 0: Not installed, 1: PS/PCL, 2: PS Kanji
NETWARE		Display of NetWare firmware install state
Lv.1	Details	To display the installation state of the NetWare firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
SEND		Display of SEND support PCB existence
Lv.1	Details	To display whether there is PCB to support SEND function. SEND function can be used only when the PCB is mounted.
	Use case	When checking the connection between the machine and the PCB that supports SEND function
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
HDD		Display of HDD model name
Lv.1	Details	To display the model name of HDD.
	Use case	When checking the model name of HDD used on the machine
	Adj/set/operate method	N/A (Display only)
PCI1		Display of PCI1-connected PCB name
Lv.1	Details	To display the name of the PCB that is connected to PCI1.
	Use case	When checking the name of the PCB that is connected to PCI1
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	-: No PCB connected Wireless LAN Board: Wireless LAN Board
PCI2		[Not used]
PCI3		[Not used]
IA-RAM		Display of MNCON PCB memory(IA) capacity
Lv.1	Details	To display the memory (IA) capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the Main Controller PCB
	Adj/set/operate method	N/A (Display only)
	Unit	MB
	Default value	1024

T-8-4

■ ANALOG

COPIER>DISPLAY>ANALOG		
TEMP		Display of inside temperature
Lv.1	Details	To display the temperature inside the machine detected by Environment Sensor.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 60
	Unit	Deg C
	Appropriate target value	20 to 27
	Related service mode	COPIER> DISPLAY> ANALOG> HUM, ABS-HUM
HUM		Display of inside humidity
Lv.1	Details	To display the humidity inside the machine detected by Environment Sensor.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Unit	%
	Appropriate target value	30 to 70
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP, ABS-HUM
ABS-HUM		Display of inside moisture content
Lv.1	Details	To display the absolute moisture content inside the machine detected by Environment Sensor.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 100
	Unit	g (g/m3)
	Appropriate target value	0 to 22
	Related service mode	COPIER> DISPLAY> ANALOG> TEMP, HUM
FIX-C		Display of Fixing Roller center temperature
Lv.1	Details	To display the center temperature of the Fixing Roller detected by the Fixing Main Thermistor.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999
	Unit	Deg C
FIX-E		Display of Fixing Roller edge temperature
Lv.1	Details	To display the edge temperature of the Fixing Roller detected by the Fixing Sub Thermistor 1. Fixing Sub Thermistor 1 is located in the rear nip inlet side of Fixing Roller.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999
	Unit	Deg C

COPIER>DISPLAY>ANALOG		
FIX-UE2		Display of Fixing Roller edge temperature 2
Lv.1	Details	To display the edge temperature of the Fixing Roller detected by the Fixing Sub Thermistor 2. Fixing Sub Thermistor 2 is located in the rear nip inlet side of Fixing Roller.
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 999
	Unit	Deg C

T-8-5

CST-STS

COPIER>DISPLAY>CST-STS		
WIDTH-MF		Display of Multi-purpose Tray paper width size
Lv.2	Details	To display the paper width size set on the Multi-purpose Tray.
	Use case	When checking the paper width side set on the Multi-purpose Tray
	Adj/set/operate method	N/A (Display only)
	Unit	mm

T-8-6

HV-STS

COPIER>DISPLAY>HV-STS		
PRIMARY		Display of primary charging current
Lv.1	Details	To display the current that is applied to the Primacy Charging Assembly at the latest.
	Use case	When checking ON/OFF of potential control
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to 2000
	Unit	micro A
TR		Display of transfer current: Plain, 1st side
Lv.1	Details	To display the current that is applied to plain paper (1st side) in the Pre-transfer Charging Assembly at the latest.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Unit	micro A
BIAS		Display of developing DC bias setting value
Lv.1	Details	To display the setting value of developing DC bias.
	Use case	For checking
	Adj/set/operate method	N/A (Display only)
	Unit	V

T-8-7

■ CCD

COPIER>DISPLAY>CCD		
TARGET-B		Shading target value (B)
Lv.2	Details	To display the shading target value of Blue. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD unit (CCD PCB).
	Use case	- When replacing the CCD unit (CCD PCB) - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
TARGET-G		Shading target value (G)
Lv.2	Details	To display the shading target value of Green. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD unit (CCD PCB).
	Use case	- When replacing the CCD unit (CCD PCB) - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
TARGET-R		Shading target value (R)
Lv.2	Details	To display the shading target value of Red. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD unit (CCD PCB).
	Use case	- When replacing the CCD unit (CCD PCB) - At scanned image failure
	Adj/set/operate method	N/A (Display only)
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
OFST-B		CCD offset level adj value (blue)
Lv.2	Details	To display the CCD offset level value for blue
	Use case	When image failure is caused by CCD, check whether the adjustment value is proper or not.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
OFST-G		CCD offset level adj value (green)
Lv.2	Details	To display the CCD offset level value for green
	Use case	When image failure is caused by CCD, check whether the adjustment value is proper or not.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255

COPIER>DISPLAY>CCD		
OFST-R		CCD offset level adj value (red)
Lv.2	Details	To display the CCD offset level value for red
	Use case	When image failure is caused by CCD, check whether the adjustment value is proper or not.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
OFST-O		Adj value of offset level in odd bit on CCD
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
OFST-E		Adj value of offset level in even bit on CCD
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
GAIN-B		Adj value of gain level on CCD (blue)
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
GAIN-G		Ad value of gain level on CCD (green)
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
GAIN-R		Adj value of gain level on CCD (red)
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
GAIN-O		Adj value of gain level in odd bit on CCD
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
GAIN-E		Adj value of gain level in even bit on CCD
Lv.2	Details	To judge if this adjustment value is correct when an image fault attributed to CCD occurs.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255

COPIER>DISPLAY>CCD		
MFIL		MTF adj index for main scanning direction
Lv.2	Details	Display of MTF adjustment for the main scanning direction
	Use case	When the image fault is caused by CCD, ensure whether the adjustment value is proper or not.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255
SFIL		MTF adj index for sub scanning direction
Lv.2	Details	Display of MTF adjustment for the sun scanning direction
	Use case	When the image fault is caused by CCD, ensure whether the adjustment value is proper or not.
	Adj/set/operate method	N/A (Display only)
	Appropriate target value	0 to 255

T-8-8

■ SENSOR

COPIER>DISPLAY>SENSOR		
DOC-SZ		Display size detected by Original Size Sensr
Lv.2	Details	To display the original size detected by Original Size Sensor.
	Use case	When checking whether the machine detects the paper on Copyboard Glass correctly
	Adj/set/operate method	1) Place the original on Copyboard Glass. 2) Close the Copyboard Cover/DADF. 3) Select the item.
	Caution	Unless the Copyboard Cover/DADF is closed, this is not displayed correctly.
	Display/adj/set range	A, B, L configuration size

T-8-9

I/O

■ Main Body_DC controller (DC-CON>P001 to P016)

Main Body
Cassette Feeding Unit-AF1
Buffer Pass Unit-H1
Paper Deck Unit-B2

Address	bit	Name	Symbol	Remarks
P001	15	Cassette 1 Paper Length Detection Switch 4	S35	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	14	Cassette 1 Paper Length Detection Switch 3		
	13	Cassette 1 Paper Length Detection Switch 2		
	12	Cassette 1 Paper Length Detection Switch 1		
	11	Cassette 1 Paper Width Detection Switch 4	S30	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	10	Cassette 1 Paper Width Detection Switch 3		
	9	Cassette 1 Paper Width Detection Switch 2		
	8	Cassette 1 Paper Width Detection Switch 1		
	7	Pre-Registration Sensor	S5	0:Paper presence
	6	Cassette 1 Pickup Sensor	S1	0:Paper presence
	5	Cassette 1 Paper Sensor	S2	Detect paper level by combination of 3 sensors 0: ON 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual
	4	Cassette 1 Paper Level Sensor B	S3	
	3	Cassette 1 Paper Level Sensor A	S4	
	2	Loop Sensor	S6	1:Paper presence
	1	Duplex Feed Sensor	S7	1:Paper presence
	0	Not used		

Address	bit	Name	Symbol	Remarks
P002	15	Manual Feeder Paper Sensor	S9	0:Paper presence
	14	Exhaust Fan (Front) Lock Detect Signal	FM4	0:Lock
	13	Exhaust Fan (Rear) Lock Detect Signal	FM3	0:Lock
	12	Reversal Sensor	S24	1:Paper presence
	11	No.2 Delivery Full Sensor	S23	0:Non-full
	10	No.2 Delivery Sensor	S22	1:Paper presence
	9	No.1 Delivery Full Sensor	S20	0:Non-full
	8	No.1 Delivery Sensor	S21	1:Paper presence
	7	Wste Toner Sensor	S17	1:Full
	6	Developing Assembly Toner Sensor	S25	1:Toner presence
	5	Developing Assembly Toner Sensor Connect Detect Signal	S25	0:Not connect
	4	Sub Hopper Toner Sensor	S26	1:Toner presence
	3	Sub Hopper Toner Sensor Connect Detect Signal	S26	0:Not connect
	2	Hopper Motor Error Detct Signal	M16	1:Error
	1	Bottle Motor Error Detct Signal	M17	1:Error
	0	Paper Cooling Fan Lock Detect Signal	FM7	0:Lock

Address	bit	Name	Symbol	Remarks
P003	15	For R&D use		
	14	Buffer Pass Motor Drive Permission Signal	M3	1:Drive permission
	13	For R&D use		
	12	For R&D use		
	11	For R&D use		
	10	For R&D use		
	9	Bottle Motor Error Latch Release Signal	M17	1:Latch release
	8	Cassette 1 Pickup Motor Drive Permission Signal	M13	0:Drive permission
	7	Duplex Feed Motor Drive Permission Signal	M9	0:Drive permission
	6	No.1 Delivery Motor Drive Permission Signal	M10	0:Drive permission
	5	For R&D use		
	4	For R&D use		
	3	Hopper Motor Drive Signal	M16	1:Drive
	2	Bottle Motor Drive Signal	M17	1:Drive
	1	Paper Cooling Fan Half Speed Drive Signal	FM7	1:Half speed drive
	0	Paper Cooling Fan Full Speed Drive Signal	FM7	1:Full speed drive

Address	bit	Name	Symbol	Remarks
P004	15	For R&D use		
	14	For R&D use		
	13	Reversal Motor Drive Permission Signal	M20	1:Drive permission
	12	Exhaust Fan Half Speed Drive Signal	FM3/4	1:Half speed drive
	11	Exhaust Fan Full Speed Drive Signal	FM3/4	1:Full speed drive
	10	Manual Feed Pickup Solenoid Drive Signal	SL2	1:Drive
	9	For R&D use		
	8	For R&D use		
	7	For R&D use		
	6	For R&D use		
	5	Manual Feed Pickup Clutch Drive Signal	CL12	1:Drive
	4	Developing Cylinder Clutch Drive Signal	CL1	1:Drive
	3	Registration Clutch Drive Signal	CL3	1:Drive
	2	Cassette 1 Pickup Solenoid Drive Signal	SL1	1:Drive
	1	Fixing Motor Break Signal	M2	1:Brake
	0	Main Motor Break Signal	M1	1:Brake

Address	bit	Name	Symbol	Remarks
P005	15	For R&D use		
	14	For R&D use		
	13	For R&D use		
	12	For R&D use		
	11	For R&D use		
	10	Laser Scanner Unit Connection Detection	-	0:Connect
	9	For R&D use		
	8	Fixing Film Cooling Fan (Front) Lock Detect Signal	FM2	0:Lock
	7	Fixing Film Cooling Fan (Rear) Lock Detect Signal	FM1	0:Lock
	6	Paper Edge Shutter HP Sensor	S10	0:HP
	5	Fixing Outlet Sensor	S19	0:Paper absence
	4	Polygon Motor Speed Lock Detect Signal	M11	0:Lock
	3	Main Body Cooling Fan Lock Detect Signal	FM6	0:Lock
	2	Fixing Motor Speed Lock Detect Signal	M2	1:Lock
	1	Main Motor Speed Lock Detect Signal	M1	1:Lock
	0	Cassette Cover Sensor Open/Close Detect Signal	S39	0:Open

Address	bit	Name	Symbol	Remarks
P006	15	Buffer Pass Unit Connection Detection	-	0:Connect
	14	Buffer Pass Paper Out Sensor	SR3	1:Paper absence
	13	Buffer Pass Paper In Sensor	SR2	1:Paper absence
	12	Buffer Pass Open Sensor	SR1	0:Open
	11	Cassette 2 Pickup Sensor	S33	1:Paper presence
	10	Cassette 2 Paper Sensor	S31	Detect paper level by combination of 3 sensors 0: ON 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual
	9	Cassette 2 Paper Level Sensor B	S34	
	8	Cassette 2 Paper Level Sensor A	S32	
	7	Cassette 2 Paper Width Detection Switch 4	S28	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	6	Cassette 2 Paper Width Detection Switch 3		
	5	Cassette 2 Paper Width Detection Switch 2		
	4	Cassette 2 Paper Width Detection Switch 1		
	3	Cassette 2 Paper Length Detection Switch 4	S29	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Cassette 2 Paper Length Detection Switch 3		
	1	Cassette 2 Paper Length Detection Switch 2		
	0	Cassette 2 Paper Length Detection Switch 1		

Address	bit	Name	Symbol	Remarks
P007	15	Cassette 3 Paper Width Detection Switch 4	SW102	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	14	Cassette 3 Paper Width Detection Switch 3		
	13	Cassette 3 Paper Width Detection Switch 2		
	12	Cassette 3 Paper Width Detection Switch 1		
	11	Cassette 3 Paper Length Detection Switch 4	SW101	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	10	Cassette 3 Paper Length Detection Switch 3		
	9	Cassette 3 Paper Length Detection Switch 2		
	8	Cassette 3 Paper Length Detection Switch 1		
	7	Cassette 4 Paper Width Detection Switch 4	SW104	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	6	Cassette 4 Paper Width Detection Switch 3		
	5	Cassette 4 Paper Width Detection Switch 2		
	4	Cassette 4 Paper Width Detection Switch 1		
	3	Cassette 4 Paper Length Detection Switch 4	SW103	Detect paper size by combination of 4 switches 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	2	Cassette 4 Paper Length Detection Switch 3		
	1	Cassette 4 Paper Length Detection Switch 2		
	0	Cassette 4 Paper Length Detection Switch 1		

Address	bit	Name	Symbol	Remarks
P008	15	Cassette 2 Pickup Solenoid Drive Signal	SL11	1:Drive
	14	Fixing Film Cooling Fan Half Speed Drive Signal	FM1/2	1:Drive
	13	Cassette 2 Pickup Motor Drive Permission Signal	M3	0:Drive permission
	12	For R&D use		
	11	For R&D use		
	10	Fixing Film Cooling Fan Full Speed Drive Signal	FM1/2	1:Drive
	9	For R&D use		
	8	For R&D use		
	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		

Address	bit	Name	Symbol	Remarks
P009	15	Cassette 3 Paper Sensor	PS102	Detect paper level by combination of 3 sensors 0: ON 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual
	14	Cassette 3 Paper Level Sensor A	PS104	
	13	Cassette 3 Paper Level Sensor B	PS105	
	12	Cassette 3 Retry Sensor	PS108	1:Paper presence
	11	Cassette 4 Paper Sensor	PS103	Detect paper level by combination of 3 sensors 0: ON 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual
	10	Cassette 4 Paper Level Sensor A	PS106	
	9	Cassette 4 Paper Level Sensor B	PS107	
	8	Cassette 4 Retry Sensor	PS109	1:Paper presence
	7	Pedestal Right Cover Sensor Open/Close Detect Signal	PS101	0:Open
	6	Not used		
	5	Paper Deck Connection Detection	-	1:Separation From the Host Machine
	4	Deck Paper Level Sensor	PS7D	1:Paper absence
	3	Deck Paper Replenishing Position Sensor	PS8D	1:Paper absence
	2	Deck Pickup Sensor	PS6D	0:Paper presence
	1	Deck Paper-out Sensor	PS2D	1:Paper absence
	0	Deck Open Switch	SW100D	1:Push
P010	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	Deck Open Solenoid Drive Signal	SL2D	1:Drive
	3	For R&D use		
	2	Polygon Motor Drive Signal	M11	1:Drive
	1	Fixing Motor Drive Signal	M2	1:Drive
	0	Main Motor Drive Signal	M1	1:Drive
P011	7	Enviorment Heater Drive Signal		1:Heater OFF
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	Relay Drive Signal	-	0:Relay ON

Address	bit	Name	Symbol	Remarks
P012	7	For R&D use		
	6	For R&D use		
	5	Fixing Main Thermistor Connect Detect Siganal	TH1	0:Connect
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	Enviorment Heater Connect Detect Siganal	S16	0:Connect
P013	7	Fixing Sub Thermistor 2 Error Detect Signal	TH3	1:Normal
	6	For R&D use		
	5	Fixing Sub Thermistor 1 Error Detect Signal	TH2	1:Normal
	4	Fixing Main Thermistor Error Detect Signal	TH1	1:Normal
	3	Front Cover Open/Closed Sensor	S18	1:Close
	2	Toner Cover Open/Closed Sensor	S46	1:Close
	1	For R&D use		
	0	Main Switch/Front Door Switch	SW1/SW2	1:Open
P014	7	For R&D use		
	6	Deck Lifter Motor Drive Signal	M2D	1:Drive
	5	Deck Pickup Clutch Drive Signal	CL2D	1:Drive
	4	Deck Pickup Roller Release Solenoid Drive Signal	SL1D	1:Drive
	3	For R&D use		
	2	Hopper Motor Error Latch Signal	M16	1:Latch release
	1	Main Body Cooling Fan Half Speed Drive Signal	FM6	1:Drive
	0	Main Body Cooling Fan Full Speed Drive Signal	FM6	1:Drive

Address	bit	Name	Symbol	Remarks
P015	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Cassette 3 Pickup Motor Drive Permission Signal	M101	1:Drive permission
	2	Cassette 4 Pickup Motor Drive Permission Signal	M102	1:Drive permission
	1	Cassette 4 Pickup Solenoid Drive Signal	SL102	1:Drive
	0	Cassette 3 Pickup Solenoid	SL101	1:Drive
P016	7	For R&D use		
	6	For R&D use		
	5	Deck Lifter Lower Limit Sensing Switch	SW2D	0:Lower limit
	4	Deck Lifter Upper Limit Sensor	PS3D	0:Upper limit
	3	Deck Lifter Position Sensor	PS4D	0:Lifter position
	2	Deck Feed Sensor	PS1D	0:Paper presence
	1	Not used		
	0	Deck Open Sensor	PS9D	1:Open

T-8-10

Reader (R-CON>P001 to P008)

Address	bit	Name	Symbol	Remarks
P001	7	ADF Read Sensor	SR2	1: Paper presence
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	For R&D use		
P002	7	Reader Motor Rotatory Direction Change Signal	M14	0: CW
	6	Not used		
	5	Reader Motor Output Enable Signal	M14	1:Output stop
	4	Reader Motor Standby Signal	M14	0:Stop
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P003	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	For R&D use		
P004	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	CCD Unit Flexible Cable Connection Detection Signal		1: Incorrect connection
	0	Not used		
P005	7	For R&D use		
	6	ADF Registration Sensor	SR1	1: Paper presence
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		

Address	bit	Name	Symbol	Remarks
P006	7	Not used		
	6	For R&D use		
	5	For R&D use		
	4	Not used		
	3	Not used		
	2	For R&D use		
	1	Not used		
	0	Not used		
P007	7	For R&D use		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P008	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		

T-8-11

DADF-AG1 FEEDER > P001 to P009

Address	bit	Name	Symbol	Remarks
P001	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	For R&D use		
	0	For R&D use		
P002	7	Not used		
	6	Pick up Clutch Drive	CL1	1: ON
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Document Detection LED	PCB3	1: ON
P003	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P004	7	Not used		
	6	Timing sensor	SR4	1: Paper presence
	5	Not used		
	4	Delivery reversal Sensor	SR3	1: Paper presence
	3	ADF Fan Motor Lock Siganal	FM1	1: Lock
	2	Not used		
	1	Not used		
	0	Not used		
P005	7	Not used		
	6	A4R/LTRR Sensor	SR8	1: A4R
	5	Empty Sensor	SR5	0: Paper presence
	4	Not used		
	3	Cover Open/Closed Sensor	SR6	0: Open
	2	Release Motor HP Sensor	SR11	1: HP
	1	Document Length Sensor 2	SR10	1: Paper presence
	0	Document Length Sensor 1	SR7	1: Paper presence
P006	0to7	For R&D use		
P007	0to15	For R&D use		
P008	0to15	For R&D use		

Address	bit	Name	Symbol	Remarks
P009	0to15	For R&D use		

T-8-12

Staple Finisher-G1/Booklet Finisher-G1 SORTER > P001 to P031

Address	bit	Name	Symbol	Remarks
P001	7	Tray 2 Paper Surface Sensor 2	PI120	0:Paper present
	6	Not used		
	5	For R&D use		
	4	For R&D use		
	3	Front Cover Open/Close Sensor	PI102	0:Open
	2	Saddle Unit Detection		0: Present
	1	For R&D use		
	0	For R&D use		
P002	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Not used		
	2	For R&D use		
	1	Not used		
	0	For R&D use		
P003	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P004	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	Punch Paper Detection(Rear)		1: Detection
P005	7	Not used		
	6	Not used		
	5	Punch Unit Connect Signal		0: Connect
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		

Address	bit	Name	Symbol	Remarks
P006	7	Not used		
	6	Not used		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P007	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Tray 1 Shift Motor Lock Signal	M107	1: Lock
	2	For R&D use		
	1	For R&D use		
	0	Front Cover Open/Close Switch	MS101	1:Open
P008	7	Tray2 Shift Area Sensor 1	PCB5	0: ON
	6	Tray2 Shift Area Sensor 2	PCB5	0: ON
	5	Tray2 Shift Area Sensor 3	PCB5	0: ON
	4	Inlet sensor	PI103	0:Paper present
	3	Swing Guide HP Sensor	PI105	1: HP
	2	For R&D use		
	1	Not used		
	0	Not used		
P009	7	Tray 1 Paper Sensor	PI111	0:Paper present
	6	For R&D use		
	5	For R&D use		
	4	Tray1 Shift Area Sensor 1	PCB4	0: ON
	3	Tray1 Shift Area Sensor 2	PCB4	0: ON
	2	Tray1 Shift Area Sensor 3	PCB4	0: ON
	1	Tray 2 Shift Motor Lock Signal	M108	1: Lock
	0	Tray 2 Paper Sensor	PI112	0:Paper present
P010	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		

Address	bit	Name	Symbol	Remarks
P011	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P012	7	Swing Height Sensor	PI123	1:Open
	6	Not used		
	5	Upper Cover Sensor	PI101	0:Open
	4	Rear End Assist HP Sensor	PI109	0: HP
	3	Processing Tray Sensor	PI108	1:Paper present
	2	Rear Aligning Plate HP Sensor	PI107	1: HP
	1	Front Aligning Plate HP Sensor	PI106	1: HP
	0	For R&D use		
P013	7	Tray 2 Shift Motor ON	M108	0: ON
	6	Tray 2 Shift Motor Direction Change Signal	M108	0: CW 1: CCW
	5	Feed Roller Separation Solenoid	SL101	1: ON
	4	Punch Motor Standby		0: Standby
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P014	7	For R&D use		
	6	Tray 1 Shift Motor Direction Change Signal	M107	0: CW 1: CCW
	5	Tray 1 Shift Motor ON	M107	0: ON
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	Rear End Assist Motor Direction Change Signal	M109	0: CW 1: CCW
	0	Not used		

Address	bit	Name	Symbol	Remarks
P015	7	Staple Motor Direction Change Signal (CW)	M111	1: ON
	6	Staple Motor Direction Change Signal (CCW)	M111	1: ON
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	Stack Ejection Motor Direction Change Signal	M102	0: CW 1: CCW
	1	For R&D use		
	0	Swing Motor Direction Change Signal	M106	0: CW 1: CCW
P016	7	Not used		
	6	Eaer Aligning Plate Motor Direction Change Signal	M104	0: CW 1: CCW
	5	For R&D use		
	4	For R&D use		
	3	Not used		
	2	For R&D use		
	1	Front aligning plate motor Direction Change Signal	M103	0: CW 1: CCW
	0	For R&D use		
P017	7	Tray 2 Paper Surface Sensor 1	PI115	0:Paper present
	6	Tray 1 Paper Surface Sensor	PI114	0:Paper present
	5	Shutter HP Sensor	PI113	0: HP
	4	Stapler Shift HP Sensor	PI110	0: HP
	3	Stapler Alignment Interference Sensor	PI116	0:Interference
	2	Staple Existence		1:Staple present
	1	Staple READY		1: Standby
	0	Staple HP Detection		1: HP
P018	7	Stapler Shift Motor Direction Change Signal	M105	0: CCW 1: CW
	6	Buffer Roller Separation Solenoid	SL102	1: ON
	5	Shutter Clutch	CL101	1: ON
	4	Stack Ejection Lower Roller Clutch	CL102	1: ON
	3	Buffer Rear End Holding Solenoid	SL104	1: ON
	2	1st Delivery Roller Separation Solenoid	SL103	1: ON
	1	For R&D use		
	0	For R&D use		

Address	bit	Name	Symbol	Remarks
P019	7	Not used		
	6	Feed Path Sensor	PI104	0:Paper present
	5	Swing Guide Lock Signal	MSW32	1: Lock
	4	Staple Lock Signal	MSW104	1: Lock
	3	Not used		
	2	Not used		
	1	Not used		
	0	For R&D use		
P020	7	Alignment Plate HP Sensor	PI5	1: HP
	6	Not used		
	5	Not used		
	4	Not used		
	3	Saddle Stapl Unit Connect Detection		0: Connect
	2	Vertical Path Paper Sensor	PI17	1:Paper present
	1	Not used		
	0	Not used		
P021	7	Not used		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Stitcher HP Sensor (Rear)	SW5	1: HP
	2	Stitcher HP Sensor (Front)	SW7	1: HP
	1	Paper Pushing Plate Top Position Sensor	PI15	0: ON
	0	Paper Pushing Plate HP Sensor	PI14	1: HP
P022	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	Feed Motor Direction Change Signal	M1	0: CCW 1: CW
P023	7	For R&D use		
	6	For R&D use		
	5	Not used		
	4	Not used		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	Not used		

Address	bit	Name	Symbol	Remarks
P024	7	Not used		
	6	Not used		
	5	No.2 Paper Deflecting Solenoid	SL2	1: ON
	4	No.1 Paper Deflecting Solenoid	SL1	1: ON
	3	Saddle Inlet Solenoid	SL5	1: ON
	2	Paper Folding HP Sensor	PI21	1: ON
	1	For R&D use		
	0	For R&D use		
P025	7	Not used		
	6	For R&D use		
	5	Not used		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P026	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Stitcher Motor (Rear) Direction Change Signal (CW)	M6	0: ON
	2	Not used		
	1	Staple Sensor (Rear)	SW4	1:Staple present
	0	24V Detection		0: ON
P027	7	Not used		
	6	Feed Plate Contact Solenoid	SL4	1: ON
	5	Paper Folding Motor RV	M2	1: ON
	4	For R&D use		
	3	For R&D use		
	2	Paper Positioning Plate Paper Sensor	PI8	0:Paper present
	1	Paper Positioning Plate HP Sensor	PI7	0: HP
	0	Tray Paper Sensor	PI6	0:Paper present
P028	7	Paper Pushing Plate Motor EN	M8	0: ON
	6	Paper Pushing Plate Motor FWD	M8	1: ON
	5	Paper Pushing Plate Motor RV	M8	1: ON
	4	Paper Folding Motor FWD	M2	1: ON
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		

Address	bit	Name	Symbol	Remarks
P029	7	Stitcher Motor (Rear) Direction Change Signal CCW	M6	0: ON
	6	For R&D use		
	5	For R&D use		
	4	Stitcher Motor (Front) Direction Change Signal CW	M7	0: ON
	3	Stitcher Motor (Front) Direction Change Signal CCW	M7	0: ON
	2	Staple Sensor (Front)	SW6	1:Staple present
	1	Not used		
	0	Not used		
P030	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P031	7	Saddle Inlet Sensor	PI22	1:Paper present
	6	Guide HP Sensor	PI13	1: HP
	5	Crescent Roller Phase Sensor	PI12	1: HP
	4	Delivery Sensor	PI11	0:Paper present
	3	Lower Right Cover Sensor	PI9	1:Open
	2	No.3 Paper Sensor	PI20	1:Paper present
	1	No.2 Paper Sensor	PI19	1:Paper present
	0	No.1 Paper Sensor	PI18	1:Paper present

T-8-13

External 2, 2/3, 2/4, 4 Hole Puncher-B2 SORTER > P032 to P037

Address	bit	Name	Symbol	Remarks
P032	7	Punch HP sensor	PI63	0: HP
	6	For R&D use		
	5	Rear End Detector Sensor	PCB11/12	0:Paper presence (LED5,PTR5)
	4	For R&D use		
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P033	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P034	7	Punch Motor Direction Change Signal (CW)	M61	0: ON
	6	Punch Motor Direction Change Signal (CWW)	M61	0: ON
	5	Horizontal Registration Motor Standby	M62	0: Standby
	4	Horizontal Registration HP Sensor	PI61	1: HP
	3	For R&D use		
	2	For R&D use		
	1	For R&D use		
	0	For R&D use		
P035	7	Not used		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P036	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	Front Door Switch	MSW62	1:open
	3	For R&D use		
	2	Horizontal Registration Motor B	M62	0:Phase B* ON, 1:Phase B ON
	1	Horizontal Registration Motor A	M62	0:Phase A* ON, 1:Phase A ON
	0	For R&D use		
P037	7	Not used		
	6	Not used		
	5	Upper Door Switch	MSW61	0:Open
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		

T-8-14

Inner Finisher-D1/Inner Hole Puncher-A1 SORTER>P001 to P015

Address	bit	Name	Symbol	Remarks
P001	7	Entrance Sensor	S1	1:Paper presence
	6	Grip Arm Sensor	S13	0: HP
	5	Not used		
	4	Not used		
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	Not used		
P002	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P003	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P004	7	Horizontal registration HP sensor	SR1	1: HP
	6	Punch Path Sensor	SR3	1:Paper presence
	5	For R&D use		
	4	For R&D use		
P005	7	Not used		
	6	Scrap Full Detector PCB	PCB13	0: Full
	5	Photosensor PCB (Rear Edge of Paper)	PCB11	1:Paper presence
	4	Punch HP Sensor	SR5	1: HP
	3	Additional Tray Clock Sensor	S23	
	2	Stack Tray Clock Sensor	S14	
	1	Stapler Move HP Sensor	S10	1: HP
	0	Stapler HP Sensor	S18	1: HP
P006	7	Punch Clock Sensor	SR4	
	6	Not used		
	5	Entrance Roller Release / Stopper HP Sensor	S5	0: HP
	4	Gripper Unit HP Sensor	S7	0: Evacuation
	3	Shift Roller Release Sensor	S3	1: Release
	2	Shift roller HP Sensor	S2	0: HP
	1	For R&D use		
	0	Not used		
P007	7	Additional Tray Upper/ Lower Lmit Sensor	S21	1: Upper or lower limit
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	For R&D use		
P008	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	For R&D use		
	1	For R&D use		
	0	Additional Tray Paper Sensor	S22	1:Paper presence
P009	5	Release Sensor	SR2	1: Release
	4	Not used		
	3	Not used		
	2	Not used		
	1	Puncher Unit Connect Detection		0: Connect
	0	Not used		

Address	bit	Name	Symbol	Remarks
P010	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P011	7	Not used		
	6	Not used		
	5	Not used		
	4	Not used		
	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		
P012	7	For R&D use		
	6	For R&D use		
	5	For R&D use		
	4	For R&D use		
	3	Stack Tray Paper Sensor	S15	1:Paper presence
	2	Stack Tray Lower Limit Sensor	S17	1: Lower limit
	1	Stack Tray Middle Sensor	S16	1:Paper presence
	0	Not used		
P013	7	Processing Tray Sensor	S6	1:Paper presence
	6	Stapler Safety Switch	SW2	1: ON
	5	Not used		
	4	Gripper Stapler Connection Sensor	S9	1: Connection
	3	Not used		
	2	Front Fan Lock Signal	FM1	1: Lock
	1	Rear fan Lock Signal	FM2	1: Lock
	0	Not used		
P014	7	For R&D use		
	6	Not used		
	5	Paper Surface Sensor 2	S12	1:Paper presence
	4	Paper Surface Sensor 1	S11	1:Paper presence
	3	Stapler Edging Sensor	S19	1: Edging
	2	Stapler Sensor	S20	1: No needle
	1	Not used		
	0	Front Cover Switch	SW1	1: Open

Address	bit	Name	Symbol	Remarks
P015	3	Not used		
	2	Not used		
	1	Not used		
	0	Not used		

T-8-15

ADJUST

AE

COPIER>ADJUST>AE		
AE-TBL		Adj of text density at image density adj
Lv.1	Details	To adjust text density according to the adjusted image density. As the greater value is set, text gets darker.
	Use case	When clearing the RAM data of the CCD unit (CCD PCB)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9
	Default value	5

T-8-16

ADJ-XY

COPIER>ADJUST>ADJ-XY		
ADJ-X		Adj of img pstn in book mode: vert scan
Lv.1	Details	To adjust the image reading start position (image leading edge position) in vertical scanning direction. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the larger value. When out of original area is copied, set the smaller value. As the value is incremented by 1, the image position moves to the leading edge side by 0.1mm.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	1 to 100
	Unit	0.1 mm
	Default value	29

COPIER>ADJUST>ADJ-XY		
ADJ-Y		Adj of img pstn in book mode: horz scan
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. When the non-image width is larger than the standard value, set the larger value. When out of original area is copied, set the smaller value. As the value is incremented by 1, the image position moves to the front side by 0.1mm.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	45 to 254
	Unit	0.1 mm
	Default value	78
ADJ-S		Adj the pstn to measure data for shading crrct with stdrd white plate.
Lv.1	Details	Adjust the position to measure data for shading correction with standard white plate. (horizontal scanning direction) When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	20 to 500
	Unit	0.1 mm
	Default value	141

COPIER>ADJUST>ADJ-XY		
ADJ-Y-DF		Adj img pstn in DADF mode:horz scan[Frt]
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image position moves to the front side by 0.1mm.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	2 to 202
	Unit	0.1 mm
	Default value	78
STRD-POS		Adj read pstn in DADF mode: front side
Lv.1	Details	To adjust the reading position at DADF reading (front side). When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 200
	Unit	0.1 mm
	Default value	100
	Related service mode	COPIER> FUNCTION> INSTALL> STRD-POS

COPIER>ADJUST>ADJ-XY		
ADJ-X-MG		Adj img ratio in book mod:vert scan[Frt]
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction at copyboard reading. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image magnification changes by 0.01%. +: Enlarge -: Reduce
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-50 to 50
	Unit	0.01%
	Default value	0

T-8-17

CCD

COPIER>ADJUST>CCD		
W-PLT-X		White level data(X) entry of white plate
Lv.1	Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999
	Default value	8271
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-Y, W-PLT-Z
W-PLT-Y		White level data(Y) entry of white plate
Lv.1	Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999
	Default value	8735
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Z
W-PLT-Z		White level data(Z) entry of white plate
Lv.1	Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999
	Default value	9418
	Related service mode	COPIER.> ADJUST> CCD> W-PLT-X, W-PLT-Y
SH-TRGT		Shading target value (B&W) [Copyboard]
Lv.1	Details	To set the B&W shading target value in copyboard reading mode.
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data - When replacing the Scanner Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2047
	Default value	1126

COPIER>ADJUST>CCD		
50-RG		clr displace offset value display(R-G): Rear
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
50-GB		clr displace offset value display(G-B): Rear
Lv.1	Details	To correct the color displacement (B and G lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
100-RG		clr displace offset value display(R-G): Rear
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
100-GB		clr displace offset value display(G-B):Rear
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
50DF-RG		clr displace offset value display(R-G)
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at ADF/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Default value	0
50DF-GB		clr displace offset value display(G-B)
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at ADF/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Default value	0

COPIER>ADJUST>CCD		
100DF-RG		clr displace offset value display(G-R)
Lv.1	Details	To correct the color displacement (G and R lines) in vertical scanning direction due to the Scanner Unit at ADF/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Default value	0
100DF-GB		clr displace offset value display(G-R)
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at ADF/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Default value	0

COPIER>ADJUST>CCD		
DFTAR-R		Shading target value (R)
Lv.1	Details	In case of image fault (due to chart soil, etc) after executing: COPIER> FUNCTION> CCD> DFWLVL3/ DF-WLVL4, enter the factory measurement value using this mode.
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2047
	Default value	1159
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4
DFTAR-G		Shading target value (G)
Lv.1	Details	In case of image fault (due to chart soil, etc) after executing: COPIER> FUNCTION> CCD> DFWLVL3/ DF-WLVL4, enter the factory measurement value using this mode.
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	"1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch."
	Display/adj/set range	1 to 2047
	Default value	1189
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4
DFTAR-B		Shading target value (B)
Lv.1	Details	n case of image fault (due to chart soil, etc) after executing: COPIER> FUNCTION> CCD> DFWLVL3/ DF-WLVL4, enter the factory measurement value using this mode.
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2047
	Default value	1209
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4

COPIER>ADJUST>CCD		
CCD-CHNG		Scanner Unit (ppr frt) rplce flag setting
Lv.1	Details	To set the calculation mode of MTF filter coefficient that is used at the replacement of Scanner Unit. When replacing the Scanner Unit (CCD unit), enter "1".
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Data at factory shipment is used. 1: Data at factory shipment is not used. (Scanner Unit is already replaced.)
	Default value	0
DFTAR-K		Shading target value (Black) at ADF mode
Lv.1	Details	In case of image fault (due to chart soil, etc) after executing: COPIER> FUNCTION> CCD> DFWLVL1/ DF-WLVL2, enter the factory measurement value using this mode.
	Use case	- When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 2047
	Default value	55
	Related service mode	COPIER > FUNCTION > CCD > DF-WLVL1 COPIER > FUNCTION > CCD > DF-WLVL2
MTF3-M1		MTF setting value for R in horizontal scanning direction (front)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-M2		MTF setting value for R in horizontal scanning direction (center)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M3		MTF setting value for R in horizontal scanning direction (rear)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M4		MTF setting value for G in horizontal scanning direction (front)
Lv.1	Details	Setting value for MTF filter coefficient calculation. Enter the value of service label on the Reader.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-M5		MTF value 5 setting: horz scan [Front]
Lv.1	Details	MTF setting value for G in horizontal scanning direction (center)
	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M6		MTF setting value for G in horizontal scanning direction (rear)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M7		MTF setting value for B in horizontal scanning direction (front)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-M8		MTF setting value for B in horizontal scanning direction (center)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M9		MTF setting value for B in horizontal scanning direction (rear)
Lv.1	Use case	Enter the value of service label on the CCD unit in the following cases. - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M10		MTF setting value for K in horizontal scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-M11		MTF setting value for K in horizontal scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-M12		MTF setting value for K in horizontal scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S1		MTF setting value for R in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S2		MTF setting value for R in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-S3		MTF setting value for R in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S4		MTF setting value for G in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S5		MTF setting value for G in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S6		MTF setting value for G in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-S7		MTF setting value for B in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S8		MTF setting value for B in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S9		MTF setting value for B in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch."
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S10		MTF setting value for K in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF3-S11		MTF setting value for K in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF3-S12		MTF setting value for K in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M1		MTF setting value for R in horizontal scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M2		MTF setting value for R in horizontal scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-M3		MTF setting value for R in horizontal scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M4		MTF setting value for G in horizontal scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M5		MTF value 5 setting: horz scan [Front]
Lv.1	Details	MTF setting value for G in horizontal scanning direction (center)
	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M6		MTF setting value for G in horizontal scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-M7		MTF setting value for B in horizontal scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M8		MTF setting value for B in horizontal scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M9		MTF setting value for B in horizontal scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-M10		MTF setting value for K in horizontal scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M11		MTF setting value for K in horizontal scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-M12		MTF setting value for K in horizontal scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S1		MTF setting value for R in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-S2		MTF setting value for R in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S3		MTF setting value for R in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S		MTF setting value for G in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S5		MTF setting value for G in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-S6		MTF setting value for G in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S7		MTF setting value for B in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S8		MTF setting value for B in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S9		MTF setting value for B in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55

COPIER>ADJUST>CCD		
MTF4-S10		MTF setting value for K in vertical scanning direction (front)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S11		MTF setting value for K in vertical scanning direction (center)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
MTF4-S12		MTF setting value for K in vertical scanning direction (rear)
Lv.1	Use case	not used usually
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 80
	Default value	55
100-GB-2		clr displace offset value display(G-B):Center
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service labe
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
100-GB-3		clr displace offset value display(G-B):Front
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
100-RG-2		clr displace offset value display(R-G):Center
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
100-RG-3		clr displace offset value display(R-G):Front
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/100% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
50-GB-2		clr displace offset value display(G-B): Center
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
50-GB-3		clr displace offset value display(G-B):Front
Lv.1	Details	To correct the color displacement (G and B lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0
50-RG-2		clr displace offset value display(R-G):Center
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

COPIER>ADJUST>CCD		
50-RG-3		clr displace offset value display(R-G):Front
Lv.1	Details	To correct the color displacement (R and G lines) in vertical scanning direction due to the Scanner Unit at Book/50% scanning mode. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the service label value packaged in the service parts content.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-256 to 256
	Unit	0.001 line
	Default value	0

T-8-18

LASER

COPIER>ADJUST>LASER		
PVE-OFST		Adj of write start position of laser
Lv.1	Details	To adjust the image position by changing the laser emitting position. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image moves by 0.01mm. +: Toward front -: Toward rear
	Use case	Use this only when replacing the DC Controller PCB/Laser Scanner Unit.
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Unit	0.01 mm
	Appropriate target value	0
	Default value	0
LA-OFF		Trailing edge OFF adjustment for the laser
Lv.1	Details	Trailing edge OFF timing adjustment for the laser in the case of free size paper As the value is incremented by 1, the OFF timing for laser becomes late.
	Use case	Use this only when replacing the DC Controller PCB/Laser Scanner Unit.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Default value	0
POWER		[Not used]

COPIER>ADJUST>LASER		
LDADJ1-K		Magnification between A-B laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
LDADJ2-K		Magnification between A-C laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
LDADJ3-K		Magnification between A-D laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0

COPIER>ADJUST>LASER		
LDADJ4-K		Phase difference between A-B laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
LDADJ5-K		Phase difference between A-C laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
LDADJ6-K		Phase difference between A-D laser (K)
Lv.1	Details	When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label.
	Use case	- When replacing the CCD unit (CCD PCB)/ clearing RAM data - When replacing the laser scanner unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0

T-8-19

■ DEVELOP

COPIER>ADJUST>DEVELOP		
DE-OFST		Entering the offset value for the developing DC bias
Lv.1	Use case	When the abnormal image appears (high or low density)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The density becomes low by increasing the value. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Default value	0

T-8-20

DENS

COPIER>ADJUST>DENS		
DENS-ADJ		Density correction of copy image
Lv.1	Details	To correct the density of copy image by changing the F-value table. Blurring is alleviated when the value is increased, and fogging is alleviated when the value is decreased.
	Use case	When fogging or blurring at high density area occurs with a copy image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Density of printer output image cannot be corrected.
	Display/adj/set range	1 to 9
	Appropriate target value	4 to 6
	Default value	5

T-8-21

BLANK

COPIER>ADJUST>BLANK		
BLANK-T		Adjustment of leading edge margin
Lv.1	Details	To adjust the margin on the leading edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-200 to 1000
BLANK-B		Adjustment of trailing edge margin
Lv.1	Details	To adjust the margin on the trailing edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0212 mm).
	Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-200 to 1000

T-8-22

PASCAL

COPIER>ADJUST>PASCAL		
OFST-P-K		Bk density adj at test print reading
Lv.1	Details	To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust). When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. As the greater value is set, the image after adjustment gets darker.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 128
	Default value	According to the adjustment value of the Reader at factory shipment

T-8-23

HV-PRI

COPIER>ADJUST>HV-PRI		
OFST1-DC		Adj primary charge DC offset 1
Lv.1	Use case	When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Default value	0
OFST1-AC		Adj primary charge AC offset 1
Lv.1	Use case	When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Default value	0

T-8-24

HV-TR

COPIER>ADJUST>HV-TR		
TR-OFST		Adj transfer target current offset
Lv.1	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
TR-SPP		[Not used]

T-8-25

FEED-ADJ

COPIER>ADJUST>FEED-ADJ		
REGIST		Adj of registration start timing: Plain
Lv.1	Details	To adjust the timing to turn ON the Registration Motor in the case of plain paper. As the value is incremented by 1, the margin on the leading edge of paper is increased by 0.1 mm. +: Top margin becomes larger. -: Top margin becomes smaller. In the case of iR-ADV4025, this item is effective by both paper feedings for the same speed in the cassette feeding and the manual feeding. In the case of iR-ADV4035/4045/4051, this item is effective for only the cassette feeding of the normal speed. Perform the setting of the manual feeding in OPIER>ADJUST>FEED-ADJ>RG-HF-SP. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	0
	Related service mode	COPIER>ADJUST>FEED-ADJ>RG-HF-SP
LOOP-CST		Registration loop amount adj: casette feeding
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the casette feeding paper is skewed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm

COPIER>ADJUST>FEED-ADJ		
LOOP-MF		Registration loop amount adj: manual-feeding
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the manual feeding paper is skewed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
ADJ-REFE		Side regist adj: 2-sided with small paper (less than LTR)
Lv.1	Details	To adjust the image write start position on the second side in the horizontal scanning direction. The image write start position is set in the relative amount against the first side regardless of the paper pickup cassette/tray/deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data When adjusting the side registration at 2nd side (re-pickup) with small paper
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	0

COPIER>ADJUST>FEED-ADJ		
LOOPREFE		Registration loop amount adj: 2-sided feeding
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the 2-sided paper is skewed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	+45
RG-HF-SP		Regist clutch on timing adj: manual feeding
Lv.1	Details	The on timing of the registration clutch becomes fast/slow by changing the value. +: The on timing becomes fast. -: The on timing becomes slow. In the case of iR-ADV4025, this item is not work. Perform the setting in COPIER>ADJUST>FEED-ADJ>RG-HF-SP. In the case of iR-ADV4035/4045/4051, this item is effective for only the manual feeding of the half speed. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	0
	Related service mode	COPIER>ADJUST>FEED-ADJ>RG-HF-SP

COPIER>ADJUST>FEED-ADJ		
ADJ-RE-L		Side regist adj: 2-sided with large paper (more than LTR)
Lv.1	Details	To adjust the image write start position on the second side in the horizontal scanning direction. The image write start position is set in the relative amount against the first side regardless of the paper pickup cassette/tray/deck. As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When replacing the DC Controller PCB/clearing RAM data When adjusting the side registration at 2nd side (re-pickup) with large paper
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	-20
LOOP-THK		Registration loop amount adj: thick paper feeding from MP Tray
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the thick paper is skewed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
	Default value	

COPIER>ADJUST>FEED-ADJ		
LOOP-SP		Registration loop amount adj: special paper feeding
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the special paper is skewed
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
LOOP-ENV		Registration loop amount adj: casette feeding of envelope
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the envelope is skewed at the casette feeding
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-128 to 127
	Unit	0.1 mm
ADJ-PTMG		Feed timing Adj
Lv.1	Details	To adjust the paper feeding timing according to the feed allowance temperature. (regardless of the fixing mode)
	Use case	Use to shorten the first copy time or the warm up time.
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	0 to 2: +15 degree 3 to 11: each 3 degree 12 to 14: -15degree
	Default value	7

T-8-26

CST-ADJ

COPIER>ADJUST>CST-ADJ		
MF-A4R		Adj of MP Tray A4R paper width
Lv.1	Details	To adjust the width of A4R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4R.
	Use case	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 1024
	Related service mode	COPIER> FUNCTION> CST> A4R
MF-A6R		Adj of MP Tray A6R paper width
Lv.1	Details	To adjust the width of A6R paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A6R.
	Use case	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 1024
	Related service mode	COPIER> FUNCTION> CST> A6R

COPIER>ADJUST>CST-ADJ		
MF-A4		Adj of MP Tray A4 paper width
Lv.1	Details	To adjust the width of A4 paper in the Multi-purpose Tray. When replacing the DC Controller PCB/clearing RAM data, enter the value of service label. When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value, execute COPIER> FUNCTION> CST> A4.
	Use case	- When replacing the DC Controller PCB/clearing RAM data - When replacing the Multi-purpose Tray Paper Width Detection PCB or registering a new value
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	0 to 1024
	Related service mode	COPIER> FUNCTION> CST> A

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■ FIXING

COPIER>ADJUST>FIXING		
FX-FL-SP		[Not used]
FX-FL-TH		[Not used]
FX-FL-LW		[Not used]
FN-MV-SW		Change of rotational speed for paper edge cooling fan
Lv.2	Details	When the rotational speed for the paper edge cooling fan is changed to reduce the curl amount of the moist paper
	Adj/set/operate method	1) Select the item to be highlighted to enter the setting value (switch with +/- key), and then press OK key. 2) Turn OFF and then ON the main power switch.
	Display/adj/set range	"0 to 2 0: OFF 1: Half speed 2: Full speed"
	Default value	1
ADJ-FNSH		Open width adj of paper edge cooling fan shutter
Lv.2	Details	When the open width for the paper edge cooling fan shutter is changed to reduce the curl amount of the moist paper
	Adj/set/operate method	1) Select the item to be highlighted to enter the setting value (switch with +/- key), and then press OK key. 2) Turn OFF and then ON the main power switch.
	Display/adj/set range	0 to 14 0 to 6: Open width is 0 to 24mm (4mm unit) 7 to 14: Open width is 30 to 58mm (4mm unit)
	Default value	7

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■ MISC

COPIER>ADJUST>MISC		
SEG-ADJ		Set criteria for text/photo: front side
Lv.1	Details	To set the judgment level of text/photo original in Text/Photo/Map mode. As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case	When adjusting the classification level of text and photo in Text/Photo/Map mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-4 to 4
	Default value	0
K-ADJ		Set criteria for black text: front side
Lv.1	Details	To set the judgment level of black characters at text processing. As the value is increased, the text tends to be detected as black.
	Use case	When preferring the text to be judged as black
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0
ACS-ADJ		Set criteria for B&W/color in ACS:front
Lv.1	Details	To set the judgment level of B&W/color original in ACS mode. As the value is increased, the original tends to be detected as a B&W document, and as the value is decreased, the original tends to be detected as a color document.
	Use case	When adjusting the color detection level in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0

COPIER>ADJUST>MISC		
ACS-EN		Set judgment area in ACS mode:front side
Lv.1	Details	To set the judgment area in ACS mode. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1
ACS-CNT		Set jdgmt pixel count area in ACS:front
Lv.1	Details	To set the area which counts the pixel to judge the color presence in ACS mode. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0
C1-ADJ-Y		Enter Cassette1 side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Cassette 1, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127

COPIER>ADJUST>MISC		
C2-ADJ-Y		Enter Cassette2 side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Cassette 2, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127
C3-ADJ-Y		Enter Cassette3 side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Cassette 3, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127
	Default value	0

COPIER>ADJUST>MISC		
C4-ADJ-Y		Enter Cassette4 side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Cassette 4, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127
	Default value	0
MF-ADJ-Y		Enter MP Tray side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Multi-purpose Tray, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127
	Default value	0

COPIER>ADJUST>MISC		
DK-ADJ-Y		Enter Paper Deck side register adj value
Lv.1	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes larger. (An image moves to the right.) -: Left margin becomes smaller. (An image moves to the left.)
	Use case	When adjusting side registration of paper picked up from Paper Deck, when executing RAM clear of the DC Controller PCB, or when replacing the PCB (Enter the value of service label.)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to enter the adjustment value on the service label after adjustment.
	Display/adj/set range	-128 to +127
	Default value	0
ACS-EN2		Set ACS mode jdgmt area in DADF mode
Lv.1	Details	To set the judgment area in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode at DADF reading
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1
ACS-CNT2		Set ACS jdgmt pixel count area in DADF
Lv.1	Details	To set the area which counts the pixel to judge the color presence in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode at DADF reading
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0

COPIER>ADJUST>MISC		
TBSIS-WB		Setting of blank band ejection time
Lv.1	Details	To set the blank band ejection time. As the value is incremented by 1, the ejection time changes by 0.1 second. +: Increase -: Decrease
	Use case	When an image failure (streaks of uneven density) occurs
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	When a positive value is set, the ejection time increases.
	Display/adj/set range	-2 to 2
	Default value	0
DCON-V		Fine adj DC Controller reference voltage
Lv.1	Details	To make a fine adjustment of the reference voltage of CPU drive voltage (3.3V) on the DC Controller PCB.
	Use case	When the reference voltage is deviated from the center value (3.41 V) significantly
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	Because it affects the scanning values of the Potential Sensor and Patch Sensor, image density may vary.
	Display/adj/set range	-14 to 14
	Default value	0
HP-OFST		Setting of 2D shading drum HP offset
Lv.1	Details	To set the home position of Photosensitive Drum in the vertical scanning direction at 2D shading. As the value is incremented by 1, the home position moves by 10 mm.
	Use case	When adjusting the home position of the Photosensitive Drum at the replacement of the drum
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Display/adj/set range	-5 to 5
	Default value	0

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FUNCTION

INSTALL

COPIER>FUNCTION>INSTALL		
TONER-S		Toner supply to Developing Assembly
Lv.1	Details	To execute a series of operation necessary for supplying toner to the Developing Assembly/Toner Supply area (drive the Developing Cylinder, Toner Stirring/Feed Member) as a whole. After counting down from 600 seconds., it is stopped automatically.
	Use case	- At installation - When replacing the Developing Assembly - When replacing toner in the Developing Assembly
	Adj/set/operate method	1) Select the items. ""Check the Developer"" is displayed. 2) Check connection, and then press OK key. It automatically stops after 10 minutes.
	Caution	- Although ""Check the Developer"" is displayed when selecting the item, be sure to check the connection between the Developing Assembly and connector. - The operation can stop manually with OK key when a failure occurs.
	Display/adj/set range	During operation: xxx second (remaining time), When operation finished normally: END
STRD-POS		Scan position auto adj in DADF mode
Lv.1	Details	To adjust the DADF scanning position automatically.
	Use case	At DADF installation/uninstallation
	Adj/set/operate method	1) Select the item, and then press OK key. The operation automatically stops after the adjustment. 2) Write the value displayed by COPIER>ADJUST>ADJ-XY>STRD-POS in the service label.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Required time	Approx. 10 seconds
	Related service mode	COPIER> ADJUST> ADJ-XY> STRD-POS

COPIER>FUNCTION>INSTALL		
CARD		Card number setting
Lv.1	Details	To set the card number to be used for Card Reader. A series of numbers from the entered number to the number of cards specified by CARD-RNG can be used.
	Use case	- At installation of the Card Reader - After replacement of the HDD
	Adj/set/operate method	1) Enter the number, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The card management information (department ID and password) is initialized.
	Display/adj/set range	1 to 2001
	Related service mode	COPIER> OPTION> FNC-SW> CARD-RNG (Level 2)
E-RDS		Set use/no use of Embedded-RDS function
Lv.1	Details	To set whether to use the Embedded-RDS function.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	0: Not used, 1: Used (All the counter information is sent.)
	Related service mode	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-PORT		Set port number of Sales Co's server
Lv.1	Details	To set the port number of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	1 to 65535
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, COM-TEST, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER>FUNCTION>INSTALL		
COM-TEST		Display connect result with the Sales Company's server
Lv.1	Details	To display the result of the connection test with the sales company's server.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Display/adj/set range	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
COM-LOG		Display connect error with the Sales Co's server
Lv.1	Details	To display error information when the connection with the sales company's server failed.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Display only
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	Year, date, time, error code, error detail information (maximum 128 characters)
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, RGW-ADR
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-ADR		URL setting of Sales Company's server
Lv.1	Details	To set the URL of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Select the URL. 2) Enter the URL, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use Shift-JIS character strings. - Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	URL
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, COM-LOG
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol

COPIER>FUNCTION>INSTALL		
CNT-DATE		Set counter send start date to sales company's server
Lv.1	Details	To set the year, month, date, hour and minute to send counter information to the sales company's server. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	When the Embedded-RDS third-party expanded function is available
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	YYYYMMDDHHMM (12 digits) YYYY: Year, MM: Month, DD: Date, HH: Hour, MM: Minute
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-INTV		Set counter send interval to the sales company's server
Lv.1	Details	To set the interval of sending counter information to the sales company's server in a unit of one hour. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	- When restarting potential control after execution of COPIER> OPTION> IMG-FIX> PO-CNT - When the D-max control condition is changed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 168 (=1 week)
	Unit	1 hour
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
BRWS-ACT		ON/OFF of service browser
Lv.1	Details	To set whether to set ON/OFF of the browser for servicing. When 2 is specified, the browser becomes enabled temporarily. This mode can be used when checking operation.
	Use case	- When using the browser for servicing - At operation check
CDS-CTL		Set country/area when using CDS
Lv.1	Details	To set country/area to enable CDS.
	Use case	When enabling CDS
	Display/adj/set range	Country/area set in COPIER> OPTION> FNC-SW> CONFIG, CA (Canada), LA (Latin America) and HK (Hong Kong)
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo	CDS: Contents Delivery System

COPIER>FUNCTION>INSTALL		
DRM-INIT		Initialization of Photosensitive Drum
Lv.1	Details	To initialize Photosensitive Drum. Clear drum counter (COPIER>COUNTER>DRBL-1>PT-DRM, COPIER>COUNTER>LF>K-DRM-LF), Drum Lot number, and checksum stored in the DC Controller.
	Use case	After replacement of the Photosensitive Drum
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK, At abnormal termination: NG
	Related service mode	COPIER> COUNTER> MISC> DRM-CNTR

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■ CCD

COPIER>FUNCTION>CCD		
CCD-ADJ		Gain adj of the analog processor in CCD
	Use case	Replacing the CCD Unit
	Adj/set/operate method	1) Place about 10 sheets of standard white paper (the whitest of all papers used by the user, other than color print paper) on the platen glass. 2) Select this item to highlight, and press the OK key. 3) See that auto adjustment takes place (about 15 sec). During adjustment, <ACTIVE> will be indicated on the upper right of the screen. 4) See that the scanning lamp goes on twice during adjustment. At the end of auto adjustment, the screen will show <OK!>.
	Caution	Register the updated value of the service mode (COPIER>ADJUST>CCD) to the service label.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
DF-WLVL1		White level adj in book mode: B&W
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass. The result is reflected for COPIER>ADJUST>CCD>DFTAR-K.
	Use case	- When replacing the Copyboard Glass - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL2 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL2 COPIER> ADJUST> CCD> DFTAR-K

COPIER>FUNCTION>CCD		
DF-WLVL2		White level adj in DADF mode: B&W
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF. The result is reflected for COPIER>ADJUST>CCD>DFTAR-K.
	Use case	- When replacing the Copyboard Glass - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL1.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1 COPIER> ADJUST> CCD> DFTAR-K
MTF-CLC		Deriving of MTF filter coefficient
Lv.1	Details	To derive the MTF filter coefficient to be set for ASIC based on the MTF value of the DADF complex chart.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
DF-WLVL3		White level adj in book mode (Color)
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass. The result is reflected for COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.
	Use case	- When replacing the Copyboard Glass - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL4 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3 COPIER> ADJUST> CCD> DFTAR-R/DFTAR-G/ DFTAR-B

COPIER>FUNCTION>CCD		
DF-WLVL4		White level adj in DADF mode (Color)
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF. The result is reflected for COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.
	Use case	- When replacing the Copyboard Glass - When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL3.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3 COPIER> ADJUST> CCD> DFTAR-R/DFTAR-G/ DFTAR-B

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■ CST

COPIER>FUNCTION>CST		
MF-A4R		Reg Multi-purpose Tray A4R standard width
Lv.1	Details	To register the standard value of A4R paper width (210mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4R.
	Adj/set/operate method	1) Set A4R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4R
MF-A6R		Reg Multi-purpose Tray A6R stdrd width
Lv.1	Details	To register the standard value of A6R paper width (105 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A6R.
	Adj/set/operate method	1) Set A6R paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A6R, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A6R
MF-A4		Reg Multi-purpose Tray A4 standard width
Lv.1	Details	To register the standard value of A4 paper width (297 mm) on the Multi-purpose Tray. Make a fine adjustment by COPIER> ADJUST> CST-ADJ> MF-A4.
	Adj/set/operate method	1) Set A4 paper on the Multi-purpose Tray, and set the guide so that it fits the paper width. 2) Select the item, and then press OK key. The value is registered after automatic adjustment.
	Caution	After execution, check the registered value by COPIER> ADJUST> CST-ADJ> MF-A4, and write it down on the service label.
	Related service mode	COPIER> ADJUST> CST-ADJ> MF-A4

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■ CLEANING

COPIER>FUNCTION>CLEANING		
DRM-IDL		Drum cleaning
Lv.2	Details	To perform the drum cleaning
	Use case	When the black spots appear on the copy image in the drum circumference cycle. (Toner adheres on the drum surface.)
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	60 seconds
TR-CLN		Transfer roller cleaning
Lv.2	Details	To clean the transfer roller
	Use case	When the back side of paper is soiled with toner (the transfer roller is soiled with toner).
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 35 seconds
FIX-CLN		Fixing film cleaning
Lv.2	Details	To clean the fixing film
	Use case	When the fixing pressure roller is soiled with tonner.
	Adj/set/operate method	1) Print out the cleaning pattern (setting value: 44) with COPIER> TEST> PG> TYPE. 2) Press OK key to execute the cleaning after setting the paper on the manual tray.
	Required time	Approx. 60 seconds

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■ FIXING

COPIER>FUNCTION>FIXING		
NIP-CHK		Check of fixing nip width
Lv.1	Details	To check whether the fixing nip width is appropriate by printing. If it is not appropriate, a fixing failure may occur.
	Use case	- When replacing the fixing-related parts (Fixing Roller, Pressure Roller) - When a fixing failure occurs
	Adj/set/operate method	1) Print approx. 20 sheets of A4 size paper. 2) Make a solid black print (setting value: 7) with COPIER> TEST> PG> TYPE. 3) Set the output of step 2 on the Multi-purpose Tray while placing the printed side down. 4) Select the item, and then press OK key. A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later. 5) Measure the nip width of delivered sheet. It is judged as normal: (iR-ADV 4051: 8.1 to 10.1mm, iR-ADV 4045/4035/4025 :7.5 to 9.5mm) at the center, and difference between front and rear is within 1.0mm. If there is an error, execute step 6. 6) Check the Fixing Film Unit and Pressure Roller. Then replace damaged part.
	Related service mode	COPIER> TEST> PG> TYPE

T-8-34

■ PANEL

COPIER>FUNCTION>PANEL		
LCD-CHK		Check of LCD Panel dot missing
Lv.1	Details	To check whether there is a missing dot on the LCD Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LCD Panel lights up in the order of white, black, red, green and blue. 3) Press STOP key to terminate checking.
LED-CHK		Check of Control Panel LED
Lv.1	Details	To check whether the LED on the Control Panel lights up.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LED lights up in the order. 3) Use LED-OFF to terminate checking.
	Related service mode	COPIER> FUNCTION> PANEL> LED-OFF
LED-OFF		End check of Control Panel LED
Lv.1	Details	To terminate the check of LED on the Control Panel.
	Use case	During execution of LED-CHK
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> FUNCTION> PANEL> LED-CHK
KEY-CHK		Check of key entry
Lv.1	Details	To check the key input on the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item and press the key on the Control Panel. 2) Check that the input value is displayed. 3) Cancel the selection to terminate checking.
TOUCHCHK		Adj of coordinate pstn of Touch Panel
Lv.1	Details	To adjust the coordinate position on the Touch Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Press the nine ""+"" keys in sequence.

T-8-35

■ PART-CHK

COPIER>FUNCTION>PART-CHK		
CL		Specification of operation Clutch
Lv.1	Details	To specify the Clutch to operate.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 6 1:Manual feed pickup clutch (CL12) 2:Registration clutch (CL3) 3:Developing cylinder clutch (CL1) 4:Not used 5:Not used 6:Deck pickup clutch (CL2D)
	Related service mode	COPIER> FUNCTION> PART-CHK> CL-ON
CL-ON		Operation check of Clutch
Lv.1	Details	To start operation check of the Clutch specified by CL. The operation stops after ""ON for 0.5 sec"" => ""OFF for 10 sec"" => ""ON for 0.5 sec"" => ""OFF for 10 sec"" => ""ON for 0.5 sec"".
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Default value	0
	Required time	Approx. 22 seconds
	Related service mode	COPIER> FUNCTION> PART-CHK> CL

COPIER>FUNCTION>PART-CHK		
MTR		Specification of operation Motor
Lv.1	Details	To specify the Motor to operate.
	Use case	When replacing the Motor/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Caution	Be sure to remove the Toner Container before Bottle motor (M17) is activated. If it remains to be installed, toner is supplied.
	Display/adj/set range	1 to 16 1:Polygon motor (M11) 2:Main motor (M1) 3:Fixing motor (M2) 4:No.1 delivery motor (M10) 5:Bottle motor (M17) 6:Cassette 1 pickup motor (M13) 7:Cassette 2 pickup motor (M3) 8:Duplex feed motor (M9) 9:Hopper motor(M16) 10:Cassette 3 pickup motor (M101) 11:Cassette 4 pickup motor (M102) 12:Deck open solenoid (M1D) 13:Deck lifter motor (M2D) 14:Reversal motor(M20) 15:Not used 16:Buffer pass motor (M3)
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR-ON
MTR-ON		Operation check of Motor
Lv.1	Details	To start operation check of the Motor specified by MTR. The operation automatically stops after operation of 20 seconds.
	Use case	When replacing the Motor/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to remove the Toner Container before Toner Supply Motor (M10) is activated. If it remains to be installed, toner is supplied.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	1 minute
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR

COPIER>FUNCTION>PART-CHK		
SL		Specification of operation Solenoid
Lv.1	Details	To specify the Solenoid to operate.
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	1 to 10 1:Cassette 1 pickup solenoid (SL1) 2:Cassette 2 pickup solenoid (SL2) 3:Cassette 3 pickup solenoid 4:Cassette 4 pickup solenoid 5:Deck pickup roller release solenoid (SL1D) 6:Deck open solenoid (SL2D) 7:Reversal Solenoid (SL12) 8:No. 2 Delivery Solenoid (SL13) 9:Not used 10:Manual feed pickup solenoid (SL2)
	Related service mode	COPIER> FUNCTION> PART-CHK> SL-ON
SL-ON		Operation check of Solenoid
Lv.1	Details	To start operation check for the Solenoid specified by SL. The operation stops after ""ON for 0.5 sec"" => ""OFF for 10 sec"" => ""ON for 0.5 sec"" => ""OFF for 10 sec"" => ""ON for 0.5 sec"".
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	1 minute
	Related service mode	COPIER> FUNCTION> PART-CHK> SL

T-8-36

■ CLEAR

COPIER>FUNCTION>CLEAR		
ERR		Clear of error code
Lv.1	Details	To clear error codes (E000, E001, E002, E003, E717, E719). E000, E001, E002, and E003 are fixing-related errors. E004 (IH Power Supply) and E005 (Web absence) do not need to be cleared.
	Use case	At error occurrence
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
DC-CON		RAM clear of DC Controller PCB
Lv.1	Details	To clear the RAM data of the DC Controller PCB.
	Use case	When clearing the RAM data of the DC Controller PCB
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON. - If the setting value in COPIER> OPTION> ACC> IN-TRAY is "1", set "1" again. And turn off/on the main power switch. - Set the life in COPIER> COUNTER> DRBL-1> PT-DRM by referring data output in P-PRINT. (Except JP)
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT COPIER> OPTION> ACC> IN-TRAY COPIER> COUNTER> DRBL-1> PT-DRM
R-CON		RAM clear of CCD unit (CCD PCB)
Lv.1	Details	To clear the RAM data of the CCD unit (CCD PCB).
	Use case	When clearing the RAM data of the CCD unit (CCD PCB)
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
JAM-HIST		Clear of jam history
Lv.1	Details	To clear the jam history.
	Use case	When clearing the jam history
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> DISPLAY> JAM

COPIER>FUNCTION>CLEAR		
ERR-HIST		Clear of error code history
Lv.1	Details	To clear the error code history.
	Use case	When clearing the error code history
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> DISPLAY> ERR
PWD-CLR		Clear of system administrator password
Lv.1	Details	To clear the password of the system administrator set in the user mode.
	Use case	When clearing the password of the system administrator
	Adj/set/operate method	Select the item, and then press OK key.
ADRS-BK		Clear of address book
Lv.1	Details	To clear the address book data.
	Use case	When clearing the address book data
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The address book data is cleared after the main power switch is turned OFF/ON.
CNT-MCON		Clear of Main Controller service counter
Lv.1	Details	To clear the service counter counted by the Main Controller PCB.
	Use case	When clearing the service counter counted by the Main Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER
	Supplement/memo	See COUNTER for the target counter.
CNT-DCON		Clear of DC Controller service counter
Lv.1	Details	To clear the service counter counted by the DC Controller PCB.
	Use case	When clearing the service counter counted by the DC Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> COUNTER
OPTION		Clear of service mode setting value(OPTION)
Lv.1	Details	To return the value specified in service mode (OPTION) to the default value (value at the time of RAM clear).
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - This item is executed for the data on the Main Controller PCB, DC Controller PCB and CCD unit (CCD PCB). The setting value in COPIER>OPTION>FNC-SW>SENS-CNF/MODELSZ2 is not cleared.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

COPIER>FUNCTION>CLEAR		
MMI		Clear of user mode setting value
Lv.1	Details	To clear the user mode setting values (excluding values for Control Panel, common settings, and FAX). - Common Settings - Timer Settings - Adjustment/Cleaning - Report Settings - System Settings - Copy Settings - Communications Settings - Printer Settings
	Use case	When clearing various setting values of user mode
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The setting value is cleared after the main power switch is turned OFF/ON.
MN-CON		RAM clear of Main Controller PCB SRAM Board
Lv.1	Details	To clear the RAM data of the Main Controller PCB SRAM Board. All data on the SRAM Board is initialized.
	Use case	When clearing the RAM data of the Main Controller PCB SRAM Board
	Adj/set/operate method	1) Select the item, and then press OK key. The machine is automatically rebooted. 2) Turn OFF/ON the main power switch.
	Caution	- Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, management - Inform the user that all images in Inbox will be deleted and get approval for it. - Since the file management information is initialized, images on the HDD cannot be read. - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - the RAM data is cleared After the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
CARD		Clear of card ID-related data
Lv.1	Details	To clear the data related to the card ID (department).
	Use case	When clearing the data related to the card ID
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The value is cleared after the main power switch is turned OFF/ON.

COPIER>FUNCTION>CLEAR		
ALARM		Clear of alarm log
Lv.1	Details	To clear alarm log.
	Use case	When clearing alarm log
	Adj/set/operate method	1) Select the item, and then press OK key.
	Related service mode	COPIER> DISPLAY> ALARM-2
CA-KEY		Deletion of CA certificate and key pair
Lv.1	Details	To simultaneously delete the CA certificate and key pair which are additionally registered by the user.
	Use case	When a service person replaces/discards the device
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 3) Turn OFF/ON the main power switch.
	Caution	- Unless this item is executed at the time of replacement/ discard of the device, the CA certificate and key pair which are additionally registered by the user remain in the HDD, which is a problem in terms of security. - Do not execute this item carelessly because the CA certificate and key pair which are additionally registered are deleted when it is executed. If they are deleted mistakenly, they need to be again registered by the user. If no CA certificate and key pair are additionally registered, the machine condition becomes the same as the one at the time of factory shipment. - When NG is displayed in 2), there is a possibility that deletion was not executed. In this case, surely execute the deletion by initializing the HDD, etc.
	Supplement/memo	- The CA certificate is used in the MEAP application with E-RDS and SSL client connection, and the key pair is used in the SSL function of IPP, RUI and MEAP. - When the main power switch is turned OFF/ON, the CA certificate and key pair which were registered at the time of factory shipment are decompressed from the archive (/ BOOTDEV/KCMNG), and become available in the E-RDS/SSL function.

COPIER>FUNCTION>CLEAR		
ERDS-DAT		Initialization of E-RDS SRAM data
Lv.1	Details	To initialize the SCM value of the Embedded-RDS stored in the SRAM. SCM values are ON/OFF of E-RDS, server's port number, server's SOAP URL, and communication schedule with the server (how often the data is acquired), etc. The value set by COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG is cleared.
	Use case	When upgrading the Bootable in the E-RDS environment
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	The method of using the SRAM in E-RDS differs depending on the Bootable version. Therefore, unless the SRAM data is cleared at the time of version upgrade, data inconsistency occurs.
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG
KEY-CLR		Encrypt key clear of HDD Encrypt Board
Lv.1	Details	To clear the encryption key of the HDD Encryption Board (Security Kit) for replacement. Processing is executed at the time of replacement of the Encryption Board, and a new encryption key is generated.
	Use case	When replacing the encryption key for the HDD Encryption Board
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 2) Turn OFF/ON the main power switch.
	Caution	Since all data in the HDD becomes unavailable when executing this item, be sure to initialize the HDD after turning OFF/ON the main power switch.
USBM-CLR		Initialize USB MEAP priority registration info
Lv.1	Details	To initialize the registered ID data retained in the OS field by calling the API provided by the OS.
	Use case	When a failure occurs in USB MEAP priority registration
JV-CACHE		Cache clear of JAVA application
Lv.1	Details	To clear the cache information used by JAVA application.
	Use case	When initializing the JAVA application
	Adj/set/operate method	Select the item, and then press OK key.

COPIER>FUNCTION>CLEAR		
FXTX-CLR		Clearing fax job information
Lv.1	Details	To clear fax job information stored on SRAM. Use this mode to restore from E611-0001.
	Use case	When E611-0001 occurs
	Adj/set/operate method	Select the item, and then press OK key.
LANG-CLR		Uninstallation of local language:Java UI
Lv.1	Details	To uninstall the local language (Java UI). If this mode is executed, the language files other than English and Japanese are deleted. Screen is displayed in English.
	Use case	When uninstalling the local language
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Reboot the machine.

T-8-37

■ MISC-R

COPIER>FUNCTION>MISC-R		
SCANLAMP		Light-up check of LED
Lv.1	Details	To light up the LED for 3 seconds.
	Use case	When replacing the LED
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	3 seconds

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MISC-P

COPIER>FUNCTION>MISC-R		
P-PRINT		Output of service mode setting value
Lv.1	Details	To print the service mode setting value.
	Use case	Before executing the CLEAR service mode, etc.
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 60 seconds
KEY-HIST		Output of Ctrl Panel key input history
Lv.1	Details	To print the key input history on the Control Panel.
	Use case	When printing the key input history on the Control Panel
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 40 seconds
HIST-PRT		Output of jam and error history
Lv.1	Details	To print the jam history and error history.
	Use case	When printing the jam/error history
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 30 seconds
TRS-DATA		Moving memory reception data to Inbox
Lv.2	Details	To move the data received in memory to Inbox.
	Use case	When moving the data received in memory to Inbox
	Adj/set/operate method	Select the item, and then press OK key.
USER-PRT		Output of user mode list
Lv.1	Details	To print the user mode list.
	Use case	When printing the user mode list
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 35 seconds
	Supplement/memo	It takes approximately 3 seconds before printing starts.
LBL-PRNT		Output of service label
Lv.1	Details	To print the service label.
	Use case	When printing the service label
	Adj/set/operate method	1) Place A4/LTR paper in Cassette 1. 2) Select the item, and then press OK key.
	Required time	Approx. 55 seconds
	Supplement/memo	It takes approximately 15 seconds before printing starts.
ENV-PRT		Temp&hmdy/surface temp of Fix Roll log
Lv.1	Details	To output data of the temperature and humidity inside the machine/surface temperature of the Fixing Roller as a log.
	Use case	When figuring out the past temperature inside the machine/fixing temperature information at trouble analysis
	Adj/set/operate method	Select the item, and then press OK key.
	Required time	Approx. 30 seconds

COPIER>FUNCTION>MISC-R		
PJH-P-1		Detail info of print job history:100 job
Lv.1	Details	To print the print job history for the latest 100 jobs with detailed information. In the case of less than 100 jobs, the history of all print jobs is printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	Output the print job history with detailed information which is not displayed/printed in the job history screen under "System Monitor>Print>Log>Printer" and in the report of the print job history.
PJH-P-2		Detail info of print job history:all job
Lv.1	Details	To print the history of all print jobs stored in the machine with detailed information (for maximum 5000 jobs). The difference between PJH-P-1 and this item is only the number of jobs printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Supplement/memo	Output the print job history with detailed information which is not displayed/printed in the job history screen under "System Monitor>Print>Log>Printer" and in the report of the print job history.
USBH-PRT		Output of USB device information report
Lv.1	Details	To output information of the connected USB device in the form of a report.
	Adj/set/operate method	Select the item, and then press OK key.

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■ SYSTEM

COPIER>FUNCTION>SYSTEM		
DOWNLOAD		Shift to download mode
Lv.1	Details	To make the machine enter the download mode and wait for a command. Perform downloading by SST/USB.
	Use case	At upgrade
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Perform downloading by SST/USB.
	Supplement/memo	SST: Service Support Tool
CHK-TYPE		HD-CLEAR/HD-CHECK exe partition No.
Lv.1	Details	To specify the partition number of the HDD to execute HD-CLEAR/HD-CHECK.
	Use case	When executing HD-CLEAR/HD-CHECK
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 65535 0: Entire HDD 1: Image accumulation area 2: Universal file storage area 3: PDL file storage area 4: Program file storage area 5: MEAP application 6: Address book transfer setting 7: MEAP storage data 8: System log storage area 9: Advanced Box area 10: Area for distribution server 11: Storage area of universal data
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK
	Supplement/memo	Universal file: Management information of user setting data, various log data, PDL spool data, and image data, etc.
HD-CHECK		Entire HDD check and recovery
Lv.1	Details	To check the entire HDD and execute recovery processing.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	During operation: Progress ratio (%), When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
HD-CLEAR		Initialization of specified partition
Lv.1	Details	To initialize the HDD partition specified by CHK-TYPE.
	Use case	When initializing the HDD partition
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	When operation finished: OK!/NG!
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE

COPIER>FUNCTION>SYSTEM		
DEBUG-1		Setting of log type and save timing
Lv.2	Details	To set the types of logs to be stored and the timing to store logs in the HDD. Logs are used to analyze the cause of a trouble.
	Use case	When analyzing the cause of a problem
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service. Change the setting value in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 3 0: Save PLOG at detection of Reboot/Exception 1: Save PLOG at detection of Reboot/Exception/Encode 2: Save SUBLOG at detection of Reboot/Exception/Encode 3: Save SUBLOG in overwrite mode at detection of Reboot/Exception/Encode
	Default value	3
	Related service mode	COPIER> FUNCTION> SYSTEM> DEBUG-2 (Level 2)
	Supplement/memo	PLOG can be printed by COPIER> FUNCTION> SYSTEM> DEBUG-2. SUBLOG cannot be printed. (It should be uploaded from SST/USB.)
DEBUG-2		Output of log saved on HDD
Lv.2	Details	To print the PLOG saved in HDD by COPIER> FUNCTION> SYSTEM> DEBUG-1. (A4: Approx. 20 sheets) SUBLOG is not printed. It should be uploaded from SST/USB.
	Use case	When printing PLOG
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> DEBUG-1 (Level 2)
DSRAMBUP		Backup of DC Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMRES

COPIER>FUNCTION>SYSTEM		
DSRAMRES		Restore of DC Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP
RSRAMBUP		Backup of CCD unit (CCD PCB) SRAM
Lv.2	Details	To back up the setting data in SRAM of the CCD unit (CCD PCB).
	Use case	When replacing the CCD unit (CCD PCB) for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMRES
RSRAMRES		Restore of CCD unit (CCD PCB) SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the CCD unit (CCD PCB).
	Use case	When replacing the CCD unit (CCD PCB) for troubleshooting at the time of trouble occurrence
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMBUP
R-REBOOT		Reboot of the device
Lv.1	Details	Perform the reboot from the service mode
	Use case	When the reboot is carried out with the remote control by VNC

T-8-40

OPTION

FNC-SW

COPIER>OPTION>FNC-SW		
MODEL-SZ		Fixed magnifictn & DADF orgnl dtct size
Lv.1	Details	To set the fixed magnification ratio display and the original detection size with DADF. It is set automatically at the time of installation of the Reader according to the location.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: AB configuration (6R5E) for Japan, 1: Inch configuration (5R4E) for North/Middle/South America, 2: A configuration (3R3E) for Europe, 3: AB/Inch configuration (6R5E) for Asia, Oceania, South America
	Default value	It differs according to the location.
SCANSLCT		ON/OFF of scan area calculate function
Lv.2	Details	To set ON/OFF of the function to calculate scanning area from the specified paper size. When the paper size is larger than the original size, selecting ON reduces productivity because the scanning area gets larger.
	Use case	When matching the scanning area with the paper size
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF (calculated from the detected original size) 1: ON (calculated from the specified paper size)
	Default value	0
SENS-CNF		Setting of original detection size
Lv.2	Details	To set original detection size according to AB configuration/Inch configuration/A configuration. Select 1 (Inch configuration) for Inch configuration/A configuration machine.
	Use case	When replacing the CCD unit (CCD PCB)/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: AB configuration, 1: Inch configuration
	Default value	0

COPIER>OPTION>FNC-SW		
CONFIG		Set country/area/lang/location/ppr size
Lv.1	Details	To set the country/region, language, location, paper size configuration for multiple system software in HDD.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the setting item. 2) Switch with +/- key, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	XX YY.ZZ.AA XX: Country/region JP: Japan, US: United States, GB: England, FR: France, DE: Germany, IT: Italia, AU: Australia, SG: Singapore, NL: Netherlands, KR: Korea, CN: China, TW: Taiwan, ES: Spain, SE: Sweden, PT: Portugal, NO: Norway, DK: Denmark, FI: Finland, PL: Poland, HU: Hungary, CZ: Czech, SI: Slovenia, GR: Greek, EE: Estonia, RU: Russia, AD: Andorra, AL: Albania, AM: Armenia, AR: Argentine, AT: Austria, BA: Bosnia Herzegovina, BE: Belgium, BG: Bulgaria, BO: Bolivia, BR: Brazil, CA: Canada, CH: Switzerland, CL: Chile, CY: Cyprus, HR: Croatia, ID: Indonesia, IE: Ireland, IL: Israel, IN: India, IS: Iseland, LU: Luxembourg, LV: Latvia, MX: Mexico, MY: Malaysia, NZ: New Zealand, PE: Peru, PH: Philippine, PY: Paraguay, RO: Romania, SK: Slovakia, TH: Thailand, TR: Turkey, UA: Ukraine, UY: Uruguay, VE: Venezuela, VN: Vietnam YY: Language (Fixed; e.g. ja: Japanese) ZZ: Location (Fixed; e.g. 00: CANON) AA: Paper size configuration (00: AB configuration, 01: Inch configuration, 02: A configuration, 03: Inch/AB configuration)
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
W/SCNR		Setting of Reader Unit installation
Lv.1	Details	To set installation of the Reader Unit. 1 (Installed) is automatically selected once the Reader Unit is detected at the start of the machine.
	Use case	When installing/removing the Reader Unit
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
	Default value	According to the setting at shipment
FAN-EXTN		Fan drive extension mode after job
Lv.2	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	1

COPIER>OPTION>FNC-SW		
ORG-LGL		Special paper size set in DADF mode: LGL
Lv.2	Details	To set the size of special paper (LGL configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 10 [Inch type] 0: LEGAL-R, 1: FOOLSCAP-R, 2: OFICIO-R, 3: Not used, 4: Australian FOOLSCAP-R, 5: Ecuador OFICIO-R, 6: Bolivia OFICIO-R, 7: Argentine OFICIO-R, 8: Argentine LEGAL-R, 9: Government LEGAL-R, 10: Mexico OFICIO-R [AB/Inch type] 0: LEGAL-R, 1: FOOLSCAP-R, 2: F4A
	Default value	0
ORG-LTR		Special paper size set in DADF mode: LTR
Lv.2	Details	To set the size of special paper (LTR configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: LETTER 1: EXECUTIVE 2: Argentine LETTER 3: Government LETTER
	Default value	0
ORG-LTRR		Special paper size set in DADF mode: LTRR
Lv.2	Details	To set the size of special paper (LTRR configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0 : LETTER-R 1 : OFICIO-R 2 : Ecuador-OFICIO-R
	Default value	0

COPIER>OPTION>FNC-SW		
ORG-LDR		Special paper size set in DADF mode: LDR
Lv.2	Details	To set the size of special paper (LDR configuration) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: LEDGER-R (11x17) 1: Argentine LETTER
	Default value	0
ORG-B5		Special paper size set in DADF mode: B5
Lv.2	Details	To set the size of special paper (B5) that cannot be recognized in DADF stream reading mode.
	Use case	- Upon user's request - When picking up special paper size original from DADF
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: B5, 1: Korean government office paper
	Default value	0
MODELSZ2		Ppr size dtct global support in bookmode
Lv.2	Details	To set ON/OFF for global support of document size detection in copyboard reading mode.
	Use case	Upon user's request (mixed media original with AB/Inch configuration)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - The Document Size Sensor (Photo Sensor) is additionally required to correctly detect the document size when the original consists of mixed media (AB/Inch configuration).
	Display/adj/set range	0 to 1 0: Detected with detection size according to location, 1: Detected with AB/Inch mixed media.
	Default value	0
SVMD-ENT		Setting of entry method to service mode
Lv.2	Details	To set the way to get in service mode to prevent information leak.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: [Settings/Registration] - Pressing [2] and [8] at the same time - [Settings/Registration] 1: [Settings/Registration] - Pressing [4] and [9] at the same time - [Settings/Registration]
	Default value	0

COPIER>OPTION>FNC-SW		
SC-L-CNT		Set large paper judgment reference at scan
Lv.1	Details	To set the judgment reference of the scan counter as to which to use B4 or LTR to determine large size. The threshold is determined by the combination with the setting of B4-L-CNT. SC-L-CNT=0, B4-L-CNT=0: paper exceeding B4 is determined as large size, paper with B4 or smaller is determined as small size. SC-L-CNT=0, B4-L-CNT=1: paper with B4 or larger is determined as large size, paper smaller than B4 is determined as small size.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: B4 size, 1: LTR size
	Default value	0
	Related service mode	COPIER> OPTION> USER> B4-L-CNT
KSIZE-SW		Set of Chinese paper (K-size) support
Lv.2	Details	To set to detect/display the Chinese paper (K size paper: 8K, 16K).
	Use case	When using K size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Go through the following: COPIER > OPTION > FNC-SW > MODEL-SZ; and if MODEL-SZ is "0: AB configuration", this mode is enabled.
	Display/adj/set range	0 to 1 0: Not supported, 1: Supported
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
	Supplement/ memo	8K paper: 270 x 390 mm, 16K paper: 270 x 195 mm

COPIER>OPTION>FNC-SW		
ORG-B4		[Not used]
PDF-RDCT		PDF reduction set at forwarding
Lv.2	Details	To set whether to reduce the image for transmission when converting the image received by IFAX into PDF for e-mail/file transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Image reduction
	Default value	0
REBOOTSW		Restart setting at E240 error occurrence
Lv.2	Details	To set whether to reboot in the case of E240 error. In the case of E240 error, the machine is automatically rebooted due to the possibility of continuous operation of the drive system while the spooled print job is cleared. Print job can be obtained if selecting the setting not to reboot.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - Be sure to get approval from the user by telling the possibility of continuous operation of the drive system in the case of E240 error.
	Display/adj/set range	0 to 1 0: Rebooted, 1: Not rebooted
	Default value	0
	Supplement/ memo	E240 error: Communication error between the Main Controller and the DC Controller.
SJB-UNW		Reserve upper limit of secure print job
Lv.2	Details	To set the upper limit for the number of reserved jobs in secure print job.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 50 jobs, 1: 90 jobs
	Default value	0

COPIER>OPTION>FNC-SW		
WEBV-SW		ON/OFF of WebDAV function
Lv.2	Details	To set ON/OFF of WebDAV function. OFF setting can reduce memory use of the machine. In addition, the following WebDAV-related items are hidden in user mode. - Settings/Registration> Set Destination> Register Destinations> Register New Dest.> File> Protocol> WebDAV - Settings/Registration> Function Settings> Send> Common Settings> Use Divided Chunk Send for WebDAV TX
	Use case	When reducing memory use of the machine
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
	Related user mode	Settings/Registration> Set Destination> Register Destinations> Register New Dest.> File> Protocol> WebDAV Settings/Registration> Function Settings> Send> Common Settings> Use Divided Chunk Send for WebDAV TX
	Supplement/ memo	WebDAV function is equipped as standard with the machine.
CARD-RNG		Card number setting (department number)
Lv.2	Details	To set the number of cards (departments) that can be used with the Card Reader.
	Use case	When setting the number of cards (departments)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 1000
	Default value	1000
SJOB-CL		Set of scan job canceling by logout
Lv.1	Details	To set whether to cancel the scan job in operation by logout of the user.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- The job in scanning operation cannot be canceled. - Cancel by logout is kept in the log.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/ memo	Scan job: A job after the scanning operation is completed.

COPIER>OPTION>FNC-SW		
USB-RCNT		Auto connect set at USB device disconnct
Lv.2	Details	To set to enable/disable automatic connection when the USB device is disconnected. With the setting to disable automatic connection, USB device cannot be used if disconnecting and then connecting the USB device. To enable connection again, the power needs to be turned OFF/ON. With the setting to enable automatic connection, reconnection is made after disconnecting, and then connecting the USB device.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	With the setting to enable automatic connection, disconnecting of 1 area makes automatic connection of all USB devices if there is USB hub.
	Display/adj/set range	0 to 1 0: No automatic connection, 1: Automatic connection
	Default value	0
MIBCOUNT		Scope range set of Charge Counter MIB
Lv.2	Details	To set the range of counter information that can be obtained as MIB (Management Information Base).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: All charge counters are obtained, 1: Only displayed counter* is obtained, 2: All charge counters are not obtained * : Counter specified by the following: COPIER > OPTION > USER > COUNTER 1 to 6
	Default value	0
	Related service mode	COPIER> OPTION> USER> COUNTER1 to 6
CNTR-SW		Init of parts counter replacement timing
Lv.1	Details	To return the estimated life of parts counter to the initial value.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter 0, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Returned to the initial value
	Default value	0
ILSZ-JAM		[Not used]

COPIER>OPTION>FNC-SW		
W/RAID		Setting of RAID Board installation
Lv.1	Details	To set installation condition of RAID Board (HDD Mirroring Kit). Select ""1: Installed"" when installing the RAID Board. Select ""0: Not installed"" when removing the RAID Board.
	Use case	When installing/removing RAID Board
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
	Default value	0
PSWD-SW		Password type set to enter service mode
Lv.1	Details	To set the type of password that is required to enter when getting into service mode. 2 types are available: one for ""service technician"" and the other for ""system administrator + service technician"". When selecting the type for ""system administrator + service technician"", enter the password for service technician after the password entry by the user's system administrator.
	Use case	Upon request from the user who concerns security
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No password, 1: Service technician, 2: System administrator + service technician
	Default value	0
SM-PSWD		Password setting for service technician
Lv.2	Details	To set password for service technician that is used when getting into service mode.
	Use case	When password is required to get into service mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to select 1 or 2 with PSWD-SW in advance.
	Display/adj/set range	1 to 99999999
	Default value	11111111
	Related service mode	COPIER> OPTION> FNC-SW> PSWD-SW
RPT2SIDE		Set of report 1-sided/2-sided output
Lv.1	Details	To set whether to use 1-sided or 2-sided for report output of service mode.
	Use case	When making 2-sided report output to reduce the number of output pages
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	1
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

COPIER>OPTION>FNC-SW		
BRWS-FAV		Set of service browser favorite register
Lv.2	Details	To set whether to allow registration of favorites in the browser for service. When 1 is set, favorites in the browser for service can be edited, and any URLs can be accessed.
	Use case	When service engineers edit favorites in the browser for service
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
INVALPDL		Disable of PDL license
Lv.1	Details	To disable the registered PDL license. When ""1: Disabled"" is set, PDL is disabled even if a PDL license is registered. This is set to the machines installed at convenience stores, which do not allow PDL to be used.
	Use case	When prohibiting the use of PDL
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Registered PDL license is enabled, 1: Disabled
	Default value	0

COPIER>OPTION>FNC-SW		
CDS-FIRM		Set to allow firmware update by admin
Lv.1	Details	To set whether to permit update of the firmware by user (administrator). When ""1: Enabled"" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to update the firmware
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	Europe: 1, Other than Europe: 0
CDS-MEAP		Set to allow MEAP installation by admin
Lv.1	Details	To set whether to permit the user (administrator) to install MEAP applications and enable iR options from CDS. When ""1: Enabled"" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to install MEAP applications and enable iR options from CDS
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled (This setting can be specified for China, Korea and Taiwan models only.)
	Default value	1
	Supplement/ memo	CDS: Contents Delivery System
CDS-UGW		Set to allow firmware update from UGW
Lv.1	Details	To set whether to permit update of the firmware from the UGW server. When ""1: Enabled"" is set, Updater accepts the operation from the UGW server in cooperation with CDS.
	Use case	When allowing update of the firmware from the UGW server
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/ memo	CDS: Contents Delivery System
LOCLFIRM		Set to allow firmware update by file
Lv.1	Details	To set whether to permit the user (administrator) to update the firmware from the remote UI using a local file. This update is executed as a measure for vulnerability in emergency situations.
	Use case	When allowing the administrator to update the firmware using a file
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1

COPIER>OPTION>FNC-SW		
BXNUPLOG		ON/OFF of Nup log at Inbox print
Lv.2	Details	To set whether to keep Nup log at Inbox print.
	Use case	When keeping Nup log at Inbox print
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	At normal service: 0, At customization: 1
SDLMTWRN		Cpcty warn dis ON/OFF at E-mail/I-Fax TX
Lv.1	Details	To set whether to display the warning message when sending data that exceeds the upper limit value for the transmission data size via E-mail/I-Fax.
	Use case	For customization
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related user mode	Function Settings> Send> E-Mail/I-Fax Settings> Maximum Data Size for Sending
JLK-PWSC		ON/OFF of PCAM password auth doc scan
Lv.2	Details	To set whether to scan the PCAM password authentication document with the MEAP application.
	Use case	When scanning the PCAM password authentication document
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
FAX-INT		Set FAX RX print interruption oprtn mode
Lv.2	Details	To set the mode performing interruption operation of FAX reception print automatically.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Interruption operation mode
	Default value	0

COPIER>OPTION>FNC-SW		
CDS-LVUP		ON/OFF of CDS periodical update function
Lv.1	Details	To set ON/OFF of periodical update function by CDS. If 1 is set, Updater automatically updates on a periodical basis. Administrator can use the periodical update function from the user mode.
	Use case	When allowing the administrator to use the periodical update function
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	Other than Europe: 0, Europe: 1
WTM-DENS		Set density at watermark/PCMA setting
Lv.2	Details	When the watermark/PCAM is set, the density becomes high by changing the developing /primary charge DC voltage so that the watermark/PCAM is reappeared.
	Use case	To increased the density when the watermark/PCAM is selected at the security print mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0
AMSOFFSW		Set AMS(ACQ) mode to OFF
Lv.2	Details	1) AMS license of iR-option is installed 2) Login application for AMS is started The device is set to the AMS mode automatically in the above conditions. Use this mode to turn the AMS mode off.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0

COPIER>OPTION>FNC-SW		
UA-OFFSW		ON/OFF of unified auth function
Lv.1	Details	To set ON/OFF of the Unified Authentication function. Set 0 when not preferring to use the Unified Authentication function because of security concern.
	Use case	Upon user's request (not to use the Unified Authentication function)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
MIB-NVTA		RFC-compatible character stringMIB write
Lv.1	Details	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS. Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch."
	Display/adj/set range	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value	0
MIB-EXT		ON/OFF of link with Ex-Cont on network
Lv.1	Details	To set whether to link with External Controller on network (Hewlett-Packard Co.).
	Use case	When linking with External Controller of Hewlett-Packard Co.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: OFF, 1: ON, 2: Not used
	Default value	0

COPIER>OPTION>FNC-SW		
BXSHIFT		Setting of binding at 0mm binding margin
Lv.1	Details	To set whether to judge the job as a job "without binding" when storing a PDL job in Inbox while the binding margin is set to "0". By setting the binding margin to 0 mm while "0" is set, the job is processed as "without binding". "Booklet" in "Other Functions" on the Inbox screen can be also used. When "1" is set, it is judged as "with binding" even the binding margin is 0 mm so "Booklet", which has an exclusive relationship with "binding", cannot be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When storing a PDL job in Inbox while 1 is set, "Booklet" in "Other Functions" on the Inbox screen cannot be used.
	Display/adj/set range	0 to 1 0: Without binding, 1: With binding
	Default value	0

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DSPLY-SW

COPIER>OPTION>DSPLY-SW		
UI-COPY		Display/hide of copy screen
Lv.2	Details	To set whether to display or hide the copy function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-BOX		Display/hide of Inbox screen
Lv.2	Details	To set whether to display or hide the Inbox function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: No Inbox function (Storing is not available even with PDL to Inbox.) 1: Inbox function is active 2: Inbox function is active (with limitation; Storing is available with PDL to Inbox despite no display on the Control Panel/remote UI)
	Default value	1
UI-SEND		Display/hide of send screen
Lv.2	Details	To set whether to display or hide the SEND function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER>OPTION>DSPLY-SW		
UI-FAX		Display/hide of FAX screen
Lv.2	Details	To set whether to display or hide the FAX function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
ANIM-SW		[Not used]
UI-PRINT		Display/hide of print job screen
Lv.2	Details	To set whether to display or hide the print job screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-RSCAN		Display/hide of remote scan screen
Lv.2	Details	To set whether to display or hide the remote scan screen on the Control Panel.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch."
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-EPRNT		Display/hide of extended print screen
Lv.2	Details	To set whether to display or hide the extended print screen (print screen for print server).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER>OPTION>DSPLY-SW		
UI-WEB		Display/hide of Web browser screen
Lv.2	Details	To set whether to display or hide the Web browser screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER>OPTION>DSPLY-SW		
RMT-CNSL		ON/OFF of MEAP console screen
Lv.2	Details	Selecting "1: ON" enables to obtain log for Function Composer on console screen.
	Use case	When obtaining log for Function Composer
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
UI-SBOX		ON/OFF of Advanced Box screen display
Lv.2	Details	To set ON/OFF of the Advanced Box screen on the Control Panel.
	Use case	When not displaying the Advanced Box screen on the Control Panel
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	Europe: 0, Other than Europe: 1
UI-MEM		ON/OFF of memory media screen display
Lv.2	Details	To set ON/OFF of the memory media screen display on the Control Panel.
	Use case	When not displaying the memory media screen on the Control Panel
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
UI-NAVI		Dis/hide of introduce to useful features
Lv.2	Details	To set whether to display or hide "Introduction to Useful Features" in the main menu.
	Use case	Upon user's request
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-MOBP		Display/hide of mobile print
Lv.2	Details	To set whether to display or hide "Mobile Print" in the main menu.
	Use case	Upon user's request
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER>OPTION>DSPLY-SW		
UI-CUSTM		ON/OFF of custom menu screen display
Lv.2	Details	To set ON/OFF of the custom menu screen display on the Control Panel.
	Use case	When not displaying the custom menu screen on the Control Panel
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SDTM-DSP		Display/hide of auto shutdown time
Lv.1	Details	To set whether to display "Auto Shutdown Time" in user mode.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When "Hide" is set, auto shutdown time is reset. (Auto shutdown is not performed.)
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	Europe: 1, Others: 0
	Related user mode	Settings/Registration> Preferences> Time/ Energy Settings> Auto Shutdown Time

T-8-42

■ IMG-FIX

COPIER>OPTION>IMG-FIX		
FIX-CLN		Set fixing cln sequence execution temp
Lv.2	Details	To set the execution temperature for the fixing pressure roller cleaning sequence Change the condition (temperature deference between the main thermistor and the sub thermistors) to execute the fixing pressure roller cleaning sequence. When the input value is increased, the execution period is extended.
	Use case	When an image failure due to the Pressure Roller occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	As the short execution interval is set, productivity decreases.
	Display/adj/set range	0 to 3 0: 35 degC 1: 40 degC 2: 45 degC 3: 50 degC
	Default value	0
FIX-TEMP		Set fixing control temp table: Plain paper 1/ Cassette
Lv.1	Details	To change the fixing control temperature in the plain paper 1 mode at the cassette feeding.
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper 1 mode at the cassette feeding
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	(Productivity priority) 0 to 2: -15 degree 3 to 6: -12 to -3 degree (3 degree unit) 7: OFF 8 to 11: +3 to +12 degree (3 degree unit) 12 to 14: +15 degree (Fixing grade priority)
	Default value	7

COPIER>OPTION>IMG-FIX		
TEMP-CON		Set fixing control temp table: Thick paper 1
Lv.1	Details	To change the fixing control temperature in the thick paper 1 mode
	Use case	When the poor fixing, paper slip or paper curl occurs in the thick paper 1 mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	(Productivity priority) 0 to 2: -15 degree 3 to 6: -12 to -3 degree (3 degree unit) 7: OFF 8 to 11: +3 to +12 degree (3 degree unit) 12 to 14: +15 degree (Fixing grade priority)
	Default value	7
TEMPCON2		Switching of the fixing temp mode: Manual feed
Lv.1	Details	Switch the fixing temperature mode when plain paper is fed from the manual feed tray.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	(Productivity priority) 0 to 2: -15 degree 3 to 6: -12 to -3 degree (3 degree unit) 7: OFF 8 to 11: +3 to +12 degree (3 degree unit) 12 to 14: +15 degree (Fixing grade priority)
	Default value	7
FIX-LOW		[Not used]

COPIER>OPTION>IMG-FIX		
FX-S-TMP		Set fixing temperature: Curl correction
Lv.1	Details	To change the fixing temperature to correct the curl, the low fixing and the paper slip in the fixing N1/N3 mode
	Use case	When the curl, the low fixing or the paper slip occurs in the fixing N1/N3 mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	(Productivity priority) 0 to 2: -15 degree 3 to 6: -12 to -3 degree (3 degree unit) 7: OFF 8 to 11: +3 to +12 degree (3 degree unit) 12 to 14: +15 degree (Fixing grade priority)
	Default value	7
TMP-TBL2		Set fixing control temp table: Thick paper 2
Lv.1	Details	To change the fixing temperature to correct the curl, the low fixing and the paper slip in the fixing thick paper 2 mode
	Use case	When the curl, the low fixing or the paper slip occurs in the thick paper 2 mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degree 3 to 6: +12 to +3 degree (3 degree unit) 7: OFF 8 to 11: -3 to -12 degree (3 degree unit) 12 to 14: -15 degree
	Default value	7
TMP-TBL4		Set fixing control temp table: Thick paper 3
Lv.1	Details	To change the fixing temperature to correct the curl, the low fixing and the paper slip in the fixing thick paper 3 mode
	Use case	When the curl, the low fixing or the paper slip occurs in the thick paper 3 mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degree 3 to 6: +12 to +3 degree (3 degree unit) 7: OFF 8 to 11: -3 to -12 degree (3 degree unit) 12 to 14: -15 degree
	Default value	0

COPIER>OPTION>IMG-FIX		
TMP-TBL5		Thin paper curl correction mode
Lv.1	Details	To change the fixing control temperature to correct the curl in the thin paper mode
	Use case	For the thin paper which is moist and soft
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: S-thin paper mode (-10 degC compared with Thin paper mode table) 2: SS-thin paper mode (-15 degC compared with Thin paper mode table)
	Default value	0
TMP-TBL6		Set fixing control temp table: Envelope/Postcard/ S-postcard
Lv.1	Details	To change the fixing control temperature in the envelope mode, postcard mode and S-postcard mode
	Use case	When the poor fixing, paper slip or paper curl occurs in the envelope mode, postcard mode and S-postcard mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degree 3 to 6: +12 to +3 degree (3 degree unit) 7: OFF 8 to 11: -3 to -12 degree (3 degree unit) 12 to 14: -15 degree
	Default value	7
TMP-TBL7		Set fixing control temp table: Plain paper 2/ Cassette
Lv.1	Details	To change the fixing control temperature in the plain paper 2 mode at the cassette feeding
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper 2 mode at the cassette feeding
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degree 3 to 6: +12 to +3 degree (3 degree unit) 7: OFF 8 to 11: -3 to -12 degree (3 degree unit) 12 to 14: -15 degree
	Default value	7

COPIER>OPTION>IMG-FIX		
RAG-CONT		Set fix smeared image ctrl mode level
Lv.1	Details	To set level of the mode (skipping) to control smeared image caused by fixing area.
	Use case	When a smeared image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Set RAG-SW to 1 to 3 to enable skipping.
	Display/adj/set range	0 to 3 0: No skipping, 1: Small skipping, 2: Medium skipping, 3: Large skipping
	Default value	0
	Supplement/memo	When this mode is ineffective, use COPIER> ADJUST> DEVELOP> DE-OFS together.
FIX-PROT		[Not used]
FIX-OFST		[Not used]
EDG-WAIT		Change of Detection Temp for Fixing Edge
Lv.2	Details	To change the detection temperature of the fixing sub thermistors 1/2 to switch the paper edge cooling fans to the full speed control, and to shift the machine control to the down sequence
	Use case	To reduce the switching frequency of the down sequence, to lower the fixing edge temperature, and to prevent the high temperature offset
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: +20 degC, 1: +10 degC, 2: 0 degC, 3: -10 degC, 4: -20 degC
	Default value	2

COPIER>OPTION>IMG-FIX		
TMP-TBLC		Set fixing control temp table: curled paper
Lv.2	Details	To set the control temperature table to the N1 mode or the N3 mode so that the paper curl is reduced
	Use case	When the paper is moist so that the paper curl occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Auto 1: OFF 2: N1 mode with plain paper 1/2 (Target temperature becomes low.) 3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)
	Default value	0 or 1 by models
	Supplement/memo	When the setting value is "0", change the normal temperature control and the N1 mode depending on environment (temperature/humidity). N3 mode is only hand-operated setting.
FIX-PR		Set fixing grade priority mode
Lv.2	Details	The productivity lowers 4 ppm in the thick paper mode, thick paper H mode and bond paper mode. The productivity lowers 5 ppm in the plain paper mode, thin paper mode and S-thin paper mode when the environment sensor detects less than 18 degC.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON (Fixing grade priority mode)
	Default value	0
TMP-TB12		Set fixing control temp table: pln/Manual fd
Lv.2	Details	To change the fixing control temperature in the plain paper 2 mode at the manual feeding
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper 2 mode at the manual feeding
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 6: +12 to +3 degC (3 degC unit) 7: OFF 8 to 11: -3 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Unit	3 degC
	Default value	7

COPIER>OPTION>IMG-FIX		
TMP-TB13		Set fixing control temp table: Thin paper/cst
Lv.2	Details	To change the fixing control temperature in the thin paper mode at the cassette feeding
	Use case	When the poor fixing, paper slip or paper curl occurs in the thin paper mode at the cassette feeding
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 6: +12 to +3 degC (3 degC unit) 7: OFF 8 to 11: -3 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Unit	3 degC
	Default value	7
TMP-TB14		Set fixing control temp table: Thin/Manual fd
Lv.2	Details	To change the fixing control temperature in the thin paper mode at the manual feeding
	Use case	When the poor fixing, paper slip or paper curl occurs in the thin paper mode at the manual feeding
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 6: +12 to +3 degC (3 degC unit) 7: OFF 8 to 11: -3 to -12 degC (3 degC unit) 12 to 14: -15 degC"
	Unit	3 degC
	Default value	7

COPIER>OPTION>IMG-FIX		
TMP-TB15		Set fixing control temp table: Pln/2-sided
Lv.2	Details	To change the fixing control temperature in the plain paper mode 1 during the second printing of 2-sided mode
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper mode 1 during the second printing of 2-sided mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 6: +12 to +3 degC (3 degC unit) 7: OFF 8 to 11: -3 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Unit	3 degC
	Default value	7
TMP-TB16		Set fixing control temp table: Pln 2/2-sided
Lv.2	Details	To change the fixing control temperature in the plain paper mode 2 during the second printing of 2-sided mode
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper mode 2 during the second printing of 2-sided mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 6: +12 to +3 degC (3 degC unit) 7: OFF 8 to 11: -3 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Unit	3 degC
	Default value	7

T-8-43

IMG-TR

COPIER>OPTION>IMG-TR		
HUM-SW		Switching of the environmental fixed mode
Lv.2	Details	Use this item when a failure occurs to the environment sensor. The output level of transfer current is controlled in accordance with the specified environment.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Automatic control by the environment sensor 1: N/L (temperature: 23 degC, humidity: 5 %) 2: N/N (temperature: 23 degC, humidity: 50 %) 3: H/H (temperature: 30 degC, humidity: 80 %) Make the setting in accordance with the installation environment. The transfer current output level is controlled in accordance with the specified environment. Low-humidity environment: The transfer current output level increases. High-humidity environment: The transfer current output level decreases.
	Default value	0
TRANS-SW		[Not used]
TROPT-SW		Adj of transfer output
Lv.2	Details	To adjust the transfer roller voltage
	Use case	- When the transfer such as paper or recycled paper which included a lot of moisture is poor, decrease the transfer output value. - When the transfer such as thick paper is poor, increase the transfer output value.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2/-1: Transfer output voltage decreases. 0: OFF 1: Transfer output voltage increases.
	Default value	0

COPIER>OPTION>IMG-TR		
TR-BS-SW		Set transfer bias highland ev mode
Lv.2	Details	To control the transfer bias in printing so that it does not exceed a specified level
	Use case	When the black spots appear on the image (caused by leak occurs at high latitude)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Voltage reduction mode
	Default value	0

T-8-44

IMG-LSR

COPIER>OPTION>IIMG-LSR		
COTDPC-D		Toner usage reduction mode
Lv.2	Details	Reduce toner usage. (The potential VD is decreased.)
	Adj/set/operate method	1) Switch with +/- key, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: No reduction 1: Reduction by approx. -15% 2: Reduction by approx. -30%
	Default value	0
SC-PR-SW		Set scanner last rotation time
Lv.2	Details	To stop the polygon motor immediately after the last rotation so that a noise of the polygon motor is reduced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0

T-8-45

IMG-RDR

COPIER>OPTION>IIMG-LSR		
DF-BLINE		ON/OFF of dust dtct in DADF stream read
Lv.2	Details	To set ON/OFF of dust detection in DADF stream reading mode (measures for black line).
	Use case	When black line occurs due to dust on the Platen Roller
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch."
	Caution	When "1: ON" is set, black line is resolved, but sharpness of image edge is decreased.
	Display/adj/set range	0 to 1 0: OFF, 1: ON"
	Default value	0
DFDST-L1		DADF mode dust detection level adj: paper interval
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed at paper interval in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	0 to 255 0: OFF
	Default value	182
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

COPIER>OPTION>IIMG-LSR		
DFDST-L2		DADF mode dust detection level adj: after job
Lv.1	Details	To adjust dust detection level with dust detection correction control that is executed after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected. Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	0 to 255 0: OFF
	Default value	182
	Supplement/memo	Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.

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■ IMG-MCON

COPIER>OPTION>IMG-MCON		
PASCAL		Use/no use of auto gradation adj data
Lv.1	Details	To set to use/not to use the gradation adjustment data gamma LUT that is generated by auto gradation adjustment (Full/Quick Adjust) control. Selection is available as to whether to use gamma LUT at the time of image formation.
	Use case	When PASCAL-related failure occurs/when identifying the cause of PASCAL-related failure
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Initial LUT is used. (Automatic gradation adjustment is not used.) 1: Auto gradation adjustment is used. 2 to 3: Not used
	Default value	1
SHARP		Setting of sharpness level of image
Lv.2	Details	To set the setting level (center value) of sharpness of image. As the value is increased, the image tends to be sharp, and as the value is decreased, image tends to be soft.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	3

COPIER>OPTION>IMG-MCON		
VP-ART		Setting of line art processing
Lv.2	Details	To set outline processing for line art on scalable PDF. In the outline processing, a binary image outline is extracted in the field which is recognized as line art, and is converted into vector data. Specify whether to convert the binary image outline into vector data or to recognize it as one line (as a thin line). For the thin line, the line width can be specified. Change this value when you want to obtain an output of a wide-width line as one line rather than as an outline (when you want to prioritize edit operation as a line rather than image quality).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1
VP-TXT		Setting of character vectorization
Lv.2	Details	To set vector conversion processing for text on scalable PDF. In the vector conversion processing, a binary image outline is extracted in the field which is recognized as text, and is converted into vector data. In regular vector conversion, function approximation is not used for small text because the image quality is not changed. When the value is changed, function approximation processing is executed for small text, which realizes smooth text although the image quality is changed. Change this value when you want to prioritize smoothness in small text.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 99
	Default value	1

COPIER>OPTION>IMG-MCON		
LIN-OFST		Set special paper added dot amnt offset
Lv.1	Details	To set the offset amount of dots added to vertical/horizontal direction when lines on special paper are thinner than those on plain paper. When printing special paper, compared to plain paper, the amount of dots specified with this item is added. As the value is larger, lines become thicker. When WDREDUCT is 0, this setting is enabled.
	Use case	When the line width of special paper is thinner than the one of plain paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4
	Default value	1

T-8-47

IMG-SPD

COPIER>OPTION>IMG-SPD		
CPMKP-SW		ON/OFF of sequence to decrease the copy speed
Lv.2	Details	Decrease the copy speed to maintain fixing performance.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 : OFF 1 : ON
	Default value	0
PSP-PR1		Set productivity priority mode
Lv.2	Details	To lower the fixing temperature for the paper feed start at the paper size change. The priority is given to the productivity so that the fixing offset may occur.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON (Productivity priority mode)
	Default value	0
PSP-PR2		Productivity priority mode: post card
Lv.2	Details	To improve the productivity and to reduce the fixing grade
	Use case	To improve the productivity and to reduce the fixing grade in printing the post card
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON (Productivity priority)
	Default value	0
PSP-PR3		Productivity priority mode: Thick
Lv.2	Details	To improve the productivity and to reduce the fixing grade
	Use case	To improve the productivity and to reduce the fixing grade in printing the thick paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF (Productivity priority) 1: ON (Fixing grade priority) 2: Auto (Fixing grade priority only in the low humidity environment)
	Default value	2
PSP-PR4		Set prdctvty priority in rotation collation mode
Lv.2	Details	To set the productivity priority in the rotation collation mode by lowering the fixing temperature for the paper feed start
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: Productivity priority 1 (fixing temp: -40 degC) 2: Productivity priority 2 (fixing temp: -60 degC) 3: Fixing grade priority (fixing temp: -20 degC)
	Default value	0

T-8-48

■ CLEANING

COPIER>OPTION>CLEANING		
FX-CN-SW		Set fix pressure roller cln sequence
Lv.2	Details	To set the fixing pressure roller cleaning sequence
	Use case	Upon user's request (When the fixing motor sound which is generated in the cleaning sequence is claimed from user)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	1

T-8-49

■ ENV-SET

COPIER>OPTION>ENV-SET		
ENVP-INT		Temp, humid/Fix Roll temp log get cycle
Lv.1	Details	To set the cycle to obtain log of the temperature and humidity inside the machine or the surface temperature of the Fixing Roller. As the value is incremented by 1, the cycle is increased by 1 minute. Obtained log can be displayed by selecting the following: COPIER > DISPLAY > ENVRNT
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 480
	Unit	1 minute
	Default value	60
	Related service mode	COPIER> DISPLAY> ENVRNT
IMG-BLD1		Set image smear prevention mode
Lv.2	Details	To warm around the Developing Assembly and the Photosensitive Drum with the following operation to prevent image smear. When either 1, 2 or 3 is set, "Clean Drum" is displayed in user mode, and user can execute only setting 2. When the value is increased, the effect becomes big.
	Use case	When image smear occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: Two minutes extension in the initial rotation 2: Four minutes extension in the initial rotation 3: Six minutes extension in the initial rotation
	Default value	0
	Supplement/memo	User mode: [Settings/Registration]> [Adjustment/Maintenance]> [Clean Drum]> [Start]

COPIER>OPTION>ENV-SET		
IMG-BLD2		Change of the charge frequency
Lv.2	Details	The quantity of electric discharge decreases by lowering charged frequency. Therefore, the electric discharge product generated on the drum decreases.
	Use case	- When the drum that an image smea occurred is replaced by a new drum - When the image flow is improved more by using the image smear prevention mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0
IMG-BLD3		Black band mode
Lv.2	Details	To prevent the image smear in the high humidity, the cleaning ability of the drum surface is raised by this mode and the deteriorated toner is removed. When the value is increased, the effect becomes big.
	Use case	When the image smear occurs.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The toner consumption is increased and it influences the dirt of the transfer roller.
	Display/adj/set range	0: default (no black band) 1: The making of the black band at the last rotation for 75 jobs once 2: The making of the black band at the last rotation for 50 jobs once 3: The making of the black band at the last rotation for 25 jobs once
	Default value	0

T-8-50

■ FEED-SW

COPIER>OPTION>FEED-SW		
TFL-RTC		Set delvry dest at rcvry after tray full
Lv.1	Details	To select the delivery destination for a job with multiple pages after recovering the Delivery Tray that reaches the full level. When 0 (default) is set, a job is output from the delivery destination again from which the last job was delivered. When 1 is set, a job is output from the delivery destination which priority is set as high at ""Output Tray Settings"" in user mode.
	Use case	When changing the delivery tray
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Output from the tray from which the last job was output. 1: Output from the delivery destination which priority is high among the delivery trays.
	Default value	0
	Related user mode	Function Settings> Common> Paper Output Settings> Output Tray Settings
SP-SW		Set separation priority mode
Lv.2	Details	To set the separation priority mode 1 or 2 for using the thin paper of the out-of specification
	Use case	When the moist, soft and thin paper is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: Separation priority mode 1 (Separation effect improves.)
	Default value	0
PK-SP-SW		[Not used]

T-8-51

NETWORK

COPIER>OPTION>NETWORK		
RAW-DATA		Setting of received data print mode
Lv.2	Details	To set print mode for the received image data. This item is used to identify the cause whether it's due to image data or image processing in the case of trouble with received image.
	Use case	When received image trouble occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to set the value back to "0: Normal print operation" after recovering from the trouble.
	Display/adj/set range	0 to 1 0: Normal print operation, 1: Print with original data without image processing
	Default value	0
IFAX-LIM		No. of max print lines at IFAX reception
Lv.2	Details	To set the maximum number of lines for e-mail text to be printed when receiving IFAX. Setting of this item can prevent endless printing of the attached file data in the case of receiving an error e-mail or failure in interpretation of the context. Selecting 0 prints the header/footer in 1 sheet when receiving e-mail text without attached file.
	Use case	When preventing endless print in the case of failure in reception
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: E-mail text not printed, 999: Unlimited
	Default value	500
SMTPTXPN		Setting of SMTP TX port number
Lv.2	Details	To set SMTP transmission port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25
SMTPRXPN		Setting of SMTP reception port number
Lv.2	Details	To set SMTP reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25

COPIER>OPTION>NETWORK		
POP3PN		Setting of POP3 reception port number
Lv.2	Details	To set POP3 reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	110
FTPTXPN		Specification of SEND port (FTP) number
Lv.2	Details	To specify address port (FTP) number for SEND.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	21
NW-SPEED		Setting of network data transfer speed
Lv.2	Details	To set the data transfer speed when the service network is connected. When downloading the firmware through network, use 0 in the normal operation. When fixed to 100Base-TX/10Base-T for any reason, change the setting.
	Use case	When fixing the communication speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Auto, 1: 100Base-TX, 2: 10Base-T
	Default value	0
STS-PORT		ON/OFF of TOT sync status communication port
Lv.2	Details	To set ON/OFF for Inquiry/Response (sync)-mode status communication port with T.O.T. Select ""1: ON"" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).

COPIER>OPTION>NETWORK		
CMD-PORT		ON/OFF TOTasync command communication port
Lv.2	Details	To set ON/OFF for asynchronous command communication port with T.O.T. Select ""1: ON"" in the case of connecting the PC and the machine with the cross cable while Service NAVI is used.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> STS-PORT
	Supplement/memo	T.O.T: TUIF over TCP. Communication protocol to be used for communication with the built-in application (UI) and the internal application such as COPY/ SEND/ BOX, etc. (Canon's own protocol).
NS-CMD5		Limit CRAM-MD5 auth method at SMTP auth
Lv.2	Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER>OPTION>NETWORK		
NS-GSAPI		Limit GSSAPI auth method at SMTP auth
Lv.2	Details	To restrict use of GSSAPI authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-NTLM		Limit NTLM auth method at SMTP auth
Lv.2	Details	To restrict use of NTLM authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER>OPTION>NETWORK		
NS-PLNWS		Limit plaintext auth at SMTP auth encry
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLN		Limit plaintext auth at SMTPauth noencry
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is not encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
NS-LGN		Limit LOGIN authentication at SMTP authentication
Lv.2	Details	To restrict use of LOGIN authentication at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.

COPIER>OPTION>NETWORK		
MEAP-PN		HTTP port No.setting of MEAP application
Lv.2	Details	To set HTTP port number of MEAP application.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not specify port 8080 when the Print Server is connected. Otherwise, you cannot browse the device RUI in which MEAP authentication application is running (Port 8080 is reserved for redirection of EFI Controller to the iR side.)
	Display/adj/set range	0 to 65535
	Default value	8000
SSH-SW		ON/OFF of SSH server function
Lv.2	Details	To set ON/OFF of SSH server function.
	Use case	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	SSH: Secure Shell. A program for logging into other PC through network, executing command from a remote PC, or moving files to other PC. Data on network is encrypted, so that a series of operation can be performed securely even through internet.
RMT-LGIN		Set to allow remote login to SSH server
Lv.2	Details	To set whether to allow remote login from the remote host (SSH client: DA) to debug console of the SSH server.
	Use case	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This item is enabled when the setting value of SSH-SW is ON.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> SSH-SW (Level 2)
	Supplement/memo	DA: Digital Accessory

COPIER>OPTION>NETWORK		
RE-PKEY		Regeneration setting of SSH server key
Lv.2	Details	To set whether to regenerate the SSH server pair key at the start of the machine. With the setting to regenerate the key, the SSH server host regenerates the pair key (private key/public key) at power-off/on, output to key file and store in HDD.
	Use case	As needed (This mode is used for the Japanese models only and not used with overseas models (outside Japan)).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- This item is enabled when the setting value of SSH-SW is ON. - Start of the machine might be approx. 3 to 4 minutes longer than the normal operation because regeneration process takes time.
	Display/adj/set range	0 to 1 0: Not regenerated, 1: Generated
	Default value	0
	Related service mode	COPIER > OPTION > NETWORK > SSH-SW (Level 2)
U-NAME		Setting of SSH server login user name
Lv.2	Details	To set the login user name which enables to connect to the SSH server. Only one user (host) is allowed to login.
	Adj/set/operate method	1) Select the item, and select the entry field. Keyboard is displayed. 2) Enter the character, and then press OK key.
	Caution	This is active when COPIER> OPTION> NETWORK> SSH-SW is 1 (ON).
	Display/adj/set range	0 to 8 characters (1-byte alphanumeric characters)
	Default value	gN3Fp2A
	Related service mode	COPIER > OPTION > NETWORK > SSH-SW (Level 2)
U-PASWD		Set user password for SSH server connect
Lv.2	Details	To set user password required for connecting to the SSH server. The entered characters are displayed as asterisks (*).
	Adj/set/operate method	1) Select the item, and select the entry field. Keyboard is displayed. 2) Enter the character, and then press OK key.
	Caution	This is active when COPIER> OPTION> NETWORK> SSH-SW is 1 (ON).
	Display/adj/set range	0 to 8 characters (1-byte alphanumeric characters)
	Default value	Vs8DuwJ (Asterisks (*) are displayed on the screen.)
	Related service mode	COPIER > OPTION > NETWORK > SSH-SW (Level 2)

COPIER>OPTION>NETWORK		
CHNG-STS		Set of TOT status connection port number
Lv.2	Details	To set the port number for status connection with T.O.T.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	20010
	Related service mode	COPIER> OPTION> NETWORK> STS-PORT
CHNG-CMD		Set of TOT command connection port No.
Lv.2	Details	To set the port number for command connection with T.O.T.
	Use case	When the Service NAVI is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	20000
	Related service mode	COPIER> OPTION> NETWORK> CMD-PORT
MEAP-SSL		HTTPS port setting of MEAP
Lv.2	Details	To set the port of HTTPS server in the case of using SSL with HTTP of MEAP.
	Use case	When specifying the setting of HTTPS port for MEAP
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	8443
LPD-PORT		Setting of LPD port number
Lv.2	Details	To set the LPD port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	515
	Supplement/memo	LPD port: Network port for TCP/IP communication when making prints through network.
WUEV-SW		Setting of sleep notification execution
Lv.2	Details	To set whether to notify the sleep mode to the application (imageWARE, etc) on the network when shifting to/recovering from the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Notified, 1: Not notified
	Default value	0

COPIER>OPTION>NETWORK		
WUEV-INT		Setting of sleep notification interval
Lv.2	Details	To set the interval of sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	60 to 65535
	Unit	1 second
	Default value	600
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-POT		Port number setting for sleep notice
Lv.2	Details	To set port number of the PC to notify the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	1 to 65535
	Default value	11427
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-RTR		Setting of sleep notification range
Lv.2	Details	To set the number of available routers to the target for sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	0 to 254
	Default value	3
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEN-LIV		Recovery time setting after sleep notice
Lv.2	Details	To set the time from the sleep start from network without job assignment until the mode is shifted to the sleep mode.
	Use case	When setting the startup time after sleep notification
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	10 to 600
	Unit	1 second
	Default value	15

COPIER>OPTION>NETWORK		
DHCP-12		ON/OFF of DHCP-option 12 request
Lv.2	Details	To set ON/OFF of inquiry on the host name (Option 12) which uses Option 55 of DHCP. Selecting OFF can prevent DHCP packet from including Option 12 or Option 81under the packet-monitoring network environment.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	DHCP: Dynamic Host Configuration Protocol
DHCP-81		ON/OFF IPaddress dynamic chng in DHCP-81
Lv.2	Details	To set ON/OFF for dynamic change of IP address by Option 81 of DHCP. Selecting OFF can prevent DHCP packet from including Option 12 or Option 81under the packet-monitoring network environment. Selecting ON enables dynamic change of IP address by Option 81 of DHCP in the case that the dynamic DNS setting is ON in user mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to set ON for the dynamic DNS setting in user mode to enable dynamic change of IP address.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	DHCP: Dynamic Host Configuration Protocol

COPIER>OPTION>NETWORK		
IFX-CHIG		Set operation by IFAX recv mail content
Lv.1	Details	To set the number of characters for the IFAX received mail content, so that the mail is not printed/forwarded when the characters in the text is less than the number of specified characters. This machine can output blank paper because some senders send e-mail text consists of linefeed codes only. In such case, specify 2 (number of characters) so that there will be no output of blank paper. In the case of specifying any number other than 0, header/footer is printed/forwarded in 1 sheet only if the e-mail (body) text is less than the specified value while no TIFF file is attached. As the value is incremented by 1, the number of target characters in e-mail body text is increased by 1 character.
	Use case	When reducing print of blank paper due to e-mail received by IFAX
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to get approval from the user by telling that there will be no print of e-mail (body) text if the number of characters is less than the specified value.
	Display/adj/set range	0 to 999 0: E-mail (body) text is not ignored.
	Unit	1 character
	Default value	0
	Supplement/memo	1 Japanese Kanji character is calculated as 2 bytes, and the control codes (such as linefeed code, etc) are included in the number of characters.
DNSTRANS		Setting of DNS transfer priority
Lv.1	Details	To set priority order of the protocol (IPv4/IPv6) to be used for DNS query. In the case of using both IPv6 and IPv4 while the DNS server supports IPv4, it takes time because of timeout when executing DNS query with priority on IPv6. Giving priority on query by IPv4 can shorten the time.
	Use case	When it takes time to execute DNS query with priority on IPv6 because the DNS server supports IPv4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: IPv4, 1: IPv6
	Default value	1

COPIER>OPTION>NETWORK		
PROXYRES		Setting of proxy response to Windows
Lv.2	Details	To set whether to provide proxy response or return the device status when an inquiry is received via Windows while the device is in sleep mode.
	Use case	When executing status response for query from Windows correctly
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No proxy response, 1: Proxy response
	Default value	1
WOLTRANS		Setting of sleep recovery protocol
Lv.1	Details	To set the protocol for recovery from sleep mode according to the value of WOL (Wake On LAN) trans. Reception of a specific network packet is one of the requirements for the device to recover from sleep mode. When the number of network protocols supported by the device increases, the types of network packets which activate recovery from sleep mode vary. However, there is a possibility that the existing network protocol is actually used. Select the type of network packet which activates recovery from sleep mode according to the environment where the device is used.
	Use case	When selecting protocol for sleep recovery
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 3 1: WSD and SNMP, 2: WSD and CPCA, 3: CPCA and SNMP
	Default value	1
TCPDLACK		Switch for the delay acknowledgment function
Lv.1	Details	Select whether to enable/disable the delay acknowledge function. This item is used to disable the delay acknowledge function when the network data transfer performance level is decreased due to delay acknowledge in the 10M environment, etc.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 When this item is set to '0', the delay acknowledge function of TCP is disabled.
	Default value	1

COPIER>OPTION>NETWORK		
802XTOUT		Set of IEEE802.1X authentication timeout
Lv.1	Details	To set timeout value for IEEE802.1X authentication. If the device executes 802.1X authentication, change the wait time for response from the authentication server.
	Use case	When response from the authentication server is slow/fast
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	10 to 120
	Unit	second
	Default value	30
IKERETRY		Setting of IKE retry times
Lv.1	Details	To set the number of retries in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3
	Default value	1
	Supplement/memo	IKE: Internet Key Exchange
SPDALDEL		Initialization of SPD value
Lv.2	Details	To initialize all the SPD values that are under management. SPD values can be initialized without clearing SRAM.
	Use case	At the time of SPD value mismatch when IPSec Board is added
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	SPD: Database that manages SA (Security Association). SPD value is managed when IPSec Board is used. Normally, SRAM needs to be cleared in the case of mismatch in SPD value.

COPIER>OPTION>NETWORK		
NCONF-SW		ON/OFF of Network Configurator function
Lv.1	Details	To set ON/OFF of Network Configurator function. If the user does not use the function, select OFF to prevent remote attack through network.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Network Configurator function is a function to be used for communication with NetSpot Device Installer, etc., and the network setting can be changed from the remote.
IKEINTVL		Setting of IKE retry interval
Lv.1	Details	To set retry interval in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 10
	Unit	second
	Default value	5
	Supplement/memo	IKE: Internet Key Exchange
IPSDEBLV		Setting of IPSec debug level
Lv.2	Details	For R&D use
SP-LINK		Mode setting at 1W sleep
Lv.1	Details	Switch to execute 10base-T standby as default to realize the standby power 1W in sleep mode.
	Use case	When shifting to sleep mode after negotiation (same as conventional machines)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Shift to sleep mode with 10base-T 1: Shift to sleep mode after negotiation
	Default value	0

COPIER>OPTION>NETWORK		
LM-LEVEL		Set of SMB client authentication method
Lv.1	Details	To set the authentication method (LM, NTLMv1, NTLMv2) that the SMB client uses for authentication. In SMB authentication, authentication is generally made by the authentication method with higher level, and if it fails, the authentication level is lowered. (NLTMv2 => NLTMv1 => LM) It is possible to limit the authentication level by setting 1 or 2 to avoid using the authentication method with lower level.
	Use case	Upon user's request
	Display/adj/set range	0 to 2 0: Authentication is made by LM, NTLMv1 and NTLMv2 1: Authentication is made by NTLMv1 and NTLMv2 2: Authentication is made by NTLMv2
	Default value	0
	Supplement/memo	Windows NT LAN Manager authentication: A user authentication method for network logon, which was generally used in the OS for Windows NT Series prior to Windows NT 4.0
AFS-JOB		Set of FAX server job reception port
Lv.1	Details	To set the reception port of the fax server to which a fax client sends jobs.
	Use case	When changing the job reception port of the fax server
	Display/adj/set range	0 to 65535
	Default value	20317
	Related service mode	COPIER> OPTION> NETWORK> AFC-EVNT
AFC-EVNT		Set of FAX client event reception port
Lv.1	Details	To set the event notification reception port of a fax client.
	Use case	When changing the event notification reception port of a fax client
	Display/adj/set range	0 to 65535
	Default value	29400
	Related service mode	COPIER> OPTION> NETWORK> AFS-JOB

COPIER>OPTION>NETWORK		
ILOGMODE		Setting of IP address block mode
Lv.1	Details	To set all protocols or TCP/UDP/ICMP unicast as the target of IP block. When 0 is set, the machine responds to ARP, ICMP multicast and broadcast which have no direct relation, and consequently the number of logs is increased. When 1 is set, the machine filters TCP, UDP and ICMP unicast only.
	Use case	Upon user's request
	Adj/set/operate method	0 to 3 0: All protocols support mode 1: TCP/UDP/ICMP unicast support mode 2, 3: Not used
	Default value	0
ILOGKEEP		Set of IP address block log hold time
Lv.1	Details	To set the retention time from the log time of IP block. When access is made again from a same IP address which was blocked before, if it is within the retention time of the previous log, its log is not recorded. If access is frequently made from a same IP address, the log record of the UI might be filled with its logs. If the user considers that a single log for a same IP address is enough, set the longer retention time.
	Use case	Upon user's request
	Display/adj/set range	0 to 48 0: 1 minute (special mode) 1 to 48: 1 hour to 48 hours
	Default value	1
IPTBROAD		Set to allow broad/multicast TX
Lv.1	Details	To set whether to permit transmission of broadcast packets and multicast packets. Transmission of broadcast packets and multicast packets is permitted without specifying an exception address. It is permitted within the device even if it is rejected in the default setting of the IPv4/v6 transmission filter. Set ""1: Disabled"" when the user does not want to send them.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5 0: Enabled, 1: Disabled, 2 to 5: Not used
	Default value	0

COPIER>OPTION>NETWORK		
PFWFTPRT		Set of RST reply at IP filter FTP SEND
Lv.1	Details	When FTP SEND is executed using an IP filter by which packets from a specific remote PC are rejected, SYN is returned to the port 113 if the PC supports authentication of the FTP port 113. However, since the IP filter blocks the packets, the block logs are increased and the performance is lowered. When 1 is set, RST is returned to the port 113 without blocking packets.
	Use case	When executing FTP SEND against the OS which supports authentication of the FTP port 113 while the IP filter is enabled
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
PRNIPBLK		ON/OFF of IP address block function
Lv.1	Details	To set ON/OFF of IP address block function. When 1 is set, ""IP Address Range Settings"" and ""RX/Print Range"" screen is displayed on the Control Panel.
	Use case	When using the IP address block function
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	"0 to 1 0: OFF, 1: ON"
	Default value	0
	Related user mode	Preferences> Network> TCP/IP Settings> IPv4 Settings/IPv6 Settings> IP Address Range Settings> RX/Print Range
IPMTU		Setting of MTU size
Lv.1	Details	To set MTU size of network packet. This item is used when performing SEND communication between locations connected with Ethernet in a field environment where MTU black hole problem occurs.
	Use case	When MTU black hole problem occur
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 10 1: 600 byte, 2: 700 byte, ..., 9: 1400 byte, 10: 1500 byte
	Unit	100 byte
	Default value	10

COPIER>OPTION>NETWORK		
DDNSINTV		Set of DDNS periodical update interval
Lv.1	Details	DNS registration is executed only once at start-up with the current iR, so the registered contents are deleted in an environment where the DNS server settings are deleted at intervals. To set the interval of DDNS periodical update for not deleting the registered contents.
	Use case	When the DNS server settings are deleted at intervals
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 48 0: No periodical update, 1: 1-hour interval, 2: 2-hour interval, ..., 47: 47-hour interval, 48: 48-hour interval
	Unit	1 hour
	Default value	24

T-8-52

■ CUSTOM

COPIER>OPTION>CUSTOM		
CCD-TYPE		Setting of CCD Unit type
Lv.2	Details	To set the CCD Unit type installed in the Reader to the backup area in the controller. Controller switches the image processing table according to the setting value.
	Use case	When changing the CCD Unit type
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Initial type, 1: Improved type
	Default value	0
	Supplement/memo	If the CCD Unit is changed after factory shipment, the Reader cannot identify the type.
FACT-DEF		Set batch chng of factory setting values
Lv.2	Details	To set the batch change of factory setting values for customization.
	Display/adj/set range	0 to 1
	Default value	0
MAILYEAR		Set auto add to e-mail Subject/File name
Lv.2	Details	To set whether to add date, time and split number automatically to the end of a character string of e-mail Subject/File name.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Adding
	Default value	0
BOX-BKUP		Set to allow Inbox backup data restore
Lv.1	Details	To set whether to permit restoration of Inbox backup data. Machine subject to restoration can be selected from either the same model or the next model. When restoration is completed normally, the setting value is returned to 0.
	Use case	At replacement, permit to restore backup data of other model (some models).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Permit restoration only from own device to own device (same model only) 1: Permit restoration only from old device to new device (next model only)
	Default value	0

COPIER>OPTION>CUSTOM		
ABK-TOOL		Allow access from address book mntc tool
Lv.1	Details	To set whether to accept import from the address book maintenance tool.
	Use case	When executing import from the address book maintenance tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	Address book maintenance tool: Tool provided from CMJ.
FLK-RD		Flicker reduction mode
Lv.2	Details	To change the fixing temperature control to cancel fluorescent flicking during printing
	Use case	When the fluorescent flicking occurs during printing
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0
TMP-TBL		Shortening FCOT
Lv.2	Details	To lower the fixing temperature for the paper feed start during the first copying (-40degC)
	Use case	To shorten the first copy time, the fixing temperature for the paper feed start is lowered (-40degC).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0

T-8-53

■ USER

COPIER>OPTION>USER		
COPY-LIM		Setting of upper limit for copy
Lv.1	Details	To set the upper limit value for copy.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999
	Default value	999
SLEEP		Setting of auto sleep function
Lv.1	Details	To set ON/OFF of auto sleep function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SIZE-DET		ON/OFF of original size detect function
Lv.1	Details	To set ON/OFF of original size detection function.
	Use case	Upon user's request (glare of the scan lamp, etc)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
COUNTER1		Display of software counter 1
Lv.1	Details	To display counter type for software counter 1 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Display only. No change is available.
	Default value	The value differs according to the location.
COUNTER2		Setting of software counter 2
Lv.1	Details	To set counter type for software counter 2 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	The value differs according to the location.

