KIP 2710

Service Manual

Ver. G November 5, 1997

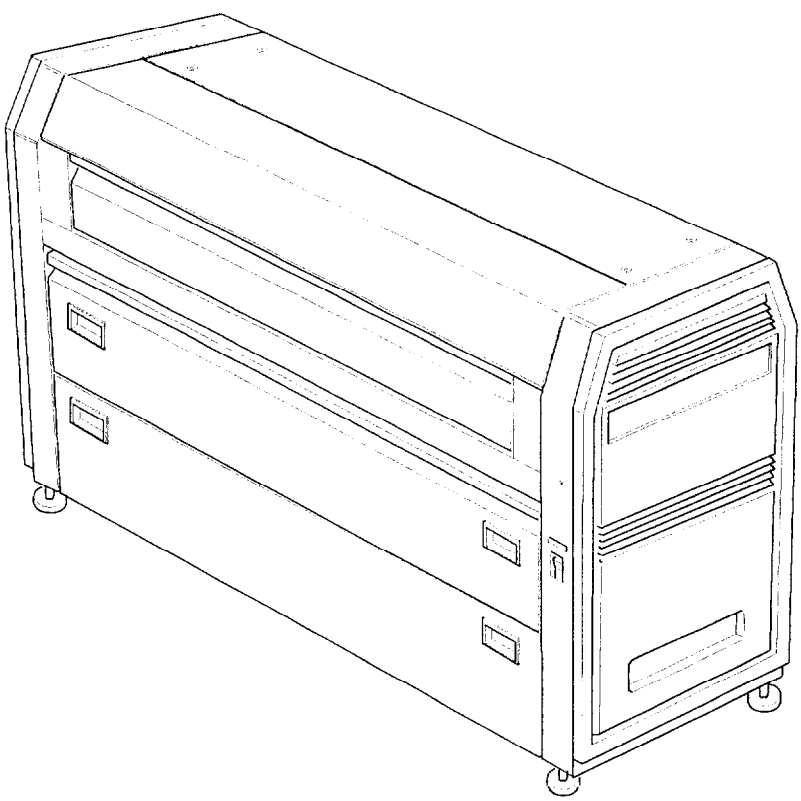
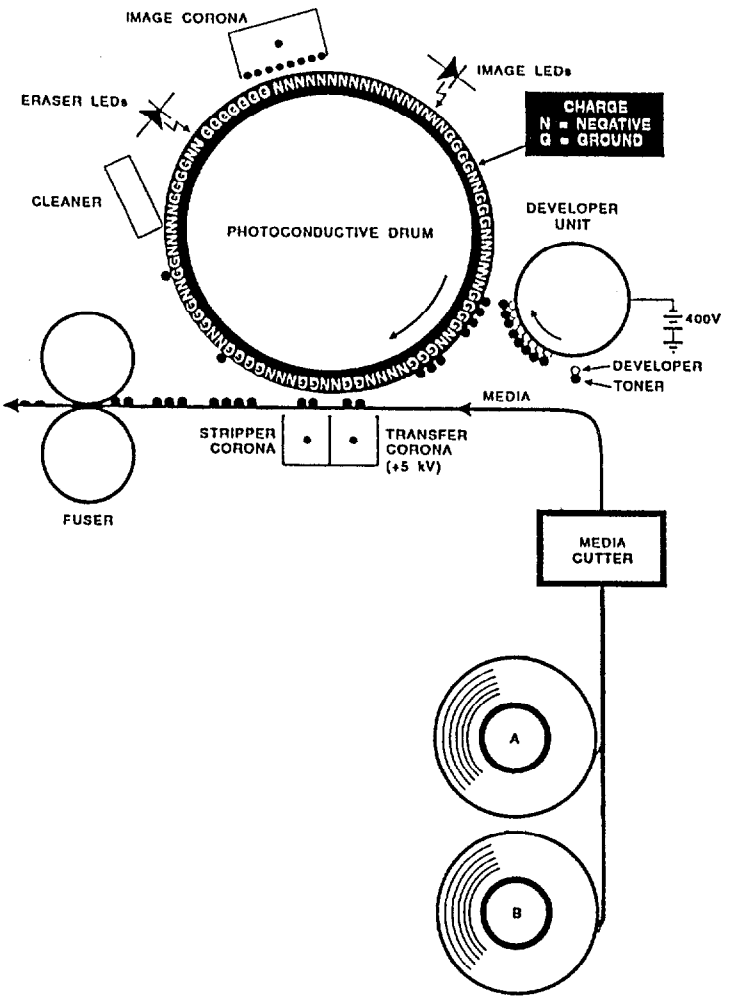


TABLE OF CONTENTS

Chapter 1
Introduction

LED Image Technology

The Model 2710 is an engine for an electronic photographing type A0 size plain paper plotter. Using a 400dpi (dot/inch) LED array head as the image creating light source and a two-component negative developing technique for development, the Model 2710 provides a high-precision fine image.
The Model 2710 continuously repeats the processes--light-sensitive drum charging, exposure, electrostatic latent image formation, development, media paper feeding, transfer and separation, fixing, light-sensitive drum cleaning, and discharging--before a print image is obtained on paper. Each of the processes is summarized below.



o Charging process
Application of a high voltage to the discharge wire in the corona head causes a corona discharge which electrifies the surface of the light-sensitive drum to minus 600V (hereinafter referred to as Vo). The light-sensitive drum consists of a thin film of organic photo conductor (OPC) formed on a base pipe. When it is not exposed to light, it has insulating properties and is electrified by static charge.

o Exposure and electrostatic latent image formation process
The LED array head has 14464 (36 inch x 400 dpi + 64 dot) LEDs arranged in a row and forms an image through a SELFOC lens on the light-sensitive drum. An image is produced on the light-sensitive drum by independently controlling each of the LEDs to light it at the right time.
When light is emitted to a portion of the light-sensitive drum, only that portion of the OPC exposed to light will have conductive properties instead of insulating properties. The charge that has been electrifying the portion to Vo will escape the aluminum board, and the surface potential of the light-sensitive drum will change to minus approx. 100V (hereinafter referred to as VL). The rest not exposed to light will retain Vo as before.
The image produced in this manner on the light-sensitive drum by the LED array head will be an electrostatic charge image consisting of two potential Vo and VL. The state of the electrostatic charge distributed in the form of an image is called a latent image, because it cannot be seen with the eyes until it is developed by the toner.

o Development process
On the development process, the toner which is in electrified fine particles is deposited on the light-sensitive drum by the electric field formed by the electrostatic charge image to make the latent image on the light-sensitive drum visible, thereby creating a toner formed image.
The developing method adopted for the Model 2710 is a two-component magnetic brush negative developing method. It uses a developing mixture which consists of two components; toner particles electrified negative and magnetic carrier electrified positive which electrostatically deposits the toner on its surface. The developing agent is attracted and deposited on the magnet into the form of a brush with which the electrostatic latent image formed surface is rubbed to create a visible image.
To have the toner deposited on the portion that has changed its surface potential to VL because of light illumination, much the same bias voltage minus 400V (hereinafter referred to as Vb) as the Vo is applied to the developer unit to reverse the potential differences of the dark portion (Vo) and bright portion (VL) faced by the toner so that the toner electrified negative will be deposited on the bright portion (VL) by getting over the electrostatic adhesive strength of the toner and carrier.
The height of the brush of the developing agent is adjusted by the doctor gap. To make up for the amount of toner consumed by printing, controlled supply of the toner from the hopper is achieved so that the weight percentage of the toner with respect to the developing agent will be constant. After the toner has been fully stirred and electrified together with the carrier, the mixture is fed to the drum successively by the aluminum sleeve rotating outside the fixed magnet.

o Paper feed process
The Model 2710 is provided with two rolled paper feed units and a manual feed table.
The paper fed from the selected paper feed unit temporarily stops when it reaches the sensor PS5. After the preparations for starting writing an image on the drum have been completed, the machine starts plotting an image on the drum and feeding the paper at the right moment when the end of the image and the end of the paper just coincide with each other.
In the case of cut paper to be fed from the manual feed table, the machine stops plotting an image on detection of the trailing end of paper. In the case of rolled paper, when paper is stopped first at the sensor PW5, a slackened paper length is produced under portion of PS4. The machine stops feeding the paper when it reaches a selected paper length and cuts the paper to the length during the time the slackened paper length created under portion of PS4 is fed. In this manner the machine allows rolled paper to be cut to a desired length without stopping printing.

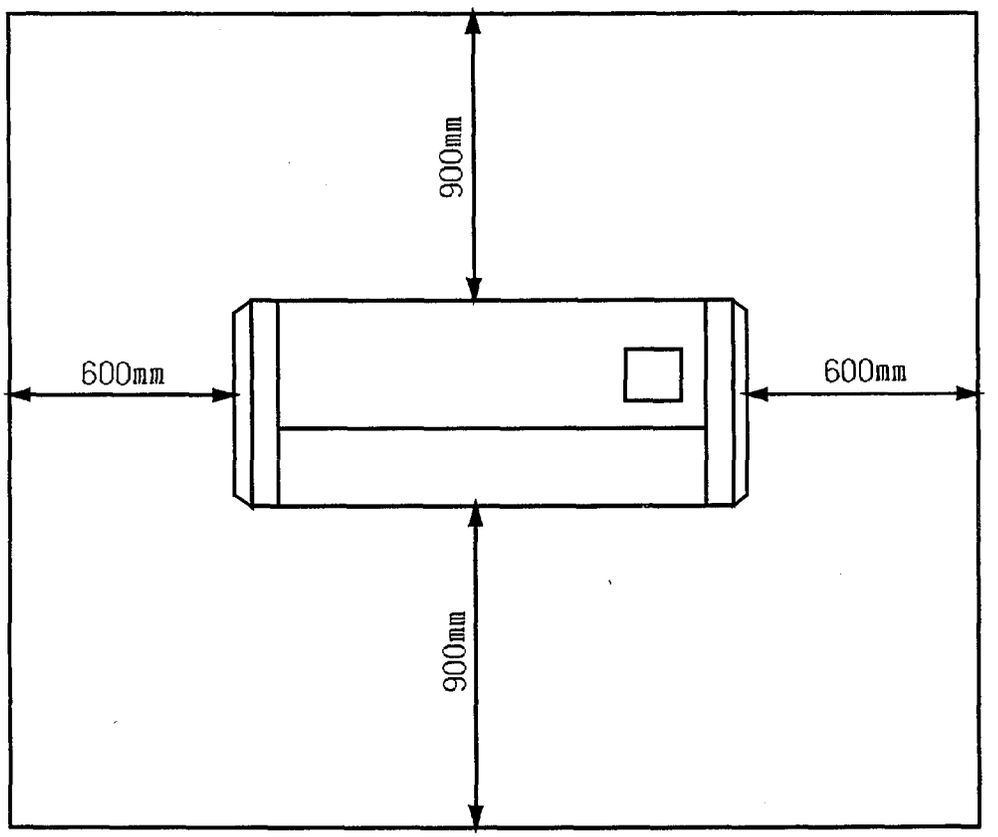
o Transfer and separation process
When positive transfer corona is applied from above the paper touched tightly against the drum by the guide, the toner electrified negative is transferred from the drum to the paper. At the same time, action of the transfer corona makes the paper pressed tightly against the drum harder to separate, but by application of A.C. (alternating current) corona there, the positive charge of the transfer corona is cancelled to allow separation of the paper from the drum.

o Fixing process
In this state the toner just stays soft on the paper. So the paper is gently carried to the fuser unit without disturbing the image. In the fuser unit, the toner is fixed on the paper by the heat of the heater and the pressure of the roller.

o Cleaning and discharging process
The small amount of toner left behind on the drum without being transferred is removed by the cleaner.
The electrified charge left behind on the drum is removed by the light of the eraser LED.

The individual processes have been summarized above.
Since the diameter of the drum is unchangeable, the drum has to be rotated several times before completion of a printing. The individual processes, however, are independent of one another. Each time the drum is rotated, therefore, a new image can be written. Therefore, an image that extends over many turns of the drum can be printed.

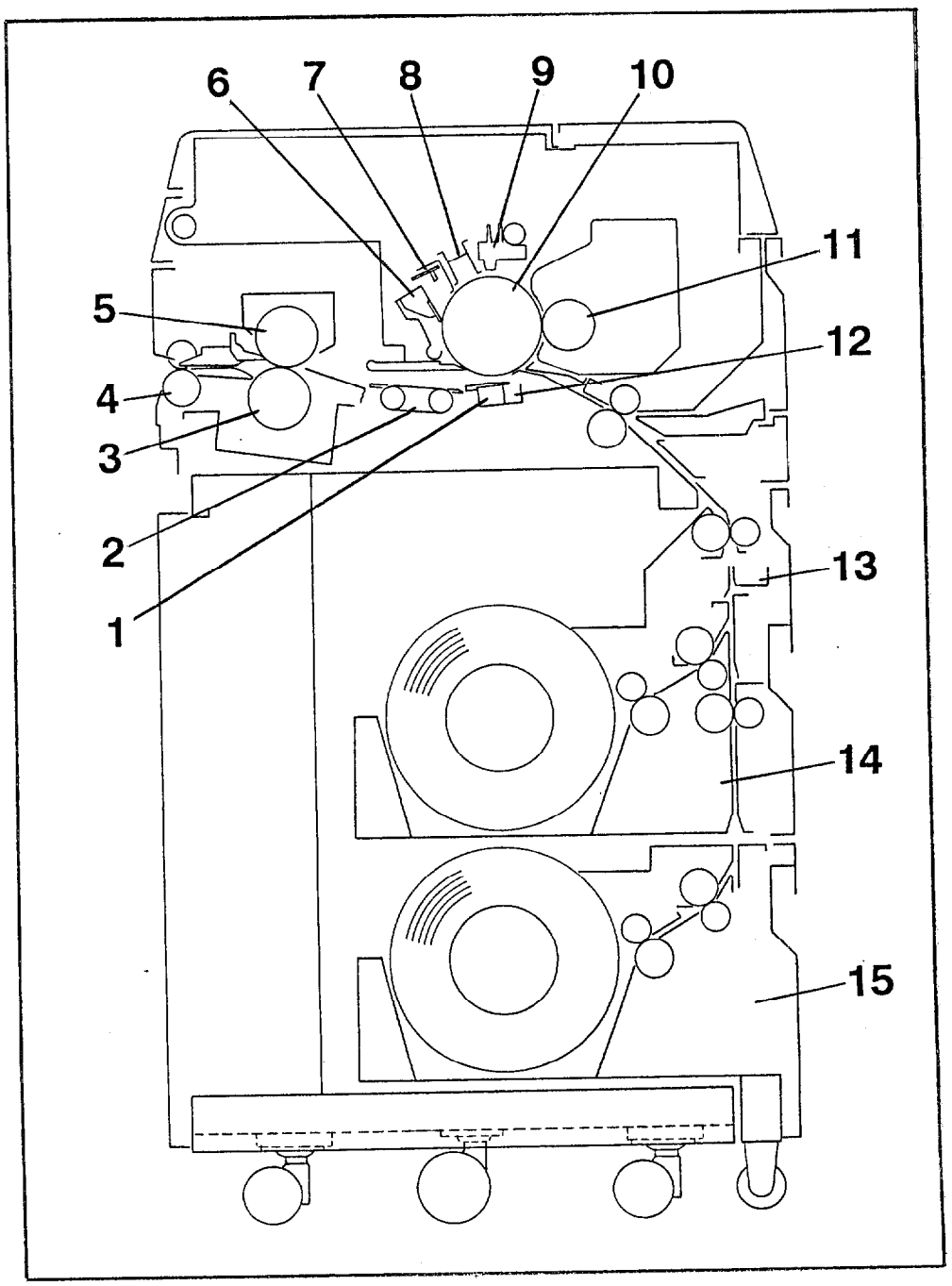
Installation Place



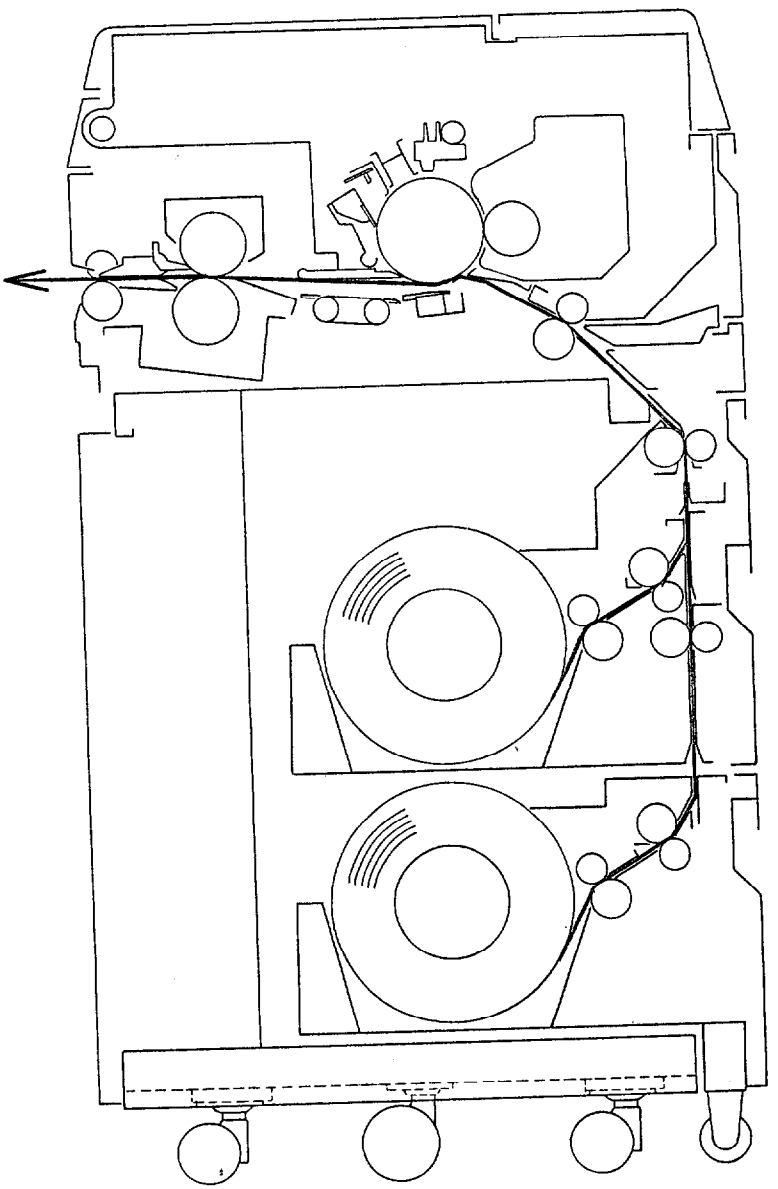
General Construction

Internal Construction

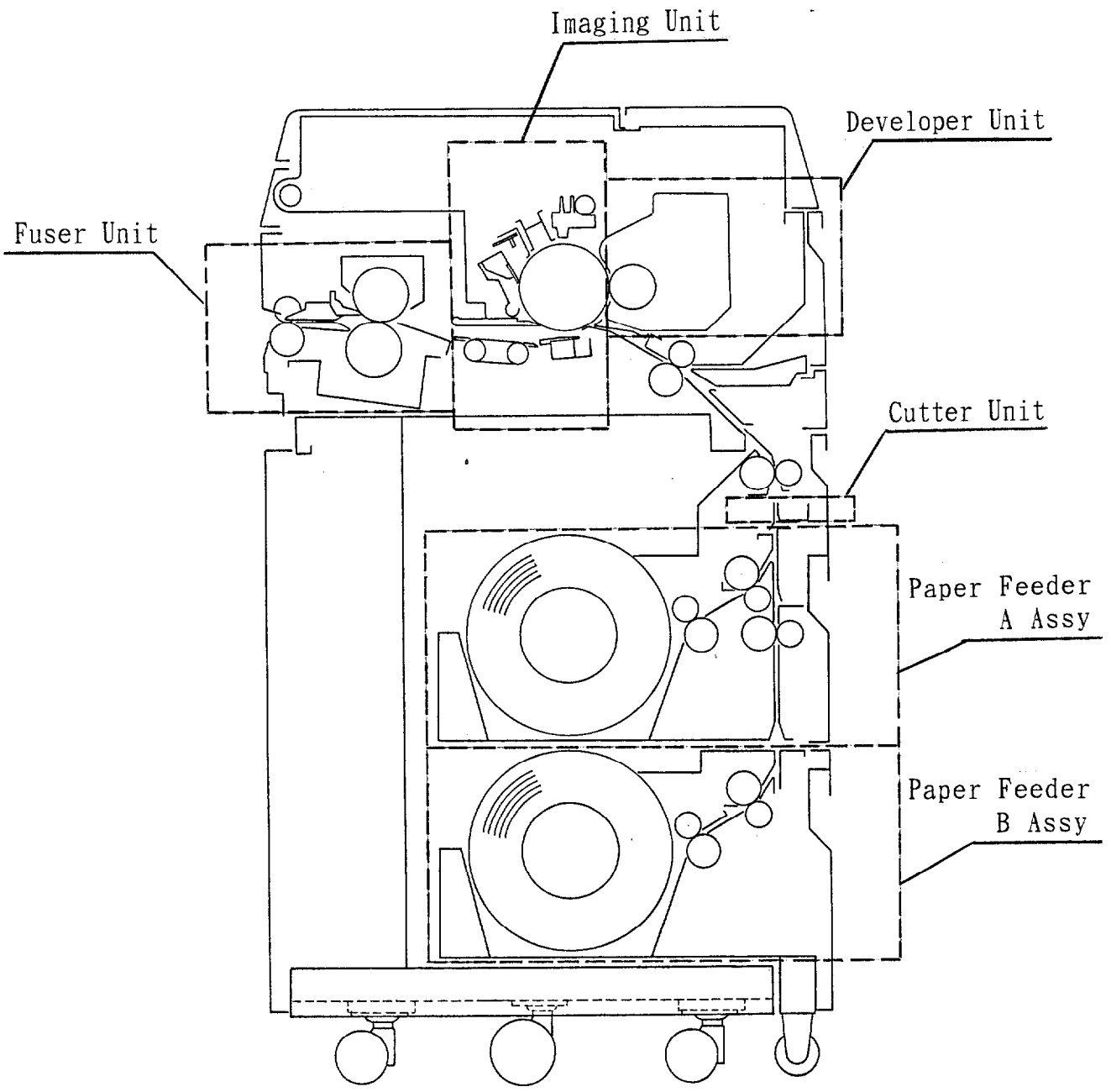
1. Separation Corona
2. Feeder Unit
3. Pressure Roller
4. Exit Roller
5. Heat Roller
6. Cleaner Unit
7. Eraser Lamp Unit
8. Image Corona Unit
9. LED Head Unit
10. Photoconductive Drum
11. Magnet Roller
12. Transfer Corona Unit
13. Cutter Unit
14. Paper Feeder A Assy
15. Paper Feeder B Assy



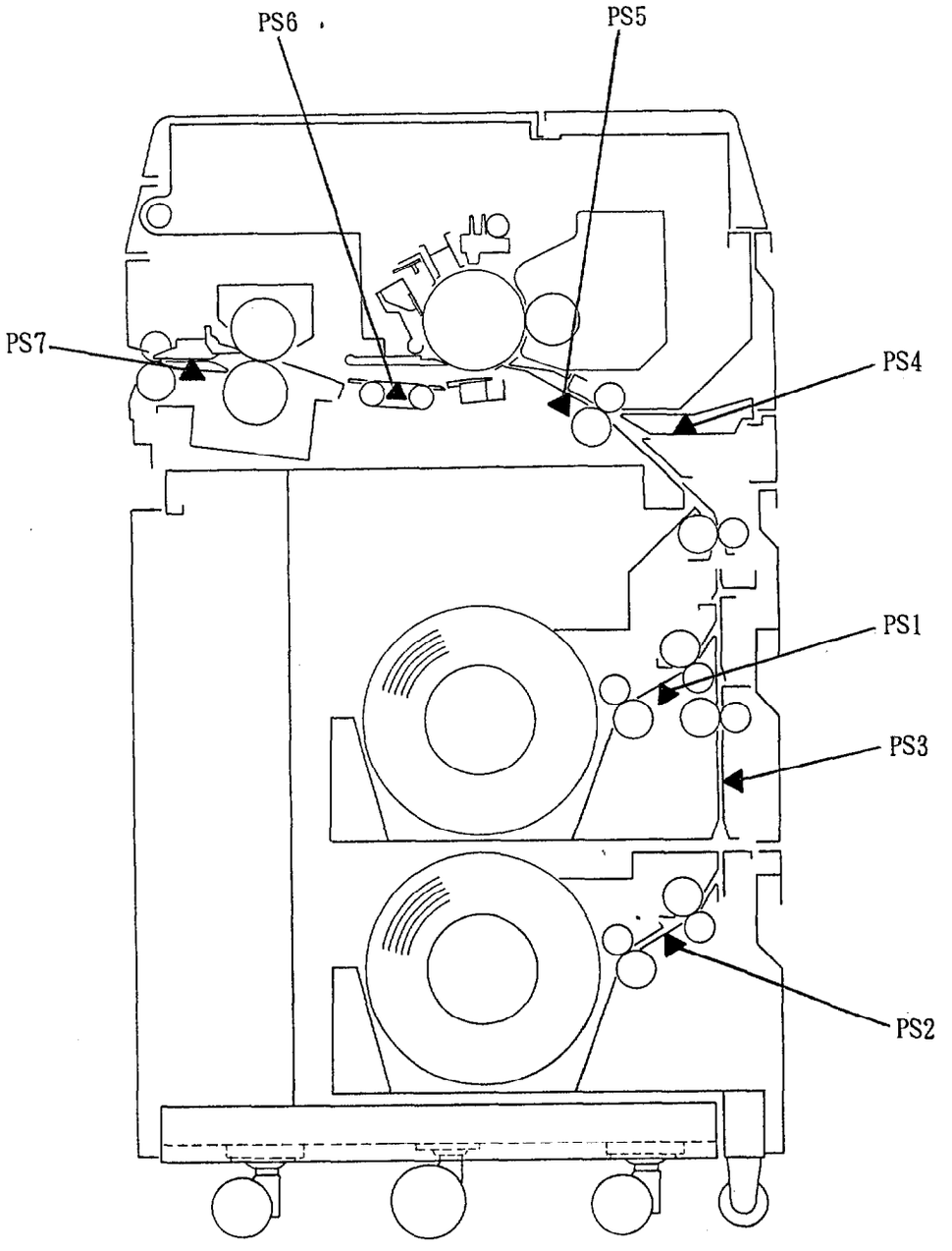
Paper Pass



Assemblies-Mechanical



Sensor Construction



PS1: Roll Stop Sensor 1
PS2: Roll Stop Sensor 2
PS3: Roll Jam Sensor
PS4: Manual Feed Sensor
PS5: Paper Stop Sensor
PS6: Separation Sensor
PS7: Exit Sensor

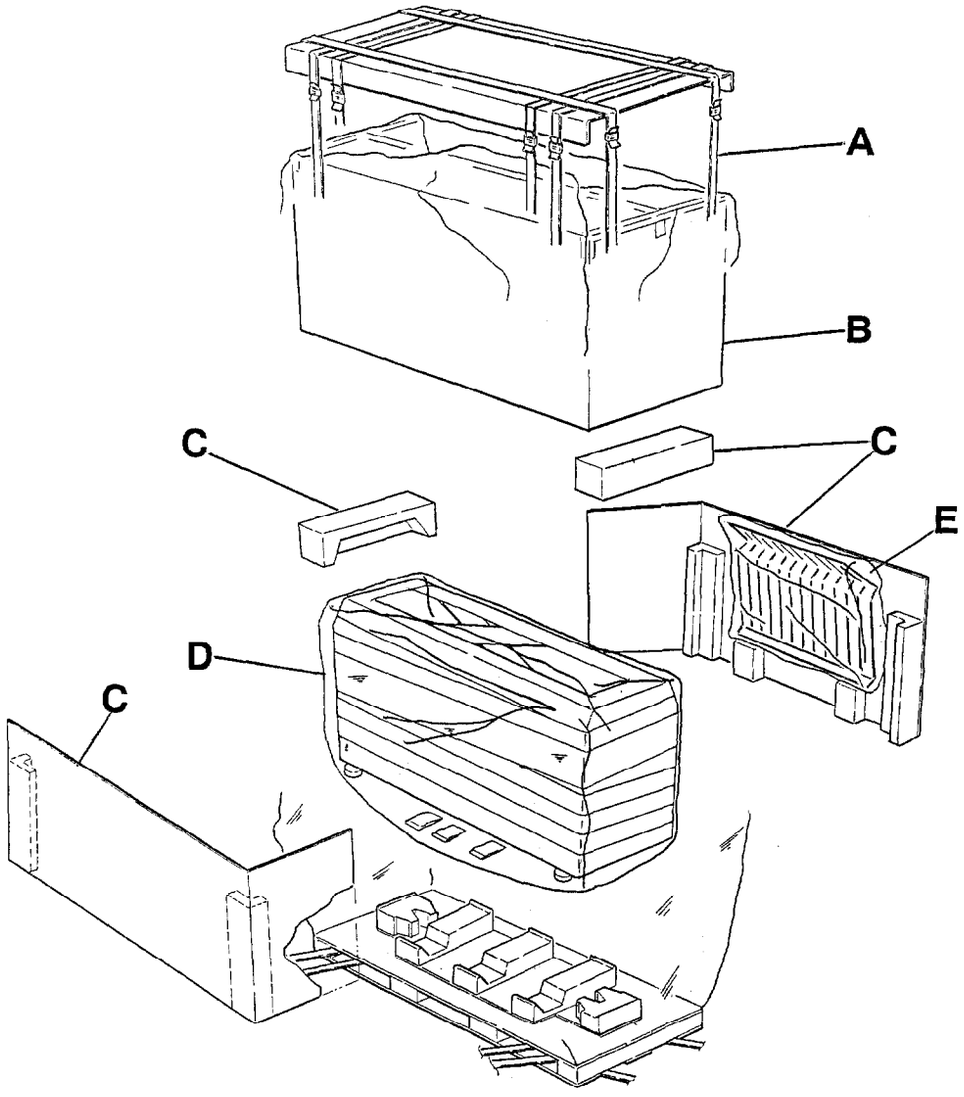
Chapter 2
Installation

1. Unpacking
2. Remove the Wrapping
3. Leveling
4. Remove the Fitting Tape (Inside)
5. Remove the Developer Unit
6. Filling Developer Powder
7. Toner Loading
8. Remove LED Head Stopper& the Cleaner Unit
9. Installation of the Cleaner Unit
10. Installation of the Drum
11. Installation of the Developer Unit
12. Set Toner Density Sensor
13. Setting Roll Paper
14. Setting of Tray
15. Jam Correction Procedures
16. Test Printing

1. Unpacking

(Note)
At installation in winter, if machine kept in cold warehouse is moved to warm room and is unpacked, it may be the cause of several troubles due to generation of dew inside of machine. In this case, leave machine in warm room more than 6 hours and start installation.

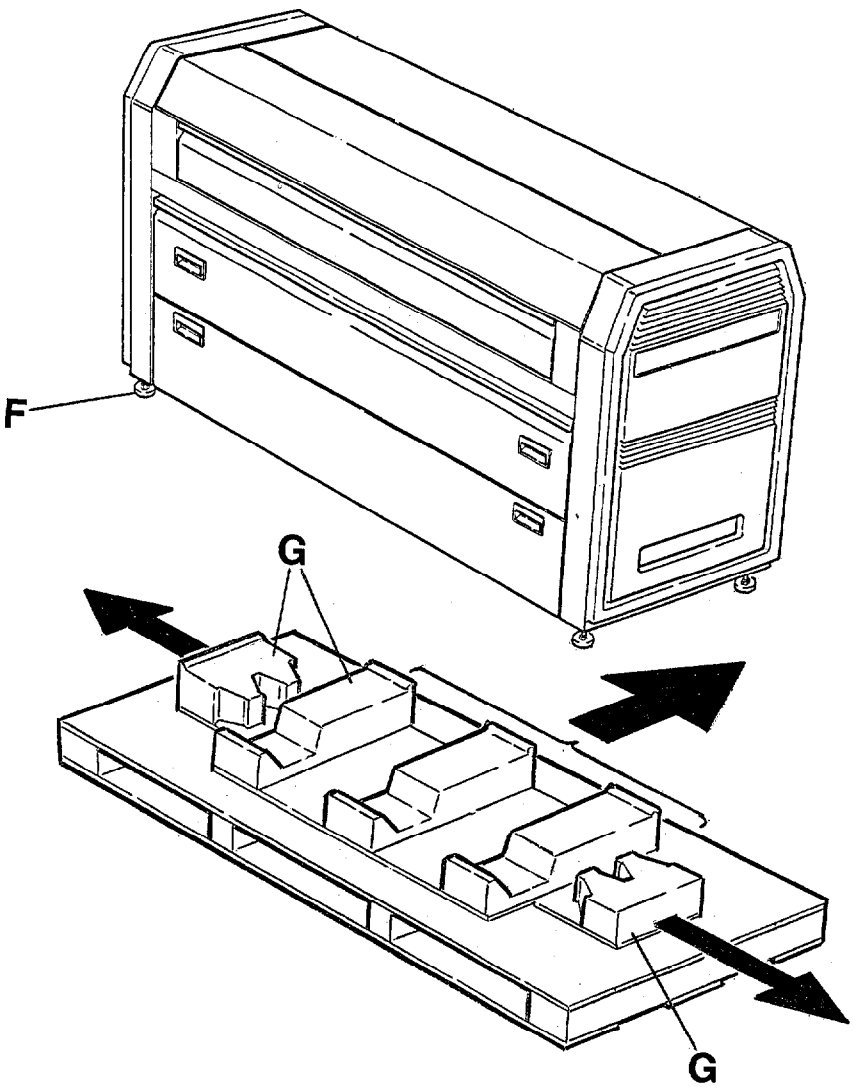
1-1 Cut the six bands (A)on the outside of the Carton Box (B).
1-2 Remove the Carton Box by lifting upward.
1-3 Remove the cushioning materials form (C) around the machine.
1-4 Cut the wrapping (D) covering the machine.
1-5 Keep Tray (E).



1-6 Lower the adjuster bolt (F) located at the four bottom corners of the machine down to the packaging pallet plain, and the machine 10mm to 15mm from the pallet.
Note:If the machine is raised too high, the adjuster bolts might fall down from the machine.

1-7 Remove the cushioning materials (G) located under the bottom of the machine, replace the adjuster bolt in their original position, and lower the machine onto the pallet.

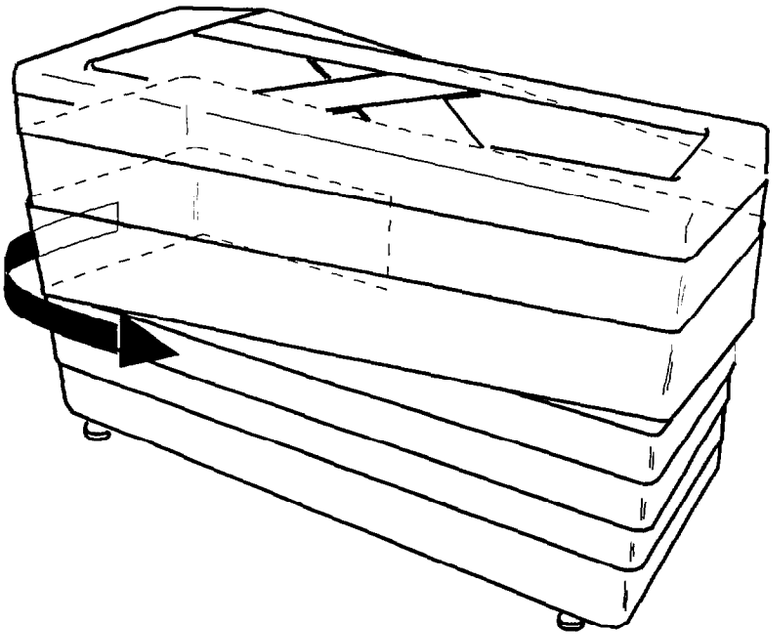
1-8 Lower the machine onto the floor surface. Since the machine weight approx 180Kg, handle it carefully. When the machine is raised, do not apply any load (hand) to the Paper Container unit at the bottom.

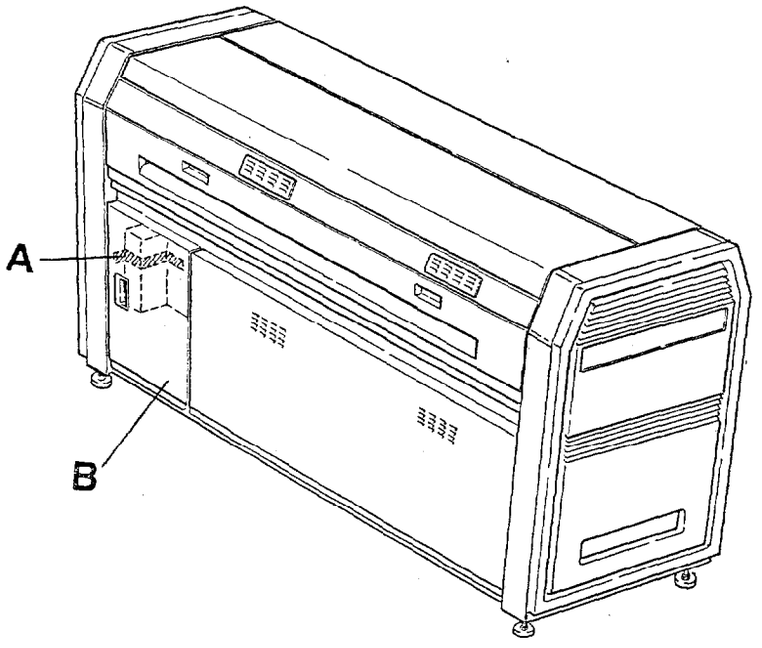


2. Remove the Wrapping

2-1 Remove all winding wrapping.

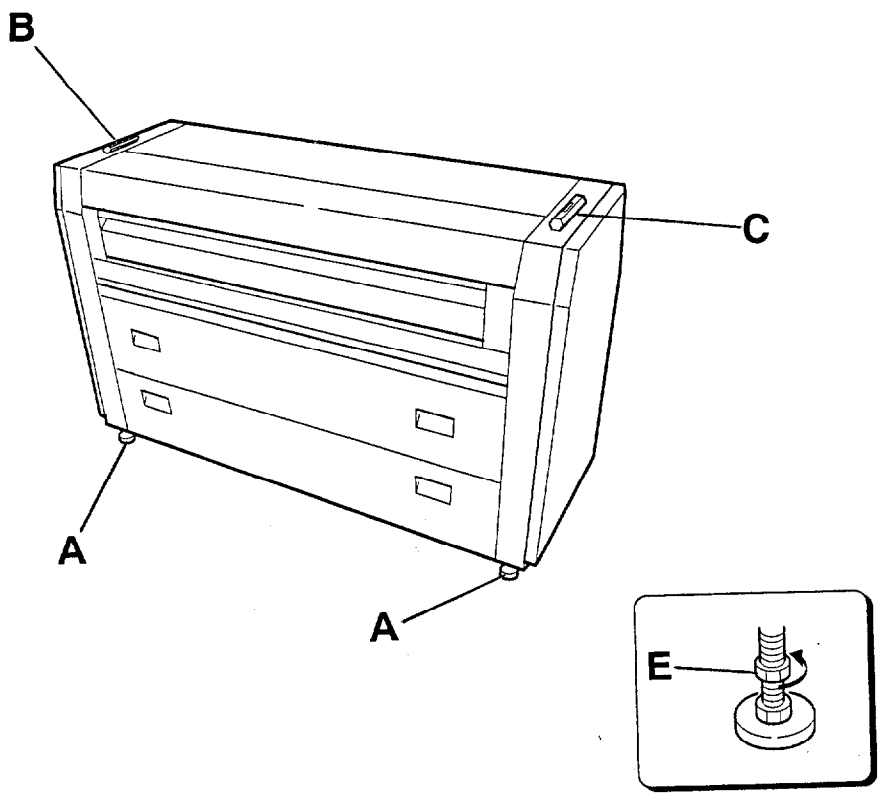
2-2 Remove the Wasted Toner Bottle Fitting Tape (A) from inside of the rear Hatch D (B).

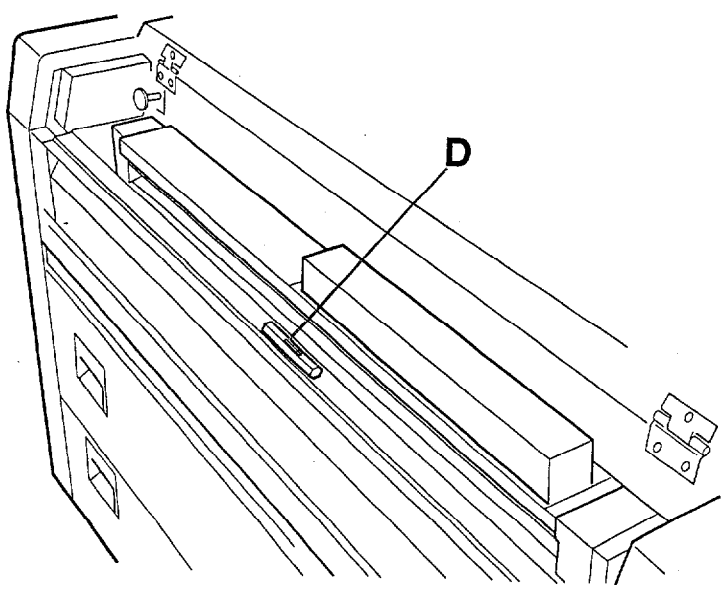




3. Leveling

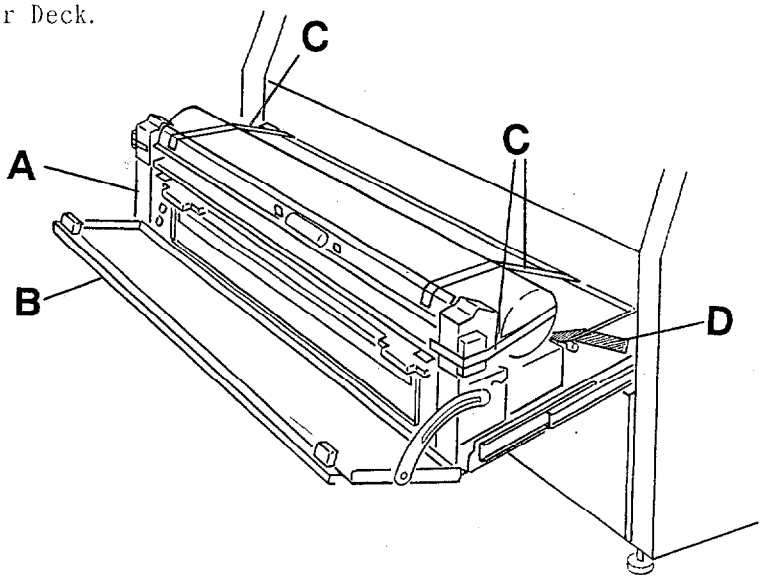
3-1 Move the machine to the site where it is to be installed.
3-2 Turn all 4 adjuster bolts (A) clockwise until touching the floor.
3-3 Rotate each adjuster bolt 3 turns clockwise to lift the unit approx. 5mm from the floor (with a wrench).
3-4 Put the leveler on the designated each position (B)(C)(D), then level it.
3-5 Lock adjuster nut (E).

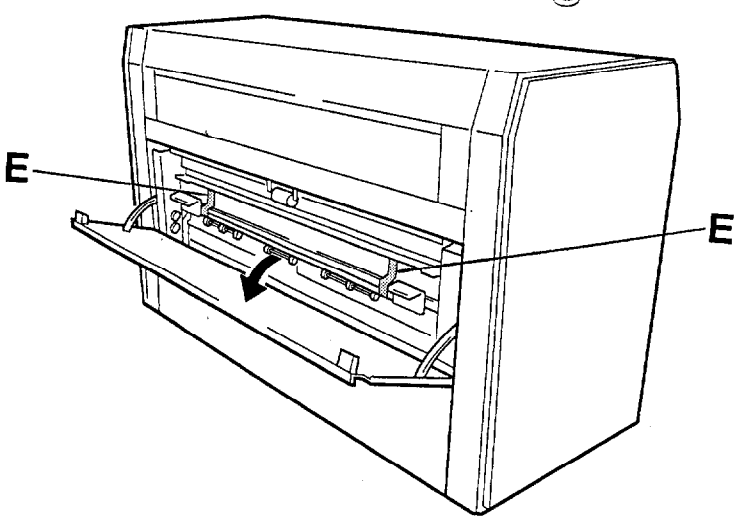


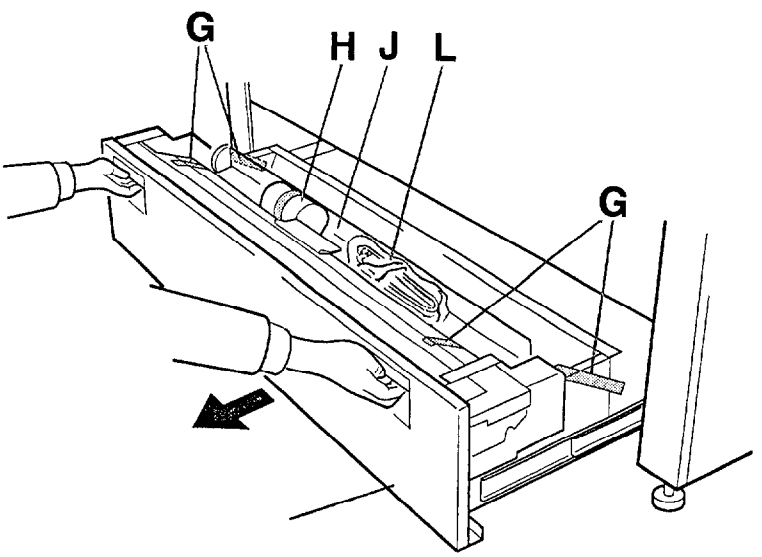


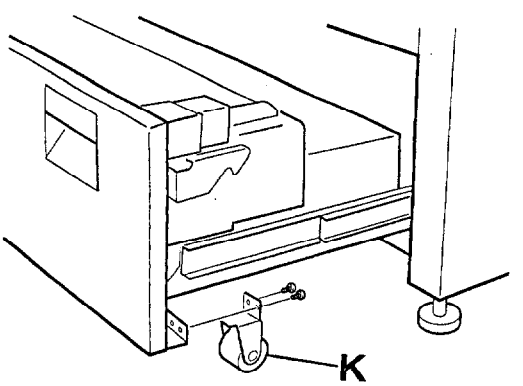
4. Remove the Fitting Tape (Inside)

4-1 Pull out Upper Paper Deck (A), then open Front Hatch (B), remove Fitting Tapes (C) from Photoconductive Drum Assy and Roll Paper Spool (D), then push back the Upper Paper Deck to the initial position.
4-2 Remove Tape (E) from Guide Plate.
4-3 Pull out Lower Paper Deck (F) then remove Fitting Tape(G).
4-4 Remove two Support Wheel Parts Package (H) from Roll Paper Spool (J).
4-5 Install Support Wheel (K) at both edge of the unit with screws.
4-6 Take out Power Cord (L).
4-7 Push back Lower Paper Deck.

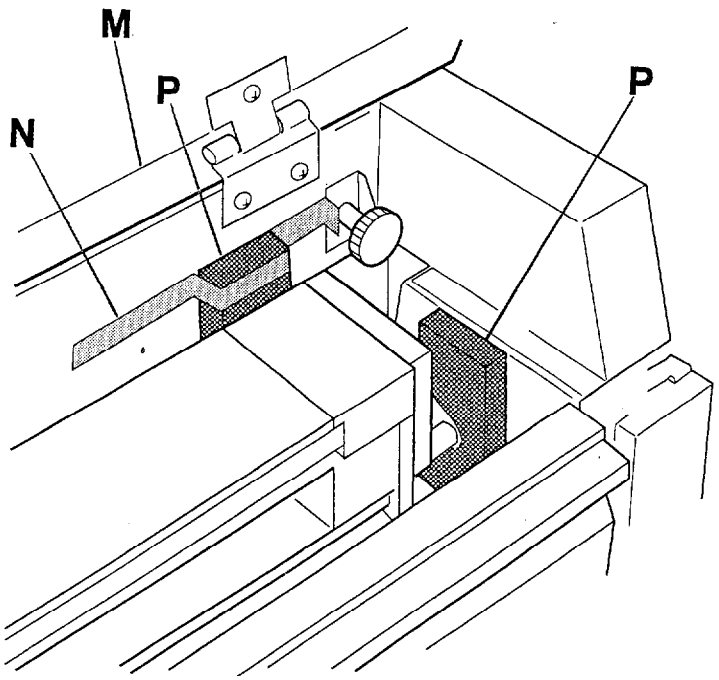


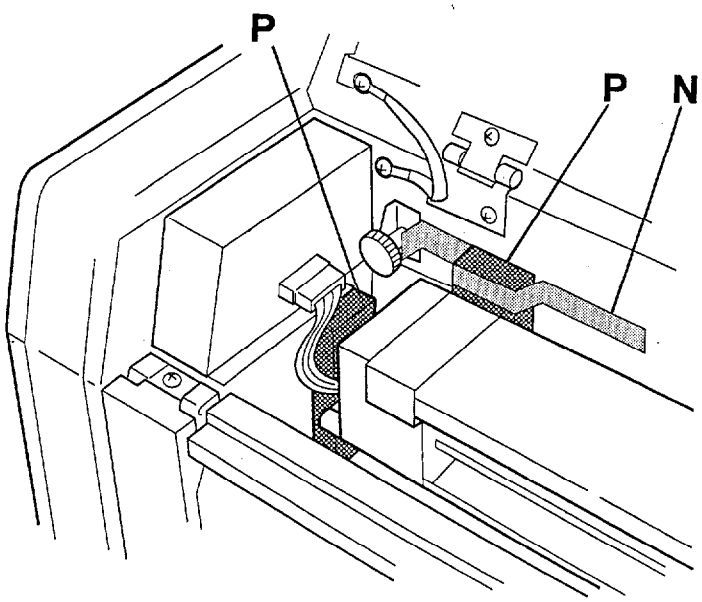






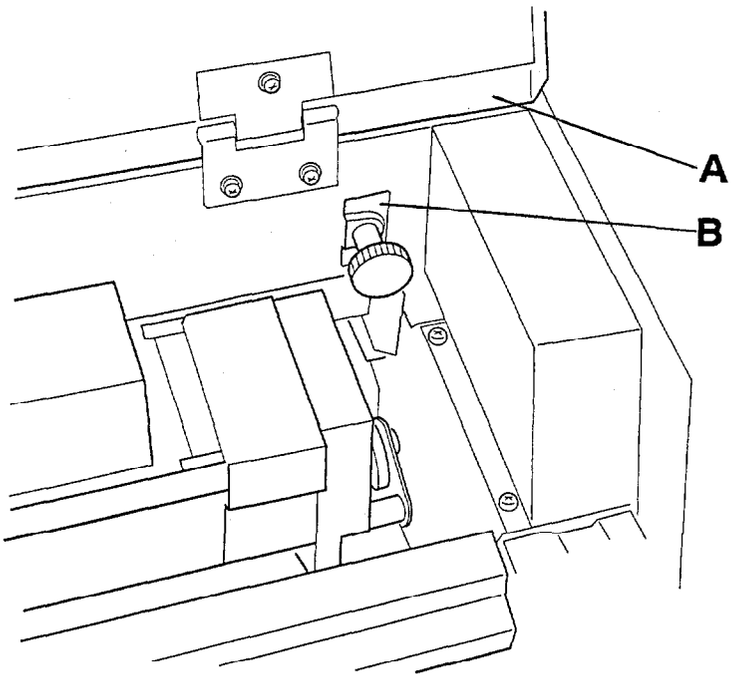
4-8 Open Toner Loading Hatch (M), then remove Fitting Tape (N) and Form (P).

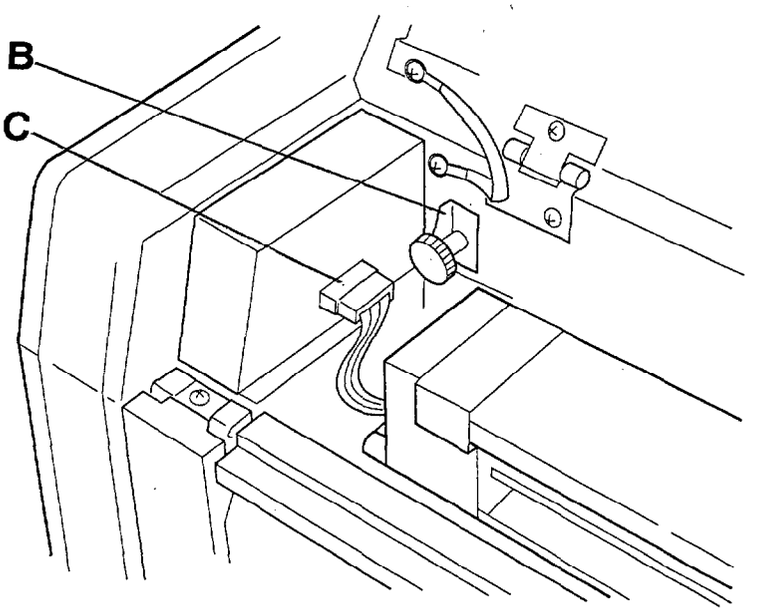




5. Remove the Developer Unit

5-1 Open Toner Loading Hatch (A).
5-2 Remove the right and left metal fittings (B) for Developer.
5-3 Remove the Black Connector (C) from left side of the Engine.





5-4 Open the manual feed panel (D), then pull the latch to lift the Engine Unit (E).

5-5 Close manual feed panel .

5-6 Lift the Developer Unit (F) using both side handhold (G).

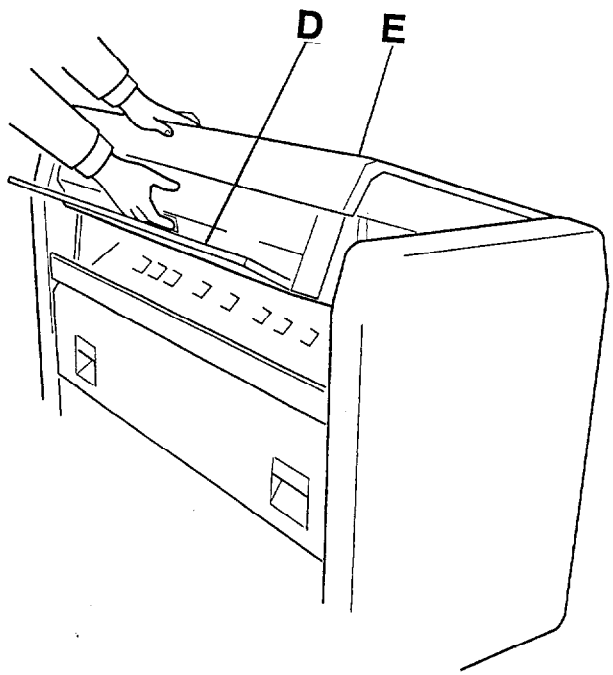
Note: The removed Developer Unit should be put on the flat table or clean floor which be long enough to hold the Unit and both ends of the Unit should contact the table or floor. Confirm nothing under the Unit.

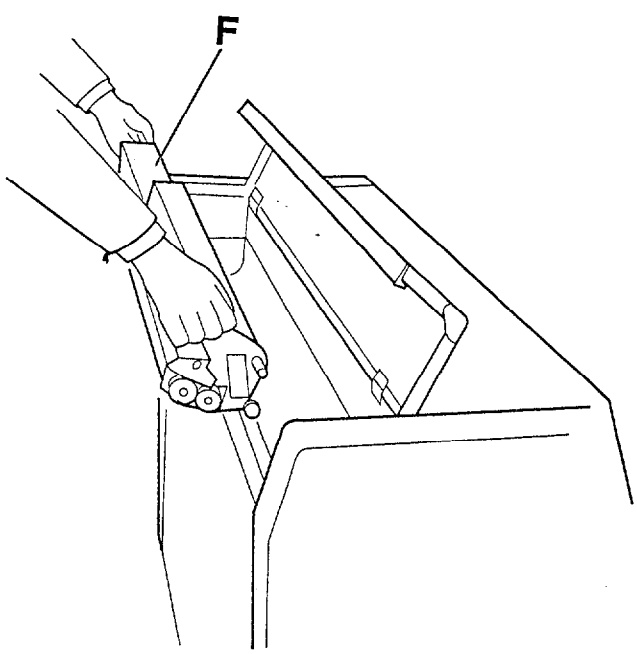
Note: <u>If Developer Unit is tried to remove without lifting up the Engine Unit(E), gear will be broken.</u>

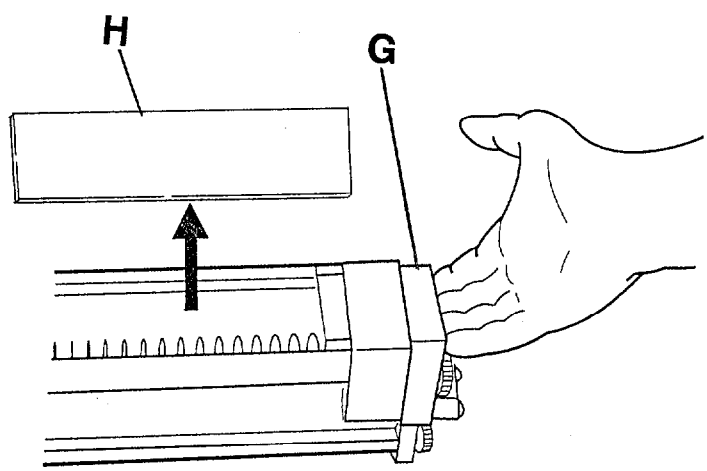
5-7 Remove the Cover (H) for transport.

5-8 Close the Toner Loading Hatch.

5-9 Close the Engine Unit.

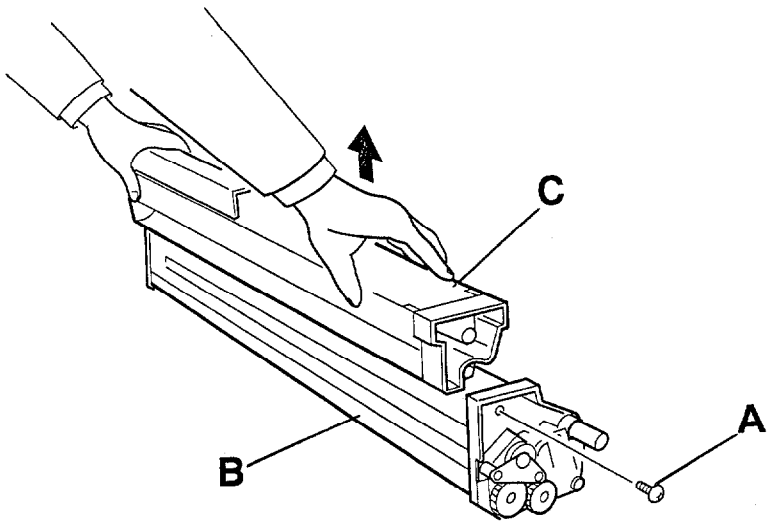


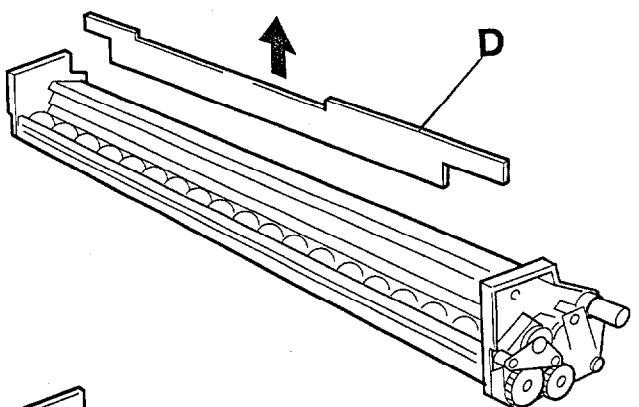


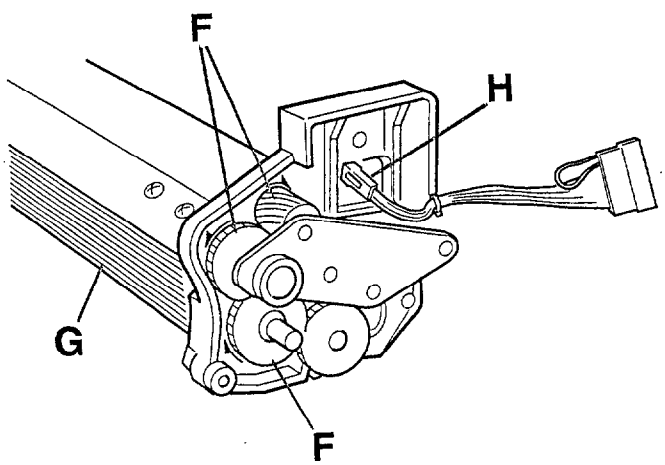


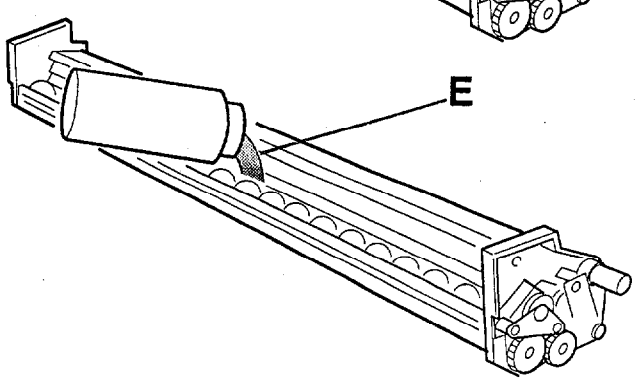
6. Filling Developer Powder

6-1 Remove M4x12 screws (A) from both side plates of the Developer Unit (B).
6-2 Remove the connector J56 of the driving side.
6-3 Lift and remove the Toner Hopper (C).
6-4 Remove the partition (D).
6-5 Put all Developer Powder(E)(1,650g) without remained, evenly.
6-6 Rotate the gear (F) until Developer Powder covers the Magnet Roller (G) from bottom to top.(Tool No. 4602-1)
6-7 Set partition (confirm the direction).
6-8 Attach the Toner Hopper, then fix it by the screws which were removed on 6-1.
6-9 Connect the connector J56(H).







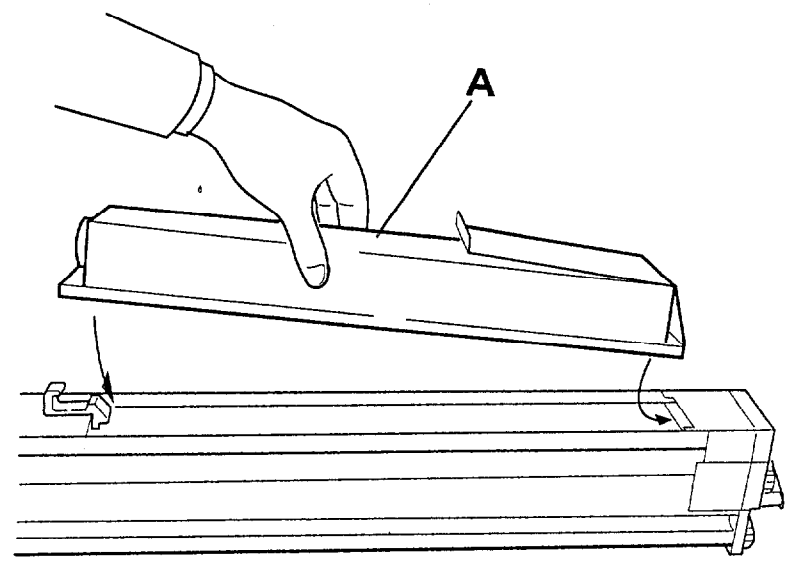


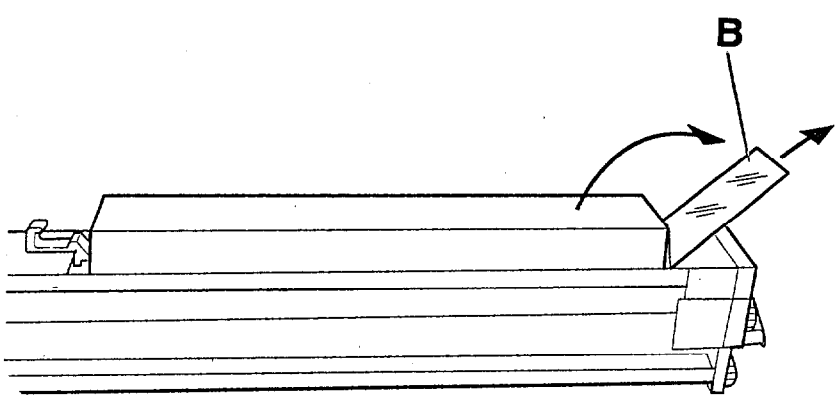
7. Toner Loading

7-1 Shake well one Toner Cartridge(A) (300g) before loading.

7-2 Set Toner Cartridge by insertion one side to Hook, and the other side to Nail Lever.

7-3 Peel off the film (B) of the Toner Cartridge then pull it slanted upward as shown figure.





8. Remove LED Head Stopper & the Cleaner Unit

8-1 Remove Cover Top D (A).

8-2 Open LED Head Unit (B) upward by removing the 2 screws(C), and set LED Head Unit Stopper (D).

8-3 Remove cushion(F), and loosen screws of the LED Head Fitting metal(E) both side, then turn upside down and tighten screws so as metal does not touch to LED Head.

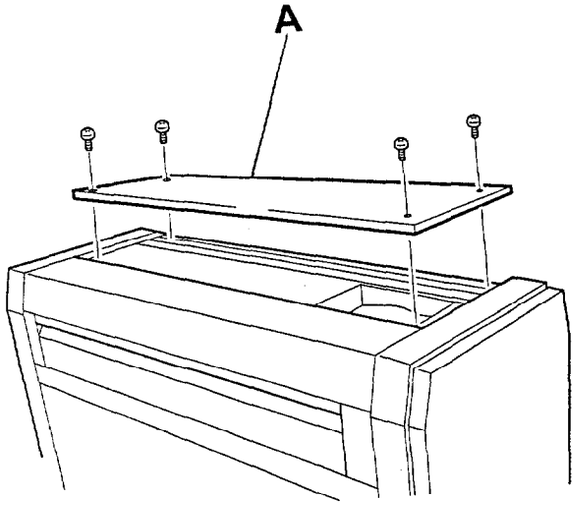
8-4 Open manual feed Panel, then pull the latch and lift the Engine Unit. Close manual feed table.

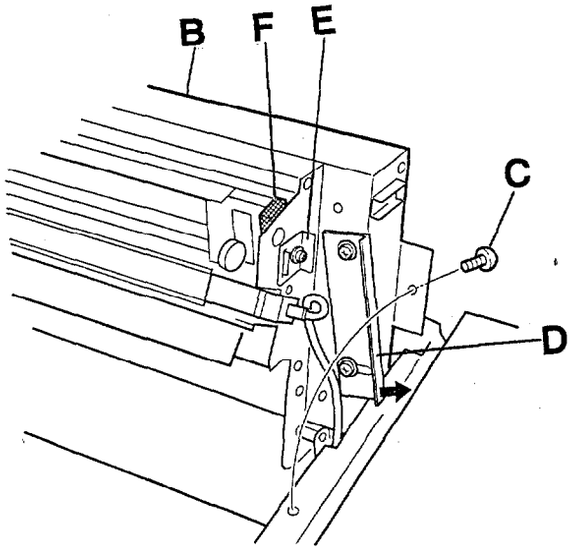
8-5 Push the anti-dispersion cover (G) to the right then lift it which is located above the toner exit at right hand side and remove it.

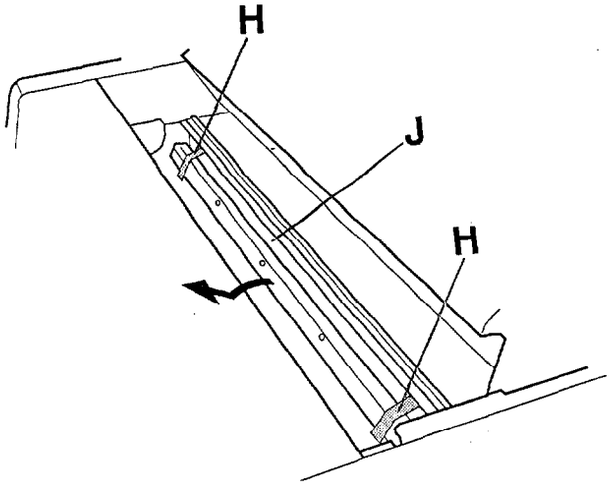
8-6 Look for the tape (H) at the both side of the Cleaner Unit (J), and remove it.

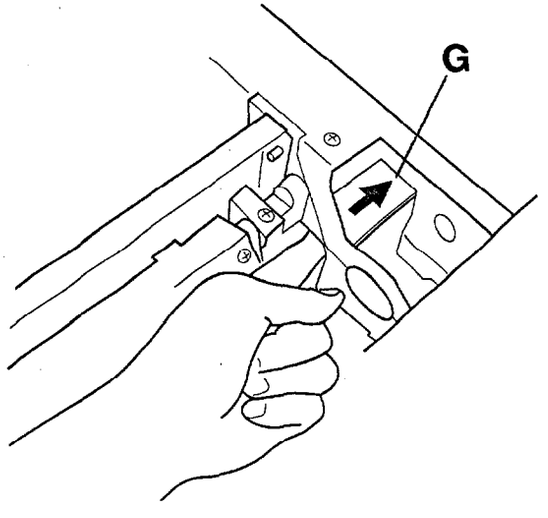
8-7 Turn the Cleaner Unit slightly this way, then lift up left side first, move the unit to the left and remove the whole unit from the machine.

8-8 Close LED Head Unit first then Engine Unit.









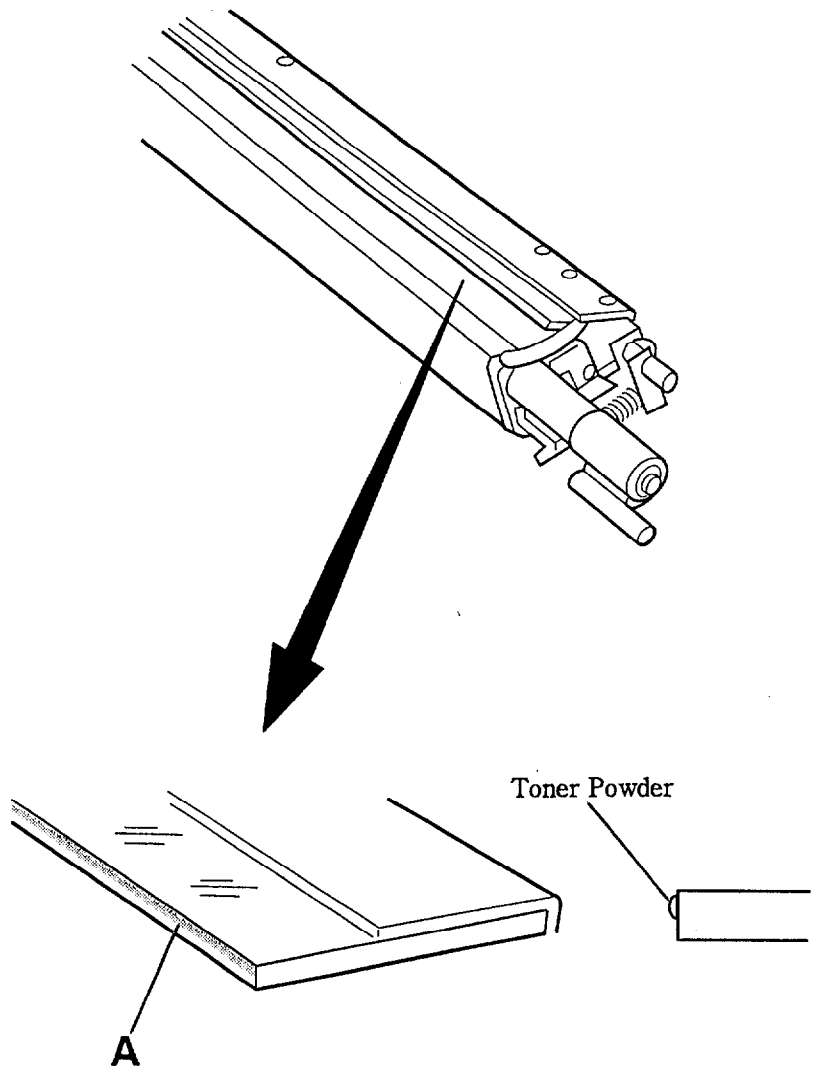
9. Installation of the Cleaner Unit

9-1 Put Toner Powder on the edge of the scraper (A).
(where the scraper touched by hand, gauze or brush).

9-2 Open the Engine Unit and lift LED Head Unit, and set the stopper.

9-3 Reinstall the Cleaner Unit to the machine with reverse procedure of section 8.
Note: The notch of the both side of the Cleaner Unit should be fitted into the hole).

9-4 Return the anti-dispersion cover to the home position.



10. Installation of the Drum

10-1 Lift the LED Head Unit and set the stopper.
Remove each Drum Fitting Plate (A) both side of the Engine Unit with removing screws.

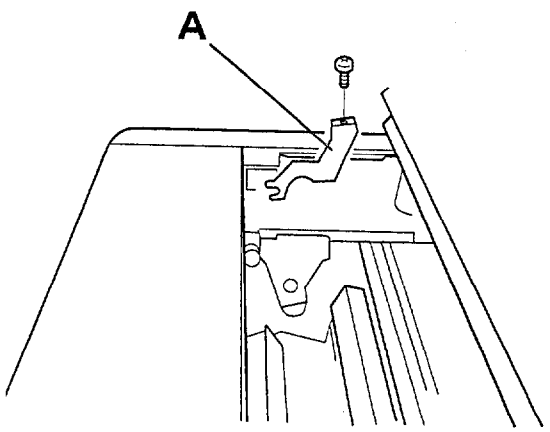
10-2 Install the Drum (B) carefully. Make sure the bearing should fit into the bearing guide at the both side and also the gear-side of the Drum should be at the left.

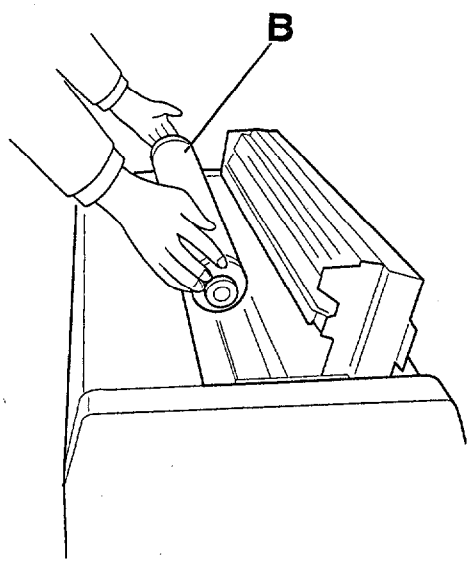
10-3 Set both Drum Fitting Plates with screws.
Note: In case that the space for Drum Fitting Plate is too small, push the bearing to inside.

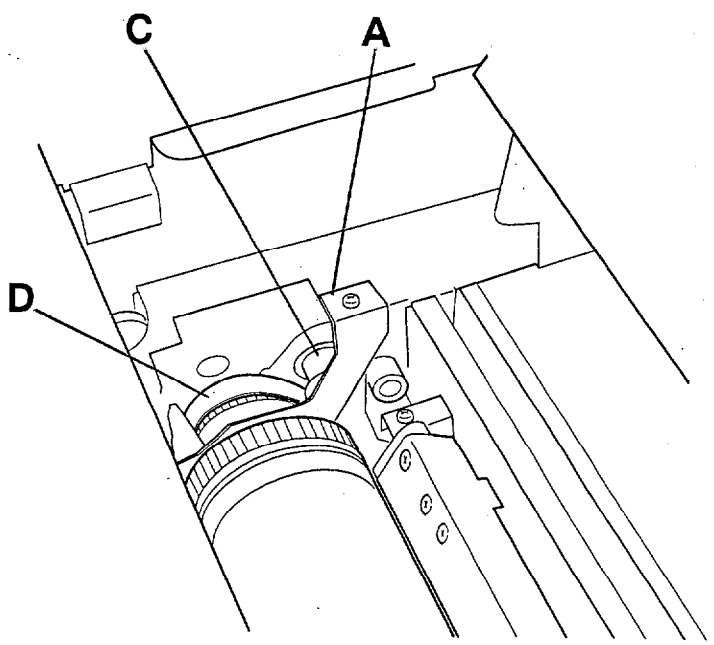
10-4 Open the Engine Unit and with keeping to lift the Tensioner (C), install the Timing Belt (D) to the gear of the Drum.
After that, release the Tensioner.

