# КУОСЕКА

# FS-C2026MFP FS-C2126MFP



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### CAUTION

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

It may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for proper disposal.

# ATTENTION

IL Y A UN RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACEE PAR UN MODELE DE TYPE INCORRECT. METTRE AU REBUT LES BATTERIES UTILISEES SELON LES INSTRUCTIONS DONNEES.

Il peut être illégal de jeter les batteries dans des eaux d'égout municipales. Vérifiez avec les fonctionnaires municipaux de votre région pour les détails concernant des déchets solides et une mise au rebut appropriée.

# **Revision history**

Revision	Date	Replaced pages	Remarks
1	July 7, 2010	1-1-1, 1-1-2, 1-1-4, 1-3-1, 1-3-4, 1-3-18, 1-3-55, 1-3-59 to 1-3-63	-

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# **Safety precautions**

This booklet provides safety warnings and precautions for our service personnel to ensure the safety of their customers, their machines as well as themselves during maintenance activities. Service personnel are advised to read this booklet carefully to familiarize themselves with the warnings and precautions described here before engaging in maintenance activities.

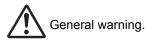
### Safety warnings and precautions

Various symbols are used to protect our service personnel and customers from physical danger and to prevent damage to their property. These symbols are described below:

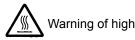
- ADANGER: High risk of serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.
- A WARNING: Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.
- ACAUTION: Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

#### Symbols

The triangle (  $\triangle$  ) symbol indicates a warning including danger and caution. The specific point of attention is shown inside the symbol.



Warning of risk of electric shock.



Warning of high temperature.

⊘ indicates a prohibited action. The specific prohibition is shown inside the symbol.



General prohibited action.



Disassembly prohibited.

indicates that action is required. The specific action required is shown inside the symbol.



General action required.



Remove the power plug from the wall outlet.



Always ground the copier.

## 1. Installation Precautions

### **WARNING**

- Do not use a power supply with a voltage other than that specified. Avoid multiple connections to one outlet: they may cause fire or electric shock. When using an extension cable, always check that it is adequate for the rated current.
- Connect the ground wire to a suitable grounding point. Not grounding the copier may cause fire or electric shock. Connecting the earth wire to an object not approved for the purpose may cause explosion or electric shock. Never connect the ground cable to any of the following: gas pipes, lightning rods, ground cables for telephone lines and water pipes or faucets not approved by the proper authorities.

# **A**CAUTION:

•	• Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury	$\bigcirc$
•	• Do not install the copier in a humid or dusty place. This may cause fire or electric shock	$\bigcirc$
•	• Do not install the copier near a radiator, heater, other heat source or near flammable material. This may cause fire.	$\bigcirc$
•	<ul> <li>Allow sufficient space around the copier to allow the ventilation grills to keep the machine as cool as possible. Insufficient ventilation may cause heat buildup and poor copying performance.</li> </ul>	$\bigcirc$
•	Always handle the machine by the correct locations when moving it	0
•	<ul> <li>Always use anti-toppling and locking devices on copiers so equipped. Failure to do this may cause the copier to move unexpectedly or topple, leading to injury.</li> </ul>	0
•	<ul> <li>Avoid inhaling toner or developer excessively. Protect the eyes. If toner or developer is accidentally ingested, drink a lot of water to dilute it in the stomach and obtain medical attention immediately. If it gets into the eyes, rinse immediately with copious amounts of water and obtain medical attention.</li> </ul>	0
•	<ul> <li>Advice customers that they must always follow the safety warnings and precautions in the copier's instruction handbook.</li> </ul>	0

# 2. Precautions for Maintenance

# WARNING

Always remove the power plug from the wall outlet before starting machine disassembly	
Always follow the procedures for maintenance described in the service manual and other related brochures.	$\bigcirc$
Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits.	$\bigcirc$
Always use parts having the correct specifications.	$\bigcirc$
<ul> <li>Always use the thermostat or thermal fuse specified in the service manual or other related brochure when replacing them. Using a piece of wire, for example, could lead to fire or other serious acci- dent.</li> </ul>	0
When the service manual or other serious brochure specifies a distance or gap for installation of a part, always use the correct scale and measure carefully.	0
Always check that the copier is correctly connected to an outlet with a ground connection	Ð
Check that the power cable covering is free of damage. Check that the power plug is dust-free. If it is dirty, clean it to remove the risk of fire or electric shock.	0
Never attempt to disassemble the optical unit in machines using lasers. Leaking laser light may damage eyesight.	
Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly.	
ACAUTION	

•	Wear safe clothing. If wearing loose clothing or accessories such as ties, make sure they are safely secured so they will not be caught in rotating sections.	$\triangle$
•	Use utmost caution when working on a powered machine. Keep away from chains and belts	Â
•	Handle the fixing section with care to avoid burns as it can be extremely hot	
•	Check that the fixing unit thermistor, heat and press rollers are clean. Dirt on them can cause abnormally high temperatures.	0

Do not remove the ozone filter, if any, from the copier except for routine replacement	$\bigcirc$
<ul> <li>Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself.</li> </ul>	$\bigcirc$
Do not route the power cable where it may be stood on or trapped. If necessary, protect it with a cable cover or other appropriate item.	$\bigcirc$
• Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks	0
Remove toner completely from electronic components.	
Run wire harnesses carefully so that wires will not be trapped or damaged	
<ul> <li>After maintenance, always check that all the parts, screws, connectors and wires that were removed, have been refitted correctly. Special attention should be paid to any forgotten connector, trapped wire and missing screws.</li> </ul>	0
Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary.	
<ul> <li>Handle greases and solvents with care by following the instructions below:</li></ul>	
Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc.	$\bigcirc$
Should smoke be seen coming from the copier, remove the power plug from the wall outlet immedi- ately.	05

# 3. Miscellaneous

# **WARNING**

• Never attempt to heat the drum or expose it to any organic solvents such as alcohol, other than the specified refiner; it may generate toxic gas.



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# 1-1-1 Specifications

# Machine

Item		Specific	cations	
		3 in 1 model (without FAX)	4 in 1 model (with FAX)	
Туре		Desktop		
Printing method		Electrophotography by semiconductor	laser, tandem (4) drum system	
Origi	inals	Sheet, Book, 3-dimensional objects (n	Sheet, Book, 3-dimensional objects (maximum original size: Folio/Legal)	
Original fe	ed system	Fixed		
Paper weight	Cassette	60 to 163 g/m <sup>2</sup> (Duplex: 60 to 163 g/m	2)	
Faper weight	MP tray	60 to 220 g/m <sup>2</sup>		
	Cassette	Plain, Recycled, Preprinted, Bond, Co Letterhead, Thick, High quality, Custor		
Paper type	MP tray	Plain, Transparency, Vellum, Labels, F Cardstock, Color (Colour), Prepuncher Coated, High quality, Custom 1 to 8	•	
	Cassette	A4, A5, A6, B5, Letter, Legal, Stateme Envelope C5, Custom	nt, Executive, Oficio II, Folio, 16K,	
Paper size	MP tray	A4, A5, A6, B5, ISO B5, B6, Letter, Le Folio, 16K, Envelope #10, Envelope # Envelope DL, Envelope C5, Postcards Youkei 4, Custom	9, Envelope #6, Envelope Monarch,	
Zoom level		Manual mode : 25 to 400%, 1% increm Auto mode : 400%, 200%, 141%, 1 64%, 50%, 25%	nents 29%, 115%, 90%, 86%, 78%, 70%,	
Copying speed	Simplex	A4R: 26 sheets/minLetterR: 28 sheets/minLegal: 23 sheets/minB5R: 28 sheets/minA5R: 28 sheets/minA6R: 28 sheets/min		
	Duplex	A4R : 13 sheets/min LetterR : 13 sheets/min Legal : 12 sheets/min		
First copy time	B/W	When using the DP : 11.0 s or les When the DP is not used: 10.0 s or les		
(A4, feed from cassette)	Color	When using the DP: 13.0 s or lessWhen the DP is not used: 12.0 s or less		
Warm-up time (22 °C/71.6 °F, 60% RH)		Power on : 28 s or less Sleep mode: 20 s or less		
Paper	Cassette	250 sheets (80g/m <sup>2</sup> )		
capacity	MP tray	50 sheets (80 g/m <sup>2</sup> , plain paper, A4/Le	tter or less)	
Output tra	y capacity	150 sheets (80g/m <sup>2</sup> )		
Continuou	s copying	1 to 999 sheets		

Item		Specific	ations
		3 in 1 model (without FAX)	4 in 1 model (with FAX)
Light source		Exposure lamp	
Scanning system		Flat bed scanning by CCD image sensor	
Photoco	onductor	OPC drum (diameter 30 mm)	
lmage wri	te system	Semiconductor laser	
Charging	g system	Charger roller	
Developing system		Touch down developing system Developer: 2-component Toner replenishing: Automatic from the	toner container
Transfei	r system	Primary: Transfer belt Secondary: Transfer roller	
Separatio	on system	Small diameter separation	
Cleaning	g system	Drum: Counter blade	
Charge eras	sing system	Exposure by cleaning lamp (LED)	
Fusing system		Heat and pressure fusing with the heat Heat source: halogen heater Abnormally high temperature protectio	
CI	PU	PowerPC464 (667MHz)	
Main	Standard	768 MB	
memory	Maximum	1792 MB	
Interface	Standard	USB interface connector: 1 (USB Hi-sp USB host: 2 Network interface: 1 (10BASE-T/100B/	
	Option	KUIO/W slot: 1	
Reso	lution	600 × 600 dpi	
	Temperature	0 to 32.5 °C/50 to 90.5 °F	
Operating	Humidity	15 to 80% RH	
environment	Altitude	2,500 m/8,202 ft or less	
	Brightness	1,500 lux or less	
Dimensions (W × D × H)		514 × 550 × 580 mm 20 1/4 × 21 5/8 × 22 13/16"	
Weight Space required (W × D) Power source		36.5 kg / 80.3 lb (with toner container)	
		514 × 1020 mm (using MP tray) 20 1/4 × 40 3/16" (using MP tray)	
		120 V AC, 60 Hz, more than 8.9 A 220 - 240 V AC, 50/60 Hz, more than 4	1.7 A
Opt	ions	Paper feeder × 2, Expanded memory	

# Document processor

Item	Specifications
Original feed method	Automatic feed
Supported original types	Sheet originals
Original sizes	Maximum: A4/Legal Minimum : A5/Statement
Original weights	Simplex: 50 to 120 g/m <sup>2</sup> Duplex : 50 to 110 g/m <sup>2</sup>
Loading capacity	50 sheets (50 to 80 g/m <sup>2</sup> ) or less
Dimensions (W × D × H)	490 × 338 × 104 mm 19 5/16 × 13 5/16 × 4 1/8"
Weight	3 kg/ 6.6 lb or less

# Printer

Item	Specifications
Printing speed	Same as copying speed.
First print time (A4, feed from cassette)	B/W : 9.0 s or less Color: 10.5 s or less
Resolution	600 dpi
Operating system	Windows 2000, Windows XP, Windows XP Professional, Windows Server 2003, Windows Server 2003 x64 Edition, Windows Vista x86 Edition, Windows Vista x64 Edition, Windows 7 x86 Edition, Windows 7 x64 Edition, Windows Server 2008, Windows Server 2008 x64 Edition, Apple Macintosh OS 10.x
Interface	USB interface connector: 1 (USB Hi-speed) USB host: 2 Network interface: 1 (10BASE-T/100BASE-TX)
Page description language	PRESCRIBE

#### Scanner

Item		Specifications
Operating system		Windows 2000 (Service Pack 4), Windows XP, Windows Vista, Windows 7, Windows Server 2003, Windows Server 2008
System requirements		IBM PC/AT compatible CPU: Celeron 600 MHz or higher RAM: 128 MB or more HDD free space: 20 MB or more Interface: Ethernet
Resolution		600 dpi, 400 dpi, 300 dpi, 200 dpi
File format		JPEG, TIFF, PDF, XPS
Scanning speed	Simplex	B/W : 35 images/min Color: 25 images/min (A4 landscape, 300 dpi, Image quality: Text/Photo original)
	Duplex	B/W : 18 images/min Color: 13 images/min (A4 landscape, 300 dpi, Image quality: Text/Photo original)
Interface		Ethernet (10 BASE-T/100 BASE-TX)
Network protocol		TCP/IP
Transmission system		PC transmission SMB Scan to SMB FTP Scan to FTP, FTP over SSL E-mail transmission SNTP Scan to E-mail TWAIN scan <sup>*1</sup> WIA scan <sup>*2</sup>

\*1 Available operating system: Windows 2000 (Service Pack 4), Windows XP, Windows Vista,

Windows Server 2008, Windows 7

\*2 Available operating system: Windows Vista, Windows Server 2008, Windows 7

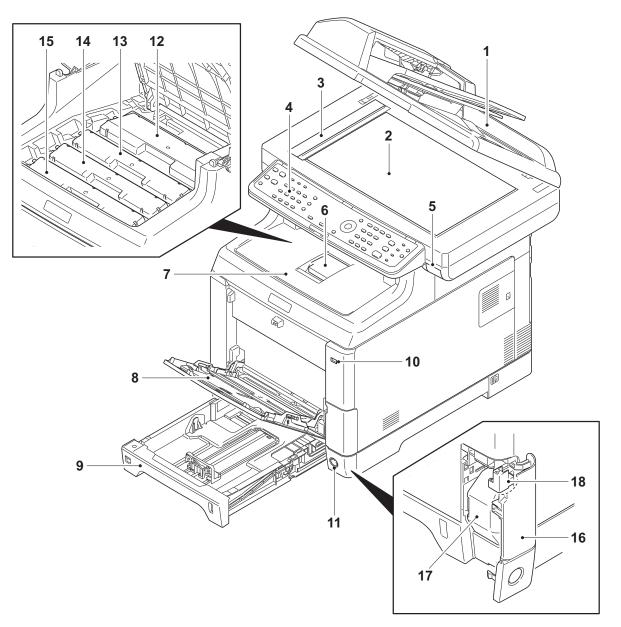
Item	Specifications	
Compatibility	G3	
Communication line	Subscriber telephone line	
Transmission time	3 s or less (33600 bps, JBIG, ITU-T A4 #1 chart)	
Transmission speed	33600/31200/28800/26400/24000/21600/19200/16800/14400/12000/9600 7200/4800/2400 bps	
Coding scheme	JBIG/MMR/MR/MH	
Error correction	ECM	
Original size	Max. width: 8 1/2"/216 mm Max. length: 14"/356 mm	
Automatic document feed	Max. 50 sheets	
Scanner resolution	Horizontal × Vertical 200 × 100 dpi Normal (8 dot/mm × 3.85 line/mm) 200 × 200 dpi Fine (8 dot/mm × 7.7 line/mm) 200 × 400 dpi Super fine (8 dot/mm × 15.4 line/mm) 400 × 400 dpi Ultra fine (16 dot/mm × 15.4 line/mm)	
Printing resolution	600 × 600 dpi	
Gradations	256 shades (Error diffusion)	
One-Touch key	22 keys	
Multi-Station transmission	Max. 100 destinations	
Substitute memory reception	256 sheets or more (when using ITU-T A4 #1 chart)	
Image memory capacity	3.5 MB (standard) (for incoming faxed originals)	
Report output	Report outputSent result report, FAX RX result report, Report for job canceled before sending, Activity report, Status page	

# FAX (4 in 1 model (with FAX) only)

NOTE: These specifications are subject to change without notice.

# 1-1-2 Parts names

# (1) Machine (front side)

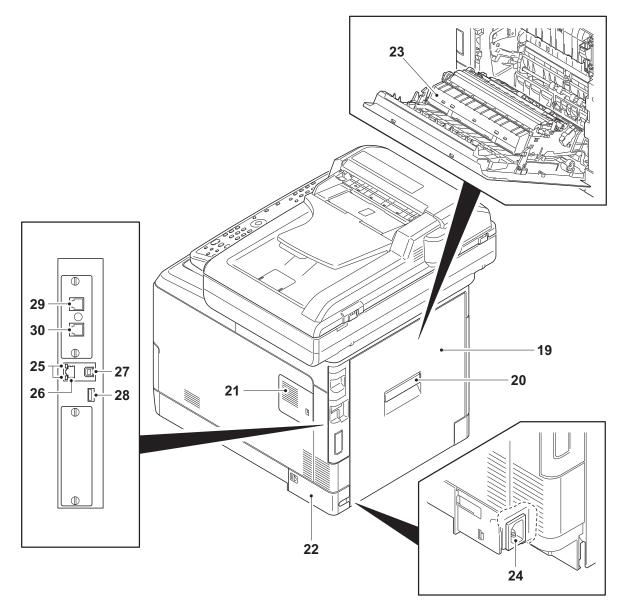




- 1. Document processor (DP)
- 2. Contact glass
- 3. Original size Indicator plate
- 4. Operation panel
- 5. Top tray lever
- 6. Paper stopper
- 7. Top tray
- 8. MP (Multi-Purpose) tray
- 9. Cassette

- 10. USB memory slot
- 11. Main power switch
- 12. Toner container K
- 13. Toner container M
- 14. Toner container C
- 15. Toner container Y
- 16. Waste toner cover
- 17. Waste toner box
- 18. Lock release button

### (2) Machine (rear side)





- 19. Rear cover
- 20. Rear cover lever
- 21. Memory cover
- 22. Power source cover
- 23. Paper conveying unit
- 24. Power cord connector
- 25. Network indicators

- 26. Network interface connector
- 27. USB interface connector
- 28. USB memory slot
- 29. LINE connector\*
- 30. TEL connector\*
- \*: 4 in 1 model (with FAX) only

# (3) Document processor

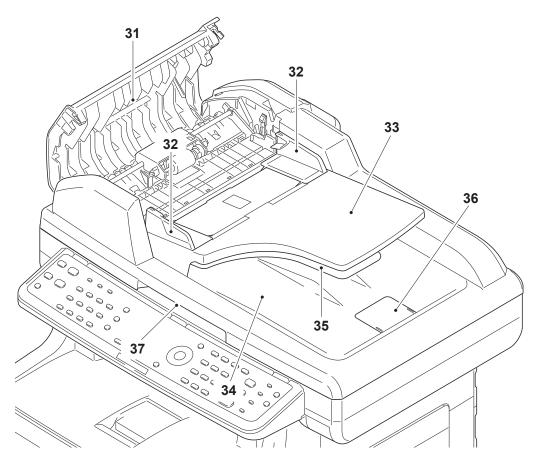
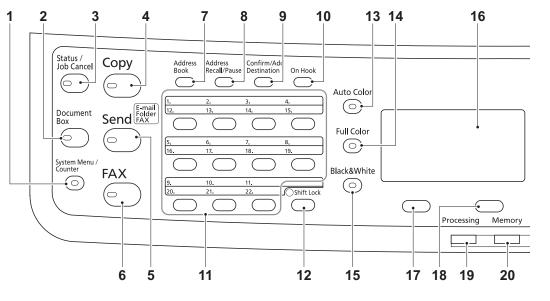
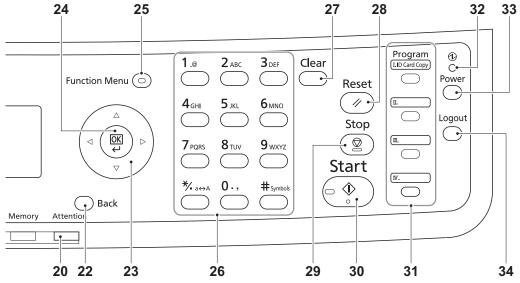


Figure 1-1-3

- 31. DP top cover
- 32. Original width guides
- 33. Original table
- 34. Original eject table
- 35. Switchback table
- 36. Original stopper
- 37. Opening Handle

#### (4) Operation panel





- 1. System menu/Counter key
- 2. Document box key
- 3. Status/Job cancel key
- 4. Copy key
- 5. Send key
- 6. FAX key\*
- 7. Address book key
- 8. Address recall/Pause key\*
- 9. Confirm/Add destination key
- 10. On Hook key\*
- 11. One-touch keys
- 12. Shift Lock key

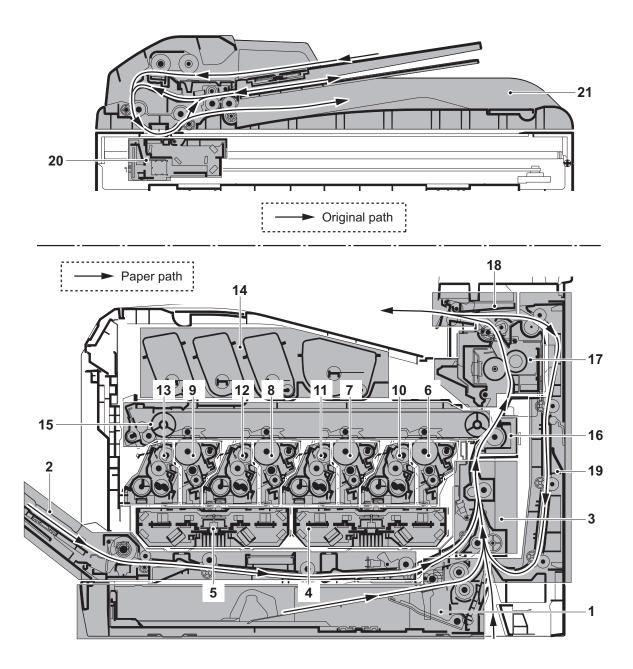
13. Auto color key

Figure 1-1-4

- 14. Full color key
- 15. Black and White key
- 16. Message display
- 17. Left Select key
- 18. Right Select key
- 19. Processing indicator
- 20. Memory indicator
- 21. Attention indicator
- 22. Back key
- 23. Cursor keys
- 24. OK key

- 25. Function Menu key
- 26. Numeric keys
- 27. Clear key
- 28. Reset key
- 29. Stop key
- 30. Start key
- 31. Program keys
- 32. Main power LED
- 33. Power key
- 34. Logout key
- \*: 4 in 1 model (with FAX) only

# 1-1-3 Machine cross section



#### Figure 1-1-5

- 1. Cassette paper feed section
- 2. MP tray paper feed section
- 3. Paper conveying section
- 4. Laser scanner unit KM
- 5. Laser scanner unit CY
- 6. Drum unit K
- 7. Drum unit M
- 8. Drum unit C

- 9. Drum unit Y
- 10. Developing unit K
- 11. Developing unit M
- 12. Developing unit C
- 13. Developing unit Y
- 14. Toner container section
- 15. Primary transfer section
- 16. Secondary transfer/Separation sections
- 17. Fuser section
- 18. Eject/Feed shift sections
- 19. Duplex section
- 20. Image scanner unit
- 21. Document processor

# 1-2-1 Installation environment

- 1. Temperature: 10 to 32.5°C/50 to 90.5°F
- 2. Humidity: 15 to 80% RH
- 3. Power supply: 120 V AC, 8.9 A

220 - 240 V AC, 4.7 A

- 4. Power source frequency: 50 Hz  $\pm 2\%/60$  Hz  $\pm 2\%$
- 5. Installation location

Avoid direct sunlight or bright lighting. Ensure that the photoconductor will not be exposed to direct sunlight or other strong light when removing paper jams.

Avoid locations subject to high temperature and high humidity or low temperature and low humidity; an abrupt change in the environmental temperature; and cool or hot, direct air.

Avoid places subject to dust and vibrations.

Choose a surface capable of supporting the weight of the machine.

Place the machine on a level surface (maximum allowance inclination: 1°).

Avoid air-borne substances that may adversely affect the machine or degrade the photoconductor, such as mercury, acidic of alkaline vapors, inorganic gasses, NOx, SOx gases and chlorine-based organic solvents.

Select a well-ventilated location.

6. Allow sufficient access for proper operation and maintenance of the machine.

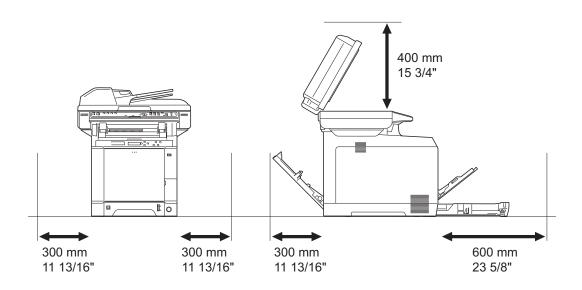
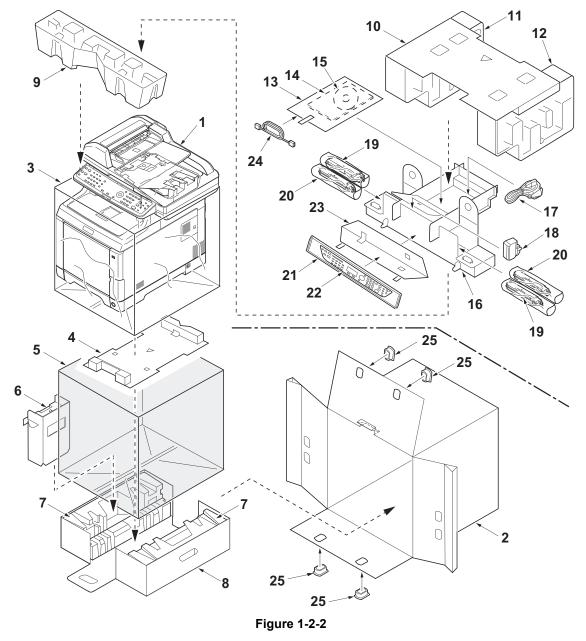


Figure 1-2-1

# 1-2-2 Unpacking

# (1) Unpacking

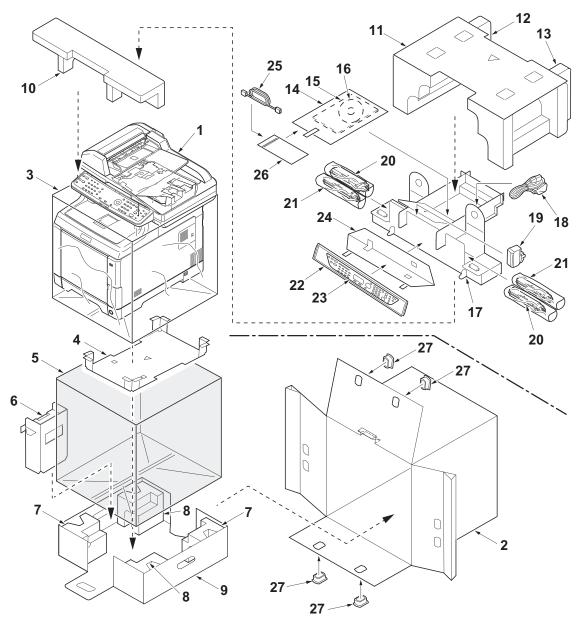
220-240V AC model



- 1. Machine
- 2. Outer case
- 3. Machine cover (620 × 580)
- 4. Bottom spacer
- 5. Plastic bag (650 × 650)
- 6. Left spacer
- 7. Bottom pads
- 8. Bottom case
- 9. Front pad

- 10. Top spacer
- 11. Top pad L
- 12. Top pad R
- 13. Plastic bag (240 × 350)
- 14. Installation guide etc.
- 15. CD-ROM\*
- 16. Middle spacer
- 17. Power cord
- 18. Waste toner box

- 19. Toner containers
- 20. Plastic bags (200 × 450)
- 21. Plastic bag (250 × 600)
- 22. Operation labels
- 23. Operation label pad
- 24. Modular cable\*\*
- 25. Hinge joints
- \*: 240V AC model only.
- \*\*: 4in1 model (with FAX) only.





- 1. Machine
- 2. Outer case
- 3. Machine cover (620 × 580)
- 4. Bottom spacer
- 5. Plastic bag (650 × 650)
- 6. Left spacer
- 7. Bottom pads A
- 8. Bottom pads B
- 9. Bottom case

10. Front pad

- 11. Top spacer
- 12. Top pad L
- 13. Top pad R
- 14. Plastic bag (240 × 350)
- 15. Installation guide etc.
- 16. CD-ROM
- 17. Middle spacer
- 18. Power cord

- 19. Waste toner box
- 20. Toner containers
- 21. Plastic bags (200 × 450)
- 22. Plastic bag (250 × 600)
- 23. Operation labels
- 24. Operation label pad
- 25. Modular cable\*
- 26. Plastic bag\*
- 27. Hinge joints
- \*: 4in1 model (with FAX) only.

Place the machine on a level surface.

# (2) Removing the tapes

#### Procedure

- 1. Open the DP.
- 2. Remove two tapes.
- 3. Remove two sheets.

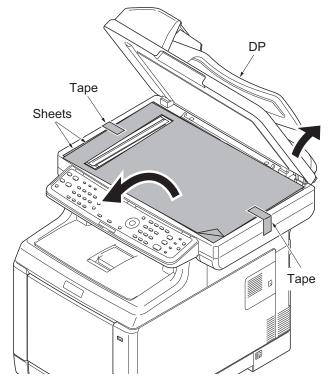


Figure 1-2-4

4. Remove the paper.

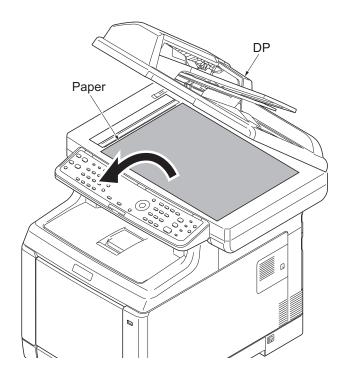
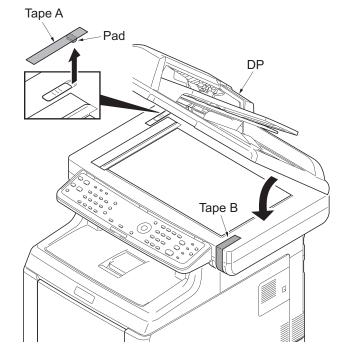


Figure 1-2-5

### 5. Remove tape A and pad.

6. Remove tape B.

7. Close the DP.





8. Remove three tapes.

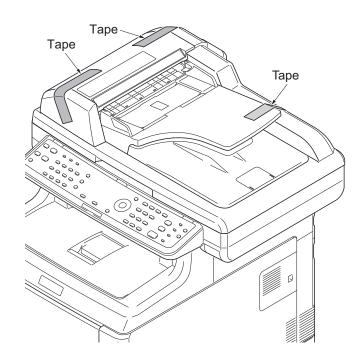


Figure 1-2-7

- 9. Open the DP top cover.
- 10. Remove two tapes.
- 11. Close the DP top cover.

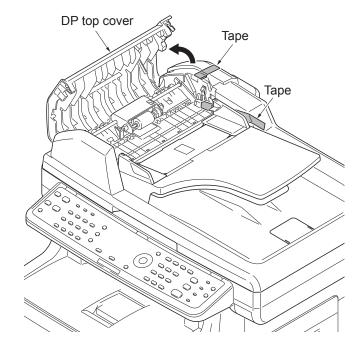


Figure 1-2-8

12. Remove five tapes.

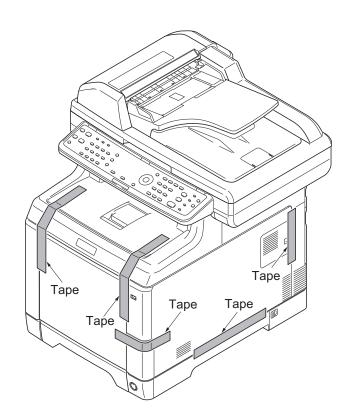


Figure 1-2-9

13. Remove four tapes.

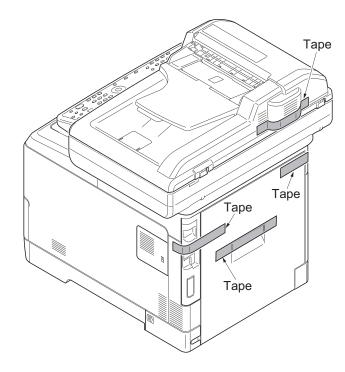


Figure 1-2-10

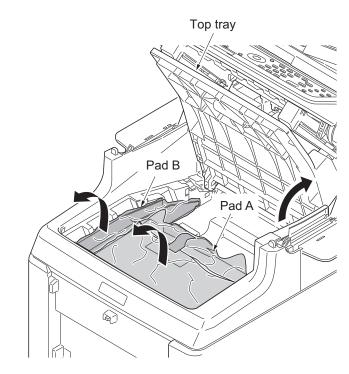


Figure 1-2-11

16. Close the top tray.

15. Remove pads A and B.

14. Open the top tray.

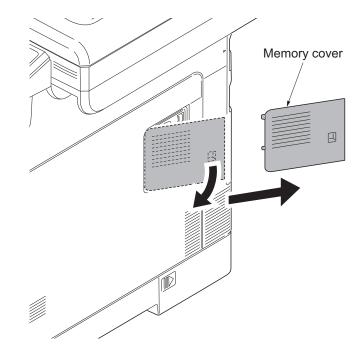
# 1-2-3 Installing the expansion memory (option)

#### Procedure

1. Turn off the main power switch. **Caution:** Do not insert or remove expansion memory while machine power is on.

Doing so may cause damage to the machine and the expansion memory.

2. Remove the memory cover.





3. Unlock the lock and then open the fan holder.

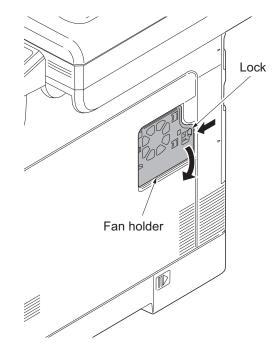


Figure 1-2-13

- 4. Insert the expansion memory into the memory socket so that the notches on the memory align with the corresponding protrusions in the slot.
- 5. Close the fan holder.
- 6. Refit the memory cover.
- Print a status page to check the memory expansion (see page 1-3-57). If memory expansion has been properly performed, information on the installed memory is printed with the total memory capacity has been increased. Standard memory capacity 768 MB.

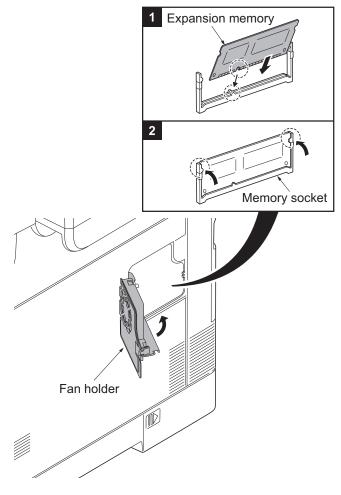


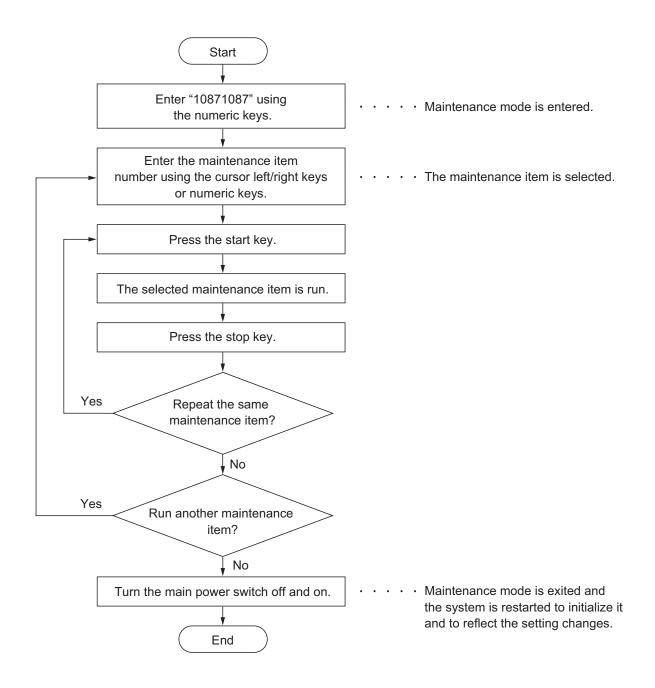
Figure 1-2-14

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# 1-3-1 Maintenance mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

# (1) Executing a maintenance item



# (2) Maintenance modes item list

Section	ltem No.	Content of maintenance item	Initial setting
General	U000	Outputting an own-status report	-
	U002	Setting the factory default data	-
Operation panel and support equipment	U203	Checking DP operation	-
	U222	Setting the IC card type	Other
Mode setting	U250	Setting the maintenance cycle	100000
	U251	Checking/clearing the maintenance count	0
	U253	Switching between double and single counts	Double count
	U260	Selecting the timing for copy counting	Eject
	U285	Setting service status page	On
	U332	Setting the size conversion factor	1.0
	U345	Setting the value for maintenance due indication	0
Image processing -	U410	Adjusting the halftone automatically	-
	U411	Adjusting the scanner automatically	-
	U425	Setting the target	-
Fax	U600	Initializing all data	-
	U601	Initializing permanent data	-
	U603	Setting user data 1	DTMF
	U604	Setting user data 2	2 (120 V) 1 (220-240 V)
	U605	Clearing data	-
	U610	Setting system 1 Setting the number of lines to be ignored when receiving a fax at 100% magnification Setting the number of lines to be ignored when receiving a fax in the auto reduction mode	3 0
		Setting the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode	0
	U611	Setting system 2 Setting the number of adjustment lines for automatic reduc- tion	7
		Setting the number of adjustment lines for automatic reduc- tion when A4 paper is set	22
		Setting the number of adjustment lines for automatic reduc- tion when letter size paper is set	26
	U612	Setting system 3 Selecting if auto reduction in the auxiliary direction is to be performed	On
		Setting the automatic printing of the protocol list Setting how trailing edge margins are detected	Off On

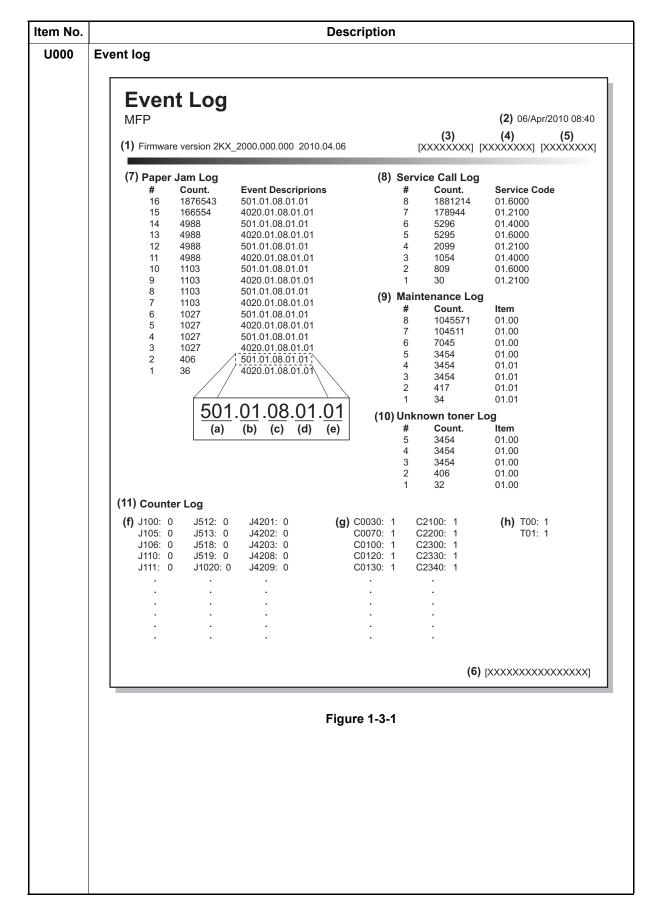
Section	ltem No.	Content of maintenance item	Initial setting
Fax	U620	Setting the remote switching mode	One
	U625	Setting the transmission system 1 Setting the auto redialing interval Setting the number of times of auto redialing	3 (120 V) 2 (220-240 V) 2 (120 V) 3 (220-240 V)
	U630	Setting communication control 1 Setting the communication starting speed Setting the reception speed Setting the waiting period to prevent echo problems at the sender Setting the waiting period to prevent echo problems at the receiver	14400bps/V17 14400bps 300 75
	U631	Setting communication control 2 Setting ECM transmission Setting ECM reception Setting the frequency of the CED signal	On On 2100
	U632	Setting communication control 3 Setting the DIS signal to 4 bytes Setting the CNG detection times in the fax/telephone auto select mode	Off 2Time
	U633	Setting communication control 4 Enabling/disabling V.34 communication Setting the number of times of DIS signal reception Setting the number of times of DIS signal reception Setting the reference for RTN signal output	On On Once 15%
	U634	Setting communication control 5	0
	U640	Setting communication time 1 Setting the one-shot detection time for remote switching Setting the continuous detection time for remote switching	7 80
	U641	Setting communication time 2 Setting the T0 time-out time Setting the T1 time-out time Setting the T2 time-out time Setting the Ta time-out time Setting the Tb1 time-out time Setting the Tb2 time-out time Setting the Tc time-out time Setting the Td time-out time	56 36 69 30 20 80 60 9 (120 V) 6 (220-240 V)
	U650	Setting modem 1 Setting the G3 transmission cable equalizer Setting the G3 reception cable equalizer Setting the modem detection level	0dB 0dB -43dBm

Section	ltem No.	Content of maintenance item	Initial setting
Fax	U651	Setting modem 2 Modem output level	9 (120 V)
		DTMF output level (main value)	10 (220-240 V) 5 (120 V) 10.5 (220-240 V)
		DTMF output level (level difference)	2 (120 V) 2.5 (220-240 V)
	U660	Setting the NCU Setting the connection to PBX/PSTN Setting PSTN dial tone detection Setting busy tone detection Setting for a PBX Setting the loop current detection before dialing	PSTN On On Loop On
	U670	Outputting lists	-
	U695	FAX function customize	On/Off
	U699	Setting the software switches	-
Others	U910	Clearing the digital dot coverage data	-
	U917	Setting backup data reading/writing	-
	U920	Checking the copy counts	-
	U927	Clearing the all copy counts and machine life counts (one time only)	-
	U928	Checking machine life counts	-
	U977	Data capture mode	-
	U995	Memory data Individual setting	

## (3) Contents of the maintenance mode items

Item No.		Description		
U000	Outputting an own-statu	is report		
	occurrences. Outputs the <b>Purpose</b> To check the current settin Before initializing or replace	t settings of the maintenance items and paper jam and service call event log. Also sends output data to the USB memory. ng of the maintenance items, or paper jam or service call occurrences. cing the backup RAM, output a list of the current settings of the mainte e settings after initialization or replacement.		
	Method 1. Press the start key. 2. Select the item to be o	output using the cursor up/down keys.		
	Display	Output list		
	Maintenance	List of the current settings of the maintenance modes		
	Event	Outputs the event log		
	All	Outputs the all reports		
	3. Press the start key. A	list is output.		
	<ol> <li>Insert USB memory in USB memory slot.</li> <li>Turn the main power switch on.</li> <li>Enter the maintenance item.</li> <li>Press the start key.</li> <li>Select the item to be send.</li> <li>Select [Text] or [HTML].</li> </ol>			
	Display	Output list		
	Print	Outputs the report		
	USB (Text)	Sends output data to the USB memory (text type)		
	USB (HTML)	Sends output data to the USB memory (HTML type)		
	8. Press the start key. Output will be sent to	the USB memory.		
	<b>Completion</b> Press the stop key. The s	creen for selecting a maintenance item No. is displayed.		

## 2KW/2KX



em No.			Desc	ription	
U000	Detail	of event log			
	No.	Items		Description	
	(1)	System vers	ion		
	(2)	System date	9		
	(3)	Engine soft	version		
	(4)	Engine boot	version		
	(5)	Operation pa	anel mask version		
	(6)	Machine ser	ial number		
	(7)	Paper Jam	#	Count.	Event
		Log	Remembers 1 to 16 of occurrence. If the occur- rence of the previous paper jam is less than 16, all of the paper jams are logged. When the occurrence excesseds 16, the oldest occur- rence is removed.	The total page count at the time of the paper jam.	Log code (2 digit, hexa decimal, 5 categories) (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
			(a) Cause of paper jam (H	lovadocimal)	
			Refer to P.1-4-1 for paper 0100: Controller sequence 0105: Registration senso 0106: Controller sequence 0110: Top tray open 0111: Rear cover open 0112: Front cover open 0112: Front cover open 0120: Controller sequence 0211: Rear cover open (p 0212: Rear cover open (p 0212: Rear cover open (p 0501: No paper feed from 0502: No paper feed from 0503: No paper feed from 0508: No paper feed from 0509: No paper feed from 0511: Multiple sheets in c 0512: Multiple sheets in c 0513: Multiple sheets in c 0513: Multiple sheets in c 0518: Multiple sheets in c 0519: Multiple sheets in c	e error r not detected e error e error baper feeder 1) baper feeder 2) n cassette 1 n cassette 2 n cassette 3 n duplex section n MP tray cassette 2 cassette 3 n duplex section n MP tray cassette 3 duplex section MP tray turned ON loes not turn OFF is turned ON	

em No.	lo. Description			
U000	Itoms		Description	
No. (7) cont.	Items Paper Jam Log	4003: Registration set 4009: Registration set 4012: Registration set 4013: Registration set 4013: Registration set 4019: Registration set 4020: Registration set 4201: Eject sensor do 4202: Eject sensor do 4203: Eject sensor do 4208: Eject sensor do 4209: Eject sensor do 4211: Eject sensor do 4212: Eject sensor do 4213: Eject sensor do 4213: Eject sensor do 4213: Eject sensor do 4219: Eject sensor do 4219: Eject sensor do 4210: DP top cover of 9400: No original feed 9401: An original jam	es not turn ON (Cassett es not turn ON (Paper fi es not turn ON (Paper fi es not turn ON (Duplex) es not turn ON (MP tray es not turn OFF (Casse es not turn OFF (Paper es not turn OFF (Paper es not turn OFF (Duplex) es not turn OFF (MP tra turned ON ben in the original switchbac in the original switchbac in the original switchbac in the original switchbac	Paper feeder 2) MP tray) (Paper feeder 1) (Paper feeder 2) (MP tray) (MP tray) eeder 1) eeder 2) (MP tray) tte) feeder 1) feeder 1) feeder 2) (N) (N) (N) (N) (N) (N) (N) (N
		04 to 09: Reserved		
		(c) Detail of paper size	, ,	
		00: (Not specified) 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 86: Letter-R 86: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E 0A: A3	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Postcard 20: Reply-paid post- card 21: Oficio II	<ul> <li>22: Special 1</li> <li>23: Special 2</li> <li>24: A3 wide</li> <li>25: Ledger wide</li> <li>26: Full bleed paper (12 x 8)</li> <li>27: 8K</li> <li>28: 16K-R</li> <li>A8: 16K-E</li> <li>32: Statement-R</li> <li>B2: Statement-E</li> <li>33: Folio</li> <li>34: Western type 2</li> <li>35: Western type 4</li> </ul>

0.	Description					
No.	Items		Description			
(7)	Paper Jam	(d) Detail of paper type (Hexadecimal)				
cont.	Log	01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated 0F: 2nd side 10: Media 16 11: High quality	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5 1A: Custom 6 1B: Custom 7 1C: Custom 8		
		(e) Detail of paper eje	ect location (Hexadec	imal)		
		01: Face down (FD)				
(8)	Service Call	#	Count.	Service Code		
	Log	Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diag- nostics error is less than 8, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostics error.	Self diagnostic error code (See page 1-4-7) Example: 01.6000 01: Self diagnostic error 6000: Self diagnostic error code number		
(9)	Maintenance	#	Count.	Item		
	Log	Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replace- ment of toner con- tainer is less than 8, all of the occur- rences of replace- ment are logged.	The total page count at the time of the replacement of the toner container.	Code of maintenance replacing item (1 byte, 2 categories) First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black 01: Cyan 02: Magenta 03: Yellow First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 00: - 01: -		

tem No.	Description				
U000			Γ		
	No.	Items		Description	r
	(10)	Unknown Toner Log	# Remembers 1 to 5 of occurrence of unknown toner detection. If the occurrence of the	Count. The total page count at the time of the toner empty error with using an unknown toner con-	Item Unknown toner log code (1 byte, 2 categories) First byte
			previous unknown toner detection is less than 5, all of the unknown toner detection are logged.	tainer.	01: Toner container (Fixed) Second byte 00: Black 01: Cyan 02: Magenta 03: Yellow
	(11)	Counter Log	(f) Paper jam	(g) Self diagnostic error	(h) Maintenance item replacing
		Comprised of three log coun- ters including paper jams, self diagnostics	Indicates the log counter of paper jams depending on location.	Indicates the log counter of self diag- nostics errors depending on cause.	Indicates the log coun- ter depending on the maintenance item for maintenance.
		errors, and replacement of the toner con- tainer.	Refer to Paper Jam Log. All instances includ- ing those are not occurred are dis- played.	(See page 1-4-7) Example: C6000: 4 Self diagnostics error 6000 has hap- pened four times.	T: Toner container 00: Black 01: Cyan 02: Magenta 03: Yellow M: Maintenance kit 00: - 01: -
					Example: T00: 1 The toner container has been replaced once.

ition in which the frame
ecute initialization usin

tem No.	D. Description		
U203	Checking DP operation		
	Description Simulates the original conver Purpose To check the DP operation.	ying operation separately in the DP.	
	-	P if running this simulation with paper. perated using the cursor up/down keys.	
	Display	Description	
	Normal Speed	Normal reading (600 dpi)	
	High Speed	High-speed reading	
	<ul><li>4. Press the start key.</li><li>5. Select the item to be operated using the cursor up/down keys.</li></ul>		
	Display	Description	
	CCD ADP (Non-P)	Without paper, single-sided original of CCD (continuous operation)	
	CCD ADP	With paper, single-sided original of CCD	
	CCD RADP (Non-P)	Without paper, double-sided original of CCD (continuous operation)	
	CCD RADP	With paper, double-sided original of CCD	
	6. Press the start key. The of 7. To stop continuous opera Completion	ation, press the stop key.	
	Press the stop key. The scre	en for selecting a maintenance item No. is displayed.	