COPIER>OPTION>USER		
COUNTER3		Setting of software counter 3
Lv.1	Details	To set counter type for software counter 3 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	The value differs according to the location.
COUNTER4		Setting of software counter 4
Lv.1	Details	To set counter type for software counter 4 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	The value differs according to the location.
COUNTER5		Setting of software counter 5
Lv.1	Details	To set counter type for software counter 5 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	0
COUNTER6		Setting of software counter 6
Lv.1	Details	To set counter type for software counter 6 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999
	Default value	0

COPIER>OPTION>USER		
DATE-DSP		Setting of data/time display format
Lv.1	Details	To set date/time display format according to the country or region. After the display format is set with this mode, the order of date is reflected to the followings: Preferences > Timer/Energy Settings > Date/Time Settings, and report output.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: YYMM/DD, 1: DD/MMYY, 2: MM/DD/YY
	Default value	The value differs according to the location.
	Related user mode	Preferences > Timer/Energy Settings > Date/Time Settings
MB-CCV		Control card usage limit for Mail Box
Lv.1	Details	To restrict use of control card for Mail Box.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Unlimited, 1: Limited
	Default value	1
CONTROL		Charge setting of PDL job
Lv.1	Details	To set charge count transmission of PDL job to the connecting charging management device (Coin Manager or non-Canon-made control card).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No charge, 1: Charge
	Default value	0
B4-L-CNT		Count setting of B4 size
Lv.1	Details	To set B4 count with software counter 1 to 8 as to whether B4 is counted as large size or small size. Selecting 1 counts B4 or larger size paper as large size while paper smaller than B4 size as small size.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Small size, 1: Large size
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> SC-L-CNT

COPIER>OPTION>USER		
TRY-STP		[Not used]
MF-LG-ST		Dis/hide of long strip mode
Lv.1	Details	To set whether to display or hide the [Long Original] button. When 1 is set, [Long Original] button is displayed in Copy > Options screen and the long strip paper becomes available.
	Use case	Upon user's request (use of long strip original or long strip paper)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Copy > Options
	Supplement/memo	Up to 630mm length paper is supported when DADF is used.
CNT-DISP		Display/hide of serial No.
Lv.1	Details	To set whether to display or hide the serial No. on the Counter Check screen.
	Use case	When setting to display/hide serial No. on the Counter Check screen.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0

COPIER>OPTION>USER		
PH-D-SEL		Set dither matrix at screen processing
Lv.1	Details	To set the screen dither matrix to be used for half toning processing at the time of copy output, B&W Inbox scan output and B&W SEND output. When moire occurs frequently, set to ""1: 141 lines"". When the setting is changed, the number of PG lines to be output at PASCAL control is also changed.
	Use case	When moire frequently occurs at the time of copy output, B&W Inbox scan output and B&W SEND output. Especially when moire frequently occurs in the halftone density area of photo and image gradation areas
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 134 lines, 1: 141 lines
	Default value	1
	Related service mode	COPIER> OPTION> USER> PH-D-SL2
COPY-JOB		Setting of copy job reservation
Lv.1	Details	To set to enable/disable copy job reservation when the Card Reader/Coin Manager is used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
OP-SZ-DT		Orgnl size dtct ON/OFF at copyboard open
Lv.1	Details	To set ON/OFF of original size detection while the Copyboard is opened. When ""0: OFF"" is set, enter original size manually from the Control Panel. When ""1: ON"" is set, original size is detected automatically.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER>OPTION>USER		
NW-SCAN		Setting of network scan function usage
Lv.1	Details	To set to enable/disable use of network scan function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not change this mode in Japan. - For PS/PCL machines for overseas (outside Japan), fix the setting value as ""1: Enabled"". For others, permit the use.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
HDCR-DSP		Setting of HDD complete delete method
Lv.1	Details	To set data deletion method of HDD data complete deletion function.
	Use case	When switching the deletion method in HDD data complete deletion mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 4 1: 1-time deletion with 0 data, 2: 1-time deletion with random data, 3: 3-time deletion with random data, 4: DOD
	Default value	1
	Supplement/memo	HDD data complete deletion function: a function to completely delete data in HDD by overwriting with 0 (null) data or random data to the file data when logically deleting file on HDD (deleting management information data).
JOB-INVL		Job intvl setting at interruption copy

COPIER>OPTION>USER		
Lv.1	Details	To set output interval between jobs at the time of interruption copy. Sorting is difficult after interruption copy because of the continuous output of the next job. Paper interval becomes longer when starting pickup for the next job after the last sheet of the previous job is delivered.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Continuous output of the interruption copy and the next job 1: Starting pickup for the next job after the interruption copy is delivered all. 2: Starting pickup for the next job after the previous job is delivered all. (For all jobs)
	Default value	0

COPIER>OPTION>USER		
TAB-ROT		[Not used]
PR-PSESW		Display/hide of output Stop button
Lv.1	Details	To set whether to display or hide [Stop] button on the Status Monitor screen.
	Use case	- Upon user's request - When promptly stopping the print job in operation or under reservation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
IDPRN-SW		Charge target job set of dept mngm cntr
Lv.1	Details	To set the job type that advances the department management counter.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PRINT category: Inbox Print, Report Print, Send Local Print, PDL Print COPY category: COPY 1: PRINT category: Report Print, Send Local Print, PDL Print COPY category: COPY, Inbox Print
	Default value	0

COPIER>OPTION>USER		
PCL-COPY		Set of PCL COPIES command control method
Lv.1	Details	To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535 0: Control method of Canon-made PCL (following the value of COPIES command that is specified for each page to control on a page basis) 1: Control method of non-Canon-made PCL (handling the value of COPIES command, which is specified for page 1 at the time of Collate mode, as bind figure while the value of COPIES command for the next page or later is invalid. Same control applies as Canon-made PCL at the time of non-sorted mode) 2 to 65535: For future use
	Default value	0
CNT-SW		Set default dis items on charge counter
Lv.1	Details	To set default display items of the charge counter on the Counter Check screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this mode overseas (outside Japan).
	Display/adj/set range	0 to 2 For Japan 0: Counter 1 - Total 1: 101 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202, Counter 3 - Total A2: 127 2: Not used For UL 0: Counter 1 - Total 1: 101, Counter 2 - Total (Large): 103, Counter 3 - Copy (Total 1): 201, Counter 4 - Copy (Large): 203 1: Counter 1 - Total 2: 102, Counter 2 - Copy (Total 2): 202 2: Not used
	Default value	0

COPIER>OPTION>USER		
BCNT-AST		Set of box print charge target job
Lv.1	Details	To set the job type that advances the count in box print with NE Controller (ASSIST).
	Use case	When switching the job type that is subject to counting of the box print with NE Controller
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL job, 1: Copy job
	Default value	0
PRJOB-CP		Set count TX at RX/report print
Lv.1	Details	To set to enable/disable a page-basis count pulse transmission to the charging management device at the time of reception print or report print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No transmission, 1: Transmission
	Default value	0
	Supplement/memo	Charging management device: Coin Manager, Non-Canon-made control card
DOC-REM		Dis/hide of original removal message
Lv.1	Details	To set whether to display or hide the message to remove original when scanning with DADF without opening/closing DADF after scanning with the Copyboard.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0

COPIER>OPTION>USER		
DPT-ID-7		Password entry set at dept ID reg/auth
Lv.1	Details	To set whether to require a password entry at the time of registration/authentication of department ID. With the setting to require entry, entry of 7-digit password is required as well as entry of department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Department ID only, 1: 7-digit (password) entry
	Default value	0
RUI-RJT		Connct set at invalid auth from remoteUI
Lv.1	Details	To set to disconnect HTTP port when the machine receives invalid authentication from remote UI 3 times.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Continued connection, 1: Disconnected
	Default value	0
FREG-SW		Dis/hide of MEAP counter free rgst area
Lv.1	Details	To set whether to display or hide the free register area of MEAP counter for SEND
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Supplement/memo	Individual count-up (counter advance) of MEAP application is available in the free register area of MEAP counter.

COPIER>OPTION>USER		
IFAX-SZL		Setting of IFAX send size limit
Lv.1	Details	To set for restricting data size at the time of IFAX transmission that does not go through the server. With the setting to restrict the data size, there will be #830 error in the case of sending data that exceeds the upper limit value. In the case that the data goes through the server, the size of transmission data is always restricted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Limited, 1: Not limited (Restriction applies when data goes through the server.)
	Default value	1
	Related user mode	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo	Specify the upper limit value for transmission data size in user mode.
IFAX-PGD		Set page split TX at IFAX Simple mode TX
Lv.1	Details	To set to enable/disable split-data transmission on a page basis in the case that the transmission size in IFAX Simple mode exceeds the upper limit value.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	In the case to enable split-data transmission, be sure to get approval from the user by explaining the following: - No guarantee for page order on the reception side - There is a possibility of interruption of other received jobs between pages.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER> OPTION> CLEANING> W-CLN-P
	Related user mode	Function Settings > Send > E-Mail/I-Fax Settings > Maximum Data Size for Sending
	Supplement/memo	Specify the upper limit value for transmission data size in user mode.

COPIER>OPTION>USER		
MEAPSAFE		Setting of MEAP safe mode
Lv.1	Details	To set safe mode for MEAP platform. MPSF is displayed on the Control Panel in safe mode. In safe mode, MEAP application is stopped while just the system application, which starts with initial state, is activated. This mode enables obtaining log for cause analysis of MEAP failure.
	Use case	Perform system recovery processing when MEAP platform fails to be activated due to resource confliction between MEAP applications, service registration or use order.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal mode, 1: Safe mode
	Default value	0
AFN-PSWD		Access limit setting to user mode
Lv.1	Details	To set to restrict password entry when accessing to the user mode. With the setting to enable this mode, password entry of system administrator is required after pressing Settings/Registration key.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Password is not required, 1: Password is required
	Default value	0
PTJAM-RC		Auto reprint setting at PDL print jam
Lv.1	Details	To set to automatically restart printing after jam recovery that occurs with PDL print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not automatically reprinted, 1: Automatically reprinted

COPIER>OPTION>USER		
PDL-NCSW		Card mngm setting for PDL print job
Lv.1	Details	To set to make PDL print job to be subject to card management by the Card Reader. With the setting to enable this mode, PDL print is available only when the card ID of the card inserted to the Card Reader matches the department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL print is available with no card inserted. 1: PDL print is available only when the card ID matches the department ID in the case that the card is inserted.
	Default value	0
SLP-SLCT		Usage setting of network applications
Lv.1	Details	With the setting to use network-related application, the machine can be recovered through network because it does not move to sleep mode 1. For this machine to recover from sleep mode 1 through network, a particular packet needs to be received; however, the existing network-related application does not send this packet. With the setting not to use the network-related application, this machine cannot recover from sleep mode 1 through network when it gets into sleep mode 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 1 0: Not used (Shift to sleep mode 1 is available.) 1: Used (Shift to sleep mode 1 is not available.)
	Default value	0
	Supplement/memo	Network-related application: NetSpot Accountant, imageWARE

COPIER>OPTION>USER		
PS-MODE		Compatible mode setting at PS usage
Lv.1	Details	To set for compatibility with existing machine regarding image process or print specification with PS print. Selecting 1 enables to have the print result equivalent to that of iR2200/2800/3300 series while selecting 2 enables to have the print result equivalent to that of iR105 series.
	Use case	At replacement
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535 0: No use of compatibility mode with PS 1: Image processing equivalent to that of iR2200/2800/3300 series (compatibility with existing machine) 2: Image processing equivalent to that of iR105 (compatibility with existing machine) 3: Spare 4: 2-sided print with landscape and portrait mixed when using Canon-made Controller (compatibility with non-Canon-made Controller) 5 to 65535: Spare
	Default value	0
CNCT-RLZ		Setting of connection serialize function
Lv.1	Details	Connection serialize is a function to assure job grouping function of imageWARE Output Manager Select Edition V1.0. The setting to enable this mode can avoid job rearrangement because the machine does not receive job data from other connection until it completes job data reception from the current connection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Connection: Connection to be established through network between multiple hosts (PC, etc). Job grouping function: A function of imageWARE Output Manager Select Edition V1.0. This is to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).

COPIER>OPTION>USER		
JA-FUNC		ON/OFF of job archive function
Lv.1	Details	To set ON/OFF of job archive function.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
JA-JOB		Setting of job archive target job
Lv.1	Details	To set the job type subject to job archive. With the job archive function enabled, archive operation is executed when executing the target job.
	Use case	
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Changing this mode is not available in service mode, but reference is available (in service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0: N/A, 3: Limited to FAX/IFAX, 0xFFFFFFFF: All jobs
	Default value	0
	Related service mode	COPIER > OPTION > USER > JA-FUNC
LDAP-SW		Retrieval condition set for LDAP server
Lv.1	Details	To set the condition to search e-mail address, etc. from LDAP server.
	Use case	When specifying condition to search e-mail address, etc. from LDAP server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 5 0: Includes the next, 1: Not include the next, 2: Equivalent to the next, 3: Not equivalent to the next, 4: Starts with the next, 5: Finishes with the next
	Default value	4
	Supplement/memo	LDAP (Lightweight Directory Access Protocol): Registering LDAP server enables to search e-mail address, etc. from LDAP server and the result can be registered in the Address Book, etc. Registration is available by the following: Set Destination > Register LDAP Server

COPIER>OPTION>USER		
FROM-OF		Deletion of mail sender's address
Lv.1	Details	To set whether to delete the sender's address (From) at the time of e-mail transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
DOM-ADD		Additional entry of mail destn domain
Lv.1	Details	To set to automatically add the domain specified in user mode to the sending address (To) entered at the time of e-mail transmission. If specifying ""xxx.com"" as a domain in user mode in advance, just entering ""aura"" enables to display ""aaa@xxx.com"" when sending e-mail.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not added, 1: Added
	Default value	0
FILE-OF		File send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of file transmission. File transmission is not available by entering the address because of no display of ""File"" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0

COPIER>OPTION>USER		
MAIL-OF		Mail send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of e-mail transmission. E-mail transmission is not available by entering the address because of no display of ""E-Mail"" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
IFAX-OF		IFAX send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of I-Fax transmission. IFAX transmission is not available by entering the address because of no display of ""I-Fax"" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
LDAP-DEF		Initial condone set of LDAP server search
Lv.1	Details	To set initial condition for search target attribute that is specified at the time of LDAP server Details search.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Name, 1: E-mail, 2: FAX, 3: Organization, 4: Organization unit, 5: No registration 1 (any setting), 6: No registration 2 (any setting)
	Default value	0
	Related service mode	COPIER > OPTION > USER > LDAP-SW

COPIER>OPTION>USER		
FREE-DSP		Display/hide of charge disable screen
Lv.1	Details	To set whether to display or hide the Use Charge Management screen for switching between charge and no charge. The hardware switch for switching charge/no charge in the Coin Manager enables the mode in which all the services are available for free (store manager mode) by temporarily releasing the charging system. Even without the hardware switch, the mode can be switched with the software switch when it is set to display the Use Charge Management screen in Settings/Registration.
	Use case	When enabling all the services to be provided for free by temporarily releasing the charging system
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Management Settings > Charge Management > Use Charge Management
CLR-TIM		Set of HDD Entry Kit data delete timing
Lv.1	Details	To set the timing to completely delete the data when HDD Encryption Kit is used. Selecting 0 may reduce the job processing speed because page data that has been already processed is deleted while the other job is in process, causing overload to CPU and HDD access. Selecting 1 improves the job processing speed because the process is executed after a job is completed.
	Use case	Upon request to improve the job processing speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: During job process, 1: After the job is completed
	Default value	0

COPIER>OPTION>USER		
HDCR-DSW		Dis/hide of HDD complete delete ON/OFF
Lv.1	Details	To set whether to display or hide ""Hard Disk Data Complete Deletion"" in user mode. With this setting, HDD data complete deletion function is available with ON/OFF button on the screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Management Settings > Data Management > HDD Data Complete Deletion > Hard Disk Data Complete Deletion
	Supplement/memo	
SNMP-COA		Inside comity name SNMPaccess limit:admin
Lv.1	Details	To restrict SNMP access by the community name (administrator right) that is kept internally. This machine internally retains the community name (administrator right) other than the SNMP community name that is specified in user mode. Canon-made utility software, such as NetSpot, uses this community name. Because of security concern, select 0/1 in the case to restrict SNMP access with the internal community name.
	Use case	When restricting SNTP access with the community name (administrator right) that is retained internally
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: OFF, 1: Read only, 2: Read/Write
	Default value	2
	Related user mode	Preferences > Network > SNMP Settings > Community Name 1 Settings

COPIER>OPTION>USER		
USBH-DSP		Display/hide of "Use USB Host"
Lv.1	Details	To set whether to display "Preferences > External Interface > USB Settings > Use USB Host". By selecting "1: Display", whether to use USB host on USB Settings screen can be selected.
	Use case	When switching to display or hide "Use USB Host" on USB Settings screen
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Preferences > External Interface > USB Settings > Use USB Host
USBM-DSP		Dis/hide of USB ex-memory device driver
Lv.1	Details	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB External Device". By selecting "0: Hide", the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB external memory device.
	Use case	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB External Device", set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related user mode	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device

COPIER>OPTION>USER		
USBI-DSP		Dis/hide of USB input device driver set
Lv.1	Details	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device". By selecting "0: Hide", the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB input device.
	Use case	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB Input Device", set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related user mode	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device
CTCHKDSP		Display/hide of counter print
Lv.1	Details	To set whether to display or hide ""Print List"" on the Counter Check screen. Model name, model number information, counter check date and counter information can be output as a total count management report.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
DFLT-ADJ		Tgt Auto Adj Gradation initial dis set
Lv.1	Details	To set whether to display "automatic gradation correction" on User mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Hide, 1: Display, 2 to 3: Not used
	Default value	0
	Related user mode	Settings/Registration> Adjustment/Maintenance> Auto Adjust Gradation

COPIER>OPTION>USER		
USBR-DSP		Dis/hide of USB infrared device driver
Lv.1	Details	To set whether to display "Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device."
	Use case	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB Infrared Device," set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related user mode	Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device
POL-SCAN		Dis/hide of Rights Management Server set
Lv.1	Details	When ""1: Display"" is set, the Rights Management Server function screen is displayed. While the Rights Management Server function is a standard feature, it is possible to hide if not necessary.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1 (Japan), 0 (Others)

COPIER>OPTION>USER		
PH-D-SL2		Set halftone process in text/photo mode
Lv.1	Details	When copying or B&W scanning to Inbox in text/photo mode, halftone processing of the image which reproduces gradation of text and photo judgment areas can be specified with this setting. Set to 1 when jaggy occurs or request to use the same half toning method (text area) as conventional one is raised. Set to 2 when moire occurs frequently or request to use the same half toning method as conventional B&W MFP method is raised. Even 0 is set, TBIC is used for text judgment area and low screen ruling for photo judgment area at the time of B&W Inbox scan. The setting is disabled when the B&W Inbox scanning density is set to auto.
	Use case	- When jaggy occurs on the edge of text or thin lines at copy output. Especially when jaggy occurs in the text or thin lines (text in halftone dots) of the area where gradation in the halftone density is expressed like photo, graphics, etc. - When moire occurs frequently at the time of copy or B&W Inbox scan Especially when moire frequently occurs in the area where gradation in the halftone density is expressed like photo, graphics, etc. and this symptom is not alleviated with PH-D-SEL or sharpness adjustment - When receiving a request to use the same half toning method (text area) as the conventional one (model with image area separation method) at copy output - When receiving a request to use the same half toning method (both text and photo areas) as the conventional B&W MFP method at the time of copy or B&W Inbox output
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Low screen ruling (134 lines) is used for photo judgment area and high screen ruling (141 lines) for text judgment area. 1: Low screen ruling is used for photo judgment area and TBIC for text judgment area. 2: TBIC is used for both photo and text judgment areas.
	Default value	0
	Related service mode	COPIER> OPTION> USER> PH-D-SEL

COPIER>OPTION>USER		
W-TN-DSP		[Not Used]
SCAN-RSL		Setting of scanned image resolution
Lv.1	Details	To set the resolution of image which is generated by scan processing.
	Use case	When the scan processing performance with 1200 dpi is low
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 600 dpi, 1: 1200 dpi
	Default value	0

COPIER>OPTION>USER		
JA-SBOX		Setting of linking with Advanced Box:SAM
Lv.1	Details	To set the link with Advanced Box when iW SAM is enabled. When 1 is set, linking with Advanced Box is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-DFAX		Setting of direct fax transmission: SAM
Lv.1	Details	To set the direct fax transmission when iW SAM is enabled. When 1 is set, the direct fax transmission is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-REP		Setting of TX Report with image: SAM
Lv.1	Details	To set the TX Report with image when iW SAM is enabled. When 1 is set, the TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FREP		Setting of Fax TX Report with image: SAM
Lv.1	Details	To set the Fax TX Report with image when iW SAM is enabled. When 1 is set, the Fax TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

COPIER>OPTION>USER		
JA-BOX		Setting of Inbox document operation: SAM
Lv.1	Details	To set the operation for Inbox document at the time of iW SAM When 1 is set, the Inbox document can be operated.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FORM		Setting of image composition: SAM
Lv.1	Details	To set the image composition when iW SAM is enabled. When 1 is set, the image composition is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PREV		Setting of preview page deletion: SAM
Lv.1	Details	To set whether a page is deleted from the scan preview screen at the time of iW SAM When 1 is set, a page is deleted from the scan preview screen.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PULL		Setting of network scan: SAM
Lv.1	Details	To set the network scan when iW SAM is enabled. When 1 is set, the network scan is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PDLB		Set of printer driver multi box save:SAM
Lv.1	Details	To set whether a document can be simultaneously saved to multiple Inboxes from the printer driver at the time of iW SAM. When 1 is set, a document can be saved to multiple Inboxes from the printer driver.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

COPIER>OPTION>USER		
JA-JOBK		Setting of job merge allowance:SAM
Lv.1	Details	To set whether merging jobs is allowed when iW SAM is enabled. When 1 is set, jobs can be merged.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-RUI		Setting of Inbox document access: SAM
Lv.1	Details	To set the Inbox document access from remote UI at the time of iW SAM When 1 is set, accessing to the Inbox document from remote UI is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-WEB		Setting of Inbox document upload: SAM
Lv.1	Details	To set the Inbox document upload with the Web browser at the time of iW SAM. When 1 is set uploading to the Inbox document with the Web Browser is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0

COPIER>OPTION>USER		
EXP-CRYP		Confidential encrypt ON/OFF:add book exprt
Lv.1	Details	To set whether to encrypt the confidential part (password part) in the Address Book when exporting the Address Book and device settings via RUI. When 0 is set, the confidential part in the Address Book is exported without encryption.
	Use case	When there is a need to export password without encryption because of operation and tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure not to allow the user to execute export without encryption because of security concern.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SLEEP1SW		Power supply when shifting to SLEEP1
Lv.1	Details	When shifting to SLEEP1 mode, the power stops to be supplied, so it takes time to activate after a job is received. When 1 is set, the power keeps to be supplied even after shifting to SLEEP1 mode, so the activation of job processing becomes earlier.
	Use case	Upon user's request (when job processing after shifting to SLEEP1 is slow)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
EZY-SCRP		Set simple certify printing mode
Lv.1	Details	The following operations are performed for the certify printing. 1. The secure print is available without the pass word by certifying the prescribed pass word automatically. 2. The job only to perform secure printing is acceptable. 3. The items 10 min, 20 min and 30 min are added to the automatic erase time of the secure job.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

COPIER>OPTION>USER		
DMN-MTCH		Secure print domain mode
Lv.1	Details	To wide an application range of my job by flexing the relation condition of the domain
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1

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■ CST

COPIER>OPTION>CST		
U1-NAME		Dis/hide of ppr name in ppr size groupU1
Lv.2	Details	To set whether to display or hide paper name at paper size group U1 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U2-NAME		Dis/hide of ppr name in ppr size groupU2
Lv.2	Details	To set whether to display or hide paper name at paper size group U2 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U3-NAME		Dis/hide of ppr name in ppr size groupU3
Lv.2	Details	To set whether to display or hide paper name at paper size group U3 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
U4-NAME		Dis/hide of ppr name in ppr size groupU4
Lv.2	Details	To set whether to display or hide paper name at paper size group U4 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
ENV1		[Not used]
ENV2		[Not used]

COPIER>OPTION>CST		
CST1-P1		Setting of Cassette 1 paper size
Lv.1	Details	To set the paper size used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
CST1-P2		Setting of Cassette 1 paper size
Lv.1	Details	To set the paper size used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
CST2-P1		Setting of Cassette 2 paper size
Lv.1	Details	To set the paper size used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection

COPIER>OPTION>CST		
CST2-P2		Setting of Cassette 2 paper size
Lv.1	Details	To set the paper size used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
CST3-P1		Setting of Cassette 3 paper size
Lv.1	Details	To set the paper size used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection
CST3-P2		Setting of Cassette 3 paper size
Lv.1	Details	To set the paper size used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
CST4-P1		Setting of Cassette 4 paper size
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> A5R/STMTR Original Selection

COPIER>OPTION>CST		
CST4-P2		Setting of Cassette 4 paper size
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: B5, 1: EXEC
	Default value	USA: 1, Countries other than USA: 0
	Related user mode	Preferences> Paper Settings> Paper Settings> B5/EXEC Original Selection
CST1-U1		Set Cst1 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 23: Not used, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 32: Not used, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST1-U2		Set Cst1 overseas special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 34 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 34: Not used
	Default value	0
CST1-U3		Set Cst1 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29:A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER>OPTION>CST		
CST1-U4		Set Cst1 overseas special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 1.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0
CST2-U1		Set Cst2 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 23: Not used, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 32: Not used, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST2-U2		Set Cst2 overseas special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 34 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 34: Not used
	Default value	0
CST2-U3		Set Cst2 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29:A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER>OPTION>CST		
CST2-U4		Set Cst2 overseas special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 2.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0
CST3-U1		Set Cst3 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 23: Not used, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 32: Not used, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST3-U2		Set Cst3 overseas special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 34 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 34: Not used
	Default value	0
CST3-U3		Set Cst3 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29:A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER>OPTION>CST		
CST3-U4		Set Cst3 overseas special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 3.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0
CST4-U1		Set Cst4 overseas special ppr category 1
Lv.1	Details	To set the overseas special paper category 1 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 43 0: Special paper is not used, 1 to 23: Not used, 24: FLSP, 25: A-FLSP, 26: OFI, 27: E-OFI, 28 to 29: Not used, 30: A-LTRR, 31 to 32: Not used, 33: A-LGL, 34: G-LGL, 35: Not used, 36: A-OFI, 37: M-OFI, 38 to 41: Not used, 42: FA4, 43: FB4 (FLSP-R)
	Default value	0
CST4-U2		Set Cst4 overseas special ppr category 2
Lv.1	Details	To set the overseas special paper category 2 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 34 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 34: Not used
	Default value	0
CST4-U3		Set Cst4 overseas special ppr category 3
Lv.1	Details	To set the overseas special paper category 3 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 31 0: Special paper is not used, 1 to 21: Not used, 22: K-LGL, 23 to 28: Not used, 29:A-LTR, 30: Not used, 31: G-LTR
	Default value	0

COPIER>OPTION>CST		
CST4-U4		Set Cst4 overseas special ppr category 4
Lv.1	Details	To set the overseas special paper category 4 used in Cassette 4.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0

T-8-55

■ ACC

COPIER>OPTION>ACC		
COIN		Setting of charge management
Lv.1	Details	To set charging management method.
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Following items are automatically specified when changing the value to 3 (from 0 to 2). The change will not be returned even if changing back the value to 0 to 2 (from 3) once the mode has been changed. - COPIER> OPTION> USER> CONTROL=1 - COPIER> OPTION> NETWORK> DA-CNCT=1 - COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX=0 - Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings > SMTP Receive, POP=OFF - Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings > Use FTP Printing=OFF - Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings > Use IPP Printing=ON
	Display/adj/set range	0 to 7 0: No charge 1: Charge with Coin Manager 2: Charge with remote counter 3: Charge with DA (only in Japan) 4: Charge with this machine itself 5: Not used 6: External charge mode 6 7: External charge mode 7
	Default value	0
	Related service mode	COPIER> OPTION> USER> CONTROL COPIER> OPTION> FNC-SW> DA-CNCT COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX COPIER> OPTION> ACC> PDL-THR
	Related user mode	Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings
	Supplement/memo	Control card can be used with ""0: No charge"". DA: Digital Accessory

COPIER>OPTION>ACC		
DK-P		Setting of Paper Deck paper size
Lv.1	Details	To set the paper size used in the Paper Deck.
	Display/adj/set range	0 to 2 0: A4, 1: Not used, 2: LTR
	Default value	0
CC-SPSW		Support setting of control card I/F
Lv.2	Details	To set support level for control card (CCIV/CCV) interface.
	Use case	Upon user's request (when connecting to the external counter management system using the control card interface)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No support, 1: Support
	Default value	0
UNIT-PRC		Setting of Coin Manager currency unit
Lv.2	Details	To set currency unit to be handled with Coin Manager
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Japanese yen, 1: Euro, 2: Pound, 3: Swiss Franc, 4: Dollar, 5: No currency unit (no fractional unit), 6: No currency unit (with fractional unit)
	Default value	0
IN-TRAY		Presence/absence of inner 2 way tray
Lv.1	Details	Set the presence/absence of the inner 2 way tray.
	Use case	When the inner 2 way tray is installed
	Display/adj/set range	0: The inner 2 way tray is absent 1: The inner 2 way tray is present.
	Default value	0

COPIER>OPTION>ACC		
MIN-PRC		Set of Coin Manager minimum price
Lv.1	Details	To set the minimum amount to be handled with Coin Manager. Enter 10 when specifying 10 Japanese yen as the minimum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/ Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents ($ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range	0 to 9999
	Default value	10
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for the charging amount, it causes an error if specifying the value that is smaller than the minimum currency unit with Settings/Registration mode.
MAX-PRC		Set of Coin Manager maximum price
Lv.1	Details	To set the maximum amount to be handled with Coin Manager. Enter 8800 when specifying 8800 Japanese yen as the maximum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/ Dollar) by going through the following: COPIER> OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents ($ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range	0 to 9999
	Default value	8800
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for charging amount, it causes an error if specifying the value that is larger than the maximum currency unit with Settings/Registration mode.

COPIER>OPTION>ACC		
MIC-TUN		Manual adj of voice recognize microphone
Lv.1	Details	To manually adjust the voice receiving level (sensitivity) of the connected voice recognition microphone. Microphone sensitivity is automatically tuned in user mode; however, adjust it manually as needed.
	Use case	When the sensitivity of microphone is not improved by auto tuning
	Display/adj/set range	0 to 255
	Default value	128
	Related user mode	Preferences > Accessibility > Voice Navigation Settings > Tune Microphone
	Supplement/memo	
PDL-THR		Norm PDL pnt set:External charge mode6/7
Lv.2	Details	To set normal PDL print job processing at external charge mode 6/7. When 1 is set and external charge mode 6/7 is set with COIN, normal PDL print job is executed without being cancelled.
	Use case	When setting the normal PDL print processing in external charge mode 6/7
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Cancel, 1: Execute
	Default value	0
	Related service mode	COPIER> OPTION> ACC> COIN
CR-TYPE		Setting of Card Reader
Lv.1	Details	To set the model of the Card Reader. Set 1 in the case of connecting the Card Reader-C1. It operates even 0 is set, but recognition rate decreases.
	Use case	When connecting the Card Reader-C1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Card Reader-F1, 1: Card Reader-C1
	Default value	0

T-8-56

■ INT-FACE

COPIER>OPTION>INT-FACE		
IMG-CONT		[Not used]
NWCT-TM		Timeout setting of network connection
Lv.2	Details	To set the time to keep network connection between this machine and the PC application (keep-alive setting). As the value is incremented by 1, the time is increased by 1 minute.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Unit	1 minute
	Default value	5
	Supplement/memo	Expected PC application: Network print application, E-mail function, cascade copy, MEAP network application, etc.
CNT-TYPE		[Not used]

T-8-57

■ LCNS-TR

COPIER>OPTION>LCNS-TR		
ST-SEND		Installation state dis of SEND function
Lv.2	Details	To display installation state of SEND function when transfer is disabled.
	Use case	When checking whether SEND function is installed
	Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SEND.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SEND		transfer license key dis of SEND function
Lv.2	Details	To display transfer license key to use SEND function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SEND.
	Display/adj/set range	24 digits
ST-ENPDF		Installation state dis of Encryption PDF
Lv.2	Details	To display installation state of Encryption PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF is installed
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ENPDF.
	Caution	
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-ENPDF		transfer license key dis of Encryption PDF
Lv.2	Details	To display transfer license key to use Encryption PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ENPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-SPDF		Installation state dis of Searchable PDF
Lv.2	Details	To display installation state of Searchable PDF when transfer is disabled.
	Use case	When checking whether Searchable PDF is installed
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SPDF		Transfer license key dis of Searchable PDF
Lv.2	Details	To display transfer license key to use Searchable PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-EXPDF		Instal state of Encryption PDF + Searchbl PDF
Lv.2	Details	To display installation state of Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF + Searchable PDF is installed
	Adj/set/operate method	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-EXPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-EXPDF		Transfer license key of Encryption PDF+Searchbl PDF
Lv.2	Details	To display transfer license key to use Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-EXPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-EXPDF.
	Caution	This mode is enabled when SEND function is installed for Japan.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-PDFDR		Install state display of Direct Print PDF
Lv.2	Details	To display installation state of Direct Print PDF when transfer is disabled.
	Use case	When checking whether Direct Print PDF is installed
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PDFDR		Transfer licensekey display of Direct Print PDF
Lv.2	Details	To display transfer license key to use Direct Print PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	24 digits
ST-SCR		Install state display of Encrypted Secure Print
Lv.2	Details	To display installation state of Encrypted Secure Print when transfer is disabled.
	Use case	When checking whether Encrypted Secure Print is installed
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCR		Transfer license key display of Encrypted Secure Print
Lv.2	Details	To display transfer license key to use Encrypted Secure Print when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCR.
	Caution	This mode is enabled when there is "3DES+USH-H" Board.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-BRDIM		Installation status of the BarDIMM upon the transfer invalidation
Lv.2	Details	Display the installation status of the BarDIMM.
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-BRDIM		Transfer license key of the BarDIMM upon the transfer invalidation
Lv.2	Details	This item is used when replacing the HDD, or when changing the machine. Display the transfer license key of the BarDIMM.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-VNC		Install state display of Remote Operators Software
Lv.2	Details	To display installation state of Remote Operators Software when transfer is disabled.
	Use case	When checking whether Remote Operators Software is installed
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-VNC.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-VNC		Transfer license key display of Remote Operators Soft
Lv.2	Details	To display transfer license key to use Remote Operators Software when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-VNC.
	Display/adj/set range	24 digits
ST-WEB		Install state display of Web Access Software
Lv.2	Details	To display installation state of Web Access Software when transfer is disabled.
	Use case	When checking whether Web Access Software is installed
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WEB.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WEB		Transfer license key display of Web Access Soft
Lv.2	Details	To display transfer license key to use Web Access Software when transfer is disabled.
	Use case	"- When replacing HDD - When replacing the device"
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WEB.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-HRPDF		Install state display of High Compress PDF
Lv.2	Details	To display installation state of High Compression PDF when transfer is disabled.
	Use case	When checking whether High Compression PDF is installed
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HRPDF		Transfer licens key display of High Compress PDF
Lv.2	Details	To display transfer license key to use High Compression PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HRPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HRPDF.
	Display/adj/set range	24 digits
ST-TRSND		Install state display of Trial SEND function
Lv.2	Details	To display installation state of Trial SEND function when transfer is disabled.
	Use case	When checking whether Trial SEND function is installed
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TRSND.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TRSND		Transfer licensekey display of Trial SEND function
Lv.2	Details	To display transfer license key to use Trial SEND function when transfer is disabled.
	Use case	"- When replacing HDD - When replacing the device"
	Adj/set/operate method	1) Select ST-TRSND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TRSND.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-WTMRK		Install state display of Secure Watermark
Lv.2	Details	To display installation state of Secure Watermark when transfer is disabled.
	Use case	When checking whether Secure Watermark is installed
	Adj/set/operate method	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WTMRK.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WTMRK		Trns license key dis of Secure Watermark
Lv.2	Details	To display transfer license key to use Secure Watermark when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WTMRK.
	Display/adj/set range	24 digits
ST-TSPDF		Install state display of Time Stamp PDF: JP
Lv.2	Details	To display installation state of Time Stamp PDF (JP only) when transfer is disabled.
	Use case	When checking whether Time Stamp PDF (JP only) is installed
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TSPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TSPDF		Transfer license key display of Time Stamp PDF: JP
Lv.2	Details	To display transfer license key to use Time Stamp PDF (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TSPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-USPDF		Install state display of Digital User Sign PDF
Lv.2	Details	To display installation state of Digital User Signature PDF when transfer is disabled.
	Use case	When checking whether Digital User Signature PDF is installed
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-USPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-USPDF		Transfer license key display of Digital User Sign PDF
Lv.2	Details	To display transfer license key to use Digital User Signature PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-USPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-DVPDF		Install state display of Device Sign PDF
Lv.2	Details	To display installation state of Device Signature PDF when transfer is disabled.
	Use case	When checking whether Device Signature PDF is installed
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-DVPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-DVPDF		Transfer license key display of Device Sign PDF
Lv.2	Details	To display transfer license key to use Device Signature PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-DVPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-SCPDF		Install state display of Trace & Smooth PDF
Lv.2	Details	To display installation state of Trace & Smooth PDF when transfer is disabled.
	Use case	When checking whether Trace & Smooth PDF is installed
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCPDF		Transfer licensekey display of Trace & Smooth PDF
Lv.2	Details	To display transfer license key to use Trace & Smooth PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	24 digits
ST-AMS		Install state display of Access Management System
Lv.2	Details	To display installation state of Access Management System when transfer is disabled.
	Use case	When checking whether Access Management System is installed
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AMS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-AMS		Transfer license key display of Access Management System
Lv.2	Details	To display transfer license key to use Access Management System when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AMS.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-ERDS		Install state dis: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display installation state of E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	When checking whether E-RDS 3rd Party Expansion is installed
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ERDS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
TR-ERDS		Trns lcns key dis: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display transfer license key to use E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ERDS.
	Display/adj/set range	24 digits
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
ST-PS		Install state display of PS function
Lv.2	Details	To display installation state of PS function when transfer is disabled.
	Use case	When checking whether PS function is installed
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PS		Transfer license key display of PS function
Lv.2	Details	To display transfer license key to use PS function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PS.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-PCL		Install state display of PCL function
Lv.2	Details	To display installation state of PCL function when transfer is disabled.
	Use case	When checking whether PCL function is installed
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCL		Transfer license key display of PCL function
Lv.2	Details	To display transfer license key to use PCL function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCL.
	Display/adj/set range	24 digits
ST-PSLI5		Install state display:PS/LIPS4/LIPS LX: JP
Lv.2	Details	To display installation state of PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4/LIPS LX function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLI5.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLI5		Transfer license key dis:PS/LIPS4/LIPS LX: JP
Lv.2	Details	To display transfer license key to use PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSLI5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLI5.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-LIPS5		Install state display:LIPS LX/LIPS4 func: JP
Lv.2	Details	To display installation state of LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether LIPS LX/LIPS4 function (JP only) is installed
	Adj/set/operate method	"1) Select ST-LIPS5. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS5."
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LIPS5		Transfer license key display:LIPS LX/LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS5.
	Display/adj/set range	24 digits
ST-LIPS4		Install state display of LIPS4 func: JP
Lv.2	Details	To display installation state of LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LIPS4		Trns license key display of LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-PSPCL		Install state dis of PS/PCL function
Lv.2	Details	To display installation state of PS/PCL function when transfer is disabled.
	Use case	When checking whether PS/PCL function is installed
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCL		Transfer license key dis of PS/PCL func
Lv.2	Details	To display transfer license key to use PS/PCL function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	24 digits
ST-PCLUF		Install state dis of PCL/UFR II function
Lv.2	Details	To display installation state of PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCLUF		Trns license key dis of PCL/UFR II func
Lv.2	Details	To display transfer license key to use PCL/UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-PSLIP		Install state dis of PS/LIPS4 func: JP
Lv.2	Details	To display installation state of PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLIP		Trns license key dis of PS/LIPS4 func:JP
Lv.2	Details	To display transfer license key to use PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	24 digits
ST-PSPCU		Install state dis of PS/PCL/UFR II func
Lv.2	Details	To display installation state of PS/PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PS/PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCU		Trns lcns key dis of PS/PCL/UFR II func
Lv.2	Details	To display transfer license key to use PS/PCL/UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCU.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-LXUFR		Install state dis of UFR II function
Lv.2	Details	To display installation state of UFR II function when transfer is disabled.
	Use case	When checking whether UFR II function is installed
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LXUFR		Trns license key dis of UFR II function
Lv.2	Details	To display transfer license key to use UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LXUFR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LXUFR.
	Display/adj/set range	24 digits
ST-HDCR2		Install state dis:HDD Init All Data/Set
Lv.2	Details	To display installation state of HDD Initialize All Data/Settings when transfer is disabled.
	Use case	When checking whether HDD Initialize All Data/Settings is installed
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-HDCR2		Trns lcns key dis:HDD Init All Data/Set
Lv.2	Details	To display transfer license key to use HDD Initialize All Data/Settings when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-MOBIL		Install state dis of Mobile Link func:JP
Lv.2	Details	To display installation state of Mobile Link function (JP only) when transfer is disabled.
	Use case	When checking whether Mobile Link function (JP only) is installed
	Adj/set/operate method	1) Select ST-MOBIL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-MOBIL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-MOBIL		Trns lcns key dis of Mobile Link func:JP
Lv.2	Details	To display transfer license key to use Mobile Link function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-MOBIL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-MOBIL.
	Display/adj/set range	24 digits
ST-JBLK		Install state dis of Document Scan Lock
Lv.2	Details	To display installation state of Document Scan Lock when transfer is disabled.
	Use case	When checking whether Document Scan Lock is installed
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-JBLK.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-JBLK		Trns lcns key dis of Document Scan Lock
Lv.2	Details	To display transfer license key to use Document Scan Lock when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-JBLK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-JBLK.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-AFAX		Installation state dis of Remote Fax
Lv.2	Details	To display installation state of Remote Fax when transfer is disabled.
	Use case	When checking whether Remote Fax is installed
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AFAX.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-AFAX		Transfer license key dis of Remote Fax
Lv.2	Details	To display transfer license key to use Remote Fax when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AFAX.
	Display/adj/set range	24 digits
ST-REPDF		Install state dis:Reader Extensions PDF
Lv.2	Details	To display installation state of Reader Extensions PDF when transfer is disabled.
	Use case	When checking whether Reader Extensions PDF is installed
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-REPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-REPDF		Trns lcns key dis:Reader Extensions PDF
Lv.2	Details	To display transfer license key to use Reader Extensions PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-REPDF.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-OOXML		Install state dis of Office Open XML
Lv.2	Details	To display installation state of Office Open XML when transfer is disabled.
	Use case	When checking whether Office Open XML is installed
	Adj/set/operate method	1) Select ST-OOXML. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OOXML.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-OOXML		Trns lcns key dis of Office Open XML
Lv.2	Details	To display transfer license key to use Office Open XML when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-OOXML. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OOXML.
	Display/adj/set range	24 digits
ST-XPS		Install state dis of Direct Print XPS
Lv.2	Details	To display installation state of Direct Print XPS when transfer is disabled.
	Use case	When checking whether Direct Print XPS is installed
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-XPS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-XPS		Trns lcns key dis of Direct Print XPS
Lv.2	Details	To display transfer license key to use Direct Print XPS when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-XPS.
	Display/adj/set range	24 digits

COPIER>OPTION>LCNS-TR		
ST-2600		Instal state dis:HDD data encrypt/mirror
Lv.2	Details	To display installation state of the HDD data encryption/mirroring kit when transfer is disabled.
	Use case	When checking whether the HDD data encryption/mirroring kit is installed
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-2600.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-2600		Trn lcns key dis:HDD data encrypt/mirror
Lv.2	Details	To display transfer license key of the HDD data encryption/mirroring kit when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-2600.
	Display/adj/set range	24 digits
ST-OPFNT		Install status display of PCL option font
Lv.2	Details	To display the installation status of PCL option font when transfer is disabled
	Use case	When checking whether PCL option font is installed
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. The transfer license key is displayed under ST-OPFNT.
	Display/adj/set range	0: Not installed 1: Installed
TR-OPFNT		Trns lcns key display of PCL option font
Lv.2	Details	To display transfer license key to use PCL option font function with Policy when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select TR-OPFNT. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	24 digits

T-8-58

TEST

PG

COPIER>TEST>PG		
TYPE		Test print
Lv.1	Details	To execute the test print.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press Start key. Test print is executed.
	Caution	Be sure to return the value to 0 after the test print output.
	Display/adj/set range	0 to 50 0: Normal print 1: Grid 2: 17 gradations Tbic rank 2 3: 17 gradations 600dpi (134-line screen or 141-line screen) 4: Solid white 5: Halftone (density: 80H, Tbic rank 2, without image correction) 6: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 7: Solid black 8: Horizontal line (4 dots, 27 spaces) 9: Horizontal line (6 dots, 50 spaces) 10: Horizontal line (2 dots, 3 spaces) 11: Halftone (density: 60H, Tbic rank 2, without image correction) 12: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction) 13: Halftone (density: 30H, Tbic rank 2, without image correction) 14: Halftone (density: 30H, 134-line screen or 141-line screen, without image correction) 15-43: For development 44: Fixing cleaning pattern 45-50: For development
	Default value	0
TXPH		[Not used]
PG-PICK		Setting of test print Pickup Cassette
Lv.1	Details	To set the Pickup Cassette for test print output.
	Use case	- At trouble analysis - At test print output
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	1 to 8 1: Cassette 1, 2: Cassette 2, 3: Cassette 3 (Option Cassette), 4: Cassette 4 (Option Cassette), 5: Paper Deck, 6: Multi-purpose Tray, 7 to 8: Not used
2-SIDE		Setting of PG 2-sided mode
Lv.1	Details	To set 1-sided/2-sided print for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	0
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	Display/adj/set range	1 to 999
	Unit	1 sheet
	Default value	1
FINISH		Accessory processing function test print
Lv.1	Details	To execute the test print relating to accessory processing func.
	Use case	When checking operation of accessory processing function
	Adj/set/operate method	1) Enter the number of sheets for PG-QTY, and then press OK key. 2) Enter the setting value, and then press OK key. 3) Press Start button. The machine outputs a test print.
	Display/adj/set range	0 to 99 0: N/A 1: Staple (front) *1 2: Staple (2 points) *1 3: Staple (rear) *1 4: Booklet (saddle stitch) *1 5: Z-fold (single sleeve) *1 6: 2-fold *1 7 to 10: Not used 11: Punch (Inner Puncher) *3 12: Not used 13: Not used 14 to 99: Spare (for future use) *1 Finisher, *3 Inner Puncher
	Default value	0
	Related service mode	COPIER> TEST> PG> PG-QTY

T-8-77

NETWORK

COPIER>TEST>NETWORK		
PING		Network connection check
Lv.1	Details	To check connection between this machine and TCP/IP network.
	Use case	- When checking network connection at the time of installation - At network connection failure
	Adj/set/operate method	1) Turn OFF the main power switch. 2) Connect the network cable to this machine, and then turn ON the main power switch. 3) Inform the system administrator at user's site that installation of this machine is complete, and ask for network setting. 4) Ask the system administrator to check the network connection, and check the remote host address of PING transmission target. 5) Select the item and enter the remote host address, and then press OK key and Start key. OK: Connection is normal. Checking procedure is complete. NG: Connection failed. Go to step 6) if the cable connection is OK. In case of cable connection failure, connect again and then go to step 5). 6) Select the item and enter loopback address, and then press OK key and Start key. OK: TCP/IP setting of this machine is normal. Go to step 7) to check NIC. NG: TCP/IP setting of this machine has failure. Go to step 3) to check the setting again. 7) Select the item and enter the local host address, and then press OK key. OK: Network setting of this machine and NIC are normal. Inform the system administrator that the trouble is due to network environment and ask for countermeasure. NG: Connection failure/fault with NIC. Check connection of NIC/ replace NIC.
	Display/adj/set range	0.0.0.0 to 255.255.255.255 At normal state: OK At failure occurrence: NG
	Supplement/memo	- Remote host address: IP address of PC terminal in network. - Loopback address: 127.0.0.1. Checking TCP/IP of this machine is available because the signal is returned before NIC. - NIC: Network interface board - Local host address: IP address of this machine

COPIER>TEST>NETWORK		
IPV6-ADR		Setting of PING send address (IPv6)
Lv.1	Details	To set the IPv6 address to send PING. When PING is sent to this address by COPIER> TEST> NETWORK> PING-IP6, the network connection condition in the IPv6 environment can be checked.
	Caution	- Enter a consistent character string as an address of IPv6. - Enter an address within 39 characters including hexadecimal numbers (0-9, a-f) and a separator (:).
	Related service mode	COPIER> TEST> NETWORK> PING-IP6
PING-IP6		PING transmission to IPv6 address
Lv.1	Details	To send PING to the address specified by IPV6-ADR. The network connection condition in the IPv6 environment can be checked.
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> TEST> NETWORK> IPV6-ADR

T-8-78

COUNTER

TOTAL

COPIER>COUNTER>TOTAL		
SERVICE1		Service-purposed total counter 1
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SERVICE2		Service-purposed total counter 2
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 2, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
COPY		Total copy counter
Lv.1	Details	To count up when the paper is delivered outside the machine. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
PDL-PRT		PDL print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at PDL print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
FAX-PRT		FAX reception print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at FAX reception. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
RMT-PRT		[Not used]
BOX-PRT		Inbox print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at Inbox print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
RPT-PRT		Report print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at report print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
2-SIDE		2-sided copy/print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at 2-sided copy/print. Large size: 1, small size: 1 A blank sheet is not counted.
	Display/adj/set range	0 to 99999999
SCAN		Scan counter
Lv.1	Details	To count the number of scan operations according to the charge counter when the scanning operation is complete. Large size: 1, small size: 1
	Adj/set/operate method	When the counter is cleared Select the item, and then press Clear key.
	Display/adj/set range	0 to 99999999

T-8-79

■ PICK-UP

COPIER>COUNTER>PICK-UP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Small size: 1 Large size: 1
	Unit	Number of sheets
C2		Cassette 2 pickup total counter
Lv.1	Details	Small size: 1 Large size: 1
	Unit	Number of sheets
C3		Cassette 3 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
C4		Cassette 4 pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
MF		Multi-purpose Tray pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
DK		Deck pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets
2-SIDE		2-sided pickup total counter
Lv.1	Details	Large size: 1, Small size: 1
	Unit	Number of sheets

T-8-80

■ FEEDER

COPIER>COUNTER>FEEDER		
FEED		DADF original pickup total counter
Lv.1	Use case	When checking the total counter of original pickup by DADF
	Unit	Number of sheets
DFOP-CNT		DADF hinge open/close counter
Lv.1	Use case	When checking the DADF hinge open/close counter
	Unit	Number of times

T-8-81

JAM

COPIER>COUNTER>JAM		
TOTAL		Host machine total jam counter
Lv.1	Use case	When checking the total jam counter of the host machine
	Unit	Number of times
FEEDER		Feeder total jam counter
Lv.1	Use case	When checking the total jam counter of feeder
	Unit	Number of times
SORTER		Finisher total jam counter
Lv.1	Use case	When checking the total jam counter of finisher
	Unit	Number of times
2-SIDE		Duplex Unit jam counter
Lv.1	Use case	When checking the jam counter of Duplex Unit
	Unit	Number of times
MF		Multi-purpose Tray jam counter
Lv.1	Use case	When checking the jam counter of Multi-purpose Tray
	Unit	Number of times
C1		Right Deck jam counter
Lv.1	Use case	When checking the jam counter of machine's Right Deck
	Unit	Number of times
C2		Left Deck jam counter
Lv.1	Use case	When checking the jam counter of machine's Left Deck
	Unit	Number of times
C3		Cassette 3 pickup jam counter
Lv.1	Use case	When checking the jam counter of machine's Cassette 3
	Unit	Number of times
C4		Cassette 4 pickup jam counter
Lv.1	Use case	When checking the jam counter of machine's Cassette 4
	Unit	Number of times
DK		Pickup decks jam counter
Lv.1	Use case	When checking the jam counter of all pickup decks
	Unit	Number of times

T-8-82

MISC

COPIER>COUNTER>MISC		
T-SPLY-K		Toner supply counter
Lv.1	Details	Number of toner supply blocks. Counted for rotation of Toner Feed Motor.
	Use case	When checking the usage status of toner
	Unit	Number of blocks
LSR-MTR		Laser scanner motor counter
Lv.1	Details	Use a reference data for the judgment when the laser scanner is replaced. To count up at start-up.
	Use case	When checking the usage status of the product
	Unit	Number of times
ALLPW-ON		Number of DCON PCB power-on times
Lv.1	Details	Number of power-on times (Non-all-night Power Unit). To count up when power is turned ON (Non-all-night Power Unit).
	Use case	When checking the usage status of the product
	Unit	Number of times
HDD-ON		Number of HDD start-up times
Lv.1	Details	To count up at HDD start-up.
	Use case	When checking the usage status of the product
	Unit	Number of times
ST-NDL		Staple needle counter: Inner/External finisher
Lv.1	Details	To count the use of the staple needle.
	Unit	Number of times
ENT-PTH		Entrance paper path counter: External finisher
Lv.1	Details	Entrance paper path counter
	Unit	Number of sheets
TRAY-CHA		Tray change counter: External finisher
Lv.1	Details	Tray change counter
	Unit	Number of times
PUN-CAB		Punch Unit Cable counter: External finisher
Lv.1	Details	Punch Unit Cable counter
	Unit	Number of times
PUN-WST		Punch waste counter: External finisher
Lv.1	Details	Punch Unit punch waste counter
SDL-NDL		Saddle staple needle counter: Booklet finisher
Lv.1	Details	To count the use of the saddle staple needle.
	Unit	Number of times

T-8-83

■ JOB

COPIER>COUNTER>JOB		
DVPAPLEN		Average paper length of job
Lv.1	Details	Average paper length in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average paper length affects calculation of the life.
	Display/adj/set range	0 to 99999999
	Unit	mm
DVRUNLEN		Average distance of job
Lv.1	Details	Average running distance in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average running distance affects calculation of the life.
	Display/adj/set range	0 to 99999999
	Unit	mm

T-8-84

■ DRBL-1

COPIER>COUNTER>DRBL-1		
TR-ROLL		Transfer Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	This is commonly used as operator maintenance parts counter.
SP-SC-EL		Separation Static Eliminator prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PT-DRM		Photosensitive Drum parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement. Clear the counter value in COPIER> FUNCTION> INSTALL> DRM-INIT after replacement. COPIER>COUNTER>LF>K-DRM-LF is cleared at the same time, too.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER>COUNTER>DRBL-1		
DV-UNT-K		Developing Unit parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-PU-RL		Cassette 1 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-SP-RL		Cassette 1 Separation Roller parts cntr
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER>COUNTER>DRBL-1		
C1-FD-RL		Cassette 1 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-PU-RL		Cassette 2 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C2-SP-RL		Cassette 2 Separation Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER>COUNTER>DRBL-1		
C2-FD-RL		Cassette 2 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
M-FD-RL		Multifeed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
M-SP-PD		Multifeed separation Pad prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

COPIER>COUNTER>DRBL-1		
FX-UNIT		Fixing Main Unit parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
WST-TNR		Waste toner container parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
OZ-FIL1		Ozone Filter parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

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DRBL-2

COPIER>COUNTER>DRBL-2		
DF-PU-RL		Pickup Roller parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-SP-PD		Separation Pad parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.

COPIER>COUNTER>DRBL-2		
LNT-TAP1		Dust Removal Sheet 1 counter: DADF
Lv.1	Details	Dust-colleting 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
STAMP		Stamp parts counter: DADF
Lv.1	Details	To display the estimated life and parts counter of DADF stamp. 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	At replacement
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PD-PU-RL		Pickup Roller parts counter: Deck
Lv.1	Details	Pickup Roller (Front/Rear) of Paper Deck/POD Deck Lite/ Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
PD-SP-RL		Separation Roller parts counter: Deck
Lv.1	Details	Separation Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
PD-FD-RL		Feed Roller parts counter: Deck
Lv.1	Details	Feed Roller of Paper Deck/POD Deck Lite/Multi Deck (Upper) 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
C3-PU-RL		Cassette 3 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
C3-SP-RL		Cassette 3 Separation Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
C3-FD-RL		Cassette 3 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
C4-PU-RL		Cassette 4 Pickup Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
C4-SP-RL		Cassette 4 Separation Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
C4-FD-RL		Cassette 4 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SORT		Finisher sort path feed paper counter: Inner/External finisher
	Use case	When checking the consumption level of parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
FIN-STPR		Stapler parts counter: Inner/External Finisher
Lv.1	Details	Stapler Unit 1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of times
	Default value	0
SADDLE		Saddle feed path feed paper counter: Booklet finisher
	Use case	When checking the consumption level of parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
SDL-STPL		Saddle staple unit operation counter: Booklet finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
PUNCH		Punch unit operation counter: Puncher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
FN-BFFRL		Buffer Roller parts counter: External Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
ENT-STC		Inlet Static Eliminator prts cntr: Inner/External Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
DL-STC		Delivery Static Eliminator prts cntr: Inner/External Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
OFST-RL		Offset roller parts counter: Inner Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0
RET-RL		Return roller parts counter: External Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

COPIER>COUNTER>DRBL-2		
SWG-STC		Swing Middle Static Eliminator prts cntr: External Finisher
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Unit	Number of sheets
	Default value	0

T-8-86

LF

COPIER>COUNTER>LF		
K-DRM-LF		Drum unit (Bk) counter
Lv.1	Details	The consumption degree of the drum unit (Bk) is displayed by ""%"". When the drum unit is replaced to new one, the display is changed to 0 % automatically.
	Use case	To check the consumption degree of the drum unit (Bk)
	Caution	Clear the counter value after replacement by COPIER>FUNCTION>INSTALL>DRM-INIT. At the same time, the counter value of COPIER>COUNTER>DRBL-1>PT-DRM is cleared, too.
	Display/adj/set range	0 to 99999999
	Unit	%

T-8-87

FEEDER

DISPLAY

FEEDER>DISPLAY		
FEEDSIZE		Dis of original size detected by DADF
Lv.1	Details	To display the original size detected by DADF.
	Adj/set/operate method	N/A (Display only)
TRY-WIDE		Distance of Original Width Detect Slider
Lv.1	Details	To display the distance between the Original Width Detection Sliders.
	Use case	At original size detection error
	Adj/set/operate method	Check whether the value matching the slide position is displayed when the Original Width Slider is moved to the specified size width position.
	Display/adj/set range	0 to approx. 2970
	Unit	0.1 mm

T-8-88

ADJUST

FEEDER>ADJUST		
DOCST		Adj of DADF img lead edge margin: front
Lv.1	Details	To adjust the margin at the leading edge of the image for DADF scanning. Execute when the output image after DADF installation is dislocated. When replacing the Reader Controller PCB/clearing RAM data, enter the value of service label. As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
LA-SPEED		Fine adj of DADF image magnifictn: front
Lv.1	Details	To adjust the image magnification in vertical scanning direction for DADF scanning. When replacing the CCD unit (CCD PCB)/clearing RAM data, enter the value of service label. As the value is incremented by 1, the image is reduced by 0.1% in vertical scanning direction. (The feeding speed increases, and the image is reduced.)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-30 to 30
	Unit	0.10%
DOC-LNGH		DADF paper detection adj for the long sheet/free size mode
Lv.1	Details	When DADF is installed (to adjust the detection margin of error for the long sheet/free size mode)
	Use case	- When installing DADF - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-100 to 100
	Unit	0.1mm

T-8-89

FUNCTION

FEEDER>FUNCTION		
MTR-CHK		Specifying DADF Operation Motor
Lv.1	Details	To specify the DADF Motor to operate. The motor is activated by MTR-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 0: Pickup motor (M1) 1: Release motor (M2)
	Related service mode	FEEDER> FUNCTION> MTR-ON
TRY-A4		Adj of DADF Tray width detect ref 1: A4
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (A4)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-A5R		Adj of DADF Tray width detect ref 2: A5R
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (A5R)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-LTR		Adj of DADF Tray width detect ref 1: LTR
Lv.1	Details	To automatically adjust the paper width detection reference point 1 for the DADF Tray. (LTR)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
TRY-LTRR		Adj of DADF Tray width detect ref2: LTRR
Lv.1	Details	To automatically adjust the paper width detection reference point 2 for the DADF Tray. (LTRR)
	Use case	- When replacing the Original Width Volume (VR) - When replacing the Reader Controller PCB/clearing RAM data
FEED-CHK		Specifying DADF individual feed mode
Lv.1	Details	To specify the feed mode for DADF. Feed operation is activated by FEED-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 3 0: 1-sided pickup/delivery operation 1: 2-sided pickup/delivery operation 2: 1-sided pickup/delivery operation (with stamp) 3: 2-sided pickup/delivery operation (with stamp)
	Related service mode	FEEDER> FUNCTION> FEED-ON

FEEDER>FUNCTION		
CL-CHK		Specifying DADF Operation Clutch
Lv.1	Details	To specify the DADF clutch to operate. The clutch is activated by CL-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 0: Paper feed clutch (CL1) 1: Registration clutch (CL2)
	Related service mode	FEEDER> FUNCTION> CL-ON
CL-ON		Operation check of DADF Clutch
Lv.1	Details	To start operation check for the clutch specified by CL-CHK
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Required time	Approx. 5 seconds
	Related service mode	FEEDER> FUNCTION>CL-CHK
FAN-CHK		Specifying DADF Operation Fan
Lv.1	Details	To specify the DADF Fan to operate. The fan is activated by FAN-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 0: Cooling Fan (FM1)
	Related service mode	FEEDER> FUNCTION>FAN-ON
FAN-ON		Operation check of DADF Fan
Lv.1	Details	To start operation check for the fan specified by FAN-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Required time	Approx. 5 seconds
	Related service mode	FEEDER> FUNCTION> FAN-CHK
SL-CHK		Specifying DADF Operation Solenoid
Lv.1	Details	To specify the DADF solenoid to operate. The solenoid is activated by SL-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 1 0: Disengagement Solenoid (SL1) 1: Stamp Solenoid (SL2)
	Related service mode	FEEDER> FUNCTION> SL-ON

FEEDER>FUNCTION		
SL-ON		Operation check of DADF Solenoid
Lv.1	Details	To start operation check for the solenoid specified by SL-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Required time	Approx. 5 seconds
	Related service mode	FEEDER> FUNCTION> SL-CHK
MTR-ON		Operation check of Motor
Lv.1	Details	To start operation check for the motor specified by MTR-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Required time	Approx. 5 seconds
	Related service mode	FEEDER> FUNCTION> MTR-CHK
ROLL-CLN		Rotation of DADF Rollers
Lv.1	Details	To rotate for cleaning the DADF Rollers. Clean the roller by putting the lint-free paper moistened with alcohol while it is rotating.
	Use case	At roller cleaning
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Clean the rotating rollers with lint-free paper moistened with alcohol. 3) Press OK key. The rollers stop.
FEED-ON		Operation check of DADF individual feed
Lv.1	Details	To start operation check for the feed mode specified by FEED-CHK.
	Use case	At operation check
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	FEEDER> FUNCTION> FEED-CHK

T-8-90

OPTION

FEEDER>OPTION		
SIZE-SW		ON/OFF of mixed paper detection:AB, Inch
Lv.1	Details	To set ON/OFF of mixed paper detection: AB configuration and Inch configuration
	Use case	When enabling to mix AB and Inch configuration sizes original
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF (Mixed paper is not detected), 1: ON (Mixed paper is detected)

T-8-91

SORTER

ADJUST

SORTER>ADJUST		
PNCH-Y		Punch Hole Side-Reg Position Adj: Inner Fin
Lv.1	Details	To adjust the punch hole position in the side registration direction The punch hole is moved 0.45mm by changing the value. +: towards rear -: towards front
	Use case	When the punch hole position is incorrect in the side registration direction
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.45 mm
	Default value	0
CLCT-SB		Switch Back Amount Adj: Inner finisher
Lv.1	Details	To adjust the switch back amount when the paper is delivered to the process tray
	Use case	When the stack failure is caused by the curled paper in the process tray
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
STP-F1		Adj frt staple pstn (45deg)(A4/LTR): External finisher
Lv.1	Details	To adjust the one front staple position on the A4/LTR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm.
	Use case	When misalignment occurs at the front staple position on A4/LTR size paper.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6
	Unit	0.49 mm

SORTER>ADJUST		
STP-F2		Adj frt staple pstn (Less Than 45deg.) (A4R/LTRR): External finisher
Lv.1	Details	To adjust the one front staple position on the A4R/LTRR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm.
	Use case	When misalignment occurs at the front staple position on A4R/LTRR size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6
	Unit	0.49 mm
STP-R1		Adj rear staple pstn (45deg)(A4/LTR): External finisher
Lv.1	Details	To adjust the one rear staple position on the A4/LTR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm.
	Use case	When misalignment occurs at the rear staple position on A4/LTR size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6
	Unit	0.49 mm
STP-R2		Adj rear staple pstn (Less Than 45deg.)(A4R/LTRR): External finisher
Lv.1	Details	To adjust the one rear staple position on the A4R/LTRR size paper. As the value is incremented by 1, the staple position moves to the rear side by 0.49 mm.
	Use case	When misalignment occurs at the rear staple position on A4R/LTRR size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-6 to 6
	Unit	0.49 mm

SORTER>ADJUST		
STP-2P		Adj 2-staple position in feed direction. : Inner finisher
Lv.1	Details	To adjust the 2-staple position in feed direction on Finisher. As the value is incremented by 1, the staple position moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction
	Use case	When the 2-staple position in feed direction is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
PNCH-X		Punch hole position in feed way: Inner finisher
Lv.1	Details	To adjust the punch hole position on Finisher in feed direction. As the value is incremented by 1, the punch hole moves by 0.1mm. +: Toward delivery direction -: Toward inlet direction
	Use case	When the punch hole is displaced in feed direction
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Appropriate target value	0
SDL-STP		Adj of Saddle Stitcher staple position: Booklet finisher
Lv.1	Details	To adjust the staple position of Saddle Stitcher. As the value is incremented by 1, the staple position moves by mm.
	Use case	When the staple position of the Saddle Stitcher is displaced
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Unit	mm
	Default value	0

SORTER>ADJUST		
SDL-ALG		Adj of Saddle Stitcher alignment width: Booklet finisher
Lv.1	Details	To adjust the alignment width of Saddle Stitcher. As the value is incremented by 1, the alignment width is increased by mm.
	Use case	When the misalignment occurs within a paper stack on the Saddle Stitcher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1
	Unit	mm
	Default value	0
ST-ALG1		Adj Stacker A4 size align pstn: External finisher
Lv.1	Details	To adjust the A4 size paper alignment position. As the value is incremented by 1, the travel length of the Alignment Plate is increased by 0.42mm.
	Use case	When misalignment occurs in A4 size paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-10 to 10
	Unit	0.42 mm
	Appropriate target value	0
	Default value	0
SW-UP-RL		Adj Swing Roller falling pstn: External finisher
Lv.1	Details	To adjust the Swing Roller fall position. As the value is incremented by 1, the Swing Roller fall position moves downward by 0.2mm.
	Use case	When paper fails to be transported to the Processing Tray and misalignment occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-17 to 33
	Unit	0.2 mm
	Appropriate target value	0
	Default value	0
PUN-V-RG		Adj punch vertical rgst pstn: External Puncher
Lv.1	Details	To adjust the vertical registration position of the paper to be punched. As the value is incremented by 1, the punch hole position moves toward the edge by 1mm.
	Use case	When misalignment of punch hole position occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-4 to 2
	Unit	1 mm
	Appropriate target value	0
	Default value	0

SORTER>ADJUST		
PRCS-RET		Adj Process Tray return amount: External finisher
Lv.1	Details	To adjust the pull-back amount of the paper on the Processing Tray. As the value is incremented by 1, the pull-back amount is decreased by 1.4mm.
	Use case	When the paper is bent in the Processing Tray
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5
	Unit	1.4 mm
	Appropriate target value	0
	Default value	0
UP-CL		Upward curl prevention mode: External finisher
Lv.1	Details	Set 1 when upward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs.
	Use case	When upward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
DW-CL		Downward curl prevention mode: External finisher
Lv.1	Details	Set 1 when downward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs.
	Use case	When downward curl occurs on the paper delivered to the Stack Tray, and paper leaning due to the curl occurs
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
THC-CL		Heavy ppr curl prevention mode: External finisher
Lv.1	Details	Set 1 when upward curl occurs on the heavy paper delivered. When 1 is set, the amount of Stack Tray dissension for stack delivery increases. The paper surface detection is performed for every sheet, not for every 5 sheets.
	Use case	When upward curl occurs on the heavy paper delivered
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER>ADJUST		
THC-PUSH		Heavy ppr out prevention mode: External finisher
Lv.1	Details	Set 1 when the already stacked paper is pushed out at the time of heavy paper delivery. When 1 is set, the Stack Tray moves down temporarily before the heavy paper is delivered to the Processing Tray if the leading sheet is heavy paper.
	Use case	When the already stacked paper is pushed out at the time of heavy paper delivery
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
OFST-STC		Poor offset stack prev mode: External finisher
Lv.1	Details	Set 1 when paper is not appropriately stacked in the small-size offset mode. When 1 is set, buffer operation is not performed in the small-size offset mode.
	Use case	When paper is not appropriately stacked in the small-size offset mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
THN-STC		Poor thin ppr stack prev mode: External finisher
Lv.1	Details	Set 1 when thin paper is not appropriately stacked. When 1 is set, the stacking condition of thin paper improves.
	Use case	When thin paper is not appropriately stacked
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
STP-P-CH		Stpl stack displace prev mode: External finisher
Lv.1	Details	Set 1 when the paper on the top is misaligned in the staple delivery mode. When 1 is set, paper stack alignment operation is executed twice immediately before stapling.
	Use case	When the paper on the top is misaligned in the staple delivery mode
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER>ADJUST		
TRY-NIS		Tray switch noise reduct mode: External finisher
Lv.1	Details	Set 1 when the operation noise after switching the Stack Tray is loud. When 1 is set, the Stack Tray rise operation becomes slow.
	Use case	When the operation noise after switching the Stack Tray is loud
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
TRY-SU		Tray switching speedup mode: External finisher
Lv.1	Details	Set 1 when the Stack Tray switching time is long. When 1 is set, the Stack Tray rise speed becomes fast.
	Use case	When the Stack Tray switching time is long
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
FIN-NIS		[Not used]
1SHT-SHF		Set 1-sheet Offset+Collate: External finisher
Lv.1	Details	Set 1 when setting Offset and Collate for 1-sheet document.
	Use case	When setting Offset and Collate for 1-sheet document
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
SDL-SWCH		Sddl stck capacity switch mode: Booklet finisher
Lv.1	Details	Set 1 when increasing the stacking capacity for saddle stitching. When 1 is set, the stacking capacity increases over the upper limit.
	Use case	When increasing the stacking capacity for saddle stitching
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER>ADJUST		
SDL-ALM		Saddle full stack alarm mode: Booklet finisher
Lv.1	Details	Set 1 when disabling the stack full alarm for saddle stitching.
	Use case	When disabling the stack full alarm for saddle stitching
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
SFT-AMT1		Adj shft amnt of Shft Roll (frt): Inner finisher
Lv.1	Details	To adjust the front shift amount of the Shift Roller. As the value is incremented by 1, the Shift Roller moves toward the guide by 0.1 mm.
	Use case	When the front shift amount of the paper is inappropriate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
SFT-AMT2		Adj shft amnt of Shft Roll (Rear): Inner finisher
Lv.1	Details	To adjust the rear shift amount of the Shift Roller. As the value is incremented by 1, the Shift Roller moves toward the guide by 0.1 mm. (The paper length to be detected is shortened by 0.1mm.)
	Use case	When the rear shift amount of the paper is inappropriate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1mm
	Default value	0
STP-NTN		Adj of Staple Needle pitch (A4): Inner finisher
Lv.1	Details	To adjust the pitch between needles for 2-point stapling. As the value is incremented by 1, the pitch between needles becomes wider by 0.27 mm.
	Use case	When the pitch between needles for 2-point stapling is inappropriate
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-8 to 8
	Unit	0.27 mm
	Default value	0

SORTER>ADJUST		
INSTP-F1		Adj of front staple position: Inner finisher
Lv.1	Details	To adjust the paper pull-in amount of the Gripper at the time of front 1-point stapling. As the value is incremented by 1, the paper pull-in amount is increased by 0.1 mm.
	Use case	When misalignment occurs at the front staple position
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
INSTP-R1		Adj of rear staple position: Inner finisher
Lv.1	Details	To adjust the paper pull-in amount of the Gripper at the time of rear 1-point stapling. As the value is incremented by 1, the paper pull-in amount is increased by 0.1 mm.
	Use case	When misalignment occurs at the rear staple position
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	-50 to 50
	Unit	0.1 mm
	Default value	0
THN-STCL		Poor large/thin ppr stack prev mode: External finisher
Lv.1	Details	Set 1 when large/thin paper is not appropriately stacked. When 1 is set, the stacking condition of large/thin paper improves.
	Use case	When large/thin paper is not appropriately stacked
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
DSTP-F1		Adjusting the front staple position in 2-stapling mode: Inner finisher
Lv.1	Details	Adjust the front staple position in the middle 2-stapling mode. Incrementing the value by 1 shifts the front stapling position to the paper edge side by 0.1 mm. +: Toward inlet direction direction -: Toward delivery
	Use case	When the middle 2-staple position is displaced between the front and rear stapling positions.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 33
	Unit	0.1 mm
	Default value	1

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FUNCTION

SORTER>FUNCTION		
FIN-CON		Controller PCB RAM clear: Inner/External finisher
Lv.1	Details	To execute the RAM clear of Finisher Controller PCB to delete all the adjustment contents and counter information.
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting values. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

T-8-93

OPTION

SORTER>OPTION		
BLNK-SW		Set Saddle Finisher fold position margin: Booklet finisher
Lv.1	Details	To set the margin width of fold position on Saddle Finisher.
	Use case	When changing the margin width of fold position
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Normal, 1: Wider, 2: Entire image (no margin)
	Default value	2
MD-SPRTN		Restricted operation at Finisher error
Lv.1	Details	To set whether to stop the machine when an error occurs at Finisher.
	Use case	When preferring to run the machine at Finisher error occurrence
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When "1" is set, staple operation or alignment operation is not executed. Set "0" normally.
	Display/adj/set range	0 to 1 0: Normal, 1: Restricted operation
	Default value	0
BUFF-SW		Setting Finisher buffer operation: External finisher
Lv.1	Details	To set ON/OFF of buffer operation in the Finisher. Set 1 in case of misalignment due to charging between papers in staple mode for small size papers.
	Use case	When misalignment of paper stack occurs in staple mode for small size papers
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the buffer operation is set to OFF, productivity decreases.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0

SORTER>OPTION		
PRCS-SP1		Change of paper stack speed for buffered paper: External finisher
Lv.1	Details	When the value is changed to 1, the paper stack speed becomes fast in the sort or staple mode.
	Use case	When the alignment failure occurs in the sort or staple mode. (Paper does not reach to the process tray stopper)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When this mode is activated, the productivity goes down.
	Display/adj/set range	0: OFF (600mm/s) 1: ON (700mm/s) * Paper stack speed for buffered paper
	Default value	1
FDPL-SL		Set soil prev for back of Saddle: Booklet finisher
Lv.1	Details	To set ON/OFF of the Feed Plate Engagement Solenoid at the time of Saddle stacking operation. When 1 is set, the Intermediate Feed Roller is disengaged by turning OFF the Feed Plate Engagement Solenoid at the time of Saddle stacking operation. Set 1 when the back of paper is soiled by the Intermediate Feed Roller. But the alignment condition of papers at the time of saddle stitching decreases.
	Use case	When the back of paper is soiled due to the Intermediate Feed Roller at the time of Saddle stacking operation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON (Engagement), 1: OFF (Disengagement)
	Default value	0
STCR-DWN		Set occasional misalign prev mode: External finisher
Lv.1	Details	When misalignment in feed direction occurs at approx. every 30 sheets for thin/plain paper (105g/m2 and less), set 1.
	Use case	When misalignment in feed direction occurs occasionally for thin/plain paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0

SORTER>OPTION		
BUFF-INT		Ppr intvl after buffer ppr ejctn: External finisher
Lv.1	Details	In case of paper with excessive upward curl, paper right after the buffer paper is ejected at the Finisher hits the Stack Delivery Roller, causing Saddle Delivery Sensor stationary jam. When 1 is set, the jam can be avoided since the paper intervals between the present and the following papers after the buffer paper ejection become wider.
	Use case	When stationary jam occurs at the Stack Delivery Roller at buffer operation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
PRCS-SP3		Change of paper stack speed for non-buffer mode: External finisher
Lv.1	Details	When the value is changed to 1, the paper stack speed becomes slow in the non-buffer mode.
	Use case	When the alignment failure occurs with the plain/thin paper. (Paper is spent to the process tray stopper more than required.)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: 700mm/s 1: 650mm/s 2: 600mm/s 3: 550mm/s 4: 500mm/s 5: 450mm/s 6 to 8: 450mm/s
	Unit	0.49 mm
	Default value	0

SORTER>OPTION		
NSRT-STC		Set alignment at non-sort delivery: External finisher
Lv.1	Details	To deliver to the Stack Tray after aligning only 2-sided printed paper in the Processing Tray at non-sort delivery. When 2 is set, 1-sided printed paper is also delivered via the Processing Tray, so the stacking performance improves.
	Use case	When the paper delivered with non-sort mode is not appropriately stacked
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 2 0: Deliver directly to the Stack Tray 1: Deliver only 2-sided printed paper via the Processing Tray 2: Deliver 1-sided/2-sided printed paper via the Processing Tray
	Default value	1

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BOARD

OPTION

BOARD>OPTION		
MENU-1		Hide/dis of printer setting menu level 1
Lv.2	Details	To set whether to display or hide the level 1 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-2		Hide/dis of printer setting menu level 2
Lv.2	Details	To set whether to display or hide the level 2 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-3		Hide/dis of printer setting menu level 3
Lv.2	Details	To set whether to display or hide the level 3 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
MENU-4		Hide/dis of printer setting menu level 4
Lv.2	Details	To set whether to display or hide the level 4 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
FONTDL		ON/OFF of font setting screen display
Lv.1	Details	To set whether to display the service-purposed setting screen of fonts which are listed using PS Kanji Font Downloader.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0

T-8-95



Installation

- Making Pre-Checks
- Unpacking and Installation Procedure
- Printer Model (for Europe)
- Contents of Printer Cover-E1
- Heater Kit-K1
- Reader Heater Unit-H1
- Drum Heater-C1
- Expansion Bus-F2, Wireless LAN Board-B2
- Paper Deck Heater Unit-C1
- Cassette Heater Unit-37
- Serial Interface Kit-K1/ Copy Control Interface Kit-A1
- Additional Memory Type A (512MB)
- Utility Tray-A2
- Voice Operation Kit-C2
- Multimedia Reader/ Writer-A2
- Copy Card Reader-F1
- Voice Guidance Kit-F2
- Stamp Unit-B1
- Inner 2Way Tray-H1
- Combination of HDD Options
- Relocating the Machine
- Document Scan Lock Kit-B1

How to check this Installation Procedure

When Using the parts included in the package

A symbol is described on the illustration in the case of using the parts included in the package of this product.

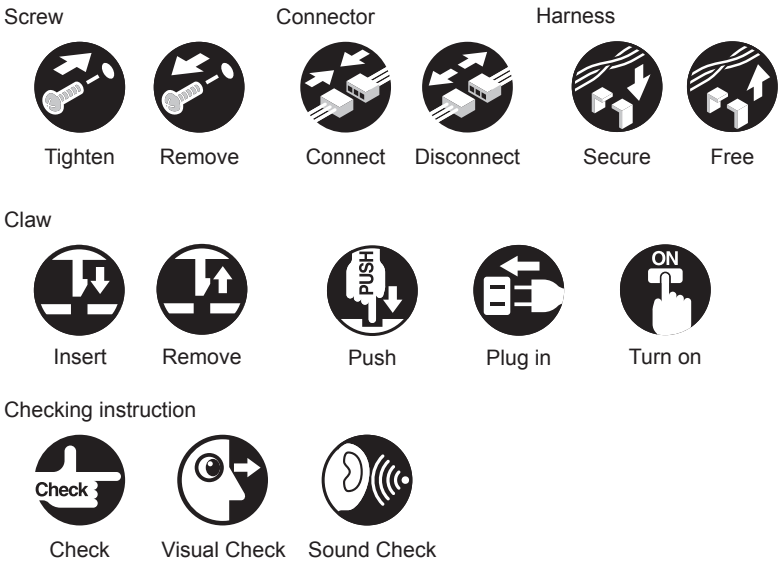


Packaged Item

F-9-1

Symbols in the Illustration

The frequently-performed operations are described with symbols in this procedure.



F-9-2

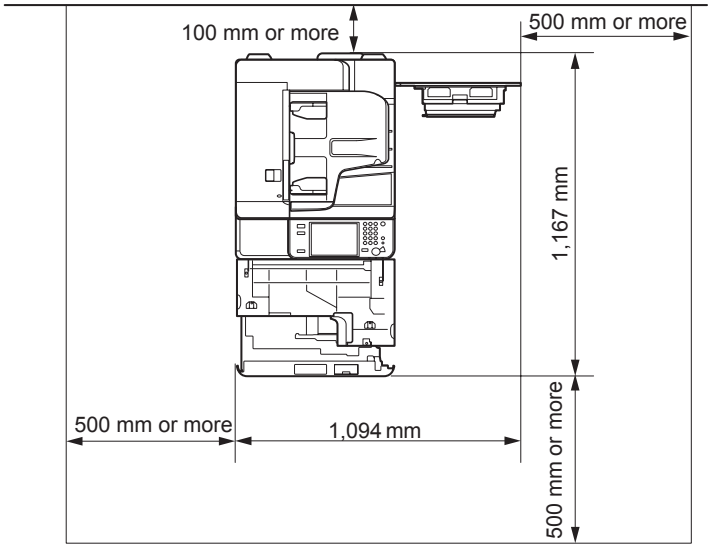
Making Pre-Checks

Selecting the Site of Installation

The followings are the condition for installation environment.
It is better to see the planned location of installation before carrying the host machine in the user site.

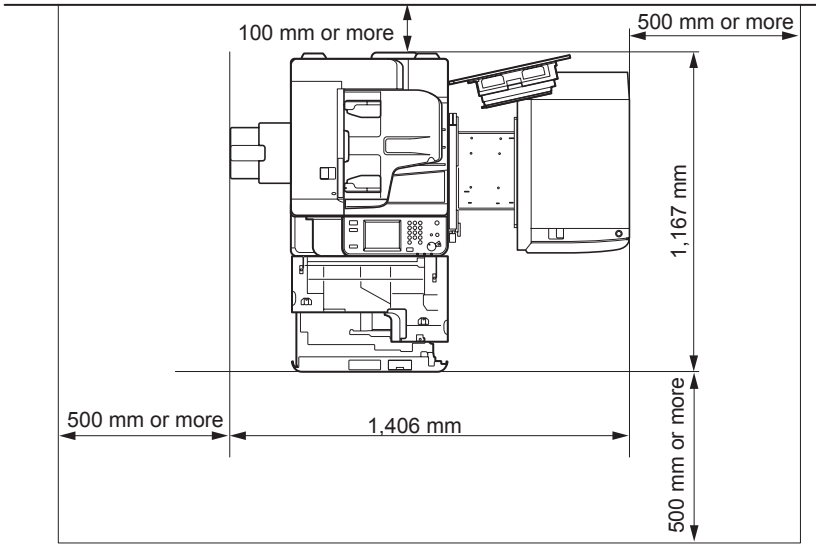
1) The host machine can singly connect to the outlet of rated +/-10V, 15A or more.
2) The installation site must be in the following environment. Especially, avoid installing the machine near the faucet, water boiler, humidifier, or refrigerator.
   - Guaranteed range for operation Temperature: 2.5 to 37.5 deg C
   - Guaranteed range for image Temperature: 15.0 to 30.0 deg C, Humidity: 10 to 80%RH
3) Avoid installing the machine near fire, in an area subject to dust or ammonia gas. When installing the machine in a place exposed to direct rays of the sun, it is recommended that curtains be hung over the windows.
4) The amount of ozone generated during use of the machine is below the harmful level. However, if the machine is used for a long time in a poor-ventilated room, ozone may smell. To keep the work environment comfortable, the room must be well-ventilated properly.
5) None of the machine feet should float. The machine must be held level constantly.
6) Install the machine in a well-ventilated place. Do not install the machine close to the ventilation duct of the room.
7) The machine must be installed at least 10 cm away from the surrounding walls and there must be an adequate space for operating the machine.

- When the option is not attached



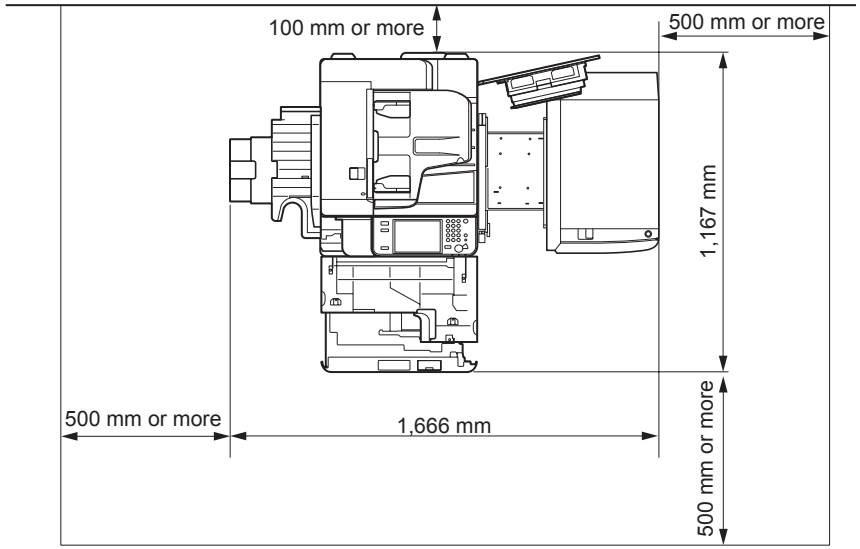
F-9-3

- When the Inner Finisher-D1 and Paper Deck Unit-B2 is attached



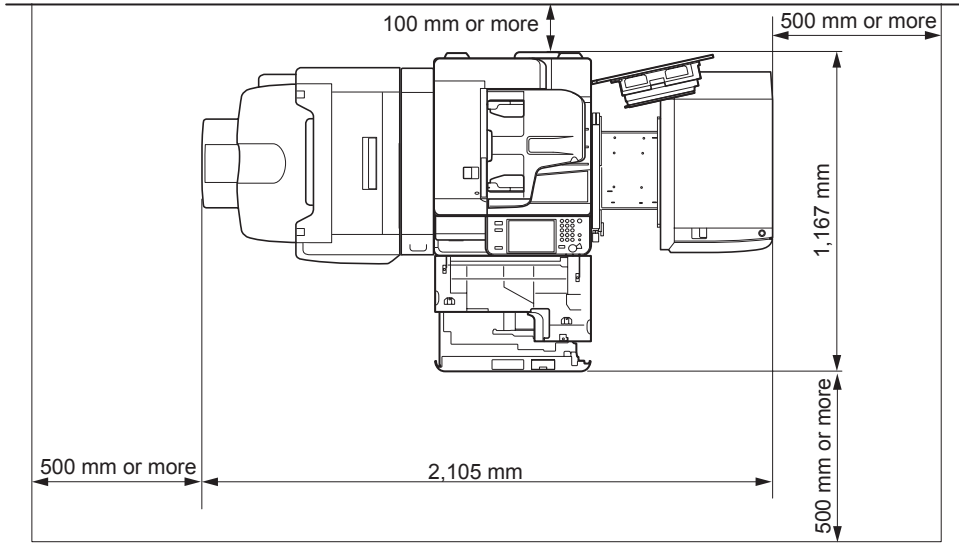
F-9-4

- When the Inner Finisher-D1, Inner Hole Puncher-A1 and Paper Deck Unit-B2 is attached



F-9-5

- When the Booklet Finisher-G1, External 2 Hole Puncher-B2, Buffer Pass Unit-H1 and Paper Deck Unit-B2 is attached



F-9-6

Points to Make Before Installation

Be sure to go through the following before starting the work.

1) Imaging faults can result due to dew condensation that occurs when the machine is moved from a cold place to a warm place. Leave the unpacked machine as it is for at least two hours before installing it.
(Dew condensation: When a metallic object is brought from a low-temperature place to a high-temperature place, water vapor around it is cooled abruptly and consequently water drops stick to the surface of the metallic object.)
2) The maximum weight of the machine is approx. 78.9 kg (FAX standard model). Be sure to perform the work in accordance with the standard to handle a heavy load in each country. In addition, be sure to keep the machine leveled when lifting it.
3) This product was designed considering the potential connection to the Norwegian IT power distribution system

Table of Options Combination

NOTE:
- Following table shows the combination of options to be installed at the right side of the host machine.
- Refer to the table below to install the options described in the table. Be sure to check the combination before the installation work.

	Utility Tray	Voice Operation Kit	Voice Guidance Kit	Card Reader	Wireless LAN Board
Utility Tray	-	No	No	Yes	Yes
Voice Operation Kit	No	-	No	Yes	Yes
Voice Guidance Kit	No	No	-	Yes	Yes
Card Reader	Yes	Yes	Yes	-	Yes
Wireless LAN Board	Yes	Yes	Yes	Yes	-

Yes: installation is available No: installation is not available

T-9-1

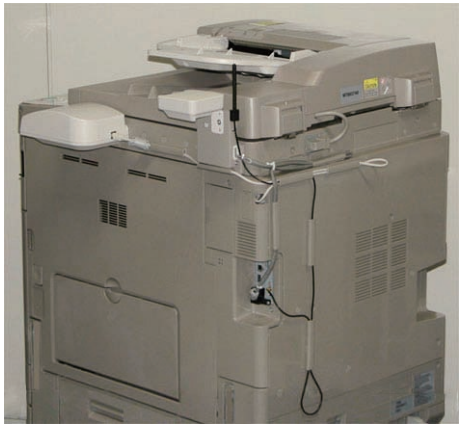
Installation Outline Drawing

<Voice Operation Kit + Copy Card Reader + Wireless LAN Board>



F-9-7

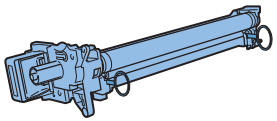
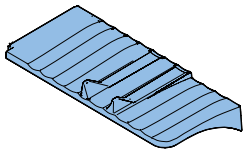
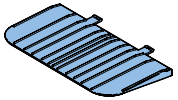
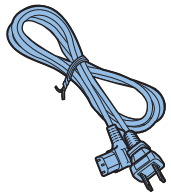
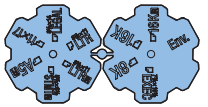
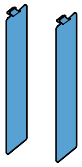
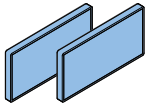
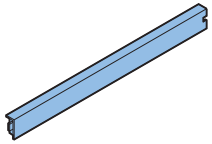
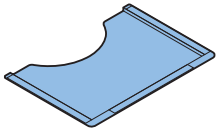
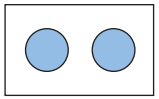
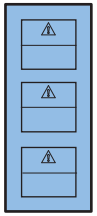
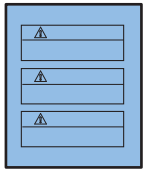
<Voice Guidance Kit + Copy Card Reader + Wireless LAN Board>



F-9-8

Checking the Contents

NOTE:
Remove all the parts in the cassette.

☐ [1] Drum unit x 1 	☐ [2] Subtray x 1 	☐ [3] Reverse tray x 1 	☐ [4] Power cord x 1 (230V model only) 	☐ [5] Cassette size label x 2 
☐ [6] Handle cover x 2 	☐ [7] Air Filter x 2 	☐ [8] Right Lower Cover X 1 	☐ [9] Service Book Holder X 1 	☐ [10] Seal x 2 
☐ [11] Copy inhibition label for US x 3 	☐ [12] Glass cleaning/lamp caution label x 1 for US 	☐ [13] Finger pinch caution label 1 x 1 for US/Asia with ADF standard 	☐ [14] Finger pinch caution label 2 x 1 for US/Asia with ADF standard 	

T-9-2

Check to make sure that none of the following documentations and CDs is missing:

- e-Manual
- Quick Reference
- Users Guide
- Maintenance Guide
- How to Use The Manuals
- Registration for Purchase in USA
- Drum Unit Warranty
- Installation Check List
- UFR II User Software CD
- PCL User Software CD (EFIGS)
- iW Enterprise Manag, Console
- iW Access Management System
- iW Management Console CD
- Frequently Asked Questions
- Getting Started
- Main unit warranty (for Korea only)

Unpacking and Installation Procedure

Unpacking the Machine and Removing the Packaging Materials

□

1) Unpack the machine and remove the vinyl cover.

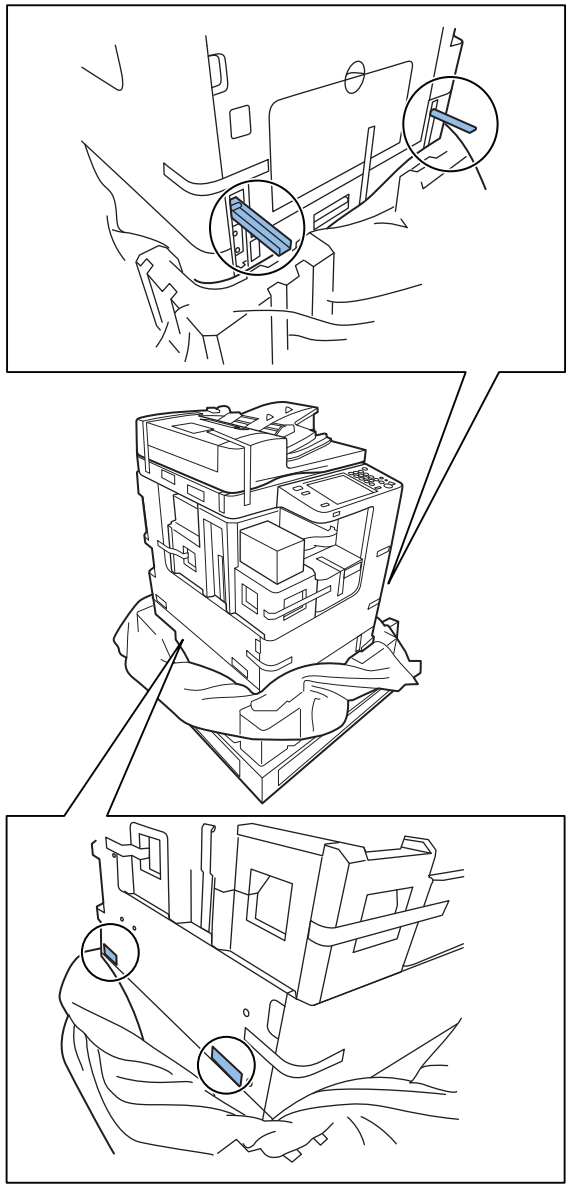
NOTE:
When installing the host machine and the options at the same time, install the options first by following the procedure below for better workability.

1. Installing the Cassette Pedestal (Refer to Installation Procedure for the Cassette Pedestal.)
2. Installing the DADF (if it is an option) (Refer to Installation Procedure for the DADF.)
3. Installing the host machine

□

2) While holding four handles on the left and right sides of the machine, lift the machine to take it down from the palette.

⚠CAUTION:
The maximum weight of the machine is approx. 78.9 kg (FAX standard model). Be sure to perform the work in accordance with the standard to handle a heavy load in each country. In addition, be sure to keep the machine leveled when lifting it.



F-9-9

☐
3) Remove the tapes on the exterior of the host machine.

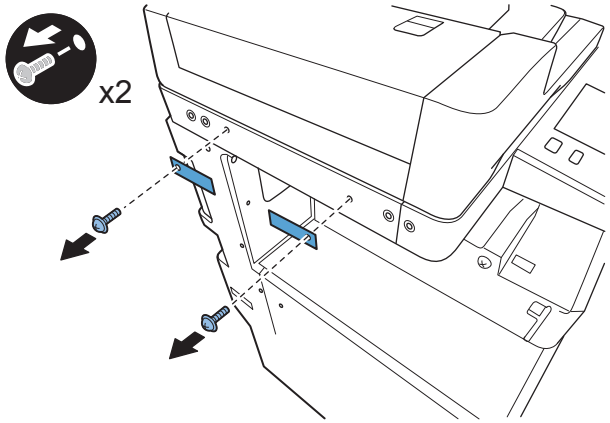
CAUTION:

Remove the following in later step.

- Cassette inside (wire of the cassette intermediate plate)
- Reader assembly (two optical system fixing screws)
- Front cover inside (fixing tape of the waste toner container mount)
- Right cover inside (fixing pressure release material)

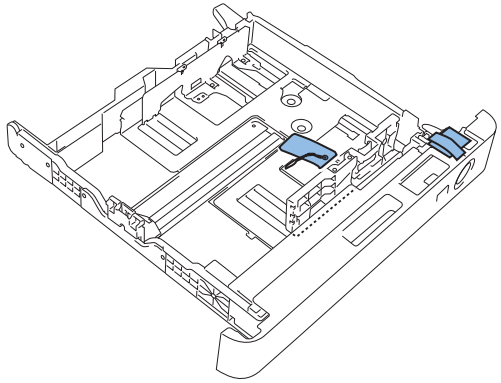
☐
4) Open the ADF, and remove the cushioning material.
5) Close the ADF.

☐
6) Remove two optical system fixing screws on the left side of the reader. (Keep the removed screws because they may be used later for machine relocation.)



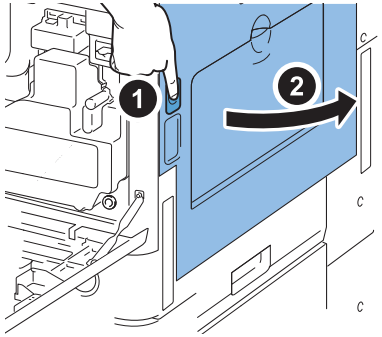
F-9-10

☐
7) Press the cassette release button to draw out the cassette forward.
8) Remove the wire that secures the intermediate plate of the cassette 1/2 and the fixing tape.
9) Insert the cassette 1/2.



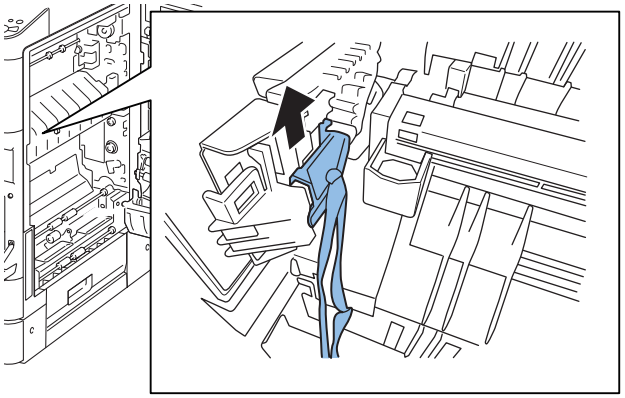
F-9-11

☐
10) Remove the fixing pressure release material.



F-9-12

☐
11) Remove the fixing pressure release material.

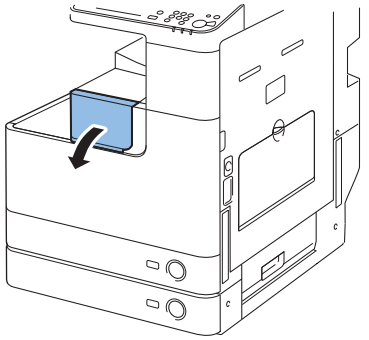


F-9-13

☐
12) Close the right cover.

Installing the Toner Cartridge

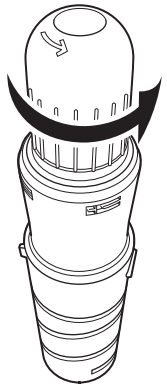
☐
1) Open the toner supply cover.



F-9-14

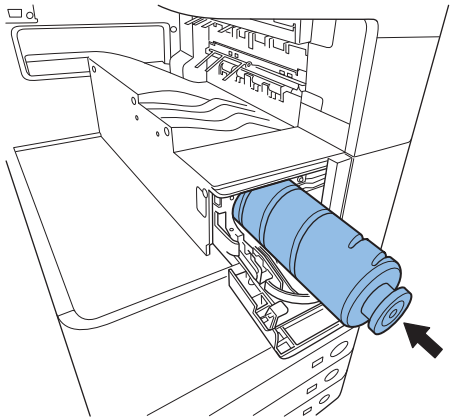
☐
2) Unpack the new toner cartridge, and then remove the cap.

CAUTION:
Do not shake the toner cartridge so that the leak of the toner happens.



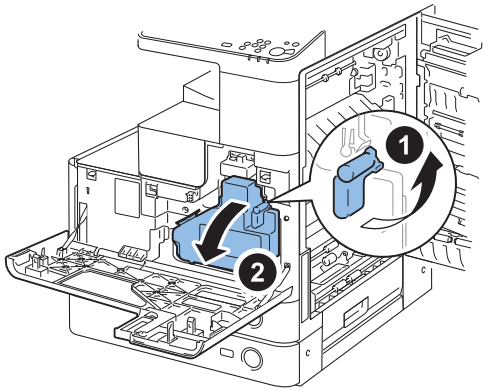
F-9-15

☐
3) Insert the toner cartridge until it stops.



F-9-16

☐
4) Close the toner supply cover.



F-9-17

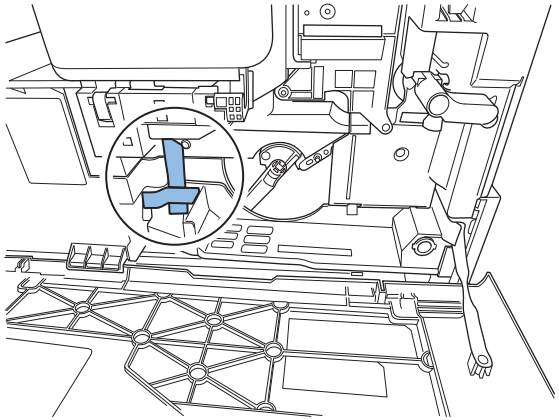
Installing the Drum Unit

☐
1) Open the front cover.
2) Press the button on the right cover to open the right cover.

> CAUTION:
> To prevent the drum unit from being damaged, keep the right cover open at least 5 cm during the installation procedure.

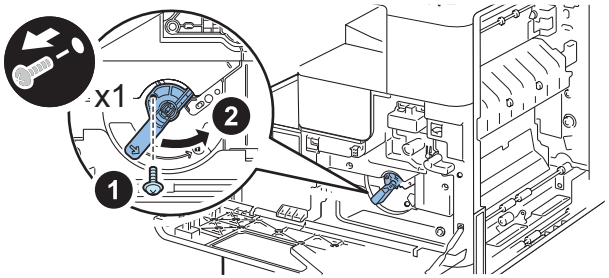
☐
3) Turn the lock lever to release the waste toner container as shown below
4) Take out the waste toner container.

☐
5) Remove the tapes on the toner cartridge mount.



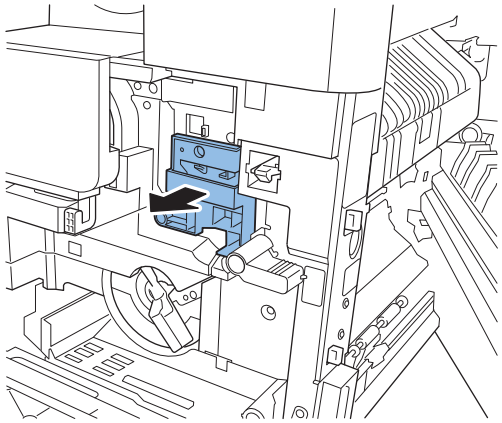
F-9-18

☐
6) Remove 1 screw from the developer pressure lever.
7) Turn the lever as shown below to release the drum unit.



F-9-19

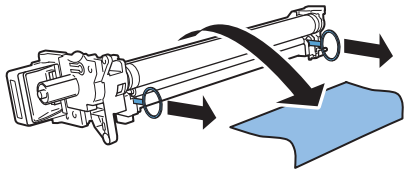
☐
8) Remove the drum cover. (Keep the drum cover because it may be used later for machine relocation.)



F-9-20

☐
9) Unpack the new drum unit, remove packaging materials, and then pull two orange rings to remove the protective cover.

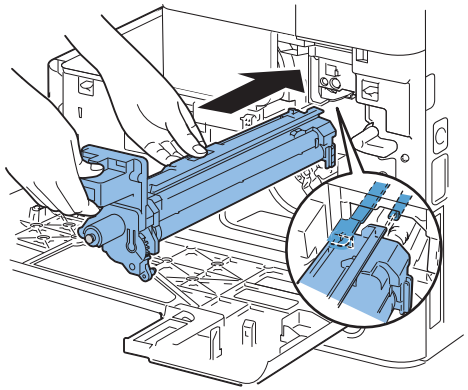
CAUTION:
- Do not touch the drum surface while at work.
- Do not expose the drum surface to light for a long period of time.



F-9-21

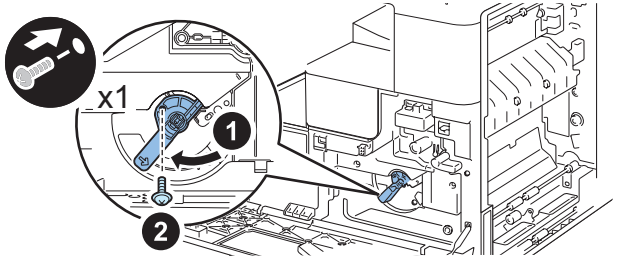
☐
10) While holding the drum unit at the handle and the position shown below, insert it into the body slowly until it stops.

CAUTION:
When inserting the drum unit, check that the drum unit fits precisely with the rail of the host machine.



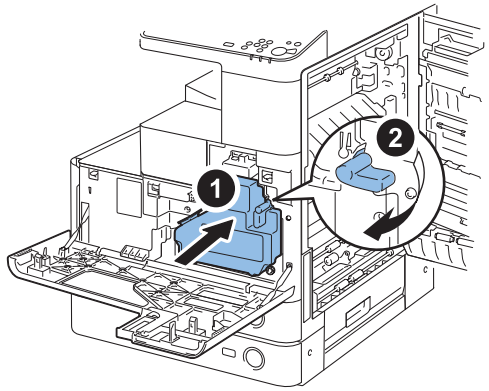
F-9-22

☐
11) Turn the lever as shown below to lock the drum unit.
12) Secure the developer pressure lever with the 1 screw.



F-9-23

☐
13) Place the waste toner container in the machine.
14) Lower the lock lever to lock the waste toner container.

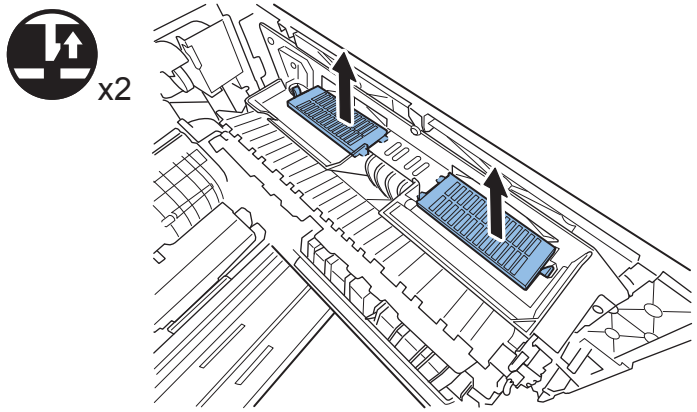


F-9-24

☐
15) Close the front cover.

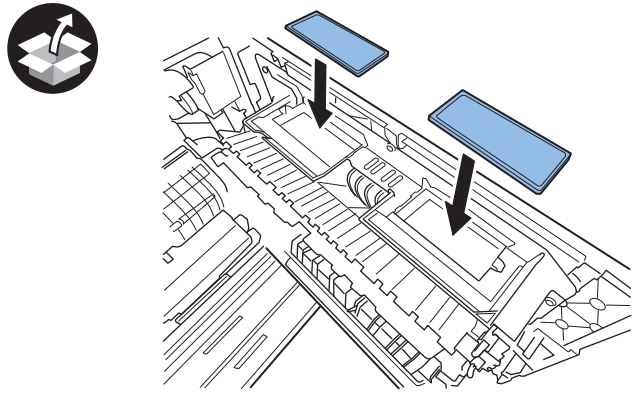
Installing the Air Filter

☐
1) Remove the filter cover (front/rear).



F-9-25

☐
2) Install the air filter (front/rear).

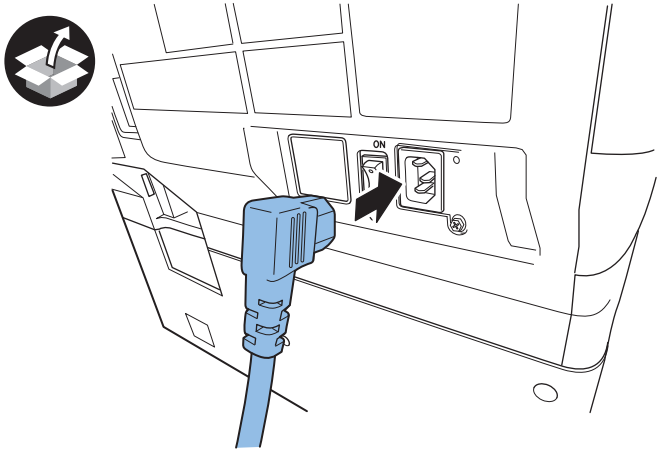


F-9-26

☐
3) Install the filter cover (front/rear).
4) Close the right cover.

Connecting the cord

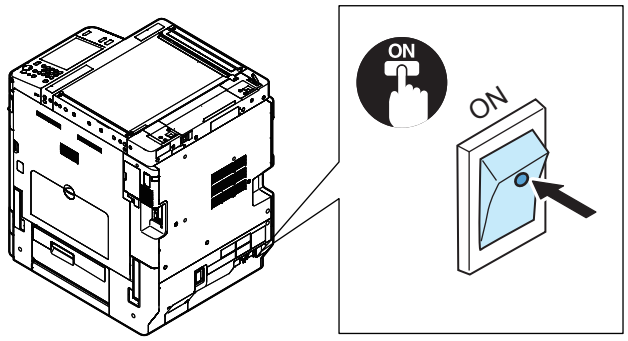
☐
1) Insert the connector of the power cord into the AC inlet. (230V model only)



F-9-27

Setting the Environment Heater Switch (if equipped with the cassette heater)

1) On the customers request, turn the enviorment heater switch ON/OFF according to the climate condition. (Default: OFF)



F-9-28

Turning ON the Main Power

☐

1) Connect the power plug of the host machine to the power outlet.
2) Remove the protection sheet on the control panel.
3) Open the switch cover and turn ON the main power switch.

Caution:

The specified power must be supplied. (Rated voltage ±10% at the rated current)

Stirring Toner

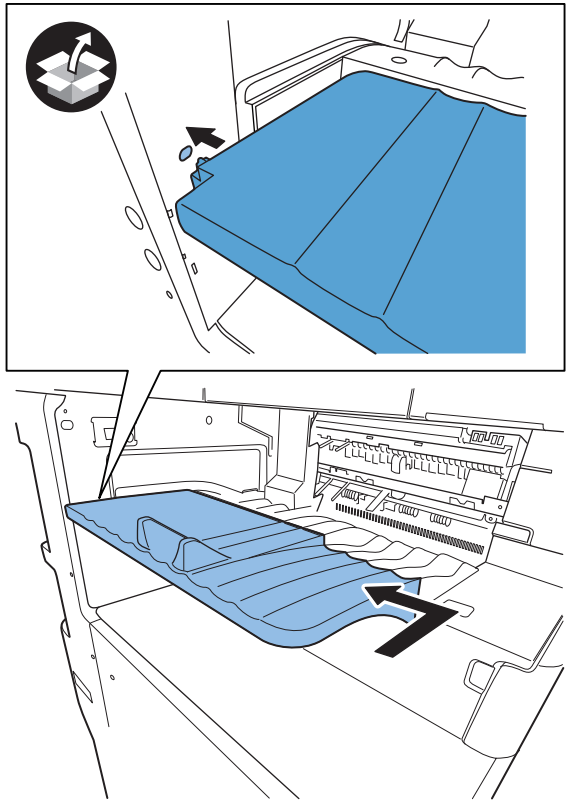
☐

1) Enter the following service mode.
   Service mode (Level 1) > COPIER > FUNCTION > INSTALL > TONER-S
2) Check that "Check the developer" is displayed.
3) Press “OK” . Then toner supply is executed. (For approx. 5 minutes)

NOTE:
Install trays, cassettes, and other parts until toner stirring is completed.

Installing Trays

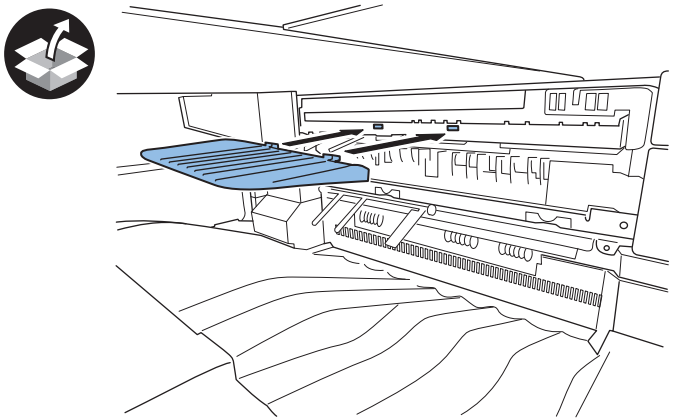
☐
1) Install the subtray.



F-9-29

☐
2) Install the reverse tray.

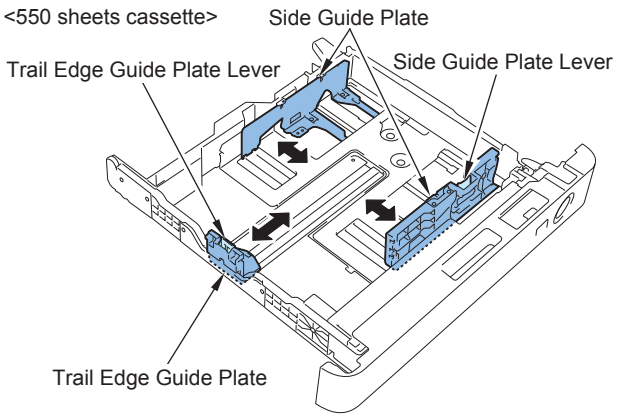
NOTE:
Surely insert the reverse tray till a gap disappears.



F-9-30

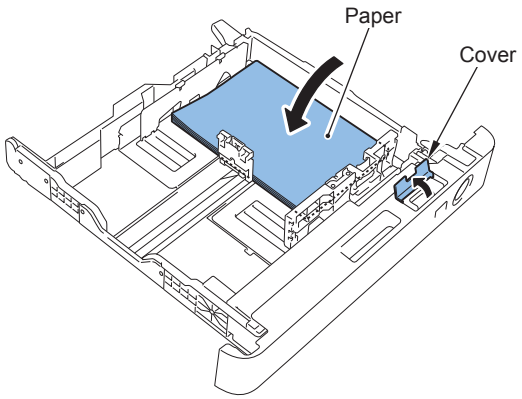
Setting the Cassettes

☐
1) Press the cassette release button to draw out the cassette forward.
2) Confirm the type of paper used by the customer.
3) While nipping the trailing edge guide lever, slide the trailing edge guide to the position corresponding to the prescribed paper size.
4) While nipping the side guide lever, slide the side guide to the position corresponding to the prescribed paper size.



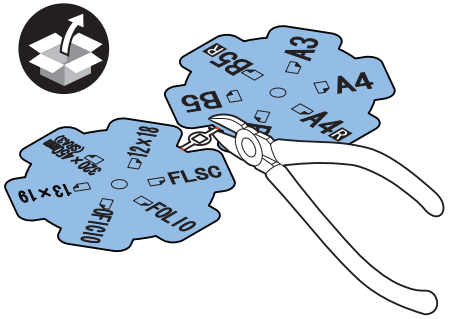
F-9-31

☐ 5) Set paper and open the cover at the insertion area of the size plate.



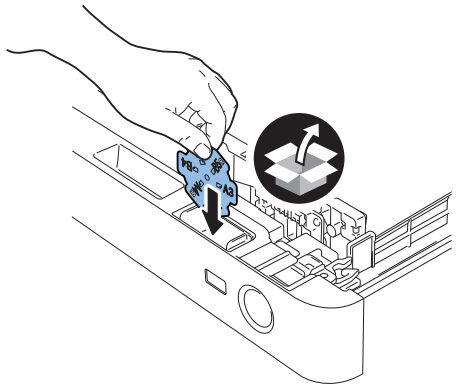
F-9-32

☐ 6) Cut the 2 points of the cassette size label with nippers.



F-9-33

☐
7) Following the paper size, set the cassette size label (unused size plates should be put together).



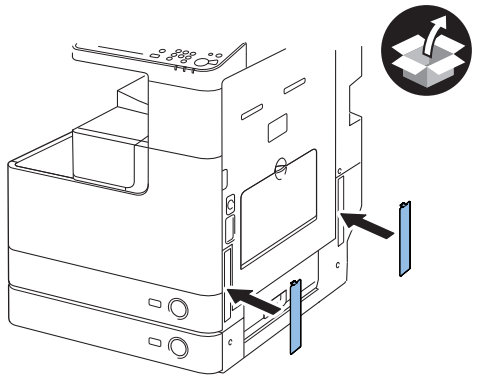
F-9-34

☐
8) Close the cover at the insertion area of the cassette size label and push in the cassette.
9) Set another cassette as well.

Installing the Other Parts

■ Attaching the Handle Covers

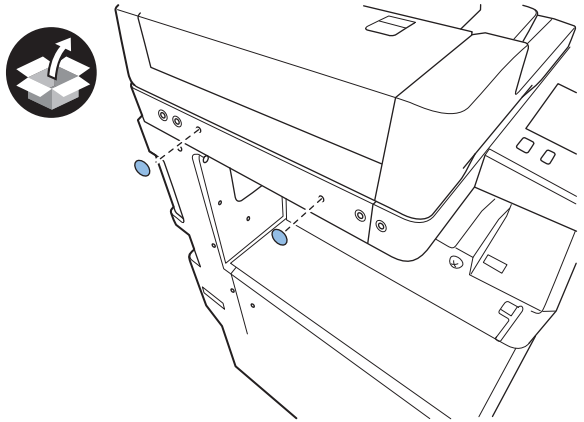
☐
1) Attach the 2 handle covers.



F-9-35

■ Affixing the seal

☐
1) Affix the 2 seals on the 2 screw holes of the left side of the reader.

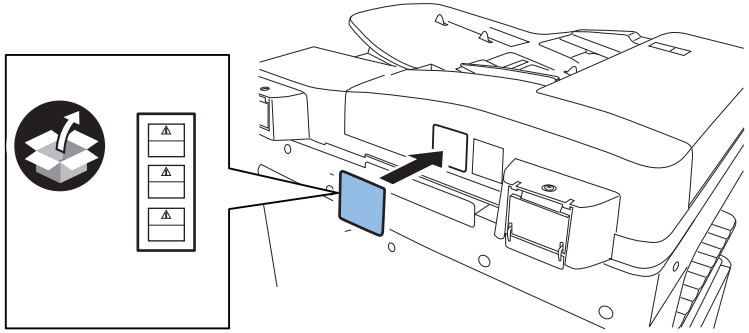


F-9-36

■ Affixing the ADF Label (only for the standard model with an ADF)

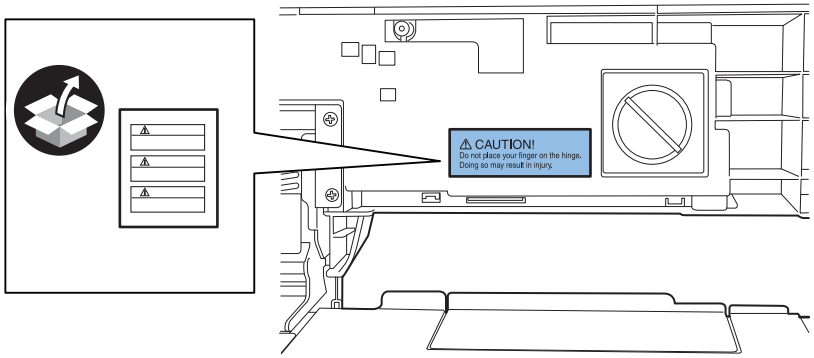
☐
1) If the following labels are supplied, go through the steps described below.
- Finger pinch caution label 1
- Finger pinch caution label 2

☐
2) Affix the finger pinch caution label 1 written in an appropriate language to the existing label.



F-9-37

☐
3) Open the DADF.
4) Affix the finger pinch caution label 2 written in an appropriate language to the existing label..

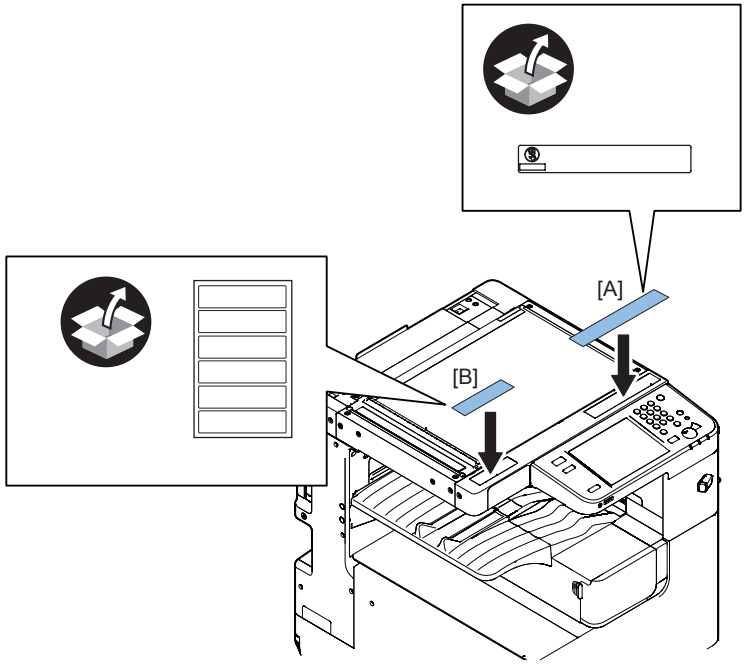


F-9-38

■ Affixing the Labels to the Reader

☐
1) If the following labels are supplied, go through the steps described below.
- Glass cleaning/lamp caution label
- Copy inhibition label

☐
2) Open the pressure plate/DADF.
3) Affix the copy inhibition label [A] (written in an appropriate language) to the existing label.
4) Affix the glass cleaning/lamp caution label [B] written in an appropriate language.

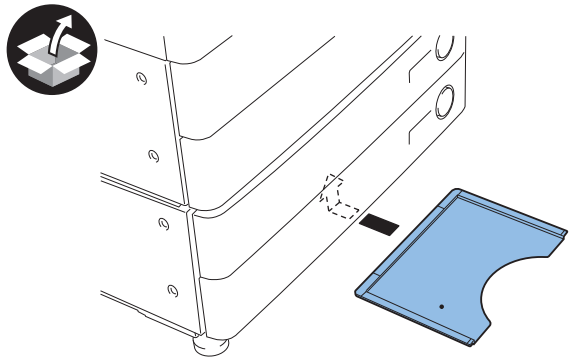


F-9-39

■ Affix the Service Book Holder

□

1) Remove the double-sided tape on back side of the service book holder, and affix the holder on the base plate of the host machine. If the cassette feeding unit is not installed, put it on the left cover of the host machine.



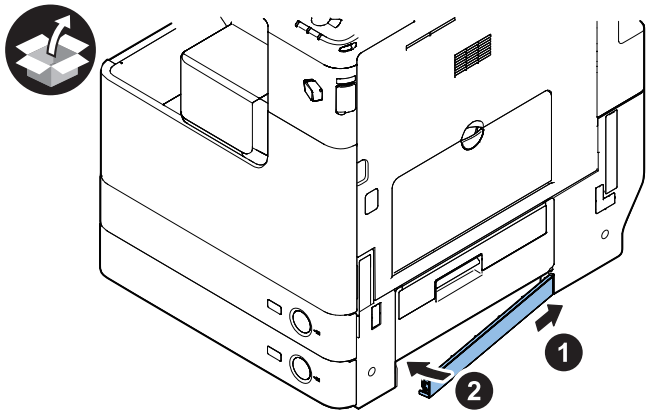
F-9-40

NOTE:
Prohibited position for installation
- Inside body (inner side of front cover)
- The position that covers the louver
- The position that covers the grip

■ Installing the Right Cover (Lower) (only when the cassette feeding unit is not installed)

□

1) Install the right cover (lower) in the direction of the arrow.



F-9-41

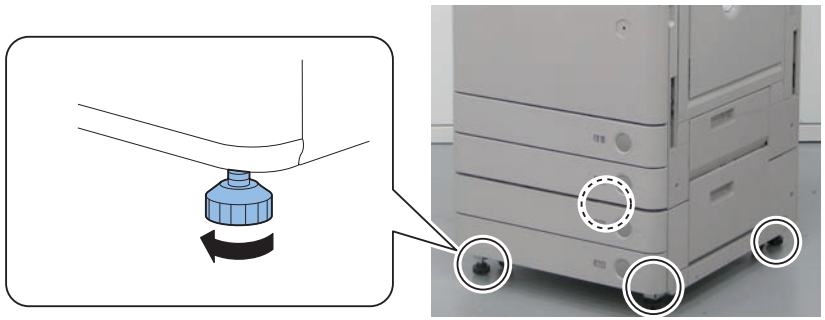
Securing the Host Machine

☐

<In the Case of the Machine with Cassette Pedestal>

1) Move the main body to the installation position, and secure it in place by turning the 4 adjusters of the Cassette Pedestal.

NOTE:
Securing of the adjuster is not earthquake resistant.



F-9-42

Auto Adjust Gradation

1) Clean the Copyboard Glass surface of the host machine.
2) Set A3, A4, 11x17, or LTR size papers in a cassette. (Refer to the cassette settings.)
3) Select [Settings/Registration] > [Adjustment /Maintenance] > [Adjust Image Quality] > [Auto Adjust Gradation].
4) Select the source of paper for test print, and press [OK].
5) From this point on, follow the instruction on UI.

Checking the Print Image

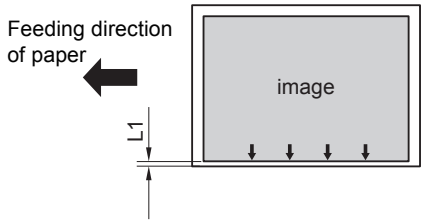
1) Place a document on the document glass, copy it by feeding paper from the cassette or manual-feed tray, and then check the resultant print image.

- Check that no abnormal noise is heard.
- Check the image quality at respective magnifications.
- Check that the document is copied normally on the specified number of sheets.

Image Position Adjustment

Left Edge Margin Adjustment (1st side)

Adjustment of Cassette/Manual feed pickup tray
Print from each cassette/Manual feed pickup tray, and check that the left edge margin of the image (L1) is within 2.5 +/- 1.5mm.
If it is not within the range, execute adjustment by following the procedure below.



F-9-43

☐

1) Adjust the image position in service mode.
Cassette 1: Service mode (Level 2) > COPIER > ADJUST > MISC > C1-ADJ-Y
Cassette 2: Service mode (Level 2) > COPIER > ADJUST > MISC > C2-ADJ-Y
Cassette 3: Service mode (Level 2) > COPIER > ADJUST > MISC > C3-ADJ-Y
Cassette 4: Service mode (Level 2) > COPIER > ADJUST > MISC > C4-ADJ-Y
Manual feed pickup tray: Service mode (Level 2) > COPIER > ADJUST > MISC > MF-ADJ-Y

NOTE:
<Setting Range>
-128 to 127 (0.1mm per unit)
As the value is incremented by 1, the left edge margin is increased by 0.1mm.

☐

2) Print from the cassette/manual feed pickup tray, and check that the left edge margin of the image is within 2.5 +/- 1.5mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

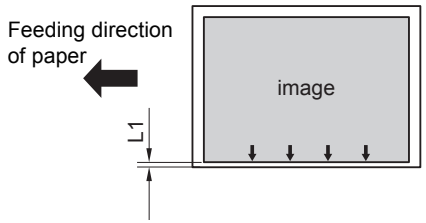
■ Left Edge Margin Adjustment (2nd side)

NOTE:
By executing the margin adjustment (2nd side) for the Cassette 1, the adjustment is applied to all source of paper.

□

Execute duplex printing from the Cassette 1, and check that the left edge margin is within 2.5 +/- 2.0mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-44

□

1) Adjust the image position in service mode.
Service mode (Level 1) > COPIER > ADJUST > FEED-ADJ > ADJ-REFE

NOTE:
<Setting Range>
-128 to 127 (0.1mm per unit)
As the value is incremented by 1, the left edge margin is decreased by 0.1mm.

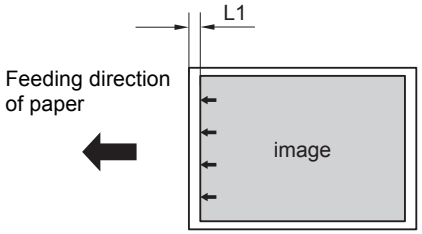
2) Execute duplex printing from the Cassette 1, and check that the left edge margin is within 2.5 +/- 2.0mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

■ Leading Edge Margin Adjustment (1st side)

NOTE:
By executing the leading edge margin adjustment for the Cassette 1, the adjustment is applied to all source of paper.

Execute printing from the Cassette 1, and check that the leading edge margin is within L1=4.0 +1.5mm/-1.0mm.

If it is not within the range, execute adjustment by following the procedure below.



F-9-45

1) Adjust the image position in service mode.
Service mode (Level 1) > COPIER > ADJUST > FEED-ADJ > REGIST

NOTE:
<Setting Range>
-128 to 127 (0.1mm per unit)
As the value is incremented by 1, the leading edge margin is increased by 0.1mm.

2) Execute duplex printing from the Cassette 1, and check that the left edge margin is within L1=4.0 +1.5mm/-1.0mm.
3) When the setting value was changed in step 1), write down the new numerical value in the service label.
4) Exit from the service mode.

Checking the Network Connection

Overview

If the user's network environment is TCP/IP, use the Ping function to check that the network setting is properly performed.
If the user's network environment is IPX/SPX or Apple Talk, there is no need to check the network environment.

Checking the Network Connection

CAUTION:

Be sure to use the network cable with Category 5e or higher. In addition, a sealed type (STP cable) is recommended.

Using the non-shield type can affect the peripheral electrical equipment through the network cable.

☐
1) Turn OFF the main power switch.
2) Connect the network cable to the Host Machine and turn ON the main power switch.
3) Inform the system administrator at the installation site that installation of the Host Machine is complete, and then, ask for the network setting.

NOTE:
Network setting cannot be executed unless logging in as an administrator.
Factory default password is as follows.
- System administration division ID: 7654321
- System administration password: 7654321

CAUTION:

To perform the network setting, the following Additional Functions items must be set "ON".

- [Additional Functions] > [Configuration] > [Network] > [Change network settings/ check connection]
- [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Use IPv4]

4) Turn OFF and then ON the main power.

Operation Procedure Using Ping

CAUTION:

To execute Ping command with the Windows Vista-installed PC, set OFF the firewall, or execute Ping command from the Windows Vista-installed PC to the Host Machine.

☐
1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP setting] > [IPv4 setting] > [PING command]
2) Enter the IP address with the numeric keypad on the Control Panel and press "Execute" key. "Response from the host" is displayed if Ping command is succeeded while "no response from the host" is displayed if failed.

Checking by the Remote Host Address

Using the remote host address to execute Ping can check whether connection to the network is enabled or not.
Remote host address: IP address of PC terminal connected/running on TCP/IP network environment that connects to this equipment.

☐
1) Inform the system administrator about checking of the network connection using Ping.
2) Confirm the remote host address with the system administrator.

3) Enter the remote host address to Ping.
The network is properly connected if the message say "Response from the host".
- The network is not properly connected if the message say "No response from the host", therefore, execute the following troubleshooting.

Network Troubleshooting

Checking Connection of the Network Cable

To check whether the network cable is properly connected to the Ethernet Port.

Operation Procedure Using Ping

☐
1) Ask the network administrator at the user's site to write down the IP address of the PC that is connected to the network.
2) [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address of the PC with the numeric keypad and press Execute key.
- The network is properly connected if the message say "Response from the host".
- If the message say "No response from the host", check the following.

NOTE:
The IP address of the PC can be checked by the following procedure:
Select the following on a Windows PC: Start > Program > Accessory > Command
Prompt; and enter "ipconfig" and press Enter key to display information of the IP address.

Checking the Network Setting of the Host Machine

☐
Check if the IP address specified in the Host Machine is correct.
1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [IP address setting]; and write down the address in the IP address field.
2) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address.
- The IP address specified in the Host Machine is correct if the message say "Response from the host".
- If the message say "No response from the host", check the following.

NOTE:
When setting the address by manually input, set the Subnet Mask by following the instruction of the administrator.

Checking Network Function on the Main Controller

☐
Perform checking by the loopback address.
1) Select the following: [Additional Functions] > [Configuration] > [Network] > [TCP/IP Setting] > [IPv4 setting] > [Ping Command]; and enter the IP address, "127.0.0.1" with the numeric keypad and enter Execute key.
- The network function of the Main Controller is working properly if the message say "Response from the host".
- If the message say "No response from the host", the network function of the Main Controller is faulty.

2) Replace with a Main Controller that works properly, and then check connection.

Turning OFF the Main Power

☐
1) Open the Switch Cover and turn OFF the main power switch.
2) Check that the control panel display and the main power lamp are OFF, and then disconnect the power plug.

Printer Model (for Europe)

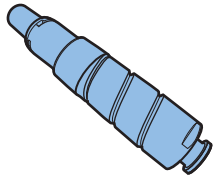
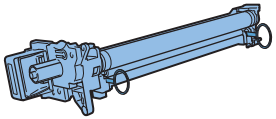
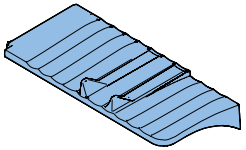
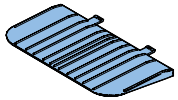
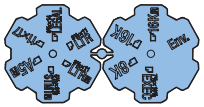
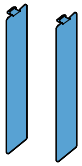
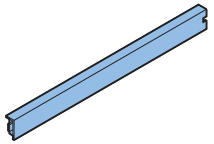
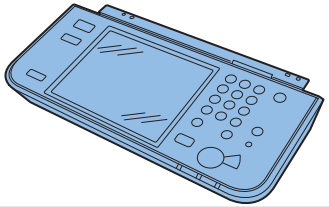
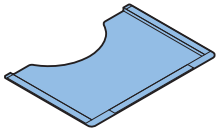
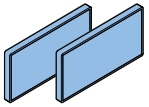
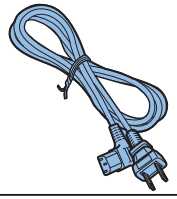
Points to Note at Installation

If the machine is used as a copier model, "Image Reader Unit-E1" is required. Follow the Installation Procedure included in the package of the Image Reader Unit to install it, and then install from the "Installing the Toner Bottle".
If the machine is used as a printer model, "Printer Cover-E1" is required. Follow the this installation procedure to install the Printer Cover, and then install from the "Installing the Toner Bottle".

Items of Installation Procedure		Reference
Making Pre-Checks		Procedure reference of the Copier model
Points to Make Before Installation		
Table of Options Combination		
Checking the Contents		Reference of this procedure
Unpacking and Installation Procedure	Unpacking the Machine and Removing the Packaging Materials	
	Insatallation of "Printer Cover-E1" or "Image Reader Unit-E1"	
	Installing the Toner Bottle	Procedure reference of the Copier model
	Installing the Drum Unit	
	Installing the Filter	
	Connecting the cord	
	Setting the Environment Heater Switch	
	Turning ON the Main Power	Reference of this procedure
	Stirring Toner	Procedure reference of the Copier model
	Installing Trays	
	Setting the Cassettes	
	Installing the Other Parts	
	Securing the Host Machine	
	Auto Adjust Gradation	
	Checking the Print Image	
	Image Position Adjustment	
	Checking the Network Connection	
	Network Troubleshooting	
	Checking the Network Setting of the Host Machine	
	Checking Network Function on the Main Controller	
	Turning OFF the Main Power	

T-9-3

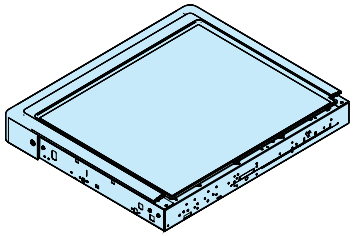
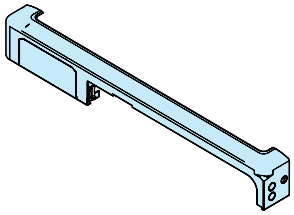
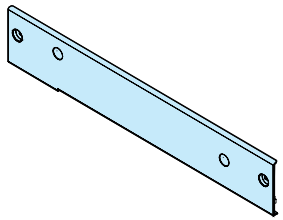
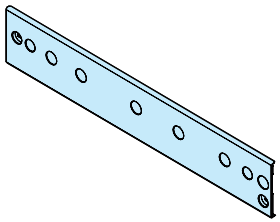
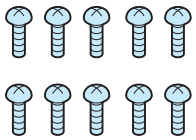
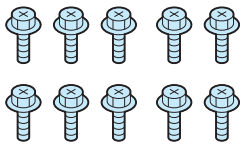
Checking the Contents

☐[1] Toner bottle x 1 	☐[2] Drum unit x 1 	☐[3] Subtray x 1 	☐[4] Reverse tray x 1 	☐[5] Cassette size label x 2 
☐[6] Handle cover x 2 	☐[7] Right lower cover X 1 	☐[8] Operation panelx 1 	☐[9] Service Book Holder X 1 	☐[10] Filterx 2 
☐[11] Power cord x 1 				

Check to make sure that none of the following documentations and CDs is missing: T-9-4

- Quick Reference
- Users Guide
- Frequently Asked Questions
- Getting Started
- e-Manual
- UFR II User Software (CD-ROM)
- PCL User Software (CD-ROM)
- iW Management Console CD-ROM
- Spec Difference Notice

Contents of Printer Cover-E1

☐ [1] Printer Top Cover Unit X 1 	☐ [2] Printer Top Front Cover X 1 
☐ [3] Reader Left Cover X 1 	☐ [4] Reader Right Cover X 1 
☐ [5] Screws (Binding; M4x6) X 10 	☐ [6] Screws (RS Tightening; M3x8) X 10 

Unpacking and Installation Procedure

Unpacking the Machine and Removing the Packaging Materials

☐

1) Unpack the machine and remove the vinyl cover.

NOTE:
- When installing the host machine and the options at the same time, install the options first by following the procedure below for better workability.
  1. Installing the Cassette Pedestal (Refer to Installation Procedure for the Cassette Pedestal.)
  2. Installing the host machine
- When installing the host machine and the USB Device Port at the same time, install the USB Device Port before installing the Control Panel (after step 9 of “Installing the Printer Cover”)

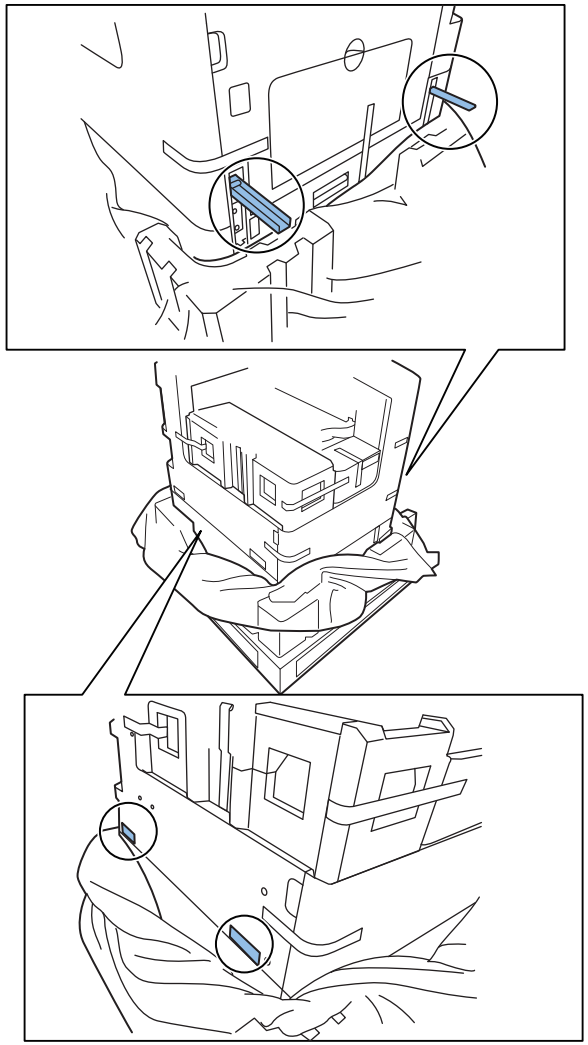
□

2) While holding four handles on the left and right sides of the machine, lift the machine to take it down from the palette.

⚠CAUTION:

The maximum weight of the machine is approx. 58 kg.

Be sure to perform the work in accordance with the standard to handle a heavy load in each country. In addition, be sure to keep the machine leveled when lifting it.



F-9-46

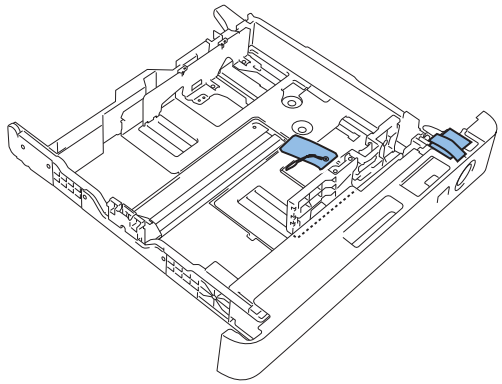
☐
3) Remove the tapes on the exterior of the host machine.