10-5 Rotate the Drum a little, then rotate the Drum against-direction to the Cleaner and confirm that the cleaner blade slides smoothly.

10-6 Close Engine Unit and LED Head Unit.

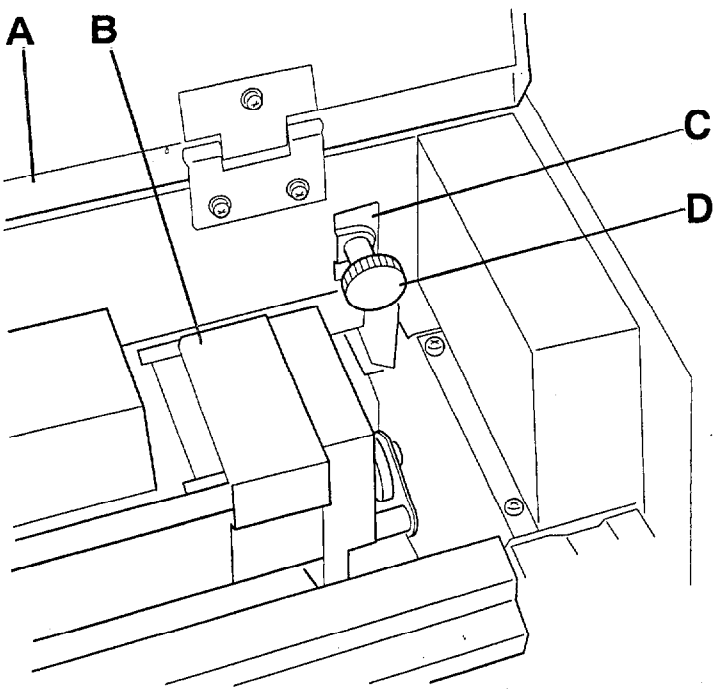


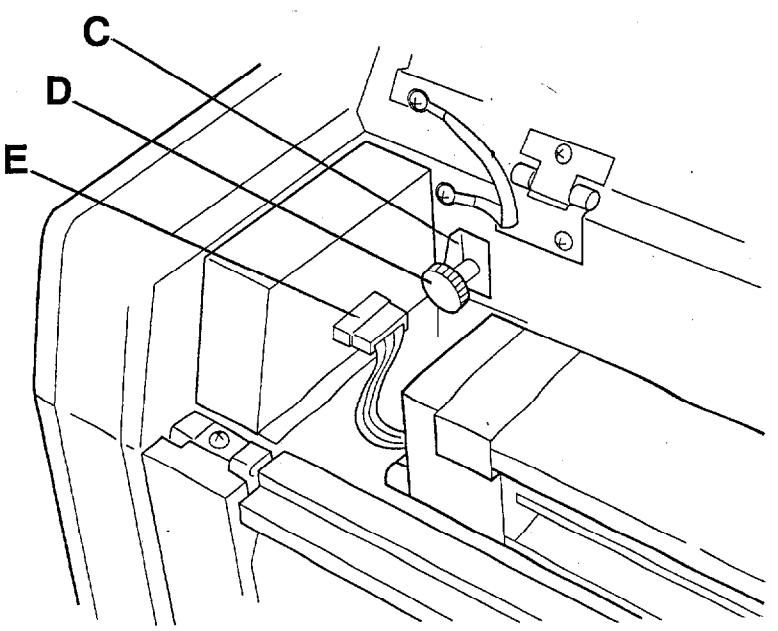




11. Installation of the Developer Unit

11-1 Open Toner Loading Hatch (Cover Top C) (A).
11-2 Install the Developer Unit (B) carefully.
Note:Guide Ring of the Developer Unit (located at left side) should be fitted to slot.
11-3 Set the each Fitting Bracket (C) for Developer Unit with thumb screws (D).
11-4 Connect the black connector J54 (E).
11-5 Close Toner Loading Hatch (Cover Top C).





12. Set Toner Density Sensor

Make this setting during installation of the machine, or when you exchange the developing powder.

Note) Carefully read "Notes for the Setting of Toner Density Sensor" on the next page before you make this setting.

12-1 Connect the Power Cord (Make sure to turn off the Main Power Switch.).
* Confirm that Timing Belt, Image Corona Wire and Image Corona connector are in position. Top Cover should be in position, too.

12-2 Remove the left Side Panel (A).

12-3 Turn on the DSW1-bit4 on Main PCB Assy (B).

12-4 Turn on the Main Power Switch of the machine.

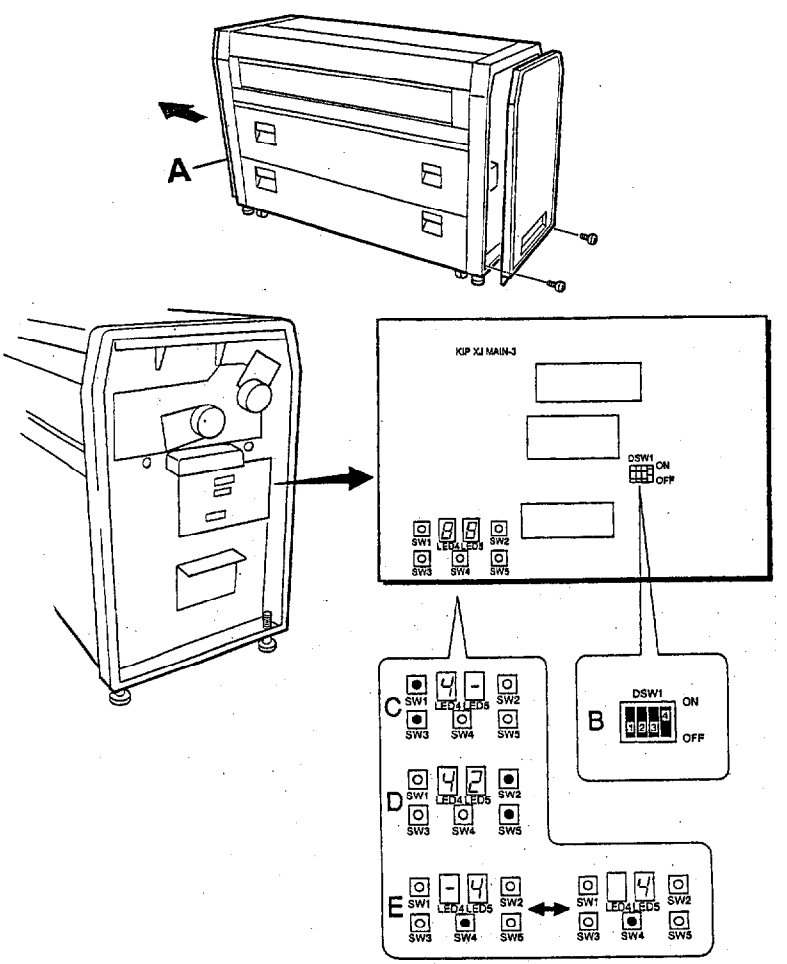
12-5 Push SW1 or SW3 until the 7 segments show "4 -" (C).

12-6 Push SW2 or SW5 until it indicates "4 2" (D).

12-7 When you push the SW4 twice, the machine starts working automatically, then stops working 5 minutes later having finished the setting of the Toner Density Sensor.
If any value between "-4" and "4" is displayed on the 7 segments display, the setting is satisfied.
If "e4" is displayed on it, select "Initialization Mode" (41) of "Toner Density Setting Mode" in SERVICE DIAG, and adjust the controlling voltage of the Toner Sensor.
(As for the detail, refer to "Toner Density Setting Mode" on page 3-10.)

12-8 Turn the DSW1-bit4 off.

12-9 Set the Main Power Switch to OFF.



Notes for the Setting of Toner Density Sensor

Confirm that following checking items are satisfied before you make the Toner Density Control.

1. When you supply or exchange the Developing Powder
   * Refer to "Filling Developer Powder" on page 2-10 or "Developer Powder Replacement" on page 7-38.

   1) Necessarily supply new Developer Powder to the Developer Unit. Do not mix it with old one. Similarly when you exchange the Developer Powder, exchange it to new one.

   2) Supply all of a bottle of Developer Powder to the Developer Unit.

   3) When you exchange the Developer Powder, at first take out all of old Developer Powder from the Developer Unit, then supply new one to the unit. (Remove the Developer Powder sticking on the Magnet Roller as far as possible.)

   4) Supply the Developer Powder to the Developer Unit so that it is evenly accumulated in the unit. Then rotate the Magnet Roller with a jig so that the Developer Powder sticks on the Magnet Roller evenly.

   5) Equip the Separator correctly to the Developer Unit, after confirming that the Developer Powder is evenly accumulated in the unit.

2. Before you make the setting of the Toner Density Control
   * Refer to "Installation of the Drum" on page 2-14, or "Image Corona" on page 7-27".

   1) Confirm that the machine is leveled.

   2) Confirm that the Driving Belt on the Drum is fitted to the Gear.

   3) Confirm that the Corona Wire or Grid Wires are not broken, and that Grid Wires are fitted to Grooves firmly.

   4) Confirm that the connector of the High Voltage Power Supply of the Image Corona is firmly connected.

   5) When you equip the Developer Unit to the machine, confirm that some metal portion such as clip or staple does not exist under the

   6) Equip or close all of outer covers and doors excluding the Side Cover of the driving side (on Main PCB's side). Especially, if you make the setting of the Toner Density Control while the Upper Cover ED is taken off, the setting can not be made satisfactory since the light comes into the machine.

3. Others

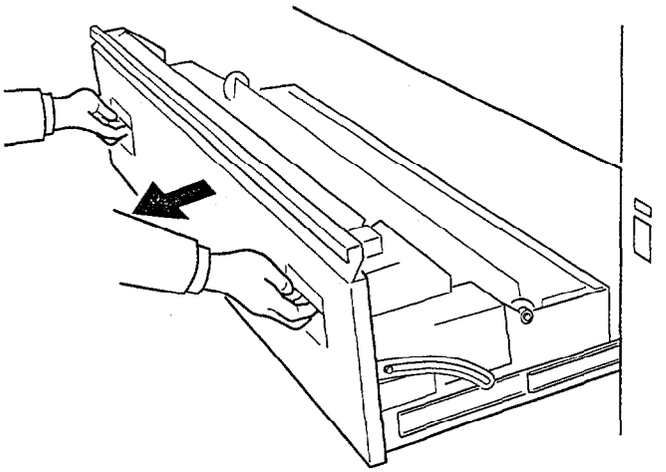
   1) Do not rotate the core of the Toner Density Sensor.

13. Setting rolled paper

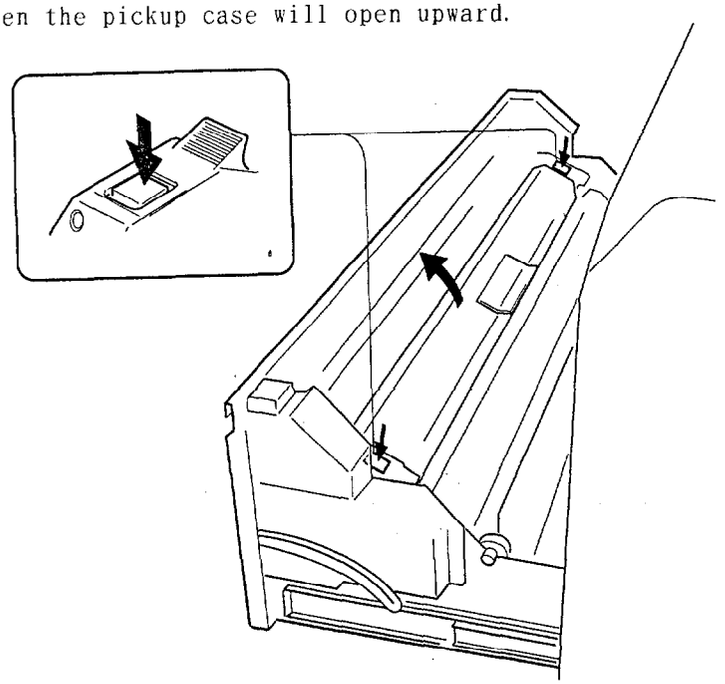
Two rolled papers are provided; the upper stage one (roll A) and lower stage one (roll B).

13-1 Setting procedures for upper stage stocker (roll A)

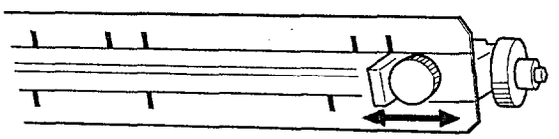
13-1-1 While pressing the latches in the grips located on both sides upward, draw out the upper stage stocker.



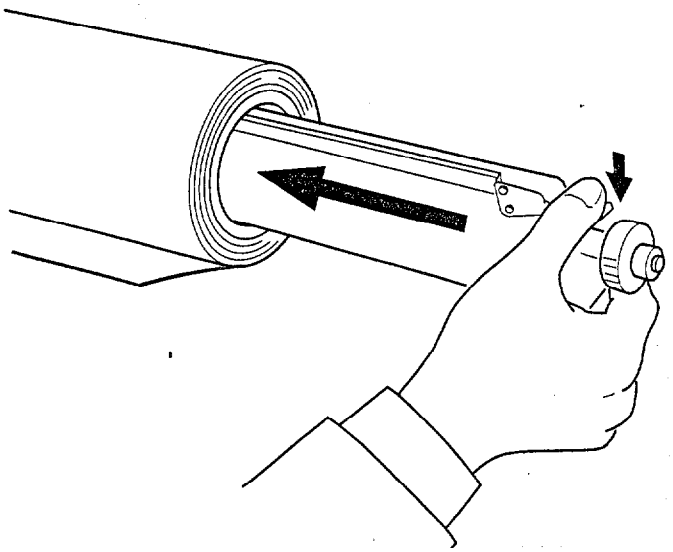
13-1-2 Press the right and left green buttons of the pickup case. Then the pickup case will open upward.



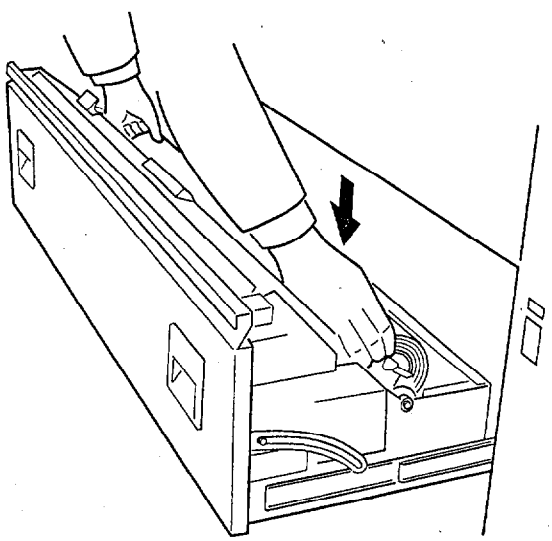
13-1-3 Take out the rolled paper spool and adjust the stopper to the width of paper to be set. (Loosen the thumb screw and slide the stopper.)



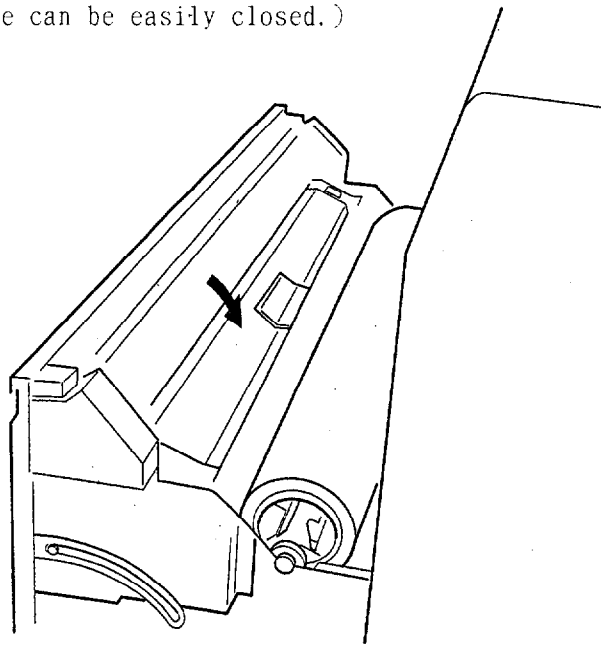
13-1-4 Insert the spool from the right side of the rolled paper (hold the lever in position when you insert the spool) as shown, and push the spool inward until the right end of the rolled paper is blocked by the stopper.



13-1-5 Set the rolled paper with the spool in it on the stocker.

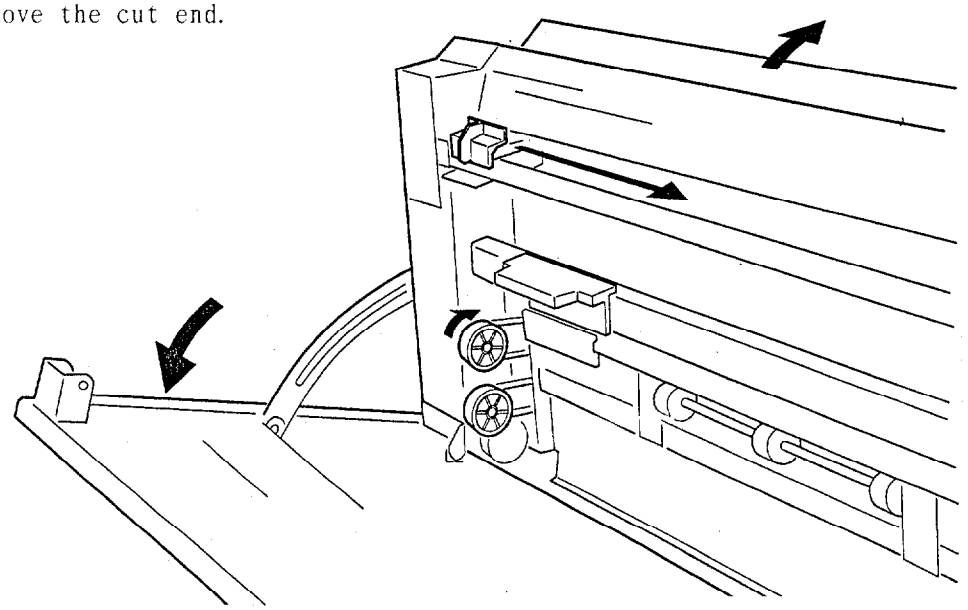


13-1-6 With the leading edge of the rolled paper placed on the pickup rollers, close the pickup case. (While supporting the rolled paper by one hand from behind the rolled paper to prevent its slackness, close the pickup case by the other hand. If the rolled paper is one that cannot be readily straightened, hold the end of the rolled paper with the index fingers of both hands at both ends of the rolled paper and close the pickup case with the thumbs. By so doing, the pickup case can be easily closed.)

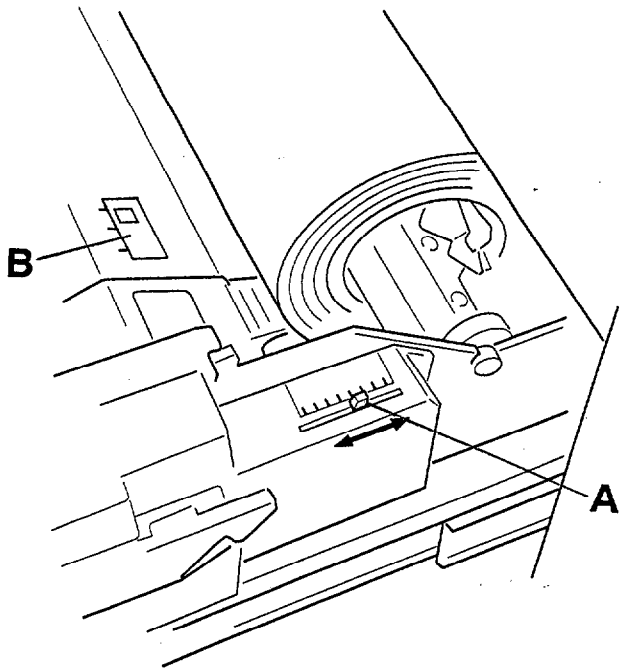


13-1-7 Raise the latches at both upper ends of the front cover to open the front cover.

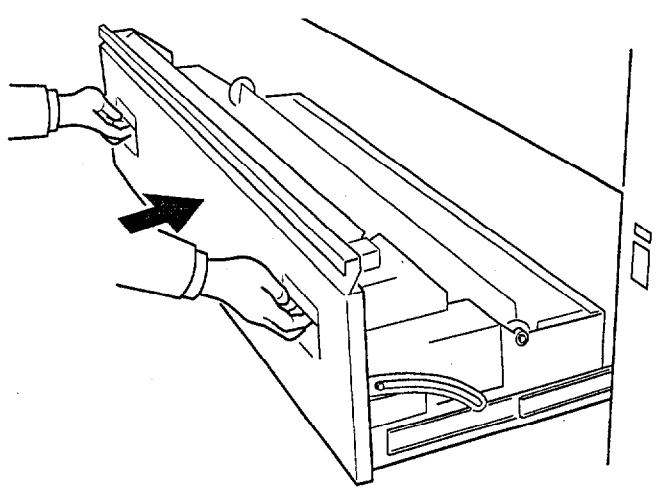
13-1-8 Of the two green knobs located on the left side, rotate the upper one clockwise. Then the set rolled paper will be fed, and the leading edge of the rolled paper will come out from above the front of the stocker. After the end of the rolled paper has come out about 10cm, operate the cutter knob (green knob) (when the knob is positioned on the left side, move it all the way to the right, or when the knob is positioned on the right side, move it all the way to the left) to cut the end of the rolled paper and remove the cut end.



13-1-9 Adjust the paper size selector (A) to the width of the paper set.
Set Copy Material Selection Switch (B).

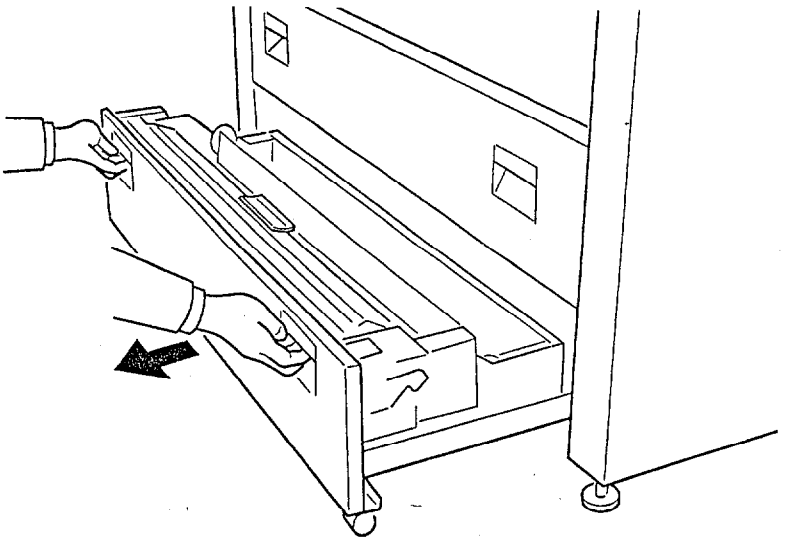


13-1-10 Close the front cover and press the upper stage stocker back into its original position.

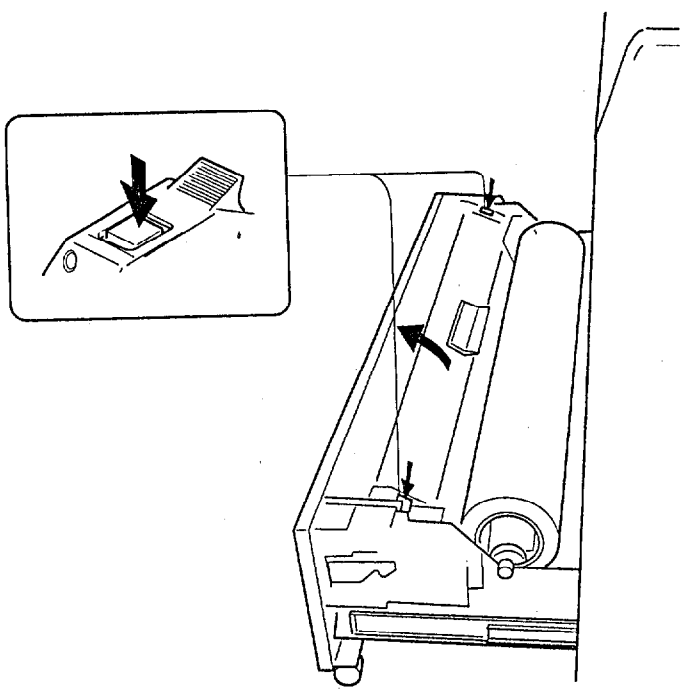


13-2 Setting procedures for lower stage stocker (roll B)

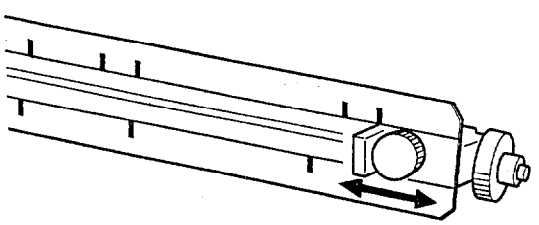
13-2-1 While pressing the latches in the grips located on both sides upward, draw out the lower stage stocker.



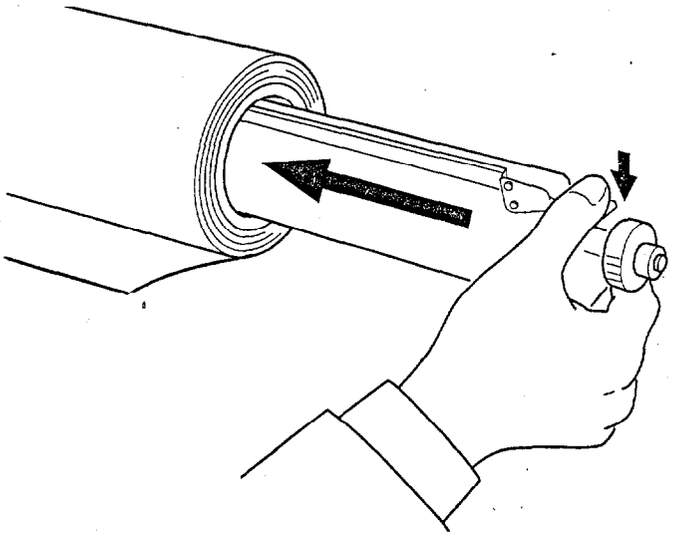
13-2-2 Press the right and left green buttons of the pickup case. Then the pickup case will open upward.



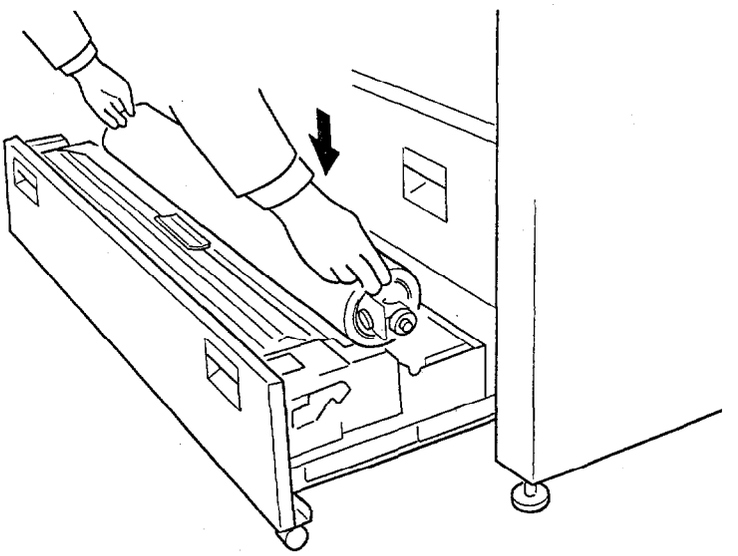
13-2-3 Take out the rolled paper spool and adjust the stopper to the width of paper to be set. (Loosen the thumb screw and slide the stopper.)



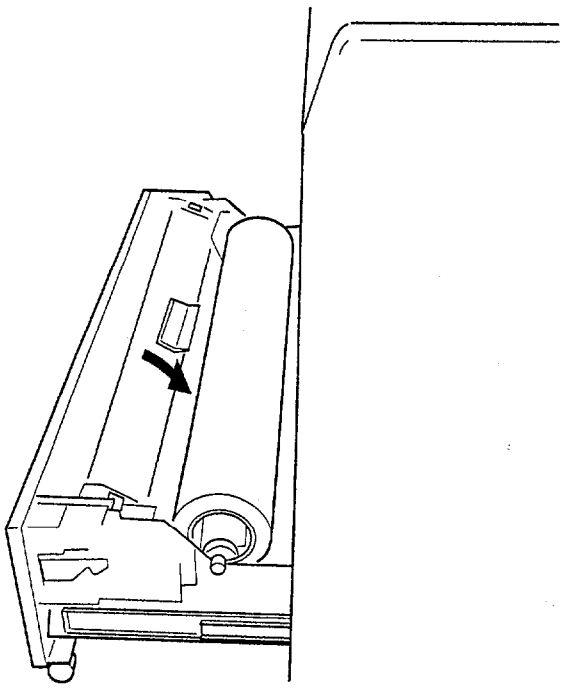
13-2-4 Insert the spool from the right side of the rolled paper (hold the lever in position when you insert the spool) as shown, and push the spool inward until the right end of the rolled paper is blocked by the stopper.



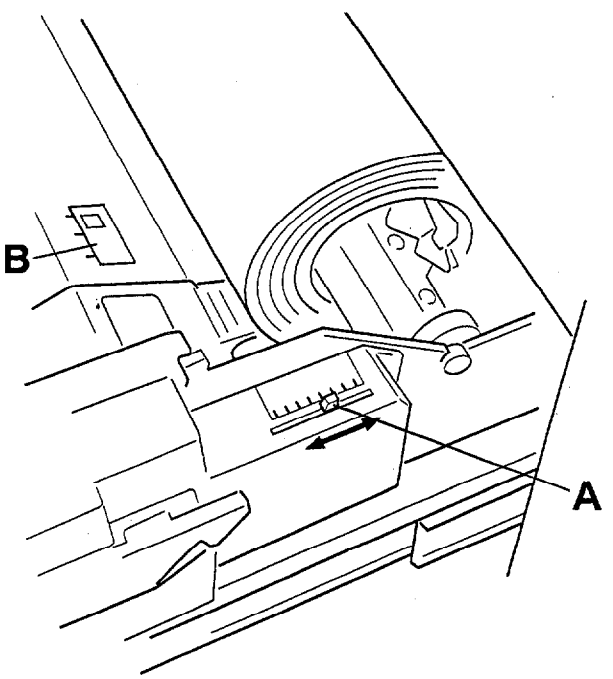
13-2-5 Set the rolled paper with the spool in it on the stocker.



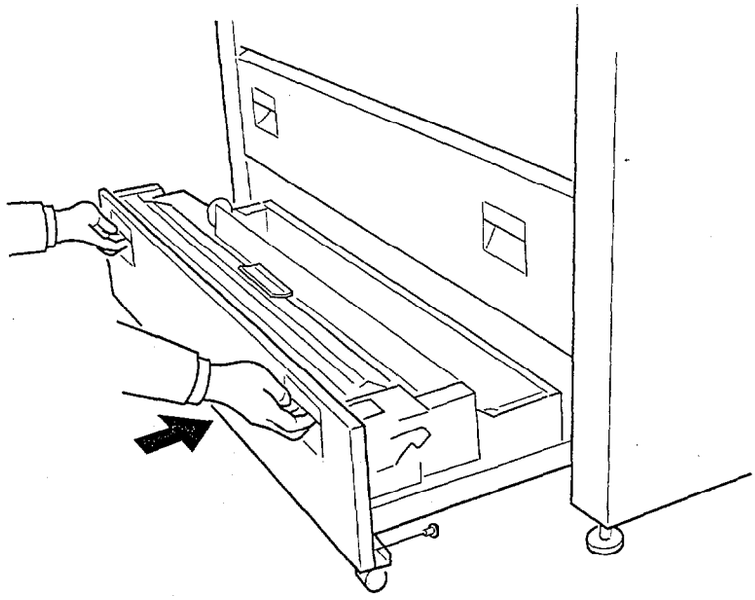
13-2-6 With the ends of the rolled paper placed on the pickup rollers, close the pickup case. (While supporting the rolled paper by one hand from behind the rolled paper to prevent its slackness, close the pickup case by the other hand. If the rolled paper is one that cannot be readily straightened, hold the end of the rolled paper with the index fingers of both hands at both ends of the rolled paper and close the pickup case with the thumbs. By so doing, the pickup case can be easily closed.)



13-2-7 Adjust the paper size selector (A) to the width of the paper set. Set Copy Material Selection Switch (B).

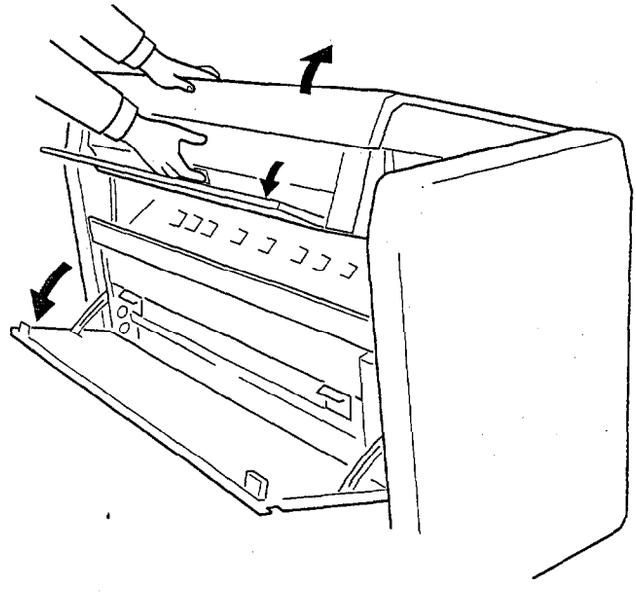


13-2-8 Press the lower stage stocker back into its original position.

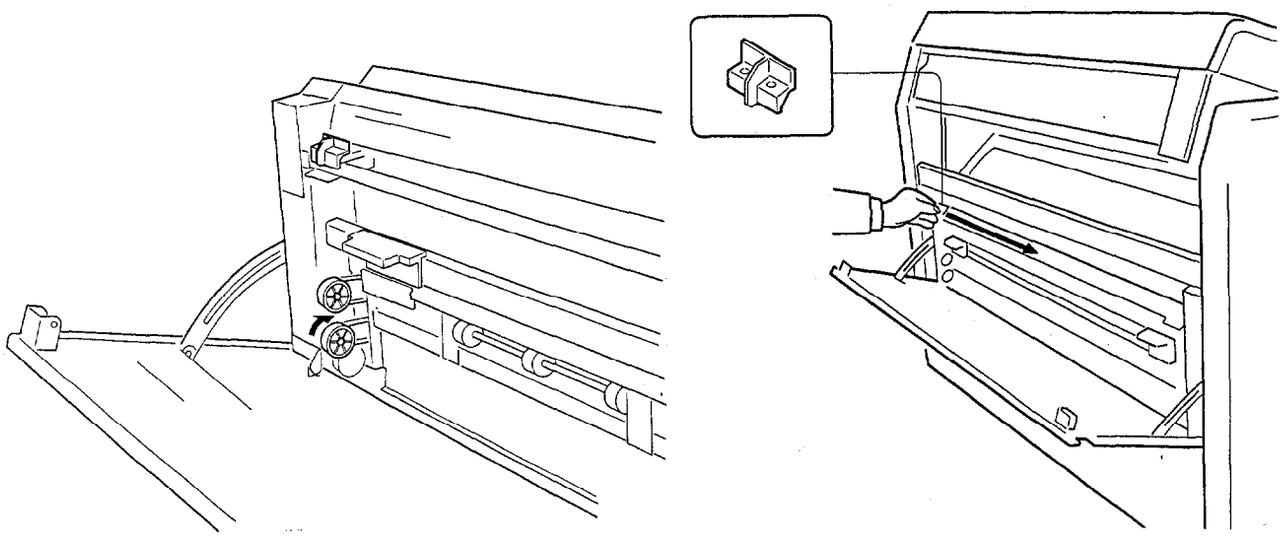


13-2-9 Open the manual insert table and pull the latch located inside toward you. The engine unit will then open upward. Close the manual insert table.

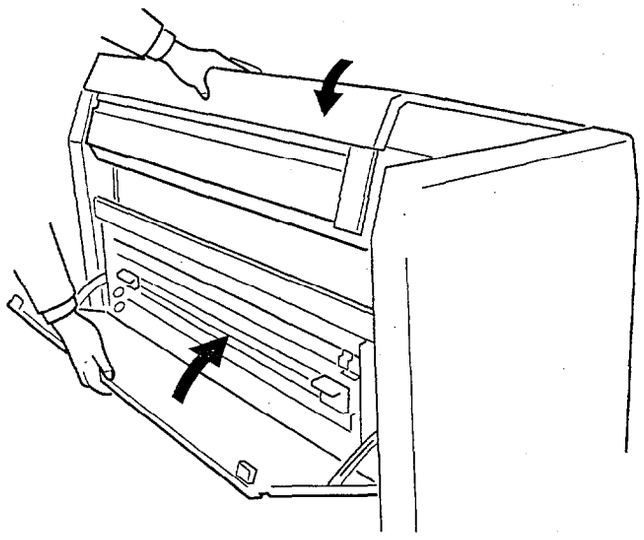
13-2-10 Raise the latches at both upper ends of the front cover to open the front cover.



13-2-11 Of the two green knobs located on the left side, rotate the lower one clockwise. Then the rolled paper set in the lower stage will be fed, and the end of the rolled paper will pass through the upper stage stocker and will come out from under the front of the engine unit. After the end of the rolled paper has come out about 20cm, operate the cutter knob (green knob) (when the knob is positioned on the left side, move it all the way to the right, or when the knob is positioned on the right side, move it all the way to the left) to cut the end of the rolled paper and remove the cut end.

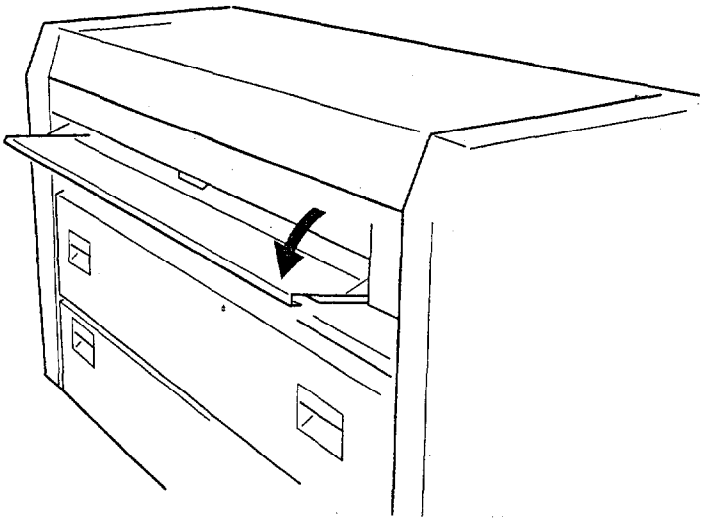


13-2-12 Close the front cover and close the engine unit.

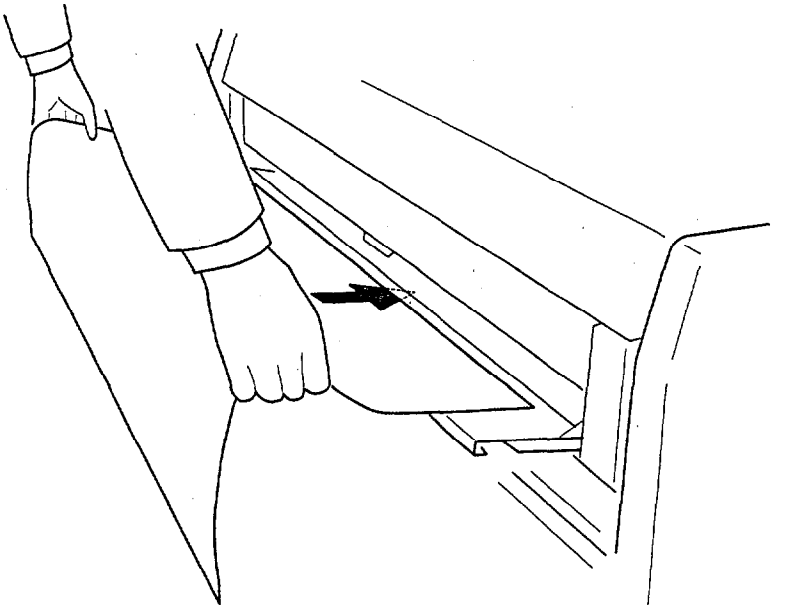


13-3. Setting cut paper

13-3-1 Set the controller to the cut paper mode.
13-3-2 Open the manual insert table.



13-3-3 Quickly insert the cut paper of the set size from the controller along the guide marks made on the manual insert table until the end of the cut paper comes in contact with the internal roller.
13-3-4 In a second or two, the internal roller will rotate to feed the cut paper into position.



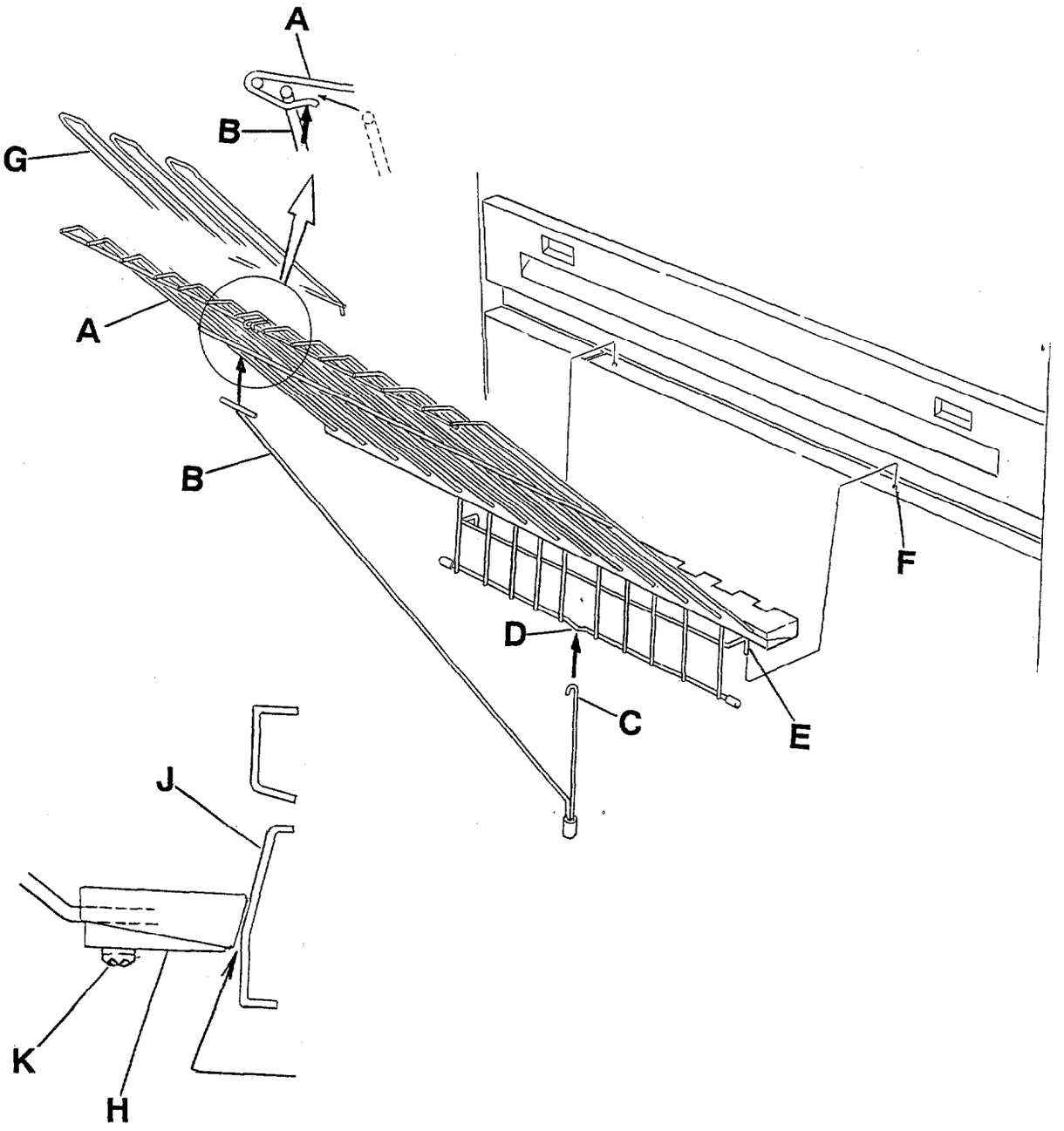
14. Setting of Tray

14-1 Put Stay (B) to Exit Tray (A).

14-2 Hang the Hook part (C) of the Stay to the center lower part (D) of the Exit Tray, keep holding them and insert Pin (E) to the hole (F) of the Panel.

Note: When Tray is installed or removed, do the same manner as the Sub-Tray (G) is done.

14-3 Adjust screws(K) (totally 10, L & R) of lower area of the Exit Paper Guide so as the gap between Exit Tray(H) and Heater Match(J) does not exist.



Information

KIP 2710 Roll End

The KIP 2710 indicates the ROLL END (no paper roll) as it detects the real end of the paper roll. It is possible to detect the real ROLL END whether the end of paper is taped to the core or not.
The handling when ROLL END is detected is as described below.

1. When the leading edge of paper does not reach at the paper stop sensor(PS5);

   When the ROLL END is detected before the leading edge of paper reaches at the paper stop sensor(PS5), print operation is finished at the point of the detection, paper is wound back to the core.
   "re" is indicated on LED of Main PCB at this time.

2. When the leading edge of paper reaches at the paper stop sensor(PS5);

   When the ROLL END is detected after the leading edge of paper passed through at the paper stop sensor(PS5), the paper is cut and the print operation is finished at the point of the detection. (The cut length of this print is not normal.)
   Paper is wound back to the core, and "re" is indicated on LED of Main PCB.

   Note) In case of the roll which end of it is not taped to the core is used, a paper stripe may happen to remain around cutter area. Remove the stripe from cutter. When selected paper deck is changed, "P5" is displayed on LED at this time.

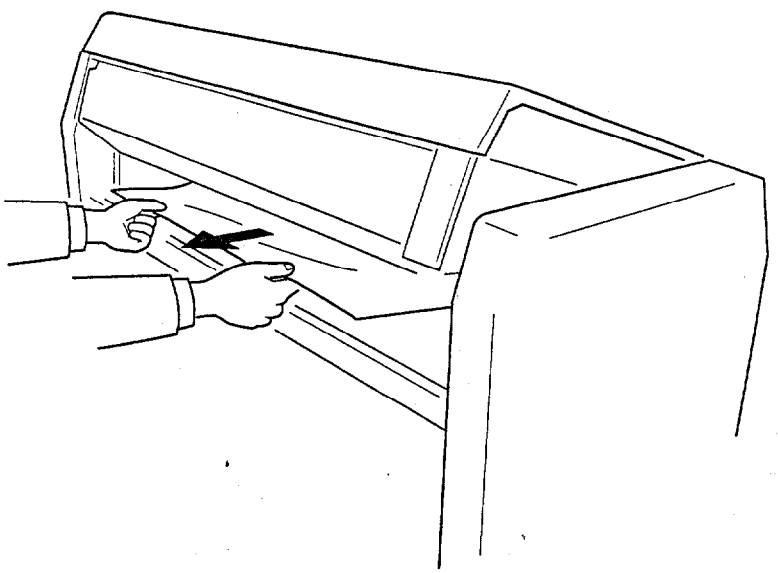
15. Jam Correction Procedures

15-1. Front Side Jam Correction Procedures

15-1-1 Open the manual feed table.
15-1-2 Pull the latch located inside toward you to open the engine unit.
15-1-3 Remove the jammed paper located inside by pulling toward you.

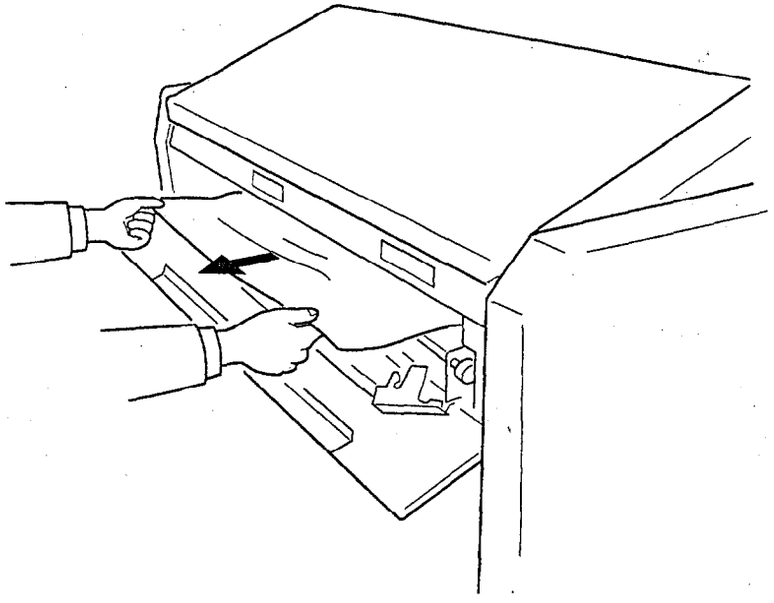
Note: The photoconductive drum is located at the middle of the machine. Take care not to touch it by hand.

Note: If the jammed paper is still pressed by fuser roll. Please lift up engine unit little bit more by manually, then pulling jammed paper.

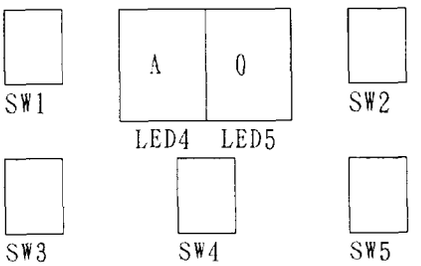


15-2. Paper Exit Side Jam Correction Procedures

15-2-1 Open the manual feed table.
15-2-2 Pull the latch located inside to open the engine unit.
15-2-3 Remove the Tray.
15-2-4 Open the Heater Hatch.
15-2-5 Hold the green grip to open the exhaust unit.
15-2-6 Pull the jammed paper toward you to take it out.
Note: Beware of the pointed end of the stripper nail, and the fuser unit and its neighborhood which are heated to a very high temperature.



16 Test Printing(for Printer Only)



How to take a Test Print from Main PCB.

Function of each switch

SW1 : Size Selection
SW2 : Print Stop
SW3 : Size Selection
SW4 : Paper Selection
SW5 : Print Start

RSW1 : Setting of Internal Pattern
RSW2 : Setting of integer times' length

• Setting Method

1) Select paper by SW4.
When Upper Deck is selected; dots of LED 4 & 5 disappear.
When Lower Deck is selected; dot of LED 4 disappears, and dot LED 5 turns on.
When manual paper is selected; dots of LED 4 & 5 turn on.
namely, A0 size, Upper Deck....."A0" is indicated.(shows A0 cut length)
A0 size, Lower Deck....."A0." is indicated.(shows A0 cut length)
manual paper....."L.P." is indicated.
When manual paper is selected, "L.P." is displayed until the paper is inserted, while paper size is indicated after the paper is inserted.
(A0 size is automatically selected after the power is applied.)

2) Select the size by SW1 & SW3.
I) When roll paper is selected,
When ISO is selected as size; A0, A1,.....A4, A5, 48" are shown repeatedly.
When ANSI is selected as size; 48", 44",....11", 8.5" are shown repeatedly.
II) When manual paper is selected,
When ISO is selected as size; A0, A1,.....A4, 36" are shown repeatedly.
When ANSI is selected as size; 36", 34",....11", 8.5" are shown repeatedly.

3) Select the internal pattern(9 kinds) as output for printer.
Set the number of the rotary switch RSW1 of the Main PCB.

RSW1	Test Pattern No.	Contents
0	#1	Test Chart
1	#1	Test Chart
2	#2	White & Black alternatively
3	#3	White, Half Tone, Black
4	#4	White
5	#5	Grid, Black Dot
6	#6	Half Tone
7	#7	Line
8	#8	Character
9	reversed #4	Solid Black
others	#1	Test Chart

4) Selected integer times' length copy is possible which was set by the rotary switch RSW2 on Main PCB.
For example if "5" is set by RSW2 when A0 size is selected, the copy is cut at a length of 5 times long of A0 size.

Note) If "0" is set, the cut length is one time long of the set length.
Maximum length does not exceed 6m(in case of 6m setting).
This setting is not effective in case of manual paper(refer to page 3-26 for setting).

Note) The maximum length of Tracing Paper or Film is 2.5m.

5) Print starts by SW5.
In case of manual paper, continuous print is possible as long as the paper is inserted.

6) Print stops by SW2. (Print runs continuously without pushing SW2.)

Chapter 3
Service Diag

Contents

1. How to Enter SERVICE DIAG

The SERVICE DIAG comes in two types; 1) SELF DIAG
2) HEATER OVERRIDE

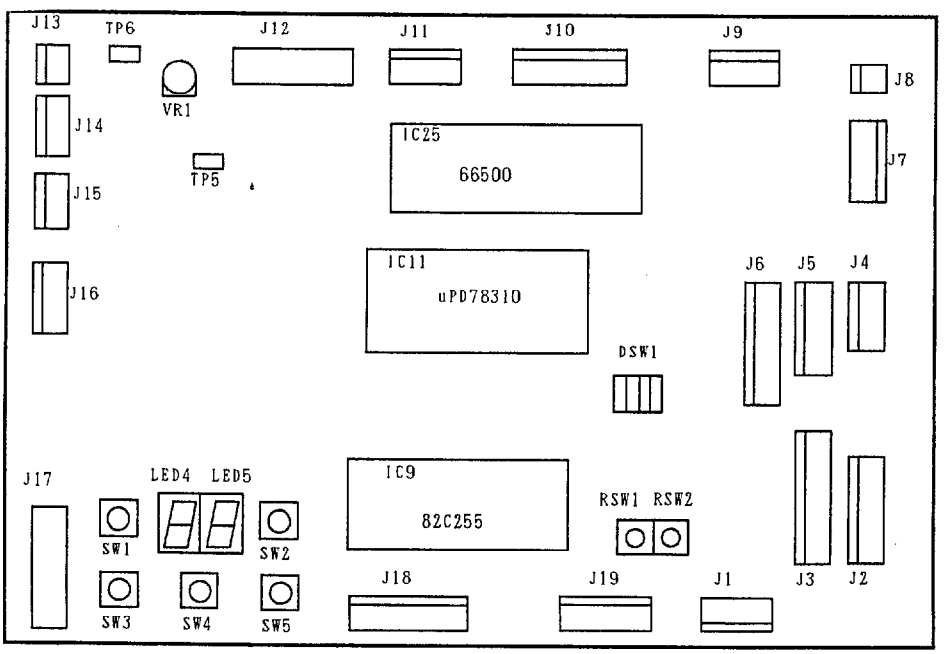
1) SELF DIAG Mode

- o Set the DSW1-bit4 on Main Board to ON and set the power switch to ON.(Except modes 7, 12 and 18)
- o EEPROM Check Mode (Mode 7): Be careful that all data are lost.
  Set the DSW1-bit4 on Main Board to ON, then power switch to ON keep pushing SW3 and SW5.
- o Cutting Length Adjustment Mode (Mode 12)
  After setting the power switch to ON, set the DSW1-bit4 on Main Board to ON.
  (However, no adjustments can be made until the heater completes warm-up.)
- o Heater Motor Adjustment Mode (Mode 18)
  After setting the power switch to ON, set the DSW1-bit4 and DSW1-bit2 on Main Board to ON.
  (However, no adjustments can be made until the heater completes warm-up.)

2) Heater Override Mode ("HO" indication)

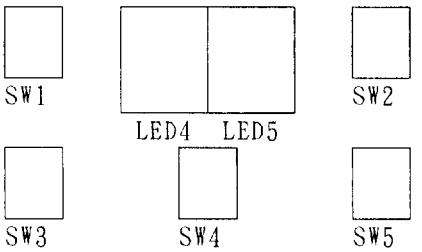
Set the DSW1 bit4 on Main Board to ON, then power switch to ON keep pushing SW4.

* Main Board



2. Description of Functions

Mode Parameters



"00" will appear immediately after entry into SELF DIAG.
Thereafter, use the SW1 and SW3 to select a desired mode.

LED4: To display a mode number
LED5: To display a mode parameter

SW1 : Mode selector switch (to increment +)
SW2 : Parameter selector switch (to increment +)
SW3 : Mode selector switch (to decrement)
SW4 : Setting switch
SW5 : Parameter selector switch (to decrement -)

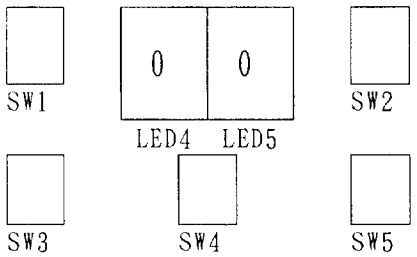
Mode List (SELF DIAG)

Mode No.	Display	Mode	Error
0	0	Welcome	
1	1	Specification setting mode	e1
2	2	Input check mode	
3	3	Output check mode	
4	4	Toner concentration setting mode	e3
		① Initialization mode	
		② Setup mode	e4
		③ Manual setting mode	
		④ Toner density error reset mode	e5
5	5	High voltage adjustment mode	
6	6	Cutter operation check mode	
7	7	EEPROM check mode	
8	8	Image placement adjustment mode	e2
9	9	Copy length mode	
10	a	Heater temperature adjustment mode	
11	b	Size selector check mode	
12	c	Cutting length adjustment mode	
13	d	Sensor check mode	
15	h	LED strobe length adjustment mode	
16	A	Counter Mode	
17	L	Maximum cutting length setting mode	
18	U	Heater motor adjustment mode	
19	y	Domestic / Export Setting mode	

3. Description of SELF DIAG Modes

3-1 Welcome

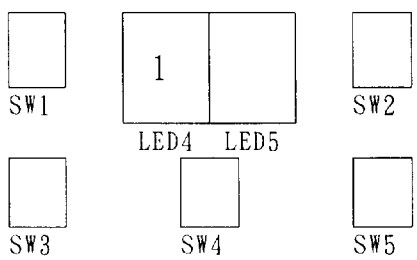
Mode Parameters



First "00" appears. (Except in modes 7, 12 and 18)
In mode 7...."7-" appears.
In mode 12..."ca" or "cb" appears.
In mode 18..."U-" appears.

3-2 Specification Setting Mode (Mode 1)

Mode Parameters



When this mode is selected, the LED4 will display "1". The LED5 will display the currently set specification. (If there is no currently set specification, the LED5 will display "F".)

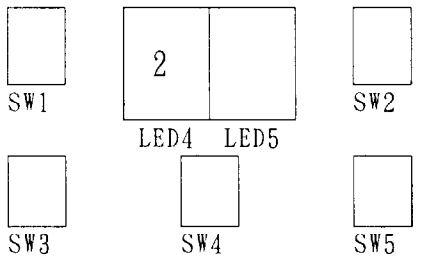
SW2: To select ISO(metric) specification
SW5: To select ANSI(inch) specification
SW4: To set

o Setting Procedures
1) Enter this mode(refer to 1. How to enter SERVICE DIAG.)
2) Select ISO or ANSI by the SW2 and SW5.
ISO(metric) specification...."1d" will appear.
ANSI(inch) specification....."1u" will appear.
3) Set by the SW4.

Note) If the power switch is set to ON without selecting either of the specifications, "e1" will appear, and the printer won't be ready.

3-3 Input Check Mode (Mode 2)

Mode Parameters



When this mode is selected, "2-00" will appear.
The LED5 will display two digits in terms of ON or OFF.

Select a parameter by the SW2 and SW5.

SW2: To select input signal (to increment +)
SW5: To select input signal (to decrement -)

When the logic of input signal is "HI", the dot of LED5 will light.
When it is "LOW", the dot will go out. Check the input signal on the basis of whether the dot is ON or OFF.

Example) To check "2-17" roll stop sensor (upper roll)

1) Enter mode 2.(refer to 1. How to enter SERVICE DIAG.)
2) Select input number "17" by the SW2 and SW5.
3) When there is no paper, the logic is "LOW".
   Therefore, no dot will appear. "2-17" will appear.
4) Then insert paper into the sensor.
   At this point, the logic will go "HI". "2-1.7." will appear.
   And if the logic is changed(if paper is inserted or pulled out), LED4 & 5 flicker for approx. 4 seconds.
   Sensor 's operation can be checked by confirmation of dot's existence and flickering of LEDs.

   A list of input numbers and associated input signals is shown on the following page.

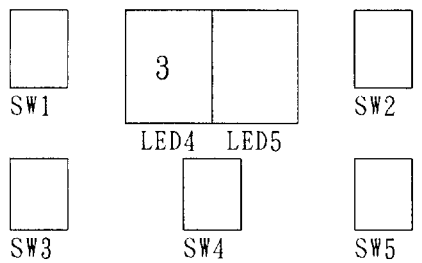
A List of Input Numbers and Associated Input Signals

Input No.	Input Signal	Symbol	Logic
2-00	Welcome		
2-01			
2-02			
2-03			
2-04	Command data		Hexadecimal code
2-05			
2-06			
2-07			
2-08			
2-09			
2-10	Size selector (upper roll)		Hexadecimal code
2-11			
2-12			
2-13			
2-14	Size selector (lower roll)		Hexadecimal code
2-15			
2-16			
2-17	Roll stop sensor (upper roll)	PS1	Paper available: "HI"
2-18	Roll stop sensor (lower roll)	PS2	Paper available: "HI"
2-19	Roll jam sensor	PS3	Paper available: "HI"
2-20	Manual insert sensor	PS4	Paper available: "HI"
2-21	Paper stop sensor	PS5	Paper available: "HI"
2-22	Separation sensor	PS6	Paper available: "HI"
2-23	Exit sensor	PS7	Paper available: "HI"
2-24	Roll end sensor (upper roll)	PS8	Pulse signal
2-25	Roll end sensor (lower roll)	PS9	Pulse signal
2-26	Paper Length Adjustment SW2_1	RSW2	Hexadecimal code
2-27	Paper Length Adjustment SW2_2	RSW2	Hexadecimal code
2-28	Developer unit provided or not		Connect: "LOW"
2-29	Cutter microswitch (right side)		ON: "LOW"
2-30	Cutter microswitch (left side)		ON: "LOW"
2-31	Waste toner bottle Full /existence		Full/not exist: "LOW"
2-32	Toner available or not		Unavailable: "LOW"
2-33	Test print switch		ON: "LOW"
2-34	Paper Length Adjustment SW2_4	RSW2	Hexadecimal code
2-35	Paper Length Adjustment SW2_8	RSW2	Hexadecimal code
2-36	Size select switch 1	SW1	ON: "LOW"
2-37	Print stop switch	SW2	ON: "LOW"
2-38	Size select switch 2	SW3	ON: "LOW"
2-39	Roll select switch	SW4	ON: "LOW"
2-40	Print start switch	SW5	ON: "LOW"
2-41			
2-42	Paper length adjustment switch 1	RSW1	Hexadecimal code
2-43			
2-44			

Input No.	Input Signal	Symbol	Logic
2-45			
2-46			
2-47			
2-48			
2-49	DIP switch 1-1	DSW1	Hexadecimal code
2-50	DIP switch 1-2		
2-51	DIP switch 1-3		
2-52	DIP switch 1-4		
2-53	Door open		Open: "HI"
2-54	Auto Stacker Jam Signal		Pulse Signal
2-55	Media Select SW1(Upper Roll)		
2-56			
2-57	Media Select SW1(Upper Roll)		
2-58	Media Select SW2(Lower Roll)		
2-59	Media Select SW2(Lower Roll)		
2-60	Command strobe	COMSTB0	
2-61	Print Start Signal	IPENT0	
2-62	Signal Cut Signal	IPCUT0	

3-4 Output Check Mode (Mode 3)

Mode Parameters



When this mode is selected, "3-00" will appear. The LED5 will display two digits in terms of ON or OFF.

Select a parameter(output signal) by the SW2 and SW5.

SW2: To select output signal (to increment +)
SW5: To select output signal (to decrement -)
SW4: ON/OFF switch

Select an output signal by the SW2 and SW5 and use the SW4 for ON-OFF control of the output signal.
(When the output signal is ON, the dot will appear on the LED5. When it is OFF, the dot will disappear.)
On all the output signals, "LOW" will be output if the dot is ON. (Connector area)

Example) To check "3-01" main motor.

1) Enter mode 3. (refer to 1. How to enter SERVICE DIAG.)
2) Select output number "01" by the SW2 and SW5. "3-01" will appear.
3) When SW4 is pushed, dot will appear on LED5, and main motor turns ON. "3-0.1." will appear.
4) When SW4 is pushed again, dot will disappear, and main motor stops. "3-01" will appear.

Output remains ON once it is turned ON, unless it is turned OFF or exit from output check mode. So plural outputs can be ON simultaneously.

A list of the output numbers and associated output signals are shown on the following list.

Output No.	Output Signal	Symbol	Remarks
3- 0	Welcome		
3- 1	Main motor	M1	ON : LOW
3- 2	Developer motor	M2	ON : LOW
3- 3	Roll feed motor ON/OFF	M3	ON : LOW
3- 4	Roll feed motor CW/CCW		ON : CCW
3- 5	Roll feed clutch (upper roll)	CL1	ON : LOW
3- 6	Roll feed clutch (lower roll)	CL2	ON : LOW
3- 7	Paper stop clutch	CL3	ON : LOW
3- 8	Heater motor	M5	ON : LOW

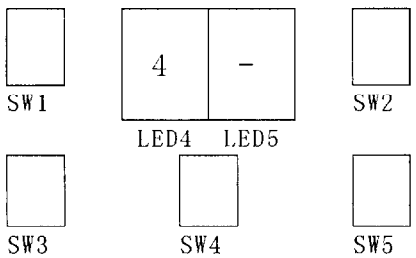
Output No.	Output Signal	Symbol	Remarks
3- 9	Toner clutch	CL4	ON : LOW
3-10	* Image corona	HV1	ON : LOW
3-11	* Transfer corona	HV2	ON : LOW
3-12	* Separation corona	HV3	ON : LOW
3-13	* Developer bias switch		ON : LOW
3-14	* Developer bias	HV4	ON : LOW
3-15	Counter	CNT	ON : LOW
3-16			
3-17			
3-18			
3-19	Eraser LED		ON : LOW
3-20			
3-21	Auto Stacker Control signal	STCLK0	Pulse signal
3-22	(Running LED 1)	LED1	
3-23	*Heater blower 1, 2 *Note 1	BL1, 2	ON-OFF control impossible
3-24	Paper feed blower	BL3	
3-25			
3-26			
3-27			
3-28	Status Data		Hexadecimal Code
3-29			
3-30			
3-31			
3-32			
3-33	Heater 1 ON/OFF	SSR1	ON : LOW
3-34	Heater 2 ON/OFF	SSR2	ON : LOW
3-35			
3-36	Reset(to Scanner & Controller)		RESET0
3-37	Test pattern		TESTPAT0
3-38	Print request		PREQ0
3-39	Printer ready		PRDY0
3-40	Command busy		COMBSY1
3-41	LED Head ON/OFF		
3-42	Mode Select signal 0		
3-43	Mode Select signal 1		
3-44	Mode Select signal 2		
3-45	Mode Select signal 3		
3-46			LED_ON
3-47	Image Data Request signal		PAGEBL0

Note1)The heater blowers 1 and 2 associated with the output number "3-23" are caused to be ON when the power switch is set to ON. In this mode, ON/OFF control of the blowers is impossible.

Note2)When * marked item is tested, high potential might damage the drum, or mixture will be removed from developer unit.

3-5 Toner Density Setting Mode (Mode 4)

Mode Parameters



When this mode is selected,
"4-" is displayed.
(refer to 1. How to enter SERVICE DIAG.)

Note) Necessarily refer to "Notes for the Setting of the Toner Density Sensor" on page 2-16a, before you make settings in the Toner Density Setting Mode".

Select any of the following modes by the SW2 and SW5.
1) Initialization Mode......"41"
2) Set Up Mode....."42" (Usually the setting of Toner Density
3) Manual Setting Mode....."43" Control is made in this Set Up
4) Toner Density Error Reset Mode....."44" Mode.)

3-5-1 Initialization Mode ("41")(Factory Setting)

This mode is used only in any of following conditions, to make setting of the controlling voltage of the Toner Density Sensor.

* When you failed to adjust Toner Density Control in the Set Up Mode (42).
* When you have exchanged the Toner Density Sensor.
* When you have exchanged the Developer Unit.
* When you have exchanged the Main PCB.

Note) In case you have exchanged any of Toner Density Sensor, Developer Unit and Main PCB, adjust the VR1 on the Main PCB in advance so that the tester shows 7.0V, before you select the Initialization Mode (41).

o Adjustment Procedures

1) Supply the Developer Powder to the Developer Unit.
(The Toner Density is 6.5%.)
2) Connect "+" of the tester to TP6 on the Main PCB, and "-" to TP2 (Ground).
3) Select the initialization mode by the SW2 and SW5. "41" is displayed.
4) Press the SW4. Then currently specified data will be displayed.
(-F, -4, -3, -2, -1, 0, 1, 2, 3, 4, F)
5) When you press the SW4 again, both Main Motor and Developer Motor start rotating automatically, and values detected through the Toner Density Sensor are displayed orderly.
6) Five minutes thereafter, the display will flash.
Then adjust the VR1 to set the display to "0". Since displayed value of the voltage is not stabilized right after you have rotated the VR1, wait for about 5 seconds until it is stabilized, then adjust it again.
7) If the tester shows some value between 4.0V and 10.0V after the adjustment of the VR1, complete the setting by pushing the SW4.
(The machine stops working automatically.)

8) If the tester shows some value which is out of the range between 4.0V and 10.0V, adjust the voltage by rotating the VR1 on tha Main PCB as follows.

8-1) In case the tester shows smaller value than 4.0V, rotate the VR1 so that the tester shows "-3" or "-4".

8-2) In case the tester shows larger value than 10.0V, rotate the VR1 so that the tester shows "3" or "4".

9) If the tester again shows some value which is out of the range between 4.0V and 10.0V, push either of SW1 and SW3 to stop the machine working, exchange the Toner Density Sensor and make adjustment again in the Initialization Mode.

3-5-2 Set Up Mode ("42")

Normally you adjust controlling voltage of the Toner Density Sensor in this mode, during the installation of the machine or when you have exchanged the Developer Unit.

o Method for the Setting

1) Supply the Developer Powder to the Developer Unit.
(The Toner Density is 6.5%.)

2) Select the Set Up Mode by the SW2 and SW5. "42" is displayed.

3) Press the SW4. Then currently specified data will be displayed.
(-F, -4, -3, -2, -1, 0, 1, 2, 3, 4, F)

4) When you press the SW4 again, both Main Motor and Developer Motor start rotating automatically, and values detected through the Toner Density Sensor are displayed orderly.

5) Displayed value changes from lighting to flickering about 4 minutes later.

6) Controlling voltage is decided and the setting is finished about 5 minutes later. (The machine stops working automatically.)

Note) When the output from the sensor is out of the setting range (Shown in "-F" or "F"), error "e4" is displayed and controlling voltage is not decided. In this case, adjust the Toner Density Sensor again in the Initialization Mode (41).

Note) Sometimes the output from the sensor is not within the setting range by environmental conditions. If you can adjust it in the Initialization Mode in this case, there is no problem in functional aspect.

3-5-3 Manual Setting Mode ("43")

Optional Setting Mode for Voltage Control

o Method for the Setting

1) Push either of SW2 and SW5 so that LED4 and LED5 show as "43".
2) Push SW4 to indicate current setting data.
   It is recommended to record indicated value, since it is required when you recover the setting value.
3) Select desirable voltage value by SW2 and SW5. The value blinks.
   * In case you decrease the value ····· Toner density becomes smaller.
   * In case you increase the value ····· Toner density becomes larger.
   * If you change the value "1", toner density becomes 0.5% smaller or larger.
4) Complete the setting by pushing the SW4.

3-5-4 Toner Density Error Release Mode ("44")

There will be the case that error "e8" occurs when you make multiple printing of the image which has much data. In this case, at first check whether any of Developer Unit, Image Corona and Toner Density Sensor is in abnormal condition or not. If neither of them is in abnormal condition, release the protective function in this mode (44). If you release the protective function without checking the above parts, or do it although it is not required, the trouble will get much worse.

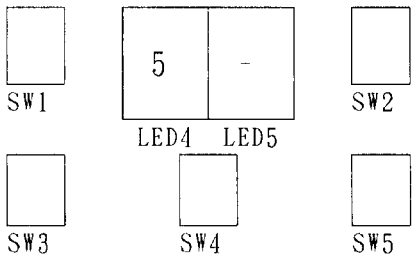
Release the protective function in this mode after clearing Toner Density Error "E8". If you turn the power on while the protectiveg function is not released, "e5" is displayed and tha machine does not work.

o Procedures

1) Select this mode. "44" will appear.
2) Press the SW4. Then the protective function will be reset.

3-6 High Voltage Adjustment Mode (Mode 5) (Factory Setting)

Mode Parameter



When this mode is selected,
"5-" is displayed.
(refer to 1. How to enter SERVICE DIAG.)

1) Image Corona Current Adjustment ..... "51"
2) AC Corona Voltage Adjustment ..... "52"
3) TR Corona Current Adjustment ..... "53"
4) Adjustment of the applied current to the Image Corona ..... "54"
5) Adjustment of the applied current to the TR Corona ..... "55"
6) Measurement of dark level and light level ..... "56"
7) Developer Bias Adjustment ..... "57"

3-6-1 Image Corona Current Adjustment ("51")

After select the Mode "51", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Eraser LED
- Main Motor
- Paper Feed Blower
- Image Corona

3-6-2 AC Corona Voltage Adjustment ("52")

After select the Mode "52", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Eraser LED
- Main Motor
- Paper Feed Blower
- AC Corona

3-6-3 TR Corona Current Adjustment ("53")

After select the Mode "53", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Main Motor
- Paper Feed Blower
- AC Corona
- TR Corona

3-6-4 Adjustment of the applied current to the Image Corona ("54")

After select the Mode "54", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Heater Blower
- Paper Feed Blower
- Image Corona

3-6-5 Adjustment of the applied current to the TR Corona ("55")

After select the Mode "55", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Heater Blower
- Paper Feed Blower
- TR Corona

3-6-6 Measurement of Dark Level and Light Level ("56")

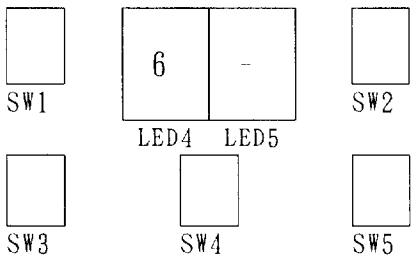
1) Select Mode "56".
2) Start by SW4 (Running: dot of LED5 turns on)
   - Main Motor
   - Image Corona
   - Paper Feed Blower
3) LED Head ON by SW5
   LED Head OFF by SW2 (ON:indication is blinking)
4) When SW4 is pushed again, operation will stop after approx. 7 seconds.

3-6-7 Developer Bias Adjustment ("57")

After select the Mode "57", set ON/OFF by SW4.
In case of ON, dot of the LED5 turns on.
- Eraser LED
- Main Motor
- Heater Blower
- Paper Feed Blower
- Image Corona
- Bias

3-7 Cutter Operation Check Mode (Mode 6)

Mode Parameters



When this mode is selected,
"6-" is indicated.
(refer to 1. How to enter SERVICE DIAG.)

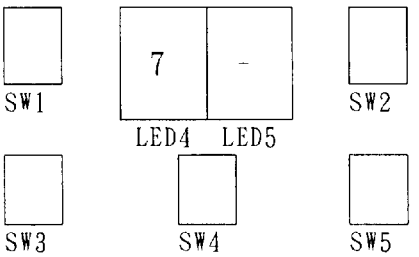
Press the SW4. Then the cutter will operate.
During operation to the right side: "6r" will appear.
During operation to the left side: "6L" will appear.

When the cutter is not at the home position, the cutter will remain stationary.
If the cutter fails to complete operation in the predetermined time (2 seconds), error "6E" will appear.

3-8 EEPROM Check Mode (Mode 7) (Factory set only)

Note: After used this mode, the EEPROM is cleared and all data set before is lost.