	Descri	ption	
Setting the IC card type			
<b>Description</b> Sets the type of IC card. <b>Purpose</b> To change the type of IC card	1.		
Setting 1. Press the start key. 2. Select the item using the	cursor up/down key	S.	
Display	Description		
Other	The type of IC car	d is SSFC.	
SSFC	The type of IC car	d is not SSFC.	
* : Initial setting: Other 3. Press the start key. The s	setting is set.		
Completion Press the stop key. The scree	en for selecting a ma	aintenance item No. is	displayed.
Setting the maintenance cycle			
Purpose To check and change the ma Method 1. Press the start key. The c Setting 1. Select [M.Cnt A] using the	intenance cycle. currently set mainter e cursor up/down ke	nance cycle is displaye eys.	
			Initial setting
· · ·			100000
-	alue is set.		1]
2. Press the start key. The c Completion	count is cleared.		displayed.
	Description         Sets the type of IC card.         Purpose         To change the type of IC card.         Setting         1. Press the start key.         2. Select the item using the         Display         Other         SSFC         * : Initial setting: Other         3. Press the start key. The screet         Setting the maintenance cy         Description         Displays, clears and changes         Purpose         To check and change the maintenance cy         Description         Displays, clears and changes         Purpose         To check and change the maintenance cy         Description         Displays, clears and changes         Purpose         To check and change the maintenance cy         I. Press the start key. The completion         Maintenance cycle         3. Press the start key. The completion         Maintenance cycle         3. Press the start key. The completion         Maintenance cycle         3. Press the start key. The completion         Clearing         1. Select [Clear] using the completion         Display         Description	Setting the IC card type         Description         Sets the type of IC card.         Purpose         To change the type of IC card.         Setting         1. Press the start key.         2. Select the item using the cursor up/down key         Display       Description         Other       The type of IC card.         SSFC       The type of IC card.         SSFC       The type of IC card.         * : Initial setting: Other       3. Press the start key. The setting is set.         Completion       Press the stop key. The screen for selecting a mathematic setting the maintenance cycle         Description       Displays, clears and changes the maintenance cycle.         Description       Displays, clears and changes the maintenance cycle.         Method       1. Press the start key. The currently set mainter         1. Press the start key. The currently set mainter       Setting         1. Select [M.Cnt A] using the cursor up/down keg       2. Change the setting using the cursor left/right         Description       Maintenance cycle       3. Press the start key. The value is set.         Clearing       1. Select [Clear] using the cursor up/down keys       2. Press the start key. The count is cleared.	Description         Sets the type of IC card.         Purpose         To change the type of IC card.         Setting         1. Press the start key.         2. Select the item using the cursor up/down keys.         Display       Description         Other       The type of IC card is SSFC.         SSFC       The type of IC card is not SSFC.         *: Initial setting: Other       3. Press the start key. The setting is set.         Completion       Press the stop key. The screen for selecting a maintenance item No. is         Setting the maintenance cycle       Description         Displays, clears and changes the maintenance cycle.       Purpose         To check and change the maintenance cycle.       Purpose         To check and change the cursor up/down keys.       2. Change the setting using the cursor up/down keys.         2. Change the setting using the cursor up/down keys.       3. Press the start key. The value is set.         Description       Setting range         Maintenance cycle       0 to 9999999         3. Press the start key. The value is set.       Clearing         Maintenance cycle       0 to 9999999         3. Press the start key. The value is cate.       2. Press the start key. The count is cleared.

<ul> <li>Description Displays, clears and changes the maintenance count. <b>Purpose</b> To check the maintenance count. Also to clear the count during maintenance service (replacing the maintenance kit). </li> <li>Method <ol> <li>Press the start key. The maintenance count is displayed.</li> </ol> </li> <li>Setting <ol> <li>Select [M.Cnt A] using the cursor up/down keys.</li> <li>Change the setting using the cursor left/right keys or numeric keys.</li> </ol> </li> </ul>	em No.		Description				
Displays, clears and changes the maintenance count.         Purpose         To check the maintenance count.         Also to clear the count during maintenance service (replacing the maintenance kit).         Method         1. Press the start key. The maintenance count is displayed.         Setting         1. Select [M.Cnt A] using the cursor up/down keys.         2. Change the setting using the cursor left/right keys or numeric keys.         Description       Setting range         Maintenance count       0 to 9999999         3. Press the start key. The count is set.         Clearing         1. Select [Clear] using the cursor up/down keys.         2. Press the start key. The count is cleared.         Completion	U251	Checking/clearing the maintenance	e count				
Displays, clears and changes the maintenance count.         Purpose         To check the maintenance count.         Also to clear the count during maintenance service (replacing the maintenance kit).         Method         1. Press the start key. The maintenance count is displayed.         Setting         1. Select [M.Cnt A] using the cursor up/down keys.         2. Change the setting using the cursor left/right keys or numeric keys.         Description       Setting range         Maintenance count       0 to 9999999         3. Press the start key. The count is set.         Clearing         1. Select [Clear] using the cursor up/down keys.         2. Press the start key. The count is cleared.         Completion		Description					
To check the maintenance count. Also to clear the count during maintenance service (replacing the maintenance kit). <b>Method</b> 1. Press the start key. The maintenance count is displayed. <b>Setting</b> 1. Select [M.Cnt A] using the cursor up/down keys. 2. Change the setting using the cursor left/right keys or numeric keys.		Displays, clears and changes the maintenance count.					
Also to clear the count during maintenance service (replacing the maintenance kit).         Method         1. Press the start key. The maintenance count is displayed.         Setting         1. Select [M.Cnt A] using the cursor up/down keys.         2. Change the setting using the cursor left/right keys or numeric keys.         Description       Setting range         Maintenance count       0 to 9999999         3. Press the start key. The count is set.         Clearing         1. Select [Clear] using the cursor up/down keys.         2. Press the start key. The count is cleared.         Completion							
<ol> <li>Press the start key. The maintenance count is displayed.</li> <li>Setting         <ol> <li>Select [M.Cnt A] using the cursor up/down keys.</li> <li>Change the setting using the cursor left/right keys or numeric keys.</li> <li>Description Setting range Initial sett</li></ol></li></ol>							
<ol> <li>Select [M.Cnt A] using the cursor up/down keys.</li> <li>Change the setting using the cursor left/right keys or numeric keys.         <ul> <li>Description</li> <li>Setting range</li> <li>Initial sett</li> <li>Maintenance count</li> <li>0 to 9999999</li> <li>O</li> </ul> </li> <li>Press the start key. The count is set.</li> <li>Clearing         <ul> <li>Select [Clear] using the cursor up/down keys.</li> <li>Press the start key. The count is cleared.</li> </ul> </li> <li>Completion</li> </ol>							
Description       Setting range       Initial sett         Maintenance count       0 to 9999999       0         3. Press the start key. The count is set.       Clearing         1. Select [Clear] using the cursor up/down keys.       2. Press the start key. The count is cleared.         Completion       Completion		1. Select [M.Cnt A] using the cursor		N/C			
Maintenance count       0 to 9999999       0         3. Press the start key. The count is set.       0       0       0         Clearing       1. Select [Clear] using the cursor up/down keys.       2. Press the start key. The count is cleared.       0         Completion       0       0       0       0       0				Initial setting			
Clearing <ol> <li>Select [Clear] using the cursor up/down keys.</li> <li>Press the start key. The count is cleared.</li> <li>Completion</li> </ol>		Maintenance count	0 to 9999999				
Clearing <ol> <li>Select [Clear] using the cursor up/down keys.</li> <li>Press the start key. The count is cleared.</li> <li>Completion</li> </ol>		3. Press the start key. The count is s	set.				
<ol> <li>Select [Clear] using the cursor up/down keys.</li> <li>Press the start key. The count is cleared.</li> <li>Completion</li> </ol>							
		Completion					

Item No.		Description			
U253	Switching between dou	uble and single counts			
	DescriptionSwitches the count system for the total counter and other counters.PurposeUsed to select, according to the preference of the user (copy service provider), if folio size paperis to be counted as one sheet (single count) or two sheets (double count).				
	Setting 1. Press the start key. 2. Select the item using	g the cursor up/down keys.			
	Display	Description			
	Color	Count system of color mode			
	B/W	Count system of black/white mode			
	<ol> <li>Press the start key.</li> <li>Select the count syst</li> </ol>	tem using the cursor up/down keys.			
	Display	Description			
	SGL Count(All)	Single count for all size paper			
	DBL Count(Folio)	Double count for Folio size or larger			
	5. Press the start key. T Completion Press the stop key. The	screen for selecting a maintenance item No. is displayed.			
	Purpose To be set according to us Setting 1. Press the start key.	timing for the total counter and other counters.			
	Display	Description			
	Feed	When secondary paper feed starts			
	Eject	When the paper is ejected			
	* : Initial setting: Ejec 3. Press the start key. 1				
	Completion Press the stop key. The s	screen for selecting a maintenance item No. is displayed.			

Item No.	Description					
U285	Setting service sta	atus page				
	Description					
		ing the digital dot coverage re	eport on reporting.			
	Purpose					
	According to user r	equest, changes the setting.				
	Setting					
	1. Press the start					
	2. Select On or Of Display	f using the cursor up/down ke	eys.			
	On	Displays the digita	l dot coverage			
	Off		-			
			digital dot coverage			
	* : Initial setting	ј: On key. The setting is set.				
	0. 1 1035 the start	key. The setting is set.				
	Completion					
		The screen for selecting a m	aintenance item No. is dis	splayed.		
U332	Setting the size co	onversion factor				
	Description					
	Description	- for a sector shared a local size of the sector		1 <b>((</b> )		
		of nonstandard sizes in relati				
		he black ratio in relation to the	e A4/Letter size and to dis	play the result in u		
	simulation.					
	Purpose					
	To set the coefficier	nt for converting the black rati	o for nonstandard sizes ir	relation to the A4/		
	ter size.					
	Setting					
	1. Press the start	kev.				
		ting using the cursor left/right	keys or numeric keys.			
	Display	Description	Setting range	Initial setting		
	Rate	Size parameter	0.1 to 3.0	1.0		
	3. Press the start	kev. The value is set.	I	1		
	3. Press the start key. The value is set.					
	Completion					
		The screen for selecting a m	aintenance item No. is dis	splayed		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		
		The screen for selecting a m	aintenance item No. is dis	splayed.		

	Description					
U345	Setting the value for maintenance due indication					
	<b>Description</b> Sets when to display a message notifying that the time for maintenance is about to be reached, by setting the number of copies that can be made before the current maintenance cycle ends. When the difference between the number of copies of the maintenance cycle and that of the maintenance count reaches the set value, the message is displayed. <b>Purpose</b> To change the time for maintenance due indication.					
	Setting					
	1. Press the start key.					
	<ol> <li>Select [Cnt] using the cursor up/down keys.</li> <li>Change the setting using the cursor left/right keys.</li> </ol>					
	Description	Setting range	Initial setting			
	Time for maintenance due indication	0 to 9999	0			
	(Remaining number of copies that can be made before the current maintenance cycle ends)					
	4. Press the start key. The value is set.					

J410	Adjusting the halftone automatically							
	<b>Description</b> Carries out processing for the data acquisition that is required in order to perform either automatic adjustment of the halftone or the ID correction operation. <b>Purpose</b> Performed when the quality of reproduced halftones has dropped.							
	Method							
	1. Select [Norr	nal Model.						
	_	art key. A test patterns 1 and 2 ar	e outputted.					
		utput test pattern 1 as the original						
	Place appro 4. Press the st	ximately 20 sheets of white pape	r on the test	pattern 1 and set them.				
		is made (first time).						
	5. Place the ou	utput test pattern 2 as the original						
		ximately 20 sheets of white paper	r on the test	pattern 2 and set them.				
	<ol> <li>Press the st Adjustment</li> </ol>	an key. is made (second time).						
	7. When normally completed, [Finish] is displayed.							
			If a problem occurs during auto adjustment, error code is displayed.					
			error code is	displayed.				
			error code is	displayed.				
	If a problem		error code is Codes	displayed. Description				
	If a problem	occurs during auto adjustment, e						
	If a problem Error codes Codes	occurs during auto adjustment, e         Description         Patch not detected         Original deviation in the main	Codes	Description				
	If a problem Error codes Codes S001	occurs during auto adjustment, e Description Patch not detected	Codes E001	Description       Engine status error				
	If a problem Error codes Codes S001	occurs during auto adjustment, e         Description         Patch not detected         Original deviation in the main	<b>Codes</b> E001 E002	DescriptionEngine status errorEngine sensor error				
	If a problem Error codes Codes S001 S002	occurs during auto adjustment, e Description Patch not detected Original deviation in the main scanning direction	Codes E001 E002 EFFF	DescriptionEngine status errorEngine sensor errorEngine other error				
	If a problem Error codes Codes S001 S002	occurs during auto adjustment, e Description Patch not detected Original deviation in the main scanning direction Original deviation in the auxil-	Codes E001 E002 EFFF C001	DescriptionEngine status errorEngine sensor errorEngine other errorController error				
	If a problem Error codes Codes S001 S002 S003	Description         Patch not detected         Original deviation in the main scanning direction         Original deviation in the auxiliary scanning direction	Codes E001 E002 EFFF C001 C100	DescriptionEngine status errorEngine sensor errorEngine other errorController errorAdjustment value error				

em No.	· · ·						
J411	Adjusting the scanner automatically						
	<b>Description</b> Uses the adjustment original suppled with DP and automatically adjusts the following items in the scanner and the DP scanning sections.						
	Scanner section: C	Priginal size magnification, leading edge timing, rome mode and matrix	center line, input gamma, inp				
	DP scanning section	on: Original size magnification, leading edge tin	ning, center line				
	Purpose	tio adjustment of various items in the seener	and the DD econoring eastion				
	to periorni automa	atic adjustment of various items in the scanner a	and the DP scanning section				
		key. . The screen for executing is displayed.					
	Display	Description	Original to be used for adjustment (P/N)				
	All	Performs automatic adjustment in the DP scanning section following automatic adjustment in the scanner section	302FZ56990/ 303LJ57010				
	Table	Automatic adjustment in the scanner sec- tion	- 302FZ56990				
	DP	Automatic adjustment in the DP scanning section:	303LJ57010				
	ing maintenand 2. Set a specified 3. Enter maintena 4. Select [Table] (	original (P/N: 302FZ56990) on the platen.	nal (P/N: 302FZ56990) exec				
	<ol> <li>When automat during auto adj stops. Should t from the begin</li> </ol>	ic adjustment has normally completed, [OK] is ustment, [NG XX] (XX is replaced by an error co this happen, determine the details of the proble	ode) is displayed and operation m and repeat the procedure				
	Method: DP 1. Select [DP] usi 2. Set a specified 3. Press the start 4. When automat during auto adj	ng the cursor up/down keys. original (P/N: 303LJ57010) in the DP. key. Auto adjustment starts. ic adjustment has normally completed, [OK] is ustment, [NG XX] (XX is replaced by an error co	displayed. If a problem occur				

n No.	•			
411	Error Codes			
	Codes	Description		
	01	Black band detection error (scanner leading edge registration)		
	02	Black band detection error (scanner center line)		
	03	Black band detection error (scanner main scanning direction magnification)		
	04	Black band is not detected (scanner leading edge registration)		
	05	Black band is not detected (scanner center line)		
	06	Black band is not detected (scanner main scanning direction magnification)		
	07	Black band is not detected (scanner auxiliary scanning direction magnification)		
	08	Black band is not detected (DP main scanning direction magnification far end)		
	09	Black band is not detected (DP main scanning direction magnification near end)		
	0a	Black band is not detected (DP auxiliary scanning direction magnification leading edge)		
	Ob	Black band is not detected (DP auxiliary scanning direction magnification leading edge original check)		
	0c	Black band is not detected (DP auxiliary scanning direction trailing edge)		
	0d	Black band is not detected (DP auxiliary scanning direction trailing edge 2)		
	0e	DMA time out		
	Of	Auxiliary scanning direction magnification error		
	10	Auxiliary scanning direction leading edge detection error		
	11	Auxiliary scanning direction trailing edge detection error		
	12	Auxiliary scanning direction skew 1.5 error		
	13	Maintenance request error		
	14	Main scanning direction center line error		
	15	Main scanning direction skew 1.5 error		
	16	Main scanning direction magnification error		
	17	Service call error		
	18	DP paper misfeed error		
	19	PWB replacement error		
	1a	Original error		

## Completion

Press the stop key. The screen for selecting a maintenance item is displayed.

Item No.		Description			
U425	Setting the target				
	<ul> <li>Description Enters the lab values that is indicated on the back of the chart (P/N: 302FZ56990) used adjustment. </li> <li>Purpose Performs data input in order to correct for differences in originals during automatic adjus </li> <li>Method <ol> <li>Press the start key.</li> <li>Select the item to be set using the cursor up/down keys.</li> </ol> </li> </ul>				
	Display	Description			
	N875	Setting the N875 patch for the	original for adjustment		
	N475	Setting the N475 patch for the	original for adjustment		
	N125	Setting the N125 patch for the	original for adjustment		
	С	Setting the cyan patch for the o	original for adjustment		
	М	Setting the magenta patch for	the original for adjustment		
	Y	Setting the yellow patch for the	e original for adjustment		
	R	Setting the red patch for the or	iginal for adjustment		
	G	Setting the green patch for the	for the original for adjustment		
	В	Setting the blue patch for the o	riginal for adjustment		
	Adjust Original	scanning directions			
	3. Select the item to be s	set using the cursor up/down keys.			
	Display	Description	Setting range		
	L	Setting the L value	0.0 to 100.0		
	а	Setting the a value	-200.0 to 200.0		
	b	Setting the b value	-200.0 to 200.0		
	<ol> <li>Enters the value that is numeric keys.</li> <li>Press the start key. The start key.</li> </ol>	s indicated on the back of the chart	using the cursor left/right keys or		

Item No.	Description					
U425	Setting: [Adjust Original]					
			n the left edge to the blac	ck belt (a) of the origin	nal at A, B and C.	
		ement procedure				
			rom the edge to the blac			
			48.5 mm from the leadin	g edge) and C (267 m	im from the leading	
		), respectively.			•	
		-	nula for the values obtain			
			sing the cursor left/right k	keys of numeric keys	in [iviain].	
		e start key. The va	n the leading edge to the	black bolt (b) of the c	viginal at D E and I	
		ement procedure	In the leading edge to the		nginal at D, L and I	
		-	rom the edge to the blac	k belt (b) of the origina	al at D (35 mm from	
	-		nm from the left edge) an		•	
	tively.	• · ·				
			nula for the values obtair	ned: ((D + F) / 2 + E) /	2	
	5. Enter the	e values solved u	sing the cursor left/right k	keys or numeric keys i	in [Sub Lead].	
		e start key. The v		-		
	7. Measure	the length (G) fro	om the edge of the black	belt (b) to edge of the	e black belt (c) of the	
	original.					
			using the cursor left/righ	nt keys or numeric key	/s in [Sub Tail].	
	9. Press the	e start key. The v	alue is set.			
	Leading	edae				
	Lodding	30 mm	148.5 mm	267 mm		
	Left edge		-	<b>&gt;</b>	-	
		A‡	B↓	c‡		
			Black			
	35 mm 🕇	D T	belt (a)			
		Black		Black		
		belt (b)		belt (c)		
	110					
	110 mm 📕	E .			[Main] = ((A + C) / 2 + B) / 2	
			G			
		-			[Sub Lead] =	
					((D + F) / 2 + E) / 2	
					[Sub Tail] = G	
	185 mm 🕂	<b>↓</b>				
	ſ					
		Oric	ginal for adjustment (P/N: 302F	756990)		
			Figure 1-3-2	2		
	•					
	Completion			and the second second second		
	Press the sto	op key. The scree	n for selecting a mainter	ance item No. is disp	layed.	

Item No.		Description			
U600	Initializ	ing all da	ita		
	to the d Execute the file s <b>Purpos</b> To initia <b>Methoo</b> 1. Pre 2. Sele 3. Sele tina 4. Pre The 5. Pre 6. Afte	es softwar lestination es the che system, c es lize the F, d ss the sta ect [Execu- tion code ss the sta ere is no o e destinati ss the sta er data init	and OEM. eck of the file system, when about ommunication past record and re AX control PWB. rt key. ute]. The screen for entering the try Code] and enter a destination list on following for the destination rt key. peration necessary on this screed on code and the OEM code are rt key. Data initialization starts. T ialization, the entered destination	destination of n code using on code). en. displayed wit o cancel dat n, OEM code	code and OEM code is displayed. the numeric keys (refer to the des- th the values currently set. a initialization, press the stop key. es and ROM version are displayed.
		OM version cod	on displays three kinds, applicati <b>e list</b>	ion, boot, and	d IPL.
		Code	Destination	Code	Destination
		000	Japan	253	CTR21 (European nations)
		009	Australia		Italy
		038	China		Germany
		080	Hong Kong		Spain
		084	Indonesia		U.K.
		088	Israel		Netherlands
		097	Korea		Sweden
		108	Malaysia		France
		126	New Zealand		Austria
		136	Peru		Switzerland
		137	Philippines		Belgium
		152	Middle East		Denmark
		156	Singapore		Finland
		159	South Africa		Portugal
		169	Thailand		Ireland
		181	U.S.A.		Norway
		242	South America	254	Taiwan
		243	Saudi Arabia		

Item No.		Description
U601	Initializing permanen	t data
	Purpose	tches on the FAX control PWB according to the destination and OEM.
	<ol> <li>Select [Country Contination code list of 4. Press the start key There is no operat The destination co</li> <li>Press the start key</li> <li>After data initialization</li> </ol>	The screen for entering the destination code and OEM code is displayed. ode] and enter a destination code using the numeric keys (refer to the des- n page 1-3-23 for the destination code).
U603	Setting user data 1	
	Purpose To be executed as req Method 1. Press the start key 2. Select [Line Type]	
	Display	Description
	DTMF	DTMF
	10PPS	10 PPS
	20PPS	20 PPS
	* : Initial setting: D 4. Press the start key <b>Completion</b> Press the stop key. Th	

Item No.	Desc	ription	
U604	Setting user data 2		
	Description Makes user settings to enable the use of the m Purpose Use this if the user wishes to adjust the numbe fax receiving mode when fax/telephone auto-set Method	r of rings that occur t	before the unit switches into
	<ol> <li>Press the start key.</li> <li>Change the setting using the cursor left/right</li> </ol>	nt keys or numeric ke	evs.
	Description	Setting range	Initial setting
	Number of fax/telephone rings	0 to 15	2 (120 V)/1 (220-240 V)
	<ul> <li>* : If you set this to 0, the unit will start fax it</li> <li>3. Press the start key. The value is set.</li> </ul>	eception without any	/ ringing.
	<b>Completion</b> Press the stop key. The screen for selecting a r	naintenance item No	. is displayed.
U605	Clearing data		
	<ul> <li>Description</li> <li>Initializes data related to the fax transmission is Purpose</li> <li>To clear the transmission history.</li> <li>Method <ol> <li>Press the start key.</li> <li>Select [Comm REC].</li> <li>Press the start key. Initialization processing is displayed.</li> </ol> </li> </ul>		
	<b>Completion</b> Press the stop key. The screen for selecting a r	naintenance item Nc	o. is displayed.

Item No.		De	scription			
U610	Setting system 1					
	<b>Description</b> Makes settings for fax reception regarding the sizes of the fax paper and received images and automatic printing of the protocol list.					
	Method 1. Press the start key. 2. Select the item to be se	t using the cursor	<sup>-</sup> up/down keys.			
	Display	Description				
	Cut Line:100%	Sets the numb 100% magnific		ignored when I	receiving a fax at	
	Cut Line:Auto	Sets the numb the auto reduc		ignored when	receiving a fax in	
	Cut Line:A4		per of lines to be in the auto redu	-	receiving a fax	
	ing capacity when recording below the setting, those line 1. Change the setting usin Description	s are ignored. If o	over the setting, ight keys or nun Setting	they are record neric keys. Initial	led on the next page	
			range	setting	value per step	
	Number of lines to be in receiving at 100%	gnored when	0 to 22	3	16 lines	
	<ul> <li>* : Increase the setting if a blank second page is output, and decrease it if the received image does not include the entire transmitted data.</li> <li>2. Press the start key. The value is set.</li> </ul>					
	Setting the number of line Sets the maximum number ing capacity when the data is below the setting, those li ther reduced so that it can be 1. Change the setting usin	of lines to be igno s recorded in the nes are ignored. re recorded on th	ored if the receiv auto reduction If over the settir e same page.	ed data volume mode. If the nui ig, the entire da	e exceeds the record mber of excess lines	
	Description		Setting range	Initial setting	Change in value per step	
	Number of lines to be in receiving in the auto re	-	0 to 22	0	16 lines	
	<ul> <li>* : Increase the setting much trailing edge m transmitted data.</li> <li>2. Press the start key. The</li> </ul>	argin is left. Deci				

ltem No. U610	Description					
	Setting the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode Sets the maximum number of lines to be ignored if the received data volume exceeds the record ing capacity when the data is recorded in the auto reduction mode onto A4R or LetterR paper under the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page. 1. Change the setting using the cursor left/right keys or numeric keys.					
	Description	Setting range	Initial setting	Change in value per step		
	Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode	0 to 22	0	16 lines		

	. Description						
U611	Setting system 2						
	Description						
	Description Sets the number of adjust	ment lines for automatic reducti	on.				
	<b>Method</b> 1. Press the start key.						
	•	set using the cursor up/down ke	ys.				
	Display	Description	-				
	Adj Lines	Sets the number of adjustn	nent lines for auto	matic reduction.			
	Adj Lines(A4)	Sets the number of adjustr when A4 paper is set.					
	Adj Lines(LT)	Sets the number of adjustr when letter size paper is se		matic reduction			
	•	djustment lines for automatic					
		ment lines for automatic reducti ing the cursor left/right keys or					
	Description		Setting range	Initial setting			
		nt lines for automatic reduction	0 to 22	7			
		0 10 22	1				
	Setting the number of a	ne value is set. djustment lines for automatic ment lines for automatic reducti					
	Setting the number of ad Sets the number of adjust 1. Change the setting us		on when A4 pape numeric keys.	r is set.			
	Setting the number of ad Sets the number of adjust	djustment lines for automatic ment lines for automatic reducti	on when A4 pape				
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in the lines for automatic reduction	on when A4 pape numeric keys.	r is set.			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction	on when A4 pape numeric keys. Setting range	r is set. Initial setting			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction	on when A4 pape numeric keys. Setting range 0 to 22	r is set. Initial setting 22			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of ad set	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in the lines for automatic reduction the value is set.	on when A4 pape numeric keys. Setting range 0 to 22 reduction when	r is set. Initial setting 22 letter size paper			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of ad set Sets the number of adjust	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or n nt lines for automatic reduction ne value is set. djustment lines for automatic ment lines for automatic reducti	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz	r is set. Initial setting 22 letter size paper			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust set Sets the number of adjust 1. Change the setting us	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in the lines for automatic reduction the value is set.	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz numeric keys.	r is set. Initial setting 22 Ietter size paper e paper is set.			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust 1. Change the setting us Description Number of adjustmer	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction the value is set. djustment lines for automatic ment lines for automatic reduction ing the cursor left/right keys or in nt lines for automatic reduction	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz	r is set. Initial setting 22 letter size paper			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust 1. Change the setting us Description Number of adjustmer when letter size pape	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction the value is set. djustment lines for automatic reduction ing the cursor left/right keys or in nt lines for automatic reduction er is set	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz numeric keys. Setting range	r is set. Initial setting 22 Ietter size paper e paper is set. Initial setting			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust 1. Change the setting us Description Number of adjustmer	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction the value is set. djustment lines for automatic reduction ing the cursor left/right keys or in nt lines for automatic reduction er is set	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz numeric keys. Setting range	r is set. Initial setting 22 Ietter size paper e paper is set. Initial setting			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust 1. Change the setting us Description Number of adjustmer when letter size pape 2. Press the start key. Th Completion	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in nt lines for automatic reduction the value is set. djustment lines for automatic reduction ing the cursor left/right keys or in nt lines for automatic reduction er is set	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz numeric keys. Setting range 0 to 26	r is set. Initial setting 22 Ietter size paper e paper is set. Initial setting 26			
	Setting the number of ad Sets the number of adjust 1. Change the setting us Description Number of adjustmer when A4 paper is set 2. Press the start key. Th Setting the number of adjust 1. Change the setting us Description Number of adjustmer when letter size pape 2. Press the start key. Th Completion	djustment lines for automatic ment lines for automatic reducti ing the cursor left/right keys or in int lines for automatic reduction ine value is set. djustment lines for automatic reduction ing the cursor left/right keys or in int lines for automatic reduction er is set ne value is set.	on when A4 pape numeric keys. Setting range 0 to 22 reduction when on when letter siz numeric keys. Setting range 0 to 26	r is set. Initial setting 22 Ietter size paper e paper is set. Initial setting 26			

tem No.		Description	
U612	Setting system 3		
	•	ansmission regarding operation and automatic printing of the protocol trailing edge margin is detected (to prevent image from being mutilated Fax.	
	Method 1. Press the start key. 2. Select the item to be	set using the cursor up/down keys.	
	Display	Description	
	Auto Reduction	Selects if auto reduction in the auxiliary direction is to be per- formed.	
	Protocol List	Sets the automatic printing of the protocol list.	
	Detect Trail	Sets how trailing edge margins are detected	
	at 100% magnification. 1. Select the setting usi Display	ng the cursor left/right keys. Description	
	On Auto reduction is performed if the received document is longe than the fax paper.		
	Off	Auto reduction is not performed.	
	Sets if the protocol list is	The setting is set. <b>printing of the protocol list</b> automatically printed out. ing the cursor left/right keys.	
	Display	Description	
	On	The protocol list is automatically printed out after communica- tion.	
	Err	The protocol list is automatically printed out after communica- tion only if a communication error occurs.	
	Off	The protocol list is not printed out automatically.	
	* : Initial setting: Off 2. Press the start key. T	he setting is set.	

ltem No.		Description
U612	This determines whether while printing a receive	<b>dge margins are detected</b> er trailing edge margin is detected (to prevent image from being mutilated) d Fax. ing the cursor left/right keys.
	Display	Description
	On	Detects trailing edge margin
	Off	Does not detect trailing edge margin
	* : Initial setting: Or 2. Press the start key.	
	<b>Completion</b> Press the stop key. The	e screen for selecting a maintenance item No. is displayed.
U620	Setting the remote sw	/itching mode
	Setting 1. Press the start key. 2. Select [Remort Mod	onnected to the machine. de] and press the start key. sing the cursor up/down keys.
	Display	Description
	One	One-shot detection
	Cont	Continuous detection
	* : Initial setting: Or 4. Press the start key.	ne
	Completion	e screen for selecting a maintenance item No. is displayed.

ltem No.	Description						
U625	Setting the transmission system 1						
	Description Makes settings for the auto redialing interval and the number of times of auto redialing. Purpose Change the setting to prevent the following problems: fax transmission is not possible due to to short redial interval, or fax transmission takes too much time to complete due to too long redial interval.						
	Method 1. Press the start key. 2. Select the item to be	e set using the c	ursor up/	down keys.			
	Display	Descript	ion				
	Interval Setting the auto redialing interval						
	Times	Setting th	ne numbe	r of times of auto	redialing		
	Setting the auto redial 1. Change the setting		left/right	keys.			
	Description			Setting range	Initial setting		
	Redialing interval			1 to 9 (min.)	3 (120 V)/2 (220-240 V)		
	Description	-	-	Setting range	Initial setting		
	Number of redialing 2. Press the start key.	•		0 to 15	2 (120 V)/3 (220-240 V)		
	Completion Press the stop key. The	screen for selec	cting a ma	aintenance item N	o. is displayed.		

tem No.	. Description				
U630	Setting communication control 1				
	<b>Description</b> Makes settings for fax transmission regarding the communication.				
	Method 1. Press the start key.				
	2. Select the item to be s	set using the cursor up/down keys. Description			
	TX Speed	Sets the communication starting speed.			
	RX Speed	Sets the reception speed.			
	TX Echo	Sets the waiting period to prevent echo problems at the sender.			
	RX Echo	Sets the waiting period to prevent echo problems at the receiver.			
	V.34 capability, V.34 is sel	ation speed when starting transmission. When the destination unit ha lected for transmission, regardless of this setting. ng the cursor up/down keys.			
	Display	Description			
	14400bps/V17	V.17, 14400 bps			
	9600bps/V29	V.17, 9600 bps			
	4800bps/V27ter	V.27ter, 4800 bps			
	2400bps/V27ter	V.27ter, 2400 bps			
	destination unit has V.34	ne setting is set.			
	Display	Description			
	14400bps	V.17, V.33, V.29, V.27ter			
	9600bps	V.29, V.27ter			
	4800bps	V.27ter			
	2400bps	V.27ter (fallback only)			
	* : Initial setting: 1440	)0bps			

ltem No.		Description
U630	Sets the period before a D occur due to echoes at the	
		ng the cursor up/down keys.
	Display	Description
	500	Sends a DCS 500 ms after receiving a DIS.
	300	Sends a DCS 300 ms after receiving a DIS.
	* : Initial setting: 300 2. Press the start key. Th	ne setting is set.
	Sets the period before an when problems occur due	od to prevent echo problems at the receiver NSF, CSI or DIS signal is sent after a CED signal is received. Used to echoes at the receiver. Ing the cursor up/down keys.
	Display	Description
	500	Sends an NSF, CSI or DIS 500 ms after receiving a CED.
	75	Sends an NSF, CSI or DIS 75 ms after receiving a CED.
	* : Initial setting: 75 2. Press the start key. Th	ne setting is set.

	Description				
J631	Setting communication control 2				
	<b>Description</b> Makes settings regarding fax transmission.				
	Method 1. Press the start key				
	Display	be set using the cursor up/down keys. Description			
	ECM TX	Sets ECM transmission.			
	ECM RX				
	CED Freq	Sets ECM reception. Sets the frequency of the CED signal.			
	CLDTTeq	Sets the frequency of the CED signal.			
	This should not be set to Off when connecting to the IP (Internet Protocol) telephone line.         1. Select the setting using the cursor up/down keys.         Display       Description				
	On	ECM transmission is enabled.			
	Off	ECM transmission is disabled.			
	_				
	* : Initial setting: O 2. Press the start key Setting ECM receptio	. The setting is set.			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u	The setting is set. n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display	The setting is set.  n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.  Description			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On	The setting is set.  n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.  Description ECM reception is enabled.			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off	<ul> <li>The setting is set.</li> <li>n</li> <li>reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.</li> <li>Description</li> <li>ECM reception is enabled.</li> <li>ECM reception is disabled.</li> </ul>			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On	<ul> <li>The setting is set.</li> <li>n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.</li> <li>Description         <ul> <li>ECM reception is enabled.</li> <li>ECM reception is disabled.</li> </ul> </li> </ul>			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of t formance for internatio	<ul> <li>The setting is set.</li> <li>n</li> <li>reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.</li> <li>Description</li> <li>ECM reception is enabled.</li> <li>ECM reception is disabled.</li> <li>n</li> <li>The setting is set.</li> <li>y of the CED signal</li> <li>he CED signal. Used as one of the measures to improve transmission perior.</li> </ul>			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of t formance for internatio	<ul> <li>The setting is set.</li> <li>n</li> <li>reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.</li> <li>Description</li> <li>ECM reception is enabled.</li> <li>ECM reception is disabled.</li> <li>n</li> <li>The setting is set.</li> <li>y of the CED signal</li> <li>he CED signal. Used as one of the measures to improve transmission penal communications.</li> </ul>			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key Setting the frequency Sets the frequency of t formance for internatio 1. Select the setting u	The setting is set.			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of th formance for internatio 1. Select the setting u Display Display	<ul> <li>The setting is set.</li> <li>n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys.</li> <li>Description         <ul> <li>ECM reception is enabled.</li> <li>ECM reception is disabled.</li> <li>n</li></ul></li></ul>			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off *: Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of tf formance for internatio 1. Select the setting u Display 2100 1100	. The setting is set.			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of t formance for internatio 1. Select the setting u Display 2100	. The setting is set. n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys. Description ECM reception is enabled. ECM reception is disabled. n . The setting is set. y of the CED signal he CED signal. Used as one of the measures to improve transmission per nal communications. using the cursor up/down keys. Description 2100 Hz 1100 Hz			
	2. Press the start key. Setting ECM receptio To be set to Off when r This should not be set 1. Select the setting u Display On Off * : Initial setting: O 2. Press the start key. Setting the frequency Sets the frequency of tf formance for internatio 1. Select the setting u Display 2100 1100 * : Initial setting: 2*	. The setting is set. n reduction of transmission costs is of higher priority than image quality. to Off when connecting to the IP (Internet Protocol) telephone line. using the cursor up/down keys. Description ECM reception is enabled. ECM reception is disabled. n . The setting is set. y of the CED signal he CED signal. Used as one of the measures to improve transmission per nal communications. using the cursor up/down keys. Description 2100 Hz 1100 Hz			

U632       Setting communication control 3         Description         Makes settings for fax transmission regarding the communication.         Method         1. Press the start key.         2. Select the item to be set using the cursor up/down keys.         Display       Description         DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode.         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG once.         2Time       Detec	Description         Makes settings for fax transmission regarding the communication.         Method         1. Press the start key.         2. Select the item to be set using the cursor up/down keys.         Display       Description         DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes       Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.       Display         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are sent.         0f       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode.         State the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG once.         2Time       Detects CNG wice.         * : Initial setting: 2Time	em No.		Description	
Makes settings for fax transmission regarding the communication.         Method         1. Press the start key.         2. Select the item to be set using the cursor up/down keys.         Display       Description         DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode.       1. Select the setting using the cursor up/down keys.         Display       Description       11ime         1. Select the setting using the cursor up/down keys.       1. Select the setting using the cursor up/down keys.         1. Select the setting using the cursor up/down keys.       1. Select the setting using the cursor up/down keys.	Makes settings for fax transmission regarding the communication.         Method         1. Press the start key.         2. Select the item to be set using the cursor up/down keys.         Display       Description         DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode.       1. Select the setting using the cursor up/down keys.         Display       Description       11mm         1. Select the setting using the cursor up/down keys.       1. Select the setting using the cursor up/down keys.         Display       Description       11mm         1. Time       Detects CNG once.	U632	Setting communicatio	n control 3	
<ul> <li>Press the start key.</li> <li>Select the item to be set using the cursor up/down keys.</li> <li>Display Description <ul> <li>DIS 4Byte</li> <li>Sets the DIS signal to 4 bytes.</li> <li>Num OF CNG(F/T)</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> </ul> </li> <li>Setting the DIS signal to 4 bytes Sets if bit 33 and later bits of the DIS/DTC signal are sent. <ol> <li>Select the setting using the cursor up/down keys.</li> </ol> </li> <li>Display Description <ol> <li>On Bit 33 and later bits of the DIS/DTC signal are not sent.</li> <li>Off Bit 33 and later bits of the DIS/DTC signal are not sent.</li> <li>Off Bit 33 and later bits of the DIS/DTC signal are sent.</li> </ol> </li> <li>* : Initial setting: Off <ol> <li>Press the start key. The setting is set.</li> </ol> </li> <li>Setting the CNG detection times in the fax/telephone auto select mode Sets the CNG detection times in the fax/telephone auto select mode. Sets the Setting using the cursor up/down keys. Display Description 1Time Detects CNG once. 2Time Detects CNG once. 2Time Detects CNG wice. * : Initial setting: 2Time 2. Press the start key. The setting is set. Completion</li></ul>	<ul> <li>1. Press the start key.</li> <li>2. Select the item to be set using the cursor up/down keys.</li> <li>Display Description <ul> <li>DIS 4Byte</li> <li>Sets the DIS signal to 4 bytes.</li> <li>Num OF CNG(F/T)</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> </ul> </li> <li>Setting the DIS signal to 4 bytes Sets if bit 33 and later bits of the DIS/DTC signal are sent. <ol> <li>Select the setting using the cursor up/down keys.</li> </ol> </li> <li>Display Description <ol> <li>On Bit 33 and later bits of the DIS/DTC signal are not sent.</li> <li>Off Bit 33 and later bits of the DIS/DTC signal are not sent.</li> <li>Off Bit 33 and later bits of the DIS/DTC signal are sent.</li> </ol> </li> <li>* : Initial setting: Off <ol> <li>Press the start key. The setting is set.</li> </ol> </li> <li>Setting the CNG detection times in the fax/telephone auto select mode Sets the CNG detection times in the fax/telephone auto select mode. Sets the CNG detection times in the fax/telephone auto select mode. Sets the CNG detection times in the fax/telephone auto select mode. Sets the CNG detection times in the fax/telephone auto select mode. Sets the CNG detection times in the fax/telephone auto select mode. Sets the CNG detection times in the fax/telephone auto select mode. Sets the Set the setting using the cursor up/down keys. Display Description Time Detects CNG once. 2Time Detects CNG once. 2Time Detects CNG once. 2Time Detects CNG twice. * : Initial setting: 2Time 2. Press the start key. The setting is set. Completion</li></ul>		-	ransmission regarding the communication.	
Display         Description           DIS 4Byte         Sets the DIS signal to 4 bytes.           Num OF CNG(F/T)         Sets the CNG detection times in the fax/telephone auto select mode.           Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.           1. Select the setting using the cursor up/down keys.         Display           Description         On           On         Bit 33 and later bits of the DIS/DTC signal are not sent.           Off         Bit 33 and later bits of the DIS/DTC signal are not sent.           Off         Bit 33 and later bits of the DIS/DTC signal are sent.           * : Initial setting: Off         Press the start key. The setting is set.           Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.           1. Select the setting using the cursor up/down keys.         Display         Description           1Time         Detects CNG once.         2Time           2 Time         Detects CNG twice.         * : Initial setting: 2Time           2. Press the start key. The setting is set.         Completion	Display         Description           DIS 4Byte         Sets the DIS signal to 4 bytes.           Num OF CNG(F/T)         Sets the CNG detection times in the fax/telephone auto select mode.           Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.           1. Select the setting using the cursor up/down keys.         Display         Description           On         Bit 33 and later bits of the DIS/DTC signal are not sent.         Off           Off         Bit 33 and later bits of the DIS/DTC signal are not sent.         Off           Y: Initial setting: Off         Initial setting: Off         Press the start key. The setting is set.           Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.           1. Select the setting using the cursor up/down keys.         Display         Description           1Time         Detects CNG once.         2Time           2. Press the start key. The setting is set.         Time         Detects CNG twice.           * : Initial setting: 2Time         Detects CNG twice.         * : Initial setting: 2Time           2. Press the start key. The setting is set.         Completion         Time		1. Press the start key.	e set using the cursor up/down keys	
DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes       Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.       Display         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode.       1. Select the setting using the cursor up/down keys.         Display       Description       Description         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .       .         .       .	DIS 4Byte       Sets the DIS signal to 4 bytes.         Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.       Display         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         0ff       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off         2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         Sets the CNG detection times in the fax/telephone auto select mode.         Sets the CNG detection times in the fax/telephone auto select mode.         Sets the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG twice.         * : Initial setting: 2Time         2. Press the start key. The setting is set. <td co<="" td=""><td></td><td></td><td></td></td>	<td></td> <td></td> <td></td>			
Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode       Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.       Display       Description         1Time       Detects CNG once.       2Time         2Time       Detects CNG twice.       * : Initial setting: 2Time         2. Press the start key. The setting is set.       Completion	Num OF CNG(F/T)       Sets the CNG detection times in the fax/telephone auto select mode.         Setting the DIS signal to 4 bytes         Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode       Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.       Display       Description         1Time       Detects CNG once.       2Time         2Time       Detects CNG twice.       * : Initial setting: 2Time         2. Press the start key. The setting is set.       Completion				
Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG twice.         * : Initial setting: 2Time       Press the start key. The setting is set.         Completion       Setting is set.	Sets if bit 33 and later bits of the DIS/DTC signal are sent.         1. Select the setting using the cursor up/down keys.         Display       Description         On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG twice.         * : Initial setting: 2Time       Press the start key. The setting is set.         Completion       Setting is set.			Sets the CNG detection times in the fax/telephone auto select	
On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.       Display       Description         1Time       Detects CNG once.       2Time         2. Press the start key. The setting is set.       * : Initial setting: 2Time         2. Press the start key. The setting is set.       Completion	On       Bit 33 and later bits of the DIS/DTC signal are not sent.         Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.       Display       Description         1Time       Detects CNG once.       2Time         2. Press the start key. The setting is set.       * : Initial setting: 2Time         2. Press the start key. The setting is set.       Completion		Sets if bit 33 and later b	its of the DIS/DTC signal are sent.	
Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG twice.         * : Initial setting: 2Time       2. Press the start key. The setting is set.         Completion       Setting is set.	Off       Bit 33 and later bits of the DIS/DTC signal are sent.         * : Initial setting: Off       2. Press the start key. The setting is set.         Setting the CNG detection times in the fax/telephone auto select mode         Sets the CNG detection times in the fax/telephone auto select mode.         1. Select the setting using the cursor up/down keys.         Display       Description         1Time       Detects CNG once.         2Time       Detects CNG twice.         * : Initial setting: 2Time       2. Press the start key. The setting is set.         Completion       Setting is set.		Display	Description	
<ul> <li>* : Initial setting: Off</li> <li>2. Press the start key. The setting is set.</li> <li>Setting the CNG detection times in the fax/telephone auto select mode</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> <li>1. Select the setting using the cursor up/down keys.</li> <li>Display Description</li> <li>1Time Detects CNG once.</li> <li>2Time Detects CNG twice.</li> <li>* : Initial setting: 2Time</li> <li>2. Press the start key. The setting is set.</li> </ul>	<ul> <li>* : Initial setting: Off</li> <li>2. Press the start key. The setting is set.</li> <li>Setting the CNG detection times in the fax/telephone auto select mode</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> <li>1. Select the setting using the cursor up/down keys.</li> <li>Display Description</li> <li>1Time Detects CNG once.</li> <li>2Time Detects CNG twice.</li> <li>* : Initial setting: 2Time</li> <li>2. Press the start key. The setting is set.</li> </ul>		On	Bit 33 and later bits of the DIS/DTC signal are not sent.	
<ul> <li>2. Press the start key. The setting is set.</li> <li>Setting the CNG detection times in the fax/telephone auto select mode.</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> <li>1. Select the setting using the cursor up/down keys.</li> <li>Display Description <ul> <li>1Time Detects CNG once.</li> <li>2Time Detects CNG twice.</li> </ul> </li> <li>* : Initial setting: 2Time <ul> <li>Press the start key. The setting is set.</li> </ul> </li> <li>Completion</li> </ul>	<ul> <li>2. Press the start key. The setting is set.</li> <li>Setting the CNG detection times in the fax/telephone auto select mode.</li> <li>Sets the CNG detection times in the fax/telephone auto select mode.</li> <li>1. Select the setting using the cursor up/down keys.</li> <li>Display Description <ul> <li>1Time Detects CNG once.</li> <li>2Time Detects CNG twice.</li> </ul> </li> <li>* : Initial setting: 2Time <ul> <li>Press the start key. The setting is set.</li> </ul> </li> <li>Completion</li> </ul>		Off	Bit 33 and later bits of the DIS/DTC signal are sent.	
1Time     Detects CNG once.       2Time     Detects CNG twice.       * : Initial setting: 2Time       2. Press the start key. The setting is set.       Completion	1Time     Detects CNG once.       2Time     Detects CNG twice.       * : Initial setting: 2Time       2. Press the start key. The setting is set.       Completion		2. Press the start key.	The setting is set.	
2Time Detects CNG twice. * : Initial setting: 2Time 2. Press the start key. The setting is set. Completion	2Time Detects CNG twice. * : Initial setting: 2Time 2. Press the start key. The setting is set. Completion		2. Press the start key. Setting the CNG detection Sets the CNG detection 1. Select the setting us	The setting is set. <b>tion times in the fax/telephone auto select mode</b> times in the fax/telephone auto select mode. sing the cursor up/down keys.	
<ul> <li>* : Initial setting: 2Time</li> <li>2. Press the start key. The setting is set.</li> <li>Completion</li> </ul>	<ul> <li>* : Initial setting: 2Time</li> <li>2. Press the start key. The setting is set.</li> <li>Completion</li> </ul>		2. Press the start key.  Setting the CNG detect Sets the CNG detection 1. Select the setting us Display	The setting is set.  tion times in the fax/telephone auto select mode times in the fax/telephone auto select mode. sing the cursor up/down keys.  Description	
			2. Press the start key.  Setting the CNG detect Sets the CNG detection 1. Select the setting us Display 1Time	The setting is set.	
			2. Press the start key. Setting the CNG detection 1. Select the setting us Display 1Time 2Time * : Initial setting: 2Time	The setting is set.	
			<ul> <li>2. Press the start key.</li> <li>Setting the CNG detection</li> <li>Sets the CNG detection</li> <li>1. Select the setting us</li> <li>Display</li> <li>1Time</li> <li>2Time</li> <li>* : Initial setting: 2Ti</li> <li>2. Press the start key.</li> <li>Completion</li> </ul>	The setting is set.	
			<ul> <li>2. Press the start key.</li> <li>Setting the CNG detection</li> <li>Sets the CNG detection</li> <li>1. Select the setting us</li> <li>Display</li> <li>1Time</li> <li>2Time</li> <li>* : Initial setting: 2Ti</li> <li>2. Press the start key.</li> <li>Completion</li> </ul>	The setting is set.	