CAUTION:

Remove the following in later step.

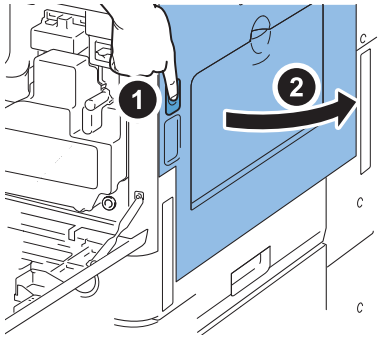
- Cassette inside (wire of the cassette intermediate plate)
- Front cover inside (fixing tape of the waste toner container mount)
- Right cover inside (fixing pressure release material)

☐
4) Press the cassette release button to draw out the cassette forward.
5) Remove the wire that secures the intermediate plate of the cassette 1/2 and the fixing tape.
6) Insert the cassette 1/2.



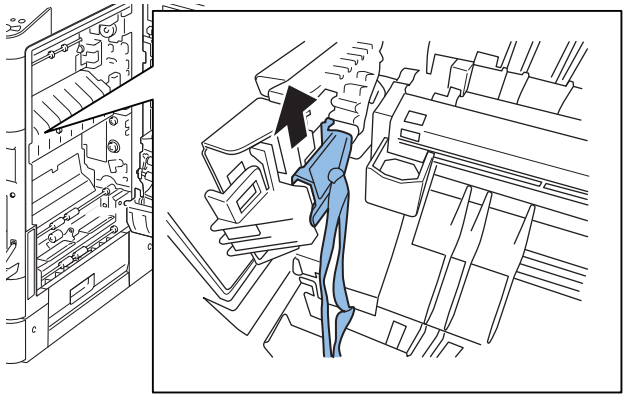
F-9-47

☐
7) Press the button on the right cover to open the right cover.



F-9-48

☐
8) Remove the fixing pressure release material.



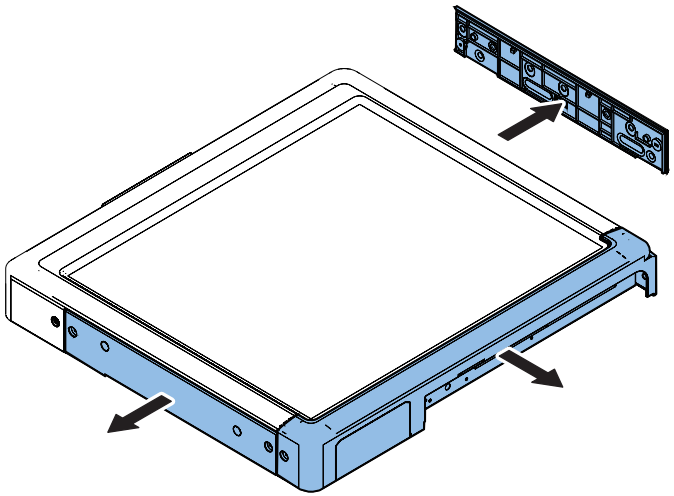
F-9-49

☐
9) Close the right cover.

Installing the Printer Cover

☐

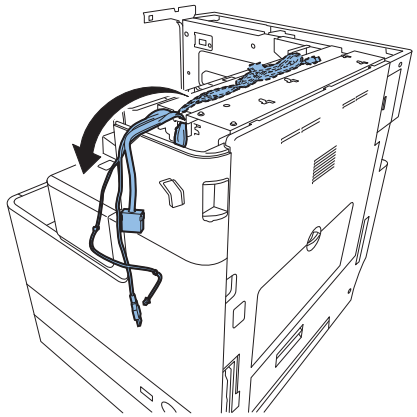
1) Remove tapes on the printer cover.
2) The printer top front fover, the reader right cover and the reader left cover are secured with tapes.



F-9-50

☐

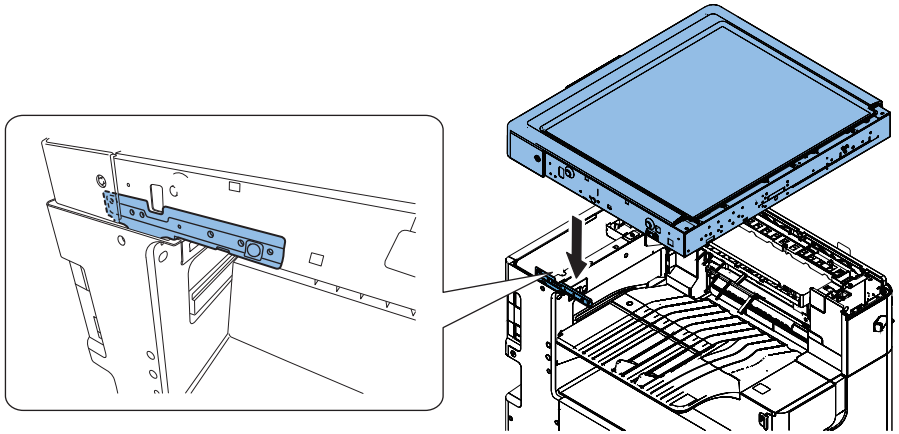
3) Take out the cable of the printer outward.



F-9-51

☐

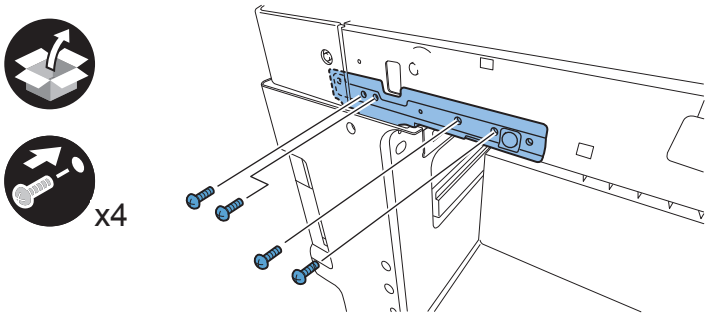
4) Attach the printer top cover unit on the host machine.
Set the left stay with the bosses aligned.
Put the left stay of the host machine in the inside of the reader rear cover.



F-9-52

5) Fix the left stay.

- 2 Screws (Binding, M4×6)

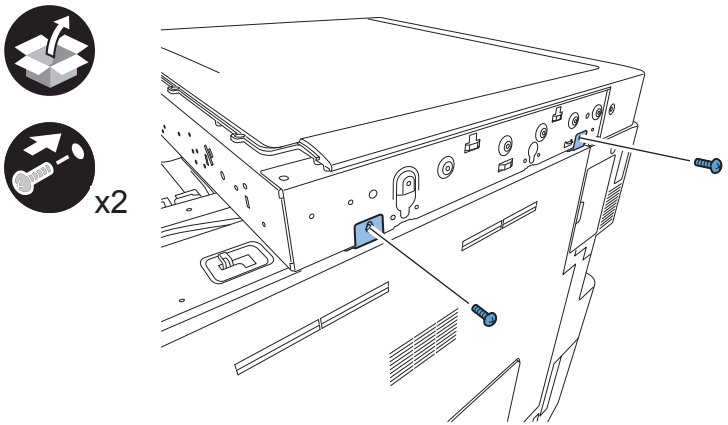


F-9-53

☐

6) Fix the printer top cover unit.

- 2 Screws (Binding, M4×6)

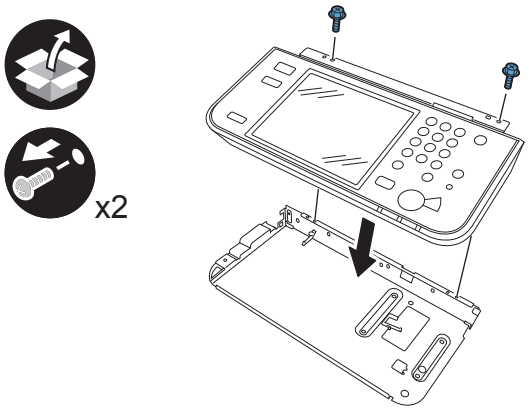


F-9-54

☐

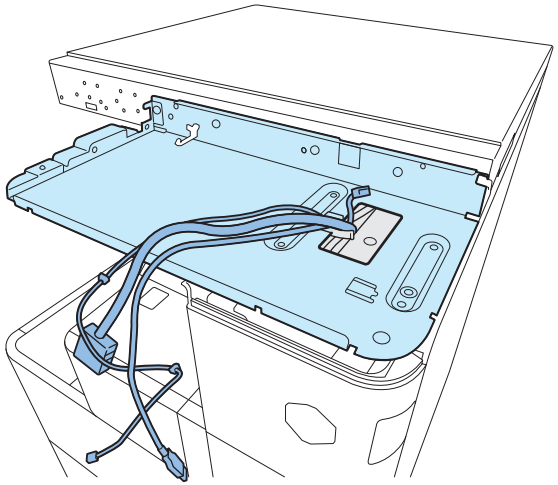
7) Remove the operation panel fixing plate from the bundled operation panel in the host machine.

- 2 Screw



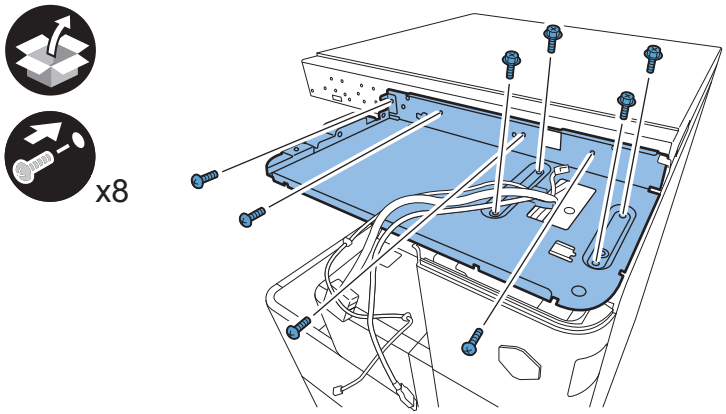
F-9-55

☐
8) Do it through the cales in the hole of the operation panel fixing plate .



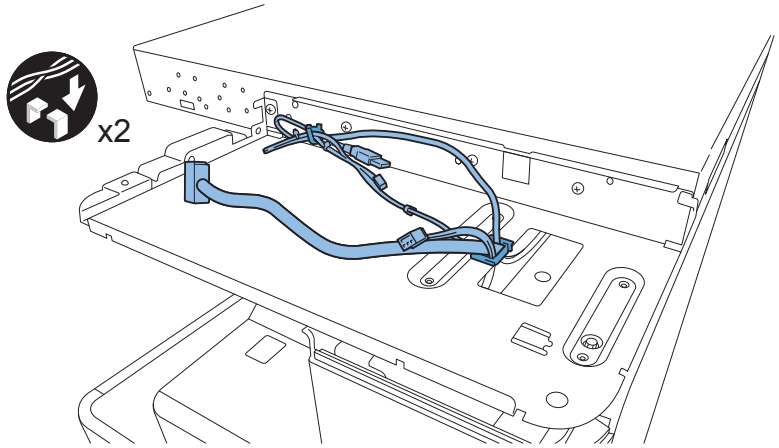
F-9-56

☐
9) Fix the operation panel fixing plate .
- 4 Screws (Binding, M4×6)
- 4 Screws (RS-tight, M3×8)



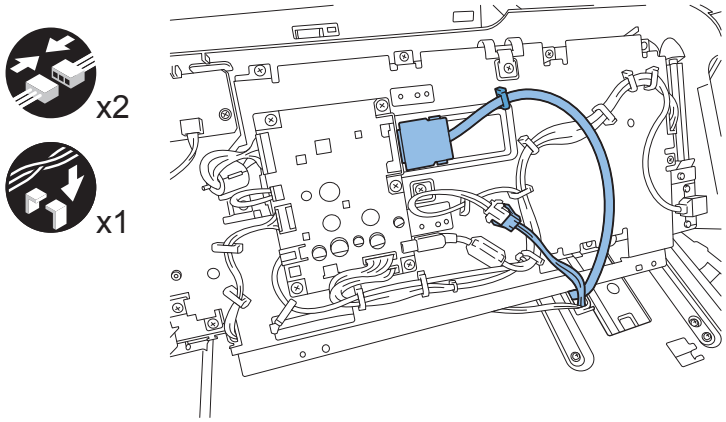
F-9-57

☐
10) Route the cables as shown in the figure.
- 2 Wire saddles



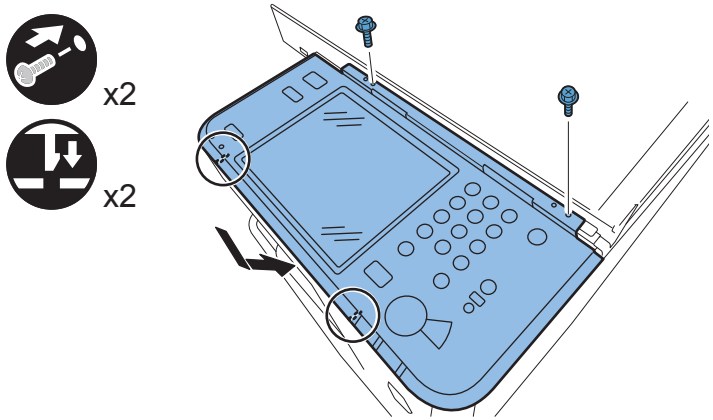
F-9-58

☐
11) Connet the 2 connectors to the operation panel.
- 1 Wire saddle



F-9-59

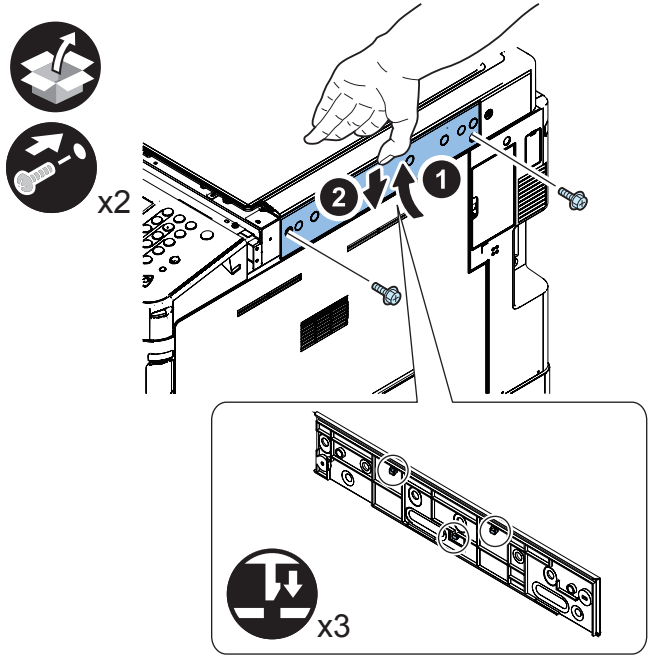
☐
12) Attach the operation panel.
- 2 Screw (RS-tight, M3×8)
- 2 Claws



F-9-60

☐
13) Install the reader right cover with the printer top cover slightly lifted.
- 3 Claws
- 2 Screw (RS-tight, M3×8)

CAUTION:
Be careful not to lift the printer top cover too high when installing the reader right cover.



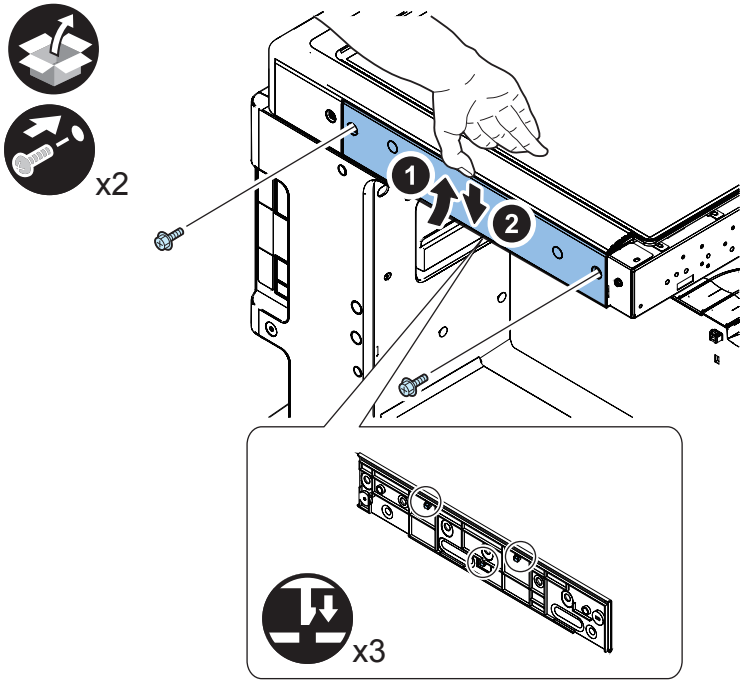
F-9-61

☐

14) Install the reader left cover with the printer top cover slightly lifted.

- 3 Claws
- 2 Screw (RS-tight, M3×8)

CAUTION:
Be careful not to lift the printer top cover too high when installing the reader left cover.

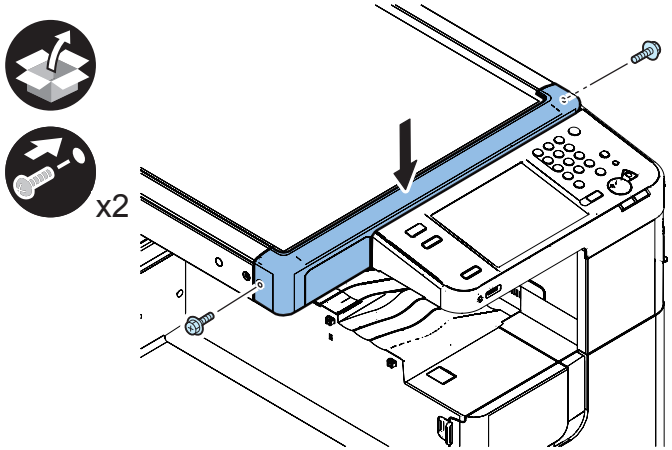


F-9-62

☐

15) Install the printer top front cover.

- 2 Screw (RS-tight, M3×8)



F-9-63

Turning ON the Main Power

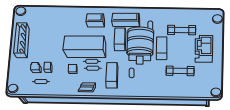
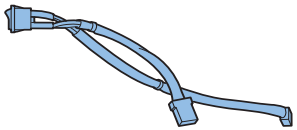
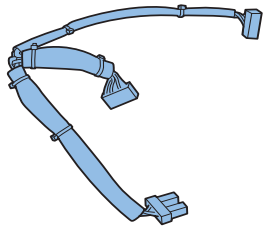
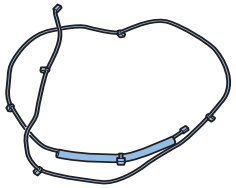
☐

1) Connect the power plug of the host machine to the power outlet.
2) Remove the protection sheet on the control panel.
3) Open the switch cover and turn ON the main power switch.

Caution:
The specified power must be supplied. (Rated voltage ±10% at the rated current)

Heater Kit-K1

Checking the Contents

☐ [1] Heater PCB X1 	☐ [2] Heater SW harness X 1(*1) 
☐ [3] Heater AC harness X 1(*1) 	☐ [4] Heater DC harness X 1 [4] 
☐ [3] Screw (RS-tight, M3x8) X 1(*1) 	

F-9-64

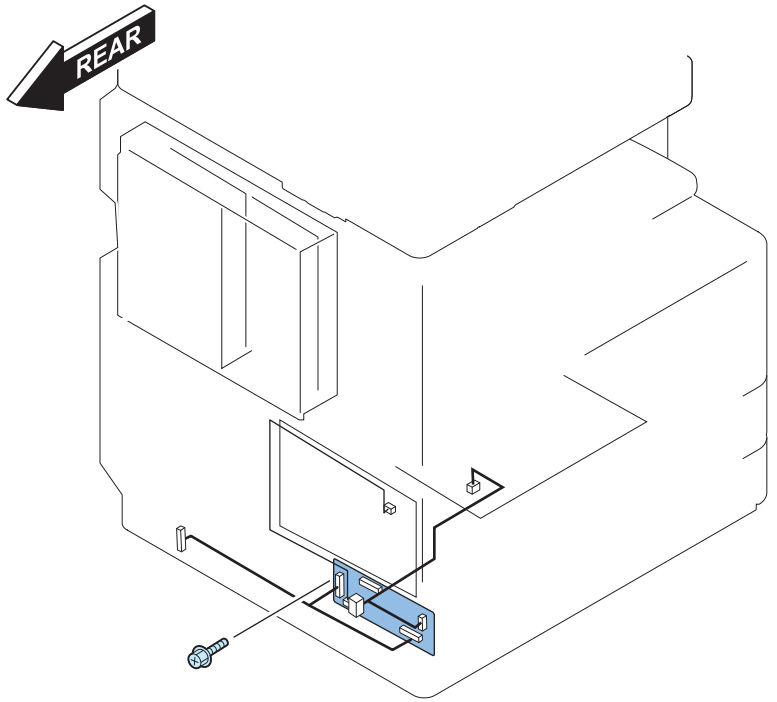
*1: When the cassette heater PCB as standard is installed, this item is installed. Therefore, this item is not used.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-65

Points to Note Before Installation

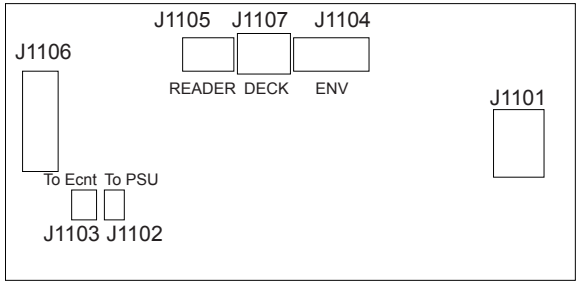
1.When the G3 Line Fax Unit (2/3/4 line) is installed, remove it.
2.Install the cassette heater unit before installing the heater PCB.
3.When the cassette heater PCB as standard is installed, replace the cassette heater PCB with the heater PCB bundled in the Heater Kit-K1.

- Cassette heater PCB mounted as standard



F-9-66

- Heater PCB



F-9-67

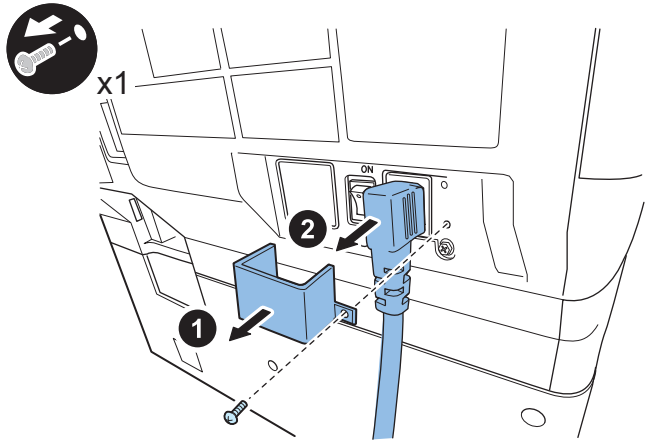
Installation Procedure

☐

1) Remove the power cord clamp. (100/120V only)

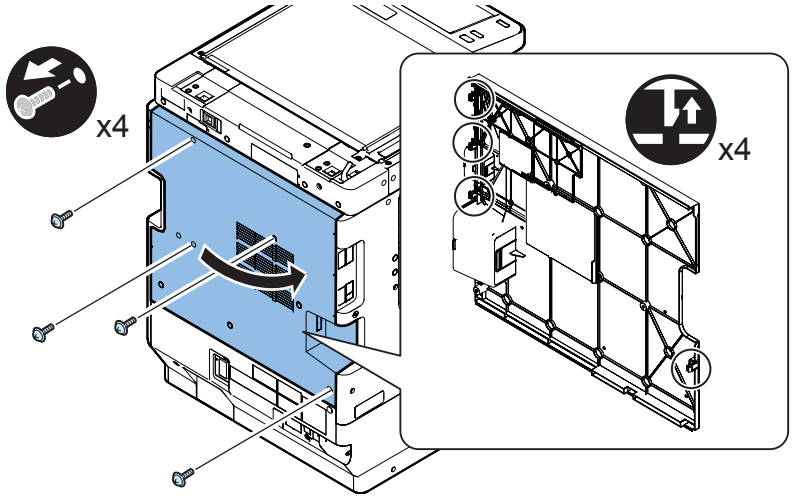
- 1 Screw

2) Remove the power cord.



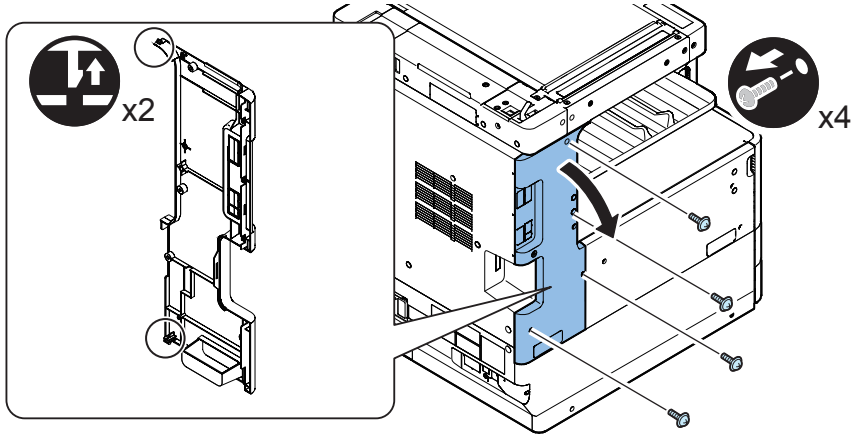
F-9-68

☐
3) Remove the rear cover.
- 4 Screws
- 4 Claws



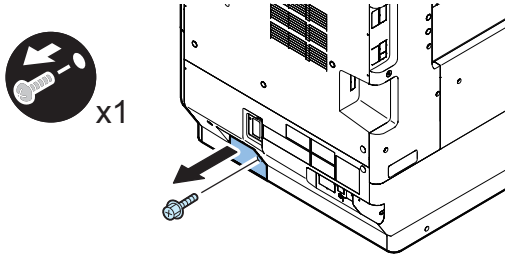
F-9-69

☐
4) Remove the left rear cover.
- 4 Screws
- 2 Claws



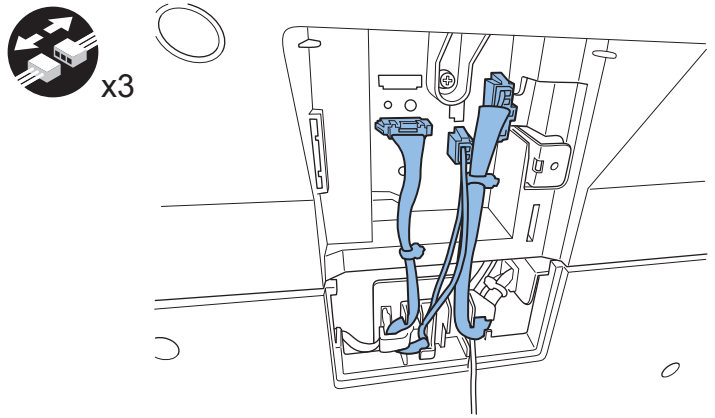
F-9-70

☐
5) Remove the connector cover.
- 1 Screw



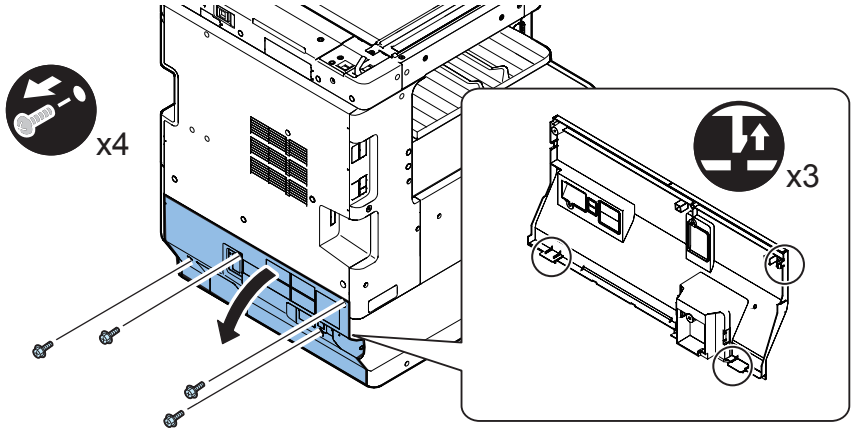
F-9-71

☐
6) When the cassette pedestal is installed, remove the connector.



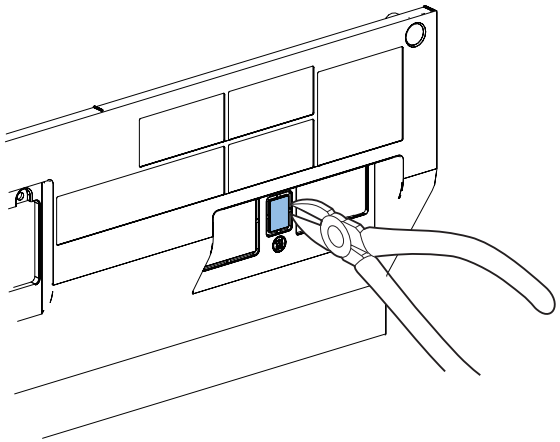
F-9-72

☐
7) Remove the lower rear cover.
- 4 Screws
- 3 Claws



F-9-73

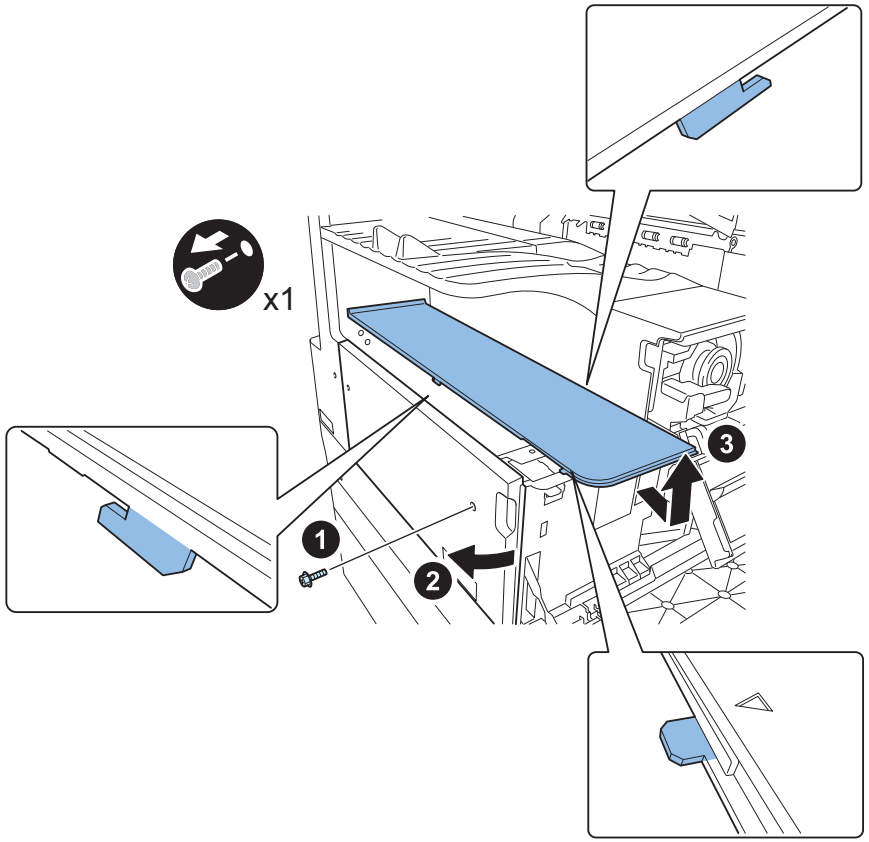
☐
8) Using a nipper, remove the precut portion of the lower rear cover as shown below.



F-9-74

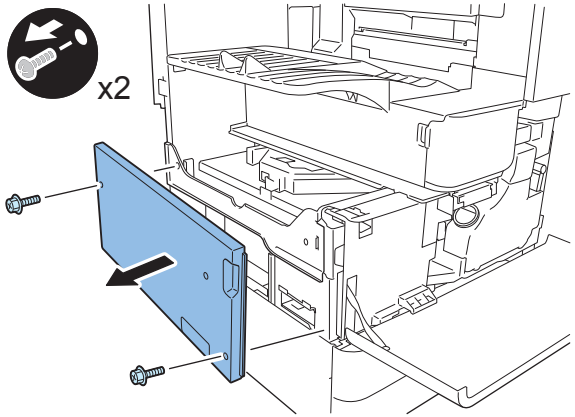
Caution:
Finish the surface of the cut part of the cover to remove burrs.

☐
9) Bend the left cover and remove the inside base cover.
- 1 Screw



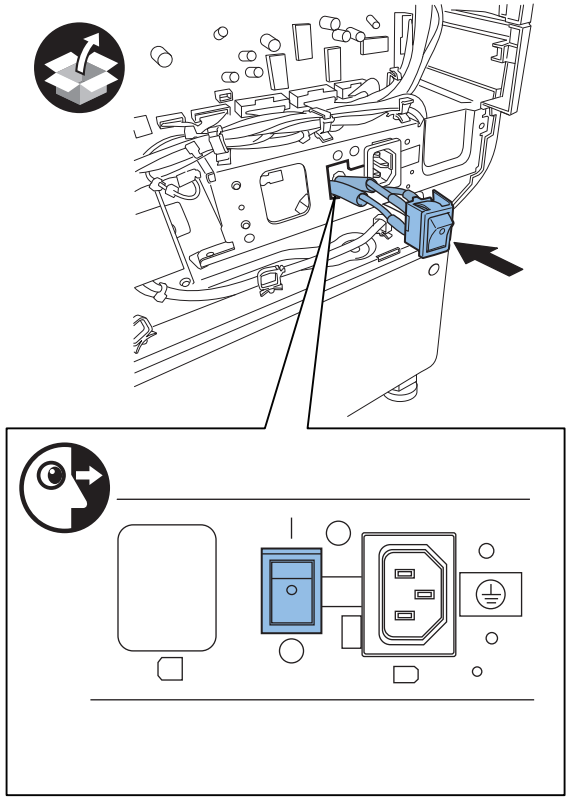
F-9-75

☐
10) Remove the left cover.
- 2 Screws



F-9-76

☐
11) Install the heater SW harness firmly in the power cord bracket. When the cassette heater PCB as standard is installed, this procedure is not needed.



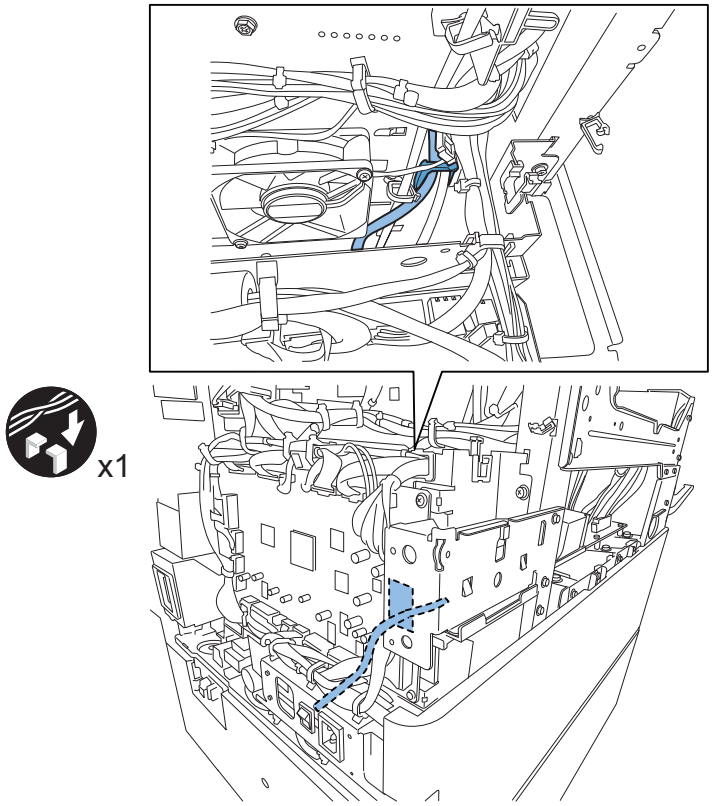
F-9-77

NOTE:
Install the heater SW harness in the correct direction referring to the figure in the power cord bracket.

☐

12) Put the longer harness out of two through the hole of the rear frame. When the cassette heater PCB as standard is installed, this procedure is not needed.

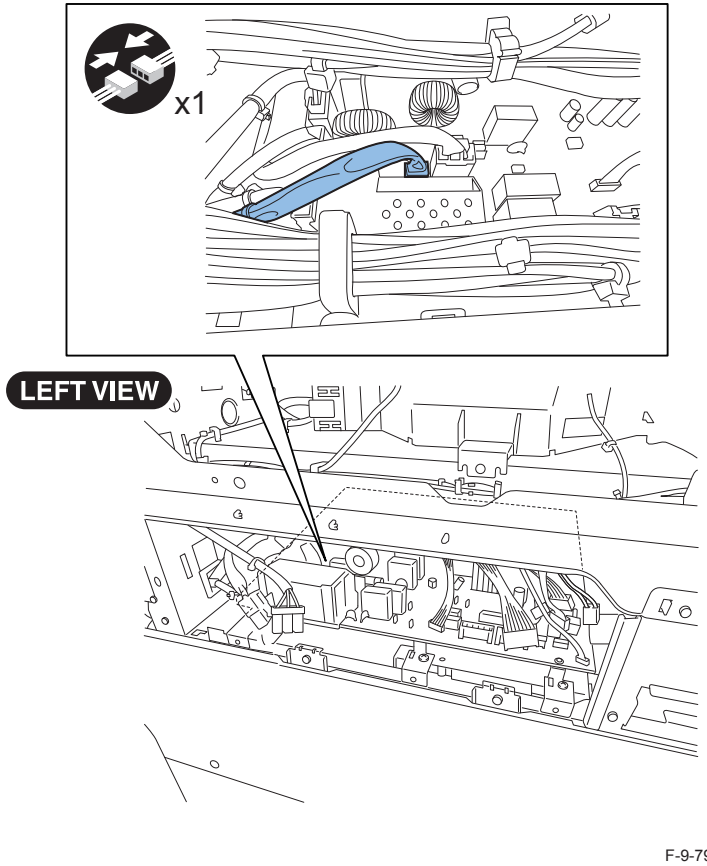
- 1 Clamp



F-9-78

☐

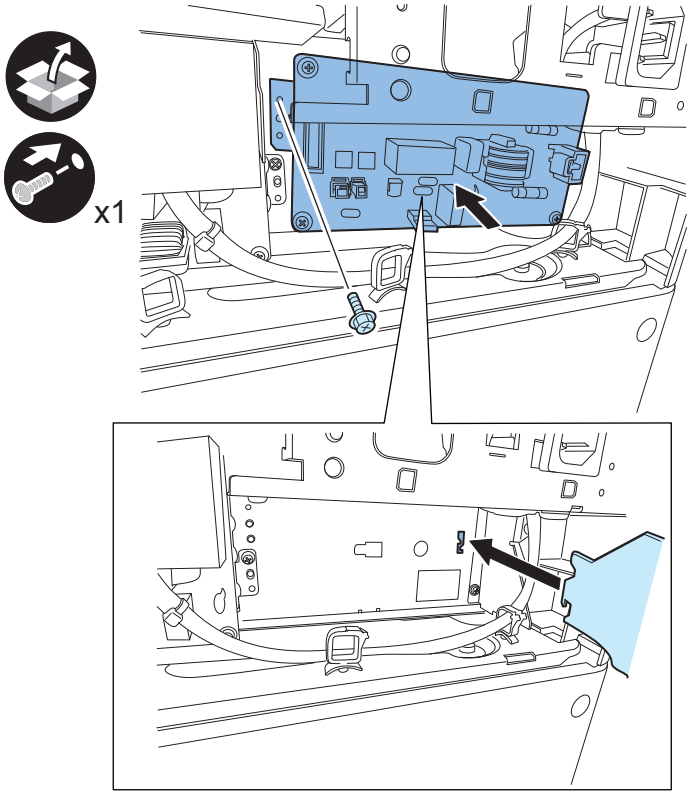
13) Joint the connector of the heater SW harness to J102 of the power supply unit. When the cassette heater PCB as standard is installed, this procedure is not needed.



F-9-79

☐
14) Attach the heater PCB. When the cassette heater PCB as standard is installed, remove it. Then attach the bundled heater PCB.

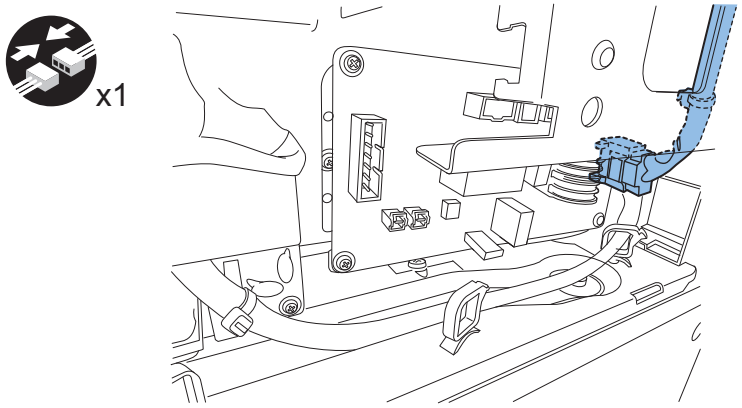
- 1 Screw



F-9-80

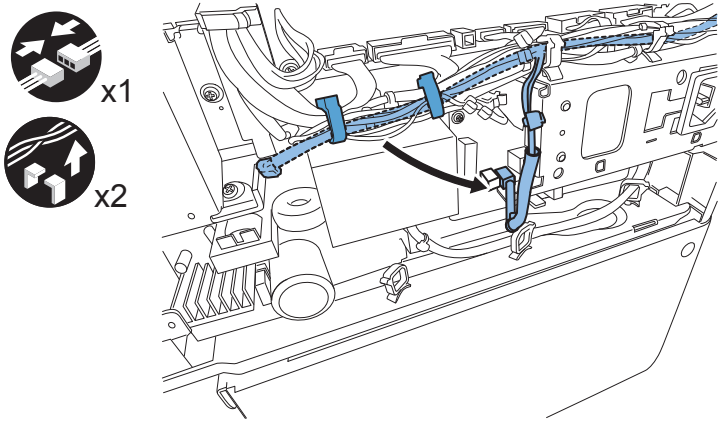
NOTE:
When the cassette heater is installed, take out the cassette heater connector in the front of the heater PCB.

☐
15) Joint the connector of the shorter harness of the heater SW harness to J1101 of the heater PCB.



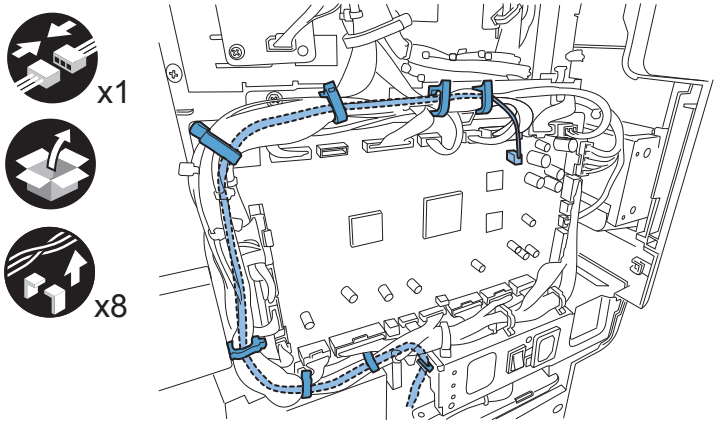
F-9-81

☐
16) When the cassette heater is installed, joint the connector to J1102 of the heater PCB. When the cassette heater is not installed, unlock the wire saddles and stretch the folded harness as shown. Then joint the connector to J1102 of the heater PCB.



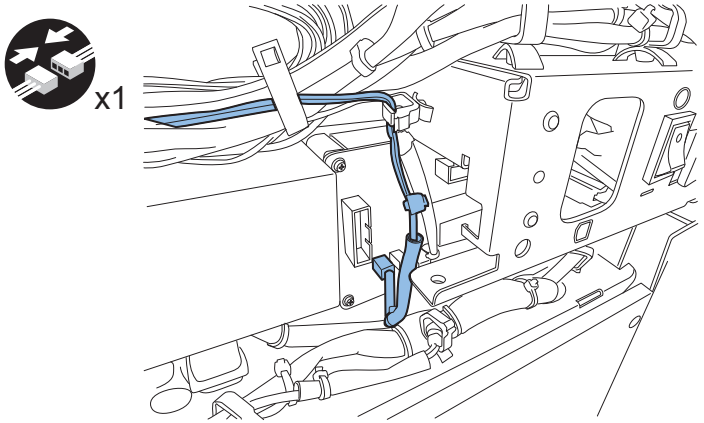
F-9-82

☐
17) Joint the connector of the heater DC harness to J205 on the DC controller PCB. Joint the connector without the protective tube.
18) Route the harness as shown in the figure.
- 8 Clamps
- 1 Connector



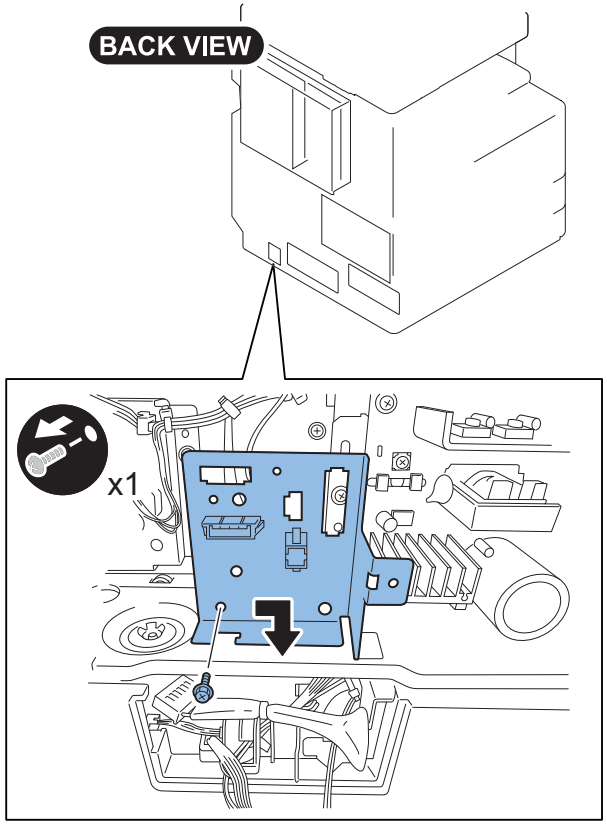
F-9-83

☐
19) Joint the connector to J1103 on the heater PCB.



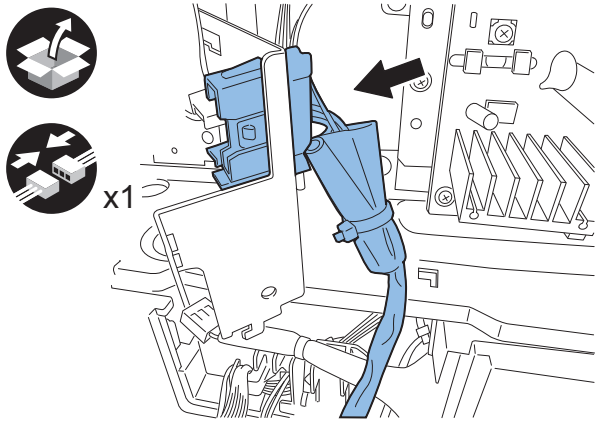
F-9-84

☐
20) Remove the cassette relay bracket. When the cassette heater PCB as standard is installed, this procedure is not needed.
- 1 Screw



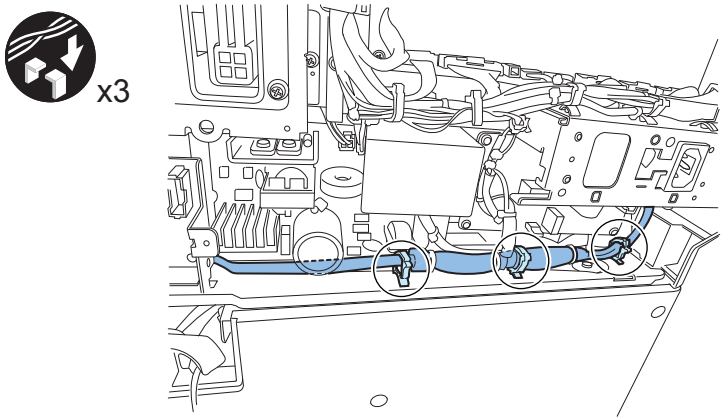
F-9-85

☐
21) Joint the connector of the longest branch of the heater AC harness to the cassette relay bracket. When the cassette heater PCB as standard is installed, this procedure is not needed.



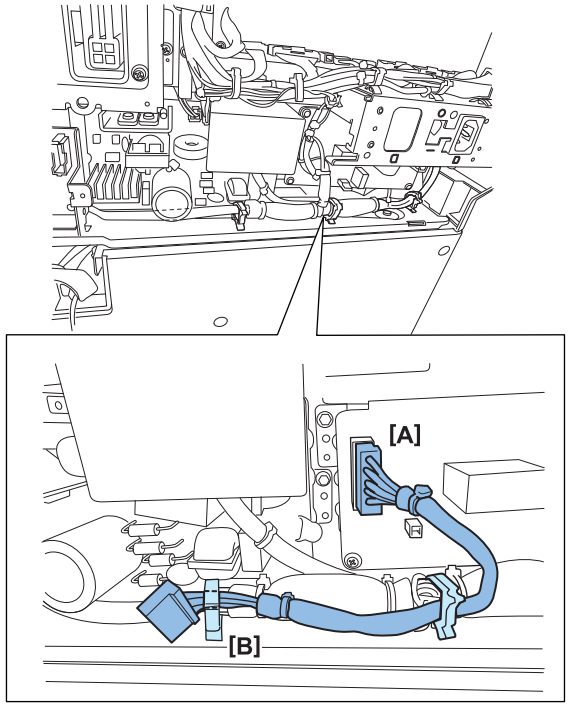
F-9-86

☐
22) Attach the cassette relay bracket. When the cassette heater PCB as standard is installed, this procedure is not needed.
23) Route the heater AC harness as shown in the figure. When the cassette heater PCB as standard is installed, this procedure is not needed.
- 3 Clamps



F-9-87

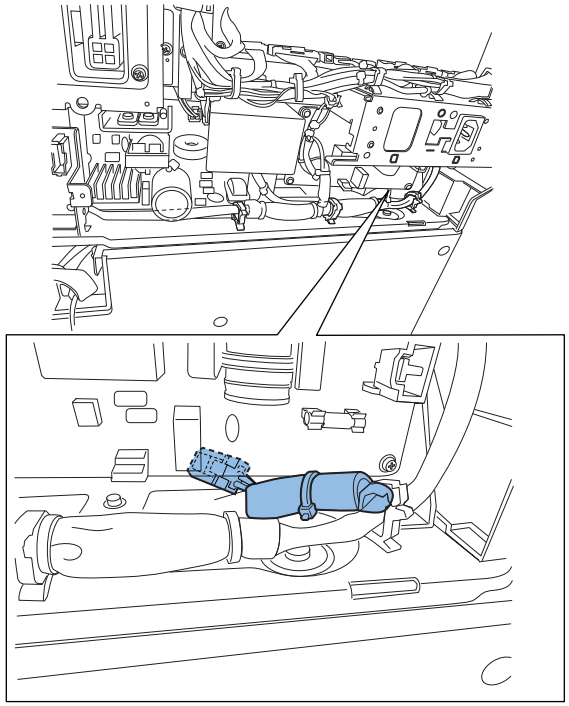
☐
24) When the cassette heater is installed, joint the connector to J1106 [A] on the heater PCB. When the cassette heater is not installed, clamp the heater AC harness at the position [B] of the figure.



F-9-88

☐

25) When the cassette heater is installed, joint the connector to the cassette heater connector.
When the cassette heater is not installed, insert the connector between the heater PCB and the frame as shown in the figure. And fix it.



F-9-89

☐

26) Restore the removed parts:

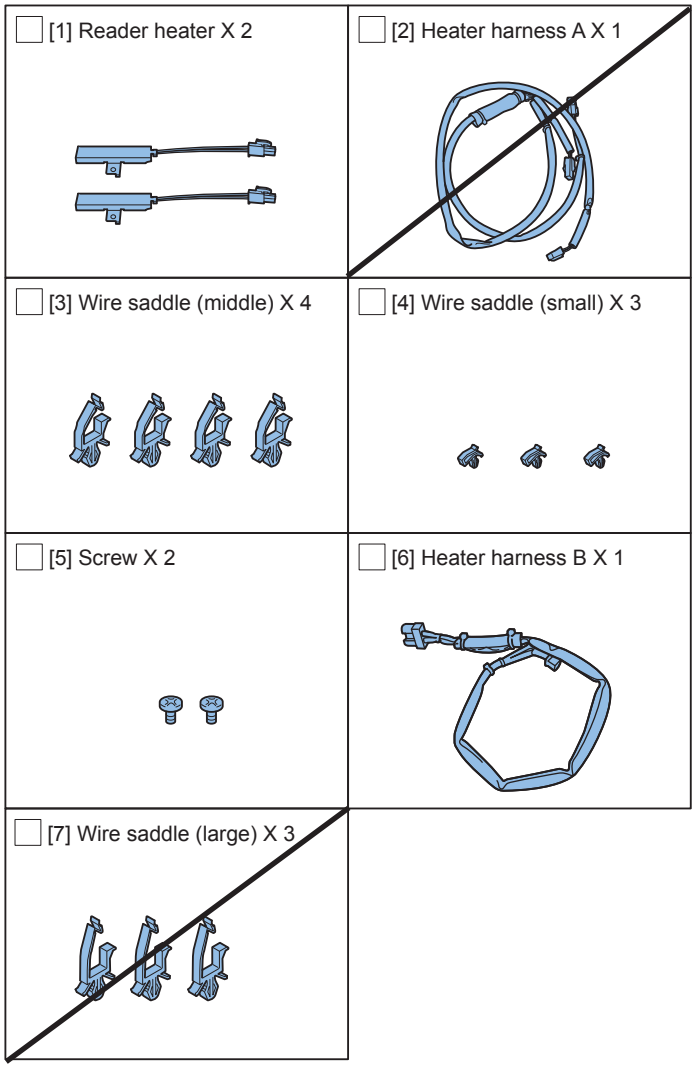
- Left cover (3 Screws)
- Inner base cover
- Lower rear cover (4 Screws)
- Connector (When the cassette pedestal is installed.)
- Connector cover (1 Screw)
- Left rear cover (4 Screws)
- Rear cover (4 Screws)
- Power cord clamp (1 Screw)(100/120V model only)
- Power cord

☐

27) When the optional heater was installed at the same time, turn the environmental heater switch ON.

Reader Heater Unit-H1

Checking the Contents



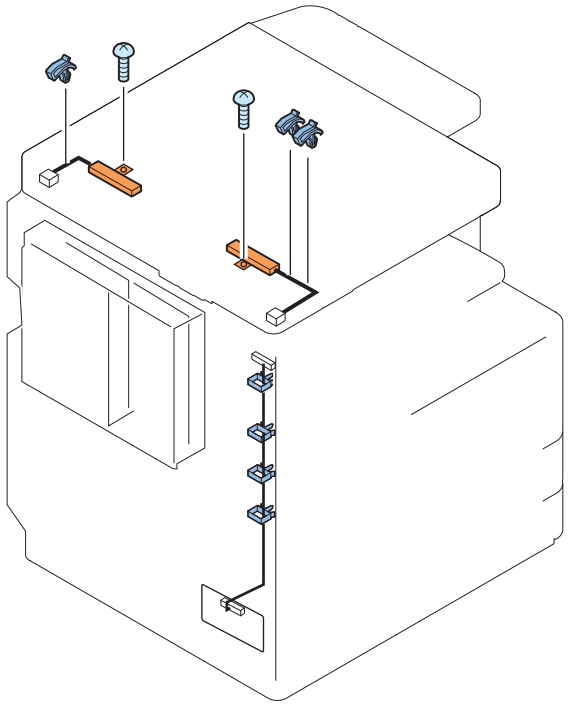
F-9-90

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-91

Points to Note Before Installation

Confirm that the Heater Kit-K1 has already been installed in the host machine.

When the cassette heater PCB is installed as standard, replace the cassette heater PCB with the heater PCB in the Heater Kit-K1.

When the G3 Line Fax Unit (2/3/4 line) is installed, remove it.

Installation Procedure

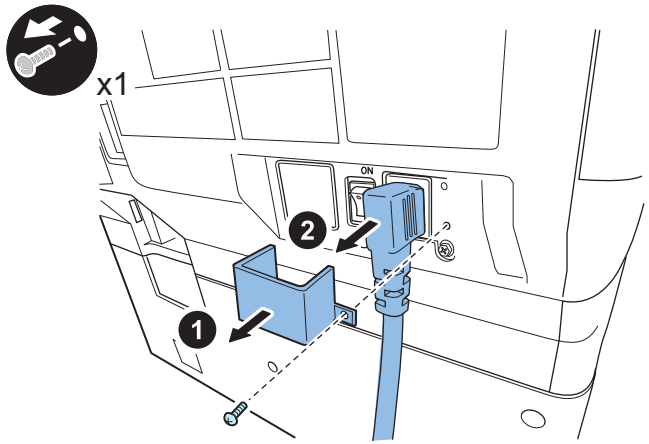
Installing the Reader Harness

☐

1) Remove the power cord clamp. (100/120V only)

- 1 Screw

2) Remove the power cord.

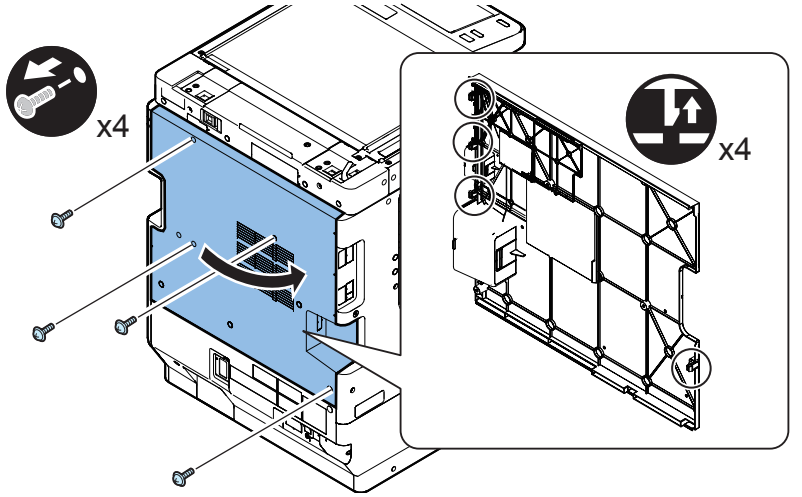


F-9-92

☐

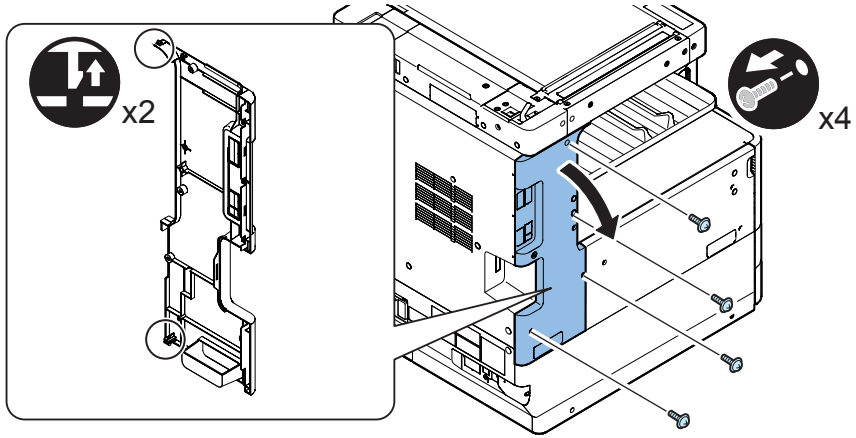
3) Remove the rear cover.

- 4 Screws
- 4 Claws



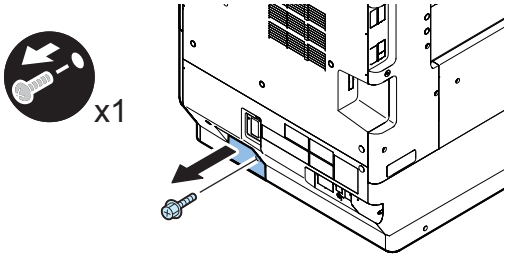
F-9-93

☐
4) Remove the left rear cover.
- 4 Screws
- 2 Claws



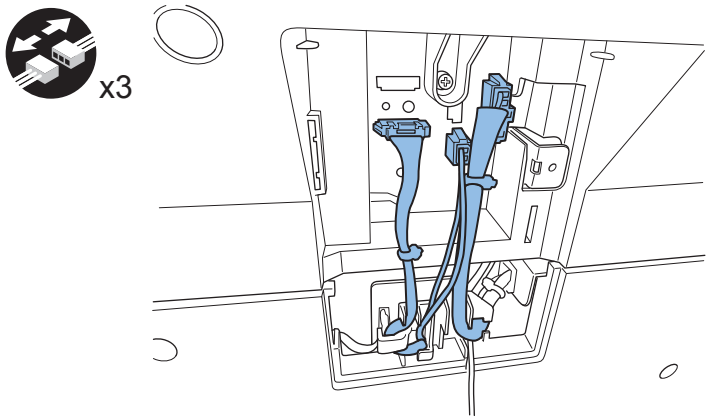
F-9-94

☐
5) Remove the connector cover.
- 1 Screw



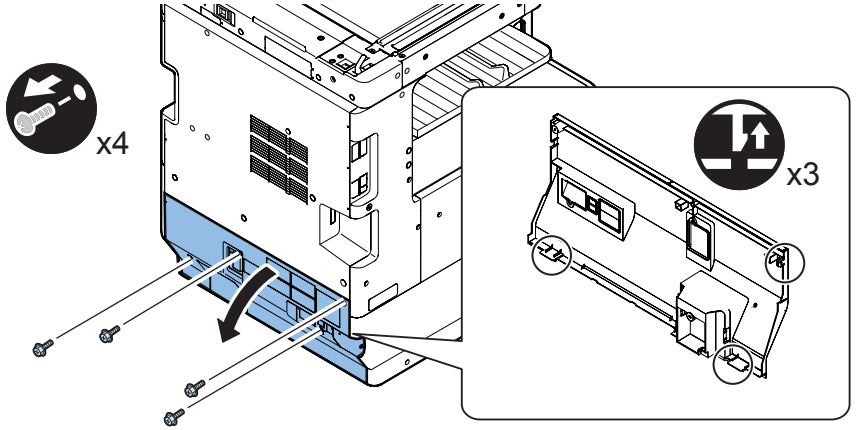
F-9-95

☐
6) When the cassette pedestal is installed, remove the connector.



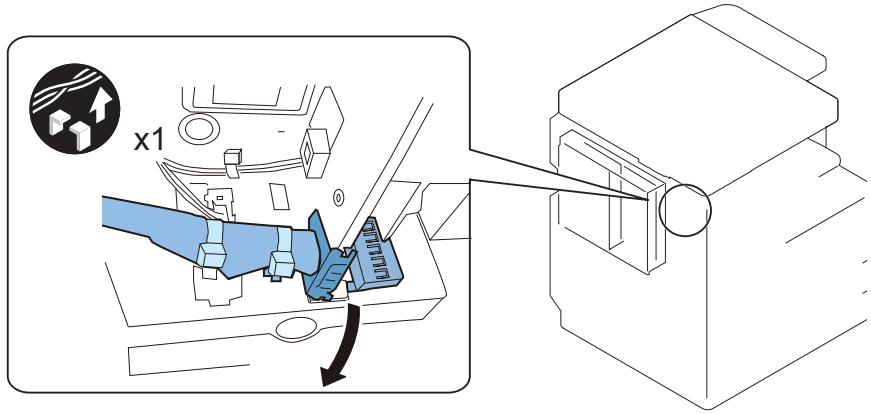
F-9-96

☐
7) Remove the lower rear cover.
- 4 Screws
- 3 Claws



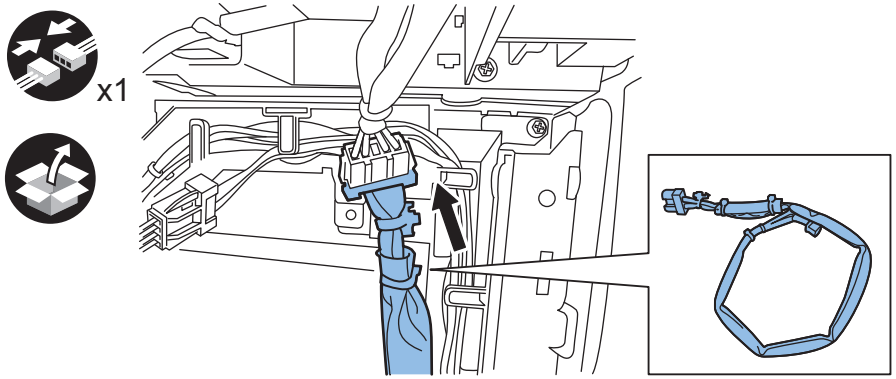
F-9-97

☐
8) Unlock the wire saddles and stretch the folded harness as shown.



F-9-98

☐
9) Joint 1 connector of the heater harness B to the harness connector of the reader unit.

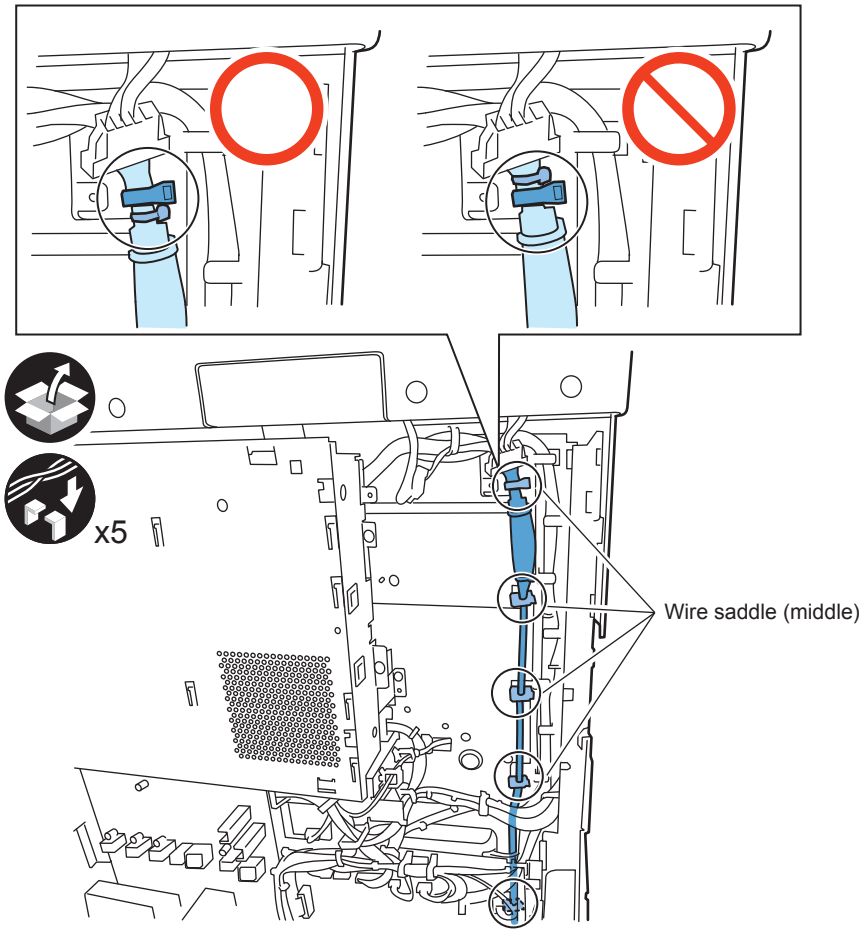


F-9-99

☐
10) Attach the 4 supplied wire saddles (middle).
11) Attach the heater harness B.

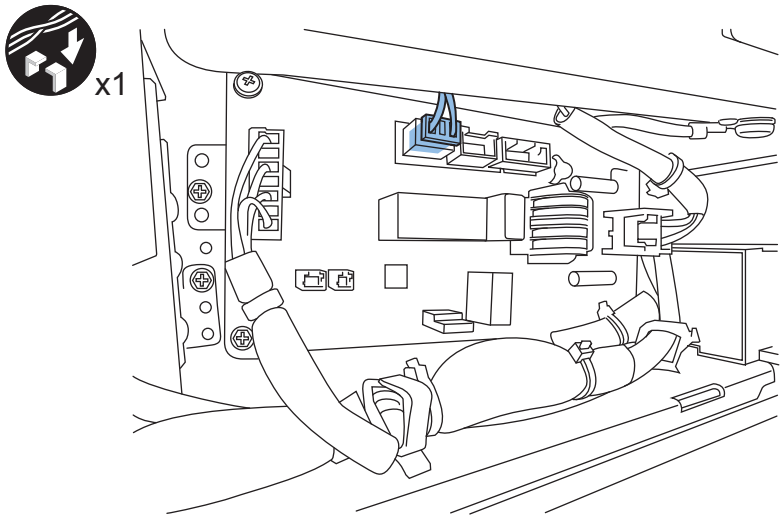
- 5 Wire saddles (middle)

Caution:
Route the heater harness B as shown in the figure below.



F-9-100

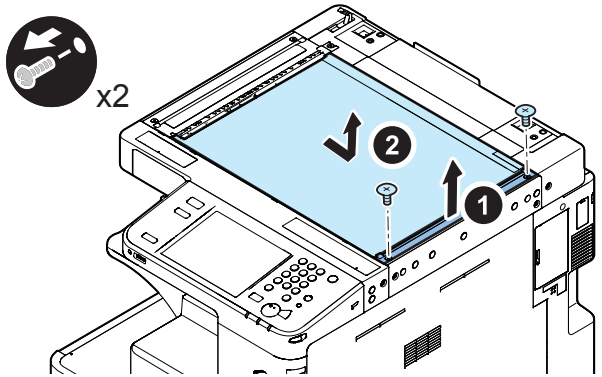
☐
12) Joint the connector to J1105 of the heater PCB.



F-9-101

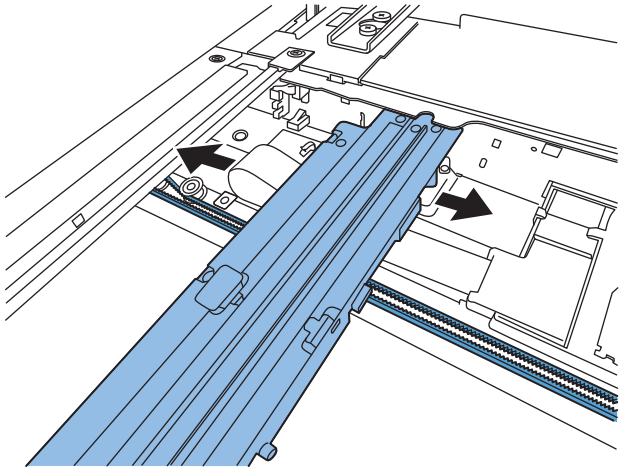
Installing the Reader Heater

☐
1) Open the ADF (or platen Cover).
2) Detach the glass retainer (right).
• 2 Screws
3) Remove the platen glass.



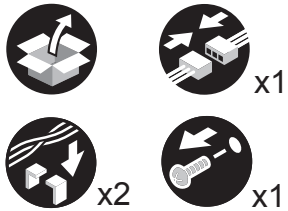
F-9-102

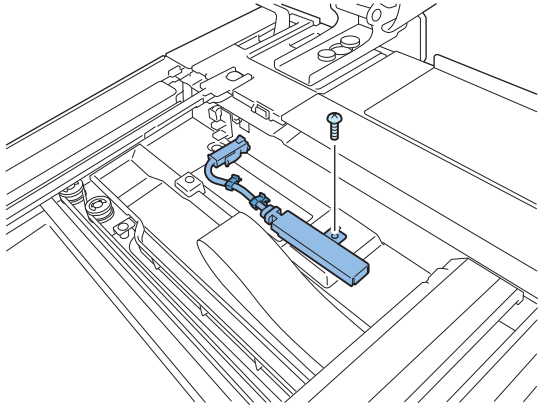
☐
4) Move the drive belt in the arrow direction to shift the CCD unit to the center.



F-9-103

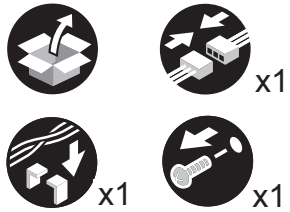
☐
5) Attach the 2 supplied wire saddles (small).
6) Attach the heater on the left of the reader.
- 1 Connector
- 1 Screw
- 2 Clamps

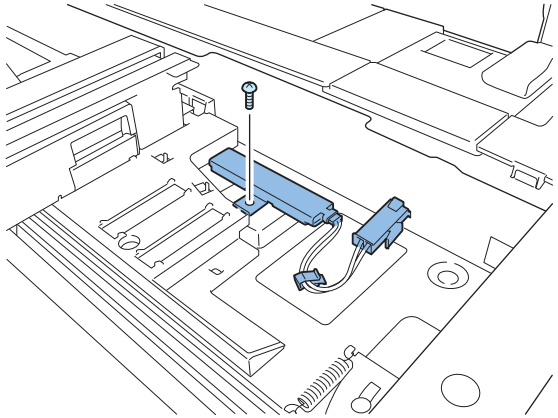




F-9-104

☐
7) Attach the 1 supplied wire saddle (small).
8) Joint the 1 connector.
9) Attach the heater on the left of the right.
- 1 Screw
- 1 Clamp





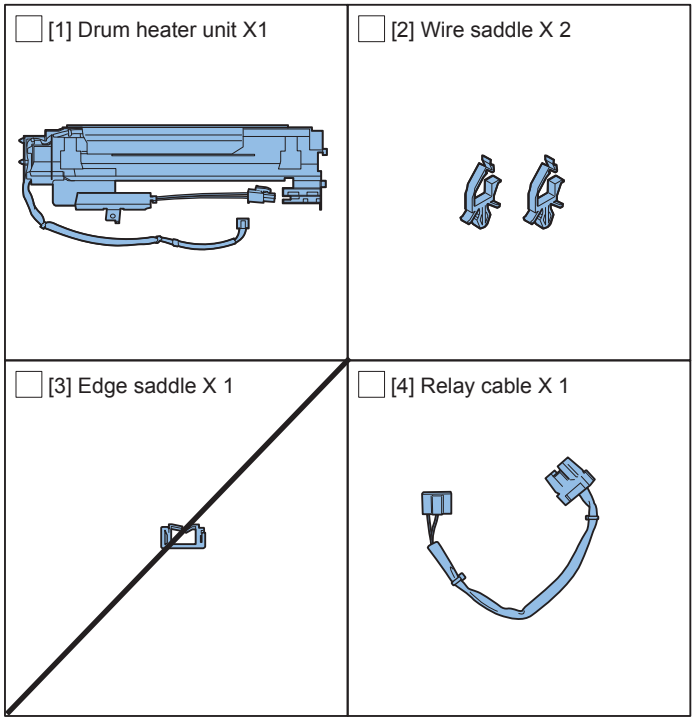
F-9-105

☐
10) Restore the following parts:
- Platen glass
- Glass retainer (right) (2 Stepped Screws)
- Lower rear cover (4 Screws)
- Connector (When the cassette pedestal is installed.)
- Connector cover (1 Screw)
- Left rear cover (4 Screws)
- Rear cover (4 Screws)(Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Power cord clamp (1 Screw) (100/120V model only)
- Power cord

11) Turn the enviorment heater switch ON.

Drum Heater-C1

Checking the Contents



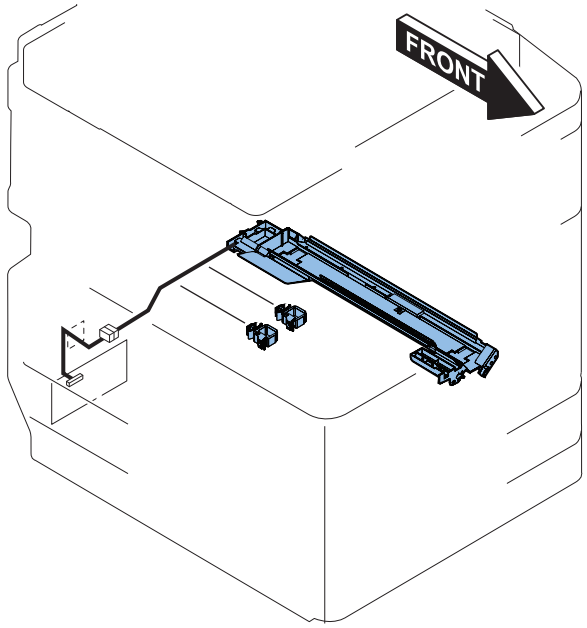
F-9-106

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-107

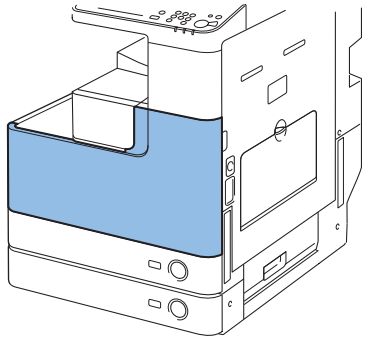
Confirmation of Heater Driver PCB

Confirm that the Heater Kit-K1 has already been installed in the host machine.
When the cassette heater PCB is installed as standard, replace the cassette heater PCB with the heater PCB in the Heater Kit-K1.

Installation Procedure

☐

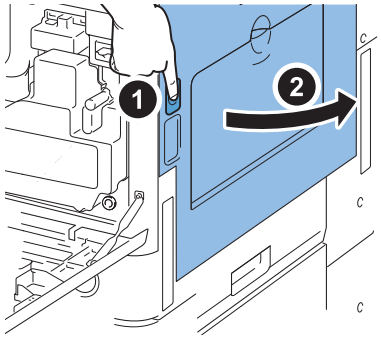
1) Open the front cover.



F-9-108

☐

2) Push the button to open the right cover.



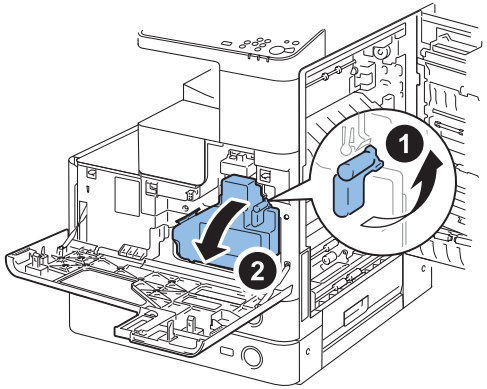
F-9-109

CAUTION:
To avoid any damage on the drum unit, keep the right cover open by 5 cm or more during installation.

☐

3) Turn the lock lever as shown in the figure.

4) Remove the waste toner container.

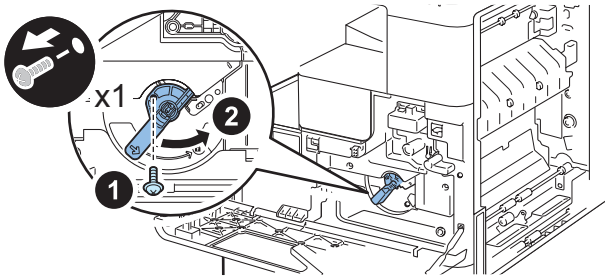


F-9-110

☐

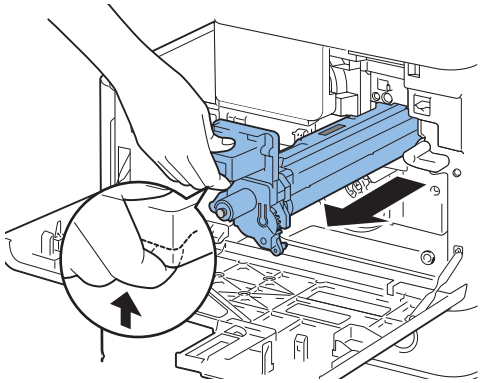
5) Remove 1 screw from the developing pressure lever.

6) Turn the developing pressure lever as shown in the figure and release the developing unit.



F-9-111

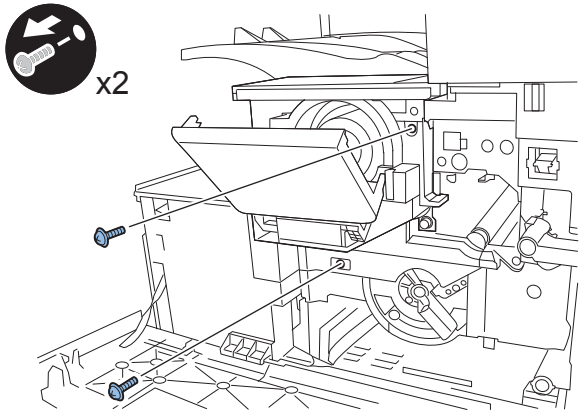
☐
7) Remove the drum unit.



F-9-112

CAUTION:
Do not touch the drum surface during the work.
Be sure to block light to the removed drum unit using paper.

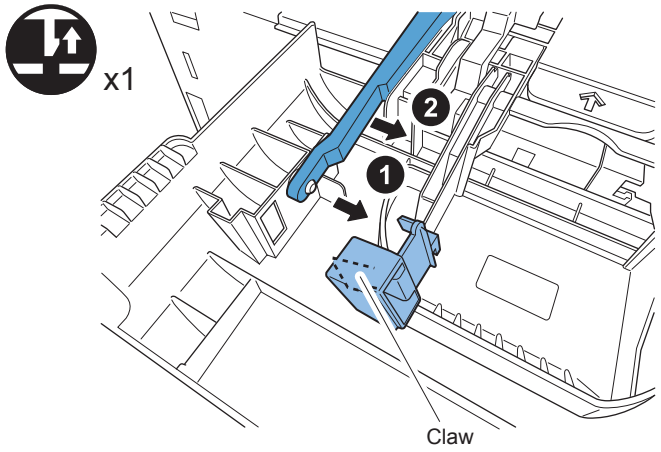
☐
8) Open the toner supply cover.
9) Remove the toner container.
10) Remove the 2 Screws.



F-9-113

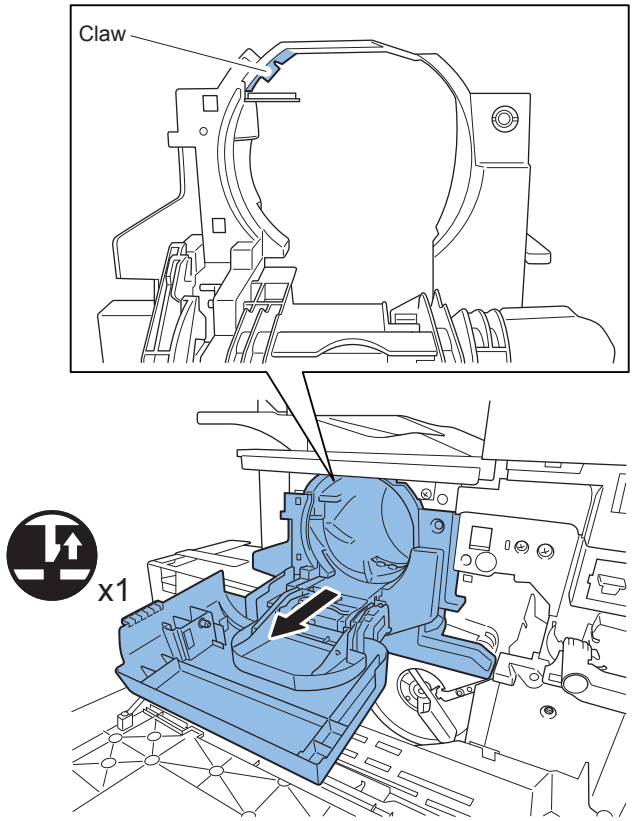
☐
11) Remove the link cover.
- 1 Claw

12) Remove the link lever from the shaft.



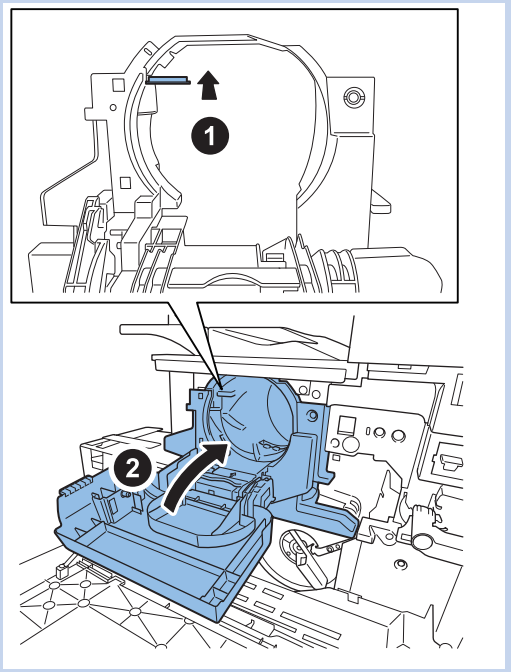
F-9-114

☐
13) Remove the toner supply cover.
- 1 Claw



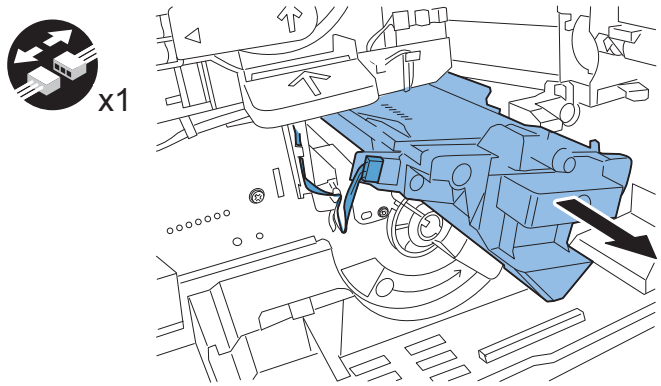
F-9-115

NOTE:
When closing the toner cover without the toner container, push the lock release lever.



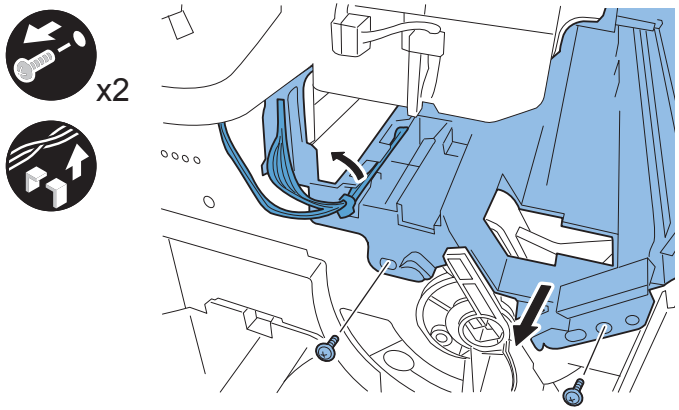
F-9-116

☐
14) Detach 1 connector and draw the developing unit out.



F-9-117

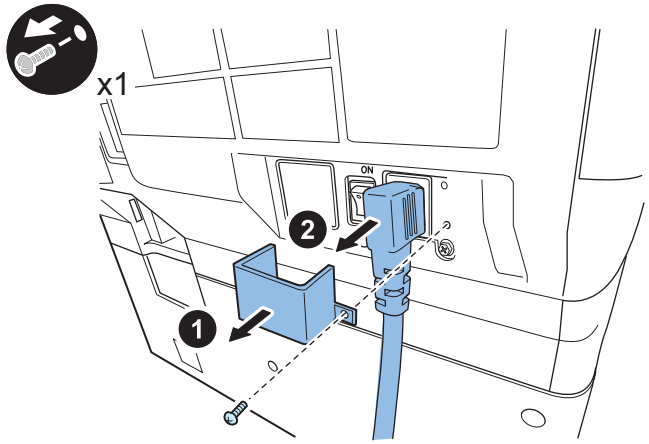
☐
15) Remove 2 screws to detach the developing stay. (Removed developing stay is no longer used. Save the removed screw for later use.)



F-9-118

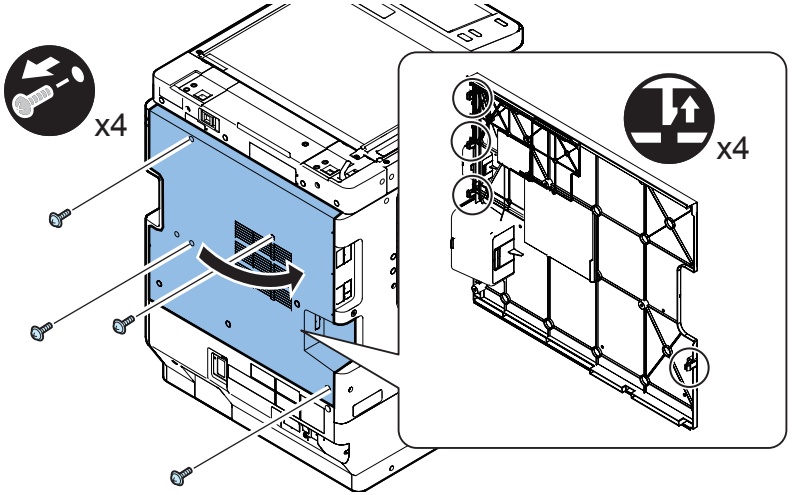
☐
16) Remove the power cord clamp. (100/120V only)
- 1 Screw

17) Remove the power cord.



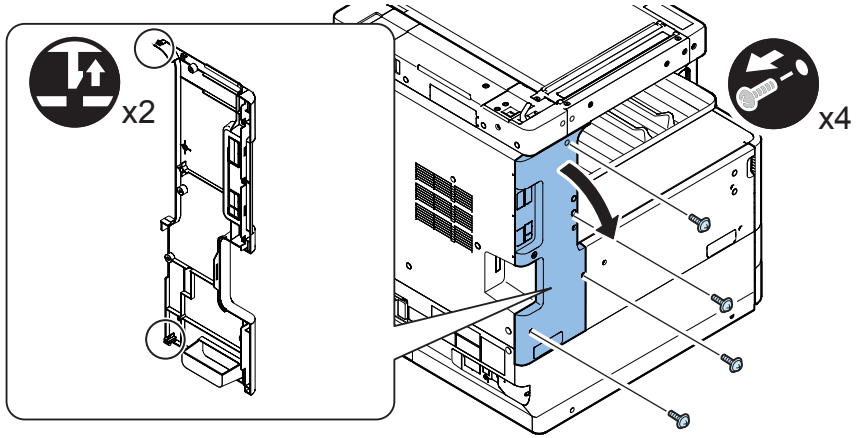
F-9-119

☐
18) Remove the rear cover.
- 4 Screws
- 4 Claws



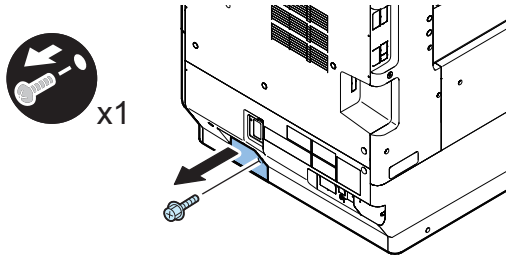
F-9-120

☐
19) Remove the left rear cover.
- 4 Screws
- 2 Claws



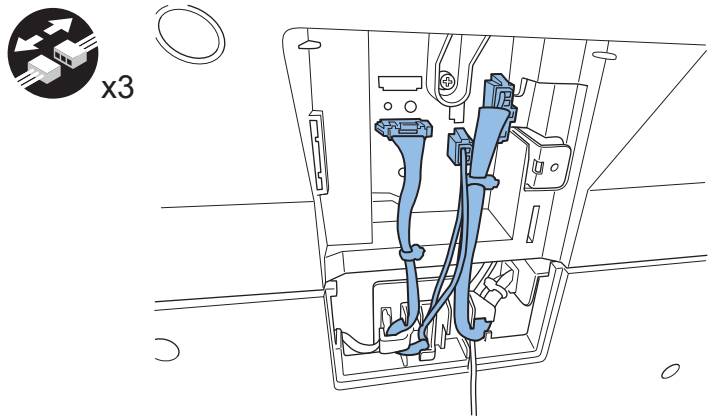
F-9-121

☐
20) Remove the connector cover.
- 1 Screw



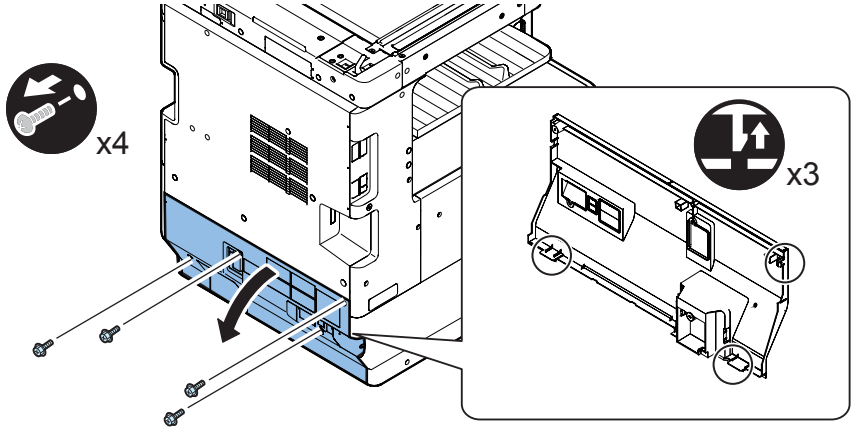
F-9-122

☐
21) When the cassette pedestal is installed, remove the connector.



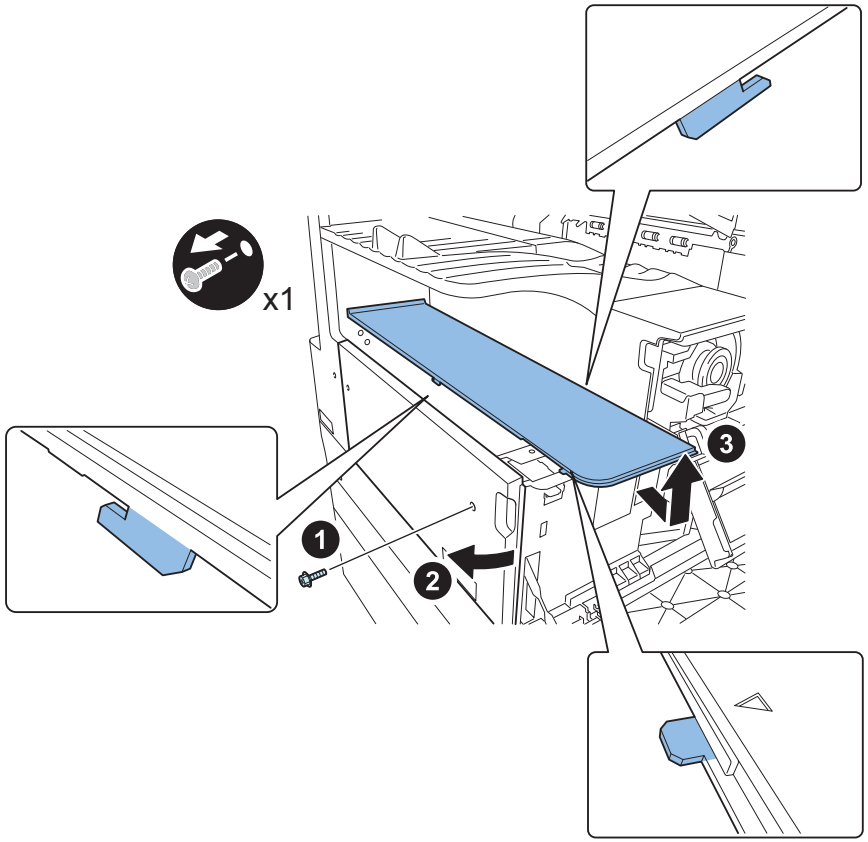
F-9-123

☐
22) Remove the lower rear cover.
- 4 Screws
- 3 Claws



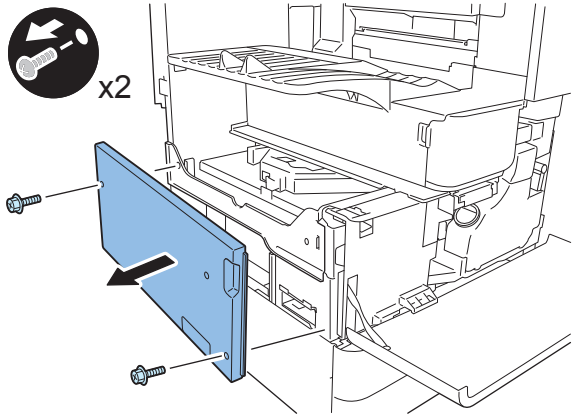
F-9-124

☐
23) Bend the left cover and remove the inside base cover.
- 1 Screw



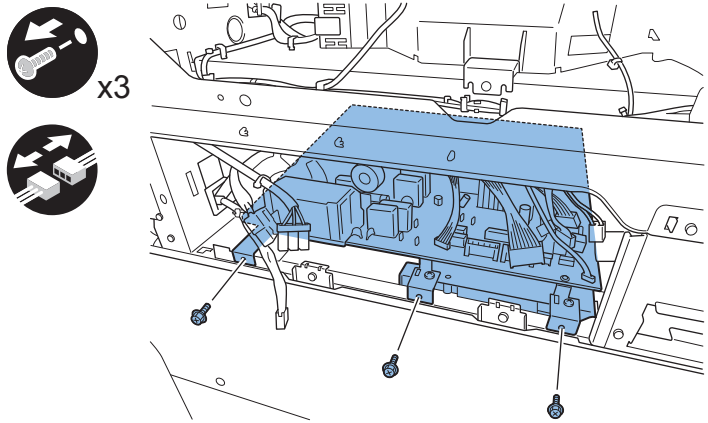
F-9-125

☐
24) Remove the left cover.
- 2 Screws



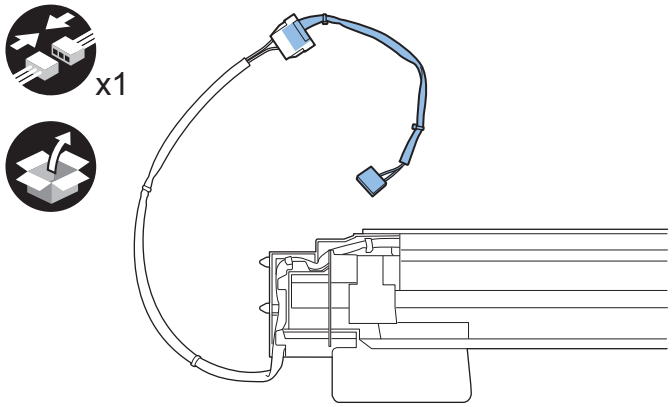
F-9-126

☐
25) Remove the power supply unit.
- All connectors on the power supply unit
- 3 Screws



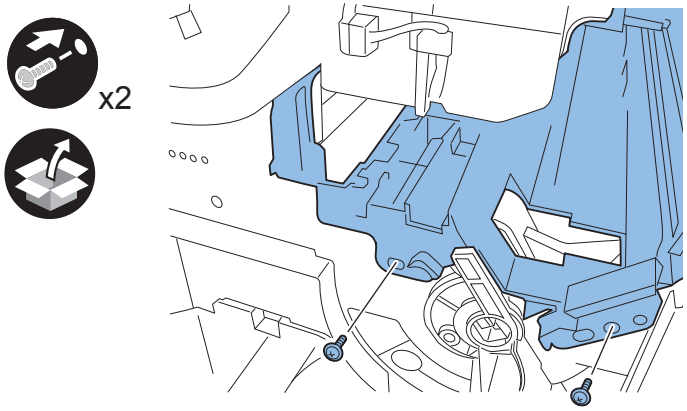
F-9-127

☐
26) Joint the connector of the supplied relay cable to the harness connector of the drum heater unit.



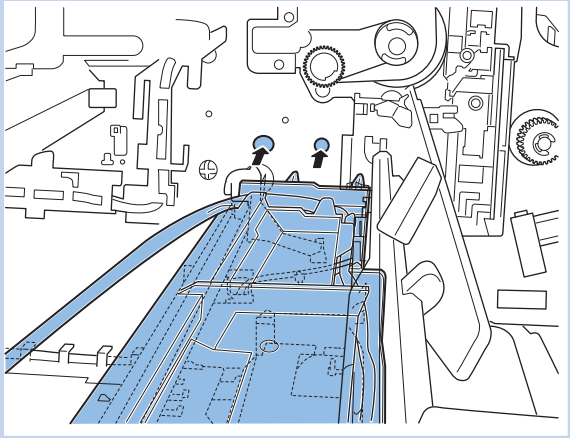
F-9-128

☐
27) Attach the drum heater unit in the host machine.
- 2 Screws removed at the step 15)



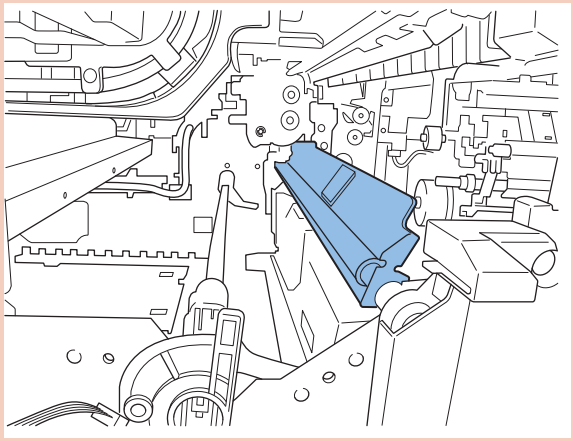
F-9-129

NOTE:
Insert the positioning pins of the drum heater unit to the holes of rear frame.



F-9-130

CAUTION:
Do not damage the pre-transfer guide when installing the drum heater unit.



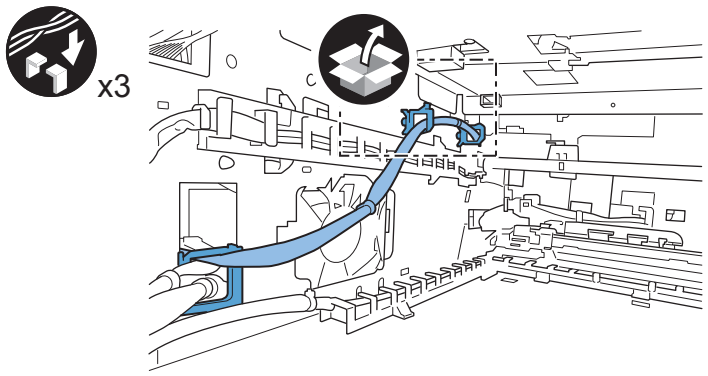
F-9-131

☐

28) Mount 2 supplied wire saddles on the rear frame.

29) Route the drum heater harness as shown in the figure.

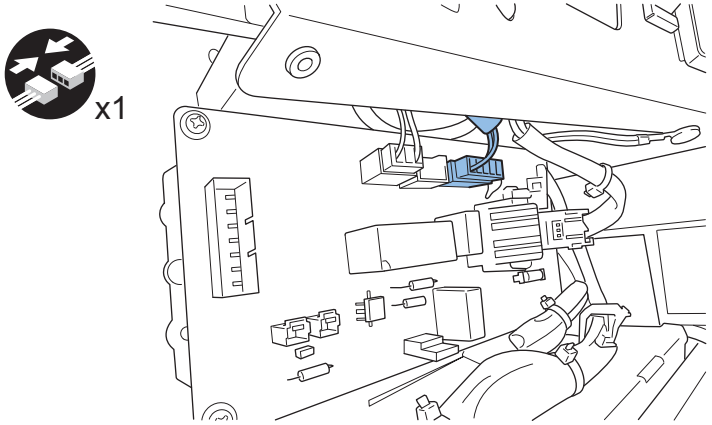
- 3 Wire Saddles



F-9-132

☐

30)Joint the connector of the drum heater harness to J1104 on the heater PCB.



F-9-133

☐

31) Restore the removed parts:

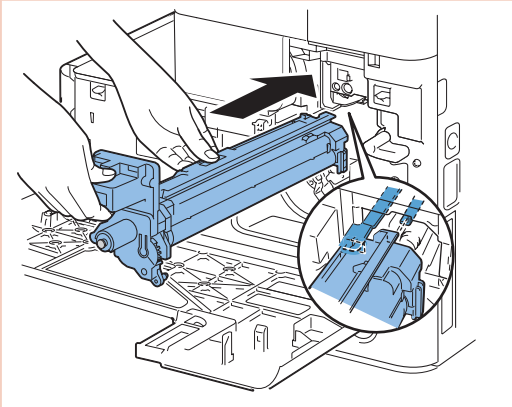
- Power supply unit (3 Screws)
- Inner base cover
- Left cover (3 Screws)
- Lower rear cover (4 Screws)
- Connector (When the cassette pedestal is installed.)
- Connector cover (1 Screw)
- Left rear cover (4 Screws)
- Rear cover (4 Screws)
- Developing unit
- Toner supply cover (2 Screws)
- Power cord clamp (1 Screw) (100/120V model only)
- Power cord

☐

32) Attach the drum unit.

CAUTION:

Confirm engagement of the drum unit and the drum unit rail of the host machine.



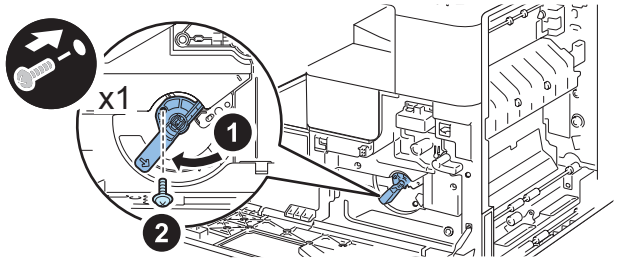
F-9-134

☐

33) Turn the developing pressure lever to set the developing unit.

34) Fix the the developing pressure lever.

- 1 Screw

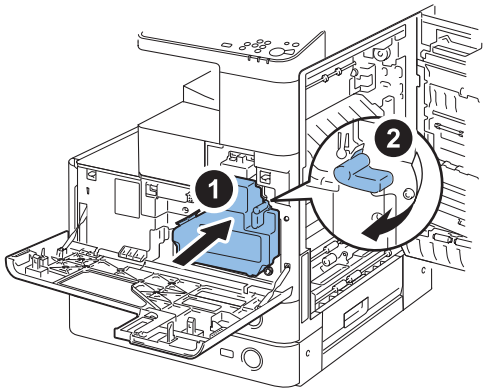


F-9-135

☐

35) Attach the waste toner container.

36) Lock the waste toner container.



F-9-136

☐

37) Close the front cover.

38) Close the right cover.

39) Turn the environment heater switch ON.

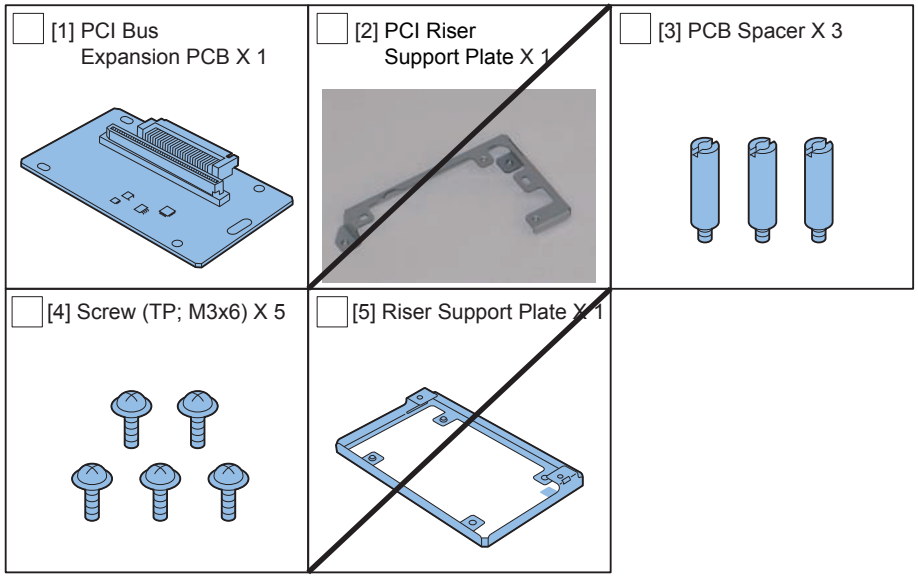
Expansion Bus-F2, Wireless LAN Board-B2

Points to Note at Installation

- Expansion Bus is required to set Wireless LAN Board.
- When using in combination with the following options, be sure to install them first.
  - Serial Interface Kit
  - Copy Control Interface Kit
  - Copy Card Reader

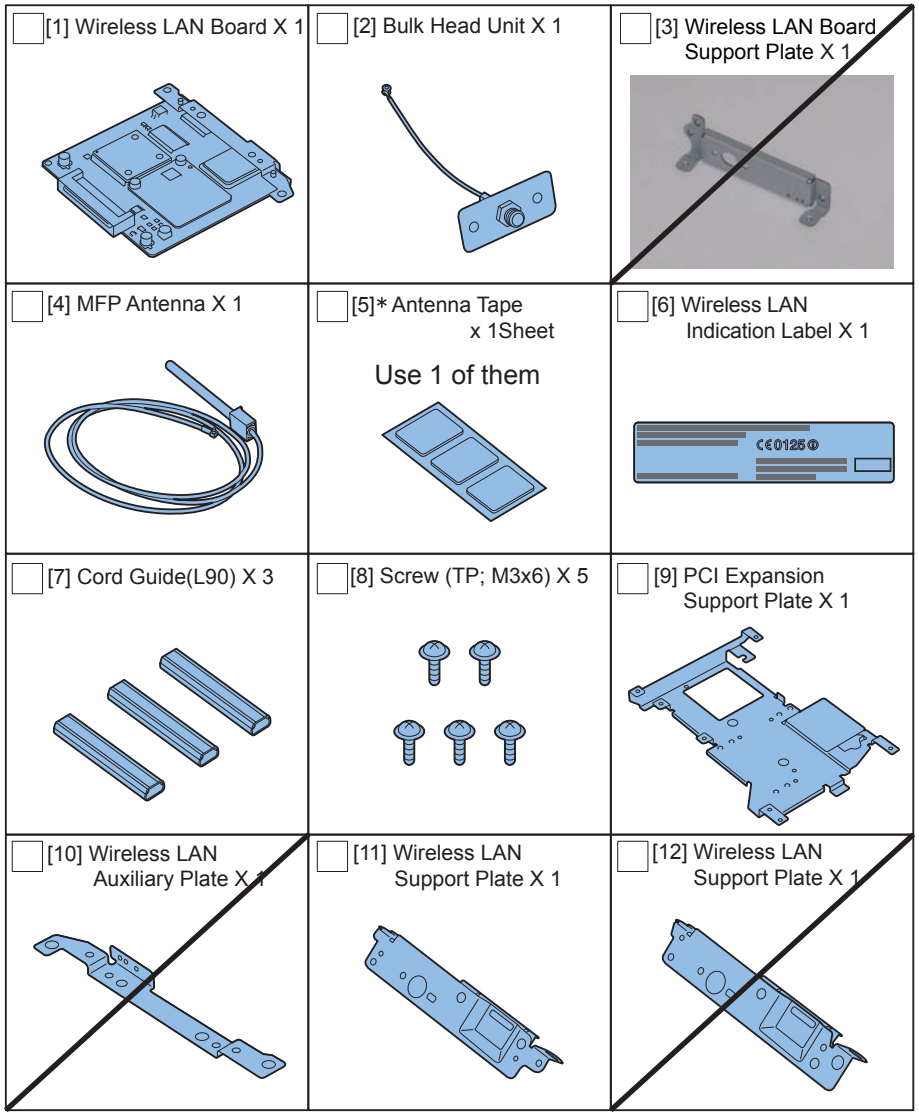
Checking the contents

Expansion Bus-F2



F-9-137

Wireless LAN Board-B2



F-9-138

* Be sure to keep the remaining of the 3 sheets of tape, as it might be needed for later use.

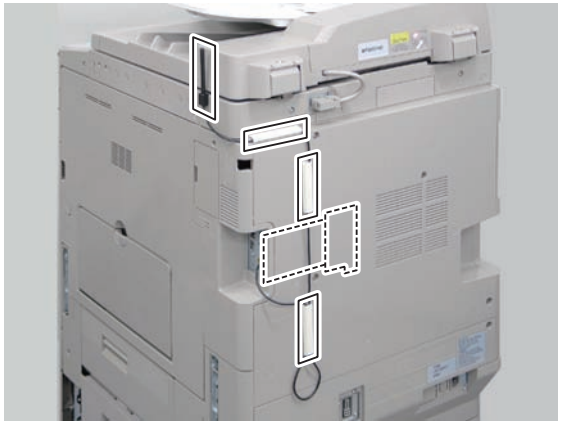
<CD/Guides>
- FCC/IC Sheet (USA only)
- Users Manual
- Users Manual CD

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

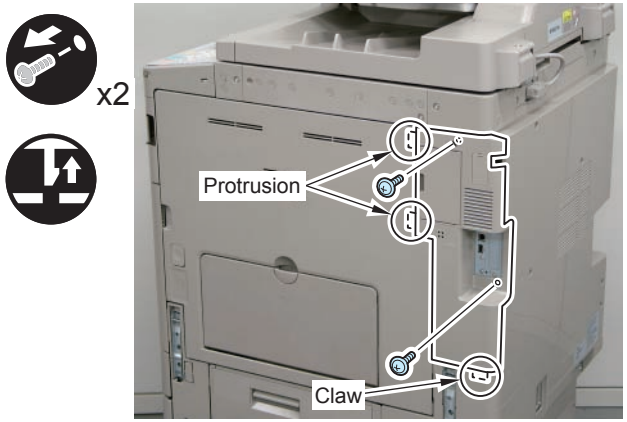


F-9-139

Installation Procedure

☐

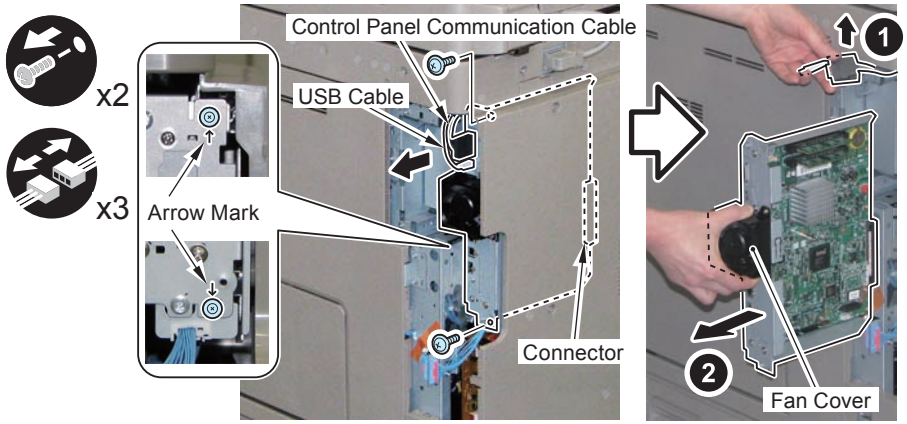
1) Remove the Right Rear Cover (Upper).
- 2 Screws
- 2 Protrusions
- 1 Claw



F-9-140

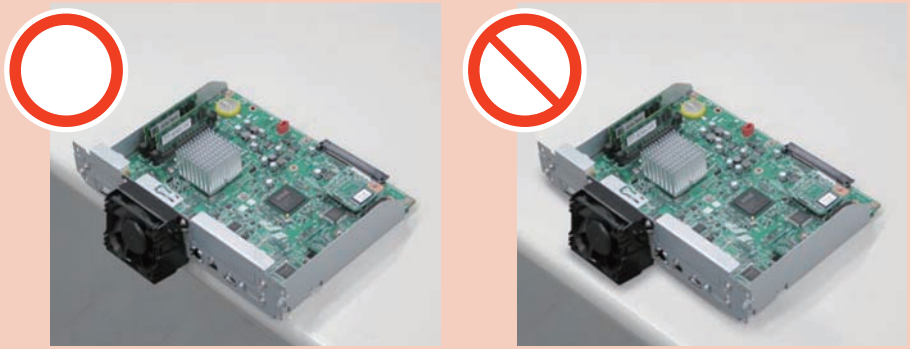
☐
2) Disconnect the USB Cable and the Control Panel Communication Cable.
3) Remove the Main Controller PCB 1.
- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:
Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.



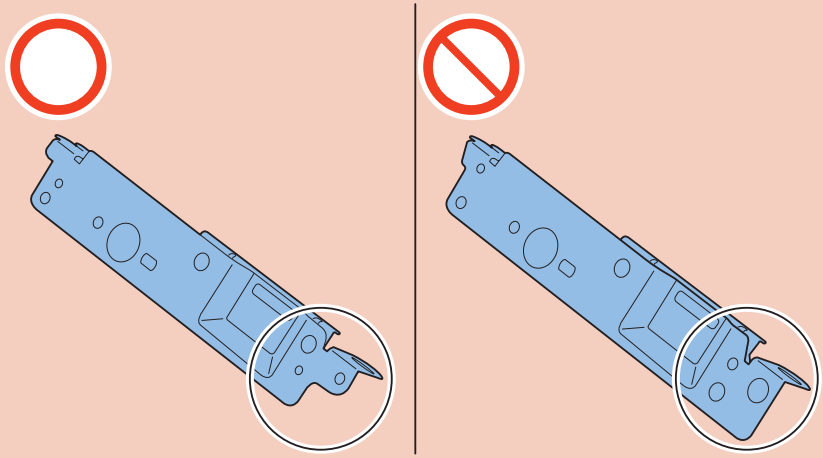
F-9-141

CAUTION:
Be sure to place the removed Main Controller PCB 1 on flat surface.
Reason: Since the fan protrudes, if it is placed at a tilt, it may be damaged.



F-9-142

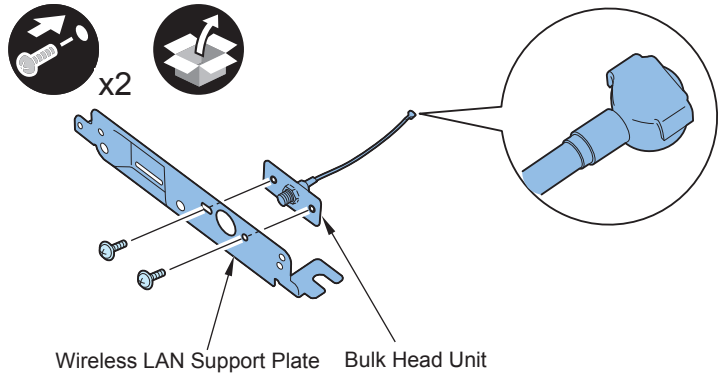
CAUTION: Point to Note at Installation
Be careful to install the correct Wireless LAN Support Plate.



F-9-143

☐
4) Install the Bulk Head Unit to the Wireless LAN Support Plate.
- 2 Screws (TP; M3x6) (Included in the Wireless LAN Board)

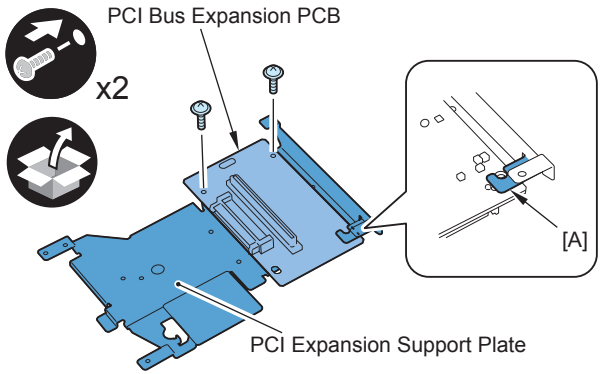
CAUTION: Point to Note at Installation
Be sure to install the Bulk Head Unit with the flat side of the terminal up.



F-9-144

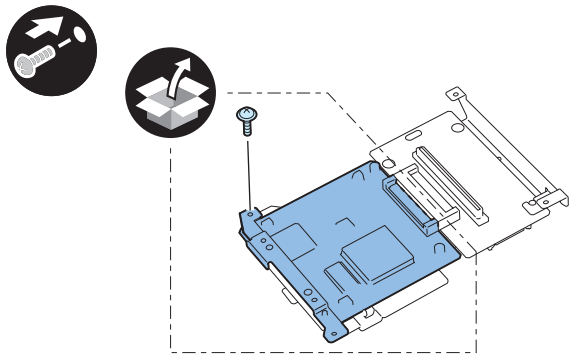
☐
5) Install the PCI Bus Expansion PCB (Included in the Expansion Bus) in the PCI Expansion Support Plate.
- 2 Screws (TP; M3x6) (Included in the Expansion Bus Kit)

CAUTION: Note when installing
Be sure to install the PCI Bus Expansion PCB to come under [A] part of PCI Expansion Support Plate.



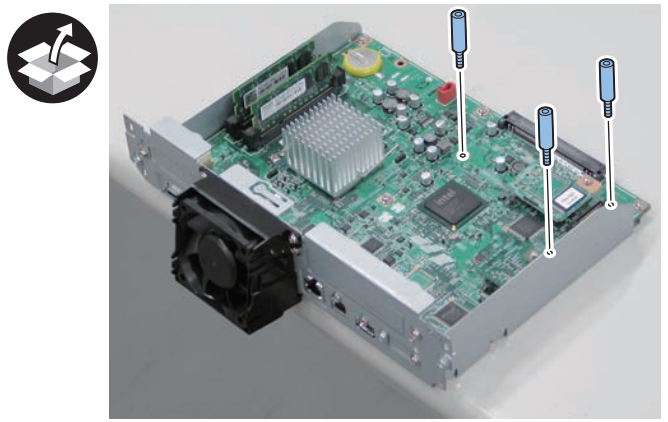
F-9-145

☐
6) Insert the Wireless LAN Board to the connector of the PCI Bus Expansion PCB, and install it in PCI Expansion Support Plate.
- 1 Screw (TP; M3x6) (Included in the Wireless LAN Board)



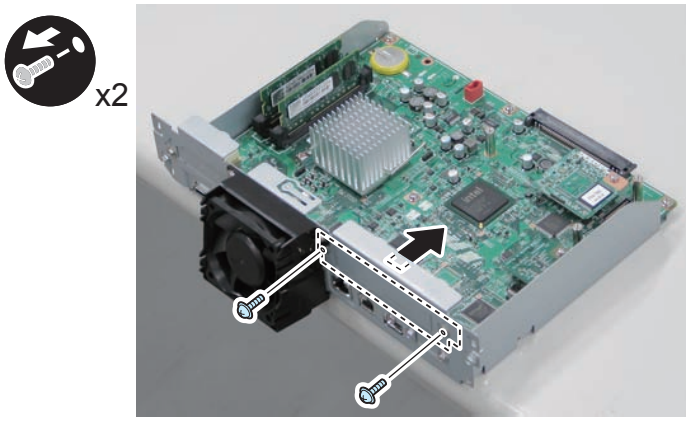
F-9-146

☐
7) Install the 3 PCB Spacers (Included in the Expansion Bus).



F-9-147

☐
8) Remove the Cover Plate from the Main Controller PCB 1 (The removed Cover Plate will not be used).
- 2 Screws (The removed screws will be used in step 10)



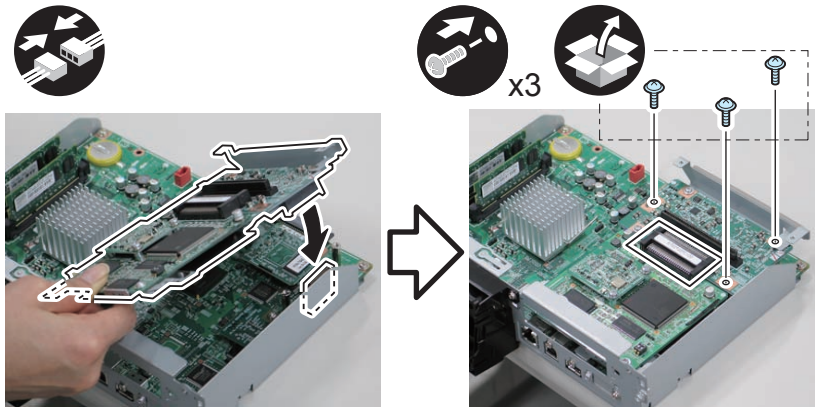
F-9-148

☐ 9) Install the PCI Expansion Support Plate assembled in step 6 to the Main Controller PCB 1.

- 1 Connector
- 3 Screws (TP; M3x6) (Included in the Expansion Bus Kit)

CAUTION:

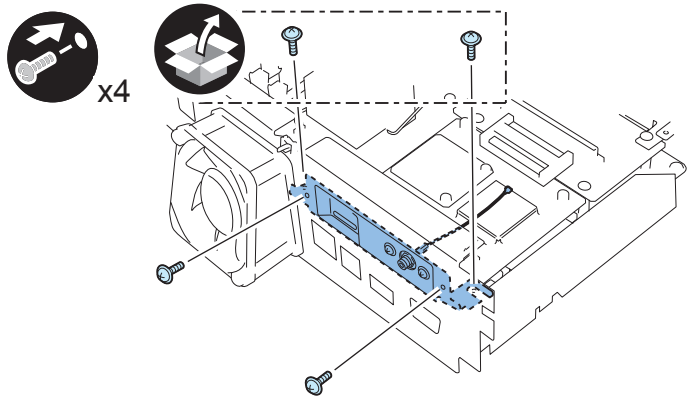
When installing the PCI Expansion Support Plate, the Wireless LAN Board may be disconnected from the connector of the PCI Bus Expansion PCB. Check that they are connected properly.



F-9-149

☐ 10) Install the Wireless LAN Support Plate assembled in step 4) in the Main Controller PCB 1.

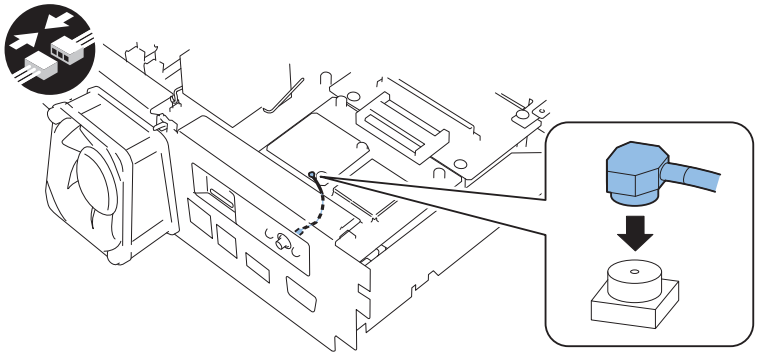
- 2 Screws (Use the screws removed in step 8)
- 2 Screws (TP; M3x6) (Included in the Wireless LAN Board)



F-9-150

☐ 11) Insert the terminal of Bulk Head Unit into the indicated position.

NOTE:
Make sure that the terminal is securely settled.



F-9-151

☐
12) Insert the Main Controller PCB 1 until it stops. (2 Screws)

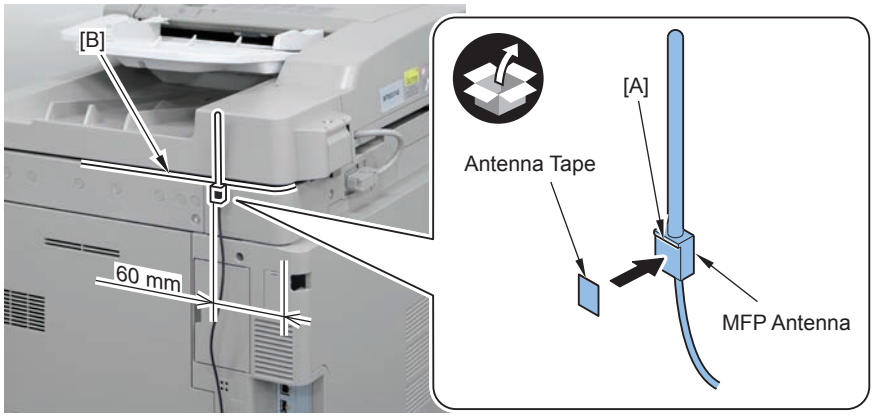
CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

13) Install the USB Cable and Control Panel Communication Cable.
14) Install the Right Rear Cover (Upper). (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

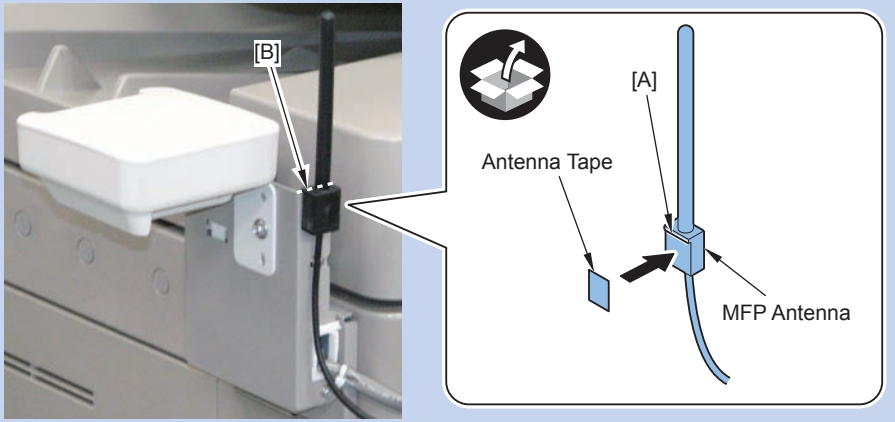
☐
15) Affix the Antenna Tape to the MFP Antenna and attach it to the Reader.

CAUTION:
- Be sure to align the [A] part with the [B] line.
- Be sure to attach the antenna to a position where the MFP Antenna will not be caught by the ADF when it is opened and closed.



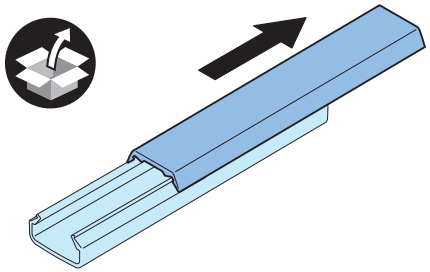
F-9-152

NOTE: When the Card Reader is installed
Hook the [A] part of the MFP Antenna on the edge [B] of the Copy Card Reader Installation Kit to attach it.



F-9-153

☐
16) Remove the covers of the 3 Cord Guides.



F-9-154

☐

17) Connect the terminal of the MFP Antenna.

18) Remove the release paper, and affix the 3 Cord Guides.

CAUTION:

The position to install the Cord Guide [A], etc. varies when installing in combination with other options. (See NOTE in step 19: "When using in combination with other options".)

19) Put the MFP Antenna Cable through the Cord Guides, and attach the Cord Guide Covers.

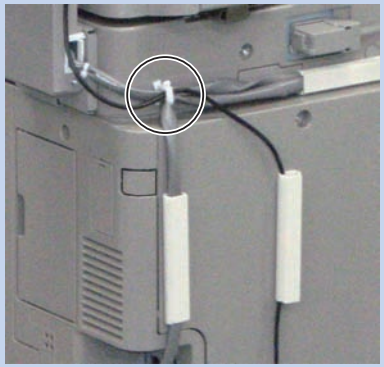
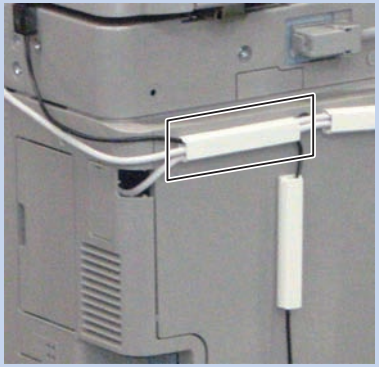
CAUTION:

- Be sure that the terminal of the MFP Antenna is connected properly.
- Be sure to pull the cable slack to the rear side of the host machine.



F-9-155

NOTE: When using in combination with other options

<When using in combination with Copy Card Reader only> Secure the cable in place using the Wire Saddle included in the Card Reader Installation Kit.	 F-9-156
<When using in combination with Voice Guidance> Secure the cable in place using the Cord Guide at the position shown in the figure. (It can be either the one included in the Wireless LAN Board or the one included in the Voice Guidance.)	 F-9-157
<When using in combination with Voice Operation Kit> Secure the cable in place using the Wire Saddle included in the Voice Operation Kit.	 F-9-158

□

20) Affix the Wireless LAN Indication Label, aligning it with the groove.



F-9-159

Checking after installation

NOTE:
When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

□

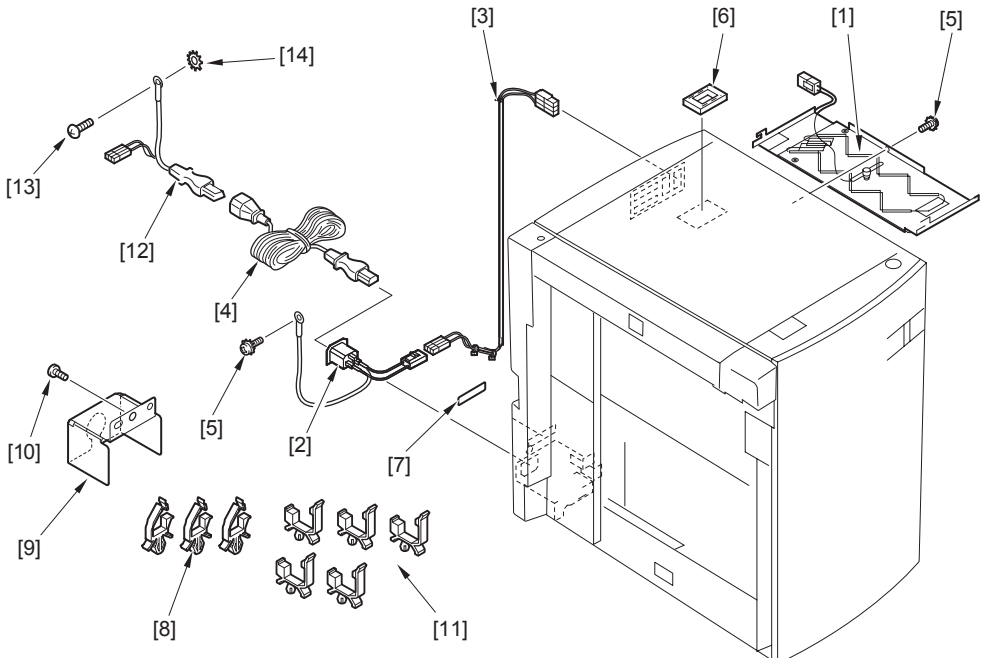
1) Connect the power plug of the host machine to the power outlet.
2) Turn ON the main power switch.
3) Turn OFF and then ON the power according to the instruction on the screen of the Control Panel.
4) Select [Settings/Registration] > [Preference] > [External Interface], and check that [Extension Card Settings] is displayed.

Paper Deck Heater Unit-C1

Confirmation of Heater Driver PC

Confirm that the Heater Kit-K1 has already been installed in the host machine. (Refer to the host machine installation “Heater Kit-K1”.

Checking Bundled Components



F-9-160

☐	[1]	Heater unit	1 pc.
☐	[2]	AC input connector	1 pc.
☐	[3]	Relay harness	1 pc.
☐	[4]	AC Cable	1 pc.
☐	[5]	Screw (w/ washer; M4x8)	2 pcs.
☐	[6]	Cable protection bushing	1 pc.
☐	[7]	Power supply label	2 pcs. (*Only 1 pc. is used)
☐	[8]	Wire saddle (white)	3 pcs. (*Only 2 pcs. are used)
☐	[9]	Plug cover	1 pc.
☐	[10]	Screw (Binding; M4x4)	1 pc.
☐	[11]	Wire saddle (black)	5 pcs.
☐	[12]	AC output connector	1 pc.
☐	[13]	Screw (Binding; M4x6)	1 pc.
☐	[14]	Toothed washer	1 pc.

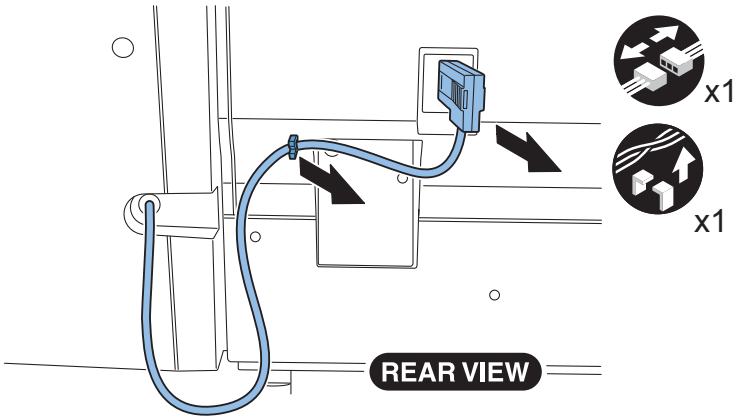
Turning OFF the Main Power Switch

Refer to "Turning OFF the Main Power Switch" in the host machine installation procedure.

⚠ When installing the heater to the paper deck, take the following precautions:
a. The AC power plug of the host machine must have been removed from the outlet.
b. Install the heater after installing the host machine and paper deck.

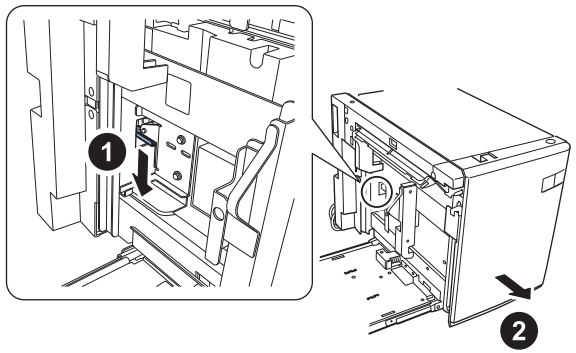
Installation Procedure

☐
1) Release the interface cable from the wire saddle, and then disconnect the paper deck connector from the host machine.



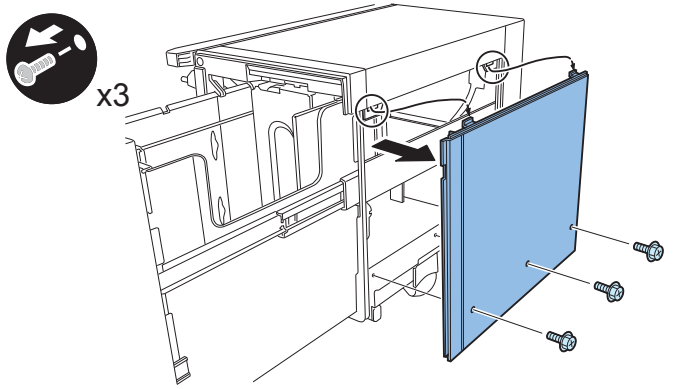
F-9-161

☐
2) Release the paper deck from the host machine, and then press down the latch plate of the paper deck to open the compartment.



F-9-162

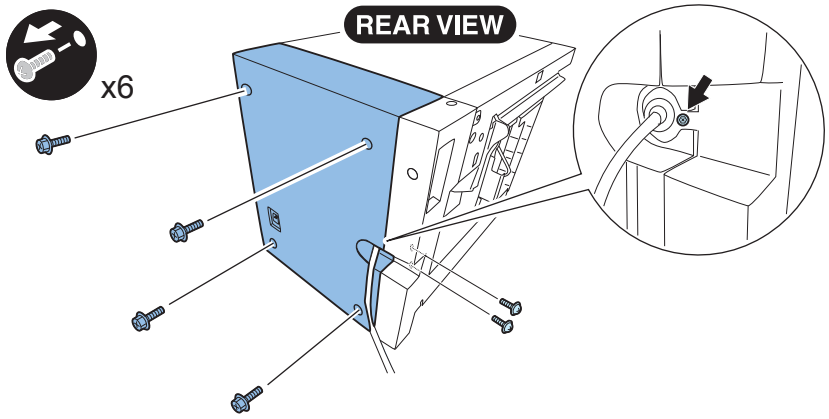
☐
3) Detach the right cover of the paper deck in the direction of the arrow shown.
- 3 Screws



F-9-163

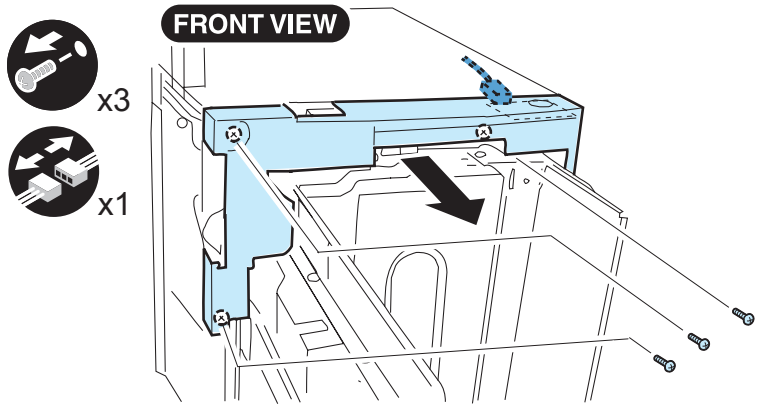
☐
4) Detach the rear cover of the paper deck.
- 6 Screws (M4x8: 4 pcs., M3x8: 2 pcs.)