Mode Parameters



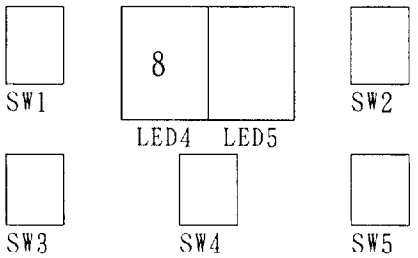
To select this mode, set DSW1-bit4 to ON first, then Power ON keep pushing SW3 and SW5.
"7-" is indicated.

SW4 : Check start

o Procedure
1) Enter this mode.
2) Push SW4 to Start.
3) Normal condition: "70" is indicated.
Error Condition: "7E" is indicated.

3-9 Image Placement Adjustment Mode (Mode 8)

Mode Parameters



When this mode is selected, the LED4 will display "8".
The LED5 will display two digits in terms of ON or OFF. (When there is no set data, "F" will appear.)

In this mode, set the leading edge margin for a test print(a print with the printer in its stand alone state).

o Adjustment Procedures

1) Select mode 8. (refer to 1. How to enter SERVICE DIAG.)
   The currently set value will appear.
   (When there is no currently set value, "F" will appear.)
2) Select a leading edge margin length by the SW2 and SW5.
   (Refer to the following table.)
3) Set the length by the SW4.

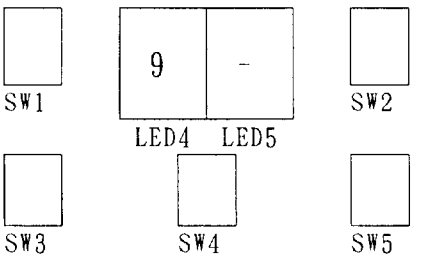
Display	Adjustment Value(mm)
8 -4.0	-4.0
8 -3.5	-3.5
8 -3.0	-3.0
8 -2.5	-2.5
8 -2.0	-2.0
8 -1.5	-1.5
8 -1.0	-1.0
8 -0.5	-0.5
8 0.0	0
8 0.5	+0.5
8 1.0	+1.0
8 1.5	+1.5
8 2.0	+2.0
8 2.5	+2.5
8 3.0	+3.0
8 3.5	+3.5
8 4.0	+4.0
8 4.5	+4.5
8 5.0	+5.0
8 5.5	+5.5
8 F	--

* Image Placement
  In this mode, adjust the leading edge margin for a test print to 4mm.
  If the white margin is 3mm, select the indication "8 1.0"(adjustment value +1mm) and define it by SW4, then the white margin becomes 4mm.

Note) When the power switch is set to ON without setting the leading edge margin, "e2" will appear.

3-10 Copy Length Mode (Mode 9)

Mode Parameters



When this mode is selected,
"9-" is indicated.
(refer to 1. How to enter SERVICE DIAG.)
This mode enables you to:
① Check the total copy length of the software counter,
② Set a desired value.

Select either of the following modes by the SW2 and SW5.
1) Copy length check mode
2) Copy length adjustment mode

* Copy Length Check Mode

I) Enter this mode. "90" will appear.
II) Press the SW4. "--" will appear.
III) Press the SW4 again. Then two digits, beginning with the high-order digit, will appear. "⑥⑤" will appear.
IV) Press the SW4 again. " -" will appear.
V) Press the SW4 again. "④③" will appear.
VI) Press the SW4 again. " -" will appear.
VII) Press the SW4 again. "②①" will appear.
These six digits indicate a copy length.
VIII) Press the SW4 again. Then "90" will re-appear.
Thereafter, "-⑥⑤ -④③ -②①" will be repeated.
When "--24 -03 -97" appears, the total copy length of the printer is 240397[m].
(The maximum length that is displayed is 999999[m]. When this value is exceeded, the display will begin with 0[m] again.)

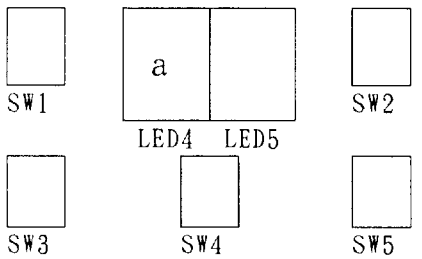
* Copy Length Adjustment Mode

I) Enter this mode. "91" will appear.
II) Press the SW4. "--" will appear.
III) Press the SW4 again. Then "**" and current setting value(6th and 5th) will appear. Set a high-order digit first to the LED4 by the SW2 and a low-order digit by the SW5. "⑥⑤" will appear.
IV) Press the SW4. " -" will appear.
V) Press the SW4 again. Then "**" and current setting value(4th and 3rd) will appear. Set a value to the LED4 by the SW2 and a value to the LED5 by the SW5. "④③" will appear.
VI) Press the SW4. " -" will appear.
VII) Press the SW4 again. Then "**" and current setting value(2nd and 1st) will appear. Set a value to the LED4 by the SW2 and a value to the LED5 by the SW5. "②①" will appear.
VIII) Press the SW4. " -" will appear.
IX) Now the settings have been done. Press the SW4 again.
Then control will go back to step I)
(Number "⑥⑤④③②①" is set automatically.

Note: Numbers "******" which are indicated first by pushing SW4 are the setting value presently written.

3-11 Heater Temperature Adjustment Mode (Mode 10) (Relates to page 3-29)

Mode Parameters



When this mode is selected, the LED4 will display "a-".
Control Temperatures for each media such as Plain Paper, Vellum and Film, or center and edges are set individually using this mode.

Select a value by SW2 and SW5, then fix the value by SW4.

Display	Adjustment Value[℃]
- c	-12.0
- b	-11.0
- a	-10.0
- 9	- 9.0
- 8	- 8.0
- 7	- 7.0
- 6	- 6.0
- 5	- 5.0
- 4	- 4.0
- 3	- 3.0
- 2	- 2.0
- 1	- 1.0
0	0
1	+ 1.0
2	+ 2.0
3	+ 3.0
4	+ 4.0
5	+ 5.0
6	+ 6.0
7	+ 7.0
8	+ 8.0
9	+ 9.0
a	+10.0
b	+11.0
c	+12.0

•Setting Method

1) Enter this Mode.
   (refer to 1. How to enter SERVICE DIAG.)
   "a""-" is displayed.

2) Select a media to be adjusted by SW2.
   "a""a 1" ••• All media(P/P,Traci,Film) Center
   "a""a 2" ••• All media(P/P,Traci,Film) Edges
   "a""P 1" ••• Plain Paper Center
   "a""P 2" ••• Plain Paper Edges
   "a""t 1" ••• Tracing Center
   "a""t 2" ••• Tracing Edges
   "a""F 1" ••• Film Center
   "a""F 2" ••• Film Edges
   "a""b 1" ••• Bond Center
   "a""b 2" ••• Bond Edges
   "a""u 1" ••• Vellum Center
   "a""u 2" ••• Vellum Edges

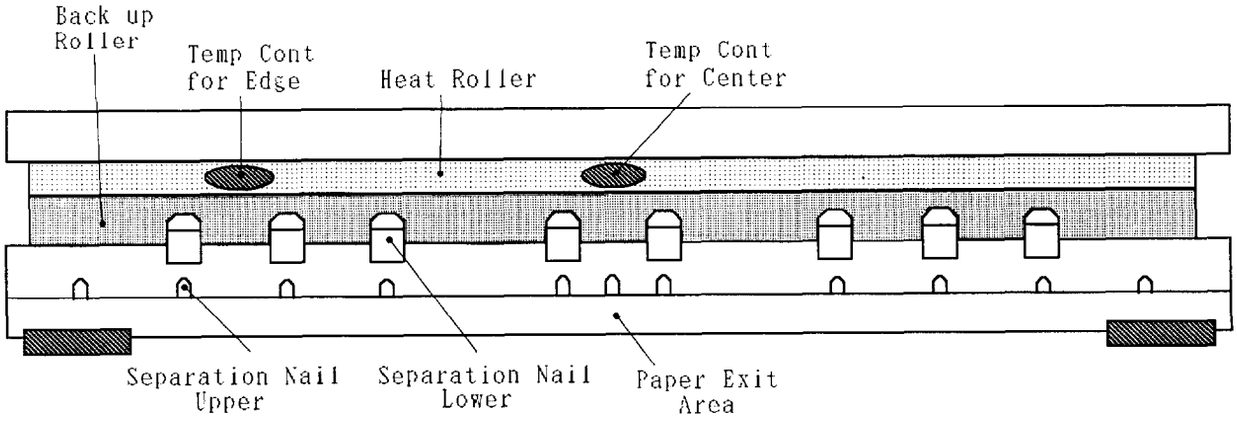
3) When SW4 is pressed, current selected value of the media is displayed.(-12～12)

4) Adjustment value is selected by SW2 and SW5. If "0" is selected, standard value remains, and if "2" is selected, temperature is set 2 degrees higher than standard value.

y1;	Domestic Standard Value (max.)	Center	Edges
	Plain Paper	146[°C]	149[°C]
	Tracing	157[°C]	157[°C]
	Film	149[°C]	149[°C]
y2;	Export Standard Value (max.)	Center	Edges
	Bond	157[°C]	160[°C]
	Vellum	160[°C]	160[°C]
	Film	149[°C]	149[°C]

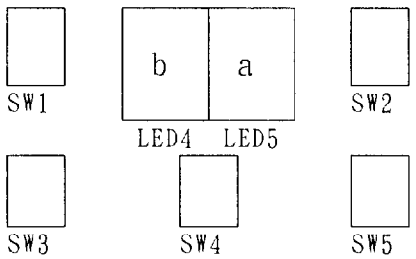
5) Press SW4 to define the value.
6) When SW4 is pressed again, it returns step 2).
   When this mode is not set, adjustment value is set as "0".

FUSER UNIT


Back up Roller
Temp Cont for Edge
Heat Roller
Temp Cont for Center
Separation Nail Upper
Separation Nail Lower
Paper Exit Area

3-12 Size Selector Check Mode (Mode 11)

Mode Parameters



When this mode is selected, the LED4 will display "ba".
(refer to 1. How to enter SERVICE DIAG.)

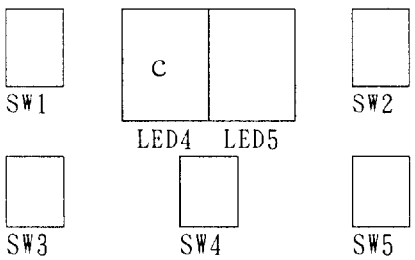
SW2 : Select upper roll
SW5 : Select lower roll
SW4 : Start switch

Check Procedure

1) Pull the Tray out and connect extension cord Jig.
   (Upper 4602A-0, Lower 4602B-0)
2) Select Roll by SW2 and SW5.
   Upper Roll---"ba"
   Lower Roll---"bb"
3) Push SW4 to check start(indication is blinking)
4) Switch the lug of Size Selector from 36" size to 841, 24" up to 210/8.5".
   (It is recommended to spend 1 second to move next step).
5) Normal: A dot of the LED4 turns on and stop blinking.
   Abnormal: A dot of the LED4 does not turn on and still blinking.

3-13 Cutting Length Adjustment Mode (Mode 12)

Mode Parameters



This mode is selected by setting the DSW1-bit4 to ON after the power switch has been set to ON. After the heater has become ready, either "ca" or "cb" will appear.

SW2: To select a roll (upper roll/lower roll)
SW5: To start printing
SW4: To set the data

o Adjustment Procedures

1) After setting the power switch to ON, set the DSW1-bit4 to ON.
2) After the heater has become ready, "ca" or "cb" will appear.
   When there is no paper in the selected paper feeding unit, "LP" will appear.
3) Select a roll by the SW2.
   "ca": Upper roll
   "cb": Lower roll
4) Set the RSW1 and RSW2 to "0".
5) Press the SW5 to make prints.
   In this case, two prints, ① 250mm long (print 1) and ② A1 841mm long (print 2) will be made.
6) On the basis of the prints 1 and 2, set the RSW1 and 2.
   * For details, refer to the following page.
7) After setting the RSW1 and 2, set the value by the SW4.
8) Go back to 3) for repetition.

o After the RSW1 and 2 have been set under 6), make prints. Then prints (test pattern #5 only) will be made in conformance with the cutting length based on the set value.
When the adjustments described above are not performed, the compensation value will be "0".

* When adjustment is done, select "0" of RSW1 & RSW2.

o RSW1 and 2 Setting Procedures

o Print 1 (250mm) = [x] [mm]

o Print 2 (A1: 841mm) = [y] [mm]

RSW1: X = 250 - x
RSW2: Y = 841 - y - X

x: Cutting length of print 1
y: Cutting length of print 2

Calculate X and Y by the above-mentioned formula to determine the setting values for the RSW1 and 2.

Setting value for RSW1, 2	Compensation [mm]	
	Print 1	Print 2
	RSW1: X	RSW2: Y
0	0	0
1	+0.5	+1.0
2	+1.0	+2.0
3	+1.5	+3.0
4	+2.0	+4.0
5	+2.5	+5.0
6	+3.0	+6.0
7	+3.5	+7.0
8	-4.0	-8.0
9	-3.5	-7.0
A	-3.0	-6.0
B	-2.5	-5.0
C	-2.0	-4.0
D	1.5	-3.0
E	-1.0	-2.0
F	-0.5	-1.0

Example)

When the cutting length of print 1 is 249mm and that of print 2 is 842mm

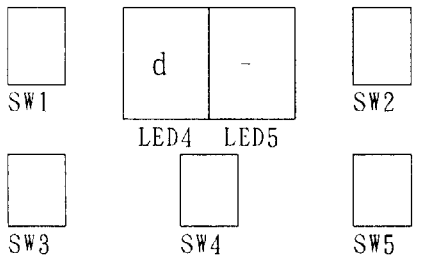
x = 249mm, y = 842mm

X = 250 - 249 = 1
Y = 841 - 842 - 1 = -2

Since X = 1, and Y = -2, set "2" for the RSW1 and "E" for the RSW2 according to the table shown at the left.

3-14 Sensor Check Mode (Mode 13)

Mode Parameters



When this mode is selected, the LED4 will "d-" appear.
(refer to 1. How to enter SERVICE DIAG.)

*Remove Roll papers.

SW2 : Paper feed select switch

Upper roll-----"da" will appear
Lower roll-----"db" will appear
Manual feed----"dc" will appear

SW5 : Start switch

Operation Procedure

1) Enter this mode and select paper supply by SW2 prior to install or set paper.
2) If the sensor itself is out of order, the condition is indicated right after the paper selection.
3) In case of Manual Feed("dc")
   1. Push SW5 to start.
   2. Set sheet paper.(recommended length: more than 300mm, less than 500mm).
   3. If there is no indication of the sensor failure after paper was through then machine stopped, the sensor does work.

   In case of Roll Paper("da","db") is selected.
   1. Set sheet paper in the selected drawer(recommended length: more than 300mm less than 500mm such as 11", A4, 12", A3, 17" or 18"). In this case, leading edge of the sheet paper should not touch or cover the Roll Stop Sensors(PS1, PS2).
   2. Push SW5 to start.
   3. If there is no indication of the sensor failure after paper was through then machine stopped, the sensor does work.

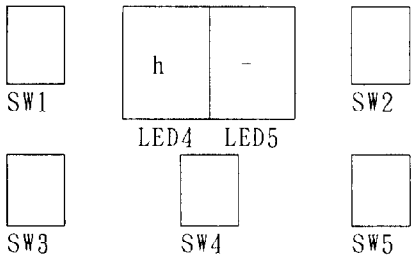
Error Indication

Error Indication	Details
U 1	check the roll stop sensor (PS1)(upper roll)
U 2	check the roll stop sensor (PS2)(lower roll)
U 3	check the roll jam sensor (PS3)
U 4	check the manual feed sensor (PS4)
U 5	check the paper stop sensor (PS5)
U 6	check the separation sensor
U 7	check the paper exit sensor
U 8	check the roll end sensor(PS8)(upper roll)
U 9	check the roll end sensor(PS9)(lower roll)

Note: When the sensor error is found, check not only sensor itself but the door of the roll paper drawer, pick up case and paper transfer area.

3-15 LED Strobe Length Adjustment Mode (Mode 15)

Mode Parameters



When this mode is selected, the LED4 will "h-" appear.
(refer to 1. How to enter SERVICE DIAG.)

SW2 : LED On-time adjustment
SW5 : LED On-time adjustment
SW4 : To set the data

Setting Method

1) Enter this mode, then current setting value is indicated.
   (If it is not set, "hF" is indicated.)
2) Adjust the value by SW2 and SW5.(-13 ~ 13)
3) Set the value by SW4.

Display	Adjustment Value [usec]	LED On-time [usec]
h -d	-13	22
h -c	-12	23
h -b	-11	24
h -a	-10	25
h -9	- 9	26
h -8	- 8	27
h -7	- 7	28
h -6	- 6	29
h -5	- 5	30
h -4	- 4	31
h -3	- 3	32
h -2	- 2	33
h -1	- 1	34
h 0	**0**	**35***
h 1	1	36
h 2	2	37
h 3	3	38
h 4	4	39
h 5	5	40
h 6	6	41
h 7	7	42
h 8	8	43
h 9	9	44
h a	10	45
h b	11	46
h c	12	47
h d	13	48

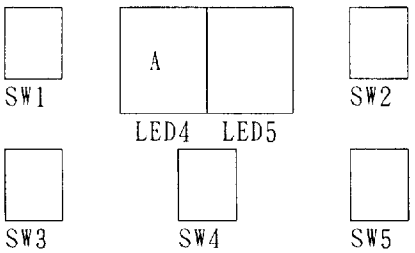
•When setting is not done,
Adjustment Value is set "0"
LED On-time is set "35" usec.

* Standard value of this printer

(Refer to page 6-5.)

3-16 Counter Mode (Mode 16)

Mode Parameters



When this mode is selected, the LED4 will "A" appear.
(refer to 1. How to enter SERVICE DIAG.)

SW2 : Parameter Selection
SW5 : Parameter Selection
SW4 : Setting

Setting Method

1) Enter this mode, then current setting value is indicated.

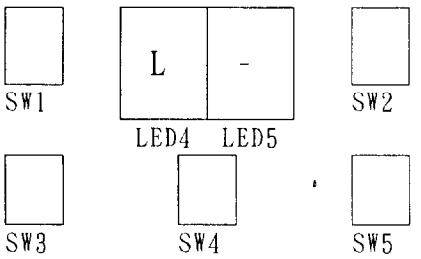
Indication	Count Unit	
	ISO	ANSI
A0 Indication	1 m	1 ft
A1 Indication	1 m^2	1 ft^2
A2 Indication	0.1 m	1 ft
A3 Indication	0.1 m^2	1 ft^2

When A0 is selected, in case of ISO setting the unit is selected 1m, while ANSI setting the unit is selected 1 ft.
When ANSI is selected, the unit of A0 and A2, A1 and A3 are the same.

2) Adjust the value by SW2 and SW5. (0 ~ 3)
3) Set the value by SW4.

3-17 Maximum Cutting Length Setting Mode (Mode 17)

Mode Parameters



When this mode is selected, "L-" is indicated.
(refer to 1. How to enter SERVICE DIAG.)

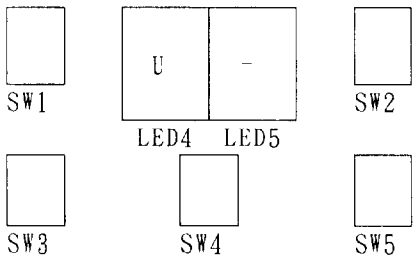
SW2 : Select 6m as max. cut length. "L- 6" is indicated.
SW5 : Select 16m as max. cut length. "L-16" is indicated.
SW4 : Setting

- Setting Method
  1) Get into this mode. Present set value is displayed.
     (While not setting, "LF" is indicated.)
  2) Select the maximum cut length by SW2 or SW5.
  3) Set the length by pushing SW4.

Note) Without setting by this mode, maximum cut length becomes 6m.

3-18 Heater Motor Adjustment Mode (Mode 18)

Mode Parameters



To enter this mode, after printer is ready, turn ON DSW1-bit4 on Main PCB, then turn ON DSW1-bit2.
When this mode is selected, "U-" is indicated.

Note) Do this adjustment ISO specification without fail.(Refer to page 6-15.)

SW2 : Select adjustment value.
SW5 : print start.
SW4 : Setting

- Setting Method
  1) Select Roll deck after warm up is done.(No manual paper available)
  2) Select the desired media and paper width with media switch and size selector.
  3) Enter this mode.(refer to 1. How to enter SERVICE DIAG.) "U-" is indicated.
  4) When SW4 is pushed twice, selected media and selected size of selected roll deck are indicated.
     Ex) "P-A0" ••• Plain Paper, A0 size
         "t-A1" ••• Tracing Paper, A1 size
         "F-A2" ••• Film, A2 size
  5) When SW4 is pushed again, set value is indicated.
  6) Select adjustment value by SW2.
     When "+" is selected, motor gets faster, and vice versa.
  7) When SW5 is pushed, a print (A0 size, 841mm) is made with a selected adjustment value. In this case, the length is selectable by rotary switch RSW2 such as twice, three times...
  8) repeat 6) & 7).
  9) Fix it by SW4.
  10) Return to 2).

Unless it is set, adjustment value becomes "0".

• Paper media, paper size mode list(group list)

①P-36 Plain Paper 36" size
②P-A0 Plain Paper A0, 34", 30"
③P-A1 Plain Paper A1, 24", 22"
④P-A2 Plain Paper A2, 18", 17"
⑤P-A3 Plain Paper A3, 12",11"
⑥P-A4 Plain Paper A4, 8.5"

①t-36 Tracing Paper/Vellum 36" size
②t-A0 Tracing Paper/Vellum A0, 34", 30"
③t-A1 Tracing Paper/Vellum A1, 24", 22"
④t-A2 Tracing Paper/Vellum A2, 18", 17"
⑤t-A3 Tracing Paper/Vellum A3, 12",11"
⑥t-A4 Tracing Paper/Vellum A4, 8.5"

①F-36 Film 36" size
②F-A0 Film A0, 34", 30"
③F-A1 Film A1, 24", 22"
④F-A2 Film A2, 18", 17"
⑤F-A3 Film A3, 12",11"
⑥F-A4 Film A4, 8.5"

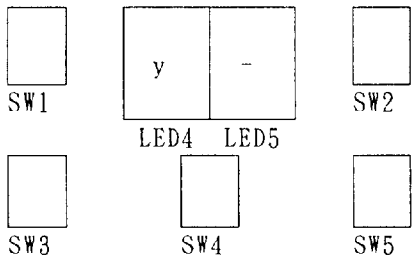
Since A0, 34" and 30" sizes are in the same group, when it is adjusted using A0 size, 34" and 30" sizes are adjusted same value.
A1, 24" and 22"; A2, 18" and 17"; A3, 12" and 1"; A4 and 8.5" are regarded as the same group respectively.

Correspondence List

Display	Periodic Time [usec]	Revolution of Rotor [rpm]	Revolution of Output Shaft [rpm]
U -7	+14	-4.67	-0.156
U -6	+12	-4.0	-0.133
U -5	+10	-3.33	-0.111
U -4	+ 8	-2.67	-0.089
U -3	+ 6	-2.0	-0.067
U -2	+ 4	-1.33	-0.044
U -1	+ 2	-0.67	-0.022
U 0	0	0	0
U 1	- 2	+0.67	0.022
U 2	- 4	+1.33	0.044
U 3	- 6	+2.0	0.067
U 4	- 8	+2.67	0.089
U 5	-10	+3.33	0.111
U 6	-12	+4.0	0.133
U 7	-14	+4.67	0.156

3-19 Domestic / Export Setting Mode (Mode 19) (Relates to page 3-18)

Mode Parameters



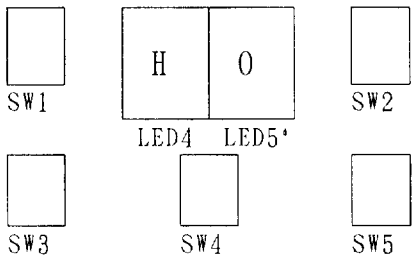
When this mode is selected, "y" is indicated on LED4, while currently selected value is indicated on LED5.

SW2 : Domestic Temperature Setting
SW5 : Export Temperature Setting
SW4 : Setting

- Setting Method
  1) Enter this mode(refer to 1. How to enter SERVICE DIAG.)
  2) Select the Domestic or Export setting by SW2 or SW5.
     Domestic....."y1" is indicated.
     Export....."y2" is indicated.
  3) Set by SW4.

4 Heater Override

Mode Parameters



To enter this mode, set DSW1-bit4 to ON first, then Power ON keep pushing SW4. In this case, indication is done alternatively, "H0" and "A1".

SW1 : To select paper size
SW2 : To stop printing
SW3 : To select paper size
SW4 : To select paper feeding
SW5 : To start printing

Operation procedure

1) To select paper feeding
2) To select paper size
3) To start printing

Same as print, only indication is doubled, "H0" and "paper size".

Note: The Heater Unit must be removed because toner is on the paper.

5. ELECTRICAL HARDWARE OUTLINE

·MAJOR ELECTRICAL HARDWARE COMPONENT

- MAIN(CPU) P.C.B.
- I/F P.C.B.
- ERASER LED P.C.B.
- SIZE SELECTOR P.C.B.
- HIGH VOLTAGE P.C.B. (1) (IM, TR, BIAS)
- HIGH VOLTAGE P.C.B. (2) (ST)
- BIAS SWITCH P.C.B.
- HV-ZD P.C.B.

- INLET CONNECTOR	250VAC/15A
- OUTLET CONNECTOR	250VAC/10A
- NO FUSE BREAKER (NB1)	250VAC/15A
- NOISE FILTER (NF1)	115, 250VAC/15A
- INTERLOCK SWITCH (MS2, 3, 4)	380VAC/16A
- SOLID STATE RELAY (SSR1, 2)	240VAC/16A
- MAIN SWITCH (SW1)	250VAC/16A
- POWER SUPPLY (AVR1)	85VAC～135VAC 5VDC/3.5A 24VDC/4.5A
- POWER SUPPLY (AVR2)	90VAC～260VAC 5VDC/10A
- FUSER UNIT	
THERMISTOR(TH1, 2, 3)	
HALOGEN LAMP	120VAC/1100W
THERMOSTAT	190'C
- ACTUATOR SENSOR (PS1～7)	L:<0.4V H:>3.5V
- PHOTO INTERRUPTER (PS8, 9)	L:<0.4V H:>4.5V
- DEVELOPER UNIT	
NO TONER SENSOR	
TONER DENSITY SENSOR	
TONER CLUTCH (CL4)	24VDC/4W
- HEATER BLOWER (BL1, 2)	24VDC/0.4A
- PAPER FEED BLOWER (BL3)	24VDC/0.55A
- PAPER STOP CLUTCH (CL3)	24VDC/5W
- ROLL FEED CLUTCH (CL1, 2)	24VDC/5W
- MAIN MOTOR (M1)	24VDC/5.3W
- DEVELOPER MOTOR (M2)	24VDC/15W
- ROLL MOTOR (M3)	24V/1A
- HEATER MOTOR (M5)	24VDC/0.9A
- MICRO SWITCH (MS1)	
- CUTTER UNIT	
- FERRITE CORE	
- OPTION HEATER	100V, 120V, 230V/50W

・WIRE COLOR

AC LINE

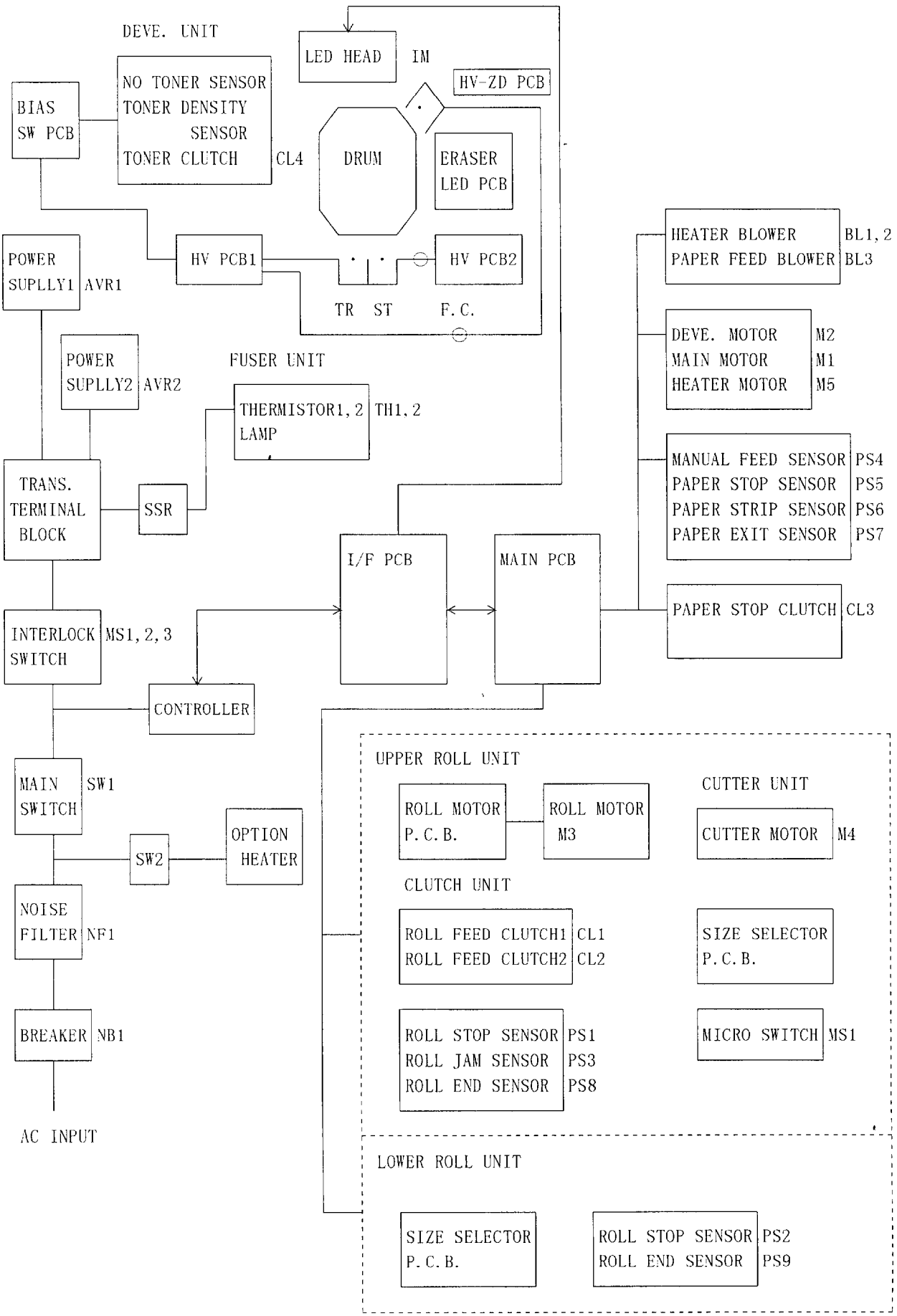
0VAC	----	WHITE (NEUTRAL)
100VAC	----	BLACK (HOT)
110VAC	----	BLACK (HOT)
120VAC	----	BLACK (HOT)
220VAC	----	BLACK (HOT)
230VAC	----	BLACK (HOT)
240VAC	----	BLACK (HOT)
FRAME GROUND	----	GREEN/YELLOW

DC LINE

5VDC	----	YELLOW
0V(5)	----	BLUE
SIGNAL(5)	----	PURPLE
24VDC	----	PINK
0V(24)	----	BLUE
SIGNAL(24)	----	GRAY
INT.24VDC	----	PINK
FRAME GROUND	----	BLUE

HIGH VOLTAGE ---- WHITE

・ELECTRICAL COMPONENT BLOCK DIAGRAM



・SELF-DIAGNOSTIC (POWER-ON DIAGNOSTIC)

	ERROR DISPLAY
1) MEMORY CHECK	e 6
2) SENSOR CHECK	P 1～P 4
3) ROLL INITIAL OPERATING CHECK	J 0, J 1
4) CUTTER POSITION CHECK	E 5
4) ISO/ANSI MODE SET	e 1
5) CUTTING LENGTH DATA SET	― ― ―
6) IMAGE PLACEMENT DATA SET	e 2
7) TONER CONTROL DATA CHECK	e 3, e 4, e 5
8) FUSER TEMP. MODE SET	― ― ―
9) HEATER BLOWER CHECK	E 9
10) A/D DATA CHECK	― ― ―
11) LED HEAD STROBE DATA CHECK	― ― ―
12) HEATER MOTOR SPEED SET	― ― ―
13) SIZE SELECTOR CHECK	E b, E c

・ON BOARD DIAGNOSTIC

1) ISO/ANSI SET
2) INPUT CHECK
3) OUTPUT CHECK
4) TONER CONTROL DATA ADJUSTMENT
5) HIGH VOLTAGE CHECK
6) CUTTER CHECK
7) EEPROM CHECK
8) IMAGE PLACEMENT ADJUSTMENT
9) INTERNAL (ELECTRICAL) COUNTER RESET
10) FUSER TEMP. MODE SET
11) SIZE SELECTOR CHECK
12) CUTTING LENGTH ADJUSTMENT
13) SENSOR CHECK
14) LED HEAD STROBE DATA ADJUSTMENT
15) COUNTER MODE
16) MAX. CUT LENGTH SET
17) HEATER MOTOR SPEED ADJUSTMENT
18) MEDIA MODE SET

Chapter 4
Preventive Maintenance

	Description Part No.	Maintenance Internal(m)						Note
		5K	10K	20K	30K	40K	50K	
1	Filter A (Rear Both) 4612-30		(1 yr) ◎					
2	Filter B (Left) 4612-59		(1 yr) ◎					
3	Developer 4606B-0			◎				
4	Seal Felt ϕ8 3626-32					◎		Developer Seal
5	V Ring ϕ6 7071					◎		Developer Seal
6	V Ring ϕ12 7072					◎		Developer Seal
7	Seal Felt 3626-38B					◎		Developer Seal
8	Tr, St Corona Wire 3622-6A		◎					
9	Image Corona Wire 4622-10		◎					
10	Grid Wire 4622-9		◎					
11	Photoconductive Drum 4606D-0			◎				
12	Blade Assy 4618B-0				◎			Cleaner
13	Heat Roller 4637A-1				◎			
14	Back-up Roller 3637-9D				◎			
15	Bearing Roller 2737A-8				◎			
16	Finger (Fuser) 3738-16B				◎			
17	Thermistor Assy 3637D-0						◎	
18	Thermistor Assy(2)Assy 4637C-0						◎	
19	Belt (Transportation) 4128-9						◎	Feeder
20	Cutter(A0) 7078							100,000 Cut
21	Cleaning Felt Assy 4637B-0	◎						
22	~~Earth Plate~~ ~~3637A-16~~			◎				
23	Side Seal (Cleaner) 4118-9				◎			
24	LED Head Roller 4605-1						◎	

Preventive Maintenance

PM is done by Lm or 4month whichever it comes first.

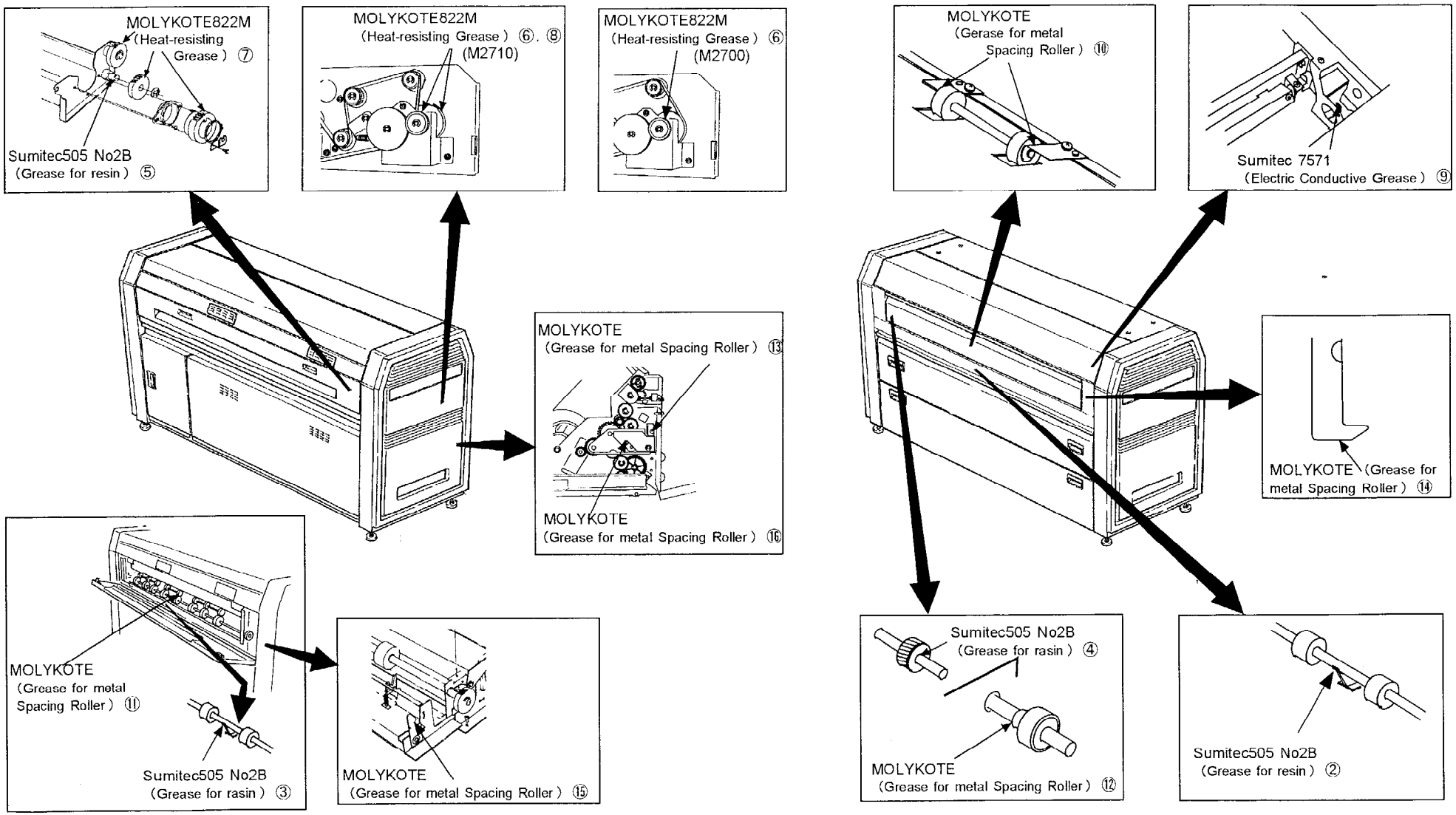
(K=1,000m)

Description		5K	10K	15K
Cleaning	Inside of Machine	○		
	Drum Stripping Nail		○	
	Image Corona	○		
	Transfer Corona	○		
	Stripper Corona	○		
	Separation Nail	○		
	Heat Roller			○
	Pressure Roller		○	
	Thermistor		○	
	Thermistor(2)		○	
	Each Roller		○	
	Belt(Feeder)		○	
	LED Head Roller	○		
	LED Head	○		
	ER Lamp		○	
	Cleaner	○		
	Thermostat		○	
Lubrication	Gear of Developer	○		

Details for greasing (Model 2700/2710)

Greasing area	Kind of Grease	Manufacturer	Remarks
1 All Gears (Except for Heater, Spool and Clutch)	Sumitec 505 No2B (Grease for resin)	SUMICO LUBRICANT CO., LTD.	
2 Bearing on the center of Main Roller	Sumitec 505 No2B (Grease for resin)	SUMICO LUBRICANT CO., LTD.	Main Frame and Paper Feed Area
3 Bearing on the center of Paper Exit Roller	Sumitec 505 No2B (Grease for resin)	SUMICO LUBRICANT CO., LTD.	
4 Developer Drive Shaft in Engine Area (Spacing Roller)	Sumitec 505 No2B (Grease for resin)	SUMICO LUBRICANT CO., LTD.	
5 Calking for 40T Gear of Fuser Unit	Sumitec 505 No2B (Grease for resin)	SUMICO LUBRICANT CO., LTD.	2 places
6 Main Motor Gear of Drive Unit	MOLYKOTE 822M (Heat-resisting Grease)	DOW CORNING ASIA LTD.	
7 40T/50T Gears of Fuser Unit	MOLYKOTE 822M (Heat-resisting Grease)	DOW CORNING ASIA LTD.	
8 30T Helical Gear of Drive Unit	MOLYKOTE 822M (Heat-resisting Grease)	DOW CORNING ASIA LTD.	
9 Drum Earth	Sumitec 7571 (Electric Conductive Grease)	SUMICO LUBRICANT CO., LTD.	
10 Bearing of Spacing Roller of Main Roller Counter (Only center area)	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	
11 Bearing of Spacing Roller of Paper Exit Roller Counter (Only center area)	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	
12 Spacing Roller Shaft of Engine Area (Bearing Adopter)	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	
13 Handle Bracket Shaft of Paper Feed Area	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	For both Upper and Lower Decks
14 Hook of Engine Unit	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	
15 Hook of Heater Hatch	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	
16 Lock Plate of Paper Feed Area	MOLYKOTE BR2-Plus (Grease for metal Spacing Roller)	DOW CORNING ASIA LTD.	For both Upper and Lower Decks
17			
18			
19			
20			

Details for greasing(M2700/M2710)



Chapter 5
Trouble Shooting

Error Code List

Error Code	Description	Page
J 0	Pick-up jam (Upper roll)	3
J 0.	Pick-up jam (Lower roll)	3
J 1	Paper feed jam (Upper roll)	3
J 1.	Paper feed jam (Lower roll)	4
J 2	Cutter jam	4
J 3	Manual feed jam	5
J 4	Drum jam	5
J 5	Exit jam	6
J 6	Auto Stacker jam	6
P 0	Paper left on paper roll jam sensor (PS3)	6
P 1	Paper left on paper stop sensor (PS5)	7
P 2	Paper left on manual feed sensor (PS4)	7
P 3	Paper left on separation sensor (PS6)	7
P 4	Paper left on exit sensor (PS7)	8
P 5	Paper left at cutter area	8
E 1	Upper roll thermistor (center, TH1) open-circuited	8
E 2	Lower roll thermistor (TH2) open-circuited	8
E 3	Heater 1 abnormally high	9
E 4	Heater 1 abnormally low	9
E 5	Cutter error	9
E 6	Developer unit connection error	10
E 7	Upper roll thermistor (edge, TH3) open-circuited	10
E 8	Toner density trouble	11
E 9	Heater blower (BL1, 2) error	11
E a	Paper feed blower (BL3) error	11
E b	Size selector error (Upper roll)	11
E c	Size selector error (Lower roll)	12
E d	Heater 2 abnormally high(edge)	12
E e	Heater 2 abnormally low(edge)	12
E F	Heater Motor error	13
E h	Cutter IC error	13
e 1	Specification setting error	13
e 2	Image placement setting error	13
e 3	Toner density setting error	13
e 4	Toner density setup error	13
e 5	Toner density trouble cancel error	14
e 6	Memory error	14
d o	Door open	14
t L	No toner	14
t F	Waste toner bottle full	14
L P	No paper set on upper roll	15
L P.	No paper set on lower roll	15
L.P.	No paper set in manual insert unit	15
- -	Upper roll in initial operation	15
- -.	Lower roll in initial operation	15
r e	Out of paper in upper roll unit	15
r e.	Out of paper in lower roll unit	15
n n	Preheat Mode(Warm sleep)	15
n	Preheat Mode(Cold sleep)	16
c t	Checking Toner	16

1. "J0" Pick-up jam (Upper roll)
2. "J0." Pick-up jam (Lower roll)

Cause) ① Paper jam due to a pick-up failure right after printing starts.
No paper(no pulse from encorder) occurred within 2.5 seconds after paper started.

Countermeasure)

① Re-install the roll paper, or initial cut if necessary.
② Check pick up area.
1) Check if Pick up Case is installed correctly.
2) Check Roll end sensor PS8.(Lower Roll, PS9)
3) Check if encorder(pulse disk) is rotating.
In case of Upper roll, check if pulse signal is coming to J18-16 (Lower Roll, J19-1) of Main PCB.

---

3. "J1" Paper feed jam (Upper roll)

Cause) ① A jam has occurred during initial operation.
② Paper has failed to reach the paper stop sensor (PS5) within prescribed time (11 seconds) after the start of printing.

Initial operation---Performed to set the leading edge of roll paper in home position after the power supply has been turned on and after the paper feed door has been opened and closed. Initial operation is also performed after the end of printing.

Countermeasure)

In case of ①:
1) Check to see whether initial operation is performed after the power supply has been turned on and the paper feed door has been opened and closed. (Confirm if the paper is actually moving.) If initial operation is not performed, a faulty roll motor (M3) or faulty roll feed clutch (CL1) is suspected. In the output check mode (mode 3) of the SERVICE DIAG, check whether the roll motor and roll feed clutch are operating properly.
2) Check the paper feed path. (Pickup case, Obstacles)
3) Check the roll stop sensor (PS1) is put properly.
4) Check if the signal from roll stop sensor(PS1) is observed at the connector J18-9 on Main PCB.

In case of ②:
1) Check the paper feed path between the roll stop sensor (PS1) and paper stop sensor (PS5).(obstacles)
2) Check if the paper stop sensor (PS5) is put properly.
3) Check if the signal from paper stop sensor(PS5) is observed at the connector J18-13 on Main PCB.

4. "J1." Paper feed jam (Lower roll)

Cause) ① A jam has occurred during initial operation.
② Paper has failed to reach the roll jam sensor (PS3) within prescribed time (11 seconds) after the start of printing.
③ Paper has failed to reach the paper stop sensor (PS5) within prescribed time (11.5 seconds) after the paper passed the roll jam sensor (PS3).

Countermeasure)

In case of ①:

1) Check to see whether initial operation is performed after the power supply has been turned on and the paper feed door has been opened and closed. (Confirm if the paper is actually moving.) If initial operation is not performed, a faulty roll motor (M3) or faulty roll feed clutch (CL2) is suspected. In the output check mode (mode 3) of the SERVICE DIAG, check whether the roll motor and roll feed clutch are operating properly.
2) Check the paper feed path. (Pickup case, Obstacles)
3) Check the roll stop sensor (PS2) is put properly.
4) Check if the signal from roll stop sensor(PS2) is observed at the connector J18-10 on Main PCB.

In case of ② & ③:

1) Check the paper feed path between the roll stop sensor (PS2) and paper stop sensor (PS5).(Guide plate of roll jam sensor area, obstacles)
2) Check if the roll jam sensor (PS3) is put properly.
3) Check if the signal from roll jam sensor(PS3) is observed at the connector J18-11 on Main PCB.
4) Check if paper stop sensor(PS5) is put properly.
5) Check if the signal from paper stop sensor(PS5) is observed at the connector J18-13 on Main PCB.

---

5. "J2" Cutter jam

Cause) ① A jam has occurred between cutter(after 2nd print) and paper stop sensor(PS5). Paper leading edge has failed to reach the paper stop sensor (PS5) within prescribed time (8 seconds) after the 2nd paper started.
② Paper trailing edge has failed to reach the paper stop sensor (PS5) within prescribed time (8 seconds) after the paper started to be cut.

Countermeasure)

In case of ①:

1) Check the paper feed path between cutter and paper stop sensor(PS5). (obstacles)
2) Check the paper stop sensor (PS5) is put properly.
3) Check if the signal from paper stop sensor(PS5) is observed at the connector J18-13 on Main PCB.

6. "J3" Manual feed jam

Cause) ① In the manual feed mode, inserting and setting of paper has not been completed within prescribed time(6 seconds).
② In the manual feed mode, after the start of printing, the trailing edge of paper has failed to reach the manual feed sensor (PS4) within prescribed time. (Inserted paper exceeds maximum available length.)
③ In the manual feed mode, paper trailing edge did not reach the paper stop sensor(PS5) within prescribed time(3.5 sec.) after passing through manual feed sensor(PS4).
④ In the roll paper feed mode, paper was inserted from manual feed area during printing.

Countermeasure)

In case of ①:
1) Turn power OFF/ON then re-insert the manual paper.
2) Confirm the operation of main motor(M1) and paper stop clutch(CL3).

in case of ②:
in case of ③:
1) Check paper feed path between manual feed sensor(PS4) and paper stop sensor(PS5).
2) Check manual feed sensor(PS4).
3) Check if manual feed sensor(PS4) is put properly.
4) Check if the signal from manual feed sensor(PS4) is observed at the connector J18-12 on Main PCB.
5) Check if paper stop sensor(PS5) is put properly.
6) Check if the signal from paper stop sensor(PS5) is observed at the connector J18-13 on Main PCB.

in case of ④:
Machine will stop after 1 second. Turn power OFF, and remove jammed paper.

---

7. "J4" Drum jam

Cause) ① The leading edge of paper has failed to reach the separation sensor(PS6) within prescribed time(6 sec.) after passing through the paper stop sensor(PS5).
② The trailing edge of paper has failed to reach the separation sensor(PS6) within prescribed time(6 sec.) after passing through the paper stop sensor(PS5).

Countermeasure)
1) Check the paper feed path between the paper stop sensor(PS5) and the separation sensor(PS6). (Obstacles)
2) Check the separation sensor(PS6).
3) Check if the signal from separation sensor(PS6) is observed at the connector J18-14 on Main PCB.
4) Check the high voltage associated parts (Corona).
5) Check to ensure that the paper feed blower (BL3) is operating properly.

8. "J5" Exit jam

Cause) ① The leading edge of paper has failed to reach the exit sensor(PS7) within prescribed time after passing through the paper separation sensor(PS6).
② The trailing edge of paper has failed to reach the exit sensor(PS7) within prescribed time after passing through the paper separation sensor(PS6).

Countermeasure)
1) Check the paper feed path between the paper separation sensor(PS6) and exit sensor(PS7). (Obstacles)
2) Check if the exit sensor(PS7) is put properly.
3) Check if the signal from exit sensor(PS7) is observed at the connector J18-15 on Main PCB.
4) Check the high voltage associated parts (Corona).
5) Check to ensure that the paper feed blower (BL3) is operating properly.
6) Check the Fuser Unit.

---

9. "J6" Auto Stacker jam

Cause) ① The leading edge of paper has failed to reach the Auto Stacker within prescribed time after passing through the paper exit sensor(PS7).
② The trailing edge of paper has failed to reach the Auto Stacker within prescribed time after passing through the paper exit sensor(PS7).

Countermeasure)
1) Check if the power of Auto Stacker is applied.
2) Check exit area of printer.
3) Check if the exit sensor(PS7) is put properly.
4) Check sending PCB and receiving PCB.
5) Check the connectors of sending and receiving PCBs.
5VDC is applied between yellow and blue wires.
Check the connection between J22-2 of sending PCB and J9-5 of Main PCB.
Check the connection between J23-2 of sending PCB and J15-1 of Main PCB.

---

10. "P0" Paper left on paper roll jam sensor (PS3)

Paper is remaining on the roll jam sensor(PS3) after the power is turned ON or after the paper feed door is opened and closed.

• Perform the following checks.
1) Remove the paper.
2) Check the roll jam sensor(PS3). (When the jam is cleared, actuator may happen to be broken.)
3) Check the connections between the main PCB and roll jam sensor(PS3). (J18-11 ~ J400-17 ~ J406-3)
4) Check if the signal from roll jam sensor(PS3) is observed at the connector J18-11 on Main PCB.
5) Replace the main PCB.

11. "P1" Paper left on paper stop sensor (PS5)

Paper is remaining on the paper stop sensor(PS5) after the power is turned ON or after the paper feed door is opened and closed.

- Perform the following checks.

1) Remove the paper.
2) Check the paper stop sensor(PS5). (When the jam is cleared, actuator may happen to be broken.)
3) Check the connections between the main PCB and paper stop sensor(PS5). (J44-2 ~ J3-7, J44-3 ~ J18-13, J44-4 ~ J2-5)
4) Check if the signal from paper stop sensor(PS5) is observed at the connector J18-13 on Main PCB.
5) Replace the main PCB.

---

12. "P2" Paper left on manual feed sensor (PS4)

Paper is remaining on the manual feed sensor(PS4) after the power is turned ON or after the paper feed door is opened and closed.

- Perform the following checks.

1) Remove the paper
2) Check the manual feed sensor(PS4). (When the jam is cleared, actuator may happen to be broken.)
3) Check the connections between the main PCB and manual feed sensor(PS4). (J43-2 ~ J3-6, J43-3 ~ J18-12, J43-4 ~ J2-4)
4) Check if the signal from manual feed sensor(PS4) is observed at the connector J18-12 on Main PCB.
5) Replace the main PCB.

---

13. "P3" Paper left on separation sensor(PS6)

Paper is remaining on the separation sensor(PS6) after the power is turned ON or after the paper feed door is opened and closed.

- Perform the following checks.

1) Remove the paper.
2) Check the separation sensor(PS6). (When the jam is cleared, actuator may happen to be broken.)
3) Check the connections between the main PCB and separation sensor(PS6). (J45-2 ~ J3-8, J45-3 ~ J18-14, J45-4 ~ J2-6)
4) Check if the signal from separation sensor(PS6) is observed at the connector J18-14 on Main PCB.
5) Replace the main PCB.

14. "P4" Paper left on exit sensor (PS7)

Paper is remaining on the exit sensor(PS7) after the power is turned ON or after the paper feed door is opened and closed.

• Perform the following checks.

1) Remove the paper.
2) Check the exit sensor(PS7). (When the jam is cleared, actuator may happen to be broken.)
3) Check the connections between the main PCB and exit sensor(PS7). (J46-2 ~ J3-9, J46-3 ~ J18-15, J46-4 ~ J2-7)
4) Check if the signal from exit sensor(PS7) is observed at the connector J18-15 on Main PCB.
5) Replace the main PCB.

---

15. "P5" Paper left at cutter area

Paper left at cutter area after roll paper end.
(in only case of untaped roll.)

---

16. "E1" Upper roll thermistor(center, TH1) open-circuited

The heat roller thermistor (TH1) has gone out of order.
Check the following items in the order mentioned.

Countermeasure)

1) Check the connections of the SM connector J41 (white 2P).
2) Check the connections of the connector J16 on the main PCB.
3) Check if the thermistor is put properly.
4) Check the connections and conditions of the wires between the connectors J41 and J16.
5) Replace the main PCB.

---

17. "E2" Lower roll thermistor open-circuited

The back up roller thermistor (TH2) has gone out of order.
Check the following items in the order mentioned.

Countermeasure)

1) Check the connections of the SM connector J42 (black 2P).
2) Check the connections of the connector J16 on the main PCB.
3) Check if the thermistor is put properly.
4) Check the connections and conditions of the wires between the connectors J42 and J16.
5) Replace the main PCB.

18. "E3" Heater 1 abnormally high

The temperature of Heater 1 raised abnormally high.
Check the following items in the order mentioned.

Countermeasure)

1) Check the SSR1 and its wiring.
2) Replace the SSR1.
3) Replace the main PCB.

---

19. "E4" Heater 1 abnormally low

The temperature of Heater 1 declined abnormally low. An open-circuited heater lamp 1 or thermostat-opened is suspected.

Cause) ① The temperature has failed to rise to a prescribed value(20°C/5 min.) in a certain time after the power is turned on. (This can occur when the printer is placed in a very low temperature condition or when the power supply conditions are poor.)

② The heater temperature has dropped below 100°C during printing.

Check the following items in the order mentioned.

Countermeasure)

1) Check by setting the power switch to OFF and then ON again.
2) Check the voltage of 5V line(yellow) and signal line(purple) of SSR1.
   i) When 5V is not applied on yellow line, or purple line is not 0V, check the connection up to main PCB.
   (purple = J11-1 on main PCB, yellow = J11-2 on main PCB)
   ii) When yellow is 5V, and purple is 0V, and when the heater lamp is....
   1) ON --- Turn OFF the power and ON, then it will be ready.
   2) OFF --- Check if heater lamp is broken or thermostat 1.

---

20. "E5" Cutter error

The cutter has failed to operate. The following are probable causes.

Cause) ① The cutter has failed to move to the home position during initial operation after the power supply has been turned on and after the paper feed door has been opened and closed.

② The cutter has failed to complete a cutting operation in a prescribed time (2 sec.) during printing.

Perform the following checks.

Countermeasure)

in case of ①:

1) Manually move the cutter to the home position. At the time, check to see whether the micro switch is pressed.
2) Check if the signal is observed from micro switch at connectors J19-5 and J19-6 on main PCB.
3) In the cutter operation check mode (mode 6) of the SERVICE DIAG, check operation of the cutter. Confirm if the signal is observed from micro switch. (At this point, check to ensure that the paper feed door is in the fully closed position.)
4) If the cutter fails to operate, replace the main PCB.
5) Check the connections of wires between the connectors J8 and J400 and J402.
6) Replace the cutter unit.

in case of ②:

1) In the cutter operation check mode (mode 6) of the SERVICE DIAG, check operation of the cutter. (At this point, check to ensure that the paper feed door is in the fully closed position.)
   i) If the cutter fails to operate...Perform the same checks as in ①.
   ii) If the cutter operates....Go to Item 3).
2) Check the rotary blade.

---

21. "E6" Developer unit connection error

The developer unit is not connected. Perform the following checks.

1) The connector J54 of the developer unit is out of position, or something wrong has occurred in the connector. (The pins of the connector are readily broken. Pay special attention to the pins.)
2) Check the connections between the connectors J2 12 and J54 10 and between the J19-4 and J54-11.
3) Replace the main PCB.

---

22. "E7" Upper roll thermistor(edge, TH3) open-circuited

Thermistor(TH3) of heater roll edge is abnormal. Perform the following checks.

Countermeasure)

1) Check the connection of SM connector J47(white 3p).
2) Check the connection between connector J16 and main PCB.
3) Replace thermistor.
4) Check the connections between the connectors J47 and J16 and the condition.
5) Replace the main PCB.

23. "E8" Toner density trouble

The toner density has become abnormally high or low.
Perform the following checks.

1) Check operation of the toner clutch (CL4).
2) Check the connector J16 (on the main PCB).
3) Check the connector J54 (the developer unit).
4) Check the connections between the connectors J16-7 and J54-2.
5) Replace the toner density sensor.
6) Replace the main PCB.

---

24. "E9" Heater blower(BL1, 2) error

The heater blowers(BL1, 2) are not operating properly. Perform the following checks.

1) Check the blower connectors J37 and J38(SM connector 2p).
2) Check the connections of the connector J4(main PCB).
3) Check the wire connection between J37, J38 and J4.
4) Replace blower.
5) Replace the main PCB.

---

25. "Ea" Paper feed blower(BL3) error

The paper feed blower(BL3) is not operating properly.
Perform the following checks.

1) Check the connector J39(ML connector 2p) of blower.
2) Check the connectors J6 and J9 on main PCB.
3) Check the connections between J39-1 and J6-6, and between J39-2 and J9-8.
4) Replace the blower (BL3).
5) Replace the main PCB.

---

26. "Eb" Size selector error (Upper roll)

An error has occurred in the size selector of the upper roll unit.
Perform the following checks.

1) Check if size selector is put properly.
2) Check the connectors J18-1 through -4 (main PCB).
3) Check the drawer connectors J400-19 through -22.
4) Replace the size selector.

27. "Ec" Size selector error (Lower roll)

An error has occurred in the size selector of the lower roll unit.
Perform the following checks.

1) Check if size selector is put properly.
2) Check the connectors J18-4 through -8 (main PCB).
3) Check the drawer connectors J500-5 through -8.
4) Replace the size selector.

---

28. "Ed" Heater 2 abnormally high (edge)

The temperature of Heater 2 raised abnormally high. Perform the following checks.

1) Check SSR2 and its wiring.
2) Replace SSR2.
3) Replace the main PCB.

---

29. "Ee" Heater 2 abnormally low (edge)

The temperature of Heater 2 declined abnormally low. An open-circuited heater lamp 2 or thermostat-opened is suspected.

Cause) ① The temperature has failed to rise to a prescribed value(20°C/5 min.) in a certain time after the power is turned on. (This can occur when the printer is placed in a very low temperature condition or when the power supply conditions are poor.)
② The heater temperature has dropped below 100°C during printing.

Check the following items in the order mentioned.

Countermeasure)
1) Check by setting the power switch to OFF and then ON again.
2) Check the voltage of 5V line(yellow) and signal line(purple) of SSR2.
i) When 5V is not applied on yellow line, or purple line is not 0V, check the connection up to main PCB.
(purple = J11-3 on main PCB, yellow = J11-4 on main PCB)
ii) When yellow is 5V, and purple is 0V, and when the heater lamp is....
1) ON --- Turn OFF the power and ON, then it will be ready.
2) OFF --- Check if heater lamp is broken or thermostat 2.

30. "EF" Heater Motor error

An error has occurred on Heater Motor.

Cause) ① Heater Motor is the overload condition due to exit jam.
② Heater Motor is the overload condition due to other reason.

Check the following items in the order mentioned.

Countermeasure)
1) Remove the jammed paper if jam is occurred around exit area of printer.
2) Check the Fuser Unit and the Heater Motor.
3) Check the drive sequence(broken teeth of gear).

---

31. "Eh" Cutter IC error

Abnormal condition has occurred on IC(IC29) for drive the Cutter Motor.

Countermeasure)
1) Confirm that the cutter operates smoothly.
2) Replace the Main PCB.

---

32. "e1" Specification setting error

The ISO/ANSI specifications have not been set.
Do the settings in the specification setting mode (mode 1) of the SERVICE DIAG.

---

33. "e2" Image placement setting error

The image placement has not been adjusted.
Do the settings in the image adjustment mode (mode 8) of the SERVICE DIAG.

---

34. "e3" Toner density setting error

The toner density has not been set.
Do the setting in the toner density setting mode (mode 4) of the SERVICE DIAG.

---

35. "e4" Toner density setup error

An error has occurred in the setup mode ("42") of the toner density setting mode (mode 4) of the SERVICE DIAG.
Refer to the SERVICE DIAG.

36. "e5" Toner density trouble cancel error

The protective function has not been cancelled by the SERVICE DIAG after correction of the toner density trouble ("E8").

Protective function...When the toner density trouble("E8") once occurred, this printer inhibit printing. Even if power is turned OFF and ON, machine will not be ready.

In the toner density trouble cancel mode ("44") of the toner density setting mode (mode 4) of the SERVICE DIAG, cancel the protective function.

---

37. "e6" Memory error

An error has occurred during the memory check performed when the power switch was set to ON.

Cause) ① An error has occurred in the IC11 on the main PCB.
② An error has occurred in the IC23 on the main PCB.

Countermeasure)
1) Replace the main PCB.

---

38. "do" Door open

The paper feed door is open, or the paper drawer(tray) has not be correctly set. Perform the following checks.

1) Check to ensure that the paper feed door has been fully closed.
2) At the time, check to ensure that the micro switch (MS1) has been pressed by the door.
3) Push the paper feed unit in and check if the unit has been locked.
4) If 24V is available at the connector J7-5 of the main PCB at the time, replace the main PCB.
5) Check the connections of the connector J409 of the micro switch.
6) Check the drawer connector J400 in particular, as loose contact often occurs at the connector.

---

39. "tL" No toner

The remaining quantity of toner is short. Add the toner.
Note) If power is turned OFF and ON, only one print is available.

---

40. "tF" Waste toner bottle full

The waste toner bottle is full. Replace the bottle.

41. "LP" No paper set on upper roll

In upper roll paper mode, there is no paper set on the upper roll.
Set paper on the upper roll, or change the paper feeder to another mode.
Confirm the knob location of Size Selector.

---

42. "LP." No paper set on lower roll

In lower roll paper mode, there is no paper set on the lower roll.
Set paper on the lower roll, or change the paper feeder to another mode.
Confirm the knob location of Size Selector.

---

43. "L.P." No paper set in manual insert unit

In manual feed mode, there is no paper set in the manual insert unit.
Set paper in the manual insert unit, or change the paper feed mode to another mode.

---

44. "--" Upper roll in initial operation

The upper roll is in initial operation.
Initial operation is performed when the power switch is set to ON and when the paper feed door is opened and closed, and when a printing is completed.

---

45. "--." Lower roll in initial operation

The lower roll is in initial operation.
Initial operation is performed when the power switch is set to ON and when the paper feed door is opened and closed, and when a printing is completed.

---

46. "re" Out of paper in upper roll unit

During a printing from the upper roll, an "out of paper" state has occurred in the upper roll unit. Add paper.

---

47. "re." Out of paper in lower roll unit

During a printing from the lower roll, an "out of paper" state has occurred in the lower roll unit. Add paper.

---

48. "nn" Preheat Mode(Warm sleep)

Printer is in the Preheat Mode.
Warm sleep: Heater control temperature is 120°C.

49. " n" Preheat Mode(Cold sleep)

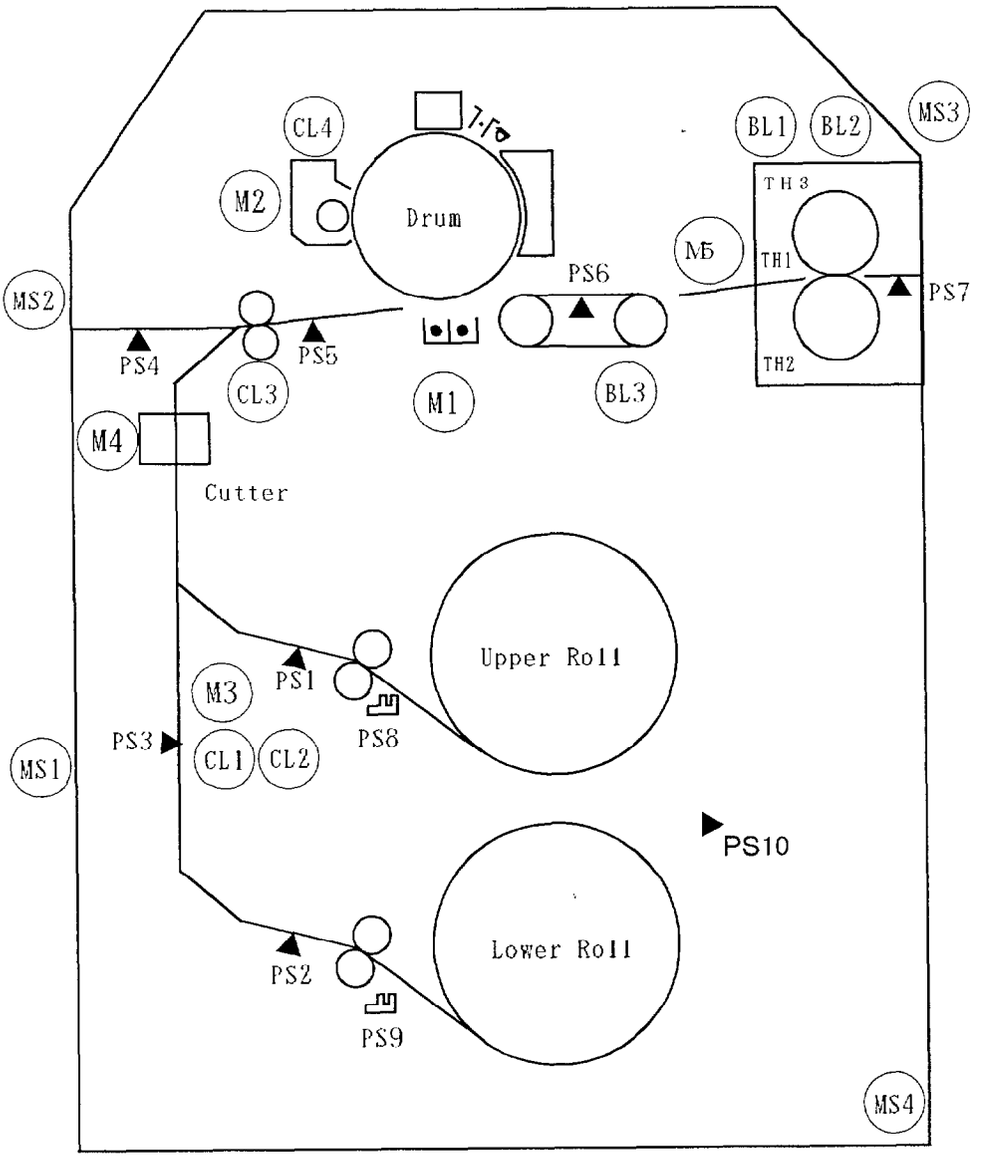
Printer is in the Preheat Mode.
Cold sleep: Heater is completely OFF.

---

50. "ct" Checking Toner

Printer is under Self Diagnostic after power is applied, when toner empty("tL") is detected.

＊Component Location Map



PS1: Roll Stop Sensor 1
PS2: Roll Stop Sensor 2
PS3: Roll Jam Sensor
PS4: Manual Feed Sensor
PS5: Paper Stop Sensor
PS6: Separation Sensor
PS7: Exit Sensor
PS8: Roll End Seneor 1
PS9: Roll End Sensor 2
PS10:Waste Toner Sensor

M1 : Main Motor
M2 : Deve Motor
M3 : Roll Feeder Motor
M4 : Cutter Motor
M5 : Heater Motor

BL1: Heater Blower 1
BL2: Heater Blower 2
BL3: Paper Feed Blower

CL1: Roll Feed Clutch 1
CL2: Roll Feed Clutch 2
CL3: Paper Stop Clutch
CL4: Toner Clutch

MS1: Front Door Micro Switch
MS2: Upper Unit Micro Switch
MS3: Heater Hatch Micro Switch
MS4: Waste Toner Hatch Mic. Sw.

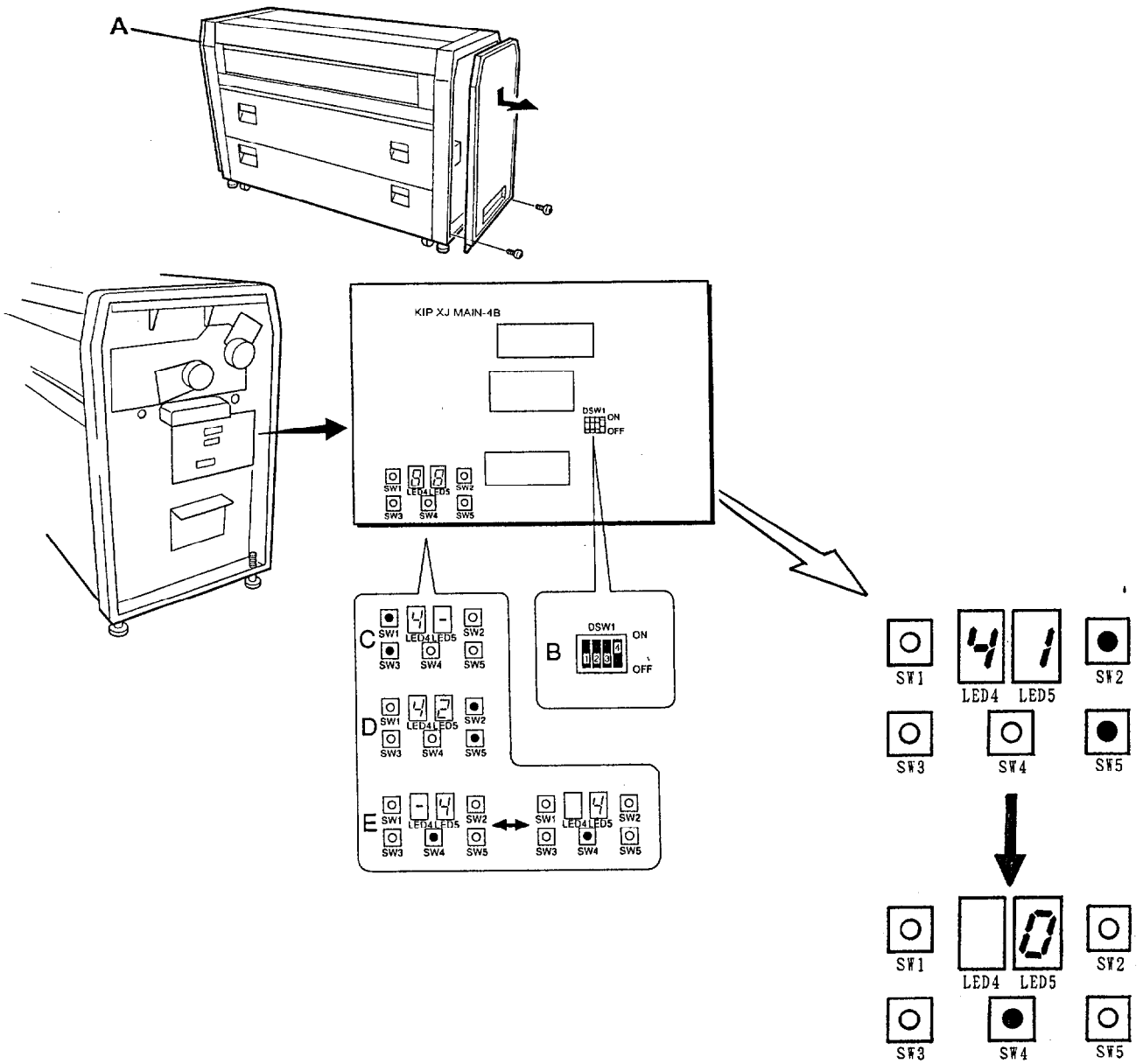
Chapter 6
Adjustment

6-1 Electrical Adjustment

6-1-1. Toner Density Sensor Adjustment

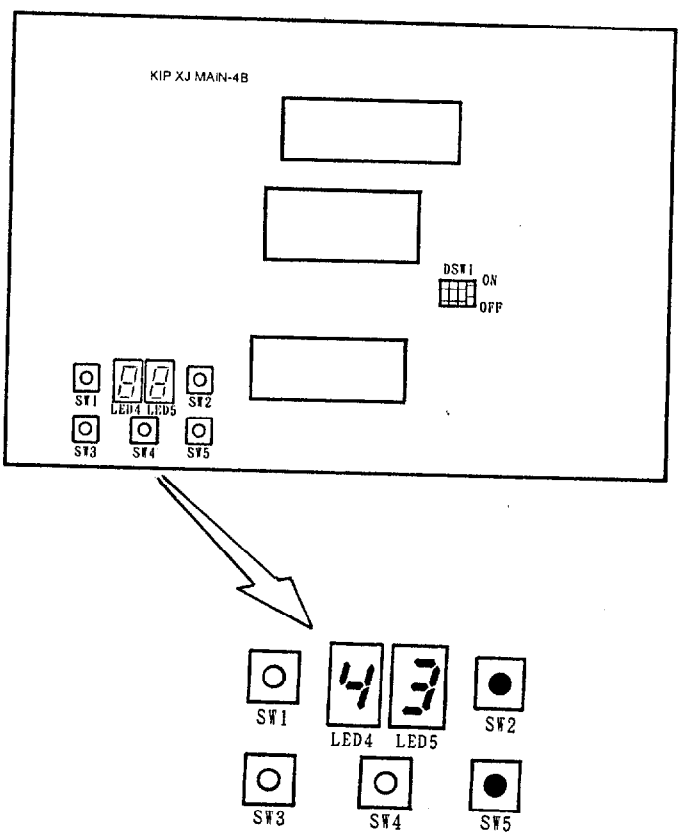
1) Procedures to follow when setting up the machine or replacing the developer.

1 Set the power switch to OFF.
2 Put the developer unit containing a new developer in position.
3 Remove the left side cover (A). (Two screws)
4 Set position 4 of the DSW1 (B) on the main board to ON.
5 Connect a tester between TP6 and TP2(ground).
6 Set the power switch to ON.
7 Press the SW1 or SW3 so that the LED4 and 5 will display "4-" (C).
8 Press the SW2 or SW5 so that the LED4 and 5 will display "42" (D).
9 Push SW4 twice. Then, the machine will start automatically, and wait until 7 segments start flickering(approx. 5 min.). If it does not show "0", adjust VR1 on Main PCB until "0" is shown.
If the tester shows between 4.0 and 10.0V, then adjustment is satisfied.
In case of less than 4.0V, adjust VR1 so as 7 segment shows "- 3" or "- 4".
In case of more than 10.0V, adjust VR1 so as 7 segment shows " 3" or " 4".
If the tester value is still between 4.0 and 10.0V, then adjustment is done.
Push SW4 to set this adjustmnet, then flickering will stop.
If the tester value is out of range, change toner % sensor and restart "Initialization Mode(41)".
10 Set position 4 of the DSW1 on the main board to OFF.
11 Set the power switch to OFF.
12 Re-mount the left side cover.