U633	Description				
0633	Setting communication control 4				
	Purpose		ission regarding the communication.		
	<b>Method</b> 1. Press the start k	key.	using the cursor up/down keys.		
	Display		Description		
	V.34		Enables or disables V.34 communication.		
	V.34-3429Hz		Sets the V.34 symbol speed (3429 Hz).		
	DIS 2Res		Sets the number of times of DIS signal reception.		
	RTN Check		Sets the reference for RTN signal output.		
	1. Select the settin	ommunic g using th	ation is enabled/disabled for transmission and reception. ne cursor up/down keys.		
	Display	Desc	ription		
	On	V.34	communication is enabled for both transmission and reception.		
	TX		communication is enabled for transmission only.		
	RX	V.34	communication is enabled for reception only.		
	Off	V.34	communication is disabled for both transmission and reception.		
	<ul> <li>* : Initial setting</li> <li>2. Press the start k</li> <li>Setting the V.34 sy</li> <li>Sets if the V.34 sym</li> <li>1. Select the setting</li> </ul>	key. The s <b>mbol spe</b> bol speec	eed (3429 Hz)		
	Display		Description		
	On		V.34 symbol speed 3429 Hz is used.		
	Off		V.34 symbol speed 3429 Hz is not used.		
	* : Initial setting 2. Press the start k		etting is set.		

tem No.		Description			
U633	Sets the number of time measures for transmission	times of DIS signal reception s to receive the DIS signal to once ion errors and other problems. sing the cursor up/down keys.	or twice. Used as	one of the correctic	
	Display	Description			
	Once	Responds to the first signa	I.		
	Twice	Responds to the second si	gnal.		
	* : Initial setting: On 2. Press the start key.				
	quently due to the qualit	for RTN signal output as the reference for RTN signal ou ty of the line, they can be reduced sing the cursor up/down keys.	•		
	Display Description				
	5% Error line rate of 5%				
	10% Error line rate of 10%				
	15% Error line rate of 15%				
	20% Error line rate of 20%				
U634	Completion         Press the stop key. The screen for selecting a maintenance item No. is displayed.         Setting communication control 5				
	<b>Description</b> Sets the maximum number of error bytes judged acceptable when receiving a TCF signal. Use as a measure to ease transmission conditions if transmission errors occur.				
	<ul><li>Setting</li><li>1. Press the start key.</li><li>2. Change the setting using the cursor left/right keys or numeric keys.</li></ul>				
	Description		Setting range	Initial setting	
	Number of allowed	error bytes when detecting TCF	0 to 255	0	
	3. Press the start key. The value is set.				
	<b>Completion</b> Press the stop key. The	screen for selecting a maintenand	ce item No. is disp	layed.	

ltem No.		Description				
U640	Setting communication	n time 1				
	<b>Description</b> Sets the detection time when one-shot detection is selected for remote switching. (This setting item will be displayed, but the setting made is ineffective.) Sets the detection time when continuous detection is selected for remote switching. (This setting item will be displayed, but the setting made is ineffective.)					
	Method 1. Press the start key. 2. Select the item to be	set using the cursor up/down l	keys.			
	Display	Description				
	Time (One)	Sets the one-shot detect	ion time for remote	switching.		
	Time (Cont)	Sets the continuous dete	ection time for remot	e switching.		
	-	etection time for remote swite using the cursor left/right keys.	Setting range	Initial setting		
	-	time for remote switching	0 to 255	7		
	2. Press the start key.		0 10 200	,		
	Description		Setting range	Initial setting		
		on time for remote switching	0 to 255	80		
	2. Press the start key.					
	Completion Press the stop key. The	screen for selecting a maintena	ance item No. is dis	blayed.		

		Description				
<b>I641</b>	Setting communication	time 2				
	DescriptionSets the time-out time for fax transmission.PurposeTo improve transmission performance for international communications mainly.					
	Method 1. Press the start key. 2. Select the item to be	set using the cursor up/down key	<b>/</b> S.			
	Display	Description				
	T0 Time Out	Sets the T0 time-out time.				
	T1 Time Out	Sets the T1 time-out time.				
	T2 Time Out Sets the T2 time-out time.					
	Ta Time Out	Sets the Ta time-out time.				
	Tb1 Time Out	Sets the Tb1 time-out time.	o1 time-out time.			
	Tb2 Time Out					
	Tc Time Out	Sets the Tc time-out time.				
	Td Time Out	Sets the Td time-out time.				
	destination unit, a line ca	of the exchange, or when the au n be disconnected. Change the s sing the cursor left/right keys.				
	Description		Setting range	Initial setting		
	T0 time-out time		30 to 90 s	56		
	2. Press the start key. The value is set.					
	2. Press the start key. I	ne value is set.				
	Setting the T1 time-out Sets the time before rece this maintenance item.		reception. No cha	ange is necessary		
	Setting the T1 time-out Sets the time before rece this maintenance item.	time iving the correct signal after call	reception. No cha	ange is necessary		
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us	time iving the correct signal after call				
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us Description	time iving the correct signal after call sing the cursor left/right keys.	Setting range	Initial setting		
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us Description T1 time-out time	time iving the correct signal after call sing the cursor left/right keys.	Setting range	Initial setting		
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us Description T1 time-out time	time iving the correct signal after call sing the cursor left/right keys.	Setting range	Initial setting		
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us Description T1 time-out time	time iving the correct signal after call sing the cursor left/right keys.	Setting range	Initial setting		
	Setting the T1 time-out Sets the time before rece this maintenance item. 1. Change the setting us Description T1 time-out time	time iving the correct signal after call sing the cursor left/right keys.	Setting range	Initial setting		

em No.	Description						
J641	Setting the T2 time-out time						
	The T2 time-out time decides the following.						
	From CFR signal output to image data	•					
	From image data reception to the next signal reception						
	In ECM, from RNR signal detection to the next signal reception 1. Change the setting using the cursor left/right keys.						
			Initial	Change in value			
	Description	Setting range	Initial setting	Change in value per step			
	T2 time-out time	1 to 255	69	100 ms			
	2. Press the start key. The value is se	et.	·				
	Setting the Ta time-out time In the fax/telephone auto select mode, sets the time to continue ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-3). A fax signal is received within the Ta set time, or the fax mode is selected automatically when the time elaps In fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.						
	1. Change the setting using the curso <b>Description</b>	or left/right keys.	Setting range	Initial setting			
	Ta time-out time		1 to 255	30			
		1 10 200	50				
	2. Press the start key. The value is se						
	Ring detection Line connection as a fax machine Ring back tone send start Bing back tone send start Start of fax reception						
	Figure 1-3	Tb2 3-3 Ta/Tb1/Tb2 tir	ne-out time				
	Setting the Tb1 time-out time						
	In the fax/telephone auto select mode, receiving a call as a fax machine (see the setting when fax reception is unsu 1. Change the setting using the curso	figure 1-3-3). In fai ccessful or a telepl	x/telephone auto	select mode, chang			
				Change in value			
	Description	Setting range	Initial setting	Change in value per step			
	Description Tb1 time-out time	-		-			
	Tb1 time-out time	range           1 to 255	setting	per step			
		range           1 to 255	setting	per step			

Item No.	Description           Setting the Tb2 time-out time           In the fax/telephone auto select mode, sets the time to start ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-3). In the fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.           1. Change the setting using the cursor left/right keys.						
U641							
	Description	Setting range	Initial setting	Change in value per step			
	Tb2 time-out time	1 to 255	80	100 ms			
	Setting the Tc time-out time In the TAD mode, set the time to ch connected telephone receives a ca made within the set Tc time. In the TAD mode, change the settin receive a call.	all. Only the telephon	e function is	available if shifting is not			
	1. Change the setting using the c	ursor left/right keys.					
	Description	Setting I					
	Tc time-out time		1 to 255	60			
	fails to receive a call. Be sure not to while the unit is being used as a te	lephone.	erwise, the n	node may be shifted to fay			
	1. Change the setting using the c	ursor left/right keys.					
	-		ng range	Initial setting			
	1. Change the setting using the c	Setti 1 to 2		Initial setting 9 (120 V)/6 (220-240 V)			

ltem No.	Description				
U650	Setting modem 1				
	Description				
	-	er. Sets the modem detection level.			
	Purpose	atment to make the equalizer compatible with the line characteristics.			
	Perform the following adjustment to make the equalizer compatible with the line characteristics. To improve the transmission performance when a low quality line is used. <b>Method</b>				
	1. Press the start key.	at using the ourser un down logo			
		et using the cursor up/down keys.			
	Display	Description			
	Reg G3 TX Eqr	Sets the G3 transmission cable equalizer.			
	Reg G3 RX Eqr	Sets the G3 reception cable equalizer.			
	RX Mdm Level	Sets the modem detection level.			
	<ul> <li>* : Initial setting: 0dB</li> <li>2. Press the start key. Th</li> <li>Setting the G3 reception</li> <li>1. Select [0dB], [4dB], [86 * : Initial setting: 0dB</li> <li>2. Press the start key. Th</li> <li>Setting the modem detect</li> <li>1. Select [-33dBm], [-38d * : Initial setting: -43dE</li> <li>2. Press the start key. Th</li> <li>Completion</li> </ul>	<b>cable equalizer</b> dB] or [12dB] using the cursor up/down keys. e setting is set. <b>ction level</b> IBm], [-43dBm] or [-48dBm] using the cursor up/down keys. Bm			

tem No.		Descrip	otion				
U651	Setting modem 2						
	Description						
	Sets the modem output level.						
	Sets the DTMF output level of a push-button dial telephone.						
	<b>Purpose</b> Used if problems occur when sending a signal with a push-button dial telephone.						
	Setting						
	1. Press the start k	key. to be set using the cursor up/d	lown kevs				
		ing using the cursor left/right k					
	Display	Description	Setting range	Initial setting			
	Sgl LV Mdm	Modem output level	1 to 15	9 (120 V) 10 (220-240 V)			
	DTMF LV(C)	DTMF output level (main value)	0 to 15.0	5 (120 V) 10.5 (220-240 V)			
	DTMF LV(D)	DTMF output level (level difference)	0 to 5.5	2 (120 V) 2.5 (220-240 V)			
	4 Press the start k	key. The setting is set.		JJ			

tem No.		Description		
U660	Setting the NCU			
	Description Makes setting regarding the network control unit (NCU). Purpose To be executed as required.			
	<ul><li>Method</li><li>1. Press the start key.</li><li>2. Select the item to be set using the cursor up/down keys.</li></ul>			
	Display	Description		
	Exchange	Sets the connection to PBX/PSTN.		
	Dial Tone	Sets PSTN dial tone detection.		
	Busy Tone	Sets busy tone detection.		
	PBX Setting	Setting for a PBX.		
	DC Loop	Sets the loop current detection before dialing.		
	PSTN	Connected to the public switched telephone network.		
	Display	bing the cursor up/down keys.  Description		
	PBX	Connected to a PBX.		
	<ul> <li>* : Initial setting: PSTN</li> <li>2. Press the start key. The setting is set.</li> </ul> Setting PSTN dial tone detection Selects if the dial tone is detected to check the telephone is off the hook when a fax is connect to a public switched telephone network.			
	2. Press the start key. Setting PSTN dial tone Selects if the dial tone is to a public switched tele	e <b>detection</b> b detected to check the telephone is off the hook when a fax is connect phone network.		
	2. Press the start key. Setting PSTN dial tone Selects if the dial tone is to a public switched tele 1. Select the setting us	e <b>detection</b> detected to check the telephone is off the hook when a fax is connected phone network. sing the cursor up/down keys.		
	2. Press the start key. Setting PSTN dial tone Selects if the dial tone is to a public switched tele 1. Select the setting us Display	e detection detected to check the telephone is off the hook when a fax is connected phone network. ing the cursor up/down keys. Description		
	2. Press the start key. Setting PSTN dial tone Selects if the dial tone is to a public switched tele 1. Select the setting us	e <b>detection</b> detected to check the telephone is off the hook when a fax is connected phone network. sing the cursor up/down keys.		

		Description			
U660	<ul> <li>Setting busy tone detection</li> <li>When a fax signal is sent, sets whether the line is disconnected immediately after a busy tone is detected, or the busy tone is not detected and the line remains connected until T0 time-out time Fax transmission may fail due to incorrect busy tone detection. When set to 2, this problem may be prevented. However, the line is not disconnected within the T0 time-out time even if the destination line is busy.</li> <li>1. Select the setting using the cursor up/down keys.</li> </ul>				
	Display	Description			
	On	Detects busy tone.			
	Off	Does not detect busy tone.			
	<ul> <li>* : Initial setting: On</li> <li>2. Press the start key. The setting is set.</li> </ul> Setting for a PBX Selects the mode to connect an outside call when connected to a PBX. According to the type of the PBX connected, select the mode to connect an outside call.				
	1. Select the setting u Display	Using the cursor up/down keys.  Description			
	Flash	Flashing mode			
	Loop	Code number mode			
	<ol> <li>Press the start key. The setting is set.</li> <li>Setting the loop current detection before dialing</li> <li>Sets if the loop current detection is performed before dialing.</li> <li>Select the setting using the cursor up/down keys.</li> </ol>				
	Display	Description			
	On	Performs loop current detection before dialing.			
	Off	Does not perform loop current detection before dialing.			
	<ul> <li>* : Initial setting: On</li> <li>2. Press the start key. The setting is set.</li> <li>Completion</li> <li>Press the stop key. The screen for selecting a maintenance item No. is displayed.</li> </ul>				

Item No.	Description				
U670	Outputting lists				
	<ul> <li>Description</li> <li>Outputs a list of data regarding fax transmissions.</li> <li>Printing a list is disabled either when a job is remaining in the buffer or when [Pause All Print Jobs] is pressed to halt printing.</li> <li>Purpose</li> <li>To check conditions of use, settings and transmission procedures of the fax.</li> </ul>				
	Method 1. Press the start key. 2. Select the item to be o 3. Press the start key. The	utput using the cursor up/down keys. e selected list is output.			
	Display	Description			
	Sys Conf Report	Outputs a list of software switches, self telephone number, confidential boxes, ROM versions and other information.			
	Action List	Outputs a list of error history, transmission line details and other information.			
	Self Sts Report	Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only.			
	Protocol List	Outputs a list of transmission procedures.			
	Error List	Outputs a list of error.			
	Addr List(No.)	Outputs address book in order IDs were added			
	Addr List(Idx)	Outputs address book in order of names			
	One-touch List	Outputs a list of one-touch.			
	Group List	Outputs a list of group.			
	<b>Completion</b> Press the stop key. The sc	reen for selecting a maintenance item No. is displayed.			

em No.	Description				
U695	FAX function customize				
	Description Sets fax batch transmission ON/OFF. Also changes the print size priority at the time of small size reception. Purpose To be executed as required.				
	Setting 1. Select the setting us	ing the cursor up/down keys.			
	Display	Description			
	FAX Bulk TX	fax batch transmission On/Off			
	A5 Pt Pri Chg	Change of print size priority at the time of small size reception			
	Setting: [FAX Bulk TX] 1. Select On or Off usir	ng the cursor left/right keys.			
	Display	Description			
	On	Fax batch transmission is enabled.			
	Off	Fax batch transmission is disabled.			
	1. Select ON or OFF us	sing the cursor left/right keys. Description			
	On	At the time of A5 size reception: $A5 \rightarrow B5 \rightarrow A4$			
	Off	At the time of A5 size reception: $A5 \rightarrow A4 \rightarrow B5$			
	* : Initial setting: Off 2. Press the start key. T	The setting is set.			
	Completion Press the stop key. The	screen for selecting a maintenance item No. is displayed.			

tem No.	Description					
U699	Setting the	software swi	itches			
	Description					
	Sets the software switches on the FAX control PWB individually.					
	Purpose	To change the setting when a problem such as split output of received originals occurs.				
	<ul> <li>Since the communication performance is largely affected, normally this setting need not be changed.</li> <li>Method <ol> <li>Press the start key.</li> <li>Press [SW No.].</li> <li>Enter the desired software switch number (3 digits) using the numeric keys and press the enter key.</li> </ol> </li> </ul>					
			o 0 to switch each bit between 0 and 1.			
	J. Piess If	ne start key to	שבו נווב אמועב.			
	Completion		· · · · · · · · · · · · · · ·			
	Press the st	top key. The s	creen for selecting a maintenance item No. is displayed.			
	List of Soft	ware Switche	es of Which the Setting Can Be Changed			
	<communi< td=""><td>action contro</td><td></td></communi<>	action contro				
			bl procedure>			
	No.	Bit	Item			
	36	7654 3210	···· • • • • • • • • • • • • • • • • •			
	27	5	133600 bbc//34			
	37	5				
	37	4	31200 bps/V34			
	37	4	31200 bps/V34 28800 bps/V34			
	37	4 3 2	31200 bps/V34 28800 bps/V34 26400 bps/V34			
	37	4 3 2 1	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34			
		4 3 2 1 0	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34			
	37	4 3 2 1 0 7	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34			
		4 3 2 1 0 7 6	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34			
		4 3 2 1 0 7	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34			
		4 3 2 1 0 7 6 5	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34			
		4 3 2 1 0 7 6 5 4	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34			
		4 3 2 1 0 7 6 5 4 3	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34			
		4 3 2 1 0 7 6 5 4 3 2	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 7200 bps/V34			
		4 3 2 1 0 7 6 5 4 3 2 1	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34 7200 bps/V34			
	38	4 3 2 1 0 7 6 5 4 3 2 2 1 0	31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34 7200 bps/V34 2400 bps/V34			

tem No.	Description					
U699	<communi< td=""><td>ication time s</td><td>etting&gt;</td></communi<>	ication time s	etting>			
	No.	Bit	Item			
	53	76543210	T3 timeout setting			
	54	76543210	T4 timeout setting (automatic equipment)			
	55	76543210	T5 timeout setting			
	60	76543210	Time before transmission of CNG (1100 Hz) signal			
	63	76543210	T0 timeout setting (manual equipment)			
	64	7	Phase C timeout in ECM reception			
	66	76543210	Timeout 1 in countermeasures against echo			
	68	76543210	Timeout for FSK detection start in V.8			
	<modem se<="" td=""><td>etting&gt;</td><td></td></modem>	etting>				
	No.	Bit	Item			
	89	76543	RX gain adjust			
		L				
	<ncu setti<="" td=""><td>ng&gt;</td><td></td></ncu>	ng>				
	No.	Bit	Item			
	121	7654	Dial tone/busy tone detection pattern			
	122	7654	Busy tone detection pattern			
		1	Busy tone detection in automatic FAX/TEL switching			
	125	76543210	Access code registration for connection to PSTN			
	126	7654	FAX/TEL automatic switching ringback tone ON/OFF cycle			
	<calling td="" tir<=""><td>ne setting&gt;</td><td></td></calling>	ne setting>				
	No.	Bit	Item			
	133	76543210	DTMF signal transmission time			
	134	76543210	DTMF signal pause time			
	1 L					
	141	76543210	Ringer detection cycle (minimum)			
	141 142	76543210 76543210	Ringer detection cycle (minimum) Ringer detection cycle (maximum)			
	142	76543210	Ringer detection cycle (maximum)			
	142 143	76543210 76543210	Ringer detection cycle (maximum) Ringer ON time detection			
	142 143 144	76543210 76543210 76543210	Ringer detection cycle (maximum)         Ringer ON time detection         Ringer OFF time detection			
	142 143 144 145	76543210 76543210 76543210 76543210	Ringer detection cycle (maximum)         Ringer ON time detection         Ringer OFF time detection         Ringer OFF non-detection time			
	142 143 144 145 147	76543210 76543210 76543210 76543210 76543210	Ringer detection cycle (maximum)         Ringer ON time detection         Ringer OFF time detection         Ringer OFF non-detection time         Dial tone detection time (continuous tone)			

tem No.	Description				
U699	<function< td=""><td>setting&gt;</td><td></td></function<>	setting>			
	No.	Bit	Item		
	217	7	Setting the output priority when A5 size reception		
U910	Clearing the digital dot coverage data				
	Description				
	Clears the accumulated data for the digital dot coverage per A4 size paper.				
	Purpose				
	To clear dat	a as required	at times such as during maintenance service.		
	Method				
	1. Press the start key.				
			g the cursor up/down keys.		
	3. Press th	ie start key. I	he digital dot coverage data is cleared.		
	Completior				
	Press the stop key. The screen for selecting a maintenance item No. is displayed.				
	1				

1-3-50

m No.	Description					
J917	Setting backup data	reading	g/writing			
	Description					
	•	data to	a USB memory from the	machine; or writes the data from the USI		
	memory to the machi					
	Purpose					
	To store and write dat	ta when	replacing the HDD.			
	Method					
		-		fter verifying the power indicator has gor		
	off, switch off the 2. Insert USB memo	-				
	3. Turn the main po	-	-			
	-		ow the machine to recog	nize the USB memory.		
	4. Enter the mainter		-			
	5. Press the start ke	-				
		[Import]	2	n keys and press the start key.		
	Display		Description			
	Import		Writing data from the U	SB memory to the machine		
	Export		Retrieving from the made	chine to a USB memory		
	7. Select the item using the cursor up/down keys.					
	Display	Descr	iption	Depending data		
	Address Book	Addres	ss book	-		
	Job Account	Job ac	counting	-		
	One Touch	Inform	ation on one-touch key	Address book		
	User	User n	nanagements	Job accounting		
	Program	Progra	m information	Job accountings and user manage- ments		
	Document Box	Docum	nent box information	Job accountings and user manage- ments		
	Fax Forward	FAX tra	ansfer information	Job accountings, user managements and document box information		
	<b>3</b> , <b>3</b>					

tem No.	Description					
U917	Error Codes					
	Codes	Description	Codes	Description		
	e002	Parameter error	e31e	User managements error		
	e003	File write error	e31f	User managements open error		
	e004	File initialization error	e320	User managements error		
	e005	File error	e410	Box file open error		
	e006	Processing error	e411	Box error in writing		
	e010	Address book clear error (contact)	e412	Box error in reading		
	e011	Address book open error (contact)	e413	Box list error		
	e012	Address book list error (contact)	e414	Box list error		
	e013	Address book list error (contact)	e415	Box error		
	e014	Address book clear error (group)	e416	Box error		
	e015	Address book open error (group)	e417	Box open error		
	e016	Address book list error (group)	e418	Box close error		
	e017	Address book list error (group)	e419	Box creation error		
	e110	Job accounting clear error	e41a	Box creation error		
	e111	Job accounting open error	e41b	Box deletion error		
	e112	Job accounting open error	e41c	Box movement error		
	e113	Job accounting error in writing	e510	Program error in writing		
	e114	Job accounting list error	e511	Program error in reading		
	e115	Job accounting list error	e710	Fax memory open error		
	e210	One-touch open error	e711	Fax memory initialization error		
	e211	One-touch list error	e712	Fax memory list error		
	e212	One-touch list error	e713	Fax memory error		
	e310	User managements backup error	e714	Fax memory error		
	e311	User managements clear error	e715	Fax memory mode error		
	e312	User managements open error	e716	Fax memory error		
	e313	User managements open error	e717	Fax memory error		
	e314	User managements open error	e718	Fax memory mode error		
	e315	User managements error in writing	e910	File reading error		
	e316	User managements list error	e911	File writing error		
	e317	User managements list error	e912	Data mismatch		
	e318	User managements list error	e913	Log file open error		
	e319	User managements list error	e914	Log file error in writing		
	e31a	User managements open error	e915	Directory open error		
	e31b	User managements error	e916	Directory error in reading		
	e31c	User managements error	e917	Synchronization error		
	e31d	User managements open error	e918	Synchronization error		

No.	Description					
17	Error Cod	es				
	Codes	Description	Codes	Description		
	d000	Unspecified error	d00b	File reading error		
	d001	HDD unavailable	d00c	File writing error		
	d002	USB memory is not inserted	d00d	File copy error		
	d003	File for writing is not found in the USB	d00e	File compressed error		
	d004	File for reading is not found in the HDD	d00f	File decompressed error		
	d005	USB error in writing	d010	Directory open error		
	d006	USB error in reading	d011	Directory creation error		
	d007	USB unmount error	d012	File writing error		
	d008	File rename error	d013	File reading error		
	d009	File open error	d014	File deletion error		
	d00a	File close error	d015	File copy error to the USB		
	Program data: Not imported. (The same applies when data are imported from 3 in 1 to 4 in 1 models.) Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.					

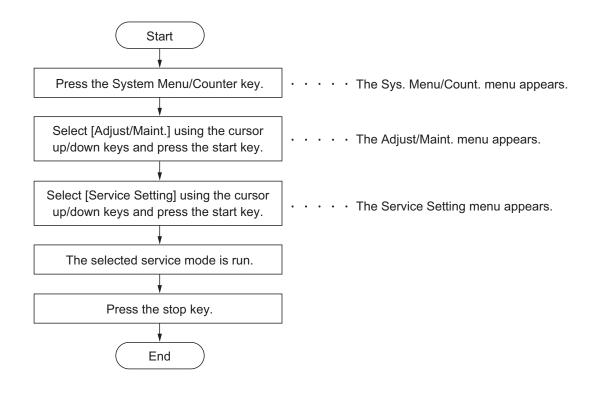
Item No.	Description			
U920	Checking the copy co	ounts		
	Description         Checks the copy counts.         Purpose         To check the copy counts.         Method         1. Press the start key. The current counts are displayed.			
	Display	Description		
	Color Copy	Count value of color copy		
	B/W Copy	Count value of black/white copy		
	Color Prn	Count value of color print		
	B/W Prn	Count value of black/white print		
	B/W Fax	Count value of black/white FAX		
U927				
	Press the stop key. The screen for selecting a maintenance item No. is displayed.         Clearing the all copy counts and machine life counts (one time only)         Description         Resets all of the counts back to zero.         Supplement         The total account counter and the machine life counter can be cleared only once if all count values are 1000 or less.         Method         1. Press the start key.         2. Select [Execute] using the cursor up/down keys.         3. Press the start key. All copy counts and machine life counts are cleared.         Completion         Press the stop key. The screen for selecting a maintenance item No. is displayed.			

Item No.		Description				
U928	Checking machine life o	counts				
	Description Displays the machine life counts. Purpose To check the machine life counts.					
	Method					
	-	he current machine life counts is displayed.				
	Display Life Cont	Description           Machine life counts				
	<b>Completion</b> Press the stop key. The s	creen for selecting a maintenance item No. is displayed.				
U977	Data capture mode					
	<b>Description</b> Store the print data sent t <b>Purpose</b>	o the machine into USB memory.				
	In case to occur the error	at printing, check the print data sent to the machine.				
	<ul> <li>Method <ol> <li>Insert USB memory in USB memory slot.</li> <li>Turn the main power switch on.</li> <li>Enter the maintenance item.</li> <li>Press the start key.</li> <li>Select [Execute].</li> <li>Press the start key.</li> <li>Send the print data to the machine. Once the print data is stored into USB memory, [OK] will be displayed.</li> </ol> </li> </ul>					
	<b>Completion</b> Press the stop key. The s	creen for selecting a maintenance item No. is displayed.				
U995	Memory data Individual setting					
	<b>Description</b> Displays the memory data. <b>Purpose</b> This mode need not be executed. When the status report is output, the setting					
	<b>Completion</b> Press the stop key. The screen for selecting a maintenance item No. is displayed.					

## 1-3-2 Service mode

The machine is equipped with a maintenance function which can be used to maintain and service the machine.

### (1) Executing a service mode



## (2) Description of service mode

Service items	Description
Service Status	Printing a status page for service purpose
	<b>Description</b> Prints a status page for service purpose. The status page includes various settings and service cumulative. <b>Purpose</b>
	To acquire the current printing environmental parameters and cumulative information.
	<ul> <li>Method</li> <li>1. Enter the Service Setting menu.</li> <li>2. Select [Service Status] using the cursor up/down keys.</li> <li>3. Press the start key.</li> <li>4. Press [Yes] (the Left Select key). Two pages will be printed.</li> </ul>
	Completion Press the stop key.

ns	Description					
	Service statu	is page (1)				
	Service S	Status Page				
	1FP			(2) 06/04/20	10 12:00	
1			(3)	(4)	(5)	
(1)	Firmware version 2	2KX_2000.000.000 2010.04.06				
		_				
	Controller Info	rmation				
1	Memory status 7) Standard Size	128.0 KB	(26) FRPO Status			
· ·	<b>B)</b> Option Slot	128.0 KB	User Top Margin	A1+A2/100	0.00	
	9) Total Size	256.0 KB	User Left Margin	A3+A4/100	0.00	
`	,	20010 110			0.00	
	Time					
(1	<b>))</b> Local Time Zone	+01:00 Tokio				
	<ol> <li>Date and Time</li> </ol>	06/04/2010 12:00				
(12	2) Time Server	10.183.53.13	•			
	Installed Option					
	3) Paper feeder	Cassette	•			
(14	<ol> <li>Card Authenticat</li> </ol>	ion Kit (B) Installed				
			•			
	Digital Dot Cove		•			
		/ Usage Page(A4/Letter Convers	ion) .			
(10	6) Total					
	K: 1.10	/ 1111111.11				
	C: 2.20 M: 3.30	/ 2222222.22				
	Y: 4.40	/ 3333333.33 / 444444.44				
1 (1	<b>7)</b> Copy	/ +++++++++++++++++++++++++++++++++++++	•			
1	K: 1.10	/ 1111111.11	•			
	C: 2.20	/ 2222222.22				
	M: 3.30	/ 3333333.33	•			
	Y: 4.40	/ 4444444.44	•			
(18	<b>3)</b> Printer					
	K: 1.10	/ 1111111.11	PDF mode	Y5	00	
	C: 2.20	/ 2222222.22				
	M: 3.30	/ 3333333.33				
	Y: 4.40	/ 4444444.44				
(19	9) FAX	/ 444444 44				
10	K: 1.10	/ 1111111.11	\ \			
	0) Period 1) Last Page K/C/M	(27/10/2009 - 03/11/2009 08:40 Y(%) 1.00 / 2.22 / 3.33 / 4.44/	)			
\ <b>`</b>	, Last Faye N/U/IV	11/10/ 1.00/2.22/3.33/4.44				
	EAV 1 5					
10	FAX Information					
	<b>2)</b> Rings (Normal) <b>3)</b> Rings (FAX/TEL)	3				
	<b>4)</b> Rings (FAX/TEL)	3				
(2	5) Option DIMM Siz					
(						
-			1	(0)		
			1	<b>(6)</b> [XXXXXXXXXX	XXXXXX	
		E	igure 1-3-4			
		F	iyure 1-3-4			

ervice items	Description				
	Service status page (2)				
	Service Stat	us Page		06/04/2010 12:00	
	Firmware version 2KX 200	00 000 000 2010 04 06	[XXXXXX] [XXXXX		
		2010.04.00			
	Engine Information		Send Information	1	
(2	<ul> <li>27) NVRAM Version</li> <li>28) Scanner Version</li> <li>29) FAX</li> <li>FAX BOOT Version</li> </ul>	_1F31225_1F31225 2KX_1200.001.089 2KX_5000.001.001	(32) Date and Time (33) Address	10/04/06	
	FAX APL Version FAX IPL Version <b>30)</b> MAC Address <b>31)</b> DP Counters	2KX_5100.001.001 2KX_5200.001.001 00:C0:EE:D0:01:0D			
	Total	1234			
(; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;; ;	F00/U00/0/0/0/30/30/70/7 54) 0000/000/0000/0000/0000 0000/0000/0000	D/000000/000000/0000000000000000000000	00/0000/0000/0000/0000/0000/ 00/0000/0000/0000/0000/ 78/01234567890123456789012345 78/01234567890123456789012345 78/01234567890123456789012345 78/01234567890123456789012345 8EC305/0000003100/000F5D0000	(50) (51) (52) (53) 678901/0008/00/07 678901/0008/00/07 678901/0008/00/07 678901/0008/00/07	
L		2	[ΧΧλ	(XXXXXXXXXXXXX)	
		Figu	re 1-3-5		

tems		Description		
	Detail of service status page			
No.	Description	Supplement		
(1)	Firmware version	-		
(2)	System date	-		
(3)	Engine soft version	-		
(4)	Engine boot version	-		
(5)	Operation panel mask version	-		
(6)	Machine serial number	-		
(7)	Standard memory size	-		
(8)	Optional memory size	-		
(9)	Total memory size	-		
(10)	Local time zone	-		
(11)	Report output date	Day/Month/Year hour:minute		
(12)	NTP server name	-		
(13)	Presence or absence of the optional paper feeder	Paper feeder 1/Paper feeder 2/Not Installed		
(14)	Presence or absence of the optional IC card authentication kit	Installed/Not Installed/Trial		
(15)	Page of relation to the A4/Letter	-		
(16)	Average coverage for total	Black/Cyan/Magenta/Yellow		
(17)	Average coverage for copy	Black/Cyan/Magenta/Yellow		
(18)	Average coverage for printer	Black/Cyan/Magenta/Yellow		
(19)	Average coverage for fax	Black/Cyan/Magenta/Yellow		
(20)	Cleared date and output date	-		
(21)	Coverage on the final output page	-		
(22)	Number of rings	0 to 15		
(23)	Number of rings before auto- matic switching	0 to 15		
(24)	Number of rings before connect- ing to answering machine	0 to 15		
(25)	Optional DIMM size	-		
	FRPO setting	-		

	T	
No.	Description	Supplement
(27)	NV RAM version	_ 1F3 1225 _ 1F3 1225 (a) (b) (c) (d) (e) (f)
		<ul> <li>(a) Consistency of the present software version and the database  (underscore): OK * (Asterisk): NG</li> <li>(b) Database version</li> <li>(c) The oldest time stamp of database version</li> <li>(d) Consistency of the present software version and the ME firmware version  (underscore): OK * (Asterisk): NG</li> <li>(e) ME firmware version</li> <li>(f) The oldest time stamp of the ME database version</li> <li>(f) The oldest time stamp of the ME database version</li> <li>(g) and (d) are underscored, and (b) and</li> <li>(e) are identical with (c) and (f).</li> </ul>
(28)	Scanner firmware version	
(29)	Fax firmware version	-
(30)	Mac address	-
(31)	Number of original feed from DP	-
(32)	The last sent date and time	-
(33)	Transmission address	-
(34)	Destination information	-
(35)	Area information	-
(36)	Margin settings	Top margin/Left margin
(37)	Top offset for each paper source	MP tray/Cassette 2/Cassette 3/Duplex/ Page rotation
(38)	Left offset for each paper source	MP tray/Cassette 2/Cassette 3/Duplex/ Page rotation
(39)	Margin/Page length/Page width settings	Top margin integer part/Top margin decimal part/ Left margin integer part/Left margin decimal part/ Page length integer part/Page length decimal part Page width integer part/Page width decimal part
(40)	Life counter (The first line)	Machine life/MP tray/Cassette 1/Cassette 2/ Cassette 3 /Duplex
	Life counter (The second line)	Maintenance kit

No.	Description	Supplement
(41)	Panel lock information	0: OFF/1: Partial lock/2: Full lock
(42)	USB information	U00: Not installed/U01: Full speed/U02: Hi speed
(43)	Paper handling information	0: Paper source unit select/1: Paper source unit
(44)	Color printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length)
(45)	Black and white printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length)
(46)	Billing counting timing	-
(47)	Temperature (machine inside)	-
(48)	Temperature (machine outside)	-
(49)	Relative temperature (machine outside)	-
(50)	Absolute temperature (machine outside)	-
(51)	Fixed assets number	-
(52)	Job end judgment time-out time	-
(53)	Job end detection mode	-
(54)	Media type attributes 1 to 28 (Not used: 18, 19, 20)	Weight settingsFuser settings0: Light0: High1: Normal 11: Middle2: Normal 22: Low3: Normal 33: Vellum4: Heavy 1Duplex settings5: Heavy 20: Disable6: Heavy 31: Enable7: Extra Heavy
(55)	Calibration information	Black/Cyan/Magenta/Yellow
(56)	RFID information	-
(57)	RFID reader/writer version infor- mation	-
(58)	Toner install mode information	0: Off t: On
(59)	Soft version of the optional paper feeder	Cassette 2/Cassette 3
(60)	Version of the optional message	-
(61)	Color table version	-
(62)	Maintenance information	-

Service	items	Description
	<b>No.</b> (63)	Description     Supplement       Altitude     0: Standard       1: High altitude 1
	(64)	2: High altitude 2       Main charger correction     1 to 5
	(65)	Drum serial number Black/Cyan/Magenta/Yellow
		Code conversion
		A         B         C         D         E         F         G         H         I         J           0         1         2         3         4         5         6         7         8         9
Network S	Status	Printing a status page for network
		<ul> <li>Description</li> <li>Prints a status page for network.</li> <li>Purpose</li> <li>To acquire the detailed network setting information.</li> <li>Method <ol> <li>Enter the Service Setting menu.</li> <li>Select [Network Status] using the cursor up/down keys.</li> <li>Press the start key.</li> </ol> </li> <li>Press [Yes] (the Left Select key). Network status page will be printed.</li> </ul> Completion Press the stop key.

Service items	Description						
Test Page	Printing a test page						
	<ul> <li>Description</li> <li>Four colors are printed respectively with halftones of three different levels.</li> <li>Purpose</li> <li>To check the activation of the developer and drum units of four colors.</li> <li>Method <ol> <li>Enter the Service Setting menu.</li> <li>Select [Test Page] using the cursor up/down keys.</li> </ol> </li> </ul>						
	<ol> <li>Press the start key.</li> <li>Press [Yes] (the Left Select key). Test page will be printed.</li> </ol>						
	Density*2 - 24/256 - 32/256 -						
	Cyan						
	- Magenta						
	Green*1 (Yellow)						
	<ul> <li>*1: Since focusing in yellow is hardly readable, yellow is mixed with cyan for more readability, resulting in green.</li> <li>*2: Each portion of colors has three different magnitude of halftones (bands). If focus is excessively lost, dots are not recognizable with the 16/256 band, resulting in uneven density. It also results in vertical streaks in the 24/256 and/or 32/256 bands.</li> <li>Figure 1-3-6</li> </ul>						
	Completion Press the stop key.						

Service items	Description					
Developer Setting	Entering initial value for replacing the developing unit					
	<b>Description</b> After replacing the developing unit, enter the initial value (6-digit data) assigned on a label attached to the package or developing unit.					
	Purpose To set the initial value after replacing the developing unit.					
	<ul> <li>Method</li> <li>1. Enter the Service Setting menu.</li> <li>2. Select [DeveloperSetting] using the cursor up/down keys.</li> <li>3. Press the start key. Enter the initial value (6-digit data) using the cursor up/down keys.</li> <li>4. Press the start key. The initial value is set.</li> </ul>					
	DV560Y					
	Developing unit Package					
	Figure 1-3-7					
	Completion Press the stop key.					

Service items	Description					
Developer Refresh	Performing developer refresh					
	<b>Description</b> The laser output of the image data for developer refreshing is carried out, and operation to exposure, developing, and primary transfer is performed by 10 pages (paper is not					
	fed). <b>Purpose</b> To perform electric when foulty images eccur and a line epocar lengitudingly.					
	To perform cleaning when faulty images occur and a line appears longitudinally.					
	<ul> <li>Method</li> <li>1. Enter the Service Setting menu.</li> <li>2. Select [DeveloperRefresh] using the cursor up/down keys.</li> <li>3. Press the start key.</li> <li>4. Press [Yes] (the Left Select key). Developer refresh is performed.</li> </ul>					
	A4 paper size					
	33 mm					
	200 mm					
	Toner image on the transfer belt					
	Figure 1-3-8					
	Completion Press the stop key.					

Service items	Description
Laser Scanner Cleaning	Performing LSU cleaning
Cleaning	Description
	The LSU cleaning motor drives the cleaning pad which in turn wipes clean the LSU dust
	shield glass.
	<b>Purpose</b> To perform cleaning when the printed image is bad and stripes are seen in the vertical
	direction.
	Method
	1. Enter the Service Setting menu.
	<ol> <li>Select [LaserScanner Cln] using the cursor up/down keys.</li> <li>Press the start key.</li> </ol>
	4. Press [Yes] (the Left Select key). LSU cleaning is performed.
	Completion
	Press the stop key.
Drum surface refreshing	Performing drum surface refreshing
-	Description
	Rotates the drum approximately 2 minutes with toner lightly on the overall drum. The
	cleaning blade in the drum unit scrapes toner off the drum surface to clean it. <b>Purpose</b>
	To clean the drum surface when image failure occurs due to the drum. This mode is
	effective when dew condensation on the drum occurs.
	Method
	1. Enter the Service Setting menu.
	2. Select [Drum Refresh] using the cursor up/down keys.
	3. Press the start key. 4. Press [Ves] (the Left Select key). Drum surface refreshing is performed.
	4. Press [Yes] (the Left Select key). Drum surface refreshing is performed.
	Completion
	Press the stop key.

Service items	Description
Altitude adjustment	Setting altitude adjustment
adjustment	Description
	Sets the altitude adjustment mode.
	<b>Purpose</b> Used when print quality deteriorates in an installation at the altitude of 1,500 meters or
	higher.
	Method
	<ol> <li>Enter the Service Setting menu.</li> <li>Select [Altitude Adj.] using the cursor up/down keys.</li> </ol>
	3. Press the start key.
	<ul><li>4. Select [Normal], [High 1] or [High 2)] using the cursor up/down keys.</li><li>5. Press the start key. The setting is set.</li></ul>
	Completion Press the stop key.
Main charger	Setting main charger output
adjustment	Description
	Sets the main charger output.
	This is excutable only when the altitude adjustment mode is set to [Normal].
	<b>Purpose</b> Execute when the image density declines or an offset has occurred.
	L'Accute when the image density declines of an onset has occurred.
	Method
	1. Enter the Service Setting menu.
	<ol> <li>Select [MC] using the cursor up/down keys.</li> <li>Press the start key.</li> </ol>
	4. Select [1], [2] or [3] using the cursor up/down keys.
	5. Press the start key. The setting is set.
	Completion
	Press the stop key.

Service items	Description					
AX country	FAX Country Code					
code	Description Initializes software switches and all data in the backup data on the FAX control PWB, according to the destination. Purpose To initialize the FAX control PWB.					
	Method					
	<ol> <li>Enter the Service Setting menu.</li> <li>Select [FAX Country Code] using the cursor up/down keys.</li> <li>Press the start key.</li> <li>Enter a destination code using the numeric keys.</li> <li>Press the start key. The setting is set.</li> <li>Press the start key. Data initialization starts.</li> </ol>					
	Destination code list					
		Code	Destination	Code	Destination	
		000	Japan	253	CTR21 (European nations)	
		009	Australia		Italy	
		038	China		Germany	
		080	Hong Kong		Spain	
		084	Indonesia		U.K.	
		088 097	Israel Korea		Netherlands Sweden	
		108	Malaysia		France	
		126	New Zealand		Austria	
		136	Peru		Switzerland	
		137	Philippines		Belgium	
		152	Middle East		Denmark	
		156	Singapore		Finland	
		159	South Africa		Portugal	
		169	Thailand		Ireland	
		181	U.S.A.		Norway	
		242	South America	254	Taiwan	
		243	Saudi Arabia			
		npletion ss the stop	key.			

Service items	Description						
FAX call Setting	FAX call	setting					
	<ul> <li>Description</li> <li>Selects if a fax is to be connected to either a PBX or public switched telephone network</li> <li>Selects the mode to connect an outside call when connected to a PBX.</li> <li>Access code registration for connection to PSTN.</li> <li>Purpose</li> <li>To be executed as required.</li> <li>Method <ol> <li>Enter the Service Setting menu.</li> <li>Select [FAX Call Set.] using the cursor up/down keys.</li> <li>Press the start key.</li> </ol> </li> </ul>						
	Disp	lay	Description				
	Exch	ange Select.	Setting the connection to PBX/PSTN				
	PBX	Setting	Setting for a PBX				
	Dial I	No. to PSTN	Setting access code to PSTN				
	<ol> <li>Press</li> <li>Select</li> <li>Press</li> <li>Setting at</li> <li>Select</li> <li>Select</li> <li>Press</li> </ol>	the start key. t [Loop], [Flash] the start key. Th ccess code to I t [Dial No. to PS the start key.	using the cursor up/down keys. or [Earth] using the cursor up/down keys. ne setting is set. <b>PSTN</b> TN] using the cursor up/down keys. ing the numeric keys. (0 to 9, 00 to 99)				
	4. Press the start key. The setting is set.						
	Press the	stop кеу.					

Service items	Description						
Remote	Setting remote diagnostics						
diagnostics							
	Description						
	Sets the remote diagnostics.						
	Purpose						
	Used to establish communication between the machine and the service facility when a						
	problem is encounted.						
	Method						
	1. Enter the Service Setting menu.						
	2. Select [Remote Diag.Set.] using the cursor up/down keys.						
	3. Press the start key.						
	4. Select [On] using the cursor up/down keys.						
	5. Press the start key. The setting is set.						
	<ol><li>Select [Remote Diag. ID] using the cursor up/down keys.</li></ol>						
	7. Press the start key.						
	8. Enter the prespecified remote diagnostics ID number (0000 to 9999) using the						
	numeric keys.						
	9. Press the start key. The setting is set.						
	Completion						
	Press the stop key.						

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# 1-4-1 Paper misfeed detection

#### (1) Paper misfeed indication

When a paper misfeed occurs, the machine immediately stops printing and displays the paper misfeed message on the operation panel. To remove paper misfed in the machine, pull out the cassette, open the rear cover or paper conveying unit.