NOTE:
When the rear cover is removed, loosen the screw shown by an arrow in the figure, if it is difficult to remove the rear cover because of contacting to the left rear cover.



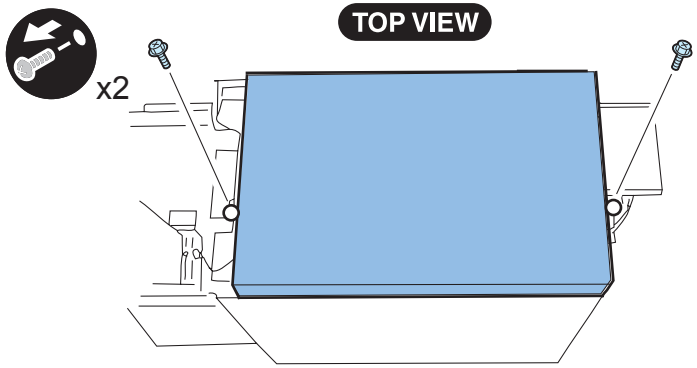
F-9-164

☐
5) Detach the front upper cover.
- 3 Screws
- 1 Connector



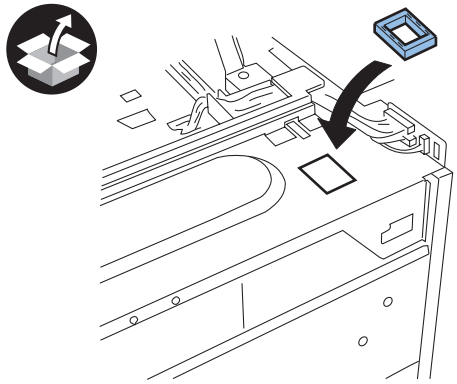
F-9-165

☐
6) Detach the top cover.
- 2 Screws



F-9-166

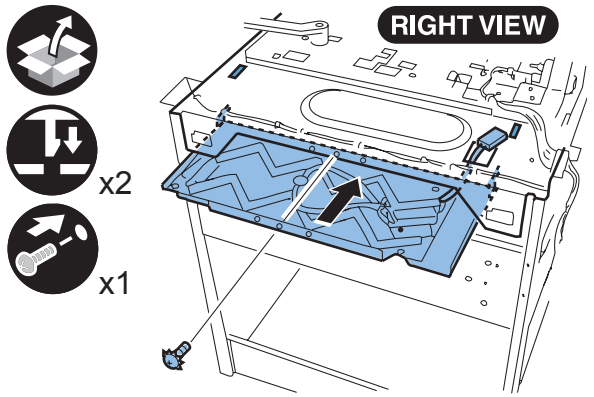
☐
7) Attach the supplied cable protection bushing to the hole on the top panel of the paper deck.



F-9-167

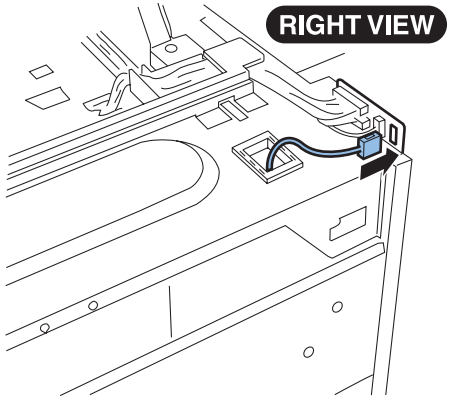
☐
8) Place the heater unit under the top panel of the paper deck, and then take the connector out of the hole on the top plate.

☐
9) Insert the 2 hooks of the heater unit into the holes on the top plate of the paper deck, and then secure the heater unit to the main body of the paper deck.
- 1 Screw (w/washer; M4x8)



F-9-168

☐
10)Attach the heater connector to the panel mount.

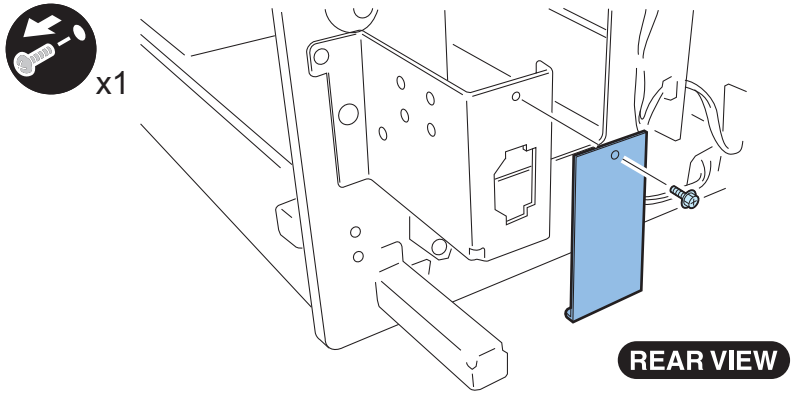


F-9-169

☐
11)Remove the blindfold plate from the power cord mount of the paper deck.

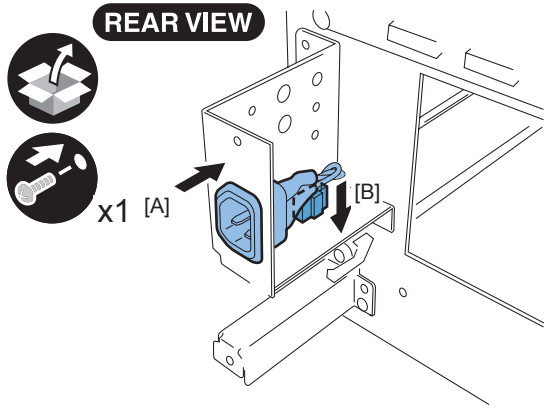
- 1 Screw

NOTE:
Removed screw and blindfold cover are no longer reused.



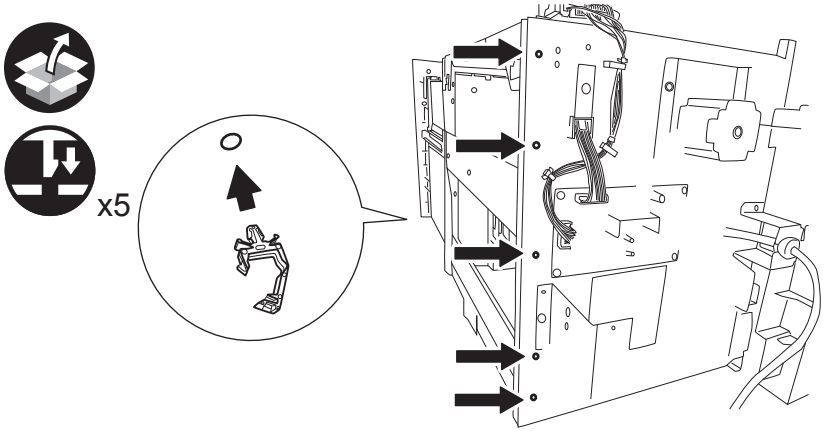
F-9-170

☐
12)Install the supplied AC input connector in order of [A] -> [B].



F-9-171

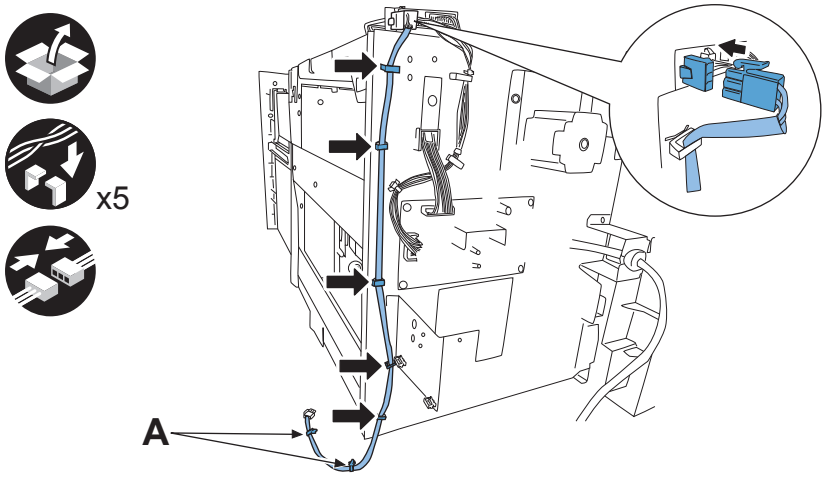
☐
13)Attach the 5 wire saddles (black) to the rear side panel of the paper deck as shown.



F-9-172

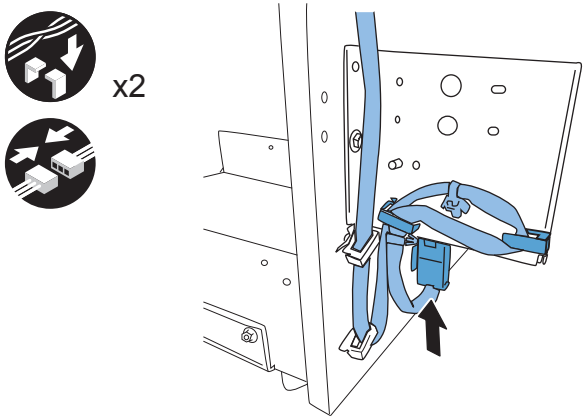
☐
14)Put the relay harness in the 5 wire saddles (black), and then attach the connector.

NOTE:
2 snap-bands (A) equipped with the relay harness are not used.



F-9-173

☐
15)Put the relay harness in the 2 wire saddles on the power cord mount, and then connect the connector.

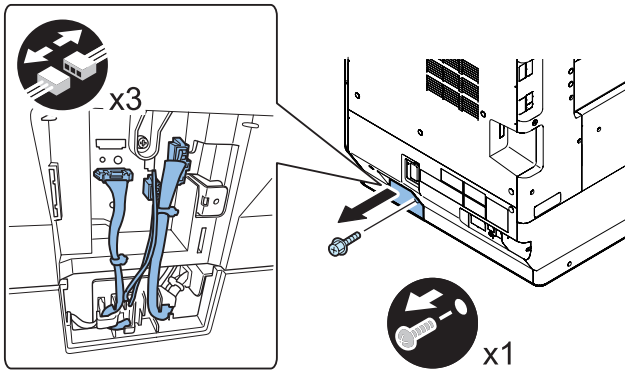


F-9-174

☐
16)Reattach the external covers of the paper deck in the following sequence:
[1] Top cover (2 screws; M4x8)
[2] Right cover (3 screws; M4x8)
[3] Rear cover (4 screws; M4x8 and 2 screws; M3x8)
[4] Front upper cover (1 connector and 2 screws; M4X8)

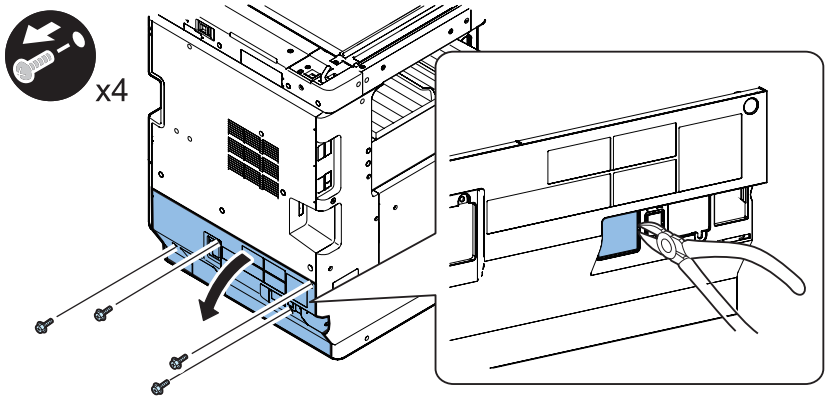
☐
17)Manually slide the paper deck to the left to place it aside of the host machine

☐
18)Remove the connector cover at the rear side of the host machine. And then disconnect 3 connectors for the cassette pedestal.
- 1 Screw



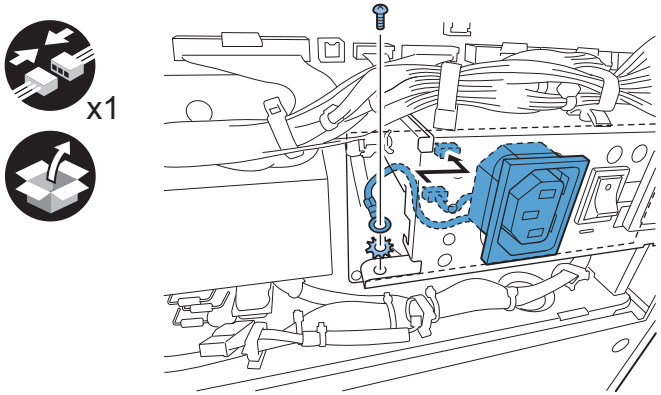
F-9-175

☐
19)Remove the lower rear cover, and then cut out the blindfold cover with the nipper.
- 4 Screws



F-9-176

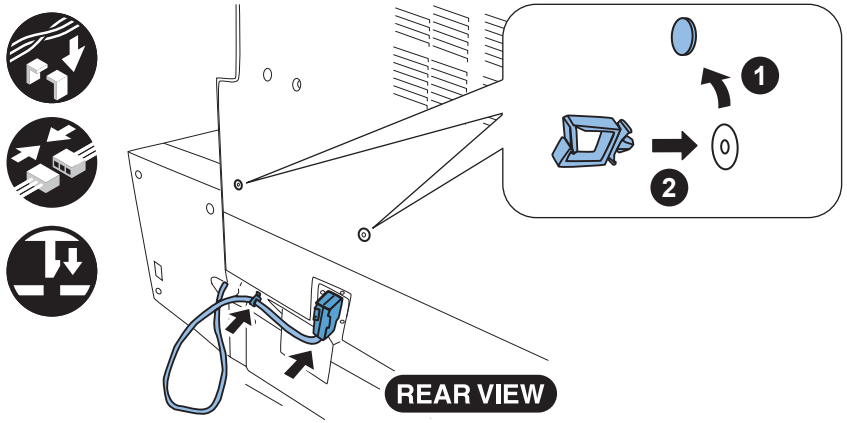
☐
20)Attach the connector of the AC output connector to the heater PCB, insert the AC output connector and then fasten the ground cable.
- 1 Screw (Binding; M4x6)
- 1 Toothed washer



F-9-177

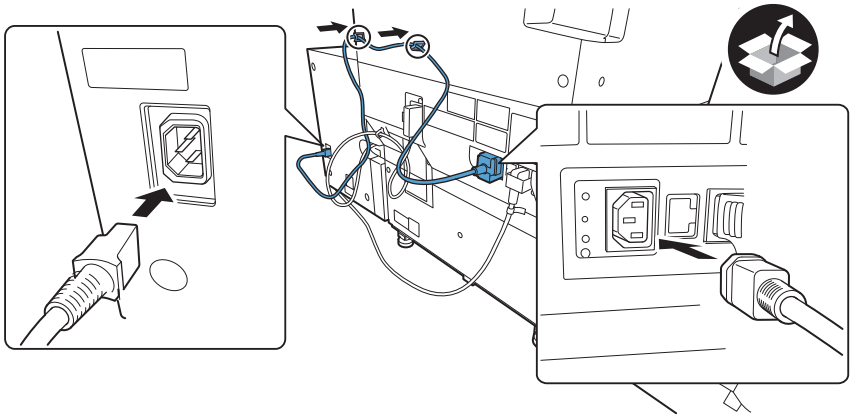
☐
21)Reattach the external covers of the host machine in the following sequence:
[1] Lower rear cover (4 screws; M3x8)
[2] Connector cover (3 connctors and 1 screw; M3x8)

☐
22)Put the interface cable of the paper deck in the wire saddle and then connect the connector of the paper deck to the back of the host machine. Detach the 2 blindfold seals from the rear cover of the host machine, and then attach the 2 wire saddles (white).



F-9-178

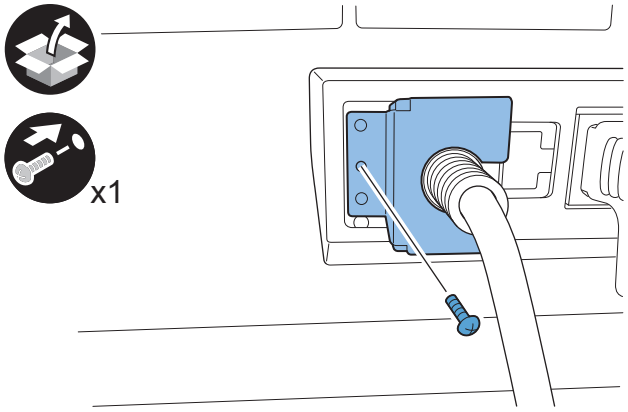
☐
23)Connect the connector of the supplied AC connector to the power cord mount of the heater. Put the AC cable in the wire saddles, and then connect the other connector (plug) to the receptacle of the host machine.



F-9-179

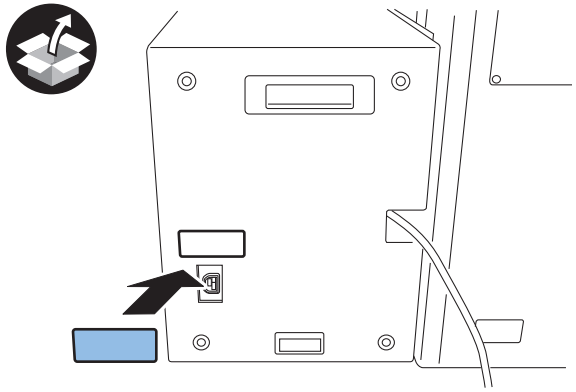
☐
24)Fix the supplied plug cover at rear side of the host machine.

- 1 Screw (Binding; M4x4)



F-9-180

☐
25)Stick the supplied power supply label to the rear cover of the paper deck.



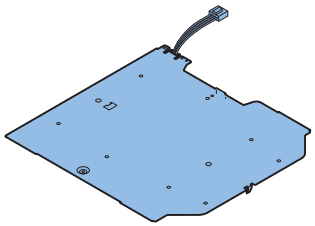
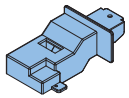
F-9-181

Cassette Heater Unit-37

Points to Note at Installation

- When installing the Cassette Heater, Heater PCB-K1 is required.
- Be sure to install the Heater PCB after installing the Cassette Heater.

Checking the Contents

☐ [1] Cassette Heater Unit X 1 	☐ *[2] Heater Connector Cover X 1 
☐ *[3] Wire Saddle X 1 	☐ [4] Screw (W Sems Round End; M3x6) X 1 
☐ * [5] Screw (P Tight; M3x8) X 1 	

F-9-182

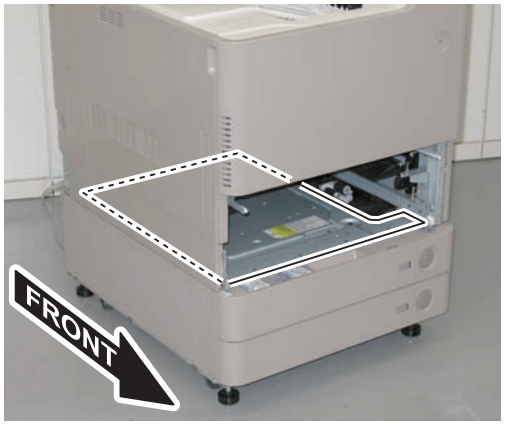
* The Cassette Feeding Unit does not use.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-183

Installation Procedure

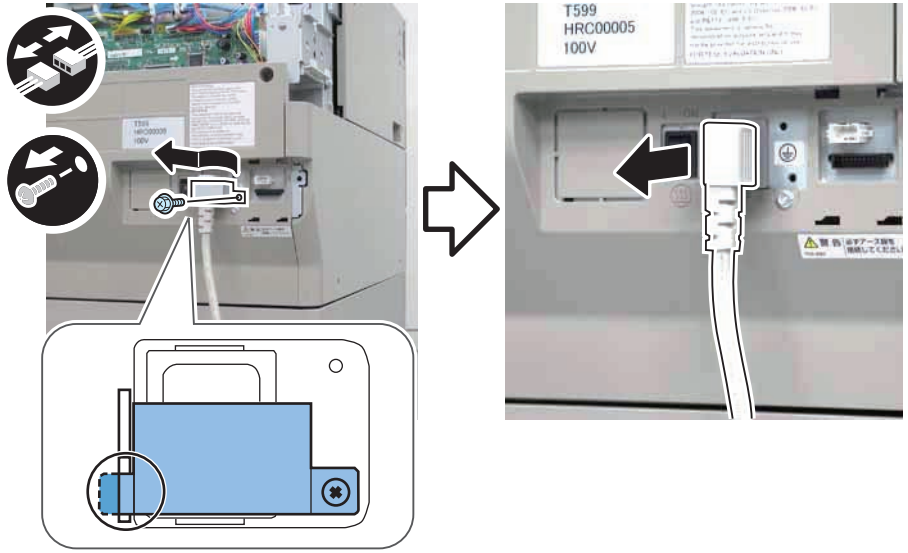
In case of Host Machine

□

1) Remove the Power Cord Clamp. (120V only)

- 1 Screw
- 1 Hook

2) Remove the Power Cord.

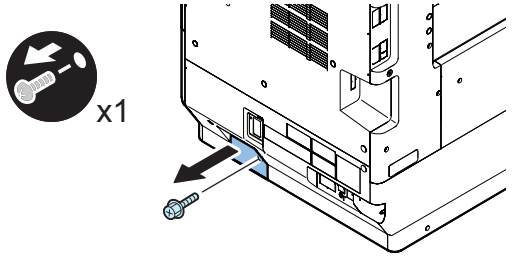


F-9-184

□

3) Remove the Connector Cover.

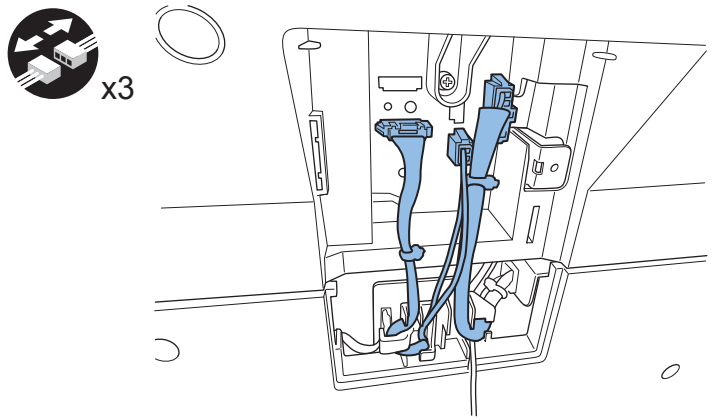
- 1 Screw



F-9-185

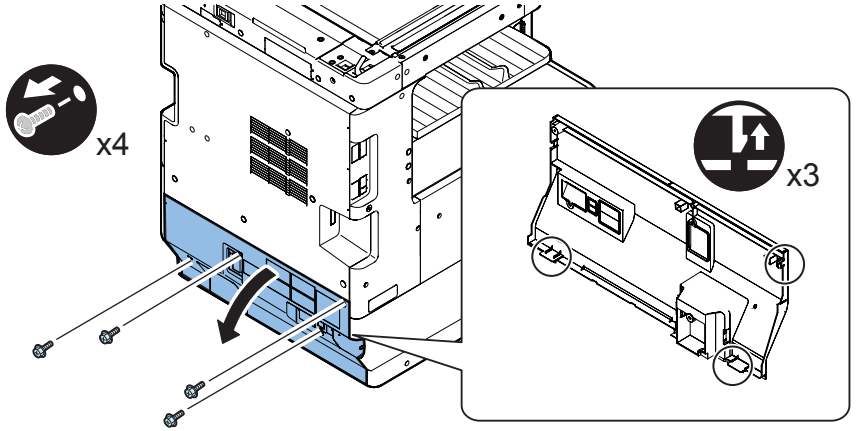
□

4) When the Cassette Pedestal is installed, remove the 3 connectors.



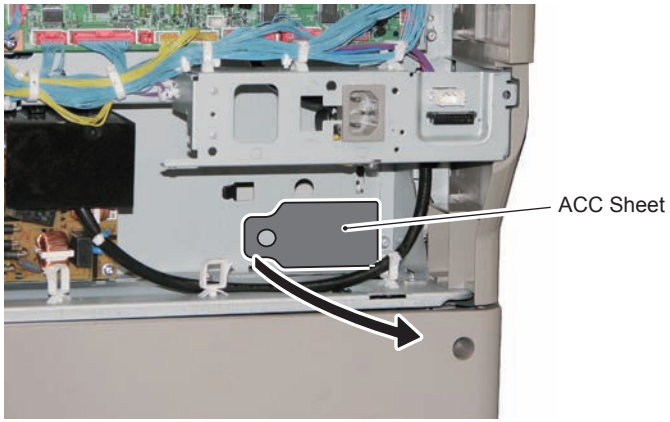
F-9-186

☐
5) Remove the Lower Rear Cover.
- 4 Screws
- 3 Claws



F-9-187

☐
6) Remove the ACC Sheet. (The removed ACC Sheet will not be used.)



F-9-188

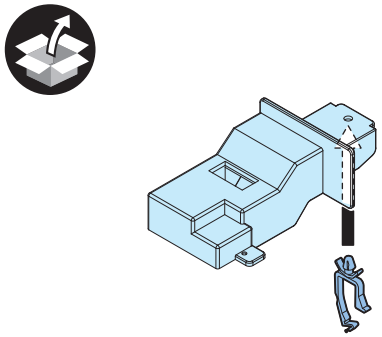
☐
7) Remove the cassette.

☐
8) Remove the screw. (The removed screw will not be used.)



F-9-189

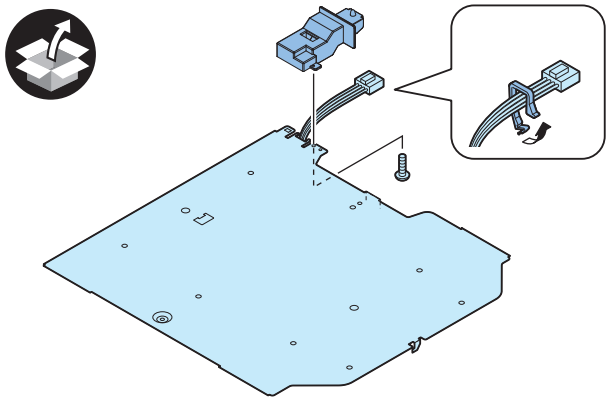
☐
9) Install the wire saddle to Heater Connector Cover.



F-9-190

☐
10) Put the connector of the heater through the Wire Saddle and install the Heater Connector Cover.

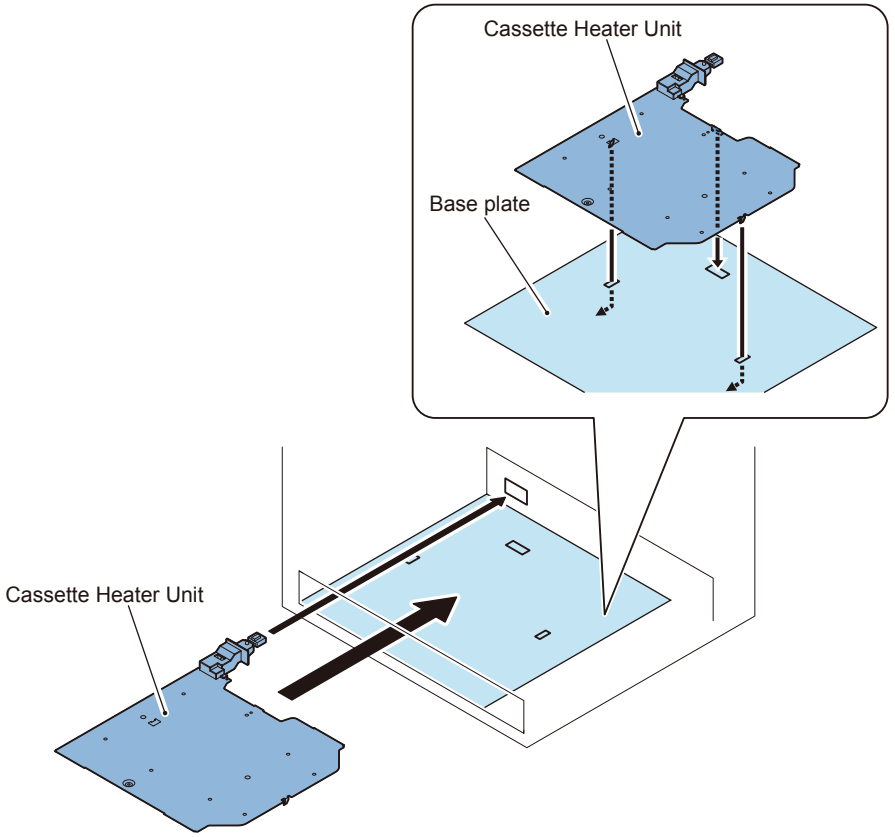
- 1 Screw (P tight; M3x8)



F-9-191

☐
11) After putting the connector through the square hole and fitting the 3 claws on the Cassette Heater Unit into the holes on the Base Plate, and then move it toward the front.

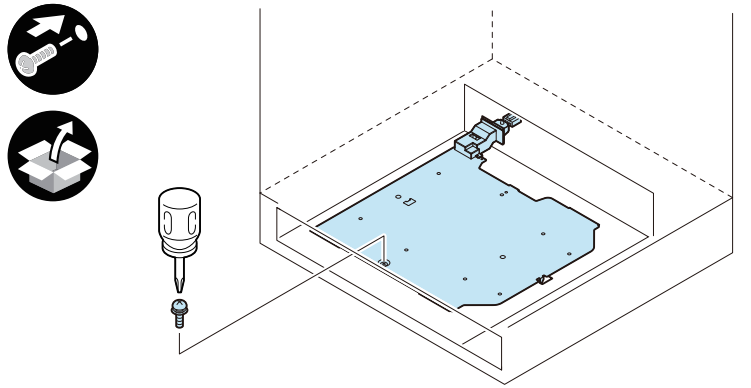
CAIUTION:
Be sure that the claws are fit into the holes of the Base Plate properly.



F-9-192

☐
12) Secure the Cassette Heater Unit using a stubby screwdriver.
- 1 Screw (W Sems Round End; M3x6)

NOTE:
Connect the connector of the Cassette Heater Unit when installing the Heater Kit. (Refer to Installation Procedure of Heater Kit-K1.)



F-9-193

☐
13) Install the removed Cassettes.

☐
14) Return the removed covers to their original positions.

NOTE:
When installing the Hear Kit at the same time, it is efficient to install covers when installing the Hear Kit.

- Lower Rear Cover (4 Screws)
- 3 Connectors (When the Cassette Pedestal is installed.)
- Connector Cover (1 Screw)
- Power Cord
- Power Cord Clamp (1 Screw)

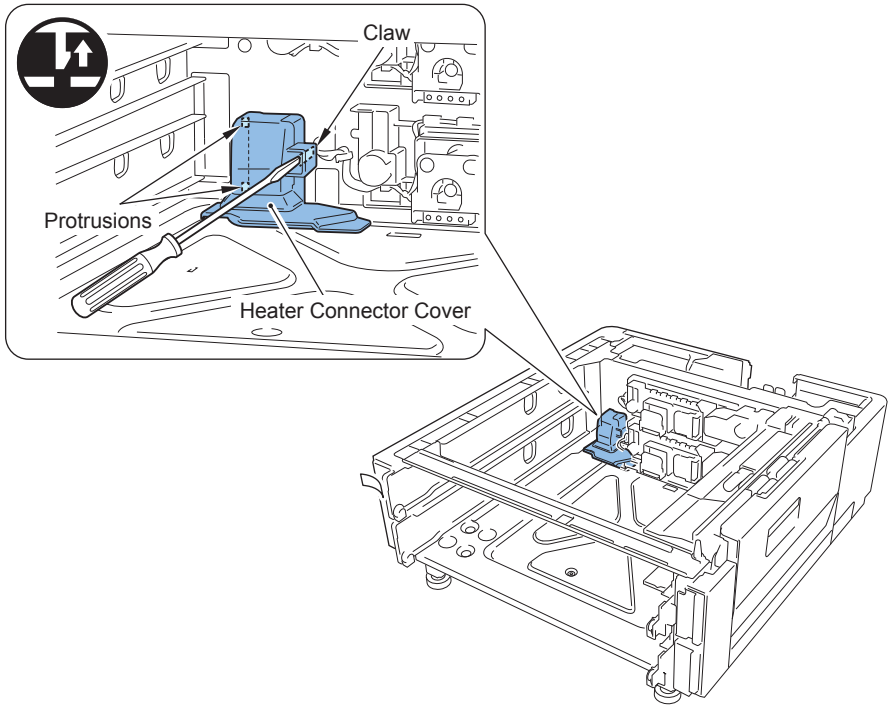
☐
15) Turn ON the Environment Heater Switch.

In case of Cassette Feeding Unit

☐
1) Remove the cassette.

☐
2) Remove the Heater Connector Cover using a flat-blade screwdriver.
- 1 Claw
- 2 Protrusions

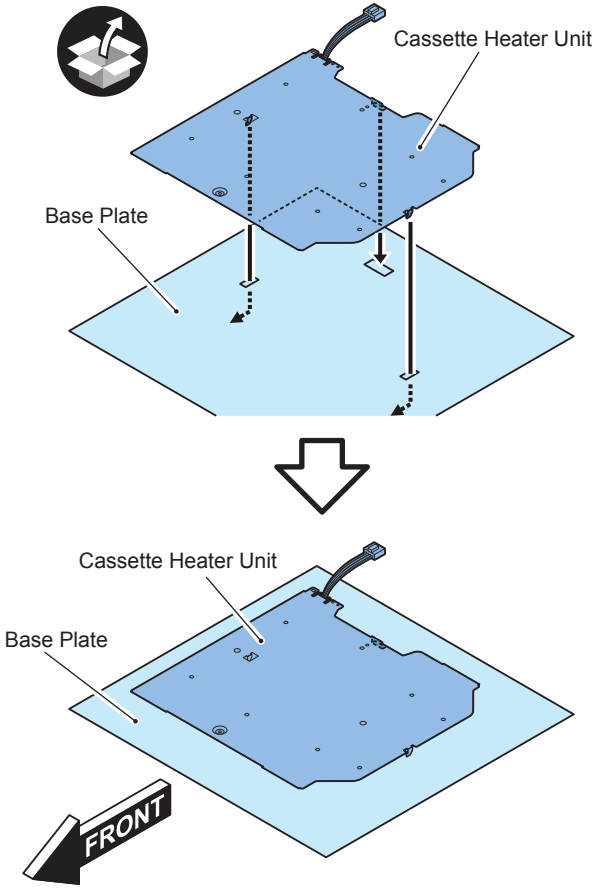
NOTE:
When performing this procedure, it is not necessary to remove the Host Machine. However, the figure shows the picture without the Host Machine to show easily.



F-9-194

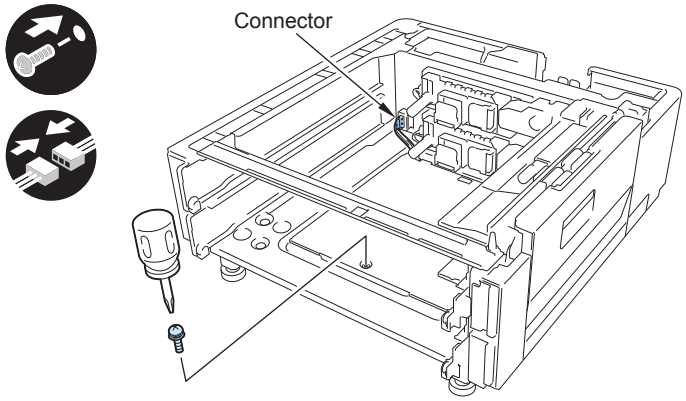
☐
3) Fit the 3 claws on the Cassette Heater Unit into the holes on the Base Plate, and then move it toward the front.

CAIUTION:
Be sure that the claws are fit into the holes of the Base Plate properly.



F-9-195

☐
4) Tighten the removed screw (W Sems Round End;M3x6) with the stubby driver to connect the connector.



F-9-196

☐
5) Install the heater Connector Cover.
6) Install the removed Cassettes.
7) Turn ON the Environment Heater Switch.
8) Connect the power plug of the host machine to the power outlet.
9) Turn ON the main power switch.

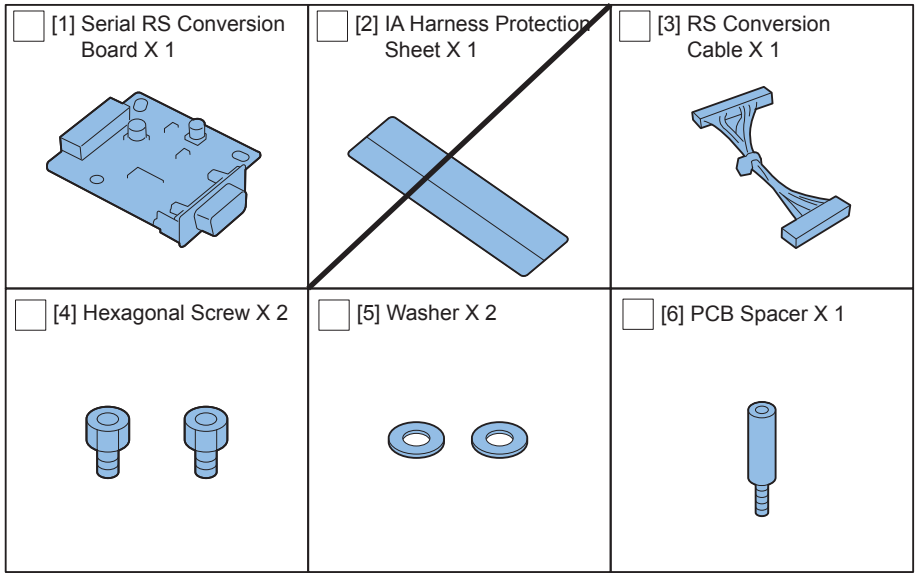
Serial Interface Kit-K1/Copy Control Interface Kit-A1

Points to Note at Installation

- To use this equipment with the Wireless LAN Board, be sure to install the Serial Interface Kit or Copy Control Interface Kit beforehand.
- The following options cannot be used in combination with each other.
  - Serial Interface Kit
  - Copy Control Interface Kit
  - Copy Card Reader

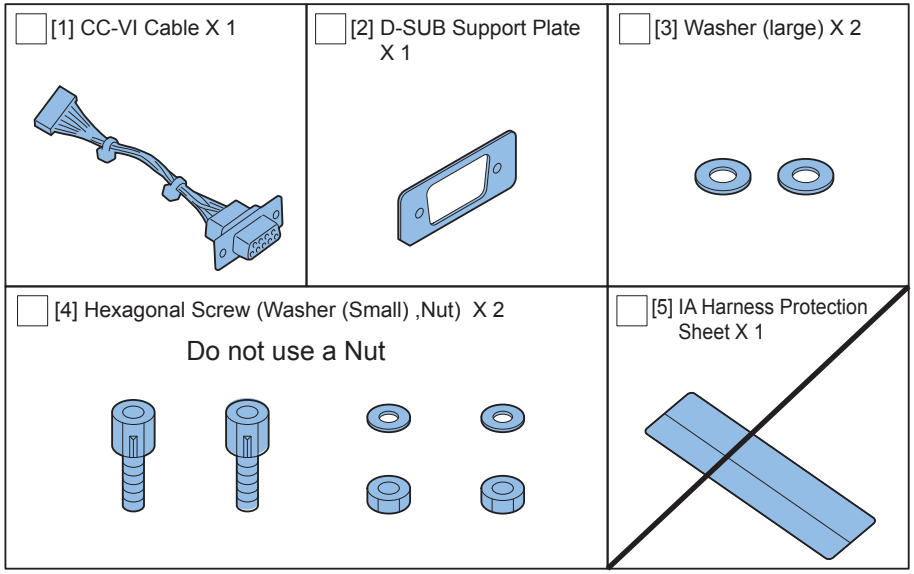
Checking the Contents

Serial Interface Kit-K1



F-9-197

Copy Control Interface Kit-A1



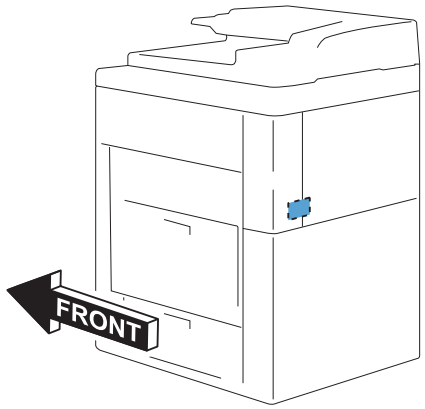
F-9-198

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-199

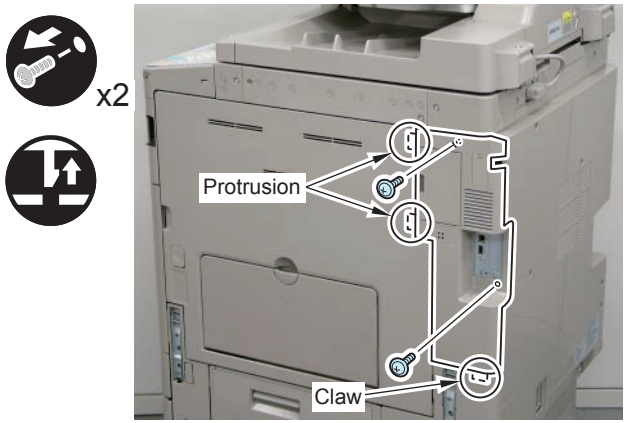
Installation Procedure

Preparation before Installation

☐

1) Remove the Right Rear Cover (Upper).

- 2 Screws
- 2 Protrusions
- 1 Claw



F-9-200

☐

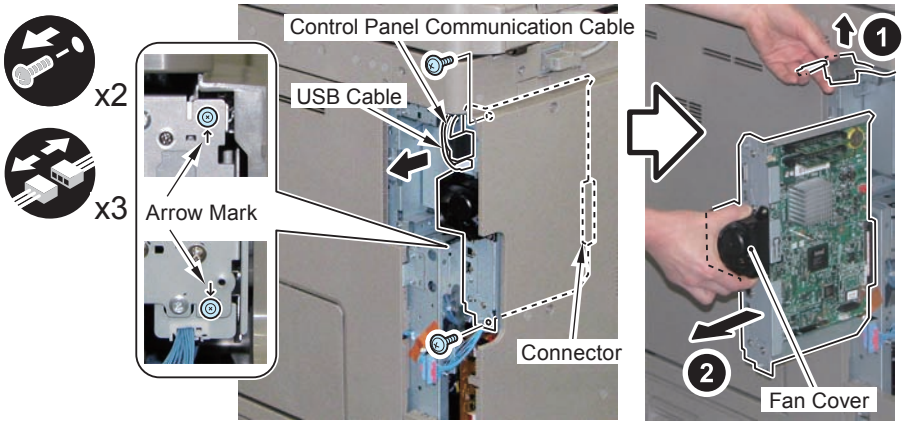
2) Disconnect the USB Cable and the Control Panel Communication Cable.

3) Remove the Main Controller PCB 1.

- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:

Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.

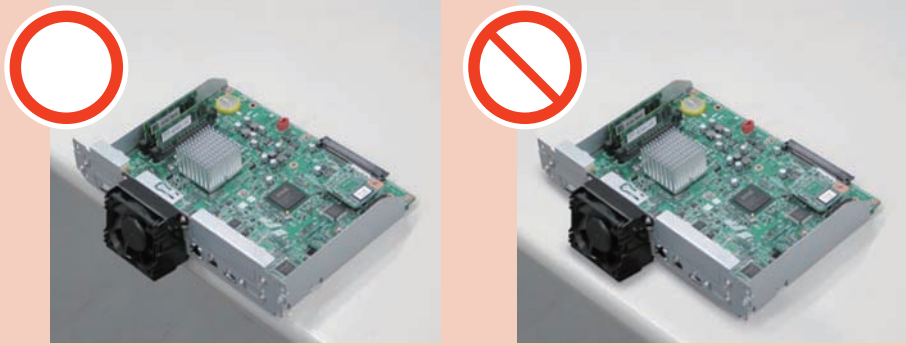


F-9-201

CAUTION:

Be sure to place the removed Main Controller PCB 1 on flat surface.

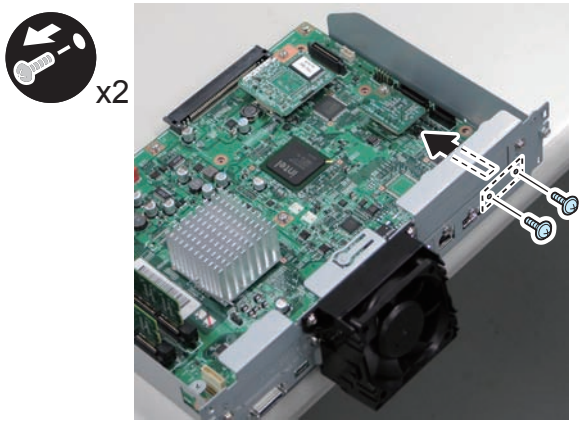
Reason: Since the fan protrudes, if it is placed at a tilt, it may be damaged.



F-9-202

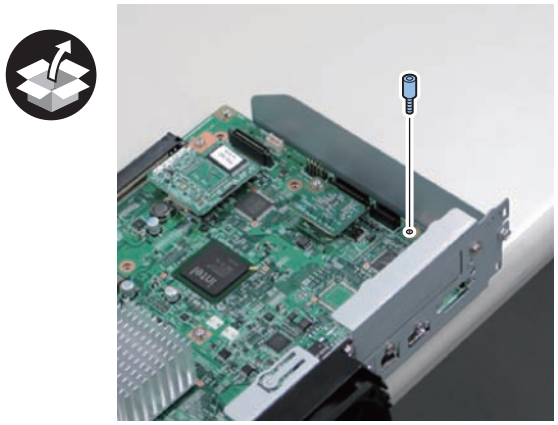
When Installing the Serial Interface Kit-K1

☐
1) Remove the Face Plate. (The removed Face Plate will not be used.)
- 2 Screws (One of the removed screws will be used in step 4), and the other will not be used.)



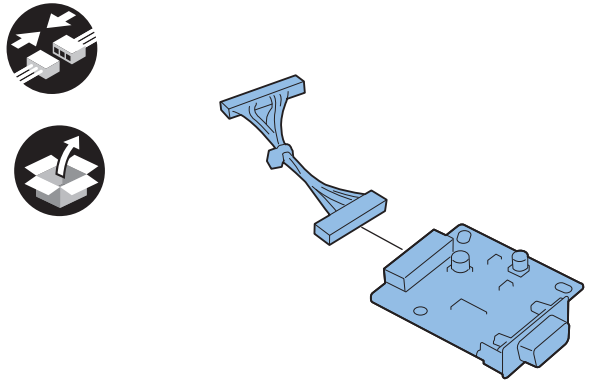
F-9-203

☐
2) Install the PCB Spacer.



F-9-204

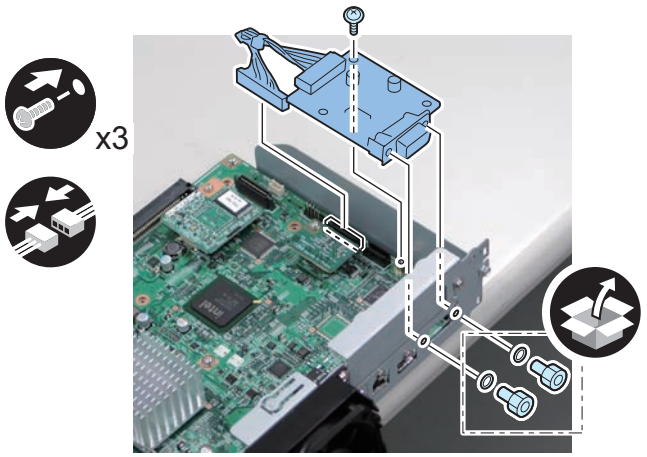
☐
3) Connect the RS Conversion Cable to the Serial RS Conversion Board.



F-9-205

☐
4) Install the Serial RS Conversion Board.
- 2 Hexagon Screws
- 2 Washers
- 1 Screw (Use one of the screws removed in step 1.)
- 1 Connector

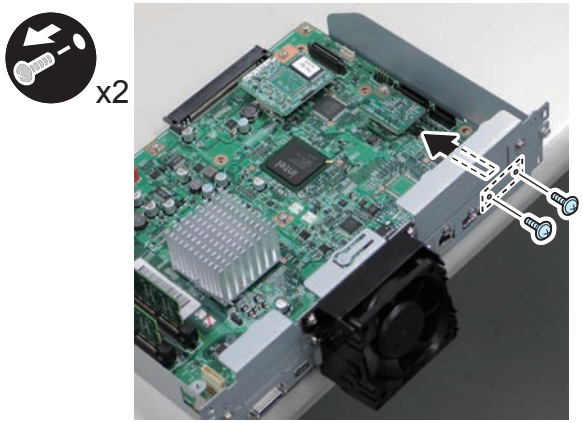
NOTE:
Be sure to tighten the Hexagon Screw with needlenose pliers.



F-9-206

When Installing the Control Interface Kit-A1

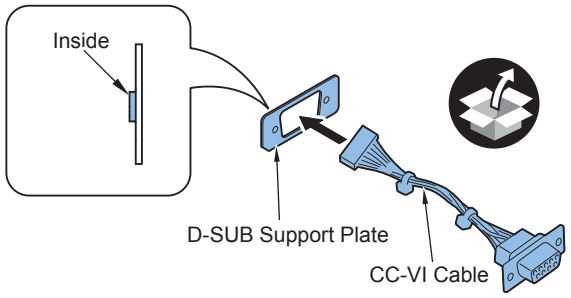
☐
1) Remove the Face Plate. (The removed Face Plate will not be used.)
- 2 Screws (The removed Screw will not be used.)



F-9-207

☐
2) Put the CC-VI Cable through the D-SUB Support Plate.

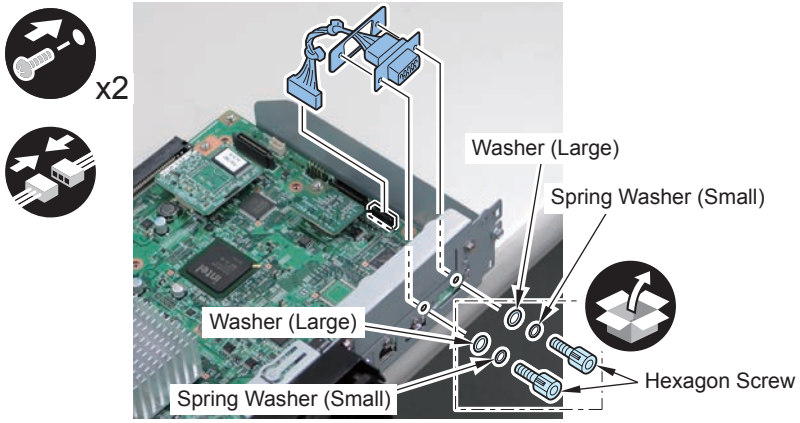
CAUTION:
Install the extruded side of the D-SUB Support Plate as shown in the figure.



F-9-208

☐
3) Connect the CC-VI Cable to the Main Controller PCB 1.
- 2 Hexagon Screws (Nuts will not be used.)
- 2 Spring Washers (Small)
- 2 Washers (Large)
- 1 Connector

NOTE:
Be sure to tighten the Hexagon Screw with needlenose pliers.



F-9-209

After Installation

□

1) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:

- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

2) Insert the USB Cable and the Control Panel Communication Cable.

3) Install the Right Rear Cover (Upper). (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

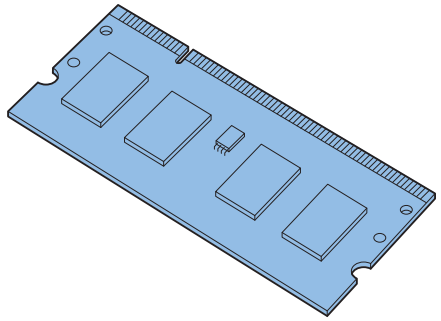
4) Connect the power plug of the host machine to the power outlet.

5) Turn ON the main power switch.

Additional Memory Type A (512MB)

Checking the Contents

[1] Expansion RAM X 1



F-9-210

Pre-Check

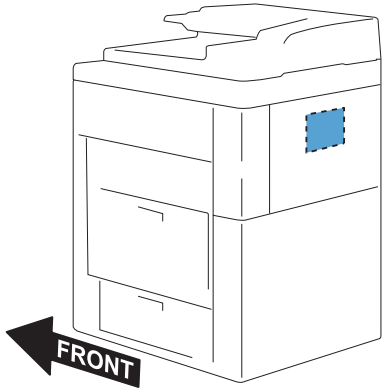
1) Check the memory capacity.
- Service Mode (Level 1) > COPIER > DISAPLAY > ACC-STS > RAM

2) Exit the service mode.

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.
1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



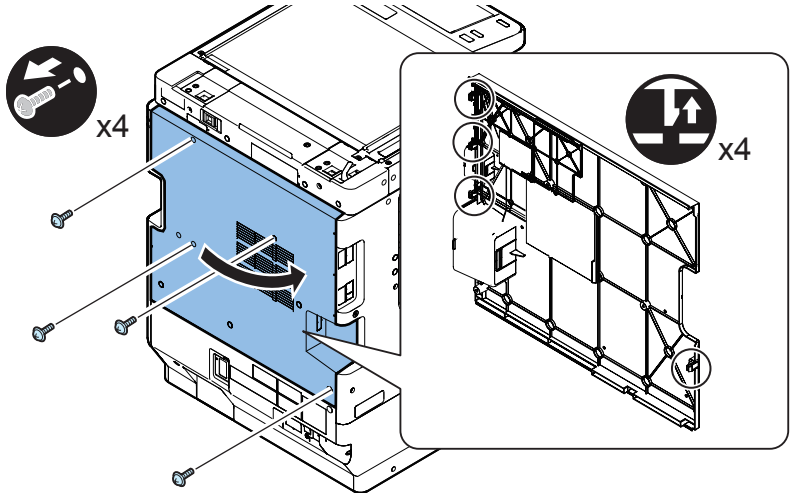
F-9-211

Installation Procedure

☐

1) Remove the Rear Cover.

- 4 Screws
- 4 Claws

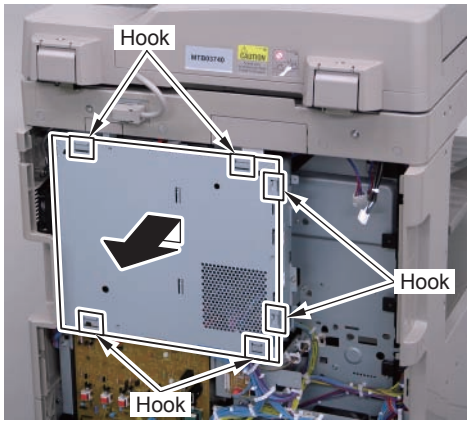


F-9-212

☐

2) Remove the Controller Box Cover.

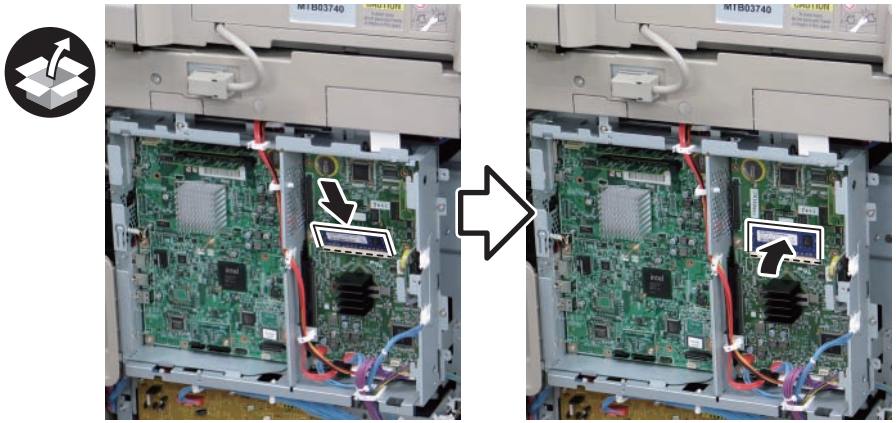
- 6 Hooks



F-9-213

☐

3) Install the Expansion RAM.



F-9-214

☐

4) Install the removed cover.

- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)

5) Connect the power plug of the host machine to the power outlet.

6) Turn ON the main power switch.

Checking after installation

☐

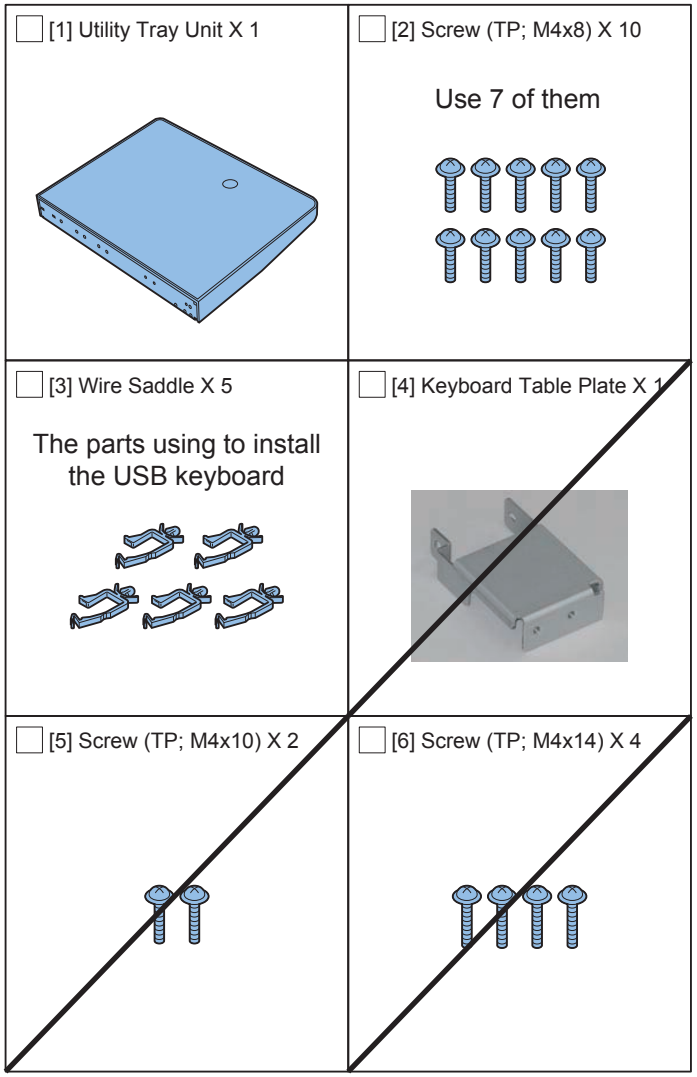
1) After adding the Expansion RAM, check that the memory capacity is increased.

- Service mode (Level 1) > COPIER > DISAPLAY > ACC-STS > RAM

2) Exit the service mode.

Utility Tray-A2

Checking the Contents



F-9-215

Check Items when Turning OFF the Main Power

Check that the main power is OFF.

1) Turn OFF the main power switch.
2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug

Installation Outline Drawing

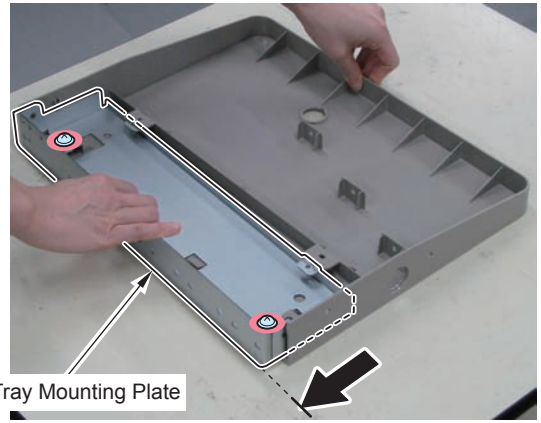


F-9-216

Installation Procedure

☐

1) Loosen the 2 screws, and move the Utility Tray Mounting Plate in the direction of the arrow until it stops.



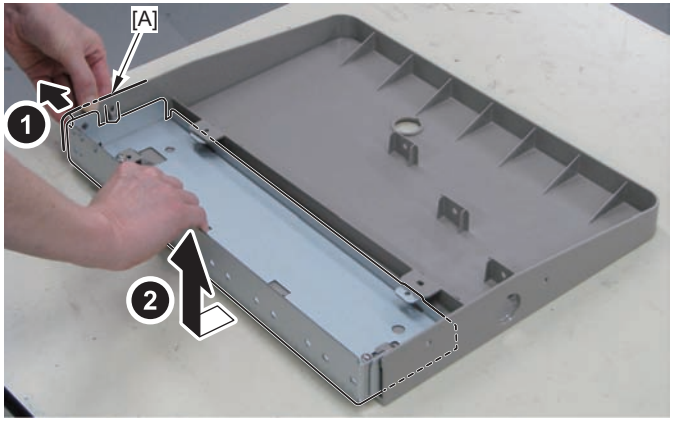
F-9-217

☐

2) While pulling the [A] part of the Utility Tray, remove the Utility Tray Mounting Plate.

- Utility Tray (The removed Utility Tray will be used in step 5.)
- Utility Tray Mounting Plate (The removed Utility Tray Mounting Plate will be used in step 4.)

CAUTION:
Be sure not to pull the [A] part of the Utility Tray too much.



F-9-218

☐

3) Remove the 5 Face Seals from the Reader Right Cover.
(The removed Face Seals will not be used.)

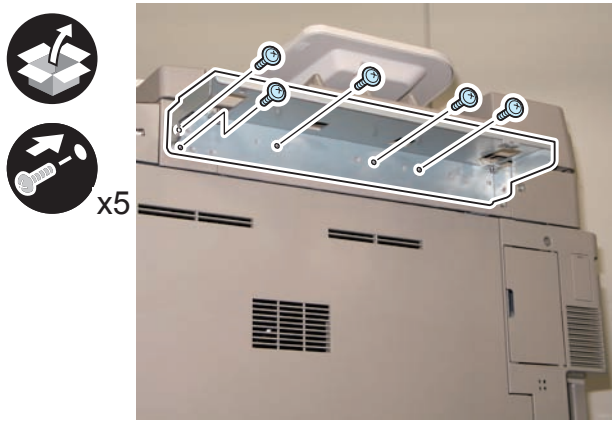


F-9-219

☐

4) Install the Utility Tray Mounting Plate.
(Use the Utility Tray Mounting Plate removed in step 2.)

- 5 Screws (TP; M4x8)

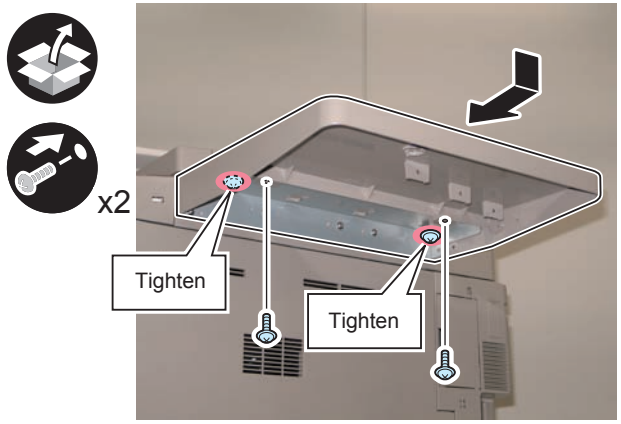


F-9-220

☐

5) Install the Utility Tray. (Use the Utility Tray removed in step 2.)

- 2 Screws (TP; M4x8)
- 2 Screws (Tighten the screws loosened in step 1.)

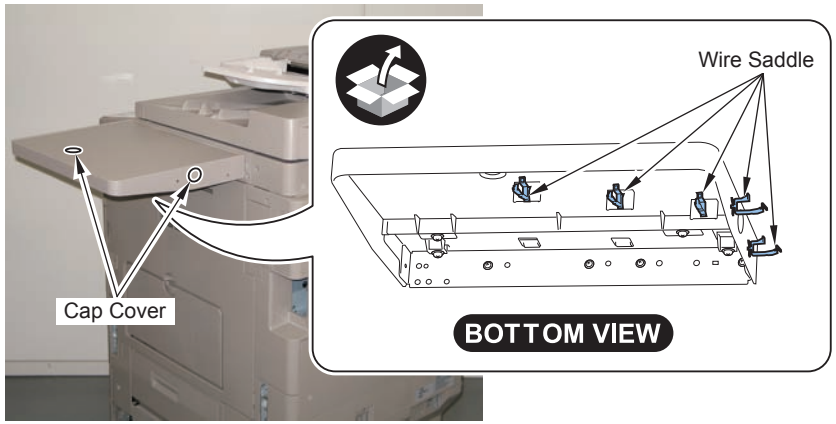


F-9-221

When Installing the USB Keyboard

☐

1) Remove the 2 Cap Covers, and install the 5 Wire Saddles.
(The removed Cap Covers will not be used.)



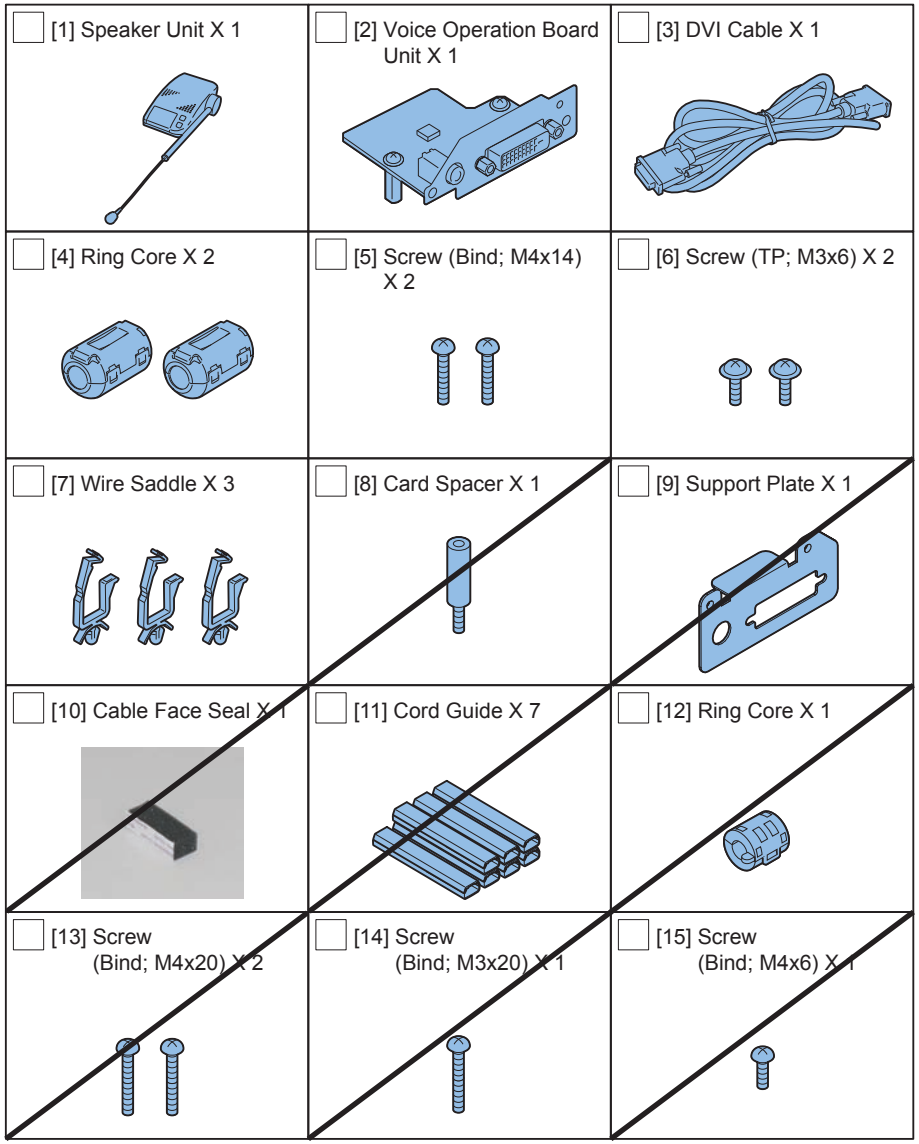
F-9-222

Voice Operation Kit-C2

Points to note when Installing

- When installing the equipment, see the ‘Combination Table of Accessory Installation’.
- The Color Image Reader is necessary to operate this equipment.

Checking the Contents



F-9-223

<CD/Guide>
- Voice Guidance Kit Users Guide (5 pc.)
- Voice Operation Kit Users Guide (5 pc.)
- Voice Operation Quick Reference Guide (5 pc.)
- Voice Guidance Guide CD
- Voice Operation Kit Manual CD
- Notice for FCC/IC

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-224

Installation Procedure

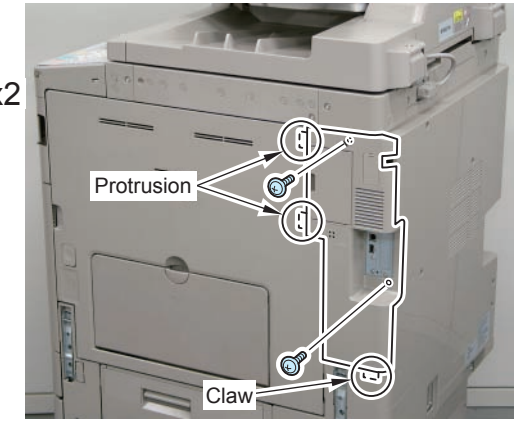
☐

1) Remove the Right Rear Cover (Upper).
- 2 Screws
- 2 Protrusions
- 1 Claw



x2

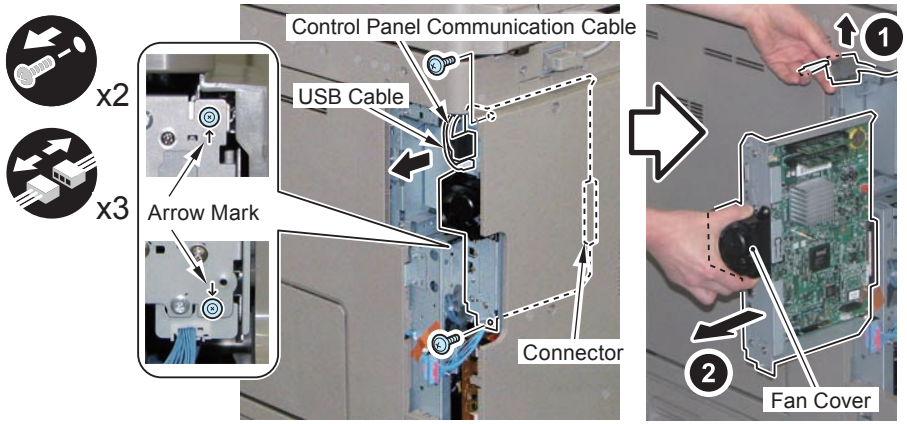




F-9-225

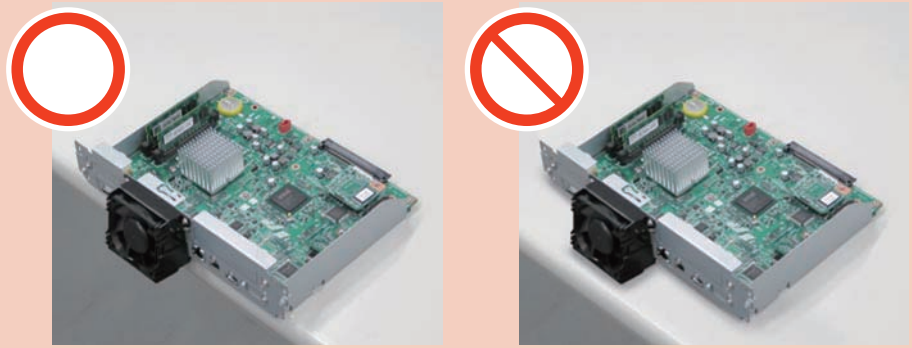
☐
2) Disconnect the USB Cable and the Control Panel Communication Cable.
3) Remove the Main Controller PCB 1.
- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:
Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.



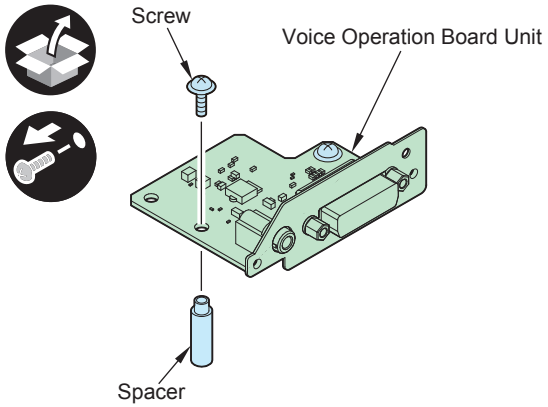
F-9-226

CAUTION:
Be sure to place the removed Main Controller PCB 1 on flat surface.
Reason: Since the fan protrudes, if it is placed at a tilt, it may be damaged.



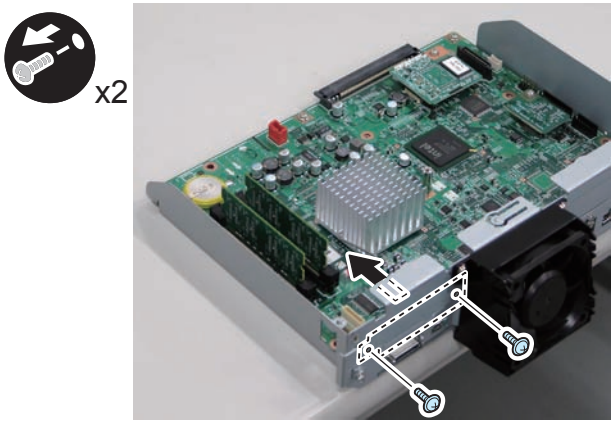
F-9-227

☐
4) Remove the Screw and the Spacer from the Voice Operation Board Unit. (The removed screw and spacer will not be used.)



F-9-228

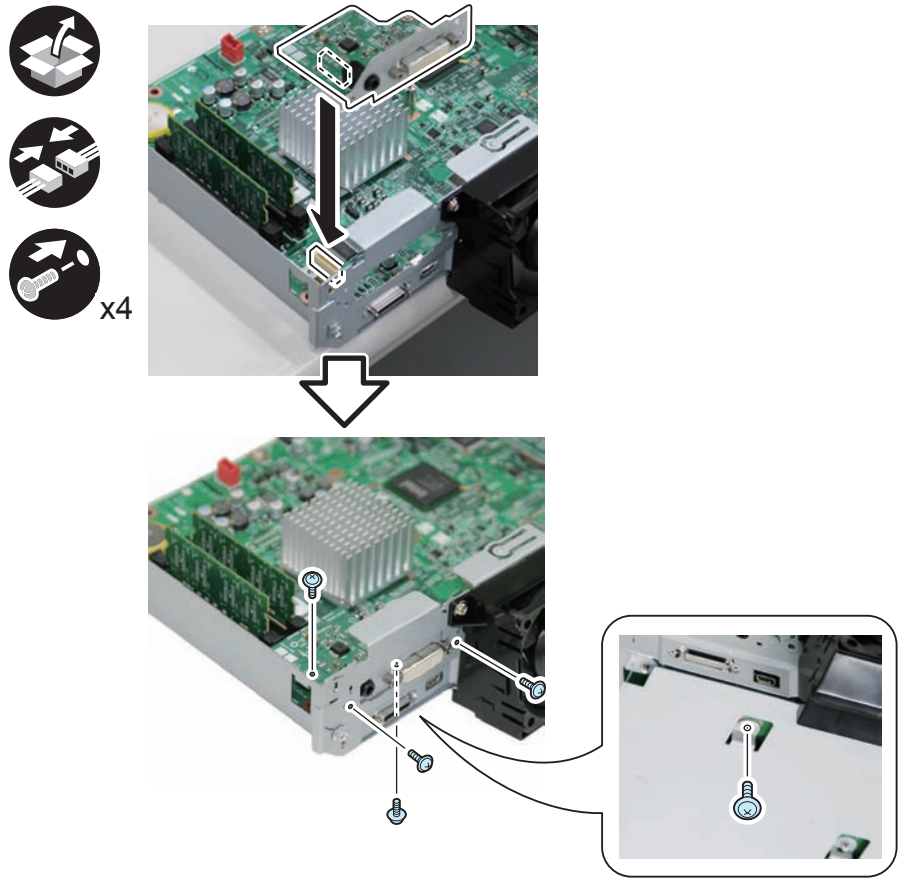
☐
5) Remove the Face Plate from the Main Controller PCB 1 (The removed Face Plate will not be used.)
- 2 Screws (The removed screws will be used in step 6.)



F-9-229

☐
6) Install the Voice Operation Board Unit.
- 1 Connector
- 2 Screws (Use the screws removed in step 5)
- 2 Screws (TP; M3x6)

NOTE:
Check that the connector is connected properly.



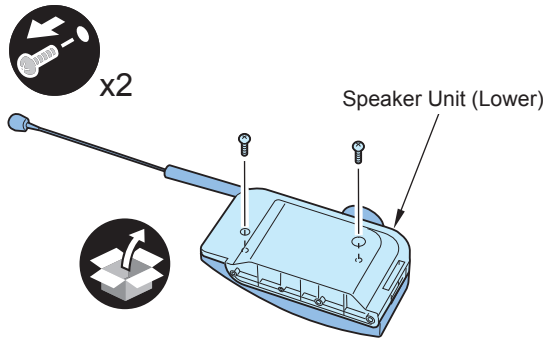
F-9-230

☐
7) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

☐
8) Install the USB Cable and Control Panel Communication Cable.

☐
9) Remove the Speaker Unit (Lower) from the Speaker Unit.
- 2 Screws (The removed screws will be used in step 12.)



F-9-231

☐ 10) Remove the 2 Face Seals from the Reader Right Cover. (The removed Face Seals will not be used.)

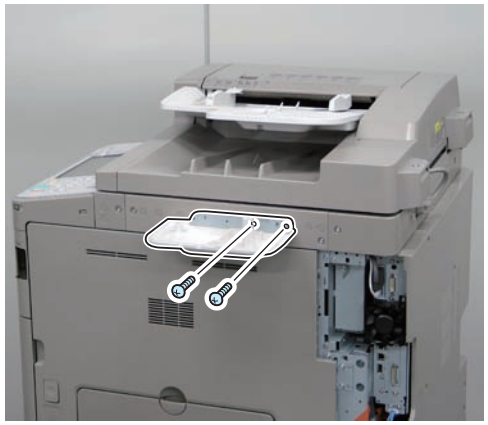


F-9-232

☐ 11) Install the Speaker Unit (Lower).

- 2 Screws (Binding; M4x14)



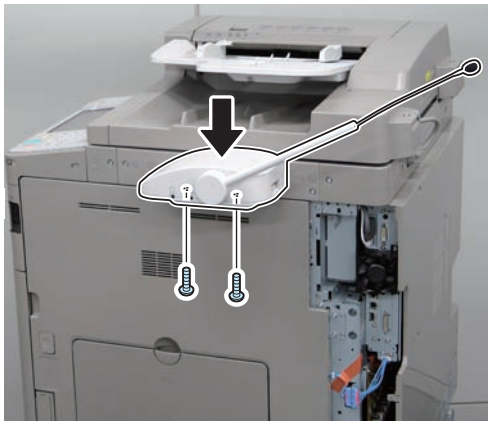


F-9-233

☐ 12) Install the Speaker Unit (Lower).

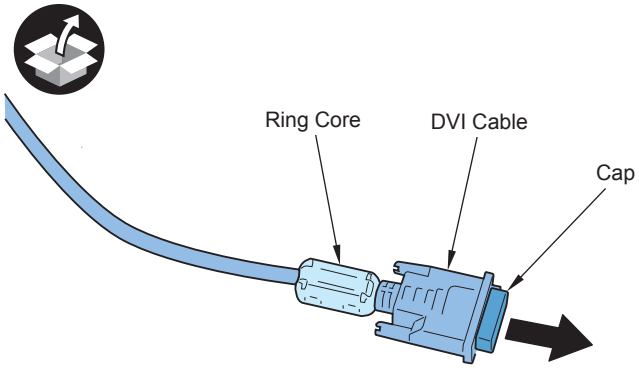
- 2 Screws (Use the screws removed in step 9.)





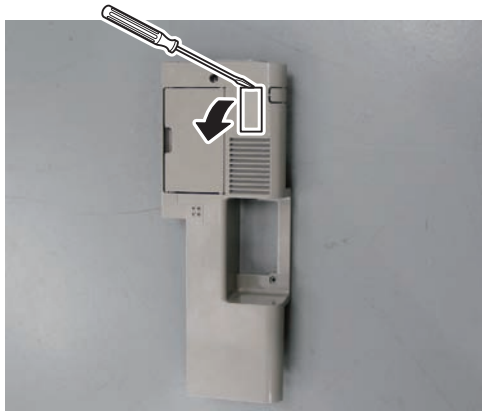
F-9-234

☐ 13) Install the Ring Cores to both ends of the DVI Cable, and remove the cap.



F-9-235

☐
14) Cut off the part of the Right Rear Cover (Upper) shown in the drawing with a flat-blade screwdriver.

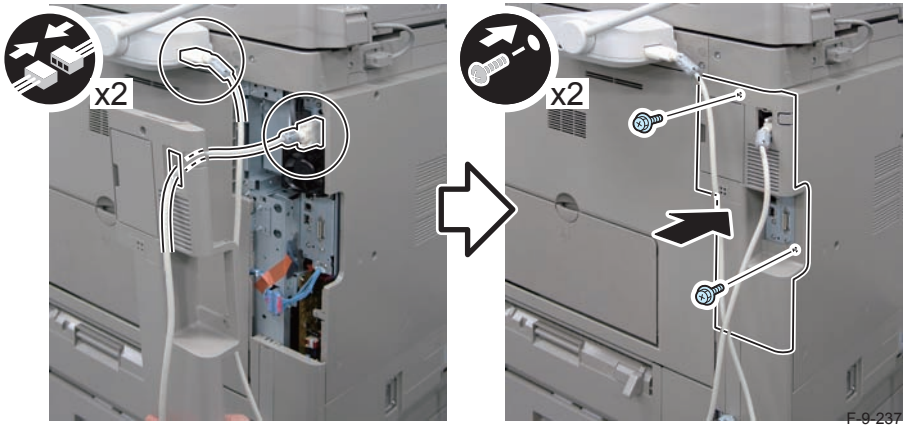


F-9-236

☐
15) Connect the DVI Cable to the Speaker Unit.
16) Put the DVI Cable through the Right Rear Cover (Upper), and connect the other end of the DVI Cable.
17) Install the Right Rear Cover (Upper).

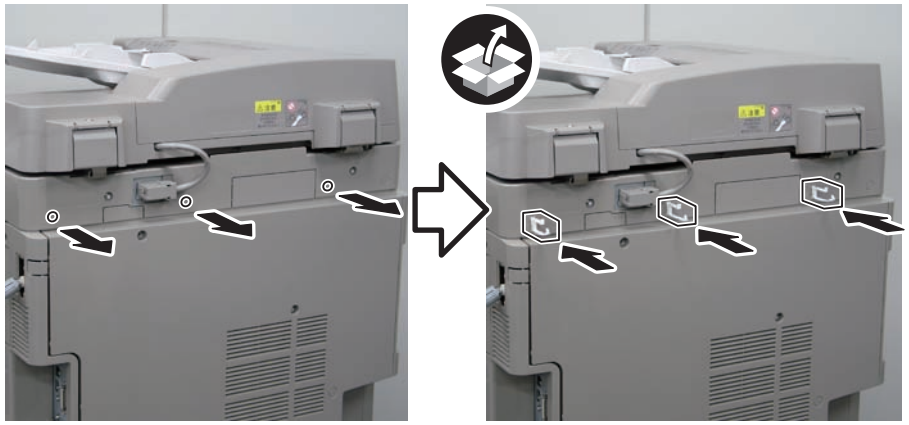
- 2 Screws (Use the screws removed in step 1.)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.



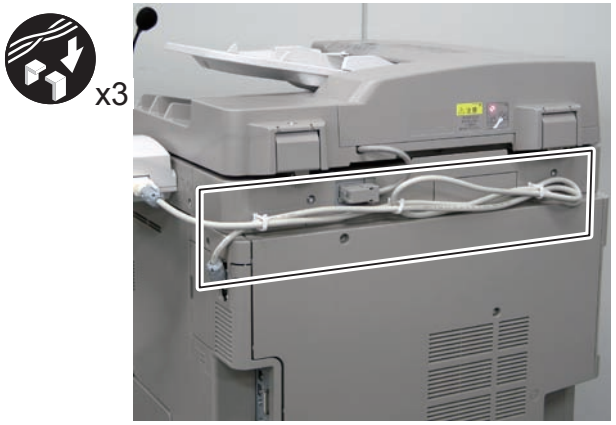
F-9-237

☐
18) Remove the 3 Face Seals, and install the 3 Wire Saddles as shown in the figure. (The removed Face Seals will not be used.)



F-9-238

☐
19) Secure the DVI Cable using the 3 Wire Saddles as shown in the figure.



F-9-239

Checking after Installation

NOTE:
When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

☐
1) Connect the power plug of the host machine to the outlet.
2) Turn ON the main power switch.
3) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings] > [Use Voice Navigation], and check that the setting is ON.
4) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings] > [Voice Navigation at Startup], and check that "Select Mode at Startup" is set.
5) Select [Settings/Registration] > [Preferences] > [Accessibility] > [Voice Navigation Settings], and check that "Tune Microphone" is displayed.
6) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

Operation Check

When Starting to Use

☐
1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.
2) In "Select the Voice Navigation type." on the Control Panel screen, select "Manual + Vocal Mode", "Vocal Mode" or "Manual Mode", and press OK.
3) Once the indication on the screen is framed in red, the "Voice Operation Kit" becomes enabled.

NOTE:
When "Manual Mode" is selected in "Select the Voice Navigation type.", nothing happens by pressing the Voice Recognition button.

When Stopping to Use

☐
1) Press "Reset" key or the Voice Recognition button for more than 3 seconds.

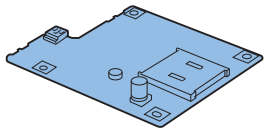
Multimedia Reader/Writer-A2

Points to Note at Installation

- When installing the Multimedia Reader/Writer the USB Device Port must be installed beforehand. (Refer to the Installation Procedure included in the USB Device Port.)
- The Multimedia Reader/Writer cannot be used in combination with the Card Reader (sales company's option).

Checking the Contents

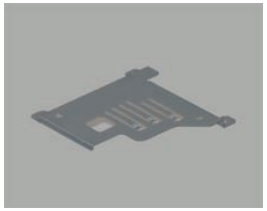
☐ [1] Multimedia Card Slot X 1



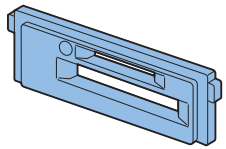
☐ [2] USB Cable X 1



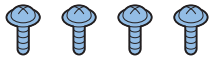
☐ [3] Slot Holder X 1



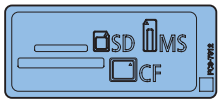
☐ [4] Card Slot X 1



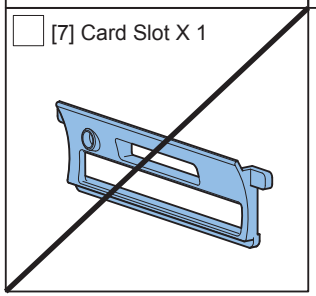
☐ [5] Screw (TP; M3x6) X 4



☐ [6] Multimedia Label X 1



☐ [7] Card Slot X 1



F-9-240

< CD/Guids >

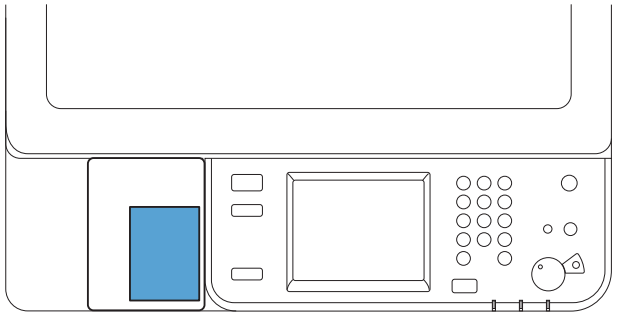
- FCC/IC Sheet

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power p

Installation Outline Drawing



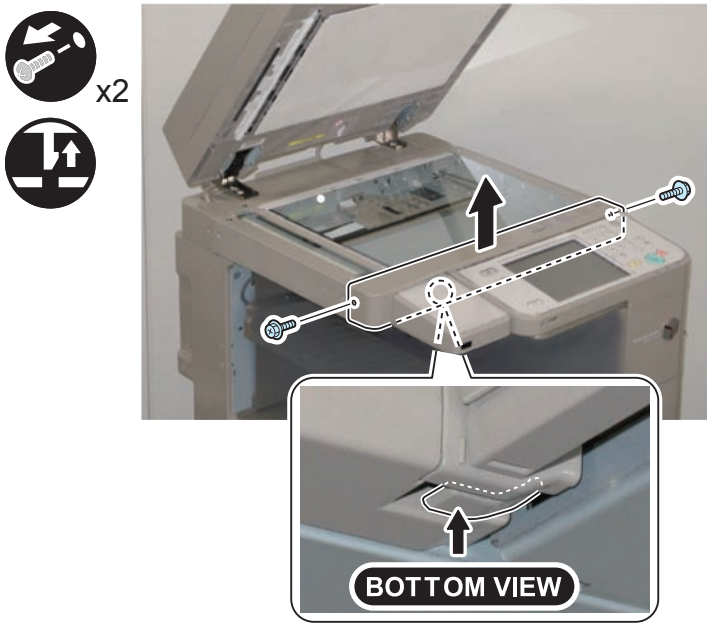
F-9-241

Installation Procedure

☐

1) Open the ADF and remove the Reader Front Cover while pushing the claw at the bottom of the cover.

- 2 Screws (The removed screws will be used in step 12.)
- 1 Claw



F-9-242

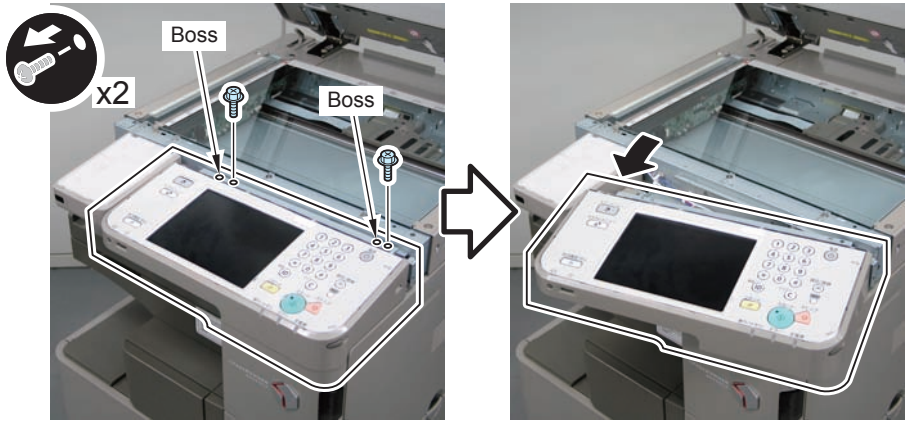
☐

2) Remove the 2 screws, and shift the Control Panel out of the way of the work.
(The removed screws will be used in step 11.)

- 2 Bosses

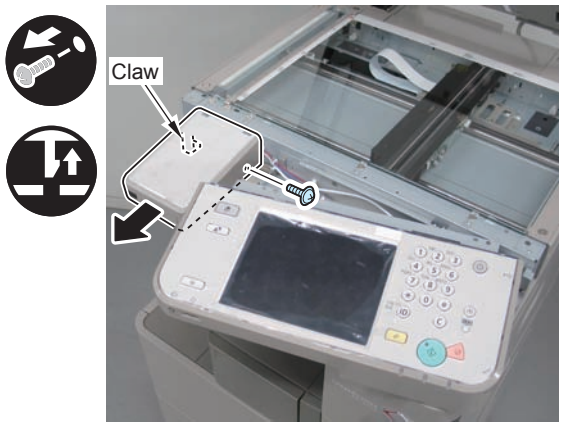
CAUTION:

- Be careful not to let the harness come in contact with the plate to prevent the Control Panel or the harness from being damaged.
- Be careful not to pull the Control Panel because it is connected with the Control Panel Cable and the Power Supply Cable.



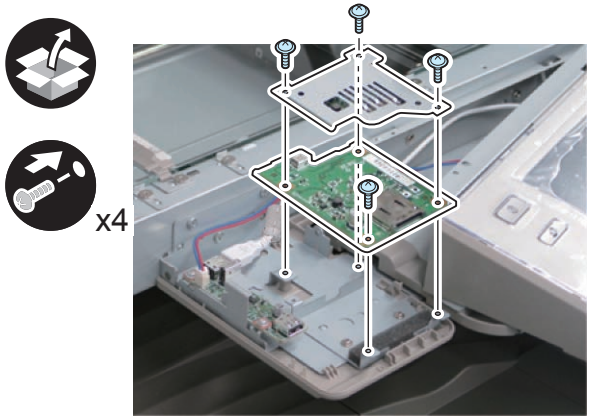
F-9-243

☐
3) Remove the DP Upper Cover.
- 1 Screw (The removed screw will be used in step 10.)
- 1 Claw



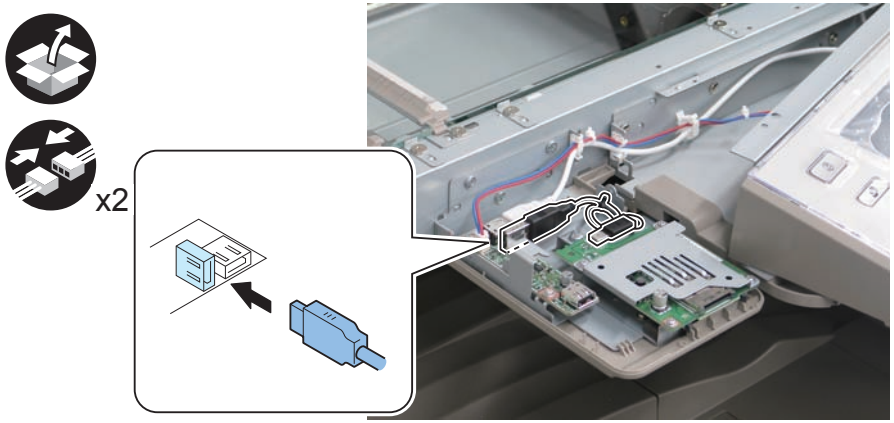
F-9-244

☐
4) Install the Multimedia Card Slot and the Grounding Plate to the DP Lower Cover Unit.
- 4 Screws (TP; M3x6)



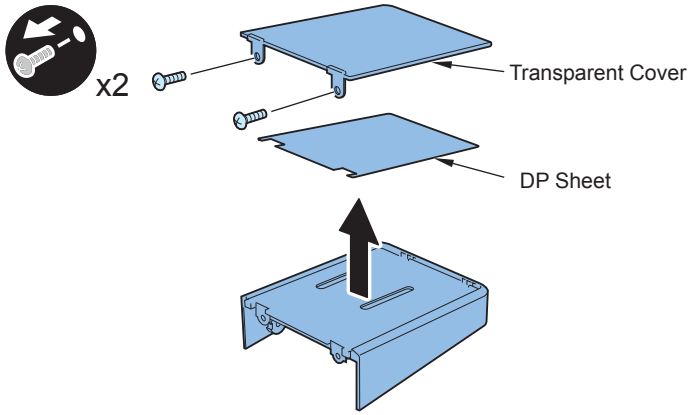
F-9-245

☐
5) Connect the USB Cable.



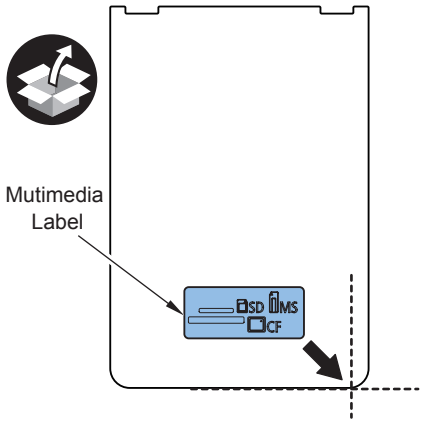
F-9-246

☐
6) Remove the Transparent Cover and the DP Sheet of the DP Upper Cover Unit.
- 2 Screws (The removed screws will be used in step 8.)



F-9-247

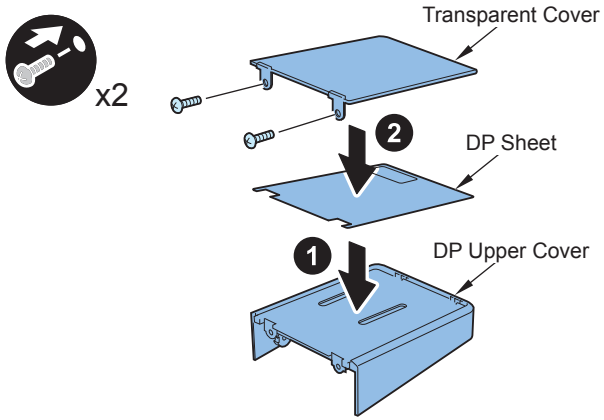
☐
7) Affix the Multimedia Label to the DP Sheet.



F-9-248

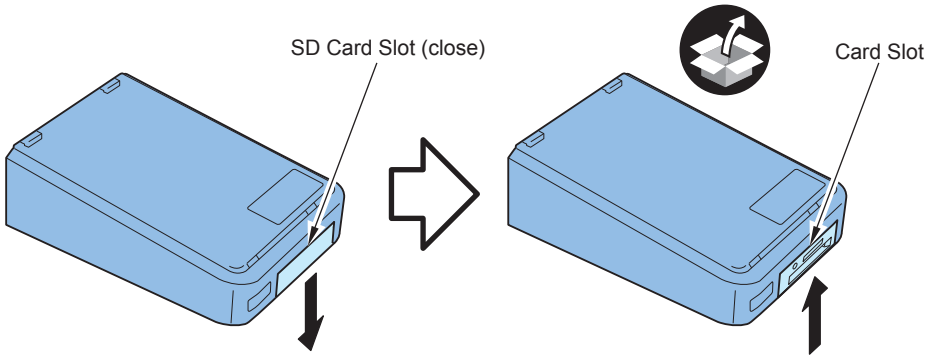
☐
8) Install the DP Sheet and the Transparent Cover to the DP Upper Cover.

- 2 Screws (Use the screws removed in step 6.)



F-9-249

☐
9) Remove the Card Slot (closed) from the DP Upper Cover Unit and attach the Card Insertion Slot.



F-9-250

☐
10) Return the DP Upper Cover Unit to its original position. (1 Screw)
11) Return the Control Panel to its original position. (2 Screws)
12) Return the Reader Front Cover to its original position. (2 Screws)
13) Close the DADF.
14) Connect the power plug of the host machine to the outlet.
15) Turn ON the main power switch.

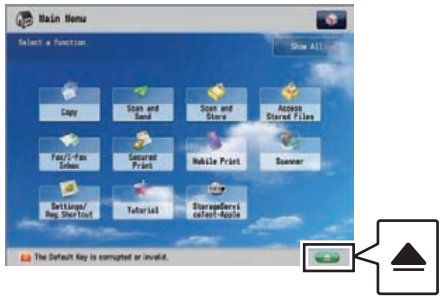
Operation Check

NOTE:
- To the Multimedia Reader/Writer, Memory Media of the SC Card, Memory Stick, and CF Card can be connected.
- With one of the 3 types of Memory Media, perform the oepration check 1 through 3.
- When "System Manager Information Settings" is set, be sure to follow the direction of user administrator in order to log in as an administrator.

1.Writing Check

☐
1) Select "1" for the following service mode (Level 2) COPIER > OPTION > DSPLY-SW > UI-MEM
2) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

☐
3) Mount the Memory Media to the Multimedia Card Reader/Writer. (Check that the Mount Mark is indicated in the bottom right.)



F-9-251

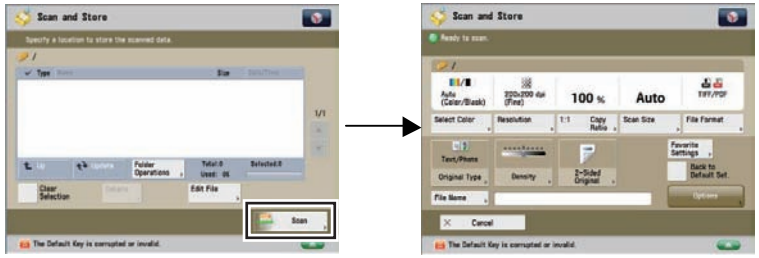
☐
4) Make the following selection:[Scan and Store] > [Memory Media] > [Memory Media (A:)]



F-9-252

☐

5) Set originals to DADF (or Copyboard), and press the [Scan] button. Then, press the Start button on the Control Panel.



F-9-253

☐

6) After the completion of original reading, check that the data is stored in the media. After that, press the [Main Menu] button on the Control Panel.



F-9-254

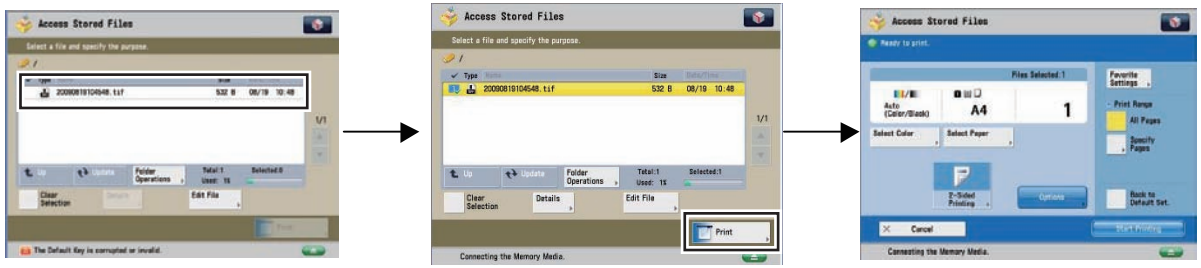
2.Reading Check

☐
7) Make the following selection from Main Menu: [Access Stored Files] > [Memory Media] > [Memory Media(A:)]



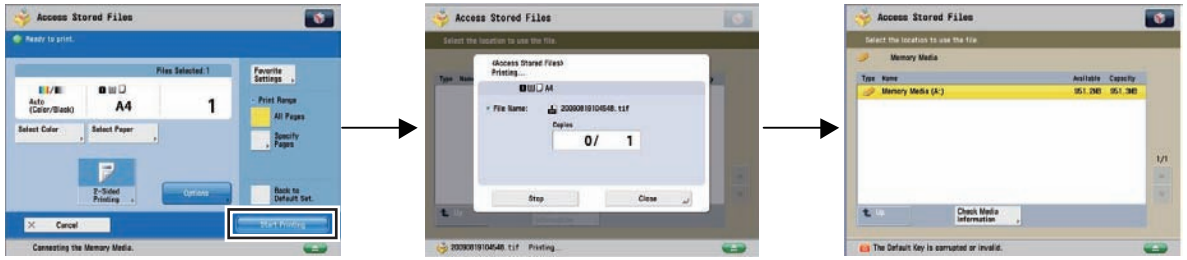
F-9-255

☐
8) Select the files stored in step 7) and 8), and then press the [Print] button.



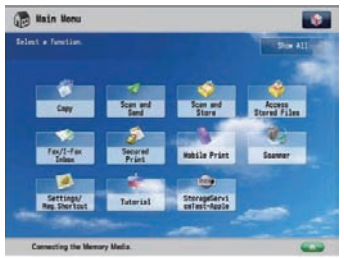
F-9-256

☐
9) Press the [Start Printing] button, and print the file. Then check that the file is printed correctly.



F-9-257

☐
10) Press the [Main Menu] button on the Control Panel.

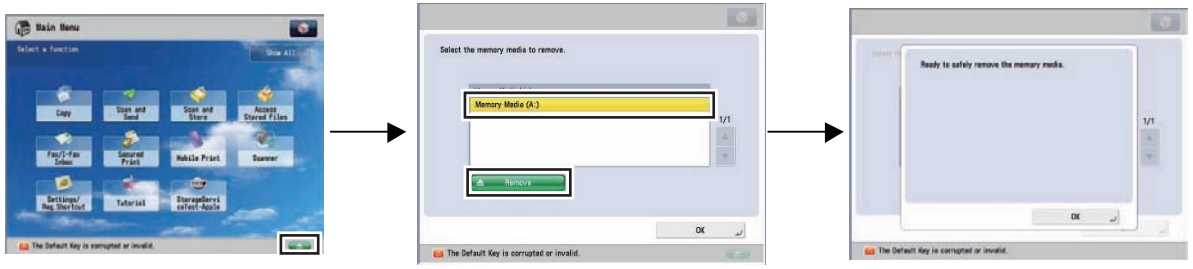


F-9-258

3.Memory Media Removal

☐

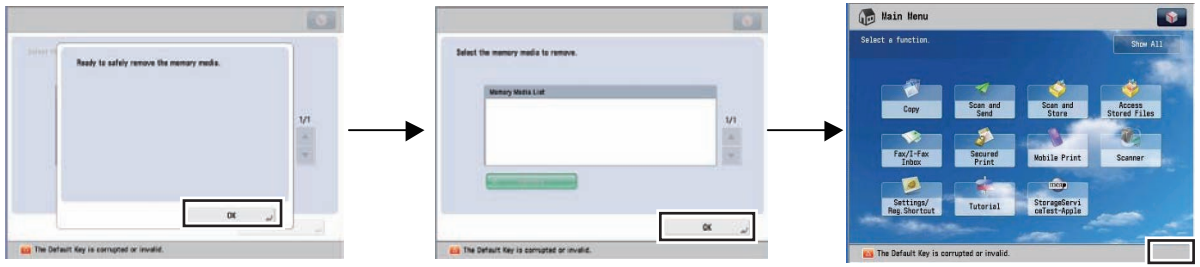
11) Press the [Mount Mark] in the bottom right.Then, select the memory media to be removed, and press the [Remove] button.



F-9-259

☐

12) ress the [OK] button. Then, check that the Mount Mark is not indicated in the bottom right on the Main Menu screen.



F-9-260

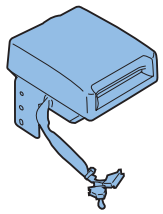
Copy Card Reader-F1

Points to Note at Installation

- When installing the equipment, see the 'Combination Table of Accessory Installation'.
- To install the Card Reader-F1, the Copy Card Reader Attachment-B2 is required.
- The following options cannot be used in combination with each other.
  - Serial Interface Kit
  - Copy Control Interface Kit

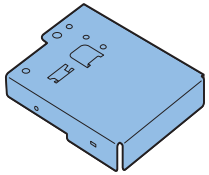
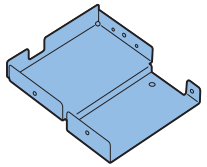
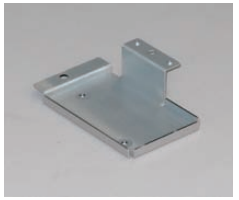
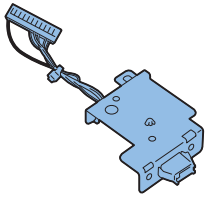
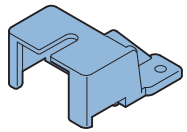
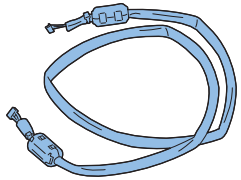
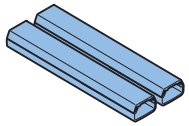
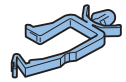
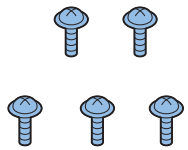
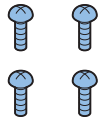
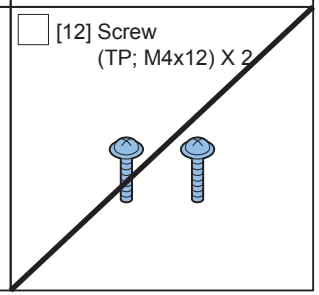
Checking the Contents

Copy Card Reader-F1

☐ [1] Card Reader Unit X 1 	☐ [2] Screw (RS tight; M4x10) X 1 	☐ [3] Toothed washer X 1 

F-9-261

Copy Card Reader Attachment-B2

☐ [1] Card Reader Mounting Plate (front) Unit X 1 	☐ [2] Card Reader Mounting Plate (rear) Unit X 1 	☐ [3] Card Reader Mounting Plate (lower) Unit X 1 
☐ [4] Card Reader Relay Unit X 1 	☐ [5] Connector Cover X 1 	☐ [6] Card Reader External Relay Harness X 1 
☐ [7] Cord Guide X 2 	☐ [8] PCB Spacer X 1 	☐ [9] Wire Saddle X 1 
☐ [10] Screw (TP; M3x6) X 5 	☐ [11] Screw (Bind; M4x6) X 4 	☐ [12] Screw (TP; M4x12) X 2 

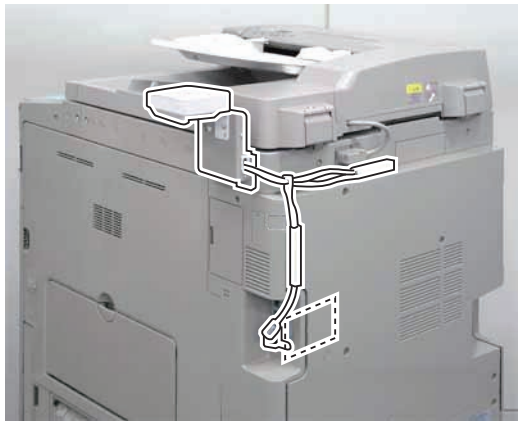
F-9-262

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



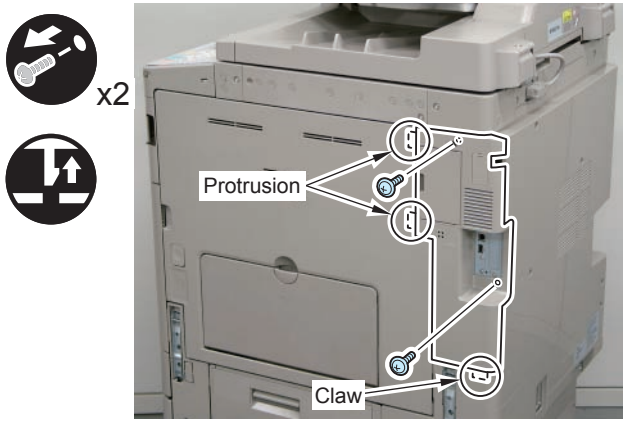
F-9-263

Installation Procedure

☐

1) Remove the Right Rear Cover (Upper).

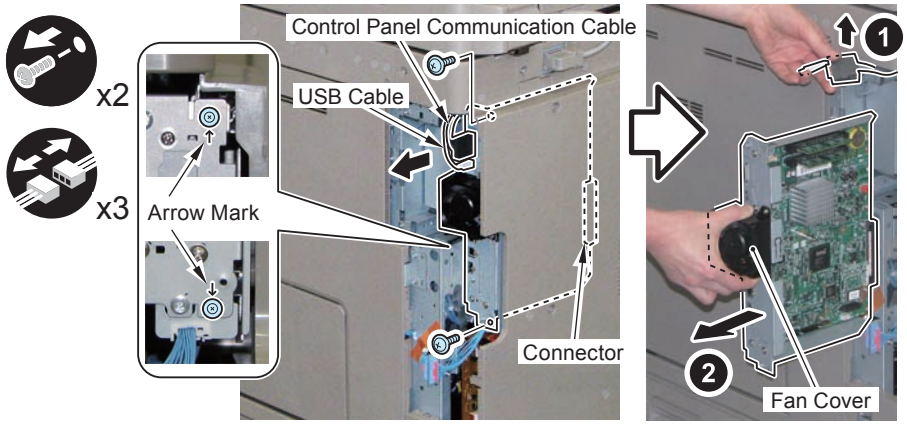
- 2 Screws
- 2 Protrusions
- 1 Claw



F-9-264

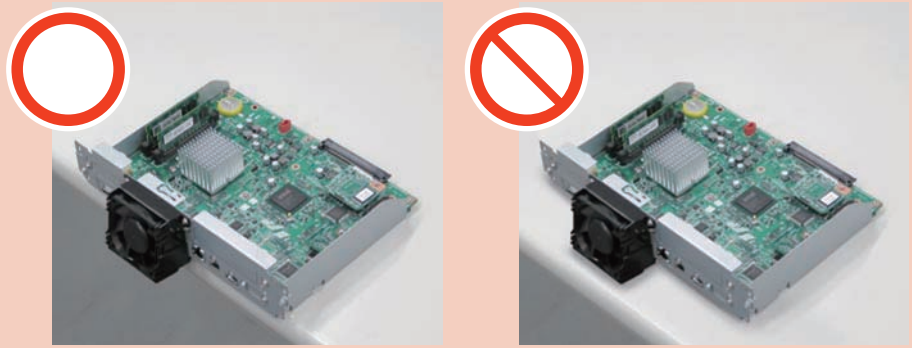
☐
2) Disconnect the USB Cable and the Control Panel Communication Cable.
3) Remove the Main Controller PCB 1.
- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:
Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.



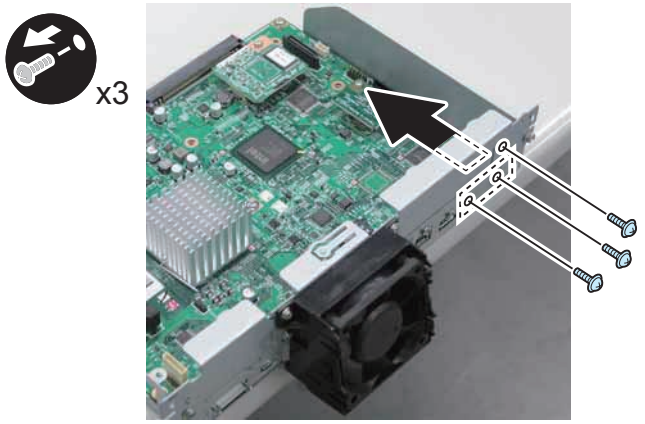
F-9-265

CAUTION:
Be sure to place the removed Main Controller PCB 1 on flat surface.
Reason: Since the fan protrudes, if it is placed at a tilt, it may be damaged.



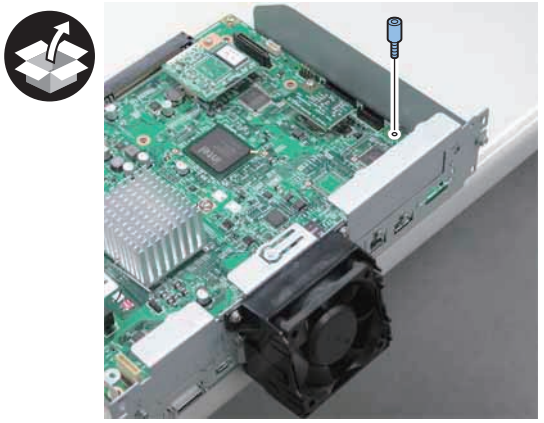
F-9-266

☐
4) Remove the Face Plate. (The removed Face Plate will not be used.)
- 3 Screws (The removed screws will be used in step 6.)



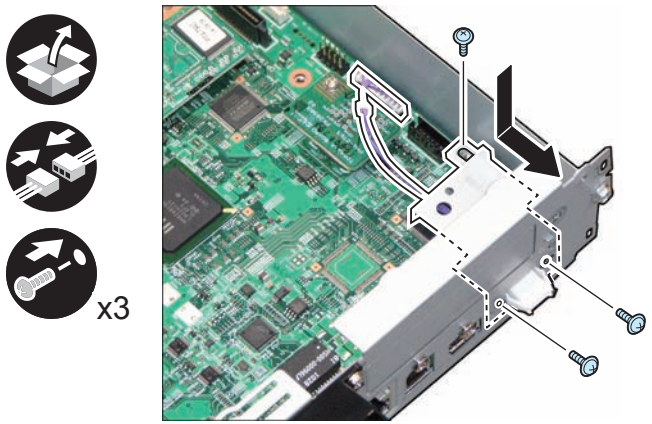
F-9-267

☐
5) Install the PCB Spacer.



F-9-268

☐
6) Install the Card Reader Reply Unit.
- 3 Screws (Use the screws removed in step 4.)
- 1 Connector



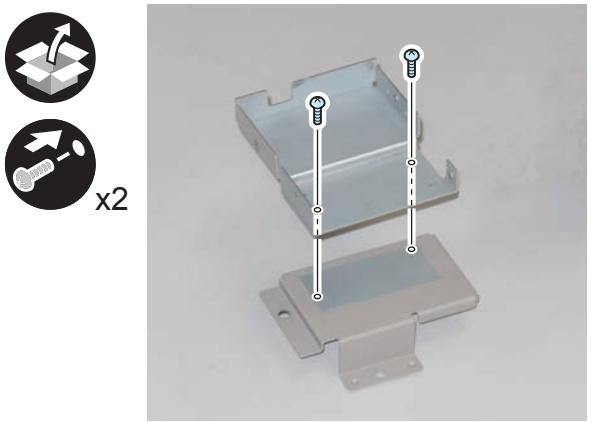
F-9-269

☐
7) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

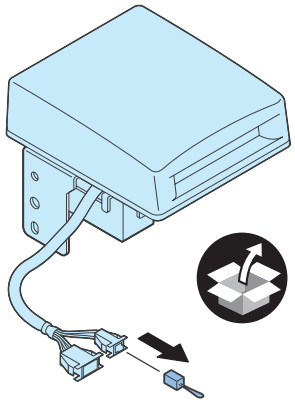
☐
8) Install the USB Cable and Control Panel Communication Cable.

☐
9) Install the Card Reader Mounting Plate (Rear) to the Card Reader Mounting Plate (Lower).
- 2 Screws (Binding; M4x6)



F-9-270

☐
10) Remove Short Connector from the connector of the Card Reader Unit. (The removed Short Connector will not be used.)

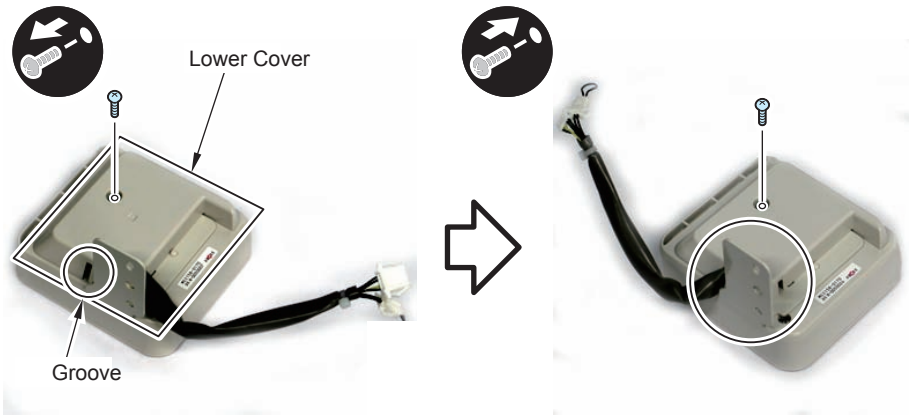


F-9-271

11) Remove the Lower Cover of the Card Reader Unit, and change the position of the cable by putting it through the groove shown in the figure below.

- 1 Screws

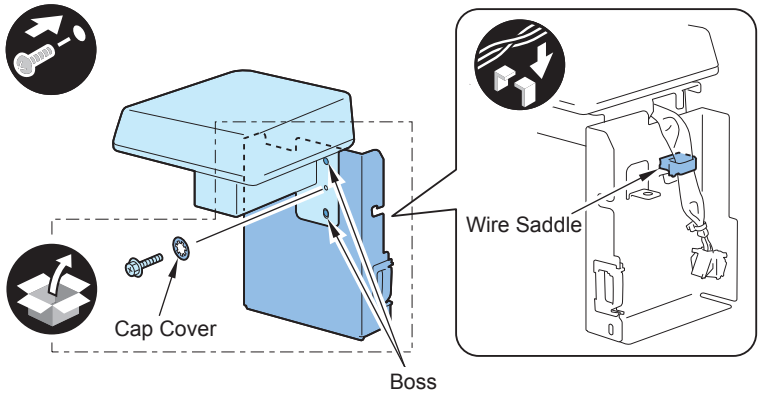
12) Install the Lower Cover of the Card Reader Unit.



F-9-272

13) Install the Card Reader Unit to the Card Reader Mounting Plate (Front).

- 2 Bosses
- 1 Toothed Washer
- 1 Screw (RS Tightening; M4x10)
- 1 Wire Saddle

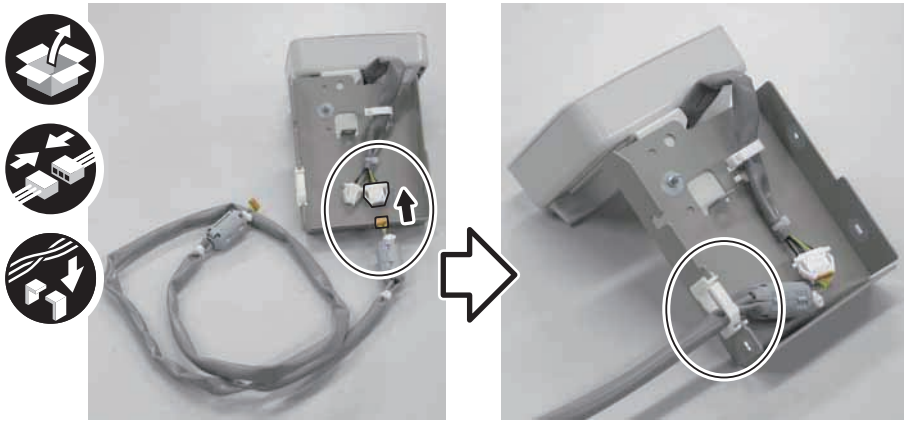


F-9-273

14) Connect the Card Reader External Relay Harness to the connector of the Card Reader Unit.

- 1 Connector
- 1 Edge Saddle

CAUTION:
Be sure that the core is inside the Edge Saddle.

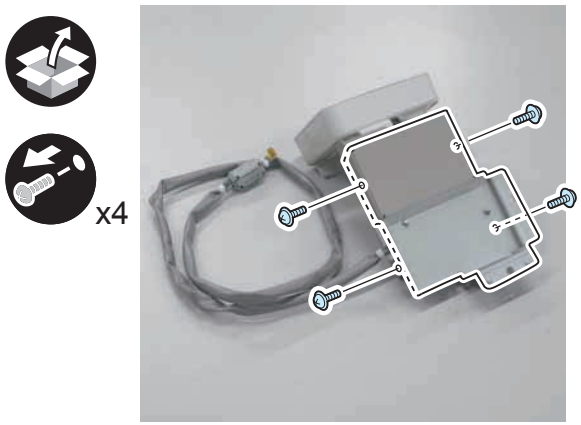


F-9-274

☐ 15) Install the Card Reader Mounting Plate (Rear) to the Card Reader Mounting Plate (Front).

- 4 Screws (TP; M3x6)

CAUTION:
Be careful not to trap the harness.



F-9-275

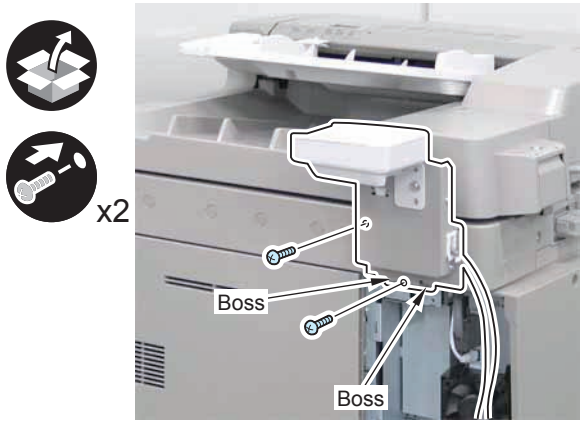
☐ 16) Remove the Face Seal from the Reader Right Cover.



F-9-276

☐ 17) Install the Card Reader to the host machine.

- 2 Bosses
- 2 Screws (Binding; M4x6)



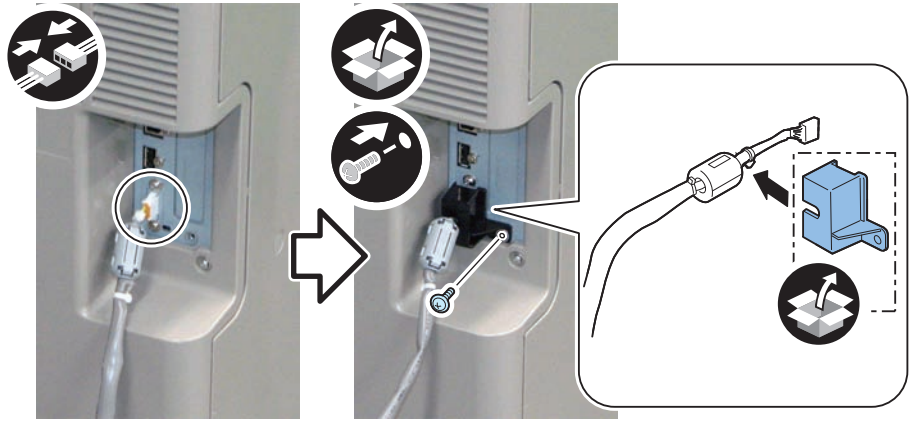
☐ 18) Install the Right Rear Cover (Upper). (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
19) Connect the connector of the Card Reader External Relay Harness to the host machine, and install the Connector Cover.

- 1 Screw (TP; M3x6)

CAUTION:
When installing the Connector Cover, be sure to place the tie-wrap on the Card Reader External Relay Harness on the inside of the Connector Cover.

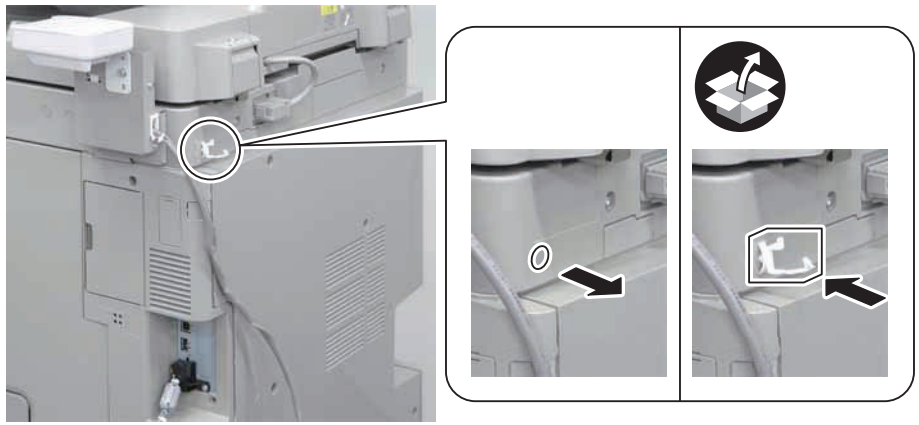


F-9-277

☐
20) Remove the Face Seal from the Reader Rear Cover, and install the Wire Saddle. (The removed Face Seal will not be used.)

<When using the Card Reader only>

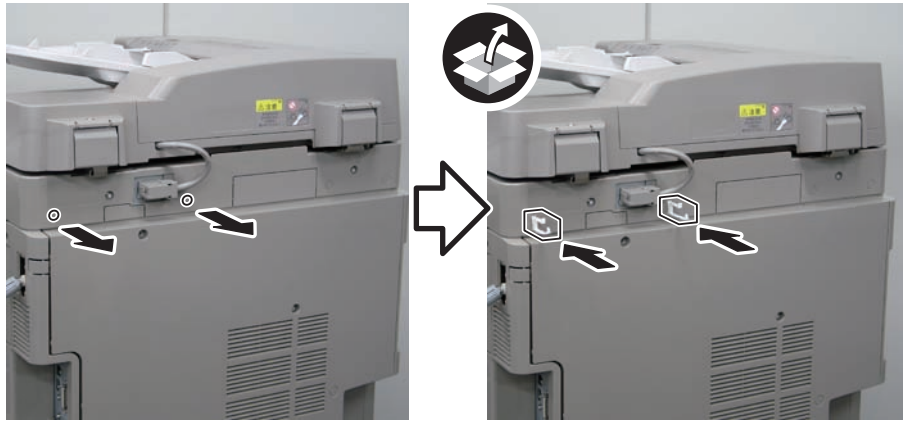
- Use the Wire Saddles included in the package of this equipment.



F-9-278

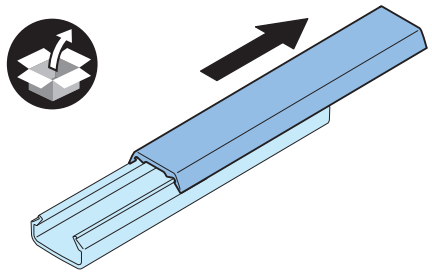
<When using in combination with the Voice Operation Kit>

- Use the 2 Wire Saddles included in the Voice Operation Kit



F-9-279

☐
21) Remove the covers of 2 Cord Guides. (When using in combination with the Voice Operation Kit, use 1 Cord Guide.)



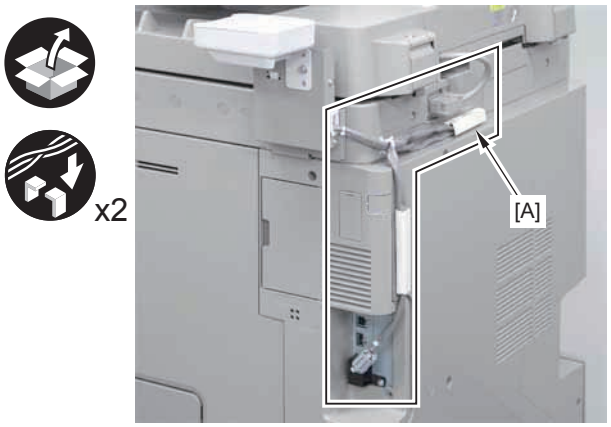
F-9-280

☐
22) Remove the release paper from the Cord Guides, and affix the guides to the 2 areas indicated in the figure.

NOTE:
When using in combination with the Voice Operation Kit, the Cord Guide [A] is not needed.

23) Put the Card Reader External Relay Harness through the Cord Guides, and install the covers of the guides. (When using in combination with the Voice Operation Kit, put the harness through 1 Cord Guide.)

24) Secure the harness in place using the Wire Saddle. (When using in combination with the Voice Operation Kit, secure it with the 2 Wire Saddles.)



F-9-281

☐
25) Connect the power plug of the host machine to the power outlet.

26) Turn ON the main power switch.

Checking after Installation

☐
1) Enter Service Mode, and set the model of the Card Reader.

- Check the service mode (COPIER > OPTION > ACC > CR-TYPE) to see that the setting value is "0".

NOTE:

Upon user's request, number of cards (departments) can be changed. This setting change must be performed before performing step 2.

- Select Service Mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG, and set any value.
- Turn OFF and then ON the main power switch to enable the setting value.
- After that, perform from step 1.

☐
2) Enter Service Mode > COPIER > FUNCTION > INSTALL > CARD, and enter the card number to be used (1 to 2001).

- Enter the smallest card number to be used by a user.
- From the entered card number, 1000 cards can be used.

3) Turn OFF and then ON the main power switch to enable the setting value.

4) Insert a card which card number has been registered, and check that the machine moves to standby condition.

NOTE:

When changing number of cards (departments) upon user's request after specifying the setting, specify the following settings. In such a case, the department ID counter information is reset.

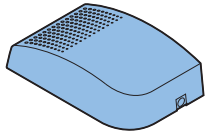
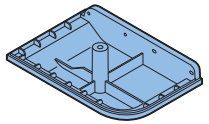
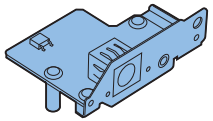
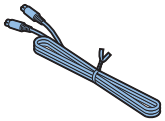
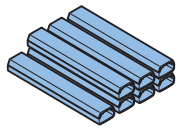
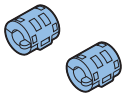
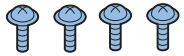
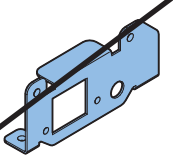
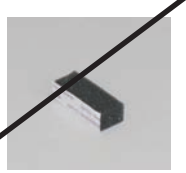
- Select Service Mode > COPIER > FUNCTION > CLEAR > CARD.
- Select Service Mode (Level 2) > COPIER > OPTION > FNC-SW > CARD-RNG, and set any value.
- Select Service Mode > COPIER > FUNCTION > INSTALL > CARD, and enter the card number to be used (1 to 2001).
- Turn OFF and then ON the main power switch to enable the setting value.
- After that, perform from step 1.

Voice Guidance Kit-F2

Points to note when Installing

- The Color Image Reader is necessary to operate this equipment.
- When installing the equipment, see the 'Combination Table of Accessory Installation'.

Checking the Contents

☐ [1] Speaker Unit (Upper) X 1 	☐ [2] Speaker Unit (Lower) X 1 	☐ [3] Voice Guidance Board Unit X 1 
☐ [4] Speaker Cable X 1 	☐ [5] Cord Guide X 7 Use 4 of them 	☐ [6] Ring Core X 2 
☐ [7] Screw (Bind; M3x16) X 1 	☐ [8] Screw (Bind; M4x6) X 1 	☐ [9] Screw (TP; M3x6) X 4 
☐ [10] Screw (Bind; M4x16) X 2 Use 1 of them 	☐ [11] Screw (Bind; M4x20) X 2 	☐ [12] Card Spacer X 1 
☐ [13] Support Plate X 1 	☐ [14] Cable Face Seal X 1 	

F-9-282

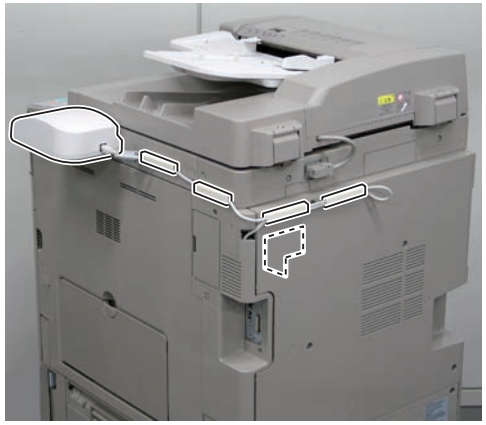
<CD/Guide>
- Voice Guidance Kit User's Guide (E, F, I, G, S)
- Voice Guidance User's Guid CD
- FCC/IC sheet

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

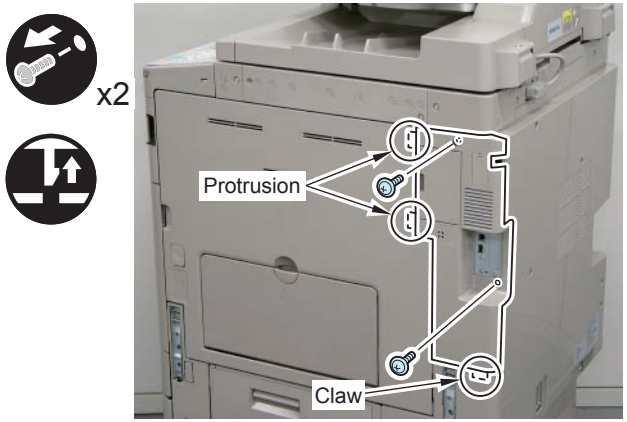


F-9-283

Installation Procedure

☐

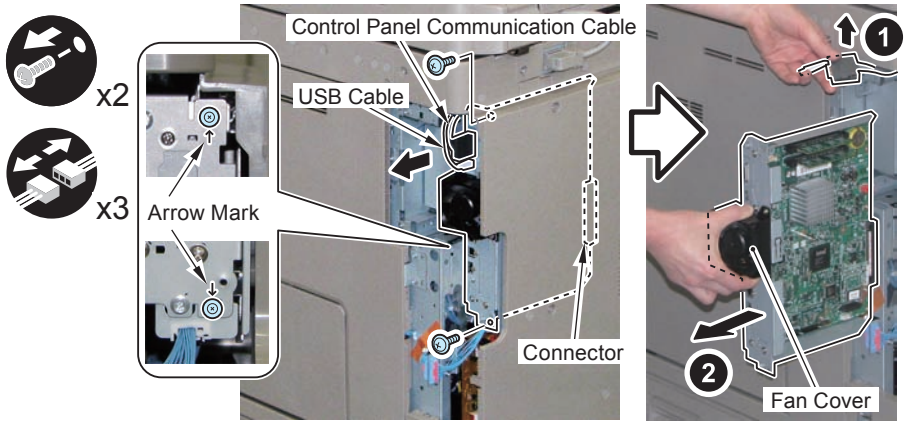
1) Remove the Right Rear Cover (Upper).
- 2 Screws
- 2 Protrusions
- 1 Claw



F-9-284

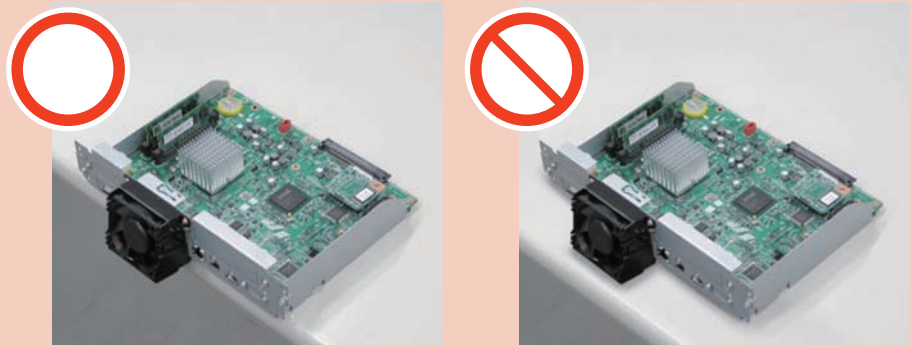
☐
2) Disconnect the USB Cable and the Control Panel Communication Cable.
3) Remove the Main Controller PCB 1.
- 2 Screws (beside of arrow mark)
- 1 Connector

CAUTION:
Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.



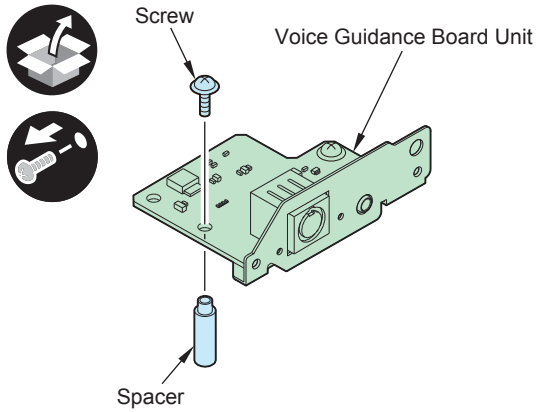
F-9-285

CAUTION:
Be sure to place the removed Main Controller PCB 1 on flat surface.
Reason: Since the fan protrudes, if it is placed at a tilt, it may be damaged.



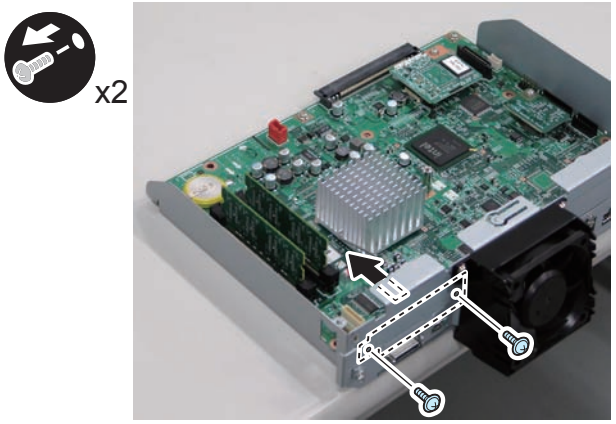
F-9-286

☐
4) Remove the Screw and the Spacer from the Voice Guidance Board Unit. (The removed screw and spacer will not be used.)