A
KIP XJ MAIN-4B
DSW1
ON
OFF
SW1
SW2
SW3
SW4
SW5
LED4
LED5
B
C
D
E

2) Procedures to Follow When You Want to Change Toner Concentration

1 Perform Steps 1 through 6 in 1).
2 Press the SW2 or SW5 so that the LED4 and 5 will display "43".
3 Press the SW4 once. The currently set value will appear.
  * Make a note of the set value (which will be necessary when the original concentration is to be restored).
4 Press the SW2 or SW5 to change the set value. The display will flash.
  * When you increase the set value...the toner concentration will increase.
  * When you reduce the set value.....the toner concentration will decrease.
  * The toner concentration will decrease or increase about 0.5% a step.
5 Press the SW4 to set the changed concentration value.
6 Set position 4 of the DSW1 on the main board to OFF.
7 Set the power switch to OFF.
8 Re-mount the left side cover.



6-1-2 LED Head Strobe Time Setting & Adjustment

Re-set the strobe time of LED head when LED Head or Photoconductor is changed, or line width or ID is required to be changed by the customer's requirement.

1 LED Head Strobe Time to get -120V±15V as a standard Surface Potential of Light Level varies by the combination of each unit, because of dispersion between average light volume and sensitive rank of Photoconductive Drum. Average light volume of LED Head is written on the label of the LED Head. Sensitive rank is also written on the label of the Drum.

2 Standard Strobe Time is set by the list below between average light volume of LED Head and the sensitive rank of the Photoconductive Drum.
ex.) Average light volume of LED Head.....1.34μW
Sensitive rank of Photoconductive Drum....3
Strobe Time becomes 38μsec. based on below list.

Strobe Time Calculation Table[μsec]

LED Head	Drum Ranking		
Ave Light[μW]	2	3	4
(-)	27	28	32
1.45～1.55	30	32	35
1.35～1.44	32	35	38
1.25～1.34	33	38	42
1.15～1.24	37	42	45
(+)	40	45	48

LED strobe Time

Display		Adj Val	Strobe
LED4	5	[μSEC]	[μSEC]
h	-d	-13	22
h	-c	-12	23
h	-b	-11	24
h	-a	-10	25
h	-9	- 9	26
h	-8	- 8	27
h	-7	- 7	28
h	-6	- 6	29
h	-5	- 5	30
h	-4	- 4	31
h	-3	- 3	32
h	-2	- 2	33
h	-1	- 1	34
h	**0**	**0**	**35***
h	1	1	36
h	2	2	37
h	3	3	38
h	4	4	39
h	5	5	40
h	6	6	41
h	7	7	42
h	8	8	43
h	9	9	44
h	a	10	45
h	b	11	46
h	c	12	47
h	d	13	48

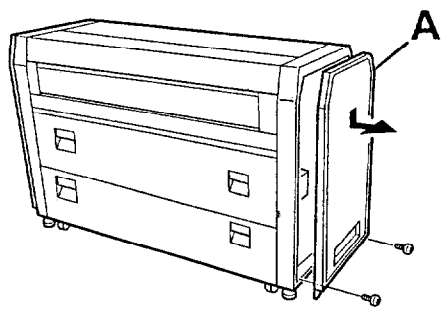
3 The Strobe Time is adjusted by the Service Diag Mode(15) (h) LED Strobe length adjustment mode. In case of above example, adjustment value becomes -3 since it is set 38μsec. Factory set value is written on service label of the machine. The Strobe Time might be shifted one level - or - direction from the above mentioned list based on the actual measurement. When it is shifted to larger value(+ direction), "+1" is marked on light volume indication label, and vice versa. When setting value is shifted, adjust the Strobe Time based on the list.

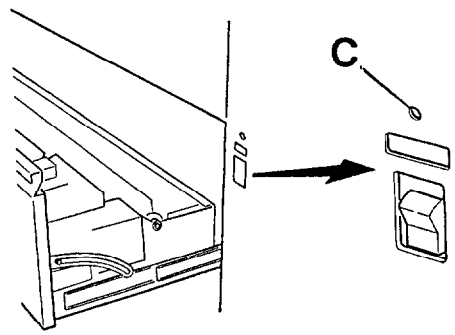
4 Image quality can be changed by the Strobe Time if customer requests, however the following characteristics exist.

When it is set smaller, line width gets narrower, but black solid area gets lighter.
When it is set larger, black solid area gets darker, but line width gets wider.

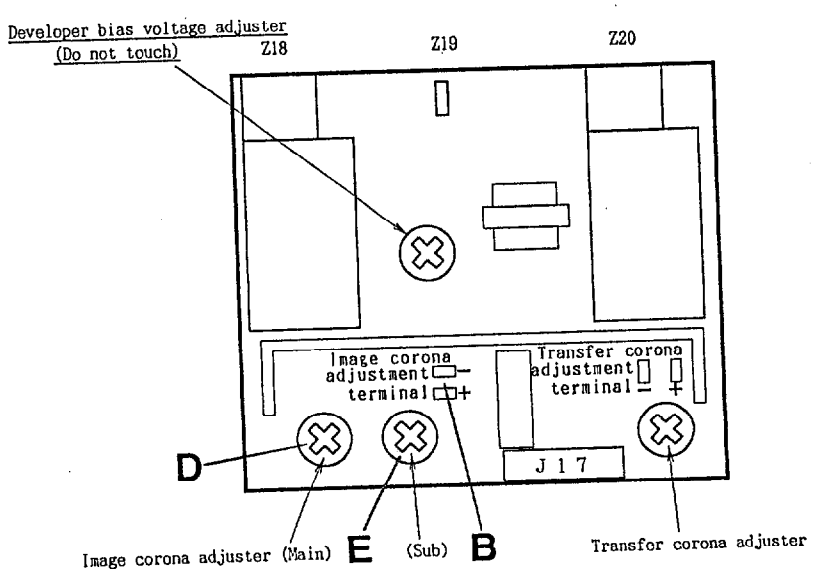
6-1-3. Image Corona Power Supply Adjustment

1 Set the power switch to OFF.
2 Remove the right side cover (A). (Two screws)
3 Place the tester in the DC 2V range and connect it to the image corona adjusting terminals (B) of the DC high voltage power supply (HV1).
4 Set the power switch to ON.
5 After the machine has become ready, let the machine make a test print by pressing the test print button (C) with the end of a ball point pen or something else.
6 During the period the machine is making a test print, adjust the image corona adjusting variable resistors (main (D) and sub (E)) to the proper value. (-0.85V standard)
7 Disconnect the tester.
8 Re-mount the right side cover. (Two screws)



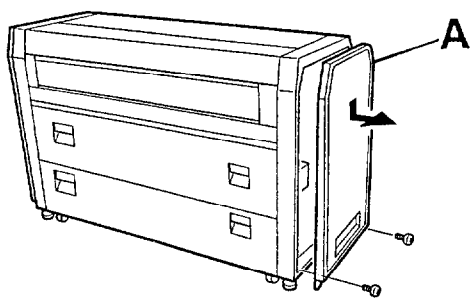


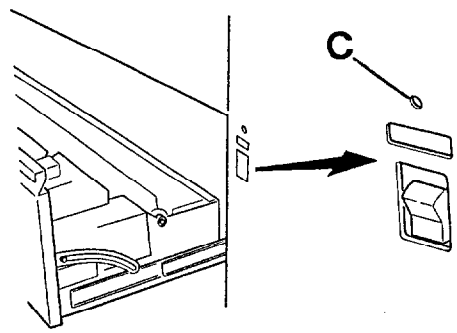
DC High-voltage Power Supply (HV1)



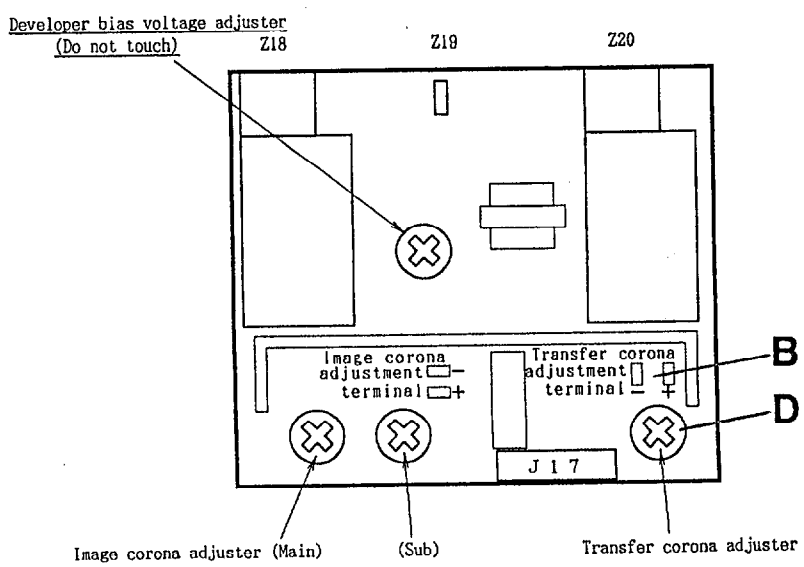
6-1-4. Transfer Corona Power Supply Adjustment

1 Set the power switch to OFF.
2 Remove the right side cover (A). (Two screws)
3 Place the tester in the DC 2V range and connect it to the transfer corona adjusting terminals (B) of the DC high voltage power supply (HV1).
4 Set the power switch to ON.
5 After the machine has become ready, let the machine make
a test print by pressing the test print button (C) with the end of
a ball point pen or something else.
6 During the period the machine is making a test print, adjust the transfer corona adjusting variable resistor (D) to the proper value. (+0.50V standard)
7 Disconnect the tester.
8 Re-mount the right side cover. (Two screws)



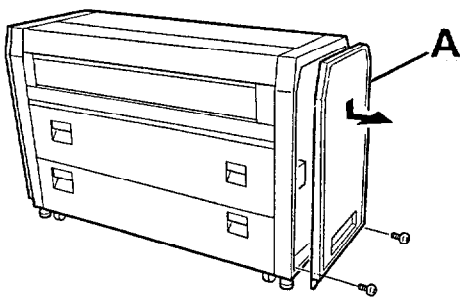


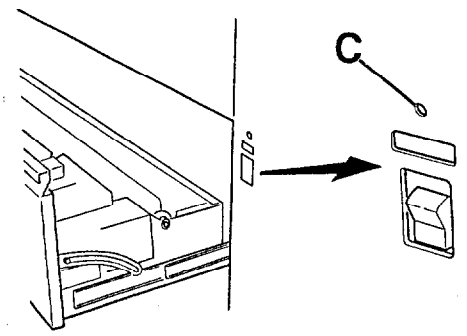
DC High-voltage Power Supply (HV1)

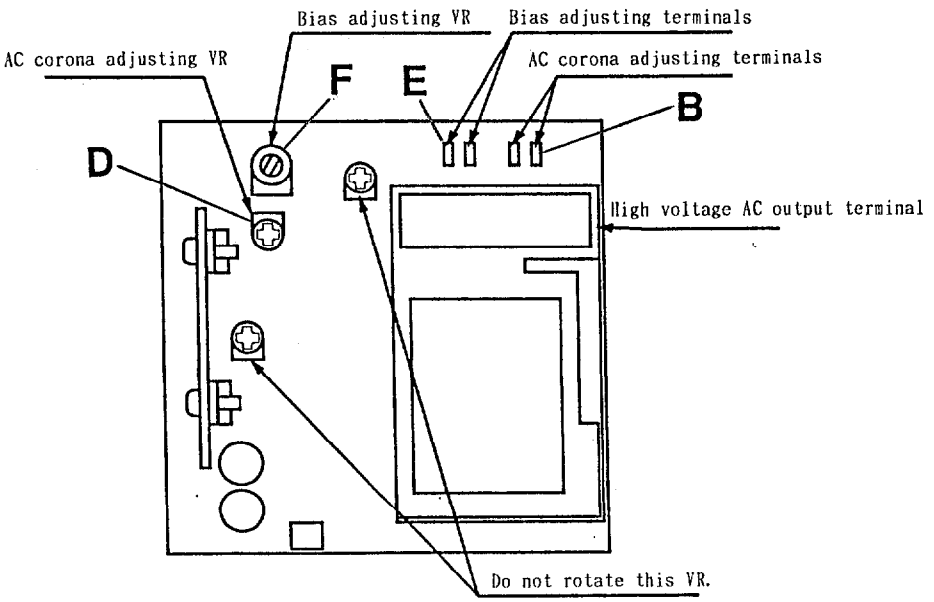


6-1-5. Separation Corona Power Supply Adjustment

1 Set the power switch to OFF.
2 Remove the right side cover (A). (Two screws)
3 Place the tester in the AC 20V range and connect it to the AC corona adjusting terminals (B) of the AC high voltage power supply (HV2).
4 Set the power switch to ON.
5 After the machine has become ready, let the machine make a test print by pressing the test print button (C) with the end of a ball point pen or something else.
6 During the period the machine is making a test print, adjust the AC corona adjusting variable resistor (D) to the proper value. (4.5V standard)
7 Disconnect the tester, change over the tester to the DC 1000V range, and connect the tester to the bias adjusting terminals (E).
8 Press the test print button to let the machine make a test print.
9 During the period the machine is making a test print, adjust the bias adjusting variable resistor (F) to the proper value. (-300V standard)
10 Disconnect the tester.
11 Re-mount the right side cover. (Two screws)







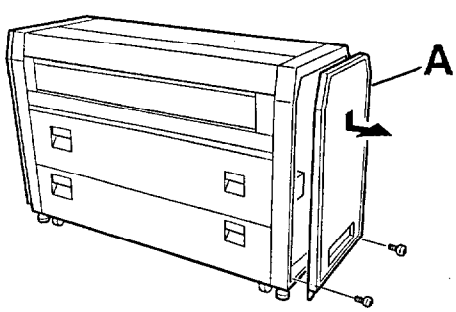
AC High-voltage Power Supply (HV2)

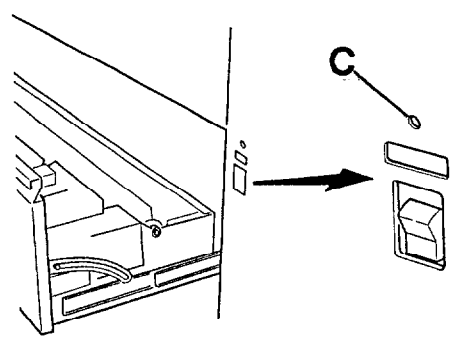
6-1-6. Developer Bias Power Supply Adjustment

1 Set the power switch to OFF.
2 Remove the side cover (A). (Two screws)
3 Remove the connector from the bias output terminals (B).
4 Place the tester in the DC 1000V range and connect the positive probe to the bias terminal and the negative probe to the machine proper.
5 Set the power switch to ON.
6 After the machine has become ready, let the machine make a test print by pressing the test print button (C) with the end of a ball point pen or something else.
7 During the period the machine is making a test print, adjust the developer bias voltage to the proper value by the bias voltage adjusting VR (D).
(-400V standard)

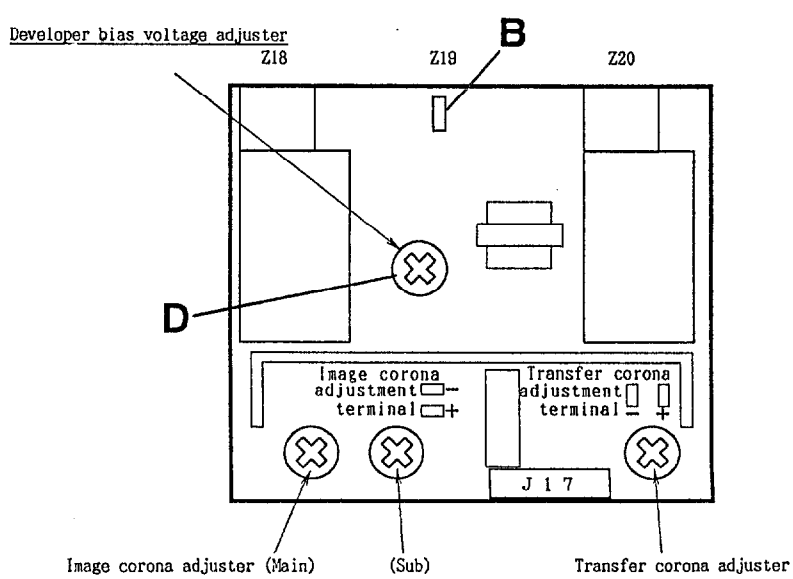
* The image of the test pattern that has been made may appear somewhat abnormal, but it does not mean any problem.

8 Disconnect the tester.
9 Re-connect the connector to the bias output terminals.
10 Re-mount the side cover.





DC High-voltage Power Supply (HV1)

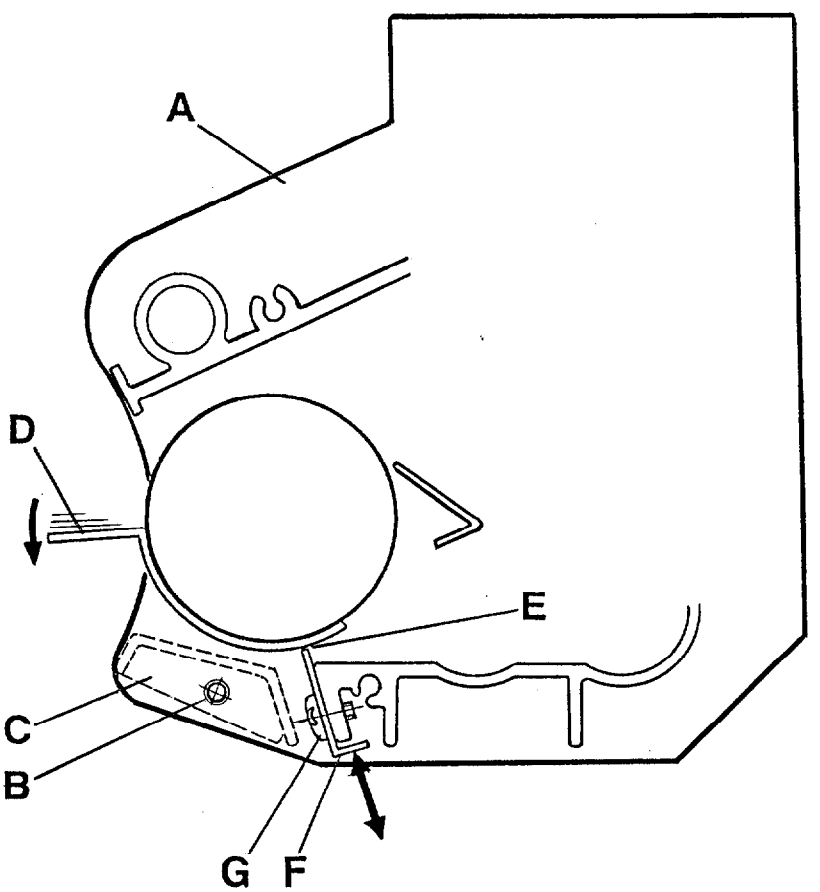


6-2 Mechanical Adjustment

6-2-1. Doctor Blade Gap Adjustment

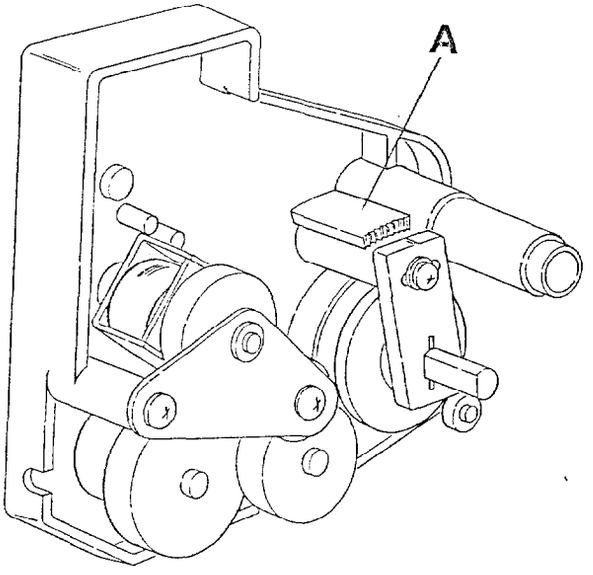
1 Remove screw (B) on the both side of the Developer (A) and remove the lower cover (C).
2 Insert the 1.4mm-gap jig (D) into the specified place (E) to check the gap.
3 If the gap is incorrect, loosen screw (G) of the Doctor Blade (F) and insert the 1.4mm-gap jig into the slit. Depress the Doctor Blade and tighten the screw.
4 After the Doctor Blade is installed, check the slit using the jig. The 1.30mm-gap jig should be inserted, the 1.45mm-gap jig should not be inserted.
5 Adjust seven positions, both sides and center.

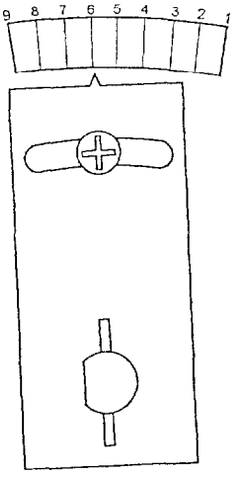
* Adjustment Tools
  4102-1 1.40mm
  4102-2 1.30mm
  4102-4 1.45mm
  4602-1 Mg Roll Rotation Tool



6-2-2. Magnet Roller Angle Adjustment

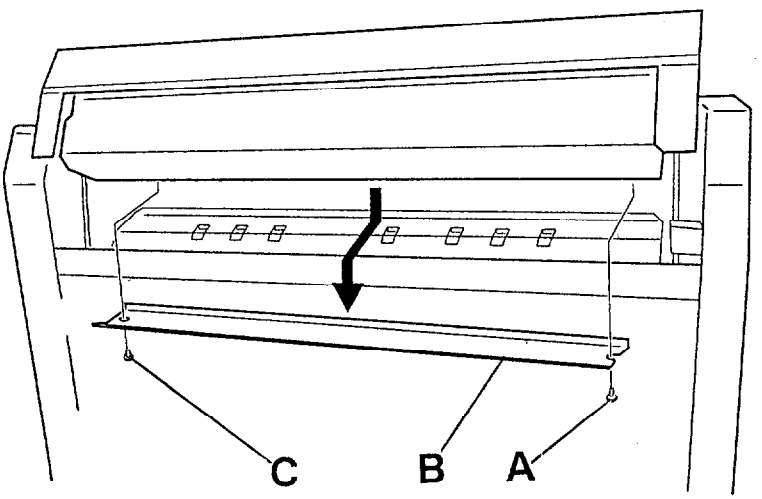
1 Put the Developer Unit on the flat base.
2 Make a note of the scale(A) before removing the screw of Angle Plate. Adjust the same value when assemble.
3 In case of failing to make a note, adjust to the sixth notch from the Drum side. It may adjusted slightly different from the 6th notch when factory adjustment is made, you can select 6th notch since it does not exceed one notch.

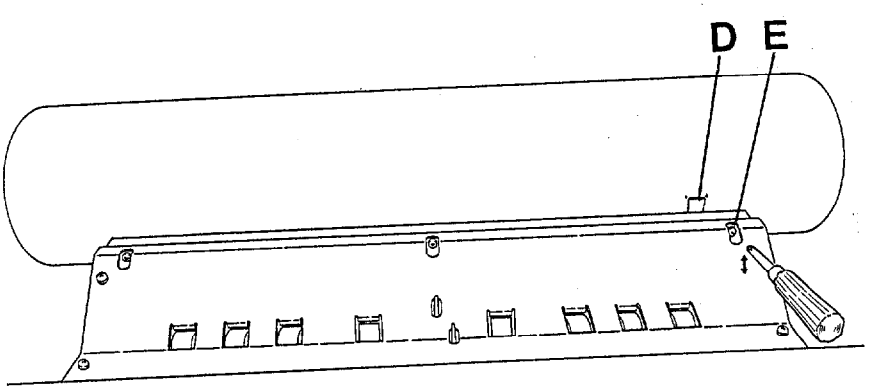


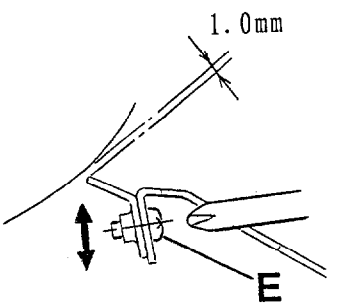


6-2-3. Transfer Guide Gap Adjustment

1 Set the power switch to OFF.
2 Remove the developer unit.
3 Open the engine unit.
4 Loosen the right end screw (A) tightening the developer lower guide plate "Guide Plate 15 (B)", remove the left end screw (C), and remove the guide plate by sliding to the left.
5 Close the engine unit.
6 Open the toner hatch.
7 Put the jig (D) in the clearance between the photoconductive drum and transfer guide, and move up and down the screws (E) tightening the transfer guide to adjust the clearance between the photoconductive drum and transfer guide. Then re-tighten the screws. (Three places)
* In this case, use care to prevent damage to the photoconductive drum.
8 Open the engine unit.
9 Re-mount the developer lower guide.
10 Open the engine unit.
11 Place the developer unit in position.



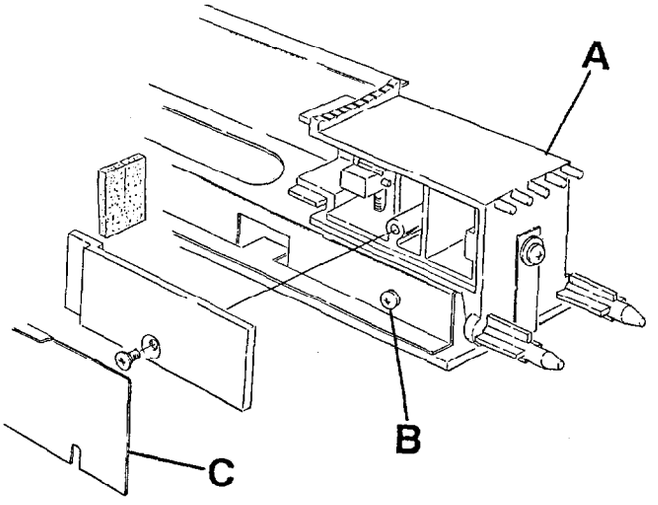


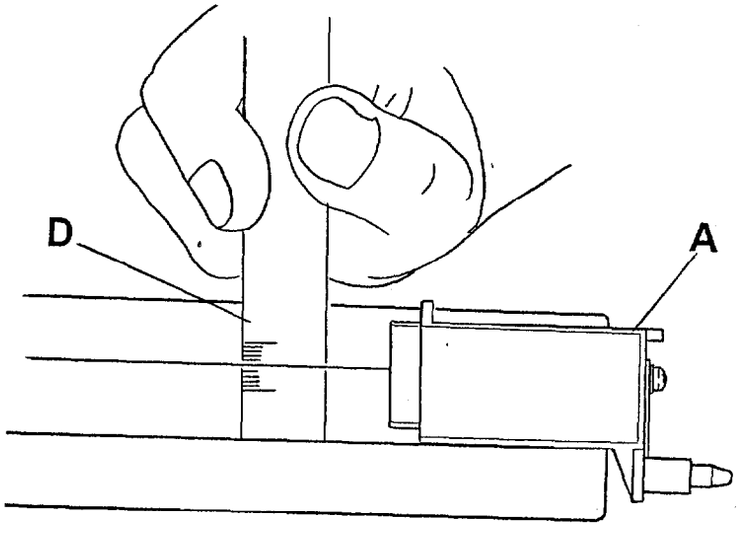


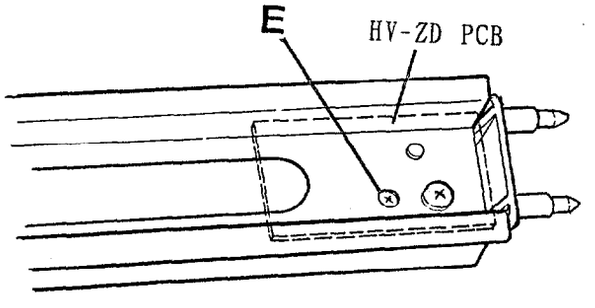
6-2-4. Image Corona Wire's Height Adjustment

1 Power off and unplug the machine.
2 Remove the Image Corona Assembly (A).
3 Loosen three screws (B) and remove the corona side frame (C).
4 Place the scale (D), and adjust corona height by turning the adjustment screw (E) on the rear side.

Im Corona = 10.0mm±0.2mm

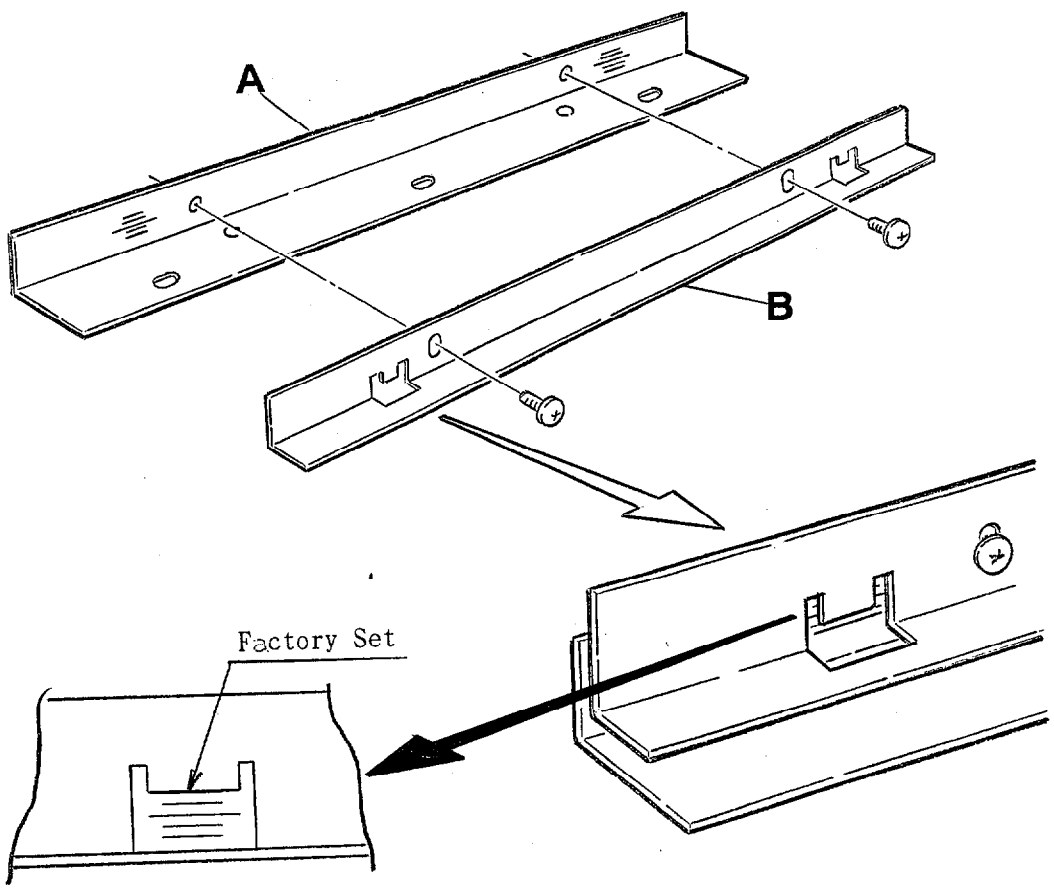






6-2-5. Holding Plate Assy Adjustment

1 When assemble Holding Plate A(A), to Holding Plate B(B),align to the Top Notch as shown below(both sides).
Note:This position is the Factory Set.



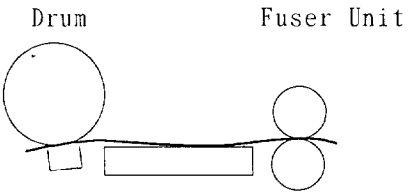
6-2-6. Long Copy Adjustment

1 Adjustment by speed

This adjustment is done when Fuser feeding speed varies by the media or environment.

1-1 Ideally

If the condition is below shown 1-2 or 1-3, adjust the speed like this.

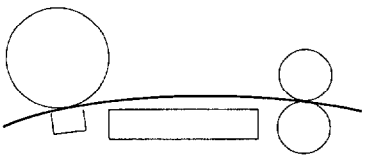


1-2 When the speed is faster;

Prob. 1 Paper touches to the Stripper Nail of Drum, then image is scratched.

Prob. 2 Both edges of paper are curved.

Prob. 3 Feeding balance is not equal, because it is pulled.

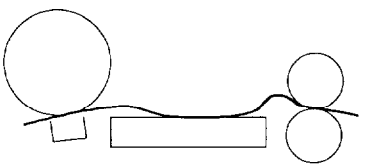


1-3 When the speed is slower;

Prob. 1 A blurred image occurs 90mm from the trailing edge.

Prob. 2 Paper might hit the Stripper Nail.

Prob. 3 Spread image is easy shown in case of tracing paper.



2 Adjustment by Fuser Unit Spacer

This adjustment is done when the balance between left and right gets collapsed because of the media or environment.

2-1 When the driving side is curved or pulled too much,

* remove the spacer of the other side one by one(if spacers are observed).

* add a spacer to the driving side(if spacer exists already, adjust it by the speed).

2-2 When the anti-driving side is curved or pulled too much,

* Put a spacer to the anti-driving side(up to 4 sheets).

Note : Refer to page 3-27.

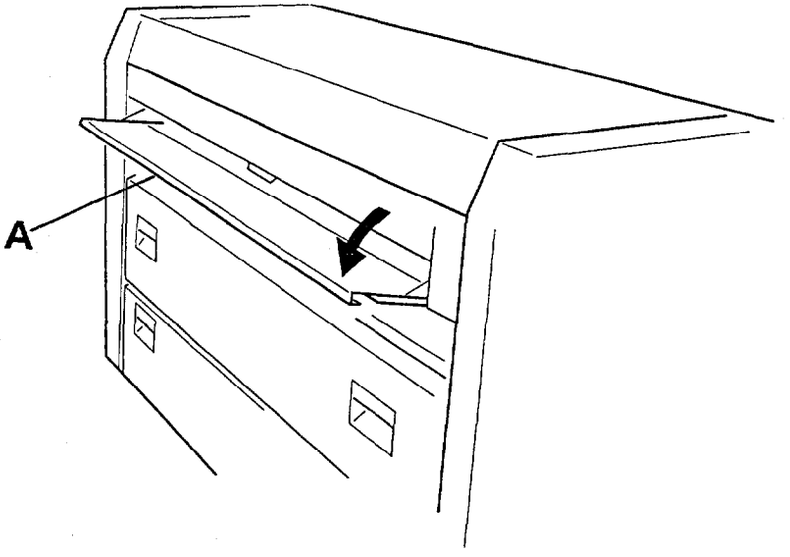
Chapter 7

Subassembly Parts Replacement

7-1 Opening or Closing of Individual Parts

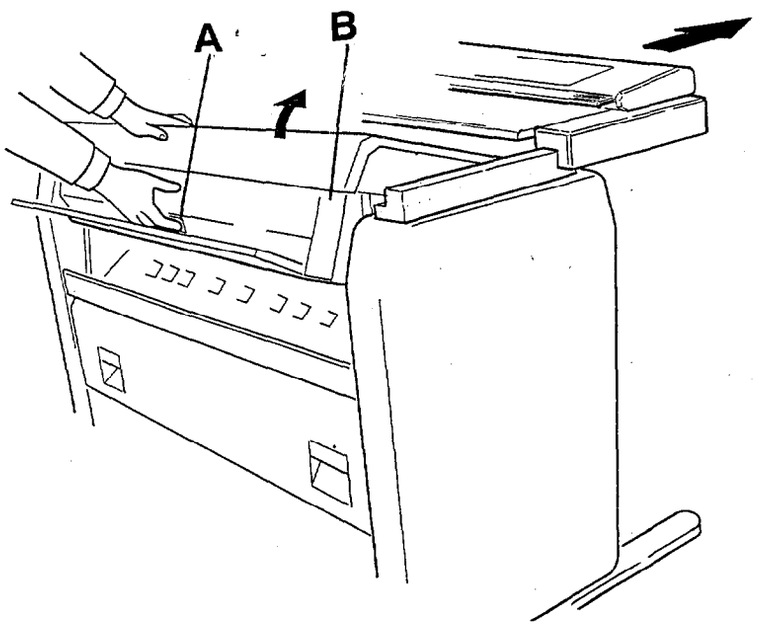
7-1-1. Opening or closing Manual Feed Table

1. Hold the folded-back portion at the top of the Manual Feed Table(A) by hand and pull it to open the Manual Feed Table.
2. To close the Manual Feed Table, press it back into its original position by hand. It will be retained there by a magnet.



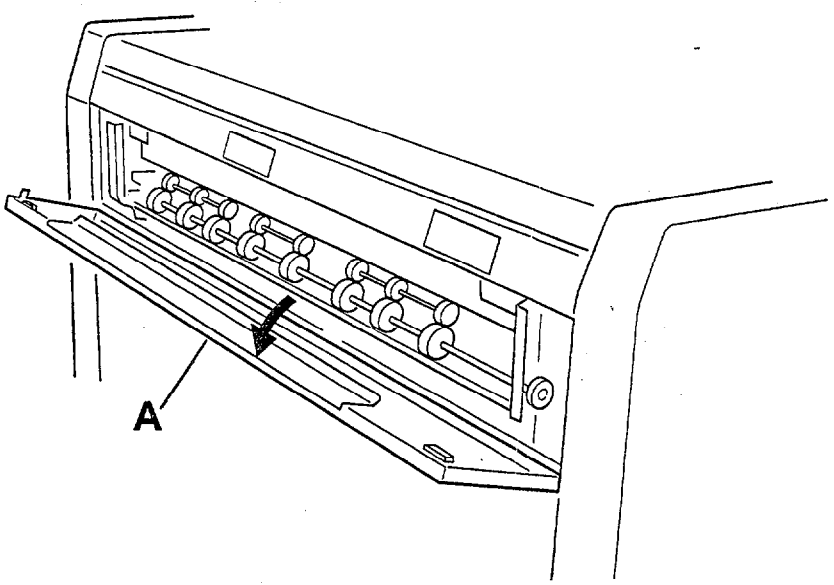
7-1-2. Opening or closing Engine Unit

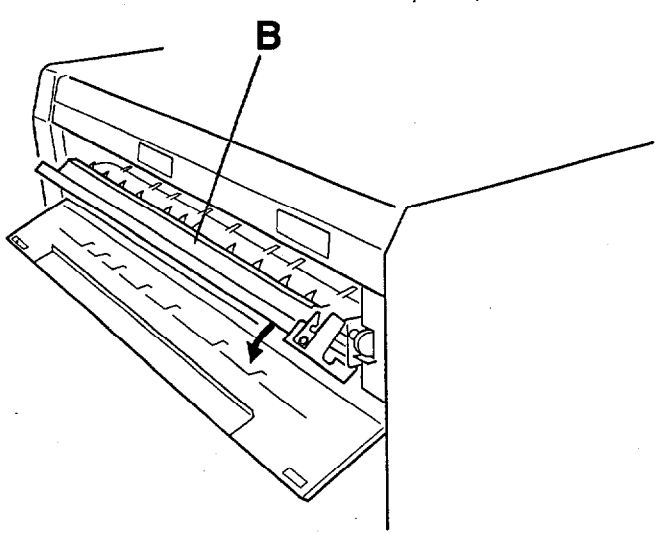
1. Slide Scanner fully backward.
2. Open the hand Manual Feed Table, and pull the latch (A) located inside at the center toward you. Then the Engine Unit (B) will open upward. Because of action of a gas spring suitable for the weight of the Engine Unit, the Engine Unit will always open upward. If you pull the latch toward you with a heavy object like the Developer Unit or Photoconductive Drum removed, remember that an imbalance between the weight and spring might cause the Engine Unit to open violently. In addition, remember that the Fuser Unit is heated to a very high temperature during operation. Don't touch it immediately after operation of the machine.
3. To close the Engine Unit, press it down by both hands from above the Toner Loading Hatch. Be sure to press it down until the hooks on both sides engage. Whenever the Engine Unit is pressed down, make sure that its right and left sides are equally pressed down.



7-1-3. Opening or closing Fuser Unit (Exit Area)

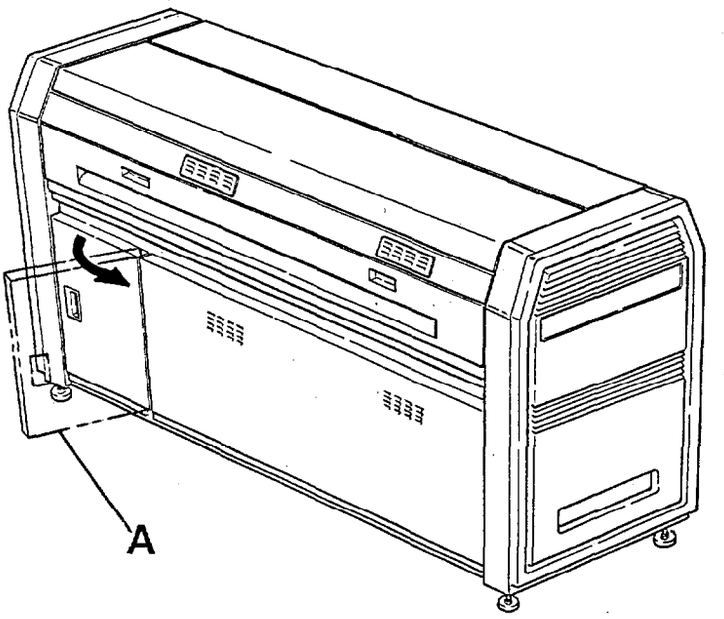
1. Hold the grips on both sides of the heater hatch (A) by both hands and pull the heater hatch toward you to open it.
2. Hold the green grips on both sides of the Exhaust Unit (B) located inside by both hands and pull the Exhaust Unit toward you to open it.
3. During operation of the machine, the Fuser Unit is heated to a very high temperature. Carefully handle the Fuser Unit immediately after operation. Let it cool down as necessary before starting operations.
4. The Exhaust Unit has Stripping Nail which separate the paper from the Heat Roller. Since the Stripping Nail are delicate parts, use special care to prevent damage.
5. To close the Exhaust Unit, press it all the way until the hooks on both sides engage.
6. To close the heater hatch, press it back into its original position by both hands. Then it will be retained by a magnet.





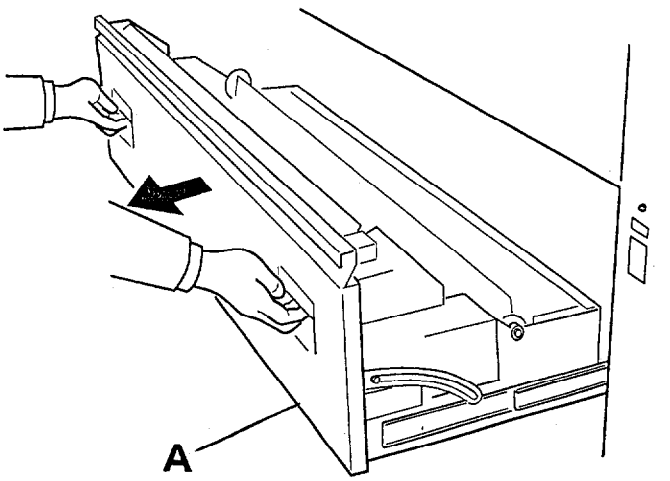
7-1-4. Opening or closing Waste Toner Bottle Hatch

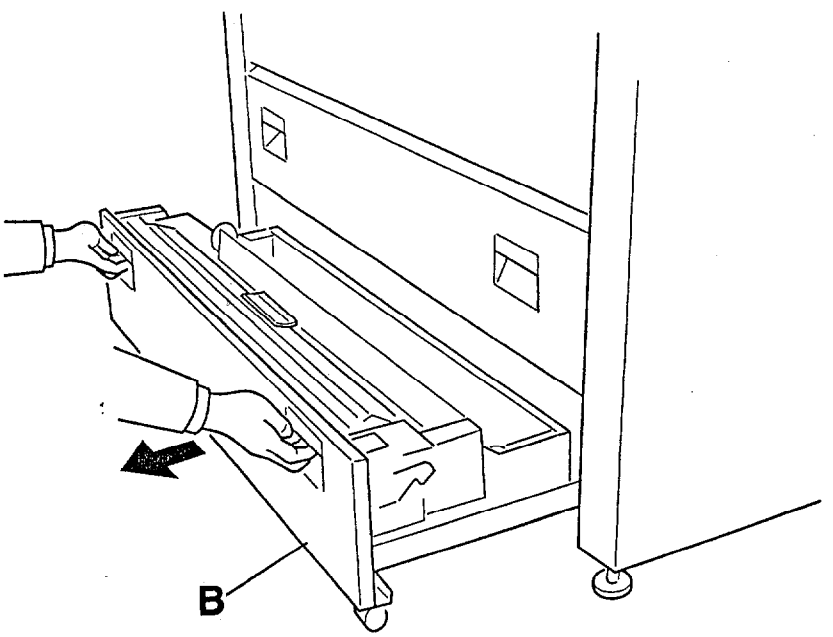
1. Hold the grip to open or close the Waste Toner Bottle Hatch (A).



7-1-5. Opening or closing Upper/Lower Paper Container

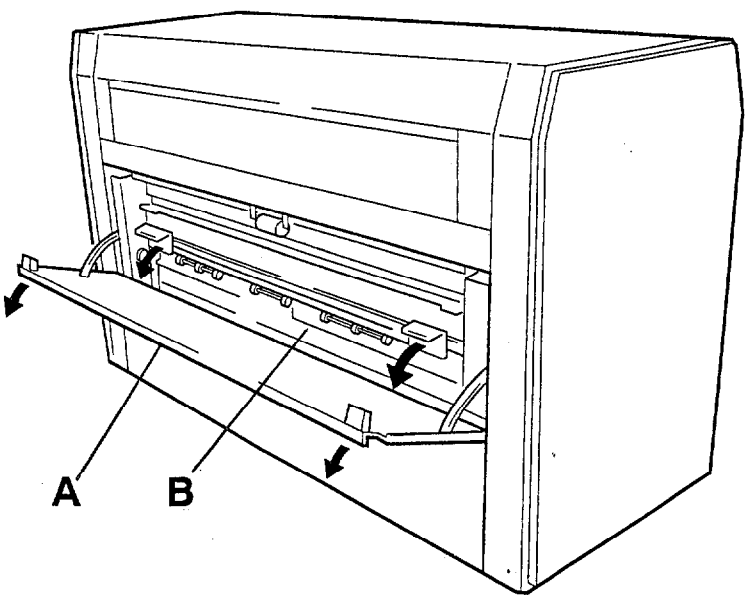
1. While pressing the latches in the grips on both sides upward, draw out the Upper or Lower Paper Deck (A) or (B) toward you.
   In case of the latches are hard to release, keep pushing the deck and lift the latches, then the latches are easy to release.
2. To close the Upper Paper Container, press it back into its original position all the way until the hooks on both sides engage.





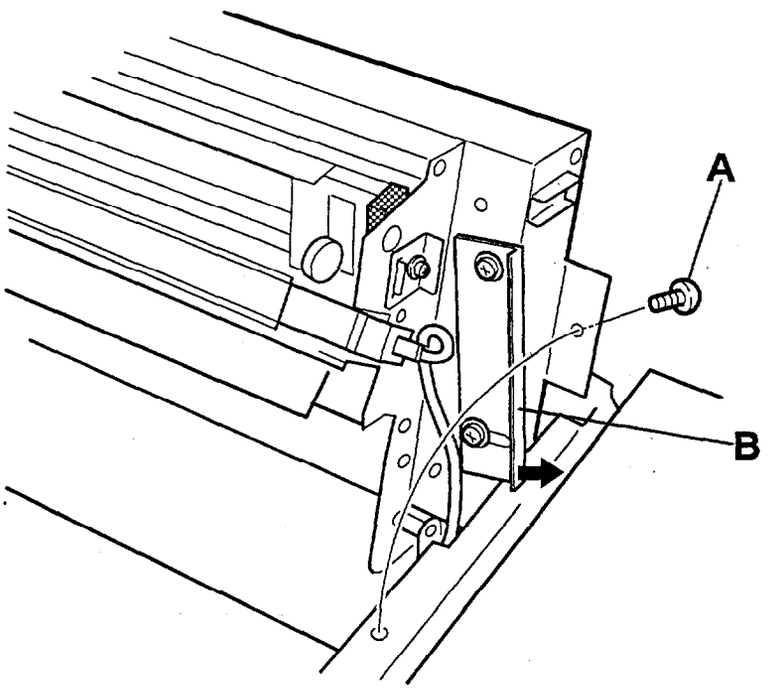
7-1-6. Opening or closing front cover (Upper Paper Container)

1. While pressing the latches on both sides at the top upward, pull the front cover (A) toward you to open it.
2. To open the guide plate (B) located inside, hold the green grips located on both sides at the top and pull the guide plate toward you. To close the guide plate, press it back into its original position. Then it will be retained by a magnet.
3. To close the front cover, press it all the way until the latches on both sides engage.



7-1-7. Opening or closing LED Head Unit

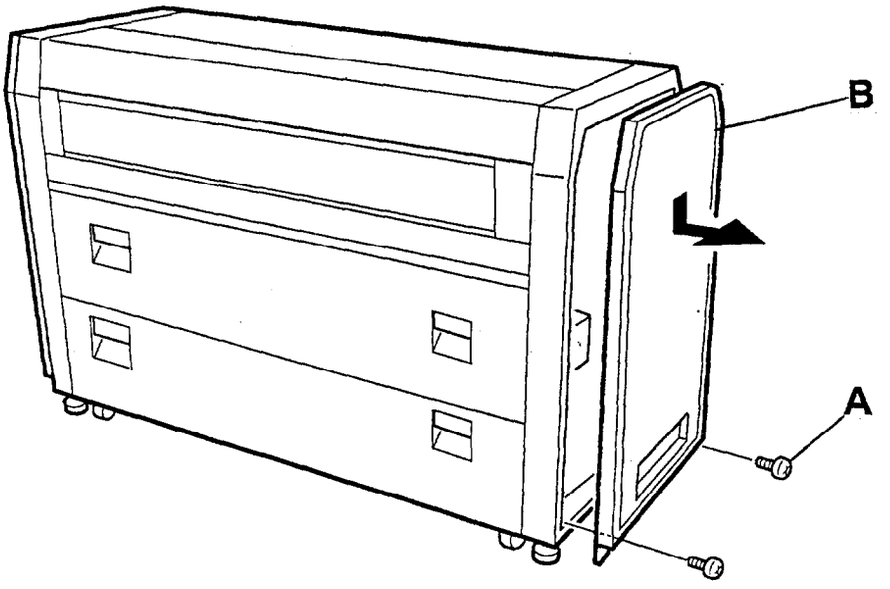
1. After the Cover Top D has been removed, remove the two screws (A) (one on each side) holding the LED Head Unit in position, and hold the bent portion on the right front side of the unit and open it upward.
2. After the unit has been opened, be sure to set the anti-dispersion stopper (B) to prevent the unit from falling down. Set the stopper outward by loosening the screw at its bottom and secure it by retightening the screw.
3. To close the unit, replace the stopper in its original position, hold the front bent portion of the unit and slowly close it. If you close it rapidly, there is danger of damage to the LED Head, etc.
4. Secure two places at the right and left with screws.



7-2 Panel

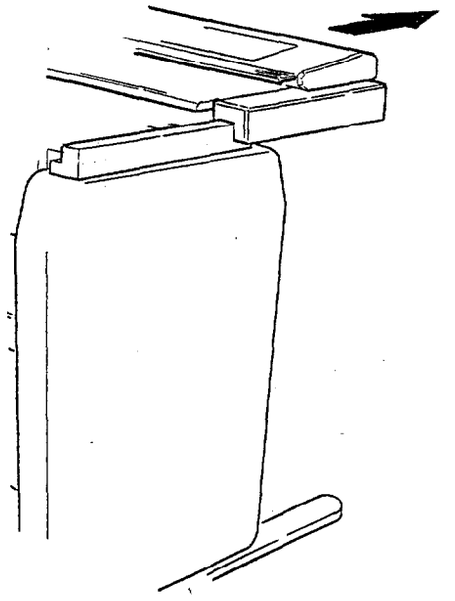
7-2-1. Side Cover Removal

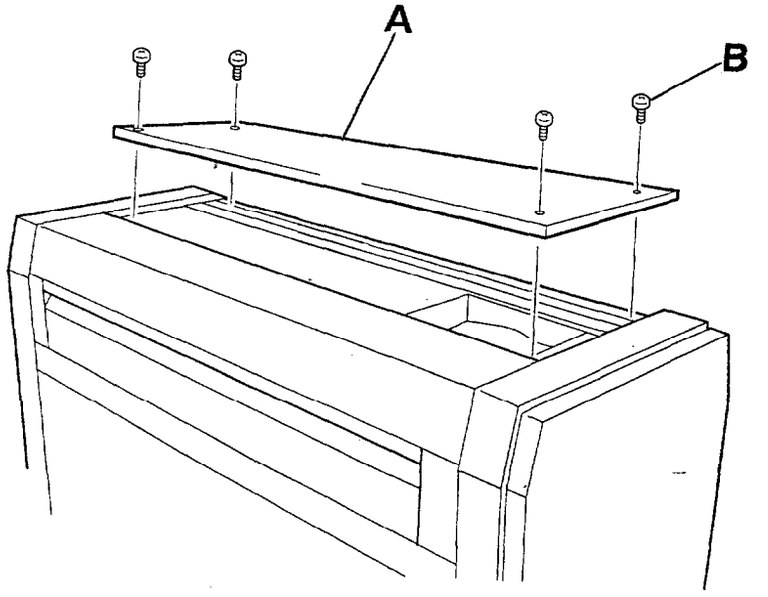
1. Remove the two screws (A) at the bottom of the Side Cover(B).
2. While slightly pulling the lower side of the Side Cover toward you, press the whole Side Cover approx. 10mm downward. Then the hooks on the reverse side will come off so that the Side Cover can be removed by pulling toward you.
3. To remount the Side Cover, set the hooks (in two places at top and two places on both sides at center) provided on the reverse side of the Side Cover on the reverse side of the side plate, and raise the whole Side Cover upward. Secure the lower side of the Side Cover with the two screws.



7-2-2. Cover Top D Removal

1. When the scanner is installed, release the stopper of the slider, and slide the scanner far behind.
2. To remove the Cover Top D (A), remove the four screws (B) holding it in position. If the control panel is mounted to the Cover Top D, remove its connection harness, too.
3. To remount the Cover Top D, let its end nearer toward you slip under the Toner Loading Hatch (C) and place it in position and secure it with four screws.

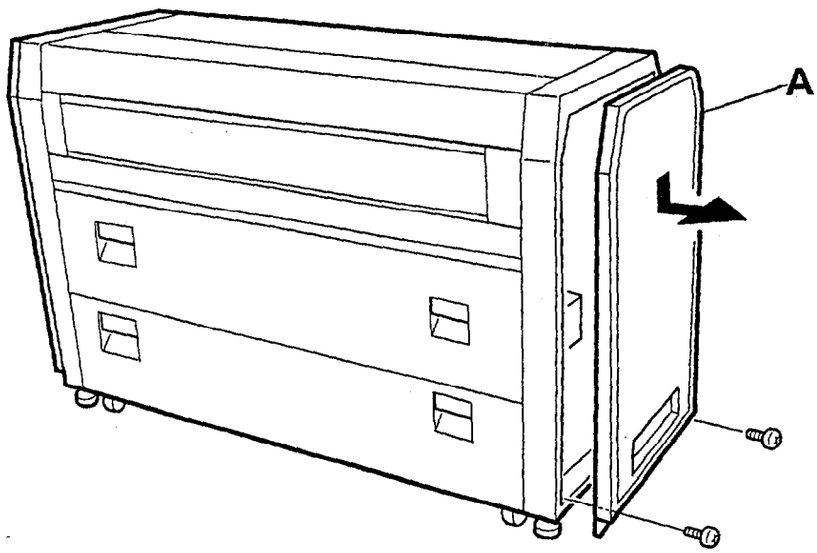


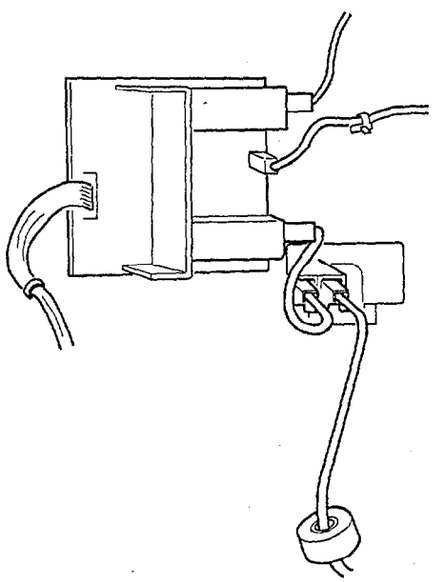


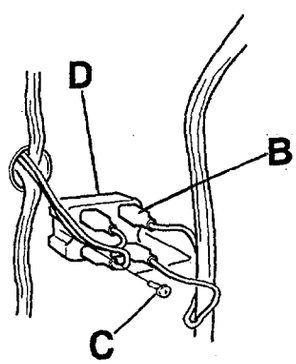
7-3 Main Frame

7-3-1. Solid State Relay (SSR) Replacement

1 Remove the Side Cover (A).
2 Disconnect the connector(B).
3 Remove the two screws (C), then you can replace the SSR (D).

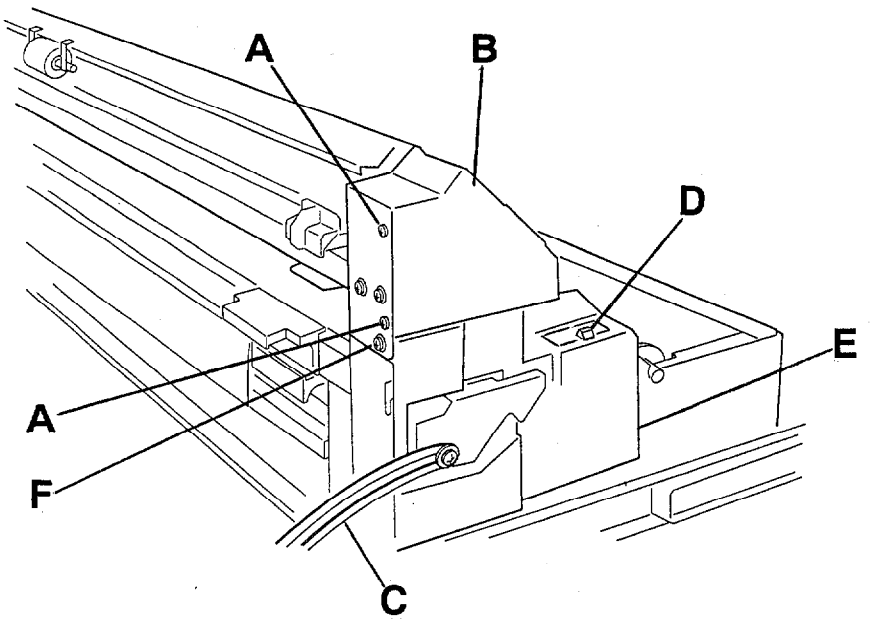


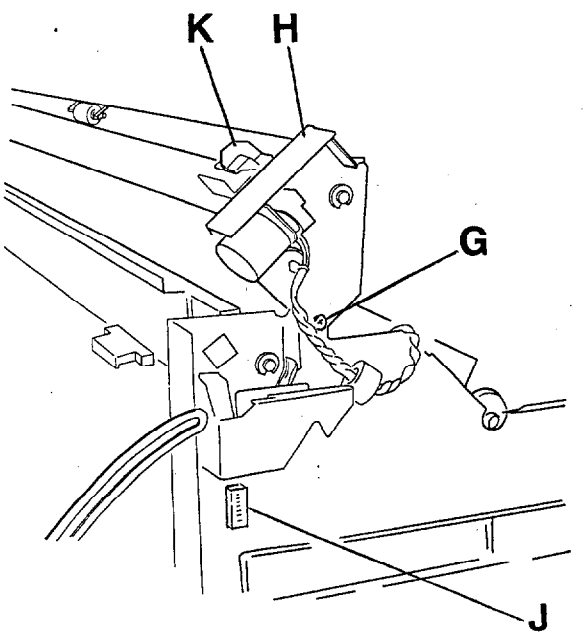




7-3-2. Cutter Unit Replacement

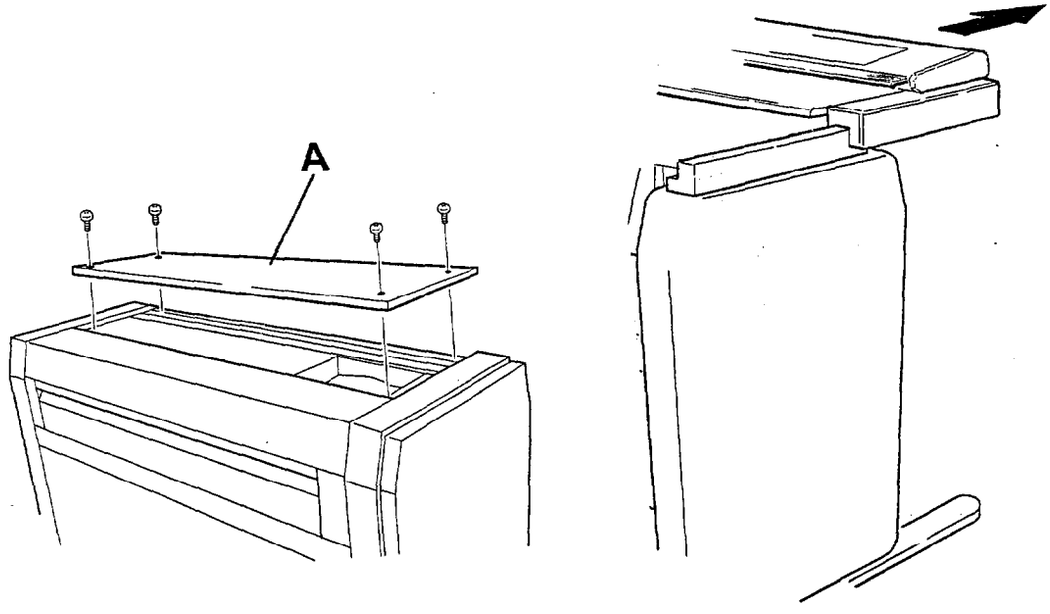
1 Pull out Upper Paper Container.
2 Remove the four screws (A), then remove the Cutter Cover (B)(both side).
3 Remove the Stopper (C).
4 Remove the Selector Knob (D).
5 Remove the Outside Cover (E)(both side).
6 Remove the screw (F) and loosen the screw (G). And then shift the cutter assy part (H) and fix it as shown in the figure.
7 Disconnect the connector (J).
8 Remove the two screws (K)(both side), then push the Cutter Unit (L) downward a little and pull it out backward and you can remove the Cutter Unit.

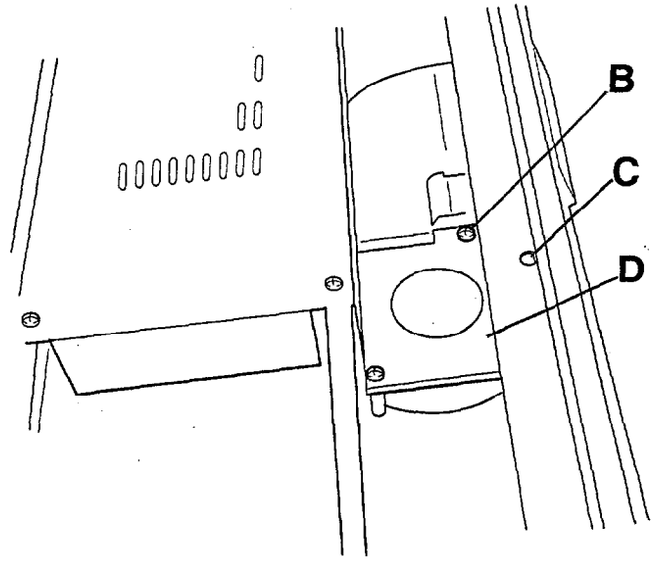




7-3-3. Heater Blower Replacement

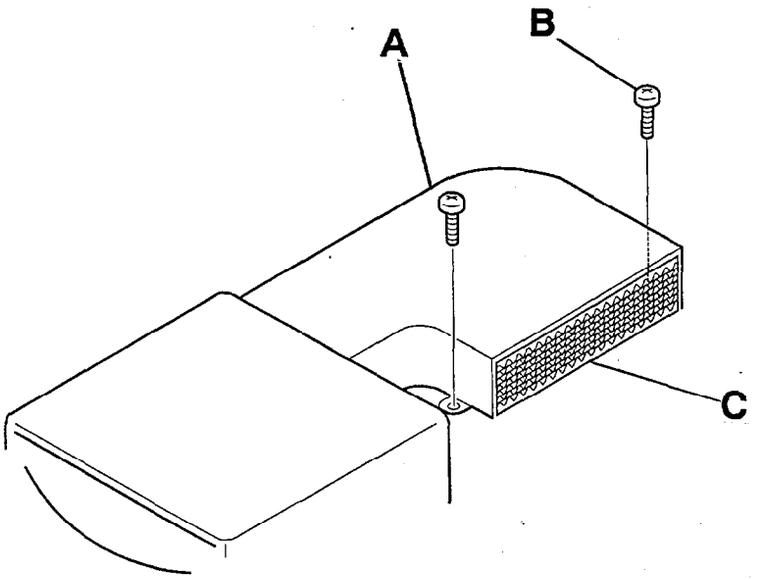
1 Release the stopper of the scanner, then slide the scanner far behind.
2 Remove the Cover Top D (A).
3 Remove three screws (B) on the Blower.
  Note:There is a hole (C) for phillips screwdriver.
4 Open the Engine Unit.
5 Disconnect the connector then you can remove the Heater Blower (D).
6 Reassemble in reverse order.





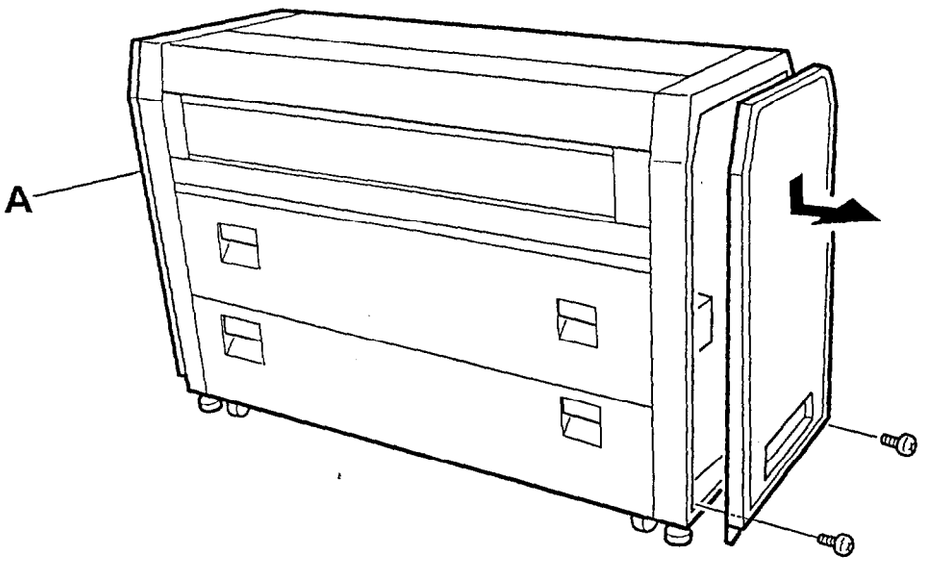
7-3-4. Filter A Replacement

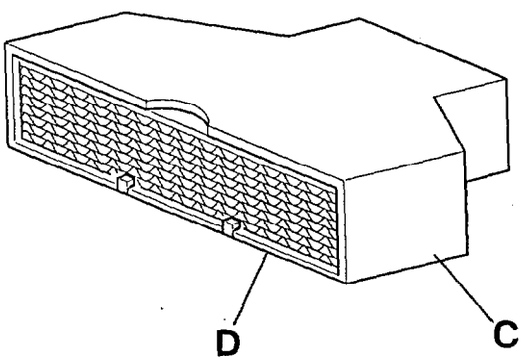
1. Remove the Cover Top D.
2. Open the engine unit.
3. Remove the screws of the filter cover(A). Two screws each in 2 places (B)
4. Open the LED head unit and set the stopper.
5. Raise the filter cover and replace the filter A (C) located inside.
6. For installation, reverse the order of removal.
   Note:When the filter cover is installed, however, use care to make sure that the fan harness is not caught.

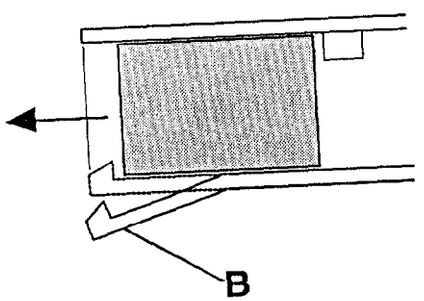


7-3-5. Filter B Replacement

1. Remove the side cover on the side A (A).
2. While releasing the nails (B) at the bottom of the filter case (C), take out the filter B (D).
3. Install a new filter B.
4. Re-mount the side cover.





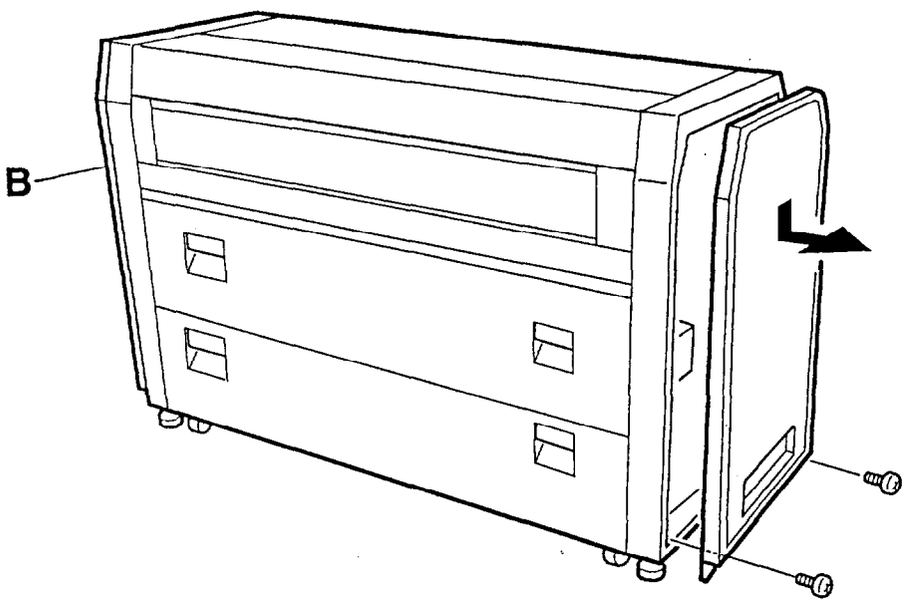


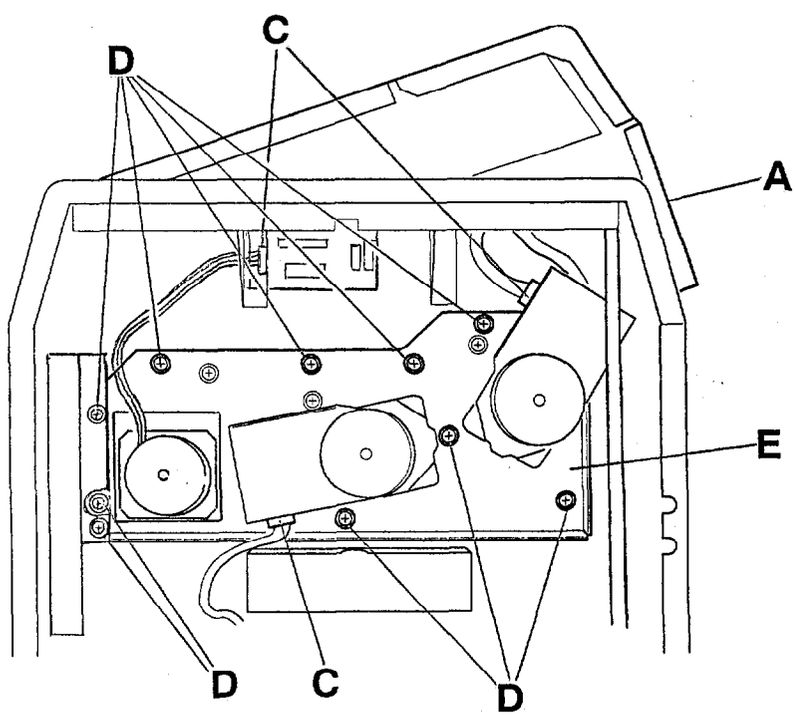
7-3-6. Drive Unit Replacement

1 Take off Fuser Unit. (Refer to 7-11-1.)
2 Open the Engine Unit (A).
3 Remove the Side Cover (B).
4 Disconnect three connectors (C).
5 Remove ten screws (D), then you can remove the Drive Unit (E).
6 Reassemble in reverse order.

Note: In case of the removal and installation of driver unit, pay enough attention not to damage PCB, right side of main motor, which is easy to damage by the holding plate.

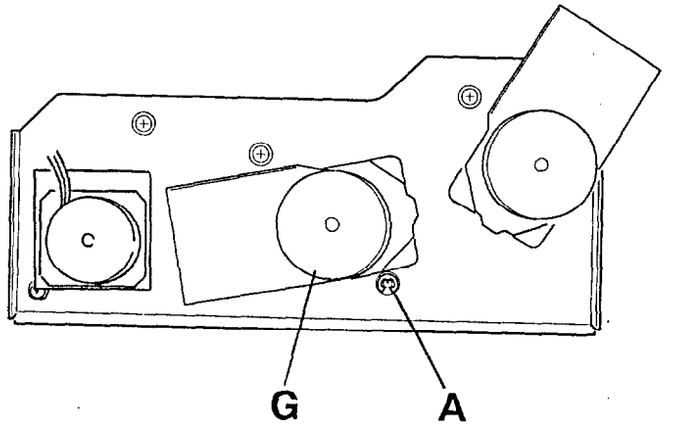
Note: When reassemble, confirm that Engine Unit is opened.

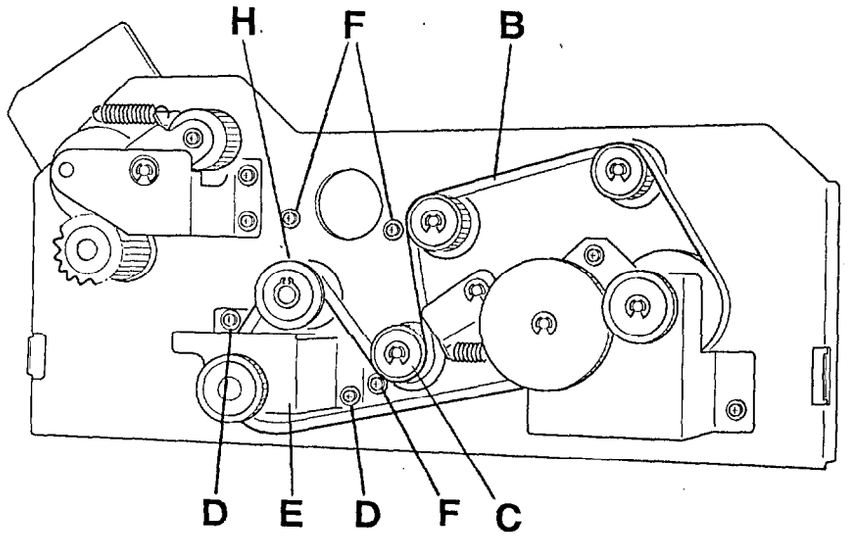




7-3-7. Main Motor Replacement

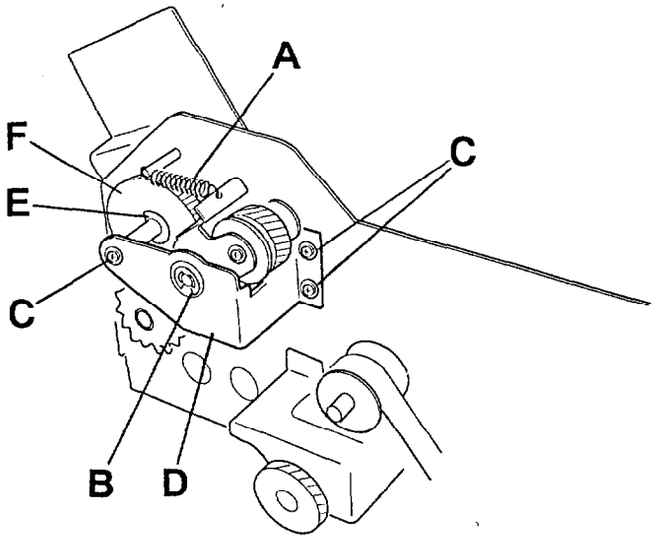
1 Remove the Drive Unit.
2 Remove the E-Ring (A).
3 Shift the Timing Belt (B) a little and remove it from the pulley (C).
4 Remove the two screws (D), then remove the Pulley Bracket (E).
5 Remove the four screws (F), then remove the Main Motor (G).
6 Remove the G-Ring and remove the Pulley (H).
7 Reassemble in reverse order.