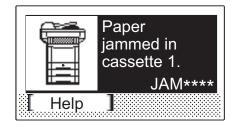


Figure 1-4-1 Paper misfeed indication

### (2) Paper misfeed detection condition

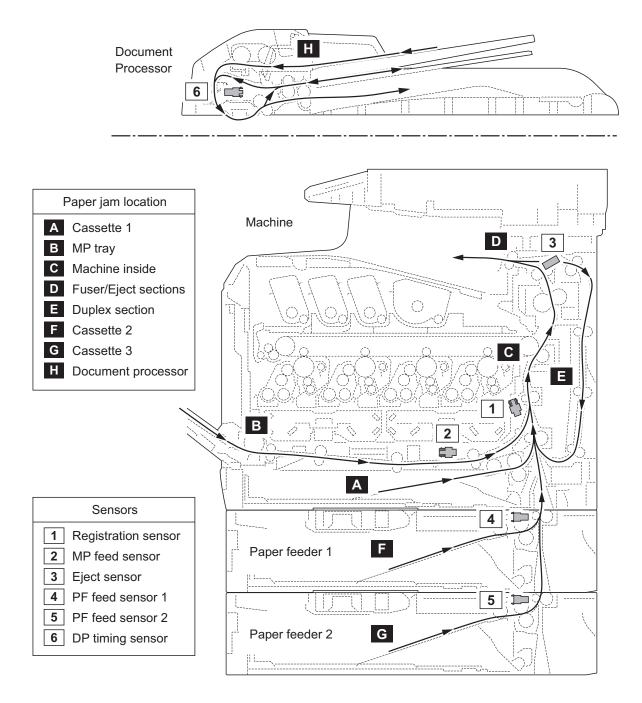


Figure 1-4-2 Paper jam location

Code	Contents	Conditions	Jam location*
0100	Controller sequence error	Secondary paper feed request given by the con- troller is unreachable.	С
0105	Registration sensor not detected	Activation of the registration sensor (on/off) is undetected for 90 s during printing.	-
0106	Controller sequence error	Paper feeding request for duplex printing given by the controller is unreachable.	Е
0110	Top tray open	The top tray is opened during printing.	-
0111	Rear cover open	The rear cover is opened during printing.	-
0112	Front cover open	The waste toner cover is opened during printing.	-
0113	MP tray open	The MP tray is opened during printing.	-
0120	Controller sequence error	Paper feed request was received from the duplex section despite the absence of paper in the duplex section.	E
0121	Controller sequence error	The controller issued the duplex section a request for more pages than the duplex print cycle con- tains.	E
0211	Rear cover open (paper feeder 1)	The rear cover of paper feeder 1 is opened during printing.	-
0212	Rear cover open (paper feeder 2)	The rear cover of paper feeder 2 is opened during printing.	-
0501	No paper feed from cassette 1	The registration sensor (RS) does not turn on dur- ing paper feed from cassette.	A
0502	No paper feed from cassette 2	PF feed sensor 1 (PFFS1) does not turn on during paper feed from paper feeder 1.	F
0503	No paper feed from cassette 3	PF feed sensor 2 (PFFS2) does not turn on during paper feed from paper feeder 2.	G
0508	No paper feed from duplex section	The registration sensor (RS) does not turn on dur- ing paper feed from duplex section.	E
0509	No paper feed from MP tray	MP feed sensor (MPFS) does not turn on during paper feed from MP tray.	В
0511	Multiple sheets in cassette 1	The registration sensor (RS) does not turn off dur- ing paper feed from cassette.	А
0512	Multiple sheets in cassette 2	PF feed sensor 1 (PFFS1) does not turn off during paper feed from paper feeder 1.	F
0513	Multiple sheets in cassette 3	PF feed sensor 2 (PFFS2) does not turn off during paper feed from paper feeder 2.	G
0518	Multiple sheets in duplex section	The registration sensor (RS) does not turn off dur- ing paper feed from duplex section.	
0519	Multiple sheets in MP tray	MP feed sensor (MPFS) does not turn off during paper feed from MP tray.	В

\*: Refer to figure 1-4-2 for paper jam location (see page 1-4-2).

Code	Contents	Conditions	Jam location*
1020	MP feed sensor is turned ON	MP feed sensor (MPFS) is turned on when the power is turned on.	В
1403	PF feed sensor 1 does not turn ON	PF feed sensor 1 (PFFS1) does not turn on during paper feed from paper feeder 2.	F
1413	PF feed sensor 1 does not turn OFF	PF feed sensor 1 (PFFS1) does not turn off during paper feed from paper feeder 2.	F
1420	PF feed sensor 1 is turned ON	PF feed sensor 1 (PFFS1) is turned on when the power is turned on.	F
1620	PF feed sensor 2 is turned ON	PF feed sensor 2 (PFFS2) is turned on when the power is turned on.	G
4002	Registration sensor does not turn ON	The registration sensor (RS) does not turn on dur- ing paper feed from paper feeder 1.	A
4003	]	The registration sensor (RS) does not turn on dur- ing paper feed from paper feeder 2.	A
4009		The registration sensor (RS) does not turn on dur- ing paper feed from MP tray.	A
4012	Registration sensor does not turn OFF	The registration sensor (RS) does not turn off dur- ing paper feed from paper feeder 1.	С
4013		The registration sensor (RS) does not turn off dur- ing paper feed from paper feeder 2.	С
4019		The registration sensor (RS) does not turn off dur- ing paper feed from MP tray.	С
4020	Registration sensor is turned ON	The registration sensor (RS) is turned on when the power is turned on.	С
4201	Eject sensor does not turn ON	The eject sensor (ES) does not turn on during paper feed from cassette.	С
4202		The eject sensor (ES) does not turn on during paper feed from paper feeder 1.	С
4203		The eject sensor (ES) does not turn on during paper feed from paper feeder 2.	С
4208		The eject sensor (ES) does not turn on during paper feed from duplex section.	С
4209		The eject sensor (ES) does not turn on during paper feed from MP tray.	С

\*: Refer to figure 1-4-2 for paper jam location (see page 1-4-2).

Code	Contents	Conditions	Jam location*
4211	Eject sensor does not turn OFF	The eject sensor (ES) does not turn off during paper feed from cassette.	D
4212	_	The eject sensor (ES) does not turn off during paper feed from paper feeder 1.	D
4213		The eject sensor (ES) does not turn off during paper feed from paper feeder 2.	D
4218		The eject sensor (ES) does not turn off during paper feed from duplex section.	D
4219	_	The eject sensor (ES) does not turn off during paper feed from MP tray.	D
4220	Eject sensor is turned ON	The eject sensor (ES) is turned on when the power is turned on.	D
9010	DP top cover open	The DP top cover is opened during original feed- ing. The DP timing sensor (DPTS) turns on when start- ing the original paper feed.	Н
9400	No original feed	The DP timing sensor (DPTS) does not turn on within specified time during the first sheet feeding (Retry 5 times).	Н
		The DP timing sensor (DPTS) does not turn on within specified time during the second sheet feed-ing (Retry 5 times).	Н
9401	An original jam in the original switchback section 2	During original switchback operation, DP timing sensor (DPTS) does not turn off within specified time of the DP paper feed motor (DPPFM) turning on.	н
9410	An original jam in the original conveying section	The DP timing sensor (DPTS) does not turn off within specified time of the DP paper feed motor (DPPFM) turning on.	Н
9411	An original jam in the original switchback section 1	The DP timing sensor (DPTS) does not turn on within specified time of the DP paper feed motor (DPPFM) turning off.	Η

\*: Refer to figure 1-4-2 for paper jam location (see page 1-4-2).

# 1-4-2 Self-diagnostic function

#### (1) Self-diagnostic function

This machine is equipped with self-diagnostic function. When a problem is detected, the machine stops printing and display an error message on the operation panel. An error message consists of a message prompting a contact to service personnel and a four-digit error code indicating the type of the error.

Machine failure. Call service.	
	C####

Figure 1-4-3

#### (2) Self diagnostic codes

If the part causing the problem was not supplied, use the unit including the part for replacement.

Code	Contents	Causes	Check procedures/ corrective measures
0030	FAX control PWB system error Processing with the fax soft- ware was disabled due to a hardware problem.	Defective FAX con- trol PWB.	Replace the fax control PWB and check for correct operation. (see page 1-5-35).
0070	FAX control PWB incompat- ible detection error	Defective FAX soft- ware.	Install the fax software.
	Abnormal detection of FAX control PWB incompatibility In the initial communication with the FAX control PWB, any normal communication com- mand is not transmitted.	Defective FAX con- trol PWB.	Replace the fax control PWB and check for correct operation. (see page 1-5-35).
0100	Backup memory device error	Defective flash memory.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
0120	<b>MAC address data error</b> For data in which the MAC address is invalid.	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-29).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
0130	Backup memory read/write error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-29).
		Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
0140	Backup memory data error (main PWB)	Defective flash memory.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
		Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
0150	Engine PWB EEPROM error Detecting engine PWB EEPROM communication	Improper installa- tion engine PWB EEPROM.	Check the installation of the EEPROM and remedy if necessary.
	error.	Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
		Device damage of EEPROM.	Contact the Service Administrative Division.
0170	Billing counting error A checksum error is detected	Data damage of EEPROM.	Contact the Service Administrative Division.
	in the main and engine backup memories for the bill- ing counters.	Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1- 5-29, 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
0180	Machine number mismatch Machine number of main and engine does not match.	Data damage of EEPROM.	Contact the Service Administrative Division.
0600	Expanded memory (DIMM) installing error The expansion memory mod- ules (DIMM) are not correctly mounted.	Improper installa- tion expanded memory (DIMM).	Check the installation of the expanded memory (DIMM).
0610	Expanded memory (DIMM) error The expansion memory mod-	Defective expanded memory (DIMM).	Replace the expanded memory (DIMM) and check for correct operation (see page 1-2-8).
	ules (DIMM) mounted on the main PWB does not operate correctly.	Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
0640	Hard disk error The hard disk cannot be	Defective hard disk.	Replace the hard disk and check for correct operation.
	accessed.	Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
0830	FAX control PWB flash pro- gram area checksum error	Defective FAX soft- ware.	Install the fax software.
	A checksum error occurred with the program of the FAX control PWB.	Defective FAX con- trol PWB.	Replace the FAX control PWB (see page 1- 5-35).
0840	Faults of RTC The time is judged to go back based on the comparison of the RTC time and the current time or five years or more have passed.	The battery is dis- connected from the main PWB.	Check visually and remedy if necessary
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
0870	FAX control PWB to main PWB high capacity data transfer error	Improper installa- tion FAX control PWB.	Reinstall the FAX control PWB (see page 1- 5-35).
	High-capacity data transfer between the FAX control PWB and the main PWB of the machine was not normally performed even if the data transfer was retried the speci- fied times.	Defective FAX con- trol PWB or main PWB.	Replace the FAX control PWB or main PWB and check for correct operation (see page 1- 5-35 or 1-5-29).
0920	Fax file system error The backup data is not retained for file system abnor- mality of flash memory of the FAX control PWB.	Defective FAX con- trol PWB.	Replace the FAX control PWB and check for correct operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
0930	EEPROM bus error	Defective drum PWB (EEPROM).	Replace the drum unit (see page 1-5-20).
		Defective engine PWB (EEPROM).	Replace the engine PWB and check for correct operation (see page 1-5-26).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
1010	Lift motor error When the lift motor is driven, the motor over-current detec- tion signal is detected continu-	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
	ously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven, the ON status of lift sensor cannot be detected for 8 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Lift motor and engine PWB (YC27)
	The cassette installed confir- mation message is displayed on the operation panel, and even if the cassette is opened and closed, the cassette	Defective drive transmission sys- tem of the lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	installed confirmation mes-	Defective lift motor.	Replace the lift motor
	sage is displayed 5 times suc- cessively.	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
1020	PF lift motor error (paper feeder 1) When the lift motor is driven, the motor over-current detec-	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
	tion signal is detected continu- ously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven,	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF lift motor and PF main PWB (YC7)
	the ON status of lift sensor cannot be detected for 8 s. The cassette installed confir- mation message is displayed on the operation panel, and even if the cassette is opened and closed, the cassette installed confirmation mes- sage is displayed 5 times suc- cessively.	Defective drive transmission sys- tem of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor.	Replace the PF lift motor
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1030	<b>PF lift motor error</b> (paper feeder 2) When the lift motor is driven, the motor over-current detec-	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
	tion signal is detected continu- ously for 50 times (5 s) at 100 ms intervals. After the lift motor is driven, the ON status of lift sensor	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF lift motor and PF main PWB (YC7)
	cannot be detected for 8 s. The cassette installed confir- mation message is displayed on the operation panel, and	Defective drive transmission sys- tem of the PF lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	even if the cassette is opened and closed, the cassette	Defective PF lift motor.	Replace the PF lift motor
	installed confirmation mes- sage is displayed 5 times suc- cessively.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1500	PF heater 1 high tempera- ture error (paper feeder 1) A temperature higher than	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF fan motor 1 and PF main PWB (YC111)
	75°C/167°F is detected.	Shorted PF therm- istor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF fan motor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1510	PF heater 2 high tempera- ture error (paper feeder 1) A temperature higher than	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF fan motor 2 and PF main PWB (YC111)
	75°C/167°F is detected.	Shorted PF therm- istor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF fan motor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1520	PF heater 1 high tempera- ture error (paper feeder 2) A temperature higher than 75°C/167°F is detected.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF fan motor 1 and PF main PWB (YC111)
		Shorted PF therm- istor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF fan motor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1530	PF heater 2 high tempera- ture error (paper feeder 2) A temperature higher than	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF fan motor 2 and PF main PWB (YC111)
	75°C/167°F is detected.	Shorted PF therm- istor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF fan motor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1600	<b>PF heater 1 low temperature</b> <b>error (paper feeder 1)</b> An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 1 is turned on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF heater 1 and PF heater PWB (YC1) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 1 and PF main PWB (YC114)
		PF thermistor 1 installed incor- rectly.	Check the installation of the PF thermistor 1.
		Defective PF thermistor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Broken PF heater 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1610	<b>PF heater 2 low temperature</b> <b>error (paper feeder 1)</b> An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 2 is turned on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF heater 2 and PF heater PWB (YC2) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 2 and PF main PWB (YC115)
		PF thermistor 2 installed incor- rectly.	Check the installation of the PF thermistor 2.
		Defective PF thermistor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Broken PF heater 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (Refer to the service manual for the paper feeder).
1620	<b>PF heater 1 low temperature</b> <b>error (paper feeder 2)</b> An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 1 is turned on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF heater 1 and PF heater PWB (YC1) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 1 and PF main PWB (YC114)
		PF thermistor 1 installed incor- rectly.	Check the installation of the PF thermistor 1.
		Defective PF thermistor 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Broken PF heater 1.	Replace the top heater unit (Refer to the service manual for the paper feeder).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1630	PF heater 2 low temperature error (paper feeder 2) An external temperature higher than + 5°C/+ 9°F is not detected when one minute elapses after PF heater 2 is turned on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF heater 2 and PF heater PWB (YC2) PF heater PWB (YC3) and PF main PWB (YC113) PF thermistor 2 and PF main PWB (YC115)
		PF thermistor 2 installed incor- rectly.	Check the installation of the PF thermistor 2.
		Defective PF thermistor 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Broken PF heater 2.	Replace the side heater unit (Refer to the service manual for the paper feeder).
		Defective PF heater PWB or PF main PWB.	Replace the PF heater PWB or PF main PWB (Refer to the service manual for the paper feeder).
1800	Paper feeder communica- tion error	Improper installa- tion paper feeder.	Follow installation instruction carefully again.
	Communication error between engine PWB and optional paper feeder.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC33)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
2100	<b>Developing motor error</b> The developing motor ready input is not given for 5 s dur- ing the main motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing motor and engine PWB (YC14)
		Defective drive transmission sys- tem of the develop- ing motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective develop- ing motor.	Replace the developing motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
2200	<b>Drum motor error</b> The drum motor ready input is not given for 5 s during the drum motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum motor and engine PWB (YC13)
		Defective drive transmission sys- tem of the drum motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective drum motor.	Replace the drum motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
2330	Fuser pressure release motor error When the fuser pressure release motor is driven, the motor over-current detection	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser pressure release motor and engine PWB (YC38)
	signal is detected continu- ously for 8 times (800 ms) at 100 ms intervals.	Defective drive transmission sys- tem of the fuser pressure release motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
2340	Fuser pressure release motor time-out error When the fuser pressure release motor is driven, the envelope switch (EVSW) is not detectable for 6 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser pressure release motor and engine PWB (YC38)
		Defective drive transmission sys- tem of the fuser pressure release motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser pressure release motor.	Replace the fuser pressure release motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
2500	Paper feed motor error The drum motor ready input is not given for 5 s during the paper feed motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Paper feed motor and engine PWB (YC3)
		Defective drive transmission sys- tem of the paper feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective paper feed motor.	Replace the paper feed motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
2600	<b>PF paper feed motor error</b> (paper feeder 1) The drum motor ready input is not given for 2 s during the PF paper feed motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF paper feed motor and PF main PWB (YC6)
		Defective drive transmission sys- tem of the PF paper feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF paper feed motor.	Replace the PF paper feed motor.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
2610	<b>PF paper feed motor error</b> (paper feeder 2) The drum motor ready input is not given for 2 s during the PF paper feed motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF paper feed motor and PF main PWB (YC6)
		Defective drive transmission sys- tem of the PF paper feed motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF paper feed motor.	Replace the PF paper feed motor.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
2730	Developing release motor error When the developing release motor is driven, the motor over-current detection signal is detected continuously for 8 times (800 ms) at 100 ms intervals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing release motor and engine PWB (YC35)
		Defective drive transmission sys- tem of the develop- ing release motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective develop- ing release motor.	Replace the developing release motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
2740	740 Developing release motor time-out error When the developing release motor is driven, the develop- ing release switch (DEVRSW) is not detectable for 1 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing release motor and engine PWB (YC35)
		Defective drive transmission sys- tem of the develop- ing release motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective develop- ing release motor.	Replace the developing release motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
2820	Fuser motor error The fuser motor ready input is not given for 5 s during the fuser motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser motor and engine PWB (YC15)
		Defective drive transmission sys- tem of the fuser motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective fuser motor.	Replace the fuser motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

ISU home position error The home position is not cor- rect when the power is turned on or at the start of copying using the table. Exposure lamp error When input value at the time of exposure lamp illumination does not exceed the threshold value between 5 s.	Defective connec- tor cable or poor contact in the con- nector. Defective home position sensor. Defective ISU motor. Defective CCD PWB. Defective main PWB. Defective connec- tor cable or poor contact in the con-	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Home position sensor and CCD PWB (YC3) CCD PWB (YC1) and main PWB (YC8) ISU motor and main PWB (YC36) Replace the home position sensor. Replace the home position sensor. Replace the ISU motor. Replace the scanner unit (see page 1-5-47). Replace the main PWB and check for cor- rect operation (see page 1-5-29). Reinsert the connector. Also check for conti- nuity within the connector cable. If none,
When input value at the time of exposure lamp illumination does not exceed the threshold	position sensor. Defective ISU motor. Defective CCD PWB. Defective main PWB. Defective connec- tor cable or poor	Replace the ISU motor. Replace the scanner unit (see page 1-5-47). Replace the main PWB and check for cor- rect operation (see page 1-5-29). Reinsert the connector. Also check for conti- nuity within the connector cable. If none,
When input value at the time of exposure lamp illumination does not exceed the threshold	motor. Defective CCD PWB. Defective main PWB. Defective connec- tor cable or poor	Replace the scanner unit (see page 1-5-47). Replace the main PWB and check for cor- rect operation (see page 1-5-29). Reinsert the connector. Also check for conti- nuity within the connector cable. If none,
When input value at the time of exposure lamp illumination does not exceed the threshold	PWB. Defective main PWB. Defective connec- tor cable or poor	Replace the main PWB and check for cor- rect operation (see page 1-5-29). Reinsert the connector. Also check for conti- nuity within the connector cable. If none,
When input value at the time of exposure lamp illumination does not exceed the threshold	PWB. Defective connec- tor cable or poor	rect operation (see page 1-5-29). Reinsert the connector. Also check for conti- nuity within the connector cable. If none,
When input value at the time of exposure lamp illumination does not exceed the threshold	tor cable or poor	nuity within the connector cable. If none,
	nector.	replace the cable. Exposure lamp and inverter PWB (CN2) Inverter PWB (CN1) and CCD PWB (YC3) CCD PWB (YC1) and main PWB (YC8)
	Defective exposure lamp.	Replace the scanner unit (see page 1-5-47).
	Defective inverter PWB or CCD PWB.	Replace the scanner unit (see page 1-5-47).
	Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
<b>AGC error</b> After AGC, correct input is not obtained at CCD.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Inverter PWB (CN1) and CCD PWB (YC3) CCD PWB (YC1) and main PWB (YC8)
	Defective exposure lamp.	Replace the scanner unit (see page 1-5-47).
	Defective inverter PWB or CCD PWB.	Replace the scanner unit (see page 1-5-47).
	Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
,	After AGC, correct input is not	AGC error After AGC, correct input is not obtained at CCD. Defective connec- tor cable or poor contact in the con- nector. Defective exposure lamp. Defective inverter PWB or CCD PWB. Defective main

Code	Contents	Causes	Check procedures/ corrective measures
3500	Communication error between scanner and ASIC An error code is detected.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. CCD PWB (YC1) and main PWB (YC8)
		Defective CCD PWB.	Replace the scanner unit (see page 1-5-47).
		Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-29).
4001	<b>Polygon motor KM error</b> The polygon motor KM ready input is not given for 10 s dur- ing the polygon motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Laser scanner unit KM and engine PWB (YC31)
		Defective polygon motor KM.	Replace the laser scanner unit KM (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
4002	<b>Polygon motor CY error</b> The polygon motor CY ready input is not given for 10 s dur- ing the polygon motor is ON.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Laser scanner unit CY and engine PWB (YC31)
		Defective polygon motor CY.	Replace the laser scanner unit CY (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
4201	Laser output error (black) The pin photo signal is not output from PD PWB K for one second while laser is emitted.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. APC PWB K and engine PWB (YC31)
		Defective APC PWB K.	Replace the laser scanner unit KM (see page 1-5-44).
		Defective PD PWB K.	Replace the laser scanner unit KM (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
4202	Laser output error (cyan) The pin photo signal is not output from PD PWB C for one second while laser is	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. APC PWB C and engine PWB (YC32)
	emitted.	Defective APC PWB C.	Replace the laser scanner unit CY (see page 1-5-44).
		Defective PD PWB C.	Replace the laser scanner unit CY (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
4203	Laser output error (magenta) The pin photo signal is not output from PD PWB M for	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. APC PWB M and engine PWB (YC31)
	one second while laser is emitted.	Defective APC PWB M.	Replace the laser scanner unit KM (see page 1-5-44).
		Defective PD PWB M.	Replace the laser scanner unit KM (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
4204	Laser output error (yellow) The pin photo signal is not output from PD PWB Y for one second while laser is emitted.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. APC PWB Y and engine PWB (YC32)
		Defective APC PWB Y.	Replace the laser scanner unit CY (see page 1-5-44).
		Defective PD PWB Y.	Replace the laser scanner unit CY (see page 1-5-44).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
4600	<b>LSU cleaning motor error</b> When the LSU cleaning motor is driven, the motor over-cur- rent detection signal is detected continuously for 50 times (5 s) at 100 ms inter- vals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. LSU cleaning motor and engine PWB (YC36)
		Defective drive transmission sys- tem of the LSU cleaning motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective LSU cleaning motor.	Replace the LSU cleaning motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
4700	VIDEO ASIC device error	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Main PWB (YC39) and relay PWB (YC3) Relay PWB (YC2, 4) and engine PWB (YC8, 9)
		Defective main PWB or engine PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1- 5-29, 1-5-26).
5301	Broken cleaning lamp K wire When the cleaning lamp K is driven, the lamp over-current detection signal is detected continuously for 10 times (1 s)	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit K and Drum relay PWB (YC2) Drum relay PWB (YC1) and engine PWB (YC34)
	at 100 ms intervals.	Defective cleaning lamp K.	Replace the drum unit K. (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
5302	<ul> <li>Broken cleaning lamp C wire</li> <li>When the cleaning lamp C is driven, the lamp over-current detection signal is detected continuously for 10 times (1 s) at 100 ms intervals.</li> </ul>	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit C and Drum relay PWB (YC4) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective cleaning lamp C.	Replace the drum unit C. (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
5303	Broken cleaning lamp M wire When the cleaning lamp M is driven, the lamp over-current detection signal is detected continuously for 10 times (1 s)	Defective connec- cor cable or poor contact in the con- nector. Reinsert the connect nuity within the conn replace the cable. Drum unit M and Dru	Drum unit M and Drum relay PWB (YC3) Drum relay PWB (YC1) and engine PWB
	at 100 ms intervals.	Defective cleaning lamp M.	Replace the drum unit M. (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
5304	Broken cleaning lamp Y wire When the cleaning lamp Y is driven, the lamp over-current detection signal is detected continuously for 10 times (1 s) at 100 ms intervals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit Y and Drum relay PWB (YC5) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective cleaning lamp Y.	Replace the drum unit Y. (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
6000	<b>Broken fuser heater wire</b> The detected temperature of fuser thermistor does not rise 1°C/1.8°F after the fuser heater has been turned on continuously for 10 s in warm- ing up.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC102) Fuser unit and eject PWB (YC3) Eject PWB (YC1) and engine PWB (YC19)
	The fuser temperature does not reach 100°C/212°F after	Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-25).
	the fuser heater has been turned on continuously for 30 s in warming up. The detected temperature of fuser thermistor does not reach the specified tempera- ture (ready indication temper- ature) after the fuser heater has been turned on continu- ously for 60 s in warming up. The detected temperature of fuser thermistor does not rise 1°C/1.8°F after the fuser heater has been turned on continuously for 10 s during printing.	Broken fuser heater wire.	Replace the fuser unit (see page 1-5-25).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
6020	Abnormally high fuser thermistor temperature The fuser thermistor detects a	Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-25).
	temperature higher than 240°C/464°F. By the activation of the high temperature error detection circuit (230°C/446°F or more) of fuser thermistor, the illumi- nation of fuser heater was forcibly turned off and 10 s has elapsed.	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
6030	Broken fuser thermistor wire Input from fuser thermistor is 3 or less (A/D value) continu- ously for 1 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser unit and eject PWB (YC3) Eject PWB (YC1) and engine PWB (YC19)
		Broken fuser thermistor wire.	Replace the fuser unit (see page 1-5-25).
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-25).
		Broken fuser heater wire.	Replace the fuser unit (see page 1-5-25).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
6400	Zero-cross signal error The zero-cross signal does not reach the engine PWB for more than 1 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Power source PWB (YC103) and relay PWB (YC1) Relay PWB (YC4) and engine PWB (YC9)
		Defective power source PWB or engine PWB.	Replace the power source PWB or the engine PWB and check for correct operation (see page 1-5-28, 1-5-26).
7001	<b>Toner motor K error</b> When the toner motor K is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Toner motor K and engine PWB (YC23)
		Defective drive transmission sys- tem of the toner motor K.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective toner motor K.	Replace the toner motor K.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
7002	<b>Toner motor C error</b> When the toner motor C is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Toner motor C and engine PWB (YC25)
		Defective drive transmission sys- tem of the toner motor C.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective toner motor C.	Replace the toner motor C.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7003	<b>Toner motor M error</b> When the toner motor M is driven, the motor over-current detection signal is detected	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Toner motor M and engine PWB (YC24)
	continuously for 50 times (5 s) at 100 ms intervals.	Defective drive transmission sys- tem of the toner motor M.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective toner motor M.	Replace the toner motor M.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7004	<b>Toner motor Y error</b> When the toner motor Y is driven, the motor over-current detection signal is detected continuously for 50 times (5 s) at 100 ms intervals.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Toner motor Y and engine PWB (YC26)
		Defective drive transmission sys- tem of the toner motor Y.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective toner motor Y.	Replace the toner motor Y.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
7401	Developing unit K non- installing error No density detection signal is output from toner sensor K in developing unit K.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing unit K and Drum relay PWB (YC6) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective toner sensor K.	Replace the developing unit K (see page 1- 5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7402	Developing unit C non- installing error No density detection signal is output from toner sensor C in developing unit C.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing unit C and Drum relay PWB (YC10) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective toner sensor C.	Replace the developing unit C (see page 1- 5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7403	Developing unit M non- installing error No density detection signal is output from toner sensor M in developing unit M.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing unit M and Drum relay PWB (YC7) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective toner sensor M.	Replace the developing unit M (see page 1- 5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7404	Developing unit Y non- installing error No density detection signal is output from toner sensor Y in developing unit Y.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Developing unit Y and Drum relay PWB (YC13) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective toner sensor Y.	Replace the developing unit Y (see page 1- 5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
7411	411 Drum unit K non- installing error The EEPROM of drum PWB K does not communicate nor- mally.	Installation of incompatible drum unit K.	Install drum unit K compatible with the spec- ifications to the machine.
		Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit K and Drum relay PWB (YC2) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective drum PWB K.	Replace the drum unit K (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).
7412	Drum unit C non- installing error The EEPROM of drum PWB	Installation of incompatible drum unit C.	Install drum unit C compatible with the spec- ifications to the machine.
	C does not communicate nor- mally.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit C and Drum relay PWB (YC4) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective drum PWB C.	Replace the drum unit C (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
7413	13 Drum unit M non- installing error The EEPROM of drum PWB M does not communicate nor- mally.	Installation of incompatible drum unit M.	Install drum unit M compatible with the spec- ifications to the machine.
		Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit M and Drum relay PWB (YC3) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective drum PWB M.	Replace the drum unit M (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-26).

Code	Contents	Causes	Check procedures/ corrective measures
7414	Drum unit Y non- installing error The EEPROM of drum PWB Y	Installation of incompatible drum unit Y.	Install drum unit Y compatible with the spec- ifications to the machine.
	does not communicate nor- mally.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Drum unit Y and Drum relay PWB (YC5) Drum relay PWB (YC1) and engine PWB (YC34)
		Defective drum PWB Y.	Replace the drum unit Y (see page 1-5-20).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
9500			Contact the Service Administrative Division.
9510			Contact the Service Administrative Division.
9520			Contact the Service Administrative Division.
9530	<b>Backup data error</b> The serial number of the machine written on the EEPROM of the engine PWB differs with that is written on both the flash memory of the engine PWB and the EEPROM of the drum PWB as a backup.	Replacing both the engine PWB and the drum unit at the same time.	Check that the machine operates properly by reverting the engine controller and the drum unit to the old ones. To replace the engine PWB and the drum unit at the same time, turn on the machine after replacing either one. Check that the machine operates properly and then turn off the machine. Replace the other and turn on the machine to check that the machine operates properly. Be sure to replace one by one.
F000	Main PWB - operation panel PWB communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-29).
		Defective opera- tion panel PWB.	Replace the operation panel PWB and check for correct operation.
F010	Main PWB checksum error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-29).
F020	Main PWB RAM checksum error	Defective main memory (RAM) on the main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-29).
		Defective expanded memory (DIMM).	Replace the expanded memory (DIMM) (see page 1-2-8).

Code	Contents	Causes	Check procedures/ corrective measures
F040	Main PWB - print engine communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-29).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
F041	Main PWB - scanner engine communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-29).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
F050	Print engine ROM check- sum error	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-26).
F051	Scanner engine ROM checksum error	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-26).
F278	Power supply in drive sys- tem error	Main power switch was turned off without using the power key, or a power failure has occurred.	Turn on power. (To switch off power, first press the power key until the main power indicator goes off, then turn the main power switch off.)

## 1-4-3 Image formation problems

(2) No image

black).

If the part causing the problem was not supplied, use the unit including the part for replacement.

(3) A specific color

is printed solid.

(1) No image appears (entirely white).



See page 1-4-29 (6) The back-

ground is colored.



See page 1-4-31

(11) The leading edge of image begins to print too early or too late.



appears (entirely

(7) White streaks are printed vertically.



See page 1-4-31 (12)Paper is wrin-

kled.

See page 1-4-30 (8) Black streaks are printed verti-

cally.



See page 1-4-31 (13)Offset occurs.

(4) The back side gets dirty.

See page 1-4-30

printed horizon-

(9) Streaks are

tally.





See page 1-4-30 (10)Spots are printed.



See page 1-4-32 (14)Part of image is (15)Fusing is loose.



See page 1-4-32

(16)Colors are printed offset to each other.



See page 1-4-34



See page 1-4-32



See page 1-4-33



See page 1-4-32

missing.

See page 1-4-33



See page 1-4-33

1-4-28

Print example		Causes	Check procedures/corrective measures
	Defective transfer bias output.	Defective connector cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC11)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
	Defective developing bias output.	Defective connector cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC11)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
	No LSU laser is out-	Defective laser scanner unit.	Replace the laser scanner unit KM/CY (see page 1-5-44).
	put.	Defective engine PWB.	Replace the engine PWB (see page 1-5-26).

#### (1) No image appears (entirely white).

#### (2) No image appears (entirely black).

Print example		Causes	Check procedures/corrective measures
	No main charging.	Defective connector cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC11)
		Defective main charger unit.	Replace the drum unit (see page 1-5-20).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
	Exposure lamp fails to light.	Defective connector cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Exposure lamp and inverter PWB (CN2) Inverter PWB (CN1) and CCD PWB (YC3) CCD PWB (YC1) and main PWB (YC8)
		Defective inverter PWB or CCD PWB.	Replace the scanner unit (see page 1-5-47).
		Defective main PWB.	Replace the main PWB (see page 1-5-29).
	The laser is activated simultane- ously for all colors.	Defective laser scanner unit.	Replace the laser scanner unit KM/CY (see page 1-5-44).

#### (3) A specific color is printed solid.

Print example	Causes	Check procedures/corrective measures
	Defective main charger unit which corresponds to the color causing the problem.	Replace the drum unit for the color that causes an error (see page 1-5-20).
	Laser of laser scanner unit for solid color printing is ON. Defective laser scanner unit.	Replace the laser scanner unit KM/CY (see page 1-5-44).

#### (4) The back side gets dirty.

Print example	Causes	Check procedures/corrective measures
111	Dirty secondary transfer roller.	Clean the secondary transfer roller.
	Dirty paper conveying path.	Clean the paper conveying path.
	Dirty heat roller and press roller.	Clean the heat roller and press roller.

## (5) Image is too light.

Print example		Causes	Check procedures/corrective measures
	Defective developing	Defective developing unit.	Replace the developing unit for the color that causes an error (see page 1-5-18).
	bias output.	Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
	Defective dru	ım unit.	Decrease the surface potential by performing the main charger adjustment (see page 1-3- 68). When the problem is not cleared, replace the drum unit (see page 1-5-20).
	Defective transfer	Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
	bias output.	Defective engine PWB.	Replace the engine (see page 1-5-26).
	Defective color calibration.		Perform the color calibration (Refer to opera- tion guide).
	Insufficient to	ner.	If the display shows the message requesting toner replenishment, replace the container.
	Insufficient a	gitation of toner container.	Shake the toner container vertically approximately 10 times.
	Paper damp.		Check the paper storage conditions, replace the paper.

#### (6) The background is colored.

Print example	Causes		Check procedures/corrective measures
	Defective col	or calibration.	Perform the color calibration (Refer to opera- tion guide).
	Defective developing	Defective developing unit.	Replace the developing unit for the color that causes an error (see page 1-5-18).
	bias output.	Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).
	Defective	Defective drum unit.	Replace the drum unit (see page 1-5-20).
	face charg- ing.	Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-26).

#### (7) White streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Foreign object in one of the developing units.	Replace the developing unit for the color that causes an error (see page 1-5-18).
	Adhesion of soiling to transfer belt.	Clean the transfer belt. Replace the intermediate transfer unit if it is extremely dirty (see page 1-5-21).
	Adhesion of soiling to transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-24).
	Dirty LSU dust shield glass.	Perform the LSU dust shield glass cleaning.

#### (8) Black streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Dirty contact glass.	Clean the contact glass.
	Dirty slit glass.	Clean the slit glass.
	Dirty or flawed drum.	Perform the drum surface refreshing (see page 1-3-67). Flawed drum. Replace the drum unit (see page 1-5-20).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-20).
	Worn primary transfer belt.	Replace the intermediate transfer unit (see page 1-5-21).
	Defective transfer roller.	Replace the transfer roller (see page 1-5-24).

#### (9) Streaks are printed horizontally.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum surface refreshing (see page 1-3-67). Flawed drum. Replace the drum unit (see page 1-5-20).
	Dirty developing section.	Clean any part contaminated with toner in the developing section.
	Poor contact of grounding ter- minal of drum unit.	Check the installation of the drum unit. If it operates incorrectly, replace it (see page 1-5-20).

#### (10) Spots are printed.

Print example	Causes	Check procedures/corrective measures
	Dirty contact glass.	Clean the contact glass.
	Dirty or flawed drum.	Perform the drum surface refreshing (see page 1-3-67). Flawed drum. Replace the drum unit (see page 1-5-20).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-20).
	Flawed developing roller.	Replace the developing unit (see page 1-5-18).
	Dirty heat roller and press roller.	Clean the heat roller and press roller.

#### (11) The leading edge of image begins to print too early or too late.

Print example	Causes	Check procedures/corrective measures
	Paper feed clutch or registra- tion clutch operating incor- rectly.	Check the installation of the clutch. If it operates incor- rectly, replace it.

#### (12) Paper is wrinkled.

Print example	Causes	Check procedures/corrective measures
	Paper curled.	Check the paper storage conditions.
	Paper damp.	Check the paper storage conditions.

#### (13) Offset occurs.

Print example	Causes	Check procedures/corrective measures
	Defective drum surface charg- ing.	Perform the drum surface refreshing (see page 1-3-67). When the problem is not cleared, increase the surface potential by performing the main charger adjustment (see page 1-3-68).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-20).
	Defective transfer belt clean- ing.	Replace the intermediate transfer unit (see page 1-5-21).
	Defective fuser unit.	Replace the fuser unit (see page 1-5-25).
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.

### (14) Part of image is missing.

Print example	Causes	Check procedures/corrective measures
	Paper damp.	Check the paper storage conditions.
	Paper creased.	Replace the paper.
	Drum condensation.	Perform the drum surface refreshing (see page 1-3-67).
	Dirty or flawed drum.	Perform the drum surface refreshing (see page 1-3-67). Flawed drum. Replace the drum unit (see page 1-5-20).
	Dirty transfer belt.	Clean the transfer belt. Replace the intermediate transfer unit if it is extremely dirty (see page 1-5-21).
	Dirty transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-24).

#### (15) Fusing is loose.

Print example	Causes	Check procedures/corrective measures
	Wrong types of paper.	Check if the paper meets specifications, replace paper.
	Flawed heat roller or press roller.	Replace the fuser unit (see page 1-5-25).

#### (16) Colors are printed offset to each other.

Print example	Causes	Check procedures/corrective measures
+ +	Defective color calibration.	Perform the color calibration (refer to operation guide).
+ +	Slip the mirror position of laser scanner unit.	Perform the normal color registration. When the problem is not cleared, perform the detail color registration adjustment (refer to operation guide).

# 1-4-4 Electric problems

If the part causing the problem was not supplied, use the unit including the part for replacement. Troubleshooting to each failure must be in the order of the numbered symptoms.

Problem	Causes	Check procedures/corrective measures
(1) The machine does not operate when the main power switch is turned on.	1. No electricity at the power outlet.	Measure the input voltage.
	<ol> <li>The power cord is not plugged in prop- erly.</li> </ol>	Check the contact between the power plug and the outlet.
	<ol> <li>The top tray is not closed completely.</li> </ol>	Check the top tray.
	4. Broken power cord.	Check for continuity. If none, replace the cord.
	5. Defective main power switch.	Check for continuity across the contacts. If none, replace the power source PWB (see page 1-5-28).
	<ol> <li>Defective interlock switch.</li> </ol>	Check for continuity across the contacts of interlock switch. If none, replace the power source PWB (see page 1-5-28).
	7. Defective power source PWB.	Replace the power source PWB (see page 1-5-28).
(2) Duplex motor does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Duplex motor and engine PWB (YC37)
	2. Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the duplex motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(3) Right fan motor does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Right fan motor and main PWB (YC42)
	2. Defective motor.	Replace the right fan motor.
	3. Defective PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
(4) Left fan motor does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Left fan motor and engine PWB (YC29)
	2. Defective motor.	Replace the left fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Problem	Causes	Check procedures/corrective measures
(5) Controller fan motor does not	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Controller fan motor and main PWB (YC41)
operate.	2. Defective motor.	Replace the controller fan motor.
	3. Defective PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
(6) Fuser fan motor does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser fan motor and engine PWB (YC40)
	2. Defective motor.	Replace the fuser fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(7) Container fan motor does not	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Container fan motor and engine PWB (YC28)
operate.	2. Defective motor.	Replace the container fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(8) ISU motor does not operate.	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. ISU motor and main PWB (YC36)
	2. Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the ISU motor.
	4. Defective PWB.	Replace the main PWB and check for correct operation (see page 1-5-29).
(9) Paper feed clutch does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper feed clutch and engine PWB (YC3)
	2. Defective clutch.	Replace the paper feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(10) MP feed clutch does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP feed clutch and engine PWB (YC3)
	2. Defective clutch.	Replace the MP feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Problem	Causes	Check procedures/corrective measures
(11) Registration clutch does not operate.	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Registration clutch and engine PWB (YC3)
	2. Defective clutch.	Replace the registration clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(12) Middle clutch does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Middle clutch and engine PWB (YC3)
	2. Defective clutch.	Replace the middle clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(13) MP solenoid does not operate.	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP solenoid and engine PWB (YC4)
	2. Defective solenoid.	Replace the MP solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(14) The message requesting paper to	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Cassette PWB (YC1) and engine PWB (YC21)
be loaded is shown when paper is present on the cas-	2. Deformed actuator of the paper sensor.	Check visually and replace if necessary.
sette.	3. Defective paper sen- sor.	Replace the cassette PWB.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(15) The message requesting paper to	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP paper sensor and engine PWB (YC16)
be loaded is shown when paper is present on the MP	2. Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
present on the MP tray.	3. Defective MP paper sensor.	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).
(16) The size of paper on the cassette is not displayed cor- rectly.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Cassette size switch and engine PWB (YC17)
	2. Defective cassette size switch.	Replace the cassette size switch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-26).

Problem	Causes	Check procedures/corrective measures
(17) A paper jam in the paper feed, paper conveying or eject section is indi-	<ol> <li>A piece of paper torn from paper is caught around registration sensor, MP feed sen- sor or eject sensor.</li> </ol>	Check visually and remove it, if any.
cated when the main power switch is turned on.	2. Defective registration sensor.	Replace the registration sensor.
	3. Defective MP feed sensor.	Replace the MP feed sensor.
	4. Defective eject sen- sor.	Replace the eject PWB.
(18) A message indicat-	1. Deformed actuator of the interlock switch.	Check visually and replace if necessary.
ing cover open is displayed when the top tray or rear cover is closed.	2. Defective interlock switch.	Replace the interlock switch.
(19) DP paper feed motor does not operate.	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP paper feed motor and DP drive PWB (YC3) DP drive PWB (YC1) and main PWB (YC32)
	2. Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP paper feed motor.
	4. Defective PWB.	Replace the DP drive PWB or main PWB and check for correct operation (see page 1-5-60, 1-5-29).
(20) DP paper feed clutch does not operate.	<ol> <li>Defective connector cable or poor con- tact in the connector.</li> </ol>	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP paper feed clutch and DP drive PWB (YC6) DP drive PWB (YC8) and main PWB (YC32)
	2. Defective clutch.	Replace the DP paper feed clutch.
	3. Defective PWB.	Replace the DP drive PWB or main PWB and check for correct operation (see page 1-5-60, 1-5-29).
(21) DP pressure sole- noid does not oper- ate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP pressure solenoid and DP drive PWB (YC4) DP drive PWB (YC8) and main PWB (YC32)
	2. Defective solenoid.	Replace the DP pressure solenoid.
	3. Defective PWB.	Replace the DP drive PWB or main PWB and check for correct operation (see page 1-5-60, 1-5-29).

Problem	Causes	Check procedures/corrective measures
(22) DP switchback solenoid does not operate.	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP switchback solenoid and DP drive PWB (YC5) DP drive PWB (YC8) and main PWB (YC32)
	2. Defective solenoid.	Replace the DP switchback solenoid.
	3. Defective PWB.	Replace the DP drive PWB or main PWB and check for correct operation (see page 1-5-60, 1-5-29).
(23) An original jams when the main power switch is	<ol> <li>A piece of paper torn from an original is caught around the DP timing sensor.</li> </ol>	Check visually and remove it, if any.
turned on.	2. Defective DP timing sensor.	Replace the DP timing sensor.
(24) A message indicat- ing cover open is displayed when the	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP open/close sensor and DP drive PWB (YC2) DP drive PWB (YC8) and main PWB (YC32)
DP top cover is closed.	2. Defective DP open/ close sensor.	Replace the DP open/close sensor.

# 1-4-5 Mechanical problems

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following roll- ers are dirty with paper powder. Pickup roller Paper feed roller MP paper feed roller	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller MP paper feed roller	Check visually and replace any deformed (see page 1-5-14, 1-5-16).
	Defective paper feed clutch installation.	Check visually and remedy if necessary.
(2) No secondary paper feed.	Check if the surfaces of the following roll- ers are dirty with paper powder. Front registration roller Rear registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4)	Check if the paper is excessively curled.	Change the paper.
Multiple sheets of paper are fed.	Paper is loaded incorrectly.	Load the paper correctly.
paper are led.	Check if the retard roller is worn.	Replace the retard roller if it is worn (see page 1-5-12).
(5)	Check if the paper is excessively curled.	Change the paper.
Paper jams.	Check if the contact between the front and rear registration rollers is correct.	Check visually and remedy if necessary.
	Check if the heat roller or press roller is extremely dirty or deformed.	Check visually and replace the fuser unit (see page 1-5-25).
(6) Toner drops on the paper conveying path.	Check if the drum unit or developing unit is extremely dirty.	Clean the drum unit or developing unit.
(7) Abnormal noise is	Check if the rollers, pulleys and gears operate smoothly.	Grease the bushes and gears.
heard.	Check if the following clutches are installed correctly. Paper feed clutch MP feed clutch Registration clutch Middle clutch	Check visually and remedy if necessary.

If the part causing the problem was not supplied, use the unit including the part for replacement.

Problem	Causes/check procedures	Corrective measures
(8) No primary original feed.	Check if the surfaces of the following pul- leys are dirty with paper powder. DP forwarding pulley DP feed pulley	Clean with isopropyl alcohol.
	Check if the following pulleys is deformed. DP forwarding pulley DP feed pulley	Check visually and replace any deformed (see page 1-5-55).
(9)	Original is not correctly set.	Set the original correctly.
Multiple sheets of orig- inal are fed.	Check if the DP separation pad is worn.	Replace the DP separation pad if it is worn (see page 1-5-59).
(10) Originals jam.	Originals outside the specifications are used.	Use only originals conforming to the specifications.
	Check if the surfaces of the following pul- leys are dirty with paper powder. DP forwarding pulley DP feed pulley	Clean with isopropyl alcohol.
	Check if the contact between the convey- ing roller and conveying pulley is correct.	Check visually and remedy if necessary.
	Check if the contact between the eject roller and eject pulley is correct.	Check visually and remedy if necessary.
	Check if the contact between the switch- back roller and switchback pulley is cor- rect.	Check visually and remedy if necessary.

# 1-4-6 Send error code

## (1) Scan to SMB error codes

Code	Display	Causes	Check procedures/corrective measures
1101	Host name error	Enter the disable host name of SMB server.	Enter the correct host name in COMMAND CENTER.
1102	User/Password or Folder/Shared name error	Domain name is not entered.	Enter the user name with the form of either [Domain¥User], [Domain/User] or [Domain@User].
		Assign disable user/pass- word.	Enter the correct user name/password.
		Assign disable folder/ shared name.	Enter the correct folder/shared name.
		Assign the user who is not allowed to access to folder.	Check the access limit of destination folder.
		Host name error.	Check if the prohibited letters are used to shared name. `~! @ # \$ ^ & * ( ) = + [] { } \   ; : ' " < > / ?
1103	Folder path or File name error	Domain name is not enter	Enter the user name with the form of either [Domain¥User], [Domain/User] or [Domain@User].
		Assign disable folder path.	Enter correct folder path.
		Assign the user who is not allowed to access to folder.	Check the access limit of destination folder.
1105	Protocol error	SMB protocol is set to OFF.	Enable SMB protocol in COMMAND CEN- TER.
2101	Server connect error	Enter the disable host name/IP address.	Enter the correct host name or IP address.
		Assign the wrong port number.	Enter the correct port number.
		Network is not connected.	Check if the server is operating properly. Check the network connection (cable. net- work condition within LAN, etc.).
2201	Network transfer error	Error occurs on the net- work.	Check the network connection (cable. net- work condition within LAN, etc.).
2203	Response wait with timeout error	Response is not returned from the server above specified time.	Check the network connection (cable. net- work condition within LAN, etc.).
9181	Page max count over error	The number of pages of a send file exceeded 999 pages.	Set the number of pages as 999 or less.