F-9-287

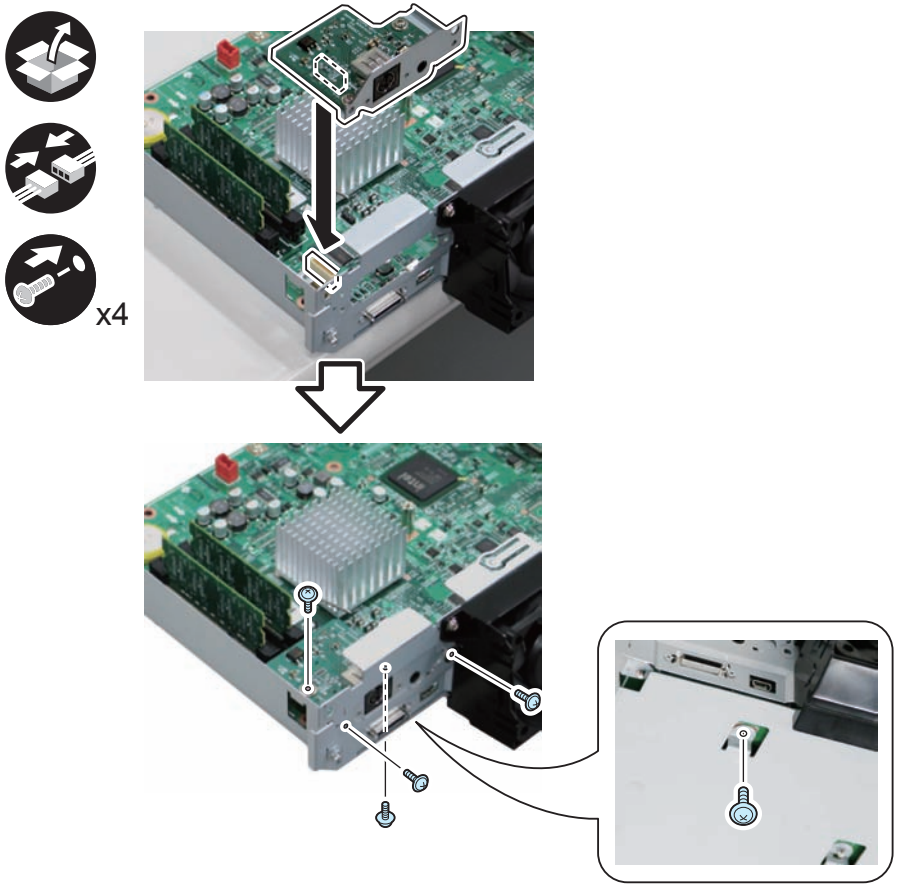
☐
5) Remove the Face Plate from the Main Controller PCB 1 . (The removed Face Plate will not be used.)



F-9-288

☐
6) Install the Voice Guidance Board Unit.
- 1 Connector
- 4 Screws (TP; M3x6)

NOTE:
Check that the connector is connected properly.



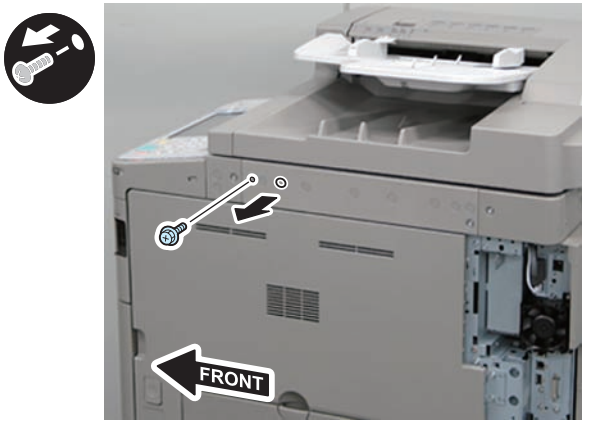
F-9-289

☐
7) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

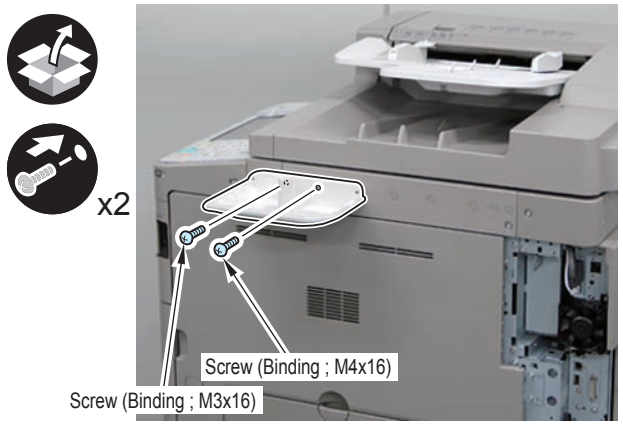
☐
8) Install the USB Cable and Control Panel Communication Cable.

☐
9) Remove the screw and the Face Seal from the Reader Right Cover.
- 1 Screw (The removed screw will not be used.)
- 1 Face Seal (The removed Face Seal will not be used.)



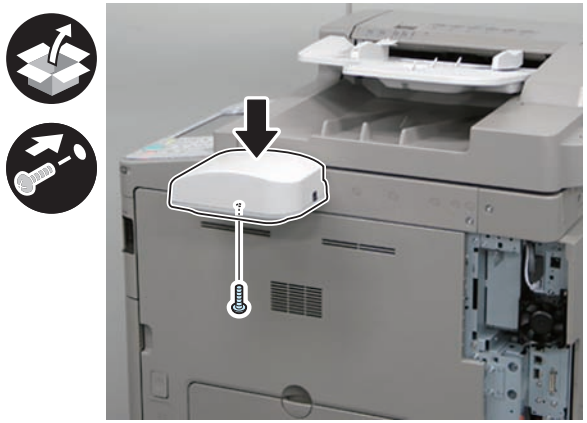
F-9-290

☐
10) Install the Speaker Unit (Lower).
- 1 Screw (Binding; M3x16)
- 1 Screw (Binding; M4x16)



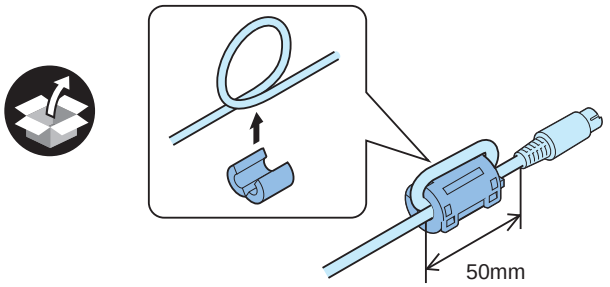
F-9-291

☐
11) Install the Speaker Unit (Upper).
- 1 Screw (Binding; M4x6)



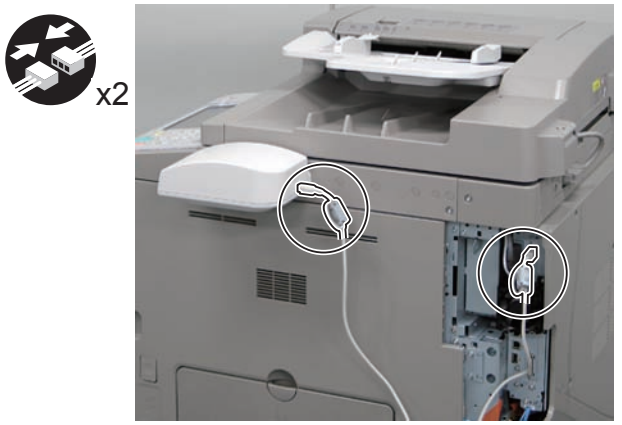
F-9-292

☐
12) Install the Ring Cores to both ends of the Speaker Cable.



F-9-293

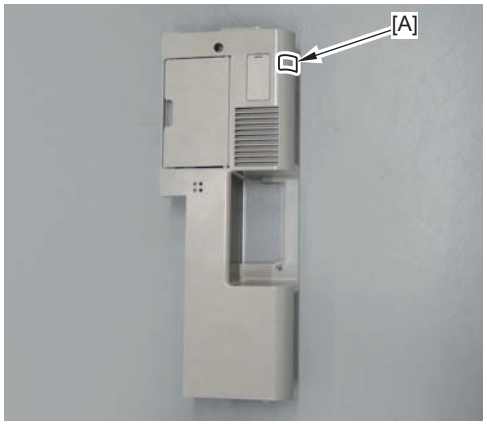
☐
13) Connect the Speaker Cable to 2 points.



F-9-294

☐
14) Cut off [A] part of the Right Upper Sub Cover with nippers.

NOTE:
When cutting off the part, be sure not to make burrs.

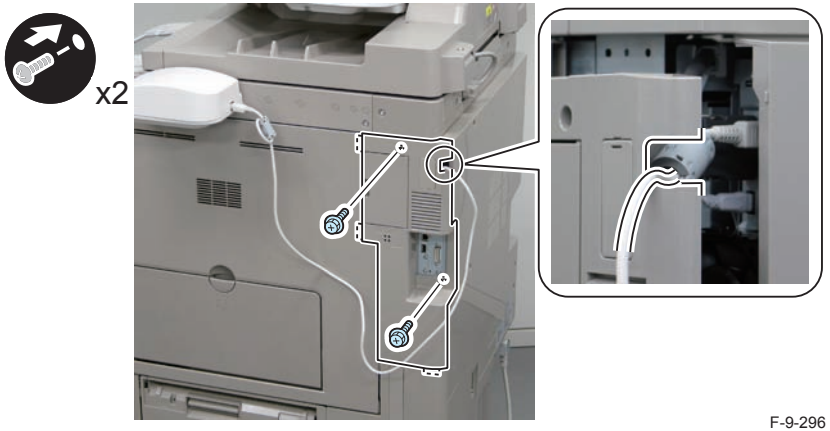


F-9-295

☐
15) Put the Speaker Cable through the cut-off of the Right Cover (Upper Rear), and return the cover to its original position.

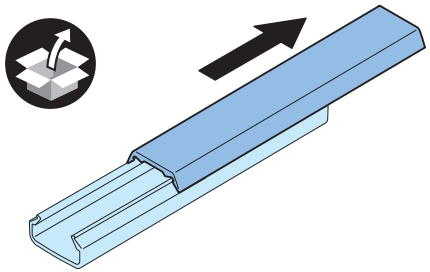
- 2 Screws (Use the screws removed in step 1.)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.



F-9-296

☐
16) Remove the covers of 4 Cord Guides.



F-9-297

☐
17) Remove the release paper from the Cord Guides, and affix the guides to the 4 areas indicated in the figure.

18) Put the Speaker Cable through the Cord Guides and install the covers of the guides.



F-9-298

NOTE:
When installing the Card Reader simultaneously, affix a Cord Guide to the area indicated in the figure.



F-9-299

Checking the Settings

NOTE:
When changing the settings upon user's request, it is required to log in as a system manager in accordance with instructions from the user administrator.

1) Connect the power plug of the host machine to the outlet.
2) Turn ON the main power switch.
3) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings > Use Voice Navigation, and check that the setting is ON.
4) Select Settings/Registration > Preferences > Accessibility > Voice Navigation Settings, and check that "Voice Guide from Speakers" is displayed.
5) To make the setting value effective, turn OFF/ON the main power of the Host Machine.

Operation Check

When Using

1) Press "Reset" key for more than 3 seconds.
2) Press "Main Menu" on the Control Panel.
3) Once the indication on the screen is framed in red, the "Voice Guidance Kit" becomes enabled.

When Stopping to Use

1) Press "Reset" key for more than 3 seconds.

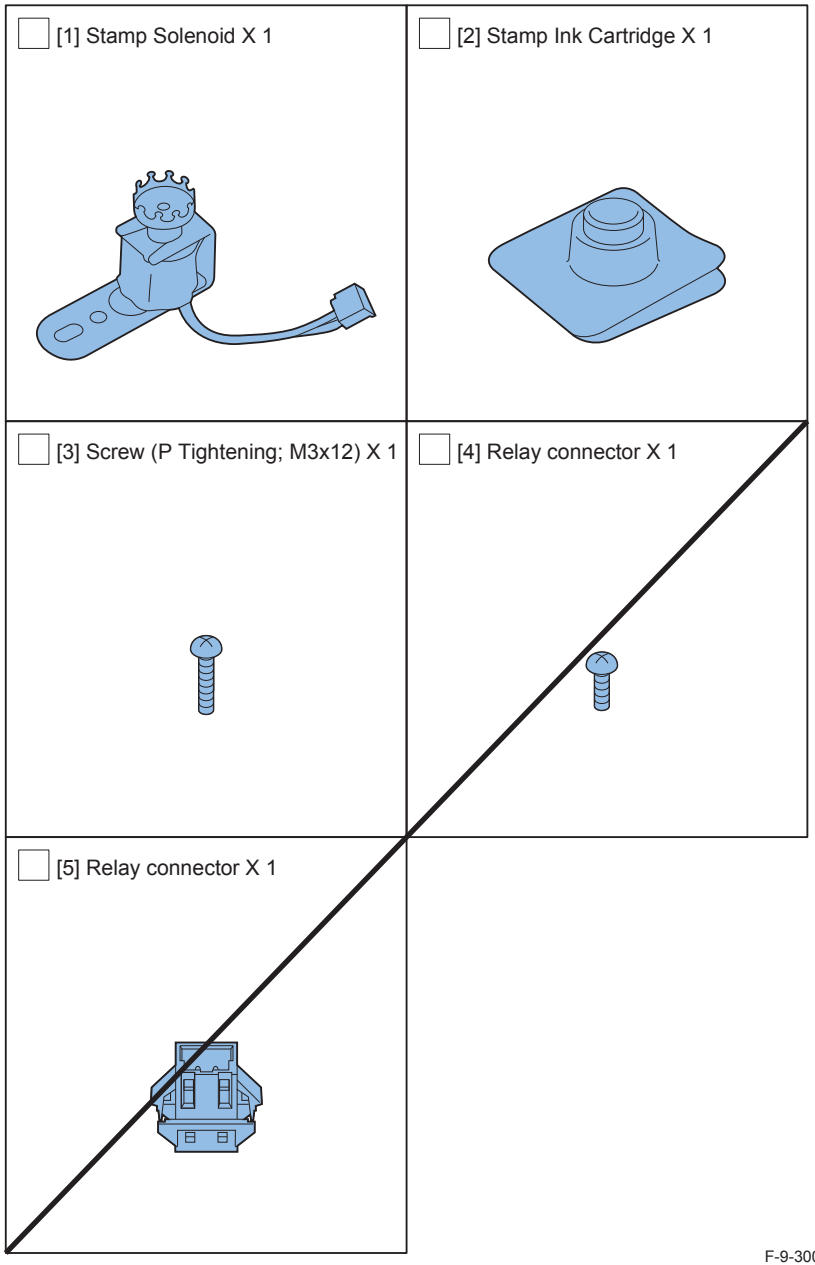
Stamp Unit-B1

Points to Note at Installation

CAUTION:

In order to enable the stamp function, it is necessary to install the FAX Board or enable the SEND function (Color Universal Send Kit).

Checking the contents



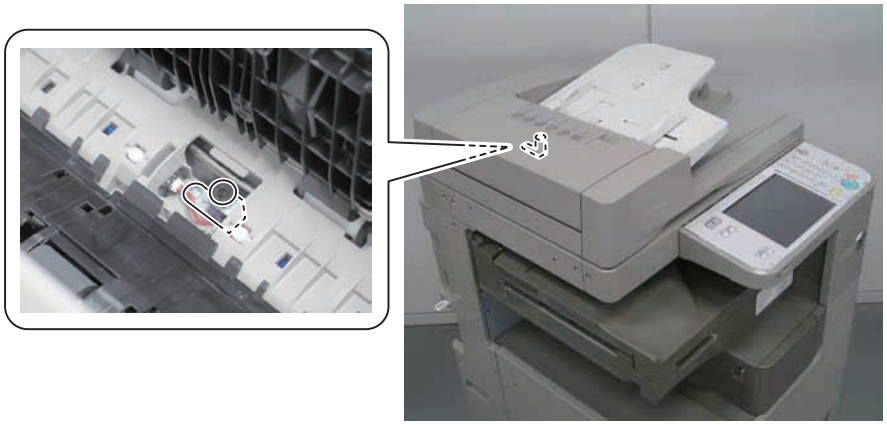
F-9-300

Check Items when Turning OFF the Main Power

Chek that the main power switch is OFF

1) Turn OFF the main power switch.
2) Be sure that display in the Control Panel and the lamp of the main power supply are turned off, then disconnect the power plug.

Installation Outline Drawing

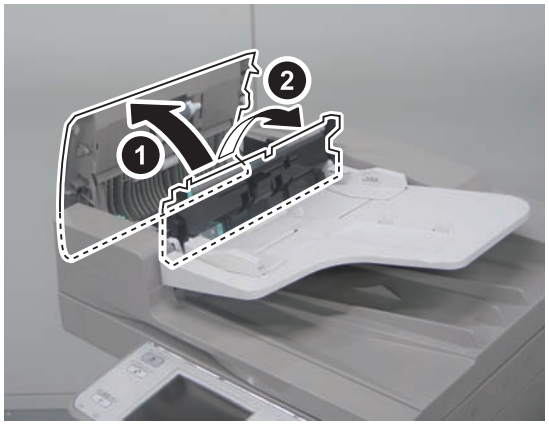


F-9-301

IInstallation procedure

☐

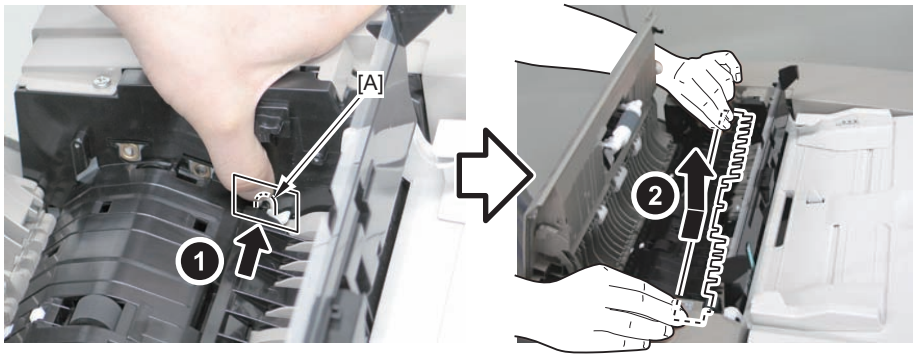
1) Open the Feeder Cover and the Middle Cover.



F-9-302

☐

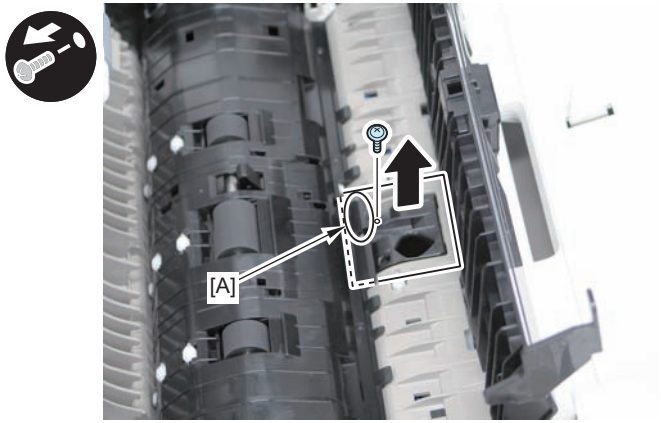
2) Remove the Delivery Guide while pushing the hook [A] in the direction of the arrow.



F-9-303

☐
3) Remove the Stamp Cover.
- 1 Screw

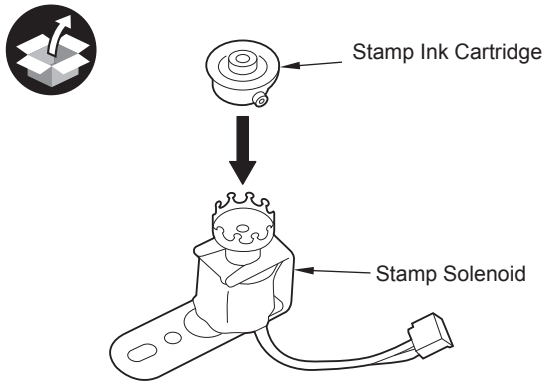
CAUTION:
Be careful not to damage the [A] part of the Feed Guide with a screwdriver when removing the screw.



F-9-304

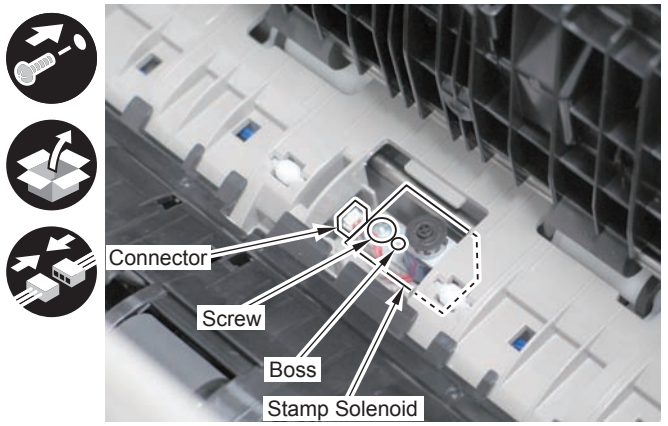
☐
4) Install the Stamp Ink Cartridge to the Stamp Solenoid.

CAUTION:
Be sure to push the Stamp Ink Cartridge in until it clicks.



F-9-305

☐
5) After installing the Stamp Solenoid, connect the connector.
- 1 Screw (P Tightening; M3x12)
- 1 Boss



F-9-306

☐
6) Return the removed covers to their original positions.
- Stamp Cover
- Delivery Guide
- Middle Cover
- Feeder Cover

Operation Check

Be sure to perform the following procedure for operation check of the Stamp Unit.
1) Connect the power plug of the host machine to the power outlet.
2) Turn ON the main power switch.
3) Press “Finished Stamp” key.
- [Scan and Send] or [Fax] > [Other Function] > [Finished Stamp]

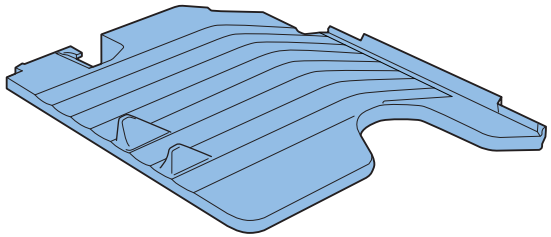
4)Put an original in the Feeder, perform a send test, and check that a stamp is printed on the original.

Inner 2Way Tray-H1

Points to Note When Installing

At servicing, be sure to turn off the power source according to the specified steps and disconnect the power plug.

Checking Bundled Components

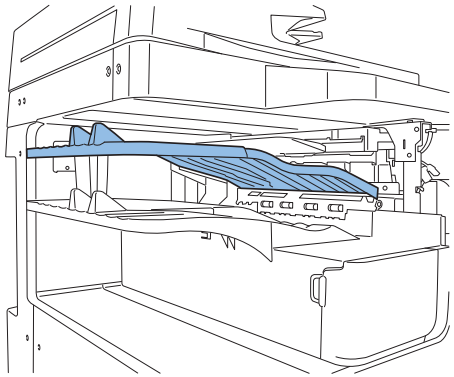


☐ 1.Inner 2Way Tray 1 pc F-9-307

Confirmation item of host machine main power supply OFF.

1) Do OFF of the main power supply of host machine.
2) Take off a power supply plug after confirming that a indication and the main power supply lamp of the operation panel disappeared.

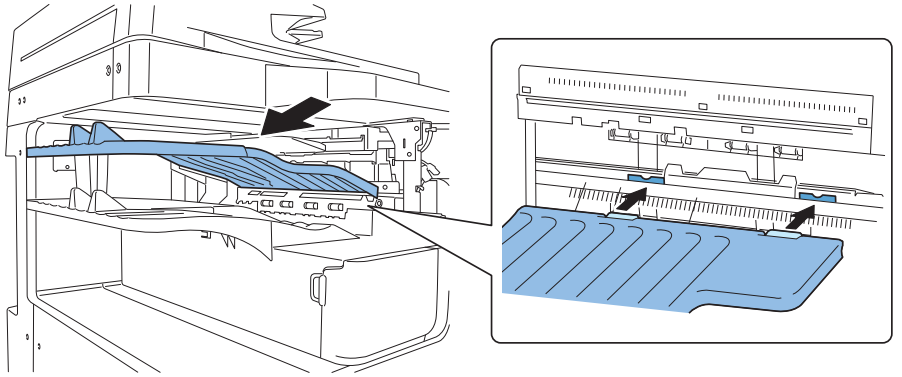
Diagrammatical view at the time of the installation.



F-9-308

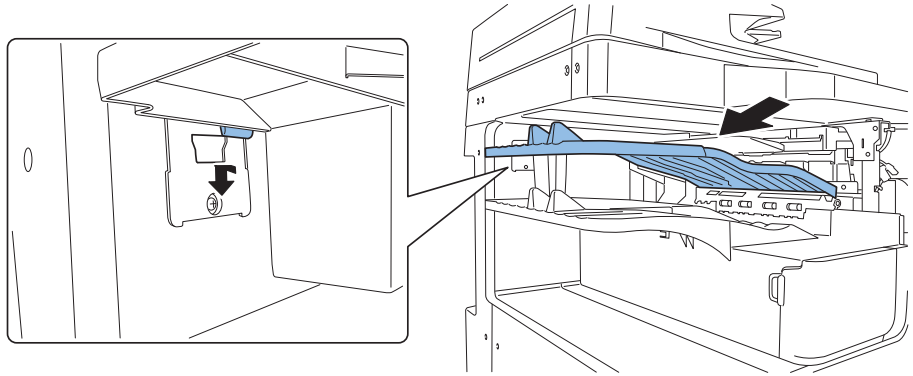
Installation Procedures

☐
1) Insert a Inner 2Way Tray in the plug hole (2 places).



F-9-309

☐
2) Hang the Inner 2Way Tray leg on the plug hole.



F-9-310

CAUTION:
Confirm that an inner 2Way tray is inserted in plug hole or Tray leg precisely.

☐
3) Insert a power supply plug in an outlet.

Setting after installation

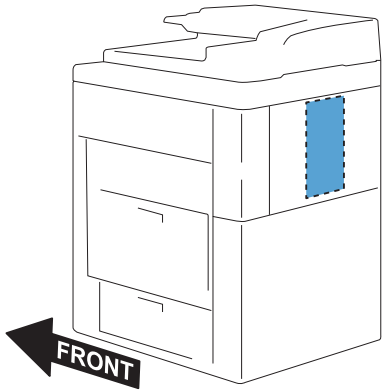
1) Turn on the main power switch.
2) Enter in the service mode.
3) COPIER > OPTION > ACC > choose IN-TRAY and register "1".
4) Do OFF/ON of the main power supply.
5) [Settings / Registration] > [Function settings] > [Common] > [Paper output settings] > [Output Tray settings] of confirm that a menu is added.
6) Select copy to the Tray B, and perform test copy.
7) Check that a copy is delivered to the Inner 2way Tray.
8) Set the tray in accordance with user's request.

Document Scan Lock Kit-B1

Points to note before installation

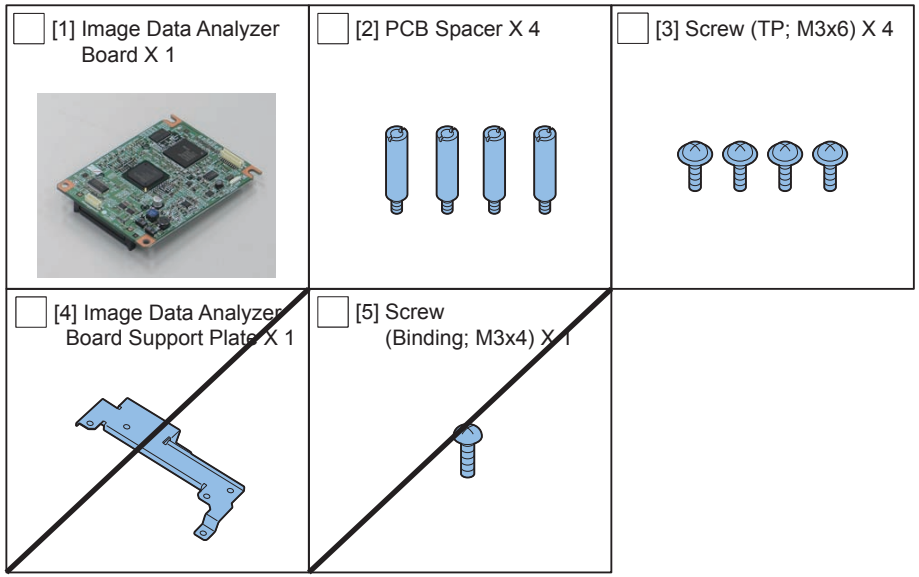
- When installing this equipment, check that the version of the main controller is v15 or later. If the version is prior to v15, always upgrade to the latest version before the installation. When this equipment was installed without upgrading to v15 or later, upgrade using SST or an USB memory. It cannot be upgraded using CDS/updater.
- To enable the function of "Image Data Analyzer Board", it is necessary to install the license which comes with the product.
- Be sure to ask users to install the license after the installation.

Installation Outline Drawing



F-9-311

Checking the Contents



F-9-312

< CD/Guides >

- License Access Number Certificate
- Document Scan Code Analyzer for MEAP CD
- FCC/IC sheet (only for USA/Europe)
- Notice for Delivered Installation sheet

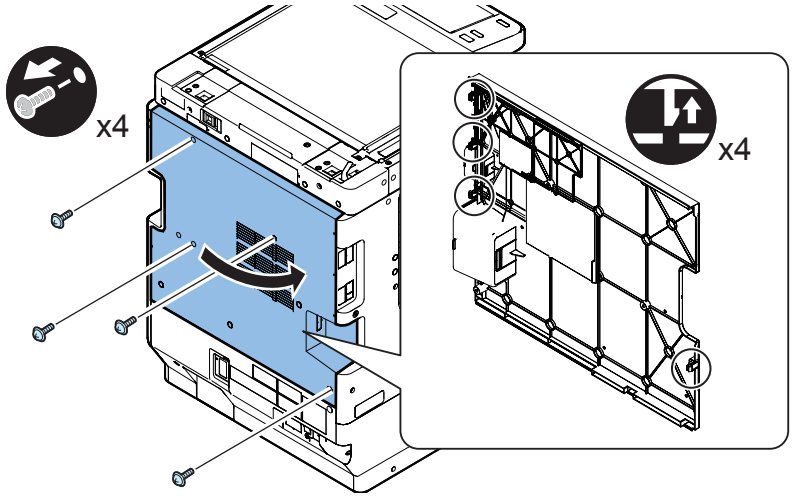
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

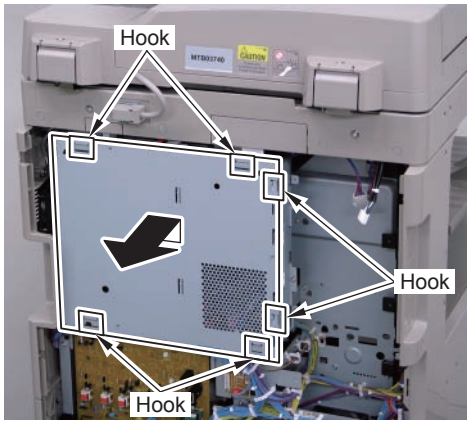
Installation Procedure

☐
1) Remove the Rear Cover.
- 4 Screws
- 4 Claws



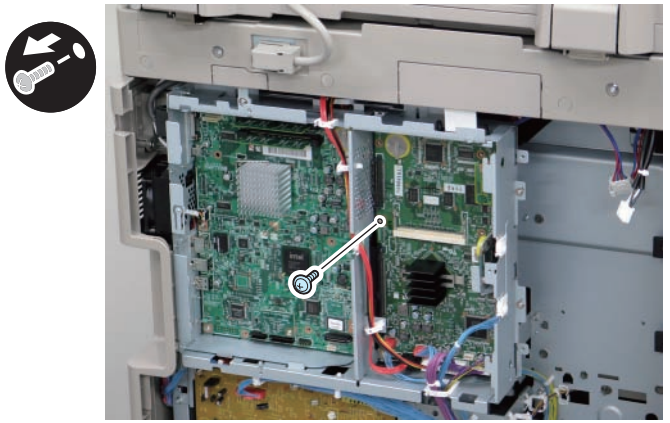
F-9-313

☐
2) Remove the Controller Box Cover.
- 6 Hooks



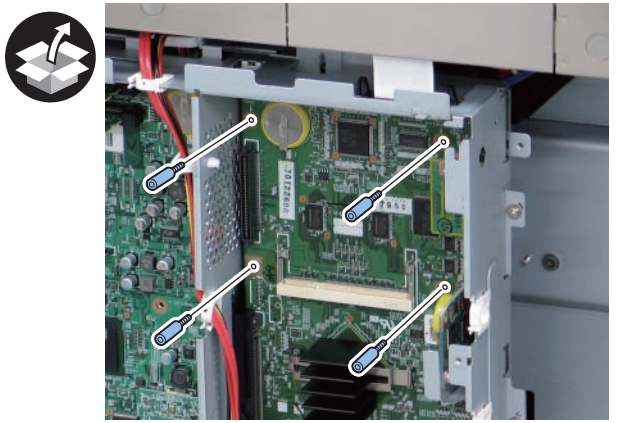
F-9-314

☐
3) Remove the screw. (The removed screw will not be used.)



F-9-315

☐
4) Install the 4 PCB Spacers.

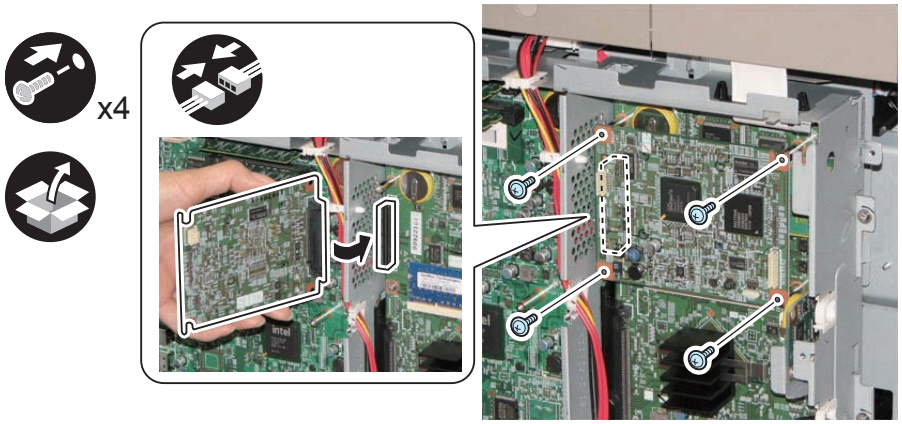


F-9-316

□

5) Install the Image Data Analyzer Board.

- 1 Connector
- 4 Screws (TP; M3x6)



F-9-317

□

6) Install the Controller Box Cover.

7) Install the Rear Cover. (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)

Checking after Installation

□

1) Connect the power plug of the host machine to the power outlet.

2) Turn ON the main power switch.

3) Ask users to install license.

4) Turn OFF/ON the main power switch.

5) Press the counter check key on the control panel.

6) Press [Check Device Configuration].

7) Check that "Image Data Analyzer Board" is displayed in option field.

How to check this Installation procedure

Description on the parts included in the package

The parts with a diagonal line in the contents list will not be used.

When using the parts included in the package

A symbol is described on the illustration in the case of using the parts included in the package of this product.

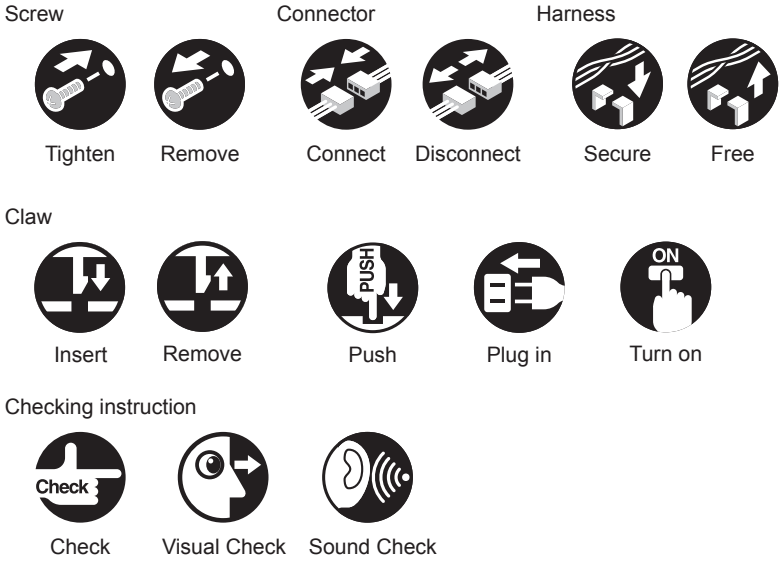


Packaged Item

F-9-318

Symbols in the illustration

The frequently-performed operations are described with symbols in this procedure.



F-9-319

Combination of HDD Options

The combinations of installation are shown below.

[TYPE1] [p. 1-139 to p. 1-148]
Standard HDD + Removable HDD Kit

[TYPE2] [p. 1-149 to p. 1-156]
Standard HDD + HDD Data Encryption & Mirroring Kit

[TYPE3] [p. 1-157 to p. 1-170]
Standard HDD + Removable HDD Kit+ HDD Data Encryption & Mirroring Kit

[TYPE4] [p. 1-171 to p. 1-181]
Standard HDD + Option HDD (80GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

[TYPE5] [p. 1-182 to p. 1-199]
Standard HDD + Option HDD (80GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

[TYPE6] [p. 1-200 to p. 1-205]
Option HDD (250GB)

[TYPE7] [p. 1-206 to p. 1-216]
Option HDD (250GB) + Removable HDD Kit

[TYPE8] [p. 1-217 to p. 1-227]
Option HDD (250GB) + HDD Data Encryption & Mirroring Kit

[TYPE9] [p. 1-228 to p. 0-11]
Option HDD (250GB) + Removable HDD Kit + HDD Data Encryption & Mirroring Kit

[TYPE10] [p. 1-243 to p. 1-255]
2 Option HDDs (250GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

[TYPE11] [p. 1-256 to p. 1-273]
2 Option HDDs (250GB) + Removable HDD Kit + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

TYPE	Standard HDD	Option HDD (80GB)	Option HDDs (250GB)	Removable HDD Kit	HDD Mirroring Kit	HDD Data Encryption & Mirroring Kit
1	Yes	-	-	Yes	-	-
2	Yes	-	-	-	-	Yes
3	Yes	-	-	Yes	-	Yes
4	Yes First HDD	Yes Second HDD	-	-	Yes (Either of them)	
5	Yes First HDD	Yes Second HDD	-	Yes	Yes (Either of them)	
6	Not use	-	Yes 1 Option HDD	-	-	-
7	Not use	-	Yes 1 Option HDD	Yes	-	-
8	Not use	-	Yes 1 Option HDD	-	-	Yes
9	Not use	-	Yes 1 Option HDD	Yes	-	Yes
10	Not use	-	Yes 2 Option HDDs	-	Yes (Either of them)	
11	Not use	-	Yes 2 Option HDDs	Yes	Yes (Either of them)	

T-9-5

Points to Note Regarding Data Backup/Export:

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.
Backup or export work must not be performed by the service person because of security considerations.
In this Installation Procedure, a series of backup or export procedures are described for reference.

List of Data to be Deleted

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen (When an option HDD is installed to a model without HDD, the data remains unerased.)	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Data stored in Mail Boxes or the Advanced Box (Excluding the products without Box/Advanced Box function)	Yes *3
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
Image forms stored in the Superimpose Image (When an option HDD is installed to a model without HDD, the data remains unerased.)	Yes
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	No
Key Pair and Server Certificate	No
Log information for the IP address/MAC address restriction settings	No
Password that is protected by TPM	Yes *4
Encryption key that is protected by TPM (When an option HDD is installed to a model without HDD, the data remains unerased.)	No
Information for Web browser settings	Yes *5
Quick Menu Information	Yes
User Information of the Advanced Box (Excluding the products without Box/Advanced Box function)	Yes

T-9-6

*1 Can only be backed up using the Remote UI.

*2 Depending on the MEAP application.

*3 Only the following items are backed up.

- Mail Box Settings (mail box names, passwords, and auto erase times)
- Files in Mail Box
- Files in Advanced Box
- Forms registered for the Superimpose Image

*4 You may not be able to back up, depending on the type of the password.

*5 Only the stored Favorite Settings can be backed up.

List of Data that can be backed up

Data that can be backed up	Reference
Address Book	For information on exporting data, see the "e-Manual > Remote UI".
Settings/Registration settings	
Device Settings	
Printer Settings	
Paper Information	
Image forms stored in the Superimpose Image (Excluding the products without Box/Advanced Box function)	
Favorite Settings for Web browser	See the e-Manual > Web Access. (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.
Data stored in Mail Boxes or the Advanced Box (Excluding the products without Box/Advanced Box function)	See the e-Manual > Remote UI "Setting the Backup Location for Stored Data ".
SSO-H (Single Sign-On H) user authentication information	See the e-Manual > MEAP.
Quick Menu Information	See the e-Manual > Quick Menu.
User Information of the Advanced Box (Excluding the products without Box/Advanced Box function)	See the e-Manual > Security.

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CAUTION: Work to Perform After Installing the Kit

- When you start using this product, passwords set for Mail Boxes, Confidential Fax Inboxes, and the Memory RX Inbox are erased. Set these passwords again.
- If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine. For more information on using SMS, see the e-Manual > MEAP.

Making a Backup of the Data (reference only)

The data items that have been backed up may be restored when the HDD Data Encryption & Mirroring Kit-C Series has been installed.
These data items are property of the user, and the restoration work must be performed by the system administrator.
The method of restoration is described in the Users Guide. See Table T-1-2/T-1-4 (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

1. Procedure to make a backup of Address Book

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
3) Click [Address List].
4) Click [Export].
5) Select the save format for Address list, and click [Start Export].
6) Following the instructions on the window, specify the location to save the file. Be sure to set a distinctive name to an export file so that you can recognize it when importing it.

NOTE:
Exporting the device settings will export all contents of the address list. In other words, there is no need for a backup unless it needs to be done individually.

2. Device Settings Export Procedure

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
3) Click [Device Settings (Forwarding Settings, Address List, Favorite Settings)].
4) Click [Export], and then click [Start Export].
5) Following the instructions on the window, specify the location to save the file.

3. Settings/Registration Export Procedure

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
3) Click [Settings/Registration].
4) Click [Export], and click [Start Export].
5) Following the instructions on the window, specify the location to save the file.

4. Printer Settings Export Procedure

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
3) Click [Printer Settings].
4) Click [Export], and click [Start Export].
5) Following the instructions on the window, specify the location to save the file.

5. Paper Information Export Procedure

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export].
3) Click [Paper Information].
4) Click [Export], and click [Start Export].
5) Following the instructions on the window, specify the location to save the file.

6. Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

CAUTION: MEAP Backup Function Using the SST

Data that has been backed up using MEAP back of the SST before the use of the HDD Data Encryption & Mirroring Kit-C Series is started must not be written back to the Host machine after the use of the HDD Data Encryption & Mirroring Kit-C Series is started. Similarly, even if the data that has been backed up after the use of the HDD Data Encryption & Mirroring Kit-C Series is started is written back to the Host machine before the use of the HDD Data Encryption & Mirroring Kit-C Series is started, the machine does not operate. It is necessary to make sure that the implementation conditions for the HDD Data Encryption & Mirroring Kit-C Series are compatible before and after making a backup of data, and the MEAP backup function does not permit making a backup of data in the course of installing the kit.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAP SMS Administrator Guide.

7. Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

1) Select the URL given below and access SMS.
   http://[IP address of the device]:8000/sms/
   The default password is MeapSmsLogin. If the user has changed the password, ask him/her to change the password again after the use of the HDD Data Encryption & Mirroring Kit-C Series is started.

CAUTION:

Ask the user to change the password because the SMS password is initialized after the use of the HDD Data Encryption & Mirroring Kit-C Series is started.

2) Click [MEAP Application Management].
3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
4) Click the application of which license has been installed.
5) Click [License Control], and then click [Disable]. Click [Yes] in a confirmation window for disabling the license.
6) Click [Download] under “Download/delete Disabled License File” item. Following the instructions on the window, specify the location to save the file. Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete]. Click [Yes] in a confirmation window for license deletion.
7) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation. If there are several applications, repeat the procedures 1) to 7).
8) After the use of the HDD Data Encryption & Mirroring Kit-C Series is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

8. User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

1) Access the URL given below.
   http://[IP address of the device]:8000/sso/
2) Login with the user name and password registered as an administrator in SSO-H.
   The default administrator user name and password are as follows:
   User Name: Administrator
   Password: password
3) Click [User Control].
4) Put a checkmark to Select All, and then click [Export].
5) Leave the file format and character code as defaults and click [Start Export].
6) Following the instructions on the window, specify the location to save the file and click [Save].

9. Backup of User inbox/Advanced Box document data

NOTE:
Some of the products do not have the Box/Advanced Box function.

The procedure of backup and restoration of a box document data is described below.

Specify the backup destination of a document data:

Specify an address, a user name, a password, and a path to the SMB server where a backup of a document data.

CAUTION: Points to note when backing up the Advanced Box

The data of the Advanced Box stored in a high-capacity HDD cannot be backed up, but the backed up data from a standard HDD to the File Server can be restored to a high-capacity HDD.

Depending on the version of the system software of the host machine, the data of the Advanced Box stored in a high-capacity HDD can be backed up/restored using a USB external HDD.

CAUTION: Data which cannot be backed up

If you back up/restore stored data without restarting the machine after changing the language displayed on the touch panel display by pressing [Settings/Registration] > [Preferences] from the control panel of the machine, the stored data may not be backed up/restored properly. For more information on the data that cannot be backed up, see Points to Note for Installation.

CAUTION:

If the language setting in the common specification settings (Settings/Registration) is set to ON, 'host address' and 'path to folder' might not be displayed correctly or cannot be referred.

CAUTION:

- Regarding the method of inputting characters, see 'Basic Operations' in the e-Manual.
- A host address can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,' 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A path to the folder can be up to 255 characters in 1 byte (127 characters in 2 bytes).
- A user name can be up to 128 characters in 1 byte or 64 characters in 2 bytes using the 'Kana-Kanji,', 'Katakana,' 'alphanumeric character,' 'mark,' and 'code input' modes.
- A password can be up to 7 to 48 characters using the 'alphanumeric character' and 'mark (1 byte)' modes.
- The voice sound symbol and the semi-voice sound symbol entered in the 'Katakana (1 byte)' mode are counted up as one 1-byte character.

[Backup method of User inbox/Advanced Box document data]

1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Backup].
2) Select 'All' or 'Changes' for the backup method.
3) Click [Execute].

CAUTION:

- If any of the host IP address, user name, password, or path to the folder is not correctly entered, a backup cannot be made.
- Set the number of users accessible to the folder to '2' or higher, or 'no restriction'. If the maximum number of users is set to [1], restoration cannot be done properly.
- If you select to encrypt the backup data, the backup process may take longer.

[Restoring the backup data of User inbox/Advanced Box document data]

1) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Restore].
2) Click [Display Backup Data].
3) Select the backup data to restore from the list and then click [Execute].

CAUTION:

- If you want to restore encrypted backup data, enter the same password used when backing up the data.
- Depending on the settings of the machine, the backup data may not be completely restored, or some documents may be automatically printed.
- Restoration is performed after all of the box data stored in the machine, or documents that are being sent, received, or stored, are erased.

10. Quick Menu Information Export Procedure

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select Basic Tools > [Quick Menu] > [Export].
3) If the file needs to be encrypted, enter the password after check [Encrypt file]. (The number of characters for the password must be more than 4 but less than 16.)
4) Click [Export].
5) Following the instructions on the window, specify the location to save the file.

11. User Information of the Advanced Box Export Procedure

NOTE:
Some of the products do not have the Box/Advanced Box function.

1) Access the URL given below, and then access Remote UI.
   http://[IP address of the device]/
   If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].
2) Select Basic Tools > [User Access Control for Advanced Box].

The dialog box to enter the user name of administrator and password appears, enter the system administrator ID and password, and then click [Log In].
The default administrator user name and password are as follows:
User Name: Administrator
Password: password

3) Click [Export], and click [Start Export].
4) Following the instructions on the window, specify the location to save the file.

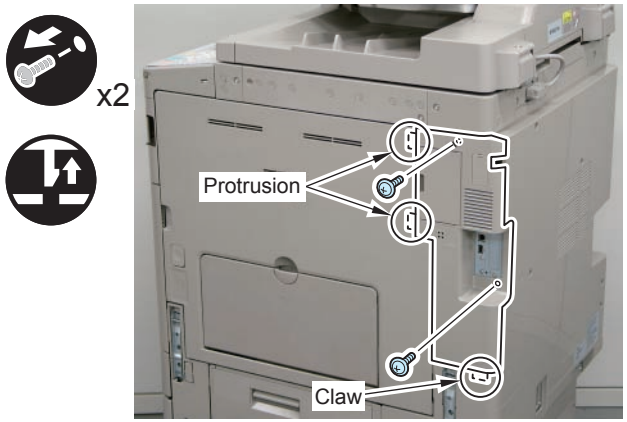
Removing the HDD

Removing the Covers

☐

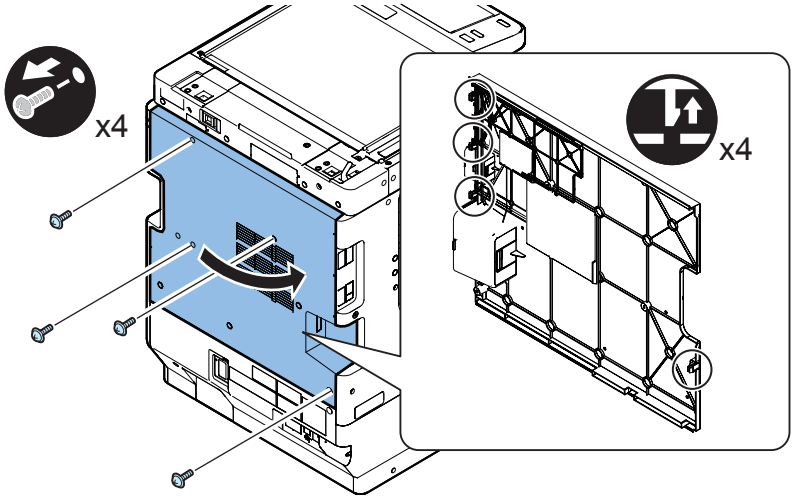
1) Remove the Right Rear Cover (Upper).

- 2 Screws
- 2 Protrusions
- 1 Claw



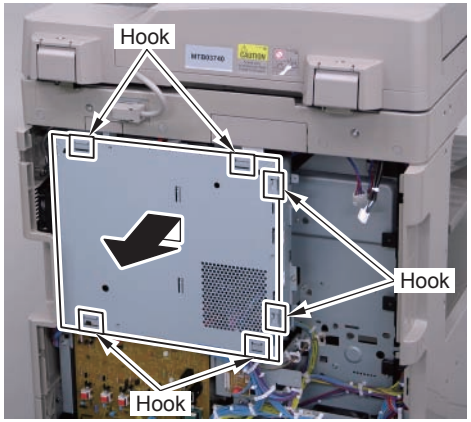
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☐
2) Remove the Rear Cover.
- 4 Screws
- 4 Claws



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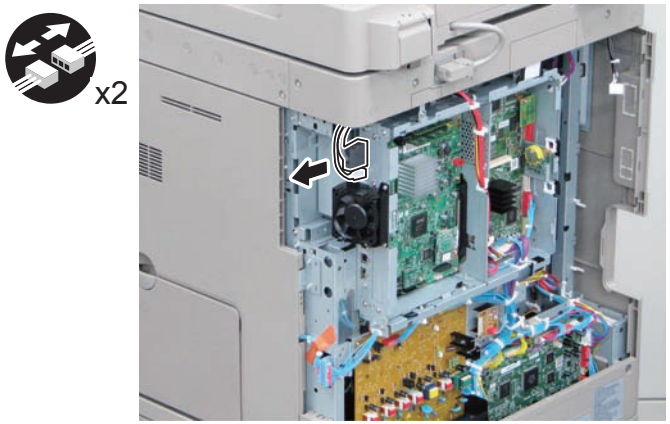
☐
3) Remove the Controller Box Cover.
- 6 Hooks



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Removing the Cables

☐
4) Disconnect the USB Cable and the Control Panel Communication Cable.

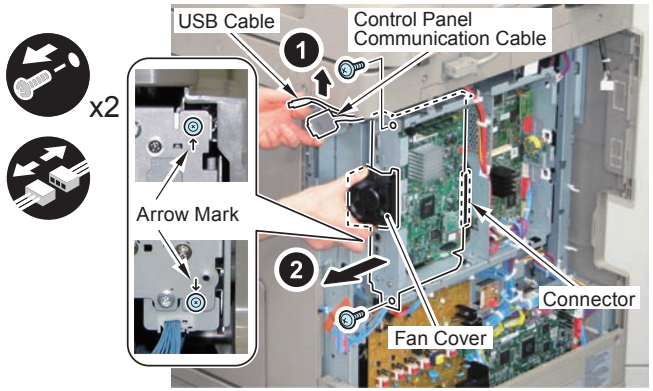


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Removing the Main Controller PCB 1

☐
5) Remove the Main Controller PCB 1.
- 2 Screws (beside of arrow mark)
- 1 Connector

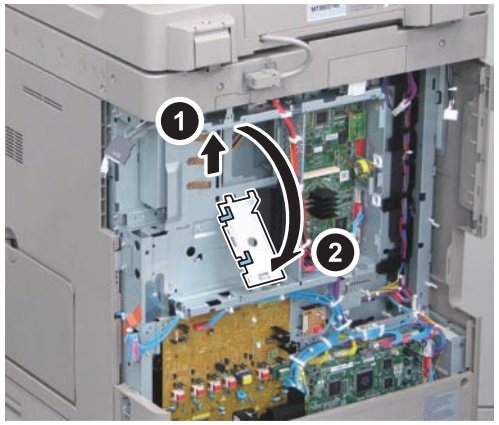
CAUTION:
Be sure to move the USB Cable and the Control Panel Communication Cable to the Reader side to prevent the cables from being trapped.



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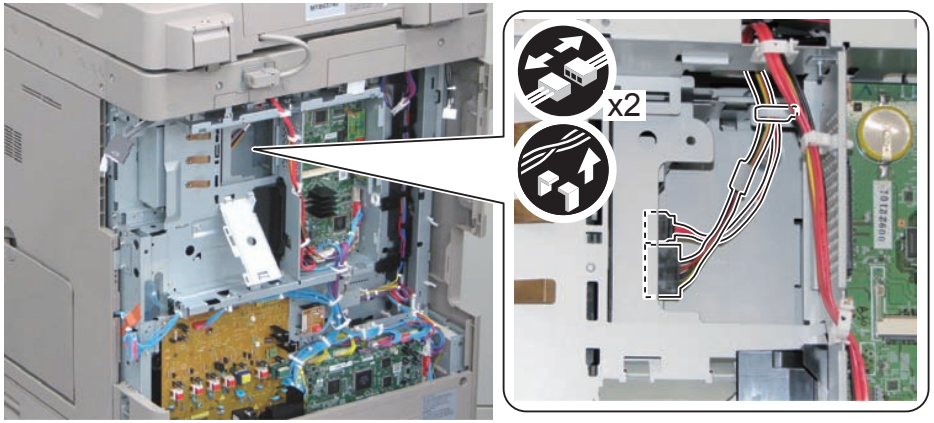
Removing the HDD Unit

☐
6) Open the plate in the direction of the arrow.
- 2 Hooks



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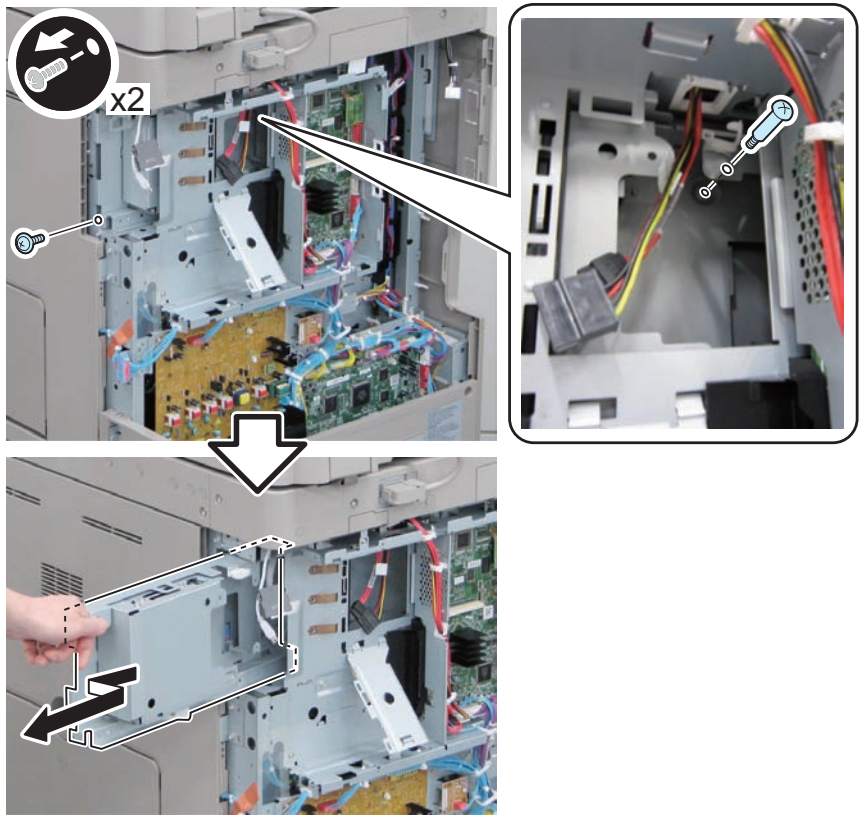
☐
7) Disconnect the 2 cables.
- 2 Connectors
- 1 Wire Saddle



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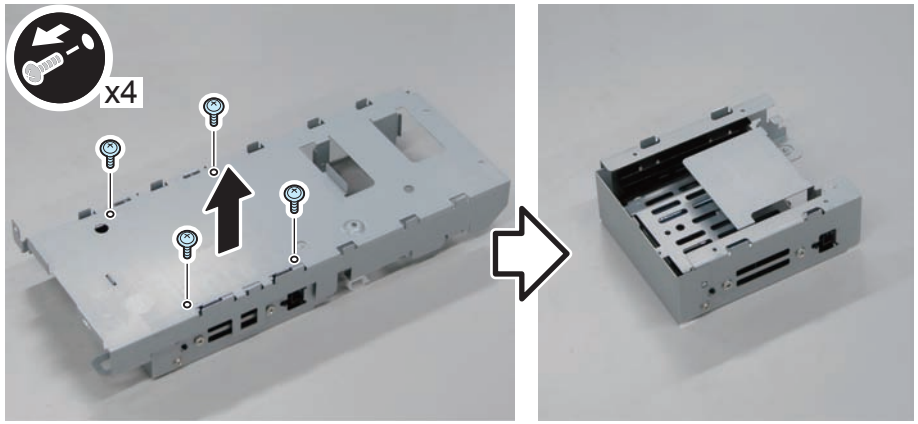
☐
8) Remove the HDD Unit.
- 2 Screws

CAUTION:
- Be careful not to drop the screw.
- Pull out the HDD Unit until it stops, and then move it in the direction of the arrow to remove.
- Be careful not to drop the HDD Unit.



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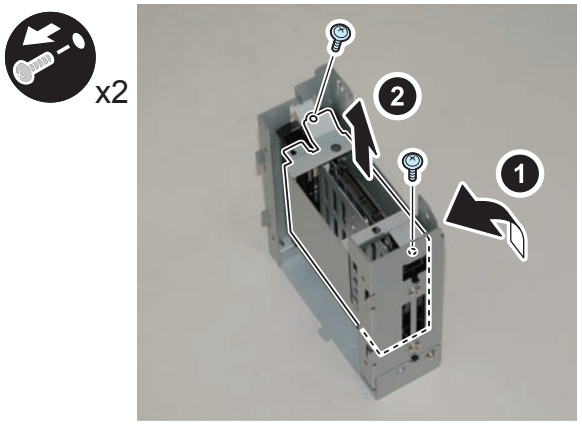
☐
9) Remove the HDD Box from the HDD Unit.
- 4 Screws



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☐
10) Remove the HDD Fixation Plate Unit from the HDD Box.
- 2 Screws

NOTE:
When removing the HDD Fixation Plate Unit, it clicks.



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TYPE-1

Standard HDD + Removable HDD Kit

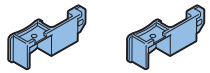
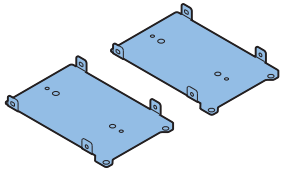
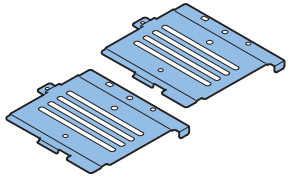
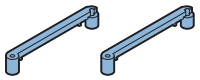
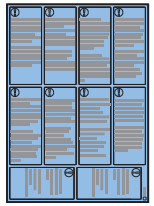
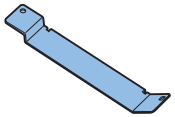
Points to Note at Installation

CAUTION:

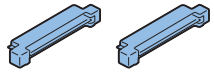
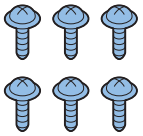
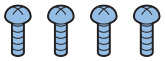
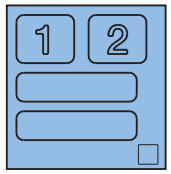
Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[Removable HDD Kit-AF1]

☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 Use 1 of them 	☐ [3] HDD Connector Plate X 2 Use 1 of them 
☐ [4] HDD Cover X 2 Use 1 of them 	☐ [5] Connector Fixing Block X 2 Use 1 of them 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] HDD Blanking Plate X 1 

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☐ [10] Conversion Connector X 2 Use 1 of them 	☐ [11] IV Cable X 1 	☐ [12] Screw (R round head TP; M3x6) X 6 Use 5 of them 
☐ [13] Screw (P Tight; M3x8) X 4 Use 2 of them 	☐ [14] R-HDD Label X 1 	☐ [15] HDD Drawer Unit X 1 

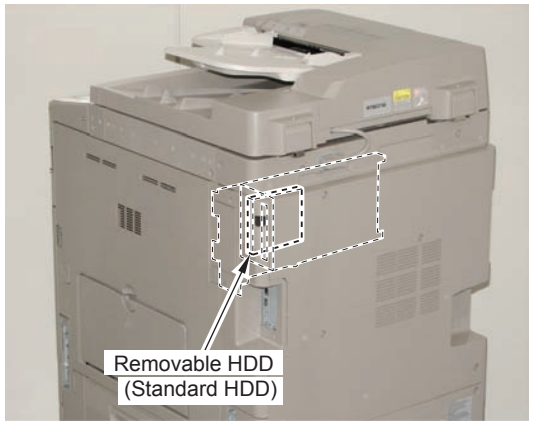
F-9-331

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



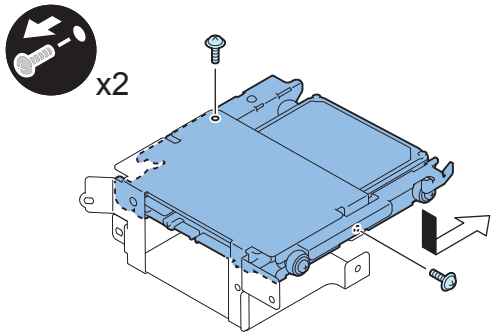
F-9-332

Disassembling/Assembling and Installing the HDD Removed from the Host Machine

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD Fixation Plate and the screws will not be used.)

- 2 Screws

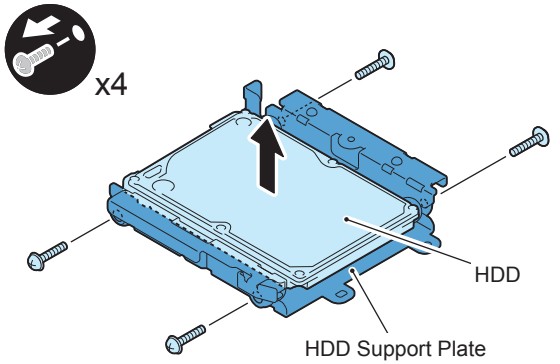


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☐

2) Remove the HDD from the HDD Support Plate. (The removed HDD and screws will be used in a later step.)

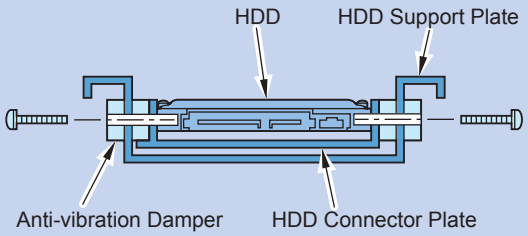
- 4 Screws



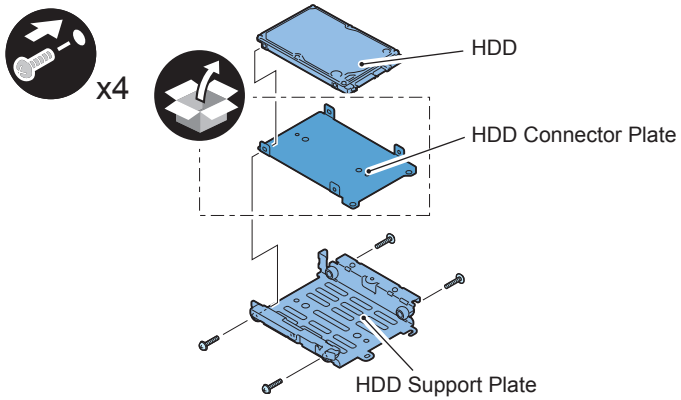
F-9-334

☐
3) Install the HDD Connector Plate first, and then HDD to the HDD Support Plate. (Use the HDD and screws removed in previous step.)
- 4 Screws

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.

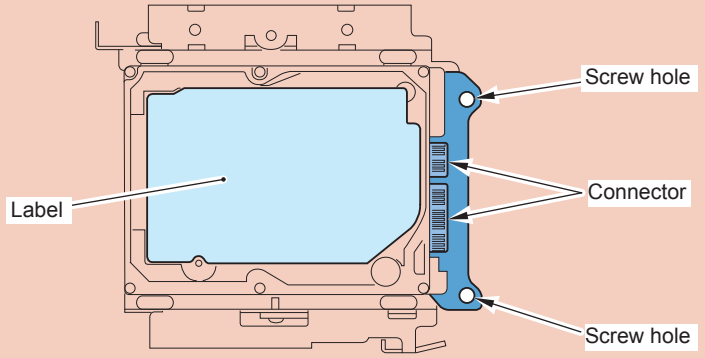


F-9-335



F-9-336

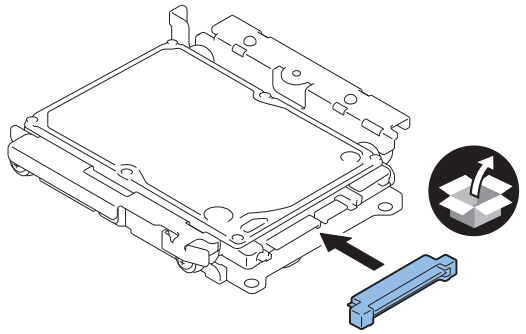
CAUTION:
- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)



F-9-337

☐
4) Install the Conversion Connector.

CAUTION:
Make sure that there is no opening between the Conversion Connector and part of HDD.



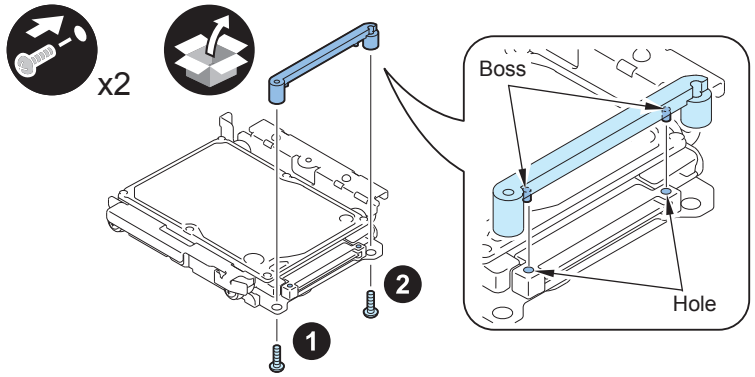
F-9-338

☐ 5) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

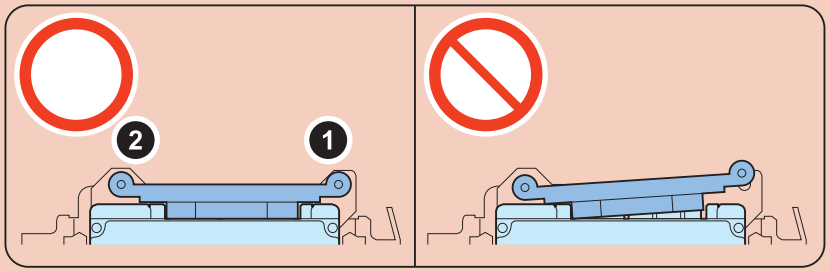
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-339

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



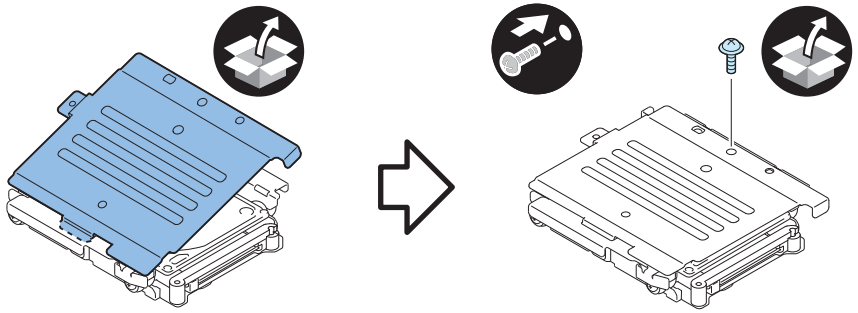
F-9-340

☐ 6) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3X6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



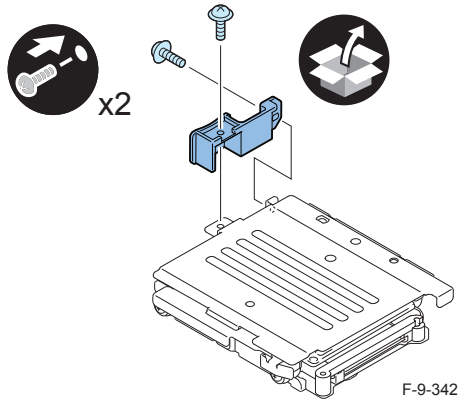
F-9-341

☐ 7) Install the HDD Handle.

- 2 Screws (TP Round End; M3X6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

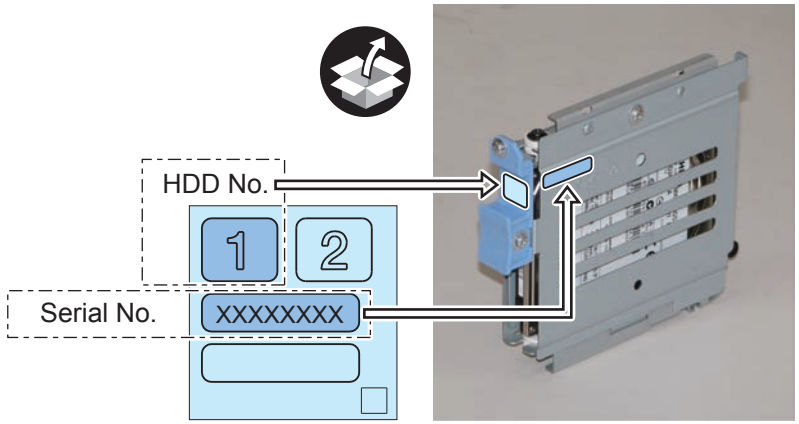


F-9-342

☐

8) Affix the HDD No.1 Label to the handle of the Removable HDD.

9) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-343

Installation to the Host Machine

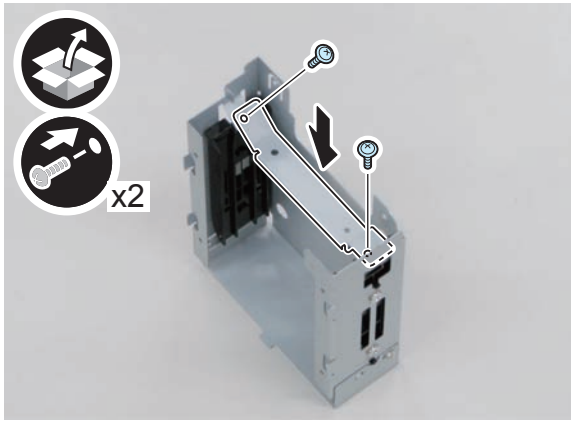
☐

1) Install the HDD Face Plate to the HDD Box.

- 2 Screws (TP Round End; M3X6)

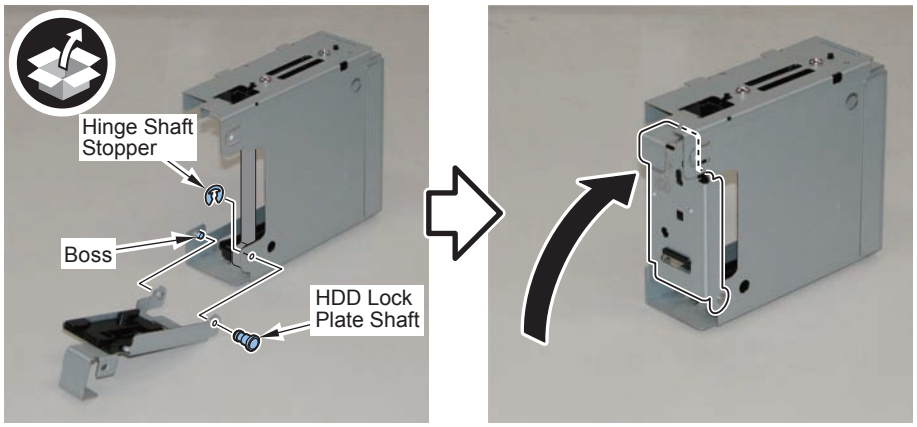
CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



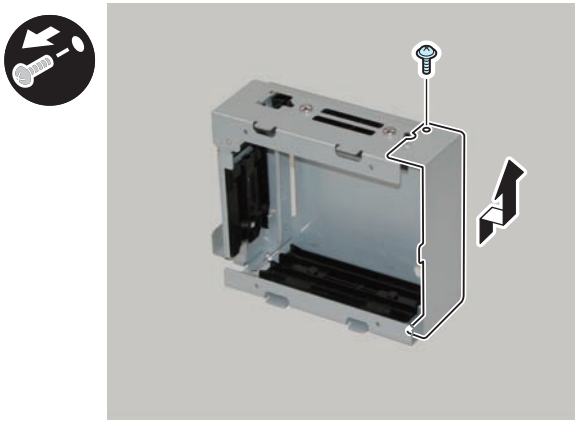
F-9-344

☐
2) Install the HDD Door Unit to the HDD Box.
- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper



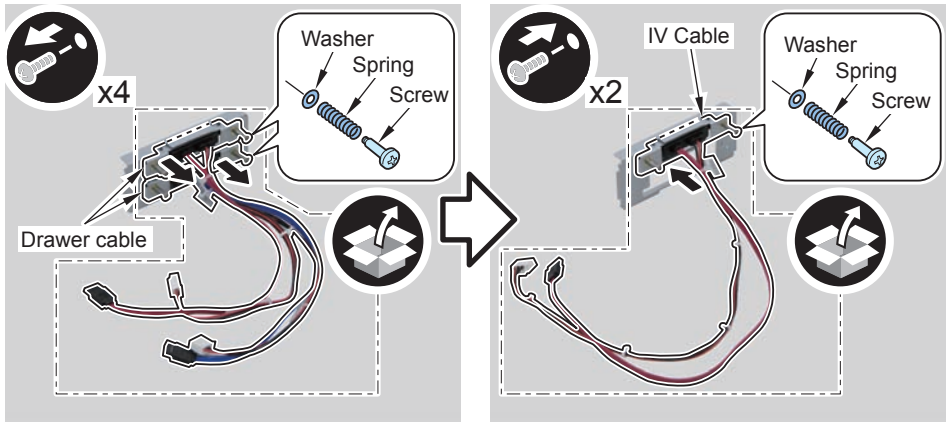
F-9-345

☐
3) Remove the plate from the HDD Box. (The removed plate will not be used.)
- 1 Screw (The removed screw will be used in step 5.)



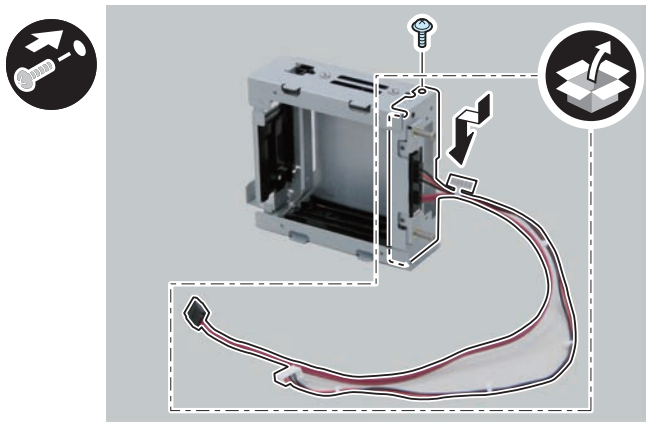
F-9-346

☐
4) Disconnect the 2 Drawer Cables of the HDD Drawer Unit, and replace them with the IV cables. (The removed 2 Drawer Cables will not be used.)
- 4 Screws (Use the 2 screws. The remaining 2 screws will not be used.)
- 4 Springs (Use the 2 springs. The remaining 2 springs will not be used.)
- 4 Washers (Use the 2 washers. The remaining 2 washers will not be used.)



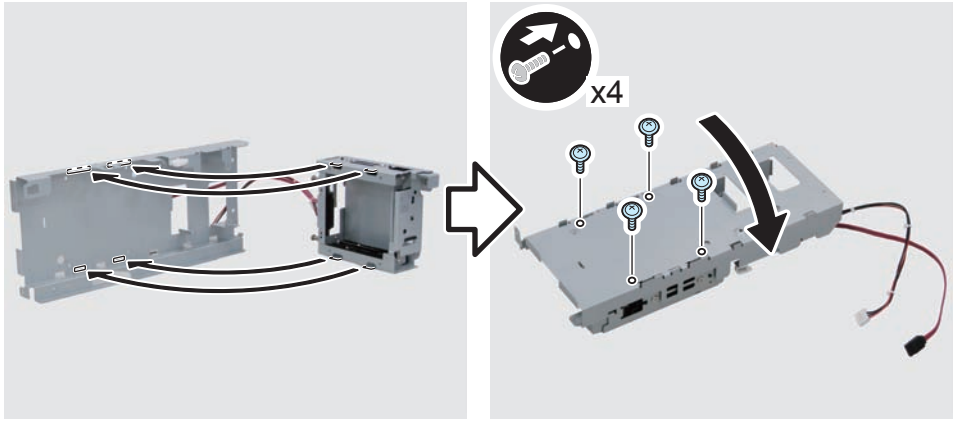
F-9-347

☐
5) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 3.)



F-9-348

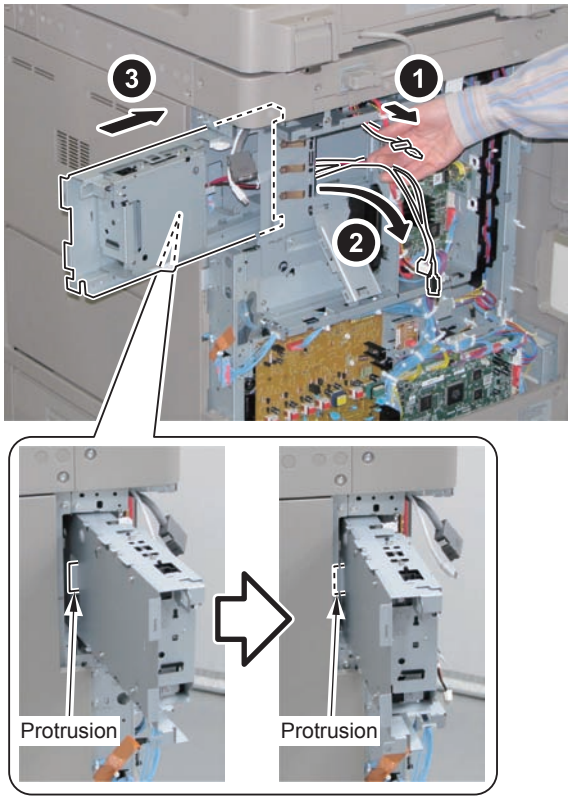
☐
6) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-349

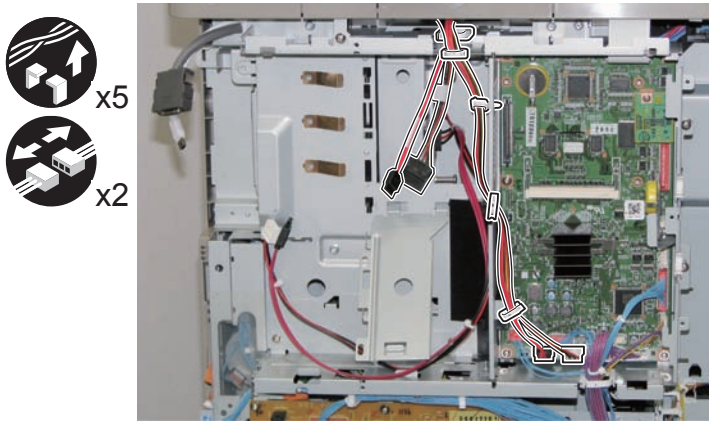
☐
7) Put the 2 cables through, and return the HDD Unit to the host machine.

NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the cable in the host machine.



F-9-350

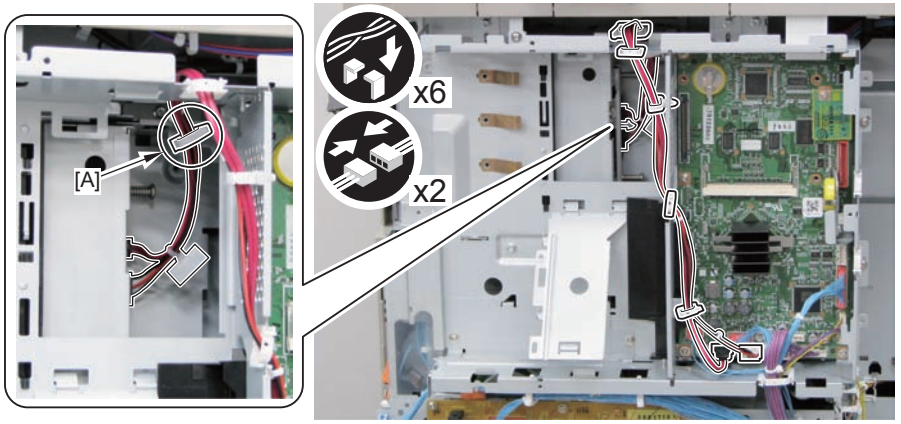
☐
8) Disconnect the 2 cables on the Controller side. (The 2 removed cables will not be used.)
- 2 Connectors
- 3 Edge Saddles
- 2 Wire Saddles



F-9-351

☐
9) Connect the 2 cables of the HDD Unit.
- 2 Connectors
- 3 Edge Saddles
- 3 Wire Saddles

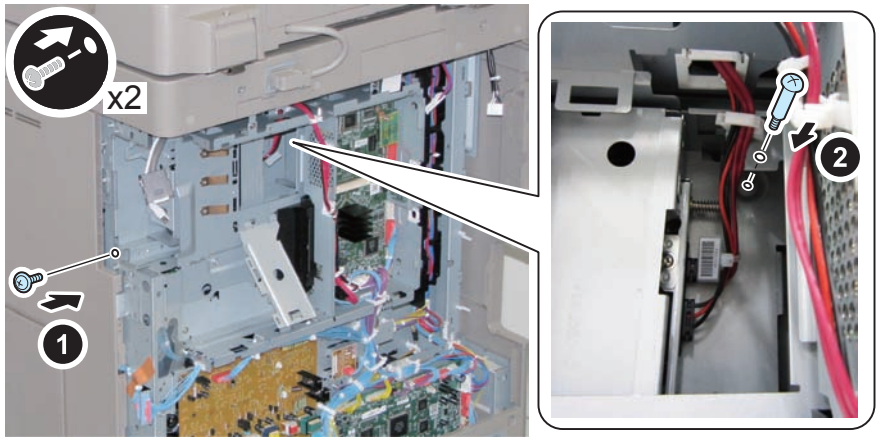
NOTE:
Be sure to pass the cable through the Wire Saddle [A] when connecting.



F-9-352

☐
10) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-353

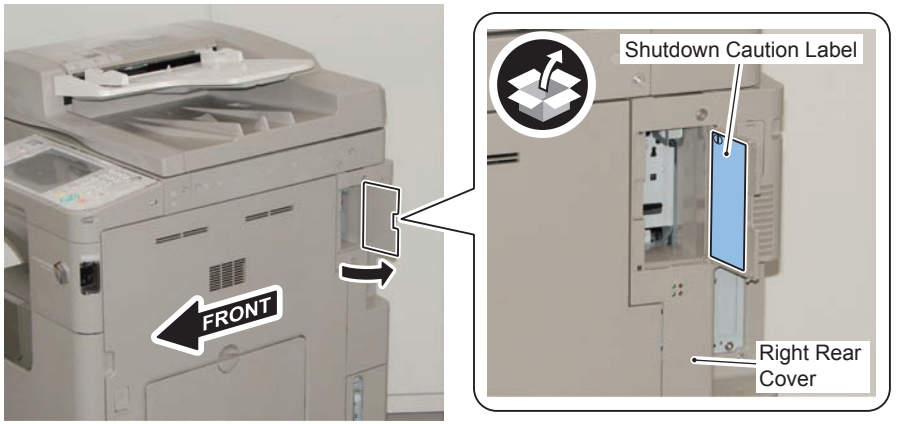
☐
11) Close the plate.
12) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

☐
13) Connect the USB Cable and the Control Panel Communication Cable.
14) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
15) pen the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label



F-9-354

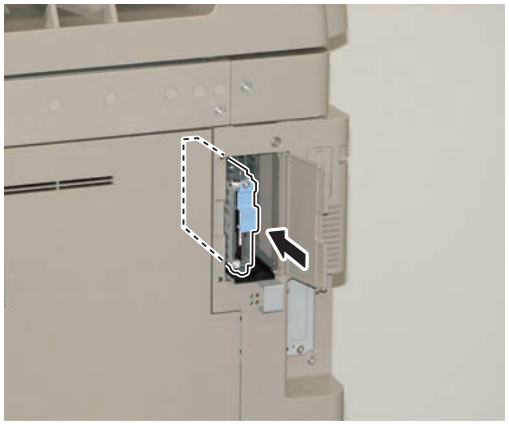
☐
16) Open the HDD Door Unit.



F-9-355

☐
17) Install the Removable HDD 1 (front).

NOTE:
Be sure to insert it until it stops.



F-9-356

☐
18) Close the HDD Door Unit.
19) Be sure to request the user to padlock the removable HDD to discourage theft.
20) Close the Small Cover of the Right Rear Cover.

TYPE-2

Standard HDD + HDD Data Encryption & Mirroring Kit

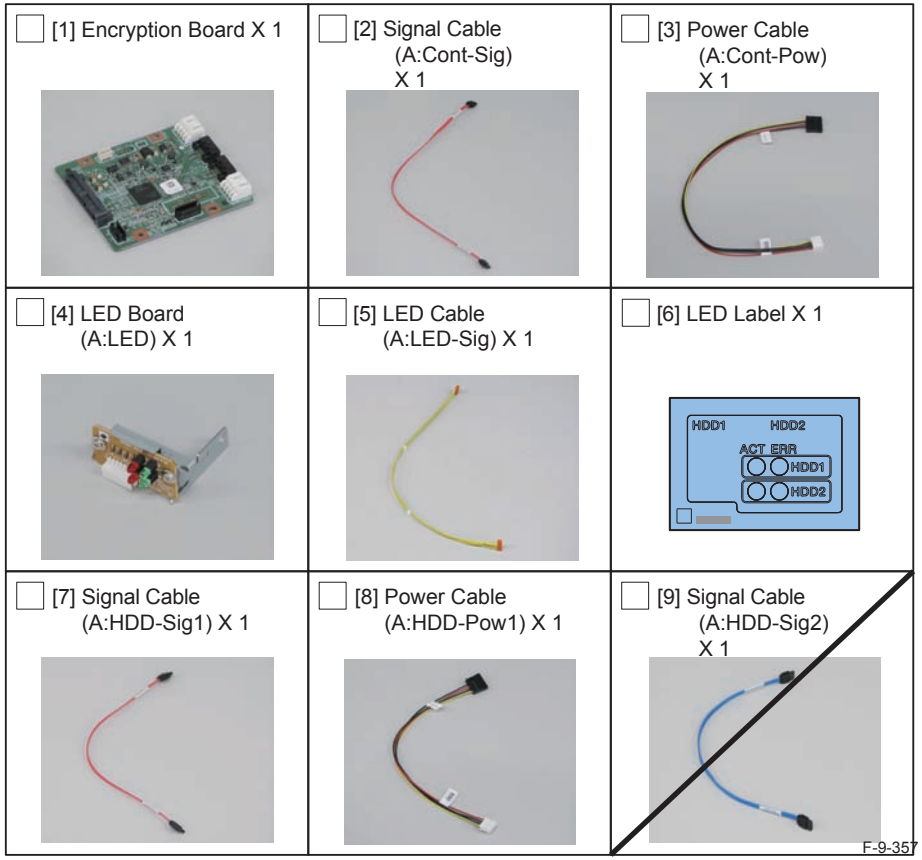
Points to Note at Installation

CAUTION:

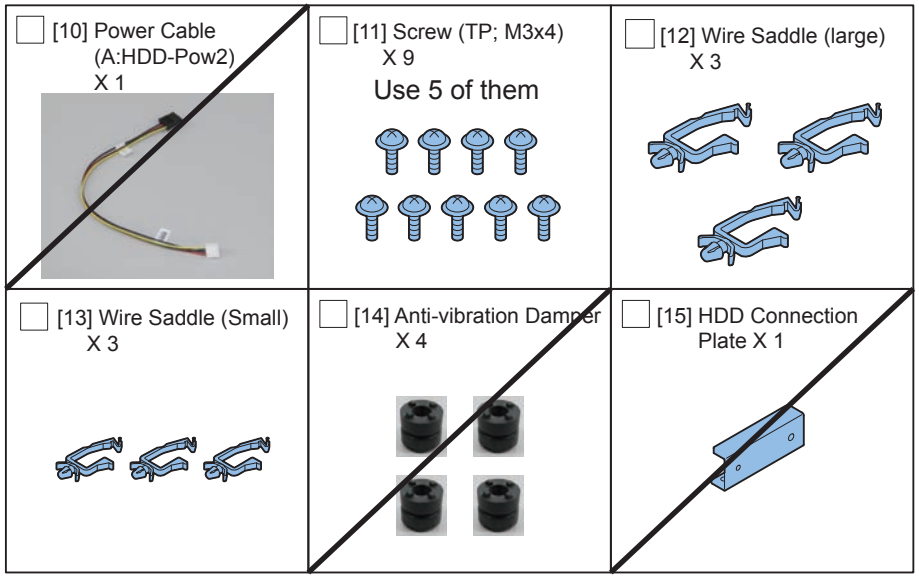
Be sure to perform steps 1 to 8 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[HDD Data Encryption & Mirroring Kit-C4]



F-9-357



F-9-358

<CD/Guide>

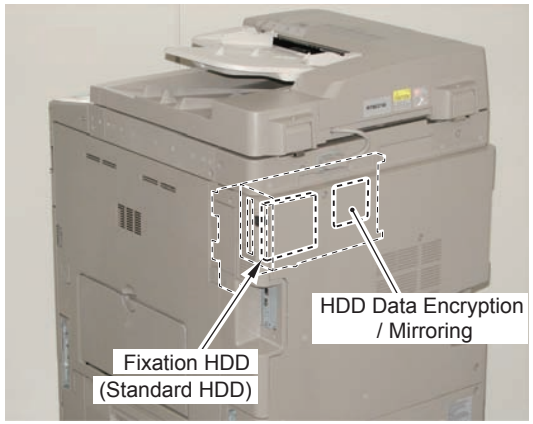
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



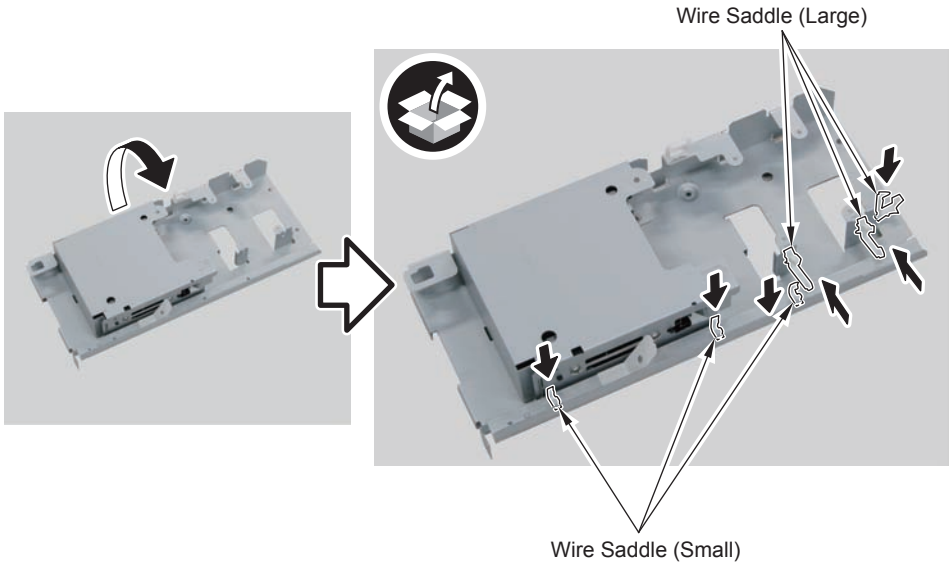
F-9-359

Installing the Encryption Board

☐

1) Install the Wire Saddles to the HDD Unit removed from the host machine.

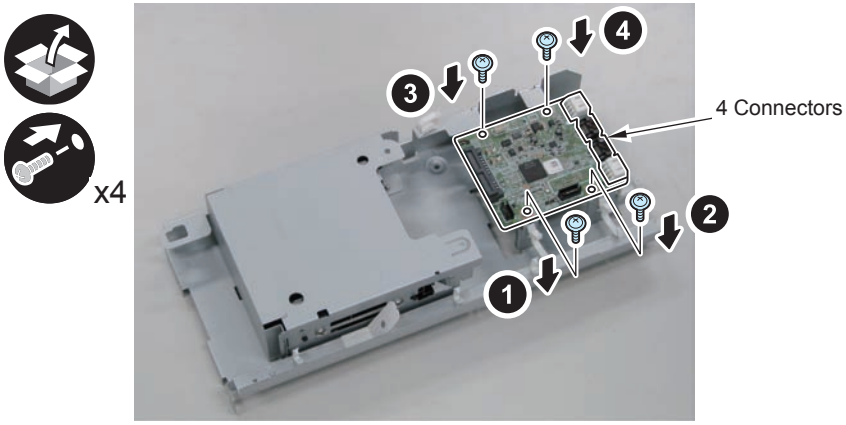
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)



F-9-360

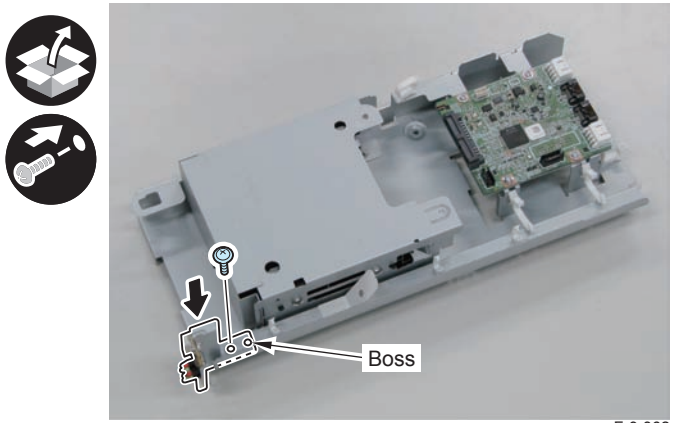
☐
2) Install the Encryption Board.
- 4 Screws (TP; M3X4)

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



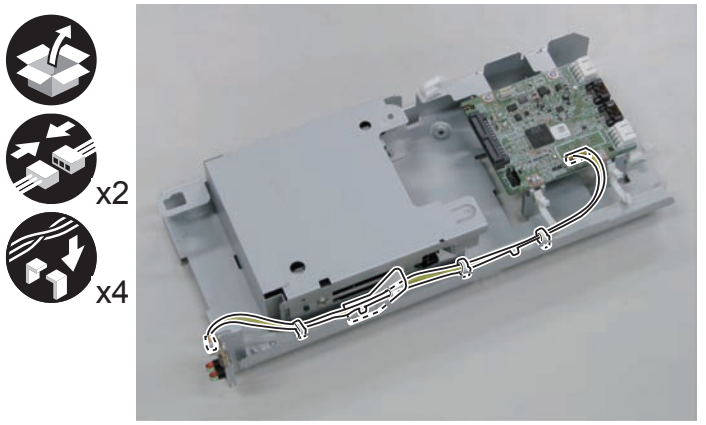
F-9-361

☐
3) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-362

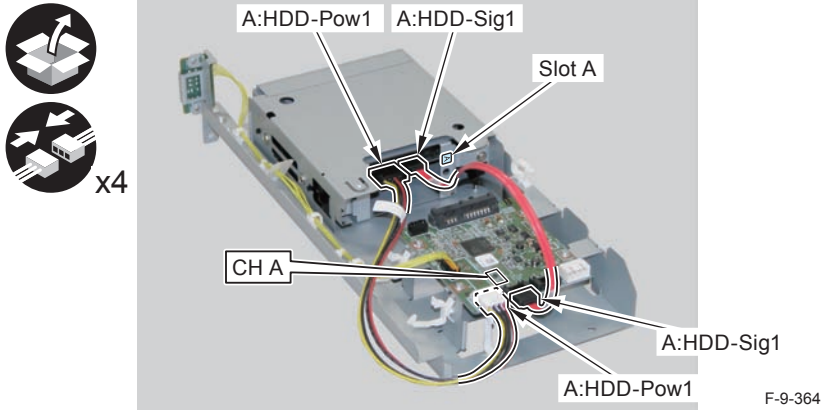
☐
4) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-363

☐
5) Install the Signal Cable (A:HDD-Sig1) and the Power Supply Cable (A:HDD-Pow1).
- 2 Connectors (A:HDD-Sig1)
- 2 Connectors (A:HDD-Pow1)

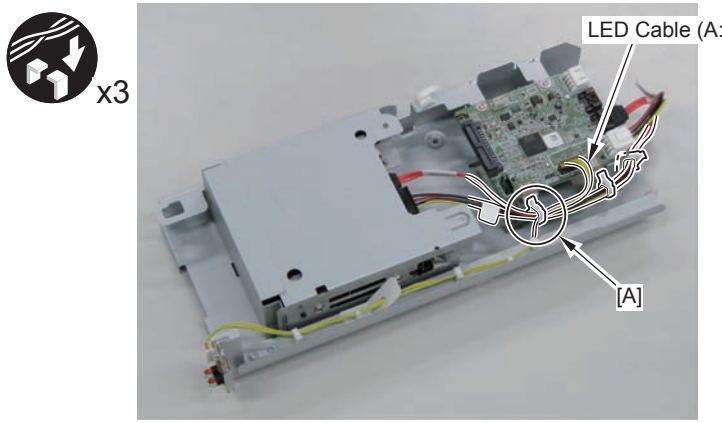
NOTE:
Be sure to connect "A:HDD-Sig1" and "A:HDD-Pow1" to the slot [A] of the HDD and [CH-A] of the PCB.



F-9-364

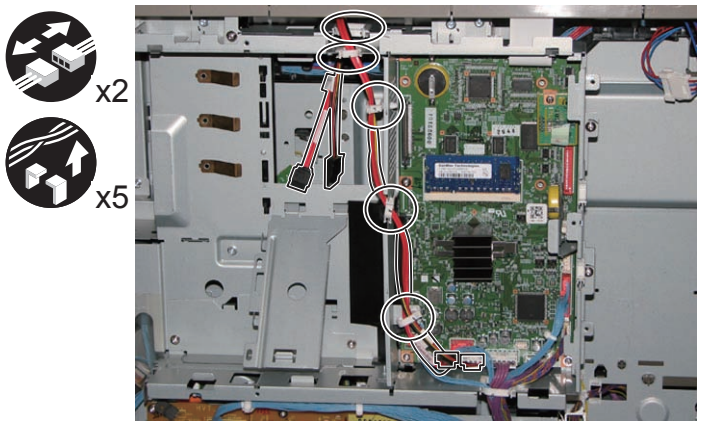
☐
6) Secure the cables in place using the Wire Saddles.
- 3 Wire Saddles (Large)

NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



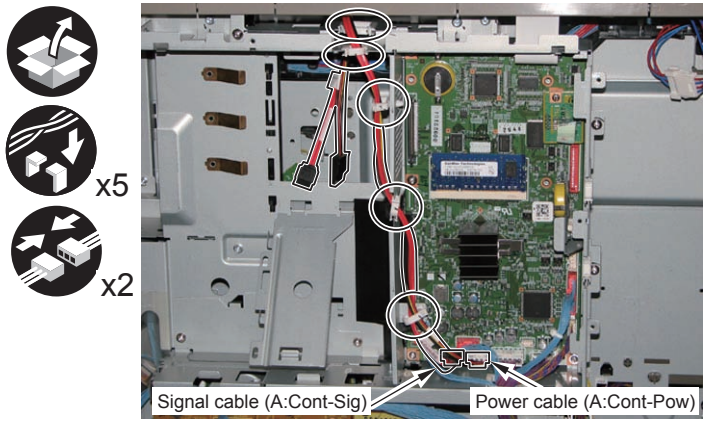
F-9-365

☐
7) Disconnect the 2 cables. (The 2 removed cables will not be used.)
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-366

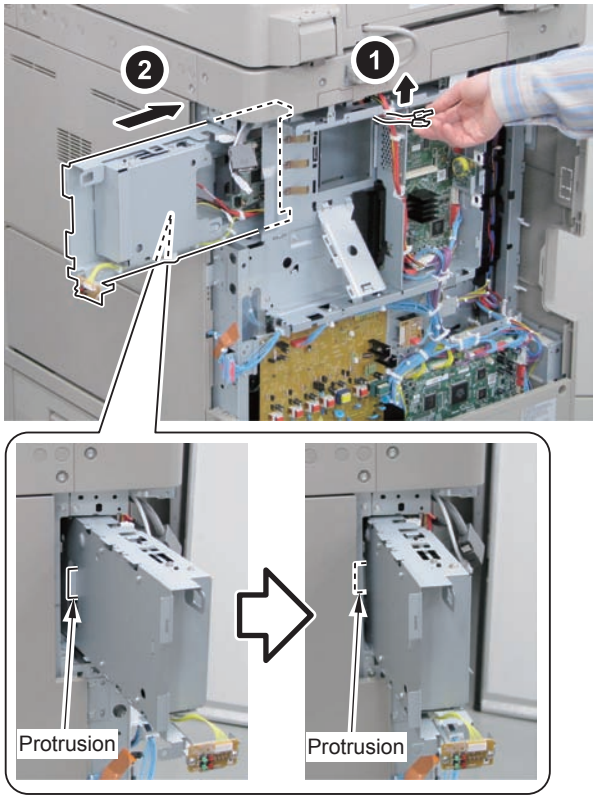
☐
8) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-367

☐
9) Return the HDD Unit to the host machine.

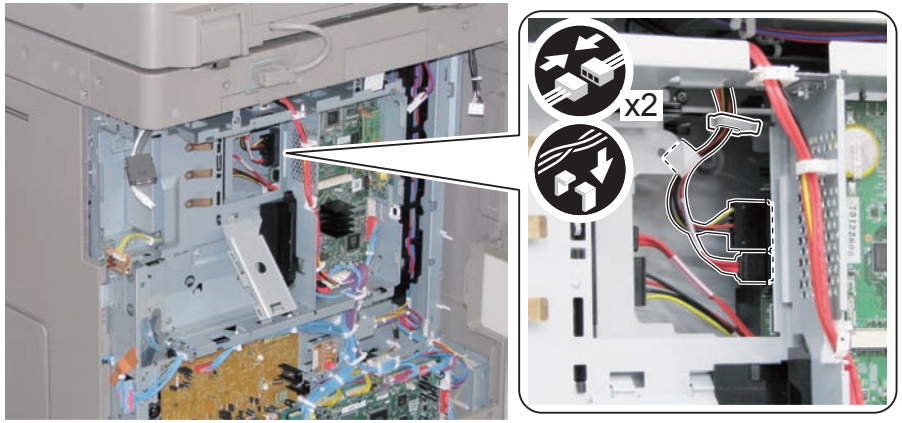
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-368

☐
10) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

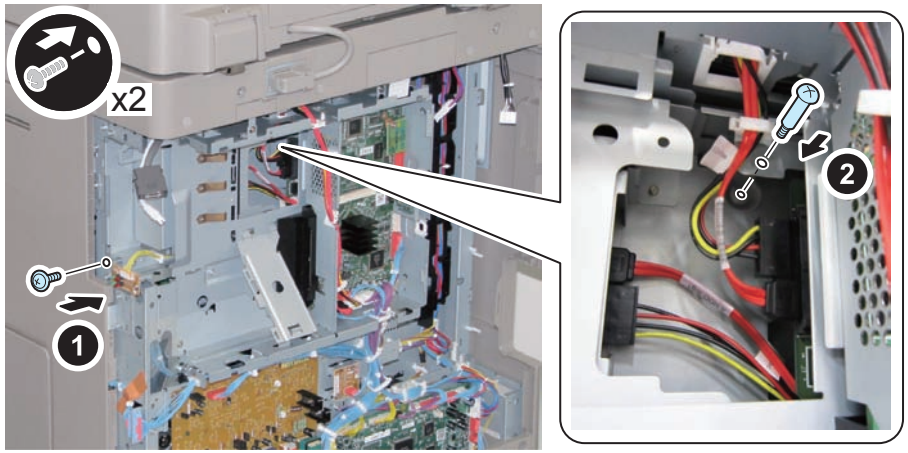
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-369

☐
11) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-370

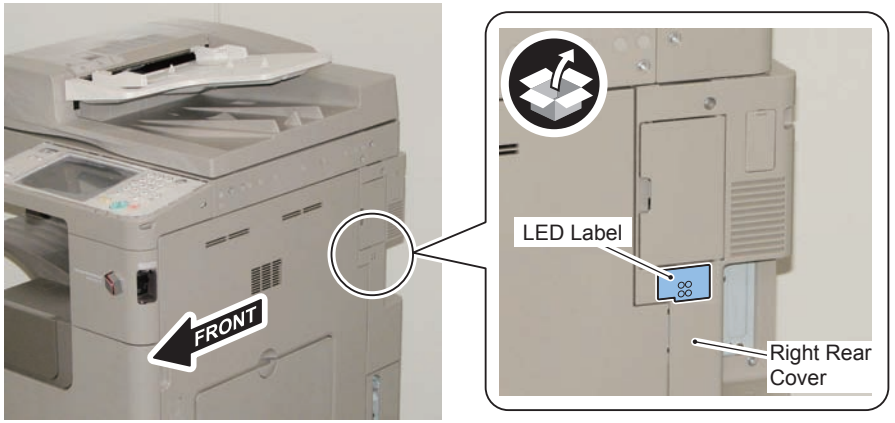
☐
12) Close the plate.
13) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

14)) Connect the USB Cable and the Control Panel Communication Cable.
15) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
16) Affix the label to the Right Rear Cover.
- 1 LED Label



F-9-371

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-3

Standard HDD + Removable HDD Kit+ HDD Data Encryption & Mirroring Kit

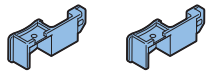
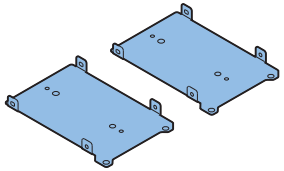
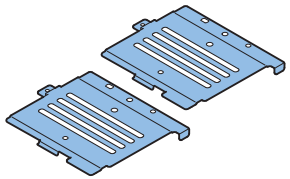
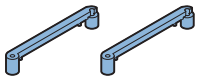
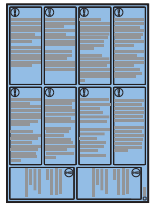
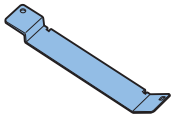
Points to Note at Installation

CAUTION:

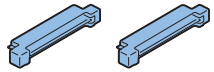
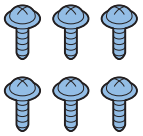
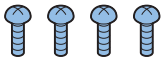
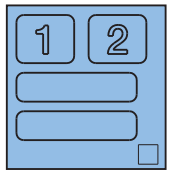
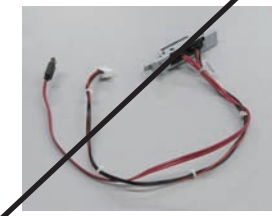
Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[Removable HDD Kit-AF1]

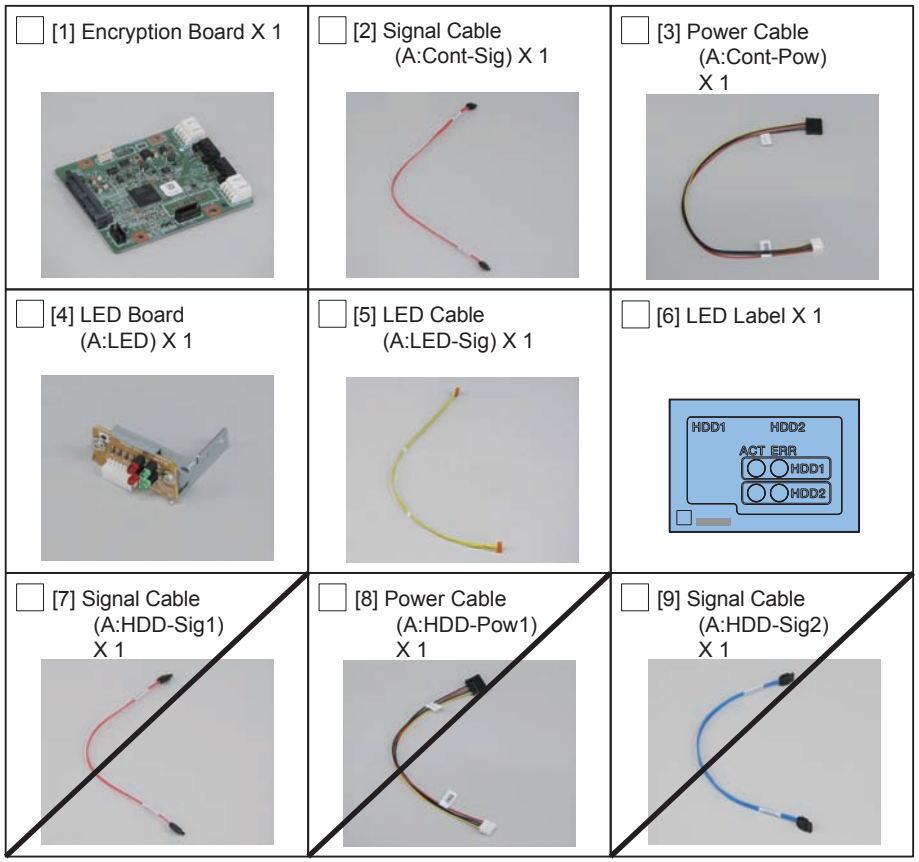
☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 Use 1 of them 	☐ [3] HDD Connector Plate X 2 Use 1 of them 
☐ [4] HDD Cover X 2 Use 1 of them 	☐ [5] Connector Fixing Block X 2 Use 1 of them 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] HDD Blanking Plate X 1 

F-9-372

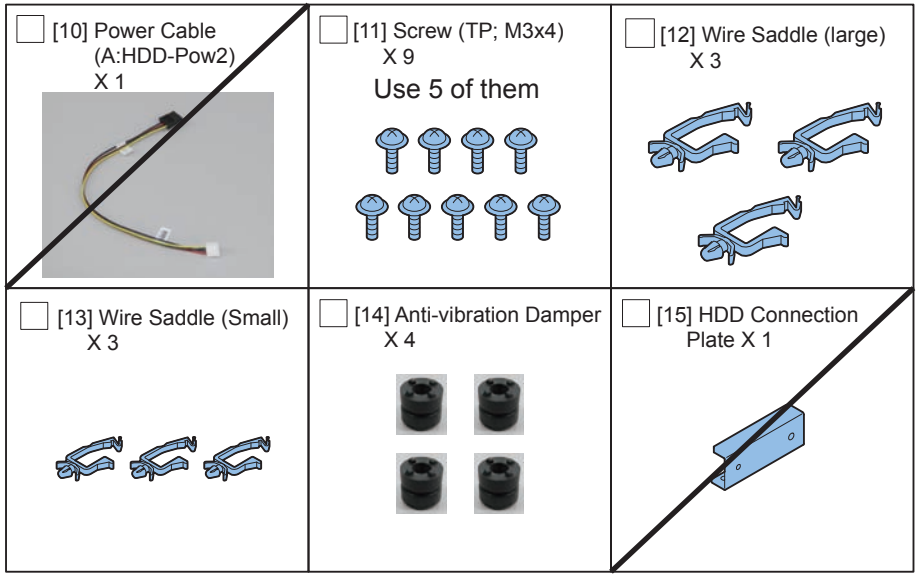
☐ [10] Conversion Connector X 2 Use 1 of them 	☐ [11] HDD Drawer Unit X 1 	☐ [12] Screw (R round head TP; M3x6) X 6 Use 5 of them 
☐ [13] Screw (P Tight; M3x8) X 4 Use 2 of them 	☐ [14] R-HDD Label X 1 	☐ [15] IV Cable X 1 

F-9-373

[HDD Data Encryption & Mirroring Kit-C4]



F-9-374



F-9-375

<CD/Guide>

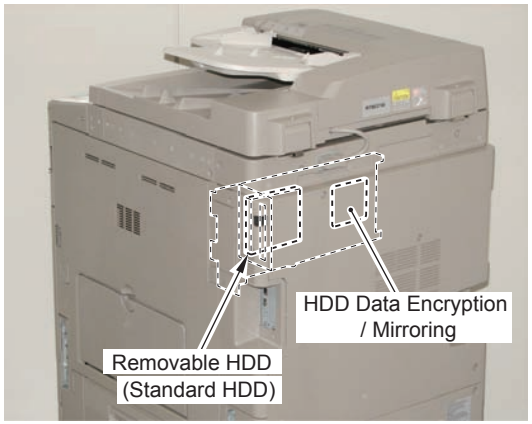
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



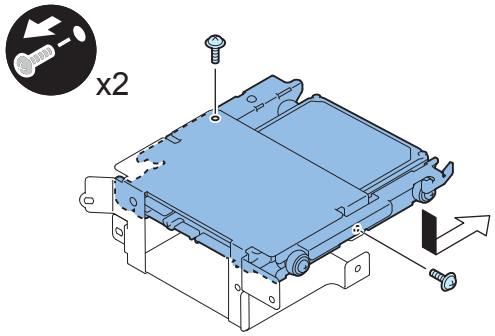
F-9-376

Disassembling/Assembling and Installing the HDD Removed from the Host Machine

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD Fixation Plate and the screws will not be used.)

- 2 Screws

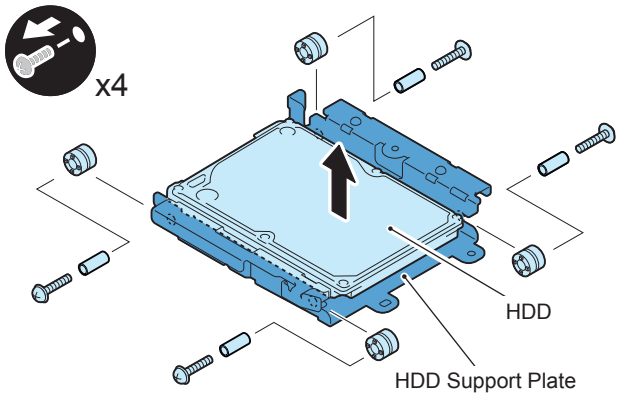


F-9-377

☐

2) Remove the HDD from the HDD Support Plate. (Parts other than the Anti-vibration Damper will be used later.)

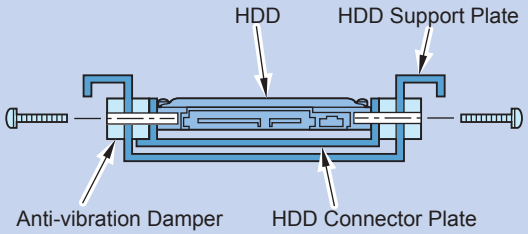
- 4 Screws
- 4 Spacers
- 4 Anti-vibration Damper (The removed Anti-vibration Dampers will not be used.)



F-9-378

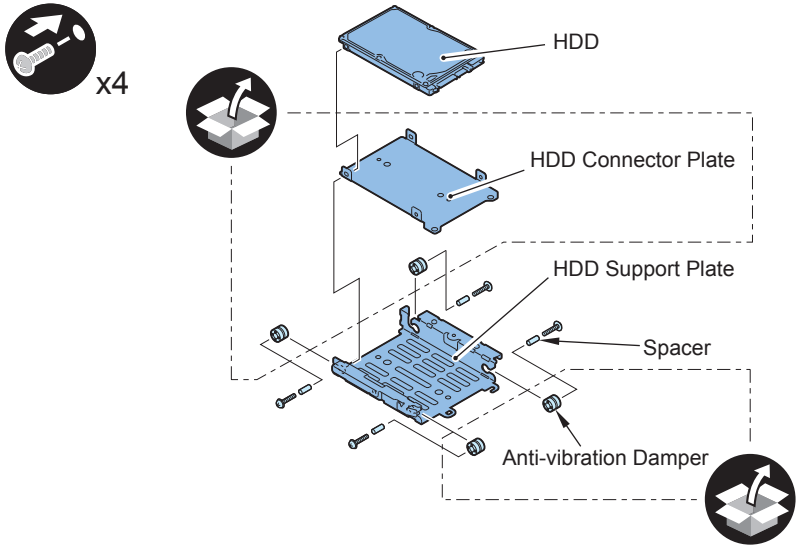
☐
3) Assemble the HDD.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



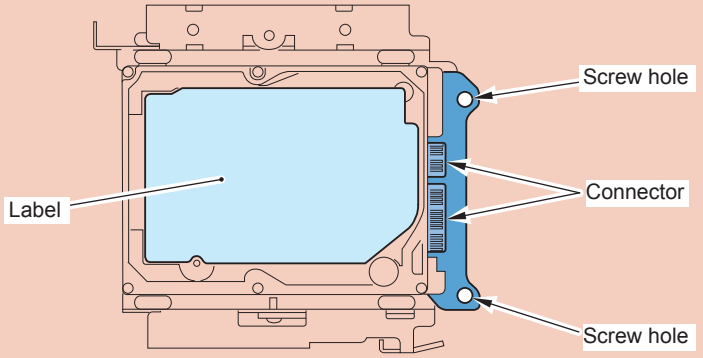
F-9-379

- 1 HDD Support Plate (Use the parts removed in the previous procedure.)
- 4 Anti-vibration Damper (enclosed with HDD Data Encryption & Mirroring Kit.)
- 1 HDD Connector Plate (enclosed with option Removable HDD)
- HDD (Use the parts removed in the previous procedure.)
- 4 Spacers (Use the parts removed in the previous procedure.)
- 4 Screws (Use the parts removed in the previous procedure.)



F-9-380

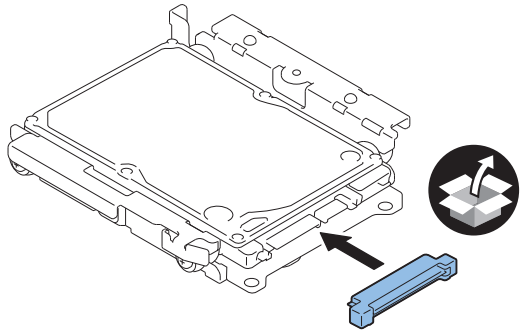
CAUTION:
- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)



F-9-381

☐
4) Install the Conversion Connector.

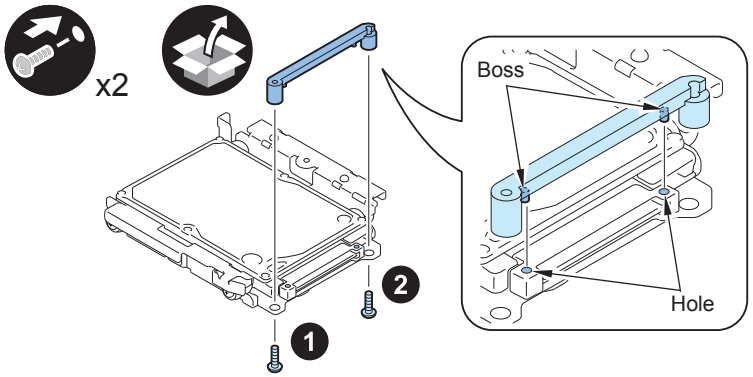
CAUTION:
Make sure that there is no opening between the Conversion Connector and part of HDD.



F-9-382

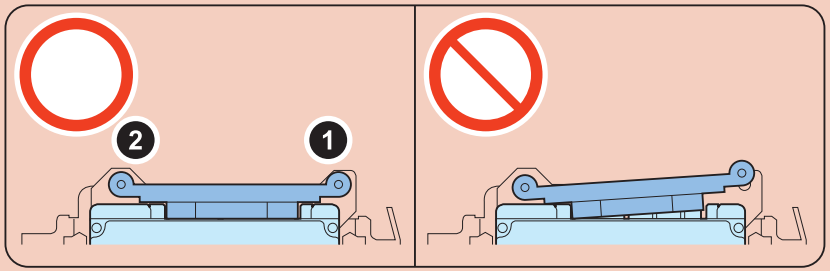
☐
5) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.
- 2 Screws (P Tight; M3X8)

CAUTION:
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-383

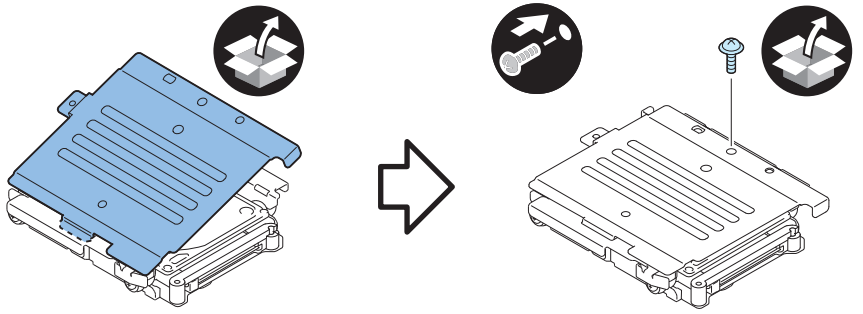
CAUTION:
- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-384

☐
6) Install the HDD Cover.
- 1 Claw
- 1 Screw (TP Round End; M3X6)

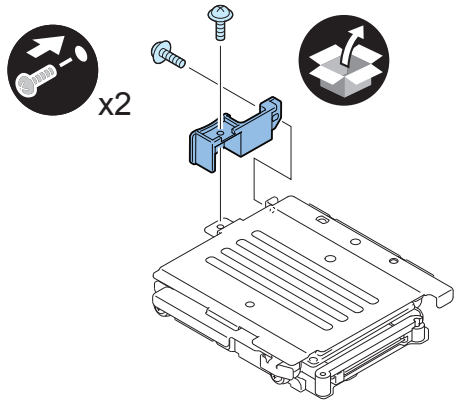
CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-385

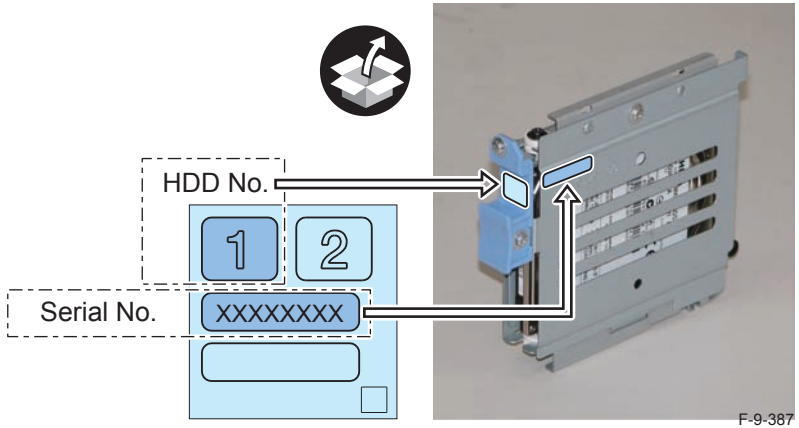
☐
7) Install the HDD Handle.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-386

☐
8) Affix the HDD No.1 Label to the handle of the Removable HDD.
9) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

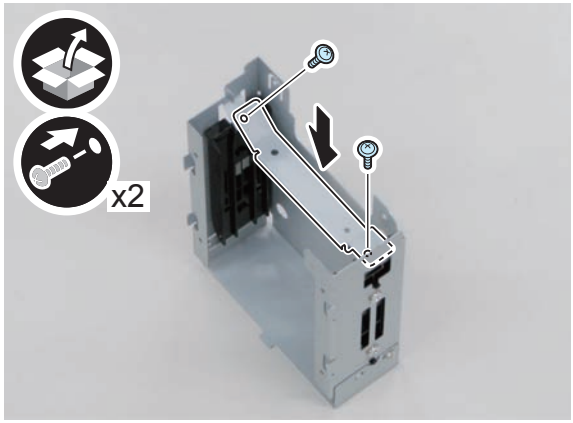


F-9-387

Installation to the Host Machine

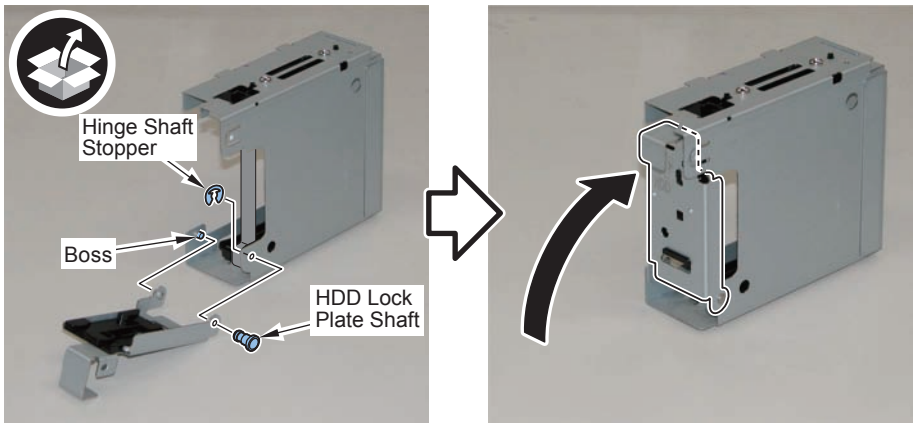
☐
1) Install the HDD Face Plate to the HDD Box.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



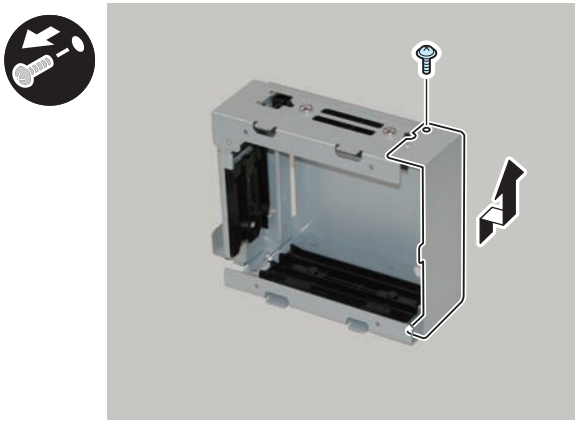
F-9-388

☐
2) Install the HDD Door Unit to the HDD Box.
- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper



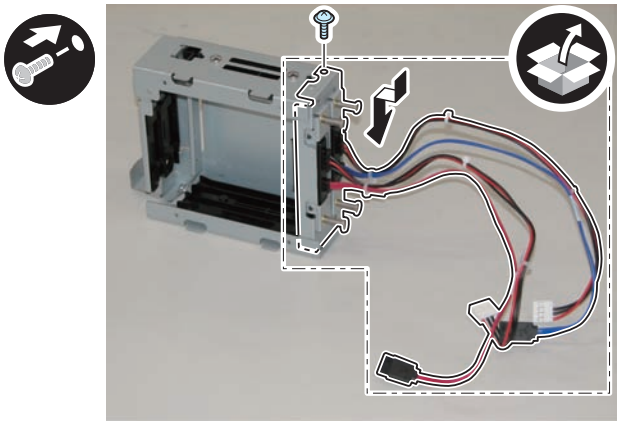
F-9-389

☐
3) Remove the plate from the HDD Box. (The removed plate will not be used.)
- 1 Screw (The removed screw will be used in step 4.)



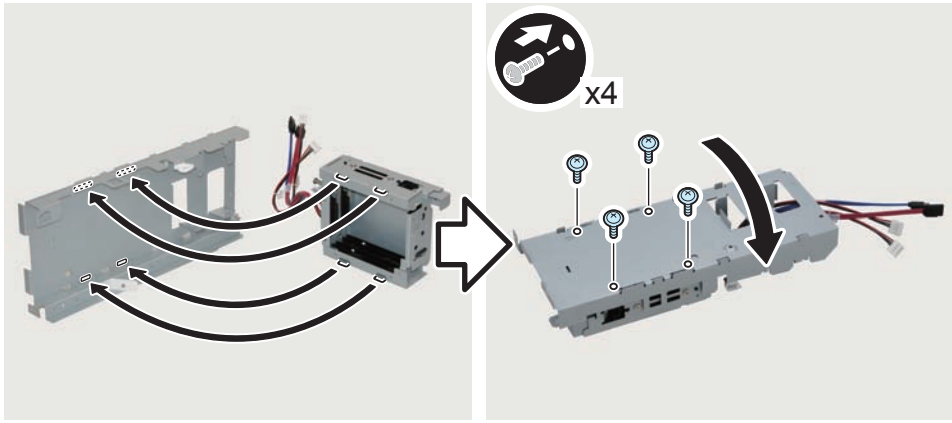
F-9-390

☐
4) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 3.)



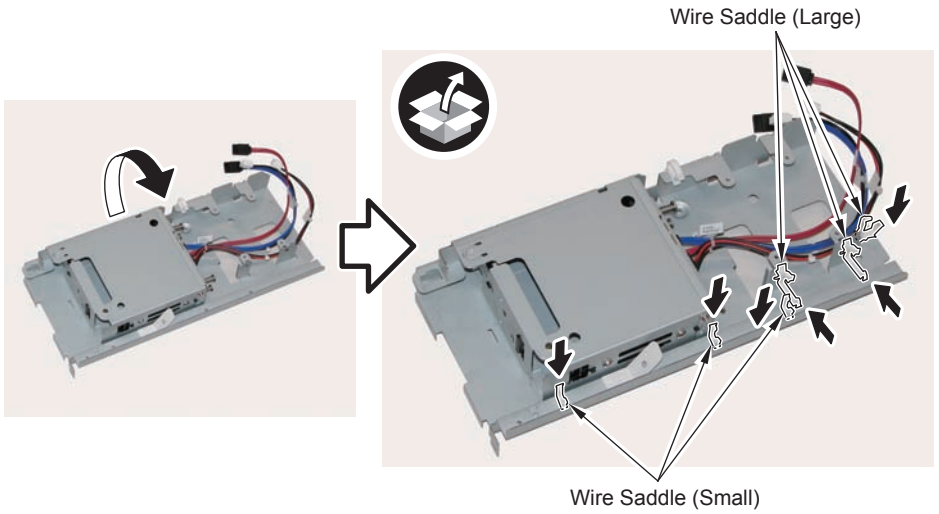
F-9-391

☐
5) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-392

☐
6) Install the Wire Saddles.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)

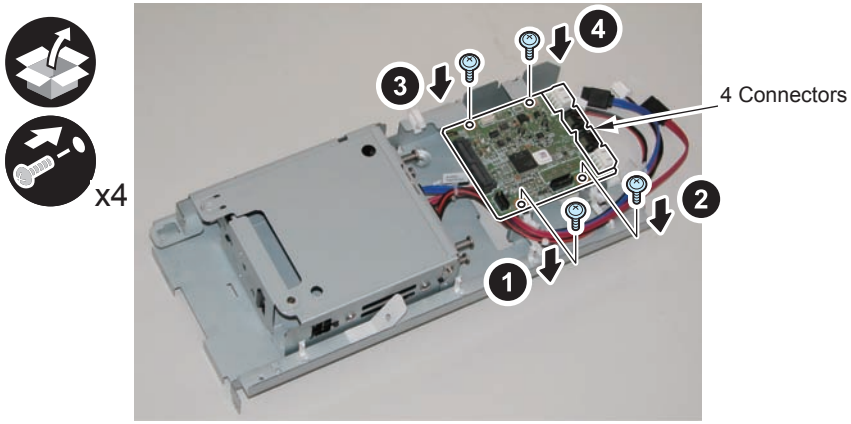


F-9-393

☐
7) Install the Encryption Board.
- 4 Screws (TP; M3X4)

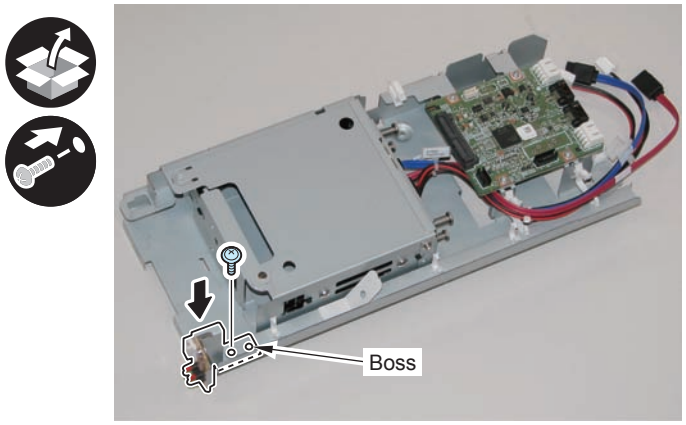
CAUTION:
Be sure to put the cables on the Wire Saddle to prevent it from getting under the board.

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



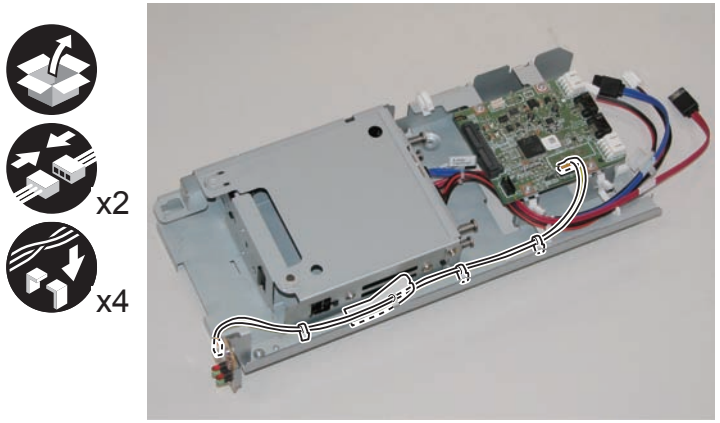
F-9-394

☐
8) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-395

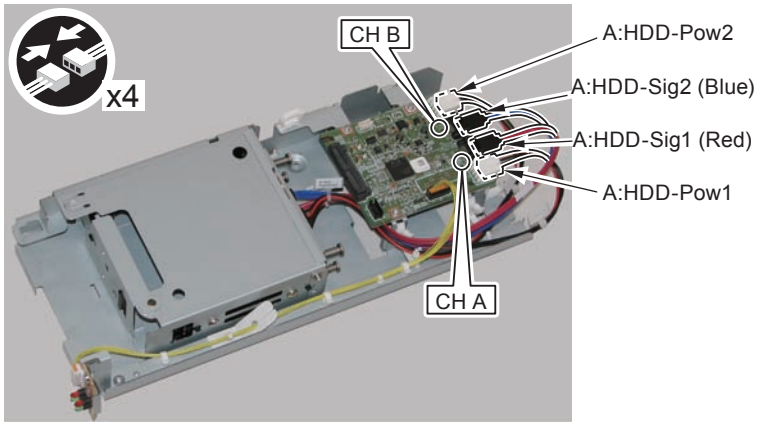
☐
9) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-396

☐
10) Connect the cables of the HDD Drawer Unit.
- 2 Connectors of the Signal Cable
- 2 Connectors of the Power Supply Cable

NOTE:
- Be sure to connect "A:HDD-Sig1" (red) and "A:HDD-Pow1" to CH-A of the PCB.
- Be sure to connect "A:HDD-Sig2" (blue) and "A:HDD-Pow2" to CH-B of the PCB.

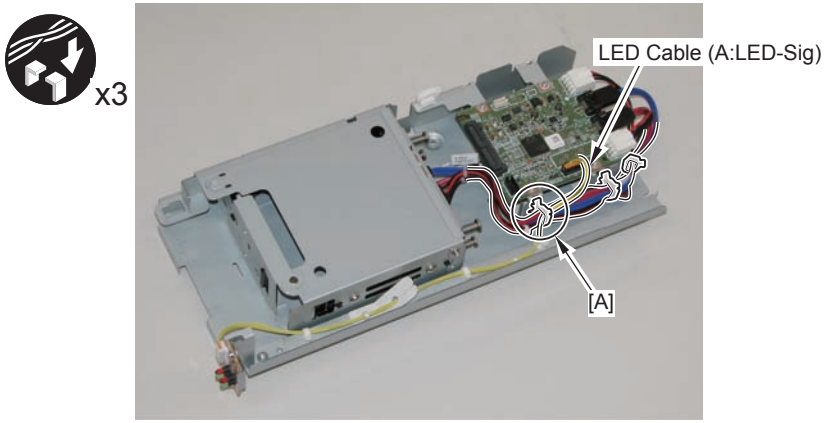


F-9-397

☐ 11) Secure the cables in place using the Wire Saddles.

- 3 Wire Saddles (Large)

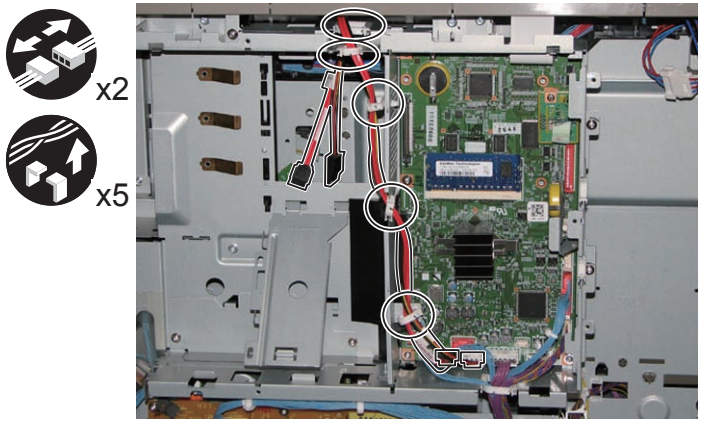
NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



F-9-398

☐ 12) Disconnect the 2 cables. (The 2 removed cables will not be used.)