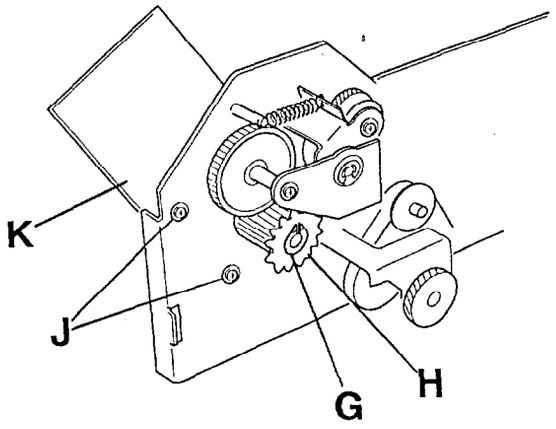


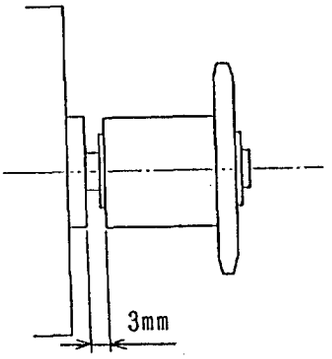


7-3-8. Deve Motor Replacement

1 Remove the Drive Unit.
2 Remove the Spring (A).
3 Remove the E-Ring (B), three screws (C), then remove the Base Bracket (D).
4 Remove the E-Ring (E) and remove the Spur Gear (F).
5 Remove the G-Ring (G) and remove the Sprocket Gear (H).
6 Remove the four screws (J), then you can remove the Deve Motor (K).
7 Reassemble in reverse order.
Note:Keep a certain distance as shown in the figure and fix the Sprocket Gear.

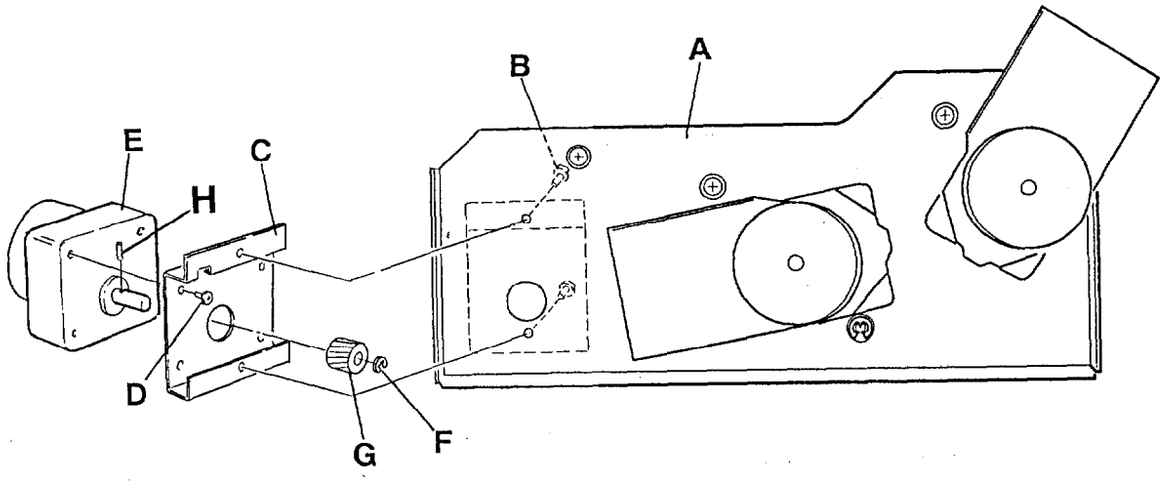






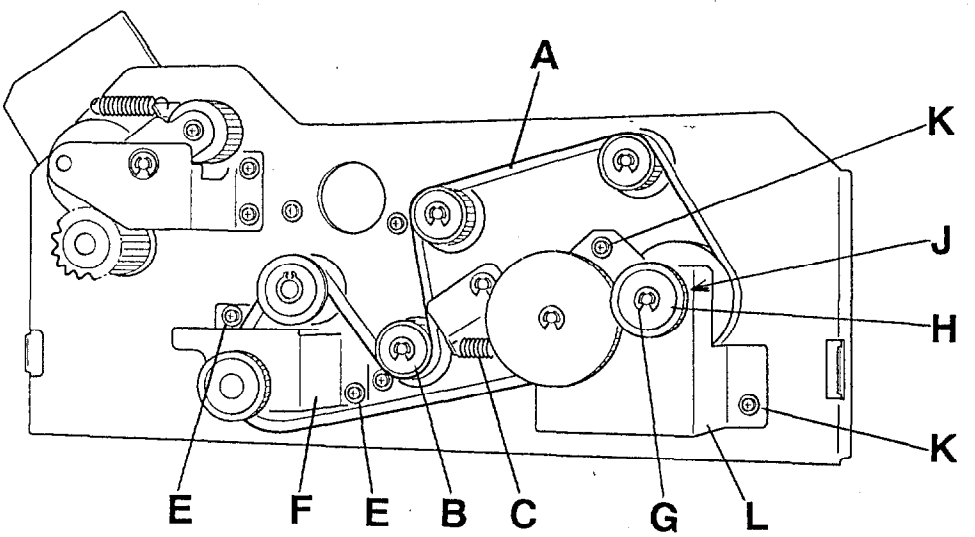
7-3-9. Fuser Motor Replacement

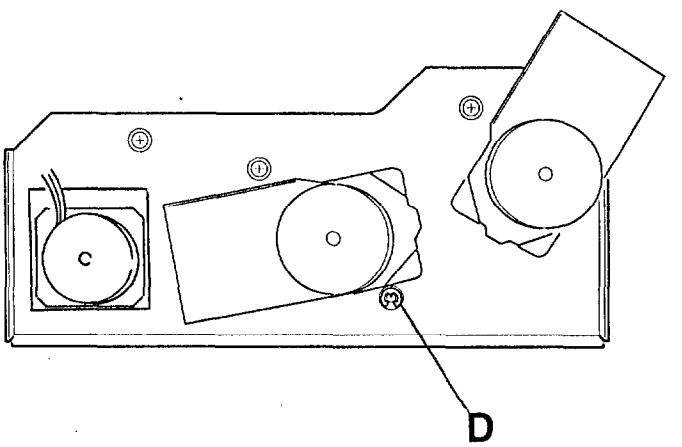
1 Remove the Drive Unit(A). (Refer to Drive Unit Replacement)
2 Remove 2 screws(B), and remove Motor Bracket(C).
3 Remove 4 screws(D), and remove Motor (E).
4 Remove E-Ring (F), and remove Gear(G).
  Note: Do not lose Parallel Pin(H).



7-3-10. Timing Belt Replacement

1 Remove the Drive Unit.
2 Shift the Timing Belt (A) a little and remove it from the pulley (B).
3 Remove the Spring (C).
4 Remove the E-Ring (D).
5 Remove the two screws (E), then remove the Pulley Bracket (F).
6 Remove the E-Ring (G), 30T gear (H) and two Collars (J).
7 Remove the three screws (K), then remove the Fuser Drive Bracket (L).
8 Replace the Timing Belt.
9 Reassemble in reverse order.



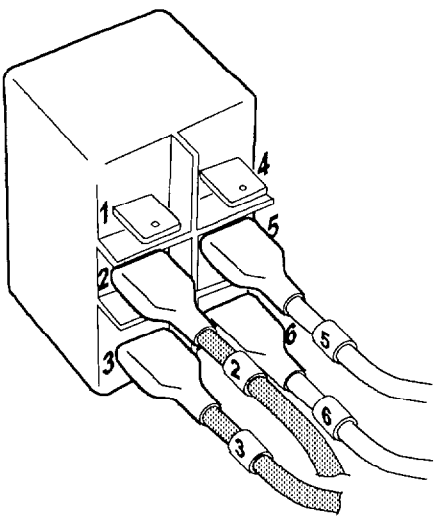


7-3-11 Power Switch Replacement

1 Take off the Left Side Cover.
2 Remove the Wiring Harness.
3 Keep pushing nail parts, and replace the Power Switch.

There are 2 types of Power Switch. When the Power Switch is replaced, Wiring is done as follows.

32140(RS2)



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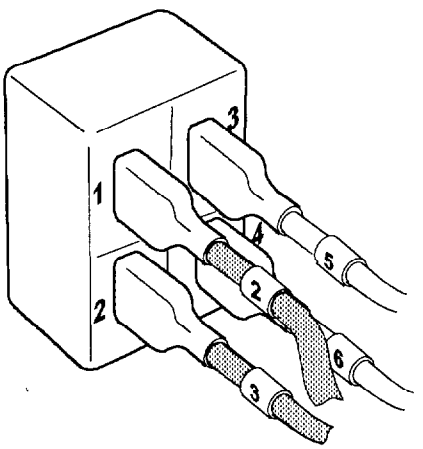
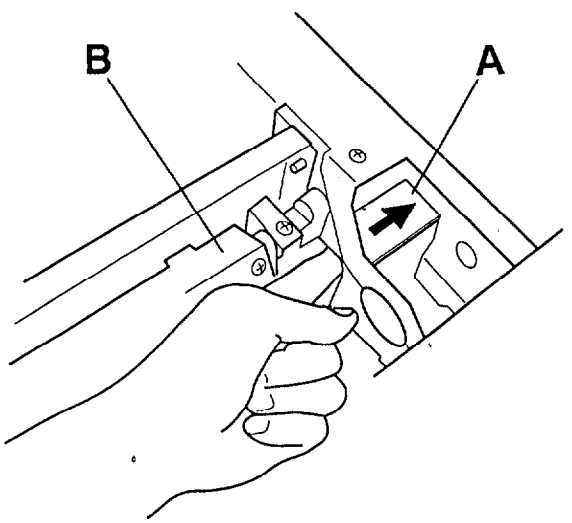
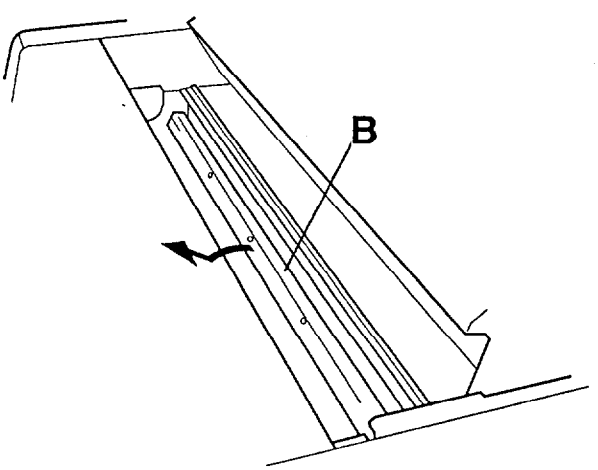


7-4 Cleaner

7-4-1. Cleaner Unit Removal

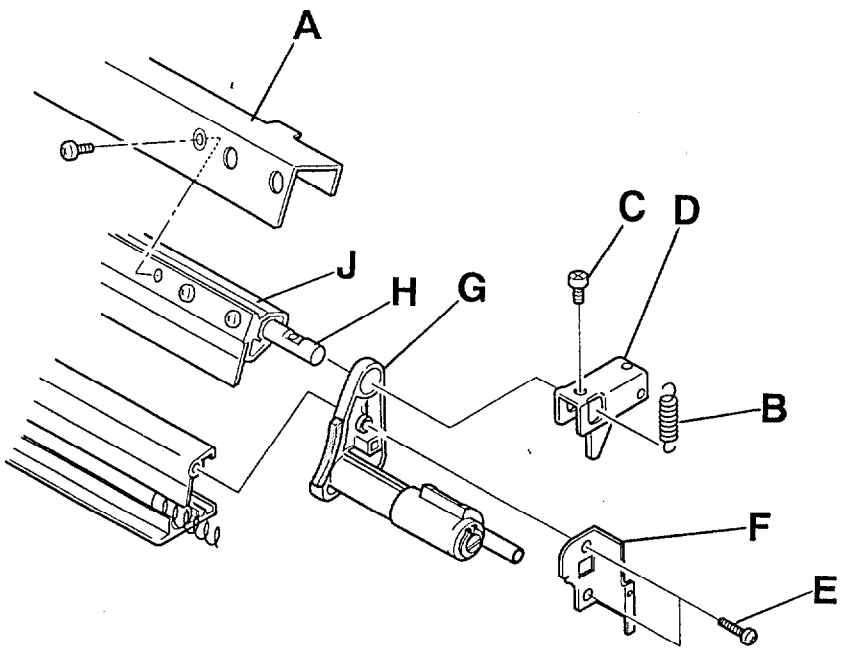
1. Take out the Developer Unit/Photoconductive Drum beforehand.
2. Open the Engine Unit.
3. While pressing the anti-dispersion cover (A) on the right side of the Cleaner Unit (B) (outside the side plate of the Engine Unit) to the right (outward), let it spring up to release it.
4. Slightly pull the upper side of the cleaner toward you (clockwise, facing the right from the left) to unlock the pivot portions. Then slowly take out the whole Cleaner Unit toward the upper left.
5. To remount the Cleaner Unit, slowly reinsert the Cleaner Unit from the upper left into the Engine Unit. First reinsert the notches located at both bottom ends of the Cleaner Unit in the holes. Then reinsert the pivot portions at both top sides of the Cleaner Unit.
6. Press the anti-dispersion cover down. Then it will be automatically locked.





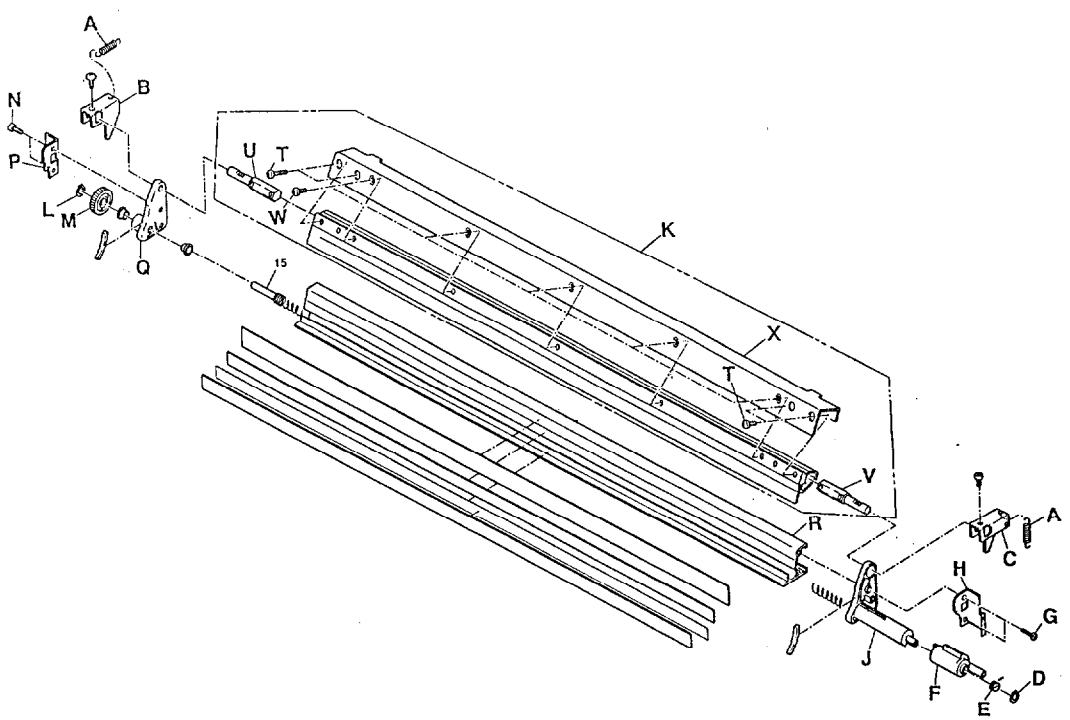
7-4-2. Blade Assy Replacement

1 Remove the Cleaner Unit.
2 Remove the clamper B (A).
3 Remove the spring (B)(both side).
4 Remove the screw (C), then remove the lever tension (D)(both side).
5 Remove the two screws (E), then remove the tension plate (F) and side plate B (G).
6 Remove the shaft blade (H)(both side).
7 Replace the Blade Assy (J).
8 Reassemble in reverse order.
  Note: Clean each part before assembling.



7-4-3 Cleaner Unit Overhaul

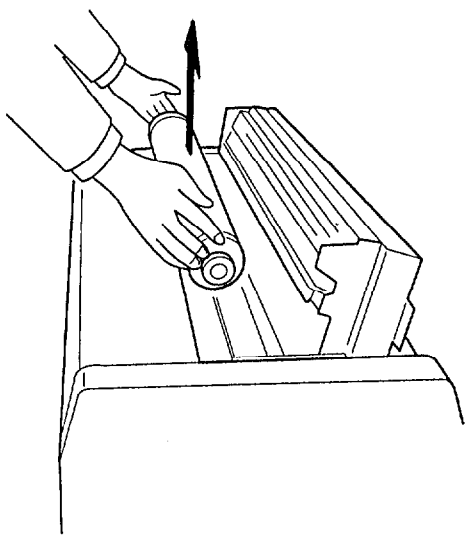
1 Remove the Cleaner Unit.
2 Remove the Spring(A)(both side).
3 Remove the Lever Tension A(B), and B(C).
4 Remove the G ring(D), Torsion Spring(E)and Closer(F).
5 Remove the 2 screws(G), then remove the Bracket Side B(H), Side Plate B(J).
6 Remove the Cleaner Blade Assy(K).
7 Remove the G ring(L), Spur gear(M), 2 screws(N), then remove the Bracket Side A(P), Side Plate A(Q).
8 Remove the Screw Shaft(S) from the Frame(R).
9 Remove screw (T)(both side), then remove the Shaft Blade A(U), and B(V).
10 Remove 5 screws(W), then remove the Clamper B(X).
11 Reassemble is reverse order.

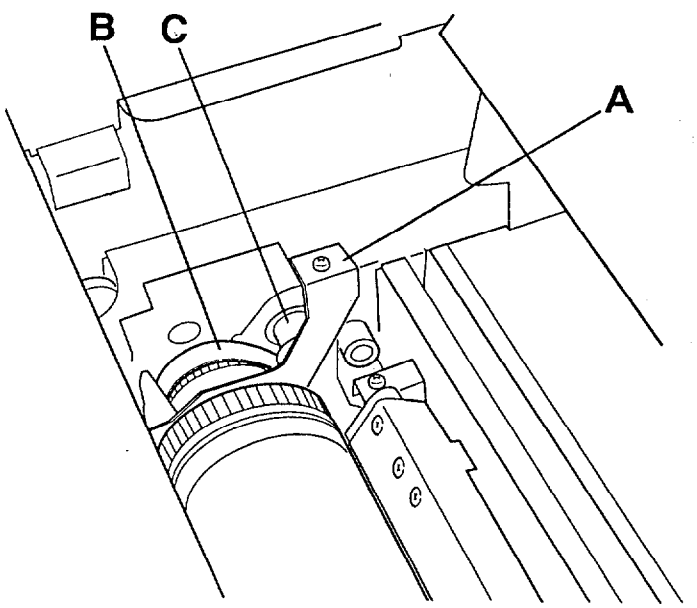


7-5 Photoconductive Drum

7-5-1. Photoconductive Drum Removal

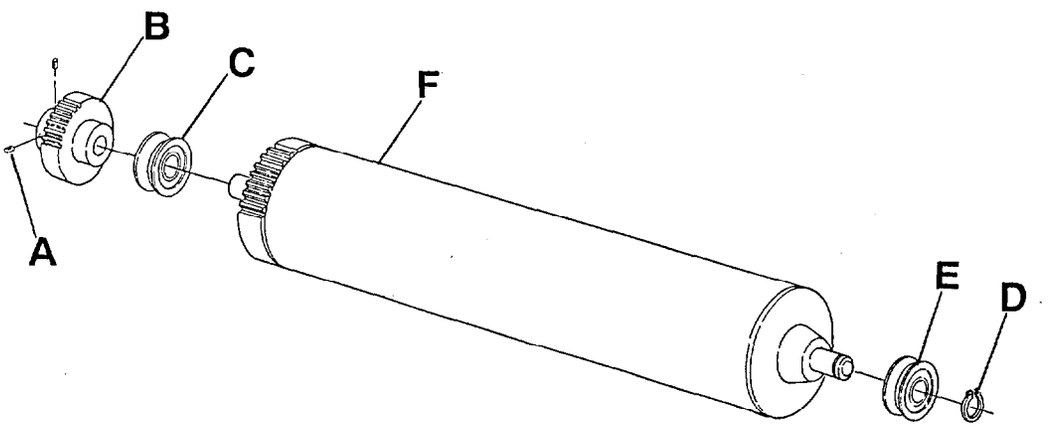
1. Take out the Developer Unit beforehand.
2. Open the LED Head Unit and set the anti-dispersion stopper.
3. Remove the right and left Photoconductive Drum locking metal fittings (A) by loosening the screws (one each).
4. Open the Engine Unit and hold the Photoconductive Drum drive belt (B) from the left side and remove it from the pulley (C) of the Photoconductive Drum. (While releasing the tension pulley by one hand, remove the belt by the other hand.)
5. Close the Engine Unit.
6. Hold both sides of the Photoconductive Drum drive between both hands and slowly take it out upward.
7. To reinsert it, hold the Photoconductive Drum with the drive pulley on the left side. Slowly reinsert it in such a way that the grooved portions of the guide rings at both ends will match the guides of the Engine Unit.
8. Reinsert the right and left Photoconductive Drum locking metal fittings and secure them with screws. When the Photoconductive Drum locking metal fittings are to be inserted in the grooves of the guide rings, if the groove clearance is too narrow, move the guide rings inward before inserting the fittings.
9. Open the Engine Unit, and set the Photoconductive Drum belt on the pulley from the left side. (While lifting the tension pulley by one hand, set the belt on the pulley by the other hand.)





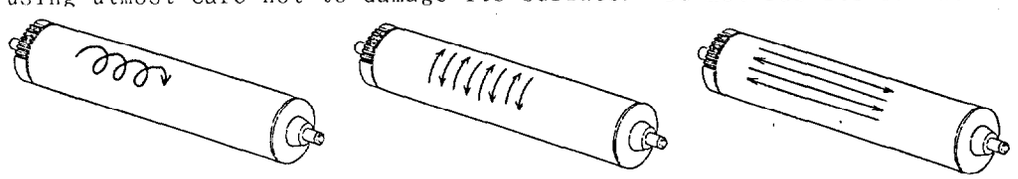
7-5-2. Photoconductive Drum Replacement

1. Remove Photoconductive Drum.
2. Remove 2 set screws(A), Pulley(b) and Bearing(C).
3. Remove C-ring(D) and remove Bearing(E).
4. Attach these removed parts to a new Photoconductive Drum(F).
5. When install, follow the reversed ordering.



Do's and Don't's in Handling Photoconductive Drum.

1. Do not handle the photoconductive drum under the direct sun light.
2. Do not handle the photoconductive drum for any more than 6 minutes in the well-lighted room.
3. Do not handle the photoconductive drum where water or oil drips are scattered around.
4. Do not expose the photoconductive drum to any harmful gases(O3, NOx, SOx, NH3, etc.) or any harmful vapors(organic solvents, such as acetone).
5. Do not let the photoconductive drum sweat.
6. Coat the cleaner scraper with toner before installing the photoconductive drum in the printer .(See "Install The Photoconductor" .)
7. Keep the photoconductive drum clear of saliva or fingerprints.
8. When the photoconductive drum is stained with saliva or something else, wipe off toner from its surface first with a piece of soft cloth {gauze, Bencot(Asahi Chemical)or the like} .Then, wipe stains off using the soft cloth moistened with ethyl alcohol.
   Be sure to do the wiping in the way or directions shown below, using utmost care not to damage its surface. Do not rub its surface hard.



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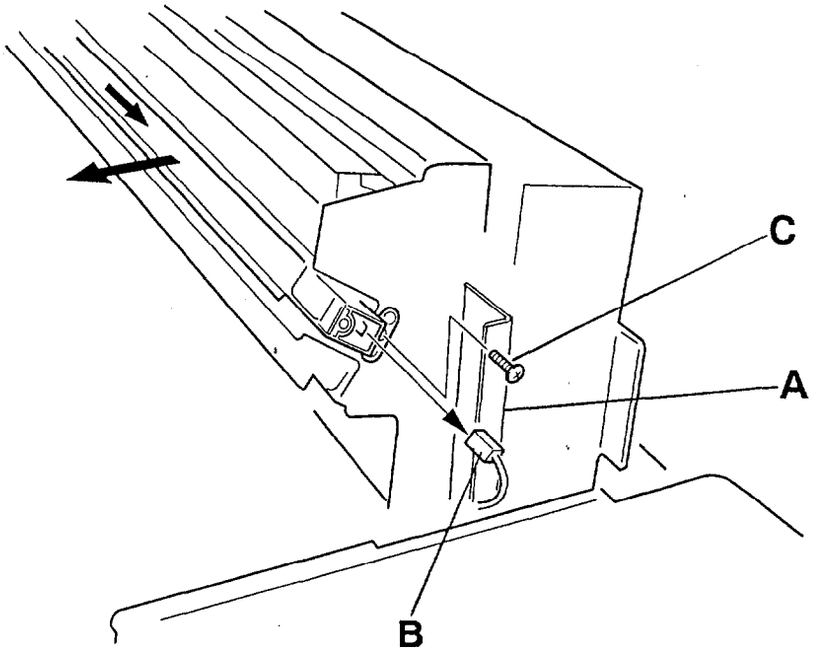
7-6 Image Corona

7-6-1. Image Corona Unit Removal

1. Open the LED Head Unit and set the anti-dispersion stopper (A).
2. Remove the faston tab (yellow)(B) on the right side of the Image Corona Unit.
3. Remove the screw (C) on the right side of the Image Corona Unit.
4. Slightly move the Image Corona Unit toward the right (to release the positioning pins at both ends) and take out the Image Corona Unit toward you.
5. To remount the Image Corona Unit, refit the positioning pins at both ends, and retighten the set screw to secure the unit. Thereafter, reinsert the faston tab (yellow).



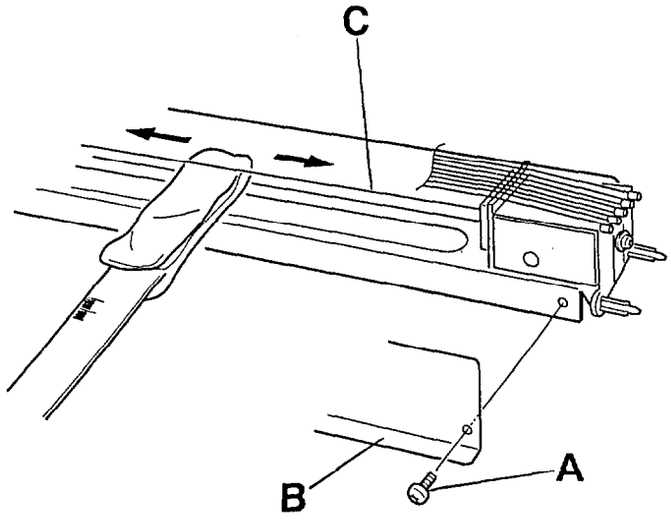
7-6-2. Image Corona Wire Cleaning

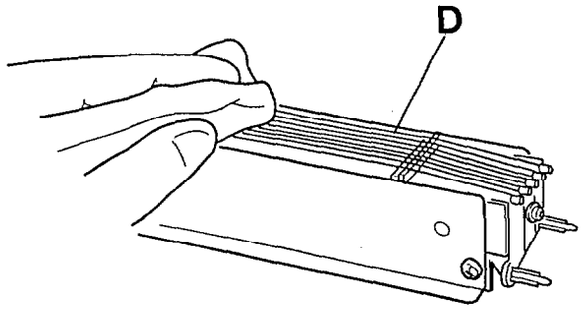
1 Loosen the four screws (A) and remove the corona side frame (B).
2 Clean the image corona wire (C) with a gauze moistened with alcohol as shown below.

Note: When the image corona wire extremely became dirty, first wipe it with a dry cloth,
second wipe it with a wet cloth and finally wipe it with an alcohol.
Note: After the cleaning, be sure that the height of wire is proper and the wire is put
into the groove properly.

3 Clean the grid wires (D) of the image corona assembly with a gauze moistened with alcohol.

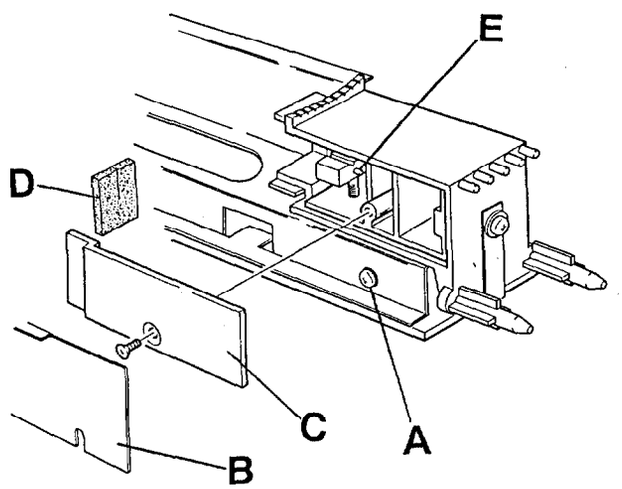
Note: Check that the grid wires are installed correctly in the grooves.
Note: When the image corona grid wire extremely became dirty, first wipe it with a dry cloth,
second wipe it with a wet cloth and finally wipe it with an alcohol.
Note: Remove the corona frame and also clean inside the grid wire.

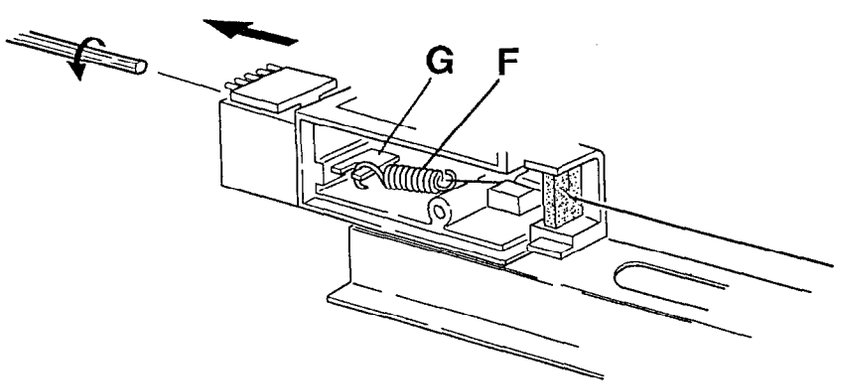




7 6-3. Image Corona Wire Replacement

1 Set the power switch to OFF.
2 Open the LED head unit.
3 Remove the image corona.
4 Loosen the four screws (A) tightening the corona frame (shield plate)(B) to remove the corona frame.
5 Remove the block covers at both ends (C). (Two screws)
6 Remove the anti-vibration sponge (D).
7 Remove the old corona wire.
8 Put the ring portion of a new corona wire through the projecting portion (E) of the height adjuster on the pin projecting block side.
9 Mount a spring (F) on the ring portion on the other side, pull and fit it in the hook portion (G) of the corona block on the other side.
10 Place the cover of the block in position. (Two screws)
11 Clean the wire with alcohol.
12 Adjust the height of the corona wire and re-mount the anti-vibration sponge.
13 Re-mount the corona frame.(Keep pushing from the above, then tighten the screw.)
14 Re-mount the image corona.
15 Close the LED head unit.





7-6-4. Grid Wire Replacement

1 Set the power switch to OFF.
2 Open the LED head unit.
3 Remove the image corona.
4 Loosen the tensioner(A) of the grid wire with the 3mm elbow(B).
5 Loosen the screw(C) tightening the grid wire(D) at the end of the block on the opposite side to remove the grid wire.
6 Place the tensioner provided block on the left side and set the ring portion of a new grid wire on the foremost end pin(E) of the tensioner.
7 Set the ring portion on the other side on the foremost end pin(F) of the block on the opposite side. At this point, the wire is in the foremost end grooves made in the top surfaces of both the blocks.
8 Stretch the wire in the form of a ladder by the same procedures. (Use care to prevent slackness of the wire.)
9 As a final step, wind the wire in the form of letter U clockwise under the plain washer(G) located at the end of the pin projecting block, and tighten the screw.
10 Cut away the surplus length of the wire.
11 Move the tensioner so that the end of the pin of the tensioner will be equal to the end of the block. (3mm elbow)(Fig 1)
12 Check to ensure that the wire is in the grooves(H) on both the blocks.
13 Clean the grid wire.
14 Re-mount the image corona.
15 Close the LED head unit.

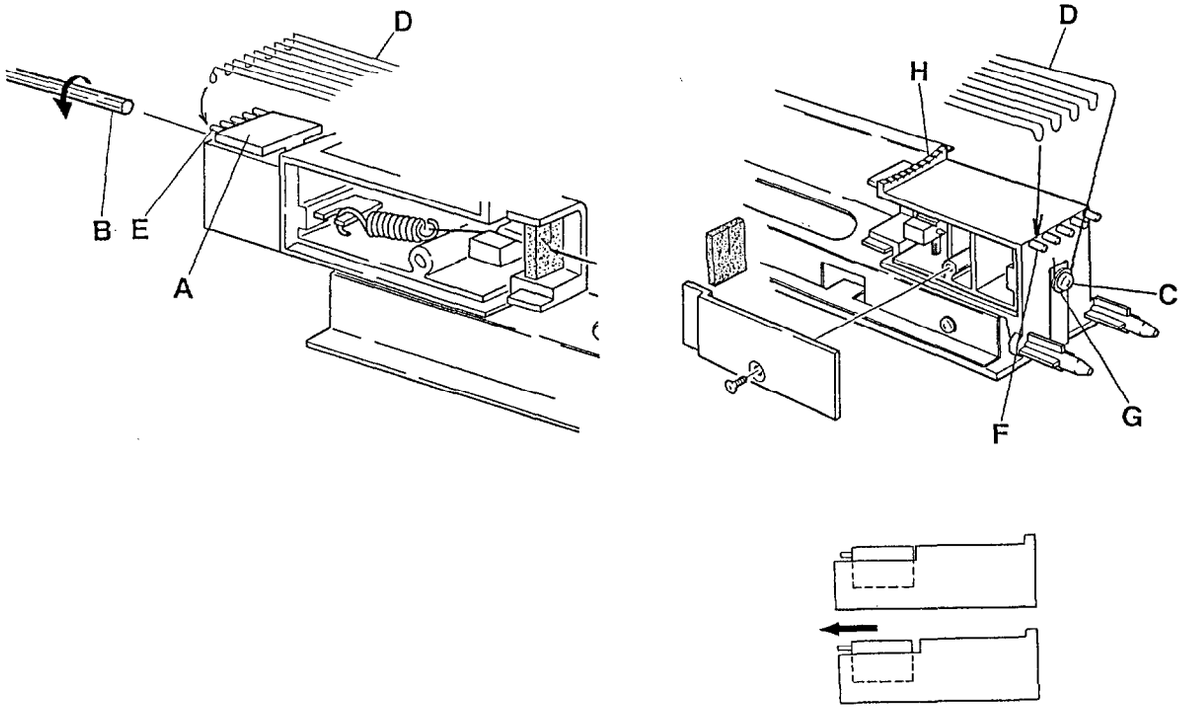
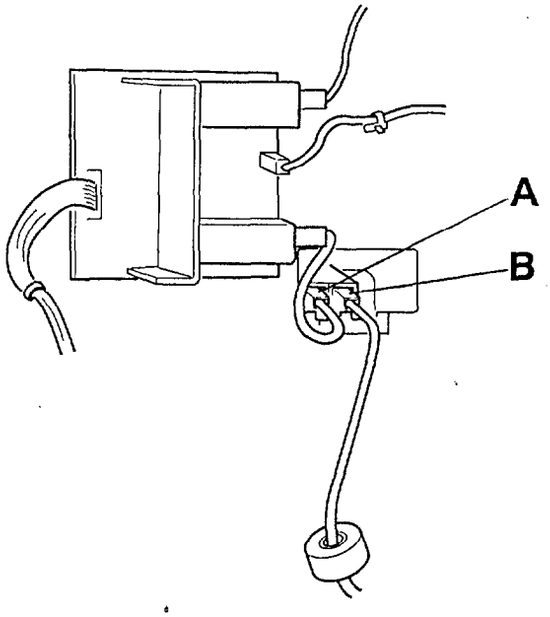


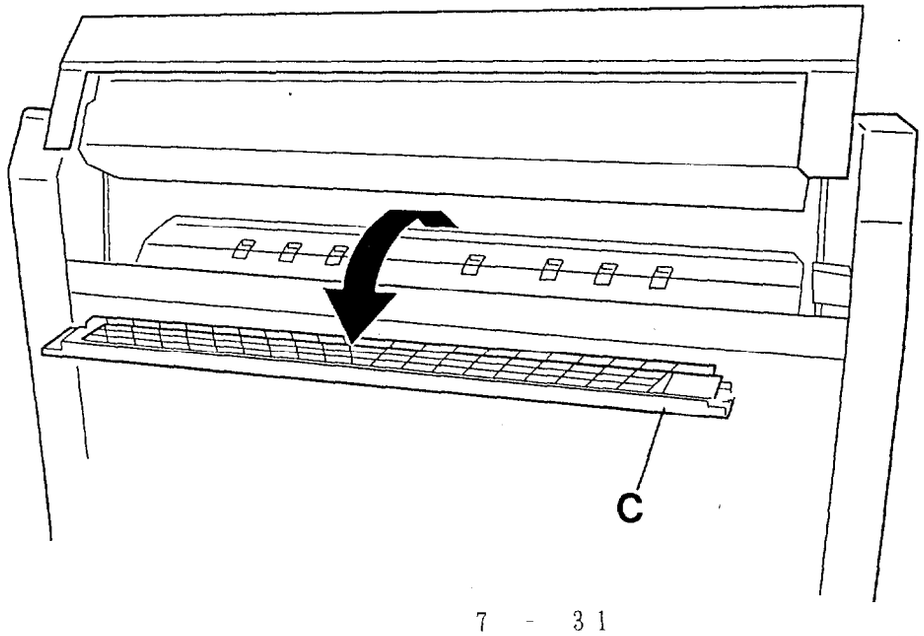
Fig 1

7-7 Transfer/Separation Corona

7-7-1. Transfer/Separation Corona Unit Removal

1. Open the Engine Unit.
2. Remove the right Side Cover.
3. Remove the two faston tabs (white (A) and blue (B)) from the right end of the TR/ST Corona Unit.
4. Hold both ends of the TR/ST Corona Unit (C) and slightly lift it to remove it from the holding metal fittings. Be careful, as the Photoconductive Drum is positioned just above it.
5. To remount the unit, apply hand pressure from above the holding metal fittings so that the projecting positioning pins provided at both bottom ends of the TR/ST Corona Unit will fit in the holes. If the pins do not correctly fit in the holes or are held in a lifted state, remember that there is danger of damage to the Photoconductive Drum.
6. Reinsert the two faston tabs (white/blue) according to the markings on the label.

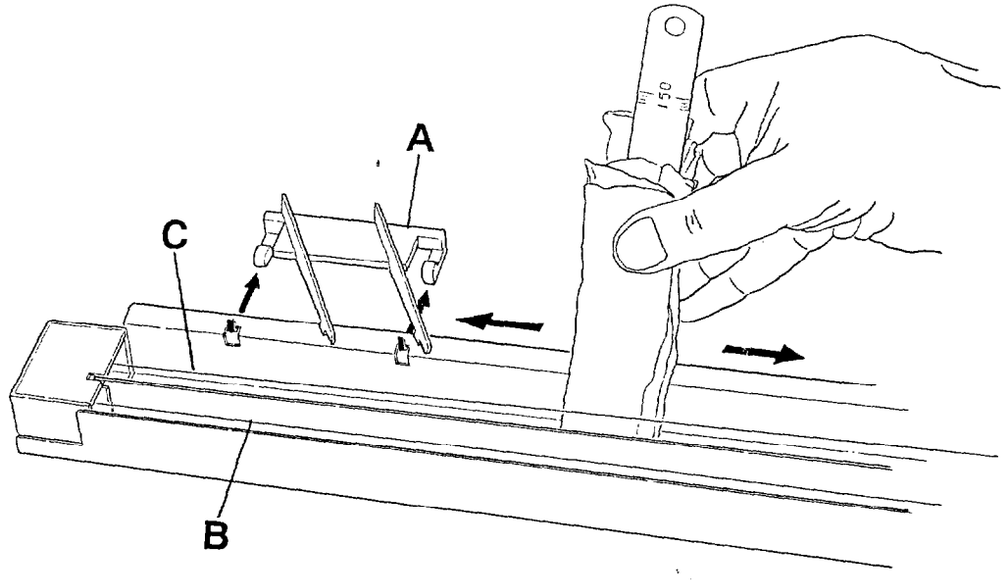




7-7-2. Transfer/Separation Corona Wire Cleaning

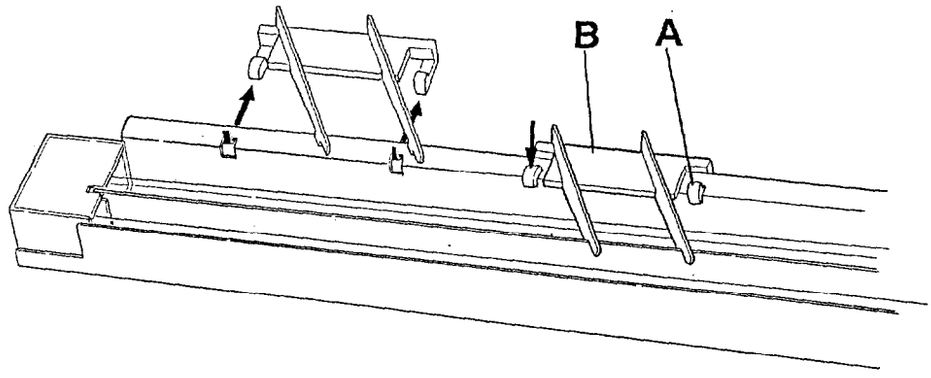
1 Remove all the corona wire guards (A).
2 Clean the TR corona wire (B) and the ST corona wire (C) and shield of inside with a gauze moistened with alcohol as shown below.

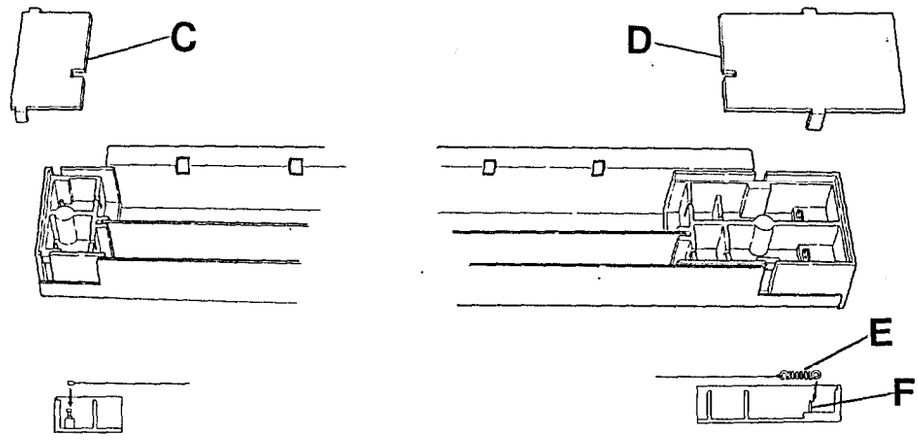
Note:When the image corona wire extremely become dirty, first wipe it with a dry cloth second wipe it with a wet cloth and finally wipe it with an alcohol.



7-7-3. Transfer/Separation Corona Wire Replacement

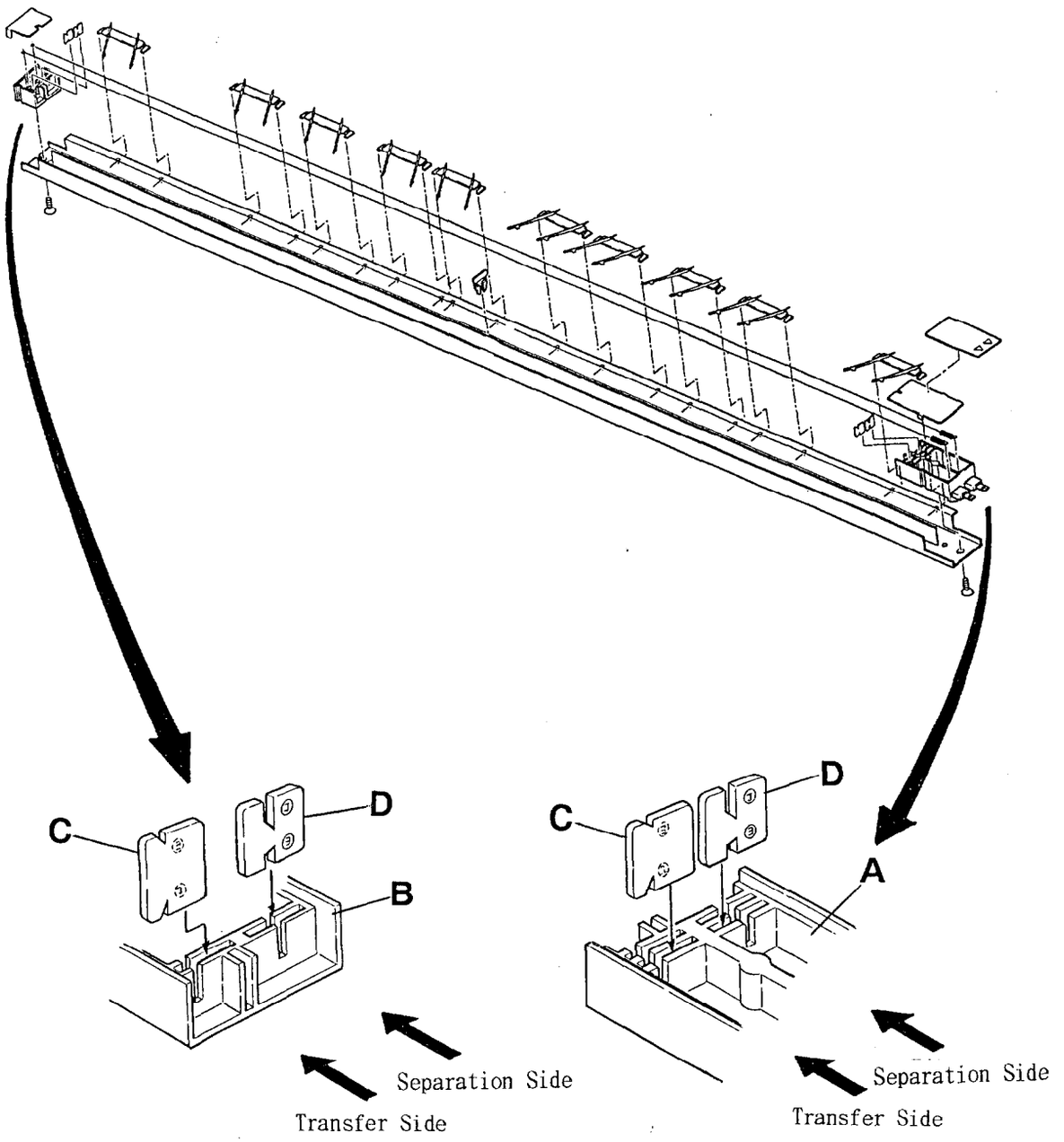
1 Press the nail (A) of the corona guard (B) in the direction of to remove the corona guard.
2 Remove Cover both side (C)(D).
3 Remove spring (E) from hook (F).
4 Insert new Corona Wire into pin at left side and hang opposite side on spring.
5 Insert the above into hook.
Note:Make sure that wire is surely placed in groove for both left and right side.





7-7-4. How to Install Height Chip

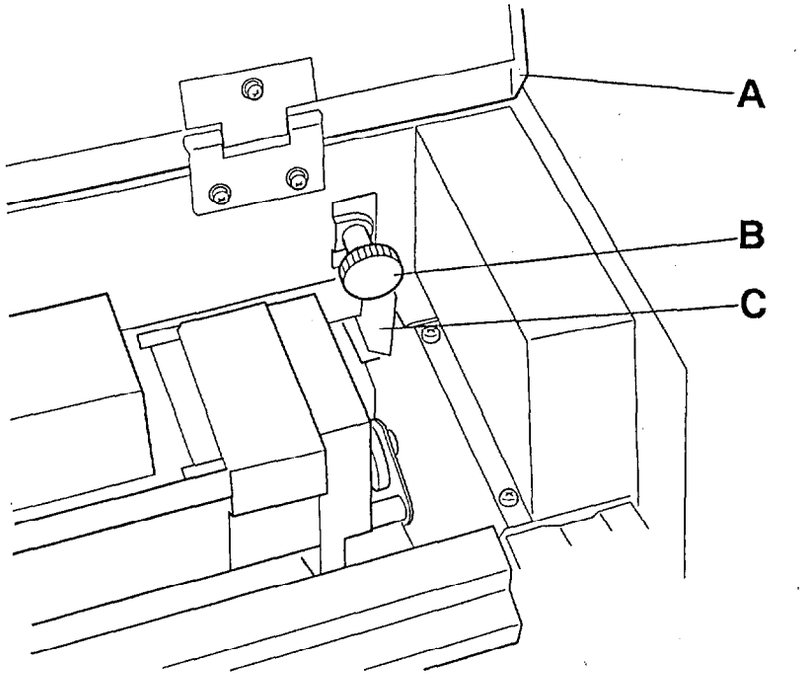
1 Insert Height Chip(C) into Corona Block A(A) & Corona Block B(B), Transfer side.
Note:Character "E" should be upside, as shown below.
The "E" should face to left.
2 Insert Height Chip(D) into Corona Block(A) & Corona Block(B), Separation side.
Note:Character "J" should be upside, as shown below.
The "J" should face to right.

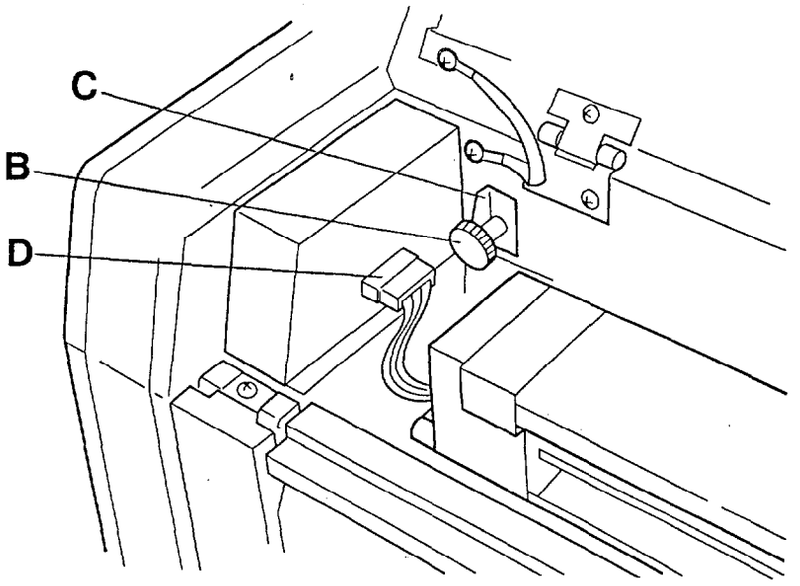


7-8 Developer Unit

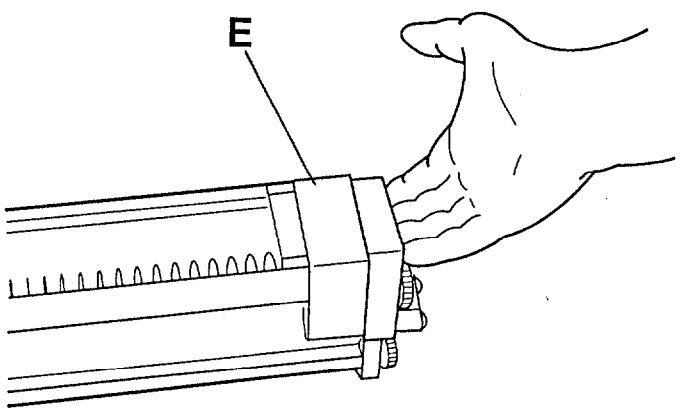
7-8-1. Developer Unit Removal

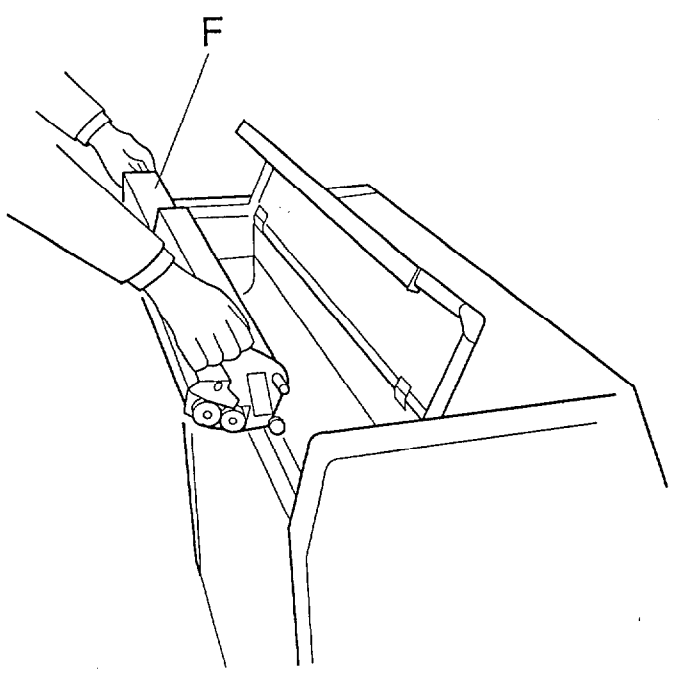
1. Open the Toner Loading Hatch (A).
2. Rotate the thumb screws (B) at the right and left of the Developer Unit to remove the right and left developer locking metal fittings (C).
3. Disconnect the connector (J54)(D) connected from the left side of the Developer Unit to the Engine Unit.





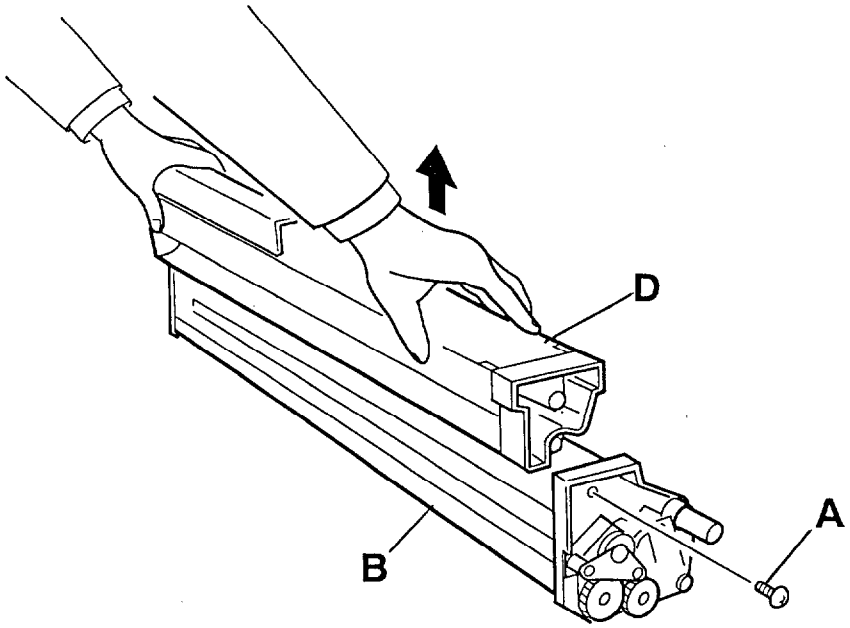
4. Open and close the Engine Unit once (to release the gears that are in mesh).
5. Hold the plastic side plates(E)on both sides of the Developer Unit between both hands, and lift the Developer Unit(F) upward to take it out of the machine.
6. The Developer Unit that has been taken out should be placed in such a way that it will be supported by the bottom surfaces of the plastic side plates. Use care to make sure that no load is placed at all on the aluminum frame at the center.
7. To remount the Developer Unit, slowly insert it in such a way that the guide ring on the left side of the Developer Unit will match the groove on the left side of the Engine Unit.
8. Set the right and left developer locking metal fittings and secure them with the thumb screws.
9. Re-insert the connector (harness) on the left side of the Developer Unit into the black connector on the left side of the Engine Unit.

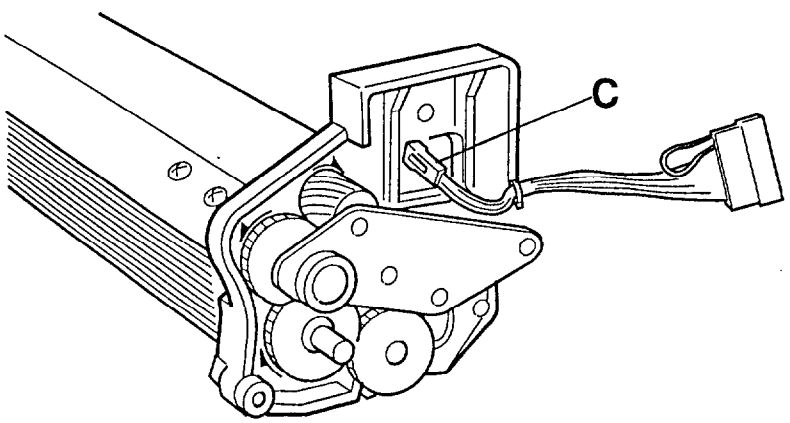




7-8-2. Toner Hopper Replacement

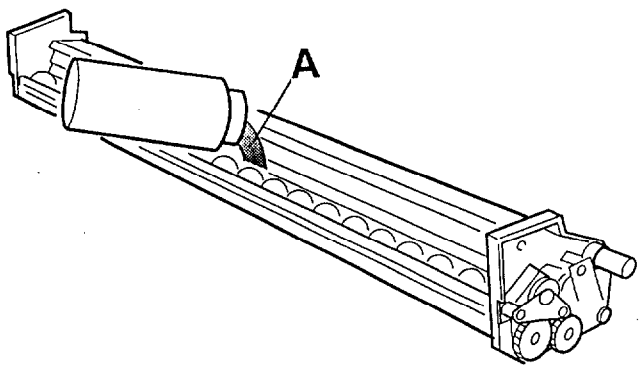
1 Remove both side upper M4x12 screw (A) of side plate of the Developer Unit (B).
2 Remove the connector J56 (C) of the driving side.
3 Lift and remove the Toner Hopper (D).
4 Mount the Toner Hopper in the reverse order.

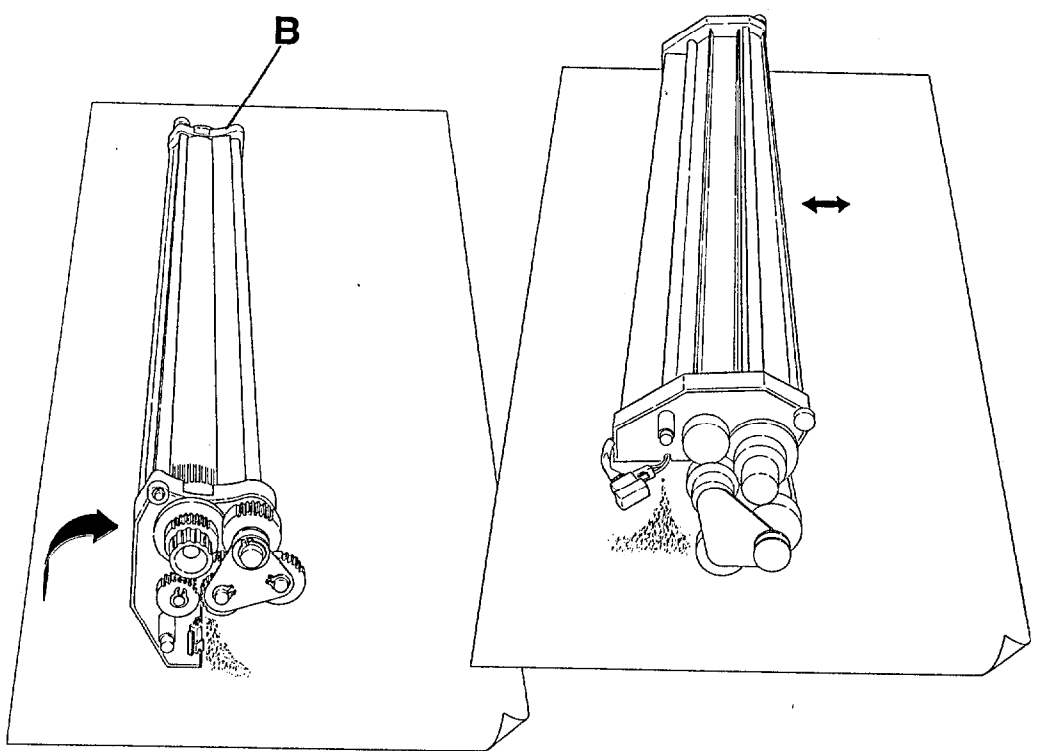




7-8-3. Developer Powder Replacement

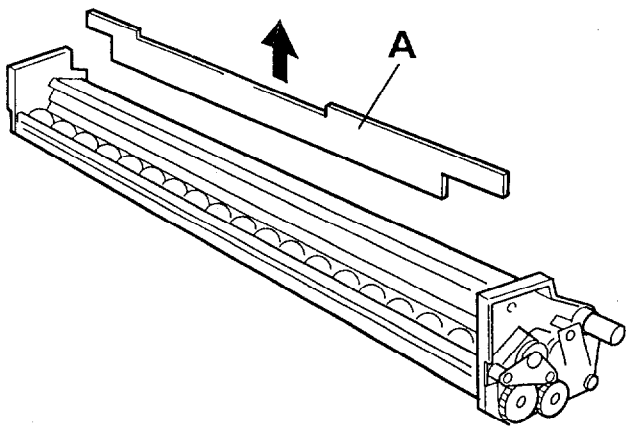
1 Power off and unplug the machine.
2 Remove the Developer Unit.
3 Remove the Toner Hopper.
4 Remove the partition (A) in the direction of the arrow.
5 Place the Developer Unit on a sheet of paper large enough.
6 Roll the Developer Unit by 90 degrees as show and rotate the another gear (B) behind the gear by hand.
7 Roll the Developer over and roll it in the directions of the arrows to let the developing agent drop.
8 Repeat step 6 and 7 until the developing agent no longer drops.

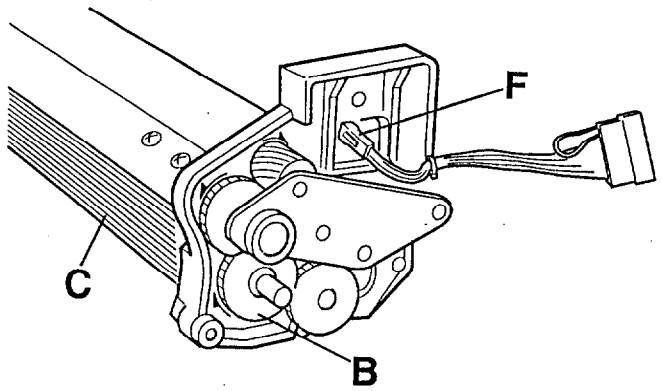


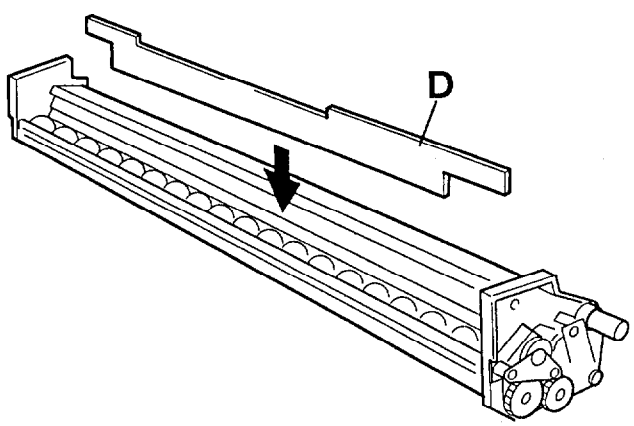


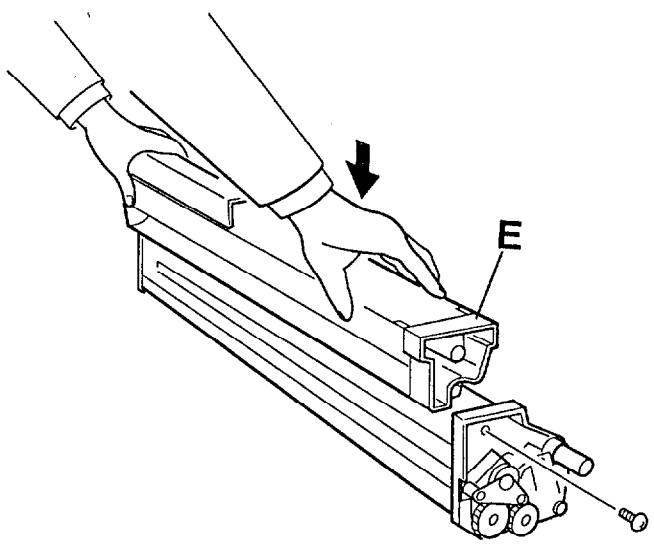
7-8-4. Filling Developer Powder

1 Fill Developer Powder evenly(A).
2 Rotate the gear (B) until Developer Powder cover the Magnet Roller(C).
3 Set partition (D).
4 Attach the Toner Hopper (E) with screw.
5 Connect the connector J56 (F).



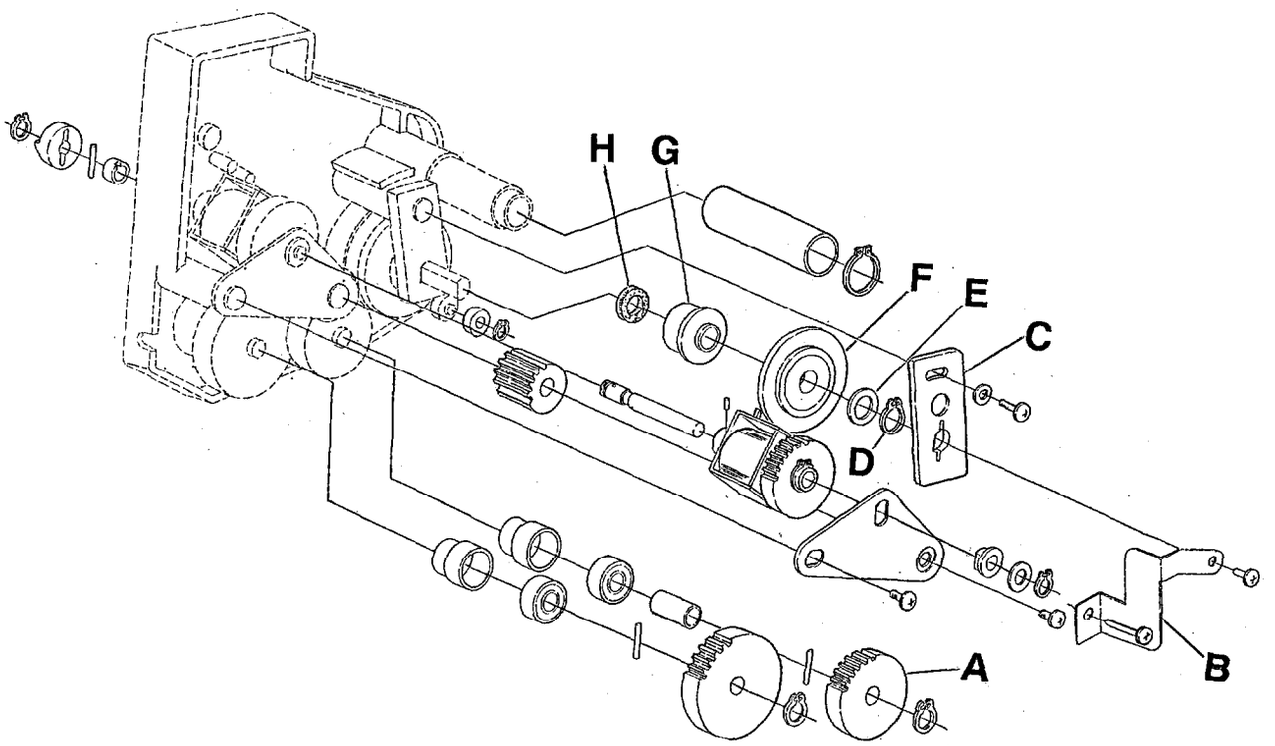






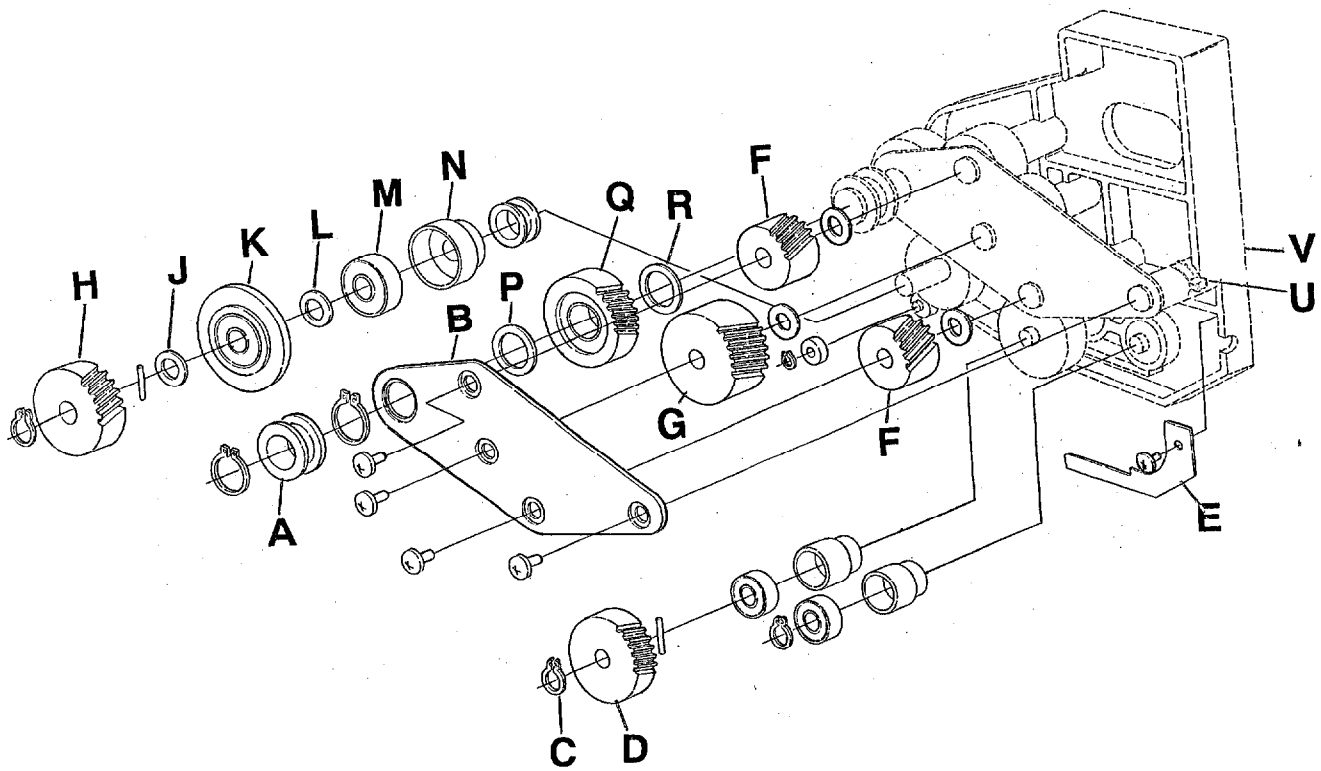
7-8-5 Seal Felt ϕ8 Replacement

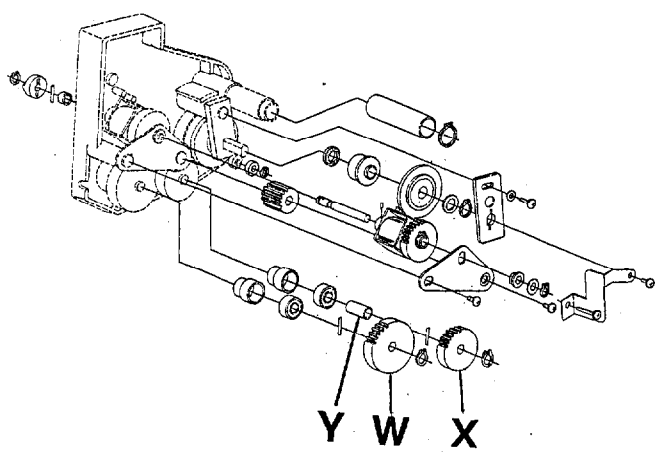
1 Remove the developer.
2 Remove the developing powder.
3 See figure and remove the parts in the sequence of (A)(B)(C)(D)(E)(F)and(G).
4 Replace the seal felt ϕ8(H).
5 Reassemble in reverse order.
Note:Before removing the angle plate(C), record or mark the position being placed to leave out a fine adjustment when reassemble.

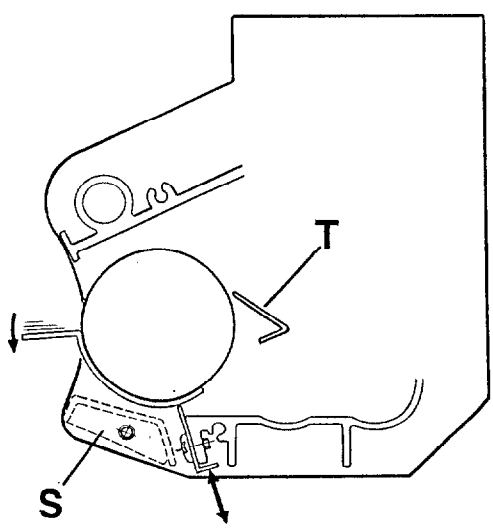


7-8-6 Seal Felt Replacement

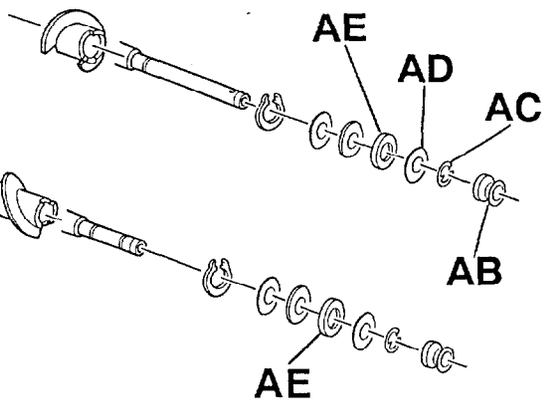
1 Remove the developer.
2 Remove the developing powder.
3 See figure and remove the parts in the sequence of (A)(B)(C)(D)(E)(F)(G)(H)(J)(K)(L)(M)(N)(P)(Q)(R)(S)and(T).
4 Cut the band(U).
5 Remove the Deve side plate(V).
6 Remove the 30T helical gear(W), 30T gear(X), spacer(Y).