## (2) Scan to FTP error codes

Code	Contents	Causes	Check procedures/corrective measures
1101	Host name error	Enter the disable host name of FTP server.	Enter the correct host name in COMMAND CENTER.
1102	User/Password error	Domain name is not entered.	Enter the user name with the form of either [Domain¥User] or [Domain/User].
		Assign disable user/pass- word.	Enter the correct user name/password.
1103	Folder path or File name error	Connect to the folder which is not permitted for reference/writing.	Enter correct user name/password. Check the access limit of destination folder.
		Assign disable folder path.	Enter correct folder path.
1105	Protocol error	FTP protocol is set to OFF.	Enable FTP protocol in COMMAND CEN- TER
2101	Server connect error	Enter the disable host name/IP address.	Enter the correct host name or IP address.
		Assign the wrong port number.	Enter the correct port number.
		Network is not connected.	Check if the server is operating properly. Check the network connection (cable. net- work condition within LAN, etc.).
2102	Connect with time- out error	The server is unable to communicate.	Check if the server is operating properly.
		Send the server which does not support FTP server.	Enter the correct host name or IP address.
2103	Response wait with timeout error	The server is unable to communicate.	Check if the server is operating properly.
2201	Network transfer error	Error occurs on the net- work.	Check the network connection (cable. net- work condition within LAN, etc.).
2202	Network transfer with timeout error	Error occurs on the net- work.	Check the network connection (cable. net- work condition within LAN, etc.).
2203	Response wait with timeout error	Response is not returned from the server above specified time.	Check the network connection (cable. net- work condition within LAN, etc.).
3101	Server response error	The server is error status.	Check if the server is working properly.
9181	Page max count over error	The number of pages of a send file exceeded 999 pages.	Set the number of pages as 999 or less.

## (3) Scan to E-mail error codes

Code	Display	Causes	Check procedures/corrective measures
1101	Server name error	Enter the disable SMTP/ POP3 server name.	Enter the correct server name in COM- MAND CENTER.
1102	User/Password error	Assign disable user/pass- word.	Enter the correct user name/password.
1104	No recipient address	The destination address is not specified.	Specify the destination address.
1105	Protocol error	SMTP protocol is set to OFF.	Enable SMTP protocol in COMMAND CENTER
2101	Server connect error	Select [Other authenti- cate] when authenticating POP before SMTP.	Select valid POP3 user other than [Other].
		The specified server is not SMTP server.	Enter the correct server name in COM- MAND CENTER.
		Network is not connected.	Check if the server is operating properly. Check the network connection (cable. net- work condition within LAN, etc.).
2102	Connect with timeout error	The server is unable to communicate.	Check if the server is operating properly.
2103	Response wait with timeout error	The server is unable to communicate.	Check if the server is operating properly.
2201	Response wait with timeout error	Error occurs on the net- work.	Check the network connection (cable. net- work condition within LAN, etc.).
2202	Network transfer error	Error occurs on the net- work.	Check the network connection (cable. net- work condition within LAN, etc.).
2203	Response wait with timeout error	Response is not returned from the server above specified time.	Check the network connection (cable. net- work condition within LAN, etc.).
2204	E-Mail size limit error	The size of E-mail exceeds its limit.	Change the E-mail size limit] in COM- MAND CENTER.
3101	Server response error	The server is error status.	Check if the server is working properly.
		Server setting is not authenticated normally.	Check the settings for client/server authen- tication.
3201	Authentication Mech- anism error	Unsupported SMTP Authentication Mechanism is found.	Check the settings for client/server Authen- tication Mechanism.
9181	Page max count over error	The number of pages of a send file exceeded 999 pages.	Set the number of pages as 999 or less.

## (4) Software trouble error codes

Code	Display	Causes	Check procedures/corrective measures
5101	Not yet connected	Operation handle error. Error for stored status in the operation handle.	Turn the main power switch off and on.
5102	Already connected	Operation handle error. Error for stored status in the operation handle.	Turn the main power switch off and on.
5103	Not yet opened	Error for stored status in the operation handle.	Turn the main power switch off and on.
5104	Already opened error	Error for stored status in the operation handle.	Turn the main power switch off and on.
7101	Memory Allocation error	Insufficient memory space.	Turn the main power switch off and on.
7102	Socket create error	Unable to create a commu- nication socket.	Turn the main power switch off and on.
720f	Unknown error	Unable to determine the cause.	Turn the main power switch off and on.

# 1-4-7 Error codes

## (1) Error code

Error codes are listed on the communication reports, activity report, etc. The codes consist of an error code indication U followed by a 5-digit number. (Error codes for V34 communication errors start with an E indication, followed by five digits.)

The upper three of the five digits indicate general classification of the error and its cause, while the lower two indicate the detailed classification. Items for which detailed classification is not necessary have 00 as the last two digits.

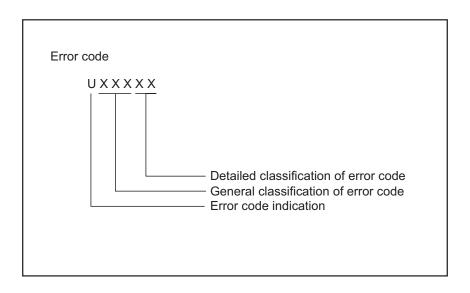


Figure 1-4-4

## (2) Table of general classification

Error code	Description
U00000	No response or busy after the set number of redials.
U00100	Transmission was interrupted by a press of the stop/clear key.
U00200	Reception was interrupted by a press of the stop/clear key.
U00300	Recording paper on the destination unit has run out during transmission.
U004XX	A connection was made but interrupted during handshake with the receiver unit (refer to 1-4-49 U004XX error code table).
U006XX	Communication was interrupted because of a machine problem (refer to 1-4-49 U006XX error code table).
U00700	Communication was interrupted because of a problem in the destination unit.
U008XX	A page transmission error occurred in G3 mode (refer to 1-4-49 U008XX error code table).
U009XX	A page reception error occurred in G3 mode (refer to 1-4-49 U009XX error code table).
U010XX	Transmission in G3 mode was interrupted by a signal error (refer to 1-4-50 U010XX error code table).
U011XX	Reception in G3 mode was interrupted by a signal error (refer to 1-4-51 U011XX error code table).
U01400	An invalid one-touch key was specified during communication.
U01500	A communication error occurred when calling in V.8 mode.
U01600	A communication error occurred when called in V.8 mode.
U017XX	A communication error occurred before starting T.30 protocol during transmission in V.34 mode (refer to 1-4-52 U017XX error code table).
U018XX	A communication error occurred before starting T.30 protocol during reception in V.34 mode (refer to 1-4-52 U018XX error code table).
U03000	No document was present in the destination unit when polling reception started.
U03200	In interoffice subaddress-based bulletin board reception, data was not stored in the box specified by the destination unit.
U03300	In polling reception from a unit of our make, operation was interrupted due to a mismatch in permit ID or telephone number. Or, in interoffice subaddress-based bulletin board reception, operation was interrupted due to a mismatch in permit ID or telephone num- ber.
U03400	Polling reception was interrupted because of a mismatch in individual numbers (destina- tion unit is either of our make or by another manufacturer).
U03500	In interoffice subaddress-based bulletin board reception, the specified Subaddress confi- dential box number was not registered in the destination unit.
U03600	An interoffice subaddress-based bulletin board reception was interrupted because of a mismatch in the specified subaddress confidential box number.
U03700	Interoffice subaddress-based bulletin board reception failed because the destination unit had no subaddress-based bulletin board transmission capability, or data was not stored in any subaddress confidential box in the destination unit.
U04000	In interoffice subaddress-based transmission mode, the specified subaddress box num- ber was not registered in the destination unit.

Error code	Description
U04100	Subaddress-based transmission failed because the destination unit had no subaddress- based reception capability.
U04200	In encrypted transmission, the specified encryption box was not registered in the desti- nation unit.
U04300	Encrypted transmission failed because the destination unit had no encrypted communi- cation capability.
U04400	Encrypted transmission was interrupted because encryption keys did not agree.
U04500	Encrypted reception was interrupted because of a mismatch in encryption keys.
U05100	Password check transmission or restricted transmission was interrupted because the permit ID's did not agree with.
U05200	Password check reception or restricted reception was interrupted because the permit ID's did not match, the rejected FAX number's did match, or the destination receiver did not return its phone number.
U05300	The password check reception or the restricted reception was interrupted because the permitted numbers did not match, the rejected numbers did match, or the machine in question did not acknowledge its phone number.
U14000	Memory overflowed during confidential reception. Or, in subaddress-based confidential reception, memory overflowed.
U14100	In interoffice subaddress-based transmission, memory overflowed in the destination unit.
U19000	Memory overflowed during memory reception.
U19100	Memory overflowed in the destination unit during transmission.
U19300	Transmission failed because an error occurred during JBIG encoding.

## (2-1) U004XX error code table: Interrupted phase B

Error code	Description
U00430	Polling request was received but interrupted because of a mismatch in permit number. Or, subaddress-based bulletin board transmission request was received but interrupted because of a mismatch in permit ID in the transmitting unit.
U00431	An subaddress-based bulletin board transmission was interrupted because the specified subaddress confidential box was not registered.
U00432	An subaddress-based bulletin board transmission was interrupted because of a mis- match in Subaddress confidential box numbers.
U00433	Subaddress-based bulletin board transmission request was received but data was not present in the subaddress confidential box.
U00440	Subaddress-based confidential reception was interrupted because the specified subad- dress box was not registered.
U00450	The destination transmitter disconnected because the permit ID's did not agree with while the destination transmitter is in password-check transmission or restricted transmission.
U00460	Encrypted reception was interrupted because the specified encryption box number was not registered.
U00462	Encrypted reception was interrupted because the encryption key for the specified encryption box was not registered.

## (2-2) U006XX error code table: Problems with the unit

Error code	Description
U00601	Document jam or the document length exceeds the maximum.
U00613	Image writing section problem
U00656	Data was not transmitted to a modem error.
U00690	System error.

## (2-3) U008XX error code table: Page transmission error

Error code	Description
U00800	A page transmission error occurred because of reception of a RTN or PIN signal.
U00811	A page transmission error reoccurred after retry of transmission in the ECM mode.

## (2-4) U009XX error code table: Page reception error

Error code	Description
U00900	An RTN or PIN signal was transmitted because of a page reception error.
U00910	A page reception error remained after retry of transmission in the ECM mode.

## (2-5) U010XX error code table: G3 transmission

Error code	Description
U01000	An FTT signal was received for a set number of times after TCF signal transmission at 2400 bps. Or, an RTN signal was received in response to a Q signal (excluding EOP) after transmission at 2400 bps.
U01001	Function of the unit differs from that indicated by a DIS signal.
U01016	An MCF signal was received but no DIS signal was received after transmission of an EOM signal, and T1 timeout was detected.
U01019	No relevant signal was received after transmission of a CNC signal, and the preset num- ber of command retransfers was exceeded (between units of our make).
U01020	No relevant signal was received after transmission of a CTC signal, and the preset num- ber of command retransfers was exceeded (ECM).
U01021	No relevant signal was received after transmission of an EOR.Q signal, and the preset number of command retransfers was exceeded (ECM).
U01022	No relevant signal was received after transmission of an RR signal, and the preset num- ber of command retransfers was exceeded (ECM).
U01028	T5 time-out was detected during ECM transmission (ECM).
U01052	A DCN signal was received after transmission of an RR signal (ECM).
U01080	A PIP signal was received after transmission of a PPS.NULL signal.
U01092	During transmission in V.34 mode, communication was interrupted because of an impos- sible combination of the symbol speed and communication speed.
U01093	A DCN or other inappropriate signal was received during phase B of transmission.
U01094	The preset number of command retransfers for DCS/NSS signals was exceeded during phase B of transmission.
U01095	No relevant signal was received after transmission of a PPS (Q) signal during phase D of transmission, and the preset number of command transfers was exceeded.
U01096	A DCN signal or invalid command was received during phase D of transmission.
U01097	The preset number of command retransfers was exceeded after transmission of an RR signal or no response.

## (2-6) U011XX error code table: G3 reception

Error code	Description
U01100	Function of the unit differs from that indicated by a DCS signal.
U01101	Function of the unit (excl. communication mode select) differs from that indicated by an NSS signal.
U01102	A DTC (NSC) signal was received when no transmission data was in the unit.
U01110	No response after transmission of a DIS signal.
U01111	No response after transmission of a DTC (NSC) signal.
U01113	No response after transmission of an FTT signal.
U01125	No response after transmission of a CNS signal (between units of our make).
U01129	No response after transmission of an SPA signal (short protocol).
U01141	A DCN signal was received after transmission of a DTC signal.
U01143	A DCN signal was received after transmission of an FTT signal.
U01155	A DCN signal was received after transmission of an SPA signal (short protocol).
U01160	During message reception, transmission time exceeded the maximum transmission time per line.
U01162	Reception was aborted due to a modem malfunction during message reception.
U01191	Communication was interrupted because an error occurred during an image data reception sequence in the V.34 mode.
U01193	There was no response, or a DCN signal or invalid command was received, during phase C/D of reception.
U01194	A DCN signal was received during phase B of reception.
U01195	No message was received during phase C of reception.
U01196	Error line control was exceeded and a decoding error occurred for the message being received.

### (2-7) U017XX error code table: V.34 transmission

Error code	Description
U01700	A communication error occurred in phase 2 (line probing).
U01720	A communication error occurred in phase 4 (modem parameter exchange).
U01721	Operation was interrupted due to the absence of a common communication speed between units.

U01700: A communication error that occurs at the transmitting unit in the period after transmission of INFO0 before entering phase 3 (primary channel equivalent device training). For example, INFO0/A/Abar (B/Bbar, for polling transmission)/INFOh was not detected.

- U01720: A communication error that occurs at the transmitting unit in the period after initiating the control channel before entering the T.30 process. For example, PPh/ALT/MPh/E was not detected.
- U01721: In the absence of a common communication speed between units (including when an impossible combination of communication speed and symbol speed occurs) after MPh exchange; 1) a DCN signal was received from the destination unit, and the line was cut; or 2) a DIS (NSF, CSI) signal was received from the destination unit and, in response to the signal, the unit transmitted a DCN signal, and the line was cut.

## (2-8) U018XX error code table: V.34 reception

Error code	Description
U01800	A communication error occurred in phase 2 (line probing).
U01810	A communication error occurred in phase 3 (primary channel equivalent device training).
U01820	A communication error occurred in phase 4 (modem parameter exchange).
U01821	Operation was interrupted due to the absence of a common communication speed between units.

U01800: A communication error that occurs at the receiver unit in the period after transmission of INFO0 before entering phase 3 (primary channel equivalent device training). For example, INFO0/B/Bbar (A/Abar, for polling reception)/probing tone was not detected.

U01810: A communication error that occurs at the receiver unit in phase 3 (primary channel equivalent device training). For example, S/Sbar/PP/TRN was not detected.

U01820: A communication error that occurs at the receiver unit in the period after initiating the control channel before entering the T.30 process. For example, PPh/ALT/MPh/E was not detected.

U01821: In the absence of a common communication speed between units (including when an impossible combination of communication speed and symbol speed occurs) after MPh exchange, a DCN signal was transmitted to the destination unit and the line was cut.

# 1-5-1 Precautions for assembly and disassembly

## (1) Precautions

Before starting disassembly, press the Power key on the operation panel to off. Make sure that the Power lamp is off before turning off the main power switch. And then unplug the power cable from the wall outlet. When the fax kit is installed, be sure to disconnect the modular code before starting disassembly.

When handling PWBs (printed wiring boards), do not touch parts with bare hands.

The PWBs are susceptible to static charge.

Do not touch any PWB containing ICs with bare hands or any object prone to static charge.

When removing the hook of the connector, be sure to release the hook.

Take care not to get the cables caught.

To reassemble the parts, use the original screws. If the types and the sizes of screws are not known, refer to the PARTS LIST.

## (2) Drum

Note the following when handling or storing the drum.

When removing the drum unit, never expose the drum surface to strong direct light.

Keep the drum at an ambient temperature between -20°C/-4°F and 40°C/104°F and at a relative humidity not higher than 85% RH. Avoid abrupt changes in temperature and humidity.

Avoid exposure to any substance which is harmful to or may affect the quality of the drum.

Do not touch the drum surface with any object. Should it be touched by hands or stained with oil, clean it.

## (3) Toner

Store the toner container in a cool, dark place. Avoid direct light and high humidity.

#### (4) How to tell a genuine Kyocera Mita toner container

As a means of brand protection, the Kyocera Mita toner container utilizes an optical security technology to enable visual validation. A validation viewer is required to accomplish this.

Hold the validation viewer over the left side part of the brand protection seal on the toner container. Through each window of the validation viewer, the left side part of the seal should be seen as follows:

A black-colored band when seen through the left side window ( • )

A shiny or gold-colored band when seen through the right side window (  $\,\,\dot{\,}\,\dot{\,}\,\dot{\,}\,$ 

The above will reveal that the toner container is a genuine Kyocera Mita branded toner container, otherwise, it is a counterfeit.

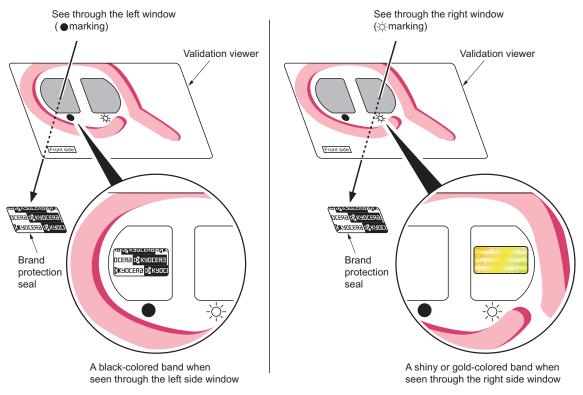


Figure 1-5-1

The brand protection seal has an incision as shown below to prohibit reuse.

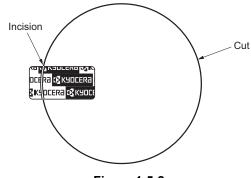


Figure 1-5-2

## 1-5-2 Outer covers

(1) Detaching and refitting the rear upper cover, right upper cover, left upper cover and front cover

#### Procedure

- 1. Open the paper conveying unit.
- 2. Release the hook and then remove the IF cover.

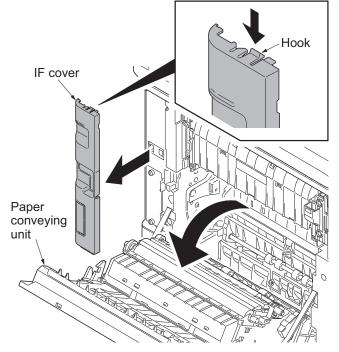


Figure 1-5-3

3. Remove two screws and then remove the rear upper cover.

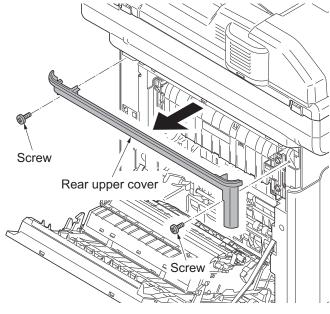


Figure 1-5-4

- 4. Pull the top tray lever and open the top tray.
- 5. Release the hook. Slide the right upper cover backward and then remove it.

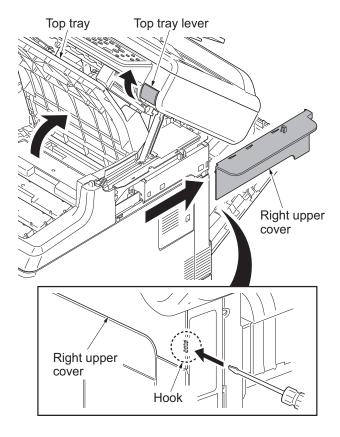


Figure 1-5-5

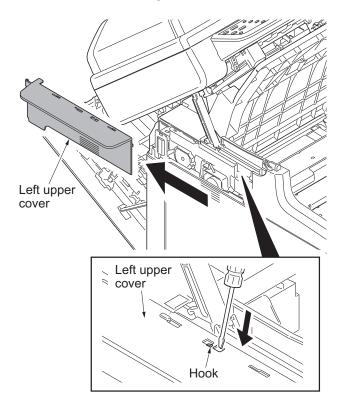


Figure 1-5-6

6. Release the hook. Slide the left upper cover backward and then remove it.

7. Release five hooks (hook A  $\rightarrow$  B) and then remove the front cover.

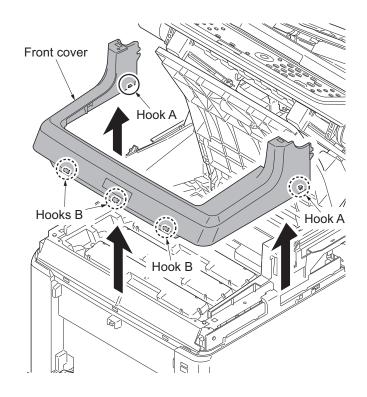


Figure 1-5-7

## (2) Detaching and refitting the right rear cover, right cover and right lower cover

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 2. Slide the power source cover backward and then remove it.

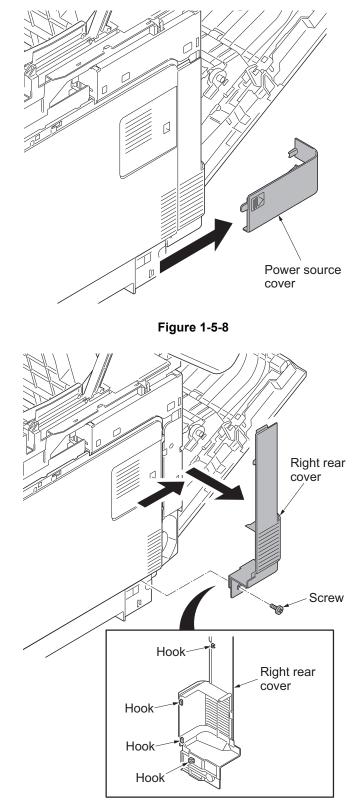


Figure 1-5-9

- 3. Remove the screw.
- 4. Release four hooks. Slide the right rear cover backward and then remove it.

5. Open the memory cover and then remove it.

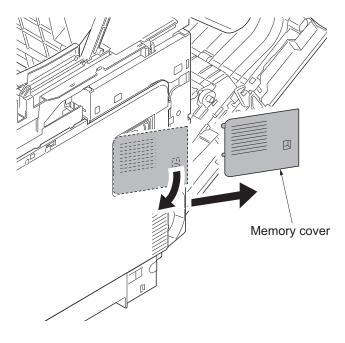
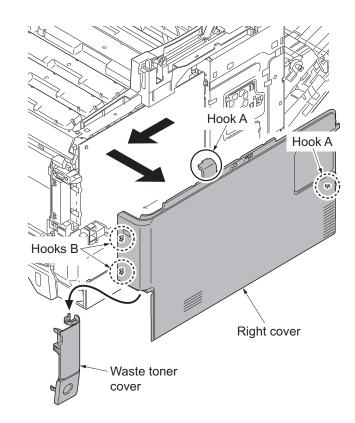


Figure 1-5-10

- Release four hooks (hook A → B). Slide the right cover forward and then remove it.
- 7. Remove the waste toner cover.



8. Release the hook. Slide the right lower cover forward and then remove it.

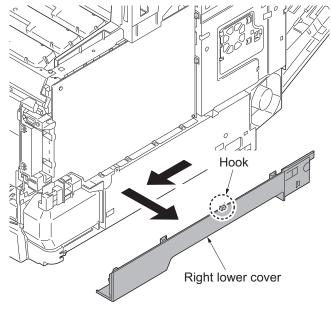


Figure 1-5-12

## (3) Detaching and refitting the left rear cover, left cover and left lower cover

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 2. Release the hook. Slide the left rear cover upward and then remove it.

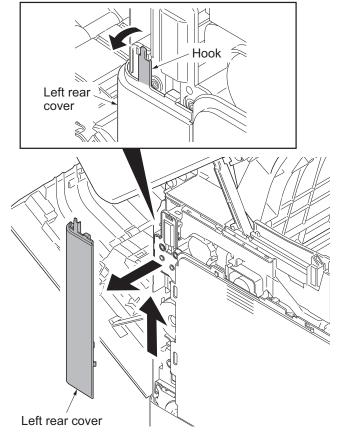


Figure 1-5-13

3. Release four hooks (hook A  $\rightarrow$  B) and then remove the left cover.

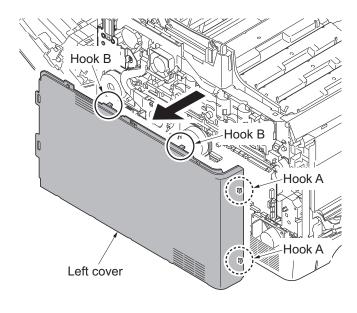


Figure 1-5-14

- 4. Remove the screw.
- 5. Release three hooks (hook  $A \rightarrow B$ ) and then remove the left lower cover.

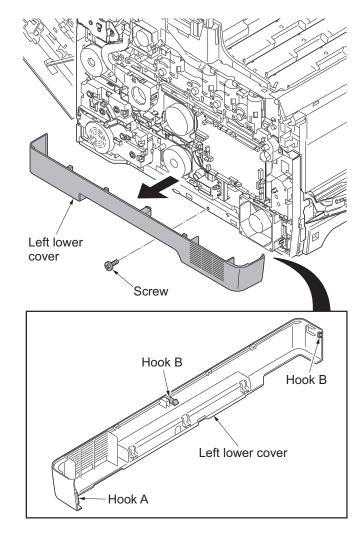


Figure 1-5-15

## (4) Detaching and refitting the inner cover

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 2. Remove the right rear cover, right cover and right lower cover (see page 1-5-6).
- 3. Remove the left rear cover, left cover and left lower cover (see page 1-5-9).
- 4. Release four hooks and then remove the inner cover.

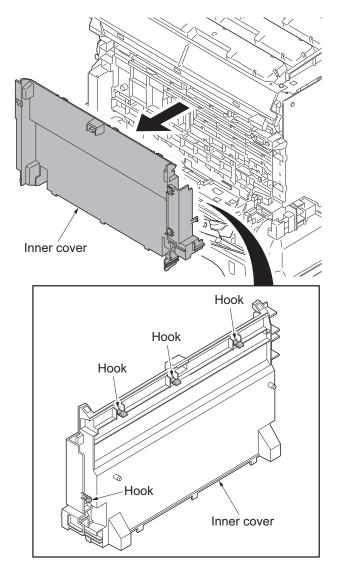


Figure 1-5-16

## 1-5-3 Paper feed section

## (1) Detaching and refitting the retard roller unit

#### Procedure

1. Remove the cassette.

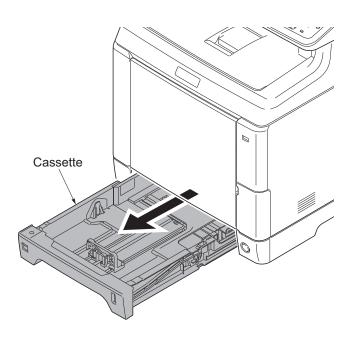


Figure 1-5-17

- 2. Open the paper conveying unit.
- 3. Pull the middle roller unit forward to the hook.
- 4. While pressing the right and left hooks outwards, unlatch the shaft from the rail and remove the middle roller unit.

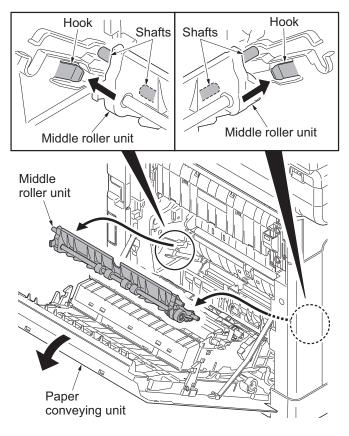


Figure 1-5-18

- 5. Pull the retard cover down and remove.
- 6. Release two hooks and then remove the retard roller unit.
- 7. Check or replace the retard roller unit and refit all the removed parts.

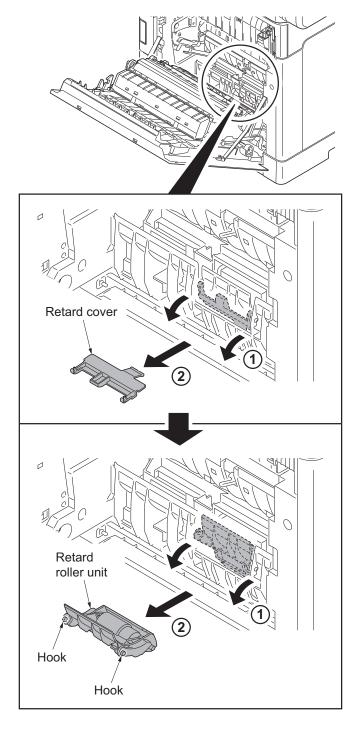


Figure 1-5-19

## (2) Detaching and refitting the paper feed roller unit

#### Procedure

- 1. Remove the retard roller unit (see page 1-5-12).
- 2. Turn forward the lever of the feed pin to release the lock.
- 3. Slide the feed pin.

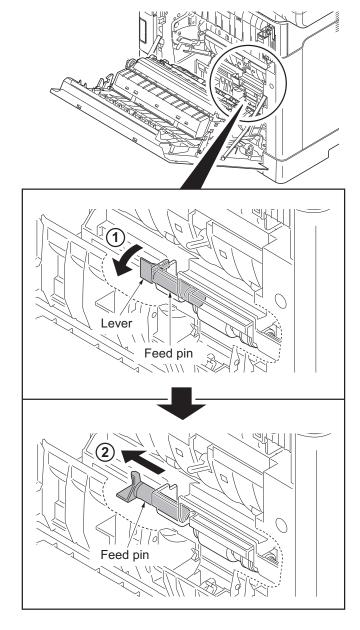


Figure 1-5-20

- 4. Remove the paper feed roller unit.
- 5. Check or replace the paper feed roller unit and refit all the removed parts.

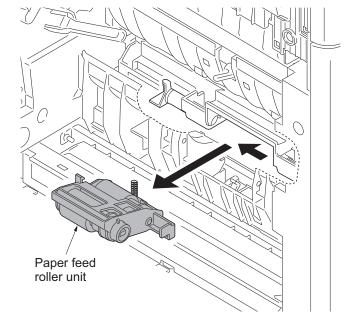


Figure 1-5-21

## (3) Detaching and refitting the MP paper feed roller

#### Procedure

- 1. Remove the cassette.
- 2. Raise the MP tray cover upward. Release two hooks and then remove the MP tray cover.

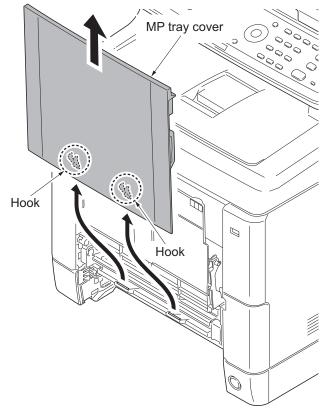
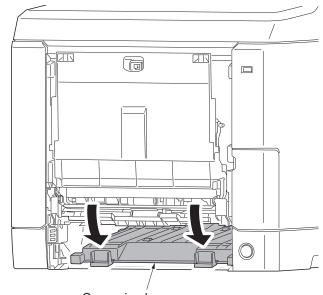


Figure 1-5-22

3. Open the conveying lower cover.



Conveying lower cover

Figure 1-5-23

4. Remove two screws and then remove the MP paper feed lower unit.

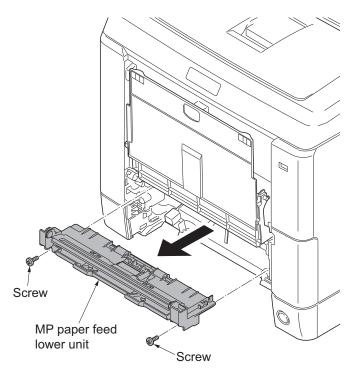


Figure 1-5-24

T

- 5. Pull the hook forward and then slide the MP feed shaft.
- 6. Remove the MP paper feed roller.
- 7. Check or replace the Mp paper feed roller and refit all the removed parts.

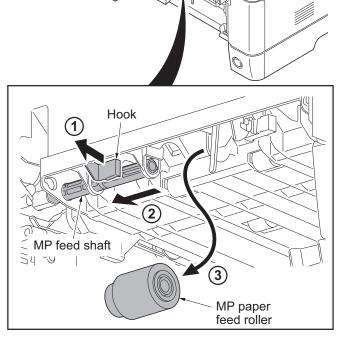


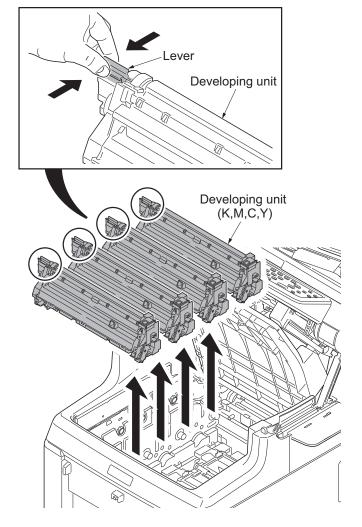
Figure 1-5-25

# 1-5-4 Developing section

## (1) Detaching and refitting the developing unit

#### Procedure

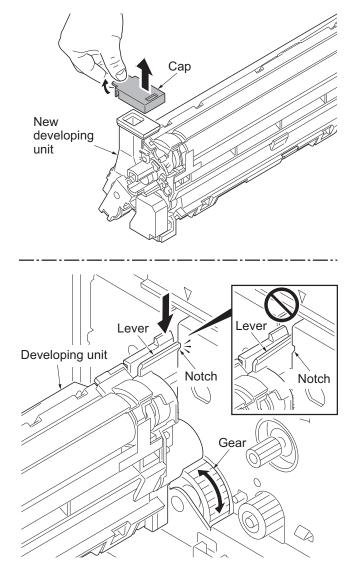
- 1. Remove the intermediate transfer unit (see page 1-5-21).
- 2. Remove drum units (K, M, C, Y).
- 3. Pinch the lever of developing unit.
- 4. Remove developing units (K, M, C, Y).



5. Check or replace the developing unit and refit all the removed parts.

#### NOTE:

- \*: Remove the cap before installing the new developing unit.
- \*: When reinstalling the developing unit, press it down until the lever of developing unit is engaged with the notch.
- \*: If it is difficult to engage the lever, press the unit down while rotating the gear to engage it.

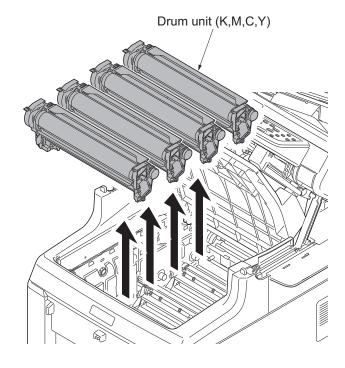


## 1-5-5 Drum section

## (1) Detaching and refitting the drum unit

#### Procedure

- 1. Remove the intermediate transfer unit (see page 1-5-21).
- 2. Remove drum units (K, M, C, Y).
- 3. Check or replace the drum unit and refit all the removed parts.



## 1-5-6 Transfer/Separation section

## (1) Detaching and refitting the intermediate transfer unit

#### Procedure

- 1. Open the top tray and the paper conveying unit.
- 2. Remove toner containers (K, M, C, Y).

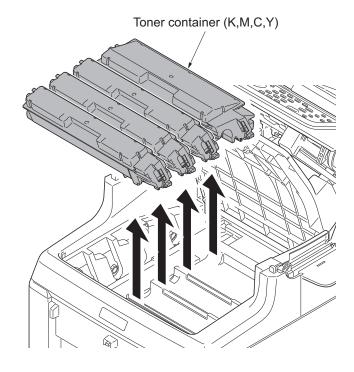


Figure 1-5-29

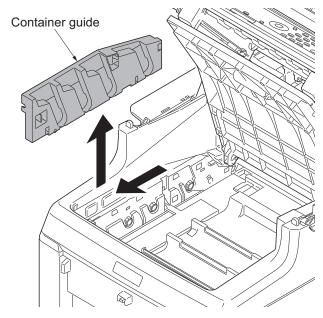


Figure 1-5-30

3. Slide the container guide forward and then remove it.

4. Open the RFID holder.

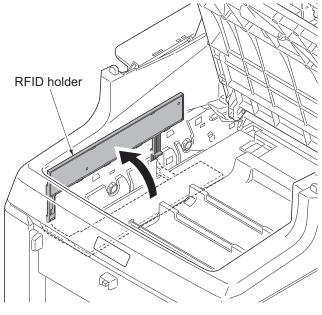


Figure 1-5-31

- 5. Slide the shutter forward and seal the toner inlet.
- 6. Remove the screw.

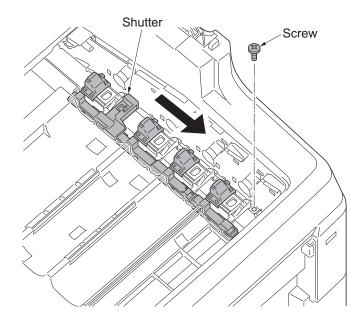


Figure 1-5-32

- 7. Remove the intermediate transfer unit.
- 8. Check or replace the intermediate transfer unit and refit all the removed parts.

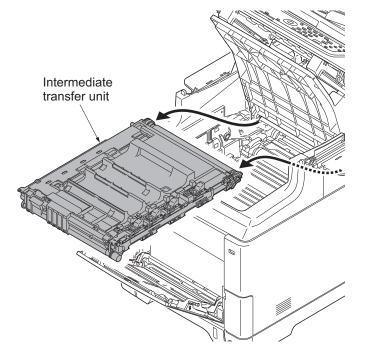


Figure 1-5-33

# (2) Detaching and refitting the transfer roller unit

- 1. Open the paper conveying unit.
- 2. Release two hooks and then remove the transfer roller unit.
- 3. Check or replace the transfer roller unit and refit all the removed parts.

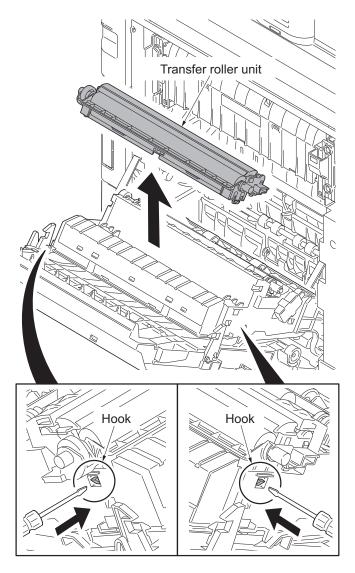


Figure 1-5-34

# 1-5-7 Fuser section

# (1) Detaching and refitting the fuser unit

- 1. Open the paper conveying unit.
- 2. Remove the IF cover (see page 1-5-3).
- 3. Remove the screw and then fuser wire cover.

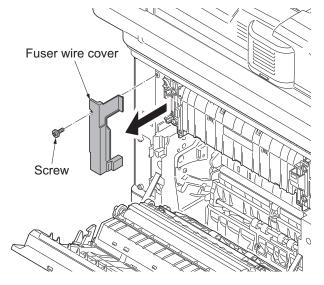


Figure 1-5-35

- 4. Remove three connectors.
- 5. Remove two screws and then remove the fuser unit.
- 6. Check or replace the fuser unit and refit all the removed parts.

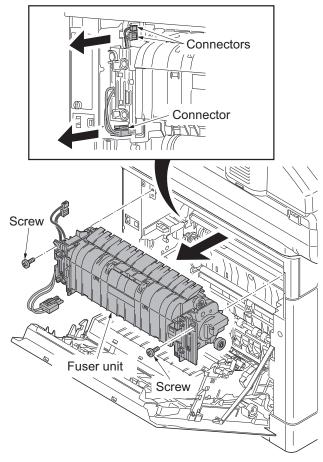


Figure 1-5-36

# 1-5-8 PWBs

# (1) Detaching and refitting the engine PWB

- 1. Remove the left cover (see page 1-5-9).
- 2. Remove all connectors from the engine PWB.

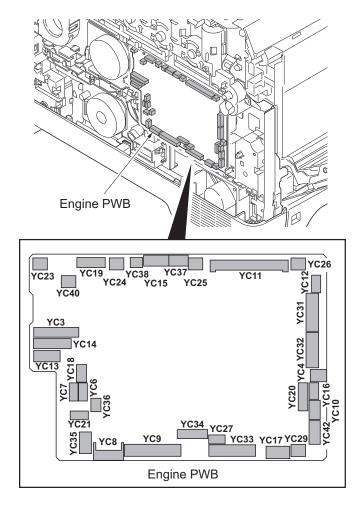


Figure 1-5-37

- 3. Remove three screws and then remove the engine PWB.
- 4. Check or replace the engine PWB and refit all the removed parts.
- \*: To replace the engine PWB, remove the EEPROM (U1) from the old engine PWB and mount it to the new engine PWB.

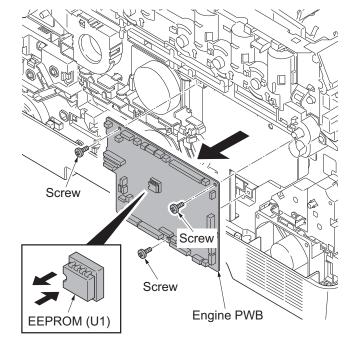


Figure 1-5-38

### (2) Detaching and refitting the power source PWB

- 1. Remove the right rear cover, right cover and right lower cover (see page 1-5-6).
- Remove three screws and then remove the power source shield.
   Screws A and B are unidentical, therefore, do not mix up.

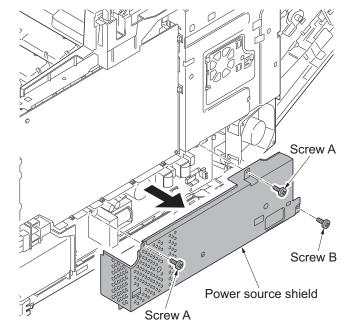


Figure 1-5-39

- 3. Remove all connectors from power source PWB.
- 4. Remove two screws.
- 5. Release three hooks and then remove the power source PWB.
- 6. Check or replace the power source PWB and refit all the removed parts.

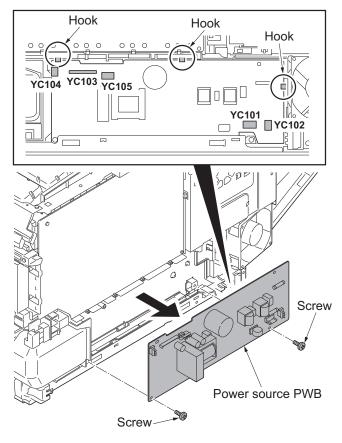


Figure 1-5-40

### (3) Detaching and refitting the main PWB

- 1. Remove the FAX control PWB, if installed (see page 1-5-35).
- 2. Remove the right rear cover, right cover and right lower cover (see page 1-5-6).
- Remove three screws and then remove the power source shield.
   Screws A and B are unidentical, therefore, do not mix up.

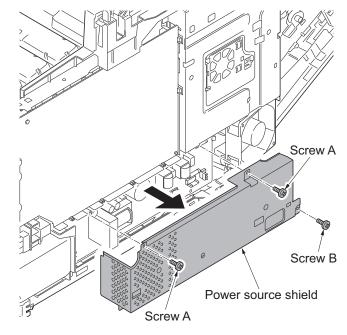


Figure 1-5-41

- 4. Open the fan bracket.
- 5. Slide the fan plate. Release four hooks and then remove the fan plate.

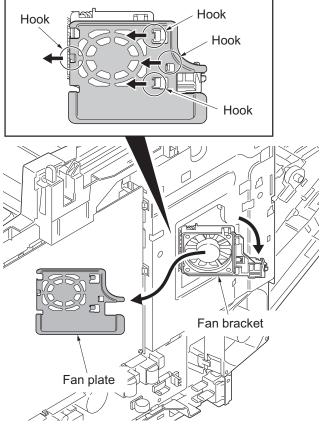


Figure 1-5-42

6. Remove the screw and then remove the fuser wire cover.

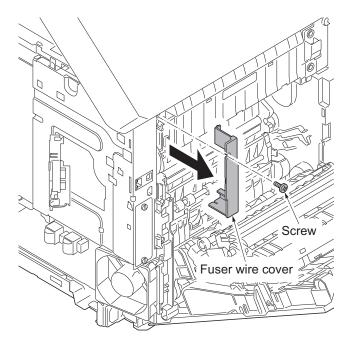


Figure 1-5-43

7. Remove five screws and then remove the controller shield.

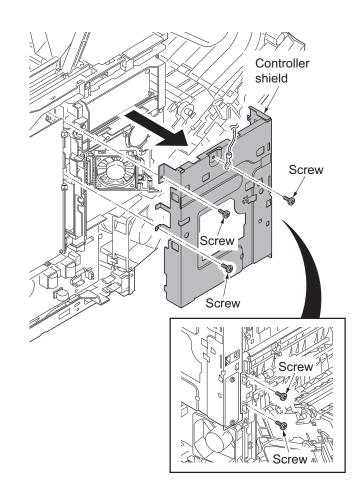


Figure 1-5-44

- 8. Remove the connector (YC41) of the controller fan motor.
- 9. Open the fan bracket and then remove it.

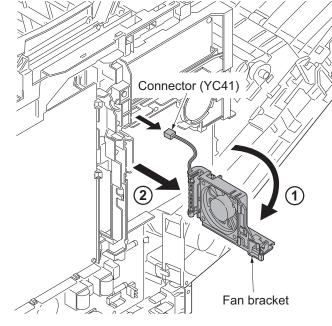


Figure 1-5-45

10. Remove seven connectors (YC15, YC37, YC41, YC40, YC38, YC39 and YC42) from the main PWB.

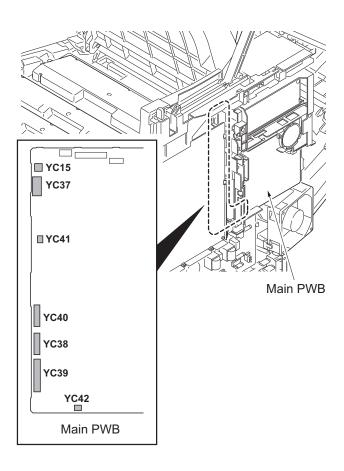


Figure 1-5-46

- 11. Remove two screws.
- 12. Release three hooks and then remove the wire holder.

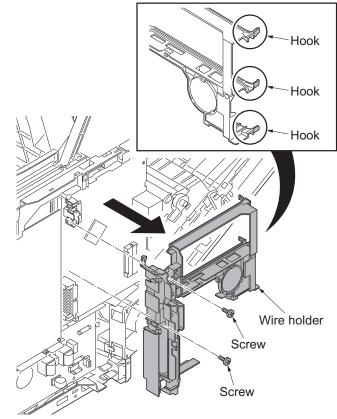


Figure 1-5-47

13. Remove three connectors (YC36, YC32, YC12) and two FFCs (YC8, YC43) from the main PWB.

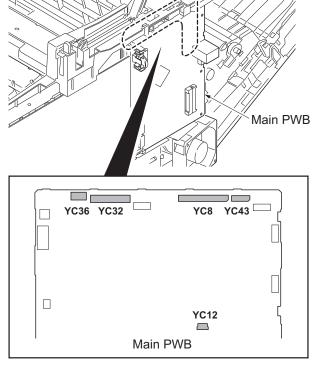


Figure 1-5-48

- 14. Remove five screws and then remove the main PWB.
- 15. Check or replace the main PWB and refit all the removed parts.

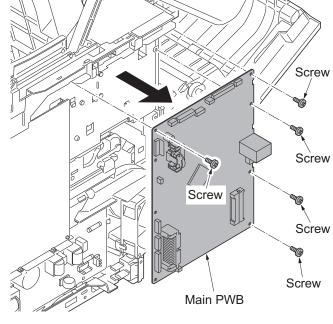


Figure 1-5-49

### (4) Detaching and refitting the high voltage PWB

#### Procedure

- 1. Remove the right rear cover and right cover (see page 1-5-6).
- 2. Remove the FFC from the high voltage PWB.