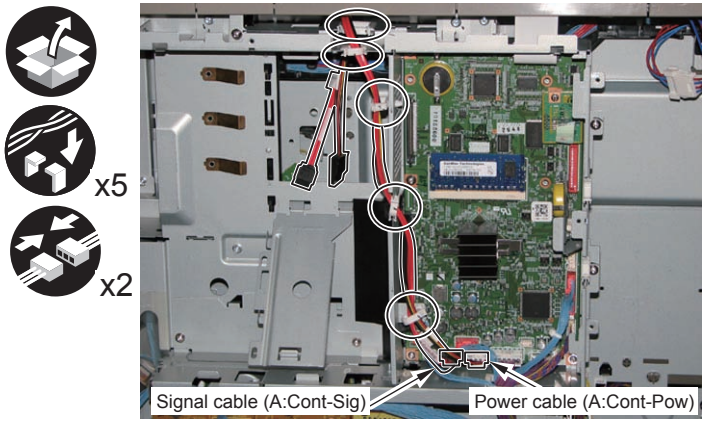
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-399

☐ 13) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).

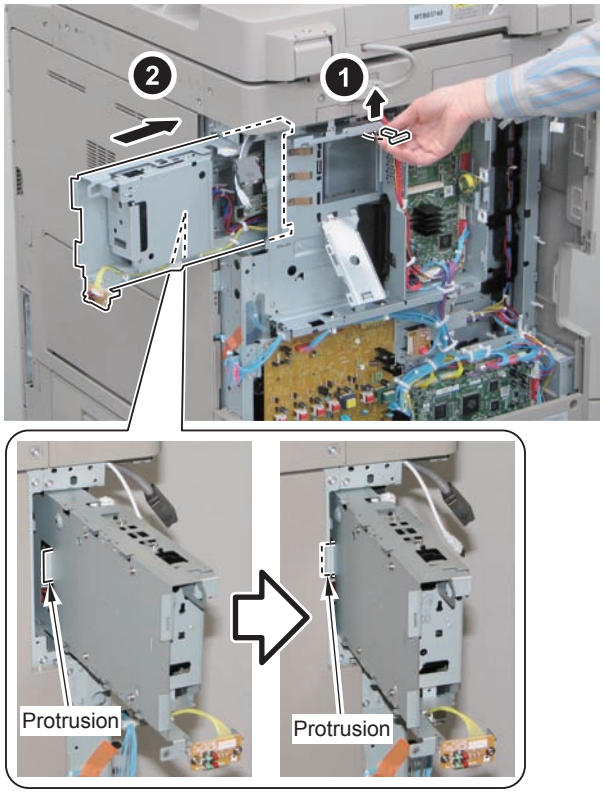
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-400

☐ 14) Return the HDD Unit to the host machine.

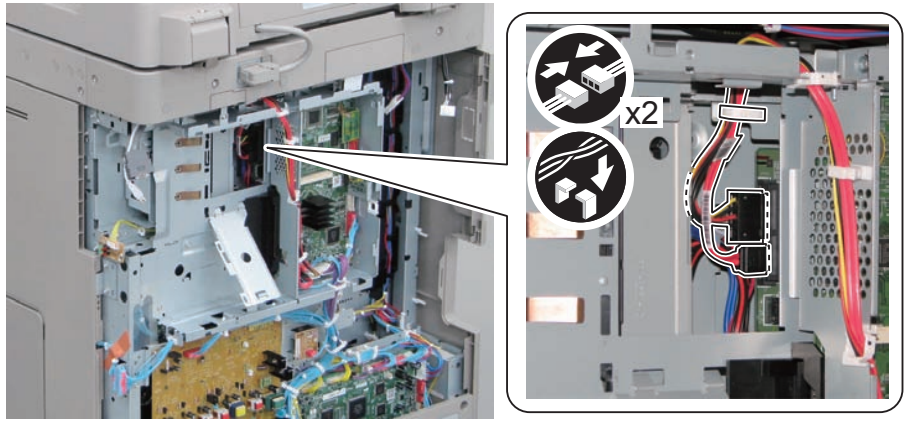
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-401

☐ 15) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

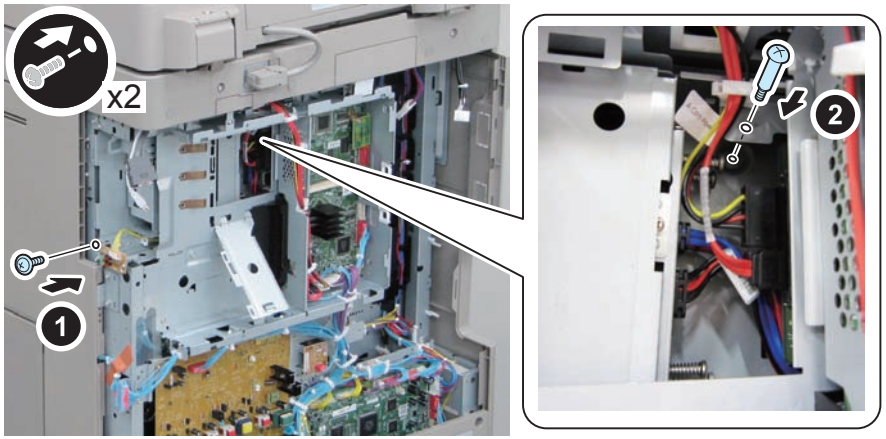
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-402

☐
16) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-403

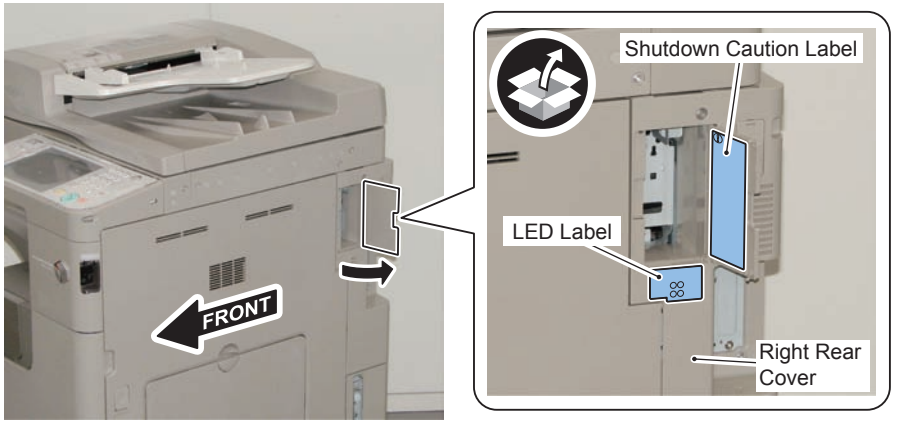
☐
17) Close the plate.
18) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

19) Connect the USB Cable and the Control Panel Communication Cable.
20) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
21) Open the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label
- 1 LED Label



F-9-404

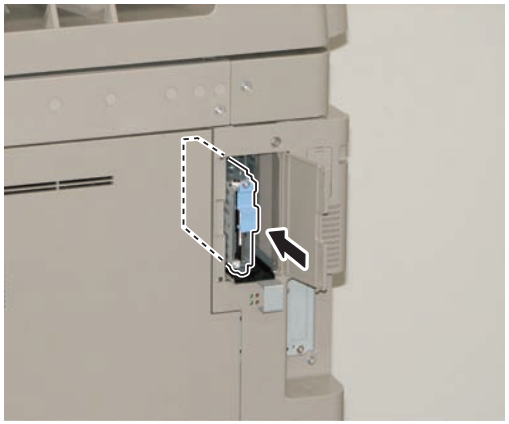
☐
22) Open the HDD Door Unit.



F-9-405

☐
23) Install the Removable HDD 1. (front)

NOTE:
Be sure to insert it until it stops.



F-9-406

☐
24) Close the HDD Door Unit.
25) Be sure to request the user to padlock the removable HDD to discourage theft.
26) Close the Small Cover of the Right Rear Cover.

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
   When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>

When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-4

Standard HDD + Option HDD (80GB) +
HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

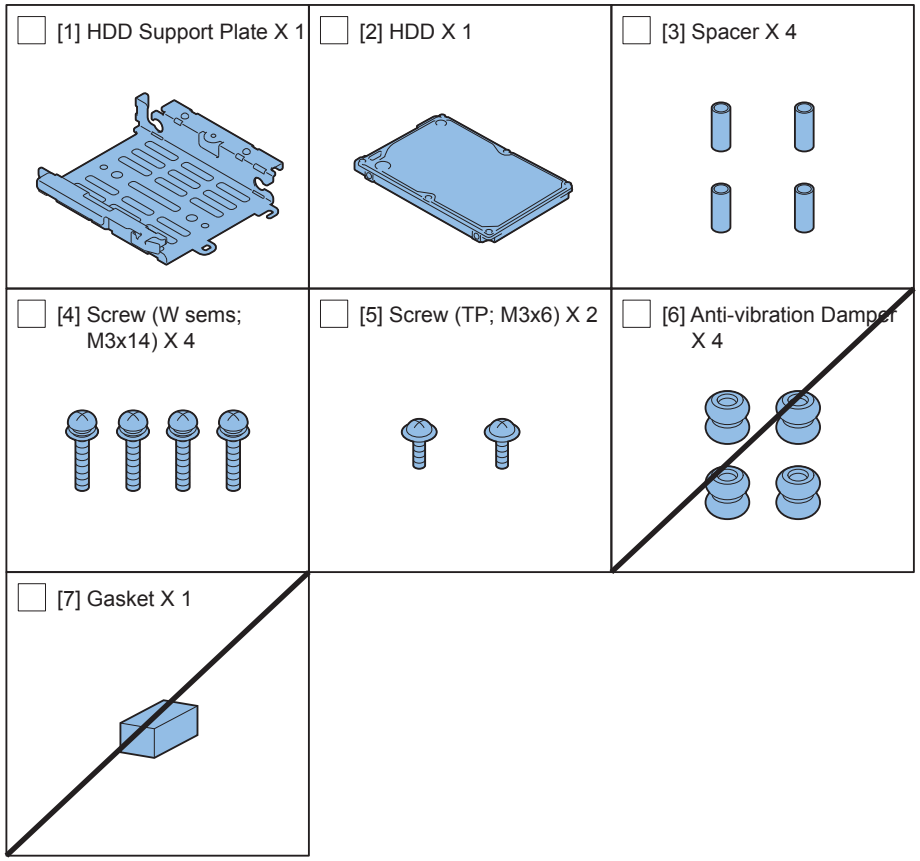
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/80GB HDD-C1]

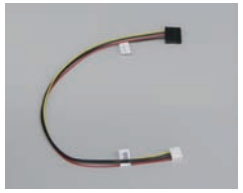
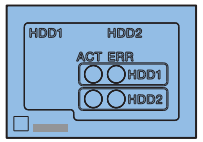


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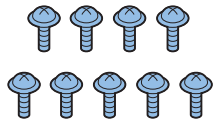
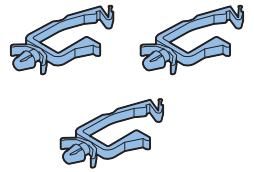
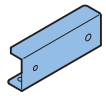
<CD/Guide>

- Noticd for FCC/IC

[HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4]

☐ [1] Mirroring Board or Encryption Board X 1 	☐ [2] Signal Cable (A:Cont-Sig) X 1 	☐ [3] Power Cable (A:Cont-Pow) X 1 
☐ [4] LED Board (A:LED) X 1 	☐ [5] LED Cable (A:LED-Sig) X 1 	☐ [6] LED Label X 1 
☐ [7] Signal Cable (A:HDD-Sig1) X 1 	☐ [8] Power Cable (A:HDD-Pow1) X 1 	☐ [9] Signal Cable (A:HDD-Sig2) X 1 

F-9-408

☐ [10] Power Cable (A:HDD-Pow2) X 1 	☐ [11] Screw (TP; M3x4) X 9 	☐ [12] Wire Saddle (large) X 3 
☐ [13] Wire Saddle (Small) X 3 	☐ [14] Anti-vibration Damper X 4 	☐ [15] HDD Connection Plate X 1 

F-9-409

< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit-D1 User Documentation
- Notice for FCC/IC

< CD/Guides of HDD Data Encryption & Mirroring Kit >

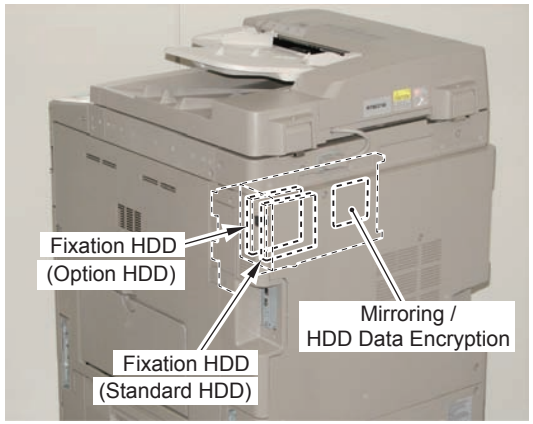
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-410

Assembling the Option HDD

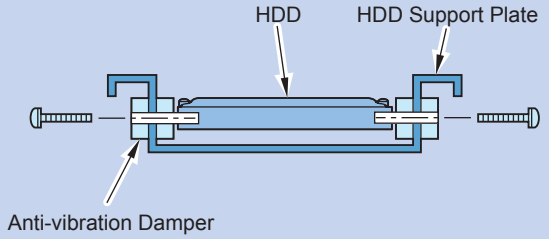
☐

1) Assemble the option HDD.

CAUTION:

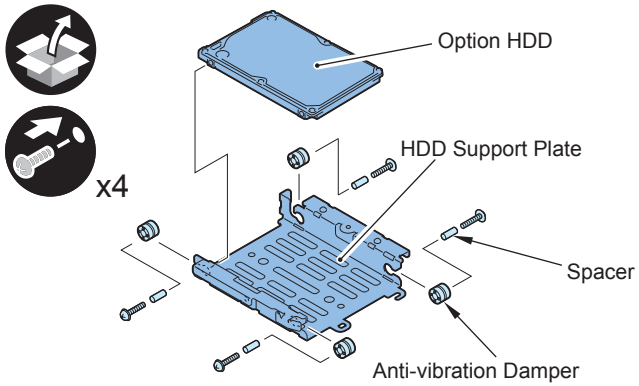
- Be sure to use the Anti-vibration Damper included in HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4.
- Never use the parts included in 2.5inch/80GB HDD-C1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD.



F-9-411

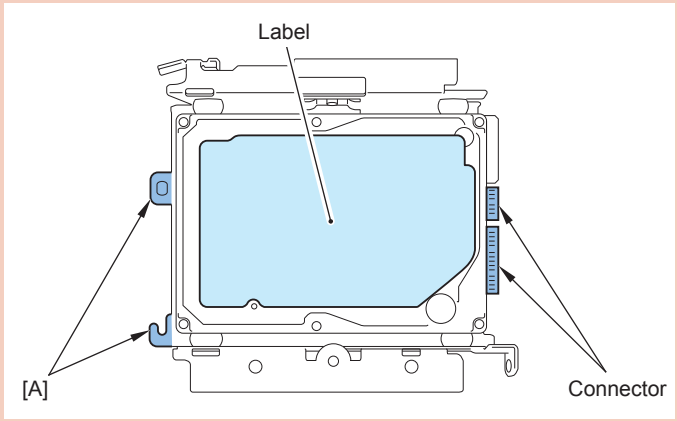
- 1 HDD Support Pate
- 4 Anti-vibration Damper (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)
- 4 spacers
- 1 Option HDD
- 4 screws (binding with flat washer; M3X14)



F-9-412

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Make sure that [A] part of HDD Support Plate is placed at the opposite side of connector.

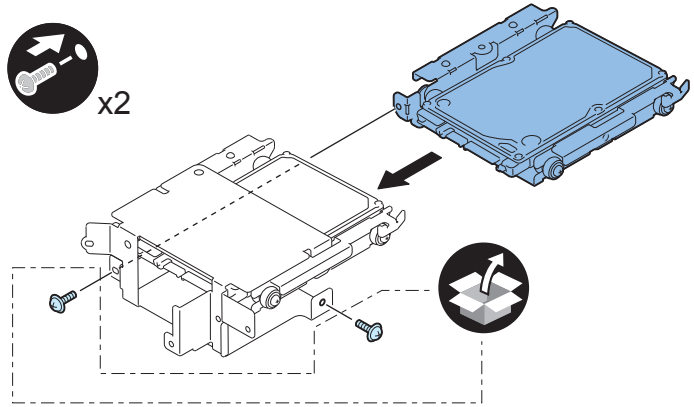


F-9-413

Installation to the Host Machine

☐ 1) Install the Option HDD (Second HDD) to the HDD Fixation Plate.

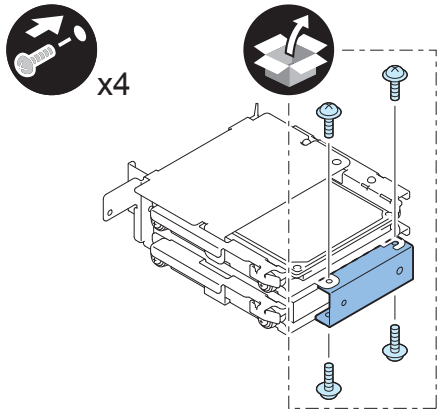
- 2 Screws (TP; M3X6)



F-9-414

☐ 2) Install the HDD Connection Plate. (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)

- 4 Screws (TP; M3X4) (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)

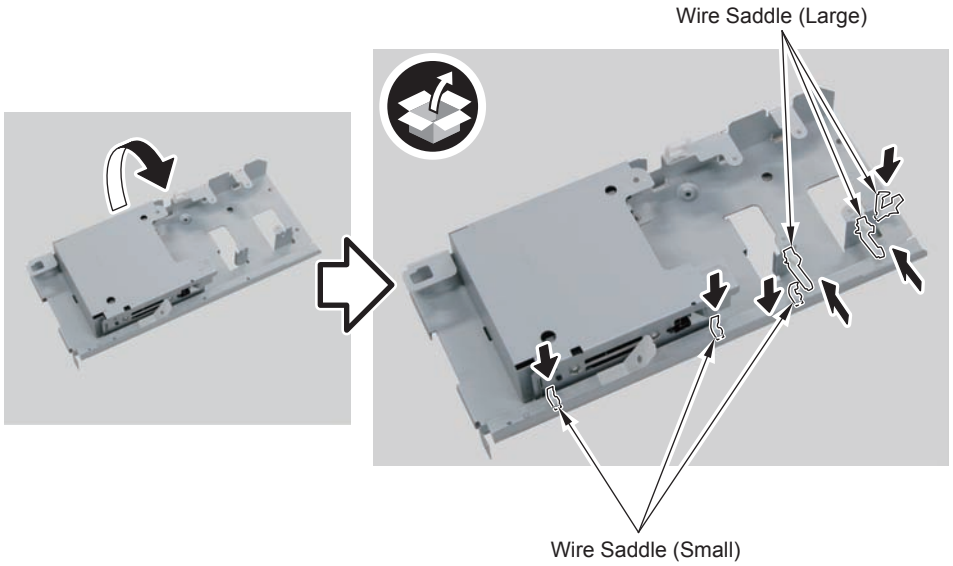


F-9-415

☐
3) Return the HDD Fixation Plate Unit to the HDD Box.
- 2 Screws (Use the 2 screws removed in ”Removing the HDD" step 10.)

☐
4) Install the HDD Box to the HDD Slide Rail.
- 5 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)

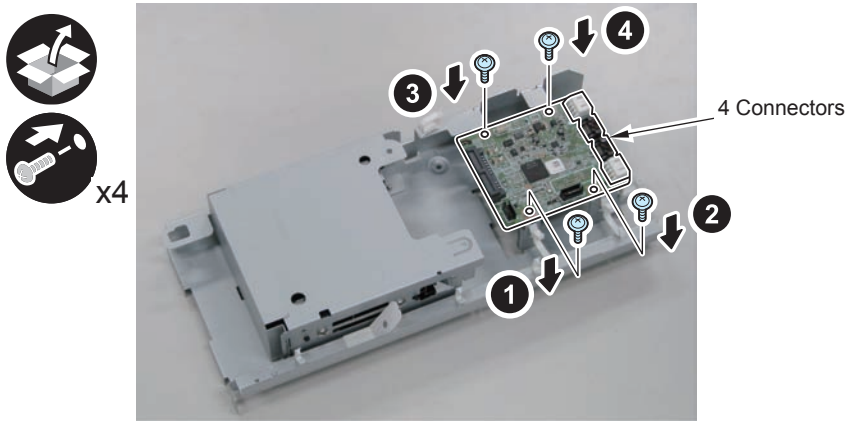
☐
5) Install the Wire Saddles to the HDD Unit removed from the host machine.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)



F-9-416

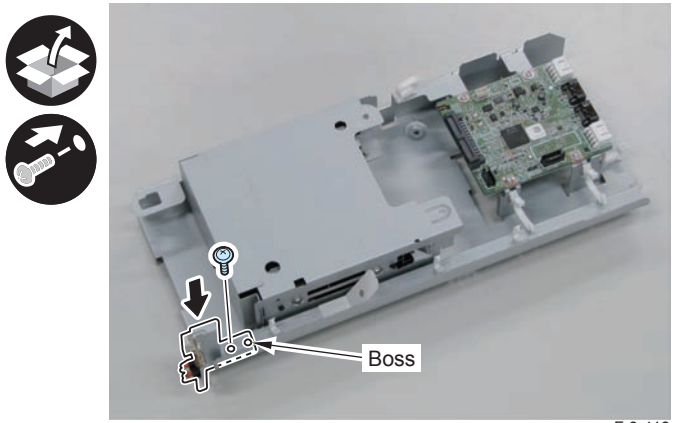
☐
6) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3X4)

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



F-9-417

☐
7) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)

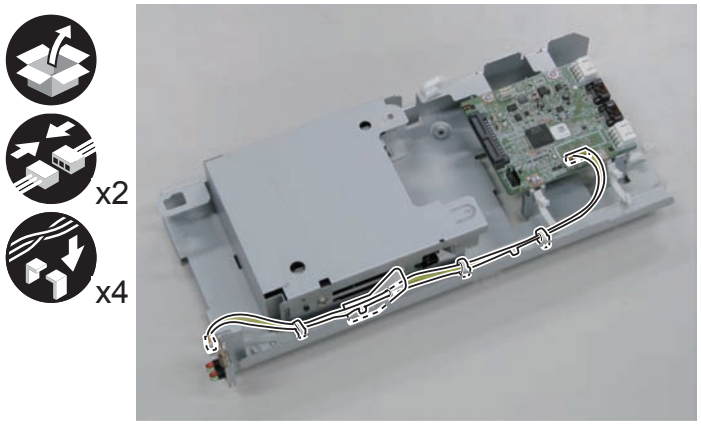


F-9-418

□

8) Connect the LED Cable (A:LED-Sig) .

- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



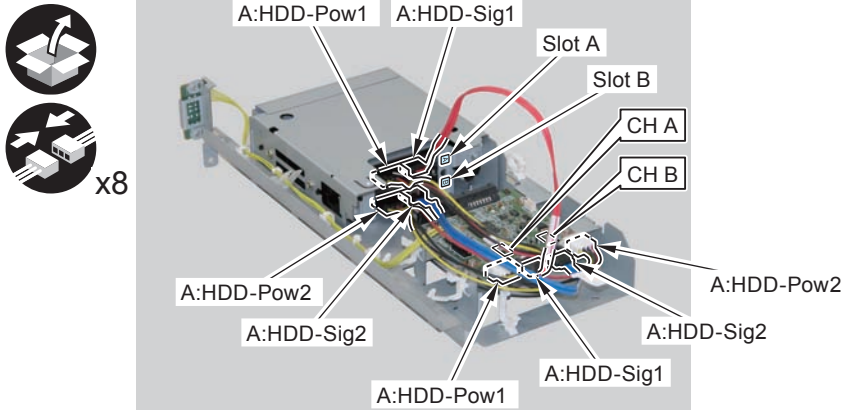
F-9-419

□

9) Install the Signal Cable (A:HDD-Sig1) (A:HDD-Sig2) and the Power Supply Cable (A:HDD-Pow1) (A:HDD-Pow2).

- 2 Connectors (A:HDD-Sig2)
- 2 Connectors (A:HDD-Pow2)
- 2 Connectors (A:HDD-Sig1)
- 2 Connectors (A:HDD-Pow1)

NOTE:
Be sure to connect "A:HDD-Sig2" and "A:HDD-Pow2" to the slot [B] of the HDD and [CH-B of the PCB.
Be sure to connect "A:HDD-Sig1" and "A:HDD-Pow1" to the slot [A] of the HDD and [CH-A] of the PCB.

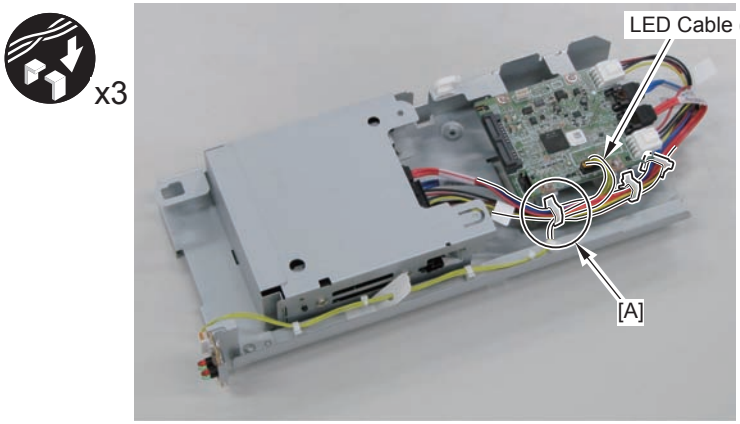


F-9-420

☐ 10) Secure the cables in place using the Wire Saddles.

- 3 Wire Saddles (Large)

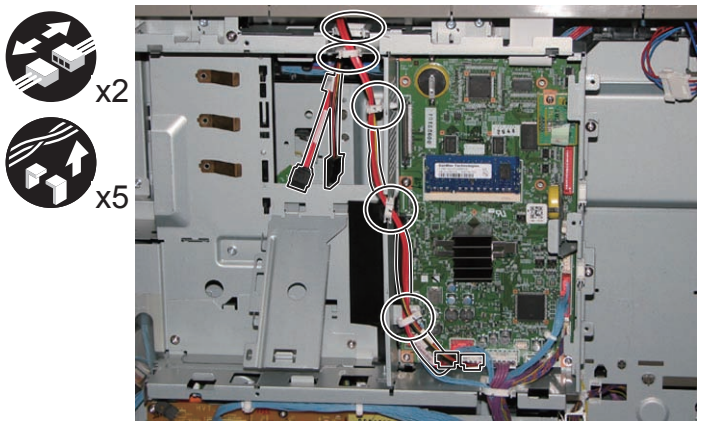
NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



F-9-421

☐ 11) Disconnect the 2 cables. (The 2 removed cables will not be used.)

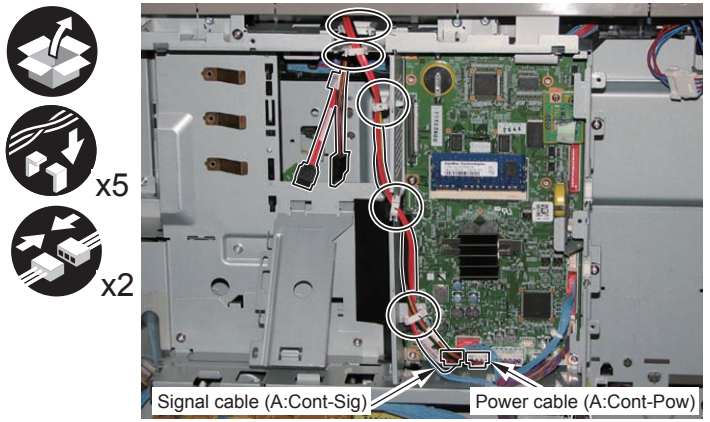
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-422

☐ 12) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).

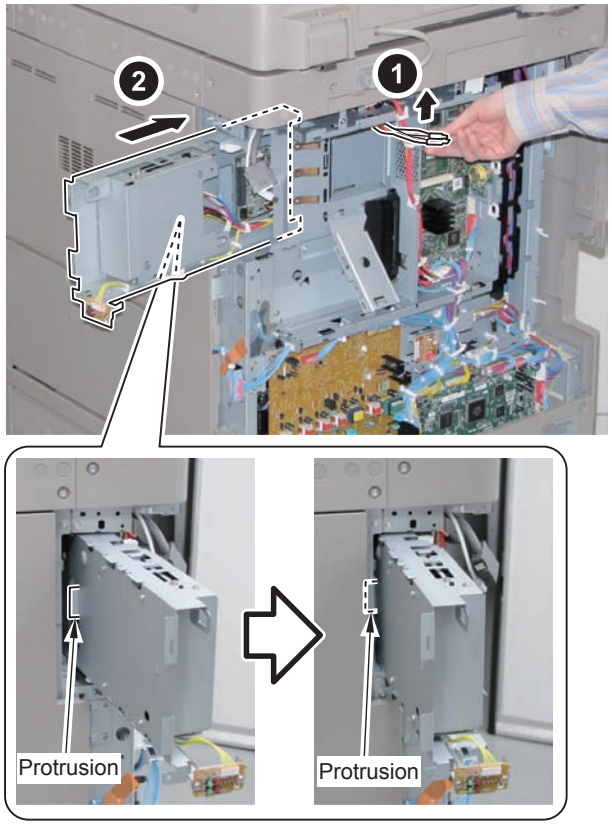
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-423

☐
13) Return the HDD Unit to the host machine.

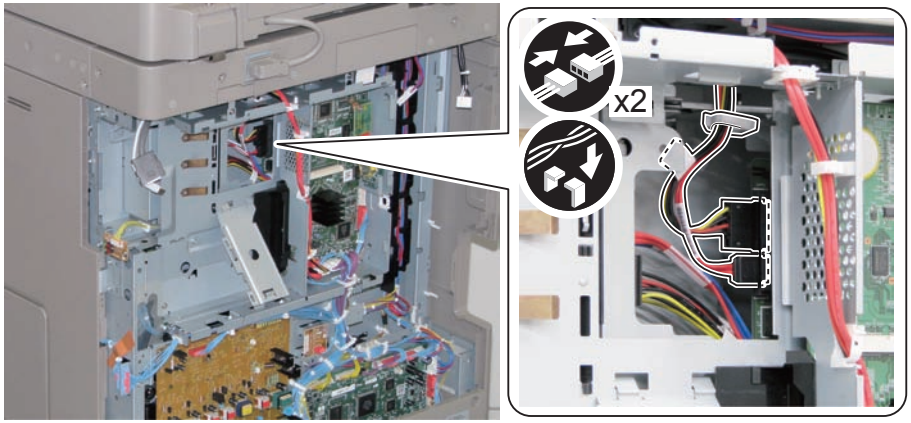
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-424

☐
14) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

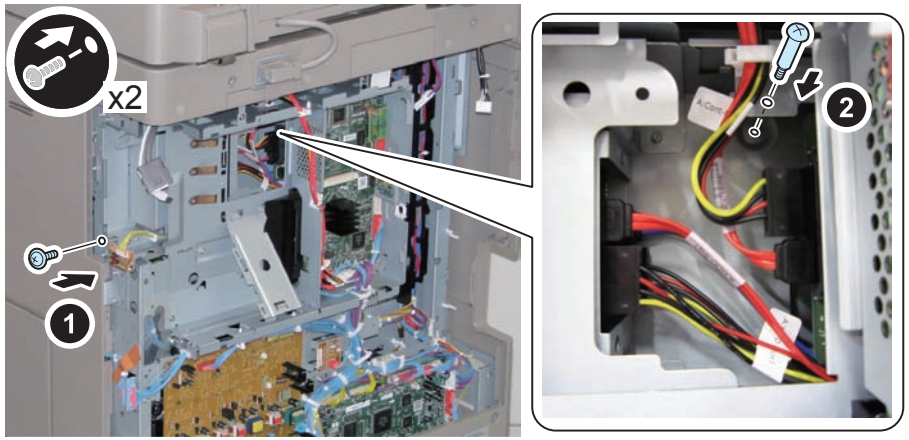
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-425

☐
15) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-426

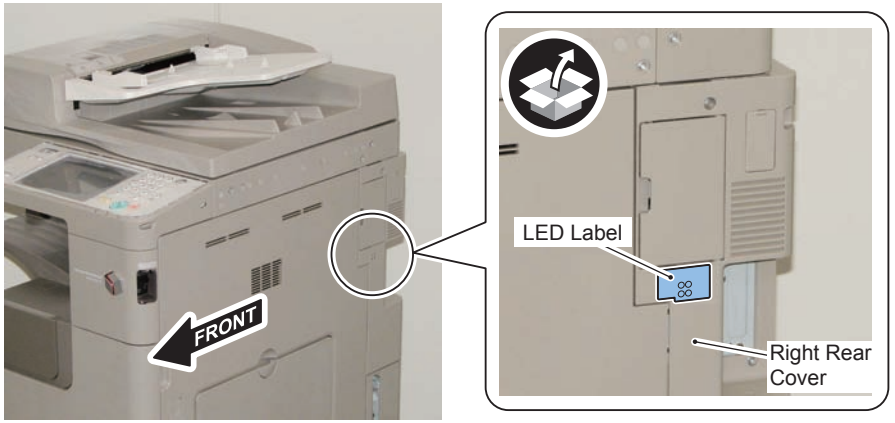
☐
16) Close the plate.
17) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

18) Connect the USB Cable and the Control Panel Communication Cable.
19) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
20) Affix the label to the Right Rear Cover.
- 1 LED Label



F-9-427

Installing the System Software Using the SST (Only when installing HDD Data Encryption & Mirroring Kit)

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Insert the power plug into the socket and turn on the main power of the host machine.
2) Make a setting of mirroring.
- Specify “1” under “Service Mode > COPIER > OPTION > FNCSW > W/RAID”.

3) Turn OFF/ON the main power of the host machine to enable the setting value.
4) Make sure that the UI screen is activated correctly.
5) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.

Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation (Only when installing HDD Data Encryption & Mirroring Kit)

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-5

Standard HDD + Option HDD (80GB) + Removable HDD Kit +
HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

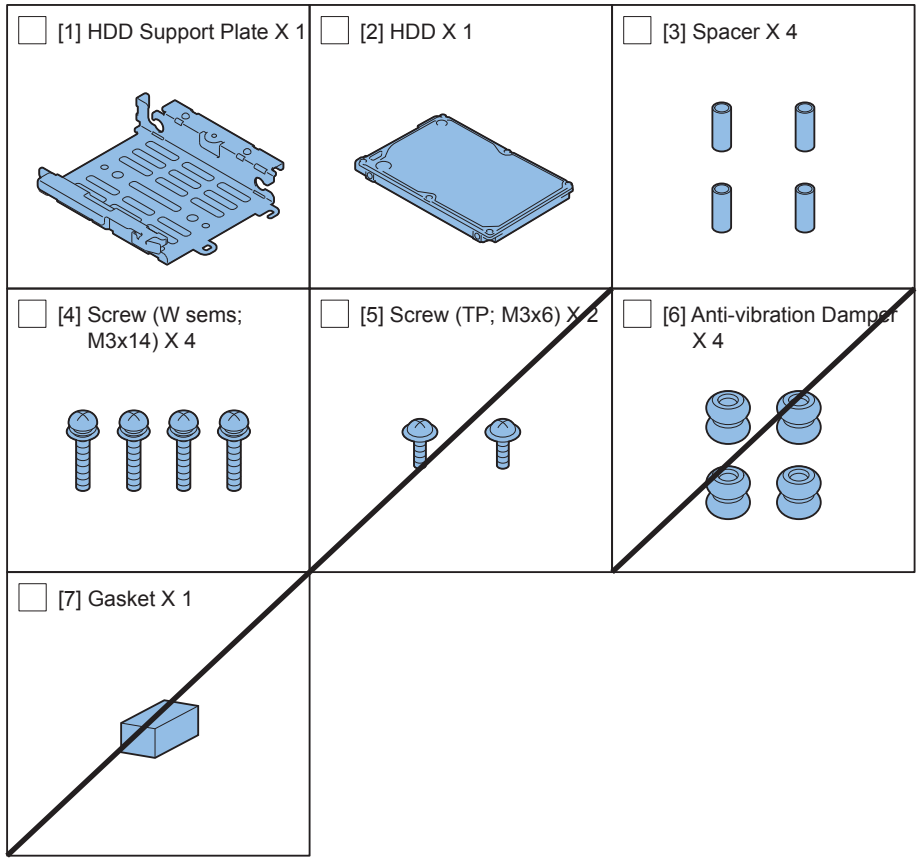
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/80GB HDD-C1]

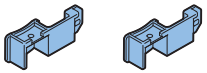
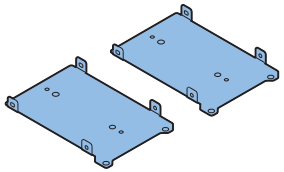
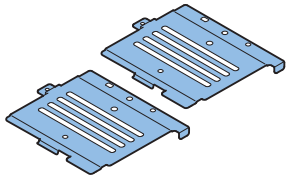
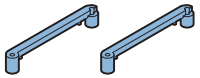
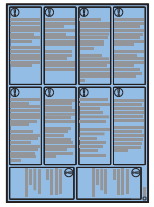
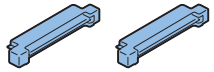


F-9-428

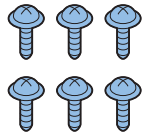
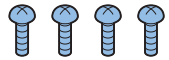
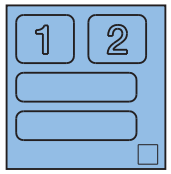
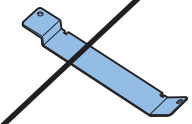
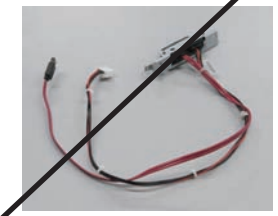
<CD/Guide>

- Noticd for FCC/IC

[Removable HDD Kit-AF1]

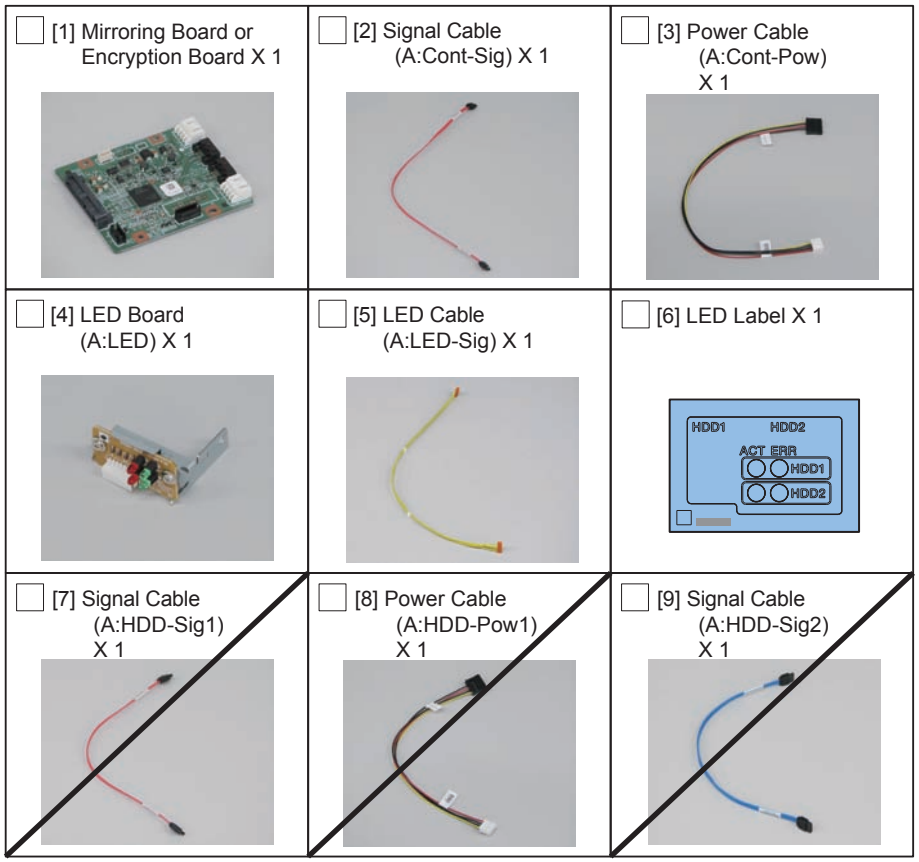
☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 	☐ [3] HDD Connector Plate X 2 
☐ [4] HDD Cover X 2 	☐ [5] Connector Fixing Block X 2 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] Conversion Connector X 2 

F-9-429

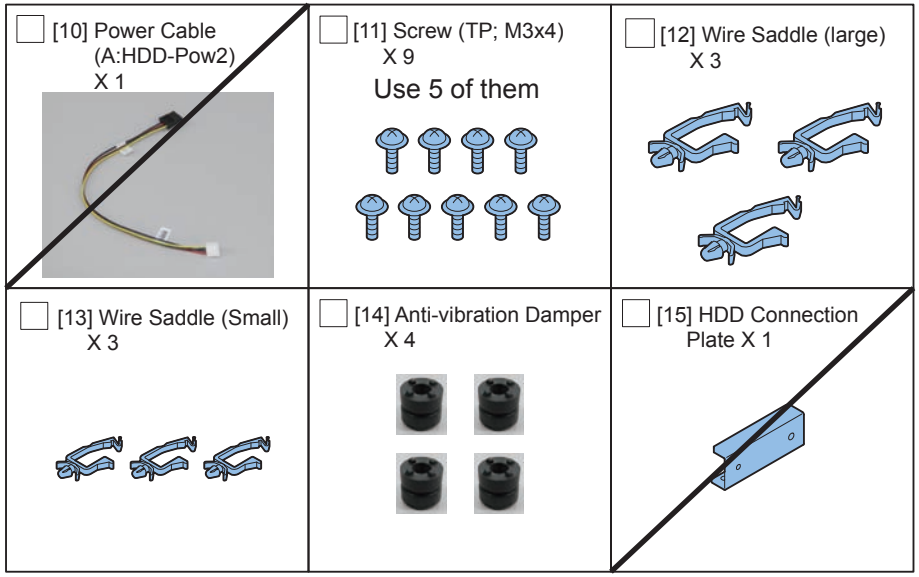
☐ [10] HDD Drawer Unit X 1 	☐ [11] Screw (R round head TP; M3x6) X 6 	☐ [12] Screw (P Tight; M3x8) X 4 
☐ [13] R-HDD Label X 1 	☐ [14] HDD Blanking Plate X 1 	☐ [15] IV Cable X 1 

F-9-430

[HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4]



F-9-431



F-9-432

< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit-D1 User Documentation
- Notice for FCC/IC

< CD/Guides of HDD Data Encryption & Mirroring Kit >

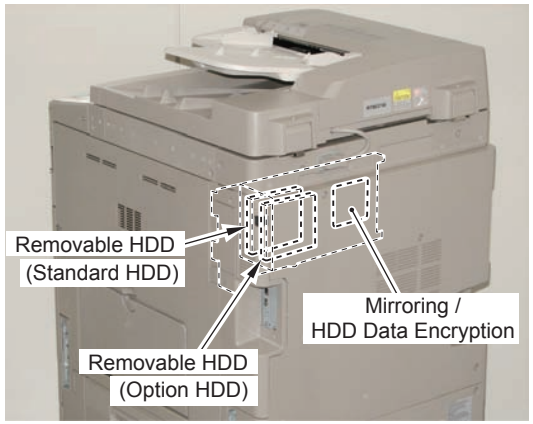
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



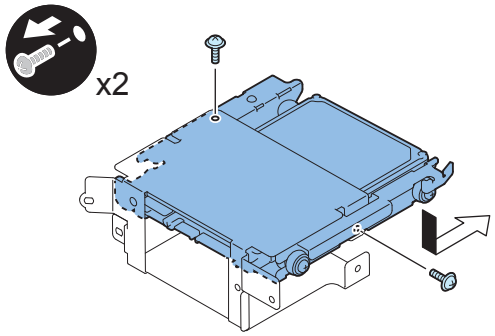
F-9-433

Disassembling/Assembling and Installing the HDD Removed from the Host Machine (First HDD)

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD Fixation Plate and the screws will not be used.)

- 2 Screws

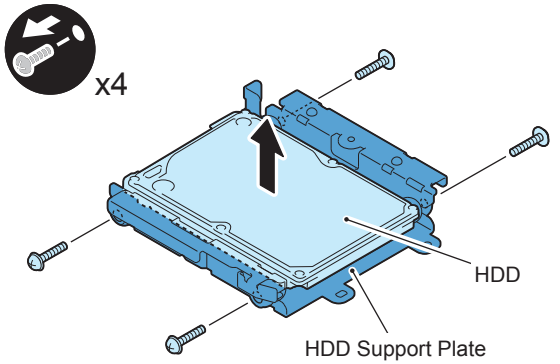


F-9-434

☐

2) Remove the HDD from the HDD Support Plate. (The removed HDD and screws will be used in a later step.)

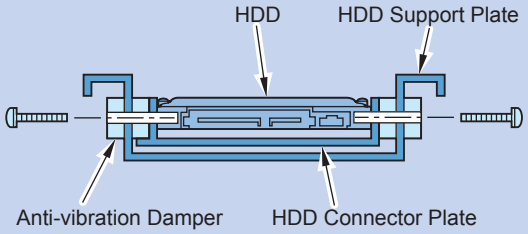
- 4 Screws



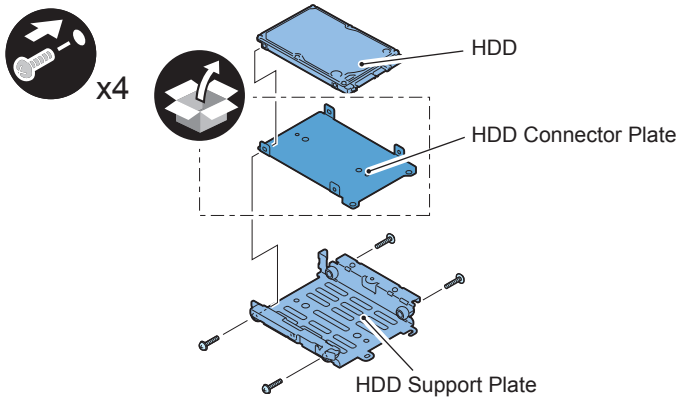
F-9-435

☐
3) Install the HDD Connector Plate first, and then HDD to the HDD Support Plate. (Use the HDD and screws removed in previous step.)
- 4 Screws

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.

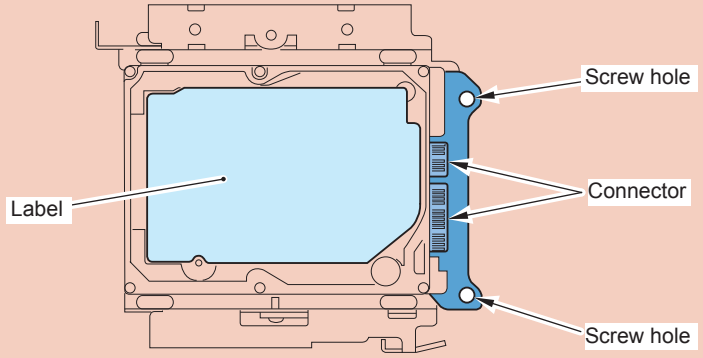


F-9-436



F-9-437

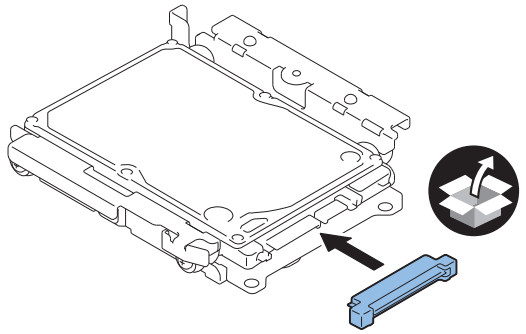
CAUTION:
- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)



F-9-438

☐
4) Install the Conversion Connector.

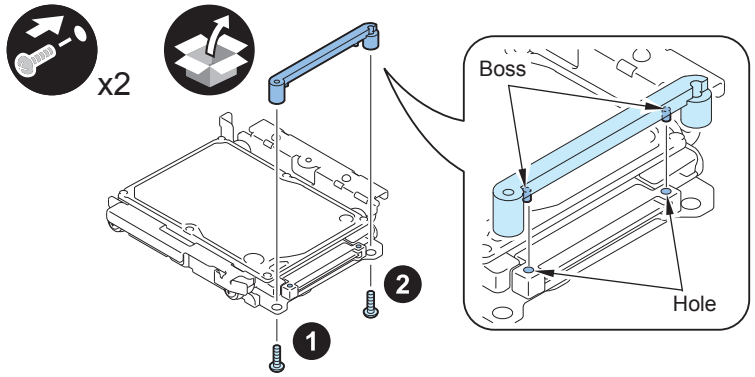
CAUTION:
Make sure that there is no opening between the Conversion Connector and part of HDD.



F-9-439

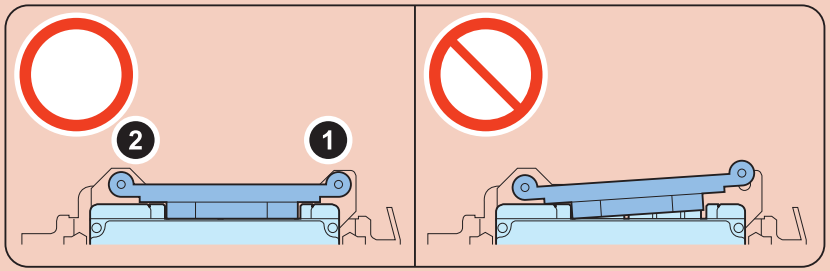
☐
5) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.
- 2 Screws (P Tight; M3X8)

CAUTION:
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-440

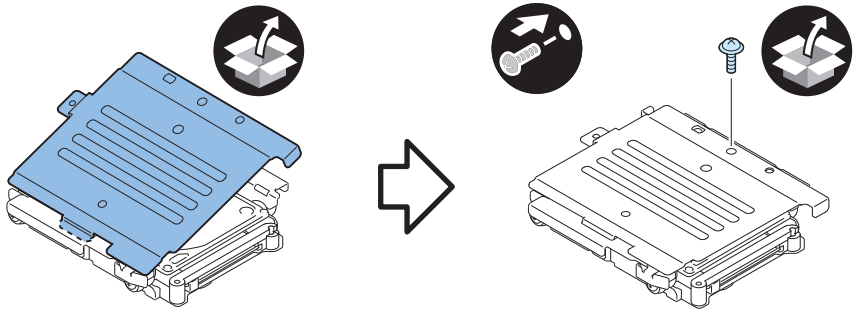
CAUTION:
- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-441

☐
6) Install the HDD Cover.
- 1 Claw
- 1 Screw (TP Round End; M3X6)

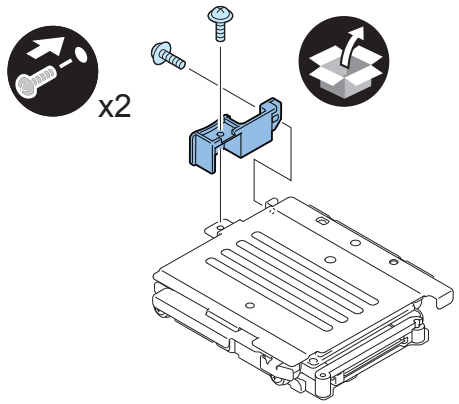
CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-442

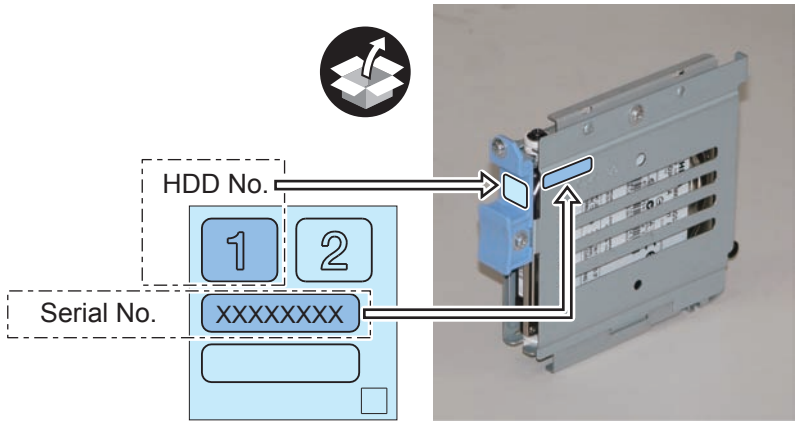
☐
7) Install the HDD Handle.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-443

☐
8) Affix the HDD No.1 Label to the handle of the Removable HDD.
9) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



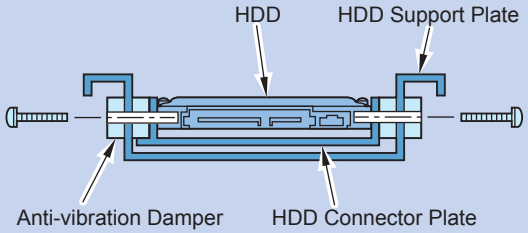
F-9-444

Assembling and Installing the Option HDD (Second HDD)

☐
1) Purchase option HDD and assemble the second HDD.

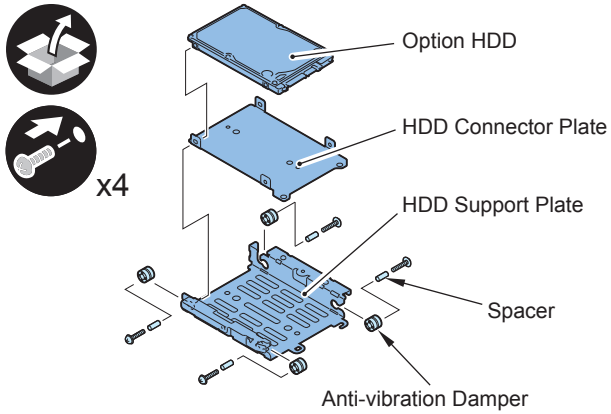
CAUTION:
Be sure to use the Anti-vibration Damper included in HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4.
Never use the parts included in 2.5inch/80GB HDD-C1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-445

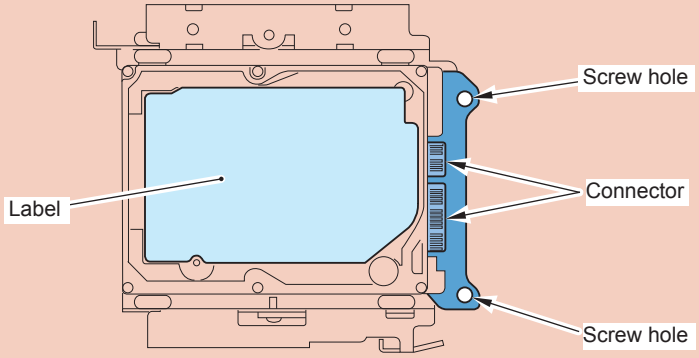
- 1 HDD Support Plate (enclosed with option HDD)
- 4 Anti-vibration Damper (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)
- 1 HDD Connector Plate (enclosed with removable HDD Kit)
- 1 Option HDD (enclosed with option HDD)
- 4 Spacers (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-446

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)

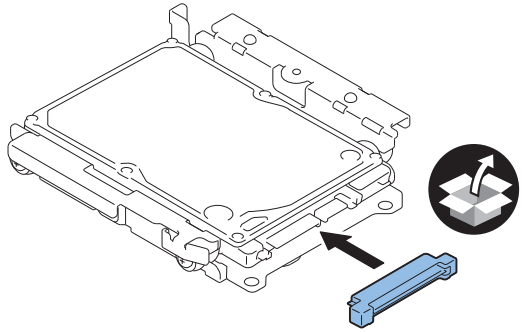


F-9-447

☐ 2) Install the Conversion Connector.

CAUTION:

Make sure that there is no opening between the Conversion Connector and part of HDD.



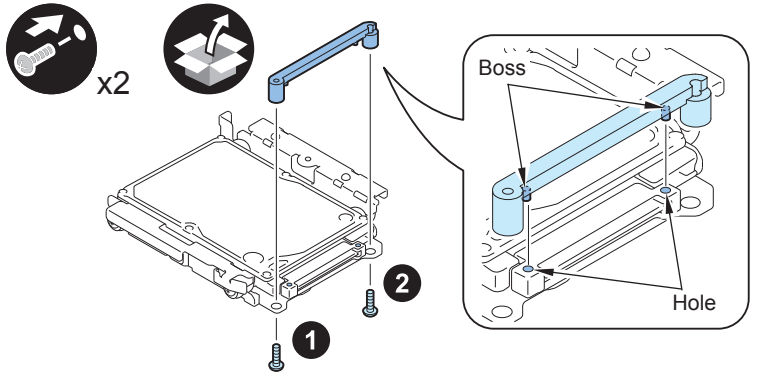
F-9-448

☐ 3) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

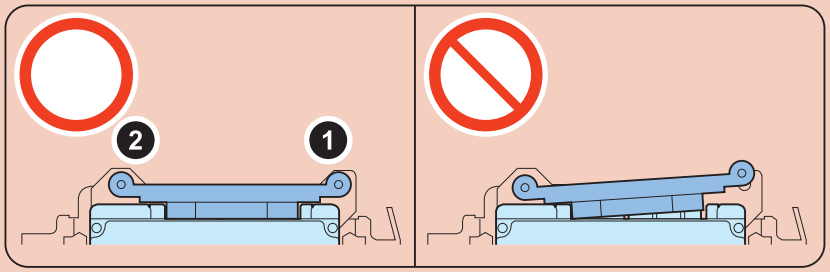
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-449

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



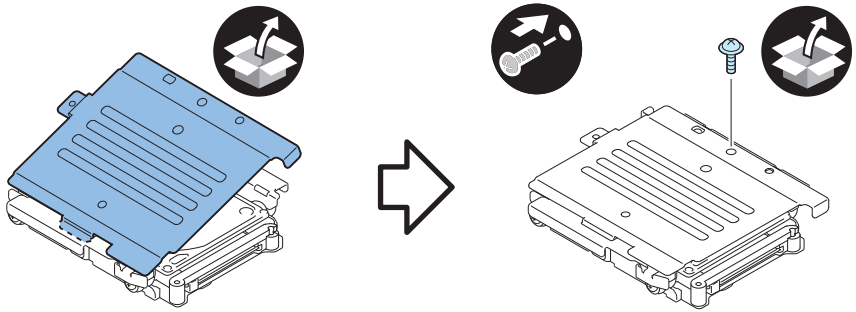
F-9-450

☐
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3X6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



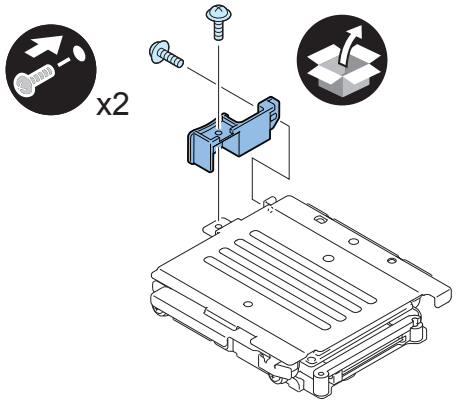
F-9-451

☐
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3X6)

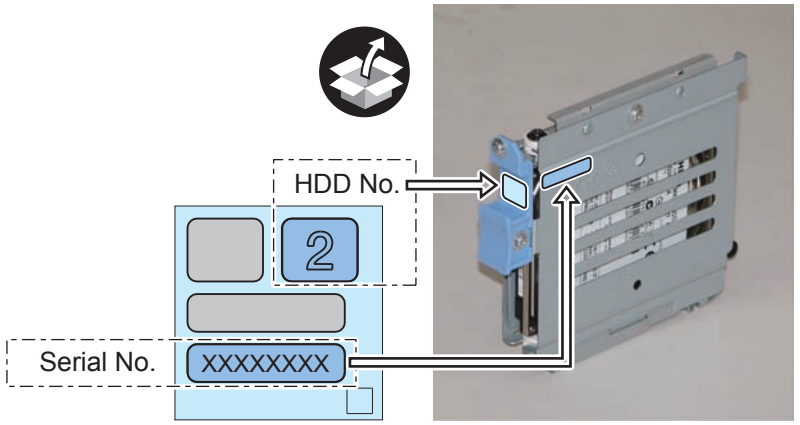
CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-452

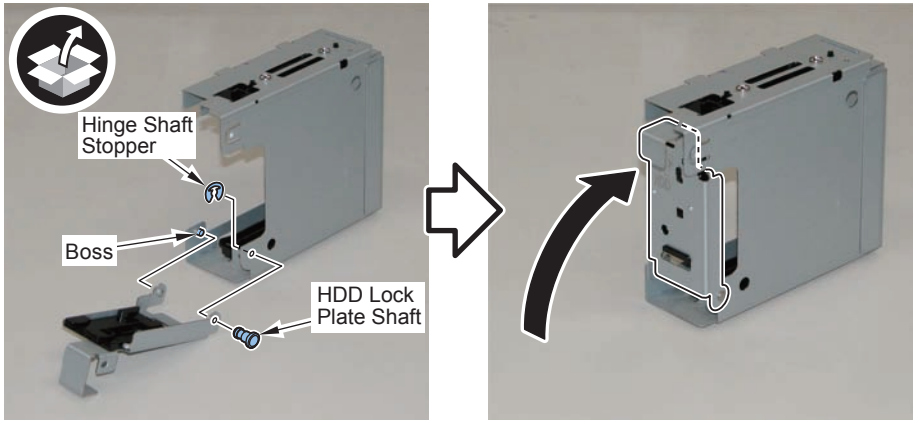
☐
6) Affix the HDD No.2 Label to the handle of the Removable HDD.
7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-453

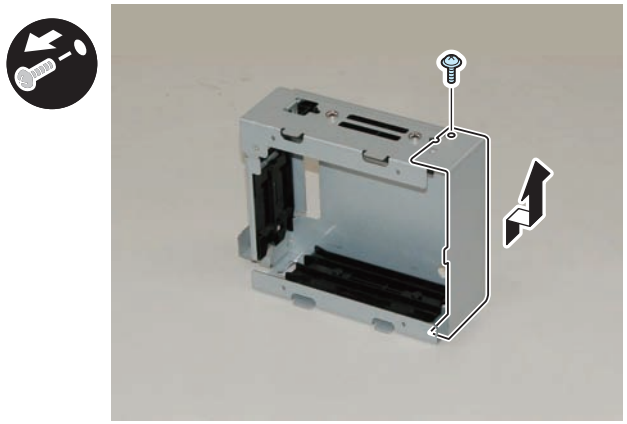
Installation to the Host Machine

☐
1) Install the HDD Door Unit to the HDD Box.
- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper



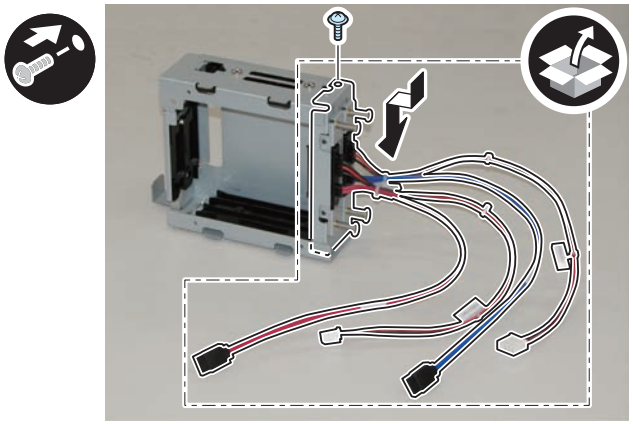
F-9-454

☐
2) Remove the plate from the HDD Box. (The removed plate will not be used.)
- 1 Screw (The removed screw will be used in step 3.)



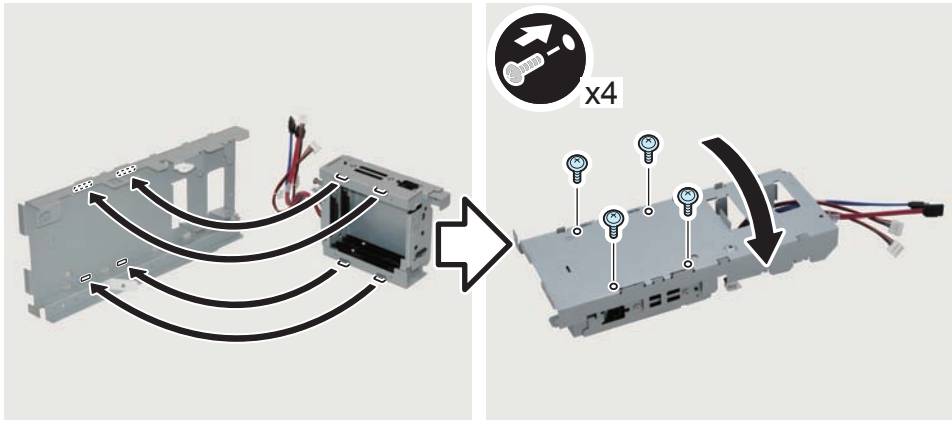
F-9-455

☐
3) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 2.)



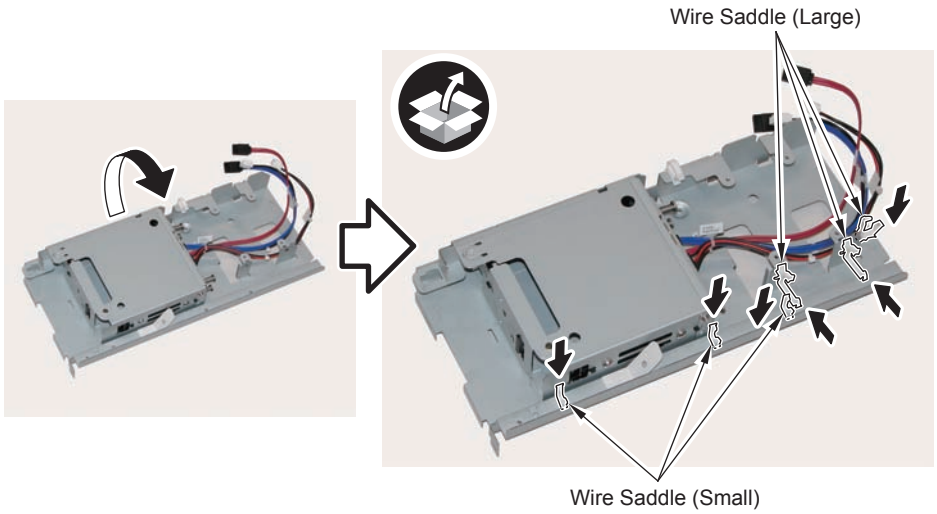
F-9-456

☐
4) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-457

☐
5) Install the Wire Saddles.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)

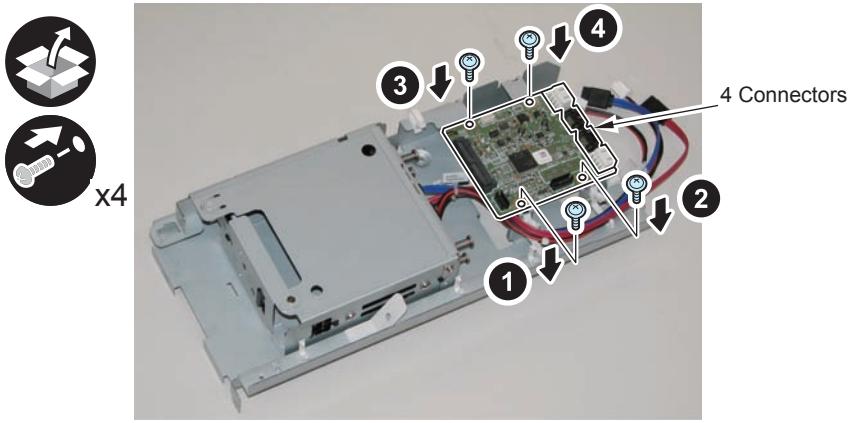


F-9-458

☐
6) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3X4)

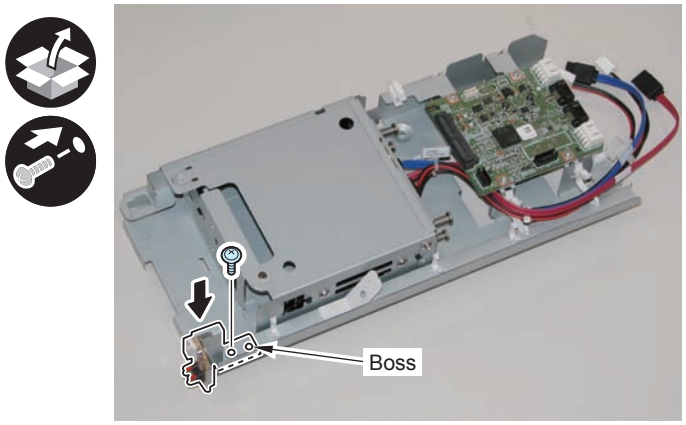
CAUTION:
Be sure to put the cables on the Wire Saddle to prevent it from getting under the board.

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



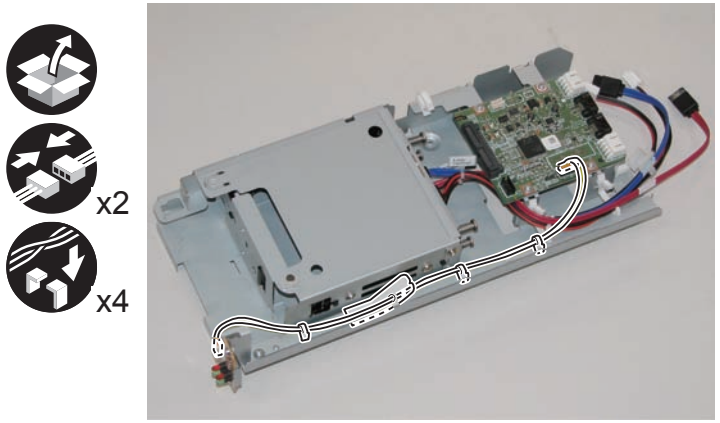
F-9-459

☐
7) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-460

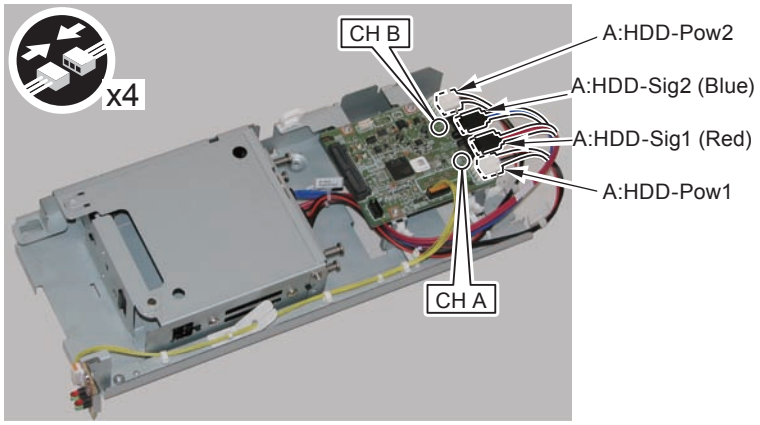
☐
8) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-461

☐
9) Connect the cables of the HDD Drawer Unit.
- 2 Connectors of the Signal Cable
- 2 Connectors of the Power Supply Cable

NOTE:
- Be sure to connect "A:HDD-Sig1" (red) and "A:HDD-Pow1" to CH-A of the PCB.
- Be sure to connect "A:HDD-Sig2" (blue) and "A:HDD-Pow2" to CH-B of the PCB.

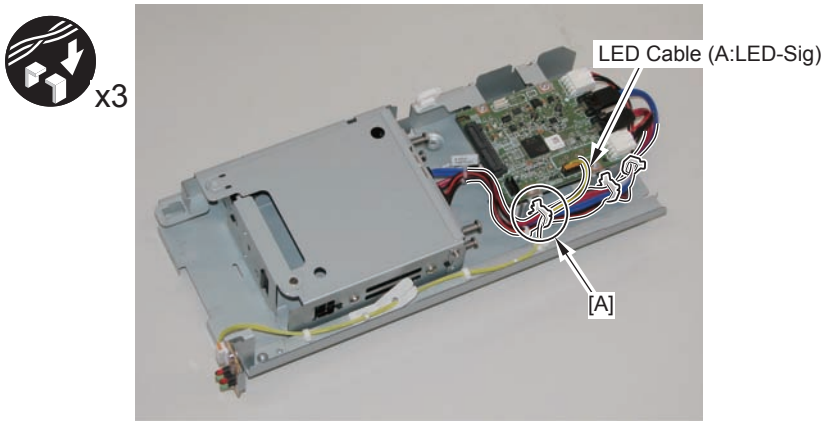


F-9-462

☐ 10) Secure the cables in place using the Wire Saddles.

- 3 Wire Saddles (Large)

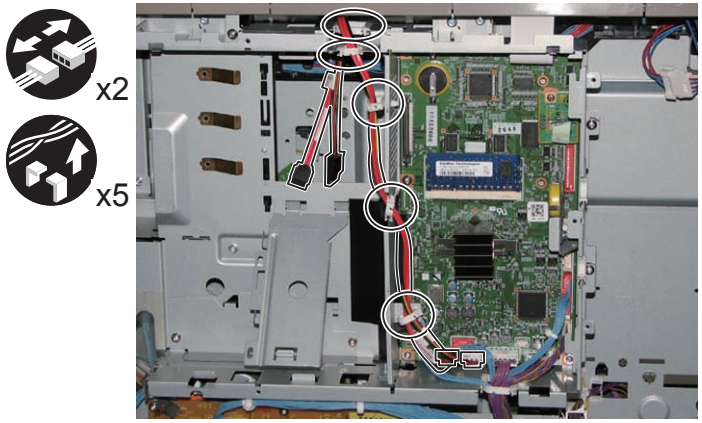
NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



F-9-463

☐ 11) Disconnect the 2 cables. (The 2 removed cables will not be used.)

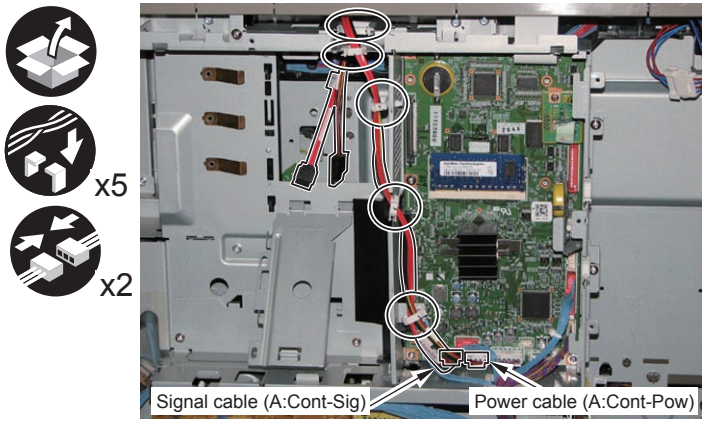
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-464

☐ 12) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).

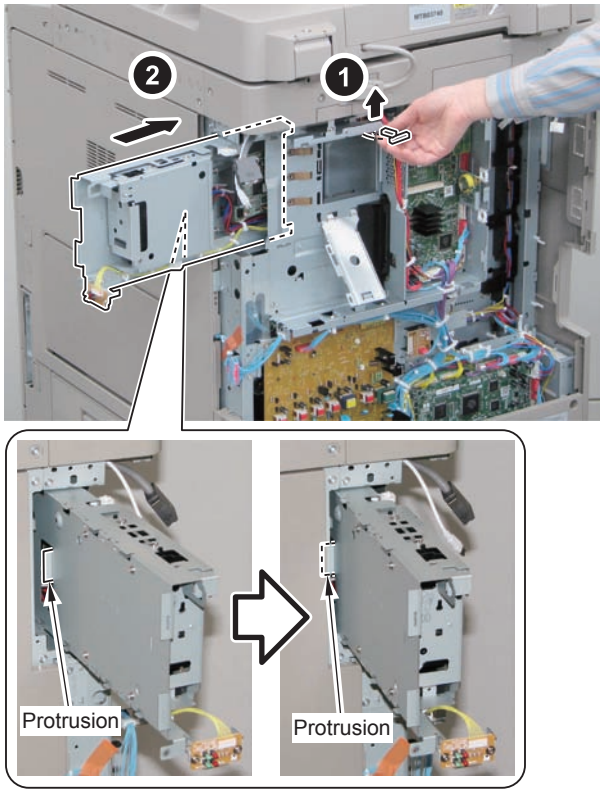
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-465

☐ 13) Return the HDD Unit to the host machine.

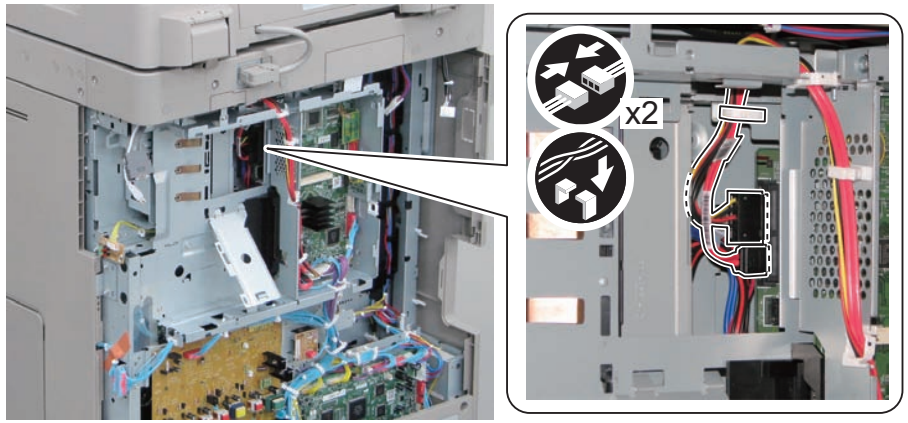
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-466

☐ 14) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

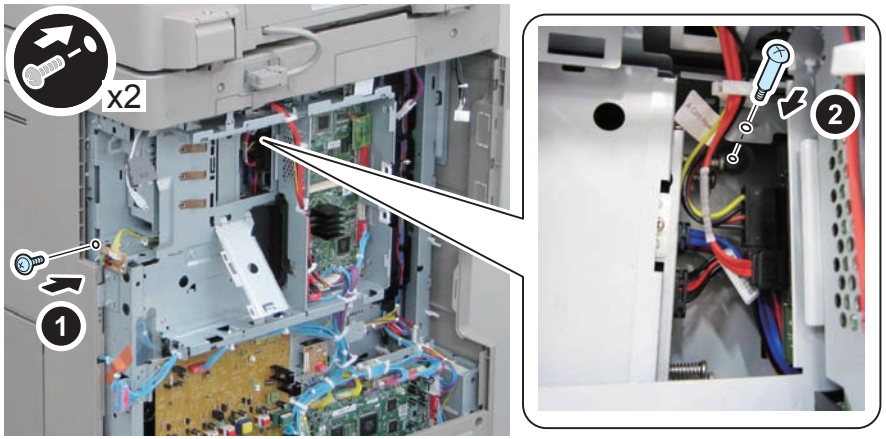
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-467

☐
15) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-468

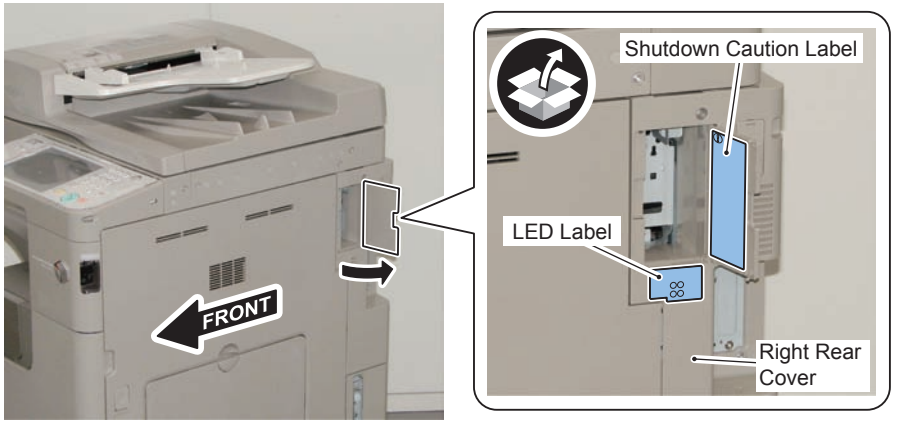
☐
16) Close the plate.
17) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

18) Connect the USB Cable and the Control Panel Communication Cable.
19) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
20) Open the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label
- 1 LED Label



F-9-469

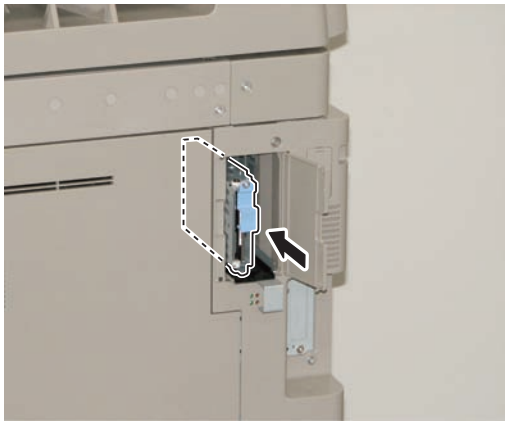
☐ 21) Open the HDD Door Unit.



F-9-470

☐ 22) Install the Removable HDD 1. (front)

NOTE:
Be sure to insert it until it stops.



F-9-471

☐ 23) Install the Removable HDD 2. (rear)

NOTE:
Be sure to insert it until it stops.



F-9-472

☐ 24) Close the HDD Door Unit.

25) Be sure to request the user to padlock the removable HDD to discourage theft.

26) Close the Small Cover of the Right Rear Cover.

Installing the System Software Using the SST (Only when installing HDD Data Encryption & Mirroring Kit)

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Insert the power plug into the socket and turn on the main power of the host machine.
2) Make a setting of mirroring.
- Specify “1” under “Service Mode > COPIER > OPTION > FNCSW > W/RAID”.

3) Turn OFF/ON the main power of the host machine to enable the setting value.
4) Make sure that the UI screen is activated correctly.
5) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.

Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation (Only when installing HDD Data Encryption & Mirroring Kit)

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-6

Option HDD (250GB)

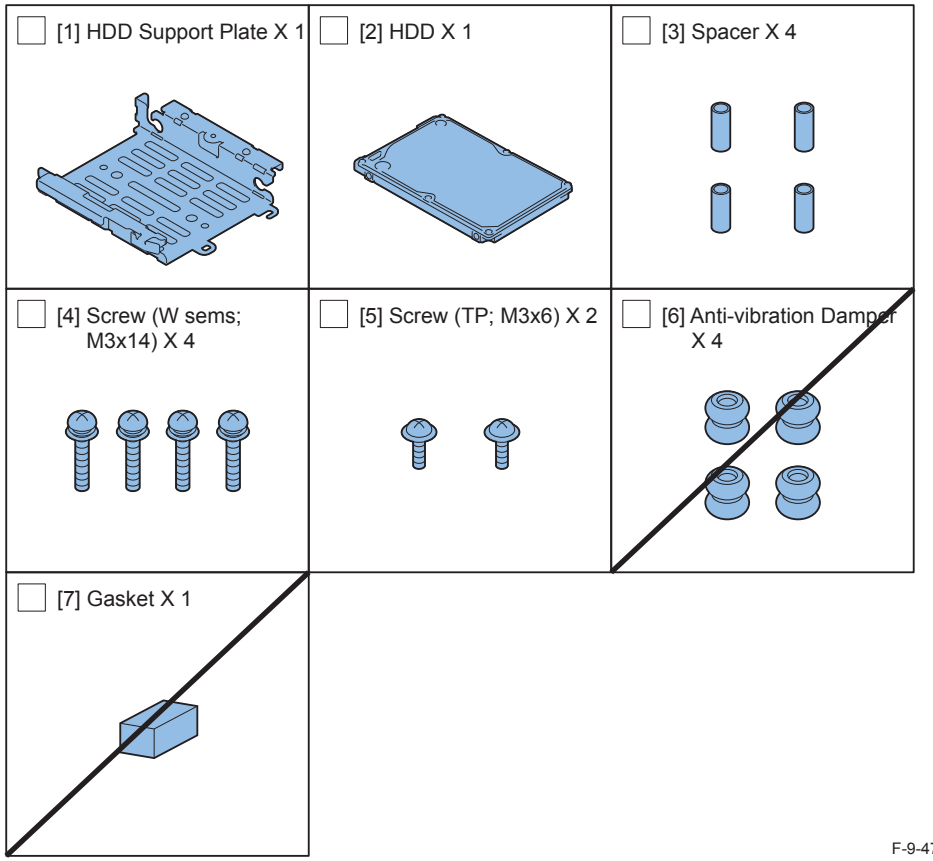
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/250GB HDD-D1]



F-9-473

<CD/Guide>

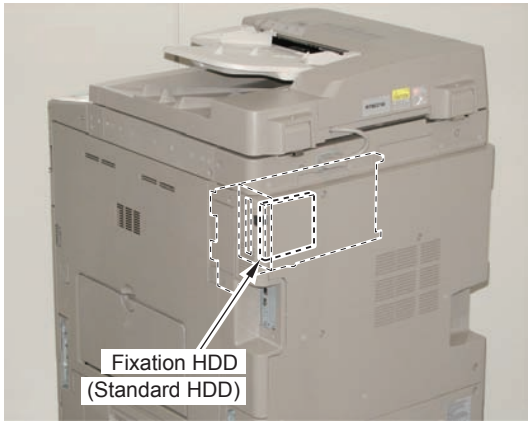
- Noticd for FCC/IC

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

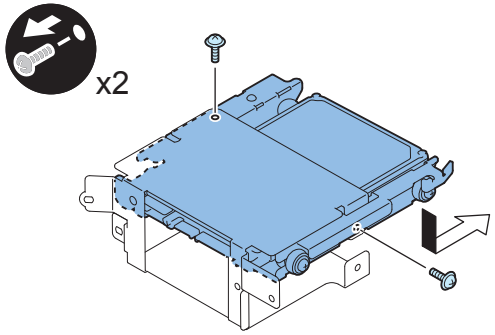
Installation Outline Drawing



F-9-474

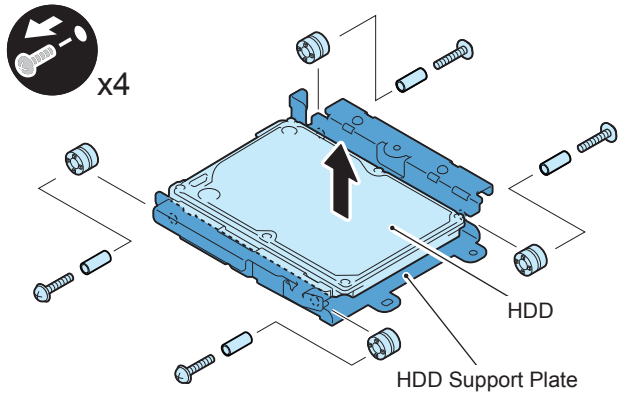
Assembling the Option HDD

☐
1) Remove the HDD from the HDD Fixation Plate Unit.
- 2 Screws (The removed screws will not be used.)



F-9-475

☐
2) Remove the 4 Anti-vibration Dampers from the HDD Support Plate. (Use the Anti-vibration Dampers only.)
- 4 Screws
- 4 Spacers
- HDD

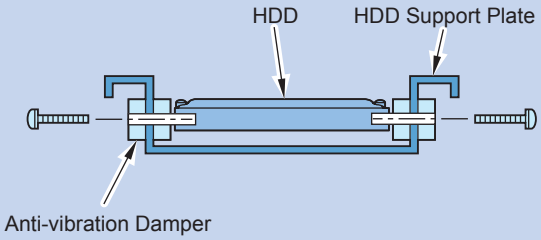


F-9-476

☐
3) Assemble the option HDD.

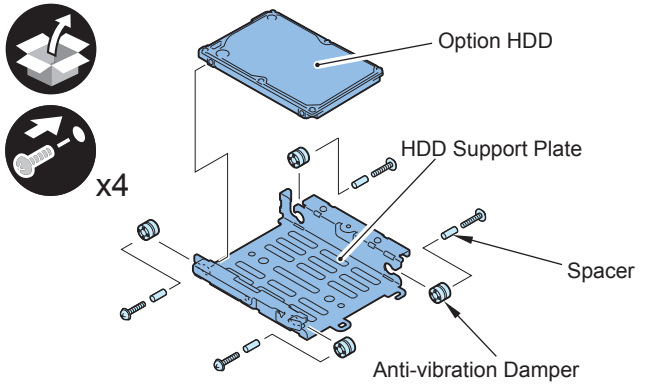
CAUTION:
Be sure to use the Anti-vibration Dampers removed from the standard HDD.
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD.



F-9-477

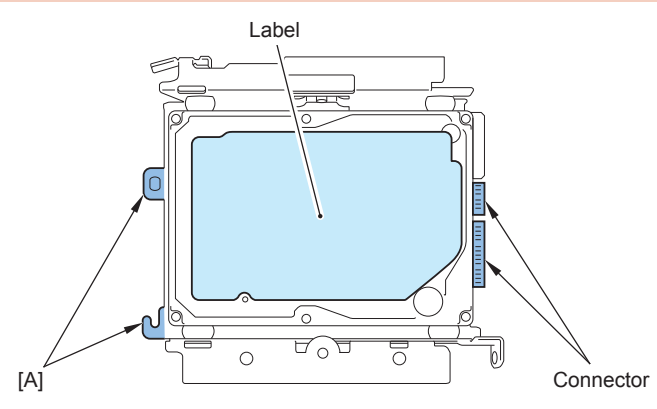
- 1 HDD Support Pate (enclosed with option HDD)
- 4 Anti-vibration Damper (Anti-vibration Damper removed from the standard HDD.)
- 4 Spacers (enclosed with option HDD)
- 1 Option HDD (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-478

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Make sure that [A] part of HDD Support Plate is placed at the opposite side of connector.



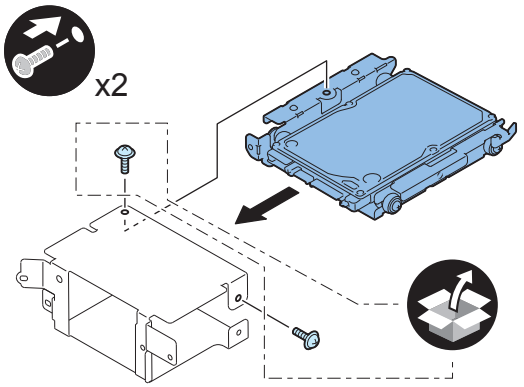
F-9-479

Installation to the Host Machine

☐

1) Install the Option HDD to the HDD Fixation Plate.

- 2 Screws (TP; M3X6) (enclosed with option HDD)



F-9-480

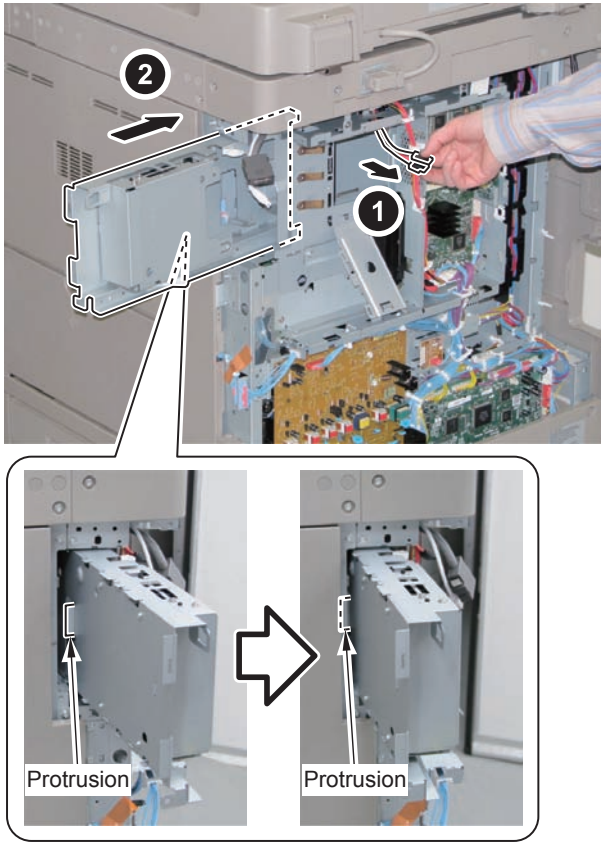
☐

2) Return the HDD Fixation Plate Unit to the HDD Box.

3) Install the HDD Box to the HDD Slide Rail.

☐
4) Return the HDD Unit to the host machine.

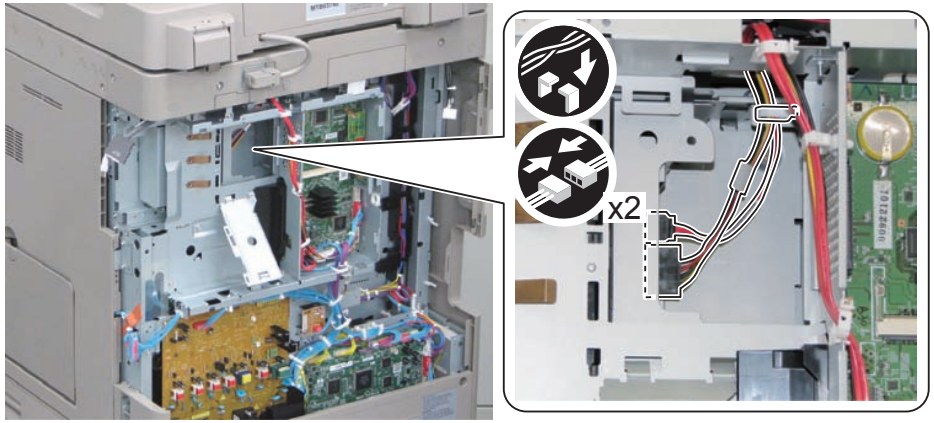
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the cable in the host machine.



F-9-481

☐
5) Connect the 2 connectors.
- 1 Wire Saddle

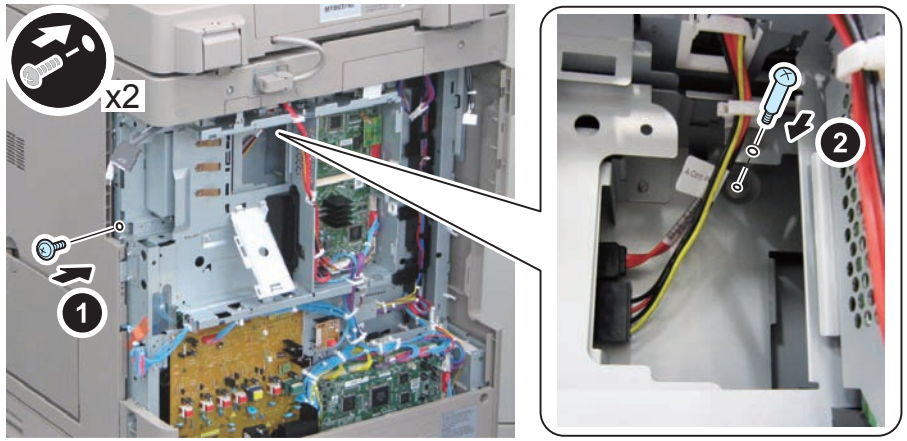
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the cable through the Wire Saddle when connecting.



F-9-482

☐
6) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-483

☐
7) Close the plate.
8) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

9) Connect the USB Cable and the Control Panel Communication Cable.
10) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.

Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-7

Option HDD (250GB) + Removable HDD Kit

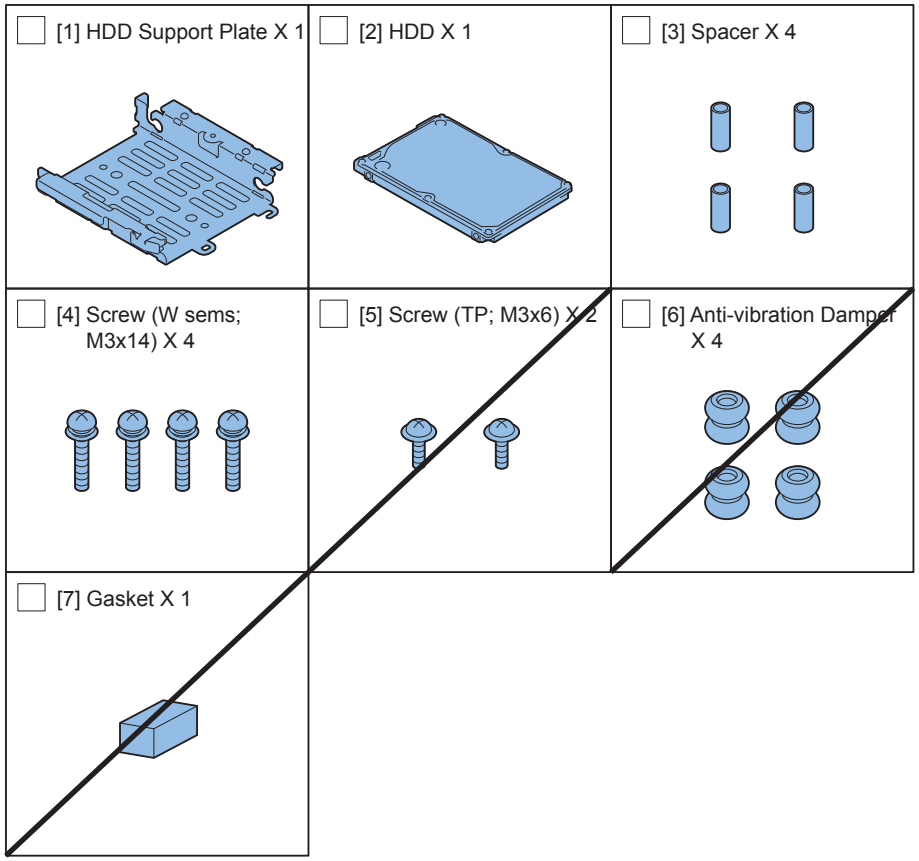
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/250GB HDD-D1]

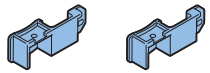
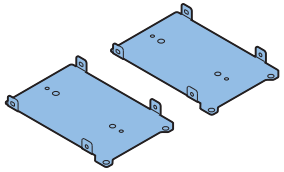
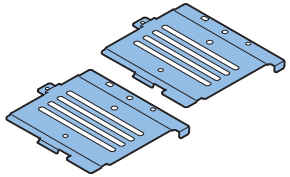
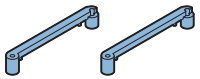
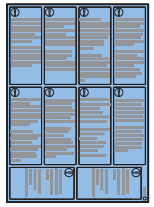
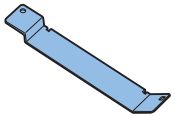


F-9-484

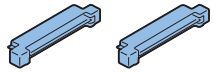
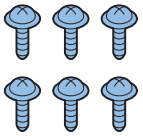
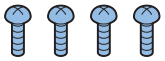
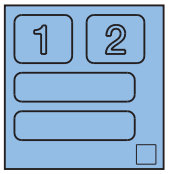
<CD/Guide>

- Noticd for FCC/IC

[Removable HDD Kit-AF1]

☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 Use 1 of them 	☐ [3] HDD Connector Plate X 2 Use 1 of them 
☐ [4] HDD Cover X 2 Use 1 of them 	☐ [5] Connector Fixing Block X 2 Use 1 of them 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] HDD Blanking Plate X 1 

F-9-485

☐ [10] Conversion Connector X 2 Use 1 of them 	☐ [11] IV Cable X 1 	☐ [12] Screw (R round head TP; M3x6) X 6 Use 5 of them 
☐ [13] Screw (P Tight; M3x8) X 4 Use 2 of them 	☐ [14] R-HDD Label X 1 	☐ [15] HDD Drawer Unit X 1 

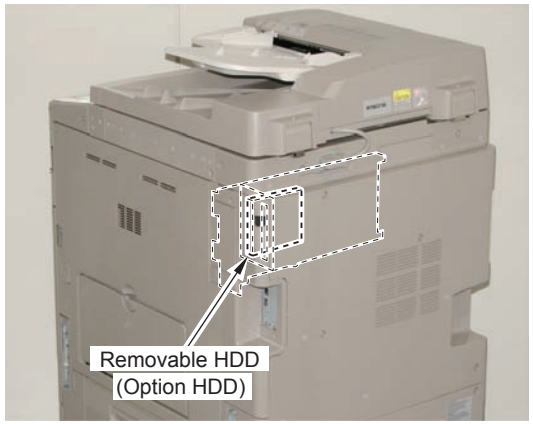
F-9-486

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



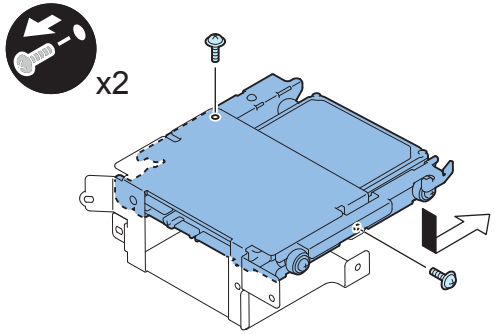
F-9-487

Assembling and Installing the Option HDD

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD Fixation Plate and the screws will not be used.)

- 2 Screws

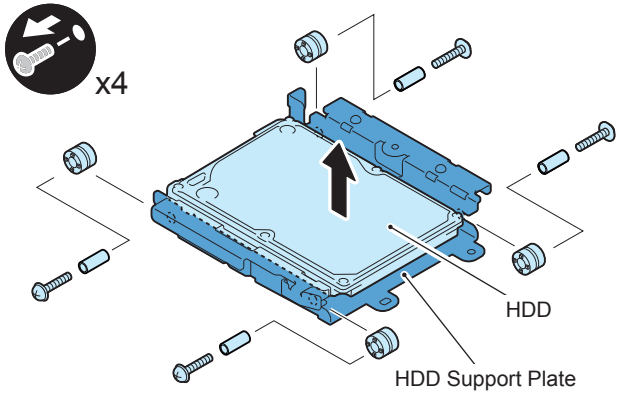


F-9-488

☐

2) Remove the 4 Anti-vibration Dampers from the HDD Support Plate. (Use the Anti-vibration Dampers only.)

- 4 Screws
- 4 Spacers
- 1 HDD



F-9-489

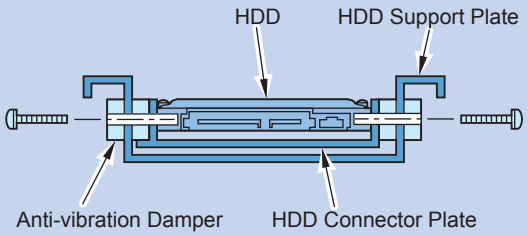
☐
3) Purchase option HDD and assemble the second HDD.

CAUTION:

Be sure to use the Anti-vibration Dampers removed from the standard HDD.

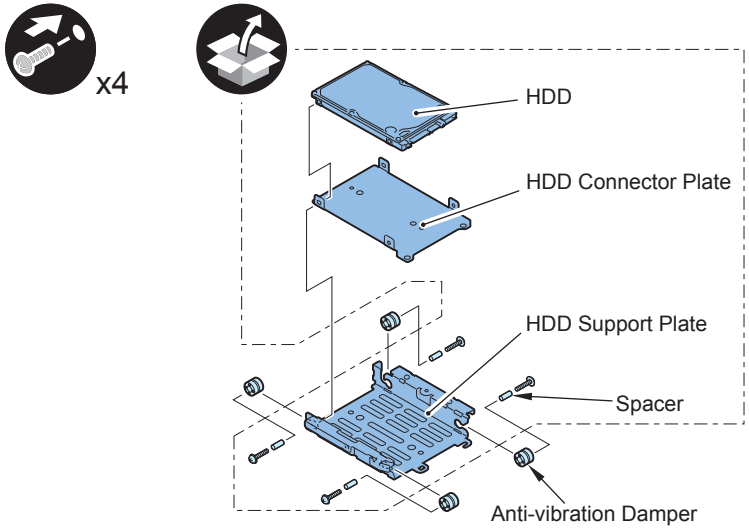
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-490

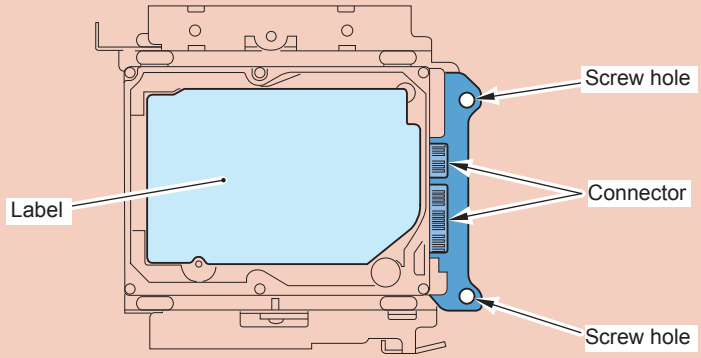
- 1 HDD Support Plate (enclosed with option HDD)
- 4 Anti-vibration Damper (Anti-vibration Damper removed from the standard HDD.)
- 1 HDD Connector Plate (enclosed with removable HDD Kit)
- 1 Option HDD (enclosed with option HDD)
- 4 Spacers (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-491

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)

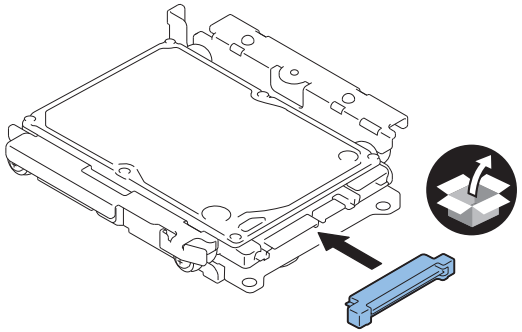


F-9-492

☐
4) Install the Conversion Connector.

CAUTION:

Make sure that there is no opening between the Conversion Connector and part of HDD.



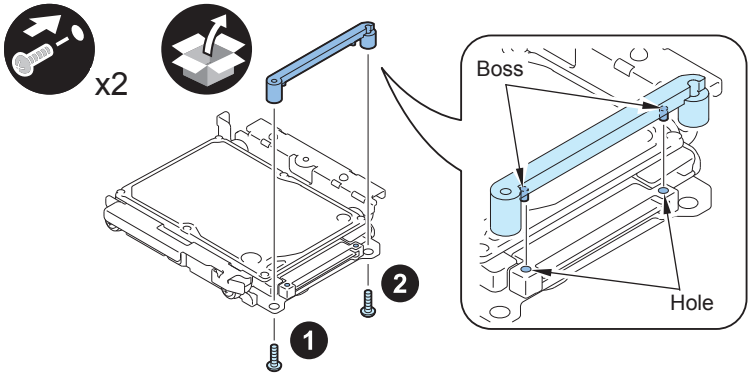
F-9-493

☐
5) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

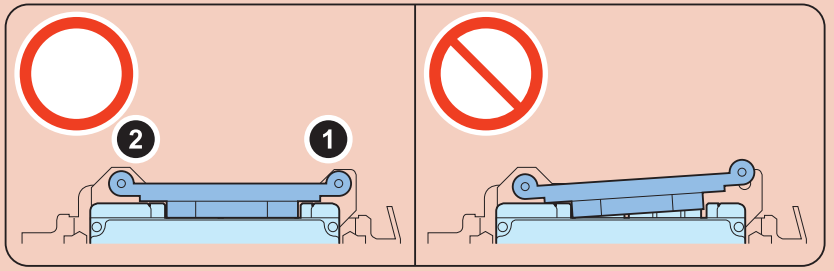
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-494

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



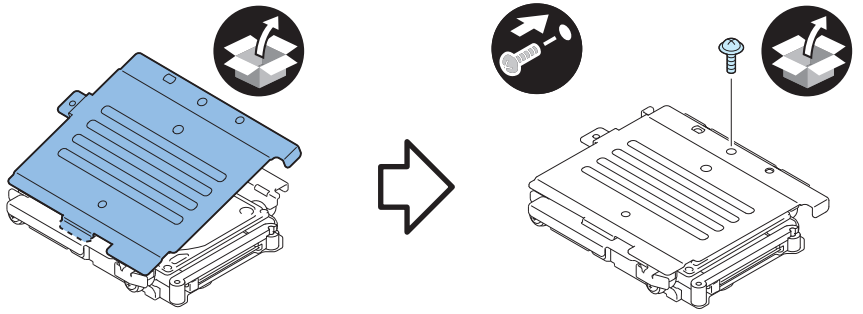
F-9-495

☐
6) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3X6)

CAUTION:

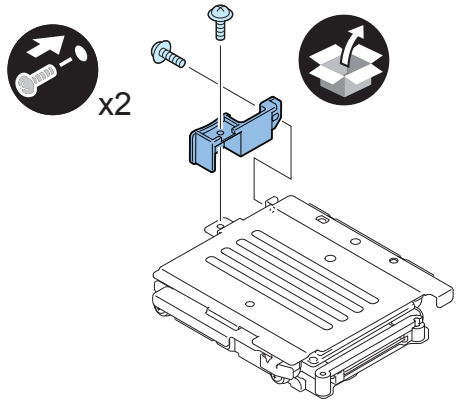
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-496

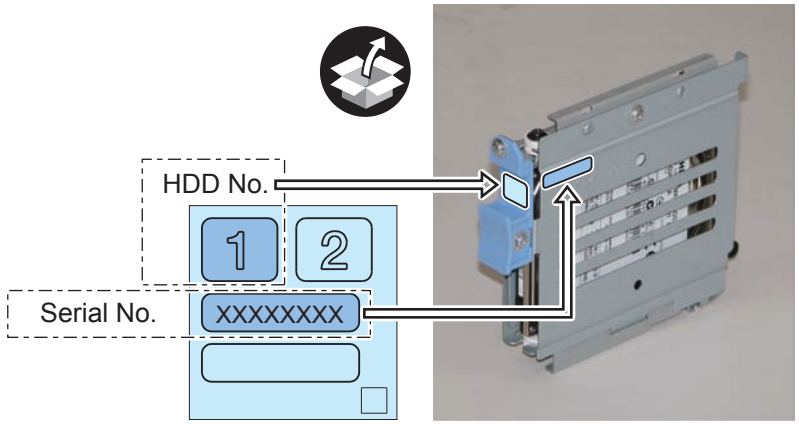
☐
7) Install the HDD Handle.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-497

☐
8) Affix the HDD No.2 Label to the handle of the Removable HDD.
9) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.

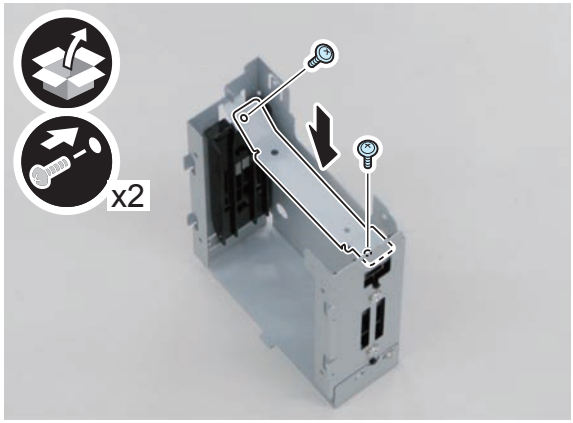


F-9-498

Installation to the Host Machine

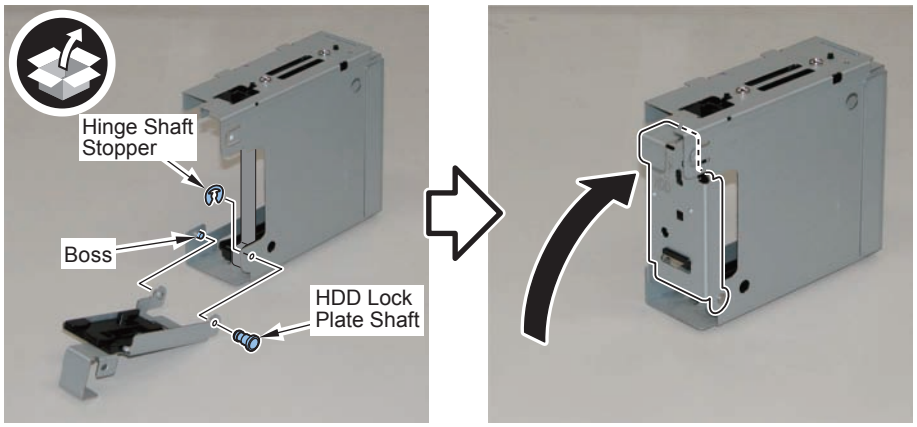
☐
1) Install the HDD Face Plate to the HDD Box.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



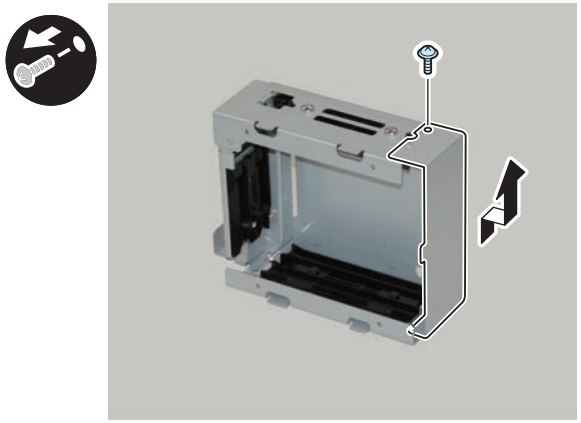
F-9-499

☐
2) Install the HDD Door Unit to the HDD Box.
- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper



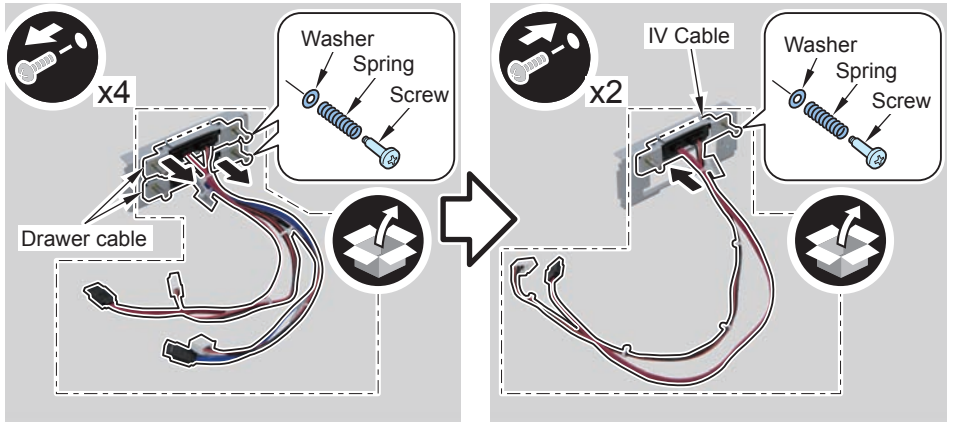
F-9-500

☐
3) Remove the plate from the HDD Box. (The removed plate will not be used.)
- 1 Screw (The removed screw will be used in step 5.)



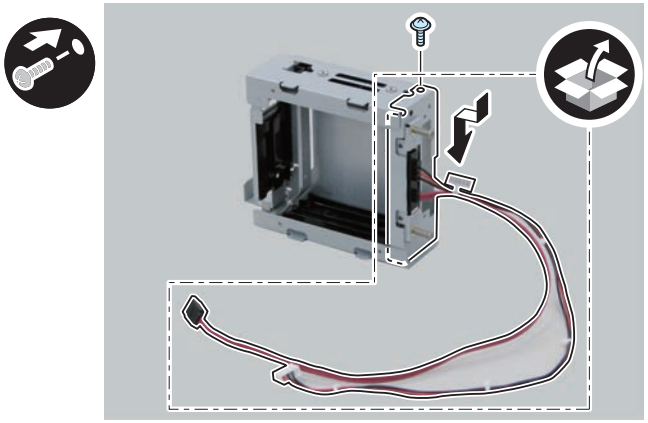
F-9-501

☐
4) Disconnect the 2 Drawer Cables of the HDD Drawer Unit, and replace them with the IV cables. (The 2 Drawer Cables will not be used.)
- 4 Screws (Use the 2 screws. The remaining 2 screws will not be used.)
- 4 Springs (Use the 2 springs. The remaining 2 springs will not be used.)
- 4 Washers (Use the 2 washers. The remaining 2 washers will not be used.)



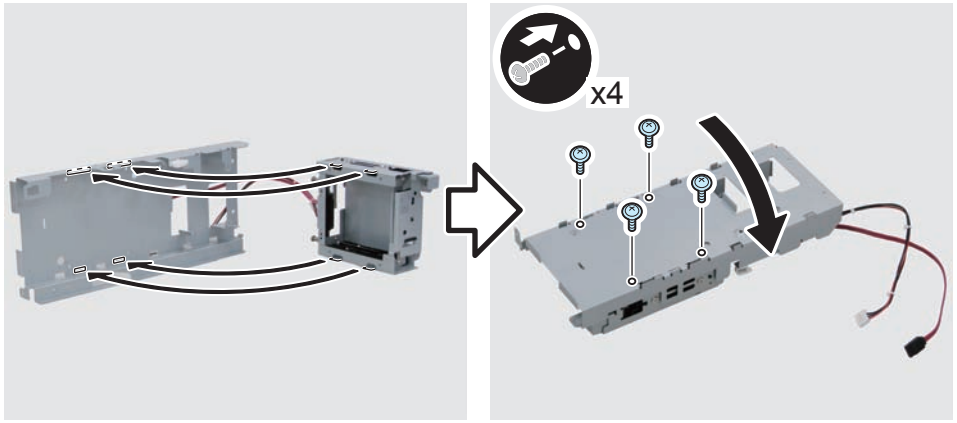
F-9-502

☐
5) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 3.)



F-9-503

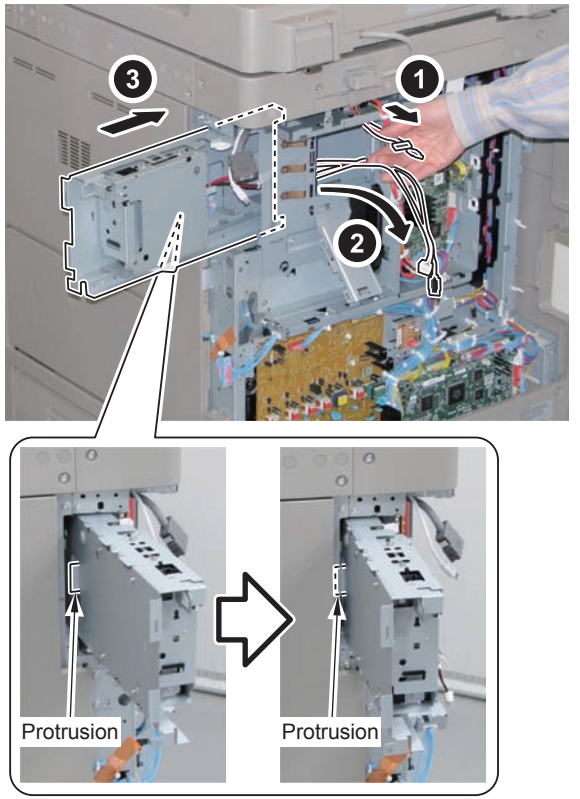
☐
6) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-504

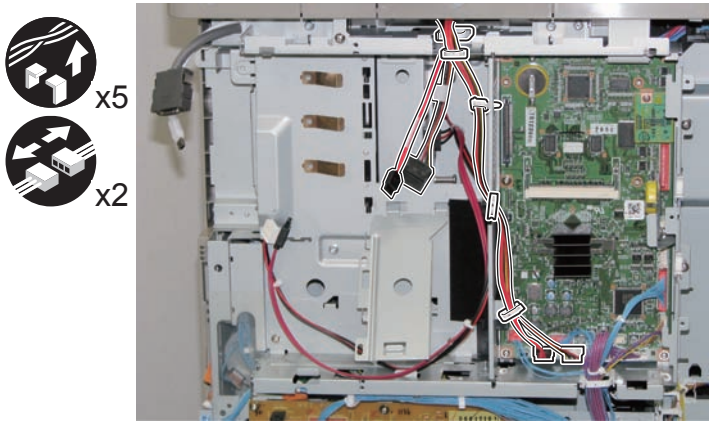
☐
7) Put the 2 cables through, and return the HDD Unit to the host machine.

NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the cable in the host machine.



F-9-505

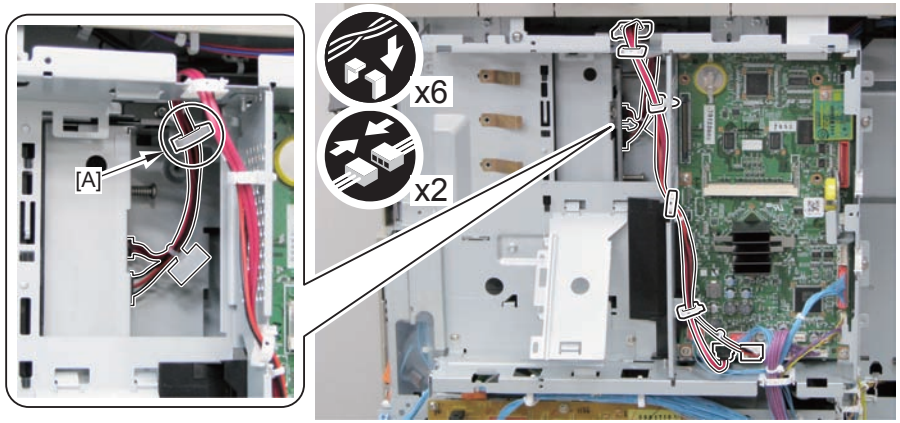
☐
8) Disconnect the 2 cables on the Controller side. (The 2 removed cables will not be used.)
- 2 Connectors
- 3 Edge Saddles
- 2 Wire Saddles



F-9-506

☐
9) Connect the 2 cables of the HDD Unit.
- 2 Connectors
- 3 Edge Saddles
- 3 Wire Saddles

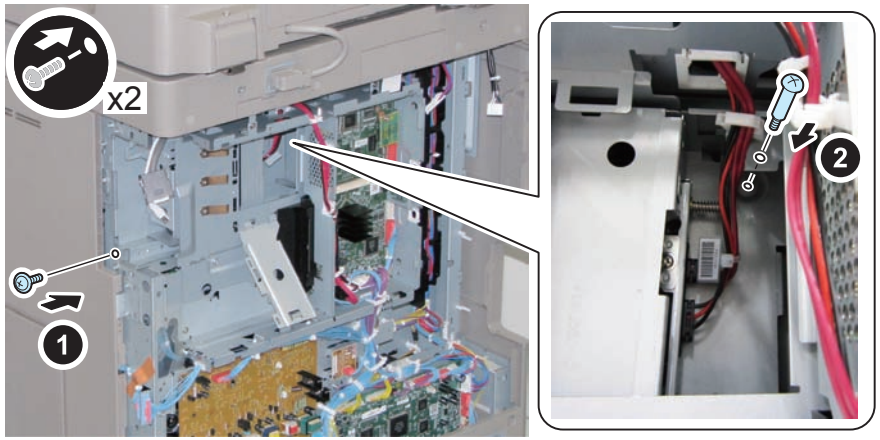
NOTE:
Be sure to pass the cable through the Wire Saddle [A] when connecting.



F-9-507

☐
10) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-508

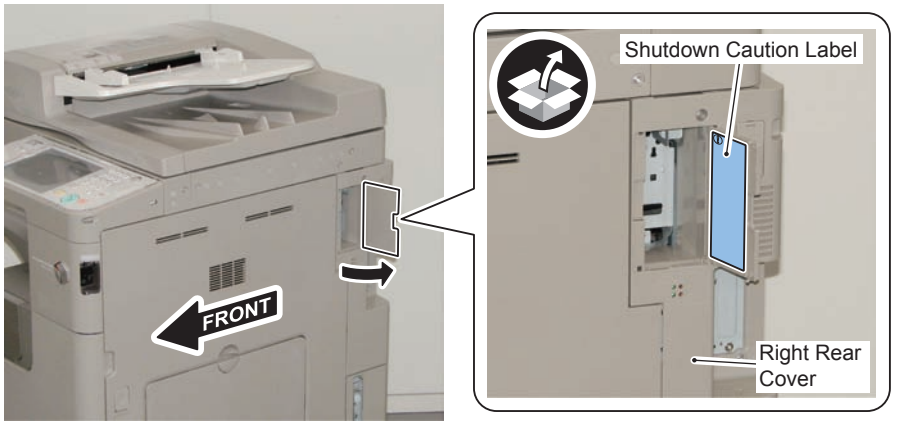
☐
11) Close the plate.
12) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

13) Connect the USB Cable and the Control Panel Communication Cable.
14) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
15) Open the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label



F-9-509

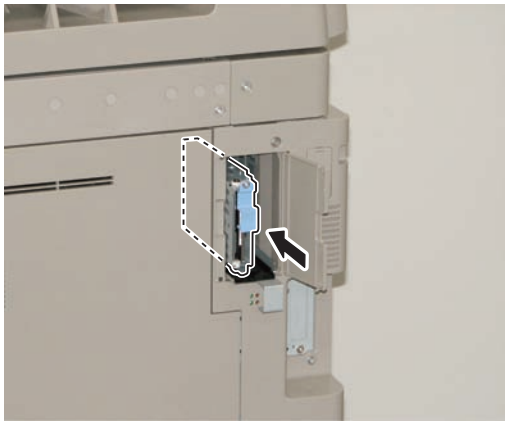
☐
16) Open the HDD Door Unit.



F-9-510

☐
17) Install the Removable HDD 1 (front).

NOTE:
Be sure to insert it until it stops.



F-9-511

☐
18) Close the HDD Door Unit.
19) Be sure to request the user to padlock the removable HDD to discourage theft.
20) Close the Small Cover of the Right Rear Cover.

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-8

Option HDD (250GB) + HDD Data Encryption & Mirroring Kit

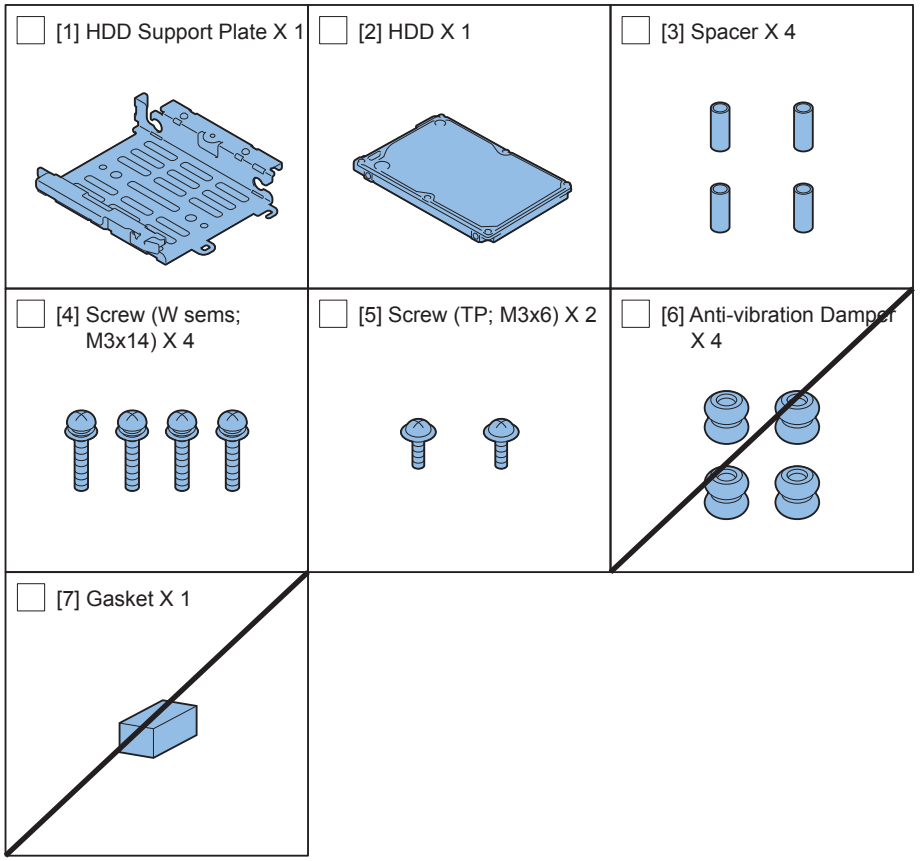
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/250GB HDD-D1]

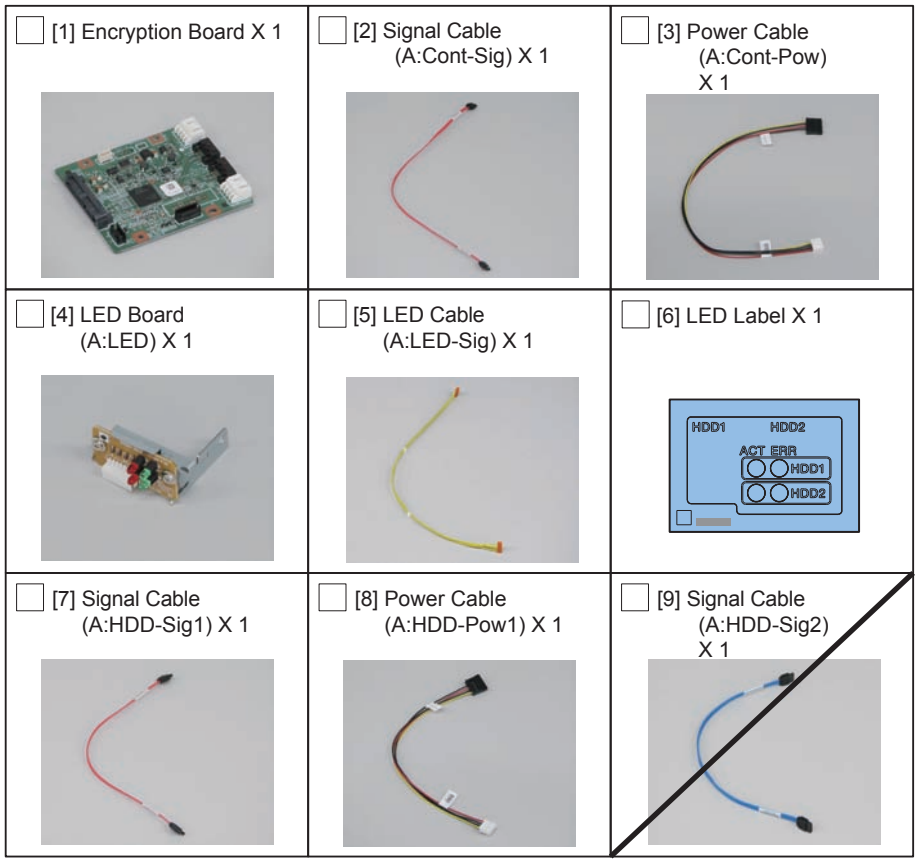


F-9-512

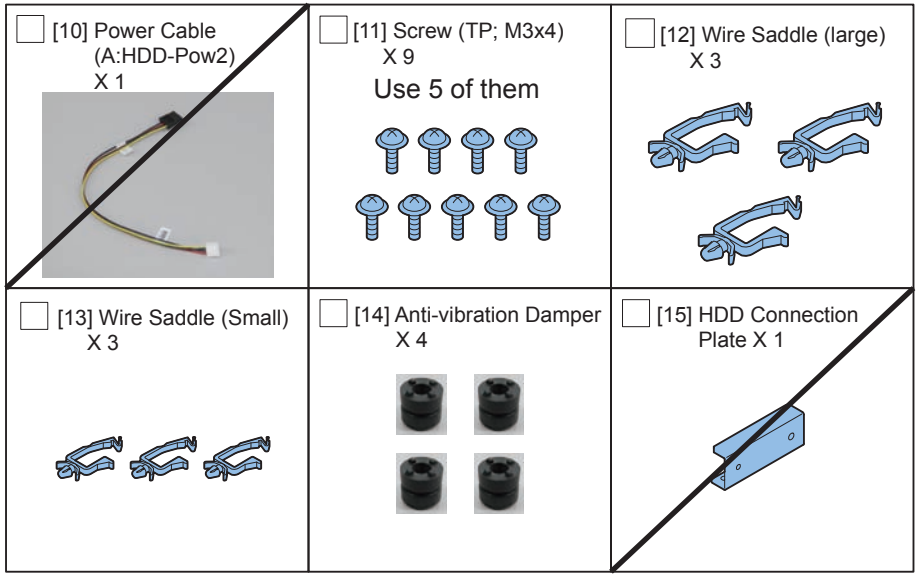
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- Noticd for FCC/IC

[HDD Data Encryption & Mirroring Kit-C4]



F-9-513



F-9-514

< CD/Guides>

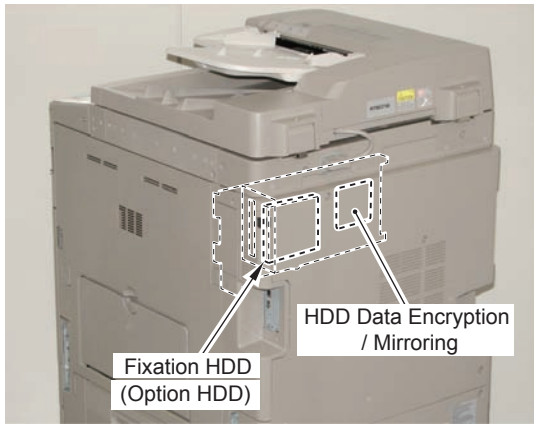
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



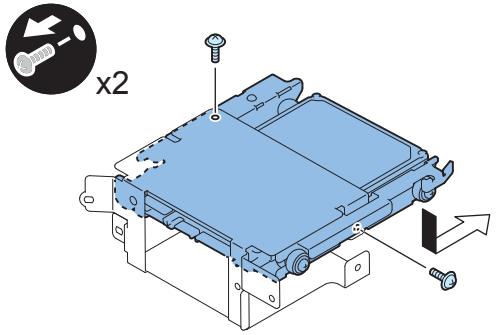
F-9-515

Assembling the Option HDD

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD and the screws will not be used.)

- 2 Screws



F-9-516

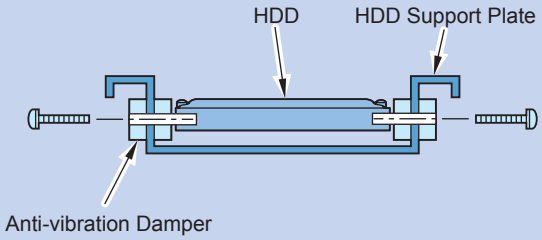
☐
2) Assemble the option HDD.

CAUTION:

Be sure to use the Anti-vibration Damper included in HDD Data Encryption & Mirroring Kit-C4.

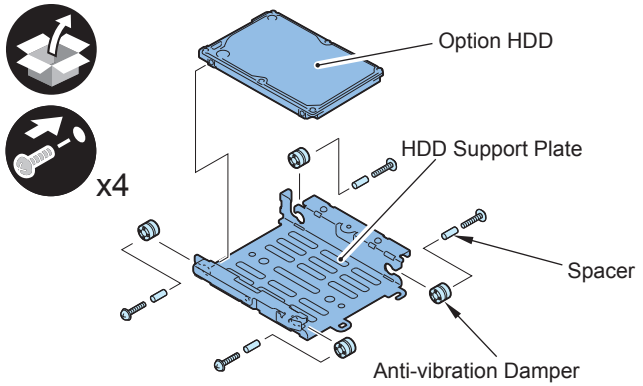
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD.



F-9-517

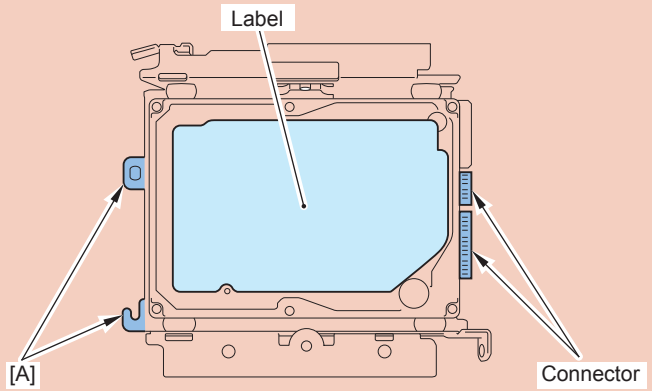
- 1 HDD Support Pate (enclosed with option HDD)
- 4 Anti-vibration Damper (enclosed with HDD Data Encryption & Mirroring Kit.)
- 4 Spacers (enclosed with option HDD)
- 1 Option HDD (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-518

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Make sure that [A] part of HDD Support Plate is placed at the opposite side of connector.



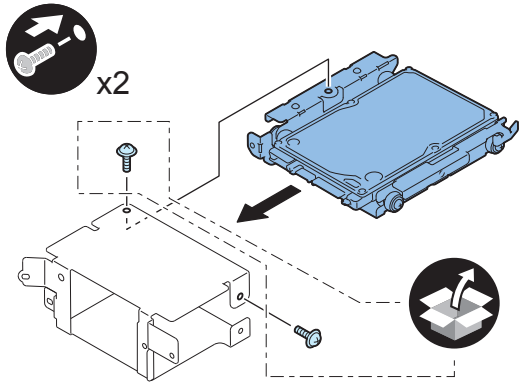
F-9-519

Installation to the Host Machine

☐

1) Install the Option HDD to the HDD Fixation Plate.

- 2 Screws (TP; M3X6)



F-9-520

☐

2) Return the HDD Fixation Plate Unit to the HDD Box.

- 2 Screws (Use the 2 screws removed in ”Removing the HDD" step 10.)

☐

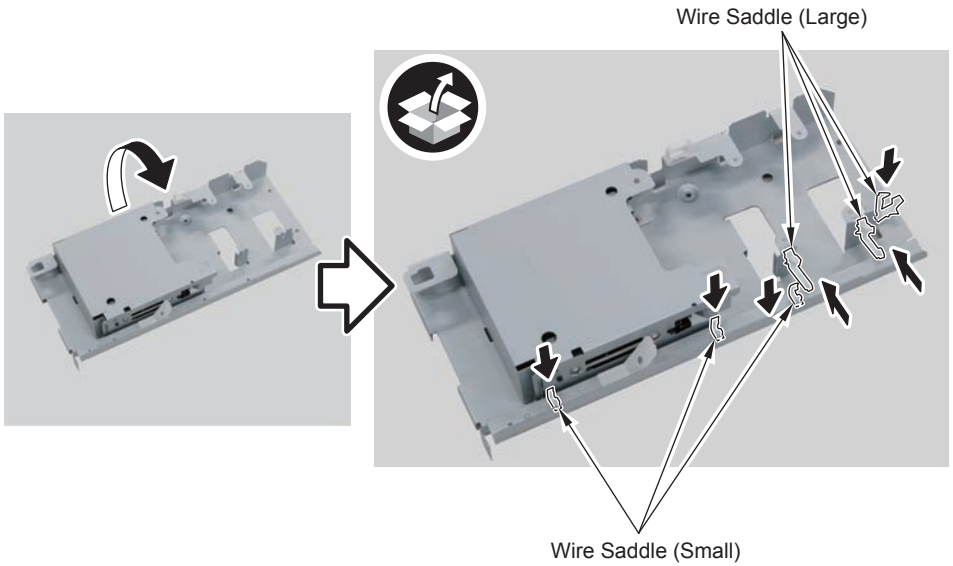
3) Install the HDD Box to the HDD Slide Rail.

- 5 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)

☐

4) Install the Wire Saddles.