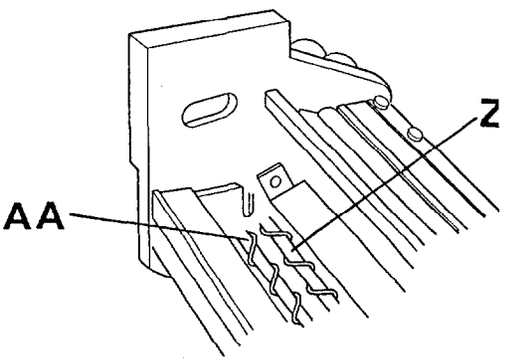


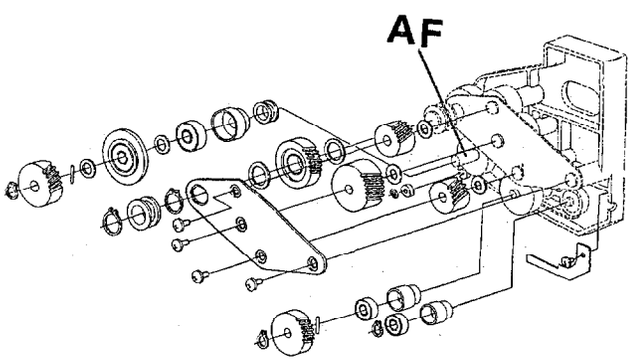


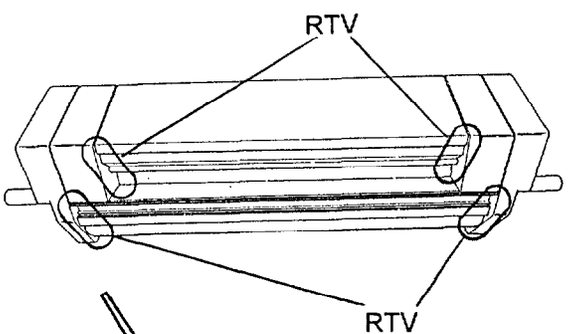


7 Remove the Shaft screw front assy(Z)and Shaft screw rear assy(AA).
8 V ring ϕ 6(AB), E ring(AC), and washer(AD), then replace the seal felt(AF)(both side).
9 Reassemble in reverse order.
Note:At the assembly, set 30T Helical Gear with pulling the Magnet Roller Shaft(AF).
Note:At the assembly of Side Plate and Bottom Frame, fix each part with pushing the Bottom Frame downward from the bottom side on the flat face board/desk as per fig 1.
Note:Put RTV rubber to the jointed part of Side Plate and Bottom Frame to prevent the leaking of Toner as per Fig 2.









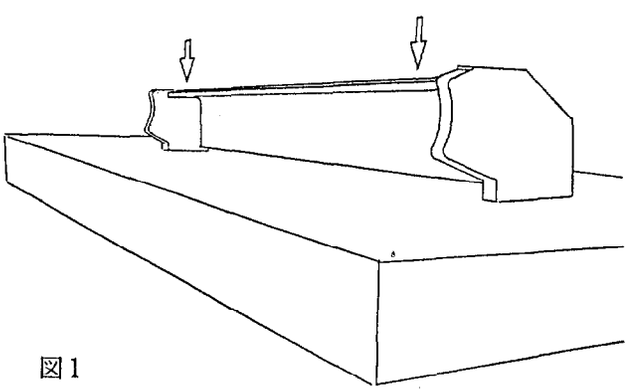


図1

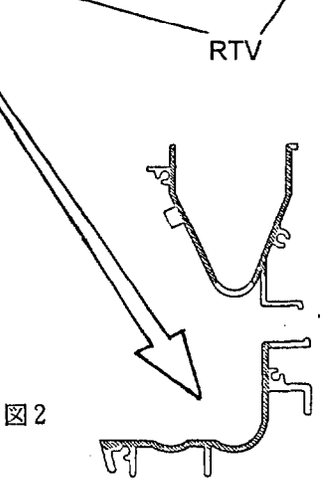
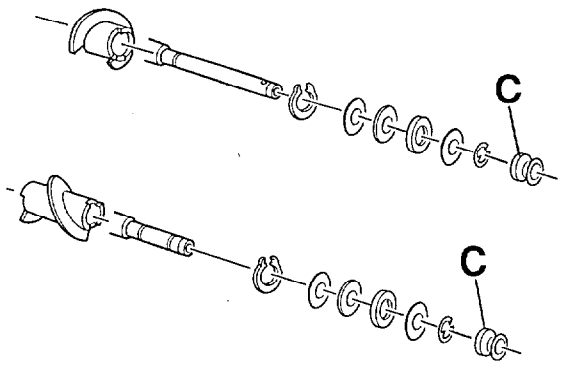
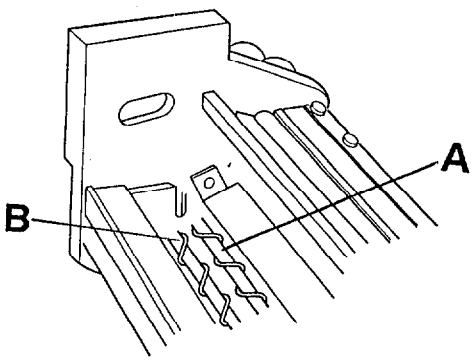


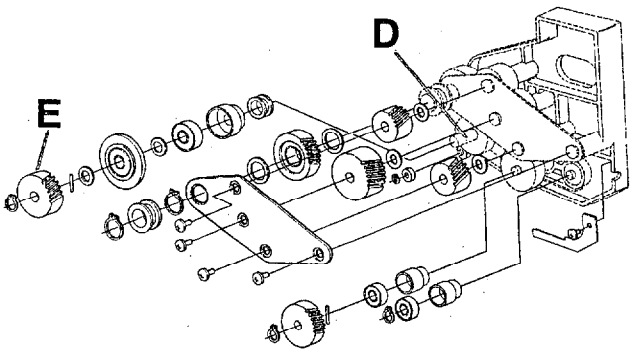
図2

7 8-7 V Ring φ6 Replacement

1 Remove the developer.
2 Remove the developing powder.
3 Remove the Shaft screw front assy(A)and Shaft screw rear assy(B).(refer"7-8-6")
4 Replace the V ring φ6(C)(both side).
5 Reassemble in reverse order.
Note:At the assembly, set 30T Helical Gear(G) with pulling the Magnet Roller Shaft(D).
Note:At the assembly of Side Plate and Bottom Frame, fix each part with pushing the Bottom Frame downward from the bottom side on the flat face board/desk as per fig 1.
Note:Put RTV rubber to the jointed part of Side Plate and Bottom Frame to prevent the leaking of Toner as per Fig 2.







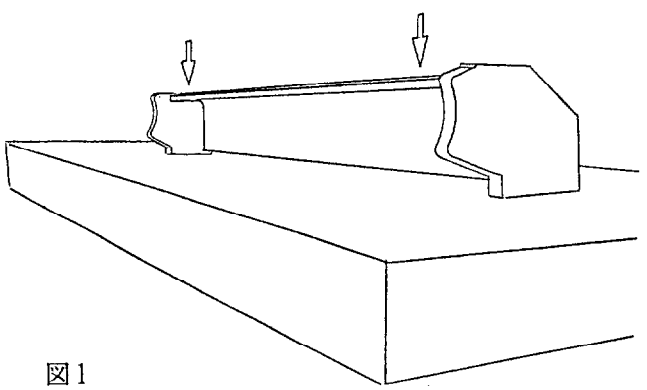
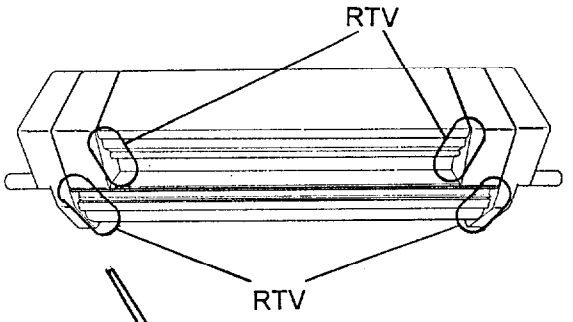


図1



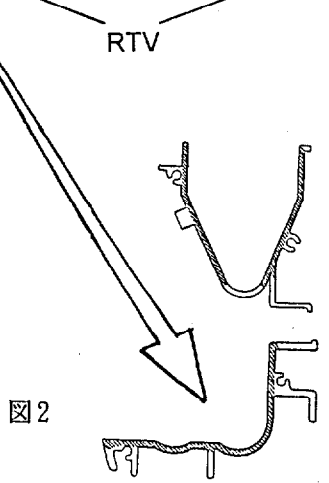
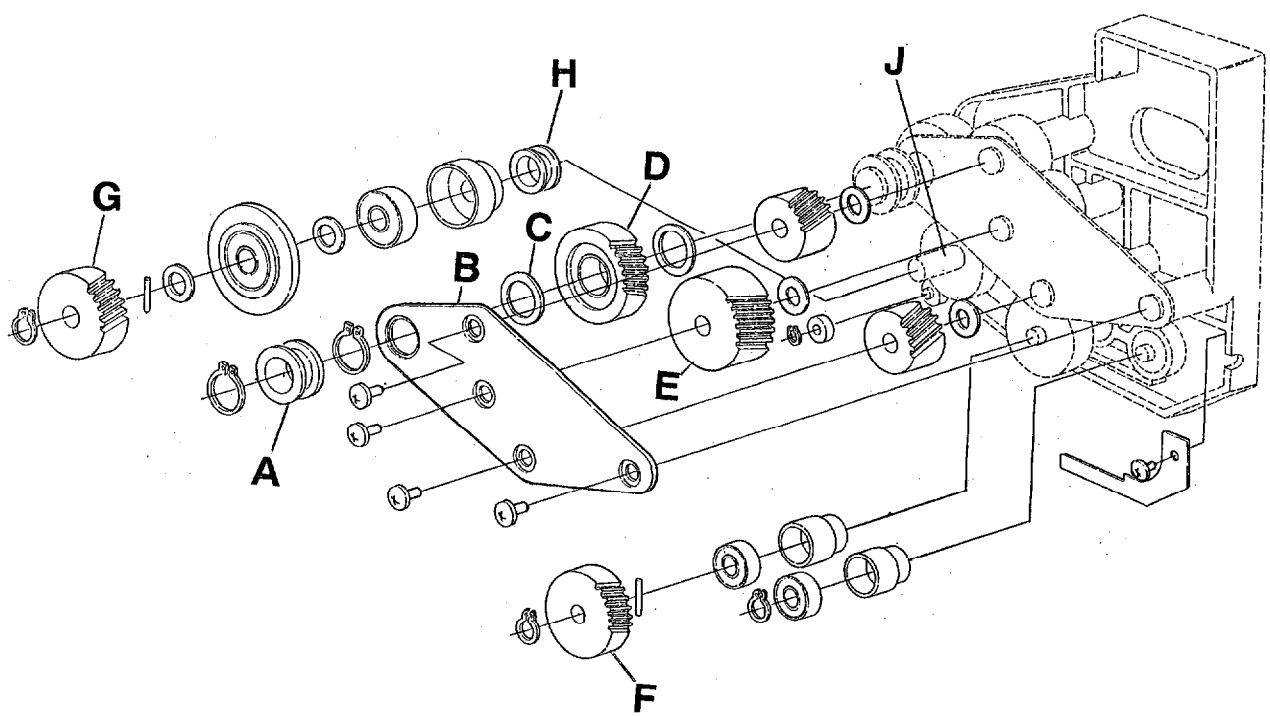


図2

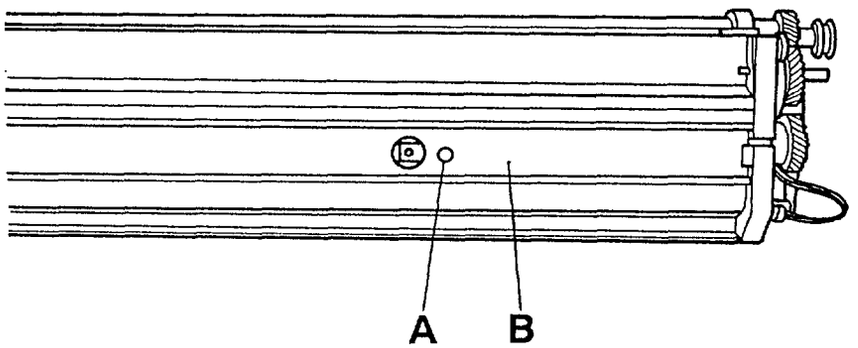
7-8-8 V Ring ϕ12 Replacement

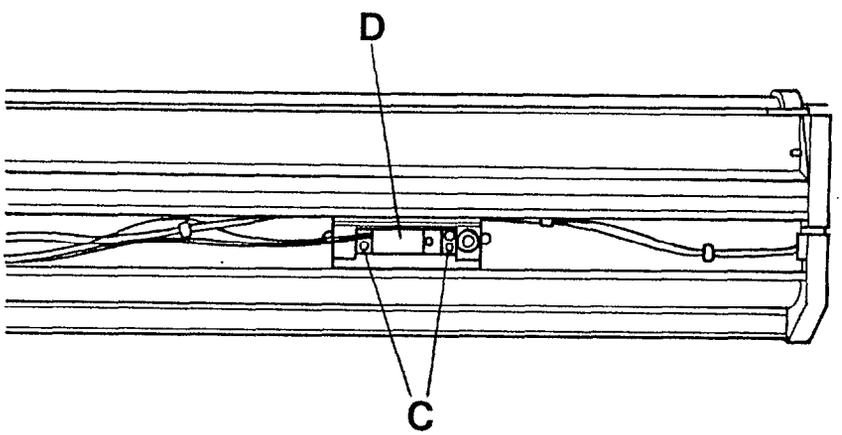
1 Remove the developer.
2 Remove the developing powder.
3 See figure and remove the parts in the sequence of (A)(B)(C)(D)(E)and(F).
4 Remove the 30T helical gear(G) and pull out all of parts including V ring ϕ12(H).
5 Replace the V ring ϕ12.
6 Reassemble in reverse order.
Note:At the assembly, set 30T Helical Gear(G) with pulling the Magnet Roller Shaft(J).



7-8-9. Toner Density Sensor Replacement

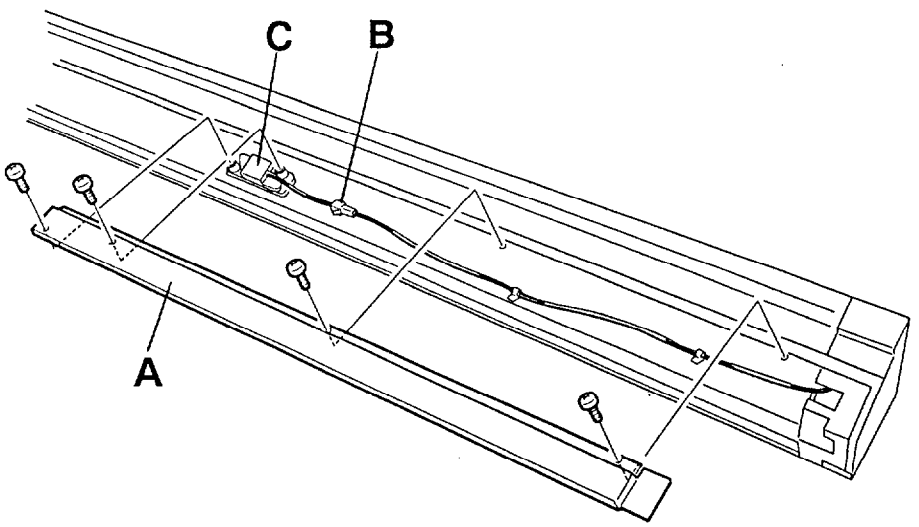
1 Remove the Developer.
2 Undo the screw (A) and remove the lead wire cover (B).
3 Undo the screw (C) and remove the Toner Density Sensor (D).
4 Disconnect the connector.
5 Mount a new Toner Density Sensor
6 Mount the lead wire cover.
  Note: Be careful not to pinch the wires.
7 After installation is completed to the machine, Please adjust Toner Density Sensor.





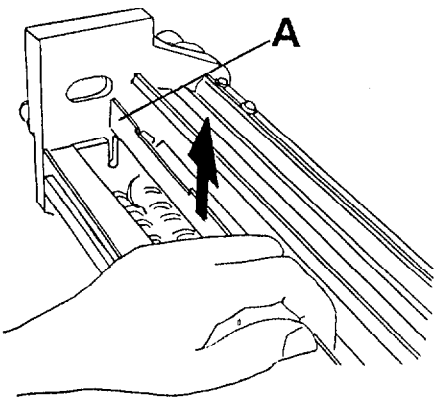
7-8-10. Toner Empty Sensor Replacement

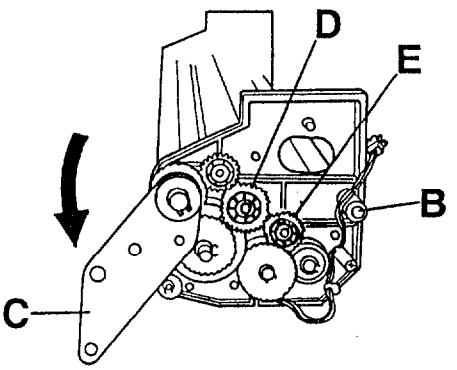
1 Remove the developer unit.
2 Remove the hopper.
3 Place the hopper on its side with the harness cover (A) up.
  * When the hopper contains a large amount of toner left behind or when the toner appears to be scattered about, remove the toner in advance and clean the inside of the hopper.
4 Remove the harness cover. (Four screws)
5 Disconnect the connector (B) of the Toner Empty Sensor.
6 Remove the Toner Empty Sensor (C). (Two screws)
7 To re-mount the sensor, reverse the order of removal.

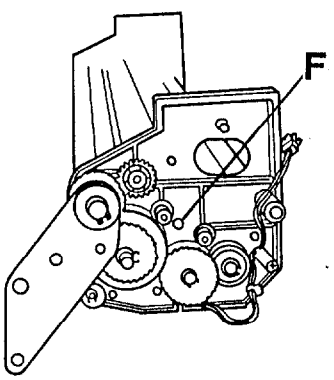


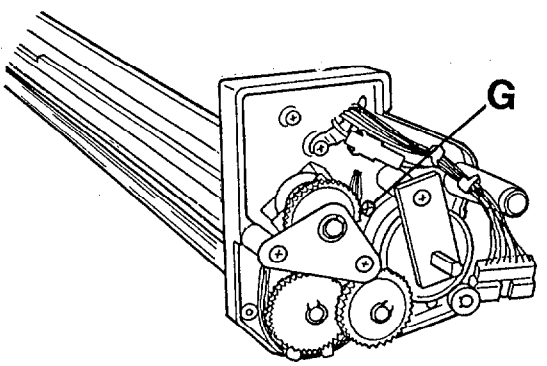
7-8-11. Slope Replacement

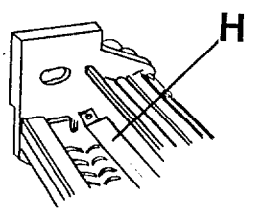
1 Power off and unplug the machine.
2 Remove the Developer.
3 Remove the Toner Hopper.
4 Remove the partition (A) upward.
5 Remove four screws (B) and tilt the gear fixing plate (C) to arrow direction.
6 Remove the gears (D) and (E), and loosen screw (F) to inside of the side plate.
7 Loosen opposite side screw (G) to inside of the side plate.
8 Remove the Slope (H).
9 Peal the assistant slope (J) off from the slope and remove adhesive tape (K) completely.
10 Put a new assistant slope (J).
11 Reassemble in reverse order.

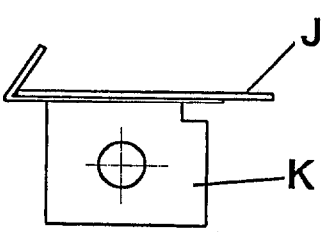






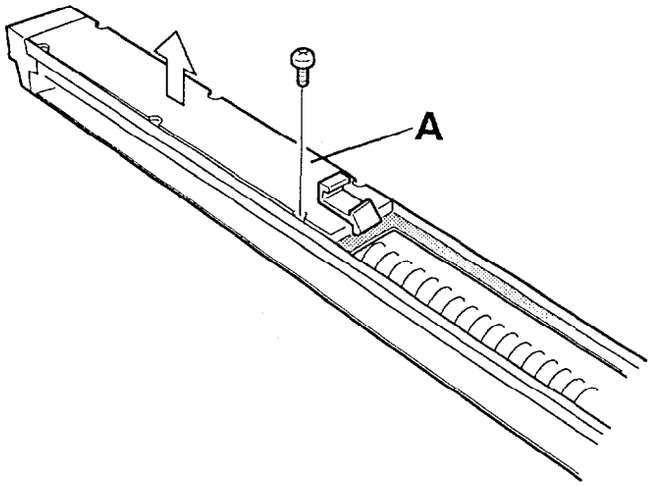


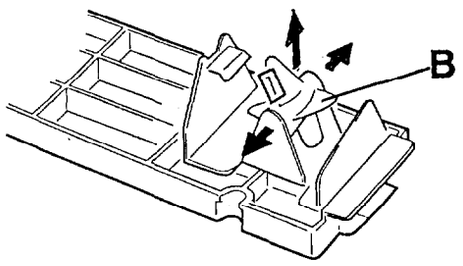




7-8-12. Four Fin Replacement

1 Remove the developer unit.
2 Remove the hopper.
3 Remove the cartridge.
  * Gently perform the step to prevent scattering the toner.
4 Remove the hopper cover (A) and turn it over. (Six screws)
  * Gently perform the step to prevent scattering the toner.
5 Widen the fin in the directions of the arrows. Then the fin (B) will come off.

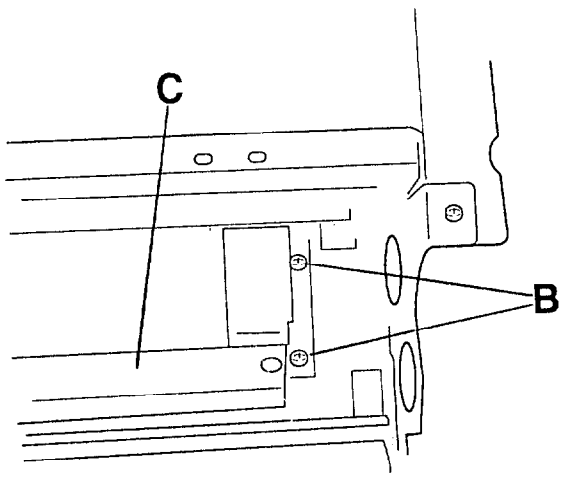


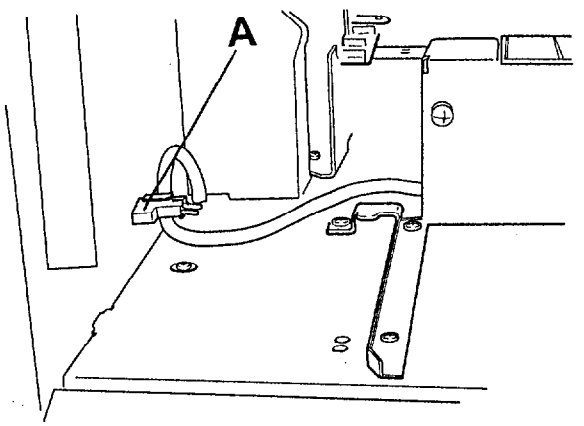


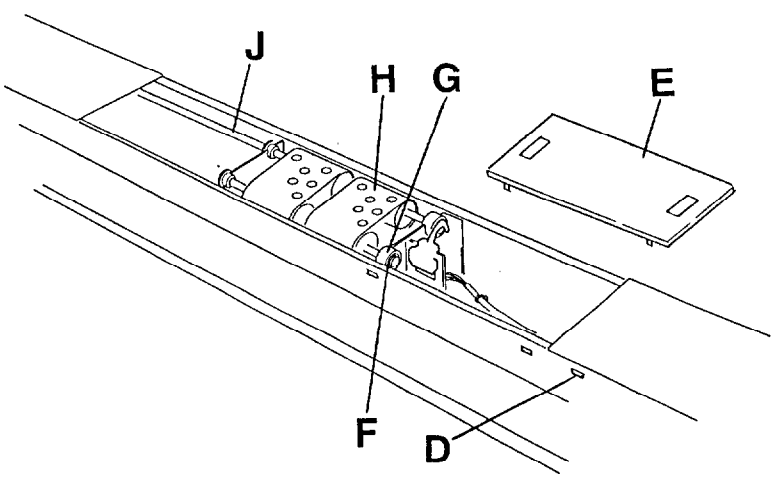
7-9 Feeder

7-9-1. Belt(Feeder) Replacement

1 Remove the Fuser Unit.
2 Remove the Drum and Cleaner Unit.
3 Disconnect the connector (A).
4 Remove the four screws (B), and remove the Feeder Assy (C).
5 Push the hooks (D) of the guide plate (E) and remove it.
6 Remove the E-Ring (F) and the oilless bearing (G). Then you can remove the belt (H) from the shaft (J).
7 Reassemble in reverse order.





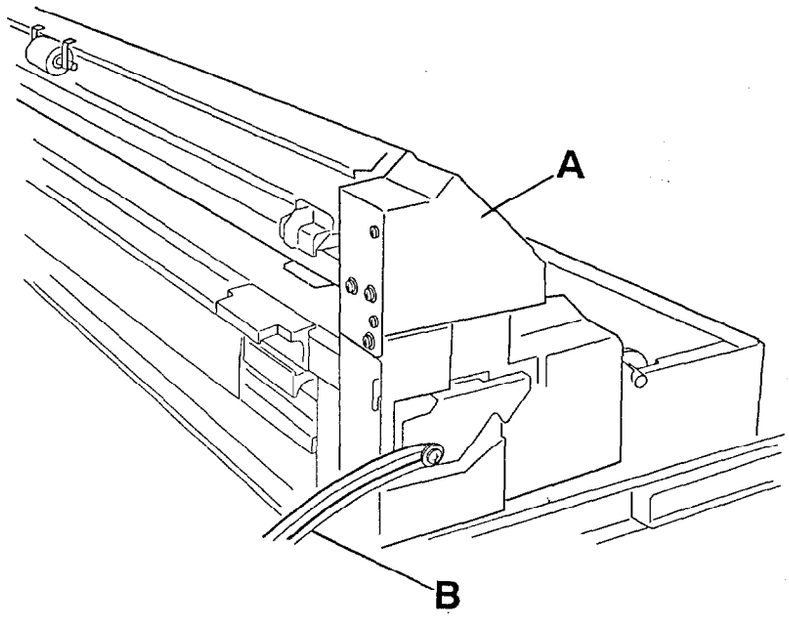


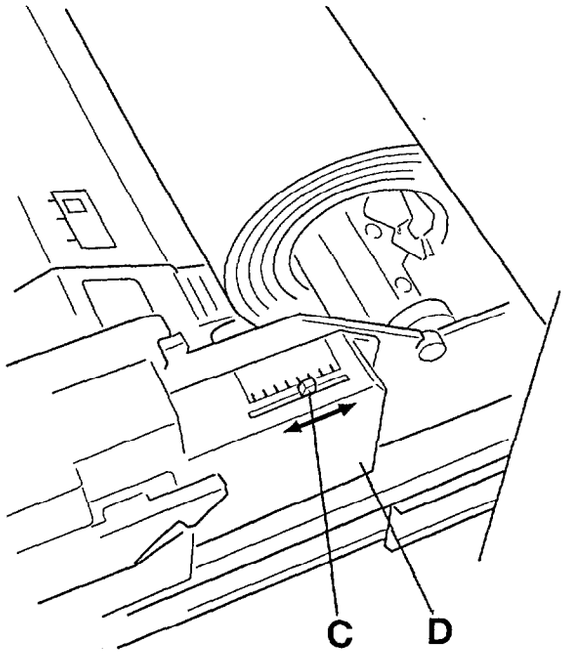
7-10 Paper Feeder

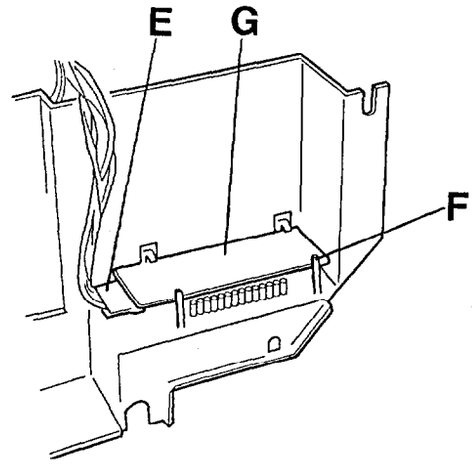
7-10 1. Size Selector PCB Replacement

a: Upper Paper Container.

1 Pull out Upper Paper Container.
2 Remove the Cutter Cover (A).
3 Remove the stopper (B).
4 Remove the Selector Knob (C).
5 Remove the Outside Cover (D).
6 Disconnect the connector (E) and undo four hooks (F). Then you can replace the Size Selector PCB (G) with new one.
Note:It can be broken if you open the hook too much.
7 Reassemble in reverse order.

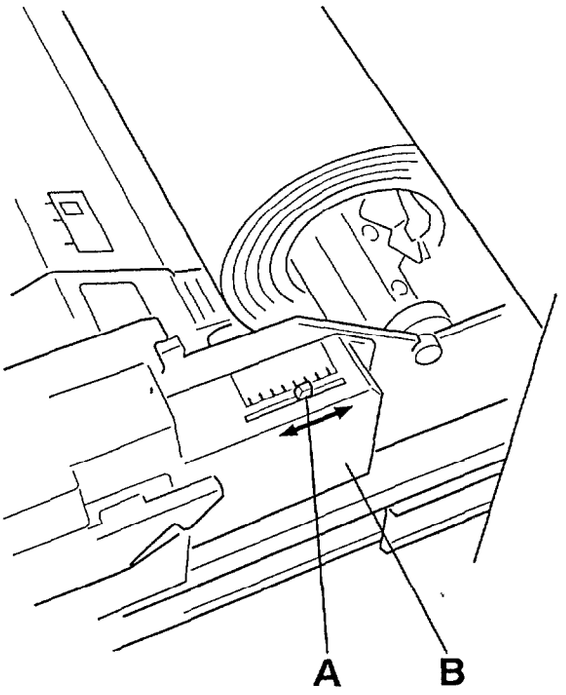


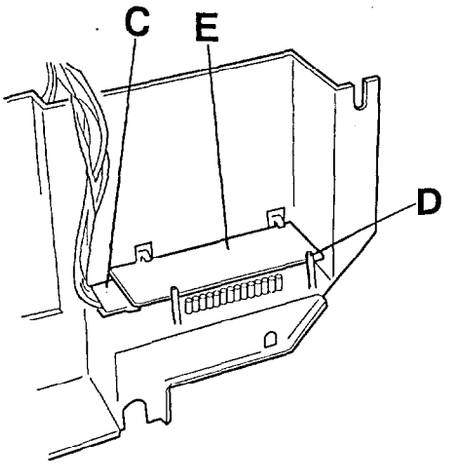




b:Lower Paper Container.

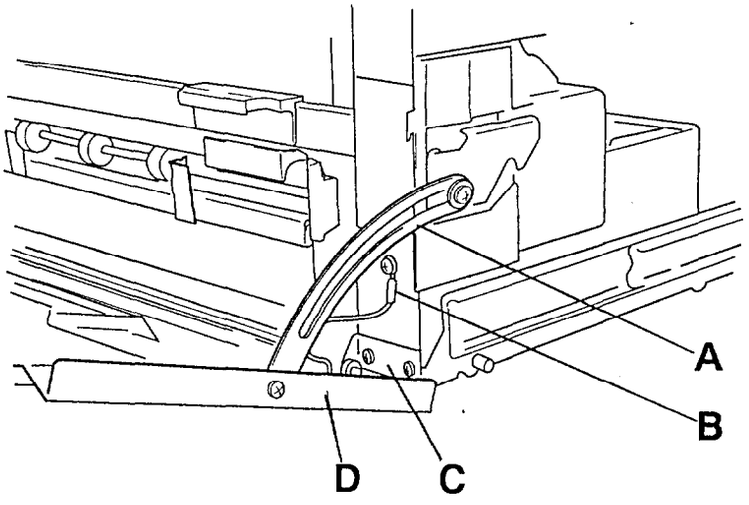
1 Pull out Lower Paper Container.
2 Remove the Selector Knob (A).
3 Remove the Outside Cover (B)
4 Disconnect the connector (C) and undo four hooks (D). Then you can replace the Size Selector PCB (E) with new one.
Note:It can be broken if you open the hook too much.
5 Reassemble in reverse order.

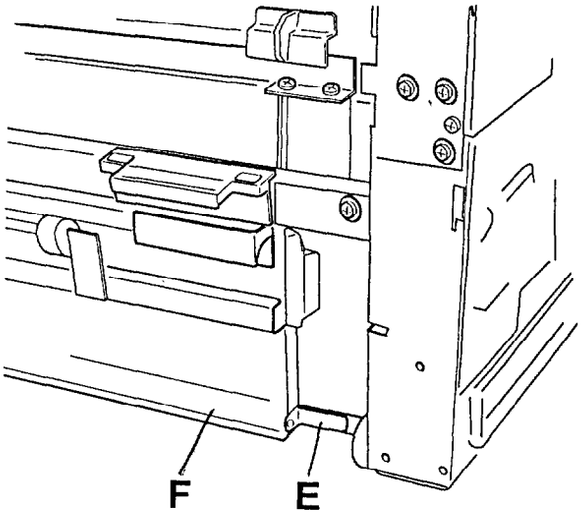




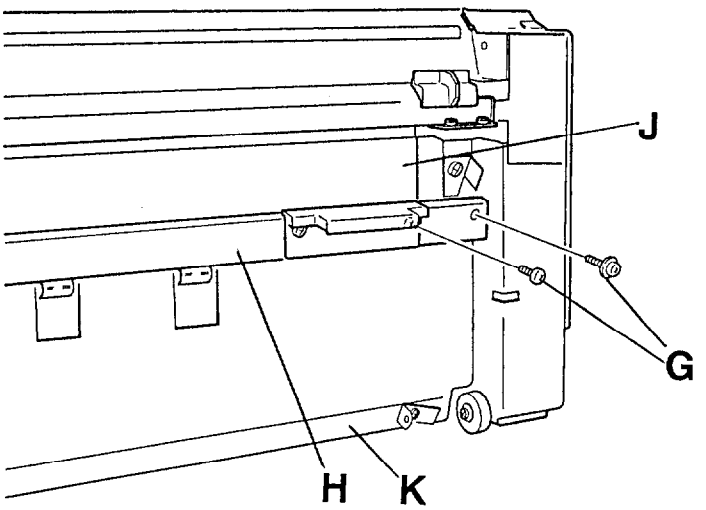
7-10-2. Clutch Unit(Paper Feeder) Removal.

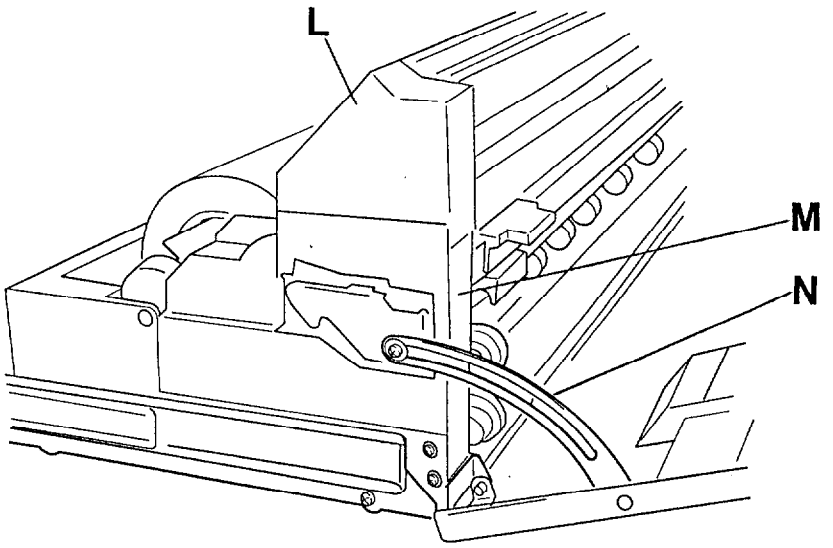
1 Remove the Stopper (A), Earth wire (B), Bracket (C), then remove the Cover(Upper)(D).
2 Remove the Support Guide (E), then remove the Plate Guide 6 (F).



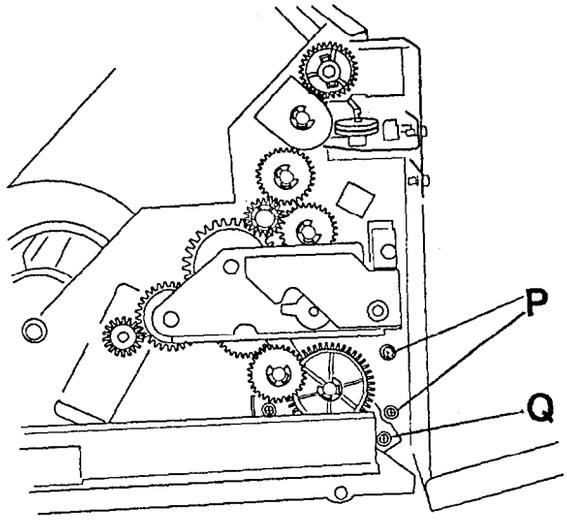


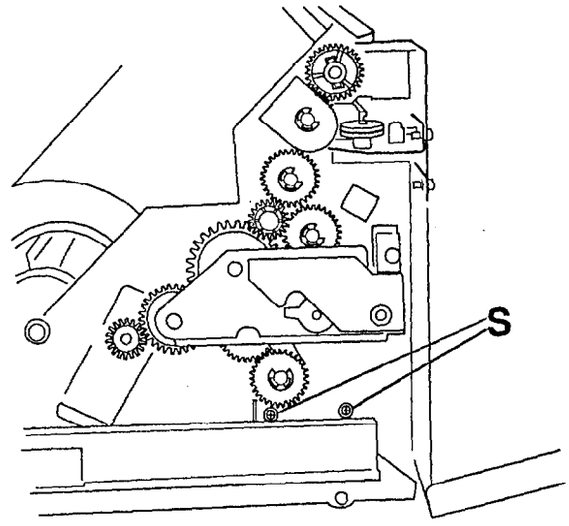
3 Remove the two screws (G)(both side), then remove the Bar Handle (H).
4 Remove the Plate Guide 7 (J), and Plate Guide 5 (K).
5 Remove the Cutter Cover (L), Outside Cover (M), Stopper(N)

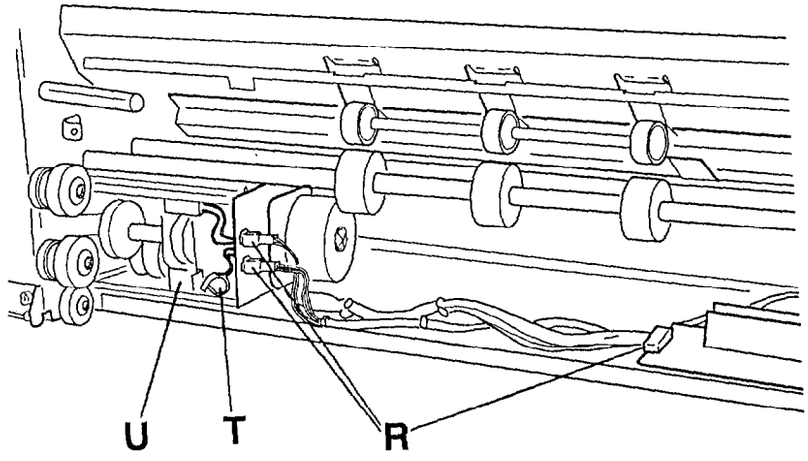




6 Loosen screw (P) of Bracket Knob
7 Remove the Plate (Q) of 50T Gear.
8 Disconnect the connector(three connectors)(R)
9 Remove two screws (S) and another one screw located at the inner part of the hole (T). Then you can take out the Clutch Unit(U).
10 Reassemble in reverse order.

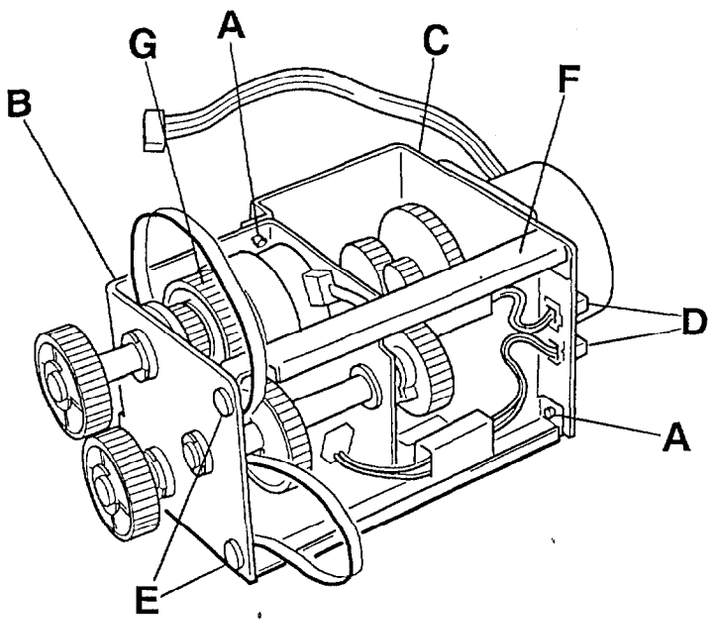






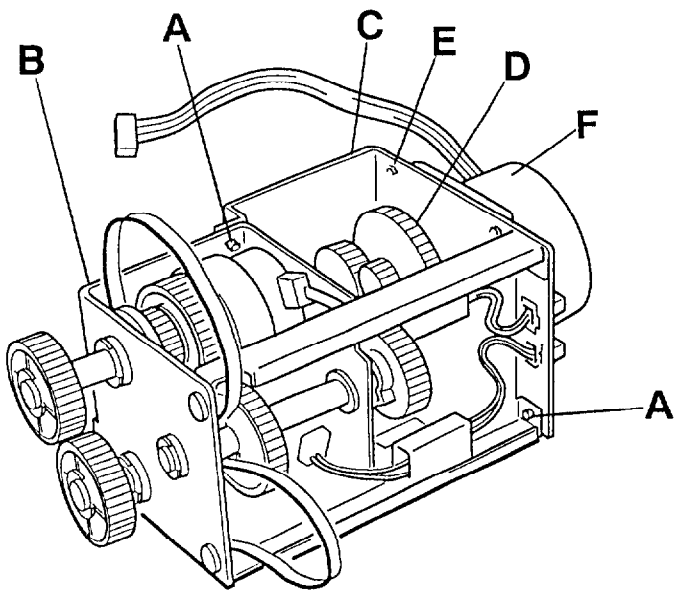
7-10-3. Clutch(Paper Feeder) Replacement

1 Remove the Clutch Unit.
2 Remove four screws (A) and separate the clutch part (B) and the motor bracket part (C).
3 Disconnect the connector (D).
4 Remove the two screws (E), then remove the Plate Support (F).
5 Remove the E-Ring ,C-Ring and Shaft Clutch, then you can remove the Clutch Assy (G).
6 Reassemble in reverse order.



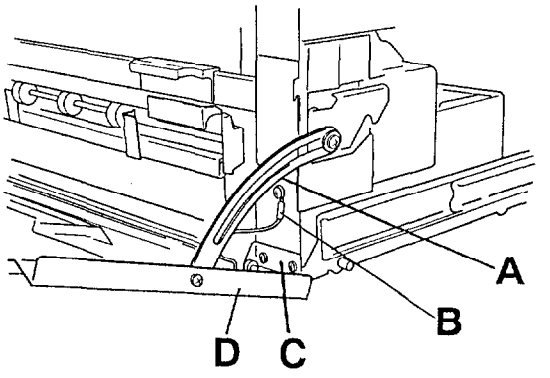
7-10-4. Motor(Paper Feeder) Replacement

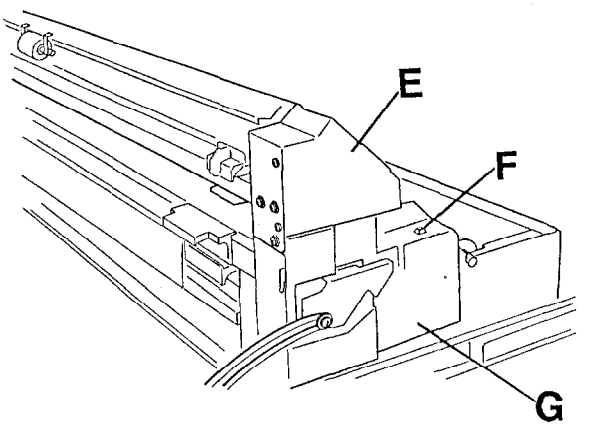
1 Remove the Clutch Unit.
2 Remove four screws (A) and separate the clutch part (B) and the motor bracket part (C).
3 Remove two double gear (D) and 20T gear .
4 Remove the four screws (E), then remove the Motor (F).
5 Reassemble in reverse order.

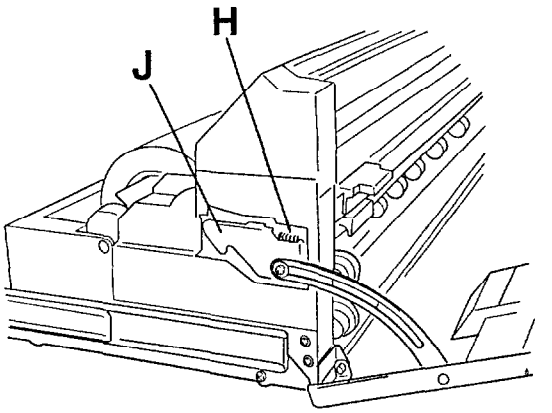


7-10-5 Pickup Case Removal (Upper unit)

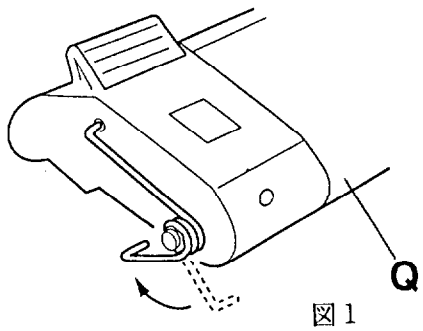
1 Remove the Stopper(A), Earth wire(B), Bracket(C), then remove the Cover(Upper)(D).
2 Remove the Cutter Cover(E).
3 Remove the Selector Knob(F).
4 Remove the Outside Cover(G), (both side).
5 Remove the Spring(H) and remove the Hook A(J)(drive side).







6 Remove Base Plate A(K)(4 screws).
7 Remove the E ring(L), then remove the two 30T gear(M).
8 Disconnect the connector(N) of opposite side.
9 Remove screw(P)(both side), then remove the Pickup case(Q).
10 Bend both ends spring as shown in the figure and fit the shaft side frame hole and then tighten screws temporarily(both side). fig 1
Note:Be sure that the boss of shaft is fitted properly into the hole of side frame and then tighten the screws. fig 2
11 Reassemble is reverse order.



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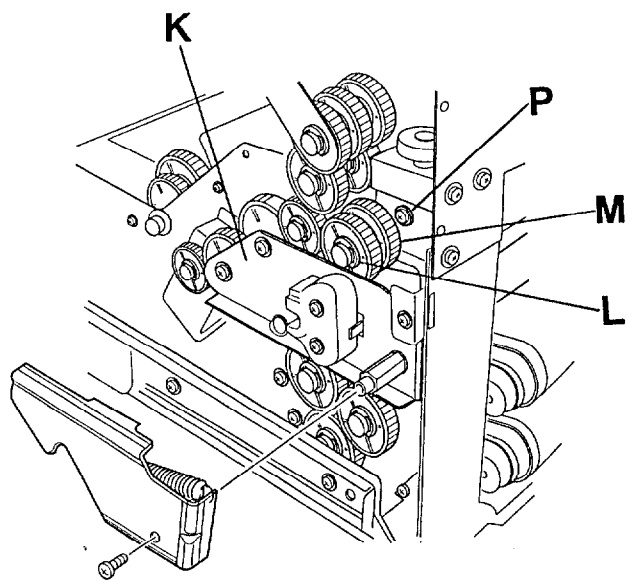


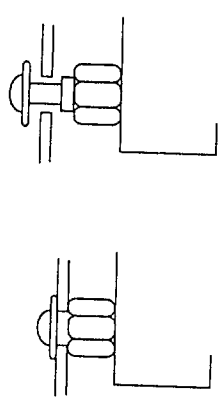
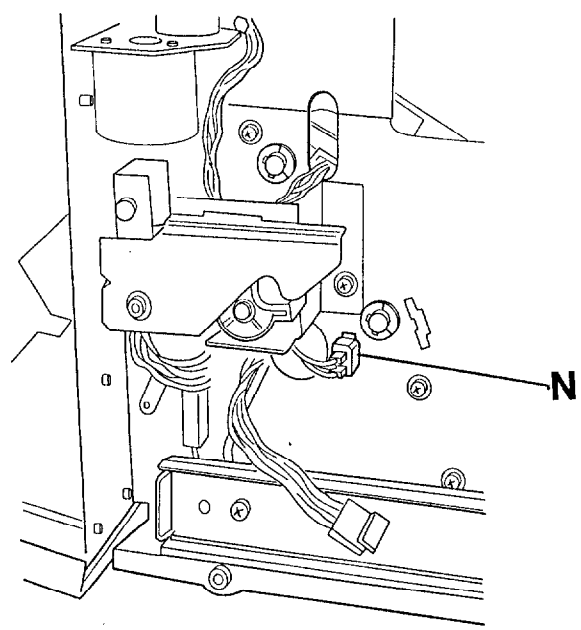
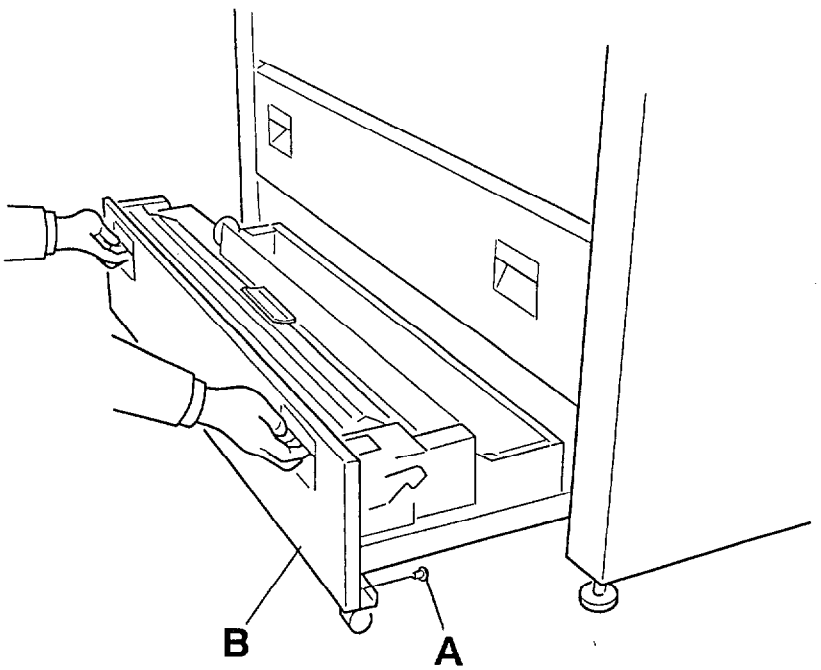


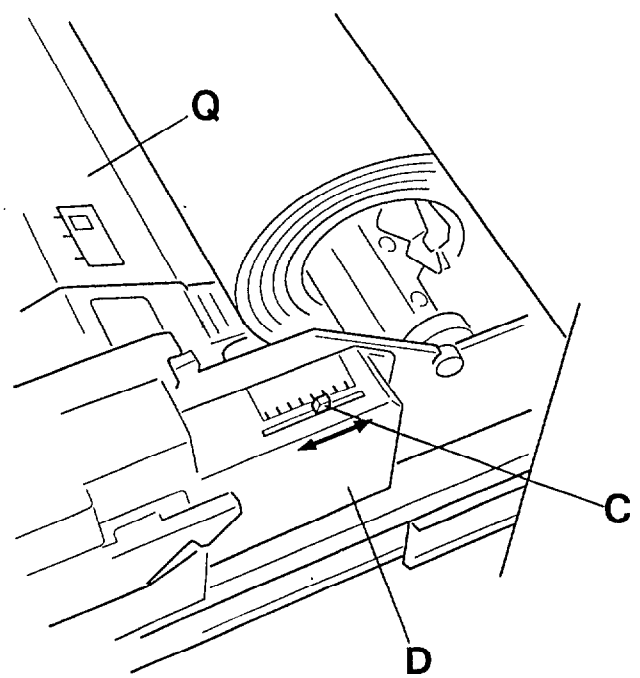
図2



7-10-6 Pickup Case Removal (Lower unit)

1 Remove the screw(A)(both side), then remove the Cover(Lower)(B).
2 Remove the Select knob(C).
3 Remove the Outside Cover(D)(both side).
4 Remove the Spring(E) and remove the Hook A(F)(drive side).
5 Remove the Base Plate(G)(3 screws).





6 Remove the supporter(H)(2 screws)(drive side).
7 Remove the Hook Cover(J), Plate Swing(K), Spring(L).
8 Remove the E ring(M), then remove the 30T gear(N).
9 Remove screw(P)(both side), then remove Pickup case(Q).
10 Bend both ends spring as shown in the figure and fit the shaft side frame hole and then tighten screws temporarily(both side). fig 1
Note:Be sure that the boss of shaft is fitted properly into the hole of side frame and then tighten the screws. fig 2
11 Reassemble is reverse order.

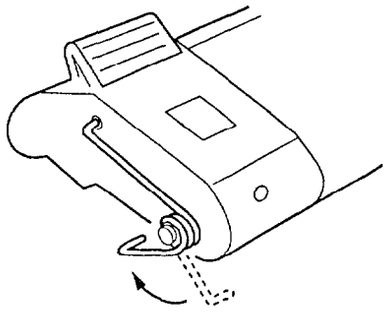
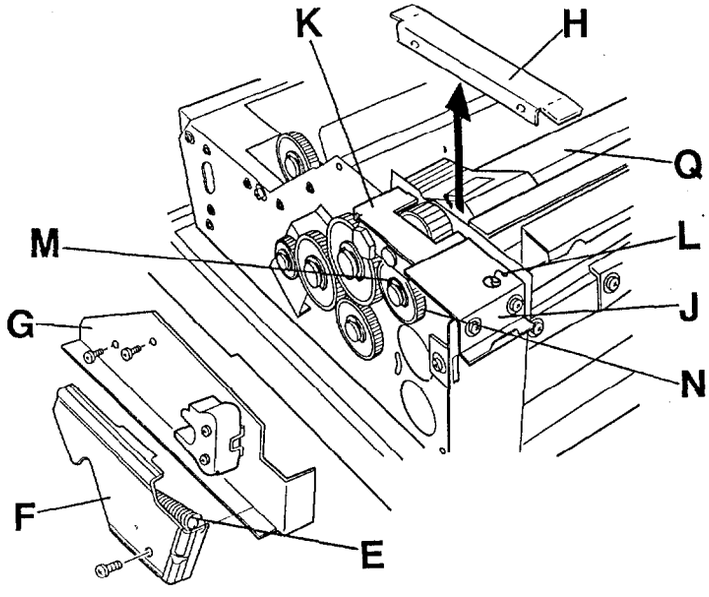
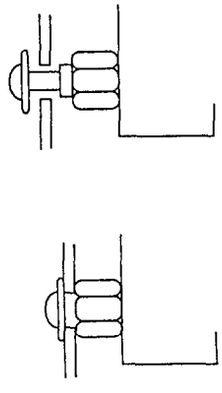


図1





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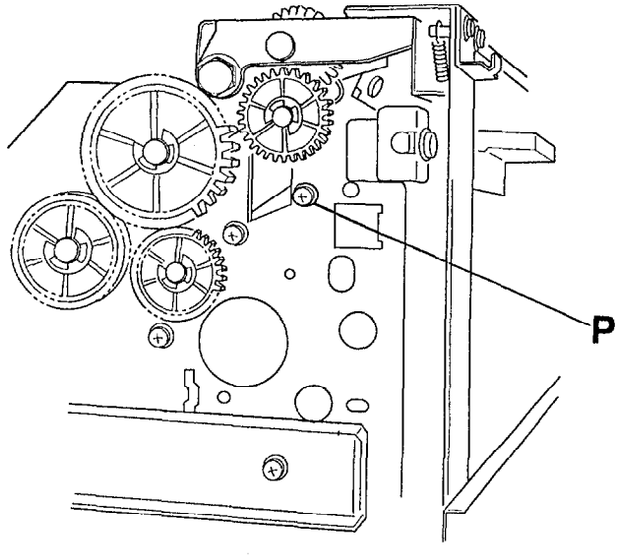
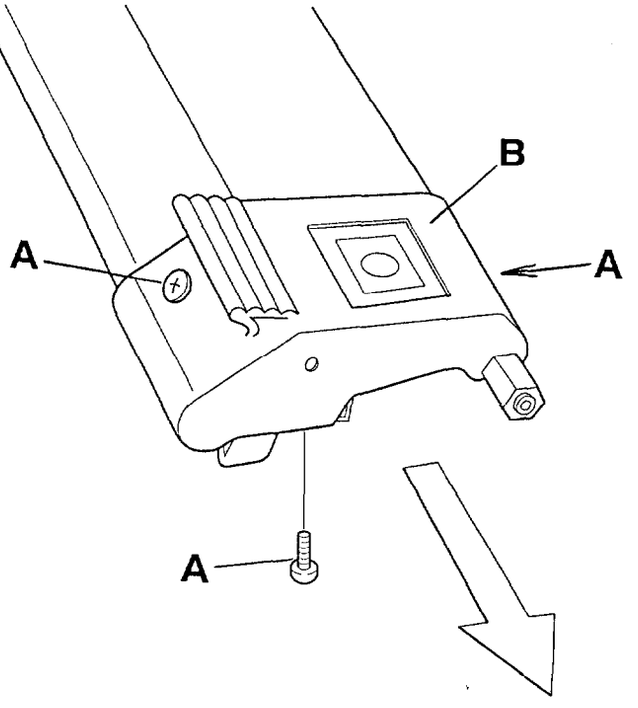
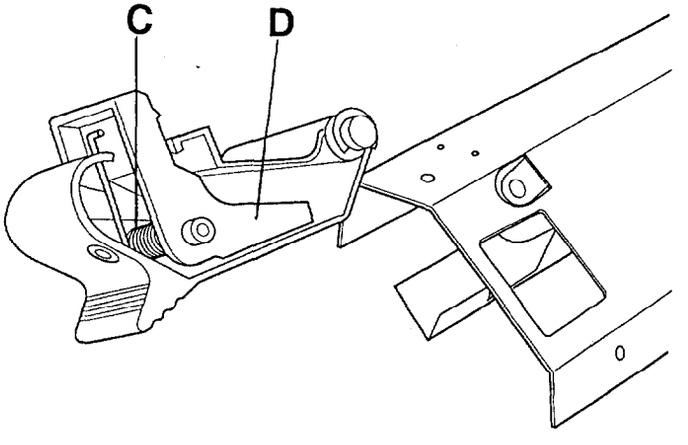


7-10-7 Hook Replacement

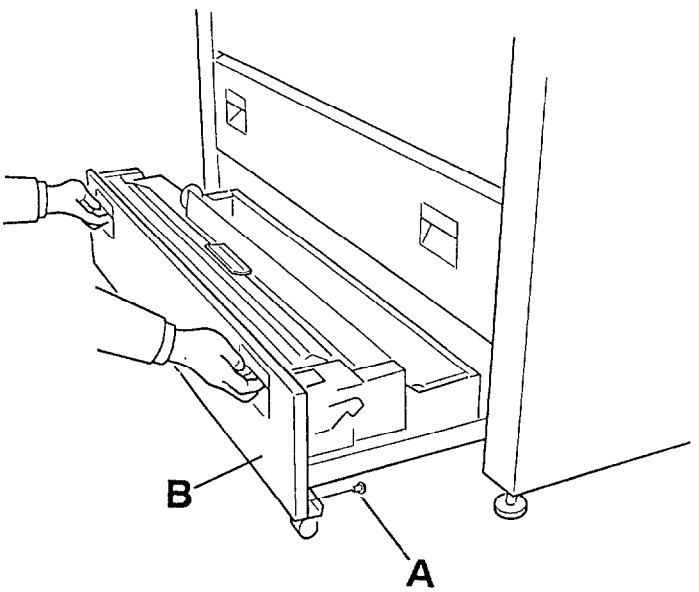
1 Remove the Pickup case. refer"7-10-5"
2 Remove 3 screws(A) then remove Holder(B).
3 Remove the spring(C), then you can replace the Hook(D).
4 Reassemble is reverse order.

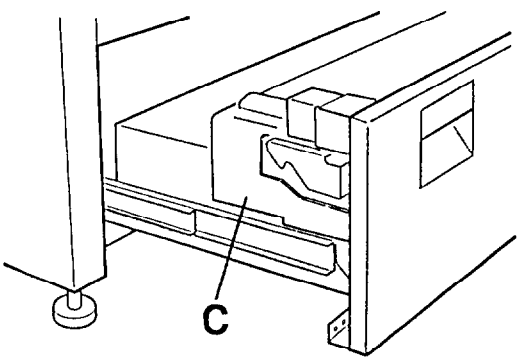


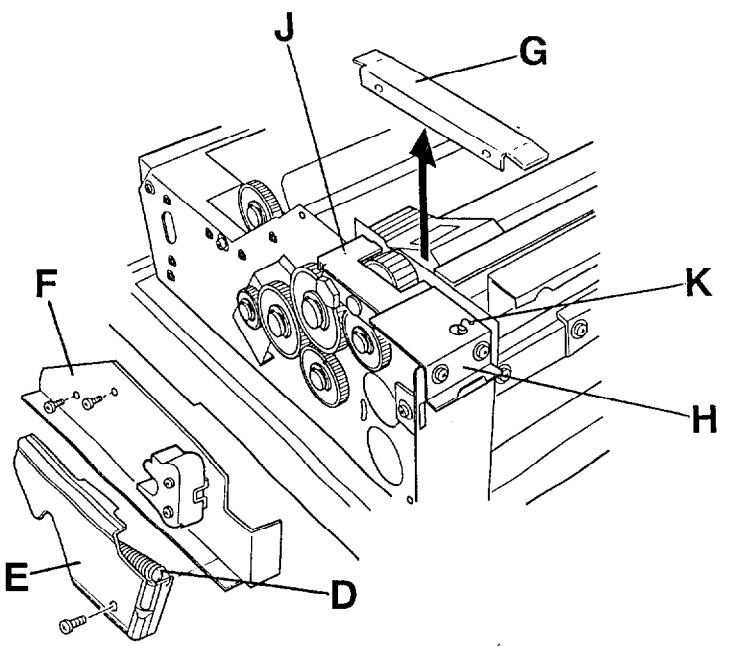


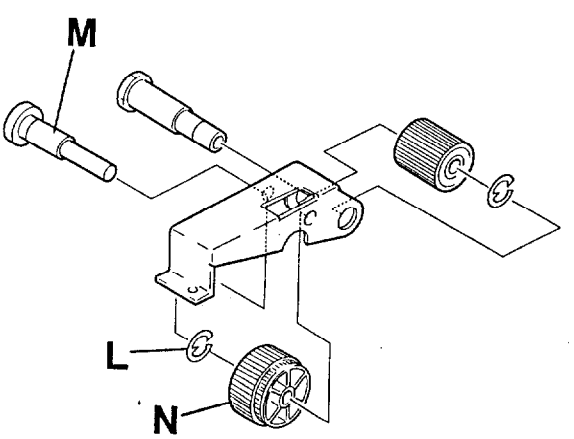
7-10-8 Lower Feeder Gear Replacement

1 Remove the screw(A)(both side), then remove the Cover(Lower)(B).
2 Remove the Outside Cover(C)(drive side).
3 Remove the Spring(D) and remove the Hook A(E)(drive side).
4 Remove the Base Plate(F)(3 screws).
5 Remove the supporter(G)(2 screws)(drive side).
6 Remove the Hook Cover(H), Plate Swing(J), Spring(K).
7 Remove the E ring(L), Pin Gear(M), then you can replace the Feeder Gear(N).



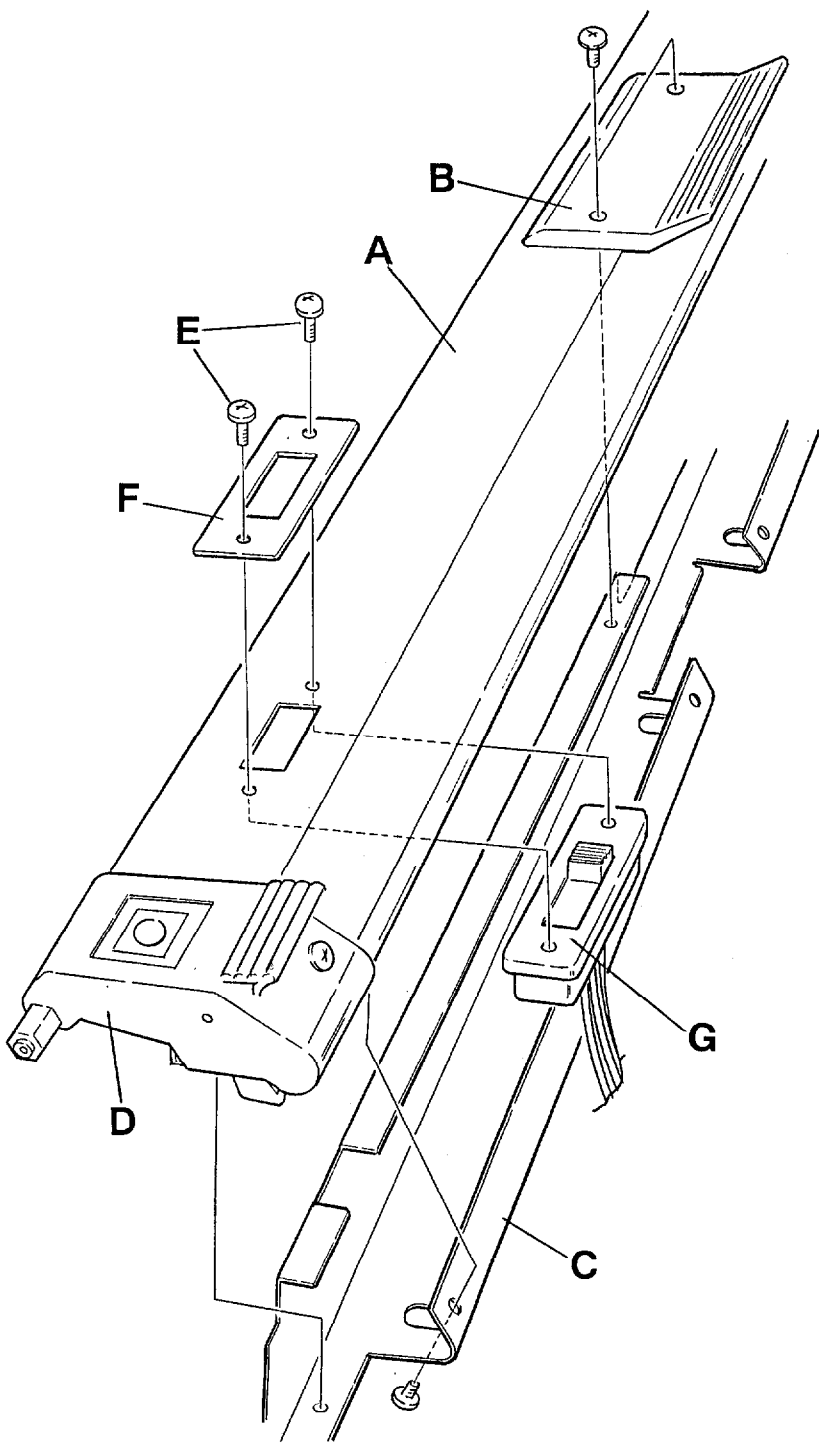






7-10-9 Paper Feeder SW Replacement

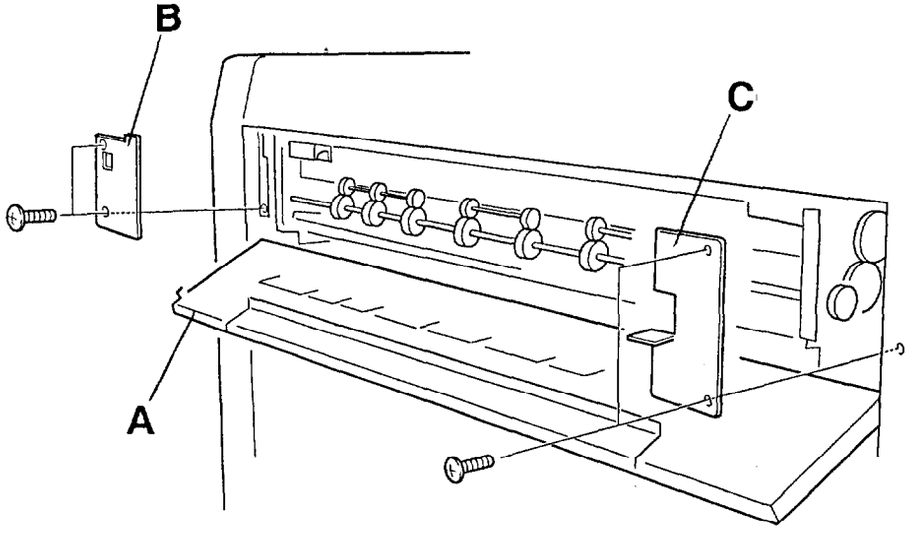
1 Remove Pickup Case(A).(Refer to Pickup Case Replacement.)
2 Remove Encoder Case(B).
3 Remove Guide Plate 1 (C).
4 Remove Holder (D), and remove it on the other side.
5 Remove 2 screws(E), and remove Paper Feeder Switch Assy(G) with Switch Plate(F).

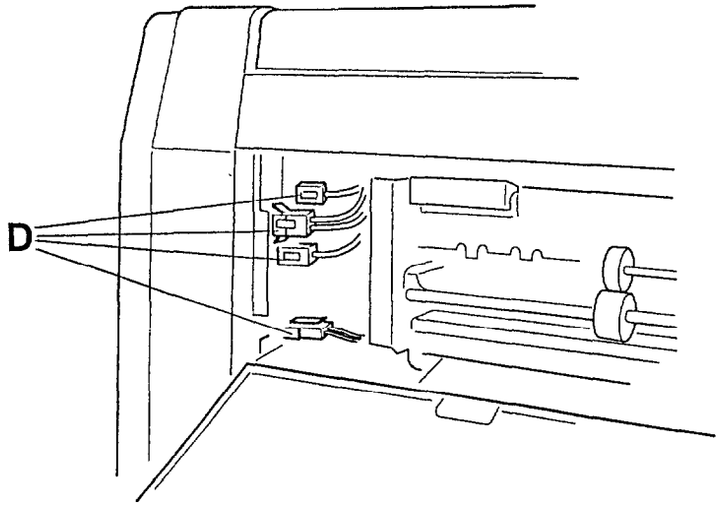


7-11 Fuser

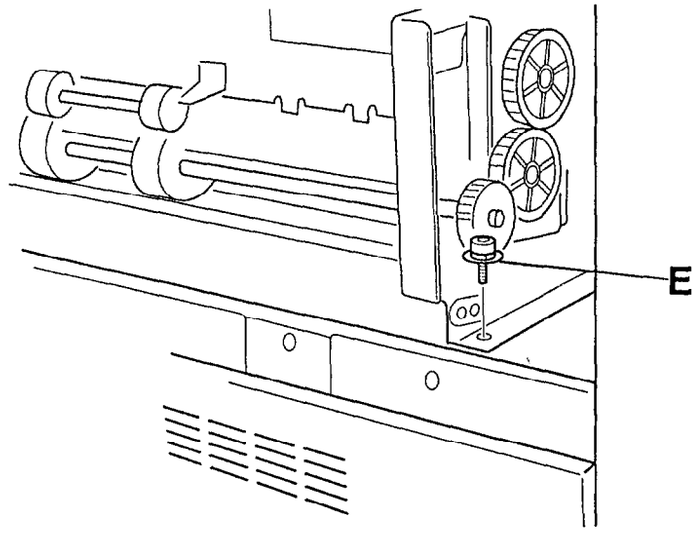
7-11-1. Fuser Unit Removal

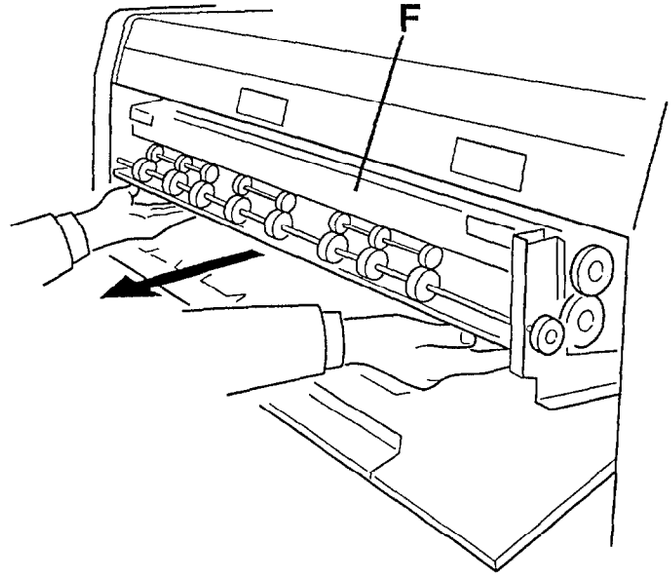
1. Be sure to remount or demount the Fuser Unit with the **Engine Unit closed**.
2. Open the Heater Hatch (A).
3. Remove both side covers (B)(C) of the Fuser Unit by loosening two screws each.
4. Facing the rear of the machine, remove the five connectors(D) connected from the left side of the Fuser Unit (the right side of the machine) to the side plate of the machine.





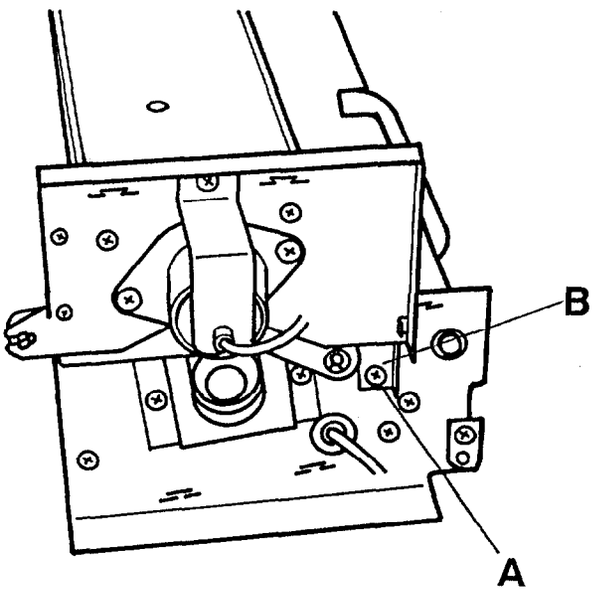
5. Remove the set bolts (cap screws)(E) on both front sides of the Fuser Unit by use of an allen wrench (rod wrench) and draw out the Fuser Unit (F) toward you. Avoid the operations immediately after operation of the machine, as the Fuser Unit is very hot. Let it cool down before starting the operations.
6. To remount the Fuser Unit, push the Fuser Unit inward along the guides in the place where it is to be remounted, and secure it with lock bolts. Before tightening the bolts, check to ensure that both sides of the unit have been pushed all the way in.
7. Facing the rear of the machine, reconnect the four connectors (harness) on the left side of the Fuser Unit to the respective connectors on the machine side.
8. Remount both side covers of the Fuser Unit.