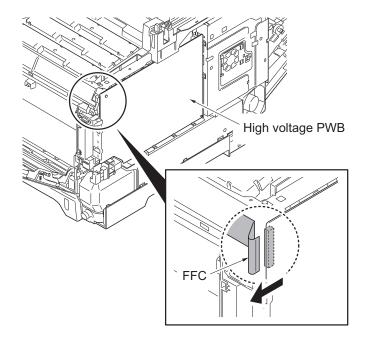


Figure 1-5-50

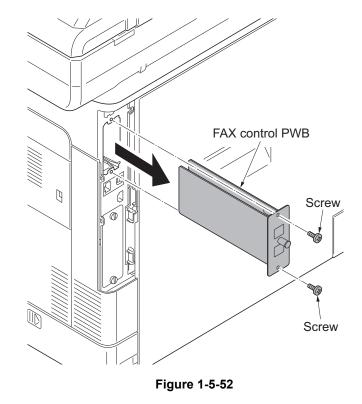
Screw High Voltage PWB

Figure 1-5-51

- 3. Remove the screw.
- 4. Release eight hooks and then remove the high voltage PWB.
- 5. Check or replace the high voltage PWB and refit all the removed parts.

# (5) Detaching and refitting the FAX control PWB (4 in 1 model (with FAX) only)

- 1. Remove the IF cover (see page 1-5-3).
- 2. Remove two screws and then remove the FAX control PWB.
- 3. Check or replace the FAX control PWB and refit all the removed parts.



# 1-5-9 Drive section

### (1) Detaching and refitting the MP feed drive unit

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 2. Remove the right rear cover and right cover (see page 1-5-6).
- Remove the left rear cover, left cover and left lower cover (see page 1-5-9).
- 4. Remove the inner cover (see page 1-5-11).
- 5. Remove the engine PWB (see page 1-5-26).
- 6. Release three hooks and then remove the left fan motor.

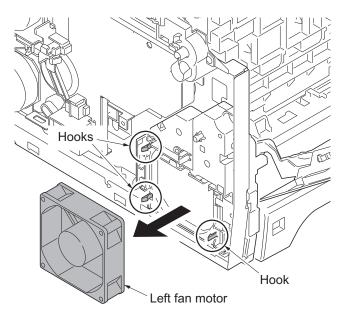


Figure 1-5-53

- 7. Turn the cam inside the device to the position indicated.
- 8. Remove three screws and then remove MP feed drive unit.
- 9. Check or replace the MP feed drive unit and refit all the removed parts.

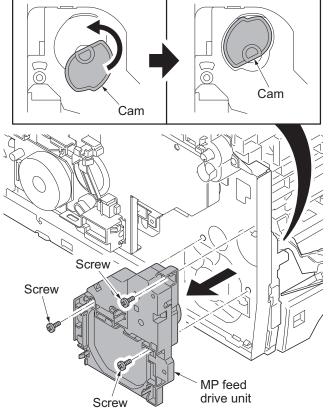


Figure 1-5-54

## (2) Detaching and refitting the drum/developing drive unit

#### Procedure

- 1. Remove drum units (K, M, C, Y) and developing units (K, M, C, Y) (see page 1-5-20, 18).
- 2. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- Remove the left rear cover, left cover and left lower cover (see page 1-5-9).
- 4. Remove the engine PWB (see page 1-5-26).
- 5. Remove the screw and release the hook, and then remove the developing fan unit.

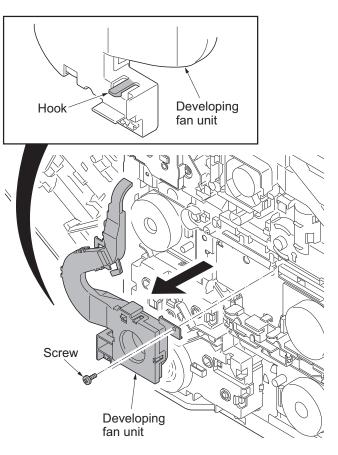


Figure 1-5-55

6. Remove the screw and then remove the ID guide.

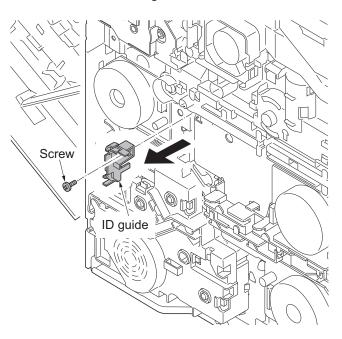


Figure 1-5-56

- 7. Remove five screws and then remove drum/developing drive unit.
- 8. Check or replace the drum/developing drive unit and refit all the removed parts.

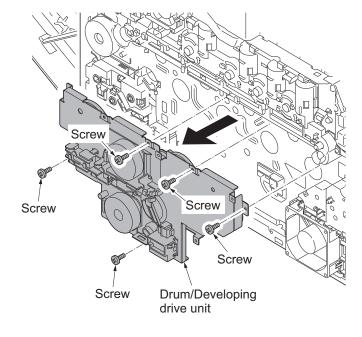


Figure 1-5-57

### (3) Detaching and refitting the paper feed drive unit

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- Remove the left rear cover, left cover and left lower cover (see page 1-5-9).
- 3. Remove connector (YC3) from engine PWB.

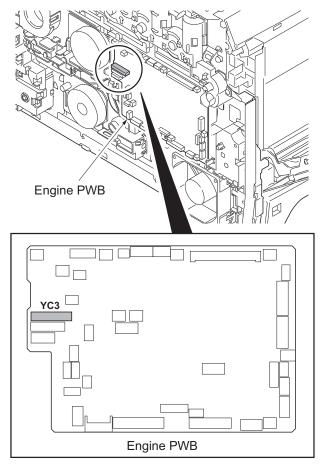


Figure 1-5-58

- 4. Remove four screws and then remove the paper feed drive unit.
- 5. Check or replace the paper feed drive unit and refit all the removed parts.

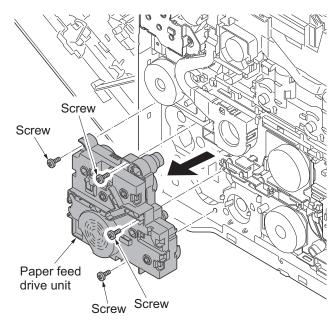


Figure 1-5-59

## (4) Detaching and refitting the fuser pressure drive unit

- 1. Remove the fuser unit (see page 1-5-25).
- 2. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 3. Remove the left rear cover and left cover (see page 1-5-9).
- 4. Remove connector (YC38) from engine PWB.

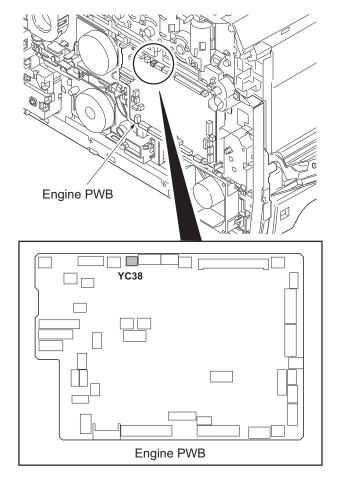


Figure 1-5-60

- 5. Remove the developing fan unit (see page 1-5-37).
- 6. Remove three screws.
- 7. Release two hooks remove the fuser pressure drive unit.
- 8. Check or replace the fuser pressure drive unit and refit all the removed parts.

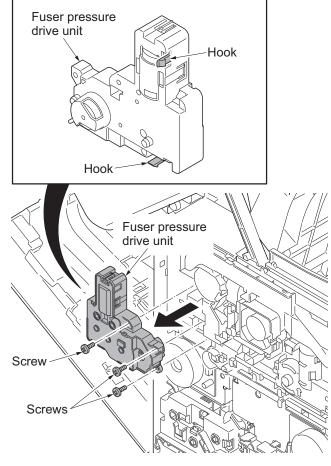


Figure 1-5-61

## (5) Detaching and refitting the middle transfer drive unit

- 1. Remove the intermediate transfer unit (see page 1-5-21).
- 2. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 3. Remove the left rear cover and left cover (see page 1-5-9).
- 4. Remove the fuser pressure drive unit (see page 1-5-40).
- 5. Remove connector (YC15) from engine PWB.

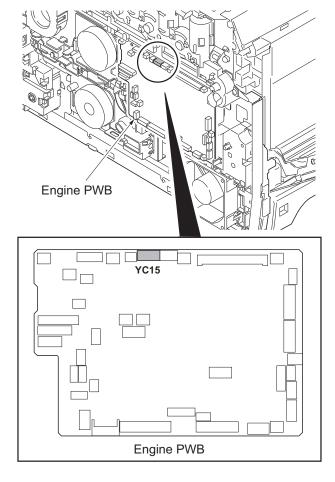


Figure 1-5-62

6. Remove the screw and then remove the ID guide.

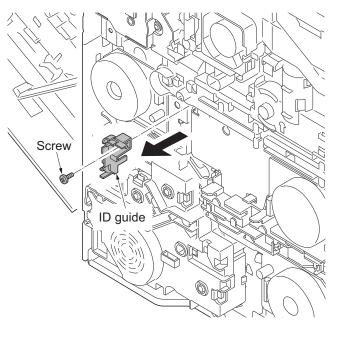


Figure 1-5-63

- 7. Remove three screws and then remove the middle transfer drive unit.
- 8. Check or replace the middle transfer drive unit and refit all the removed parts.

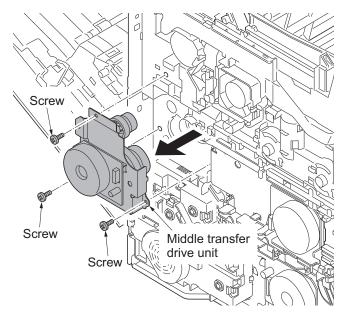


Figure 1-5-64

# 1-5-10 Optical section

## (1) Detaching and refitting the laser scanner unit

#### Procedure

- 1. Remove the intermediate transfer unit (see page 1-5-21).
- 2. Remove drum units (K, M, C, Y) and developing units (K, M, C, Y) (see page 1-5-20, 18).
- 3. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 4. Remove the left rear cover and left cover (see page 1-5-9).
- 5. Remove two connectors (YC32, YC32) from engine PWB.

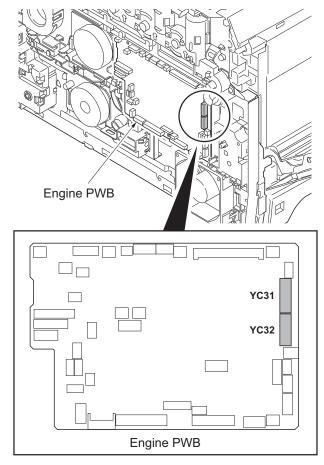


Figure 1-5-65

6. Draw two connectors (YC31, YC32) into the machine inside.

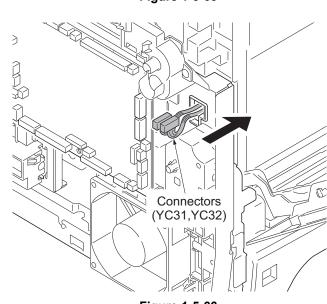


Figure 1-5-66

- 7. Remove the right rear cover, right cover and right lower cover (see page 1-5-6).
- 8. Remove the controller shield (see page 1-5-29).
- 9. Remove two connectors (YC38, YC40) from main PWB.

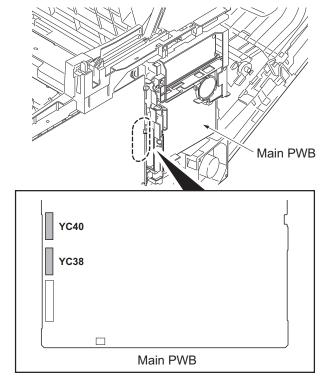
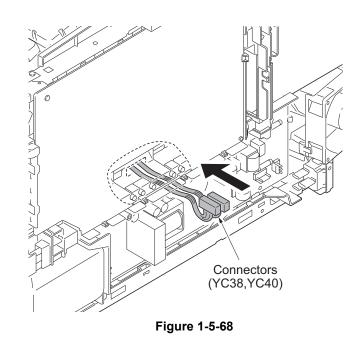


Figure 1-5-67

10. Draw two connectors (YC38, YC40) into the machine inside.



1-5-45

- 11. Remove each three screws and then remove laser scanner unit (KM, CY).
- 12. Check or replace the laser scanner unit and refit all the removed parts.

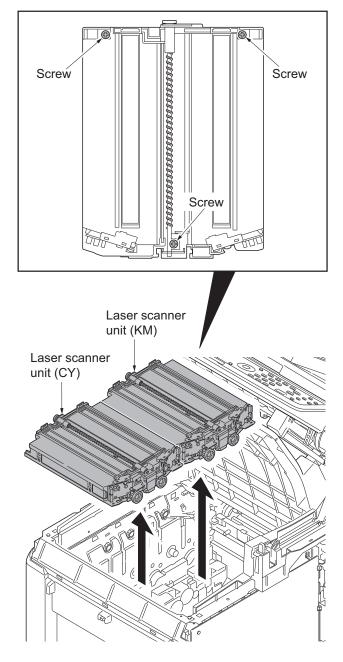


Figure 1-5-69

## (2) Detaching and refitting the scanner unit

### Procedure

- 1. Remove the document processor (see page 1-5-51).
- 2. Remove the connector (YC36) and two FFCs (YC8, YC43) from main PWB.
- 3. Open the scanner unit.

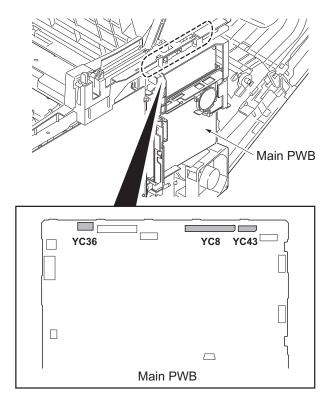


Figure 1-5-70

4. Remove the motor wire, CCD wire and LCD wire from the wire holder.

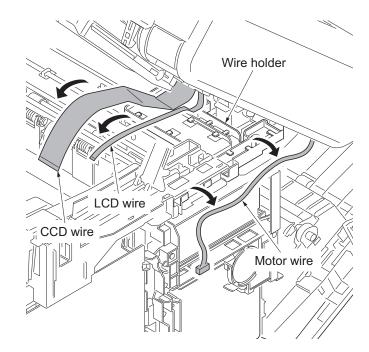


Figure 1-5-71

5. Release each four hooks and then remove left and right rails.

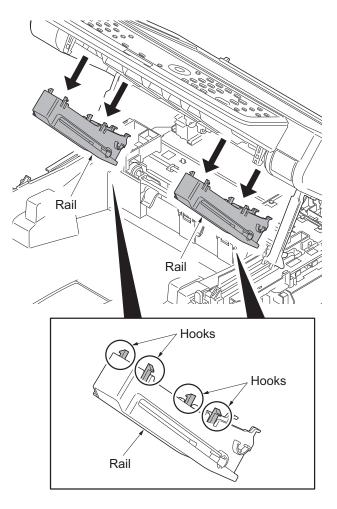


Figure 1-5-72

6. Remove two springs from left and right rails.

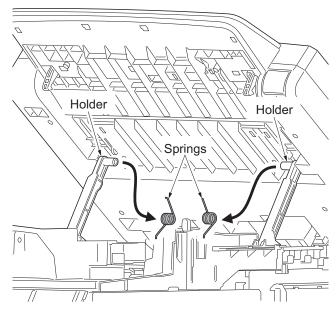


Figure 1-5-73

7. Remove left and right rails from the scanner unit.

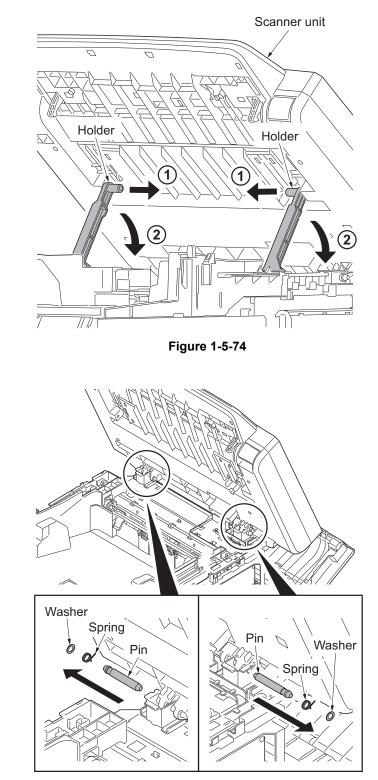


Figure 1-5-75

8. Remove left and right washers and springs and then pull pins out.

9. Remove the scanner unit.

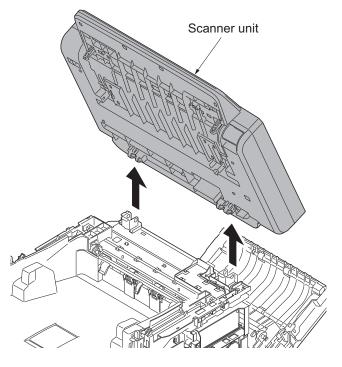


Figure 1-5-76

# 1-5-11 Document processor

# (1) Detaching and refitting the document processor

#### Procedure

- 1. Remove the rear upper cover, right upper cover, left upper cover and front cover (see page 1-5-3).
- 2. Remove left and right pins and then close the top tray.

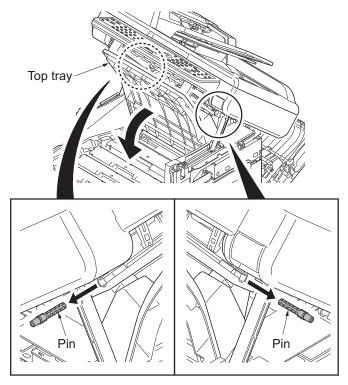


Figure 1-5-77

3. Release four hooks and then remove the upper middle cover.

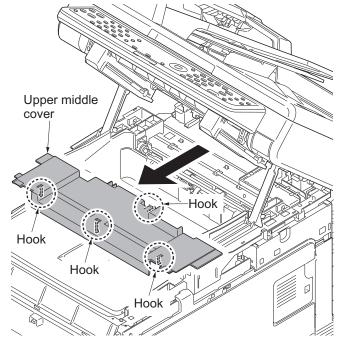
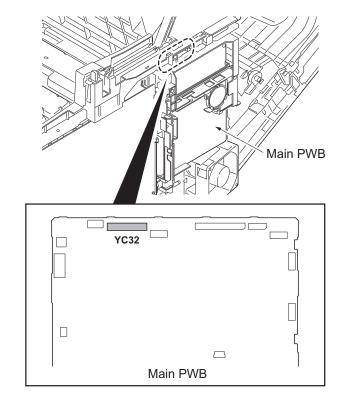


Figure 1-5-78

- 4. Remove the right rear cover, right cover and right lower cover (see page 1-5-6).
- 5. Remove the controller shield (see page 1-5-29).
- 6. Remove connector (YC32) from main PWB.





- Vire holder
  - Figure 1-5-80

 Remove the DP wire and ground wire from wire holder.
 Close the scanner unit. 9. Press the DP lock lever through the hole at the bottom right side of the scanner unit, and open the document processor.

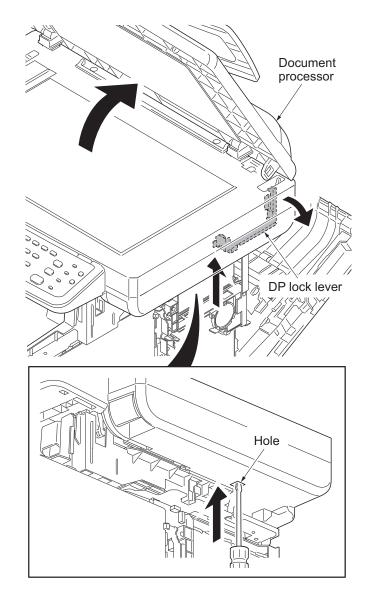
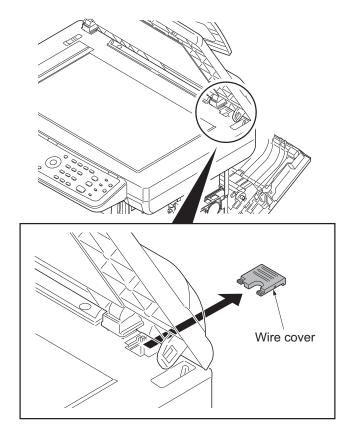


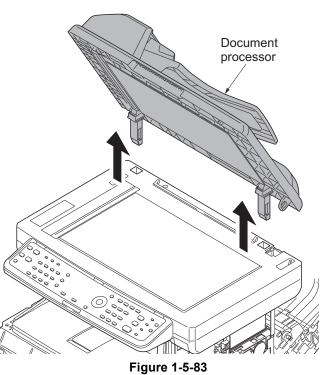
Figure 1-5-81

10. Remove the wire cover.





11. Remove the document processor.



# (2) Detaching and refitting the DP paper feed pulley unit

### Procedure

- 1. Open the DP top cover.
- 2. Remove the screw.
- 3. Release three hooks and then remove the DP rear cover.

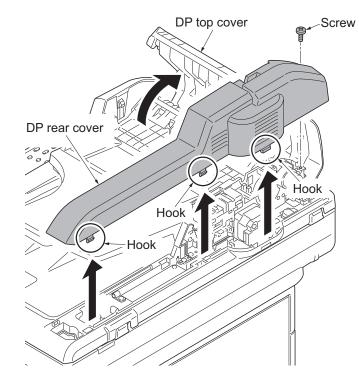
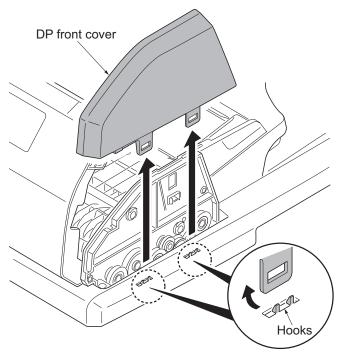


Figure 1-5-84

4. Release two hooks and then remove the DP front cover.



5. Remove the stop ring and bush.

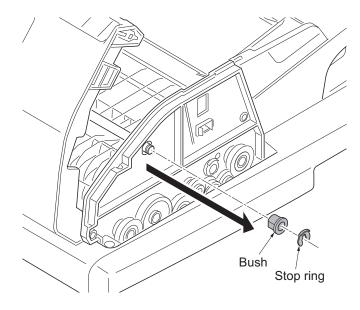


Figure 1-5-86

- 6. Remove the stop ring A and then remove the DP paper feed clutch from the PF shaft.
- 7. Remove the stop ring B and then remove the PF collar, spring, spring collar, pin and bush from the PF shaft.

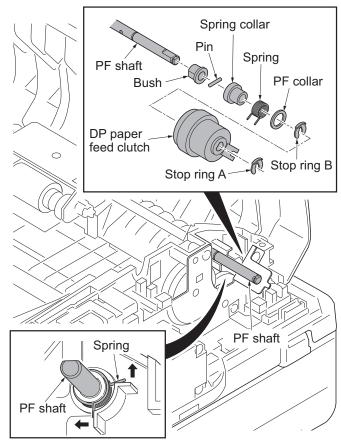


Figure 1-5-87

8. Remove the DP forwarding pulley unit.

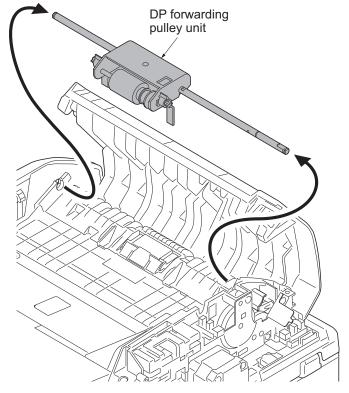


Figure 1-5-88

- 9. Remove the stop ring A.
- 10. Remove the DP feed pulley unit from the LF holder.
- 11. Remove the stop ring B.
- 12. Remove the PF collar, spring, spring collar and pin from the PF shaft.
- 13. Remove the DP feed pulley, one-way clutch, PF pulley gear and pin from the PF shaft.

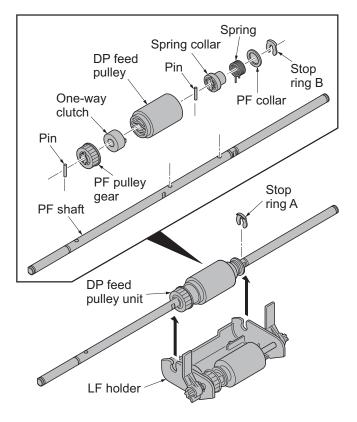


Figure 1-5-89

- 14. Remove the PF stopper from the LF holder.
- 15. Remove the stop ring.
- 16. Pull out the LF shaft and then remove the LF gear 18, joint gear and DP forwarding pulley.
- 17. Check or replace the DP feed pulley and DP forwarding pulley, and refit all the removed parts.

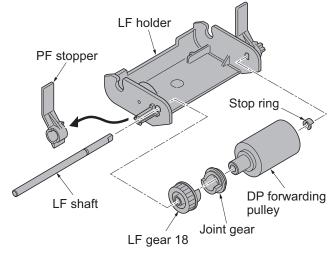


Figure 1-5-90

### (3) Detaching and refitting the DP separation pad

### Procedure

- 1. Remove the DP paper feed pulley unit (see page 1-5-55).
- 2. Remove the DP separation pad.
- 3. Check or replace the DP separation pad and refit all the removed parts.

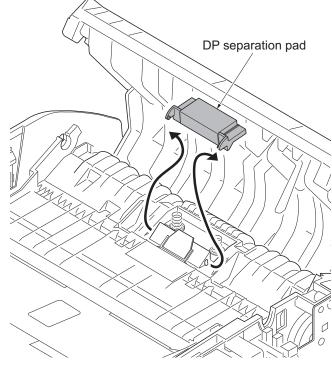


Figure 1-5-91

### (4) Detaching and refitting the DP drive PWB

### Procedure

- 1. Remove the DP rear cover (see page 1-5-55).
- 2. Remove all connectors from DP drive PWB.
- 3. Remove the screw and then remove the DP drive PWB.
- 4. Check or replace the DP drive PWB and refit all the removed parts.

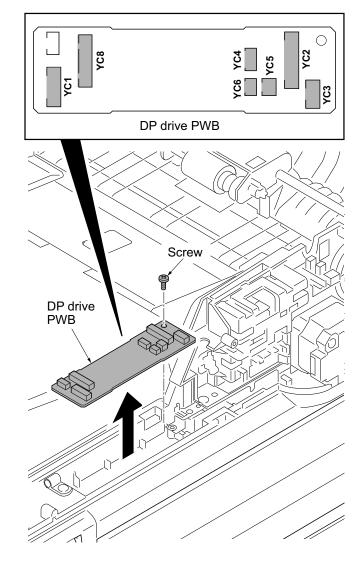


Figure 1-5-92

## 1-5-12 Others

### (1) Detaching and refitting the paper conveying unit

### Procedure

- 1. Open the rear cover.
- 2. Remove left and right straps.

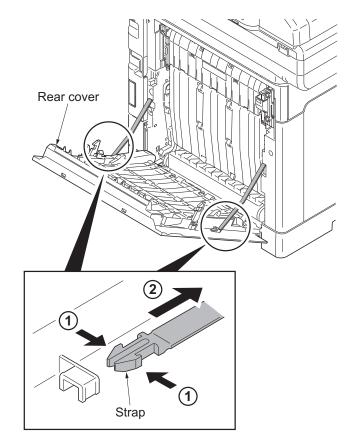
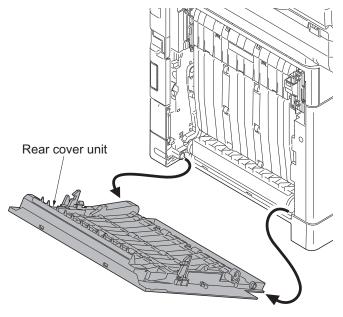


Figure 1-5-93

3. Remove the rear cover unit.





4. Remove the paper conveying unit.

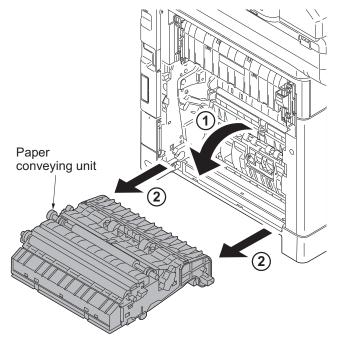


Figure 1-5-95

### (2) Detaching and refitting the operation panel

### Procedure

- 1. Release four hooks and then remove the operation panel.
- 2. Remove the FFC from connector.
- 3. Check or replace the operation panel and refit all the removed parts.

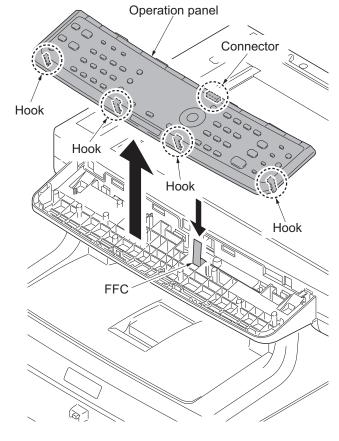


Figure 1-5-96

## (3) Direction of installing the principal fan motors

When detaching or refitting the fan motors, be careful of the airflow direction (intake or exhaust).

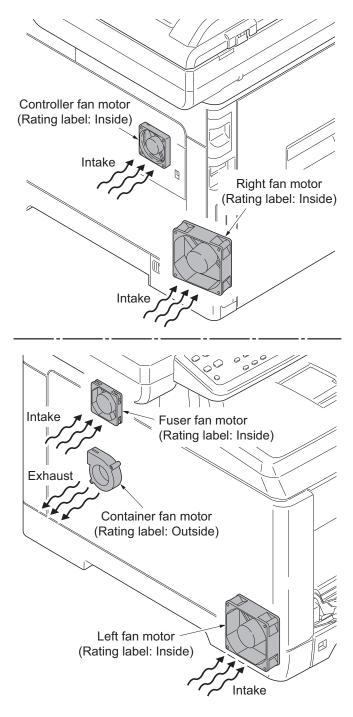


Figure 1-5-97

## 1-6-1 Upgrading the firmware

Follow the procedure below to upgrade the firmware of main PWB (main controller and scanner), engine PWB, FAX control PWB\*, optional language, optional paper feeder and color table.

### Preparation

Extract the file that has the download firmware and put them in the USB Memory.

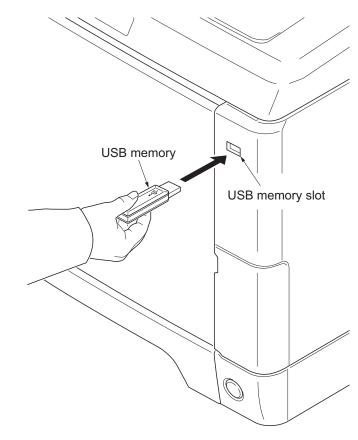
### Procedure

- Turn ON the main power switch and confirm if the screen shows "Ready to print" then, turn OFF the main power switch.
- 2. Insert USB memory that has the firmware in the USB memory slot.
- 3. Turn ON the main power switch.
- About 40 seconds later, "FW-Update" will be displayed and blinking the data LED (this shows to start the download).
- 5. Display the software that now upgrading.

"FW-Update [CTRL]" "FW-Update [ENGIN]" "FW-Update [PF1]" "FW-Update [PF2]" "FW-Update [SCAN]" "FW-Update [FAX]" \* "FW-Update [OPT]" "FW-Update [CLT]"

- 6. Display the completion of the upgrade (Data LED is ON condition).
- 7. ROM version is confirmed by the content of the display.
- 8. Turn OFF the main power switch and remove the USB memory.

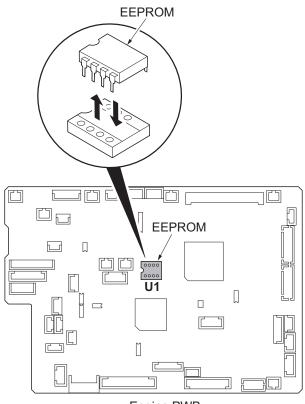
\*: 4 in 1 model (with FAX) only.





## 1-6-2 Remarks on engine PWB replacement

When replacing the engine PWB, remove the EEPROM (U1) from the engine PWB that has been removed and then reattach it to the new engine PWB.



Engine PWB

Figure 1-6-2

# 2-1-1 Paper feed/conveying section

Paper feed/conveying section consists of the paper feed unit that feeds paper from the cassette and the MP tray paper feed unit that feeds paper from the MP tray, and the paper conveying section that conveys the fed paper to the transfer/separation section.

### (1) Cassette paper feed section

The cassette can contain 250 sheets. The sheet from the cassette is pulled out by rotation of the pickup roller and sent to the paper conveying section by rotation of the paper feed roller. Also the retard roller prevents multiple feeding of paper.

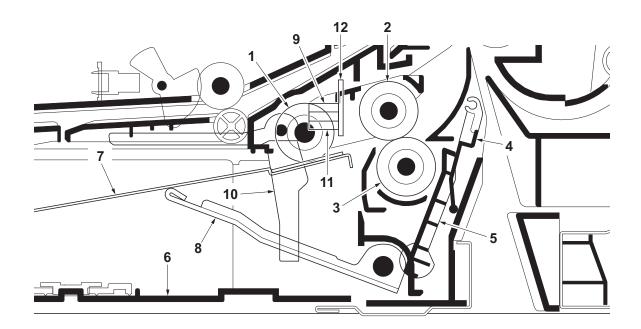


Figure 2-1-1 Cassette paper feed section

- 1. Pickup roller
- 2. Paper feed roller
- 3. Retard roller
- 4. Retard cover
- 5. Paper hook
- 6. Cassette base

- 7. Bottom plate
- 8. Lift work plate
- 9. Paper sensor (PS)
- 10. Actuator (paper sensor)
- 11. Lift sensor (LS)
- 12. Cassette PWB (CPWB)

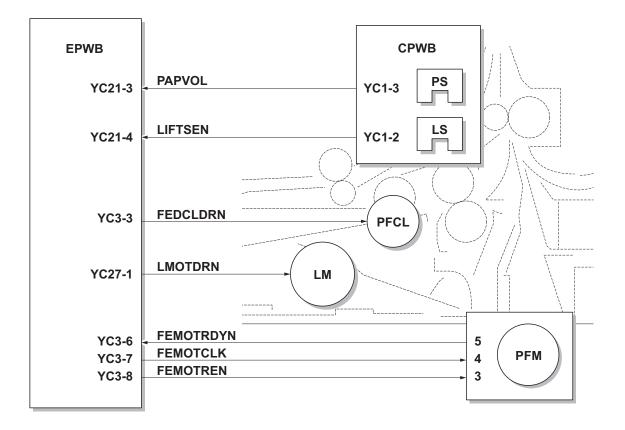


Figure 2-1-2 Cassette paper feed section block diagram

### (2) MP tray paper feed section

The MP tray can contain 50 sheets. Feeding from the MP tray is performed by the rotation of the MP paper feed roller. Also, function of the MPF separation pad prevents paper from multiple feeding.

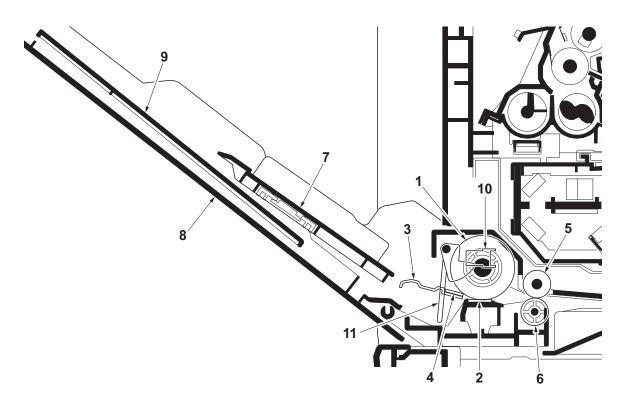


Figure 2-1-3 MP tray paper feed section

- 1. MP paper feed roller
- 2. MPF separation pad
- 3. MPF bottom plate
- 4. Friction pad
- 5. MPF feed roller
- 6. Feed pulley

- 7. MPF base
- 8. MPF cover
- 9. MPF tray
- 10. MP paper sensor (MPPS)
- 11. Actuator (MP paper sensor)

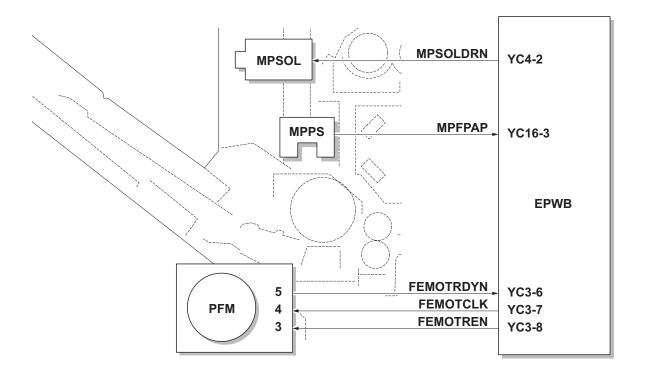


Figure 2-1-4 MP tray paper feed section block diagram

### (3) Paper conveying section

The paper conveying section conveys paper to the transfer/separation section as paper feeding from the cassette or MP tray, or as paper refeeding for duplex printing. Paper by feeding is conveyed by the middle roller to the position where the registration sensor (RS) is turned on, and then sent to the transfer/separation section by the front registration roller and rear registration roller.

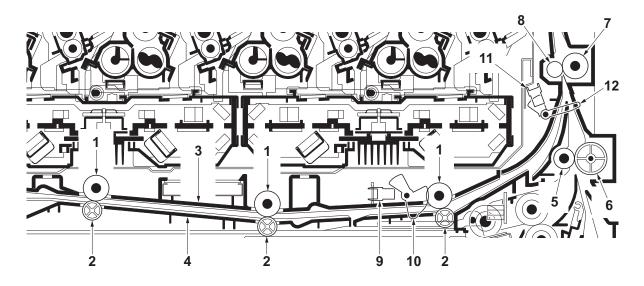


Figure 2-1-5 Paper conveying section

- 1. MPF feed rollers
- 2. Feed pulleys
- 3. MPF feed upper guide
- 4. MPF feed lower guide
- 5. Middle roller
- 6. Middle pulley

- 7. Front registration roller
- 8. Rear registration roller
- 9. MP feed sensor (MPFS)
- 10. Actuator (MP feed sensor)
- 11. Registration sensor (RS)
- 12. Actuator (registration sensor)

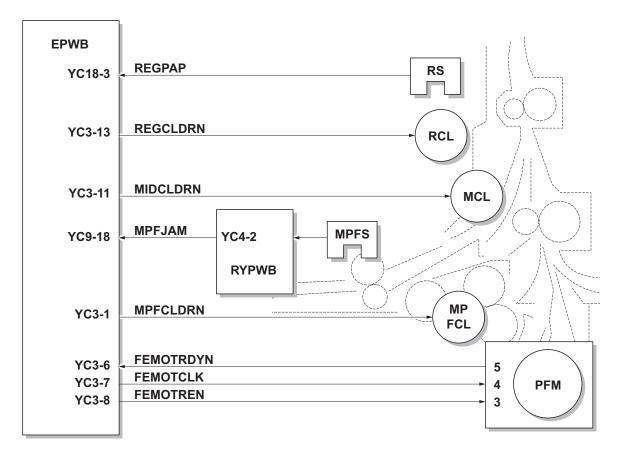


Figure 2-1-6 Paper conveying section block diagram

## 2-1-2 Drum section

The drum section consists of the drum, the charger roller unit, and the cleaning unit, and the drum surface is uniformly charged in preparation for formation of residual image by laser beam.

After transfer is complete, toner remaining on the drum surface is chipped off with the cleaning blade and is collected to the waste toner box with the drum screw. The cleaning lamp (CL) consists of LEDs and removes residual charge on the drum before main charging.

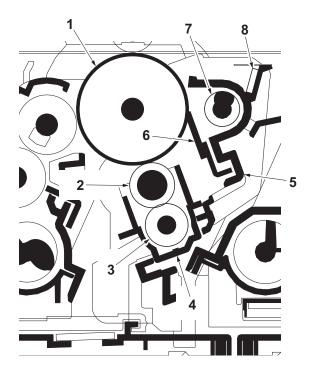


Figure 2-1-7 Drum section

- 1. Drum
- 2. Charger roller
- 3. Charger cleaning roller
- 4. Charger case

- 5. Drum frame
- 6. Cleaning blade
- 7. Drum screw
- 8. Cleaning lamp (CL)

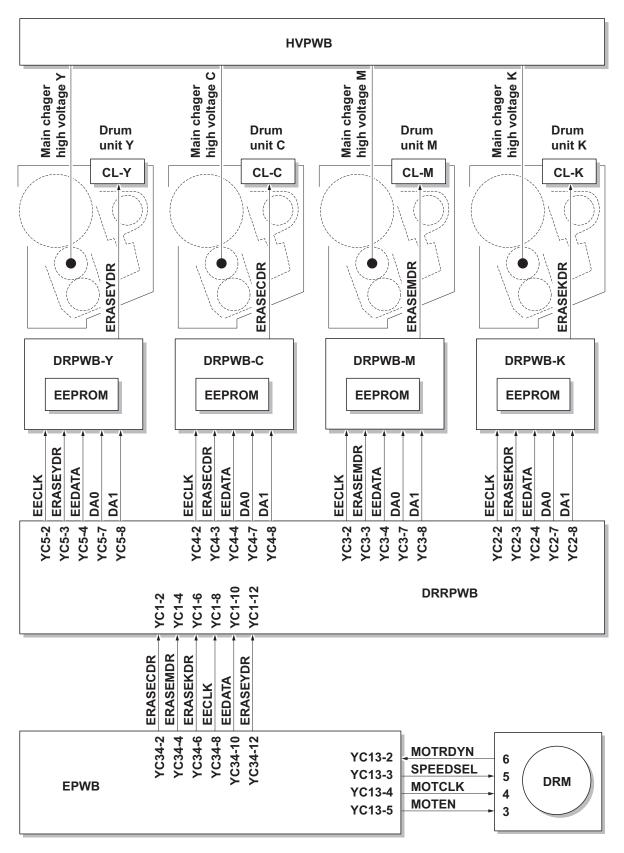


Figure 2-1-8 Drum section block diagram

2-1-8

# 2-1-3 Developing section

The developing unit consists of the sleeve roller that forms the magnetic brush, the magnet roller, the developing blade and the developing screws that agitate the toner. Also, the toner sensor (TS) checks whether or not toner remains in the developing unit.

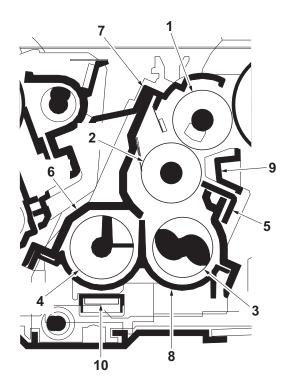


Figure 2-1-9 Developing section

- 1. Sleeve roller
- 2. Magnet roller
- 3. Developing screw A
- 4. Developing screw B
- 5. Developing blade

- 6. Developer case
- 7. Upper developer cover
- 8. Developer base
- 9. Sleeve cover
- 10. Toner sensor (TS)

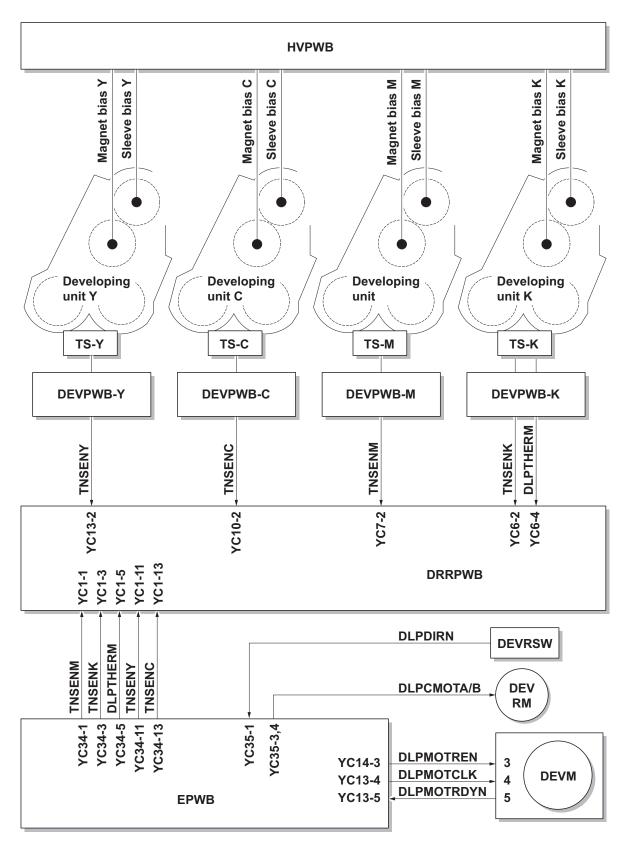


Figure 2-1-10 Developing section block diagram

2-1-10

# 2-1-4 Optical section

The optical section consists of the image scanner section for scanning and the laser scanner section for printing.

### (1) Image scanner section

The original image is illuminated by the exposure lamp (EL) and scanned by the CCD image sensor in the CCD PWB (CCDPWB) via the four mirrors and ISU lens, the reflected light being converted to an electrical signal.

If a document processor is used, the image scanner unit stops at the position of the DP contact glass and scans sequentially one row of the image on the original in synchronization with the moving timing of the original in the sub scan direction by driving the DP.

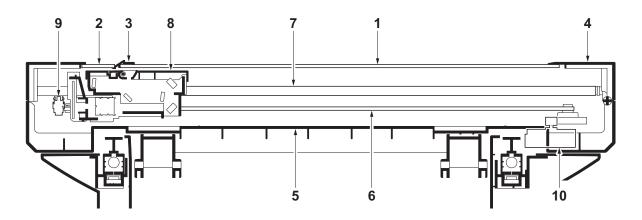


Figure 2-1-11 Scanner unit

- 1. Contact glass
- 2. DP contact glass
- 3. Original size indicator plate
- 4. ISU top frame
- 5. ISU bottom frame

- 6. ISU belt
- 7. ISU shaft
- 8. Image scanner unit (ISU)
- 9. Home position sensor (HPS)
- 10. ISU motor (ISUM)

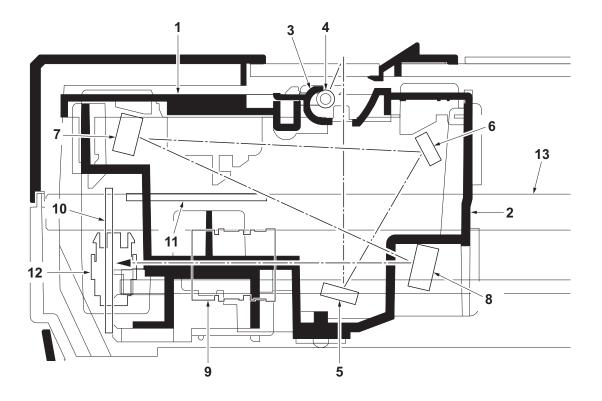


Figure 2-1-12 Image scanner unit (ISU)

- 1. Lamp mount
- 2. ISU housing
- 3. ISU reflector
- 4. Exposure lamp (EL)
- 5. Mirror A
- 6. Mirror B
- 7. Mirror C

- 8. Mirror D
- 9. ISU lens
- 10. CCD PWB (CCDPWB)
- 11. Inverter PWB (INPWB)
- 12. Home position sensor (HPS)
- 13. ISU shaft

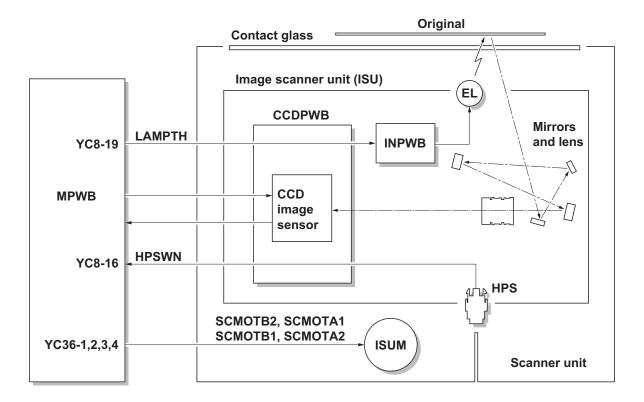


Figure 2-1-13 Scanner unit block diagram

### (2) Laser scanner section

The charged surface of the drum is then scanned by the laser beam from the laser scanner unit. The laser beam is dispersed as the polygon motor (PM) revolves to reflect the laser beam over the drum. Various lenses and mirror are housed in the laser scanner unit, adjust the diameter of the laser beam, and focalize it at the drum surface. Also the LSU cleaning motor (LSUCM) is activated to conduct automatically cleaning of the LSU dust shield glass.