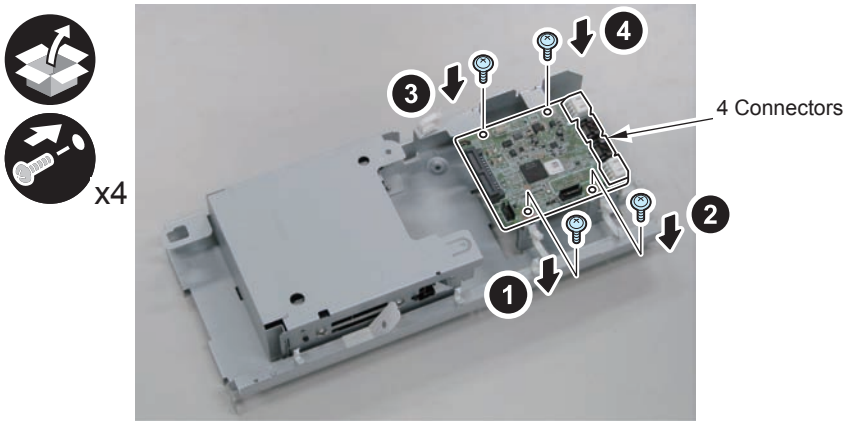
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)



F-9-521

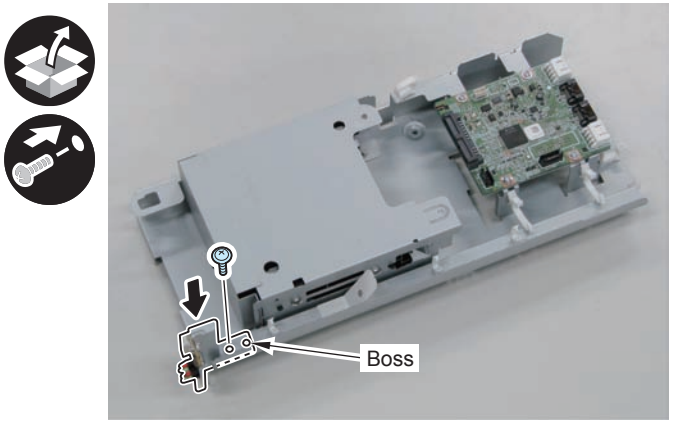
☐
5) Install the Encryption Board.
- 4 Screws (TP; M3X4)

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



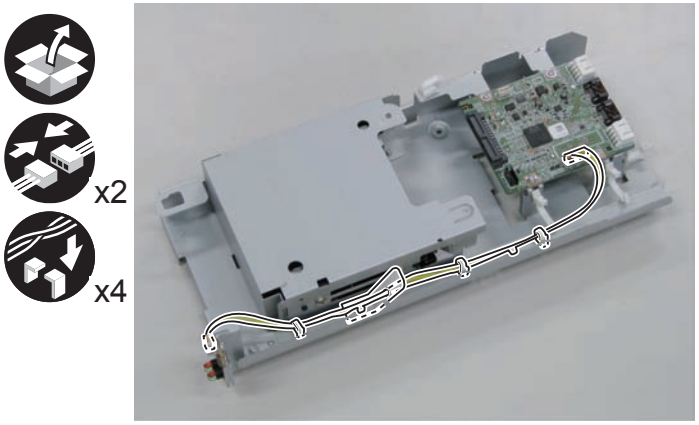
F-9-522

☐
6) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-523

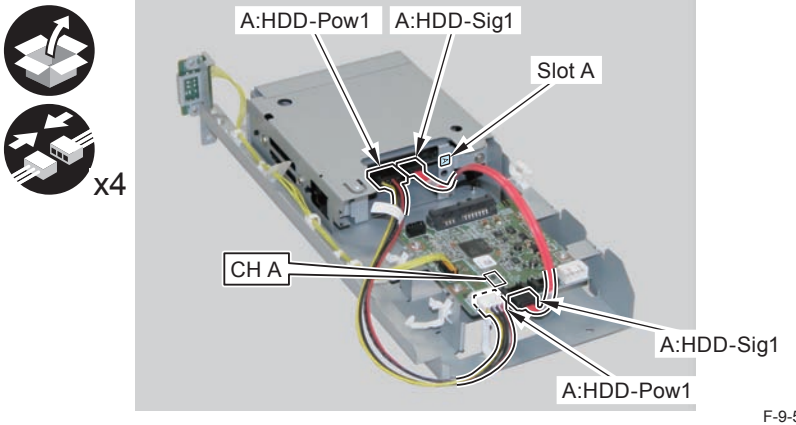
☐
7) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-524

☐
8) Install the Signal Cable (A:HDD-Sig1) and the Power Supply Cable (A:HDD-Pow1).
- 2 Connectors (A:HDD-Sig1)
- 2 Connectors (A:HDD-Pow1)

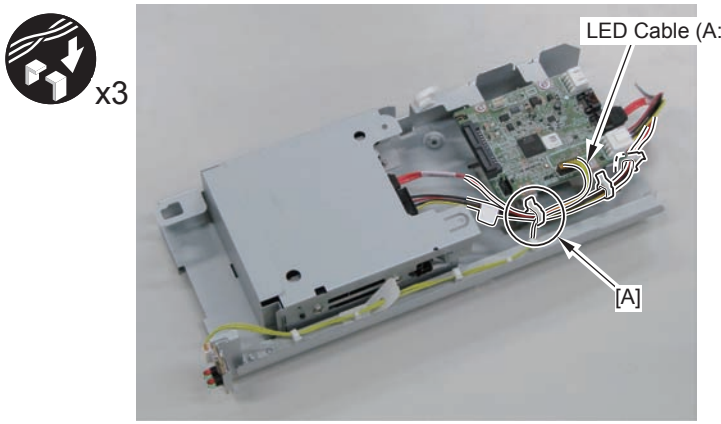
NOTE:
Be sure to connect "A:HDD-Sig1" and "A:HDD-Pow1" to the slot [A] of the HDD and [CH-A] of the PCB.



F-9-525

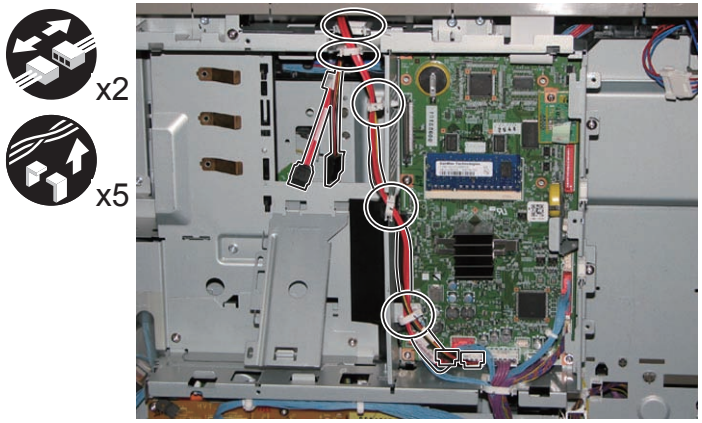
☐
9) Secure the cables in place using the Wire Saddles.
- 3 Wire Saddles (Large)

NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



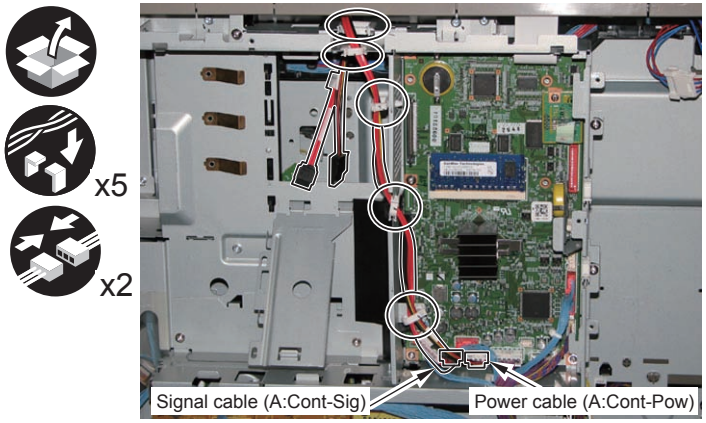
F-9-526

☐
10) Disconnect the 2 cables. (The 2 removed cables will not be used.)
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-527

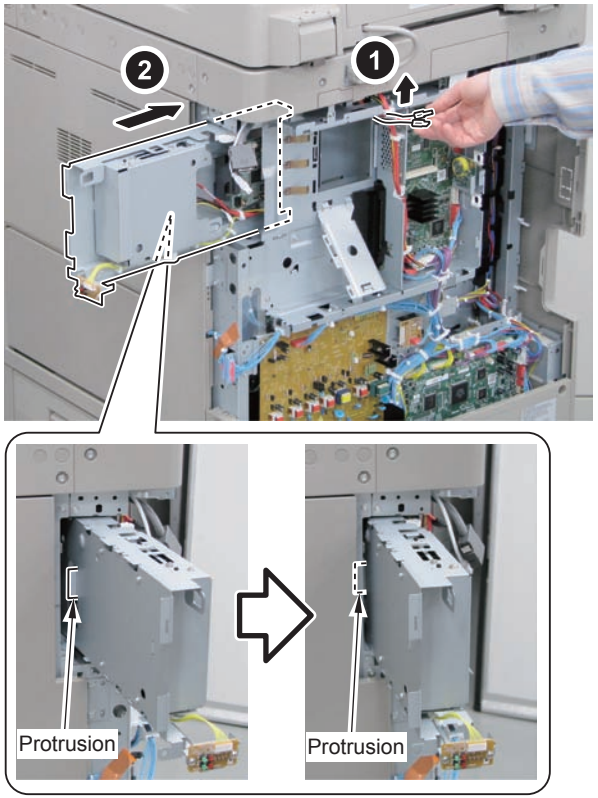
☐
11) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-528

☐
12) Return the HDD Unit to the host machine.

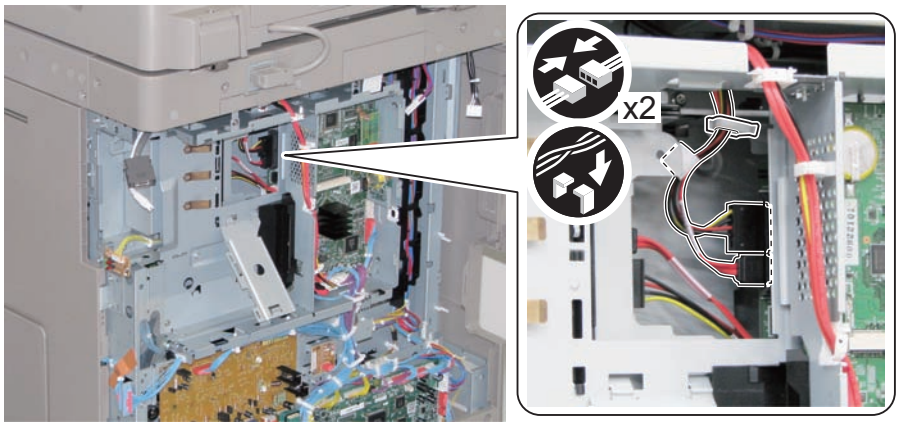
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-529

☐
13) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

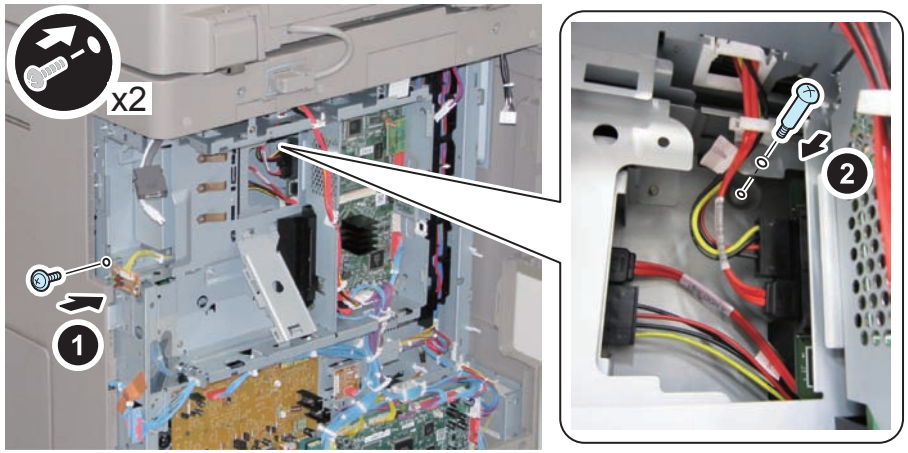
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-530

☐
14) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-531

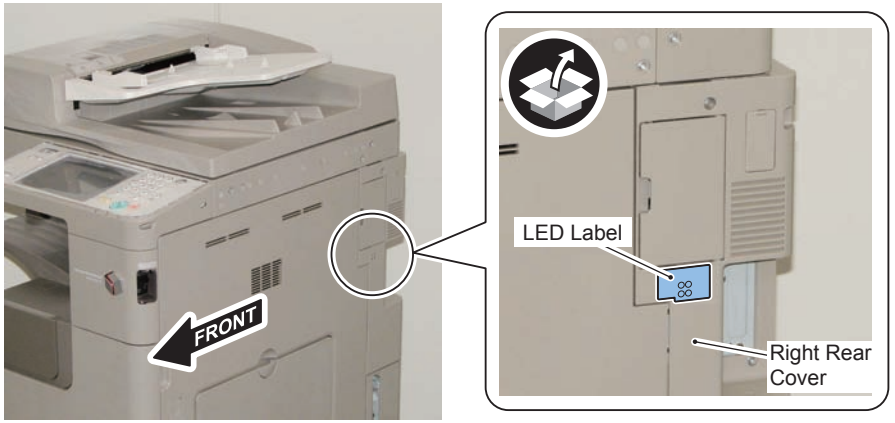
☐
15) Close the plate.
16) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

17) Connect the USB Cable and the Control Panel Communication Cable.
18) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
19) Affix the label to the Right Rear Cover.
- 1 LED Label



F-9-532

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

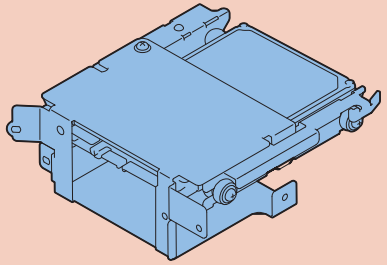
TYPE-9

Option HDD (250GB) + Removable HDD Kit +
HDD Data Encryption & Mirroring Kit

Points to Note at Installation

CAUTION:

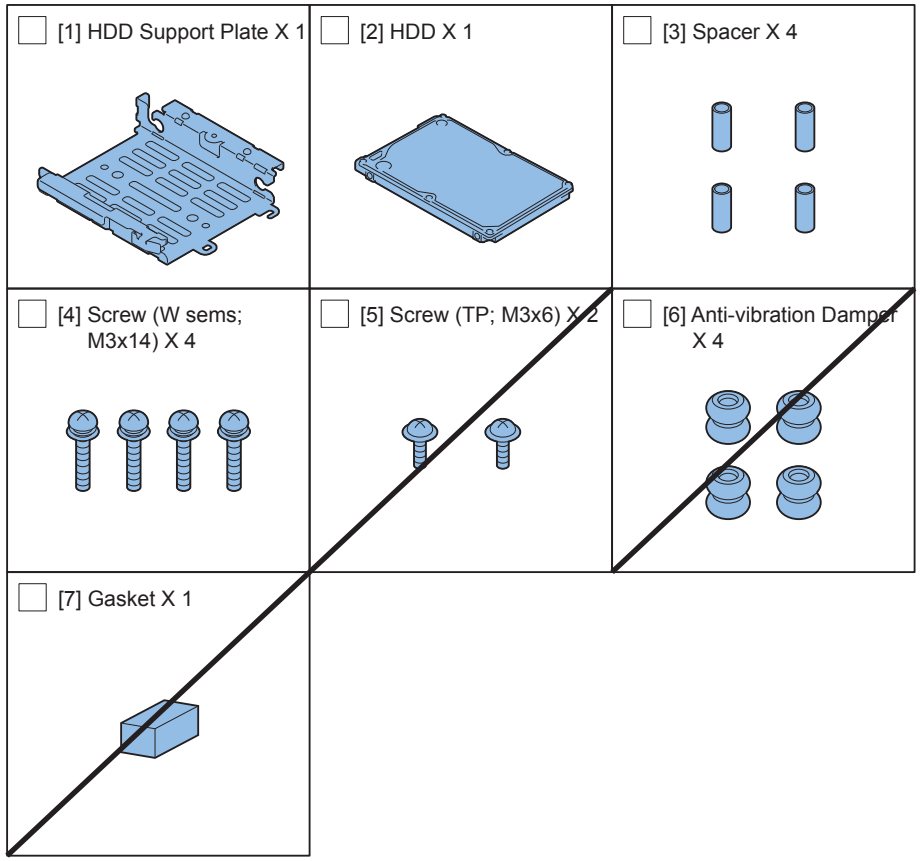
- Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)
- The HDD Unit removed from the HDD Box will not be used.



F-9-533

Checking the Contents

[2.5inch/250GB HDD-D1]

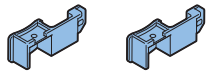
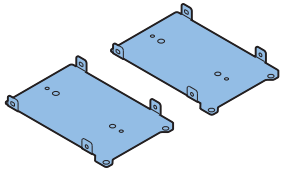
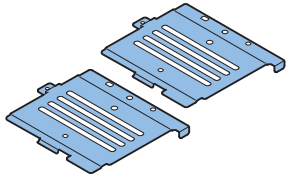
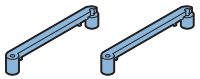
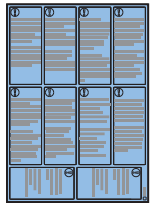
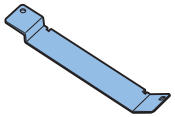


F-9-534

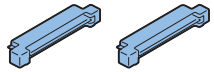
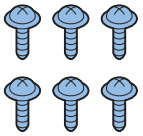
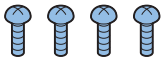
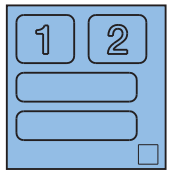
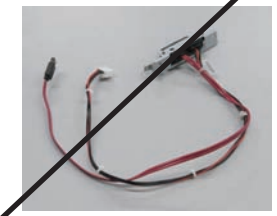
<CD/Guide>

- Noticd for FCC/IC

[Removable HDD Kit-AF1]

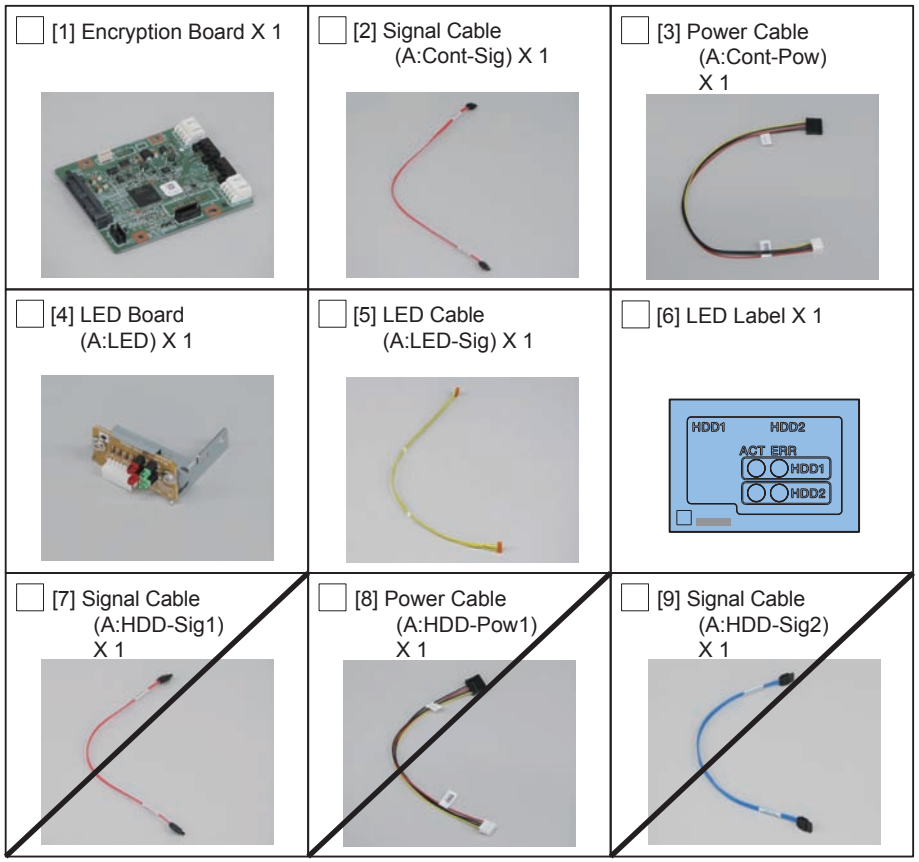
☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 Use 1 of them 	☐ [3] HDD Connector Plate X 2 Use 1 of them 
☐ [4] HDD Cover X 2 Use 1 of them 	☐ [5] Connector Fixing Block X 2 Use 1 of them 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] HDD Blanking Plate X 1 

F-9-535

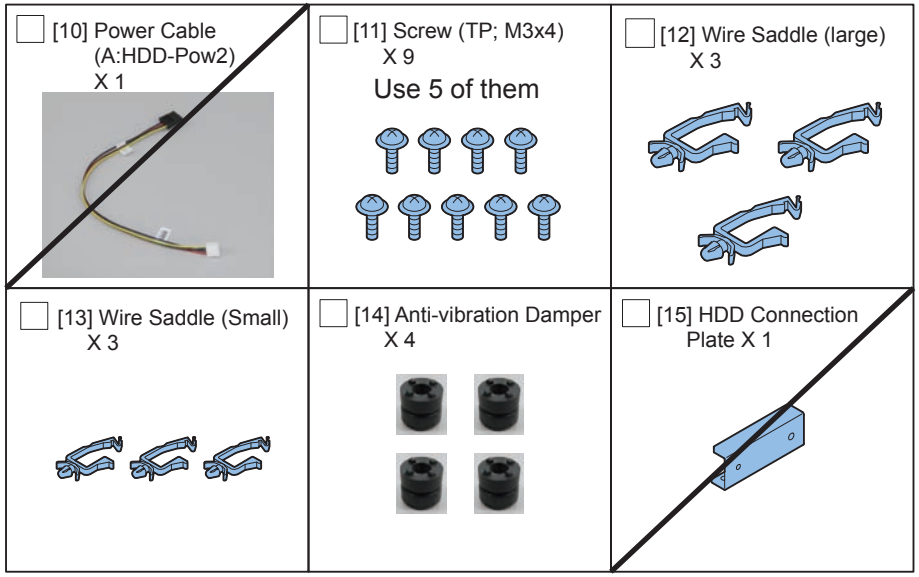
☐ [10] Conversion Connector X 2 Use 1 of them 	☐ [11] HDD Drawer Unit X 1 	☐ [12] Screw (R round head TP; M3x6) X 6 Use 5 of them 
☐ [13] Screw (P Tight; M3x8) X 4 Use 2 of them 	☐ [14] R-HDD Label X 1 	☐ [15] IV Cable X 1 

F-9-536

[HDD Data Encryption & Mirroring Kit-C4]



F-9-537



F-9-538

< CD/Guides>

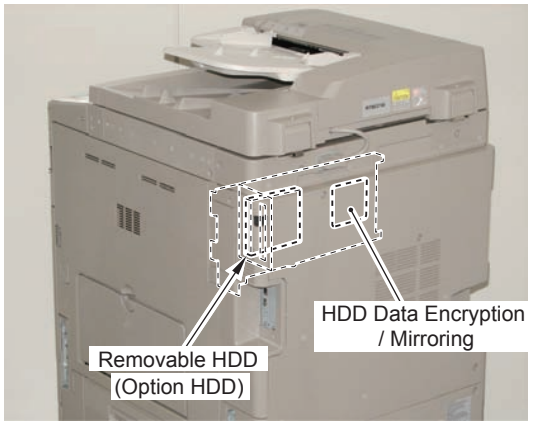
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



F-9-539

Assembling and Installing the Option HDD

☐

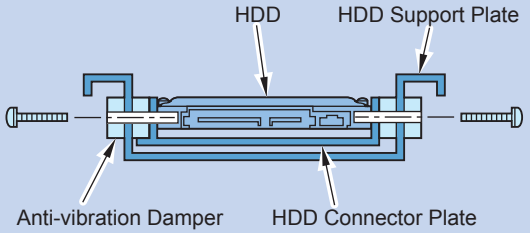
1) Purchase option HDD and assemble the second HDD.

CAUTION:

Be sure to use the Anti-vibration Damper included in HDD Data Encryption & Mirroring Kit-C4.

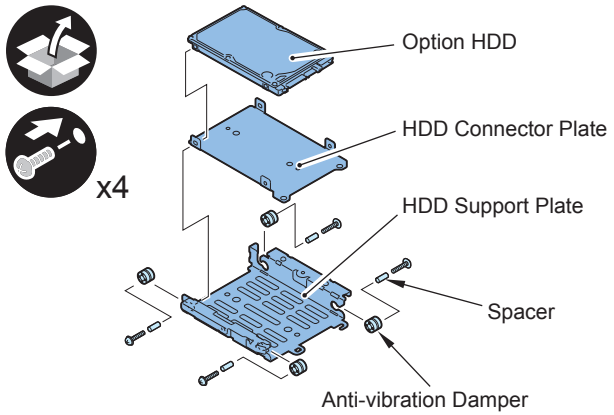
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-540

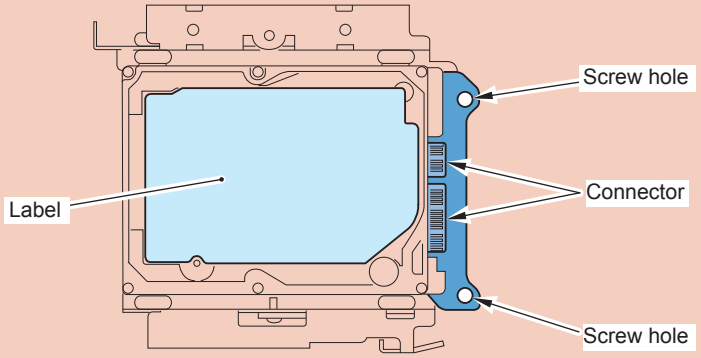
- 1 HDD Support Plate (enclosed with option HDD)
- 4 Anti-vibration Damper (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)
- 4 Spacers (enclosed with option HDD)
- 1 HDD Connector Plate (enclosed with removable HDD Kit)
- 1 Option HDD (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-541

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)

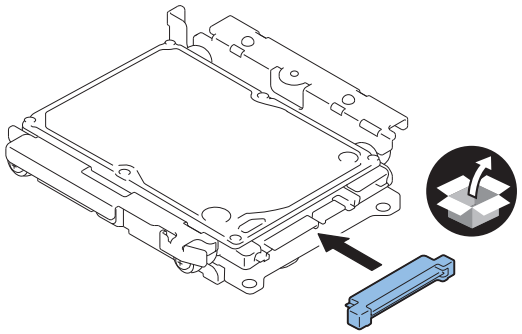


F-9-542

☐ 2) Install the Conversion Connector.

CAUTION:

Make sure that there is no opening between the Conversion Connector and part of HDD.



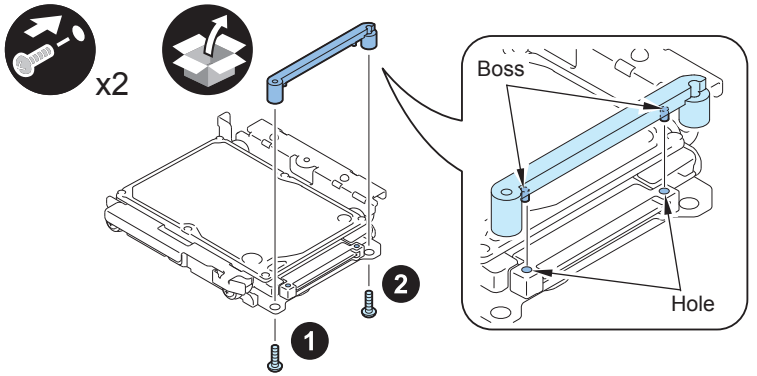
F-9-543

☐ 3) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

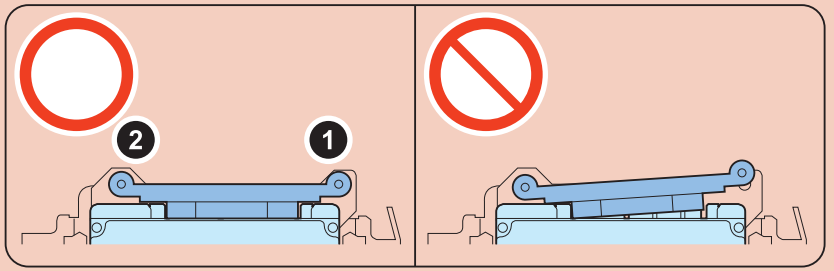
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-544

CAUTION:

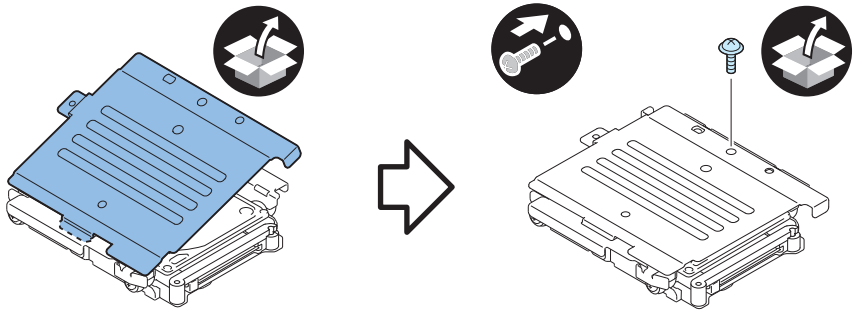
- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



F-9-545

☐
4) Install the HDD Cover.
- 1 Claw
- 1 Screw (TP Round End; M3X6)

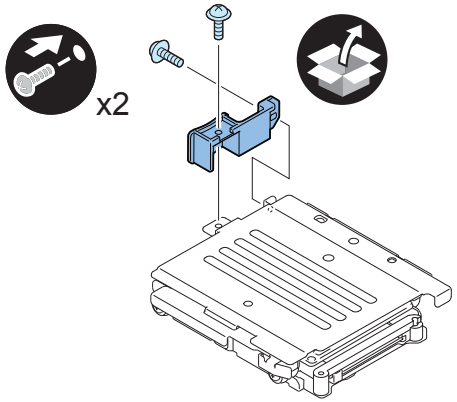
CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-546

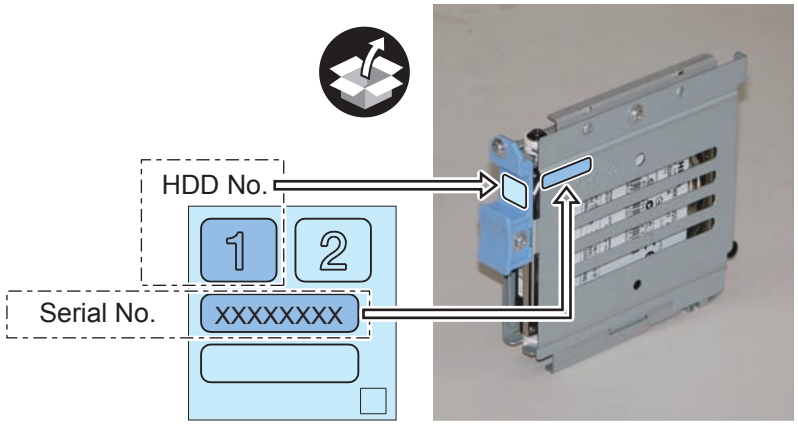
☐
5) Install the HDD Handle.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-547

☐
6) Affix the HDD No.2 Label to the handle of the Removable HDD.
7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-548

Installation to the Host Machine

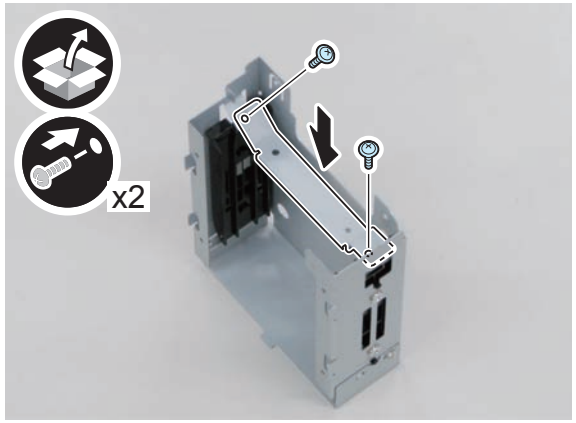
☐

1) Install the HDD Face Plate to the HDD Box.

- 2 Screws (TP Round End; M3X6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.

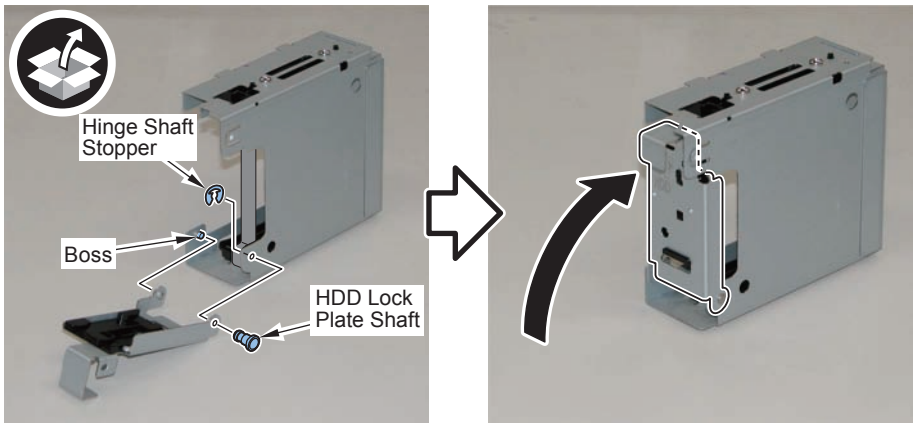


F-9-549

☐

2) Install the HDD Door Unit to the HDD Box.

- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper

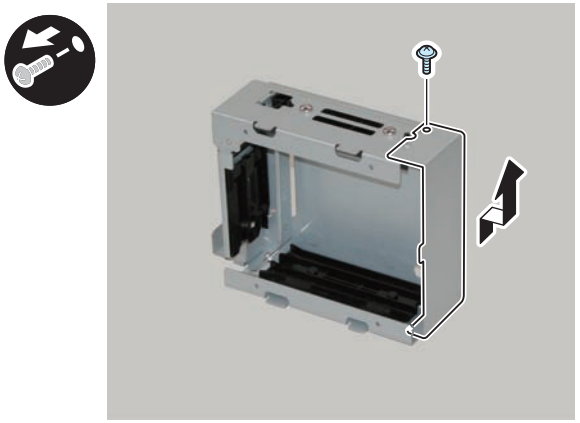


F-9-550

☐

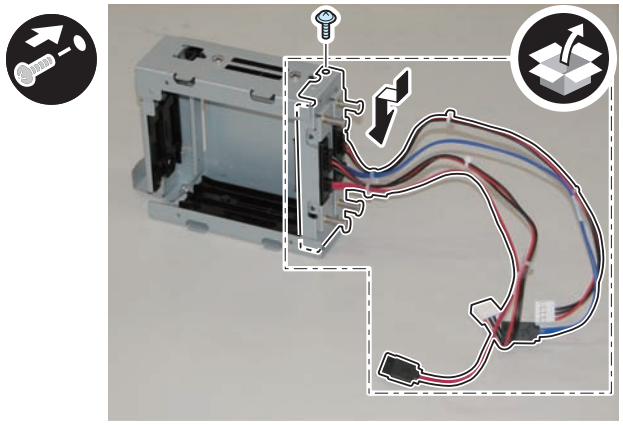
3) Remove the plate from the HDD Box. (The removed plate will not be used.)

- 1 Screw (The removed screw will be used in step 4.)



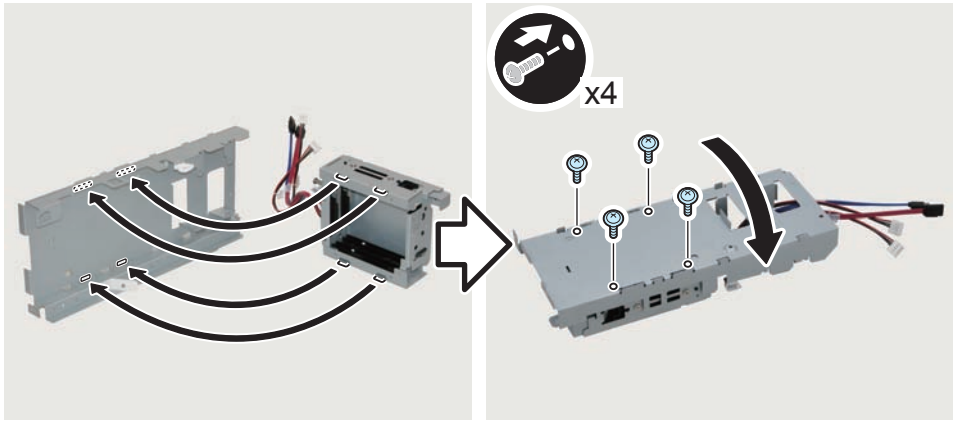
F-9-551

☐
4) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 3.)



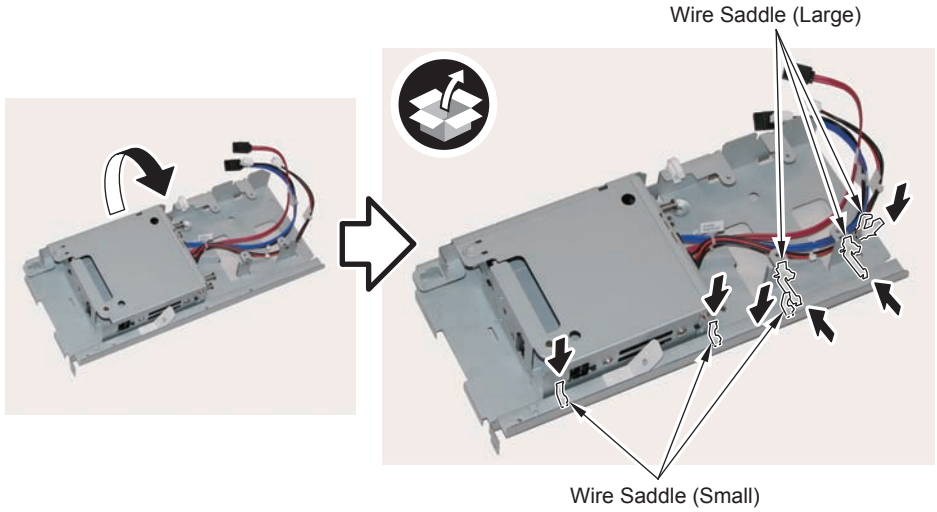
F-9-552

☐
5) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-553

☐
6) Install the Wire Saddles.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)

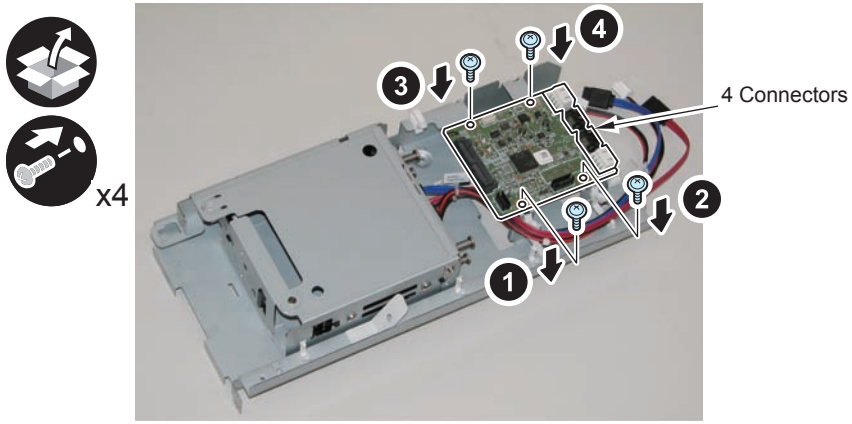


F-9-554

☐
7) Install the Encryption Board.
- 4 Screws (TP; M3X4)

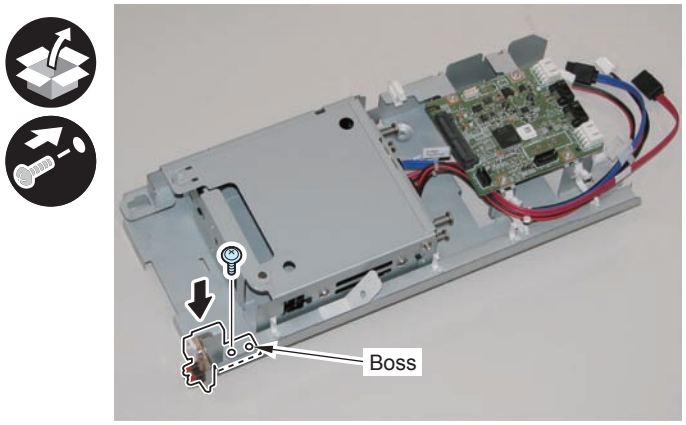
CAUTION:
Be sure to put the cables on the Wire Saddle to prevent it from getting under the board.

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



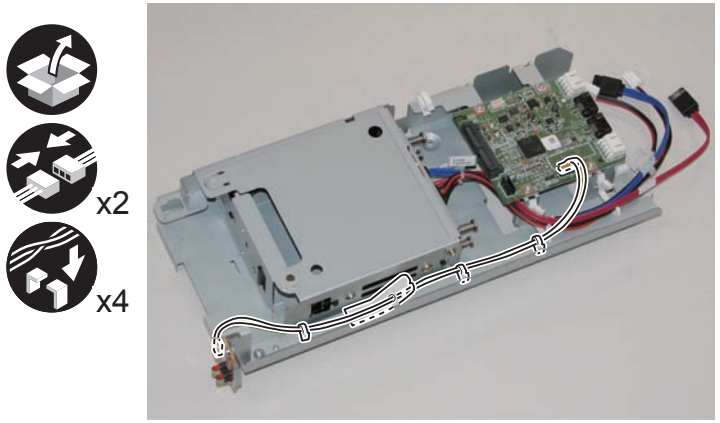
F-9-555

☐
8) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-556

☐
9) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)

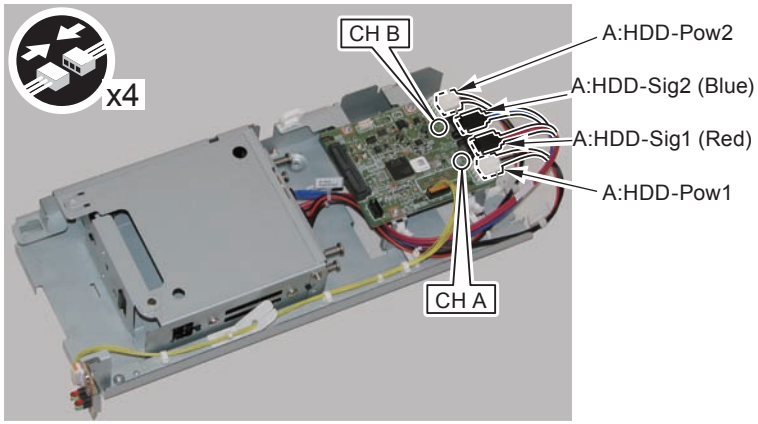


F-9-557

☐ 10) Connect the cables of the HDD Drawer Unit.

- 2 Connectors of the Signal Cable
- 2 Connectors of the Power Supply Cable

NOTE:
- Be sure to connect "A:HDD-Sig1" (red) and "A:HDD-Pow1" to CH-A of the PCB.
- Be sure to connect "A:HDD-Sig2" (blue) and "A:HDD-Pow2" to CH-B of the PCB.

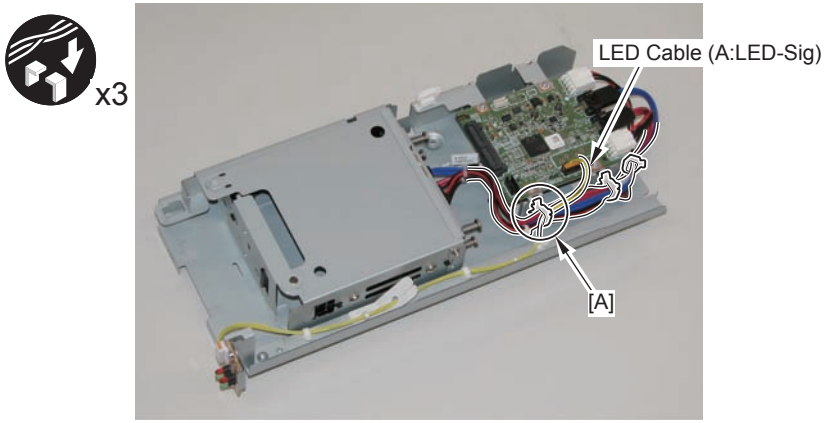


F-9-558

☐ 11) Secure the cables in place using the Wire Saddles.

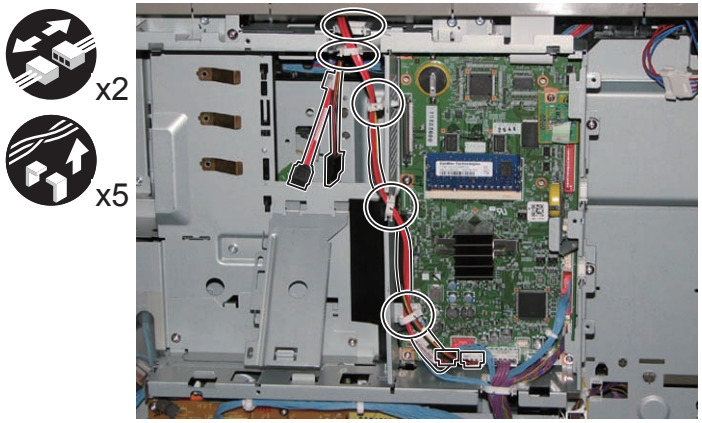
- 3 Wire Saddles (Large)

NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



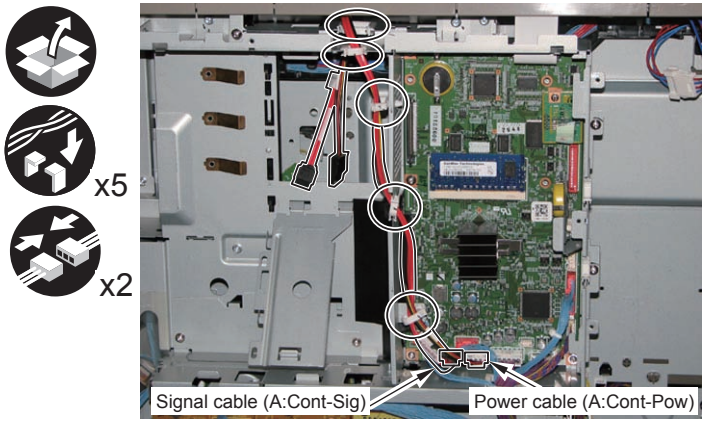
F-9-559

☐
12) Disconnect the 2 cables. (The 2 removed cables will not be used.)
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-560

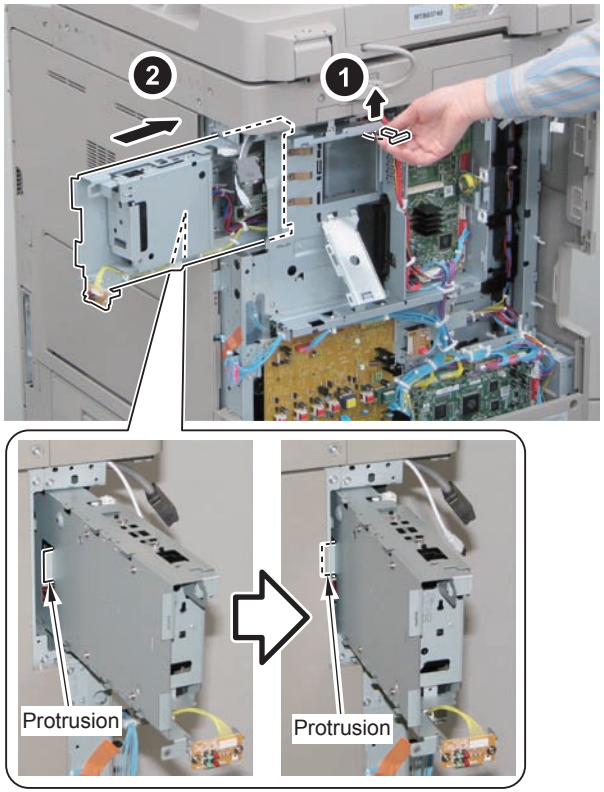
☐
13) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-561

☐
14) Return the HDD Unit to the host machine.

NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.

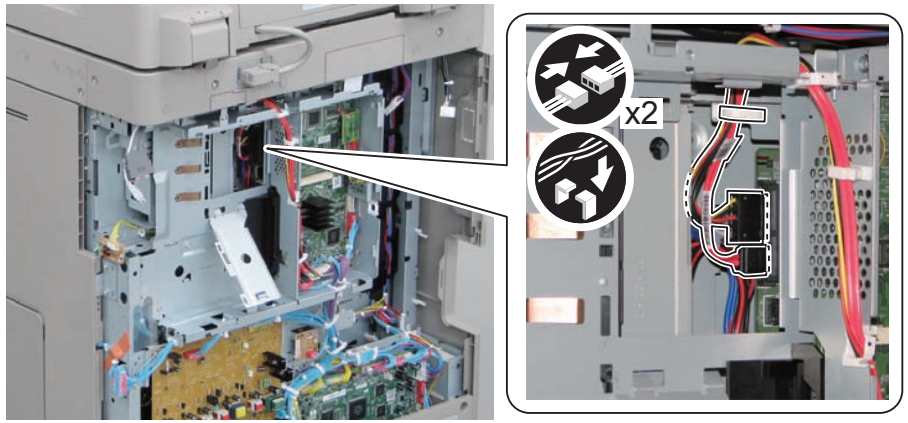


F-9-562

☐ 15) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).

- 1 Wire Saddle

NOTE
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.

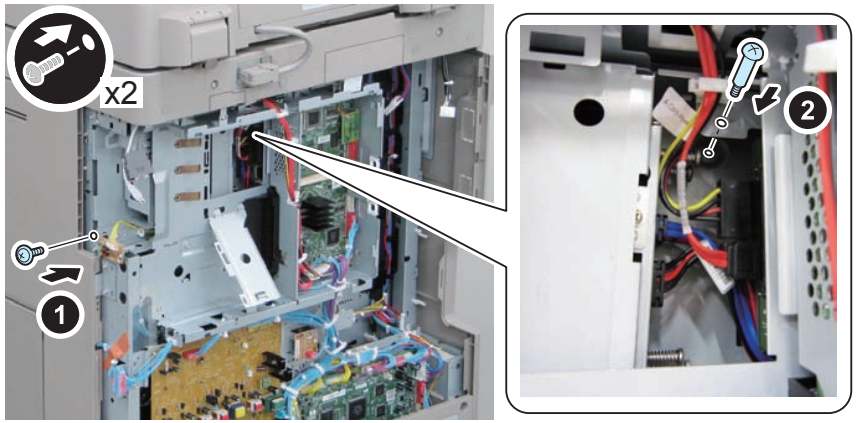


F-9-563

☐ 16) Secure the HDD Unit.

- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-564

☐ 17) Close the plate.

18) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

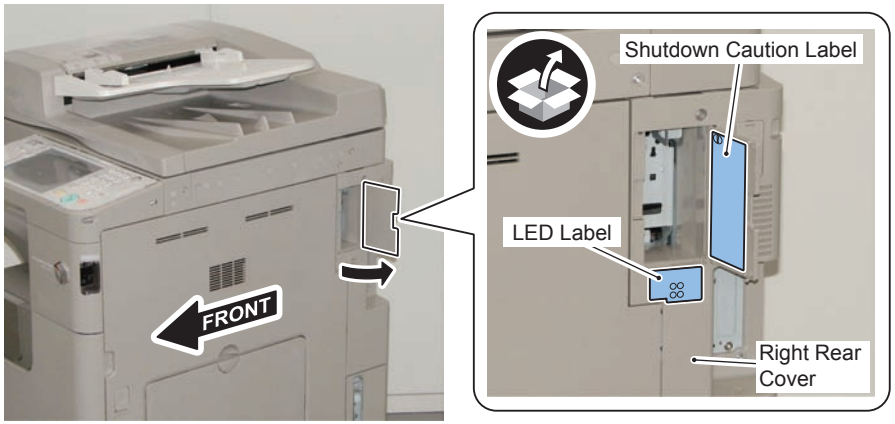
19) Connect the USB Cable and the Control Panel Communication Cable.

20) Install the covers.

- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
21) Open the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label
- 1 LED Label



F-9-565

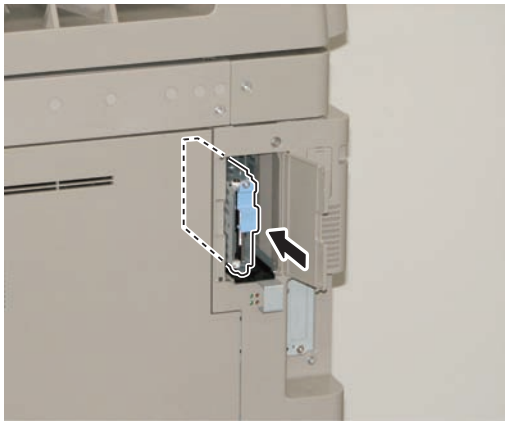
☐
22) Open the HDD Door Unit.



F-9-566

☐
23) Install the Removable HDD 1 (front).

NOTE:
Be sure to insert it until it stops.



F-9-567

☐
24) Close the HDD Door Unit.
25) Be sure to request the user to padlock the removable HDD to discourage theft.
26) Close the Small Cover of the Right Rear Cover.

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-10

2 Option HDDs (250GB) + HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

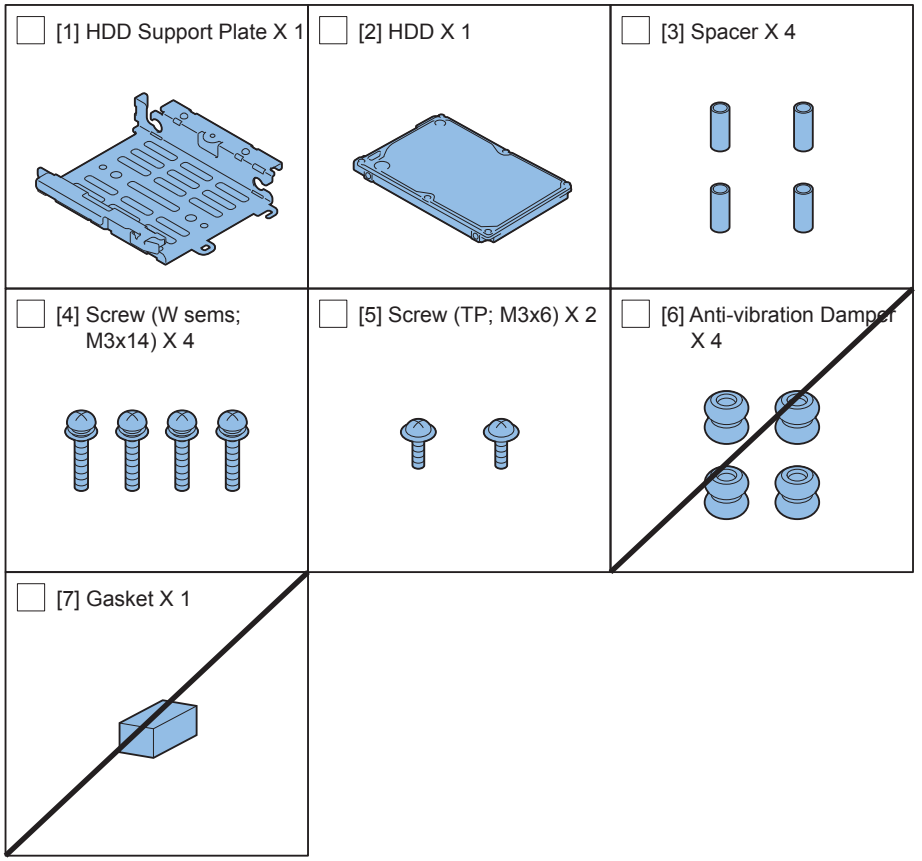
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/250GB HDD-D1]

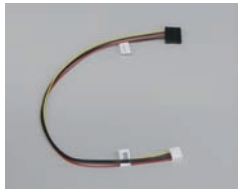
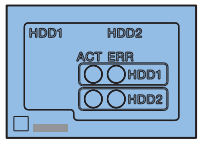


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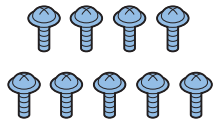
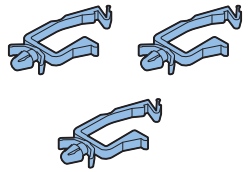
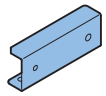
<CD/Guide>

- Noticd for FCC/IC

[HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4]

☐ [1] Mirroring Board or Encryption Board X 1 	☐ [2] Signal Cable (A:Cont-Sig) X 1 	☐ [3] Power Cable (A:Cont-Pow) X 1 
☐ [4] LED Board (A:LED) X 1 	☐ [5] LED Cable (A:LED-Sig) X 1 	☐ [6] LED Label X 1 
☐ [7] Signal Cable (A:HDD-Sig1) X 1 	☐ [8] Power Cable (A:HDD-Pow1) X 1 	☐ [9] Signal Cable (A:HDD-Sig2) X 1 

F-9-569

☐ [10] Power Cable (A:HDD-Pow2) X 1 	☐ [11] Screw (TP; M3x4) X 9 	☐ [12] Wire Saddle (large) X 3 
☐ [13] Wire Saddle (Small) X 3 	☐ [14] Anti-vibration Damper X 4 	☐ [15] HDD Connection Plate X 1 

F-9-570

< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit-D1 User Documentation
- Notice for FCC/IC

< CD/Guides of HDD Data Encryption & Mirroring Kit >

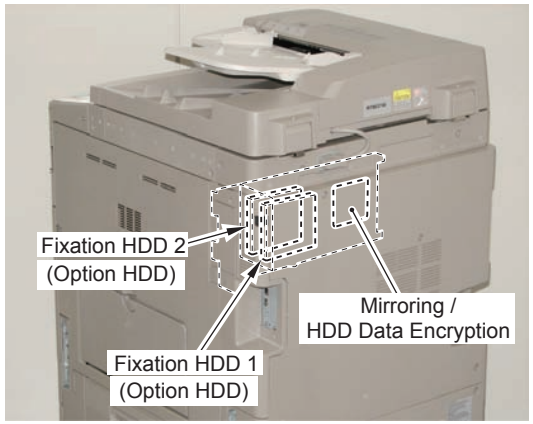
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



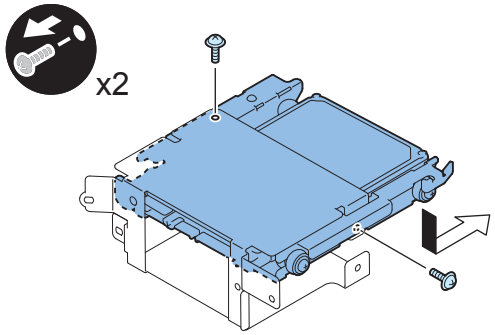
F-9-571

Assembling the Option HDD

☐

1) Remove the HDD from the HDD Fixation Plate Unit.

- 2 Screws (The removed screws will not be used.)

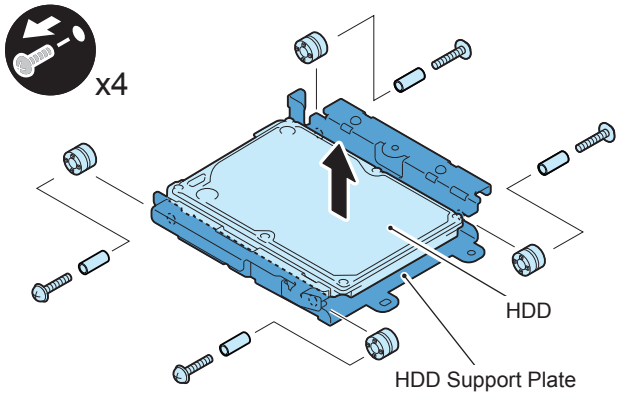


F-9-572

☐

2) Remove the 4 Anti-vibration Dampers from the HDD Support Plate. (Use the Anti-vibration Dampers only.)

- 4 Screws
- 4 Spacers
- HDD



F-9-573

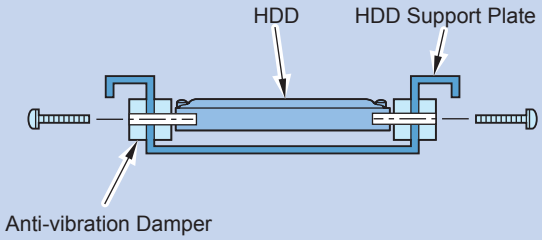
☐
3) Assemble the option HDD.

CAUTION:

Be sure to use the Anti-vibration Dampers removed from the standard HDD.

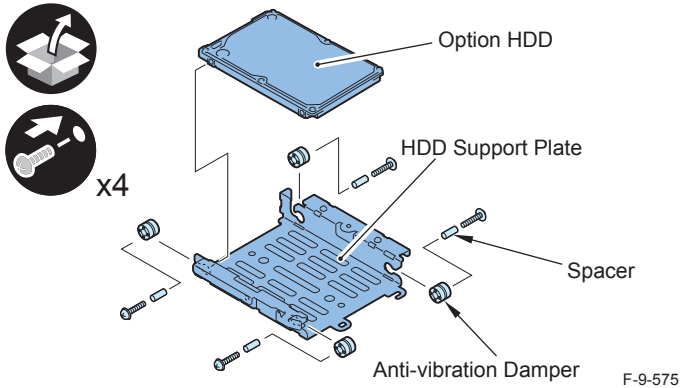
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD.



F-9-574

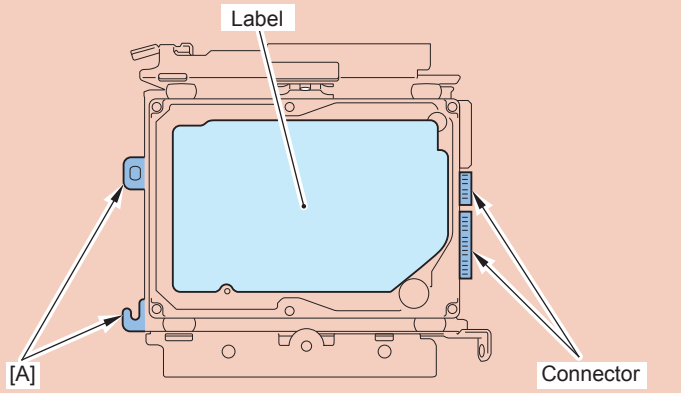
- 1 HDD Support Pate (enclosed with option HDD)
- 4 Anti-vibration Damper (Anti-vibration Damper removed from the standard HDD.)
- 4 Spacers (enclosed with option HDD)
- 1 Option HDD (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-575

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Make sure that [A] part of HDD Support Plate is placed at the opposite side of connector.



F-9-576

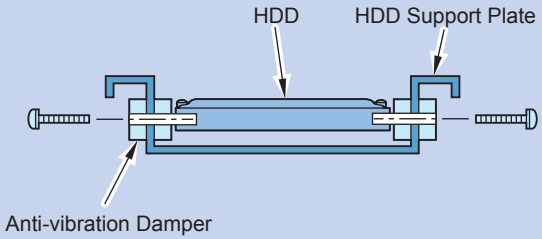
☐
4) Assemble the second Option HDD.

CAUTION:

Be sure to use the Anti-vibration Damper included in HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4.

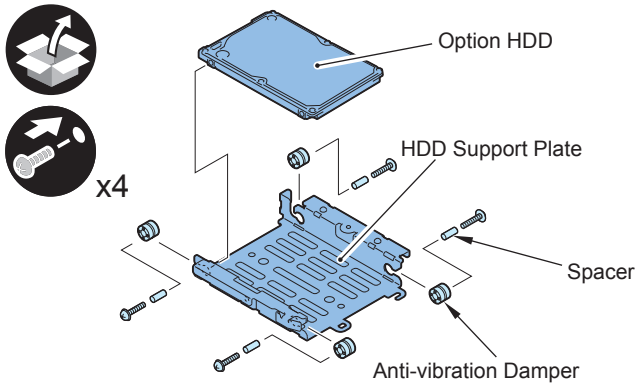
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD.



F-9-577

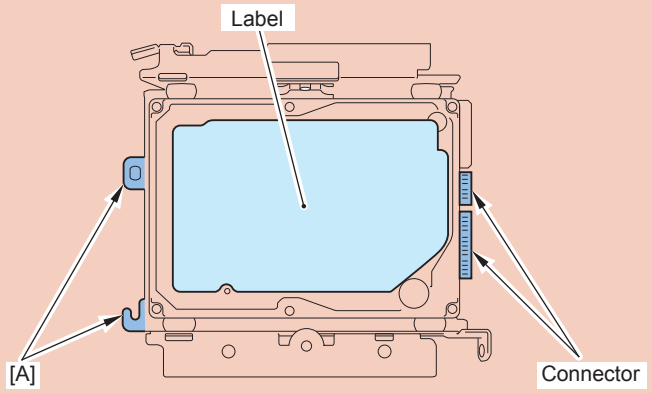
- 1 HDD Support Pate (enclosed with option HDD)
- 4 Anti-vibration Damper (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)
- 4 Spacers (enclosed with option HDD)
- 1 Option HDD (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-578

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Make sure that [A] part of HDD Support Plate is placed at the opposite side of connector.



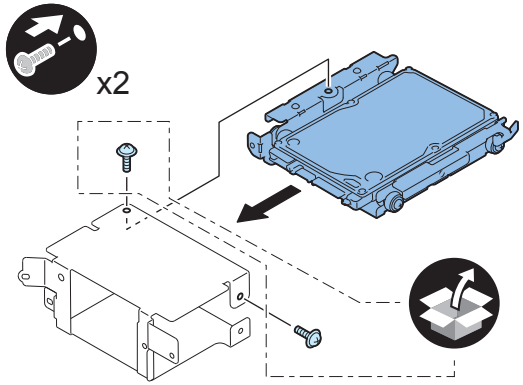
F-9-579

Installation to the Host Machine

☐

1) Install the Option HDD to the HDD Fixation Plate.

- 2 Screws (TP; M3X6) (enclosed with option HDD)

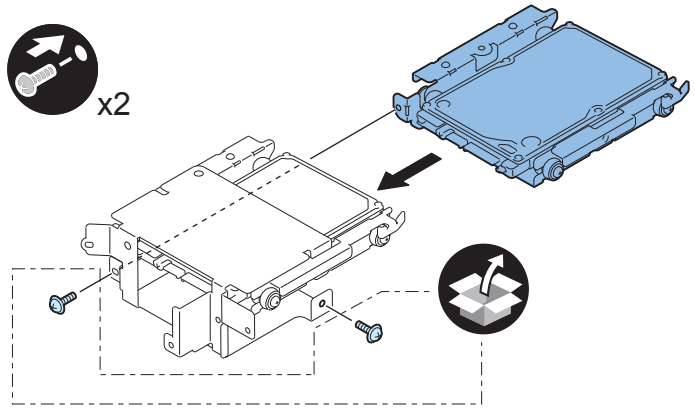


F-9-580

☐

2) Install the Option HDD (Second HDD) to the HDD Fixation Plate.

- 2 Screws (TP; M3X6) (enclosed with option HDD)

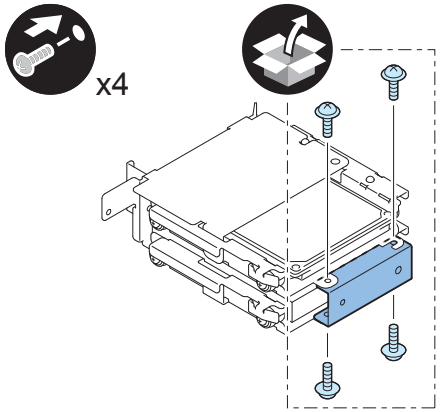


F-9-581

☐

3) Install the enclosed HDD Connection Plate to the HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.

- 4 Screws (TP; M3X6) (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit-C4)



F-9-582

☐

4) Return the HDD Fixation Plate Unit to the HDD Box.

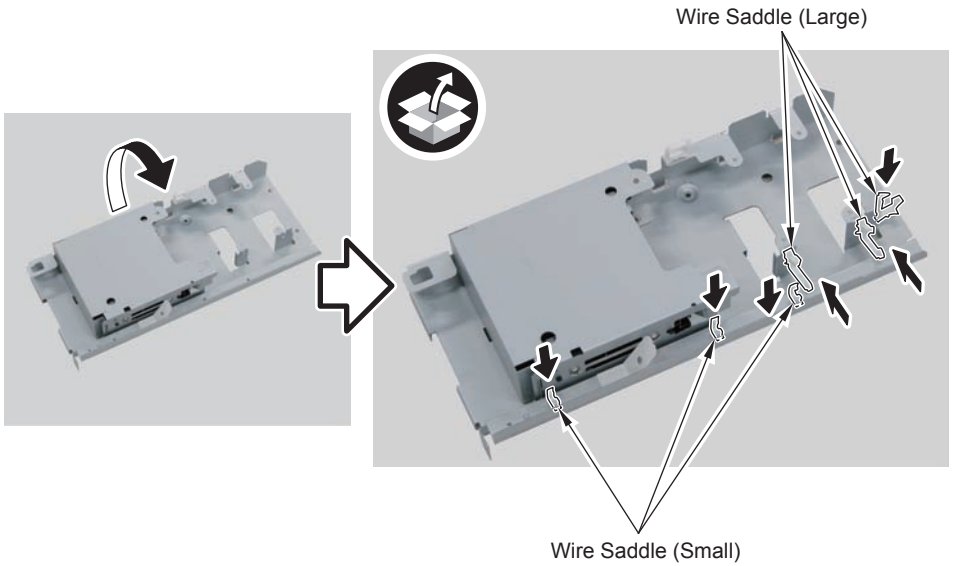
- 2 Screws (Use the 2 screws removed in ”Removing the HDD" step 10.)

☐

5) Install the HDD Box to the HDD Slide Rail.

- 5 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)

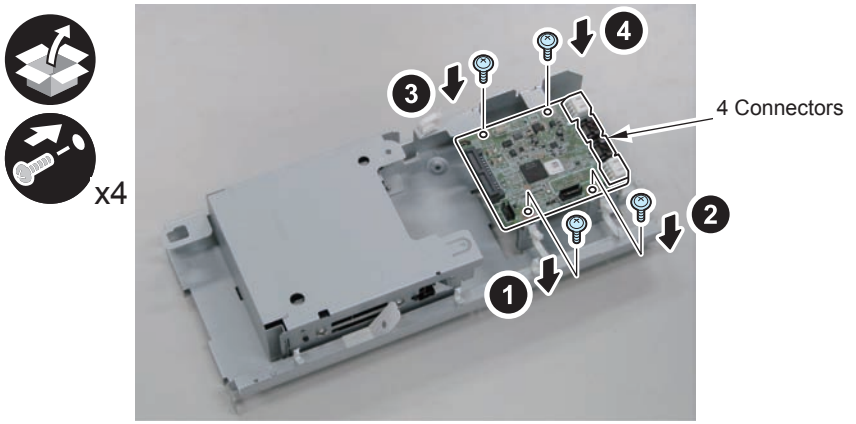
☐
6) Install the Wire Saddles.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)



F-9-583

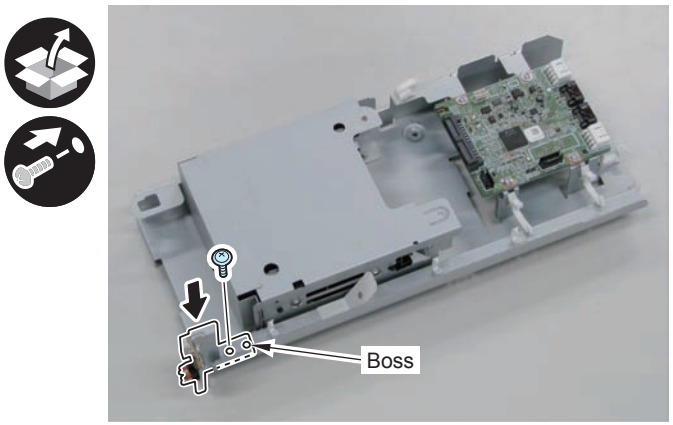
☐
7) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3X4)

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



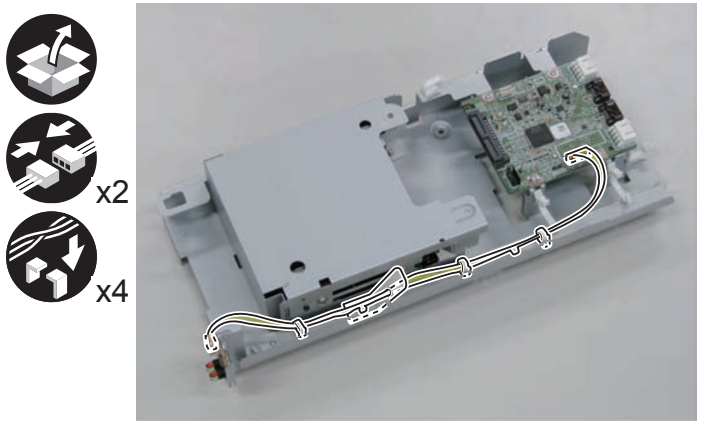
F-9-584

☐
8) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-585

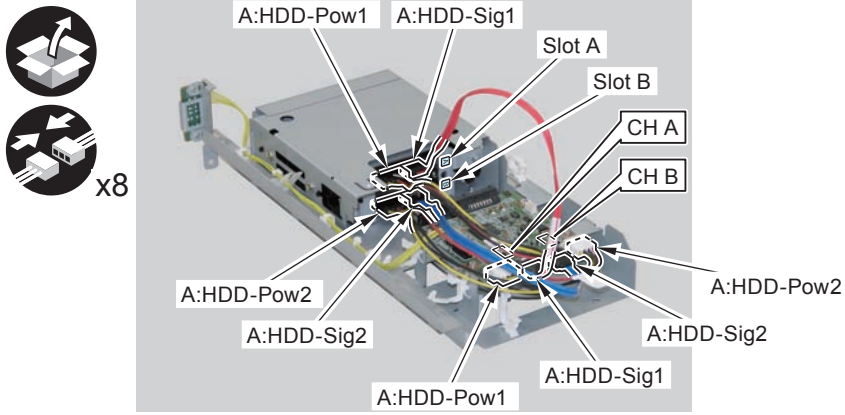
☐
9) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-586

☐
10) Install the Signal Cable (A:HDD-Sig1) (A:HDD-Sig2) and the Power Supply Cable (A:HDD-Pow1) (A:HDD-Pow2).
- 2 Connectors (A:HDD-Sig2)
- 2 Connectors (A:HDD-Pow2)
- 2 Connectors (A:HDD-Sig1)
- 2 Connectors (A:HDD-Pow1)

NOTE:
Be sure to connect "A:HDD-Sig2" and "A:HDD-Pow2" to the slot [B] of the HDD and [CH-B of the PCB.
Be sure to connect "A:HDD-Sig1" and "A:HDD-Pow1" to the slot [A] of the HDD and [CH-A] of the PCB.

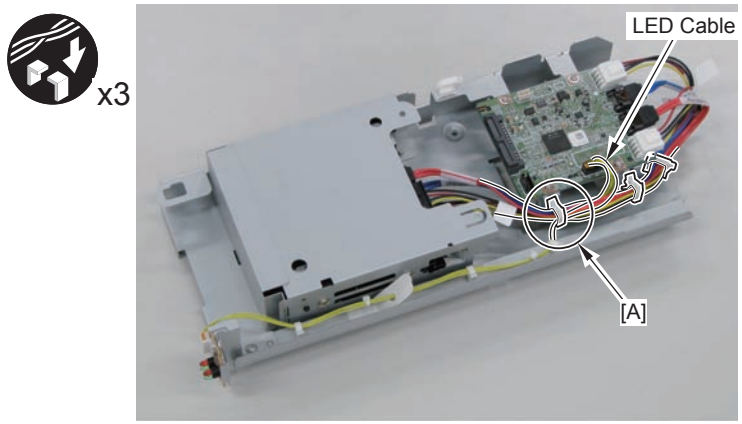


F-9-587

☐ 11) Secure the cables in place using the Wire Saddles.

- 3 Wire Saddles (Large)

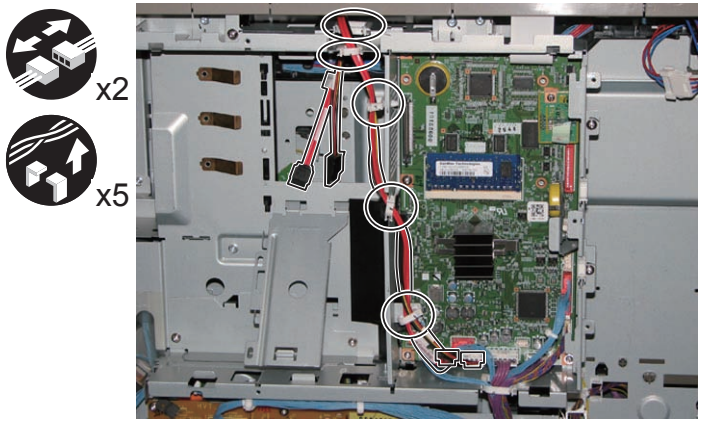
NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



F-9-588

☐ 12) Disconnect the 2 cables. (The 2 removed cables will not be used.)

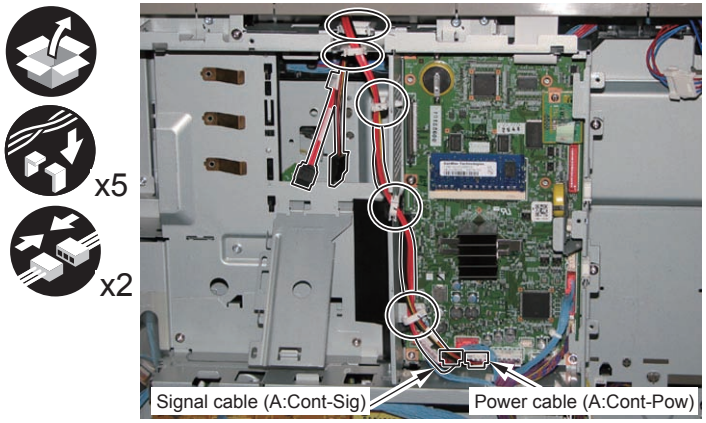
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-589

☐ 13) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).

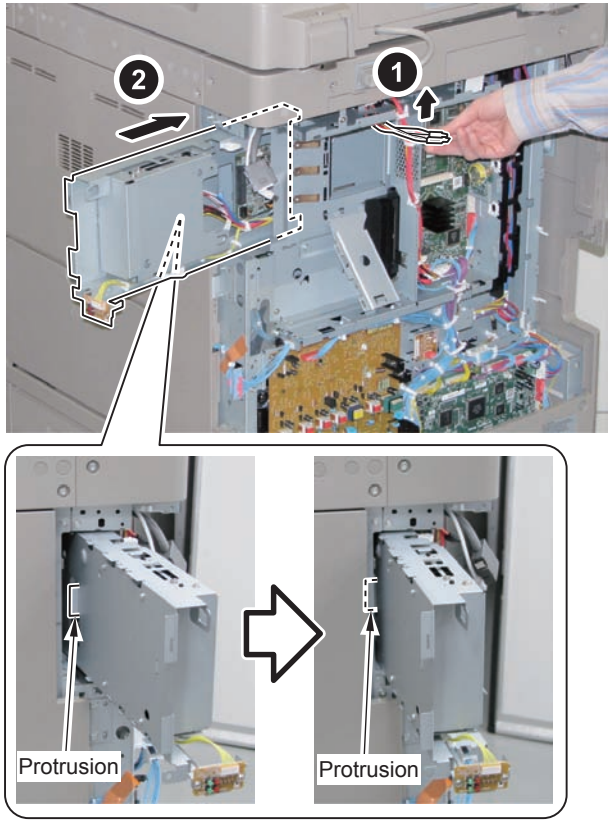
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-590

☐
14) Return the HDD Unit to the host machine.

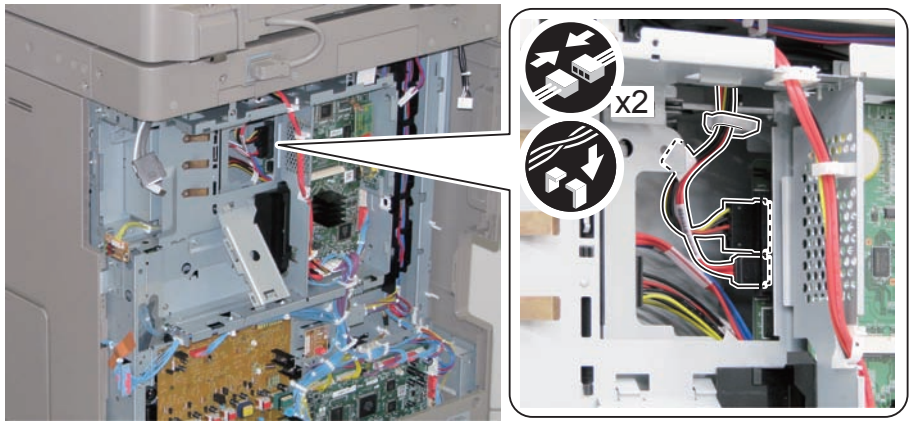
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-591

☐
15) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow) .
- 1 Wire Saddle

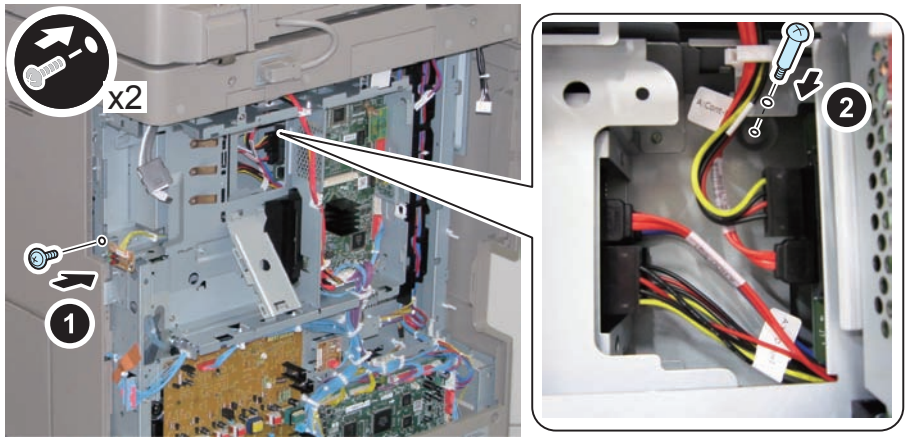
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-592

☐
16) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-593

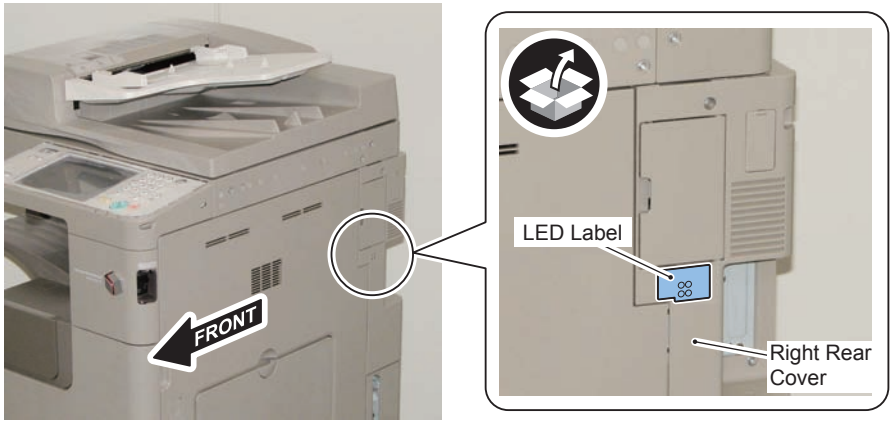
☐
17) Close the plate.
18) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

19) Connect the USB Cable and the Control Panel Communication Cable.
20) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
21) Affix the label to the Right Rear Cover.
- 1 LED Label



F-9-594

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Insert the power plug into the socket and turn on the main power of the host machine.
2) Make a setting of mirroring.
- Specify “1” under “Service Mode > COPIER > OPTION > FNCSW > W/RAID”.

3) Turn OFF/ON the main power of the host machine to enable the setting value.
4) Make sure that the UI screen is activated correctly.
5) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.

Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

TYPE-11

2 Option HDDs (250GB) + Removable HDD Kit +
HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit

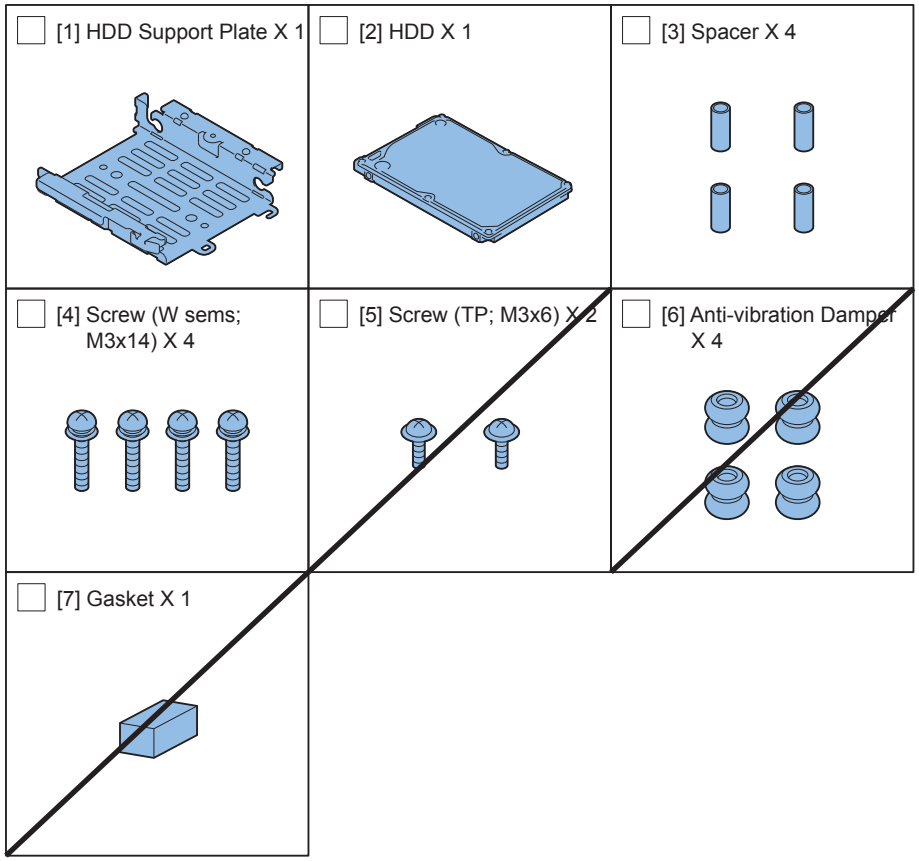
Points to Note at Installation

CAUTION:

Be sure to perform steps 1 to 10 of "Removing the HDD" before performing the following work. (p. 1-135 to p. 1-138)

Checking the Contents

[2.5inch/250GB HDD-D1]

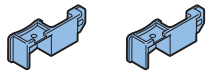
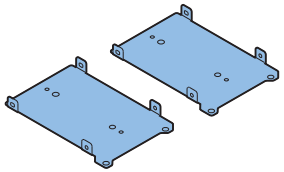
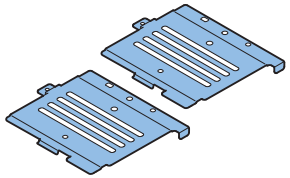
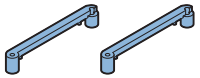
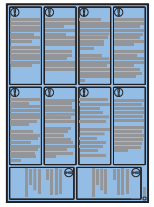
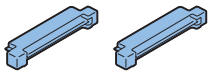


F-9-595

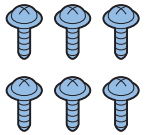
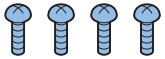
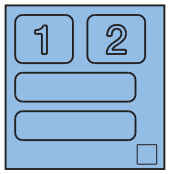
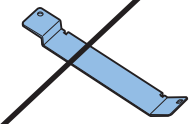
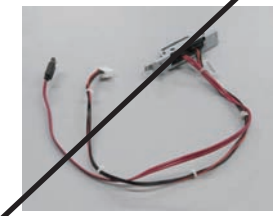
<CD/Guide>

- Noticd for FCC/IC

[Removable HDD Kit-AF1]

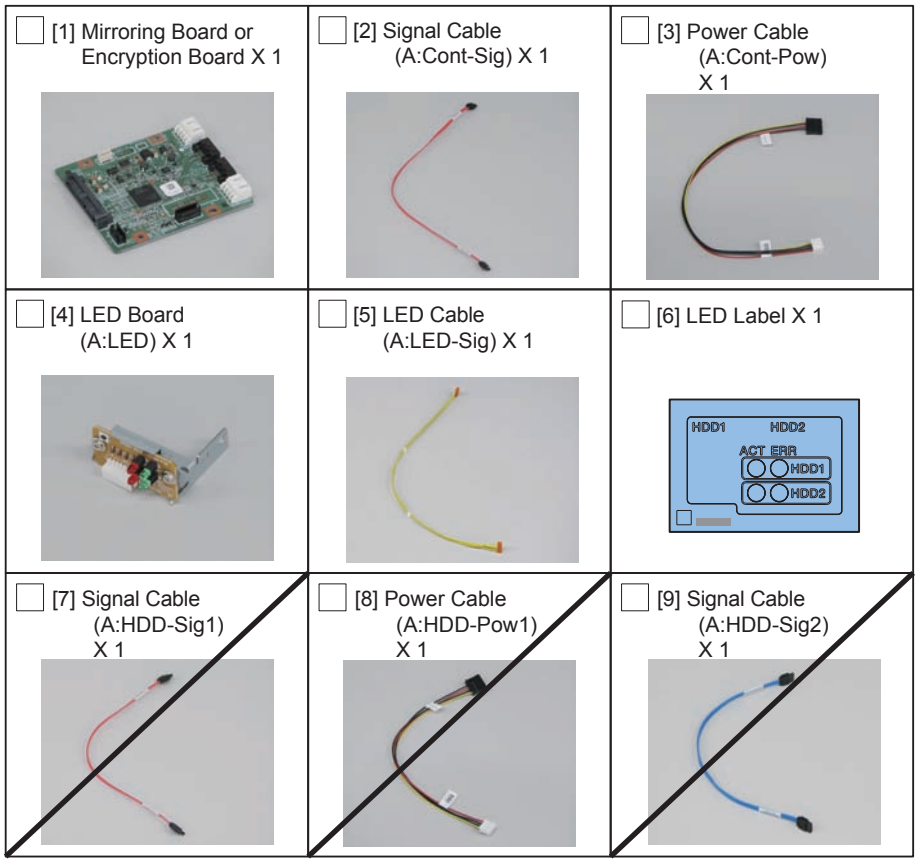
☐ [1] Hinge Shaft Stopper X 1 	☐ [2] HDD Handle X 2 	☐ [3] HDD Connector Plate X 2 
☐ [4] HDD Cover X 2 	☐ [5] Connector Fixing Block X 2 	☐ [6] HDD Door Unit X 1 
☐ [7] HDD Lock Plate Shaft X 1 	☐ [8] Shutdown Caution Label X 1 	☐ [9] Conversion Connector X 2 

F-9-596

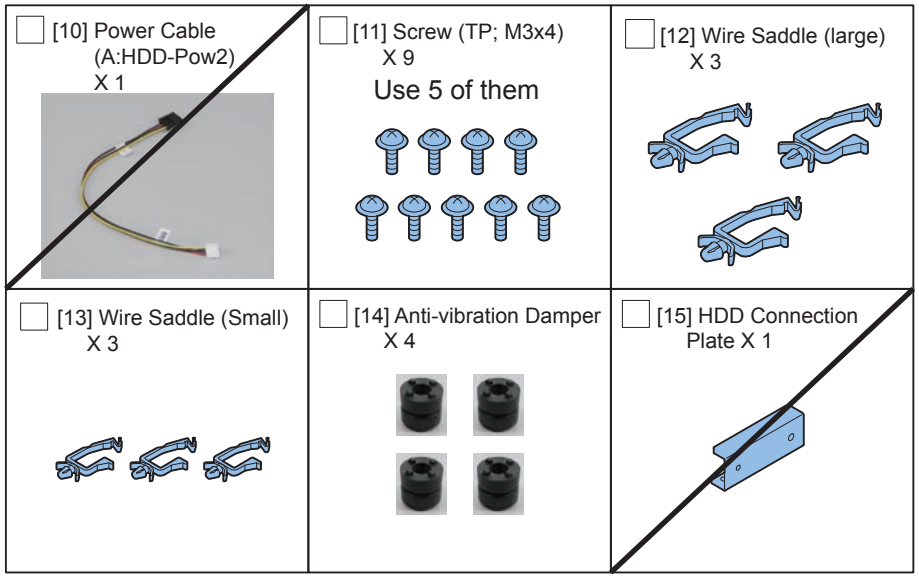
☐ [10] HDD Drawer Unit X 1 	☐ [11] Screw (R round head TP; M3x6) X 6 	☐ [12] Screw (P Tight; M3x8) X 4 
☐ [13] R-HDD Label X 1 	☐ [14] HDD Blanking Plate X 1 	☐ [15] IV Cable X 1 

F-9-597

[HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4]



F-9-598



F-9-599

< CD/Guides of HDD Mirroring Kit >

- HDD Mirroring Kit-D1 User Documentation
- Notice for FCC/IC

< CD/Guides of HDD Data Encryption & Mirroring Kit >

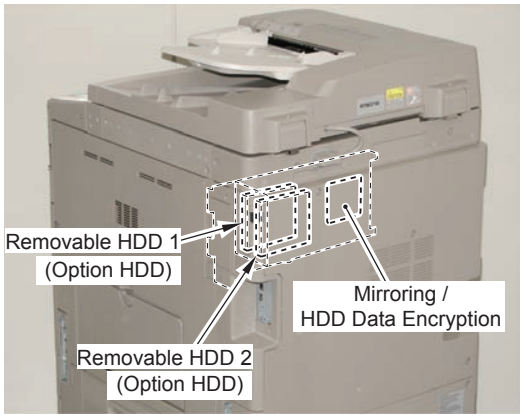
- HDD Data Encryption & Mirroring Kit-C1 User Documentation
- HDD Data Encryption Kit Notice Notice
- Noticd for FCC/IC
- Installation Procedure

Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



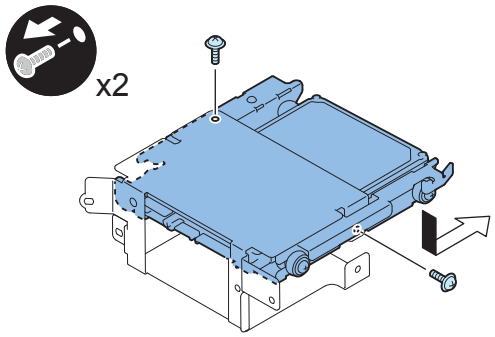
F-9-600

Assembling and Installing the Option HDD (First HDD)

☐

1) Remove the HDD from the HDD Fixation Plate Unit. (The removed HDD Fixation Plate and the screws will not be used.)

- 2 Screws

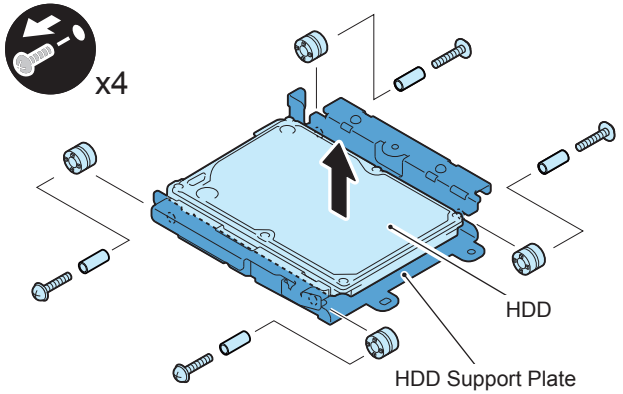


F-9-601

☐

2) Remove the 4 Anti-vibration Dampers from the HDD Support Plate. (Use the Anti-vibration Dampers only.)

- 4 Screws
- 4 Spacers
- 1 HDD



F-9-602

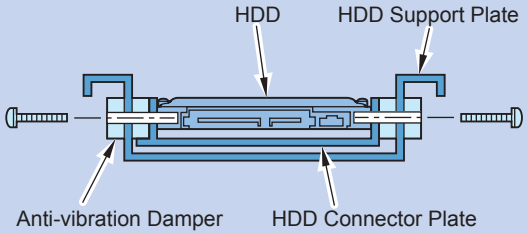
□
3) Assemble the option HDD.

CAUTION:

Be sure to use the Anti-vibration Dampers removed from the standard HDD.

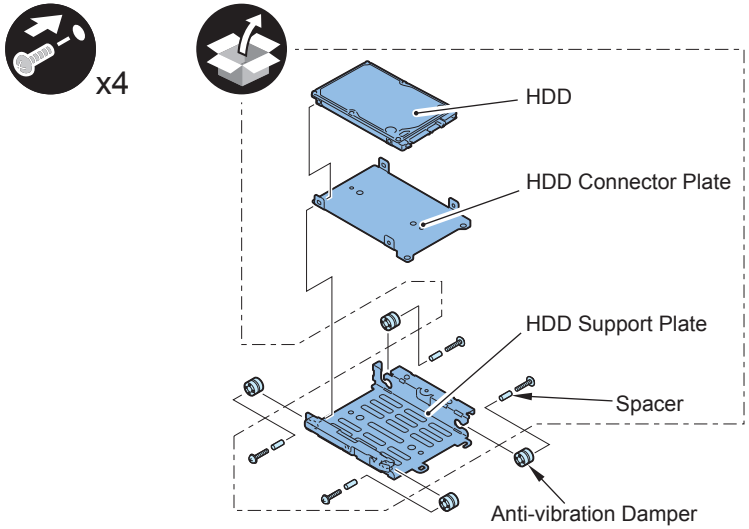
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-603

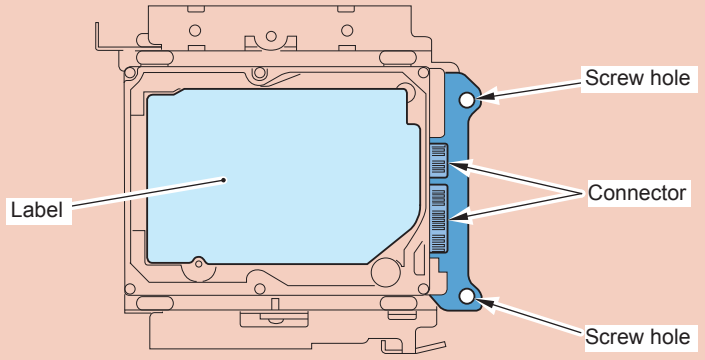
- 1 HDD Support Plate (enclosed with option HDD)
- 4 Anti-vibration Damper (Anti-vibration Damper removed from the standard HDD.)
- 1 HDD Connector Plate (enclosed with removable HDD Kit)
- 1 Option HDD (enclosed with option HDD)
- 4 Spacers (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-604

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)

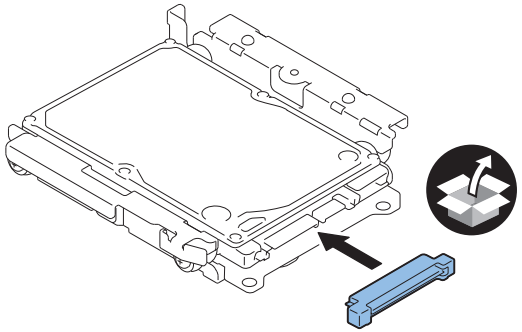


F-9-605

☐
4) Install the Conversion Connector.

CAUTION:

Make sure that there is no opening between the Conversion Connector and part of HDD.



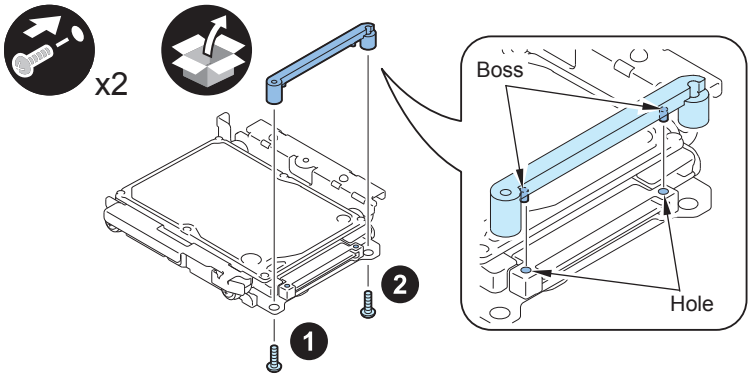
F-9-606

☐
5) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

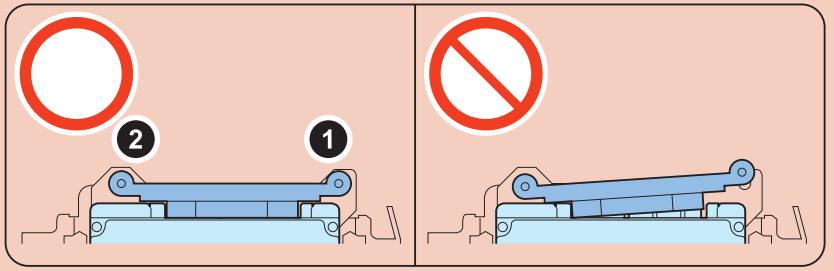
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-607

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



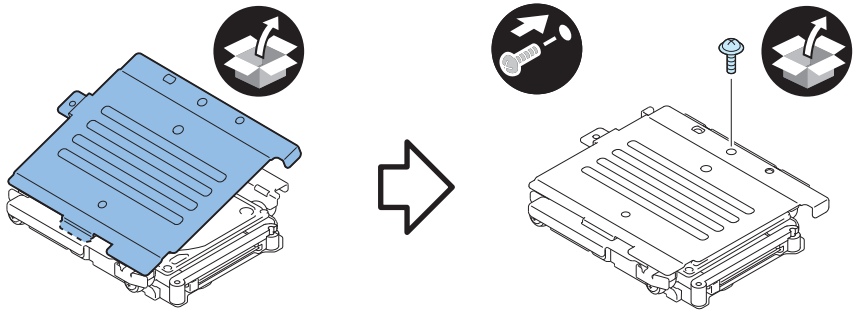
F-9-608

☐
6) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3X6)

CAUTION:

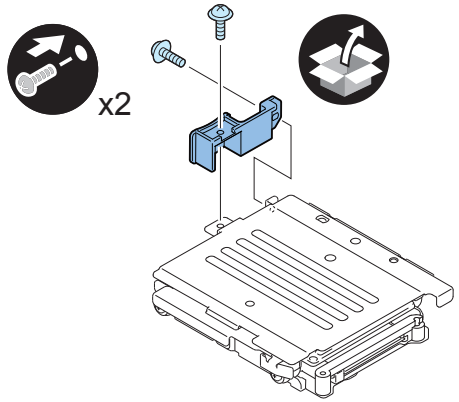
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-609

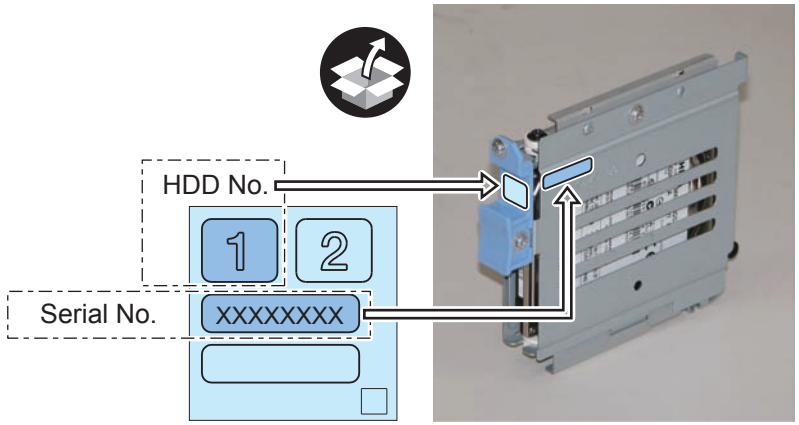
☐
7) Install the HDD Handle.
- 2 Screws (TP Round End; M3X6)

CAUTION:
Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-610

☐
8) Affix the HDD No.2 Label to the handle of the Removable HDD.
9) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



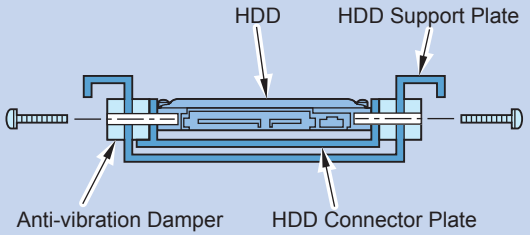
F-9-611

Assembling and Installing the Option HDD (Second HDD)

☐
1) Assemble the option HDD.

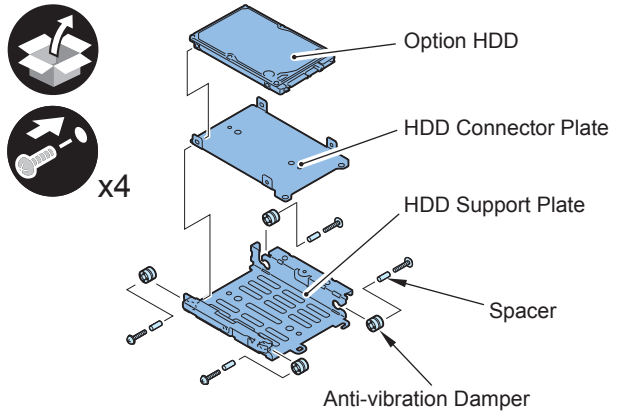
CAUTION:
Be sure to use the Anti-vibration Damper included in HDD Mirroring Kit-F1 or HDD Data Encryption & Mirroring Kit-C4.
Never use the parts included in 2.5inch/250GB HDD-D1.

NOTE:
When tightening the screen, be sure to align the screw holes by lifting the HDD Connector Plate and HDD.



F-9-612

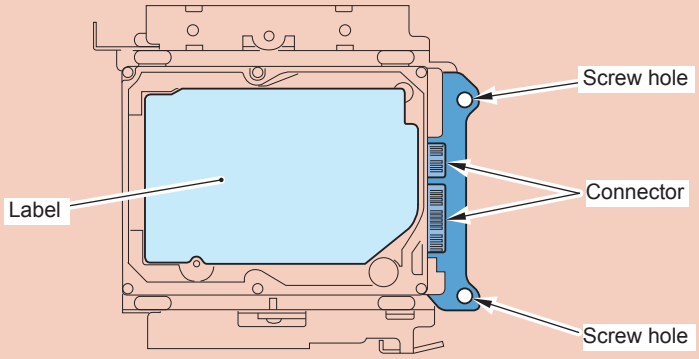
- 1 HDD Support Plate (enclosed with option HDD)
- 4 Anti-vibration Damper (enclosed with HDD Mirroring Kit or HDD Data Encryption & Mirroring Kit.)
- 1 HDD Connector Plate (enclosed with removable HDD Kit)
- 1 Option HDD (enclosed with option HDD)
- 4 Spacers (enclosed with option HDD)
- 4 Screws (binding with flat washer; M3X14) (enclosed with option HDD)



F-9-613

CAUTION:

- Assembling the option HDD, be careful of the installation direction.
- Make sure that the label on the option HDD is facing up.
- Install it in the position where the HDD connector is placed in the side with screw hole of HDD Support Plate. (opposite direction compared to the fixed HDD)

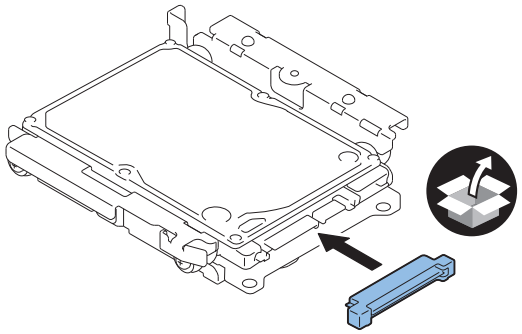


F-9-614

☐ 2) Install the Conversion Connector.

CAUTION:

Make sure that there is no opening between the Conversion Connector and part of HDD.



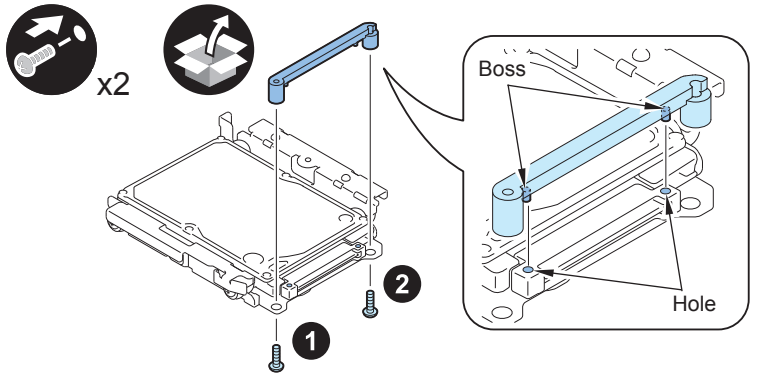
F-9-615

☐ 3) Fit the 2 bosses of Connector Fixing Block to the hole of Conversion Connector and install it.

- 2 Screws (P Tight; M3X8)

CAUTION:

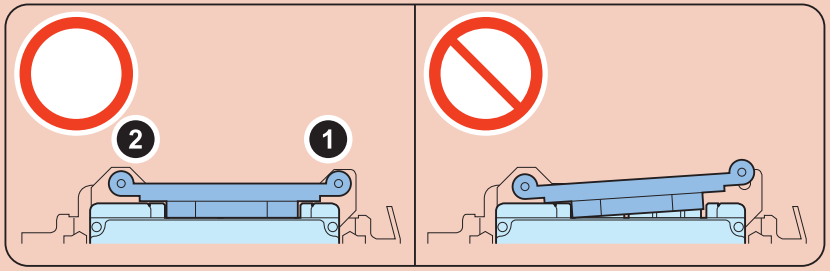
Be sure not to tighten the screws in wrong order. Otherwise, the Conversion Connector will not be secured properly.



F-9-616

CAUTION:

- Be sure to firmly hold the Connector Fixation Block when tightening the screws.
- Be sure to follow the correct order to tighten the screws, otherwise the Conversion Connector may not be connected properly, resulting in poor contact.



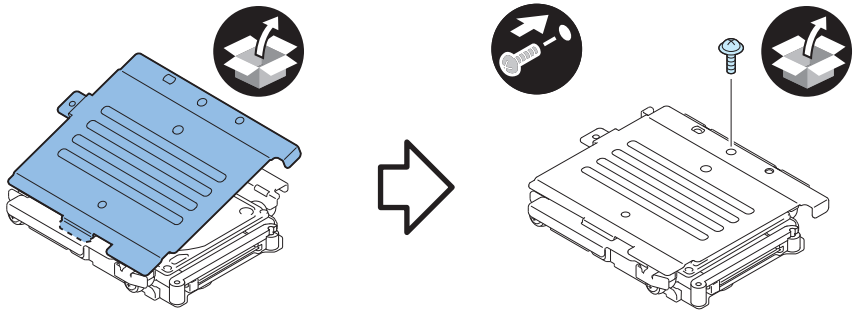
F-9-617

☐
4) Install the HDD Cover.

- 1 Claw
- 1 Screw (TP Round End; M3X6)

CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



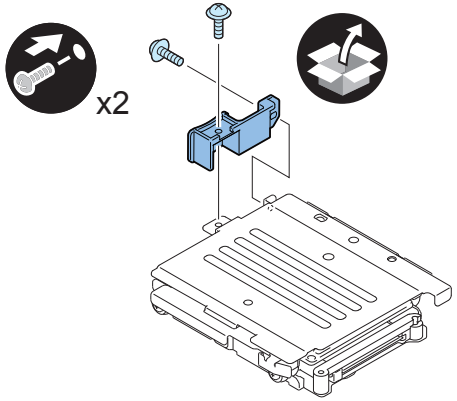
F-9-618

☐
5) Install the HDD Handle.

- 2 Screws (TP Round End; M3X6)

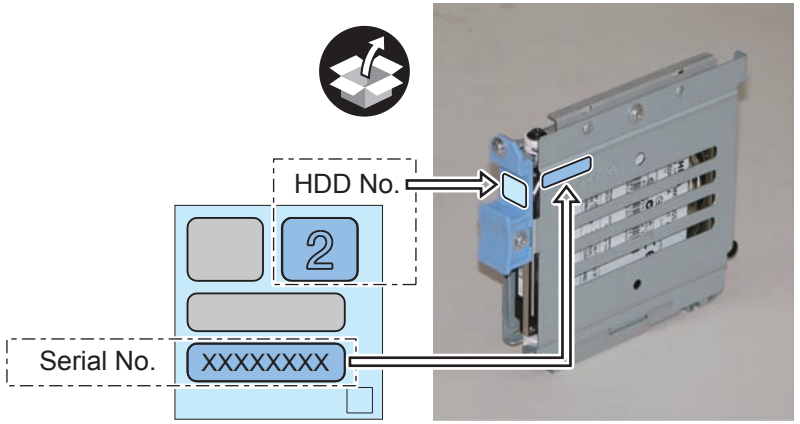
CAUTION:

Be sure to use the round end screw included in the Removable HDD Kit as the TP screw.



F-9-619

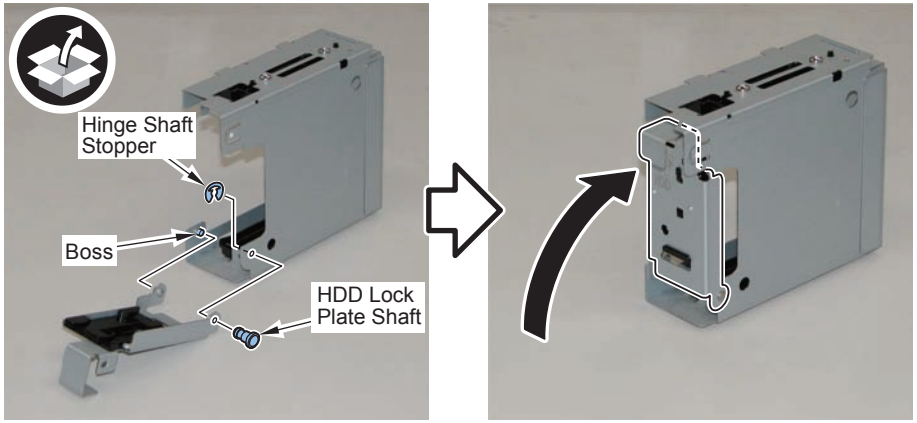
☐
6) Affix the HDD No.2 Label to the handle of the Removable HDD.
7) Write down the serial number of the host machine to the label for recording the number, and affix it to the area indicated in the figure.



F-9-620

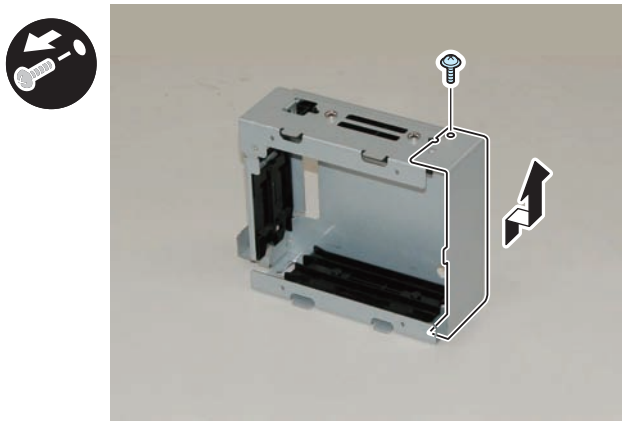
Installation to the Host Machine

☐
1) Install the HDD Door Unit to the HDD Box.
- 1 Boss
- 1 HDD Lock Plate Shaft
- 1 Hinge Shaft Stopper



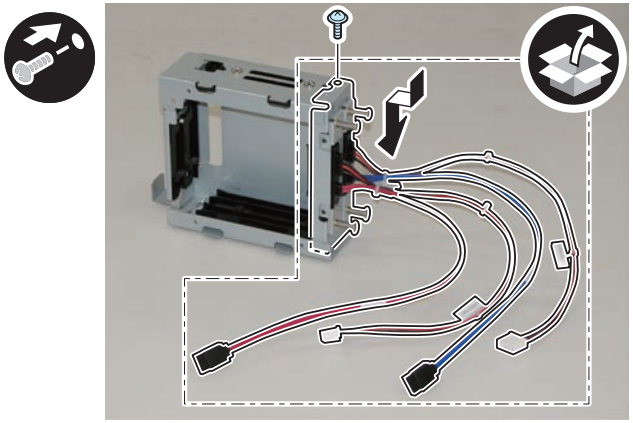
F-9-621

☐
2) Remove the plate from the HDD Box. (The removed plate will not be used.)
- 1 Screw (The removed screw will be used in step 3.)



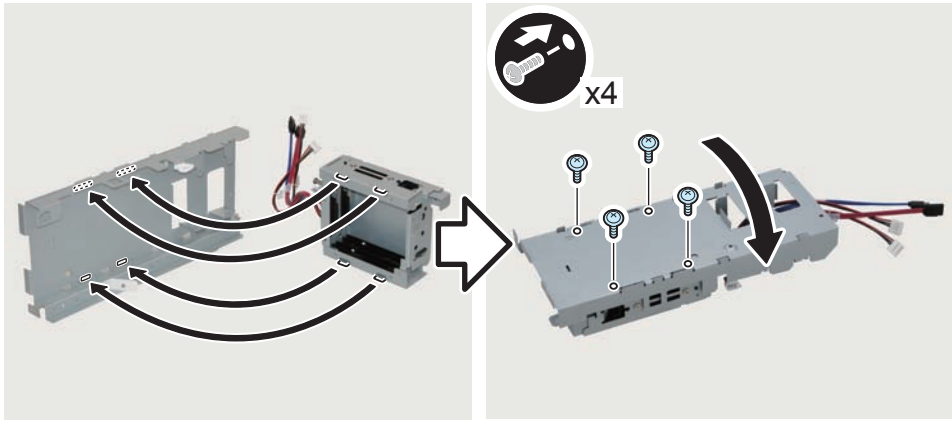
F-9-622

☐
3) Install the HDD Drawer Unit.
- 1 Screw (Use the screw removed in step 2.)



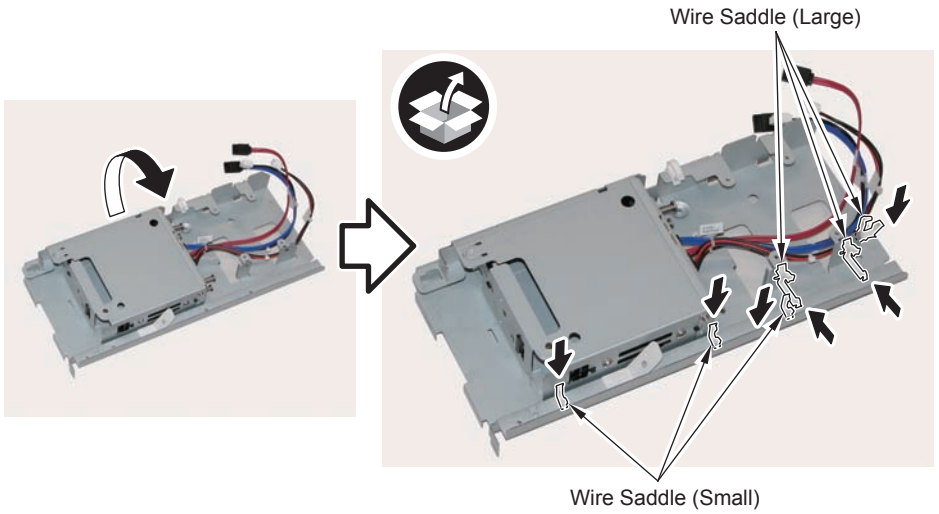
F-9-623

☐
4) Install the HDD Box to the HDD Slide Rail.
- 4 Claws
- 4 Screws (Use the 4 screws removed in ”Removing the HDD" step 9.)



F-9-624

☐
5) Install the Wire Saddles.
- 3 Wire Saddles (Large)
- 3 Wire Saddles (Small)

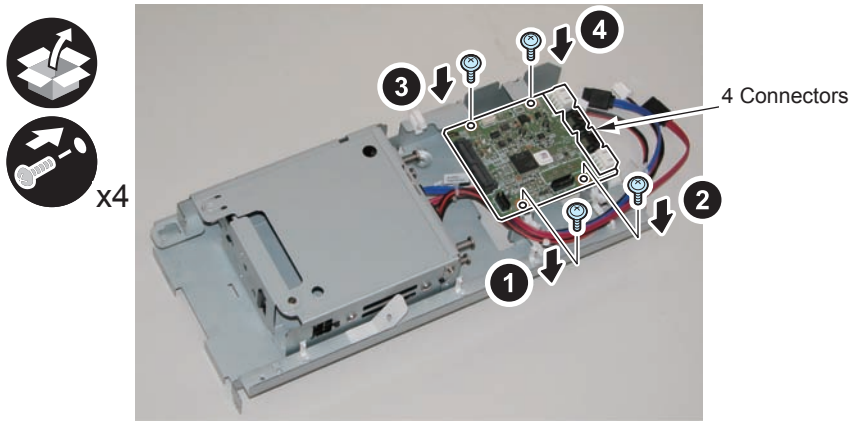


F-9-625

☐
6) Install the Mirroring Board or Encryption Board.
- 4 Screws (TP; M3X4)

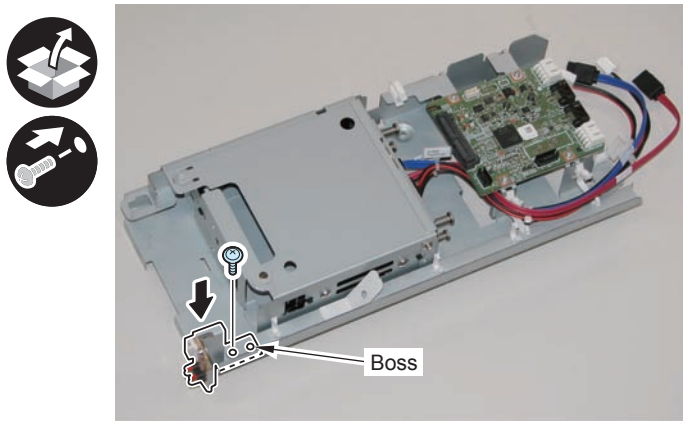
CAUTION:
Be sure to put the cables on the Wire Saddle to prevent it from getting under the board.

NOTE:
- Be sure to place the side with the 4 connectors in the direction shown in the figure when installing.
- Tighten the screws in the order shown in the figure.



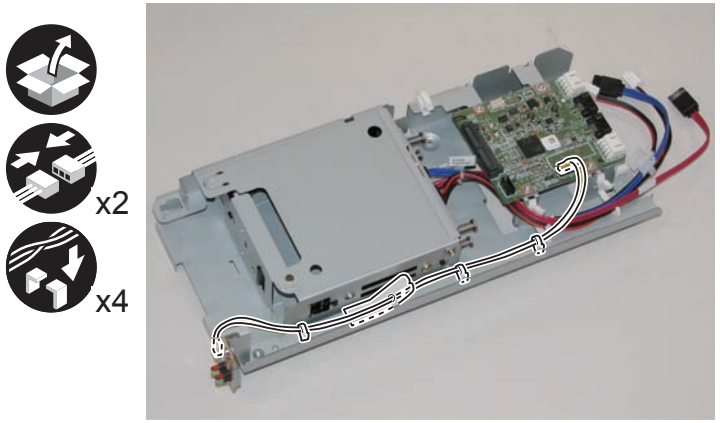
F-9-626

☐
7) Install the LED Board (A:LED) .
- 1 Boss
- 1 Screw (TP; M3X4)



F-9-627

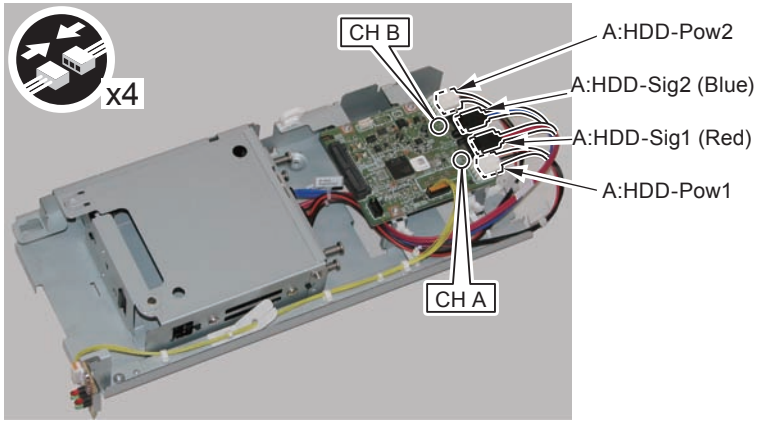
☐
8) Connect the LED Cable (A:LED-Sig) .
- 2 Connectors
- 1 Plastic Film Sheet
- 3 Wire Saddles (Small)



F-9-628

☐
9) Connect the cables of the HDD Drawer Unit.
- 2 Connectors of the Signal Cable
- 2 Connectors of the Power Supply Cable

NOTE:
- Be sure to connect "A:HDD-Sig1" (red) and "A:HDD-Pow1" to CH-A of the PCB.
- Be sure to connect "A:HDD-Sig2" (blue) and "A:HDD-Pow2" to CH-B of the PCB.

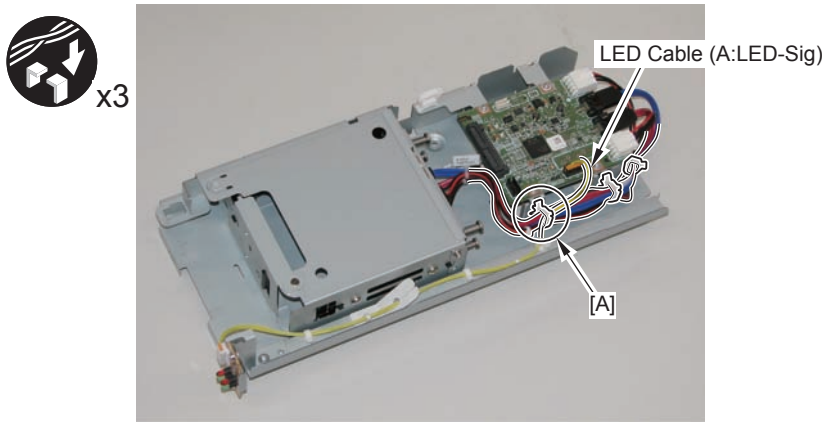


F-9-629

☐ 10) Secure the cables in place using the Wire Saddles.

- 3 Wire Saddles (Large)

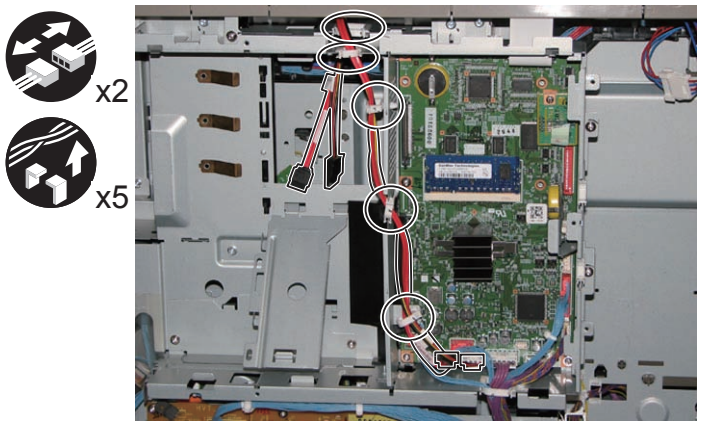
NOTE:
Be sure to secure the LED Cable (A:LED-Sig) in place together with other cables using the Wire Saddle [A].



F-9-630

☐ 11) Disconnect the 2 cables. (The 2 removed cables will not be used.)

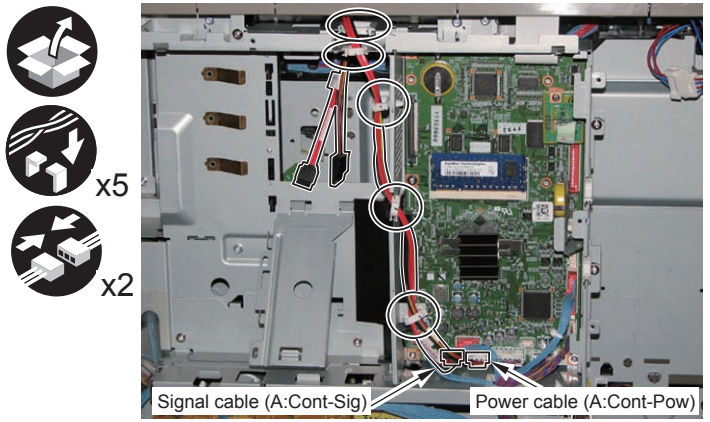
- 2 Connectors
- 2 Wire Saddles
- 3 Edge Saddles



F-9-631

☐ 12) Install the Signal cable (A:Cont-Sig) and Power cable (A:Cont-Pow).

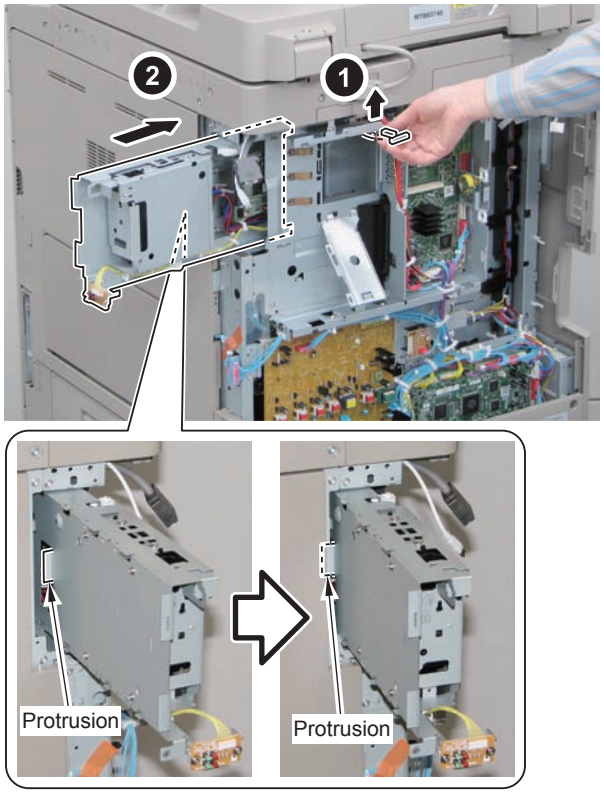
- 3 Edge Saddles
- 2 Wire Saddles
- 2 Connectors



F-9-632

☐ 13) Return the HDD Unit to the host machine.

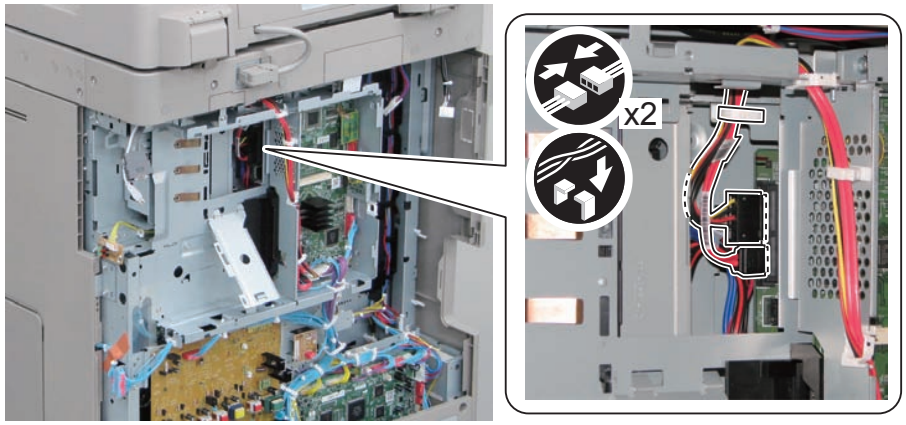
NOTE:
- Be sure to move the unit in the direction of the arrow when installing it to prevent the protrusion of the HDD Slide Rail from coming in contact with the plate of the host machine.
- Be sure not to push the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) into the host machine.



F-9-633

☐ 14) Connect the Connector of the Signal cable (A:Cont-Sig) and the Connector of the Power cable (A:Cont-Pow).
- 1 Wire Saddle

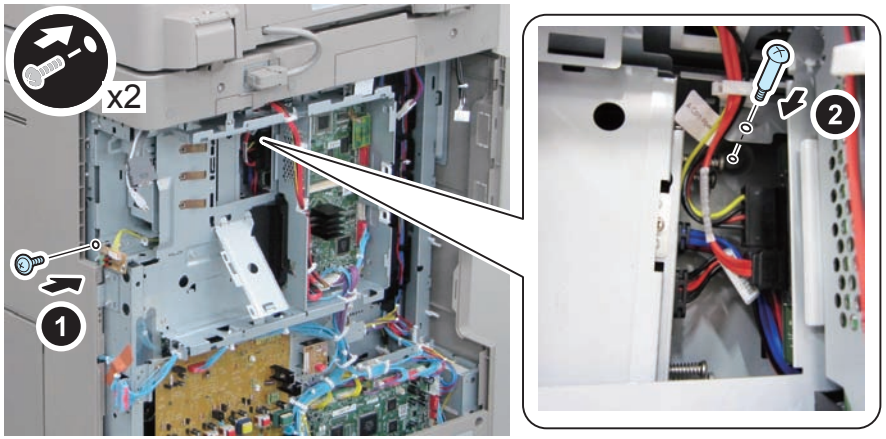
NOTE:
- When connecting the connector, be sure to connect it with the terminals inside the connector is on the rear side.
- Be sure to pass the Signal cable (A:Cont-Sig) and the Power cable (A:Cont-Pow) through the Wire Saddle when connecting.



F-9-634

☐
15) Secure the HDD Unit.
- 2 Screws (Use the screws removed in "Removing the HDD" step 8.)

CAUTION:
- Be careful not to drop the screw.
- Be sure to tighten the screws in the order shown in the figure.



F-9-635

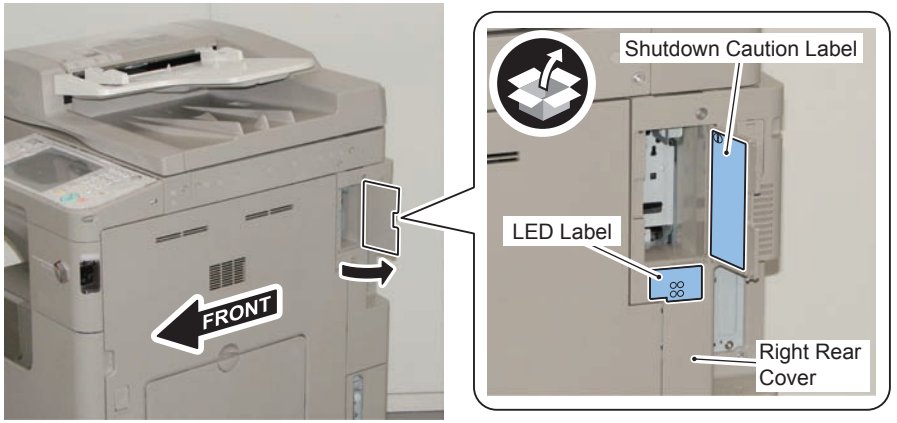
☐
16) Close the plate.
17) Insert the Main Controller PCB 1 until it stops. (2 Screws)

CAUTION:
- Be sure to install the Main Controller PCB 1 while paying attention not to trap cables.
- Check that the Main Controller PCB 1 is installed properly.

18) Connect the USB Cable and the Control Panel Communication Cable.
19) Install the covers.
- Controller Box Cover
- Rear Cover (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)
- Right Rear Cover (2 Screws)

NOTE:
When installing the Right Cover (Upper Rear), open the Right Cover to make the work easier.

☐
20) Open the Small Cover of the Right Rear Cover, and affix the label.
- 1 Shutdown Cuution Label
- 1 LED Label



F-9-636

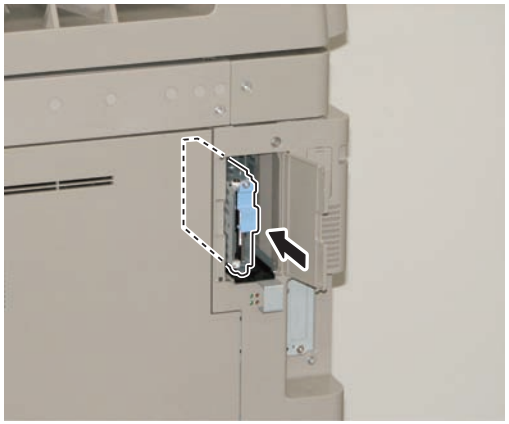
☐ 21) Open the HDD Door Unit.



F-9-637

☐ 22) Install the Removable HDD 1. (front)

NOTE:
Be sure to insert it until it stops.



F-9-638

☐ 23) Install the Removable HDD 2. (rear)

NOTE:
Be sure to insert it until it stops.



F-9-639

☐ 24) Close the HDD Door Unit.

25) Be sure to request the user to padlock the removable HDD to discourage theft.

26) Close the Small Cover of the Right Rear Cover.

Installing the System Software Using the SST

The system data stored on the HDD and used to control the host machine will be lost when the machine is first started up after installing this product.
It is important to install the system software used to control the host machine so that the machine may start up properly after installation of this product.
Details follow.

1. Requirements

1) PC
Service support tool in the version that supports this host machine must be installed.
2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.
2) Connect the PC and the machine using an Cross Ethernet cable.
3) Turn on the PC.
4) Start up the machine in download mode (safe mode).

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.
2) Start up the SST.
3) Click Register Firmware.
4) Select the drive in which the System Software CD has been set, and click search.
5) Click REGISTER.
6) Click OK.

4. Downloading the System Software

1) Click "Start Assist Mode" and click "Initialize" according to the instruction on the screen.
2) When initialization is completed, the machine is automatically restarted and it enters download mode.
3) Select the version to be downloaded and click “Start”.
4) When download is completed, the machine is automatically restarted.
5) When writing of the firmware is completed, the machine is automatically restarted.
6) Perform upgrading according to the instruction on the screen. When it is completed, it is automatically restarted.
7) Terminate the SST.
8) Check the version of the downloaded firmware in service mode.

Checking the Security Version (Only when installing HDD Data Encryption & Mirroring Kit)

1) Press the Counter key (123 key) [1] on the control panel.
2) Press the [Check Device Configuration] key appearing on the control panel.
3) Make sure that '2.00' or '2.01' is displayed in ‘Canon MFP Security Chip’ as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:
The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for ‘Canon MFP Security Chip’.

Checking the Security Mark (Only when installing HDD Data Encryption & Mirroring Kit)

The user may check the security mark, appearing on the control panel when using the Host machine to make sure that an appropriate level of security is being maintained.
The mark appears when the machine is equipped with an encryption board and the board is operating correctly.
The Users Guide provides the following description in connection with the security mark:

<Confirming the Security Mark>
When the HDD Data Encryption & Mirroring Kit is operating normally, a security mark() is displayed on the lower left corner of a panel screen.

Setting the Mirroring

1) Insert the power plug into the socket and turn on the main power of the host machine.
2) Make a setting of mirroring.
- Specify “1” under “Service Mode > COPIER > OPTION > FNCSW > W/RAID”.

3) Turn OFF/ON the main power of the host machine to enable the setting value.
4) Make sure that the UI screen is activated correctly.
5) Make sure that the LED blinks.
- HDD1 (Slot 1): The green LED blinks.
- HDD2 (Slot 2): The green and red LEDs blink.

CAUTION:

Rebuild process starts after setting “1” for W/RAID. If an error occurs during the rebuild process at the initial installation The hard disk needs to be replaced. (Call service rep.), reexecute the process with the following procedure.

1) Check that the lighting red LED is HDD2.
2) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set “0”.
3) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.
4) Select Service Mode > COPIER > OPTION > FNCSW > W/RAID, and set "1".
5) To enable the setting value, turn OFF/ON the Main Power Supply Switch of the host machine.

The foregoing procedure is limited to the rebuild process at the initial installation.

An error during the rebuild process that is executed during operation is not included in the consideration.

Reporting to the System Administrator at the End of the Work (Only when installing HDD Data Encryption & Mirroring Kit)

When you have completed all installation work, report to the system administrator for the following:
At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for ‘Canon MFP Security Chip’ as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Adjust Gradation

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.
Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

Relocating the Machine

Required Articles

Have the following articles on hand:

- Fixing tape
- Drum cover removed during installation
- Optical system fixing screws (2 pcs.) removed during installation

Preparation for Relocating the Machine

When moving the machine using stairs (including steps) or transporting the machine to a different place using a truck, go through the steps described below.