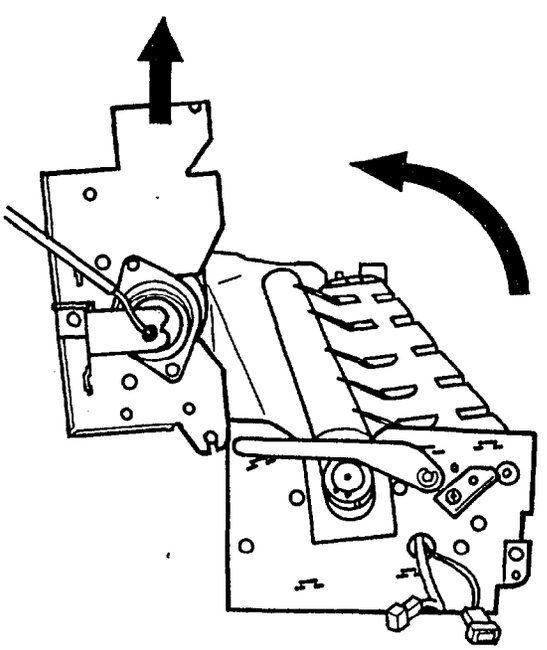




7-11-2. How to separate Top and Bottom

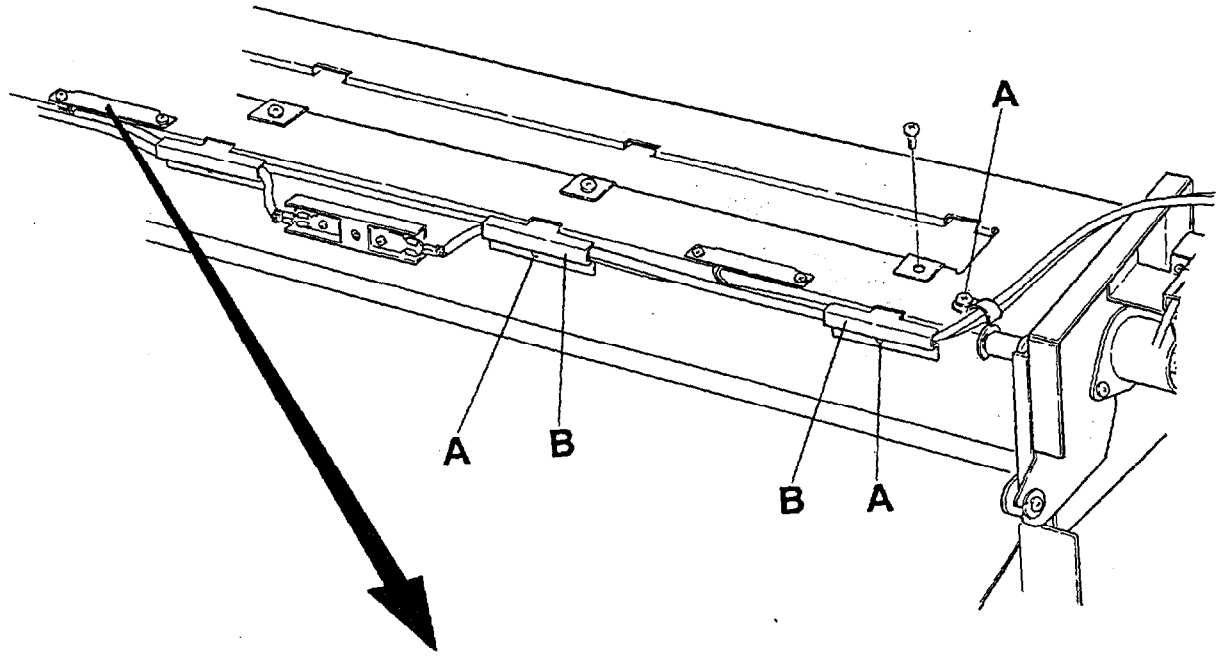
1 Remove the Fuser.
2 Loosen the screw (A) by about 2mm. While pressing the upper section of the Fuser, turn the upper heater fixing plate (B) down in the direction of the arrow.(Both sides)
3 Open the upper section (Heat roller side) of the Fuser vertically and lift the section to remove
4 Reassemble the Fuser in reverse order.

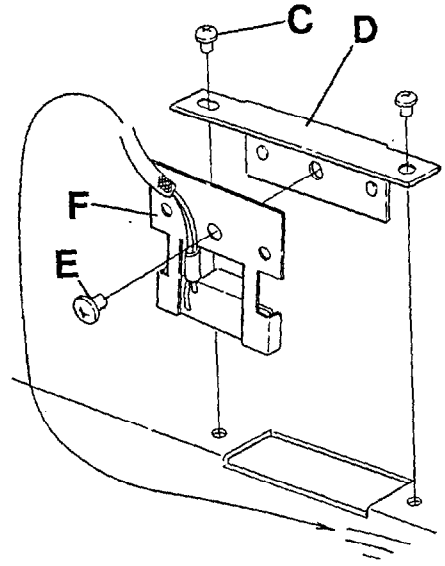




7-11-3. Thermistor Assy Replacement

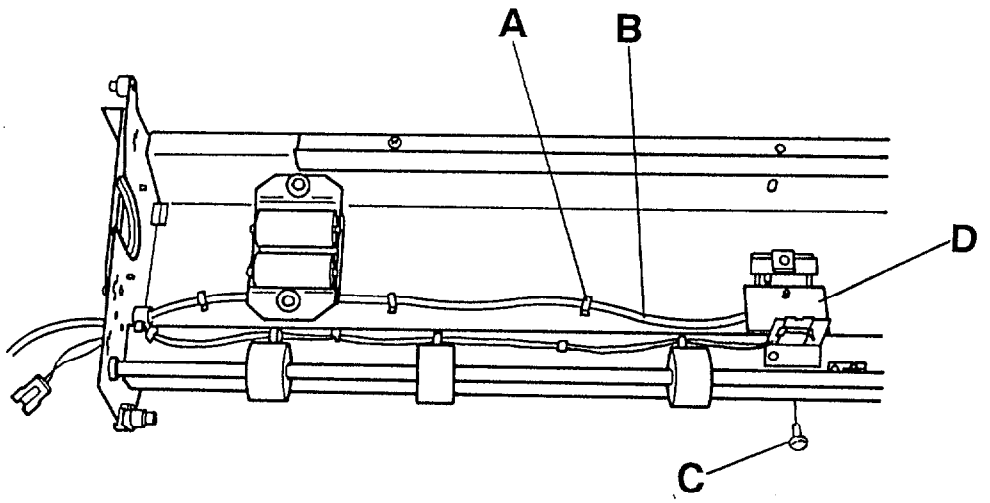
1 Remove the Fuser.
2 Undo the screw (A) and remove the wire stopper bracket (B).
3 Undo the screw (C) and remove the thermistor bracket (D).
4 Undo the screw (E) and remove the Thermistor (F).
5 Mount a new Thermistor in the reverse order.

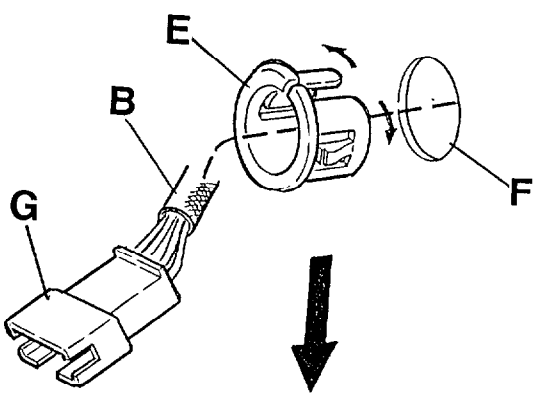


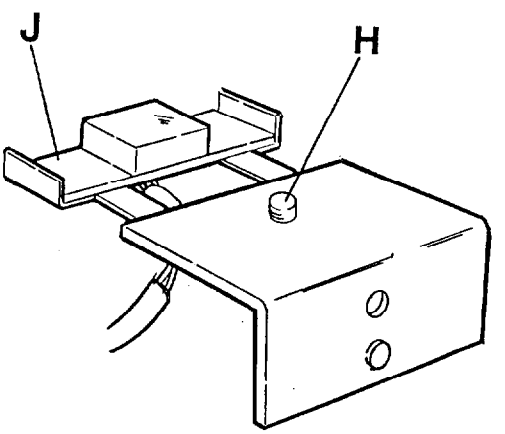


7-11-4. Thermistor (2) Assy Replacement

1 Power off and unplug the machine.
2 Remove the Fuser.
3 Separate the Fuser into Top and Bottom sections.
4 Remove the Backup Roller.
5 Remove the harness (B) from the three wire clamps (A).
6 Remove screw (C) and remove the thermistor bracket (D).
7 Remove bushing (E) from the hole (F) and remove it from the harness.
8 Draw the connector (G) out from the hole in the direction of arrow.
9 Remove screw (H) and remove the thermistor (J).
10 See "Install the Thermistor(2)" for reassemble.

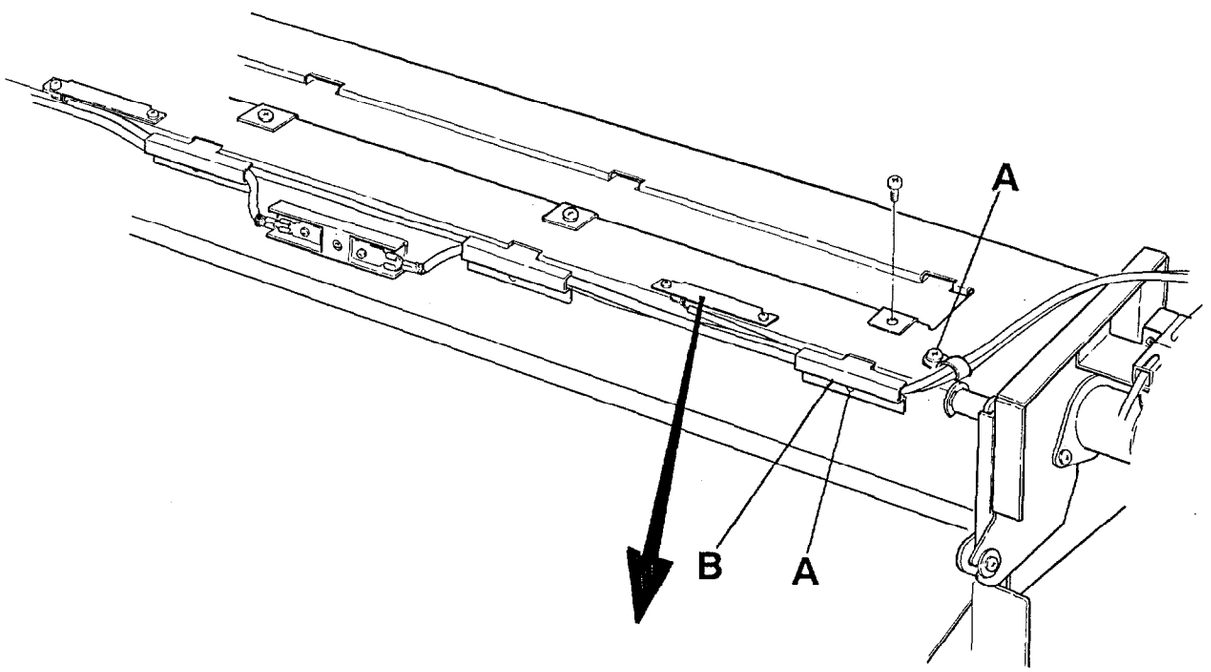


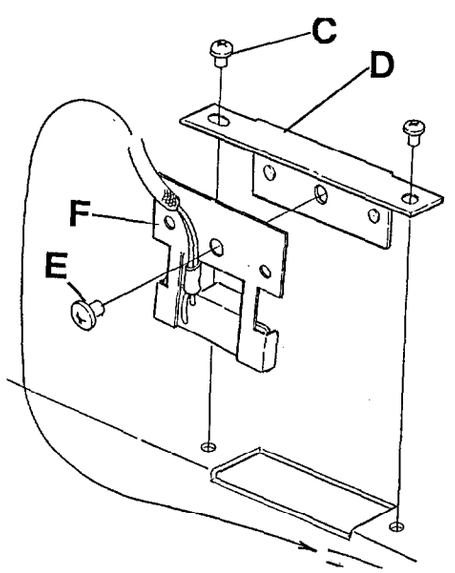




7-11-5. Thermistor (3) Assy Replacement

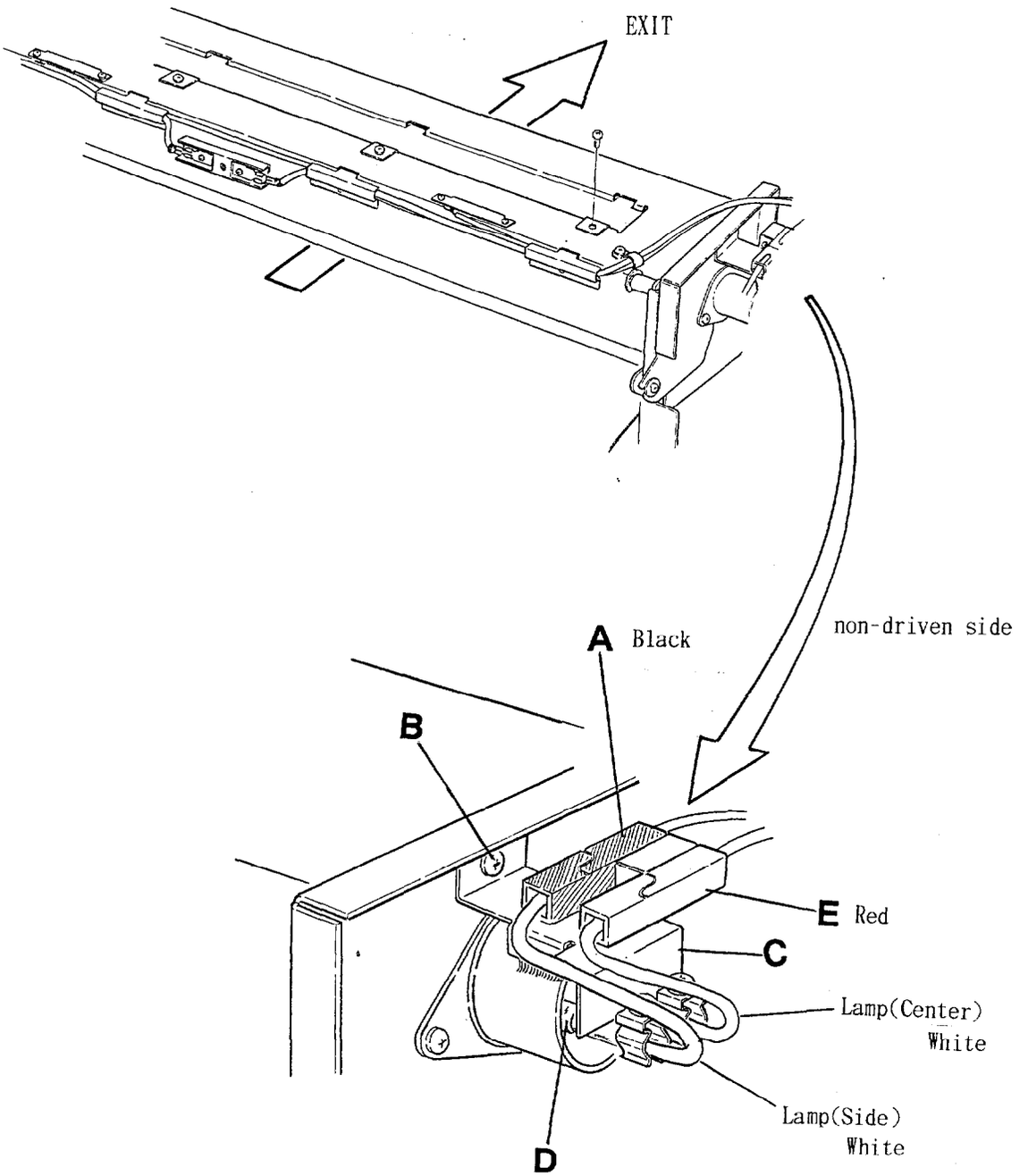
1 Remove the Fuser Unit.(Refer to Fuser Unit Removal.)
2 Remove screw (A), then remove Bracket (B).(two places)
3 Remove screw (C), and remove Thermistor Bracket (D).
4 Remove screw (E), and remove Thermistor (F) and change it.
5 When assemble, follow the reverse order.





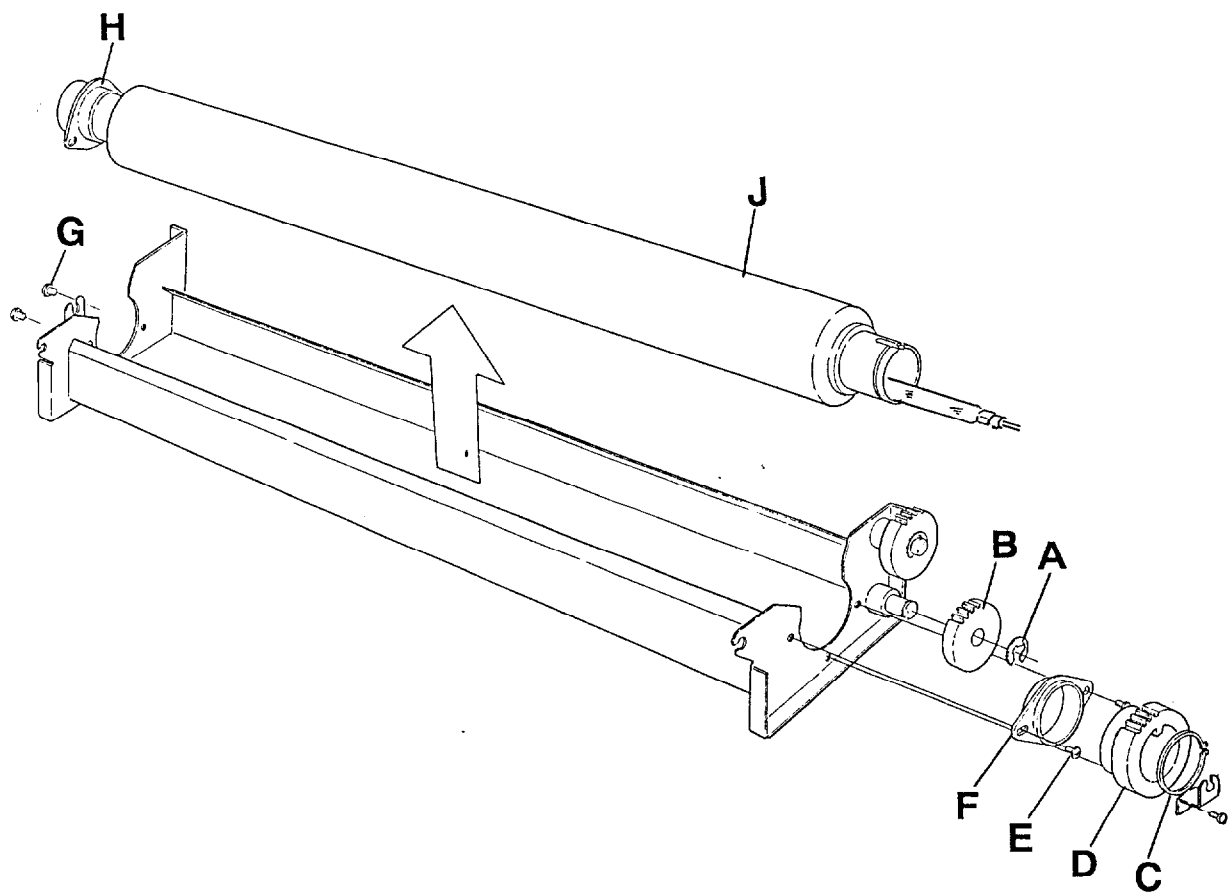
7-11-6. Heater Lamp Replacement

1 Remove the Fuser Unit.
2 Disconnect the connector (A) and (E).(both sides, totally 4)
3 Remove screw (B), then remove the Heater Lamp bracket (C).
4 Pull out the Heater Lamp (D) in the direction of arrow.
5 Mount a new Heater Lamp in the reverse order.
Note: Do not touch the Heater Lamp surface directly by bare hand.
There are two kinds of Heater Lamp, for the center(Red connector) and for the edges(Black connector). When install the Heater Lamp, put the black line to driven side, white line to non-driven side.



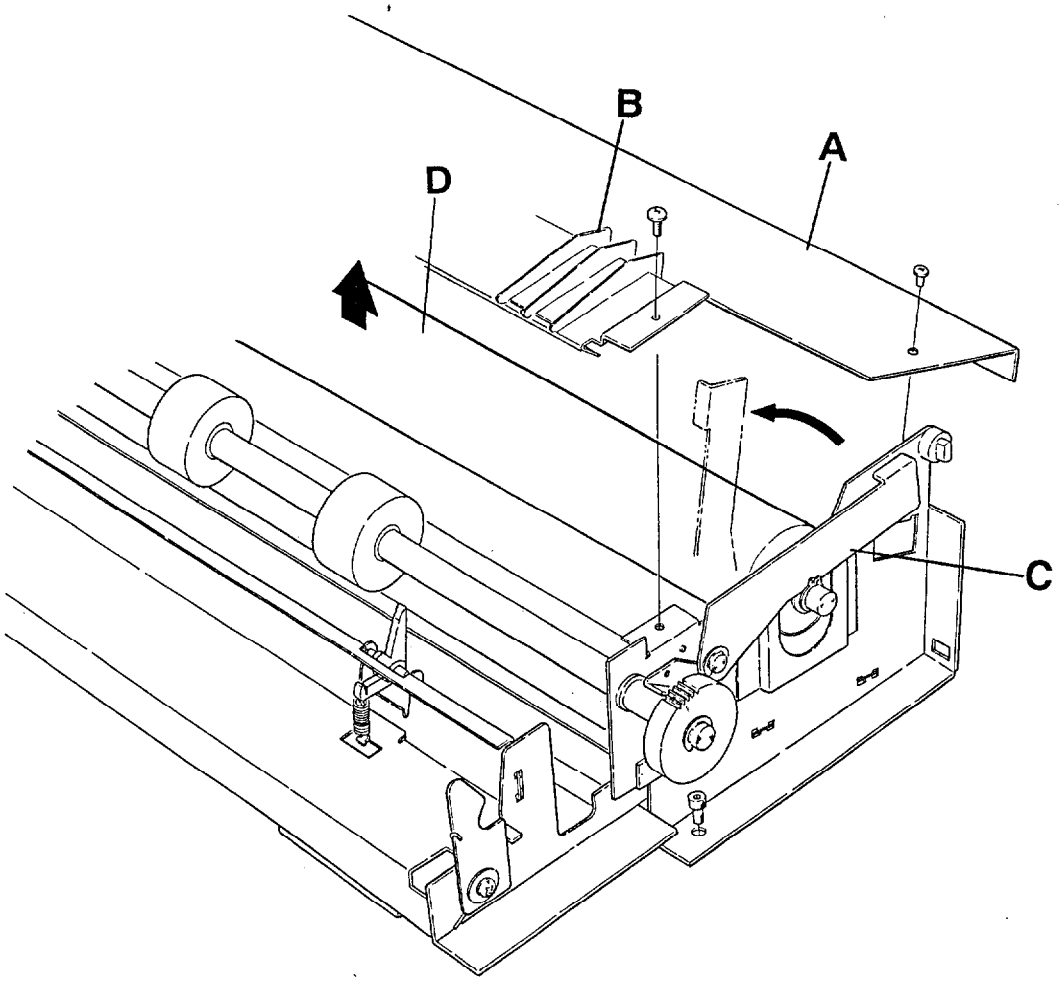
7-11-7. Heat Roller Replacement

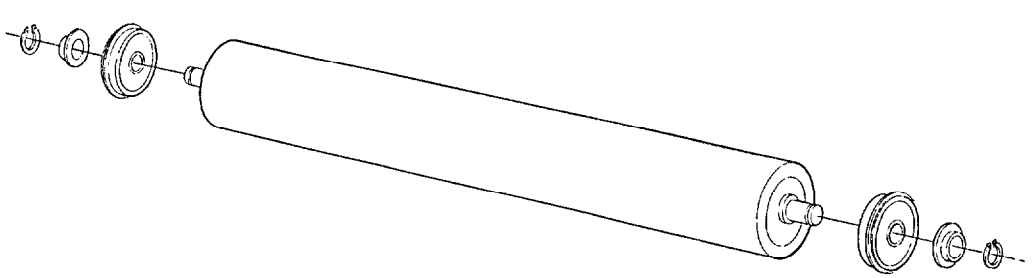
1 Remove the Fuser.
2 Remove the Heater Lamp
3 Separate the Fuser into Top and Bottom sections.
4 Remove the E ring (A) and the gear (B).
5 Remove the C ring (C) and the gear (D).
6 Undo the screw (E) and remove the bearing (F).
7 Undo the screw (G) and remove the bearing (H).
8 Lift the Heat Roller (J) to remove.
9 Mount a new Heat Roller in the reverse order.



7-11-8. Backup Roller Replacement

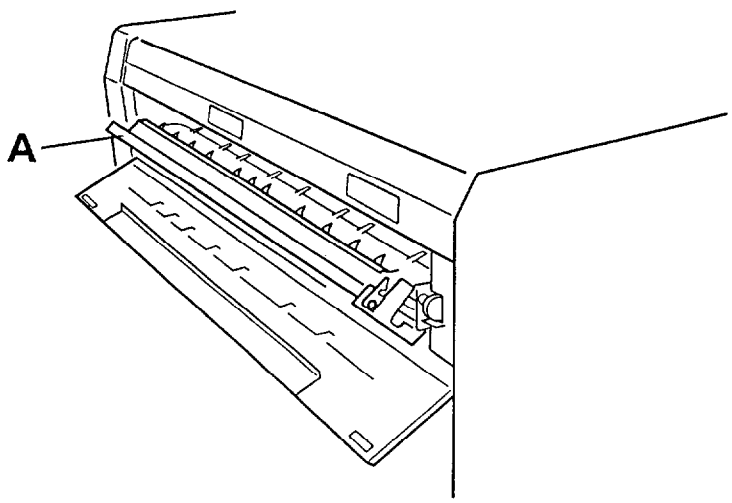
1. Remove the inlet guide plate (A) by removing one screw.
2. Remove the exit guide plate (B) by removing one screw.
3. Release the right and left pressurization levers (C), remove the Backup Roller (D) upward, and install a new one.(Assembly of Backup Roller is as shown below)(E).
4. For installation, reverse the order of removal.

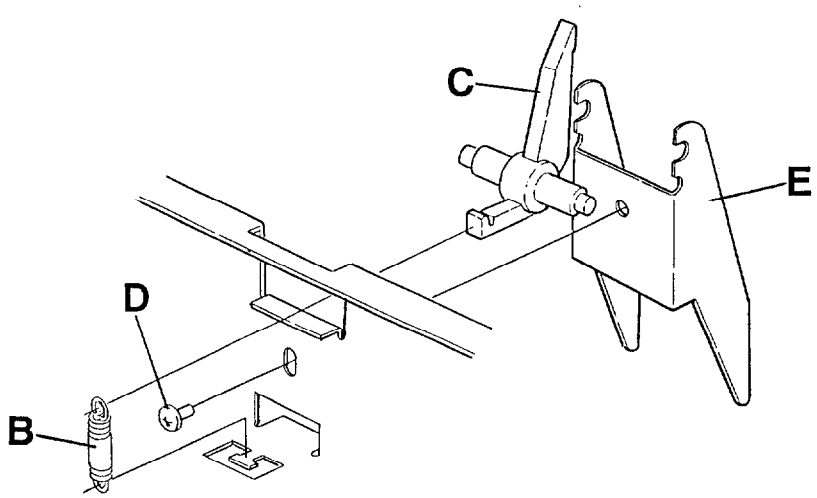




7-11-9. Separation Nail Replacement

1. Open the Exhaust unit (A).
2. Remove the spring (B) of the Separation nail (C) to be replaced.
3. Loosen the screw (D) of the metallic bracket (E) tightening the Separation nail. Then the Separation nail will come off the fulcrum and will be replaceable.

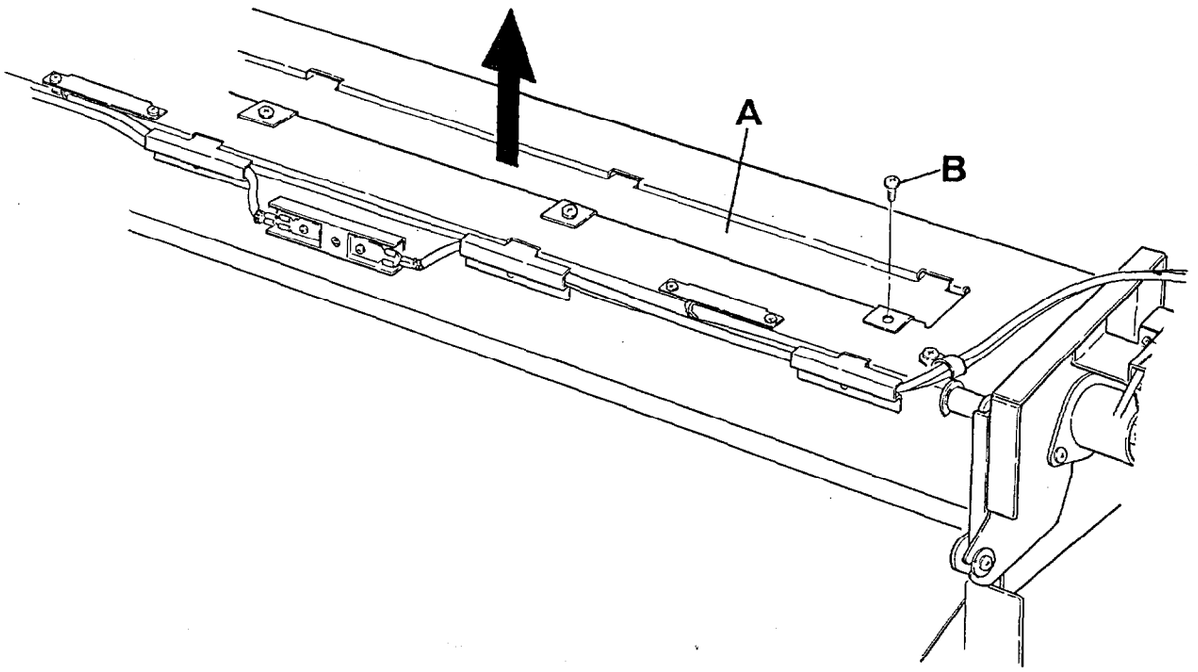


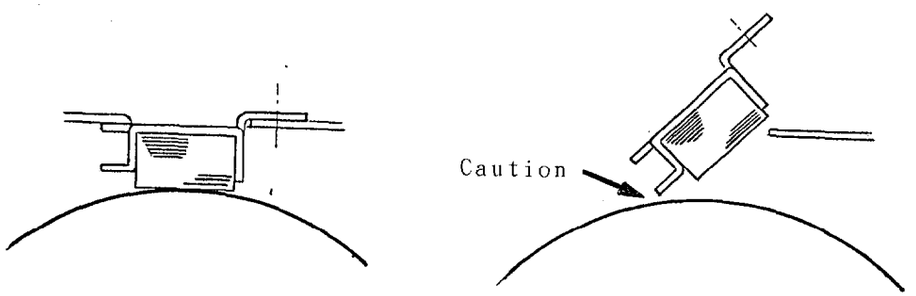


7-11-10. Cleaning Felt Assy Replacement

1. Replace the Cleaning Felt (A) mounted on the top of the Fuser Unit by removing the six screws (B).

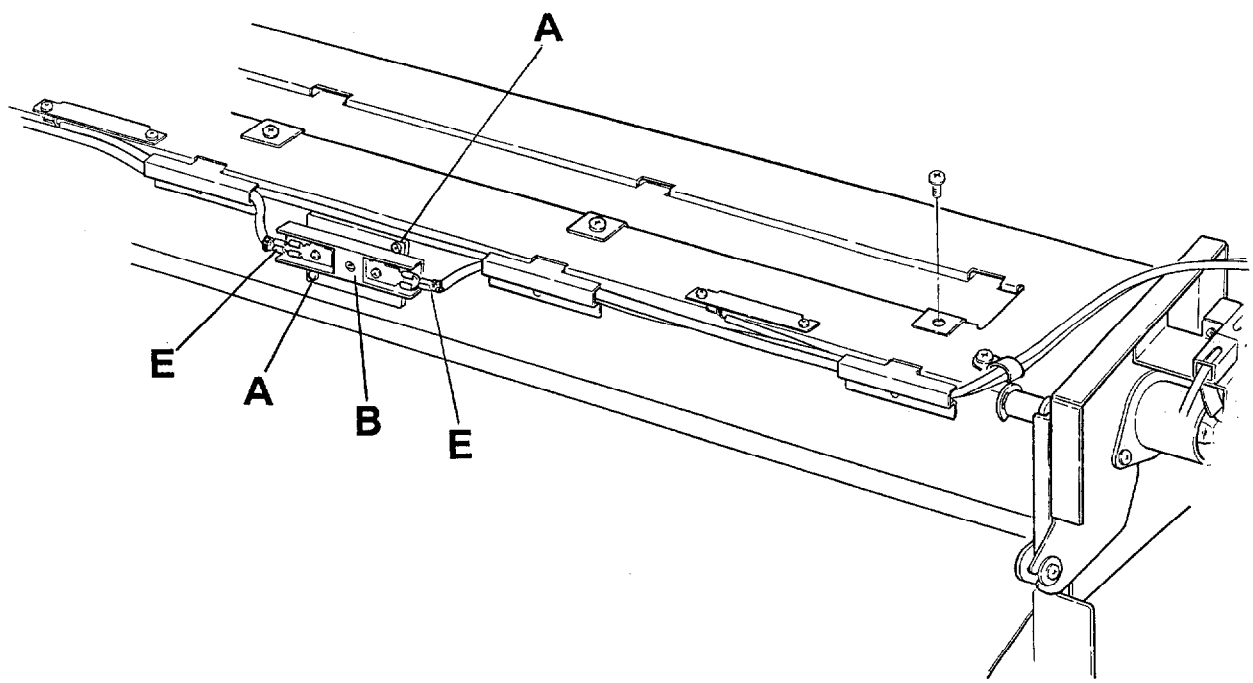
   Note: When you remove or set the Cleaning Felt, remember that if you handle it roughly, there is danger of damage to the heater roller by the frame portion of the Cleaning Felt.

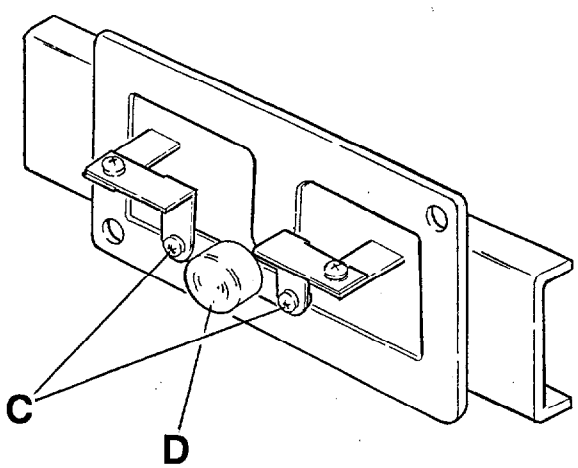




7-11-11 Thermostat Replacement(same type, center and right side)

1. Remove the Fuser Unit(refer to Fuser Unit Removal).
2. Remove the harness(E).
3. Remove screw(A), then remove thermostat assy(B).
4. Remove screw(C), then change thermostat(D).
5. For installation, reverse the order of removal.

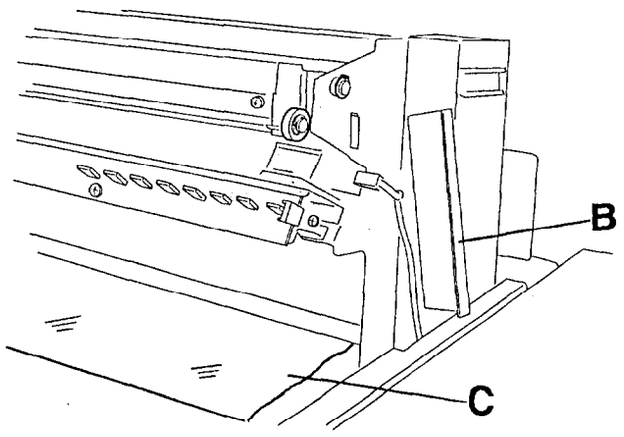


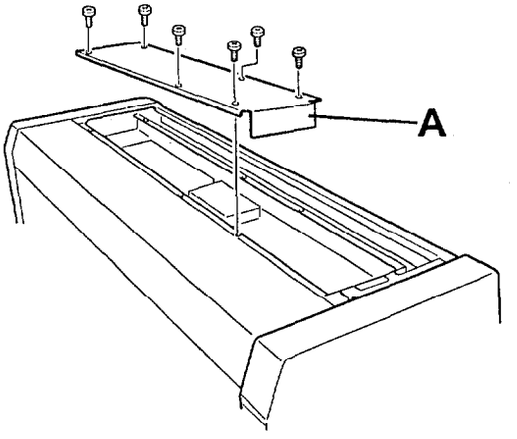


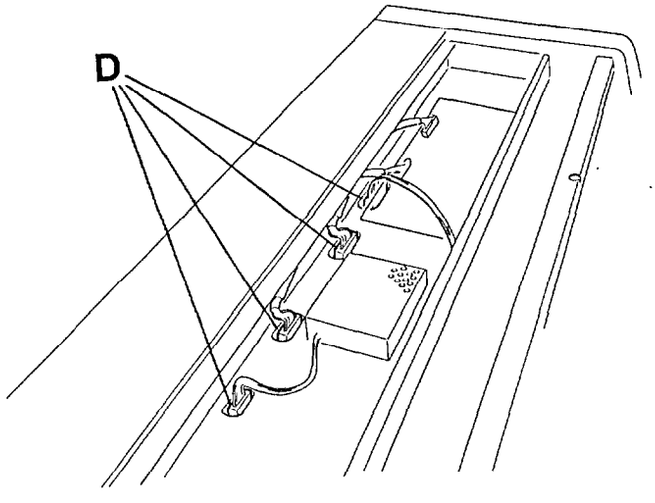
7-12 LED Head Unit

7-12-1 LED Head Replacement

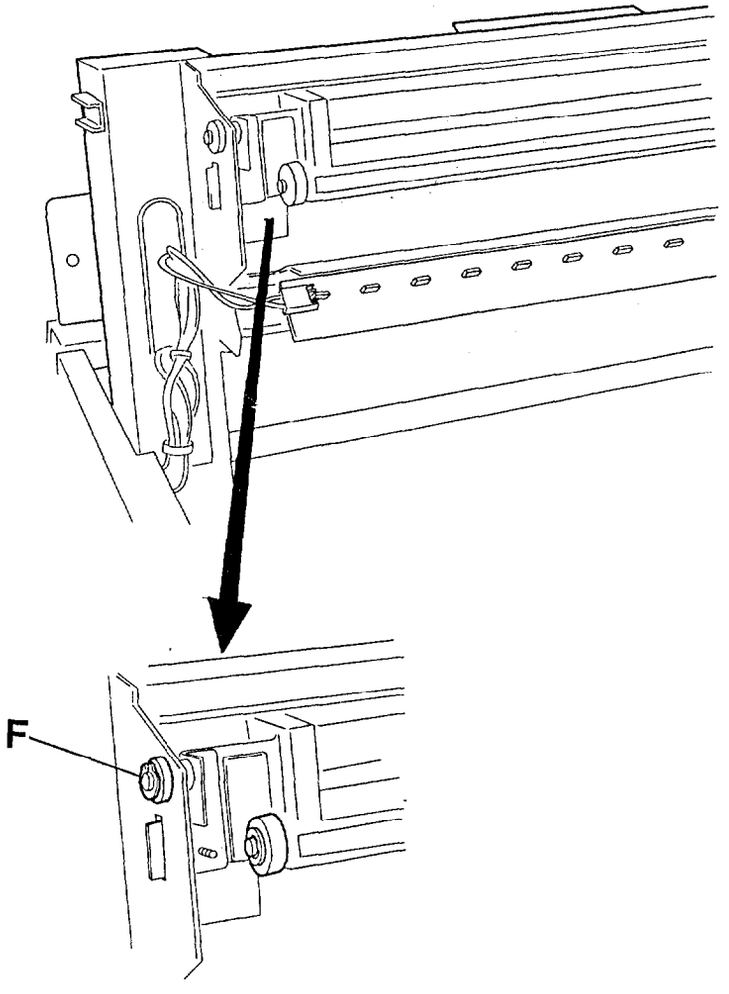
1. Remove the Cover Top D.
2. Remove the cover (A) of the host I/F block.
3. Open the LED Head Unit and set the stopper (B).
   (Note) Since the Photoconductive Drum is to be exposed for a while thereafter, recommendation is to place a sheet of paper (C) over the Photoconductive Drum.
4. Remove the four connectors (D) (two black ones and two white ones) from the LED Head. In this case, be sure to support the LED Head by the other hand to make sure that no undue force is exerted to the LED Head.

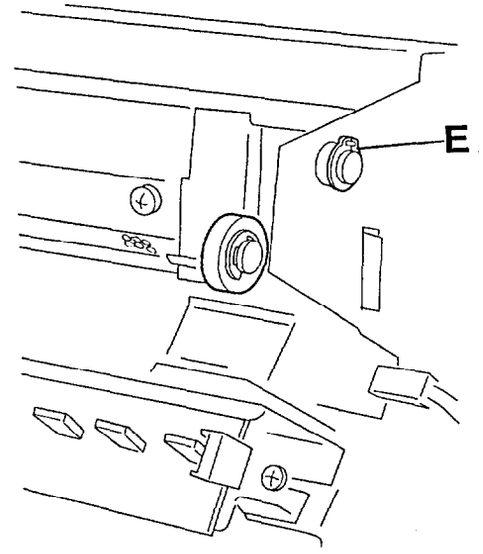






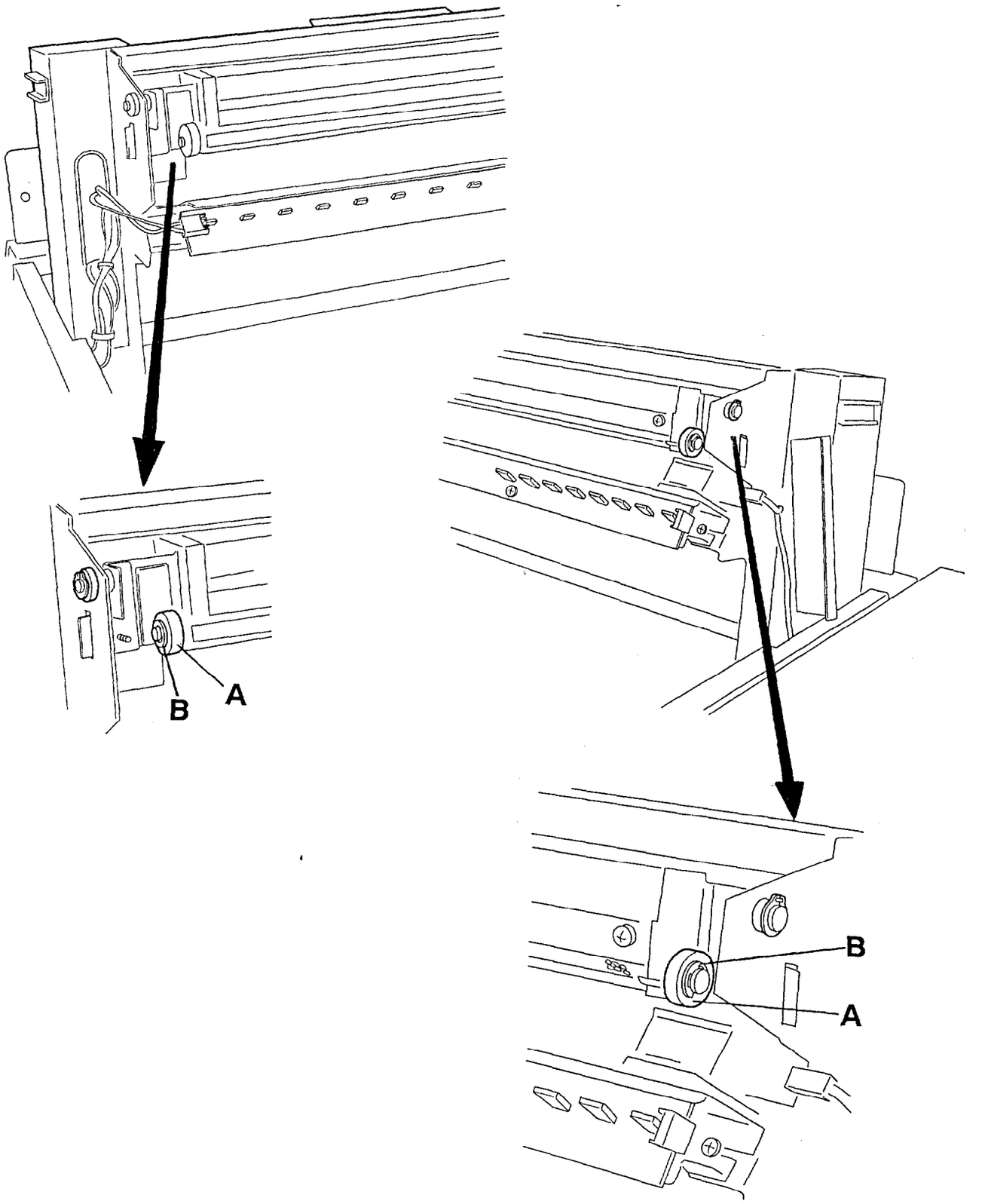
5. Remove the G grips tightening the LED Head at the right (E) and left (F) and remove the LED Head.
6. When you mount the LED Head, be sure to fit the G grip of the side A pin(G) first. Make sure that there is no clearance. This side standard)
7. When the G grip on the B side is set, some clearance may be tolerated.
8. Re-insert the four connectors into the LED Head. In this case, be sure to support the LED Head by the other hand to make sure that the connector inserting pressure does not act on the LED Head.
9. Close the LED Head Unit and re-mount the cover.





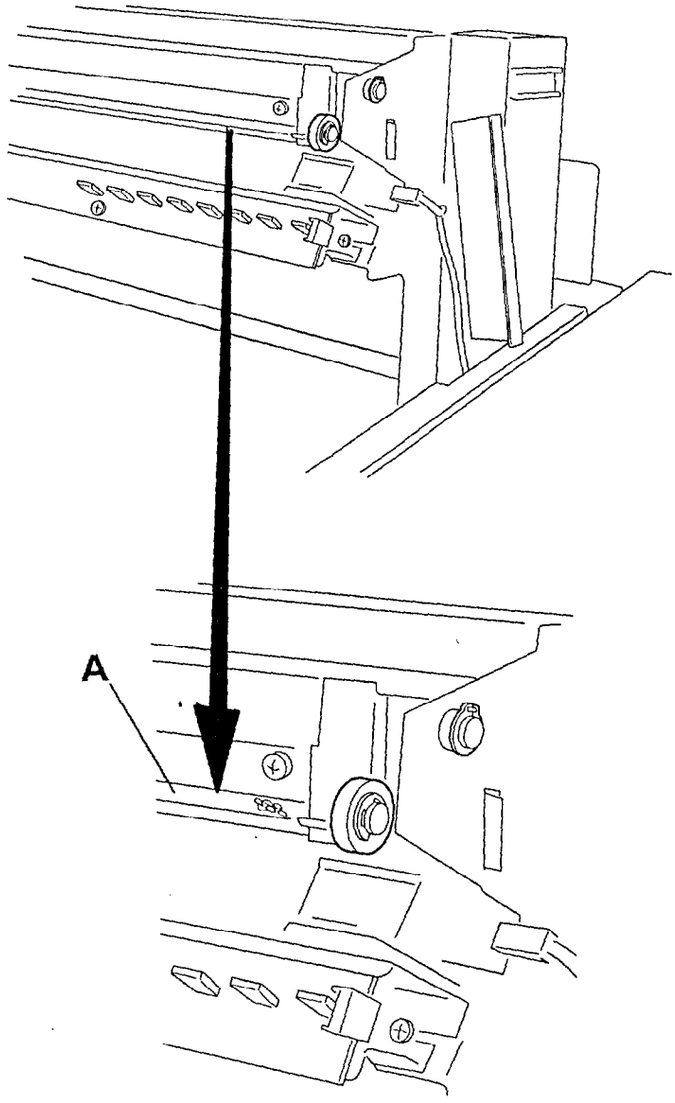
7-12-2. LED Head Roller Replacement

1. Remove LED Head Unit.
2. Replace the LED Head roller (A) by removing the E ring (B) which holds it in position.



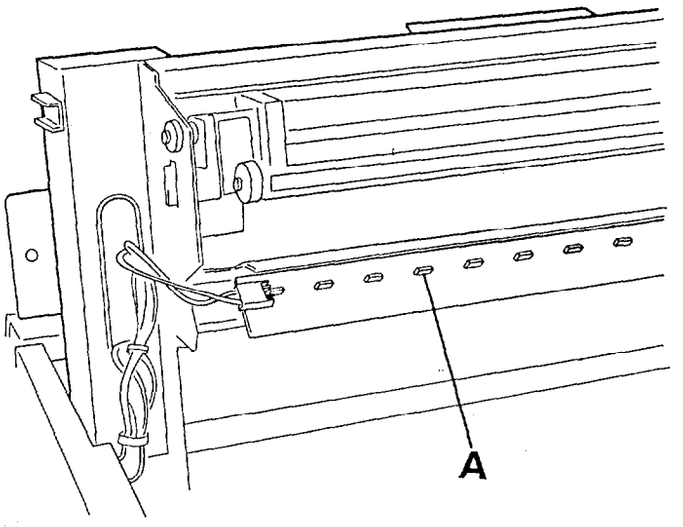
7-12-3. LED Head Unit Cleaning

1 Set the power switch to OFF.
2 Open the LED head unit and set the anti-dispersion stopper.
3 Clean the LED head surfaces "SELFOC lens surfaces (A)" with a soft cloth dipped in alcohol.
4 Close the LED head unit.



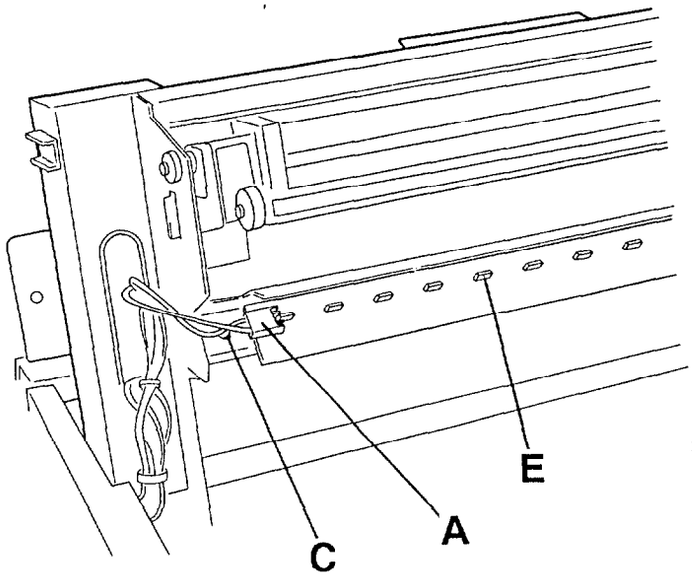
7-12-4. ER Lamp Cleaning

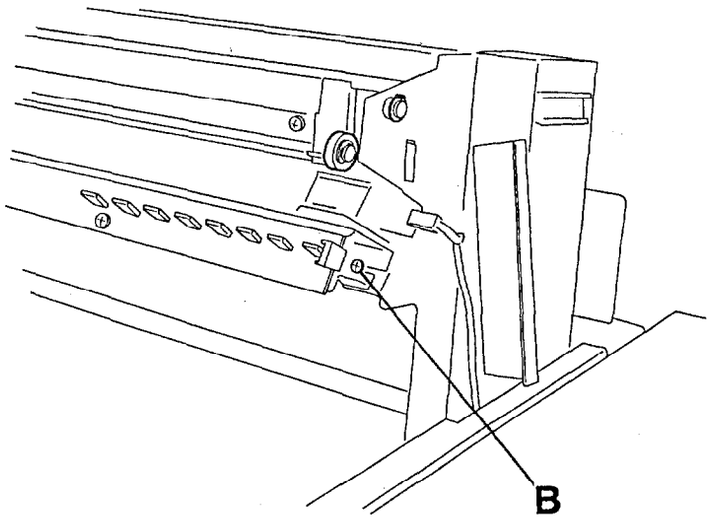
1 Open the LED head unit.
2 Clean the ER lamp surface (A) with a soft cloth dipped in alcohol.
  * If there are considerable deposits, do dry wiping and wet wiping before wiping with a cloth dipped in alcohol.
  * If the ER lamp is hard to clean, remove the ER lamp beforehand.

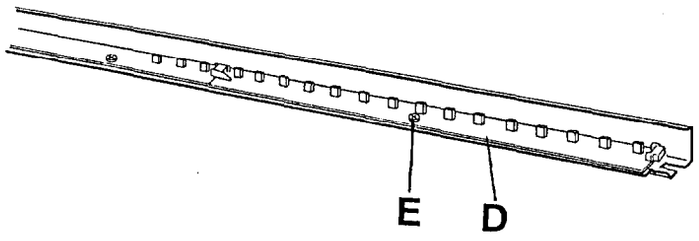


7-12-5. ER Lamp Replacement

1 Open the LED head unit and set the anti-overturn stopper.
2 Disconnect the left end connector (A) connected to the ER lamp.
3 Loosen the right end screw (B) tightening the ER lamp holder and remove the left end screw (C) and remove the ER lamp holder (D) by sliding to the left.
4 Remove the screws(E) tightening the ER lamp. (Three screws)
  * The ER lamp consists of three identical boards coupled together.
5 To re-mount the ER lamp, reverse the order of removal.







CHANGE RECORD

Ver.D (Aug. 23, 1996)
Corrected; pages 2-3 2-16 3-3 3-16 3-17 3-24 3-26 5-13 6-10 7-17
Added note; page 2-32
Changed terms; pages 3-1 3-2 3-6 3-15 3-21 3-28 7-34

Ver.E (Sep. 2, 1996)
Mode 16 & mode 19 were added; pages 3-1 3-3 3-25 3-29
Cutter IC error was added; pages 5-2 5-13
Page numbers were updated after p.3-26 of Chapter 3, after p.5-14 of Chapter 5.
Changed terms; pages 3-6 3-18 5-16
Corrected; page 3-22

Ver.F (Oct. 12, 1996)
Added Note; pages 2-9 3-24
Corrected; pages 2-12 2-16 3-18

Ver.G (Feb. 22, 1997)
Corrected; pages 1-6 2-1 2-3 2-11 2-12 2-14 2-15 2-17 2-19 2-25
2-32 3-2 3-9 3-16 3-21 3-22 3-27 3-30 3-34 4-2
5-9 5-17 6-14 6-15 7-1 7-31 7-32 7-33 7-34 7-64
7-73
Changed; pages 2-10 2-16 3-1 3-10 3-11 3-15 3-18 3-20 6-7 6-8
6-9 6-10

Ver.G.1 (Mar. 07, 1997)
Corrected; pages 1-2 1-3 1-9 2-9 2-14 2-16 2-17 3-2 3-8 3-9
3-15 3-17 3-18 3-21 3-28 3-29 5-17 6-2 6-3 6-4
7-17 7-74

Ver.G.2 (Mar. 30, 1997)
Corrected; Page 2-2

Ver.G.3 (May. 19, 1997)
Corrected; Page 7-17

Ver.G.4 (June 17, 1997)
Added; Page 7-21a

Ver. G.5 (November 5, 1997)
Corrected; Pages 2-16 3-10 3-11
Added; Pages 2-16a 3-10a

Ver. G.6 (March 6, 1998)
Corrected; Page 6-4

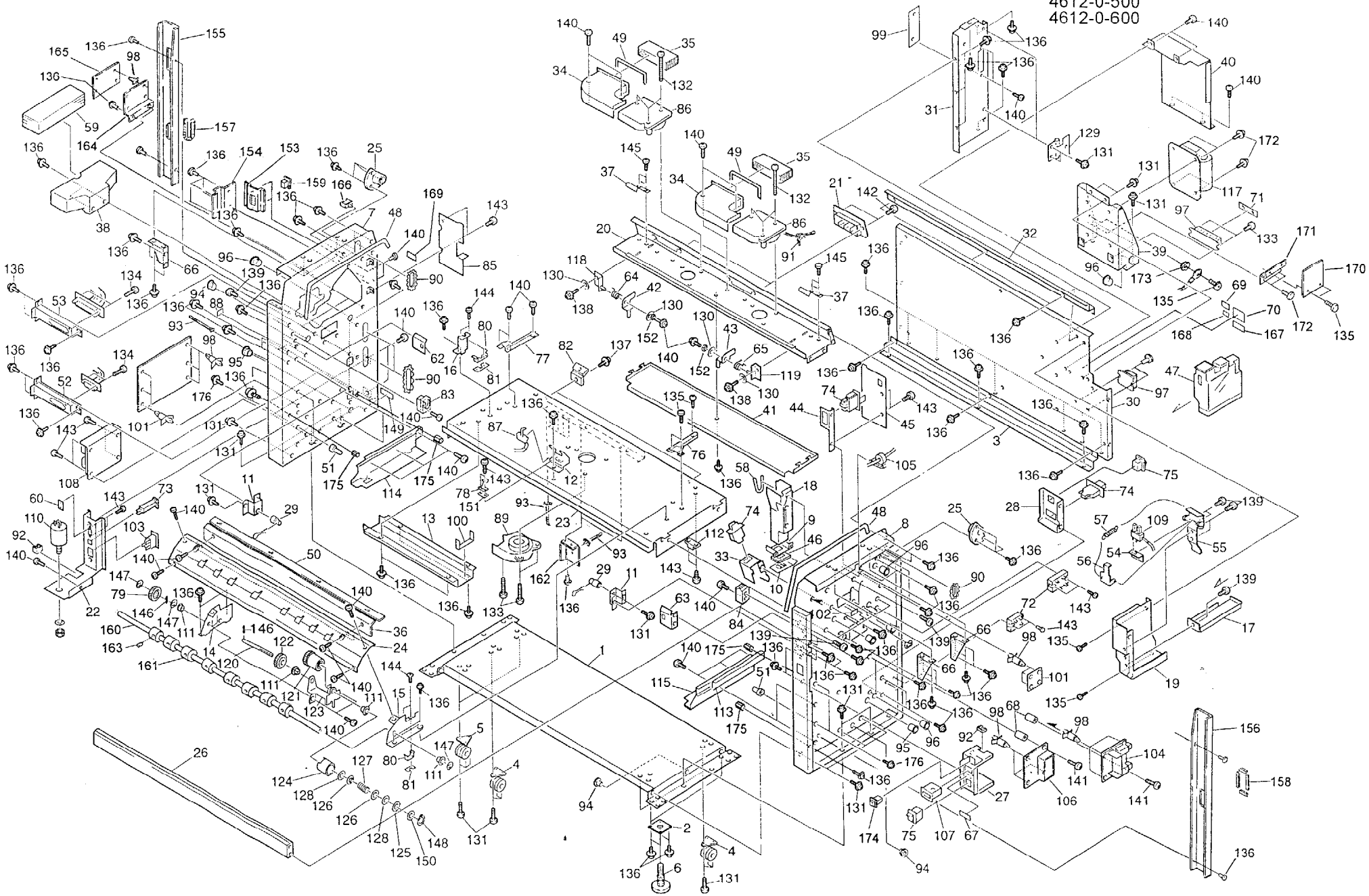
KIP2710 (K-48)

Parts Manual

Ver.M Jun. 24. 1998 USA

Main Frame Assy

4612-0-400 メインフレーム組立
4612-0-500
4612-0-600



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4612 - 0-400	MAIN FRAME ASSY(J480)	ﾒｲﾝﾌﾚｰﾑ組立(J840)	0	M-FRM
0	4612 - 0-500	MAIN FRAME ASSY(U480)	ﾒｲﾝﾌﾚｰﾑ組立(U840)	1	M-FRM
0	4612 - 0-600	MAIN FRAME ASSY(E480)	ﾒｲﾝﾌﾚｰﾑ組立(E840)	0	M-FRM
1	4611 - 1	BASE FRAME	ﾍﾞｰｽﾌﾚｰﾑ	1	M-FRM
2	4611 - 2	PLATE ADJUSTER	ｱｼﾞｬｽﾀｰﾌﾟﾚｰﾄ	4	M-FRM
3	4611 - 3	DUCT HARNESS	電源線ﾀﾞｸﾄ	1	M-FRM
4	6988	CASTER	ｷｬｽﾀｰG7	3	M-FRM
5	7064	CASTER TY50	ｷｬｽﾀｰTY50	2	M-FRM
6	7065	ADJUST BOLT	ｱｼﾞｬｽﾄﾎﾞﾙﾄ	4	M-FRM
7	4612 - 1-300	SIDE PLATE MAIN A(SC)	側板A(SC)	1	M-FRM
8	4612 - 2	SIDE PLATE MAIN B	側板B	1	M-FRM
9	4612 - 3	BRACKET SEAL	ﾌﾟｯｼｬｰﾌﾞﾗｹｯﾄ	1	M-FRM
10	4612 - 4	PLATE SEAL	ﾌﾟｯｼｬｰﾌﾟﾚｰﾄ	1	M-FRM
11	4612 - 5	BRACKET SPRING	ﾋﾟﾎﾞｯﾄﾌﾞﾗｹｯﾄ	2	M-FRM
12	4612 - 6	BRACKET SENSOR	ｾﾝｻｰﾌﾞﾗｹｯﾄA	1	M-FRM
13	4612 - 7	AIR DUCT EXHAUST	排気ﾀﾞｸﾄ	1	M-FRM
14	4612 - 8	BRACKET PAPER GUIDE(A)	ﾍﾟｰﾊﾟｰｶﾞｲﾄﾞ側板A	1	M-FRM
15	4612 - 9	BRACKET PAPER GUIDE(B)	ﾍﾟｰﾊﾟｰｶﾞｲﾄﾞ側板B	1	M-FRM
16	4612 -10	BRACKET PAPER GUIDE(C)	ﾍﾟｰﾊﾟｰｶﾞｲﾄﾞ側板C	1	M-FRM
17	4612 -11	RACK BOTTLE	ﾄﾅｰ受け皿	1	M-FRM
18	4612 -12	DUCT DUMP	廃ﾄﾅｰｼｭｰﾄ	1	M-FRM
19	4612 -13	CASE BOTTLE	ﾄﾅｰﾎﾞﾄﾙｹｰｽ	1	M-FRM
20	4612 -14	BEAM UD	ﾌｧﾝ取付板	1	M-FRM
21	4612 -15	GRILLE	ｱｳﾄﾚｯﾄｸﾞﾘﾙ	2	M-FRM
22	4612 -17	PLATE INLET	入出力ﾌﾟﾚｰﾄ(ｿｹｯﾄ入力)	1	M-FRM
23	4612 -18	BEAM MAIN	中間ﾋﾞｰﾑ	1	M-FRM
24	4612 -19	PLATE GUIDE(10)	ｶﾞｲﾄﾞ板(10)	1	M-FRM
25	4612 -74	BOSS PIVOT	軸受	2	M-FRM
26	4612 -21	BEAM F	ﾋﾞｰﾑ入口	1	M-FRM
27	4612 -22-300	BRACKET COUNTER	SWﾌﾞﾗｹｯﾄ	1	M-FRM
28	4612 -23	BRACKET SW(1)	SWｹｰｽD	1	M-FRM
29	4612 -24	PIVOT GAS SPRING	ﾋﾟﾎﾞｯﾄ(ｶﾞｽｽﾌﾟﾘﾝｸﾞ)	2	M-FRM
30	4612 -25	FRAME MAIN	縦補強板C	1	M-FRM
31	4612 -26	FRAME D	縦補強板D	1	M-FRM
32	4612 -27	DUCT HARNESS	ﾊｰﾈｽﾀﾞｸﾄ上	1	M-FRM
33	4612 -28	BRACKET SW(2)	SWﾌﾞﾗｹｯﾄ	1	M-FRM
34	4612 -29	DUCT	排気ﾀﾞｸﾄ	2	M-FRM
35	4612 -30	FILTER(A)	ﾌｨﾙﾀｰ	2	M-FRM

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
36	4612 -31	PLATE GUIDE(11)	ｶﾞｲﾄﾞ板(11)	1	M-FRM
37	4612 -32	PLATE GND A	ｱｰｽ板(1)	2	M-FRM
38	4612 -33	CASE FILTER	ﾌｨﾙﾀｰｹｰｽ	1	M-FRM
39	4612 -34	BRACKET TRANSDUCER	ﾄﾗﾝｽ取付板	1	M-FRM
40	4612 -35-100	COVER	ﾄﾗﾝｽｶﾊﾞｰ	0	M-FRM
40	4612 -35	COVER	ﾄﾗﾝｽｶﾊﾞｰ	1	M-FRM
40	4612 -83-600	COVER	ﾄﾗﾝｽｶﾊﾞｰ	0	M-FRM
41	4612 -36	PLATE TOP	断熱板	1	M-FRM
42	4612 -37	PLATE CAM A	ｶﾑA	1	M-FRM
43	4612 -38	PLATE CAM B	ｶﾑB	1	M-FRM
44	4612 -40	BRACKET SW	SWﾌﾞﾗｹｯﾄ	1	M-FRM
45	4612 -41	COVER SW	SWｶﾊﾞｰ	1	M-FRM
46	4612 -42	SEAL FOAM	ﾊﾟｯｷﾝ	1	M-FRM
47	4606C- 0	BOTTLE WT ASSY	廃ﾄﾅｰﾎﾞﾄﾙ組立	1	M-FRM
48	4612 -45	SEAL SIDE	ｻｲﾄﾞｼｰﾙ	2	M-FRM
49	4612 -46	SEAL FILTER A	ﾌｨﾙﾀｰｼｰﾙA	2	M-FRM
50	4612 -47	TOP GUIDE	転写ｶﾞｲﾄﾞ(ﾏｲﾗｰ)	1	M-FRM
51	4612 -48	STUD	ﾛｯｸ軸	4	M-FRM
52	4612 -49	BRACKET CONNECTOR(B)	ﾄﾞﾛﾜｰｺﾈｸﾀｰ取付板(下)	1	M-FRM
53	4612 -50	BRACKET CONNECTOR(A)	ﾄﾞﾛﾜｰｺﾈｸﾀｰ取付板(上)	1	M FRM
54	4612 -53	BRACKET SENSOR	ｾﾝｻｰ板	1	M-FRM
55	4612 -54	TENSIONER BOTTLE	押ｴﾊﾞﾈ	1	M-FRM
56	4612 -55	ACTUATER	ｱｸﾁｭｴｰﾀｰ	1	M-FRM
57	4612 -56	SPRING WT SENSOR	廃ﾄﾅｰｾﾝｻｰﾊﾞﾈ	1	M-FRM
58	4612 -57	SEAL DUCT	廃ﾄﾅｰｼｭｰﾄｼｰﾙ	1	M-FRM
59	4612 -59	FILTER(B)	ﾌｨﾙﾀｰB	1	M-FRM
60	4612 -60	COVER CONNECTOR	ｺﾈｸﾀ穴ｶﾊﾞｰ	1	M-FRM
61					M-FRM
62	4612 -62	HANGER HOOK A	ﾌｯｸ掛けA	1	M-FRM
63	4612 -63	HANGER HOOK B	ﾌｯｸ掛けB	1	M-FRM
64	4612 -65	SPRING A	ｽﾌﾟﾘﾝｸﾞA	1	M-FRM
65	4612 -66	SPRING B	ｽﾌﾟﾘﾝｸﾞB	1	M-FRM
66	4612 -67	PLATE SUPPORT	側板補強	4	M-FRM
67	4612 -68	LABEL SW	SWﾗﾍﾞﾙ	1	M-FRM
68	4612 -69	PCB SPACER	基板ｽﾍﾟｰｻｰ	2	M-FRM
69	4612 -71	SERIAL No. LABEL	ｼﾘｱﾙﾅﾝﾊﾞｰﾗﾍﾞﾙ	1	M-FRM
70	4800800020	RATING PLATE(J)	定格銘板(J)	0	M-FRM
70	4800800030	RATING PLATE(120V)	定格銘板(120V)	1	M-FRM

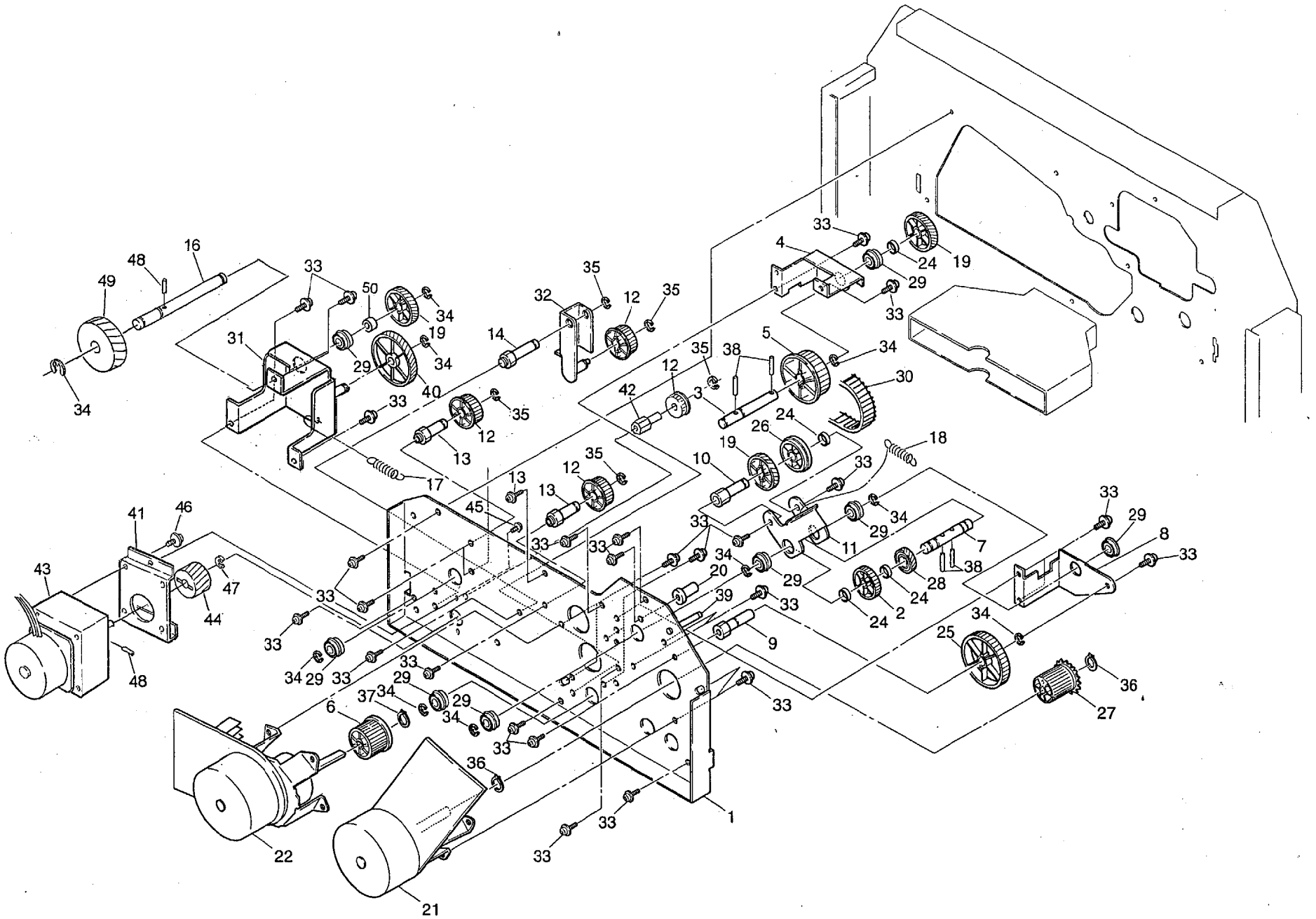
ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
70	4800800040	RATING PLATE(220V～240V)	定格銘板(220V～240V)	0	M-FRM
71	4612 -84-400	LABEL INPUT TAP(100V)	入力ﾀｯﾌﾟﾗﾍﾞﾙ(100V)	0	M-FRM
71	4612 -85-500	LABEL INPUT TAP(120V)	入力ﾀｯﾌﾟﾗﾍﾞﾙ(120V)	1	M-FRM
71	4612 -86-600	LABEL INPUT TAP(230V)	入力ﾀｯﾌﾟﾗﾍﾞﾙ(230V)	0	M-FRM
72	28114	SOLID STATE RELAY	ｿﾘｯﾄﾞｽﾃｲﾄﾘﾚｰ	2	M-FRM
73	2938	CIRCUIT PROTECTOR	ｻｰｷｯﾄﾌﾟﾛﾃｸﾀ(15A)	1	M-FRM
74	32113	INTERLOCK SWITCH	ｲﾝﾀｰﾛｯｸｽｲｯﾁ	3	M-FRM *
75	32118	LOCKER SWITCH	ﾛｯｶｰｽｲｯﾁ	0	M-FRM
76	3611 - 6B	HEATER RAIL A	ﾋｰﾀｰﾚｰﾙA	1	M-FRM
77	3611 - 7B	HEATER RAIL B	ﾋｰﾀｰﾚｰﾙB	1	M-FRM
78	3611 -12C	BEARING(MIDDLE)	軸受(中間)	1	M-FRM
79	4113-48	30T HELICAL GEAR LH	30Tはすば歯車 (左)	1	M-FRM
80	3611 -27B	CORONA FIX SPRING	ｺﾛﾅ固定ﾊﾞﾈ	2	M-FRM
81	3611 -28B	NUT PLATE	ﾅｯﾄ板	2	M-FRM
82	3611 -43C	HINGE(HEATER HATCH)	ﾋﾝｼﾞ(ﾋﾀｰﾊｯﾁ)	2	M-FRM
83	3611 -62C	HOOK STOPPER A	ﾌｯｸｽﾄｯﾊﾟｰA	1	M-FRM
84	3611 -63C	HOOK STOPPER B	ﾌｯｸｽﾄｯﾊﾟｰB	1	M-FRM
85	3611 -64C	COVER	ｶﾊﾞｰ	1	M-FRM
86	3611B-0	FAN MOTOR ASSY	ﾌｧﾝﾓｰﾀｰ組立	2	M-FRM
87	3637B- 0B	EXIT SENSOR ASSY	EXITｾﾝｻｰ組立	1	M-FRM
88	3647 -8C	LABEL, GND	GNDﾗﾍﾞﾙ	1	M-FRM
89	3773F- 0	DC BRUSHLESS BLOWER	ﾌﾞﾛﾜｰ組立	1	M-FRM
90	39111	BUSHING	自在ﾌﾞｯｼｭ KG-016	AR	M-FRM
91	39213	TIE-BAND, KS-100	結線ﾊﾞﾝﾄﾞ	5	M-FRM
92	39221	EDGE SADDLE	ｴｯｼﾞｻﾄﾞﾙ	4	M-FRM
93	39316	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	56	M-FRM
94	39518	ONE-TOUCH BUSH φ13.0	ｵｰﾌﾟﾝｸﾛｰｽﾞﾄﾞﾌﾞｯｼﾝｸﾞ	1	M-FRM
95	39519	ONE-TOUCH BUSH φ17.0	ｵｰﾌﾟﾝｸﾛｰｽﾞﾄﾞﾌﾞｯｼﾝｸﾞ	2	M-FRM
96	39520	ONE-TOUCH BUSH φ20.2	ｵｰﾌﾟﾝｸﾛｰｽﾞﾄﾞﾌﾞｯｼﾝｸﾞ	6	M-FRM
97	39622	TERMINAL BLOCK 3P	端子台3P	1	M-FRM
98	3998	LOCKING CB SUPPORT	ﾛｯｷﾝｸﾞCBｻﾎﾟｰﾄ	23	M-FRM
99	4112 -118	BLIND PLATE FDD	ﾒｸﾗ板(FDD)	1	M-FRM
100	4112F- 2	LOWER DUCT SEAL	ﾀﾞｸﾄｼｰﾙ (下)	1	M-FRM
101	4112S- 0	BIAS SWITCH PCB ASSY	ﾊﾞｲｱｽｽｲｯﾁ基板組立	1	M-FRM
102	4124 -6C	LABEL-CAUTION(HIGH, VOLT)	高圧注意ﾗﾍﾞﾙ	1	M-FRM
103	3874-0-450	INLET ASSY	ｲﾝﾚｯﾄ組立	1	M-FRM
104	49422	HV POWER SUPPLY DC	高圧電源DC	1	M-FRM
105	49435	FERRITE CORE	ﾄﾛｲﾀﾞﾙｺｱ	2	M-FRM