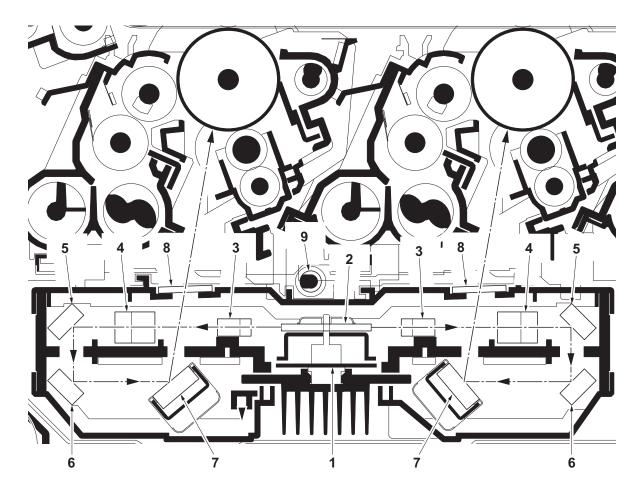


Figure 2-1-14 Laser scanner unit (LSU)

- 1. Polygon motor (PM)
- 2. Polygon mirror
- 3. f- $\theta$  lens A
- 4. f- $\theta$  lens B
- 5. Mirror A

- 6. Mirror B
- 7. Mirror C
- 8. LSU dust shield glass
- 9. LSU spiral

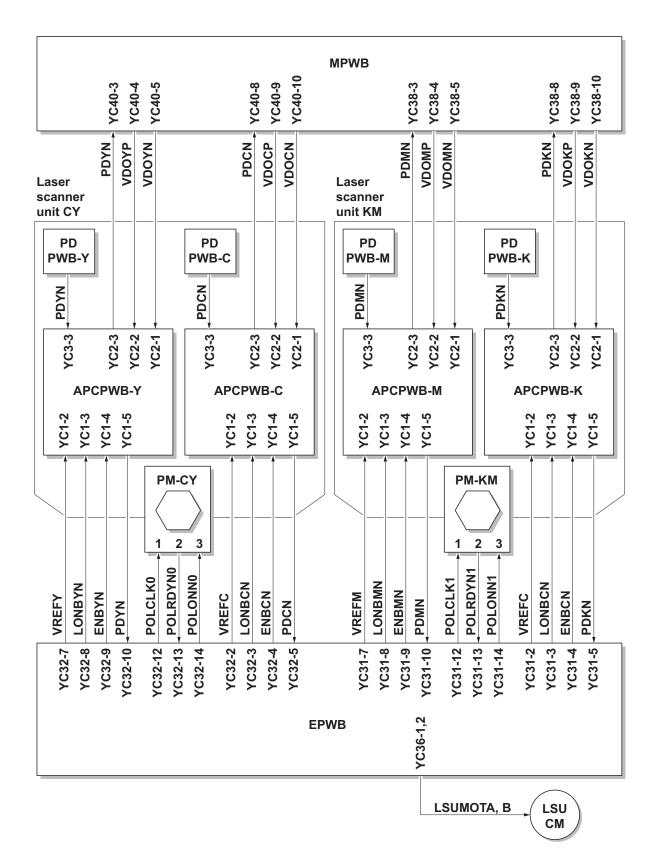


Figure 2-1-15 Laser scanner unit block diagram

2-1-15

# 2-1-5 Transfer/Separation section

The transfer/separation section consists of the intermediate transfer unit section and the secondary transfer roller section.

### (1) Intermediate transfer unit section

The intermediate transfer unit section consists of the transfer cleaning unit, the transfer belt, and the four primary transfer rollers for respective color drums, and forms a full-color toner image by superimposing and transferring single-color toner images formed on each drum onto the transfer belt. Also with the ID sensors (IDS) mounted on the machine frame, the toner density on the transfer belt is measured. The transfer cleaning unit collects toner remaining on the transfer belt after secondary transfer and forwards it

The transfer cleaning unit collects toner remaining on the transfer belt after secondary transfer and forwards it as waste toner to the waste toner box.

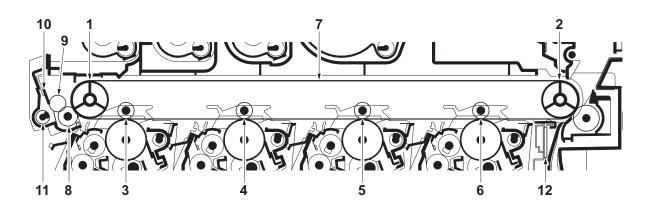


Figure 2-1-16 Intermediate transfer unit section

- 1. Tension roller
- 2. Drive roller
- 3. Primary transfer roller K
- 4. Primary transfer roller M
- 5. Primary transfer roller C
- 6. Primary transfer roller Y
- 7. Transfer belt
- 8. Cleaning fur brush
- 9. Cleaning roller
- 10. Cleaning blade
- 11. Cleaning screw
- 12. ID sensors (IDS)

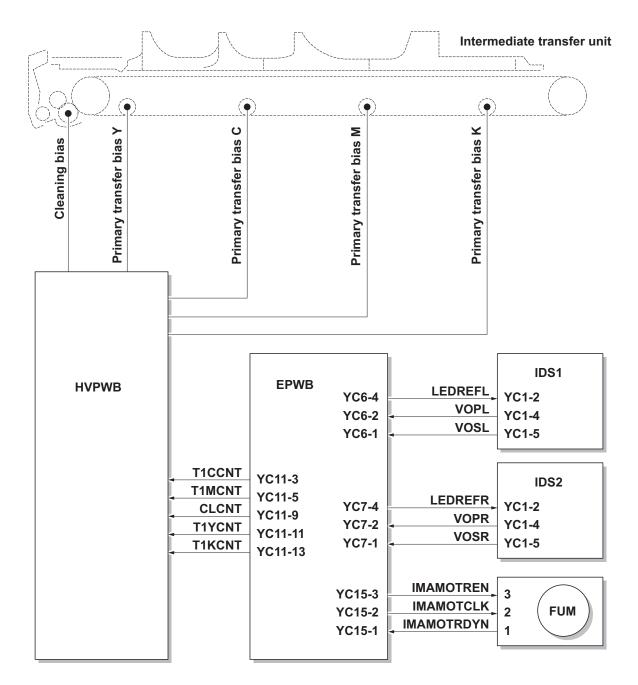


Figure 2-1-17 Intermediate transfer unit section block diagram

### (2) Secondary transfer roller section

The secondary transfer roller section consists of the secondary transfer roller mounted to the paper conveying unit and the separation brush. To the secondary transfer roller, DC bias is applied from the high voltage PWB (HVPWB). The toner image formed on the transfer belt is transferred to the paper by the potential difference and the paper is separated by curvature separation.

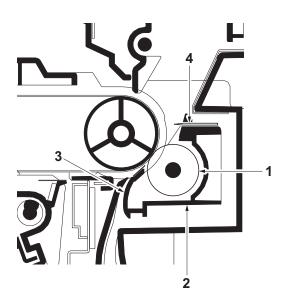


Figure 2-1-18 Secondary transfer roller section

- 1. Secondary transfer roller
- 2. Brush holder
- 3. Paper chute guide
- 4. Separation brush

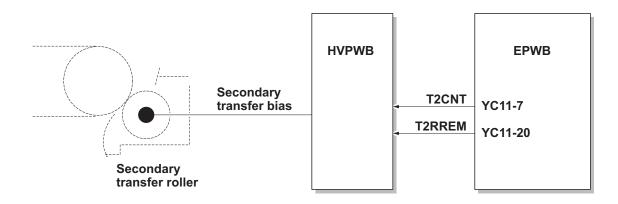


Figure 2-1-19 Secondary transfer roller section block diagram

## 2-1-6 Fuser section

The paper sent from the transfer/separation section is interleaved between the heat roller and the press roller. The heat roller is heated by the fuser heater (FH), and the toner is fused by heat and pressure and fixed onto the paper because the press roller is pressed by the fuser press spring. The surface temperature of heat roller is detected by the fuser thermistor (FTH) and controlled by the engine PWB (EPWB). If the fuser section shows extremely high temperature, the power line will be shut off and the fuser heater (FH) is forced to turn off.

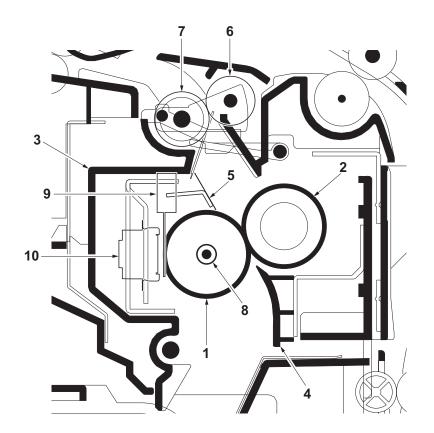


Figure 2-1-20 Fuser section

- 1. Heat roller
- 2. Press roller
- 3. Upper fuser frame
- 4. Fuser paper guide
- 5. Separators

- 6. Eject roller
- Eject pulley
- 8. Fuser heater (FH)
- 9. Fuser thermistor (FTH)
- 10. Fuser thermostat (FTS)

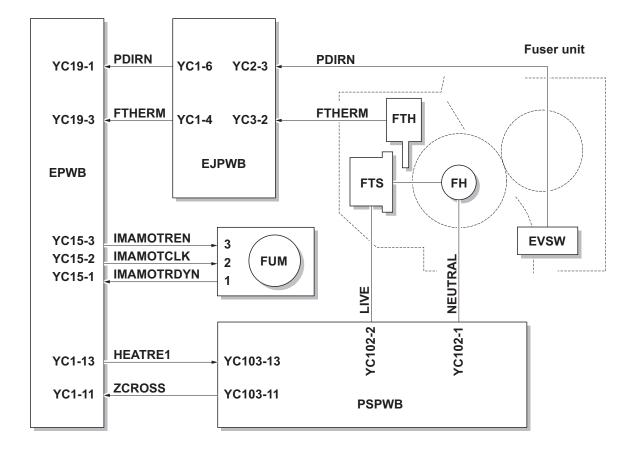


Figure 2-1-21 Fuser section block diagram

2-1-20

# 2-1-7 Eject/Feedshift section

The paper eject/feedshift section consists of the conveying path which sends the paper that has passed the fuser section to the top tray or the duplex conveying section.

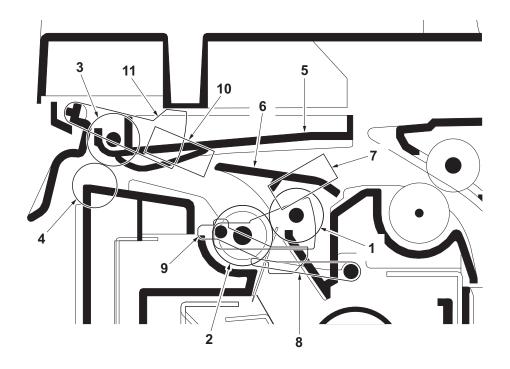


Figure 2-1-22 Eject/Feed shift section

- 1. Eject roller
- 2. Eject pulley
- 3. Eject roller
- 4. Eject pulley
- 5. Upper eject guide
- 6. Change guide

- 7. Eject sensor (ES)
- 8. Actuator (eject sensor)
- 9. Actuator (eject sensor)
- 10. Paper full sensor
- 11. Actuator (paper full sensor)

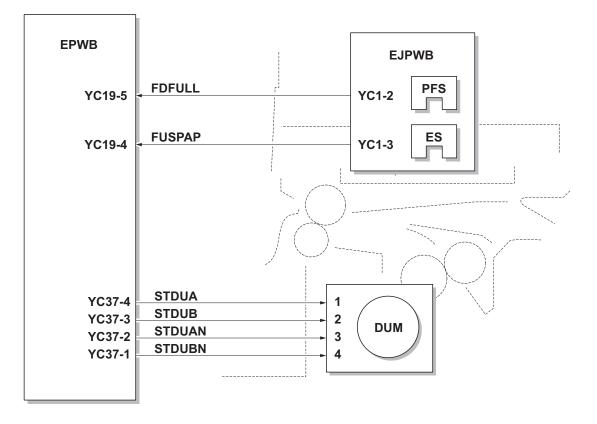


Figure 2-1-23 Eject/Feed shift section block diagram

# 2-1-8 Duplex conveying section

The duplex conveying section consists of conveying path which sends the paper sent from the eject/feedshift section to the paper feed/conveying section when duplex printing.

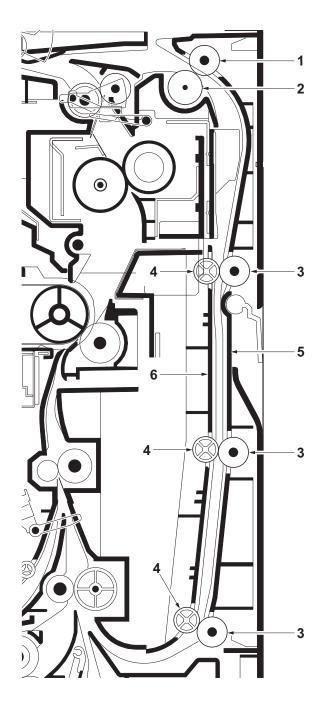


Figure 2-1-24 Duplex conveying section

- 1. Duplex roller L
- 2. Eject pulley
- 3. Duplex rollers S

- 4. Duplex pulleys
- 5. Duplex frame
- 6. Duplex feed guide

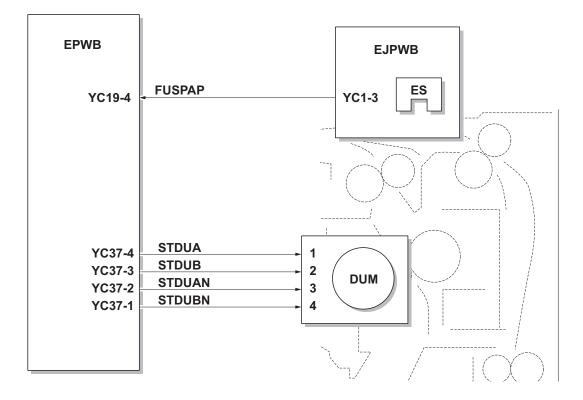


Figure 2-1-25 Duplex conveying section block diagram

# 2-1-9 Document processor

## (1) Original feed section

The original feed section consists of the parts shown in figure. An original placed on the original table is conveyed to the original conveying section. Original is fed by the rotation of the DP forwarding pulley and DP feed pulley.

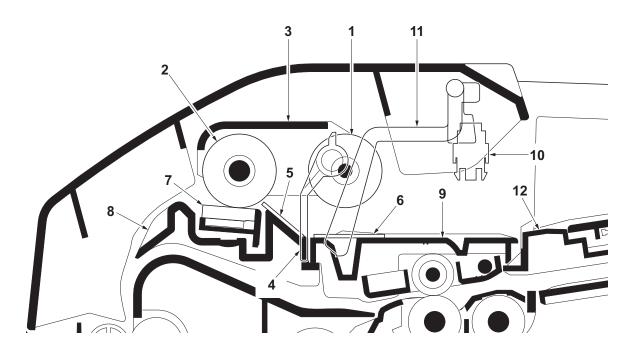


Figure 2-1-26 Original feed section

- 1. DP forwarding pulley
- 2. DP feed pulley
- 3. LF holder
- 4. PF stopper
- 5. Front separation pad
- 6. LF friction plate

- 7. DP separation pad
- 8. Upper guide
- 9. Switchback guide
- 10. DP original sensor (DPOS)
- 11. Actuator (DP original sensor)
- 12. Original table

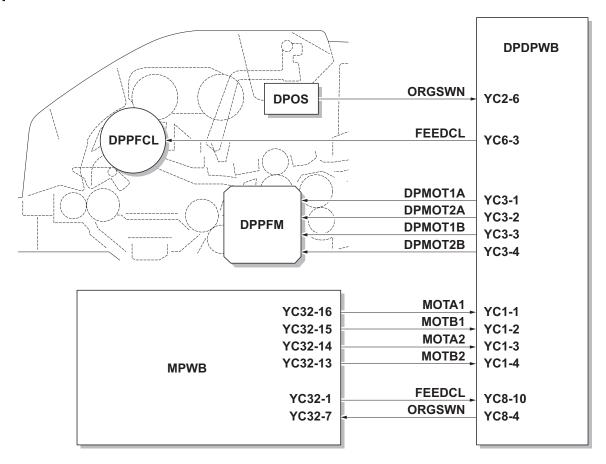


Figure 2-1-27 Original feed section block diagram

### (2) Original conveying section

The original conveying section consists of the parts shown in figure. A conveyed original is scanned by the optical section (CCD) of main machine when it passes through the DP contact glass of main machine.

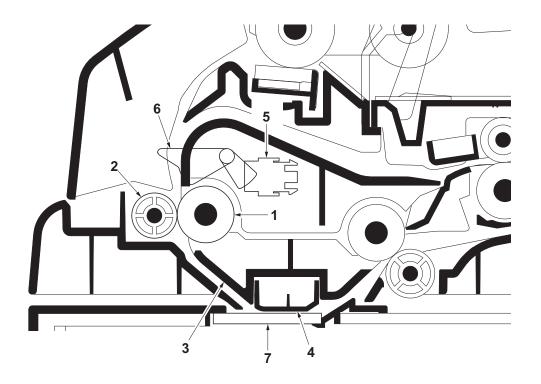


Figure 2-1-28 Original conveying section

- 1. Conveying roller A
- 2. Conveying pulley
- 3. Conveying bottom
- 4. Reading guide

- 5. DP timing sensor (DPTS)
- 6. Actuator (DP timing sensor)
- 7. DP contact glass

#### 2KW/2KX

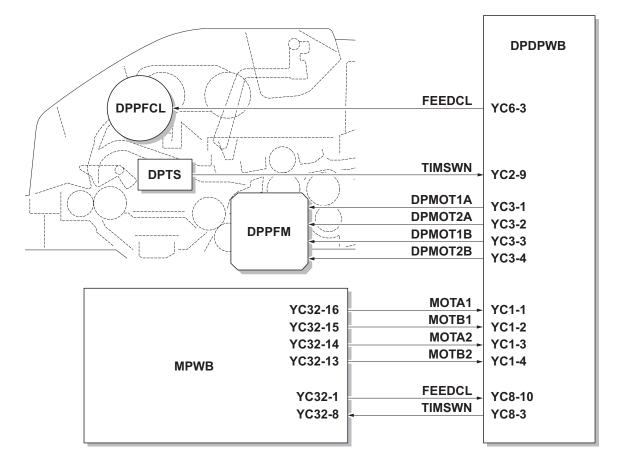


Figure 2-1-29 Original conveying section block diagram

2-1-28

### (3) Original switchback/eject sections

The original switchback/eject sections consists of the parts shown in figure. An original of which scanning is complete is ejected to the original eject table by the eject roller. In the case of duplex switchback scanning, an original is conveyed temporarily to the switchback tray and conveyed again to the original conveying section by the switchback roller.

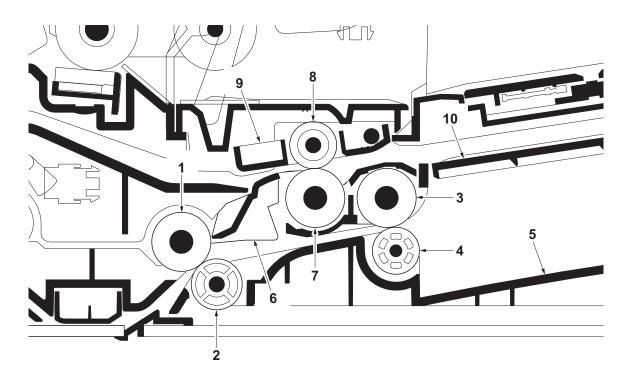


Figure 2-1-30 Original switchback/eject sections

- 1. Conveying roller B
- 2. Conveying pulley
- 3. Eject roller
- 4. Eject pulley
- 5. Original eject table

- 6. Switchback guide
- 7. Switchback roller
- 8. Switchback pulley
- 9. Switchback pulley mount
- 10. Switchback tray

Г

	DPDPWB
DPPRSOL PRESOLN RELSOLN	YC4-2 YC4-3
DPSBSOL REVSOL	YC5-2
DPTS	YC2-9
DPPFM DPMOT1A DPPFM DPMOT2B	YC3-1 YC3-2 YC3-3 YC3-4
YC32-16         MOTA1           YC32-15         MOTB1           YC32-14         MOTA2           YC32-13         MOTB2	YC1-1 YC1-2 YC1-3 YC1-4
YC32-2 YC32-3 YC32-4 YC32-4 YC32-8	YC8-9 YC8-8 YC8-7 YC8-3

Figure 2-1-31 Original switchback/eject sections block diagram

2-1-30

## 2-2-1 Electrical parts layout

### (1) PWBs

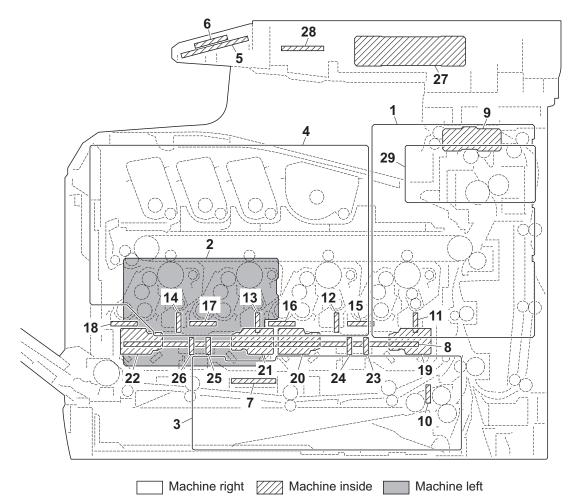


Figure 2-2-1 PWBs

	Controls the software such as the print data processing and provides the interface with computers.
2. Engine PWB (EPWB)	Controls printer hardware such as high voltage/bias output con- trol, paper conveying system control, and fuser temperature con- trol, etc.
· · · · ·	After full-wave rectification of AC power source input, switching for converting to 24 V DC for output. Controls the fuser heater.
	Generates main charging, developing bias, transfer bias and cleaning bias.
5. Operation panel PWB (OPPWB)	Consists the LCD, LED indicators and key switches.
6. LCD PWB (LCDPWB)	Controls the LCD display.
	Consists of wiring relay circuit between main PWB and engine PWB and power source PWB.
• • •	Consists of wiring relay circuit between engine PWB and the drum units and developing units.

9. Eject PWB (EJPWB)	Consists of wiring relay circuit between engine PWB and each electrical component (eject section).
10. Cassette PWB (CPWB)	Interconnects the engine PWB and each electrical component (cassette section).
11. Drum PWB K (DRPWB-K)	. Relays wirings from electrical components on the drum unit K. Drum individual information in EEPROM storage.
12. Drum PWB M (DRPWB-M)	Relays wirings from electrical components on the drum unit M. Drum individual information in EEPROM storage.
13. Drum PWB C (DRPWB-C)	Relays wirings from electrical components on the drum unit C. Drum individual information in EEPROM storage.
14. Drum PWB Y (DRPWB-Y)	Relays wirings from electrical components on the drum unit Y. Drum individual information in EEPROM storage.
15. Developing PWB K (DEVPWB-K)	Relays wirings from electrical components on the developing unit K.
16. Developing PWB M (DEVPWB-M)	Relays wirings from electrical components on the developing unit M.
17. Developing PWB C (DEVPWB-C)	Relays wirings from electrical components on the developing unit C.
18. Developing PWB Y (DEVPWB-Y)	Relays wirings from electrical components on the developing unit Y.
19. APC PWB K (APCPWB-K)	Generates and controls the laser beam (black).
20. APC PWB M (APCPWB-M)	Generates and controls the laser beam (magenta).
21. APC PWB C (APCPWB-C)	Generates and controls the laser beam (cyan).
22. APC PWB Y (APCPWB-Y)	. Generates and controls the laser beam (yellow).
23. PD PWB K (PDPWB-K)	Controls horizontal synchronizing timing of laser beam (black).
24. PD PWB M (PDPWB-M)	Controls horizontal synchronizing timing of laser beam (magenta).
25. PD PWB C (PDPWB-C)	Controls horizontal synchronizing timing of laser beam (cyan).
26. PD PWB Y (PDPWB-Y)	Controls horizontal synchronizing timing of laser beam (yellow).
27. CCD PWB (CCDPWB)	Reads the image of originals.
28. Inverter PWB (INPWB)	
29. Fax control PWB (FCPWB)*	Modulates, demodulates, compresses, decompresses and smoothes out image data, and converts resolution of image data.

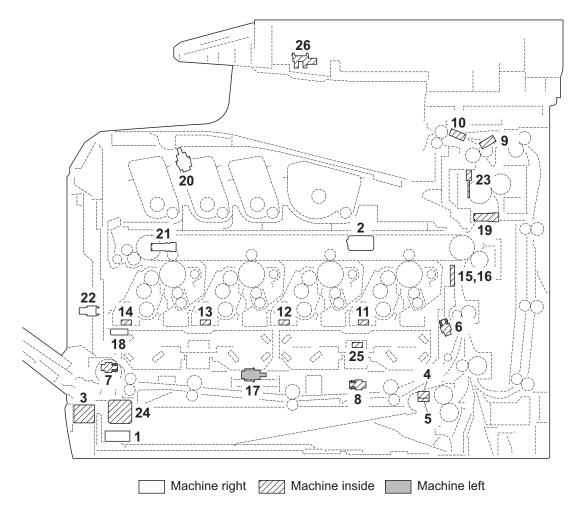
\*: 4 in 1 model (with FAX) only.

2-2-2

List of correspondences of PWB names

1Main PWB (MPWB)PARTS PWB MAIN ASSY SP2Engine PWB (EPWB)PARTS PWB ENGINE ASSY SP3Power source PWB (PSPWB)PARTS SWITCHING REGULATOR SP4High voltage PWB (HVPWB)PARTS HIGH VOLTAGE UNIT SP5Operation panel PWB (OPPWB)-6LCD PWB (LCDPWB)-7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-K)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-K)-17Developing PWB K (DEVPWB-K)-18Developing PWB K (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB M (APCPWB-M)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (DDPWB-C)-26PD PWB (DPDWB-N)-27CCD PWB (COPWB)-28Inverter PWB (INPWB)-29Fax control PWB (FCPWB)PARTS FAX UNIT J SP	No.	Name used in service manual	Name used in parts list
3Power source PWB (PSPWB)PARTS SWITCHING REGULATOR SP4High voltage PWB (HVPWB)PARTS HIGH VOLTAGE UNIT SP5Operation panel PWB (OPPWB)-6LCD PWB (LCDPWB)-7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB K (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-K)-15Developing PWB K (DEVPWB-K)-16Developing PWB K (DEVPWB-K)-17Developing PWB K (DEVPWB-K)-18Developing PWB K (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB K (APCPWB-M)-22APC PWB M (APCPWB-M)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-K)-25PD PWB K (PDPWB-K)-26PD PWB M (PDPWB-Y)-27CCD PWB (NPWB)-28Inverter PWB (NPWB)-29Inverter PWB (NPWB)-	1	Main PWB (MPWB)	PARTS PWB MAIN ASSY SP
4High voltage PWB (HVPWB)PARTS HIGH VOLTAGE UNIT SP5Operation panel PWB (OPPWB)-6LCD PWB (LCDPWB)-7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB K (APCPWB-K)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB K (APCPWB-K)-23PD PWB K (APCPWB-Y)-24PD PWB M (PDPWB-M)-25PD PWB M (PDPWB-Y)-26PD PWB K (PDPWB-Y)-27CCD PWB (NPWB)-28Inverter PWB (INPWB)-	2	Engine PWB (EPWB)	PARTS PWB ENGINE ASSY SP
5Operation panel PWB (OPPWB)-6LCD PWB (LCDPWB)-7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB K (DEVPWB-K)-17Developing PWB K (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB M (APCPWB-K)-23PD PWB K (PDPWB-Y)-24PD PWB K (PDPWB-K)-25PD PWB K (PDPWB-Y)-26PD PWB K (PDPWB-Y)-27CCD PWB (INPWB)-28Inverter PWB (INPWB)-	3	Power source PWB (PSPWB)	PARTS SWITCHING REGULATOR SP
6LCD PWB (LCDPWB)-7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB K (APCPWB-C)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-K)-25PD PWB C (PDPWB-C)-26PD PWB C (PDPWB-Y)-27CCD PWB (CDDPWB)-28Inverter PWB (INPWB)-	4	High voltage PWB (HVPWB)	PARTS HIGH VOLTAGE UNIT SP
7Relay PWB (RPWB)-8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-K)-17Developing PWB M (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB M (APCPWB-K)-23PD PWB K (PDPWB-Y)-24PD PWB K (PDPWB-K)-25PD PWB M (PDPWB-M)-26PD PWB K (PDPWB-Y)-27CCD PWB (CDDPWB)-28Inverter PWB (INPWB)-	5	Operation panel PWB (OPPWB)	-
8Drum relay PWB (DRRPWB)-9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-K)-17Developing PWB K (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB K (APCPWB-K)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-K)-25PD PWB K (PDPWB-K)-26PD PWB K (PDPWB-Y)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	6	LCD PWB (LCDPWB)	-
9Eject PWB (EJPWB)PARTS PWB ASSY EXIT SP10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB M (APCPWB-M)-22APC PWB K (APCPWB-K)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-K)-25PD PWB K (PDPWB-K)-26PD PWB K (PDPWB-Y)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	7	Relay PWB (RPWB)	-
10Cassette PWB (CPWB)PARTS PWB ASSY CASSETTE SP11Drum PWB K (DRPWB-K)-12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-K)-21APC PWB K (APCPWB-K)-22APC PWB K (APCPWB-K)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-K)-25PD PWB K (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	8	Drum relay PWB (DRRPWB)	-
11         Drum PWB K (DRPWB-K)         -           12         Drum PWB M (DRPWB-M)         -           13         Drum PWB C (DRPWB-C)         -           14         Drum PWB Y (DRPWB-Y)         -           15         Developing PWB K (DEVPWB-K)         -           16         Developing PWB M (DEVPWB-M)         -           17         Developing PWB C (DEVPWB-C)         -           18         Developing PWB Y (DEVPWB-Y)         -           19         APC PWB K (APCPWB-K)         -           20         APC PWB M (APCPWB-M)         -           21         APC PWB M (APCPWB-K)         -           22         APC PWB M (APCPWB-K)         -           23         PD PWB K (PDPWB-K)         -           24         PD PWB M (PDPWB-M)         -           25         PD PWB M (PDPWB-K)         -           26         PD PWB Y (PDPWB-Y)         -           27         CCD PWB (CCDPWB)         -           28         Inverter PWB (INPWB)         -	9	Eject PWB (EJPWB)	PARTS PWB ASSY EXIT SP
12Drum PWB M (DRPWB-M)-13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB M (APCPWB-M)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB M (PDPWB-M)-26PD PWB Y (PDPWB-C)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	10	Cassette PWB (CPWB)	PARTS PWB ASSY CASSETTE SP
13Drum PWB C (DRPWB-C)-14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-C)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-K)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	11	Drum PWB K (DRPWB-K)	-
14Drum PWB Y (DRPWB-Y)-15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB K (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB K (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	12	Drum PWB M (DRPWB-M)	-
15Developing PWB K (DEVPWB-K)-16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	13	Drum PWB C (DRPWB-C)	-
16Developing PWB M (DEVPWB-M)-17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-C)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-K)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	14	Drum PWB Y (DRPWB-Y)	-
17Developing PWB C (DEVPWB-C)-18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CDPWB)-28Inverter PWB (INPWB)-	15	Developing PWB K (DEVPWB-K)	-
18Developing PWB Y (DEVPWB-Y)-19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	16	Developing PWB M (DEVPWB-M)	-
19APC PWB K (APCPWB-K)-20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	17	Developing PWB C (DEVPWB-C)	-
20APC PWB M (APCPWB-M)-21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	18	Developing PWB Y (DEVPWB-Y)	-
21APC PWB C (APCPWB-C)-22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	19	АРС РШВ К (АРСРШВ-К)	-
22APC PWB Y (APCPWB-Y)-23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	20	APC PWB M (APCPWB-M)	-
23PD PWB K (PDPWB-K)-24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	21	APC PWB C (APCPWB-C)	-
24PD PWB M (PDPWB-M)-25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	22	APC PWB Y (APCPWB-Y)	-
25PD PWB C (PDPWB-C)-26PD PWB Y (PDPWB-Y)-27CCD PWB (CCDPWB)-28Inverter PWB (INPWB)-	23	PD PWB K (PDPWB-K)	-
26     PD PWB Y (PDPWB-Y)     -       27     CCD PWB (CCDPWB)     -       28     Inverter PWB (INPWB)     -	24	PD PWB M (PDPWB-M)	-
27     CCD PWB (CCDPWB)     -       28     Inverter PWB (INPWB)     -	25	PD PWB C (PDPWB-C)	-
28 Inverter PWB (INPWB) -	26	PD PWB Y (PDPWB-Y)	-
	27	CCD PWB (CCDPWB)	-
29   Fax control PWB (FCPWB)   PARTS FAX UNIT J SP	28	Inverter PWB (INPWB)	-
	29	Fax control PWB (FCPWB)	PARTS FAX UNIT J SP

### (2) Switches and sensors



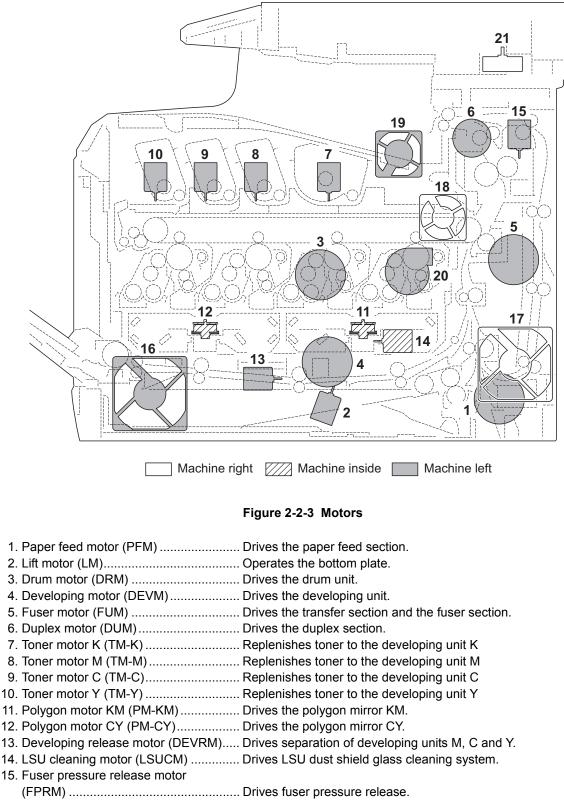


1. Main power switch (MSW) 2. Interlock switch (ILSW)	. Turns ON/OFF the AC power source. . Shuts off 24 V DC power line when the top tray and rear cover are opened.
3. Cassette size switch (CSSW)	. Detects the paper size dial setting of the paper setting dial.
4. Paper sensor (PS)	. Detects the presence of paper in the cassette.
5. Lift sensor (LS)	. Detects activation of upper limit of the bottom plate.
6. Registration sensor (RS)	. Controls the secondary paper feed start timing.
7. MP paper sensor (MPPS)	. Detects the presence of paper on the MP tray.
8. MP feed sensor (MPFS)	. Detects a paper misfeed in the MP conveying section.
9. Eject sensor (ES)	. Detects a paper misfeed in the fuser or eject section.
10. Paper full sensor (PFS)	. Detects the paper full in the top tray.
11. Toner sensor K (TS-K)	. Detects the toner density in the developing unit K.
12. Toner sensor K (TS-M)	. Detects the toner density in the developing unit M.
13. Toner sensor K (TS-C)	. Detects the toner density in the developing unit C.
14. Toner sensor K (TS-Y)	. Detects the toner density in the developing unit Y.
15. ID sensor 1 (IDS1)	. Measures image density for color calibration.
16. ID sensor 2 (IDS2)	. Measures image density for color calibration.

#### 17. Developing release switch

- (DEVRSW)...... Detects separation of developing units M, C and Y.
- 18. Waste toner sensor (WTS)..... Detects when the waste toner box is full.
- 19. Envelope switch (EVSW)..... Detects the envelope mode setting.
- 20. Top tray switch (TTSW)..... Breaks the safety circuit when the top tray is opened.
- 21. Toner container switch (TCSW) ..... Detects the presence of the toner container.
- 22. Waste toner cover switch (WTCSW)..... Breaks the safety circuit when the waste toner cover is opened.
- 23. Fuser thermistor (FTH) ..... Detects the heat roller temperature.
- 24. Outer temperature sensor (OTEMS)..... Detects the outside temperature and humidity.
- 25. Inner temperature sensor (ITEMS) ...... Detects the inside temperature.
- 26. Home position sensor (HPS) ..... Detects the ISU in the home position.

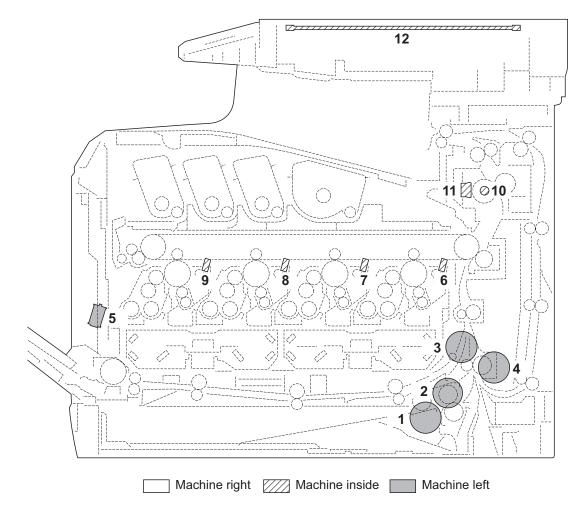
#### (3) Motors



- 16. Left fan motor (LFM) ..... Cools the interior of machine.
- 17. Right fan motor (RFM) ..... Cools the interior of machine.

- 18. Controller fan motor (CONFM)..... Cools the controller section.
- 19. Fuser fan motor (FUFM) ..... Cools the fuser section.
- 20. Container fan motor (CFM) ...... Cools the toner container section.
- 21. ISU motor (ISUM) ..... Drives the ISU.

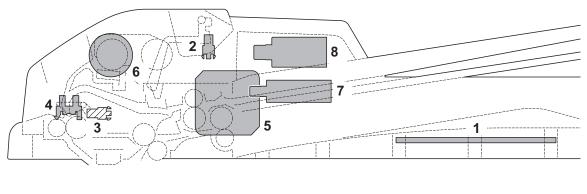
### (4) Others



#### Figure 2-2-4 Others

- 1. Paper feed clutch (PFCL) ..... Primary paper feed from cassette.
- 2. MP feed clutch (MPFCL)..... Controls the drive of MP conveying section.
- 3. Registration clutch (RCL)..... Controls the secondary paper feed.
- 4. Middle clutch (MCL)..... Controls the drive of conveying section.
- 5. MP solenoid (MPSOL) ..... Controls the MP bottom plate.
- 6. Cleaning lamp K (CL-K) ..... Eliminates the residual electrostatic charge on the drum (black).
- 7. Cleaning lamp M (CL-M)..... Eliminates the residual electrostatic charge on the drum (magenta).
- 8. Cleaning lamp C (CL-C)..... Eliminates the residual electrostatic charge on the drum (cyan).
- 9. Cleaning lamp Y (CL-Y) ..... Eliminates the residual electrostatic charge on the drum (yellow).
- 10. Fuser heater (FH) ..... Heats the heat roller.
- 11. Fuser thermal cutout ...... Prevents overheating of the heat roller.
- 12. Exposure lamp (EL) ..... Exposes originals.

#### (5) Document processor





#### Figure 2-2-5 Document processor

- 1. DP drive PWB (DPDPWB ...... Consists the solenoids and clutch driver circuit and wiring relay circuit.
- 2. DP original sensor (DPOS)..... Detects the presence of an original.
- 3. DP timing sensor (DPTS)..... Detects the original scanning timing.
- 4. DP open/close sensor (DPOCS)..... Detects the opening/closing of the DP.
- 5. DP paper feed motor (DPPFM)..... Drives the original feed section.
- 6. DP paper feed clutch (DPPFCL)...... Controls the drive of the DP forwarding pulley and DP feed pulley.
- 7. DP switchback solenoid (DPSBSOL).... Operates the switchback guide.
- 8. DP pressure solenoid (DPPRSOL) ...... Operates the switchback pulley.

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### 2-3-1 Power source PWB

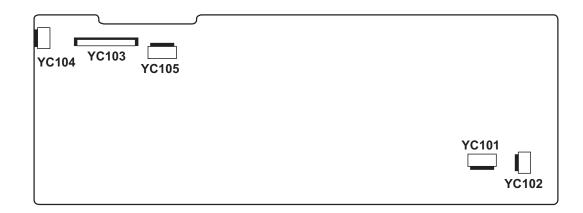


Figure 2-3-1 Power source PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC101	1	LIVE	I	120 V AC 220-240 V AC	AC power input
Connected to AC inlet and main power switch	2	NEUTRAL	Ι	120 V AC 220-240 V AC	AC power input
YC102	1	NEUTRAL	0	120 V AC/0 V 220-240 V AC/0 V	FH: On/Off
Connected to fuser heater	2	LIVE	0	120 V AC 220-240 V AC	AC power to FH
YC103	1	+24V1	0	24 V DC	24 V DC power to RYPWB
Connected to	2	GND	-	-	Ground
relay PWB	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	+24V2	0	24 V DC	24 V DC power to RYPWB (via ILSW)
	7	+24V2	0	24 V DC	24 V DC power to RYPWB (via ILSW)
	8	+24V2	0	24 V DC	24 V DC power to RYPWB (via ILSW)
	9	+24V2	0	24 V DC	24 V DC power to RYPWB (via ILSW)
	10	PSSLEEPN	I	0/3.3 V DC	Sleep mode signal: On/Off
	11	ZCROSS	0	0/3.3 V DC (pulse)	Zero-cross signal
	12	RELAY	Ι	0/3.3 V DC	Relay signal
	13	HEATRE1	I	0/3.3 V DC	FH: On/Off
YC104	1	+24V1	0	24 V DC	24 V DC power to ILSW
Connected to	2	N.C	-	-	Not used
interlock switch	3	+24V2	Ι	24 V DC	24 V DC power from ILSW
YC105	1	+24V1	0	24 V DC	24 V DC power to MPWB
Connected to	2	GND	-	-	Ground
main PWB	3	GND	-	-	Ground
	4	+5V1	0	5 V DC	5 V DC power to MPWB

## 2-3-2 Engine PWB

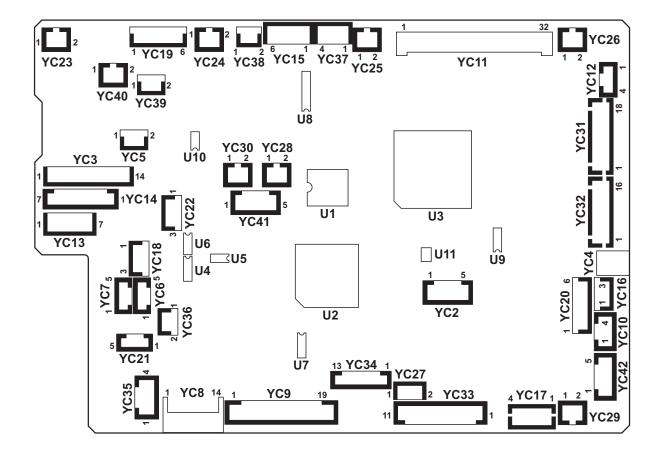


Figure 2-3-2 Engine PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	MPFCLDRN	0	0/24 V DC	MPFCL: On/Off
Connected to	2	+24V3	0	24 V DC	24 V DC power to MPFCL
MP feed clutch, paper	3	FEDCLDRN	0	0/24 V DC	PFCL: On/Off
feed clutch,	4	+24V3	0	24 V DC	24 V DC power to PFCL
paper feed	5	N.C.	-	-	Not used
motor, middle clutch and	6	FEMOTRDYN	T	0/3.3 V DC	PFM ready signal
registration	7	FEMOTCLK	0	0/3.3 V DC (pulse)	PFM clock signal
clutch	8	FEMOTREN	0	0/3.3 V DC	PFM: On/Off
	9	GND	-	-	Ground
	10	+24V3	0	24 V DC	24 V DC power to PFM
	11	MIDCLDRN	0	0/24 V DC	MCL: On/Off
	12	+24V3	0	24 V DC	24 V DC power to MCL
	13	REGCLDRN	0	0/24 V DC	RCL: On/Off
	14	+24V3	0	24 V DC	24 V DC power to RCL
YC4	1	+24V3	0	24 V DC	24 V DC power to MPSOL
Connected to MP solenoid	2	MPSOLDRN	I	0/24 V DC	MPSOL: On/Off
YC6	1	VOSL	Ι	Analog	IDS1 detection signal
Connected to	2	VOPL	I	Analog	IDS1 detection signal
ID sensor 1	3	GND	-	-	Ground
	4	LEDREFL	0	Analog	IDS1 control signal
	5	+3.3V2	0	3.3 V DC	3.3 V DC power to IDS1
YC7	1	VOSR	Ι	Analog	IDS2 detection signal
Connected to	2	VOPR	Т	Analog	IDS2 detection signal
ID sensor 2	3	GND	-	-	Ground
	4	LEDREFR	0	Analog	IDS2 control signal
	5	+3.3V2	0	3.3 V DC	3.3 V DC power to IDS2

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	+24V1	Ι	24 V DC	24 V DC power from RYPWB
Connected to	2	GND	-	-	Ground
relay PWB	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	+24V3	0	24 V DC	24 V DC power from RYPWB
	7	+24V3	0	24 V DC	24 V DC power from RYPWB
	8	+24V3	0	24 V DC	24 V DC power from RYPWB
	9	+24V3	0	24 V DC	24 V DC power from RYPWB
	10	GND	-	-	Ground
	11	SLEEPN	0	0/3.3 V DC	Sleep mode signal: On/Off
	12	HYPINT	0	0/3.3 V DC	Interruption signal
	13	I2CINT	Т	0/3.3 V DC (pulse)	Communication signal
	14	+3.3V2	Т	3.3 V DC	3.3 V DC power from RYPWB
YC9	1	TCONTN	0	0/3.3 V DC	TCSW: On/Off
Connected to	2	EGHOLD	I	0/3.3 V DC	Engine hold signal
relay PWB	3	ZCROSS	Ι	0/3.3 V DC (pulse)	Zero-cross signal
	4	RELAY	0	0/3.3 V DC	Power relay signal
	5	HEATRE1	0	0/3.3 V DC	FH: On/Off
	6	(HEATRE2)	-	-	Not used
	7	VSYNC	0	0/3.3 V DC	Horizontal synchronizing signal
	8	EGIRN	0	0/3.3 V DC	Engine interruption signal
	9	SBSY	0	0/3.3 V DC	Serial busy signal
	10	SDIR	0	0/3.3 V DC	Serial communication direction change signal
	11	SI	I	0/3.3 V DC (pulse)	Serial communication data signal input
	12	SO	0	0/3.3 V DC (pulse)	Serial communication data signal output
	13	SCKN	Ι	0/3.3 V DC (pulse)	Serial communication clock signal
	14	N.C.	-	-	Not used
	15	I2CSCL	Т	0/3.3 V DC (pulse)	EEPROM clock signal
	16	GND	-	-	Ground
	17	I2CSDA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	18	MPFJAM	Ι	0/3.3 V DC	MPFS: On/Off
	19	+3.3V1_MFP	Ι	3.3 V DC	3.3 V DC power from RYPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC10	1	LEDA	0	3.3 V DC	3.3 V DC power to WTS
Connected to	2	LEDK	0	0/3.3 V DC (pulse)	WTS LED emitter signal
waste toner sensor	3	PTRE	I	Analog	WTS detection signal
5011501	4	PTRC	0	3.3 V DC	3.3 V DC power to WTS
YC11	1	+24V3	0	24 V DC	24 V DC power to HVPWB
Connected to	2	+24V3	0	24 V DC	24 V DC power to HVPWB
high voltage PWB	3	T1CCNT	0	PWM	Primary transfer bias control voltage (Cyan)
	4	HVCLKY	0	0/3.3 V DC (pulse)	Developing bias clock signal (Yellow)
	5	T1MCNT	0	PWM	Primary transfer bias control voltage (Magenta)
	6	HVCLKC	0	0/3.3 V DC (pulse)	Developing bias clock signal (Cyan)
	7	T2CNT	0	PWM	Secondary transfer bias control voltage
	8	BCMCNT	0	PWM	Developing magnet bias control voltage (Cyan)
	9	CLCNT	0	PWM	Cleaning bias control voltage
	10	BKMCNT	0	PWM	Developing magnet bias control voltage (Black)
	11	T1YCNT	0	PWM	Primary transfer bias control voltage (Yellow)
	12	BKSCNT	0	PWM	Developing sleeve bias control voltage (Black)
	13	T1KCNT	0	PWM	Primary transfer bias control voltage (Black)
	14	BYSCNT	0	PWM	Developing sleeve bias control voltage (Yellow)
	15	MYCNT	0	PWM	Main charger control voltage (Yellow)
	16	BMMCNT	0	PWM	Developing magnet bias control voltage (Magenta)
	17	MKCNT	0	PWM	Main charger control voltage (Black)
	18	BYMCNT	0	PWM	Developing magnet bias control voltage (Yellow)
	19	MCCNT	0	PWM	Main charger control voltage (Cyan)
	20	T2RREM	0	0/3.3 V DC (pulse)	Secondary transfer bias reverse signal
	21	MMCNT	0	PWM	Main charger control voltage (Magenta)
	22	BMSCNT	0	PWM	Developing sleeve bias control voltage (Magenta)
	23	MISENS	Ι	Analog	Main charger AC current signal
	24	BKACNT	0	PWM	Developing AC bias control voltage (Black)