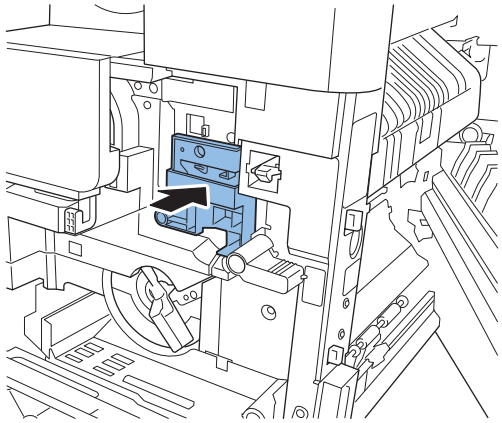
CAUTION:

- When lifting the machine with a double-cassette pedestal, be sure to remove the double-cassette pedestal in advance.
- If the machine is lifted with the double-cassette pedestal installed, they may separate from each other and consequently the machine can damage.

NOTE:
When dividing the reader part and the printer part, refer to the follwing procedure.
"Removing the Reader Assembly"(page 4-31).

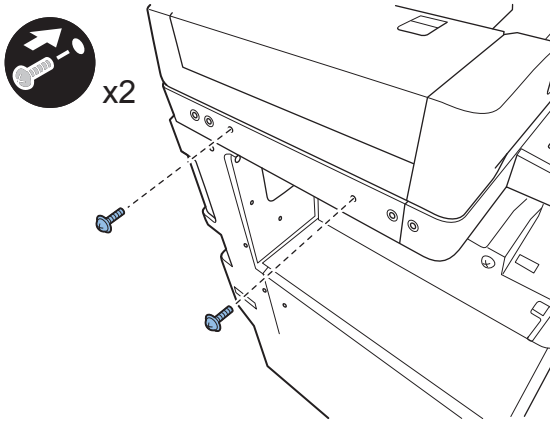
Work Procedure

1) Remove the drum unit, and then attach the drum cover removed during installation.



F-9-640

2) Secure the optical system using the two screws removed during installation.



F-9-641

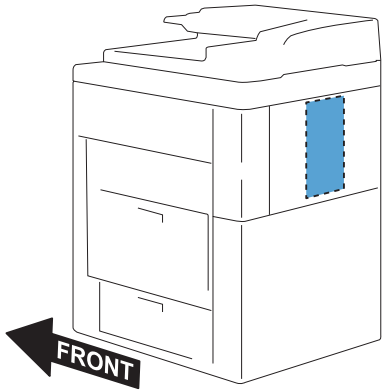
3) Secure the front cover, toner supply cover, delivery section, and cassette with tape.
4) Place an A3-size sheet on the document glass, and then secure the document glass cover (ADF) with tape.

Document Scan Lock Kit-B1

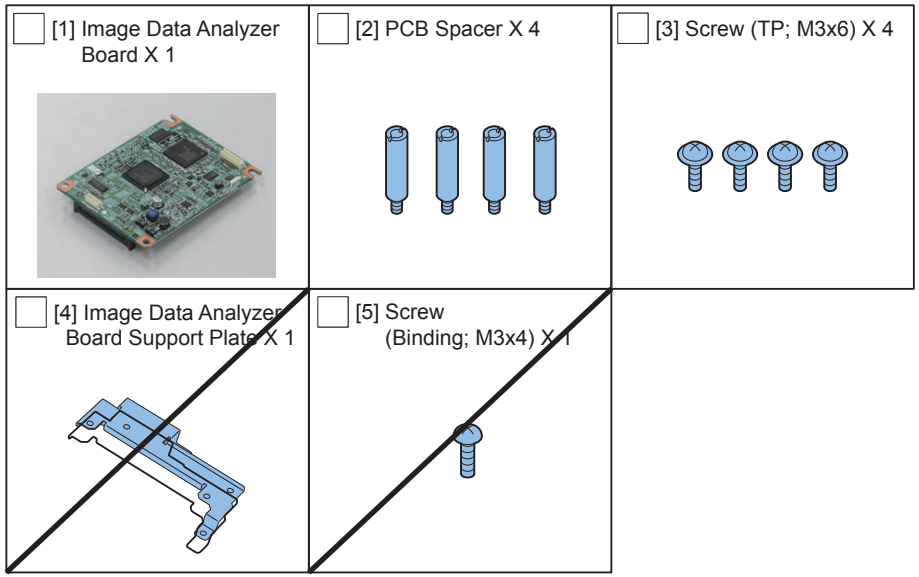
Points to note before installation

- When installing this equipment, check that the version of the main controller is v15 or later. If the version is prior to v15, always upgrade to the latest version before the installation. When this equipment was installed without upgrading to v15 or later, upgrade using SST or an USB memory. It cannot be upgraded using CDS/updater.
- To enable the function of "Image Data Analyzer Board", it is necessary to install the license which comes with the product.
- Be sure to ask users to install the license after the installation.

Installation Outline Drawing



Checking the Contents



< CD/Guides >

- License Access Number Certificate
- Document Scan Code Analyzer for MEAP CD
- FCC/IC sheet (only for USA/Europe)
- Notice for Delivered Installation sheet

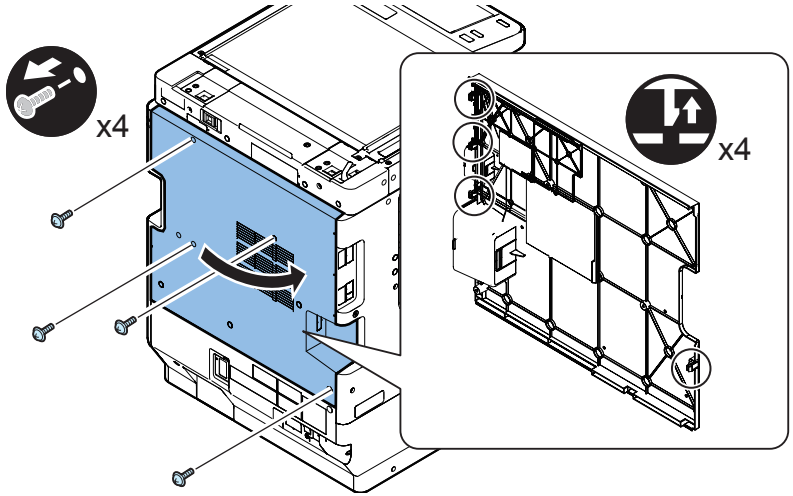
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

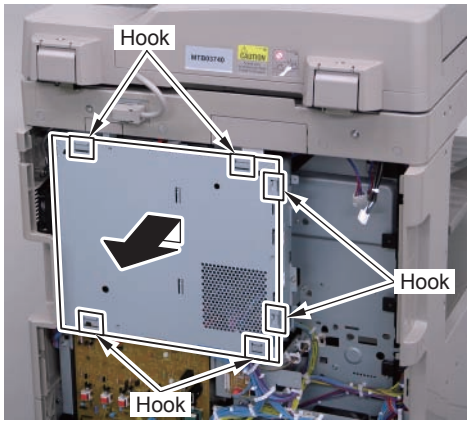
1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Procedure

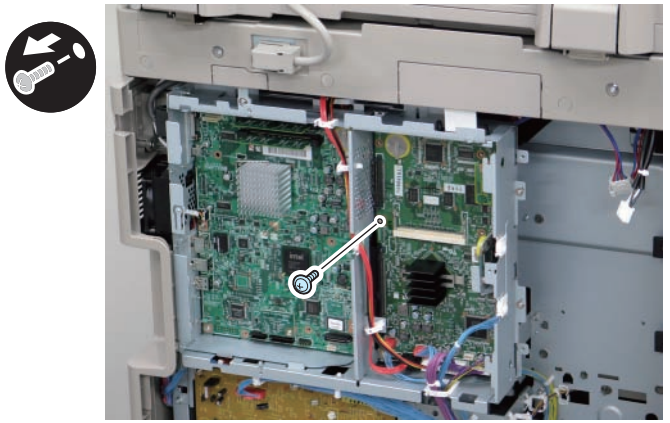
☐
1) Remove the Rear Cover.
- 4 Screws
- 4 Claws



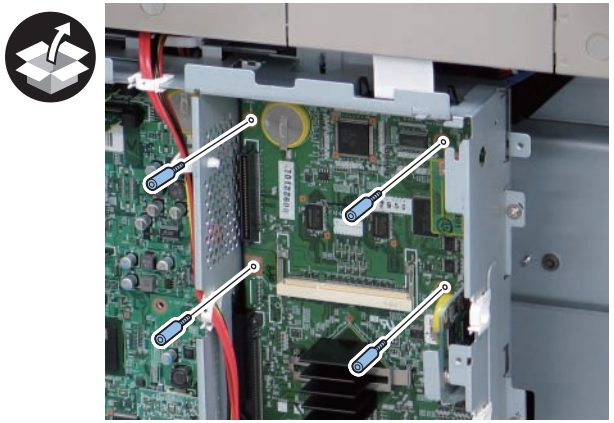
☐
2) Remove the Controller Box Cover.
- 6 Hooks



☐
3) Remove the screw. (The removed screw will not be used.)



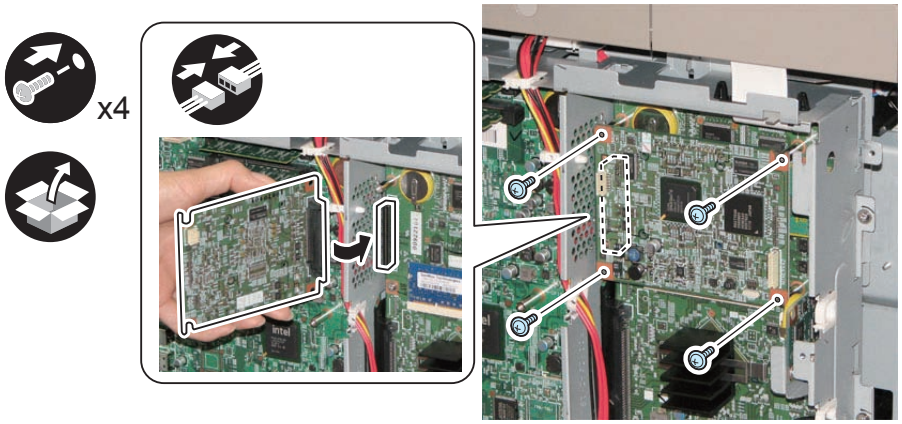
☐
4) Install the 4 PCB Spacers.



□

5) Install the Image Data Analyzer Board.

- 1 Connector
- 4 Screws (TP; M3x6)



□

6) Install the Controller Box Cover.

7) Install the Rear Cover. (4 Screws) (Tighten the screws in the following order: upper left, lower left, upper right, and then lower right.)

Checking after Installation

□

1) Connect the power plug of the host machine to the power outlet.

2) Turn ON the main power switch.

3) Ask users to install license.

4) Turn OFF/ON the main power switch.

5) Press the counter check key on the control panel.

6) Press [Check Device Configuration].

7) Check that "Image Data Analyzer Board" is displayed in option field.

Blank Page

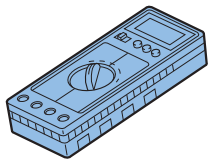
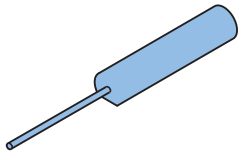
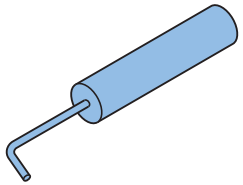
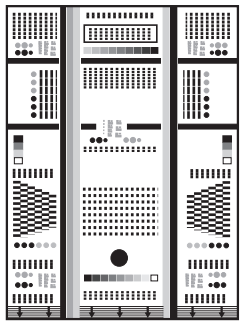
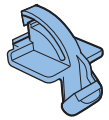
Appendix

- Service Tools
- General Circuit Diagram
- General Timing Chart
- List of User Mode
- Backup Data
- Detail of HDD partition
- Soft Counter List

Service Tools

Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

Tool name	Tool No.	Rank (*)	Shape	Uses
Digital multimeter	FY9-2002	A		For making electrical checks.
Tester extension pin	FY9-3038	A		As an addition when making an electrical check.
Tester extension pin (L-shipped)	FY9-3039	A		As an addition when making an electrical check.
NA-3 Test Chart	FY9-9196	A		For checking and adjusting images.
Mirror cleaning tool	FL2-9842	--		Used for cleaning the mirror in the CCD unit. This part is installed in the reader unit. (Not a service tool)

T-10-1

A: each service engineer is expected to carry one.

B: each group of 5 service engineers is expected to carry one.

C: each workshop is expected to carry one.

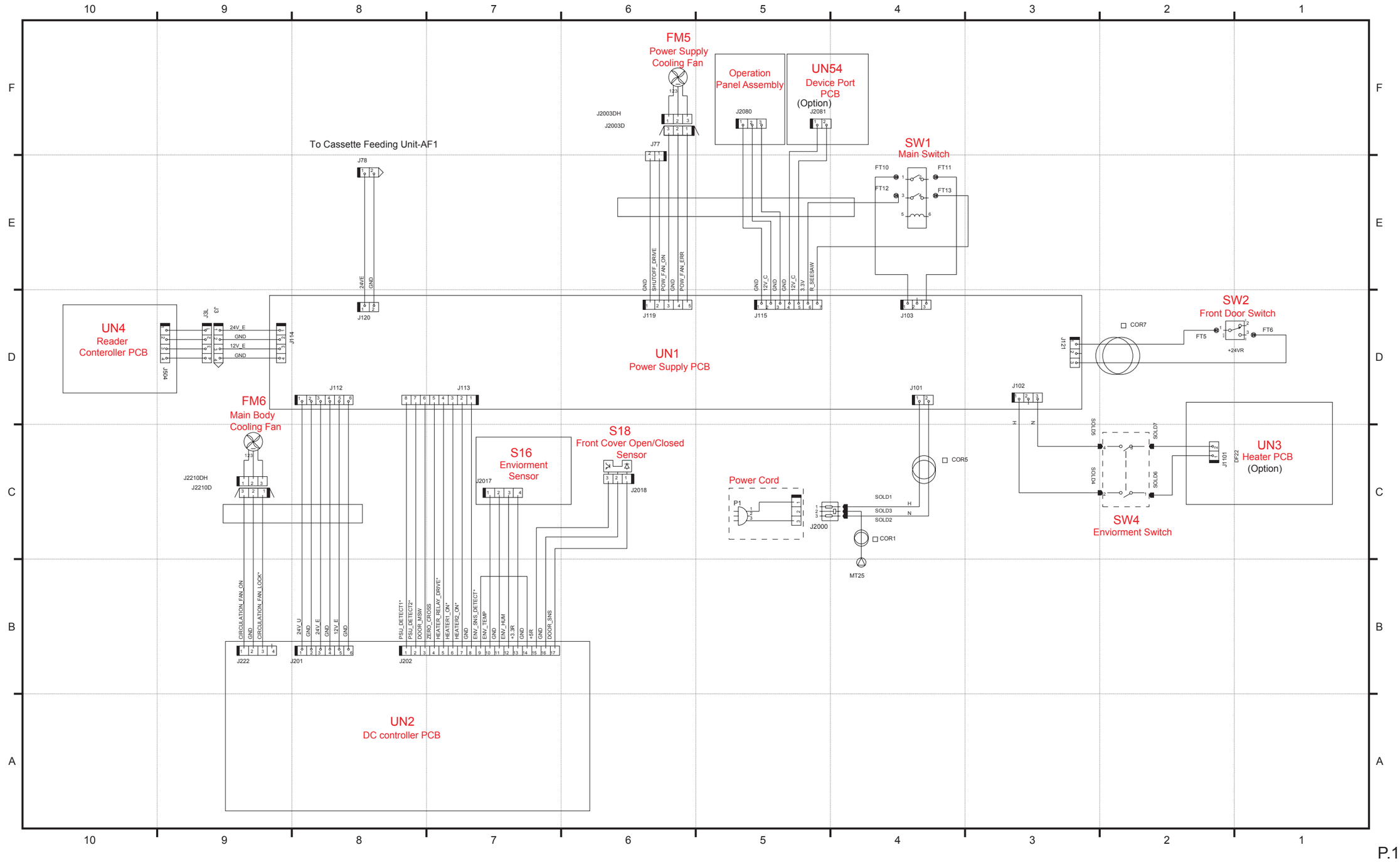
Oils and Solvents

Name	Uses	Composition	Remarks
Alcohol	Cleaning; e.g., Glass, plastic, rubber, external covers	Fluoride-family hydrocarbon Alcohol Surface activating agent Water	Do not bring near fire. Procure locally. Substitute: IPA (isopropyl alcohol)
Solvent	Cleaning; e.g., Metal, oil, toner stain	Fluoride-family hydrocarbon Chlorine-family hydrocarbon Alcohol	Do not bring near fire. Procure locally Substitute: MEK (methyl ethyl ketone)

T-10-2

General Circuit Diagram

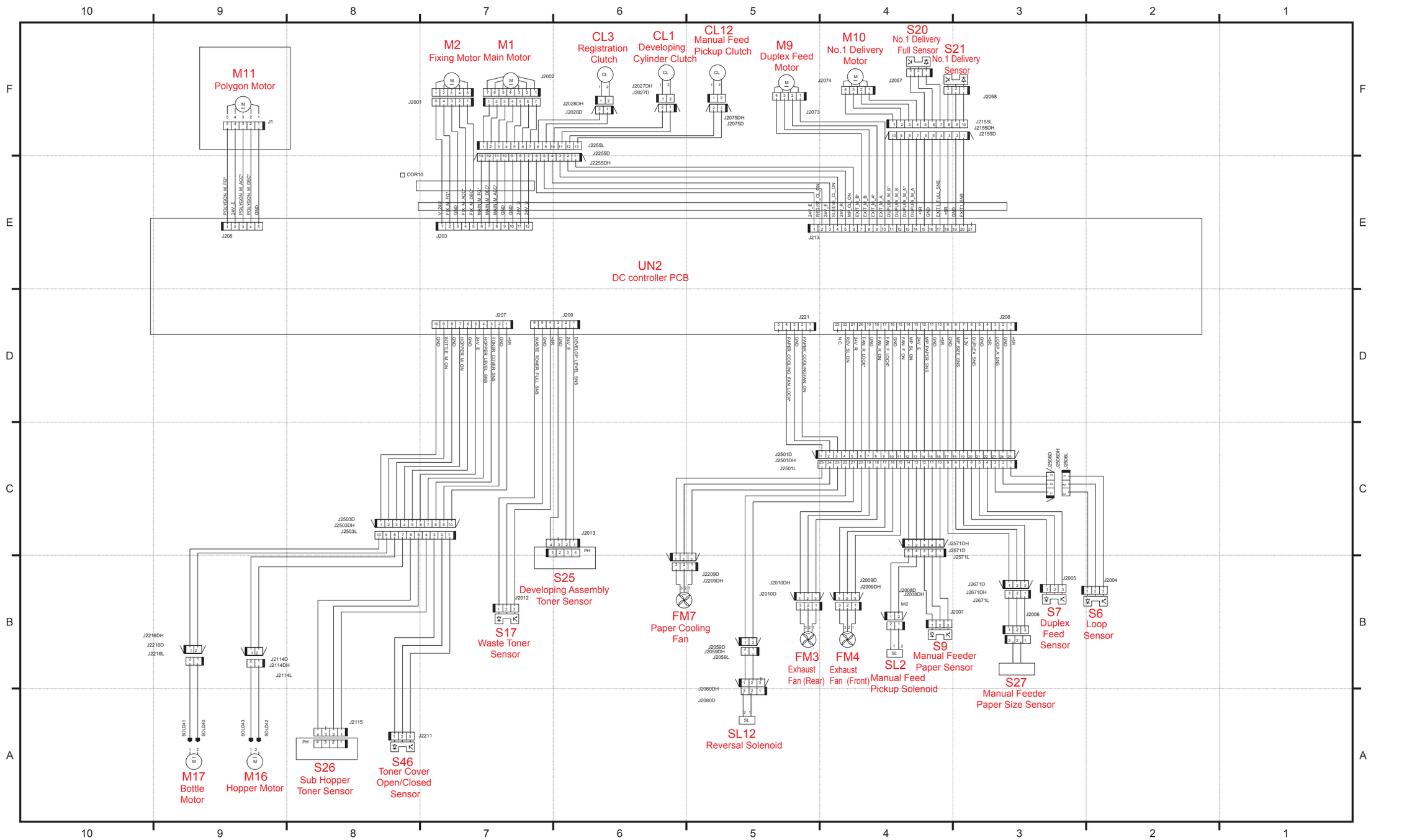
General Circuit Diagram (1/11)



P.1

F-10-1

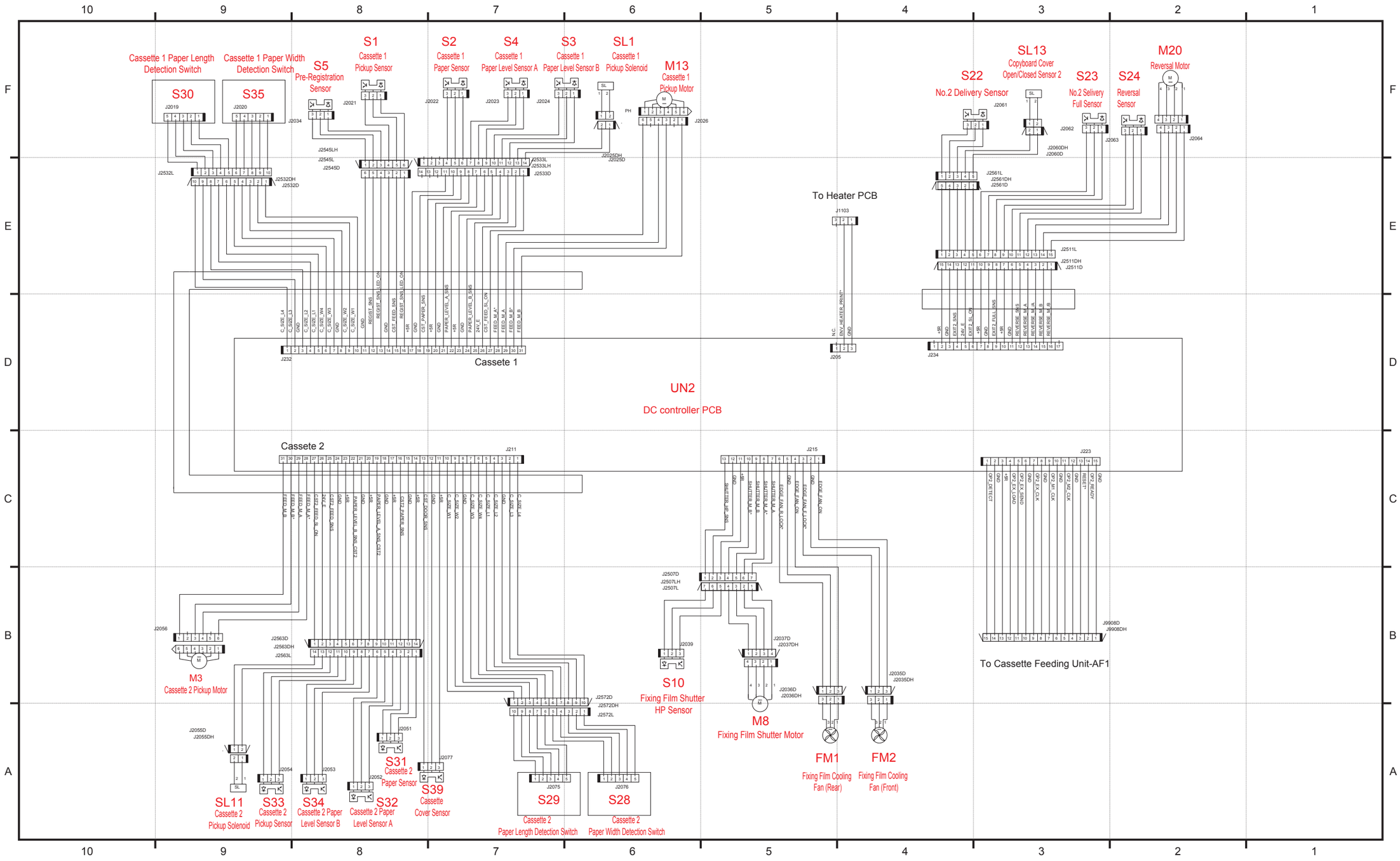
General Circuit Diagram (2/11)



F-10-2

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (2/11)

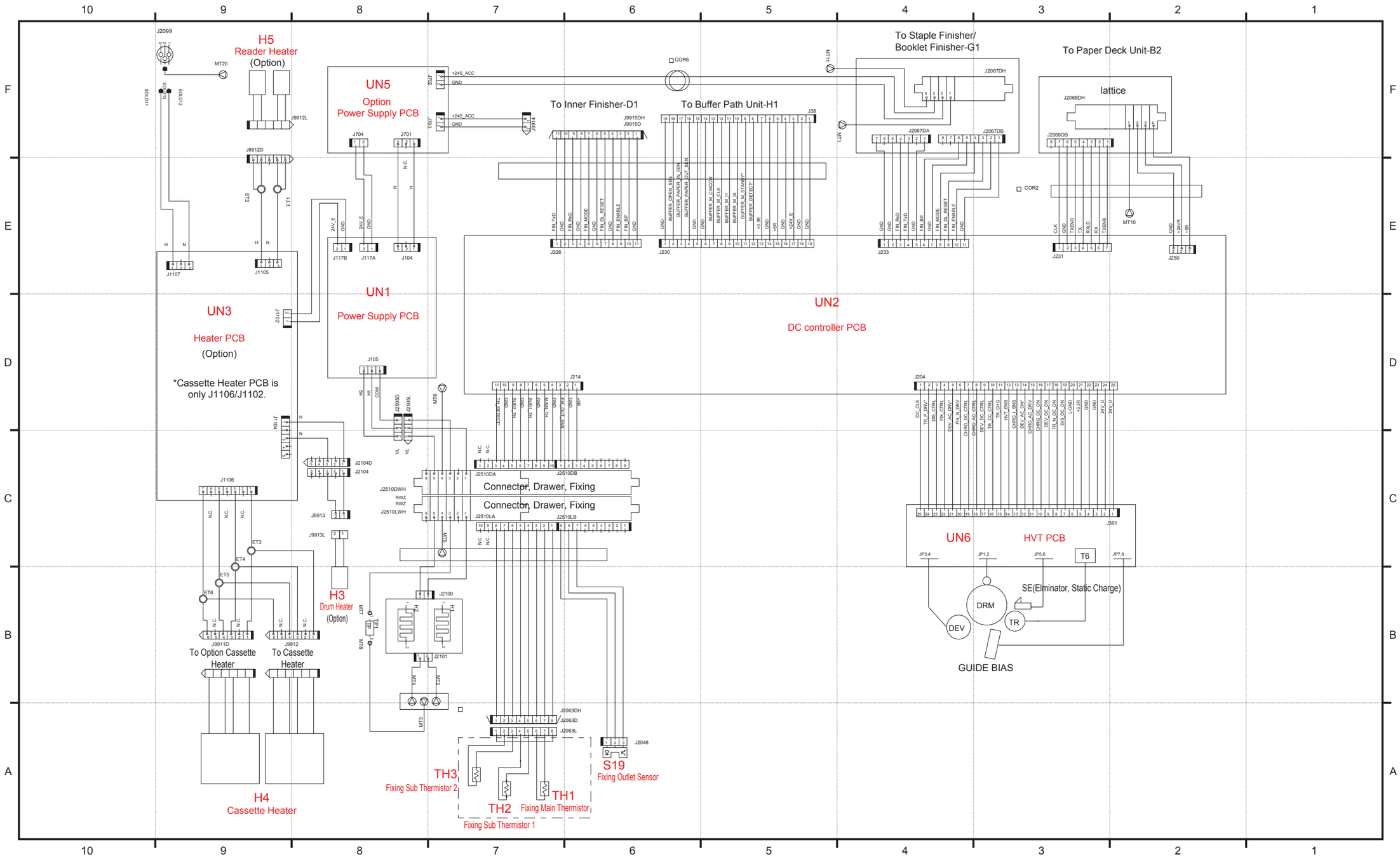
General Circuit Diagram (3/11)



F-10-3

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (3/11)

General Circuit Diagram (4/11)

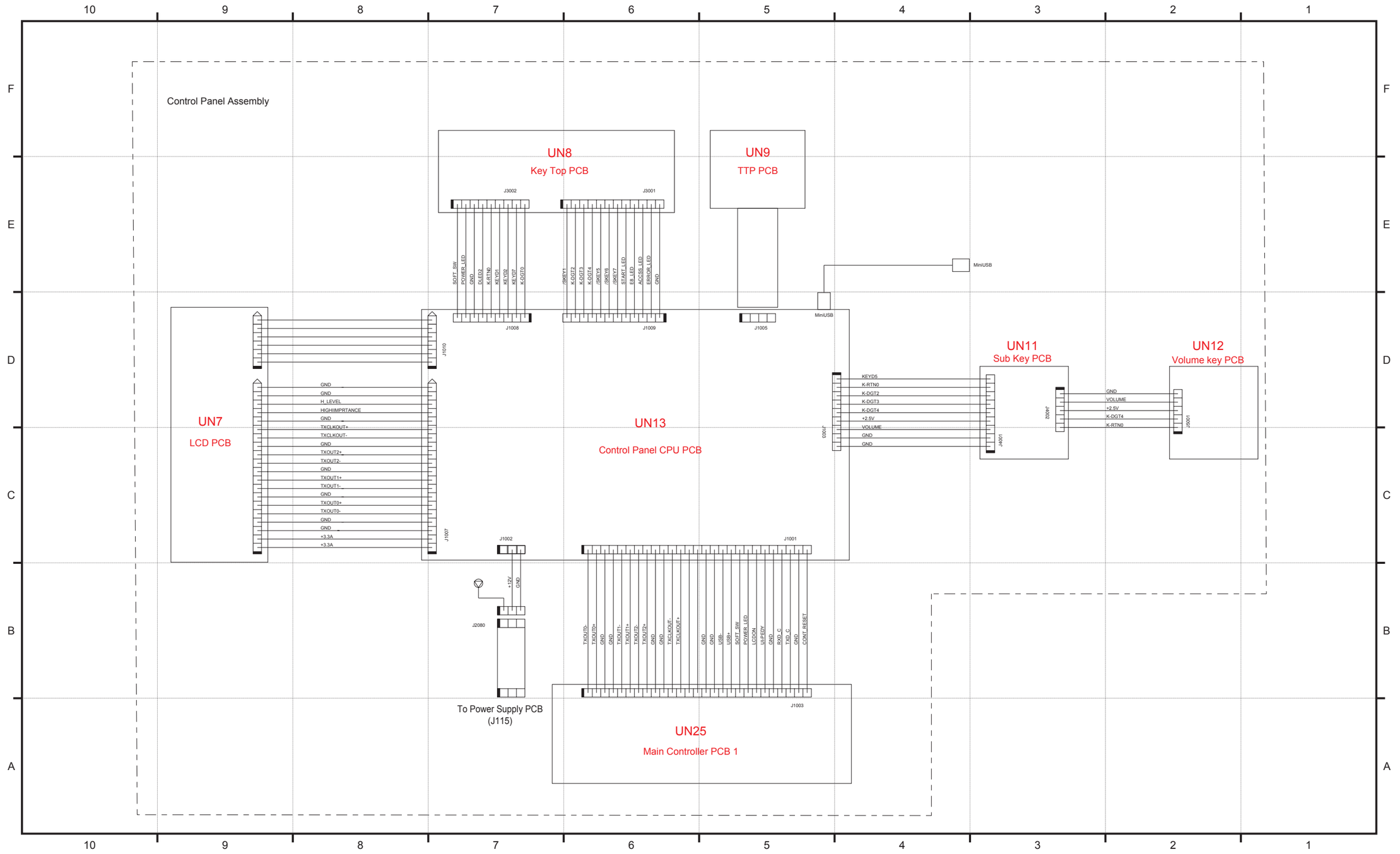


P.4

F-10-4

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (4/11)

General Circuit Diagram (5/11)

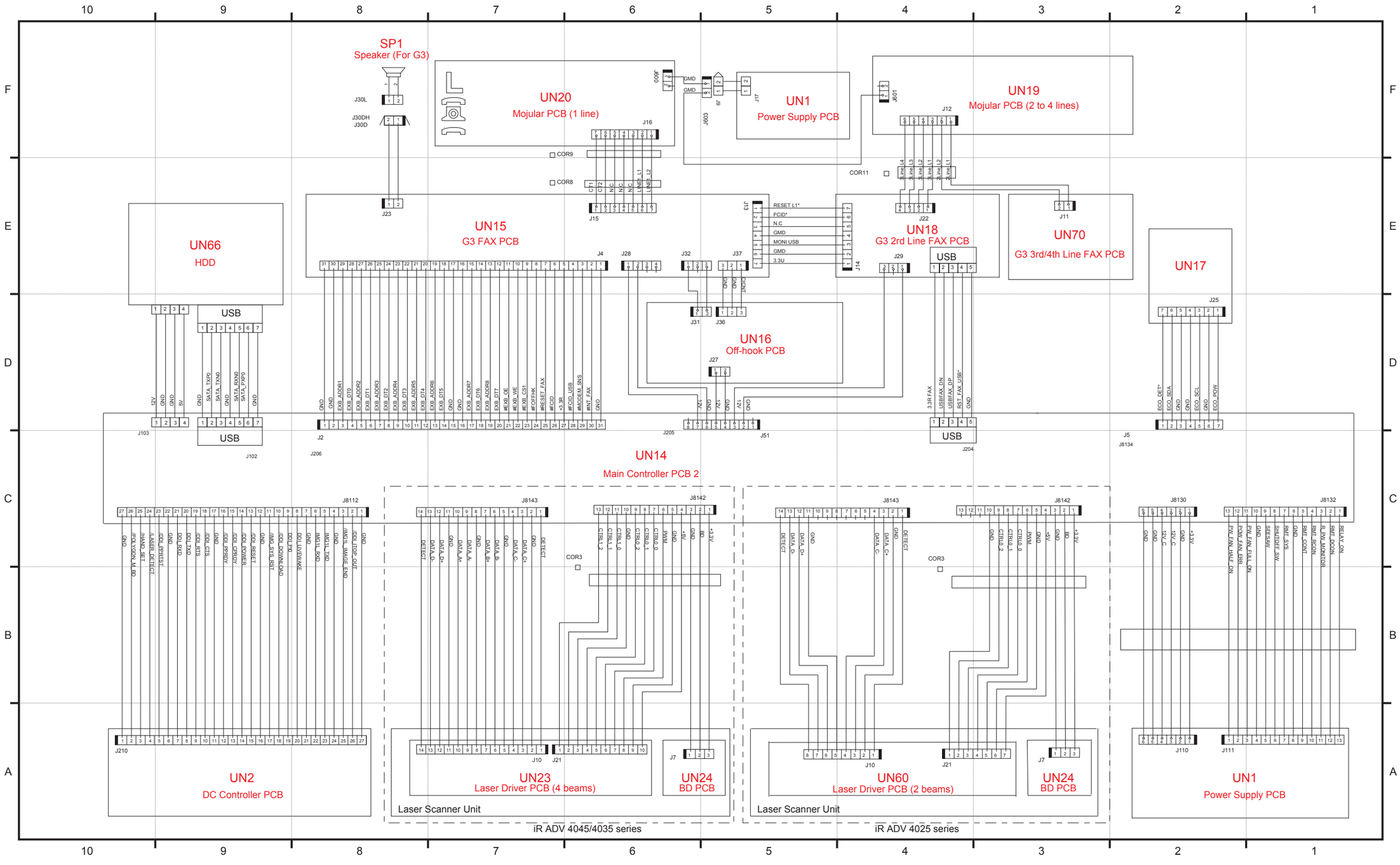


P.5

F-10-5

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (5/11)

General Circuit Diagram (6/11)

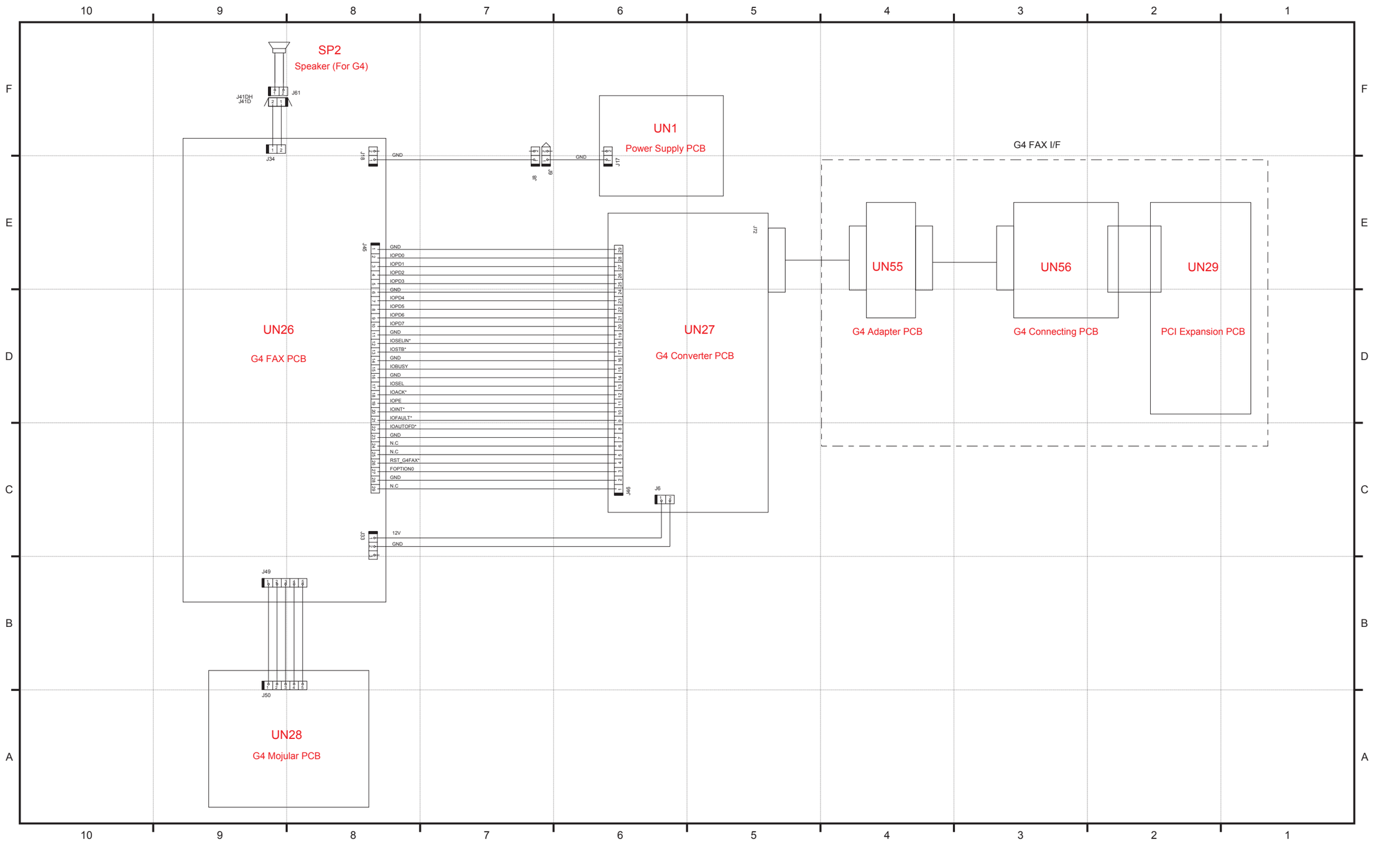


P.6

F-10-6

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (6/11)

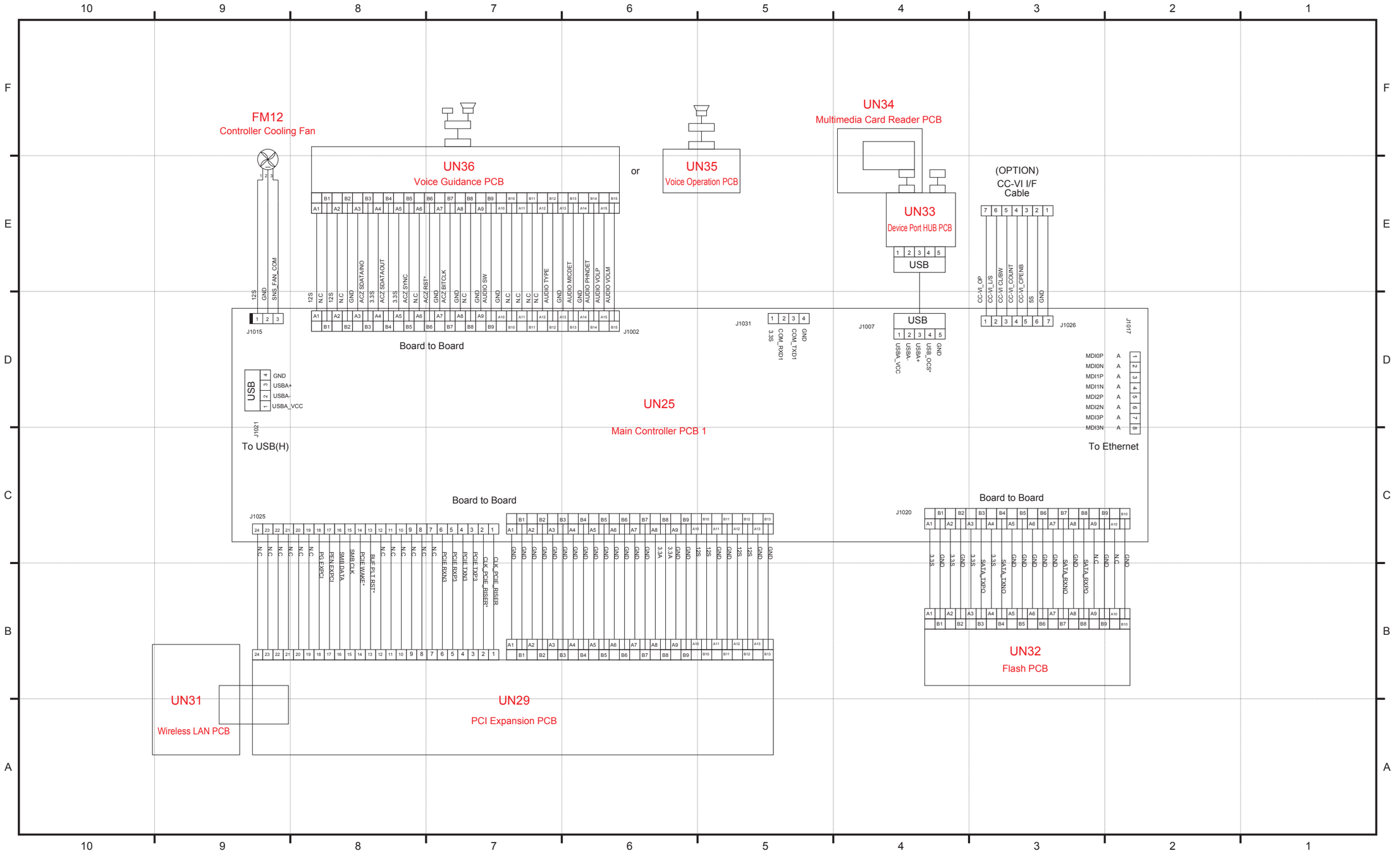
General Circuit Diagram (7/11)



F-10-7

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (7/11)

General Circuit Diagram (8/11)

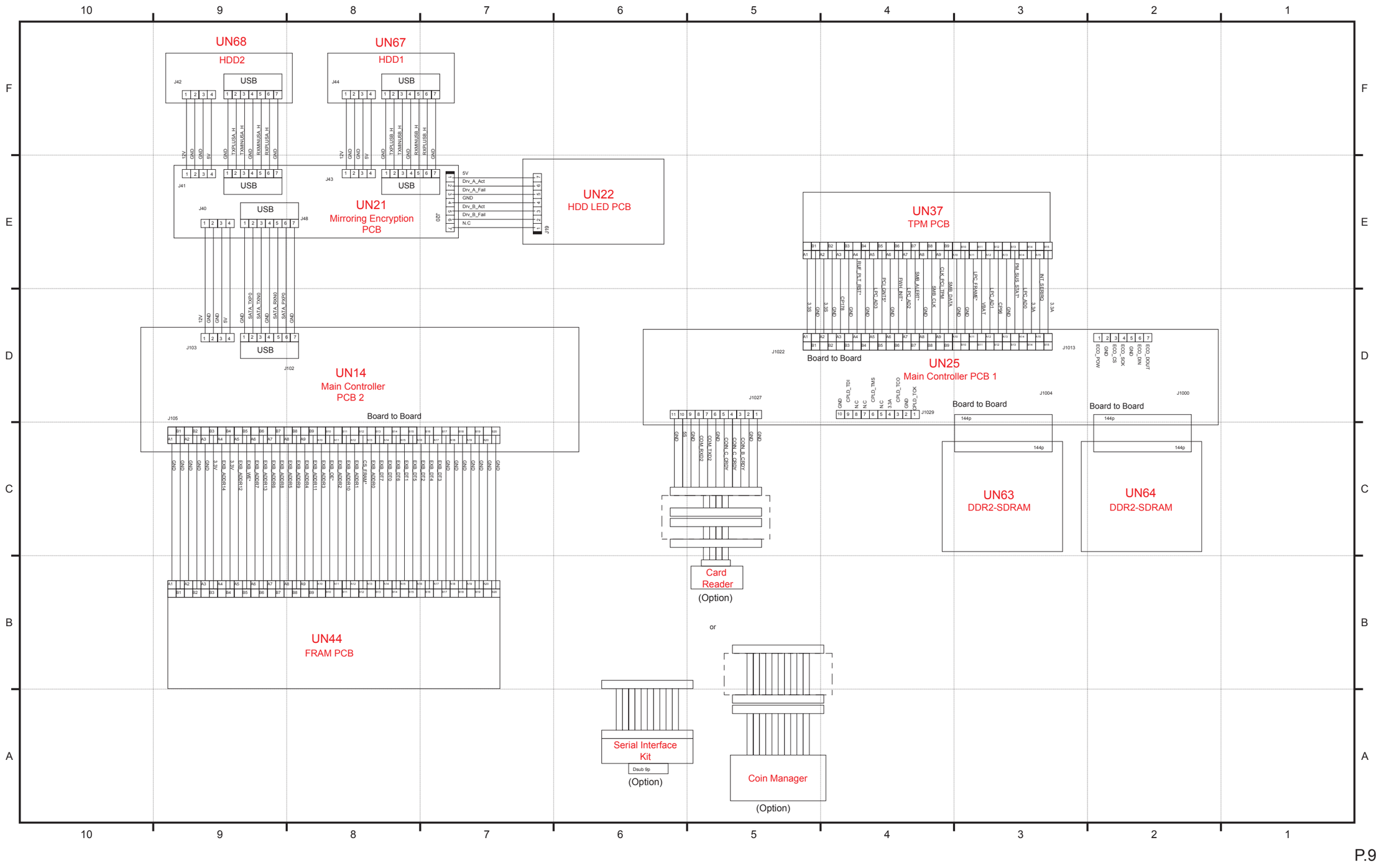


P.8

F-10-8

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (8/11)

General Circuit Diagram (9/11)

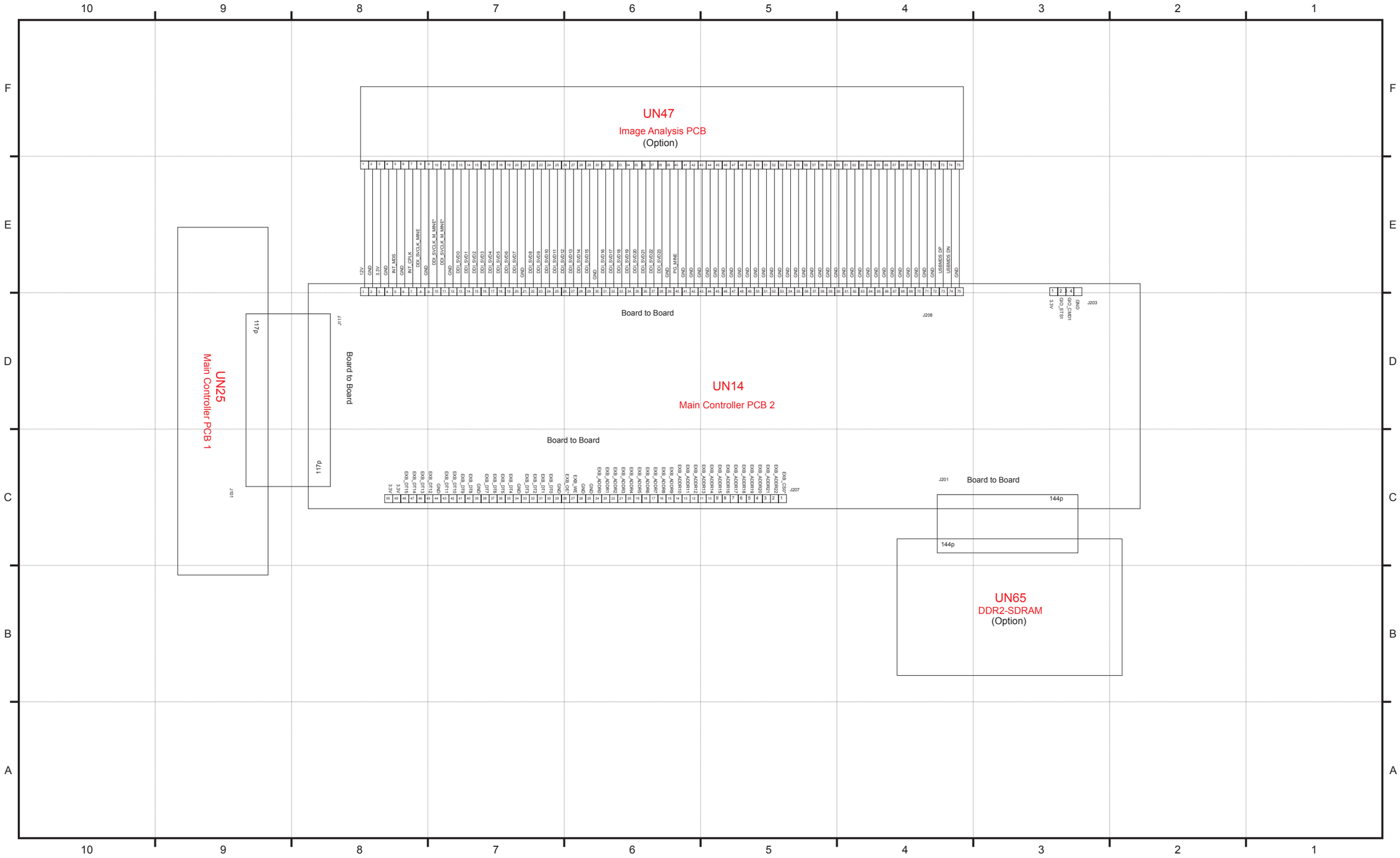


P.9

F-10-9

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (9/11)

General Circuit Diagram (10/11)

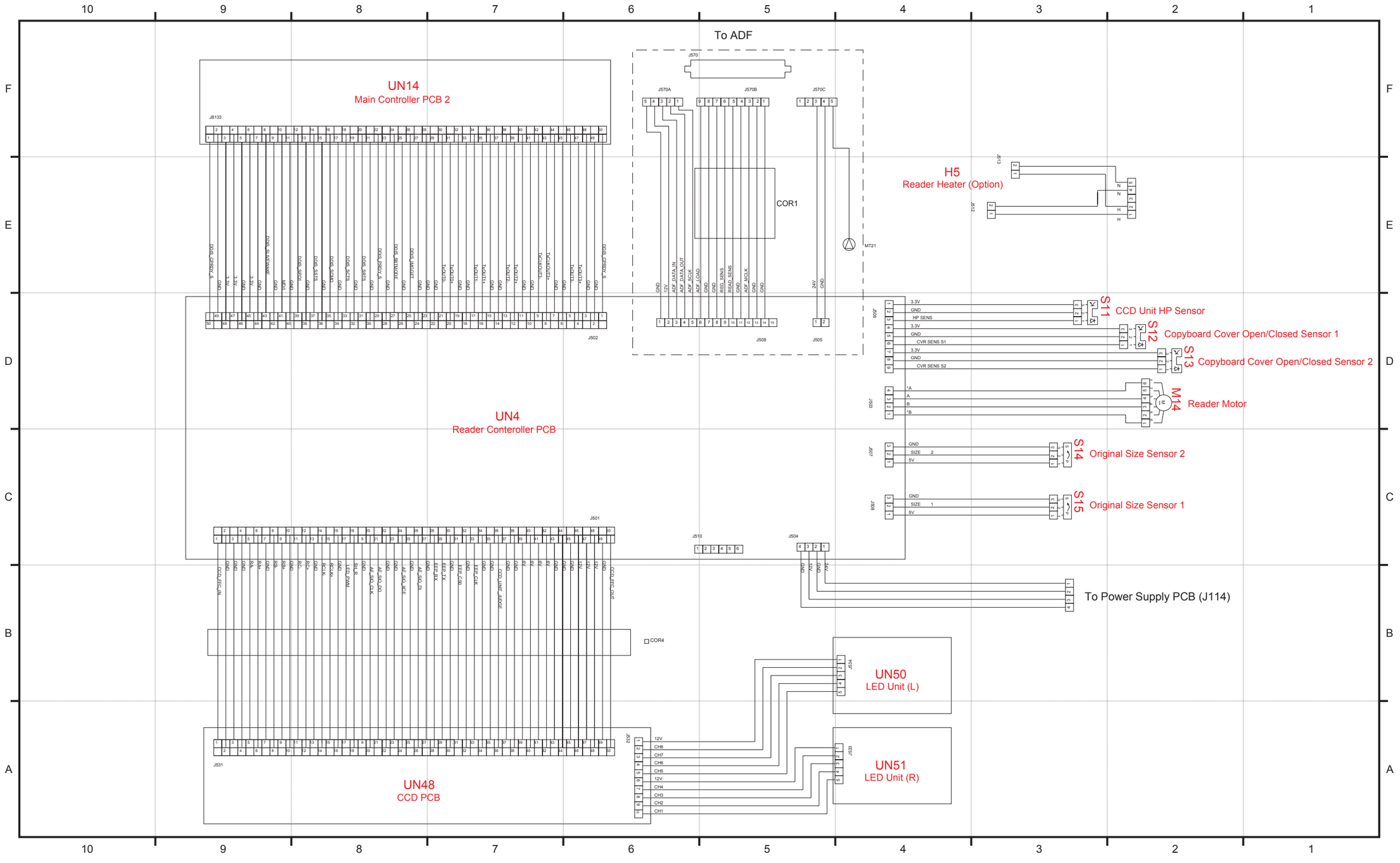


P.10

F-10-10

Appendix > Service Tools > General Circuit Diagram > General Circuit Diagram (10/11)

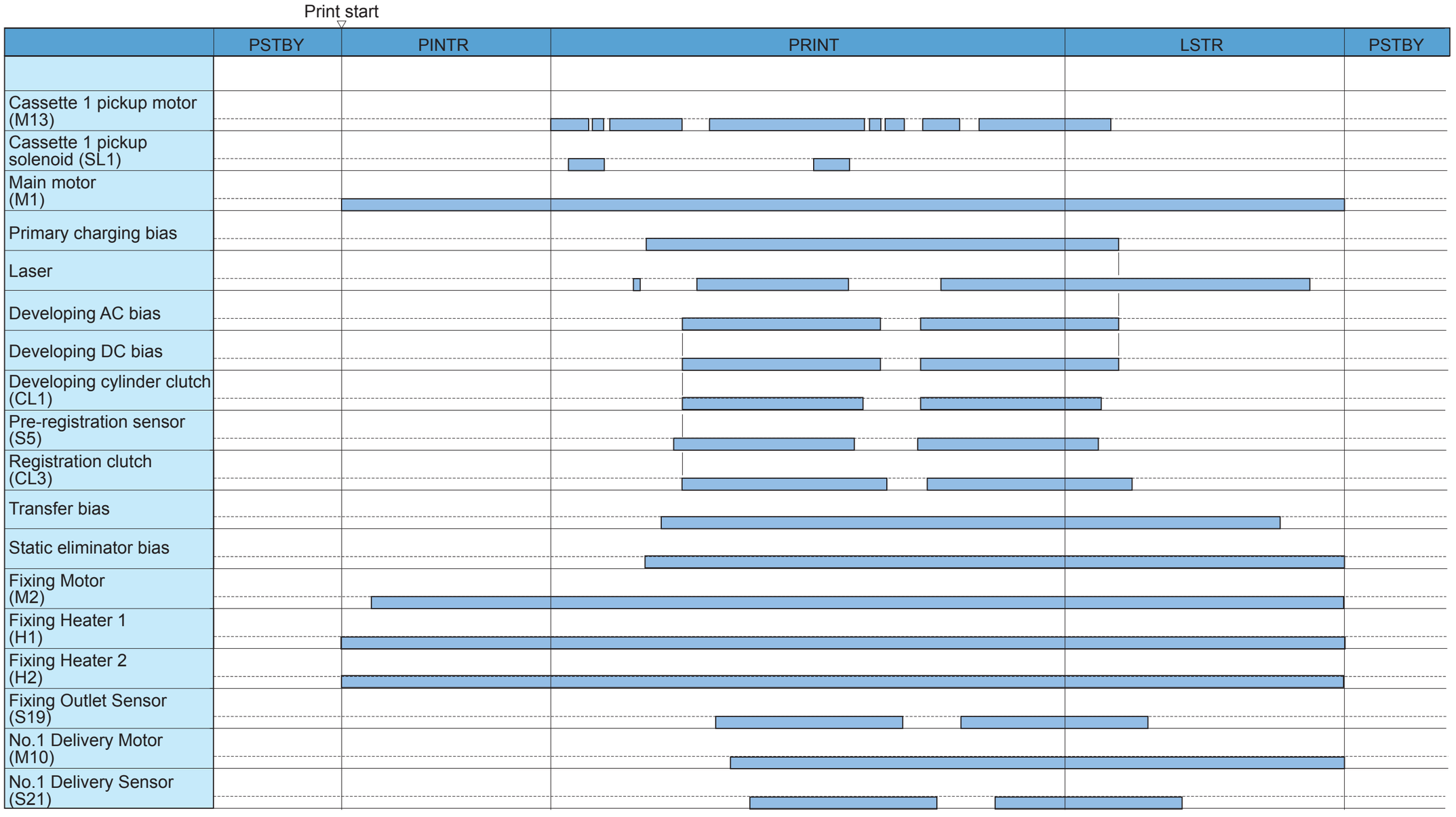
General Circuit Diagram (11/11)



F-10-11

General Timing Chart

2 Prints, Continuous, Cassette 1



F-10-12

Appendix > General Timing Chart > 2 Prints, Continuous, Cassette 1

Backup Data

Data	Location	Clear?						Delete												Backup by User			Backup by CE			Remarks
								User function						Service function												
									Settings/Registration : Function Settings																	
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	CCD Unit (CCD PCB)	Replace the TPM PCB	Initialize All Data / Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function > CLEAR > MN-CONT	Function > CLEAR > MMI	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/ No	Method	Location to be stored	Yes/ No	Method	Location to be stored	
Address List	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	-	Yes	Remote UI (Export / Import)	PC	No	-	-	
Forwarding Settings	HDD/ SRAM (MCON2)	Clear	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (Export / Import)	PC	No	-	-	
Settings / Registration																										
Preferences	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	Clear *1	-	-	-	Yes *2	Remote UI (Export / Import)	PC	Yes	SST Download Menu (HDD/USB)	PC/HDD/ USB	*1 The following items are Deleted. Preferences > Paper Settings > Register Envelope Drawer Preferences > Paper Settings > B5/ EXEC Paper Selection Preferences > Paper Settings > A5R/ STMTR Paper Selection *2 Preferences > Timer/Energy Settings > [Adjust Time]/[Date/Time Settings]
Adjustment/ Maintenance	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (Export / Import)	PC				
Function Settings	SRAM (MCON2/ DCON)	-	-	Clear	Clear	-	-	Clear	Clear	Clear	Clear	-	-	Clear	Clear	Clear *3	Clear *4	-	-	Yes *5	Remote UI (Export / Import)	PC				*3 The following items are Deleted. Function Settings > Common > Paper Feed Settings > Paper Drawer Auto Selection On/Off Function Settings > Common > Paper Feed Settings > Feed Method Switch *4 The following items are Deleted. Function Settings > Common > Scan Settings > LTRR/STMT Original Selection Function Settings > Common > Scan Settings > Remote Scan Gamma Value Function Settings > Common > Scan Settings > Auto Online/Auto OFFline *5 The following data are impossible of backup Function Settings > Common > Print Settings > Register Form Function Settings > Receive/Forward > Common Settings > Set Fax/I-Fax Inbox
Set Destination	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-				
Management Settings	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes *6	Remote UI (Export / Import)	PC				*6 The following data are impossible of backup Management Settings > User Management > Department ID Management > Page Totals
Printer Settings	SRAM (MCON2)	-	-	Clear	-	-	-	Clear	-	-	-	Clear	-	Clear	Clear	-	-	-	-	Yes	Remote UI (Export / Import)	PC				
Set Paper Information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes	Remote UI (Export / Import)	PC	No	-	-	
Setting items for each menu in Main Menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)																										

Data	Location	Clear?						Delete												Backup by User			Backup by CE			Remarks
								User function						Service function												
									Settings/Registration : Function Settings																	
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	CCD Unit (CCD PCB)	Replace the TPM PCB	Initialize All Data / Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function > CLEAR > MN-CONT	Function > CLEAR > MMI	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/ No	Method	Location to be stored	Yes/ No	Method	Location to be stored	
Favorite Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes *7	Remote UI (Export / Import)	PC	Yes *8	SST (Meap back)	PC	*7 Backup is available only "Favorite Settings" in "Scan to Send" *8:If start-up in download mode in safe mode is available in the event of an HDD failure, it is assumed that MEAP applications can be backed up using SST in some cases. In that case, the data can be recovered with the information of the MEAP applications maintained by checking that the machine starts normally after installation of the system after replacement of the HDD, starting the machine in download mode in safe mode, and restoring the backup data.
Default Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes *8	SST (Meap back)	PC	
Shortcut settings for “Options”	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes *8	SST (Meap back)	PC	
Previous Settings	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes *8	SST (Meap back)	PC	
Setting items for Quick Menu																										
Button Size information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes *8	SST (Meap back)	PC	
Wallpaper Setting	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes *8	SST (Meap back)	PC	
Button information in Quick Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes *8	SST (Meap back)	PC	
Restrict Quick Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (Export / Import)	PC	Yes *8	SST (Meap back)	PC	
Setting items for Main Menu																										
Button settings in Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Button settings on the top of the screen	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Wallpaper Setting for Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Other settings for Main Menu	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Box settings																										

Data	Location	Clear?						Delete												Backup by User			Backup by CE			Remarks
								User function						Service function												
									Settings/Registration : Function Settings																	
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	CCD Unit (CCD PCB)	Replace the TPM PCB	Initialize All Data / Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function > CLEAR > MN-CONT	Function > CLEAR > MMI	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/ No	Method	Location to be stored	Yes/ No	Method	Location to be stored	
User Box specification settings (Register Box Name, Password, Time until Document Auto Erase, Print uponstoring from the printer driver)	HDD (manage-ment information in SRAM)	Clear	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	--	-	-	-	-	Yes *9	Remote UI (Backup / Restore)	PC/USB-HDD *10	No	-	-	*9 Login System Administrator and do backup. *10 - Since Inbox management information is retained in the SRAM of the Main Controller PCB 2, backup of SramImg using SST/HDD/USB device is necessary when replacing the Main Controller PCB 2. - Before replacing the Main Controller PCB 2, back up SramImg using SST/HDD/USB device. After replacing the Main Controller PCB 2, be sure to start the machine with the 2 and 8 keys in safe mode, and restore SramImg using SST/HDD/USB device. When the machine is started for the first time without restoring SramImg, Inbox will be initialized. In that case, the documents in the Inbox are lost and cannot be opened. - When the HDD is encrypted (when the HDD Data Encryption Kit is installed), SramImg can be restored only by SST. - Only management information can be backed up in SramImg. Back up the documents in the Inbox from RUI.
Image data of User Box, Confidential Fax Box, and System Box Image Data	HDD (manage-ment information in SRAM)	Clear	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Yes *9	Remote UI (Backup / Restore)	PC/USB-HDD *10	No	-	-	
Advanced box settings																										
Data File of Advanced Box	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	Clear	-	-	-	-	-	-	Yes *11	Remote UI (Backup / Restore)	PC/USB-HDD *12	No	-	-	*11 IIt is possible only when logging in as an administrator user. When ON is selected for the authentication management of Advanced Box, Advanced Box account needs to be exported in advance and imported at restoration. *12 When the optional high-capacity HDD is installed, backup can be done only to USB-HDD.
Advanced box account	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes (*11	Remote UI (Authentication management of Advanced Box)	PC	No	-	-	
Network place setting information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Box settings																										
Image forms stored in the Form Composition mode	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Yes *9	Remote UI (Backup / Restore)	PC/USB-HDD	No	-	-	
Web browser settings																										
Web Access setting information	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	Yes *13	Remote UI (Export / Import)	PC	No	-	-	*13 Only "favorites of web browser" can be backed up.
MEAP settings																										

Data	Location	Clear?						Delete												Backup by User			Backup by CE			Remarks
								User function						Service function												
									Settings/Registration : Function Settings																	
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	CCD Unit (CCD PCB)	Replace the TPM PCB	Initialize All Data / Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function > CLEAR > MN-CONT	Function > CLEAR > MMI	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/ No	Method	Location to be stored	Yes/ No	Method	Location to be stored	
MEAP application	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	SST (Meap back)	PC	
License files for MEAP applications	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	SMS	PC	Yes	SST (Meap back)	PC	
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes	SSO-H	PC	Yes	SST (Meap back)	PC	
Data saved using MEAP applications	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	Yes *14	-	-	Yes	SST (Meap back)	PC	*:14 Only when MEAP applications have a backup function
SMS (Service Management Service) password of MEAP	HDD	Clear	-	-	-	-	-	Clear *15	-	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Yes	SST (Meap back)	PC	*15 Since the password is TPM-encrypted and saved, password backed up after all data/settings have been initialized cannot be restored. When all data/settings have been initialized, initialize the password using a switch license for password initialization. [Reference] Since TPM encryption key is updated when all data/settings are initialized, the password which was backed up cannot be read.
Universal data settings																										
Unsent documents (documents waiting to be sent with the Delayed Send mode)	SRAM (MCON2) HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-	No	-	-	
Job logs	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Key Pair and Server Certificate in Certificate Settings in TCP/ IP Settings in Network Set-tings in System Settings (from the Additional Functions screen)	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	

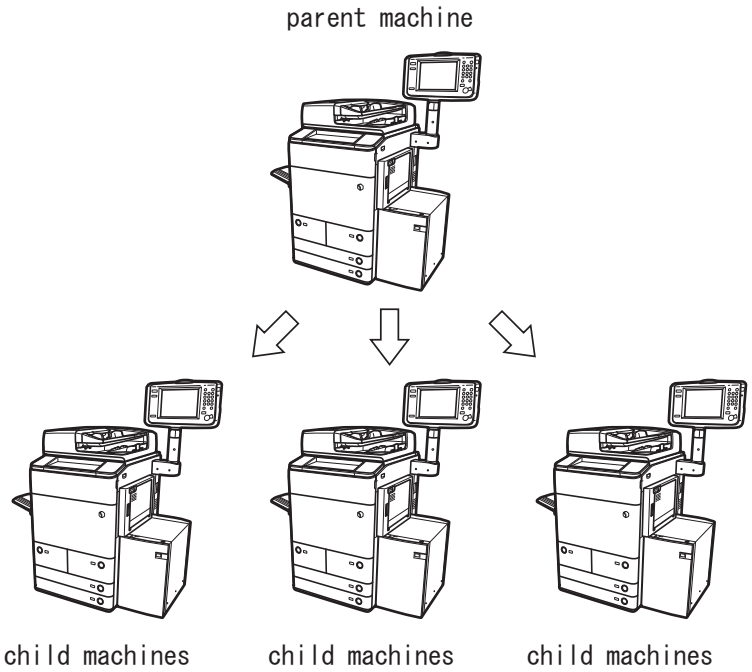
Data	Location	Clear?						Delete												Backup by User			Backup by CE			Remarks
								User function						Service function												
									Settings/Registration : Function Settings																	
		Replace the HDD / All format	Replace the Main PCB 1	Replace the Main PCB 2	DC Cont-roller PCB	CCD Unit (CCD PCB)	Replace the TPM PCB	Initialize All Data / Settings	Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	Advanced Box Settings > Delete Personal/ Shared Space > Delete All	Function > CLEAR > MN-CONT	Function > CLEAR > MMI	Function > CLEAR > DC-CON	Function > CLEAR > R-CON	Function > CLEAR > ADRS-BK	Function > CLEAR > JV-CACHE	Yes/ No	Method	Location to be stored	Yes/ No	Method	Location to be stored	
Auto Adjust Gradation setting values	SRAM (MCON2) HDD	-	-	Clear	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	-	No	-	-	Yes	SST Download Menu(HDD/ USB)	PC	
PS font	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	-	No	-	-	No	-	-	
Key information to be used for encryption when TPM is OFF	SRAM (MCON2)	Clear *16	-	Clear *17	-	-	-	Clear	-	-	-	-	-	Clear *17	-	-	-	-	-	No *18	-	-	Yes	SST (SramImg)	PC	*16 If the backup key information in the HDD is missing, it is automatically recovered from the key in the SRAM (MCON2). *17 If the key information in the SRAM (MCON2) is missing, it is automatically recovered from the backup key in the HDD. *18 No means is available to back up externally.
Key and settings information to be used for encryption when TPM is ON	SRAM (MCON2) HDD TPM Board	Clear *19	-	Clear *20	-	-	Clear	Clear *21	-	-	-	-	-	Clear *21	-	-	-	-	-	Yes *22	Settings / Registration mode (Management Settings > Data Management > TPM Settings)	USB memory	Yes	SST Download Menu(HDD/ USB)	PC	*19 An error code is displayed when the TPM setting is “ON”. After all data/ settings are initialized after restart, select "ON" for the TPM setting to enable the TPM setting. *20 If the TPM key information in the SRAM of the HDD or the Main Controller PCB 2 becomes missing, the key information in the SRAM is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". Note that the TPM setting needs to be manually changed to "ON" since "OFF" is displayed for UI. *21 TPM settings becomes "OFF" when all data/settings are initialized. *22 Backup only against TPM PCB failure is possible. In addition, restoration cannot be done to other machines whose TPM setting is set to "ON".
Service mode setting values (MN-CON)	SRAM (MCON2)	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-	Yes	SST Download Menu(HDD/ USB)	PC/ HDD/ USB	
Service mode setting values (DC-CON)	SRAM (DC-CON)	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	-	-	-	No	-	-	Yes	Service mode (COPIER > FUNCTION > SYSTEM > DSRAMBUP)	HDD	
Service mode setting values (R-CON)	EEPROM (R-CON)	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Clear	-	-	No	-	-	Yes	Service mode (COPIER > FUNCTION > SYSTEM > RSRAMBUP)	HDD	

T-10-3

List of User Mode

Device Information Delivery Settings

Registering device information in your machine enables you to set the machine to deliver the same device information to other machines that are connected to the same network. This enables you to easily manage multiple machines at the same time.
Your machine is capable of both sending and receiving device information, which can be delivered manually and automatically.



F-10-13

Environment Settings

Paper Settings

* Default Settings

Item	Setting Description	Device Information DeliveryAvailable
Paper Settings	Thin, Plain*, Heavy 1, Heavy 2, Heavy 3, Color, Recycled, Tracing, Transparency, Labels, Bond, Tab, Pre-punched, Letterhead	No
A5R/STMTR Original Selection	A5R, STMTR*	No
B5/EXEC Original Selection	B5, EXEC*	No
Paper Type Management Settings	Details/Edit • Name, Category, Basis Weight, Type, Finish, Creep (Displacement) Correction Adjustment, Color	Yes
	Duplicate, Delete	No
Register Multi-Purpose Tray Defaults	On, Off*	No
Register Custom Size	Register/Edit, Delete, Register Name	Yes

T-10-4

Display Settings

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 If the Duplex Color Image Reader Unit is not attached, the default setting is [On].

Item	Setting Description	Device Information DeliveryAvailable
Default Screen at Startup	Main Menu*, Quick Menu, Copy*1, Scan and Send, Fax*1, Scan and Store, Access Stored Files, Fax/I-Fax Inbox, Secured Print, Web Browser, Workflow Composer, Remote Scanner, Print Server, Scan Lock Analyzer, Tutorial	No
	Open Status Monitor/Cancel: On, Off*2	No
Default Screen (Status Monitor/Cancel)	Default Status Type: Copy/Print*, Send, Receive, Store, Consumables	No
	Status/Log: Job Status*, Log	No
	Details: Print Jobs, Send Jobs, Receive Jobs, Copy*1, Fax*1, Forward, Local Print, Printer, Cascade Copy, RX Print, Print Report	No
Copy Screen Display Settings*1	Regular Copy*, Express Copy	No
Display Fax Function*1	On*, Off	No
	On Enable Fax in Scan and Send Function: On*, Off	No
Store Location Display Settings	Mail Box: On*, Off	No
	Advanced Box/Network: On*, Off	No
	Memory Media: On, Off*	No
Language/Keyboard Switch On/Off	On, Off*	No
Language/Keyboard Switch	Language, Keyboard Layout	No
Display Remaining Paper Message	On*, Off	No
No. of Copies/Job Duration Status	On*, Off	No
Display Original Scanning Cleaning Area*1	On*, Off	No
Select Paper Screen Priority	Simple*, Detailed	No
mm/Inch Entry Switch	mm, inch*	Yes
ID/User Name Display On/Off	On*, Off	No

T-10-5

Timer/Energy Settings

* Default Settings

Item	Setting Description	Device Information Delivery Available
Adjust Time	00: 00 to 23: 59, in one minute increments (00: 00*)	No
Date/Time Settings	Date and Time Setting (12 digit number)	No
	Time Zone: GMT -12: 00 to GMT +12: 00 (GMT -05:00*)	No
	Daylight Saving Time: On, Off*	No
Time Format	24 Hour, 12 Hour*	No
Auto Reset Time	0 (Off), 10 to 50 seconds in 10 seconds increments, 1 to 9 minutes in one minute increments (2minutes*)	Yes
Function After Auto Reset	Initial Function*, Selected Function	Yes
Auto Sleep Time	10 secs, 1, 2, 10, 15*, 20, 30, 40, 50 min., 1 hour, 90 min., 2, 3, 4 hours (1 mins*)	Yes
Sleep Mode Energy Use	Low*, High	Yes
Weekly Timer Settings	Sunday to Saturday, 00: 00 to 23: 59, in one minute increments	Yes
Energy Saver/Sleep Mode Exit Time Settings	00: 00 to 23: 59, in one minute increments	Yes
Change Energy Saver Mode	-10*,-25,-50%, None	Yes
Silent Mode Time	0 (Off) to 9 minutes, in one minute increments (1 mins*)	Yes

T-10-6

Network

If you are configuring the settings for the first time in "Interface Settings," "TCP/IPv4 Settings," "TCP/IPv6 Settings," or "Settings Common to TCP/IPv4 and TCP/IPv6," use the control panel of the machine. After configuring the TCP/IP settings, you can change them using the Remote UI.

In the NetWare or AppleTalk network, the TCP/IP protocol must be used to specify the settings with software other than the control panel of the machine. The setting items are shown below.

- Some items can be set using the Remote UI. Use the control panel of the device to set items which cannot be set using the Remote UI.

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 Indicates items that appear only when the PS Printer Kit is activated.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
User Data List	Plint List	Yes	No
Confirm Network Connection Set. Changes	On, Off*	No	Yes
TCP/IP Settings			
IPv4 Settings			
Use IPv4	On*, Off	Yes	No
IP Address Settings	IP Address: 0.0.0.0*	Yes	No
	Subnet Mask: 0.0.0.0*	Yes	No
	Gateway Address: 0.0.0.0*	Yes	No
	DHCP: On, Off*	Yes	Yes
	RARP: On, Off*	Yes	Yes
	BOOTP: On, Off*	Yes	Yes
PING Command	IP Adress: 0.0.0.0*	No	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
IPv6 Settings			No
Use IPv6	On, Off*	Yes	No
Stateless Address Settings	Use Stateless Address: On*, Off	Yes	No
Manual Address Settings	Use Manual Address: On, Off*	Yes	No
	Manual Address: IPv6 Address (39characters maximum)	Yes	No
	Prefix Length: 0 to 128 (64*)	Yes	No
	Default Router Address (39 characters maximum)	Yes	No
Use DHCPv6	On, Off*	Yes	Yes
PING Command	IPv6 Address: (39characters maximum)	Yes	No
Host Name	48 characters maximum	Yes	No
DNS Settings			
DNS Server Address Settings			
IPv4	Primary DNS Server: IP Address:0.0.0.0*	Yes	No
	Secondary DNS Server: IP Address:0.0.0.0*	Yes	No
IPv6	Primary DNS Server: IPv6 Address	Yes	No
	Secondary DNS Server: IPv6 Address	Yes	No
DNS Host/Domain Name Settings		Yes	No
IPv4	Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)	Yes	No
	Domain Name: 47 characters maximum	Yes	No
IPv6	Use Same Host Name/Domain Name as IPv4:On, Off*	Yes	No
	Host Name: 47 characters maximum (Canon + represents the last six digits of a MAC address)	Yes	No
	Domain Name: 47 characters maximum	Yes	No
DNS Dynamic Update Settings			
IPv4	DNS Dynamic Update: On, Off*	Yes	No
IPv6	DNS Dynamic Update: On, Off*	Yes	No
	Register Stateless Address: On, Off*	Yes	No
	Register Manual Address: On, Off*	Yes	No
	Register Stateless Address: On, Off*	Yes	No
WINS Settings			
WINS Resolution	On, Off*	Yes	No
WINS Server Address	IP Address: 0.0.0.0*	Yes	No
Node Type	Auto Set, display only	No	No
Scope ID	63 characters maximum	Yes	No
LPD Print Settings			
LPD Print Settings	On*, Off	Yes	Yes
LPD Banner Page[*1]	On, Off*	Yes	Yes
RAW Print Settings			
RAW Print Settings	On*, Off	Yes	Yes
Bidirectional Communication	On, Off*	Yes	Yes

Item			Setting Description	Can be set in Remote UI	Device Information Delivery Available
SNTP Settings					
	Use SNTP		On, Off*	Yes	No
	Polling Interval		Interval for performing time synchronization (1 to 48 hours) (24hours*)	Yes	No
	NTP Server Address		IP address or host name	Yes	No
	Check NTP Server		-	Yes	No
FTP Print Settings					
	Use FTP printing		On, Off*	Yes	Yes
	User		User name for FTP server login (24 characters maximum)	Yes	No
	Password		Password for FTP server login (24 characters maximum)	Yes	No
WSD Print Settings					
	Use WSD		On, Off*	Yes	Yes
	Use WSD Browsing		On, Off*	Yes	Yes
	Use Multicast Discovery		On, Off*	Yes	Yes
Use FTP PASV Mode					
	Use FTP PASV Mode		On, Off*	Yes	Yes
IPP Print Settings					
	IPP Print Settings		On, Off*	Yes	Yes
	Use SSL		On, Off*	Yes	No
	Use Authentication		On, Off*	Yes	No
	User		User name for IPP authentication (24 characters maximum)	Yes	No
	Password		Password for IPP authentication (24 characters maximum)	Yes	No
Multicast Discovery Settings					
	Response		On* Off	Yes	Yes
	Scope name		Scope name to be used for a multicast discovery (32 characters maximum) (default*)	Yes	No
Use HTTP			On* Off	Yes	Yes
Use Web DAV Server			On, Off*	Yes	Yes
SSL Settings			Settings that use SSL	Yes	No
Key and Certificate					
	Set as the Default Key		-	Yes	No
	Certificate Details		Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert Thumbprint/Certificate	Yes	No
	Display Use Location		Displays what the key pair is being used for	Yes	No
Proxy Settings					
	Use proxy		On, Off*	Yes	No
	Server Address		IP address or FQDN (128 characters maximum)	Yes	No
	Port Number		1 to 65535 (80*)	Yes	No
	Use Proxy within the Same Domain		On, Off*	Yes	No
Set Authentication					
	Use Proxy Auth.		On, Off*	Yes	No
	User		24 characters maximum	Yes	No
	Password		24 characters maximum	Yes	No
Confirm Dept. ID PIN			On, Off*	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
IPSec Settings			
Use IPSec	On, Off*	Yes	No
Receive Non-policy Packets	Allow*/Reject	Yes	No
Edit		Yes	No
Delete		Yes	No
Policy On, Off		Yes	No
Register			
Policy Name	24 characters maximum	Yes	No
Register: Selector Settings	Local Address: All IP Addresses*/IPv4 Address/IPv6 Address/IPv4 Manual Settings/IPv6 Manual Settings	Yes	No
	Remort Address: All IP Addresses*, All IPv4Address, All IPv6Address, IPv4Manual Settings, IPv6 Manual Settings	Yes	No
	Port: Specify by Port Number*/Specify by Service Name	Yes	No
IKE Settings	IKE mode : Main*/Aggressive	Yes	No
	Authentication Method : Pre-Shared Key Method*/Digital sig. Method	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
IPSec Network Settings	Validity : Time (1 to 65535minuites)(480minuites*)	Yes	No
	Validity : Size (1 to 65535 MB)(65535 MB*)	Yes	No
	PFS : On, Off*	Yes	No
	Auth./Encryption Algorithm : Auto*/Manual Settings	Yes	No
	Connect. Mode : Transport, display only	-	No
Netware Settings		Yes	No
Use NetWare	On, Off*	Yes	Yes
Frame Type	Auto Detect*/Ethernet II/Ethernet 802.2/Ethernet 802.3/Ethernet SNAP	Yes	No
IPX External Network Number	Auto Set, display only	-	No
Node Number	Auto Set, display only	-	No
Print Service	Bindery PServer, R Printer, NDS Pserver*, NPrinter	Yes	No
Packet Signature	Auto Set, display only	-	No
Bindery Pserver Settings			
Print Server Name	47 characters maximum	Yes	No
File Server Name	47 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
Polling Interval	1 to 15seconds (5sedonds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	1 to 20 KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/ Minimize form changes within print queues*	Yes	No
Rprinter Settings			
Print ServerName	47 characters maximum	Yes	No
File ServerName	47 characters maximum	Yes	No
Printer Number	0 to 15 (0*)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
NDS PServer Settings			
Printer Number	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Print Server Password	20 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Polling Interval	1 to 255 seconds (5seconds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	3 to 20KB (20KB*)	Yes	No
Service Mode	Service only currently mounted form/Change forms as needed/Minimize form changes across print queues/ Minimize form changes within print queues*	Yes	No
NPrinter Settings			
Print ServerName	64 characters maximum	Yes	No
Tree Name	32 characters maximum	Yes	No
Context	256 characters maximum	Yes	No
Printer Number	0 to 254 (0*)	Yes	No
Apple Talk Settings			
Use Apple Talk	On, Off*	Yes	Yes
Phase	Phase 2 (fixing)	-	No
Service Name	32 characters maximum (Model name*)	Yes	No
Zone	32 characters maximum	Yes	No
Print Mode*2	Both*, Spool, Direct	Yes	No
SMB Server Settings			
Use SMB Server	On, Off*	Yes	No
ServerName	15 characters maximum (Canon+represents the last six digits of a MAC address)	Yes	No
Workgroup	15 characters maximum (WORKGROUP*)	Yes	No
Comment	48 characters maximum	Yes	No
LM Announce	On, Off*	Yes	No
SMB Printer Settings			
Use SMB Print	On, Off*	Yes	No
Printer Name	13 characters maximum (PRINTER*)	Yes	No
SMB Auth. Settings			
Use SMB Authentication	On, Off*	Yes	No
Authentication Type	NTLMv1*, NTLMv2*	Yes	No
SNMP Settings		Yes	No
Get Printer Mgmt Info from Host	On, Off*	Yes	Yes
Use SNMPv1	On*, Off	Yes	Yes
Community Name1Settings			
Community Name1	On*, Off	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public*)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Community Name2 Settings		Yes	No
Community Name2	On, Off*	Yes	No
MIB Access Permission	Read/Write/Read Only*	Yes	No
Community Name	Community Name (32 characters maximum) (public2*)	Yes	No
Use SNMPv3	On, Off*	Yes	No
User Settings			
User On, Off	-	Yes	No
Register	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/ Encryption Password	Yes	No
Details/Edit	User/MIB Access Permission/Security Settings/Authent.Algorithm/Authent.Password/Encryption Algorithm/ Encryption Password	Yes	No
Delete	-	Yes	No
Context Settings			
Register	Context Name (32 characters maximum)	Yes	No
Edit	Context Name (32 characters maximum)	Yes	No
Delete	-	Yes	No
Dedicated Port Settings			
Dedicated Port Settings	On*, Off	Yes	Yes
Use Spool Function			
Use Spool Function	On, Off*	Yes	Yes
Startup Settings			
Startup Settings	30 to 300 seconds (30*)	Yes	No
Ethernet Driver Settings			
Auto Detect	On*, Off	Yes	No
Communication Mode	Half Duplex*/Full Duplex	Yes	No
Ethernet Type	10 Base-T*, 100 Base-TX, 1000 Base-T	Yes	No
MAC Address	Display only	-	No
IEEE802.1X Settings			
Use IEEE802.1X	On, Off*	Yes	No
Login Name	24 characters maximum	Yes	No
User	Name of the user to be authenticated with IEEE802.1X authentication	Yes	No
Password	Password of the user to be authenticated with IEEE802.1X authentication	Yes	No
TLS Settings			
Use TLS	On, Off*	Yes	No
Key and Certificate			
Set as the Default Key	-	Yes	No
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert.Thumbprint/Certificate	Yes	No
Display Use Location	Displays what the key pair is being used for.	Yes	No
TTLS Settings			
Use TTL	On, Off*	Yes	No
TTLS Settings	MSCHAPv2*, PAP	Yes	No
PEAP Settings			
Use PEAP	On, Off*	Yes	No
Same User Name as Login Name	On*, Off	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Firewall Settings			
IP Address Block Log	Time, Category, IP Address, Result	Yes	No
IPv4 Address Filter			
TX Filter		Yes	No
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv4 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
IPv6 Address Filter		Yes	No
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
IPv6 Address	Up to 16 IPv4 addresses can be stored.	Yes	No
MAC Address Filter			
TX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No
RX Filter			
Use Filter	On, Off*	Yes	No
Default Policy	Allow*/Reject	Yes	No
MAC Address	Up to 100 IPv4 addresses can be stored.	Yes	No

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External Interface

* Default Settings

Item		Setting Description	Device Information Delivery Available
USB Settings			
	Use USB Device	On*, Off	Yes
	Use MEAP Driver for USB Device	On, Off*	Yes
	Use MEAP Driver for USB External Drive	On, Off*	Yes

T-10-8

Accessibility

* Default Settings

Item	Setting Description	Device Information Delivery Available
Key Repetition Settings	Standard*, Slightly Slow, Slow	No
Reversed Display (Color)	On, Off*	No

T-10-9

Adjustment/Maintenance

Adjust Image Quality*1

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Auto Adjust Gradation	Automatic after the machine prints and scans four sets of test pages	No
Correct Density	Copy/Scan and Store (Mail Box), Black Send/Scan and Store (other than Mail Box), Color Send/Scan and Store (Other Than Mail Box)Light, Dark: 1 to 9 levels (5levels*)	No
Fine Adjust Zoom	X, Y: -1.0% to +1.0%, in 0.1% increments (X: 0.0%* Y: 0.0%*)	No

T-10-10

Adjust Action*1

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Saddle Stitcher Staple Repositioning	Press [Start]	No
Adjust Saddle Stitch Fold Position	-2.00 mm to +2.00 mm, in 0.25 mm increments (0.00 mm*)	No
Adjust Fold Position		
Adjust Z-Fold Position	-2.0 mm to +1.5 mm, 0.5 mm increments (0.0 mm*)	No
Adjust C-Fold Position	A: 0.0 mm to +6.0 mm, 0.5 mm increments (0.0 mm*) B: 0.0 mm to +3.0 mm, 0.5 mm increments (0.0 mm*)	No

T-10-11

Maintenance

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Clean Feeder*1	Press [Start]	No
Clean Wire	Press [Start]	No
Clean Drum	Press [Start]	No
Original Scanning Area Cleaning Method*1	Display the cleaning method	No

T-10-12

Function Settings

Common

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 Indicates information that is delivered only if the number of output trays in the host machine and client machines is the same.

*3 Indicates items that cannot be used with the default setting. Also, the Adobe LiveCycle Rights Management ES is necessary. Contact your local authorized Canon dealer.

Item	Setting Description	Device information DeliveryAvailable
Paper Feed Settings		
Paper Drawer Auto Selection On/Off	Copy, Printer, Access Stored Files, Receive/Fax*1, Other	No
Multi-Purpose Tray	On, Off*	No
Other	On*, Off	No
Copy	Consider Paper Type : On*, Off	No
Suspended Job Timeout On	On, Off*	Yes
	0 to 999 min. (5min*)	
Paper Output Settings		
Output Tray Settings		
If the Staple Finisher/Booklet Finisher Is Attached		
Tray A	Copy, Access Stored Files*, Printer, Receive, Fax, Other	No*2
Tray B	Copy*, Access Stored Files*, Printer, Receive, Fax, Other	No*2
Tray C	Copy*, Access Stored Files*, Printer*, Receive, Fax, Other	No*2
Tray Home Position	Off, Tray B*, Tray C	No*2
Offset Jobs*1	On*, Off	Yes
Job Separator Between Jobs	On, Off*	Yes
Job Separator Between Copies	On, Off*	No
Different Paper Sizes for the Output Tray	On*, Off	No
Unfinished Tab Paper Forced Output	On, Off*	Yes
Print Settings		
Print Priority		
Copy	1*,2,3	Yes
Printer	1,2*,3	Yes
Access Stored File, Receive/Fax*1, Other	1,2,3*	Yes
Local Print Default Settings		
Select Paper	All Paper Sources, Auto*	No
No. of Prints	1 to 9,999 sets (1set*)	No
Finishing*1		
If No Finisher is Attached and the Copy Tray is Attached	Do Not Collate, Collate (Page Order)*, Rotate Collate, Group (Same Pages), Rotate Group, Face Up/Face Down	No
If the Stapele Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Face Up/Face Down	No
If the Booklet Finisher is Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Face Up/Face Down	No

Item	Setting Description	Device information DeliveryAvailable
If the Staple Finisher and External 2/3 Hole Puncher Are Attached.	Do Not Collate, Collate (Page Order), Offset, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Face Up/Face Down	No
If the Staple Finisher/Booklet Finisher and Document Insertion/ Folding Unit Are Attached:	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Fold, Face Up/Face Down	No
If the Staple Finisher/Booklet Finisher, External 2/3 Hole Puncher and Document Insertion/ Folding Unit-G1 Are Attached.	Do Not Collate, Collate (Page Order), Offset*, Group (Same Pages), Offset Group, Staple (Corner: Top Left, Bottom Left, Top Right, Bottom Right), (Double: Left, Right), Hole Punch, Fold, Face Up/Face Down	No
2-Sided Printing	On, Off*	No
Delete File After Printing	On, Off*	No
Merge and Print	On, Off*	No
Output Report Default Settings		
2-Sided Printing	On, Off*	Yes
Register Form	Register (Solid/Transparent)*1, Delete, Check Print, Details	No
Register Characters for Page No./Watermark	Register, Edit, Delete	Yes
Copy Set Numbering Option Settings	On, Off*	Yes
Number Option ON		
ID/User Name	On, Off*	Yes
Date	On, Off*	Yes
Text	On, Off*	Yes
Secure Watermark/Document Scan Lock*1		
Forced Secure Watermark/Doc. Scan Lock		
Copy	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Mail Box	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Printer	Do Not Set*, Forced Secure Watermark, Forced Document Scan Lock	Yes
Printer Driver Watermark/Doc. Scan Lock	Do Not Set*, Driver Secure Watermark, Driver Doc. Scan Lock	Yes
Adjust Background/Character Contrast	Print Settings, Sample Print, Initialize	No
Relative Contrast	-7 to +7 (2*)	No
Standard Value Set. (imageRUNNER ADVANCE 6075)	1 to 64 (20*)	No
Standard Value Set. (imageRUNNER ADVANCE 6065/6055)	1 to 64 (16*)	No
Latent Area Density (imageRUNNER ADVANCE 6075)	1 to 36 (9*)	No
Latent Area Density (imageRUNNER ADVANCE 6065/6055)	1 to 36 (8*)	No

Item	Setting Description	Device information DeliveryAvailable
Adjust TL Code	Dot Size, Dot Density, Relative Contrast (Sample Print), Standard Value Settings, Initialize	No
Dot Size	4*	No
Dot Density	Standard*, Rough	No
Relative Contrast (imageRUNNER ADVANCE 6075)	-7 to +7 (2*)	No
Relative Contrast (imageRUNNER ADVANCE 6065/6055)	-7 to +7 (0*)	No
Standard Value Settings	1 to 64 (16*)	No
Scan Settings[*1]		
Timing to Raise Feeder Tray	When Start is pressed*, When Panel Is Touched	Yes
Feeder Jam Recovery Method	From 1st Page*, From Stopped Original	Yes
Scanner Noise Settings	Speed Priority*, Quiet	Yes
Streak Prevention	On*, Off	Yes
LTRR/STMT Original Selection	Select Manually, Use LTRR Format*, Use STMT Format	Yes
Remote Scan Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
Remote Scan Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
Auto Online	On, Off*	Yes
Auto Offline	On, Off*	Yes
Generate File		
High Compression Image Quality Level		
Image Level in Text/Photo Mode or Photo Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
Image Level in Text Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
OCR (Text Searchable) Settings		
Smart Scan	On*, Off	Yes
No. of OCR File Name Characters	1 to 24*	Yes
Trace & Smooth Settings		
Outline Graphics	On*, Off	Yes
Graphics Recognition Level	Normal, Moderate*, High	Yes
Background Image Level	Data Size Priority, Normal*, Image Quality Priority	Yes
Format PDF to PDF/A	On, Off*	Yes
Optimize PDF for Web	On, Off*	Yes
Rights Management Server Settings	Server URL: 128 characters maximum	No
	User: 128 characters maximum	No
	Password: 24 characters maximum	No
	Use Password for Each User: On, Off*	No
Document Scan Lock Settings		
Use Document Scan Lock/Embedded. Info.	On*, Off	Yes
Multiple Embedded Information Action	Continue Job, Cancel Job*	Yes
Use Document Scan Lock	On*, Off	Yes
Restrict Options	On*, Off	Yes

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Copy*1

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register/Edit Favorite Settings	Register/Edit, Delete (M1 to M9), Check Content	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Finishing*, Unassigned	No
Shortcut 2	2-Sided*, Unassigned	No
Shortcut 3	Density* Unassigned	No
Shortcut 4	Original Type*, Unassigned	No
Shortcut 5	Unassigned*	No
Register Options Shortcuts		
Shortcut 1	No Settings*	No
Shortcut 2	No Settings*	No
Shortcut 3	No Settings*	No
Shortcut 4	No Settings*	No
Shortcut 5	No Settings*	No
Shortcut 6	No Settings*	No
Auto Collate	On*, Off	Yes
Image Orientation Priority	On, Off*	Yes
Auto Orientation	On*, Off	Yes
Photo Printout Mode	On, Off*	Yes
Register Remote Device for Cascade Copy	Register (Seven devices maximum), Details, Delete	No
Cascade Copy Communication Timeout	5 to 30* seconds	Yes

T-10-14

Printer

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Output Report		
PCL		
Configuration Page	Print	No
Font List	Print	No
PS		
Configuration Page	Start	No
Font List	Print	No
Printer Settings	Setting the Machine (PS/PCL/UFR II Printer)	Yes
Restrict Printer Jobs	On, Off*	Yes
PDL Selection (Plug-n-play)	UFR II, PCL5e, PCL6, PS3, FAX	No

T-10-15

Send

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*4 Indicates item that appears only if the Super G3 2nd Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*5 Indicates item that appears only if the Super G3 3rd/4th Line Fax Board is installed in addition to installing the Super G3 FAX Board.

*6 Indicates item that appears according to the telephone line number specified in [No. of Sending Lines].

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Print List	No
Fax User Data List*1	Print List	No
Common Settings		
Register Favorite Settings Edit Favorite Settings	Register/Edit, Delete (M1 to M18), Check Content	Yes
Show Comment	On, Off*	Yes
Display Confirmation for Favorite Settings	On*, Off	No
Default Screen	Standard*, Address Book, One-Touch, Favorite Settings	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	2-Sided Original*, Unassigned	No
Shortcut 2	Different Size Originals*, Unassigned	No
TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Communication Management Report		
Auto Print (100 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00 : 00 to 23 : 59 (00 : 00*)	Yes
Send/Receive Separate	On, Off*	Yes
TX Terminal ID	Print*, Do Not Print	Yes
	TX Terminal ID: Print • Printing Position: Outside • Display Destination Unit Name: On, Off • Telephone # Mark*1: FAX, TEL	Yes
Delete Failed TX Jobs	On*, Off	Yes
Retry Times	0 to 5 times (3 times*)	Yes
Data Compression Ratio	High Ratio, Normal*, Low Ratio	Yes
YCbCr TX Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
Use Divided Chunk Send for WebDAV TX	On*, Off	Yes
Limit New Destinations		
Fax	On, Off*	Yes
E-mail	On, Off*	Yes
I-Fax	On, Off*	Yes
File	On, Off*	Yes
Always Add Device Signature to Send*1	On*, Off	Yes
Restrict File Formats	On, Off*	Yes

Item	Setting Description	Device Information Delivery Available
E-mail/Ifax Settings		
Register Unit Name	24 characters maximum	No
Communication Settings		
SMTP RX	On, Off*	Yes
POP	On* Off	Yes
SMTP Server	Server name or IP Address (48 characters maximum)	No
E-mail Address	64 characters maximum	No
POP Server	Server name or IP Address (48 characters maximum)	No
POP Address	64 characters maximum	No
POP Password	32 characters maximum	No
POP Interval	0* to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)	No
POP AUTH Method	Standard*/APOP/POP AUTH	Yes
POP Authentication before Sending	On, Off*	No
SMTP Authentication (SMTP AUTH)	On, Off*	No
User	User name for SMTP authentication (64 characters maximum)	No
Password	Password for SMTP authentication (32 characters maximum)	No
Allow SSL (POP)	On, Off*	No
Allow SSL (SMTP Send)	On, Off*	No
Display Auth. Screen When Send	On, Off*	No
Allow SSL (SMTP Receive)	Always SSL,On, Off*	No
Maximum Data Size for Sending	0=(Off)/1 to 99 MB (3MB*)	Yes
Default Subject	40 characters maximum (Attached Image*)	Yes
Use SMTP Authentication for Each User	On*, Off	No
Specify Authentication User Dest. to Reply	On, Off*	No
Set Authorized User Destination to Sender	On*, Off	No
Allow Sending to Unregistered Destinations	On, Off*	Yes
Full Mode TX Timeout	1 to 99 hours (24hours*)	Yes
Print MDN/DSN upon Receipt	On, Off*	Yes
Use Send via Server	On, Off*	Yes
Allow MDN Not via Server	On*, Off	Yes
Restrict TX Destination Domain		
Restrict Sending to Domains	On, Off*	Yes
Permitted Domains	Register, Details/Edit, Delete	No
Fax Settings*1		
Default Screen	Standard*, Address Book	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Density*, Unassigned	No
Shortcut 2	Original Type*, Unassigned	No
Shortcut 3	2-Sided Original*, Unassigned	No
Shortcut 4	Different Size Originals*, Unassigned	No
Register Sender Name (TTI)	01 to 99: Register/Edit, Delete	No
ECM TX	On*, Off	Yes

Item	Setting Description	Device Information Delivery Available
Set Pause Time	1 to 15 seconds (2 seconds*)	Yes
Auto Redial	On*, Off	Yes
Redial Times	1 to 10 times (2 times*)	Yes
Redial Interval	2 to 99 minutes (2 minutes*)	Yes
Redial When TX Error	Error and 1st page*, All pages, Off	Yes
Check Dial Tone Before Sending	On*, Off	Yes
Fax TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Fax Activity Report		
Auto Print (40 Transmissions)	On*, Off	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00: 00 to 23: 59 (00: 00*)	Yes
Send/Receive Separate	On, Off*	Yes
Set Line		
Register Unit Telephone Number	20 digits maximum	No
Register Unit Name	24 characters maximum	No
Select Line Type	Pulse, Tone*	No
Line	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 2	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 2, Line 3, Line 4	No
Select TX Line	If the Super G3 FAX Board is installed: • Line 1: Priority TX*, Prohibit TX	No
	If the Super G3 FAX Board and Super G3 2nd Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX	No
	If the Super G3 FAX Board, Super G3 2nd Line Fax Board, and Super G3 3rd/4th Line Fax Board are installed: • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX • Line 3: Priority TX, Prohibit TX • Line 4: Priority TX, Prohibit TX	No
TX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
PIN Code Access	On, Off*	Yes
Confirm Entered Fax Number	On, Off*	Yes
Allow Fax Driver TX	On*, Off	Yes
Remote Fax TX Settings		
Remote Fax Server Address	Host name or the IP address (48 characters maximum)	No
TX Timeout	1 to 99 hours (24 hours*)	Yes
No. of Sending Lines	1 to 4 lines (1*)	No
Select Priority Line	Auto*, Line 1, Line 2[*6], Line 3[*6], Line 4[*6]	No
Remote Fax Settings		
Use Remote Fax	On*, Off	Yes

T-10-16

■ Receive/Forward

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*7 Indicates item that is not delivered as device information.

Receive Type, Details/Edit, Delete, Print List, E-Mail Priority

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Print List	No
Fax User Data List*1	Print List	No
Common Settings		
Print on Both Side	On, Off*	Yes
Select Drawer		
Switch A	On*, Off	Yes
Switch B	On*, Off	Yes
Switch C	On*, Off	Yes
Switch D	On*, Off	Yes
Reduce Fax RX Size	On*, Off	Yes
	On • Reduction Mode: Auto • Reduction %: 90% • Reduction Direction: Vertical Only	Yes
2 On 1 Log	On, Off*	Yes
Received Page Footer	Print, Do Not Print*	Yes
Handle Files with Forwarding Errors	Always Print*, Store/Print, Off	Yes
Forwarding Settings	Type, Validate/Invalidate, Register (Registered Forwarding Settings), Forward w/o Conditions, E-Mail Priority, Details/Edit, Delete, Print List	Yes*7
Set Fax/I-Fax Inbox		
Set/Register Confidential Fax Inboxes		
Inbox No.	00 to 49	Yes
Register Box Name:	24 characters maximum	Yes
PIN	Seven digits maximum	Yes
URL Send Settings	-	Yes
Initialize	-	No
Memory RX Inbox PIN	Seven digit number	No
Use Fax Memory Lock*1	On, Off*	Yes
Use I-Fax Memory Lock	On, Off*	Yes
Memory Lock Start Time	Everyday, Select Days, Off*	Yes
Memory Lock End Time	Everyday, Select Days, Off*	Yes
Divided Data RX Timeout	0 to 99 hours (24hours*)	Yes
Always Send Notice for RX Errors	*On, Off	Yes
Fax Settings*1		
ECM RX	On*, Off	Yes
Fax RX Report	For Error Only, On, Off*	Yes
Confidential Fax Inbox RX Report	On*, Off	Yes
RX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
RX Password	20 digits maximum	No

■ Store/Access Files

* Default Setting

Item	Setting Description	Device Information Delivery Available
Common Settings		
Scan and Store Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Photo Printout Mode	On, Off*	Yes
Change Default Settings	Register, Initialize	No
Access Stored Files Settings		
Register/Edit Favorite Settings	Register, Rename, Delete (Up to 9 Set Keys), Check Content	No
Change Default Settings	Register, Initialize	No
Mail Box Settings		
Set/Register Mail Boxes		
Mail Box No.	00 to 99	No
Register Box Name	24 characters maximum	Yes
PIN	Seven digits	Yes
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
URL Send Settings	-	Yes
Print upon Storing from Printer Driver	On, Off*	Yes
Initialize	-	No
Settings for All Mail Boxes		
Time Until File Auto Delete	0 (Off), 1, 2, 3, 6, 12 hours, 1, 2, 3*, 7, 30 days	No
Print When Storing from Printer Driver	On, Off*	No
Advanced Box Settings		
Open to Public	By SMB, By WebDAV, Off*	Yes
WebDAV Server Settings		
Authentication Type	Basic, Off*	Yes
Use SSL	On*, Off	Yes
Allow to Create Personal Space	On*, Off	Yes
Delete All Personal Spaces	Delete	No
Initialize Shared Space	Initialize	No
Prohibit Writing from External	On*, Off	Yes
Authentication Management	On, Off*	Yes
File Formats Allowed for Storing	Printable Formats Only*, Common Office Formats, All	Yes
Network Settings		
Network Place Settings	Register, Details, Delete	No
Protocol for External Reference		
SMB	On*, Off	No
WebDAV	On*, Off	No

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Encrypted Secure Print

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Only Allow Encrypted Print Jobs*1	On, Off*	Yes

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Set Destination

Set Destination

* Default Setting

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item		Setting Description	Device Information Delivery Available
Address List		Address List 1 to 10, One-touch	No
		Print List: Print	No
Register Destinations		Register New Dest., Details/Edit, Delete, Search by Name	Yes
Rename Address List		Rename	Yes
Register One-Touch		Register/Edit, Delete	Yes
Change Default Display of Address Book		Local*, LDAP Server, Remote	No
Address Book PIN		Seven digit number	Yes
Manage Address Book Access Numbers		On, Off*	Yes
Register LDAP Server		Register, Details/Edit, Delete, Register/Edit LDAP Search, Print List	No
Auto Search When Using LDAP Server		On* Off	Yes
Acquire Remote Address Book			
	Acquire Address Book	On*, Off	Yes
	Remote Address Book Server Address	IP Address or Host Name (128 characters maximum)	No
	Communication Timeout	15 to 120 seconds (30 seconds*)	Yes
	Fax TX Line Auto Select Adjustment	On*, Off	Yes
Make Remote Address Book Open			
	Make Address Book Open	On, Off*	Yes

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Management Settings

User Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item			Setting Description	Device Information Delivery Available
System Manager Information Settings				
	System Manager ID		Seven digit number maximum (7654321*)	Yes
	System PIN		Seven digit number maximum (7654321*)	Yes
	System Manager		32 characters maximum	Yes
	E-Mail Address		64 characters maximum	Yes
	Contact Information		32 characters maximum	Yes
	Comment		32 characters maximum	Yes
Department ID Management				
	Department ID Management		On, Off*	Yes
	Register PIN		Register, Edit, Delete, Limit Functions	Yes
	Page Totals		Clear, Print List, Clear All Totals, Large2 Count Management	No
	Allow Printer Jobs with Unknown IDs		On*, Off	Yes
	Allow Remote Scan Jobs With Unknown IDs		On*, Off	Yes

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Device Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item			Setting Description	Device Information Delivery Available
Device Information Settings				
	Device Name		32 characters maximum	No
	Location		32 characters maximum	No
Device Information Delivery Settings				
	Register Destinations		Auto Search/Register, Register, Details, Delete, Print List	No
			Auto Search/Register • List • Search Depth (Router): 1 to 8 • Display Host Name: On, Off • Start Auto Search	No
	Set Auto Settings		Everyday, Specify Days, Off*	No
		Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
		Dept. ID	On, Off*	No
		Address Book	On, Off*	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On, Off*	No
		Paper Information	On, Off*	No

Item			Setting Description	Device Information Delivery Available
	Manual Delivery			
		Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
		Dept. ID	On, Off*	No
		Address Book	On, Off*	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On, Off*	No
		Paper Information	On, Off*	No
	Restrictions Receiving Device Information		On*, Off	No
	Restore Data		Settings/Registration Value, Dept. ID, Address Book, Web Access Favorites, Printer Settings, Paper Information	No
	Restrict Restriction for Each Function			
		Settings/Registration Value	On*, Off	No
		Dept. ID	On*, Off	No
		Address Book	On*, Off	No
		Web Access Favorites	On, Off*	No
		Printer Settings	On*, Off	No
		Paper Information	On*, Off	No
	Set Paper Information		All, Basic Only*	No
	Communication Log		Details, Print List, Report Settings	No
			Report Settings • Auto Print (100 transmissions): On*, Off	No
			• Specify Print Time: On, Off*	No
			-00: 00* to 23:59	No
			• Separate Report Type: On, Off*	No
Limited Functions Mode[*1]			On, Off*	No
Confirm Device Signature Certificate			Certificate Details: Certificate	No
Confirm User Signature Certificate			Certificate Details: Certificate	No
Certificate Settings				
	Certificate Settings: Generate Key: Generate Network Communication Key			
		Key Name	24 characters maximum	No
		Key Algorithm	RSA, Display only	No
		Key Length (bit)	512*, 1024	No
		Start Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
		End Date of Validity	Month, Date, Year (2000/01/01~2048/12/31)	No
		Country/Region	Country/Region name and code (2 characters maximum) (US*)	No
		State	24 characters maximum	No
		City	24 characters maximum	No
		Organization	24 characters maximum	No
		Organization Unit	24 characters maximum	No
		Common Name	IP address or FQDN (24 characters maximum)	No
	Certificate Settings:Generate Key			
		Generate/Update Device Signature Key[*1]	-	No

Item	Setting Description	Device Information Delivery Available
Certificate Settings: Key and Certificate List: Key and Certificate List for this Machine Editing Key Pairs and Server Certificates Confirming a Key Pair and Device Certificate		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Display Use Location	Displays what the key pair is being used for	No
Certificate Settings: Key and Certificate List: Key and Certificate List for Users*		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint(SHA1)/Certificate	No
Delete	-	No
Certificate Settings: CA Certificate List		
Certificate Details	Version/Serial Number/Signature Algorithm/Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Cert. Thumbprint/Certificate	No
Delete	-	No
Certificate Settings: Register Key and Certificate		
Register	Key Name (24 characters maximum) Password (24 characters maximum)	No
Delete	-	No
Certificate Settings: Register CA Certificate		
Register	-	No
Delete	-	No
Display Status Before Authentication	On*, Off	No
Display Log	On*, Off	No
	Off • Obtain Job Log From Management Software: Permit, Do Not Allow*	No

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License/Other

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item	Setting Description	Device Information Delivery Available
Register License	24 characters maximum	No
MEAP Settings		
Print System Information	Print	No
SSL Settings	On • Use SSL:On, Off*	No
Remote UI	On*, Off	Yes
	On • Use SSL:On, Off*	No
Use Reference Print	On, Off*	Yes
Delete Message Board Contents	Clear	No

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■ Data Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

Item		Setting Description	Device Information Delivery Available
HDD Data Complete Deletion*			
	Timing of Deletion	During Job*, After Job	No
	Overwrite Method for Deletion Mode	0 (Null) Data 1 Time*, Random Data 1 Time, Random Data 3 Times, DOD Standard	No
Initialize All Data/Settings		Initialize	No
TPM Settings		Use TPM: On, Off*	No
		Backup TPM Key, Restore TPM Key	No

T-10-24

Using SST

Data to be handled by SST

Data to operate this machine is largely divided into 2 categories.

System software	Common data among the same model
Data in SRAM and HDD on the boards	Factory settings value for the target machine and the values in Address Book and Settings/Registration, etc. entered by the user.

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Upgrading and installation is used as the terms to handle the system software.
Backup and restoration is used as the terms to handle data in SRAM and HDD on the boards.



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Use the latest backup data as much as possible although the system software is overwritten to the version provided for the target model because the data in SRAM and HDD on the boards can be changed depending on how the machine is used.

Handling SRAM data of this machine

The following 4 methods are available to backup and restore SRAM data on the boards. See next Table to check the appropriate method for each board.

a) Data is automatically updated from the backup data in the HDD when starting the machine after replacing the board.
b) Before replacing the board, make a backup data in the HDD in service mode, and then restore the data in service mode after replacing the board.
c) Before replacing the board, save the SRAM data in the PC, and then restore the data using SST or USB memory device after replacement.
d) Before replacing the board, make a backup data in the PC from RUI, and restore the data after replacement.

Part to be replaced	Description	Procedure	When a HDD Encryption Board is installed	When TPM is enabled (ON)
Main Controller 2	The following information is stored in SRAM of Main Controller 2: SST is used to make a backup SRAM data. SST is used to save Sraming.bin and MeapBack.bin into a PC. When there is no Sraming.bin while the user made a backup data from RUI, restore the data after recovery. For MEAP-related data, explain to the user that the data needs to be reinstalled. Backup(MeapBack.bin) is also available using SST or USB memory device.	Use SST or a USB memory device to save Sraming.bin and MeapBack.bin. Replace Main Controller 2. Restore Sraming.bin and MeapBack.bin that have been saved.	Hold down 2 and 8 to start the machine. Use SST or a USB memory device to restore Sraming.bin and MeapBack.bin in Main Controller 2.	No additional work.
New HDD	Install the system software on the new HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery. Explain the user that the reinstallation of everything related to MEAP is necessary. For MEAP-related data, explain to the user that the data needs to be reinstalled. Backup(MeapBack.bin) is also available using SST or USB memory device.	Use SST or a USB memory device to save MeapBack.bin. Use SST to format the HDD. Hold down 2 and 8 to start the machine, and then use SST to install the system software. Restore MeapBack.bin that have been saved.	Hold down 2 and 8 to start the machine, and then use SST or a USB memory device to clear the encryption key of the HDD Encryption Board. Use SST or a USB memory device to install the system.	After the system is properly installed, enable TPM to execute a backup of TPM.
System installation when the HDD is properly working.	To upgrade the system version, the Assist Mode of SST is recommended. Depending on the situation, upgrading of an individual module is available in single mode.	Enter service mode and select the following: COPIER > FUNCTION > SYSTEM > DOWNLOAD > OK Use SST to install the system software in Assist mode.	Hold down 2 and 8 to start the machine, and then use SST or a USB memory device to clear the encryption key of HDD Encryption Board. Use SST or a USB memory device to install the system.	No additional work.

Backup of Reader Controller PCB	Enter service mode to make a backup of SRAM data into the HDD.	Select the following to execute system backup: COPIER > FUNCTION > SYSTEM RSRAMBUP Replace the Reader Controller PCB Select the following to restore the system: COPIER > FUNCTION > SYSTEM RSRAMRES	Normal operation.	No additional work.
Backup of DC Controller PCB	Enter service mode to make a backup of SRAM data into the HDD.	Select the following to execute system backup: COPIER > FUNCTION > SYSTEM DSRAMBUP Replace the DC Controller PCB Select the following to restore the system: COPIER > FUNCTION > SYSTEM DSRAMRES	Normal operation.	No additional work.
HDD Encryption Board	An encryption key of the HDD Encryption Board is newly made. Install the system software on the HDD after formatting it by SST. If there are any files backed up from RUI by the user, restore them after recovery.	Hold down 2 and 8 to start the machine, and then use SST or a USB memory device to clear the encryption key of HDD Encryption Board. Use SST or a USB memory device to install the system.	Follow the description on the left.	After the system is properly installed, enable TPM to execute a backup of TPM.
TPM Board	When there is a backup of TPM, restore TPM. When there is no backup of TPM, select the following: Settings/Registration > Management Settings	Restore TPM when there is a backup of TPM. When there is no backup of TMP, use RUI to make a backup, and then select the following to restore from RUI: Settings/Registration > Management Settings > Data Management > Initialize All Data/ Settings; enable TPM to make a backup.	Follow the description on the left.	Follow the description on the left.

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Items which needs to be backed up by the user when replacing the HDD

The table below shows the items whose settings can be saved. Ask the user to save them before replacing the HDD and the Main Controller PCB 2.

	User	Service
Address Lists	Remote UI(Import/Export)	None
Settings/Registration > Paper Type Management Settings	Remote UI(Import/Export)	None
Advanced Box Settings	Remote UI(Back Up/Restore Settings)	None
Web Access Favorites	Remote UI(Import/Export)	None

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Items with no backup method when replacing the HDD

Regarding the items in the table below, there is no method for the user to back them up. Ask the user to make settings again. Part of the items can be recovered from Meapbac.bin.

	User	Service
Certificate Settings	None	None
Document of non-transmission	None	None
Settings/Registration : Management Settings : Device Management > Display Log	None	None
Settings/Registration : Management Settings : Device Management > Key and Certificate Settings	None	None
PS font	None	None

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Using SST enables the following:

SST has the following functions that are necessary for service work:

1. To download system software
2. To copy the system software into a USB memory device.
3. To backup and restore information of SRAM and MEAP in Main Controller 2.
4. To format HDD
5. To collect device log
6. To clear the encryption key of HDD Encryption Board

Upgrading using a USB memory device

Using a USB memory device, the following functions are available to upgrade the system:

1. To download system software
2. To clear download file
3. To format HDD
4. To collect device log

Detail of HDD partition

Partition name	CHK-TYPE	Description	HDD Format
FSTDEV	1	Image data storage area	enable
IMG-MNG		Management data of image	
FSTCDEV		Image data storage area (for Chasing)	
THUMDEV		Thumbnail	
APL_GEN	11	Storage area of universal data (Note: For details, see the following.)	enable
TMP_GEN	2	Storage area of universal data (temporary file)	enable
TMP_FAX		FAX (temporary file)	
TMP_PSS		PSS (temporary file)	
PDLDEV	3	PDL-related file storage area (font, registration form, color correction information file for ICCProfile-PDL function)	Enabled
BOOTDEV	4	Firmware storage area (Bootable/MEAP/key/certificate/PDF dictionary/RUI contents/voice dictionary (ICC profile. PS test data.))	Disabled
APL_MEAP	5	MEAP	Enabled
APL_SEND	6	Address book, Setting for Forwarding	Disabled
APL_KEEP	7	MEAP stored data	Disabled
APL_LOG	8	System log storage area	Enabled
CRBDEV	9	Advanced Box area	Enabled
APL_CDS	10	Area for distribution server	Enabled

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APL_GEN Details of universal data

Category	Data
Settings / Registration	Preferences
	Adjustment/Maintenance
	Function Settings
	Set Destination
	Management Settings
	Printer Settings
	Paper Information Settings
Setting items for each menu in Main Menu	Favorite Settings
	Default Settings
	Shortcut settings for “Options”
	Previous Settings

Category	Data
Setting for Advance Box	User information of Advanced Box
	Registration information of Network Place
Setting for Web Access	Web Access Setting information
Setting for Universal Data	Unsent document (which is set timer transmission or reservation transmission)
	Job log information
	Key and server certificate which are registered in Management Settings>Device Settings>Certificate Setting
	Auto Adjust Gradation setting values
	PS font

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Soft Counter List

Soft counter specifications

000 to 099: Remote copy
100 to 199: Total
200 to 299: Copy
300 to 399: Print
400 to 499: Copy and print
500 to 599: Scan
600 to 699: Box
700 to 799: Reception print
800 to 899: Report print
900 to 999: Transmission

- Explanation of symbols shown in the table -

- yes: Valid counter for this machine
- 4C: Full color
- Mono: Mono color (Y, M, C / R, G, B / retro monochrome)
- Bk: Single black color
- L: Large size (larger than B4 size)
- S: Small size (smaller than B4 size)
- Numbers 1, 2 indicated under "Counter Details": Number of counts for large size paper
- It can be changed by the service mode (COPIER > OPTION > USER > B4_L_CNT) so that the paper larger than B4 size can be counted as large size paper.
- Copy: Local copy + remote copy
- Copy A: Local copy + remote copy + box print
- Print: PDL print + report print + box print
- Print A: PDL print + report print
- Scan: Black and white scan + color scan

Soft Counter List

000 to 099

Valid or invalid	Number	Counter Details
no	002	Remote copy (full color 1)
no	003	Remote copy (full color 2)
no	004	Remote copy (mono color 1)
no	005	Remote copy (mono color 2)
yes	006	Remote copy (black and white 1)
yes	007	Remote copy (black and white 2)
no	008	Remote copy (full color / large)
no	009	Remote copy (full color / small)
no	010	Remote copy (mono color / large)
no	011	Remote copy (mono color / small)
yes	012	Remote copy (black and white / large)
yes	013	Remote copy (black and white / small)
no	014	Remote copy (full color + mono color / large)
no	015	Remote copy (full color + mono color / small)
no	016	Remote copy (full color + mono color 2)
no	017	Remote copy (full color + mono color 1)
no	018	Remote copy (full color / large / double sided)
no	019	Remote copy (full color / small / double sided)
no	020	Remote copy (mono color / large / double sided)
no	021	Remote copy (mono color / small / double sided)
yes	022	Remote copy (black and white / large / double sided)
yes	023	Remote copy (black and white / small / double sided)
no	071	Toner bottle black
no	072	Toner bottle yellow
no	073	Toner bottle magenta
no	074	Toner bottle cyan
no	075	Toner bottle clear
no	081	Toner bottle + Halfway replacement black
no	082	Toner bottle + Halfway replacement yellow
no	083	Toner bottle + Halfway replacement magenta
no	084	Toner bottle + Halfway replacement cyan
no	091	1/10 Toner bottle black

Valid or invalid	Number	Counter Details
no	092	1/10 Toner bottle yellow
no	093	1/10 Toner bottle magenta
no	094	1/10 Toner bottle cyan
no	095	1/10 Toner bottle clear

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100 to 199

Valid or invalid	Number	Counter Details
yes	101	Total 1
yes	102	Total 2
yes	103	Total (large)
yes	104	Total (small)
no	105	Total (full color 1)
no	106	Total (full color 2)
yes	108	Total (black and white 1)
yes	109	Total (black and white 2)
no	110	Total (mono color / large)
no	111	Total (mono color / small)
yes	112	Total (black and white / large)
yes	113	Total (black and white / small)
yes	114	Total 1 (double sided)
yes	115	Total 2 (double sided)
yes	116	large (double sided)
yes	117	small (double sided)
no	118	Total (mono color 1)
no	119	Total (mono color 2)
no	120	Total (full color / large)
no	121	Total (full color / small)
no	122	Total (full color + mono color / large)
no	123	Total (full color + mono color / small)
no	124	Total (full color + mono color 2)
no	125	Total (full color + mono color 1)
yes	126	Total A1
yes	127	Total A2
yes	128	Total A (large)
yes	129	Total A (small)
no	130	Total A (full color 1)
no	131	Total A (full color 2)
yes	132	Total A (black and white 1)
yes	133	Total A (black and white 2)
no	134	Total A (mono color / large)
no	135	Total A (mono color / small)
yes	136	Total A (black and white / large)
yes	137	Total A (black and white / small)
yes	138	Total A 1 (double sided)
yes	139	Total A 2 (double sided)
yes	140	large A (double sided)
yes	141	small A (double sided)
no	142	Total A (mono color 1)
no	143	Total A (mono color 2)
no	144	Total A (full color / large)
no	145	Total A (full color / small)
no	146	Total A (full color + mono color / large)
no	147	Total A (full color + mono color / small)
no	148	Total A (full color + mono color 2)
no	149	Total A (full color + mono color 1)
yes	150	Total B1
yes	151	Total B2
yes	152	Total B (large)
yes	153	Total B (small)
no	154	Total B (full color 1)
no	155	Total B (full color 2)
yes	156	Total B (black and white 1)
yes	157	Total B (black and white 2)
no	158	Total B (mono color / large)
no	159	Total B (mono color / small)
yes	160	Total B (black and white / large)
yes	161	Total B (black and white / small)
yes	162	Total B1 (double sided)
yes	163	Total B2 (double sided)
yes	164	large B (double sided)

Valid or invalid	Number	Counter Details
yes	165	small B (double sided)
no	166	Total B (mono color 1)
no	167	Total B (mono color 2)
no	168	Total B (full color / large)
no	169	Total B (full color / small)
no	170	Total B (full color + mono color / large)
no	171	Total B (full color + mono color / small)
no	172	Total B (full color + mono color 2)
no	173	Total B (full color + mono color 1)
no	191	Toner replacement / yellow
no	192	Toner replacement / magenta
no	193	Toner replacement / cyan
no	194	Toner replacement / black
no	195	Toner replacement / clear
no	196	Toner replacement / expansion

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200 to 299

Valid or invalid	Number	Counter Details
yes	201	Copy (Total 1)
yes	202	Copy (Total 2)
yes	203	Copy (large)
yes	204	Copy (small)
yes	205	Copy A (Total 1)
yes	206	Copy A (Total 2)
yes	207	Copy A (large)
yes	208	Copy A (small)
yes	209	Local copy (Total 1)
yes	210	Local copy (Total 2)
yes	211	Local copy (large)
yes	212	Local copy (small)
yes	213	Remote copy (Total 1)
yes	214	Remote copy (Total 2)
yes	215	Remote copy (large)
yes	216	Remote copy (small)
no	217	Copy (full color 1)
no	218	Copy (full color 2)
no	219	Copy (mono color 1)
no	220	Copy (mono color 2)
yes	221	Copy (black and white 1)
yes	222	Copy (black and white 2)
no	223	Copy (full color / large)
no	224	Copy (full color / small)
no	225	Copy (mono color / large)
no	226	Copy (mono color / small)
yes	227	Copy (black and white / large)
yes	228	Copy (black and white / small)
no	229	Copy (full color + mono color / large)
no	230	Copy (full color + mono color / small)
no	231	Copy (full color + mono color / 2)
no	232	Copy (full color + mono color / 1)
no	233	Copy (full color / large / double sided)
no	234	Copy (full color / small / double sided)
no	235	Copy (mono color / large / double sided)
no	236	Copy (mono color / small / double sided)
yes	237	Copy (black and white / large / double sided)
yes	238	Copy (black and white / small / double sided)
no	245	Copy A (full color 1)
no	246	Copy A (full color 2)
no	247	Copy A (mono color 1)
no	248	Copy A (mono color 2)
yes	249	Copy A (black and white 1)
yes	250	Copy A (black and white 2)
no	251	Copy A (full color / large)
no	252	Copy A (full color / small)
no	253	Copy A (mono color / large)
no	254	Copy A (mono color / small)
yes	255	Copy A (black and white / large)
yes	256	Copy A (black and white / small)
no	257	Copy A (full color +mono color / large)
no	258	Copy A (full color +mono color / small)

Valid or invalid	Number	Counter Details
no	259	Copy A (full color +mono color 2)
no	260	Copy A (full color +mono color 1)
no	261	Copy A (full color / large / double sided)
no	262	Copy A (full color / small / double sided)
no	263	Copy A (mono color / large / double sided)
no	264	Copy A (mono color / small / double sided)
yes	265	Copy A (black and white / large / double sided)
yes	266	Copy A (black and white / small / double sided)
no	273	Local copy (full color 1)
no	274	Local copy (full color 2)
no	275	Local copy (mono color 1)
no	276	Local copy (mono color 2)
yes	277	Local copy (black and white 1)
yes	278	Local copy (black and white 2)
no	279	Local copy (full color / large)
no	280	Local copy (full color / small)
no	281	Local copy (mono color / large)
no	282	Local copy (mono color / small)
yes	283	Local copy (black and white / large)
yes	284	Local copy (black and white / small)
no	285	Local copy (full color + mono color / large)
no	286	Local copy (full color + mono color / small)
no	287	Local copy (full color + mono color 2)
no	288	Local copy (full color + mono color 1)
no	289	Local copy (full color / large / double sided)
no	290	Local copy (full color / small / double sided)
no	291	Local copy (mono color / large / double sided)
no	292	Local copy (mono color / small / double sided)
yes	293	Local copy (black and white / large / double sided)
yes	294	Local copy (black and white / small / double sided)

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300 to 399

Valid or invalid	Number	Counter Details
yes	301	Print (Total 1)
yes	302	Print (Total 2)
yes	303	Print (large)
yes	304	Print (small)
yes	305	Print A (Total 1)
yes	306	Print A (Total 2)
yes	307	Print A (large)
yes	308	Print A (small)
no	309	Print (full color 1)
no	310	Print (full color 2)
no	311	Print (mono color 1)
no	312	Print (mono color 2)
yes	313	Print (black and white 1)
yes	314	Print (black and white 2)
no	315	Print (full color / large)
no	316	Print (full color / small)
no	317	Print (mono color / large)
no	318	Print (mono color / small)
yes	319	Print (black and white / large)
yes	320	Print (black and white / small)
no	321	Print (full color +mono color / large)
no	322	Print (full color +mono color / small)
no	323	Print (full color +mono color / 2)
no	324	Print (full color +mono color / 1)
no	325	Print (full color / large / double sided)
no	326	Print (full color / small / double sided)
no	327	Print (mono color / large / double sided)
no	328	Print (mono color / small / double sided)
yes	329	Print (black and white / large / double sided)
yes	330	Print (black and white / small / double sided)
yes	331	PDLPrint (Total 1)
yes	332	PDLPrint (Total 2)
yes	333	PDLPrint (large)
yes	334	PDLPrint (small)

Valid or invalid	Number	Counter Details
no	335	PDLPrint (full color 1)
no	336	PDLPrint (full color 2)
yes	339	PDLPrint (black and white 1)
yes	340	PDLPrint (black and white 2)
no	341	PDLPrint (full color / large)
no	342	PDLPrint (full color / small)
yes	345	PDLPrint (black and white / large)
yes	346	PDLPrint (black and white / small)
no	351	PDLPrint (full color / large / double sided)
no	352	PDLPrint (full color / small / double sided)
yes	355	PDLPrint (black and white / large / double sided)
yes	356	PDLPrint (black and white / small / double sided)

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400 to 499

Valid or invalid	Number	Counter Details
no	401	Copy + print (full color / large)
no	402	Copy + print (full color / small)
yes	403	Copy + print (black and white / large)
yes	404	Copy + print (black and white / small)
yes	405	Copy + print (black and white 2)
yes	406	Copy + print (black and white 1)
no	407	Copy + print (full color + mono color / large)
no	408	Copy + print (full color + mono color / small)
no	409	Copy + print (full color + mono color / 2)
no	410	Copy + print (full color + mono color / 1)
yes	411	Copy + print (large)
yes	412	Copy + print (small)
yes	413	Copy + print (2)
yes	414	Copy + print (1)
no	415	Copy + print (mono color / large)
no	416	Copy + print (mono color / small)
no	417	Copy + print (full color / large / double sided)
no	418	Copy + print (full color / small / double sided)
no	419	Copy + print (mono color / large / double sided)
no	420	Copy + print (mono color / small / double sided)
yes	421	Copy + print (black and white / large / double sided)
yes	422	Copy + print (black and white / small / double sided)
no	431	Clear mixed + mono-clear (total 1)
no	432	Clear mixed + mono-clear (total 2)
no	433	Clear mixed + mono-clear (full-page 1)
no	434	Clear mixed + mono-clear (full-page 2)
no	435	Clear mixed + mono-clear (partial 1)
no	436	Clear mixed + mono-clear (partial 2)
no	437	Clear mixed + mono-clear (full-page / large)
no	438	Clear mixed + mono-clear (full-page / small)
no	439	Clear mixed + mono-clear (partial / large)
no	440	Clear mixed + mono-clear (partial / small)
no	441	Clear mixed (total 1)
no	442	Clear mixed (total 2)
no	443	Clear mixed (full-page 1)
no	444	Clear mixed (full-page 2)
no	445	Clear mixed (partial 1)
no	446	Clear mixed (partial 2)
no	447	Clear mixed (full-page / large)
no	448	Clear mixed (full-page / small)
no	449	Clear mixed (partial / large)
no	450	Clear mixed (partial / small)
no	451	Mono-clear (total 1)
no	452	Mono-clear (total 2)
no	453	Mono-clear (full-page 1)
no	454	Mono-clear (full-page 2)
no	455	Mono-clear (partial 1)
no	456	Mono-clear (partial 2)
no	457	Mono-clear (full-page / large)
no	458	Mono-clear (full-page / small)
no	459	Mono-clear (partial / large)
no	460	Mono-clear (partial / small)

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500 to 599

Valid or invalid	Number	Counter Details
yes	501	Scan (Total 1)
yes	502	Scan (Total 2)
yes	503	Scan (large)
yes	504	Scan (small)
yes	505	Black and white Scan (Total 1)
yes	506	Black and white Scan (Total 2)
yes	507	Black and white Scan (large)
yes	508	Black and white Scan (small)
yes	509	Color scan (Total 1)
yes	510	Color scan (Total 2)
yes	511	Color scan (large)
yes	512	Color scan (small)

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600 to 699

Valid or invalid	Number	Counter Details
yes	601	Box print (Total 1)
yes	602	Box print (Total 2)
yes	603	Box print (large)
yes	604	Box print (small)
no	605	Box print (full color 1)
no	606	Box print (full color 2)
no	607	Box print (mono color 1)
no	608	Box print (mono color 2)
yes	609	Box print (black and white 1)
yes	610	Box print (black and white 2)
no	611	Box print (full color / large)
no	612	Box print (full color / small)
no	613	Box print (mono color / large)
no	614	Box print (mono color / small)
yes	615	Box print (black and white / large)
yes	616	Box print (black and white / small)
no	617	Box print (full color + mono color / large)
no	618	Box print (full color + mono color / small)
no	619	Box print (full color + mono color 2)
no	620	Box print (full color + mono color 1)
no	621	Box print (full color / large / double sided)
no	622	Box print (full color / small / double sided)
no	623	Box print (mono color / large / double sided)
no	624	Box print (mono color / small / double sided)
yes	625	Box print (black and white / large / double sided)
yes	626	Box print (black and white / small / double sided)
yes	631	Memory media print (Total 1)
yes	632	Memory media print (Total 2)
yes	633	Memory media print (large)
yes	634	Memory media print (small)
yes	639	Memory media print (black and white 1)
yes	640	Memory media print (black and white 2)
yes	645	Memory media print (black and white / large)
yes	646	Memory media print (black and white / small)
yes	655	Memory media print (black and white / large / double sided)
yes	656	Memory media print (black and white / small / double sided)

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700 to 799

Valid or invalid	Number	Counter Details
yes	701	Reception print (Total 1)
yes	702	Reception print (Total 2)
yes	703	Reception print (large)
yes	704	Reception print (small)
no	705	Reception print (full color 1)
no	706	Reception print (full color 2)
no	707	Reception print (Gray scale 1)
no	708	Reception print (Gray scale 2)
yes	709	Reception print (black and white 1)
yes	710	Reception print (black and white 2)
no	711	Reception print (full color / large)
no	712	Reception print (full color / small)
no	713	Reception print (Gray scale / large)
no	714	Reception print (Gray scale / small)

Valid or invalid	Number	Counter Details
yes	715	Reception print (black and white / large)
yes	716	Reception print (black and white / small)
no	717	Reception print (full color + Gray scale / large)
no	718	Reception print (full color + Gray scale / small)
no	719	Reception print (full color + Gray scale 2)
no	720	Reception print (full color + Gray scale 1)
no	721	Reception print (full color / large / double sided)
no	722	Reception print (full color / small / double sided)
no	723	Reception print (Gray scale / large / double sided)
no	724	Reception print (Gray scale / small / double sided)
yes	725	Reception print (black and white / large / double sided)
yes	726	Reception print (black and white / small / double sided)
yes	727	Advance box print (Total 1)
yes	728	Advance box print (Total 2)
yes	729	Advance box print (large)
yes	730	Advance box print (small)
no	731	Advance box print (full color 1)
no	732	Advance box print (full color 2)
yes	733	Advance box print (black and white 1)
yes	734	Advance box print (black and white 2)
no	735	Advance box print (full color / large)
no	736	Advance box print (full color / small)
yes	737	Advance box print (black and white / large)
yes	738	Advance box print (black and white / small)
no	739	Advance box print (full color / large / double sided)
no	740	Advance box print (full color / small / double sided)
yes	741	Advance box print (black and white / large / double sided)
yes	742	Advance box print (black and white / small / double sided)
yes	743	Network print (Total 1)
yes	744	Network print (Total 2)
yes	745	Network print (large)
yes	746	Network print (small)
no	747	Network print (full color 1)
no	748	Network print (full color 2)
yes	749	Network print (black and white 1)
yes	750	Network print (black and white 2)
no	751	Network print (full color / large)
no	752	Network print (full color / small)
yes	753	Network print (black and white / large)
yes	754	Network print (black and white / small)
no	755	Network print (full color / large / double sided)
no	756	Network print (full color / small / double sided)
yes	757	Network print (black and white / large / double sided)
yes	758	Network print (black and white / small / double sided)
yes	759	Mobile print (Total 1)
yes	760	Mobile print (Total 2)
yes	761	Mobile print (large)
yes	762	Mobile print (small)
no	763	Mobile print (full color 1)
no	764	Mobile print (full color 2)
yes	765	Mobile print (black and white 1)
yes	766	Mobile print (black and white 2)
no	767	Mobile print (full color / large)
no	768	Mobile print (full color / small)
yes	769	Mobile print (black and white / large)
yes	770	Mobile print (black and white / small)
no	771	Mobile print (full color / large / double sided)
no	772	Mobile print (full color / small / double sided)
yes	773	Mobile print (black and white / large / double sided)
yes	774	Mobile print (black and white / small / double sided)

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800 to 899

Valid or invalid	Number	Counter Details
yes	801	Report print (Total 1)
yes	802	Report print (Total 2)
yes	803	Report print (large)
yes	804	Report print (small)
no	805	Report print (full color 1)
no	806	Report print (full color 2)
no	807	Report print (Gray scale 1)

Valid or invalid	Number	Counter Details
no	808	Report print (Gray scale 2)
yes	809	Report print (black and white 1)
yes	810	Report print (black and white 2)
no	811	Report print (full color / large)
no	812	Report print (full color / small)
no	813	Report print (Gray scale / large)
no	814	Report print (Gray scale / small)
yes	815	Report print (black and white / large)
yes	816	Report print (black and white / small)
no	817	Report print (full color + Gray scale / large)
no	818	Report print (full color + Gray scale / small)
no	819	Report print (full color + Gray scale 2)
no	820	Report print (full color + Gray scale 1)
no	821	Report print (full color / large / double sided)
no	822	Report print (full color / small / double sided)
no	823	Report print (Gray scale / large / double sided)
no	824	Report print (Gray scale / small / double sided)
yes	825	Report print (black and white / large / double sided)
yes	826	Report print (black and white / small / double sided)

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900 to 999

Valid or invalid	Number	Counter Details
no	901	Copy scan total 1 (color)
no	902	Copy scan total 1 (black and white)
no	903	Copy scan total 2 (color)
no	904	Copy scan total 2 (black and white)
no	905	Copy scan total 3 (color)
no	906	Copy scan total 3 (black and white)
no	907	Copy scan total 4 (color)
no	908	Copy scan total 4 (black and white)
no	909	Local copy scan (color)
no	910	Local copy scan (black and white)
no	911	Remote copy scan (color)
no	912	Remote copy scan (black and white)
no	913	Transmission scan total 1 (color)
no	914	Transmission scan total 1 (black and white)
yes	915	Transmission scan total 2 (color)
yes	916	Transmission scan total 2 (black and white)
yes	917	Transmission scan total 3 (color)
yes	918	Transmission scan total 3 (black and white)
no	919	Transmission scan total 4 (color)
no	920	Transmission scan total 4 (black and white)
yes	921	Transmission scan total 5 (color)
yes	922	Transmission scan total 5 (black and white)
yes	929	Transmission scan total 6 (color)
yes	930	Transmission scan total 6 (black and white)
no	931	Transmission scan total 7 (color)
no	932	Transmission scan total 7 (black and white)
no	933	Transmission scan total 8 (color)
no	934	Transmission scan total 8 (black and white)
no	935	Universal transmission scan total (color)
no	936	Universal transmission scan total (black and white)
yes	937	Box scan (color)
yes	938	Box scan (black and white)
yes	939	Remote scan (color)
yes	940	Remote scan (black and white)
no	941	Transmission scan / Fax (color)
no	942	Transmission scan / Fax (black and white)
no	943	Transmission scan / I Fax (color)
no	944	Transmission scan / I Fax (black and white)
yes	945	Transmission scan / E-mail (color)
yes	946	Transmission scan / E-mail (black and white)
no	947	Transmission scan / FTP (color)
no	948	Transmission scan / FTP (black and white)
no	949	Transmission scan / SMB (color)
no	950	Transmission scan / SMB (black and white)
no	951	Transmission scan / IPX (color)
no	952	Transmission scan / IPX (black and white)
no	953	Transmission scan / Database (color)
no	954	Transmission scan / Database (black and white)

Valid or invalid	Number	Counter Details
no	955	Transmission scan / Local print (color)
no	956	Transmission scan / Local print (black and white)
no	957	Transmission scan / Box (color)
no	958	Transmission scan / Box (black and white)
yes	959	Media scan (color)
yes	960	Media scan (black and white)
yes	961	Application scan (Total 1)
yes	962	Application black and white scan (Total 1)
yes	963	Application color scan (Total 1)
yes	964	Super Box Local scan (color)
yes	965	Super Box Local scan (black and white)

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