Connector	Pin	Signal	I/O	Voltage	Description
YC11	25	BCACNT	0	PWM	Developing AC bias control voltage (Cyan)
Connected to high voltage	26	BMACNT	0	PWM	Developing AC bias control voltage (Magenta)
PWB	27	BYACNT	0	PWM	Developing AC bias control voltage (Yellow)
	28	HVCLKK	0	0/3.3 V DC (pulse)	Developing bias clock signal (Black)
	29	BCSCNT	0	PWM	Developing sleeve bias control voltage (Cyan)
	30	HVCLKM	0	0/3.3 V DC (pulse)	Developing bias clock signal (Magenta)
	31	GND	-	-	Ground
	32	GND	-	-	Ground
YC13	1	MOTREV (GND)	-	-	Ground
Connected to	2	MOTRDYN	Ι	0/3.3 V DC	DRM ready signal
drum motor	3	SPEEDSEL	0	0/3.3 V DC	DRM speed selection signal
	4	MOTCLK	0	0/3.3 V DC (pulse)	DRM clock signal
	5	MOTEN	0	0/3.3 V DC	DRM: On/Off
	6	GND	-	-	Ground
	7	+24V3	0	24 V DC	24 V DC power to DRM
YC14	1	+24V3	0	24 V DC	24 V DC power to DEVM
Connected to	2	GND	-	-	Ground
developing motor	3	DLPMOTREN	0	0/3.3 V DC	DEVM: On/Off
ΠΟΙΟΙ	4	DLPMOTCLK	0	0/3.3 V DC (pulse)	DEVM clock signal
	5	DLPMOT RDYN	Ι	0/3.3 V DC	DEVM ready signal
	6	MOTREV	0	0/3.3 V DC	DEVM drive switch signal
YC15	1	IMAMOT RDYN	I	0/3.3 V DC	FUM ready signal
Connected to	2	IMAMOTCLK	0	0/3.3 V DC (pulse)	FUM clock signal
fuser motor	3	IMAMOTREN	0	0/3.3 V DC	FUM: On/Off
	4	GND	-	-	Ground
	5	+24V3	0	24 V DC	24 V DC power to FUM
YC16	1	+3.3V2_LED1	0	3.3 V DC	3.3 V DC power to MPPS
Connected to	2	GND	-	-	Ground
MP paper sensor	3	MPFPAP	Ι	0/3.3 V DC	MPPS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC17	1	CAS2	I	0/3.3 V DC	CSSW (SW2): On/Off
Connected to	2	CAS1	I	0/3.3 V DC	CSSW (SW1): On/Off
cassette size switch	3	СОМ	-	-	Ground
SWIICH	4	CAS0	I	0/3.3 V DC	CSSW (SW0): On/Off
YC18	1	+3.3V2_LED2	0	3.3 V DC	3.3 V DC power to RS
Connected to	2	GND	-	-	Ground
registration sensor	3	REGPAP	Ι	0/3.3 V DC	RS: On/Off
YC19	1	PDIRN	I	0/3.3 V DC	EVSW: On/Off
Connected to	2	+3.3V2	0	3.3 V DC	3.3 V DC power to EJPWB
eject PWB	3	FTHERM	Ι	Analog	FTH detection voltage
	4	FUSPAP	Ι	0/3.3 V DC	ES: On/Off
	5	FDFULL	Ι	0/3.3 V DC	PFS: On/Off
	6	GND	-	-	Ground
YC20	1	+3.3V2_LED3	0	3.3 V DC	3.3 V DC power to TCSW
Connected to	2	GND	-	-	Ground
toner con-	3	TCONTN	Ι	0/3.3 V DC	TCSW: On/Off
tainer switch and waste	4	+3.3V2_LED7	0	3.3 V DC	3.3 V DC power to WTCSW
toner cover	5	GND	-	-	Ground
switch	6	WSTOPN	I	0/3.3 V DC	WTCSW: On/Off
YC21	1	GND	-	-	Ground
Connected to	2	PAPVOL2	-	-	Not used
cassette	3	PAPVOL1	I	0/3.3 V DC	PS: On/Off
PWB	4	LIFTSEN	Ι	0/3.3 V DC	LS: On/Off
	5	+3.3V2	0	3.3 V DC	3.3 V DC power to CPWB
YC23	1	+24V3	0	24 V DC	24 V DC power to TM-K
Connected to toner motor K	2	TNMKDRN	0	0/24 V DC	TM-K: On/Off
YC24	1	+24V3	0	24 V DC	24 V DC power to TM-M
Connected to toner motor M	2	TNMMDRN	0	0/24 V DC	TM-M: On/Off
YC25	1	+24V3	0	24 V DC	24 V DC power to TM-C
Connected to toner motor C	2	TNMCDRN	0	0/24 V DC	TM-C: On/Off
YC26	1	+24V3	0	24 V DC	24 V DC power to TM-Y
Connected to toner motor Y	2	TNMYDRN	0	0/24 V DC	TM-Y: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC27	1	LMOTDRN	0	0/24 V DC	LM: On/Off
Connected to lift motor	2	GND	-	-	Ground
YC28	1	+24V1	0	24 V DC	24 V DC power to CFM
Connected to container fan motor	2	TCONTFAN DRN	0	0/12/24 V DC	CFM: Full speed/Half speed/Off
YC29	1	+24V1	0	24 V DC	24 V DC power to LFM
Connected to left fan motor	2	LFANDRN	0	0/12/24 V DC	LFM: Full speed/Half speed/Off
YC30	1	TCONTN	0	0/3.3 V DC	TTSW: On/Off
Connected to top tray switch	2	GND	-	-	Ground
YC31	1	GND	-	-	Ground
Connected to	2	VREFK	0	Analog	APCPWB-K laser power standard voltage
laserscanner unit KM	3	LONBKN	0	0/3.3 V DC	APCPWB-K sample/hold signal
	4	ENBKN	0	0/3.3 V DC	APCPWB-K laser enable signal
	5	PDKN	Ι	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	6	GND	-	-	Ground
	7	VREFM	0	Analog	APCPWB-M laser power standard voltage
	8	LONBMN	0	0/3.3 V DC	APCPWB-M sample/hold signal
	9	ENBMN	0	0/3.3 V DC	APCPWB-M laser enable signal
	10	PDMN	Ι	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	11	LSUTHERMM	Ι	Analog	ITEMS detection voltage
	12	POLCLK1	0	0/3.3 V DC (pulse)	PM-KM clock signal
	13	POLRDYN1	Ι	0/3.3 V DC	PM-KM ready signal
	14	POLONN1	0	0/3.3 V DC	PM-KM: On/Off
	15	GND	-	-	Ground
	16	+24V3	0	24 V DC	24 V DC power to PM-KM
	17	N.C.	-	-	Not used
	18	N.C.	-	-	Not used

Connector	Pin	Signal	I/O	Voltage	Description
YC32	1	GND	-	-	Ground
Connected to	2	VREFC	0	Analog	APCPWB-C laser power standard voltage
laser scanner unit CY	3	LONBCN	0	0/3.3 V DC	APCPWB-C sample/hold signal
	4	ENBCN	0	0/3.3 V DC	APCPWB-C laser enable signal
	5	PDCN	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	6	GND	-	-	Ground
	7	VREFY	0	Analog	APCPWB-Y laser power standard voltage
	8	LONBYN	0	0/3.3 V DC	APCPWB-Y sample/hold signal
	9	ENBYN	0	0/3.3 V DC	APCPWB-Y laser enable signal
	10	PDYN	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	11	LSUTHERMY	-	-	Not used
	12	POLCLK0	0	0/3.3 V DC (pulse)	PM-CY clock signal
	13	POLRDYN0	Ι	0/3.3 V DC	PM-CY ready signal
	14	POLONN0	0	0/3.3 V DC	PM-CY: On/Off
	15	GND	-	-	Ground
	16	+24V3	0	24 V DC	24 V DC power to PM-CY
YC33	1	GND	-	-	Ground
Connected to	2	OPSCLK	0	0/3.3 V DC (pulse)	Paper feeder clock signal
paper feeder	3	OPRDYN	0	0/3.3 V DC	Paper feeder ready signal
	4	OPSDI	Ι	0/3.3 V DC (pulse)	Paper feeder serial communication data signal input
	5	OPSDO	0	0/3.3 V DC (pulse)	Paper feeder serial communication data signal output
	6	+3.3V1	0	3.3 V DC	3.3 V DC power to paper feeder
	7	GND	-	-	Ground
	8	OPSEL0	0	0/3.3 V DC	Paper feeder selection signal
	9	OPSEL1	0	0/3.3 V DC	Paper feeder selection signal
	10	OPSEL2	0	0/3.3 V DC	Paper feeder selection signal
	11	+24V3	0	24 V DC	24 V DC power to paper feeder

Connector	Pin	Signal	I/O	Voltage	Description
YC34	1	TNSENM	I	Analog	TS-M detection voltage
Connected to	2	ERASECDR	0	0/24 V DC	CL-C: On/Off
drum relay PWB	3	TNSENK	Ι	Analog	TS-K detection voltage
FVVD	4	ERASEMDR	0	0/24 V DC	CL-M: On/Off
	5	DLPTHERM	Ι	Analog	DEVTH detection voltage
	6	ERASEKDR	0	0/24 V DC	CL-K: On/Off
	7	+3.3V2	0	3.3 V DC	3.3 V DC power to DRRPWB
	8	EECLK	0	0/3.3 V DC (pulse)	EEPROM clock signal
	9	GND	-	-	Ground
	10	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	11	TNSENY	I	Analog	TS-Y detection voltage
	12	ERASEYDR	0	0/24 V DC	CL-Y: On/Off
	13	TNSENC	Ι	Analog	TS-C detection voltage
YC35	1	DLPDIRN	Ι	0/3.3 V DC	DEVRSW: On/Off
Connected to	2	GND	-	-	Ground
developing release	3	DLPCMOTA	0	24/0 V DC	DEVRM: Forward/Stop (Reverse)
switch and	4	DLPCMOTB	0	24/0 V DC	DEVRM: Reverse/Stop (Forward)
developing					
release motor					
YC36	1	LSUMOTA	0	24/0 V DC	LSUCM: Forward/Stop (Reverse)
Connected to	2	LSUMOTB	0	24/0 V DC	LSUCM: Reverse/Stop (Forward)
LSU clean-					
ing motor					
YC37	1	STDUA	0	0/24 V DC (pulse)	DUM drive control signal
Connected to duplex motor	2	STDUB	0	0/24 V DC (pulse)	DUM drive control signal
	3	STDUAN	0	0/24 V DC (pulse)	DUM drive control signal
	4	STDUBN	0	0/24 V DC (pulse)	DUM drive control signal
YC38	1	PREMOTDRN	0	0/24 V DC	FPRM: On/Off
Connected to fuser pres-	2	GND	-	-	Ground
sure release					
motor					
YC40	1	+24V1	0	24 V DC	24 V DC power to FUFM
Connected to	2	FUFANDRN	0	0/12/24 V DC	FUFM: Full speed/Half speed/Off
fuser fan motor					

Connector	Pin	Signal	I/O	Voltage	Description
YC42	1	GND	-	-	Ground
Connected to	2	AIRTEMP	Т	Analog	OTEMS detection voltage (temperature)
outer temper- ature sensor	3	WETCLK0	0	0/3.3 V DC (pulse)	OTEMS clock signal
alure sensor	4	WETCLK1	0	0/3.3 V DC (pulse)	OTEMS clock signal
	5	AIRWETOUT	Ι	Analog	OTEMS detection voltage (humidity)

## 2-3-3 Main PWB

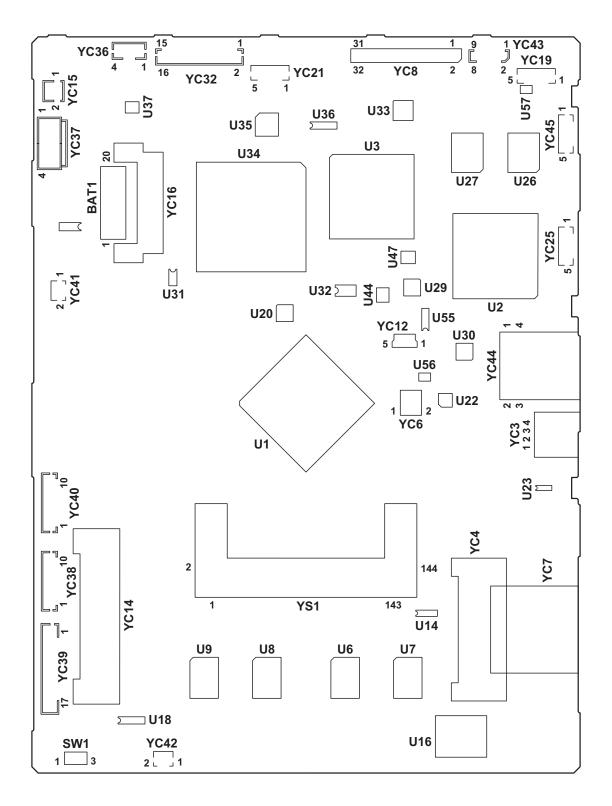


Figure 2-3-3 Main PWB silk-screen diagram

2-3-13

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	VBUS	0	5 V DC	5 V DC power output
Connected to	2	DATA-	I/O	-	USB data signal
USB	3	DATA+	I/O	-	USB data signal
	4	GND	-	-	Ground
YC8	1	CCDSW	0	0/3.3 V DC	CCD color/BW change signal
Connected to	2	CCDSH	0	0/3.3 V DC	CCD shift gate signal
CCD PWB	3	CCDCLPN	0	LVDS	CCD clamp signal
	4	CCDCLPP	0	LVDS	CCD clamp signal
	5	NC	-	-	Not used
	6	CCDRSP	0	LVDS	CCD reset signal
	7	CCDRSN	0	LVDS	CCD reset signal
	8	NC	-	-	Not used
	9	CCDPH1N	0	LVDS	CCD shift register clock signal
	10	CCDPH1P	0	LVDS	CCD shift register clock signal
	11	NC	-	-	Not used
	12	CCDPH2P	0	LVDS	CCD shift register clock signal
	13	CCDPH2N	0	LVDS	CCD shift register clock signal
	14	NC	-	-	Not used
	15	+3.3VS	0	3.3 V DC	3.3 V DC power to CCDPWB
	16	HPSWN	I	0/3.3 V DC	HPS: On/Off
	17	NC	-	-	Not used
	18	+24V_LAMP	0	24 V DC	24 V DC power to CCDPWB
	19	LAMPTH	0	0/3.3 V DC	EL drive signal
	20	GND_LAMP	-	-	Ground
	21	NC	-	-	Not used
	22	GND	-	-	Ground
	23	CCDDATAB	Т	Analog	CCD image output signal (B)
	24	GND	-	-	Ground
	25	CCDDATAG	I	Analog	CCD image output signal (G)
	26	GND	-	-	Ground
	27	CCDDATAR	I	Analog	CCD image output signal (R)
	28	GND	-	-	Ground
	29	NC	-	-	Not used
	30	+5V1	0	5 V DC	5 V DC power to CCDPWB
	31	NC	-	-	Not used
	32	+12VS	0	DC12V	12 V DC power to CCDPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC12	1	VBUS	0	5 V DC	5 V DC power output
Connected to	2	DATA-	I/O	-	USB data signal
USB	3	DATA+	I/O	-	USB data signal
	4	GND	-	-	Ground
	5	GND	-	-	Ground
YC14	A1	NC	-	-	Not used
Connected to	B1	NC	-	-	Not used
FAX control PWB	A2	NC	-	-	Not used
	B2	NC	-	-	Not used
	A3	GND	-	-	Ground
	B3	3.3V	0	3.3 V DC	3.3 V DC power output
	A4	3.3V	0	3.3 V DC	3.3 V DC power output
	B4	A15	0	0/3.3 V DC (pulse)	Address bus signal
	A5	GND	-	-	Ground
	B5	A14	0	0/3.3 V DC (pulse)	Address bus signal
	A6	A13	0	0/3.3 V DC (pulse)	Address bus signal
	B6	A12	0	0/3.3 V DC (pulse)	Address bus signal
	A7	A11	0	0/3.3 V DC (pulse)	Address bus signal
	B7	A10	0	0/3.3 V DC (pulse)	Address bus signal
	A8	A9	0	0/3.3 V DC (pulse)	Address bus signal
	B8	A8	0	0/3.3 V DC (pulse)	Address bus signal
	A9	GND	-	-	Ground
	B9	A7	0	0/3.3 V DC (pulse)	Address bus signal
	A10	A6	0	0/3.3 V DC (pulse)	Address bus signal
	B10	A5	0	0/3.3 V DC (pulse)	Address bus signal
	A11	A4	0	0/3.3 V DC (pulse)	Address bus signal
	B11	A3	0	0/3.3 V DC (pulse)	Address bus signal
	A12	A2	0	0/3.3 V DC (pulse)	Address bus signal
	B12	A1	0	0/3.3 V DC (pulse)	Address bus signal
	A13	GND	-	-	Ground
	B13	3.3V	0	3.3 V DC	3.3 V DC power output
	A14	OP2IFN	0	0/3.3 V DC	Select signal
	B14	OP2ACKN	Ι	0/3.3 V DC (pulse)	OP2ACKN signal
	A15	OP2IRN	Ι	0/3.3 V DC	Interruption signal
	B15	5V	0	5 V DC	5 V DC power output
	A16	RDY	0	0/3.3 V DC	Ready signal

Connector	Pin	Signal	I/O	Voltage	Description
YC14	B16	RXDREQ		0/3.3 V DC	Reception DMA request signal
Connected to	A17	GND	-	-	Ground
FAX control PWB	B17	RXDMACKN	0	0/3.3 V DC (pulse)	Reception DMACK signal
	A18	IORN	0	0/3.3 V DC	Read enable signal
	B18	IOWN	0	0/3.3 V DC	Write enable signal
	A19	RESETN	0	0/3.3 V DC	Reset signal
	B19	VOLTDETECT	-	-	Ground
	A20	D15	I/O	0/3.3 V DC (pulse)	Data bus signal
	B20	D14	I/O	0/3.3 V DC (pulse)	Data bus signal
	A21	GND	-	-	Ground
	B21	D13	I/O	0/3.3 V DC (pulse)	Data bus signal
	A22	D12	I/O	0/3.3 V DC (pulse)	Data bus signal
	B22	D11	I/O	0/3.3 V DC (pulse)	Data bus signal
	A23	D10	I/O	0/3.3 V DC (pulse)	Data bus signal
	B23	D9	I/O	0/3.3 V DC (pulse)	Data bus signal
	A24	D8	I/O	0/3.3 V DC (pulse)	Data bus signal
	B24	D7	I/O	0/3.3 V DC (pulse)	Data bus signal
	A25	GND	-	-	Ground
	B25	D6	I/O	0/3.3 V DC (pulse)	Data bus signal
	A26	D5	I/O	0/3.3 V DC (pulse)	Data bus signal
	B26	D4	I/O	0/3.3 V DC (pulse)	Data bus signal
	A27	D3	I/O	0/3.3 V DC (pulse)	Data bus signal
	B27	D2	I/O	0/3.3 V DC (pulse)	Data bus signal
	A28	D1	I/O	0/3.3 V DC (pulse)	Data bus signal
	B28	D0	I/O	0/3.3 V DC (pulse)	Data bus signal
	A29	GND	-	-	Ground
	B29	NC	-	-	Not used
	A30	NC	-	-	Not used
	B30	NC	-	-	Not used
YC15	1	OUT-	0	Analog	Speaker sound signal (-)
Connected to	2	OUT+	0	Analog	Speaker sound signal (+)
speaker					

Connector	Pin	Signal	I/O	Voltage	Description
YC32	1	FEEDCL	0	0/24 V DC	DPPFCL: On/Off
Connected to	2	REVSOL	0	0/24 V DC	DPSBSOL: On/Off
DP drive PWB	3	PRESOLN	0	0/24 V DC	DPPRSOL: On (Press)/Off
FVVD	4	RELSOLN	0	0/24 V DC	DPPRSOL: On (Release)/Off
	5	DPDETN	T	0/3.3 V DC	DP set signal
	6	OPSWN	Ι	0/3.3 V DC	DPOCS: On/Off
	7	ORGSWN	Ι	0/3.3 V DC	DPOS: On/Off
	8	TIMSWN	Ι	0/3.3 V DC	DPTS: On/Off
	9	GND	-	-	Ground
	10	+3.3V2	0	3.3 V DC	3.3 V DC power to DPDPWB
	11	GND	-	-	Ground
	12	+24V2	0	24 V DC	24 V DC power to PDPWB
	13	MOTB2	0	0/24 V DC (pulse)	DPPFM drive control signal
	14	MOTA2	0	0/24 V DC (pulse)	DPPFM drive control signal
	15	MOTB1	0	0/24 V DC (pulse)	DPPFM drive control signal
	16	MOTA1	0	0/24 V DC (pulse)	DPPFM drive control signal
YC36	1	SCMOTB2	0	0/24 V DC (pulse)	ISUM drive control signal
Connected to	2	SCMOTA1	0	0/24 V DC (pulse)	ISUM drive control signal
ISU motor	3	SCMOTB1	0	0/24 V DC (pulse)	ISUM drive control signal
	4	SCMOTA2	0	0/24 V DC (pulse)	ISUM drive control signal
YC37	1	+24V1	Ι	24 V DC	24 V DC power from PSPWB
Connected to	2	GND	-	-	Ground
power source PWB	3	GND	-	-	Ground
	4	+5V1	Ι	5 V DC	5 V DC power from PSPWB
YC38	1	GND	-	-	Ground
Connected to	2	+3.3V3	0	3.3 V DC	3.3 V DC power to APCPWB-M
laserscanner unit KM	3	PDMN	Ι	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	4	VDOMP	0	LVDS	APCPWB-M video data signal (+)
	5	VDOMN	0	LVDS	APCPWB-M video data signal (-)
	6	GND	-	-	Ground
	7	+3.3V3	0	3.3 V DC	3.3 V DC power to APCPWB-K
	8	PDKN	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	9	VDOKP	0	LVDS	APCPWB-K video data signal (+)
	10	VDOKN	0	LVDS	APCPWB-K video data signal (-)

Connector	Pin	Signal	I/O	Voltage	Description
YC39	1	+3.3V1_MFP	0	3.3 V DC	3.3 V DC power to RYPWB
Connected to	2	I2CSDA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
relay PWB	3	GND	-	-	Ground
	4	I2CSCL	0	0/3.3 V DC (pulse)	EEPROM clock signal
	5	SCKN	0	0/3.3 V DC (pulse)	Serial communication clock signal
	6	SO	T	0/3.3 V DC (pulse)	Serial communication data signal input
	7	SI	0	0/3.3 V DC (pulse)	Serial communication data signal output
	8	SDIR	Ι	0/3.3 V DC	Serial communication direction change signal
	9	SBSY	I	0/3.3 V DC	Serial busy signal
	10	EGIRN	I	0/3.3 V DC	Engine interruption signal
	11	VSYNC	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	12	+3.3V2	0	3.3 V DC	3.3 V DC power to RYPWB
	13	GND	-	-	Ground
	14	EGHOLD	0	0/3.3 V DC	Engine hold signal
	15	I2CINT	0	0/3.3 V DC (pulse)	Communication signal
	16	HYPINT	I	0/3.3 V DC	Interruption signal
	17	PSSLEEPN	0	0/3.3 V DC	Sleep mode signal: On/Off
YC40	1	GND	-	-	Ground
Connected to	2	+3.3V3	0	3.3 V DC	3.3 V DC power to APCPWB-Y
laser scanner unit CY	3	PDYN	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	4	VDOYP	0	LVDS	APCPWB-Y video data signal (+)
	5	VDOYN	0	LVDS	APCPWB-Y video data signal (-)
	6	GND	-	-	Ground
	7	+3.3V3	0	3.3 V DC	3.3 V DC power to APCPWB-C
	8	PDCN	I	0/3.3 V DC (pulse)	Horizontal synchronizing signal
	9	VDOCP	0	LVDS	APCPWB-C video data signal (+)
	10	VDOCN	0	LVDS	APCPWB-C video data signal (-)
YC41	1	+24V1	0	24 V DC	24 V DC power to CONFM
Connected to controller fan motor	2	CONTFAN DRN	0	0/12/24 V DC	CONFM: Full speed/Half speed/Off
YC42	1	+24V1	0	24 V DC	24 V DC power to RFM
Connected to right fan motor	2	RFANDRN	0	0/12/24 V DC	RFM: Full speed/Half speed/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC43	1	+5V1	-	5 V DC	5 V DC power to OPPWB
Connected to	2	POWERKEY	I	0/3.3 V DC	Power key input signal
operation panel PWB	3	FPRSTN	0	0/3.3 V DC	OPPWB reset signal
parler F VD	4	PANTXD	0	0/3.3 V DC (pulse)	OPPWB transmission data
	5	PANRXD	Ι	0/3.3 V DC (pulse)	OPPWB received data
	6	+3.3V	0	3.3 V DC	3.3 V DC power to OPPWB
	7	PANEL_ MODE1	0	0/3.3 V DC	OPPWB mode signal
	8	GND	-	-	Ground
	9	PANEL_ MODE0	0	0/3.3 V DC	OPPWB mode signal
YC44	1	тст	0	3.3 V DC	3.3 V DC power output
Connected to	2	TD+	0	0/3.3 V DC (pulse)	Transmission data
ethernet	3	TD-	0	0/3.3 V DC (pulse)	Transmission data
	4	RD+	Ι	0/3.3 V DC (pulse)	Received data
	5	RD-	Ι	0/3.3 V DC (pulse)	Received data
	6	RCT	0	3.3 V DC	3.3 V DC power output
	7	CAT PHY	0	0/3.3 V DC	Control signal
	8	ANO PHY	0	3.3 V DC	3.3 V DC power output
	9	CAT MAC	-	-	Ground
	10	ANO MAC	0	0/3.3 V DC	Control signal

# 2-3-4 Drum relay PWB

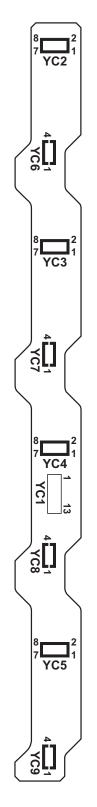


Figure 2-3-4 Drum relay PWB silk-screen diagram

2-3-20

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	TNSENM	0	Analog	TS-M detection voltage
Connected to	2	ERASECDR	T	0/24 V DC	CL-C: On/Off
engine PWB	3	TNSENK	0	Analog	TS-K detection voltage
	4	ERASEMDR	T	0/24 V DC	CL-M: On/Off
	5	DLPTHERM	0	Analog	DEVTH detection voltage
	6	ERASEKDR	I	0/24 V DC	CL-K: On/Off
	7	+3.3V2	I	3.3 V DC	3.3 V DC power from EPWB
	8	EECLK	I	0/3.3 V DC (pulse)	EEPROM clock signal
	9	GND	-	-	Ground
	10	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	11	TNSENY	0	Analog	TS-Y detection voltage
	12	ERASEYDR	I	0/24 V DC	CL-Y: On/Off
	13	TNSENC	0	Analog	TS-C detection voltage
YC2	1	GND	-	-	Ground
Connected to	2	EECLK	0	0/3.3 V DC (pulse)	EEPROM clock signal
drum PWB K	3	ERASEKDR	0	0/24 V DC	CL-K: On/Off
	4	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	5	N.C.	-	-	Not used
	6	+3.3V2	0	3.3 V DC	3.3 V DC power to DRPWB-K
	7	DA0	-	-	Not used
	8	DA1	-	-	Not used
YC3	1	GND	-	-	Ground
Connected to	2	EECLK	0	0/3.3 V DC (pulse)	EEPROM clock signal
drum PWB M	3	ERASEMDR	0	0/24 V DC	CL-M: On/Off
	4	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	5	N.C.	-	-	Not used
	6	+3.3V2	0	3.3 V DC	3.3 V DC power to DRPWB-M
	7	DA0	-	-	Ground
	8	DA1	-	-	Not used
YC4	1	GND	-	-	Ground
Connected to	2	EECLK	0	0/3.3 V DC (pulse)	EEPROM clock signal
drum PWB C	3	ERASECDR	0	0/24 V DC	CL-C: On/Off
	4	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	5	N.C.	-	-	Not used
	6	+3.3V2	0	3.3 V DC	3.3 V DC power to DRPWB-C
	7	DA0	-	-	Not used
	8	DA1	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	GND	-	-	Ground
Connected to	2	EECLK	0	0/3.3 V DC (pulse)	EEPROM clock signal
drum PWB Y	3	ERASEYDR	0	0/24 V DC	CL-Y: On/Off
	4	EEDATA	I/O	0/3.3 V DC (pulse)	EEPROM data signal
	5	N.C.	-	-	Not used
	6	+3.3V2	0	3.3 V DC	3.3 V DC power to DRPWB-Y
	7	DA0	-	-	Ground
	8	DA1	-	-	Ground
YC6	1	GND	-	-	Ground
Connected to	2	TNSENK	I	Analog	TS-K detection voltage
developing PWB K	3	+3.3V2	0	3.3 V DC	3.3 V DC power to DEVPWB-K
FVUDR	4	DLPTHERM	Ι	Analog	DEVTH detection voltage
YC7	1	GND	-	-	Ground
Connected to	2	TNSENM	I	Analog	TS-M detection voltage
developing	3	+3.3V2	0	3.3 V DC	3.3 V DC power to DEVPWB-M
PWB M	4	N.C.	-	-	Not used
YC10	1	GND	-	-	Ground
Connected to	2	TNSENC	I	Analog	TS-C detection voltage
developing PWB C	3	+3.3V2	0	3.3 V DC	3.3 V DC power to DEVPWB-C
PVVBC	4	N.C.	-	-	Not used
YC13	1	GND	-	-	Ground
Connected to	2	TNSENY	I	Analog	TS-Y detection voltage
developing PWB Y	3	+3.3V2	0	3.3 V DC	3.3 V DC power to DEVPWB-Y
PVVBY	4	N.C.	-	-	Not used

# 2-3-5 DP drive PWB

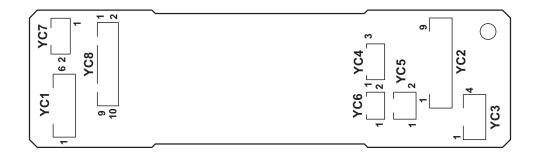


Figure 2-3-5 DP drive PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	MOTA1	I	0/24 V DC (pulse)	DPPFM drive control signal
Connected to	2	MOTB1	Ι	0/24 V DC (pulse)	DPPFM drive control signal
main PWB	3	MOTA2	Ι	0/24 V DC (pulse)	DPPFM drive control signal
	4	MOTB2	Ι	0/24 V DC (pulse)	DPPFM drive control signal
	5	+24V2	Ι	24 V DC	24 V DC power from MPWB
	6	GND	-	-	Ground
YC2	1	+3.3V2	0	3.3 V DC	3.3 V DC power to DPOCS
Connected to	2	GND	-	-	Ground
DP open/	3	OPSWN	Ι	0/3.3 V DC	DPOCS: On/Off
close sen- sor, DP origi-	4	+3.3V2	0	3.3 V DC	3.3 V DC power to DPOS
nal sensor	5	GND	-	-	Ground
and DP tim-	6	ORGSWN	Ι	0/3.3 V DC	DPOS: On/Off
ing sensor	7	+3.3V2	Ο	3.3 V DC	3.3 V DC power to DPTS
	8	GND	-	-	Ground
	9	TIMSWN	Ι	0/3.3 V DC	DPTS: On/Off
YC3	1	DPMOT1A	0	0/24 V DC (pulse)	DPPFM drive control signal
Connected to	2	DPMOT2A	0	0/24 V DC (pulse)	DPPFM drive control signal
DP paper	3	DPMOT1B	0	0/24 V DC (pulse)	DPPFM drive control signal
feed motor	4	DPMOT2B	0	0/24 V DC (pulse)	DPPFM drive control signal
YC4	1	+24V2	0	24 V DC	24 V DC power to DPPRSOL
Connected to	2	PRESOLN	0	0/24 V DC	DPPRSOL: On (Press)/Off
DP pressure solenoid	3	RELSOLN	0	0/24 V DC	DPPRSOL: On (Release)/Off
YC5	1	+24V2	0	24 V DC	24 V DC power to DPSBSOL
Connected to DP switch- back sole- noid	2	REVSOL	Ο	0/24 V DC	DPSBSOL: On/Off
YC6	1	+24V2	0	24 V DC	24 V DC power to DPPFCL
Connected to DP paper feed clutch	2	FEEDCL	0	0/24 V DC	DPPFCL: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	+3.3V2	I	3.3 V DC	3.3 V DC power from MPWB
Connected to	2	GND	-	-	Ground
main PWB	3	TIMSWN	0	0/3.3 V DC	DPTS: On/Off
	4	ORGSWN	0	0/3.3 V DC	DPOS: On/Off
	5	OPSWN	0	0/3.3 V DC	DPOCS: On/Off
	6	DPDETN	0	0/3.3 V DC	DP set signal
	7	RELSOLN	T	0/24 V DC	DPPRSOL: On (Release)/Off
	8	PRESOLN	T	0/24 V DC	DPPRSOL: On (Press)/Off
	9	REVSOL	T	0/24 V DC	DPSBSOL: On/Off
	10	FEEDCL	T	0/24 V DC	DPPFCL: On/Off

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# 2-4-1 Appendixes

# (1) Repetitive defects gauge

 ◄	First occurrence	e of defect
		-
		Front registration roller
 -	79/3 1/8" mm 82/3 1/4" mm	
 	94/3 11/16" mm	Drum

### (2) Firmware environment commands

The printer maintains a number of printing parameters in its memory. There parameters may be changed permanently with the FRPO (Firmware RePrOgram) commands.

This section provides information on how to use the FRPO command and its parameters using examples.

### Using FRPO commands for reprogramming firmware

The current settings of the FRPO parameters are listed as optional values on the service status page.

Note: Before changing any FRPO parameter, print out a service status page, so you will know the parameter values before the changes are made. To return FRPO parameters to their factory default values, send the FRPO INIT (FRPO-INITialize) command.(!R! FRPO INIT; EXIT;)

The FRPO command is sent to the printer in the following sequence: !R! FRPO parameter, value; EXIT; Example: Changing emulation mode to PC-PR201/65A !R! FRPO P1, 11; EXIT;

ltem	FRPO	Setting values	Factory setting
Top margin	A1	Integer value in inches	0
	A2	Fraction value in 1/100 inches	0
Left margin	A3	Integer value in inches	0
	A4	Fraction value in 1/100 inches	0
Page length	A5	Integer value in inches	16
	A6	Fraction value in 1/100 inches	61
Page width	A7	Integer value in inches	16
-	A8	Fraction value in 1/100 inches	61
Default pattern resolution	B8	0: 300 dpi	0
·		1: 600 dpi	
Page orientation	C1	0: Portrait	0
-		1: Landscape	
Default font No. *	C2	Middle two digits of power-up font	0
	C3	Last two digits of power-up font	0
	C5	First two digits of power-up font	0
Print density	D4	Number from 1 (Light) to 5 (Dark)	3
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5
Form feed time-out value	H9	Value in units of 5 seconds (0 to 99).	1
Reduce ratio	JO	0: 100 %	0
		5: 70 %	
		6: 81 %	
		7:86 %	
		8:94 %	
		9: 98 %	

### FRPO parameters

ltem	FRPO	Setting values	Factory setting
Offset (horizontal direction)	K0	Integer value in centimeters (-7 to +7)	0
	K1	Fraction value in 1/100 centimeters (-99 to +99)	0
Offset (vertical direction)	K2	Integer value in centimeters (-7 to +7)	0
	K3	Fraction value in 1/100 centimeters (-99 to +99)	0
KIR mode	N0	0: Off 2: On	2
Duplex binding	N4	0: Off 1: Long edge 2: Short edge	0
Sleep timer time-out time	N5	1 to 240 minutes [0: Off]	15
Ecoprint level	N6	0: Off 2: On	0
Printing resolution	N8	0: 300dpi 1: 600dpi 3: 1200dpi	1
Default emulation mode	P1	6: PCL 5e 9: KPDL (option) 11: PC-PR201/65A 12: IBM 5577 13: VP-1000	6
Carriage-return action *	P2	0: Ignores 0x0d 1: Carriage-return 2: Carriage-return+linefeed	1
Linefeed action *	P3	0: Ignores 0x0d 1: Linefeed 2: Linefeed+carriage-return	1
Automatic emulation sensing (For KPDL3)	P4	0: AES disabled 1: AES enabled	0
Alternative emulation (For KPDL3)	P5	Same as the P1 values except that 9 is ignored.	6
Automatic emulation switching trigger (For KPDL3)	P7	<ul> <li>0: Page eject commands</li> <li>1: None</li> <li>2: Page eject and prescribe EXIT</li> <li>3: Prescribe EXIT</li> <li>4: Formfeed (^L)</li> <li>6: Page eject, prescribe EXIT and formfeed</li> <li>10: Page eject commands; if AES fails, resolves to KPDL</li> </ul>	10
Command recognition character	P9	ASCII code of 33 to 126	82 (R)

ltem	FRPO	Setting values	Factory setting
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches) 3: International DL (11 × 22 cm) 4: International C5 (16.2 × 22.9 cm) 5: Executive (7-1/4 × 10-1/2 inches) 6: US Letter (8-1/2 × 11 inches) 7: US Legal (8-1/2 × 14 inches) 8: A4 (21.0 × 29.7 cm) 9: JIS B5 (18.2 × 25.7 cm) 13: ISO A5 14: A6 (10.5 × 14.8 cm) 15: JIS B6 (12.8 × 18.2 cm) 16: Commercial #9 (3-7/8 × 8-7/8 inches) 17: Commercial #6 (3-5/8 × 6-1/2 inches) 18: ISO B5 (17.6 × 25 cm) 19: Custom (11.7 × 17.7 inches) 20: B4 $\rightarrow$ A4 reduces 21: A3 $\rightarrow$ A4 reduces 22: A4 $\rightarrow$ A4 98% reduces 23: Stock form $\rightarrow$ A4 reduces 31: Hagaki (10 × 14.8 cm) 32: Ofuku-hagaki (14.8 × 20 cm) 33: Officio II 40: 16K 50: Statement 51: Folio 52: Youkei 2 53: Youkei 4	0
Default cassette	R4	0: MP tray 1: Cassette 1 2: Cassette 2 3: Cassette 3 4: Cassette 4	1
MP tray paper size	R7	Same as the R2 values except: 0	8 (A4)
A4/letter equation	S4	0: Off 1: On	0
		1.01	
Host buffer size	S5	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8)	1
Host buffer size Wide A4	S5 T6	0: 10kB (x H8) 1: 100kB (x H8)	1
		0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8) 0: Off	
Wide A4	T6	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8) 0: Off 1: On	0
Wide A4 Line spacing *	T6 U0	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8) 0: Off 1: On Lines per inch (integer value)	0

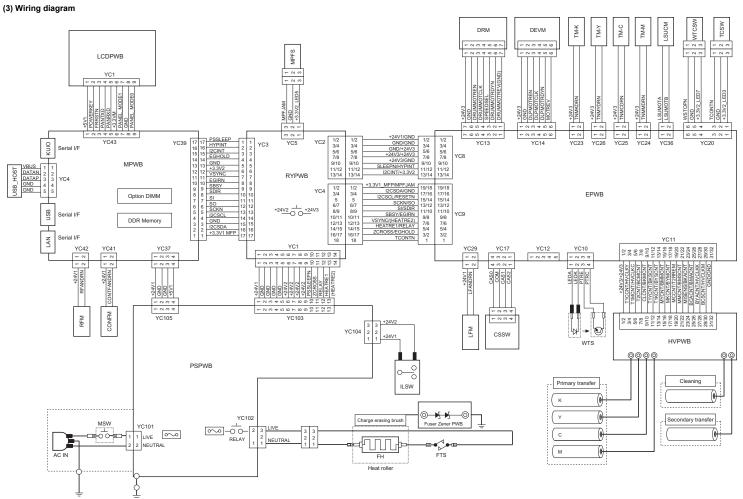
Item	FRPO	Setting values	Factory setting
Country code	U6	0: US-ASCII 1: France 2: Germany 3: UK 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US Legal 10: IBM PC-850 (Multilingual) 11: IBM PC-860 (Portuguese) 12: IBM PC-863 (Canadian French) 13: IBM PC-865 (Norwegian) 14: Norway 15: Denmark 2 16: Spain 2 17: Latin America 21: US ASCII (U7 = 50 SET) 77: HP Roman-8 (U7 = 52 SET)	0
Code set at power up in daisy- wheel emulation	U7	0: Same as the default emulation mode (P1) 1: IBM 6: IBM PC-8 50: US ASCII (U6 = 21 SET) 52: HP Roman-8 (U6 = 77 SET)	0
Font pitch for fixed pitch scalable	U8	Integer value in cpi: 0 to 99	10
font	U9	Fraction value in 1/100 cpi: 0 to 99	0
Font height for the default scal-	V0	Integer value in 100 points: 0 to 9	0
able font *	V1	Integer value in points: 0 to 99	12
	V2	Fraction value in 1/100 points: 0, 25, 50, 75	0
Default scalable font *	V3	Name of typeface of up to 32 characters, enclosed with single or double quotation marks	Courier
Default weight (courier and letter Gothic)	V9	0: Courier = darkness Letter Gothic = darkness 1: Courier = regular Letter Gothic = darkness 4: Courier = darkness Letter Gothic = regular 5: Courier = regular Letter Gothic = regular	5

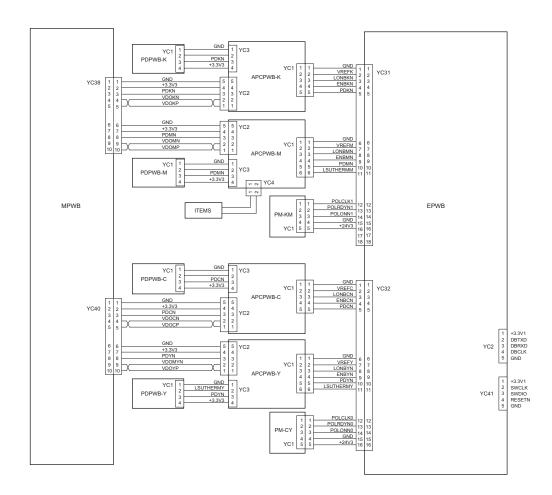
ltem	FRPO	Setting values	Factory setting
Paper type for the MP tray	X0	1: Plain 1	1
		2: Transparency	
		3: Preprinted	
		4: Label	
		5: Bond	
		6: Recycle	
		7: Vellum	
		9: Letterhead	
		10: Color	
		11: Prepunched	
		12: Envelope	
		13: Cardstock	
		16: Thick	
		17: High quality	
		21: Custom1	
		22: Custom2	
		23: Custom3	
		24: Custom4	
		25: Custom5	
		26: Custom6	
		27: Custom7	
		28: Custom8	
Departure for paper ecception 1	X1		1
Paper type for paper cassettes 1	~1	1: Plain 3: Preprinted	1
		5: Bond	
		6: Recycled 9: Letterhead	
		10: Color	
		11: Prepunched	
		17: High quality	
		21: Custom1	
		22: Custom2	
		23: Custom3	
		24: Custom4	
		25: Custom5	
		26: Custom6	
		27: Custom7	
		28: Custom8	

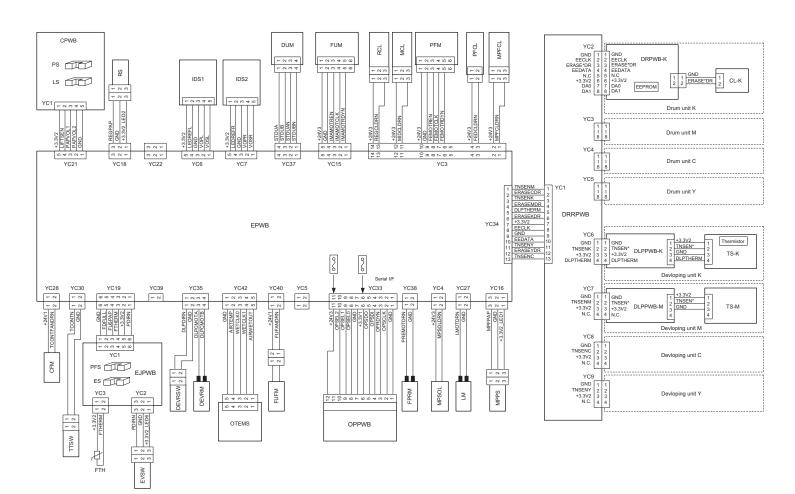
Item	FRPO	Setting values	Factory setting
Paper type for paper cassettes 2	X2	1: Plain	1
to 4	X3	3: Preprinted	
	X4	5: Bond	
		6: Recycled	
		9: Letterhead	
		10: Color	
		11: Prepunched	
		17: High quality	
		21: Custom1	
		22: Custom2	
		23: Custom3	
		24: Custom4	
		25: Custom5	
		26: Custom6	
		27: Custom7	
		28: Custom8	
PCL paper source	X9	<ol> <li>Performs paper selection depending on media type.</li> </ol>	0
		1: Performs paper selection depending on	
		paper sources.	
Automatic continue for 'Press	Y0	0: Off	0
GO'		1: On	
Automatic continue timer	Y1	Number from 0 to 99 in increments of 5 sec-	6
		onds	(30 secons)
Error message for device error	Y3	0: Not detect	0
0		1: Detect	
Duplex operation for specified	Y4	0: Off	0
paper type		1: On	
(Prepunched, Preprintedand Let-			
terhead)			
Default operation for PDF direct	Y5	0: Enlarges or reduces the image to fit in the	0
printing	-	current paper size. Loads paper from the	-
		current paper cassette.	
		1: Through the image. Loads paper which is	
		the same size as the image.	
		2: Enlarges or reduces the image to fit in the	
		current paper size. Loads Letter, A4 size	
		paper depending on the image size.	
		3: Through the image. Loads Letter, A4 size	
		paper depending on the image size.	
		8: Through the image. Loads paper from the	
		current paper cassette.	
		9: Through the image. Loads Letter, A4 size	
		paper depending on the image size.	
		10: Enlarges or reduces the image to fit in the	
		current paper size. Loads Letter, A4 size	

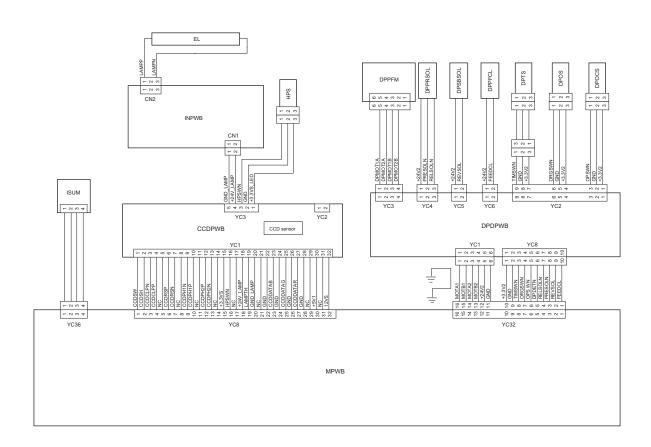
\*: Ignored in some emulation modes.

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