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
106	49449	HV. POWER SUPPLY, AC	高圧電源AC	1	M-FRM
107	49469	COUNTER	ｶｳﾝﾀｰ	1	M-FRM
108	49484	DC POWER SUPPLY	DC電源HVC126-24	1	M-FRM
109	49486	PHOTO INTERRUPTER	ﾌｫﾄｲﾝﾀﾗﾌﾟﾀ	1	M-FRM
110	49487	NOISE FILTER	ﾉｲｽﾞﾌｨﾙﾀｰ	1	M-FRM
111	6039B	BEARING PA(φ8)	PA軸受(φ8)	4	M-FRM
112	7068	MAGNET CATCH	ﾏｸﾞﾈｯﾄｷｬｯﾁ	1	M-FRM
113	7077	ACCURIDE SLIDE	ｱｷｭﾗｲﾄﾞｽﾗｲﾄﾞ	4	M-FRM
114	4612C- 0	BRACKET RAIL(A)	ｱｷｭﾗｲﾄﾞ取付板(A)	2	M-FRM
115	4612D- 0	BRACKET RAIL(B)	ｱｷｭﾗｲﾄﾞ取付板(B)	2	M-FRM
116	4612E- 0	SWITCH(TP) ASSY	ｽｲｯﾁ(TP)組立	1	M-FRM
117	4612R-0-600	TRANSFORMER ASSY	電源ﾄﾗﾝｽ組立	0	M-FRM
118	4612H- 0	BRACKET CAM A	ｶﾑ取付板A	1	M-FRM
119	4612J- 0	BRACKET CAM B	ｶﾑ取付板B	1	M-FRM
120	4612M- 1	SHAFT CLUTCH	ｸﾗｯﾁ軸	1	M-FRM
121	3342	MICRO CLUTCH MIC5	ﾏｲｸﾛｸﾗｯﾁMIC5	1	M-FRM
122	4612A-20	GEAR HERICAL 30T RH	30Tはすば歯車（右）	1	M-FRM
123	4612M -2	CLUTCH BRACKET	ｸﾗｯﾁﾌﾞﾗｹｯﾄ	1	M-FRM
124	4612N- 1	CASE(1)	ｹｰｽ(1)	1	M-FRM
125	4612N- 2	CASE(2)	ｹｰｽ(2)	1	M-FRM
126	4612N- 3	COLLAR	ｶﾗｰ	2	M-FRM
127	4612N- 4	SPRING	ｺｲﾙｽﾌﾟﾘﾝｸﾞ	1	M-FRM
128	1725 -25B	FELT	ｼｰﾙﾌｪﾙﾄ	2	M-FRM
129	4642A-0	HINGE	ﾋﾝｼﾞ	2	M-FRM
130	6102	WASHER-SPECIAL t=1.0	特殊ﾜｯｼｬｰ t=1.0	4	M-FRM
131	6916203125	SCREW. POLYWAVE M5x8	M5x8ﾎﾟﾘｳｪｰﾌﾞ	33	M-FRM
132	6902203108	SCREW. PAN HD. M4x35	M4x35ﾅﾍﾞｸﾛﾒｰﾄ	6	M-FRM
133	6908203104	SCREW. BINDING HD. M4x16	M4x16ﾊﾞｲﾝﾄﾞｸﾛﾒｰﾄ	4	M-FRM
134	6902203102	SCREW. PAN HD. M4x12	M4x12ﾅﾍﾞｸﾛﾒｰﾄ	4	M-FRM
135	6908201100	SCREW. BINDING HD. M4x8	M4x8ﾊﾞｲﾝﾄﾞﾕﾆｸﾛ	2	M-FRM
136	6916203100	SCREW. POLYWAVE. M4x8	M4x8ﾎﾟﾘｳｪｰﾌﾞ	141	M-FRM
137	6916204100	SCREW. POLYWAVE. BK M4x8	M4x8ﾎﾟﾘｳｪｰﾌﾞ黒	2	M-FRM
138	6954421322	SCREW. CAP HD. SW/FW M4x8	M4x8ｷｬｯﾌﾟｽｸﾘｭｳ 3点	2	M-FRM
139	6923212100	TAP. SCREW. BINDING HD. 4x8	4x8ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	10	M-FRM
140	6908201099	SCREW. BINDING HD. M4x6	M4x6ﾊﾞｲﾝﾄﾞﾕﾆｸﾛ	43	M-FRM
141	6902203081	SCREW. PAN HD. M3x16	M3x16ﾅﾍﾞｸﾛﾒｰﾄ	2	M-FRM
142	6908202077	SCREW. BINDING HD. NI. M3x8	M3x8ﾊﾞｲﾝﾄﾞﾆｯｹﾙ	4	M-FRM
143	6908205076	SCREW. BINDING HD. BK M3x6	M3x6ﾊﾞｲﾝﾄﾞ黒	18	M-FRM

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
144	6905203076	SCREW. FLUSH HD. M3x6	M3x6 皿ｸﾛﾒｰﾄ	4	M-FRM
145	6908205167	SCREW. BINDING HD. BK M3x4	M3x4ﾊﾞｲﾝﾄﾞ黒	7	M-FRM
146	6817036032	PARALLEL PIN. φ2x14	φ2x14平行ﾋﾟﾝ	2	M-FRM
147	6807012310	RETAINING RING. E-TYPE #7	Eﾘﾝｸﾞ #7	3	M-FRM
148	6824014360	GRIP RING #8	Gｸﾞﾘｯﾌﾟ #8	1	M-FRM
149	4612-73	LABEL(SET 120V)	ﾗﾍﾞﾙ(120V)	1	M-FRM
149	4642-33-500	LABEL, INPUT	ｲﾝﾌﾟｯﾄﾗﾍﾞﾙ	1	M-FRM
150	6109	WASHER-SPECIAL t=0.5	特殊ﾜｯｼｬｰ t=0.5	1	M-FRM
151	3612-59	SPACER	ｽﾍﾟｰｻｰ	1	M-FRM
152	6804015251	SPRING WASHER M4	M4 ｽﾌﾟﾘﾝｸﾞﾜｯｼｬｰ	2	M-FRM
153	4612-75-300	PLATE OUTLET(SC)	出力ﾌﾟﾚｰﾄ(SC)	1	M-FRM
154	4612-76-300	COVER HARNESS(SC)	ｶﾊﾞｰ(ﾊｰﾈｽ)(SC)	1	M-FRM
155	4612-77-300	FRONT SUPPORT PLATE A	ﾌﾛﾝﾄ補強板(A)	1	M-FRM
156	4612-78-300	FRONT SUPPORT PLATE B	ﾌﾛﾝﾄ補強板(B)	1	M-FRM
157	39109	BUSHING(T2)	自在ﾌﾞｯｼｭ t2	AR	M-FRM
158	39547	EDGING EE-24	ｴｯｼﾞｨﾝｸﾞ EE-24	81cm	M-FRM
159	4612P-0-300	OUTLET ASSY	ｱｳﾄﾚｯﾄ組立	1	M-FRM
160	4612-79-300	SHAFT GURID ROLLER	ｸﾞﾘｯﾄﾞﾛｰﾗｰ軸	1	M-FRM
161	4612-80-300	GURID ROLLER	ｸﾞﾘｯﾄﾞﾛｰﾗｰ	8	M-FRM
162	4612-81-300	BRACHET STACKER PCB	ｽﾀｯｶｰ基板取付板	2	M-FRM
163	9641421509	SCREW. SET M4x6	M4x6 ｾｯﾄｽｸﾘｭｳ	8	M-FRM
164	4612A-27-300	BRACHET DRIVER PCB	ﾄﾞﾗｲﾊﾞｰ基板ﾌﾞﾗｯｹｯﾄ	1	M-FRM
165	49519	ASSY PCB SPD002 B	ﾓｰﾀｰ制御基板 SPD002 B	1	M-FRM
166	39591	WIRE SUDLLE	ﾜｲﾔｰｻﾄﾞﾙ	1	M-FRM
167	3647-14-61	EMC LABEL, FCC. US	EMC ﾗﾍﾞﾙ (FCC)	1	M-FRM
167	4247-7	EMC LABEL. VCCI	EMC ﾗﾍﾞﾙ (VCCI)	0	M-FRM
168	9000570361	PRODUCTION DATE LABEL	生産年月ﾗﾍﾞﾙ	1	M-FRM
169	4642-32-300	LABEL, OUTPUT	ｱｳﾄﾌﾟｯﾄﾗﾍﾞﾙ	1	M-FRM
170	4806260020	SURGE ABSORB PCB ASSY	ｻｰｼﾞｱﾌﾞｿｰﾊﾞｰ基板組立	1	M-FRM
171	2010290270	BRACKET PCB	基板取付金具	1	M-FRM
172	6915203125	SCREW PAN HD. SW/FW M5x8	M5x8 ナベ 3点	2	M-FRM
173	6805015270	WASHER. TOOTH LOCK M4	φ4菊座	1	M-FRM
174	32140	LOCKER SWITCH	ﾛｯｶｰｽｲｯﾁ	1	M-FRM
175	4612-90	RAIL STOPPER	ﾚｰﾙｽﾄｯﾊﾟｰ	4	M-FRM
176	6954003322	SCREW. HEX HD. SW/FW M4x8	M4x8六角3点	4	M-FRM

Engine Unit Assy

4612A-0-300　駆動ユニット組立

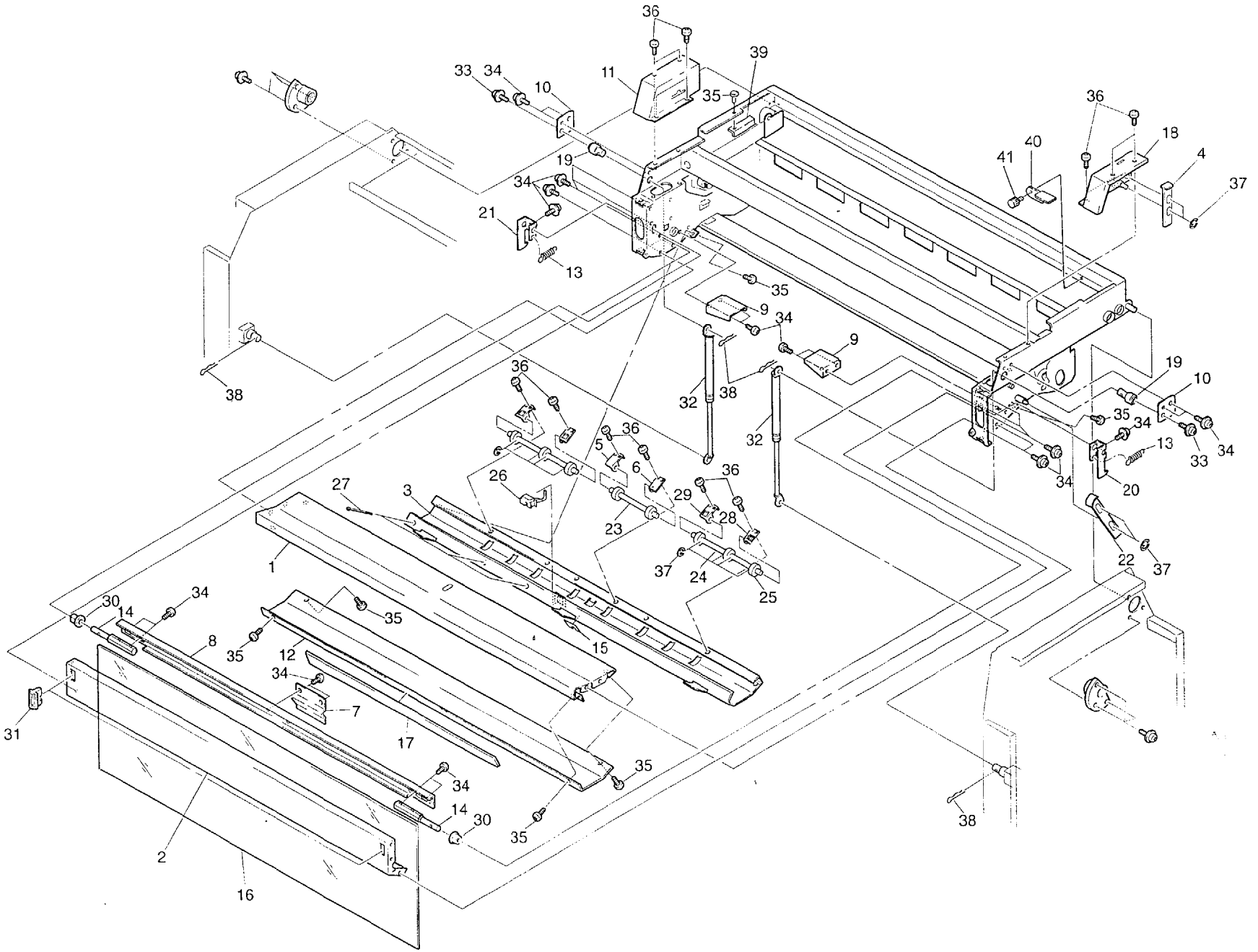


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4612A- 0-300	ENGINE UNIT ASSY(SC)	駆動ユニット組立(SC)	1	EGN	
1	4612A 1-300	SIDE PLATE(C)	側板(駆動)	1	EGN	
2	4612A- 2	GEAR 26T	26Tギア	1	EGN	
3	4612A- 3	SHAFT PULLEY	プーリシャフト	1	EGN	
4	4612A- 4	BRACKET PULLEY	プーリブラケット	1	EGN	
5	4612A- 5	PULLEY XL25	25Tプーリ	1	EGN	
6	4612A- 6	PULLEY XL16	16Tプーリ	1	EGN	
7	4612A- 7	SHAFT GEAR	ギアシャフト	1	EGN	
8	4612A- 8	BRACKET BASE	スイングベース	1	EGN	
9	4612A- 9	STUD	スタッド	1	EGN	
10	4612A-10	STUD SWING	スイング軸	1	EGN	
11	4612A-11	CASE SWING	スイングケース	1	EGN	
12	4612A-12	PULLEY XL15	15Tプーリ	4	EGN	
13	4612A-13	STUD IDLER	アイドラー軸	2	EGN	
14	4612A-15	STUD TENSIONER	テンションアーム軸	1	EGN	
15					EGN	
16	4612A-30-300	SHAFT DRIVE(SC)	ヒーター駆動軸(SC)	1	EGN	
17	4612A-18	SPRING	メイン駆動スプリング	1	EGN	
18	4612A-19	SPRING	デベ駆動スプリング	1	EGN	
19	4612A-20	GEAR HELICAL 30T RH	30Tはすば歯車(右)	3	EGN	
20	4612A-31	LOCK CASE SWING	スイングケースロック	1	EGN	
21	35249	DC MOTOR	DCブラシレスモーター	1	EGN	
22	35255	DC MOTOR	DCブラシレスモーター	1	EGN	
23					EGN	
24	3611 -23A	COLLAR	カラー	4	EGN	*
25	4112 -66B	50T SPUR GEAR	50枚平歯車	1	EGN	
26	4112 -72	PITCH CIRCLE PULLEY	ピッチ円プーリ	1	EGN	
27	4112C- 2	16-24 SPROCKET GEAR	16-24スプロケットギア	1	EGN	
28	4113 -23	20T HELICAL GEAR LH	20Tはすば歯車(左)	1	EGN	
29	5177	BALL BEARING	ベアリング	8	EGN	
30	5250	TIMING BELT	タイミングベルト240DXL050R	1	EGN	
31	4612B- 0-300	BRACKET FUSER DRIVE	ヒーター駆動ブラケット	1	EGN	
32	4612F- 0	TENSIONER	テンションアーム	1	EGN	
33	6916203100	SCREW.POLYWAVE.M4x8	M4x8ポリウェーブ	28	EGN	
34	6807012310	RETAINING RING.E-TYPE #7	Eリング#7	11	EGN	
35	6807012308	RETAINING RING.E-TYPE #5	Eリング#5	5	EGN	
36	6824014362	GRIP RING #10	Gグリップ#10	2	EGN	
37	6824014360	GRIP RING #8	Gグリップ#8	1	EGN	

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
38	6817036032	PARALLEL PIN φ2x14	φ2x14平行ピン	6	EGN	
39	8808	PIN-SLOT φ4x30	4x30溝付ピン	1	EGN	
40	4612A-21	GEAR HERICAL 50T LH	50Tはすば歯車（左）	1	EGN	
41	4612A-26-300	BRACKET MOTOR	モーターブラケット	1	EGN	
42	4612A-29-300	STUD IDLER	アイドラー軸	1	EGN	
43	35253	DC MOTOR-LGS-30-002	DCモーター	1	EGN	
44	1155600040	GEAR-MAIN MOTOR	メインモーターギア	1	EGN	
45	6908201099	SCREW BINDING HD. M4x6	M4x6バインドユニクロ	2	EGN	
46	6916203125	SCREW POLYWAVE M5x8	M5x8ポリウェーブ	4	EGN	
47	6807012311	RETAINING RING. E-TYPE #8	Eリング #8	1	EGN	
48	6917114056	PARALLEL PIN φ3x20	φ3x20平行ピン	2	EGN	
49	1155600230	GEAR RHZ31	ギヤー RHZ31	1	EGN	
50	5195	BALL BEARING	ベアリング	1	EGN	*

Drum Frame Assy Part 1

4613-0-300　ドラムフレーム組立

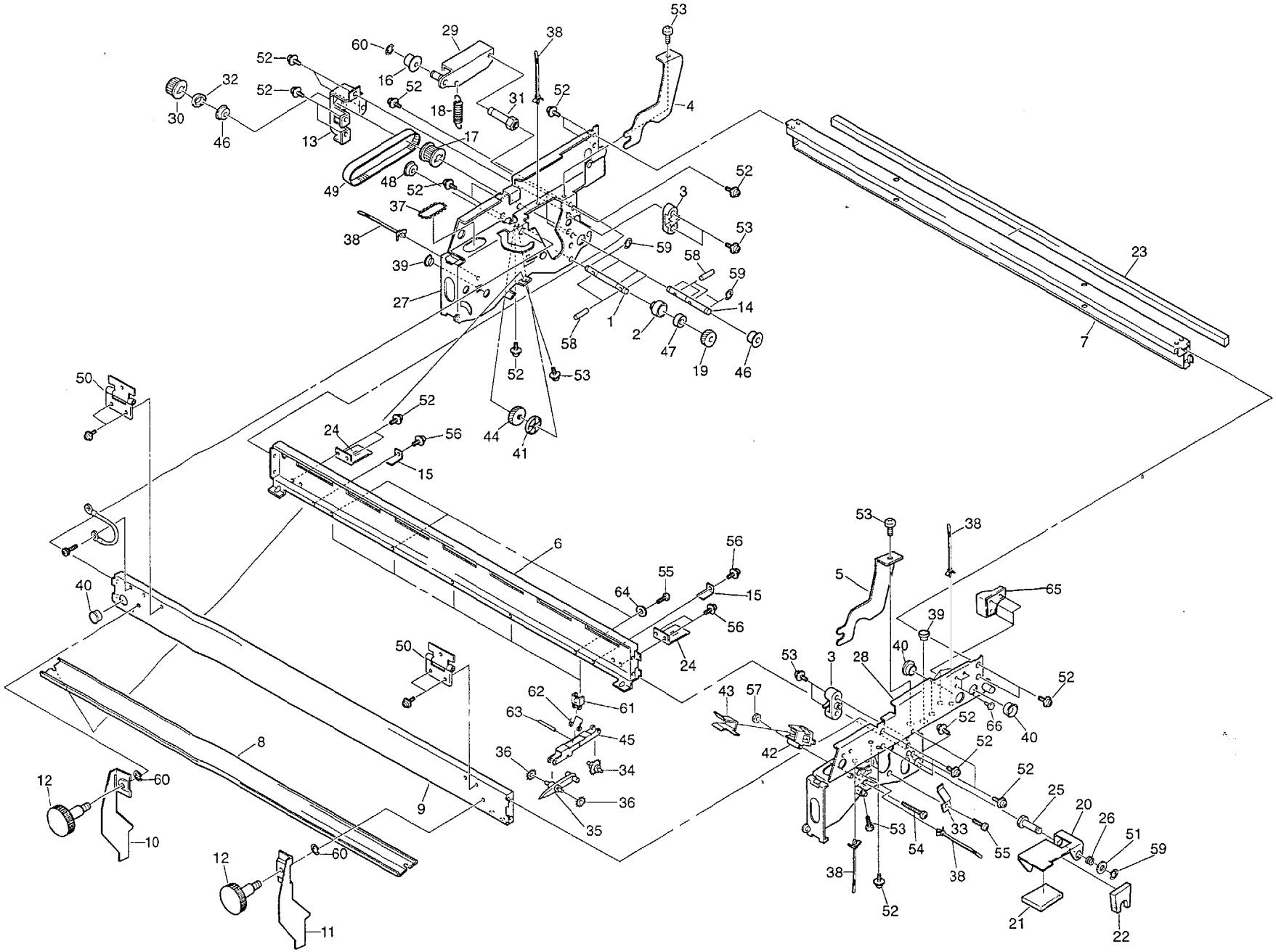


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4613 - 0-300	DRUM FRAME ASSY(SC)	ﾄﾞﾗﾑﾌﾚｰﾑ組立(SC)	1	D-FRM P-1
1	4613 - 9	PLATE GUIDE(12)	ｶﾞｲﾄﾞ板(12)	1	D-FRM P-1
2	4613 -10	BEAM MC	中ﾋﾞｰﾑC	1	D-FRM P-1
3	4613 -11	PLATE GUIDE(14)	ｶﾞｲﾄﾞ板(14)	1	D-FRM P-1
4	4613 -13	ACTUATER	ｱｸﾁｪｰﾀｰ	1	D-FRM P-1
5	4613 -19	TENSIONER ROLL A	軸押えﾊﾞﾈ(A)	1	D-FRM P-1
6	4613 -20	TENSIONER ROLL B	軸押えﾊﾞﾈ(B)	1	D-FRM P-1
7	4613 -21	HANDLE	把手	1	D-FRM P-1
8	4613 -22	STAY BAR	ｽﾃｲ	1	D-FRM P-1
9	4613 -26	SUPPORT DEV	ﾃﾞﾍﾞｷｬｯﾁ	2	D-FRM P-1
10	4613 -27	PLATE PIVOT	ﾋﾟﾎﾞｯﾄﾌﾞﾗｹｯﾄ	2	D-FRM P-1
11	4613 -28	COVER A	ｶﾊﾞｰA	1	D-FRM P-1
12	4613 -29	PLATE GUIDE(13)	ｶﾞｲﾄﾞ板(13)	1	D-FRM P-1
13	4613 -30	SPRING(BLADE)	ﾌｯｸ用ｽﾌﾟﾘﾝｸﾞ	2	D-FRM P-1
14	4613 -36	SHAFT HOOK	ﾌｯｸ軸	2	D-FRM P-1
15	4613 -38	MYLAR	紙押さえﾏｲﾗｰ	1	D-FRM P-1
16	4613 -40	SEAL	ｼｰﾙ	1	D-FRM P-1
17	4613 -41	CAUTION LABEL HOT	高温注意ﾗﾍﾞﾙ	1	D-FRM P-1
18	4613D- 0	COVER B	ｶﾊﾞｰB	1	D-FRM P-1
19	4612 -24	PIVOT GAS SPRING	ﾋﾟﾎﾞｯﾄ(ｶﾞｽｽﾌﾟﾘﾝｸﾞ)	2	D-FRM P-1
20	3612 -34B	HOOK A	ﾌｯｸA	1	D-FRM P-1
21	3612 -35A	HOOK B	ﾌｯｸB	1	D-FRM P-1
22	3612 -44A	ACTUATOR	ｱｸﾁｪｰﾀｰ	1	D-FRM P-1
23	4613-50-300	FEEDING ROLLER A	送りﾛｰﾗｰA	1	D-FRM P-1
24	3635 -19A	FEEDING ROLLER, SHAFT B	送りｺﾛ軸B	2	D-FRM P-1
25	4613-51-300	FEEDING ROLLER	送りｺﾛ	6	D-FRM P-1
26	3637B- 0	EXIT SENSOR ASSY	EXITｾﾝｻｰ組立	1	D-FRM P-1
27	39213	TIE BAND, KS-100	結線ﾊﾞﾝﾄﾞ	3	D-FRM P-1
28	4113 - 9A	SHAFT PRESSURE SPRING RH	軸押えﾊﾞﾈ(右)	2	D-FRM P-1
29	4113 -10A	SHAFT PRESSURE SPRING LH	軸押えﾊﾞﾈ(左)	2	D-FRM P-1
30	6045	OILLESS BEARING	ｵｲﾚｽﾍﾞｱﾘﾝｸﾞ	2	D-FRM P-1
31	7081	MAGNET CATCH SM-101	ﾏｸﾞﾈｯﾄｷｬｯﾁ	2	D-FRM P-1
32	7080	GAS SPRING G2250	ｶﾞｽｽﾌﾟﾘﾝｸﾞ G2250	2	D-FRM P-1
33	6916203125	SCREW. POLYWAVE. M5x8	M5x8ﾎﾟﾘｳｪｰﾌﾞ	2	D-FRM P-1
34	6916203100	SCREW. POLYWAVE. M4x8	M4x8ﾎﾟﾘｳｪｰﾌﾞ	26	D-FRM P-1
35	6908201099	SCREW. BINDING HD. M4x6	M4x6ﾊﾞｲﾝﾄﾞﾆｯｹﾛ	5	D-FRM P-1
36	6908205076	SCREW. BINDING HD. BK M3x6	M3x6ﾊﾞｲﾝﾄﾞ黒	14	D-FRM P-1
37	6807012307	RETAINING RING. E-TYPE #4	Eﾘﾝｸﾞ #4	11	D-FRM P-1

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
38	6822004006	PIN-SNAP φ8	ｽﾅｯﾌﾟﾋﾟﾝ	4	D-FRM P-1
39	4613-48-300	STOPPER(A)	ｽﾄｯﾊﾟｰ(A)	1	D-FRM P-1
40	4613-49-300	STOPPER(B)	ｽﾄｯﾊﾟｰ(B)	1	D-FRM P-1
41	1157000010	SCREW-W.T.BOTTLE	廃ﾄﾅｰﾎﾞﾄﾙｽｸﾘｭｳ	1	D-FRM P-1

Drum Frame Assy Part 2

4613-0-300　ドラムフレーム組立

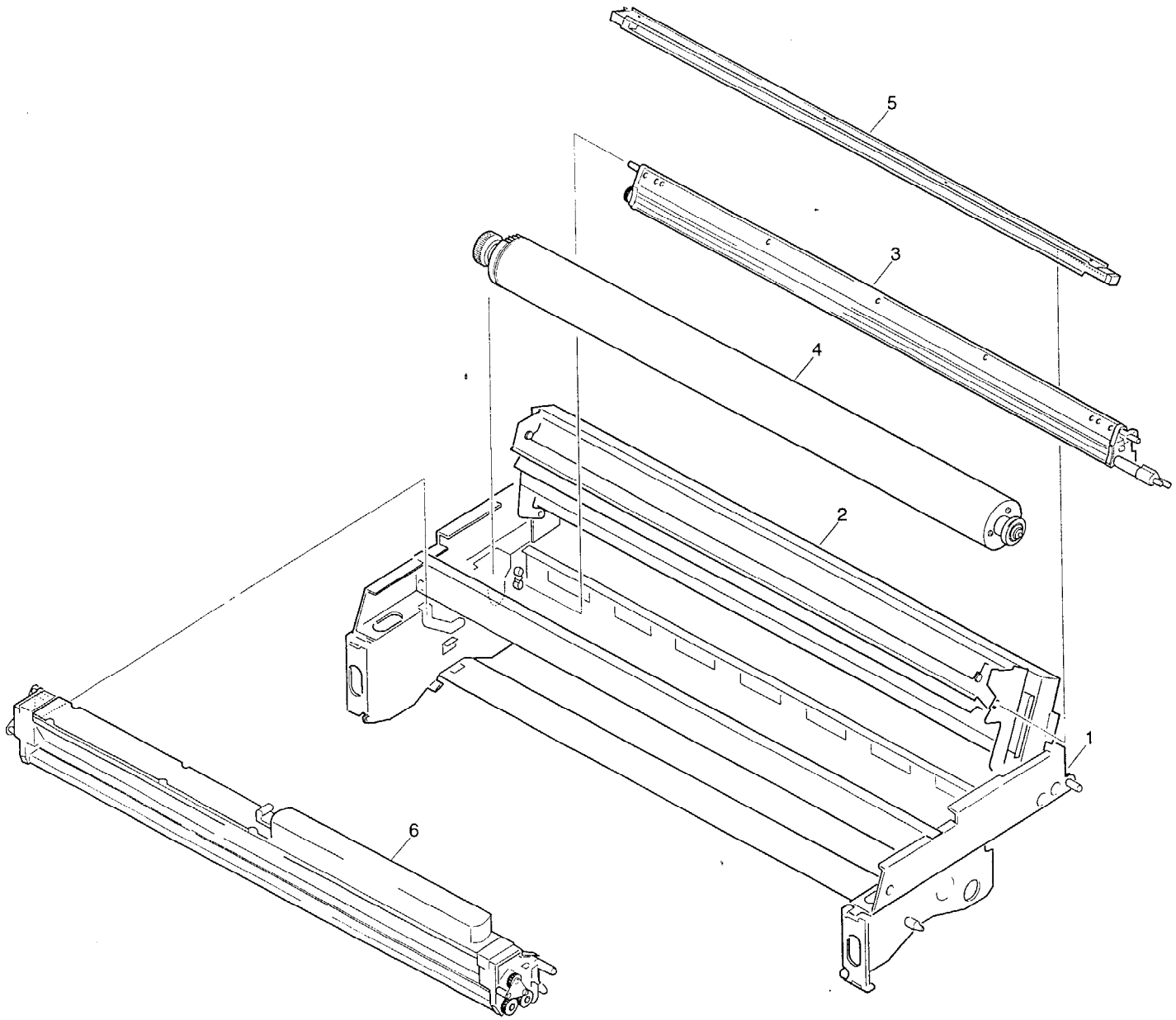


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4613 - 0-300	DRUM FRAME ASSY	ﾄﾞﾗﾑﾌﾚｰﾑ組立	1	D-FRM P 2
1	4613 - 1	SHAFT DEV DRIVE	駆動軸	1	D-FRM P-2
2	4613 - 2	ADUPTER	ｱﾀﾞﾌﾟﾀｰ	1	D-FRM P-2
3	4613 - 3	CASE PIVOT	ｸﾘｰﾅｰｻﾎﾟｰﾄ	2	D-FRM P-2
4	4613 - 4	FITTER DRUM(A)	ﾄﾞﾗﾑ押え板A	1	D-FRM P-2
5	4613 - 5	FITTER DRUM(B)	ﾄﾞﾗﾑ押え板B	1	D-FRM P-2
6	4613 - 6	BEAM D	中ﾋﾞｰﾑD	1	D-FRM P-2
7	4613 - 7	BEAM UD	上ﾋﾞｰﾑD	1	D-FRM P 2
8	4613 - 8	PLATE GUIDE(15)	ｶﾞｲﾄﾞ板(15)	1	D-FRM P-2
9	4613 -12	UPPER BEAM C	上ﾋﾞｰﾑC	1	D-FRM P-2
10	4613 -14	FITTER DEV(A)	ﾃﾞﾍﾞ固定板(A)	1	D-FRM P-2
11	4613 -15	FITTER DEV(B)	ﾃﾞﾍﾞ固定板(B)	1	D-FRM P-2
12	4613 -16	THUMB SCREW	ﾃﾞﾍﾞ固定ﾎﾞﾙﾄ	2	D-FRM P-2
13	4613 -17	BRACKET SHAFT	ﾄﾞﾗﾑ駆動ﾌﾞﾗｹｯﾄ	1	D-FRM P-2
14	4613 -18	SHAFT DRIVE	ﾄﾞﾗﾑ駆動軸	1	D-FRM P-2
15	4613 -23	PLATE GND B	ｱｰｽ板(1)	2	D-FRM P-2
16	4613 -24	PULLEY IDLE	平ﾌﾟｰﾘ	1	D-FRM P-2
17	4613 -25	PULLEY S2M-33	33Tﾌﾟｰﾘ(S2M)	1	D-FRM P-2
18	4613 -31	SPRING TENSIONER	ﾄﾞﾗﾑ駆動ｽﾌﾟﾘﾝｸﾞ	1	D-FRM P-2
19	4613 -32	GEAR HELICAL 20T LH	20Tはすば歯車左	1	D-FRM P-2
20	4613 33	COVER DUCT	廃ﾄﾅｰｼｭｰﾄﾌﾀ	1	D-FRM P-2
21	4613 -34	SEAL COVER A	廃ﾄﾅｰｼｰﾙ(上)	1	D-FRM P-2
22	4613 -35	SEAL COVER B	廃ﾄﾅｰｼｰﾙ(下)	1	D-FRM P-2
23	4613 -37	SPONGE CONTACT	導電ｽﾎﾟﾝｼﾞ	1	D-FRM P-2
24	4613 -39	BRACKET LIFT	ﾋｰﾀｰ解除ﾌﾞﾗｹｯﾄ	2	D-FRM P-2
25	4613 -42	STUD	ﾌﾀ支持軸	1	D FRM P-2
26	4613 -43	SPRING COVER	ｶﾊﾞｰｽﾌﾟﾘﾝｸﾞ	1	D-FRM P-2
27	4613A- 0	SIDE PLATE INNER A	内側板A	1	D-FRM P 2
28	4613B- 0	SIDE PLATE INNER B	内側板B	1	D FRM P-2
29	4613C- 0	TENSIONER	ﾃﾝｼｮﾝ板	1	D-FRM P-2
30	4612A- 5	PULLEY XL25	25Tﾌﾟｰﾘ	1	D-FRM P-2
31	4612A-15	STUD TENSIONER	ﾃﾝｼｮﾝｱｰﾑ軸	1	D-FRM P 2
32	3611 -23A	COLLAR	ｶﾗｰ	1	D-FRM P-2
33	3612 -43A	DRUM GROUND PLATE	ﾄﾞﾗﾑｱｰｽ	1	D-FRM P-2
34	3612 -56- 1A	GUIDE RING	ｶﾞｲﾄﾞﾘﾝｸﾞ	3	D-FRM P-2
35	3618 -19A	DRUM STRIPPING NAIL	ﾄﾞﾗﾑ剥離爪	3	D-FRM P 2
36	3618 -20A	GUIDE RING	ｶﾞｲﾄﾞﾘﾝｸﾞ	6	D-FRM P-2
37					D-FRM P-2
38	39316B	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	6	D FRM P 2

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
39	39373	BUSHING φ16	ワンタッチブッシュ16φ	2	D-FRM P-2	
40	39519	ONE-TOUCH BUSH φ17.0	オープンクローズドブッシング	3	D-FRM P-2	
41	4112 -72	PITCH CIRCLE PULLEY	ピッチ円プーリ	1	D-FRM P-2	
42	4113 -45	BIAS BLOCK	バイアスブロック	1	D-FRM P-2	
43	4113 -46B	BIAS TERMINAL	バイアス端子	1	D-FRM P-2	
44	4113 -48	30T HELICAL GEAR LH	30Tはすば歯車(左)	1	D-FRM P-2	
45	4613-44	PLATE STRIPPING NAIL	ハクリツメ取付板	3	D-FRM P-2	
46	5177	BALL BEARING	ベアリング	2	D-FRM P-2	
47	5189	BALL BEARING 698ZZ	ベアリング(698ZZ)	1	D-FRM P-2	
48	5192	BALL BEARING 608ZZNR	ベアリング(608ZZNR)	1	D-FRM P-2	
49	5242	TIMING BELT	タイミングベルト100S2M328G	1	D-FRM P-2	
50	4642A-0	HINGE	ヒンジ	2	D-FRM P-2	
51	6108	WASHER-SPECIAL	特殊ワッシャー	1	D-FRM P-2	
52	6916203100	SCREW. POLYWAVE. M4x8	M4x8ポリウェーブ	27	D-FRM P-2	
53	6908201099	SCREW. BINDING HD. M4x6	M4x6バインドユニクロ	8	D-FRM P-2	
54	6908203106	SCREW. BINDING HD. M4x25	M4x25ナベクロメート	1	D-FRM P-2	
55	6908205076	SCREW. BINDING HD. BK M3x6	M3x6バインド黒	3	D-FRM P-2	
56	6908205167	SCREW. BINDING HD. BK M3x4	M3x4バインド黒	2	D-FRM P-2	
57	6801015105	NUT M4	M4ナット	1	D-FRM P-2	
58	6817036032	PARALLEL PIN φ2x14	φ2x14平行ピン	4	D-FRM P-2	
59	6807012310	RETAINING RING. E-TYPE #7	Eリング#7	8	D-FRM P-2	
60	6807012308	RETAINING RING. E-TYPE #5	Eリング#5	3	D-FRM P-2	
61	4613-45	PIVOT STRIPPER	ストリッパーピボット	3	D-FRM P-2	
62	4613-46	SPRING(NAIL)	ハクリ爪バネ	3	D-FRM P-2	
63	6817114036	PARALLEL PIN φ2x22	φ2x22 平行ピン	3	D-FRM P-2	*
64	6803015229	FLAT WASHER M3	M3平座金	3	D-FRM P-2	
65	4613-47	GUIDE BLOCK	ガイドブロック	1	D-FRM P-2	
66	692312100	TAP. SCREW. BINDING HD 4x8	4x8バインドタッピング	3	D-FRM P-2	

Drum Frame Assy Part 3

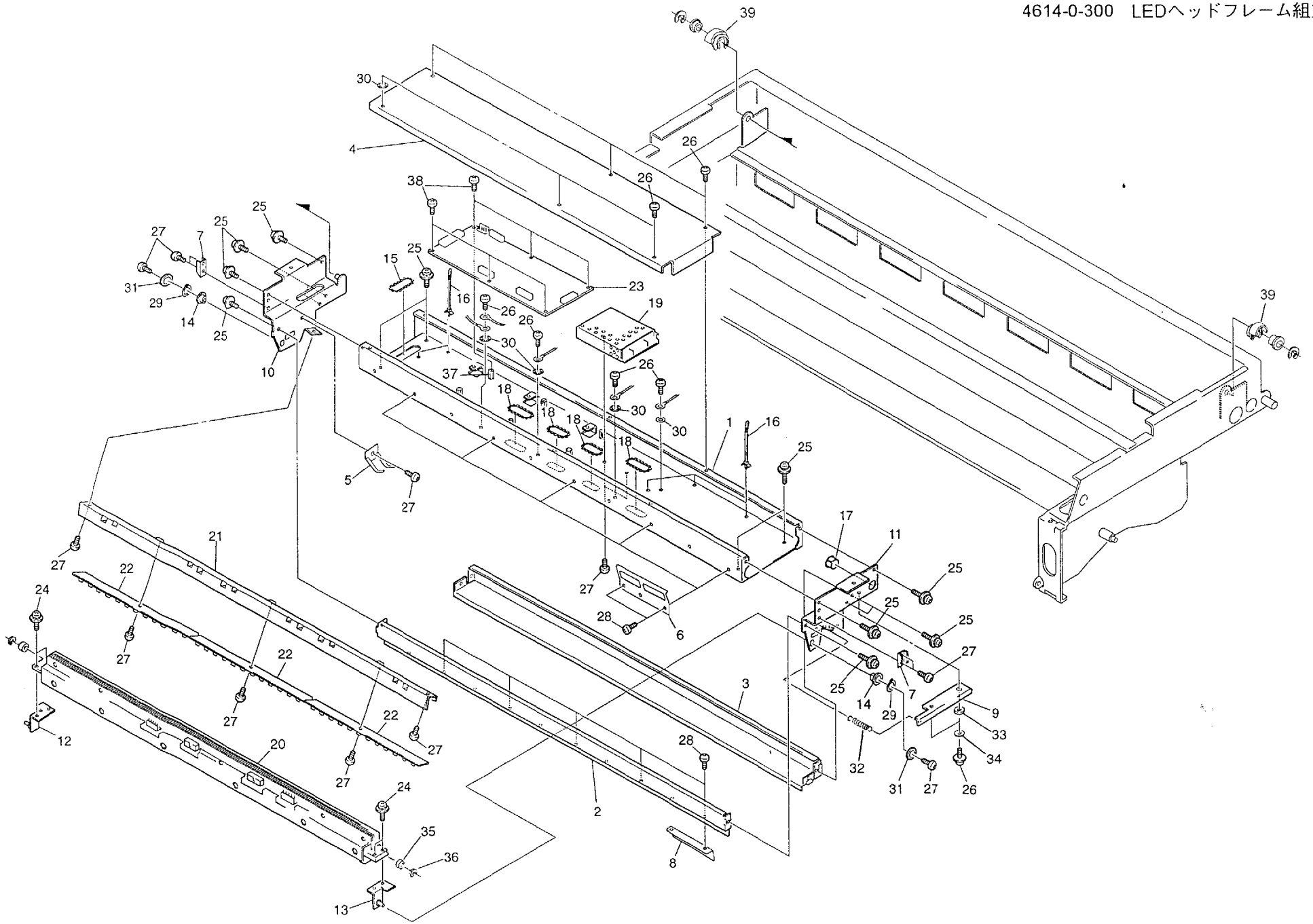
4613-0-300　ドラムフレーム組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
1	4613-0-300	DRUM FRAME ASSY	ﾄﾞﾗﾑﾌﾚｰﾑ組立	1	D-FRM P-3	*
2	4614-0-300	LED HEAD FRAME ASSY	LEDﾍｯﾄﾞﾌﾚｰﾑ組立	1	D-FRM P-3	*
3	4618-0	CLEANER ASSY	ｸﾘｰﾅｰ組立	1	D-FRM P-3	
4	4606E-0	PC DRUM ASSY	感光体組立	1	D-FRM P-3	*
5	4622 0	IMAGE CORONA ASSY	1mｺﾛﾅ組立	1	D-FRM P-3	
6	4625-0	DEVELOPER UNIT ASSY	現像機組立	1	D-FRM P-3	

LED Head Frame Assy

4614-0-300　LEDヘッドフレーム組立

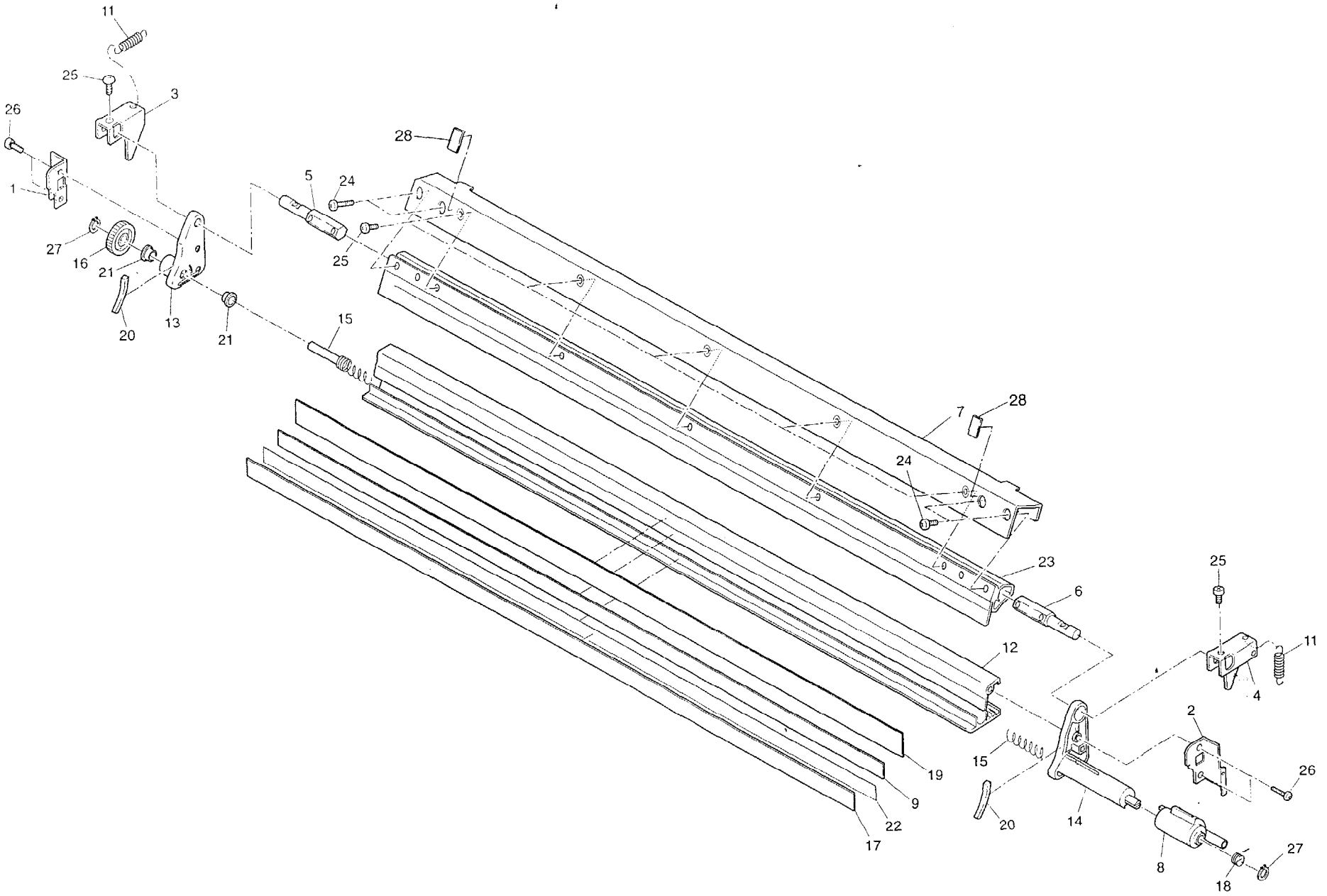


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4614 - 0 300	LED HEAD FRAME ASSY(SC)	LEDﾍｯﾄﾞﾌﾚｰﾑ組(SC)	1	LED-HD
1	4614 - 1	FRAME PCB	PCBﾎﾞｯｸｽ	1	LED-HD
2	4614 - 2	BEAM SUB C	補助ﾋﾞｰﾑC	1	LED-HD
3	4614 - 3	BEAM SUB D	補助ﾋﾞｰﾑD	1	LED-HD
4	4614 - 4	COVER	ｶﾊﾞｰ	1	LED-HD
5	4614 - 5	PLATE PRESSURE	ｺﾛﾅ押えﾊﾞﾈ	1	LED-HD
6	4614 - 6	PLATE GND C	ｱｰｽ板(1)	5	LED-HD
7	4614 - 8	GUIDE SIDE	位置決め板	2	LED-HD
8	4614 - 9	PLATE GND E	ｱｰｽ板(3)	5	LED-HD
9	4614 -11-300	STOPPER	ｽﾄｯﾊﾟｰ	1	LED-HD
10	4614A- 0	SIDE PLATE SUB(A)	補助側板(A)	1	LED-HD
11	4614B 0	SIDE PLATE SUB(B)	補助側板(B)	1	LED-HD
12	4614C- 0	PIVOT PH(A)	LED取付板A	1	LED-HD
13	4614D 0	PIVOT PH(B)	LED取付板B	1	LED-HD
14	1712 -57	BEARING, PA(φ6)	PA軸受(φ6)	2	LED-HD
15	39106	BUSHING(T3)	自在ﾌﾞｯｼｭ t3	AR	LED-HD
16	39316	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	15	LED-HD
17	39519	ONE-TOUCH BUSHφ17	ﾜﾝﾀｯﾁｸﾛｰｽﾞﾄﾞﾌﾞｯｼﾝｸﾞ	1	LED-HD
18	39377	BUSHING NJ-12	自在ﾌﾞｯｼｭ NJ-12	AR	LED-HD
19	49496A	DC POWER SUPPLY	DC電源HV150-10	1	LED-HD
20	4632 - 0	LED HEAD ASSY	LEDﾍｯﾄﾞ組立	1	LED-HD
21	4627 - 1	HOLDER ER LAMP	Eﾗﾝﾌﾟﾎﾙﾀﾞｰ	1	LED-HD
22	4227A- 0B	ER. LED P.C.B. ASSY	ER LED基板組立	3	LED-HD
23	4806270010	I/F P.C.B. ASSY(A)	ｲﾝﾀｰﾌｪｰｽ基板(A)組立	1	LED-HD
24	6915203105	SCREW.PAN HD.SW/FW M4x20	M4×20 SW/FW付ﾅﾍﾞ	4	LED-HD
25	6916203100	SCREW.POLYWAVE.M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	14	LED-HD
26	6908201099	SCREW.BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	12	LED-HD
27	6908205076	SCREW.BINDING HD.BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	14	LED-HD
28	6908205167	SCREW.BINDING HD.BK M3x4	M3×4 ﾊﾞｲﾝﾄﾞ黒	20	LED-HD
29	6824014358	GRIP RING #6	Gｸﾞﾘｯﾌﾟ#6	2	LED-HD
30	6805015270	WASHER.TOOTH LOCK φ4	φ4 菊座	6	LED-HD
31	6803015229	FLAT WASHER M3	M3平座金	2	LED-HD
32	4611-12	SPRING(STOPPER)	ｽﾌﾟﾘﾝｸﾞｽﾄｯﾊﾟｰ	1	LED-HD
33	6201	SPACER	ｽﾍﾟｰｻｰ	1	LED-HD
34	6803015231	FLAT WASHER(M4)	M4平座金	2	LED-HD
35	4605-1	LED HEAD ROLLER	樹脂ﾛｰﾗｰ	2	LED-HD
36	6807012308	RETAINING RING.E-TYPE #5	Eﾘﾝｸﾞ #5	2	LED-HD
37	49516	SPACER	ｽﾍﾟｰｻｰ	6	LED-HD
38	6908202076	SCREW.BINDING HD.Ni M3x6	M3×6 ﾊﾞｲﾝﾄﾞﾆｯｹﾙ	6	LED-HD

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
39	5701001220	SUPPORTER	ｻﾎﾟｰﾀｰ	2	LED-HD	*

Cleaner Assy

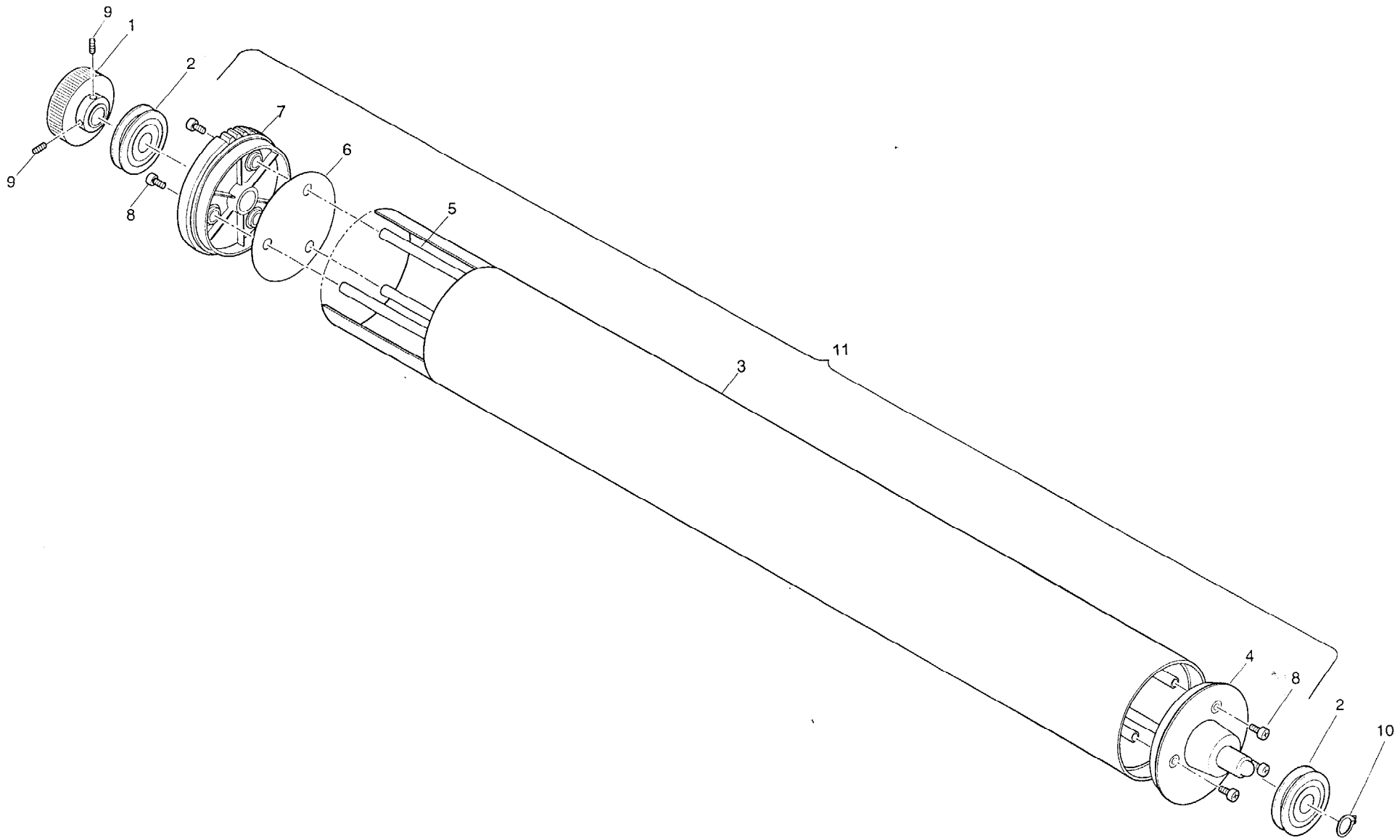
4618-0-1 クリーナー組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4618 - 0-1	CLEANER ASSY	ｸﾘｰﾅｰ組立	1	CLNR	
1	4618 - 2	BRACKET SIDE A	ﾃﾝｼｮﾝﾌﾟﾚｰﾄA	1	CLNR	
2	4618 - 3	BRACKET SIDE B	ﾃﾝｼｮﾝﾌﾟﾚｰﾄB	1	CLNR	
3	4618 - 4	LEVER TENSION A	ﾃﾝｼｮﾝﾚﾊﾞｰA	1	CLNR	
4	4618 - 5	LEVER TENSION B	ﾃﾝｼｮﾝﾚﾊﾞｰB	1	CLNR	
5	4618 - 6	SHAFT BLADE A	ｽｸﾚｰﾊﾟｰ軸A	1	CLNR	
6	4618 - 7	SHAFT BLADE B	ｽｸﾚｰﾊﾟｰ軸B	1	CLNR	
7	4618 -10	CLAMPER B	ｸﾗﾝﾊﾟｰB	1	CLNR	
8	4618 -11	CLOSER	排出ｷｬｯﾌﾟ	1	CLNR	
9	4618 -13	SEAL(SPRING)	ｼｰﾙ(ｽﾌﾟﾘﾝｸﾞ)	1	CLNR	
10					CLNR	*
11	4613 -30	SPRING(BLADE)	ﾌｯｸ用ｽﾌﾟﾘﾝｸﾞ	2	CLNR	
12	3618 - 1C	FRAME	ﾌﾚｰﾑ	1	CLNR	
13	3618 - 2B	SIDE PLATE A	側板A	1	CLNR	
14	4618 - 20	SIDE PLATE B	側板B	1	CLNR	
15	4618B - 0	SCREW SHAFT ASSY	ｽｸﾘｭｰ軸組立	1	CLNR	*
16	3618 -11A	SPUR GEAR(2208)	ｽﾊﾟｰｷﾞｱ(2208)	1	CLNR	
17	3618 -12E	TONER RECEIVER	ﾄﾅｰ受け	1	CLNR	
18	3618 -16	TORSION SPRING	ﾄｰｼｮﾝｽﾌﾟﾘﾝｸﾞ	1	CLNR	
19	3618 -17B	SEAL	ｼｰﾙ(ﾏｲﾗｰ)	1	CLNR	
20	4118 - 9	SIDE SEAL	ｻｲﾄﾞｼｰﾙ	2	CLNR	
21	6044B	OILLESS BEARING	軸受	2	CLNR	
22	9829	ADHESIVE TAPE	両面接着ﾃｰﾌﾟ	AR	CLNR	
23	4618A- 0	BLADE ASSY	ｽｸﾚｰﾊﾟｰ組立	1	CLNR	
24	6908201100	SCREW BINDING HD.M4x8	M4x8ﾊﾞｲﾝﾄﾞﾆｸﾛ	4	CLNR	
25	6908201099	SCREW BINDING HD.M4x6	M4x6ﾊﾞｲﾝﾄﾞﾆｸﾛ	7	CLNR	
26	6924212168	TAP.SCREW.PAN HD.4x18	4x18ﾅﾍﾞﾀｯﾋﾟﾝｸﾞ	4	CLNR	
27	6824014358	GRIP RING #6	Gｸﾞﾘｯﾌﾟ#6	2	CLNR	
28	4618-15	GUARD	ｶﾞｰﾄﾞ	2	CLNR	

PC Drum Assy

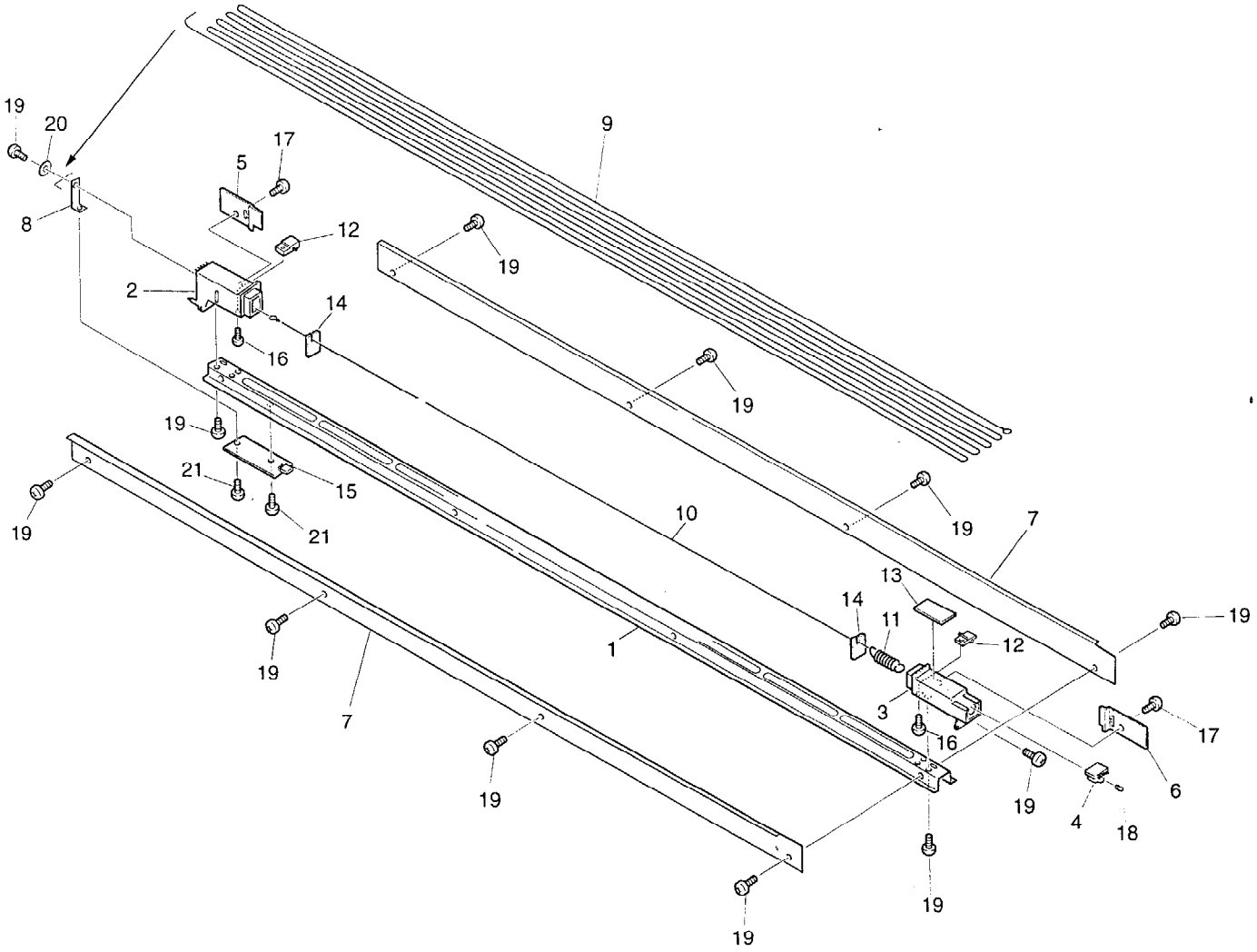
4606E-0　感光体組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4606E -0	PC DRUM ASSY	感光体組立	1	DRUM	
1	4621 - 2	PULLEY S2M-88	88Tﾌﾟｰﾘ	1	DRUM	
2	3621 - 6B	BEARING(DRUM)	軸受(ﾄﾞﾗﾑ)	2	DRUM	
3	4606G -0	DRUM OPC	感光ﾄﾞﾗﾑ	1	DRUM	*
4	3621 - 3 -1	FRANGE B	ﾌﾗﾝｼﾞ B	1	DRUM	
5	3621 - 4A	STAY	ｽﾃｲ	3	DRUM	
6	3621 - 5A	GUIDE MYLAR	ｶﾞｲﾄﾞﾏｲﾗｰ	1	DRUM	
7	3621 - 8	FLANGE A	ﾌﾗﾝｼﾞ A	1	DRUM	
8	6908201100	SCREW.BINDING HD.M4x8	M4x8ﾊﾞｲﾝﾄﾞﾆｸﾛ	6	DRUM	
9	6941421509	SCREW.SET M4x6	M4x6ｾｯﾄｽｸﾘｭｰ	2	DRUM	
10	6813014315	RETAINING.RING.C-TYPE #12	Cﾘﾝｸﾞ#12	1	DRUM	
11	4606D -0	PC DRUM SUB ASSY	感光ﾄﾞﾗﾑｻﾌﾞ組立	1	DRUM	*

Image Corona Assy

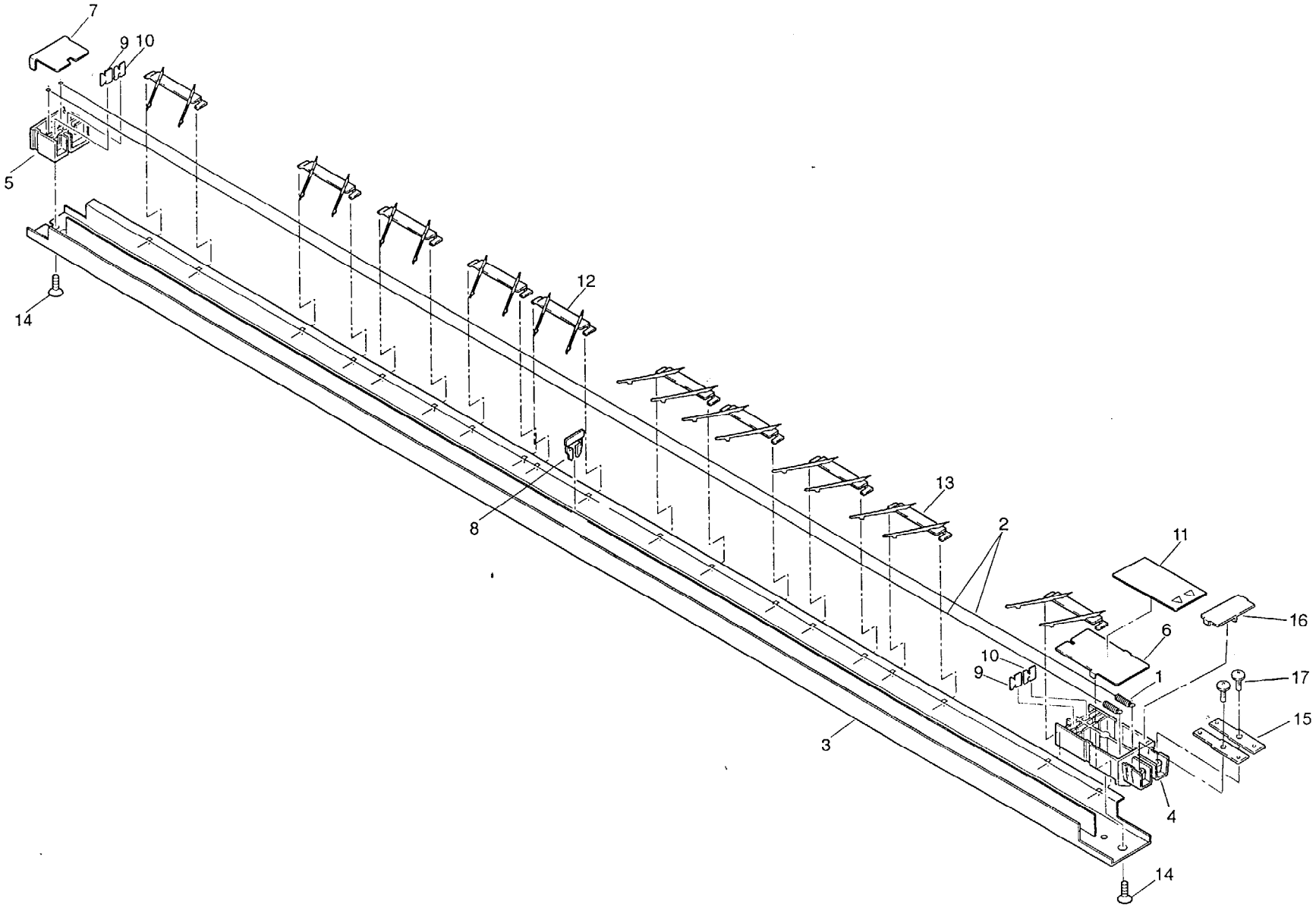
4622-0　Imコロナ組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4622 - 0	IMAGE CORONA ASSY	Imｺﾛﾅ組立	1	IMG
1	4622 - 1	FRAME CORONA	ｺﾛﾅﾌﾚｰﾑ	1	IMG
2	4622 - 2	BLOCK IMAGE CORONA A	ImｺﾛﾅﾌﾞﾛｯｸA	1	IMG
3	4622 - 3	BLOCK IMAGE CORONA B	ImｺﾛﾅﾌﾞﾛｯｸB	1	IMG
4	4622 - 4	HOOK GRID WIRE	ｸﾞﾘｯﾄﾞ掛け	1	IMG
5	4622 - 5	COVER A	ﾌﾞﾛｯｸﾌﾀA	1	IMG
6	4622 - 6	COVER B	ﾌﾞﾛｯｸﾌﾀB	1	IMG
7	4622 - 7	FRAME SIDE	ｺﾛﾅ枠	2	IMG
8	4622 - 8	TERMINAL GRID	ｸﾞﾘｯﾄﾞ端子	1	IMG
9	4622 - 9	WIRE GRID	ｸﾞﾘｯﾄﾞﾜｲﾔｰ	1	IMG
10	4622 -10	WIRE CORONA	ｺﾛﾅﾜｲﾔｰ	1	IMG
11	148 -10	SPRING WIRE	ﾜｲﾔｰｽﾌﾟﾘﾝｸﾞ	1	IMG
12	3622 - 4B	HEIGHT ADJUSTER	ﾊｲﾄｱｼﾞｬｽﾀｰ	2	IMG
13	4124 - 6C	LABEL-CAUTION(HIGH, VOLT)	高圧注意ﾗﾍﾞﾙ	1	IMG
14	4222 - 4B	SPONGE	ｽﾎﾟﾝｼﾞ	2	IMG
15	4622A- 0	HV-ZD PCB ASSY	HV-ZD基板組立	1	IMG
16	6905207079	SCREW. FLUSH HD. PC M3x12	M3×12 皿ﾎﾟﾘｶｰﾎﾞﾈｰﾄ	2	IMG
17	6905207076	SCREW. FLUSH HD. PC M3x6	M3×6 皿ﾎﾟﾘｶｰﾎﾞﾈｰﾄ	2	IMG
18	6941421506	SCREW. SET M3x10	M3×10 ｾｯﾄｽｸﾘｭｰ	1	IMG
19	6908205076	SCREW. BINDING HD. BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	12	IMG
20	6803015229	FLAT WASHER M3	M3 平座金	1	IMG
21	6915208076	SCREW. PAN HD. BS S/F M3x6	M3×6 ﾅﾍﾞ真鍮 3点 ﾆｯｹﾙ	2	IMG

Tr. St Corona Assy

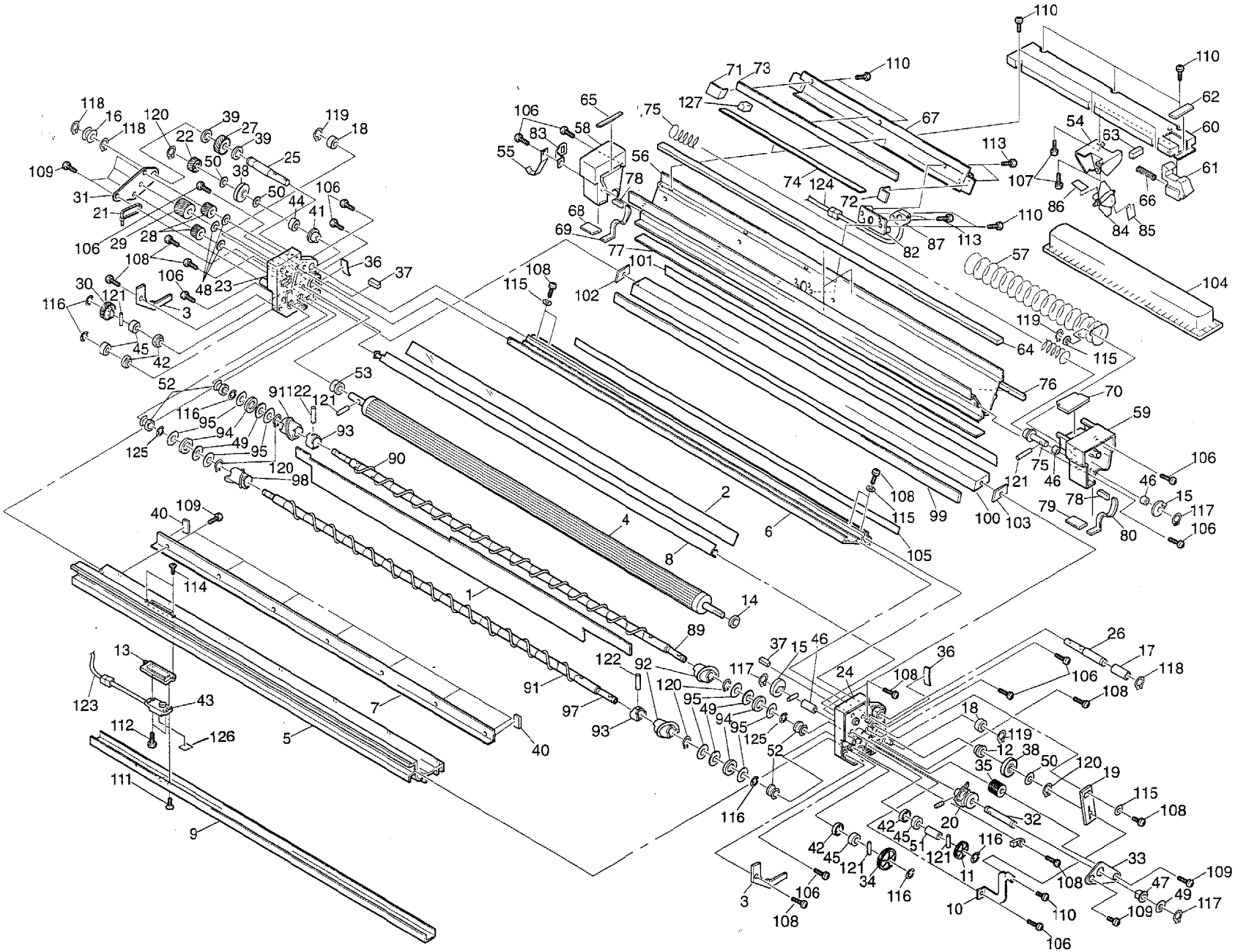
4624-0-1 Tr. Stコロナ組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4624 - 0 -1	Tr/St CORONA ASSY	Tr.St.ｺﾛﾅ組立	1	TRST
1	148 - 10	SPRING WIRE	ﾜｲﾔｰｽﾌﾟﾘﾝｸﾞ	2	TRST
2	3622 - 6A	CORONA WIRE	ｺﾛﾅﾜｲﾔ	2	TRST
3	3624 - 1- 1C	CORONA FRAME	ｺﾛﾅ枠	1	TRST
4	4624 - 3	CORONA BLOCK A	ｺﾛﾅﾌﾞﾛｯｸA	1	TRST
5	3624 - 3- 1D	CORONA BLOCK B	ｺﾛﾅﾌﾞﾛｯｸB	1	TRST
6	3624 - 4B	COVER A	ﾌﾀA	1	TRST
7	3624 - 5B	COVER B	ﾌﾀB	1	TRST
8	3624 - 8- 1B	CHIP	ﾁｯﾌﾟ	1	TRST
9	3624 - 9B	HEIGHT CHIP,Tr	ﾊｲﾄﾁｯﾌﾟTr	2	TRST
10	3624 -10B	HEIGHT CHIP,St	ﾊｲﾄﾁｯﾌﾟSt	2	TRST
11	3647 - 6-52B	CAUTION LABEL,HV(2) EUR	高圧注意ﾗﾍﾞﾙ(2)(EUR)	1	TRST
12	4224 - 5B	CORONA GUARD A	ｺﾛﾅｶﾞｰﾄﾞA	5	TRST
13	4224 - 6B	CORONA GUARD B	ｺﾛﾅｶﾞｰﾄﾞB	5	TRST
14	6923212077	TAP.SCREW.BINDING HD.3x8	3x8ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ2種	2	TRST
15	4624 - 2	PLATE TERMINAL	端子台	2	TRST
16	4624 - 4	COVER TREMINAL	端子ﾌﾀ	1	TRST
17	6908205076	SCREW.BINDING HD.BK.M3x6	M3x6ﾊﾞｲﾝﾄﾞ黒	2	TRST

Developer Unit Assy

4625-0　現像器組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4625 0 1	DEVELOPER UNIT ASSY	現像機組立	1	DEV
1	4625 - 1	SEPARATER	仕切板	1	DEV
2	4625 2	FILM SLOPE	補助ｽﾛｰﾌﾟ	1	DEV
3	4625 - 3	COVER WIRE	ｻｲﾄﾞｶﾊﾞｰ	2	DEV
4	4625 - 5	MAGNET ROLL(A0)	ﾏｸﾞﾈｯﾄﾛｰﾙ(A0)	1	DEV
5	4625 - 6	BOTOM FRAME	ﾎﾞﾄﾑﾌﾚｰﾑ	1	DEV
6	4625 7	FRAME SUPPORT	支持ﾌﾚｰﾑ	1	DEV
7	4625 8	BLADE DOCTOR	ﾄﾞｸﾀｰﾌﾞﾚｰﾄﾞ	1	DEV
8	4625 - 9	SLOPE	ｽﾛｰﾌﾟ	1	DEV
9	4625 -10	COVER HARNESS	ﾊｰﾈｽｶﾊﾞｰ	1	DEV
10	4625 -11	PLATE CONTACT(B)	導通板B	1	DEV
11	3611 -17A	GEAR(30TOOTH), DIA. 6	30Tｷﾞｱ(φ6)	1	DEV
12	3626 -13B	FELT PUSHER	ﾌｪﾙﾄ押え	1	DEV
13	3626 -29C	SENSOR COVER	ｾﾝｻｰｶﾊﾞｰ	1	DEV
14	3626 -32	SEAL. FELT φ8	ｼｰﾙﾌｪﾙﾄφ8	1	DEV
15	3626 -34B	COUPLING	ｶｯﾌﾟﾘﾝｸﾞ	2	DEV
16	3626 -35	COLLAR A	ｶﾗｰA	1	DEV
17	3626 -36B	COLLAR B	ｶﾗｰB	1	DEV
18	3626 -37	GUARD RING	ｶﾞｰﾄﾞﾘﾝｸﾞ	2	DEV
19	3626 -42	ANGLE PLATE	ｱﾝｸﾞﾙﾌﾟﾚｰﾄ	1	DEV
20	3626B- 0	CLUTCH ASSY	ﾄﾅｰｸﾗｯﾁ組立	1	DEV
21	39213	TIE-BAND, KS-100	結線ﾊﾞﾝﾄﾞ	1	DEV
22	4113 -48	30T HELICAL GEAR LH	30Tはすば歯車(左)	1	DEV
23	4125 - 1B	DEVE SIDE PLATE A	ﾃﾞﾍﾞ側板A	1	DEV
24	4125 - 2A	DEVE SIDE PLATE B	ﾃﾞﾍﾞ側板B	1	DEV
25	4125 - 5	DRIVE SUPPORTING SHAFT	駆動支持軸	1	DEV
26	4125 - 6	SUPPORTING SHAFT	支持軸	1	DEV
27	4125 -12B	28T HELICAL GEAR RH	28枚はすば歯車(右)	1	DEV
28	4125 13B	20T HELICAL GEAR LH	20枚はすば歯車(左)	2	DEV
29	4125 -14B	30T HELICAL GEAR RH	30枚はすば歯車(右)	1	DEV
30	4125 -15	30T HELICAL GEAR RH φ6	30枚はすば歯車(右φ6)	1	DEV
31	4125 -16	GEAR FIXING PLATE	ｷﾞｱ軸固定板	1	DEV
32	4125 -17	CLUTCH SHAFT	ｸﾗｯﾁ軸	1	DEV
33	4125 -18	CLUTCH PLATE	ｸﾗｯﾁﾌﾟﾚｰﾄ	1	DEV
34	4125 -19	36T SPUR GEAR	36枚平歯車	1	DEV
35	4125 -20	20T SPUR GEAR	20枚平歯車	1	DEV
36	4125 -21A	SIDE SEAL	ｻｲﾄﾞｼｰﾙ	2	DEV
37	4125 -22	DOCTOR SEAL	ﾄﾞｸﾀｰｼｰﾙ	2	DEV
38	3626 -12	SPACING ROLLER φ44.2	摺動輪(φ44.2)	2	DEV

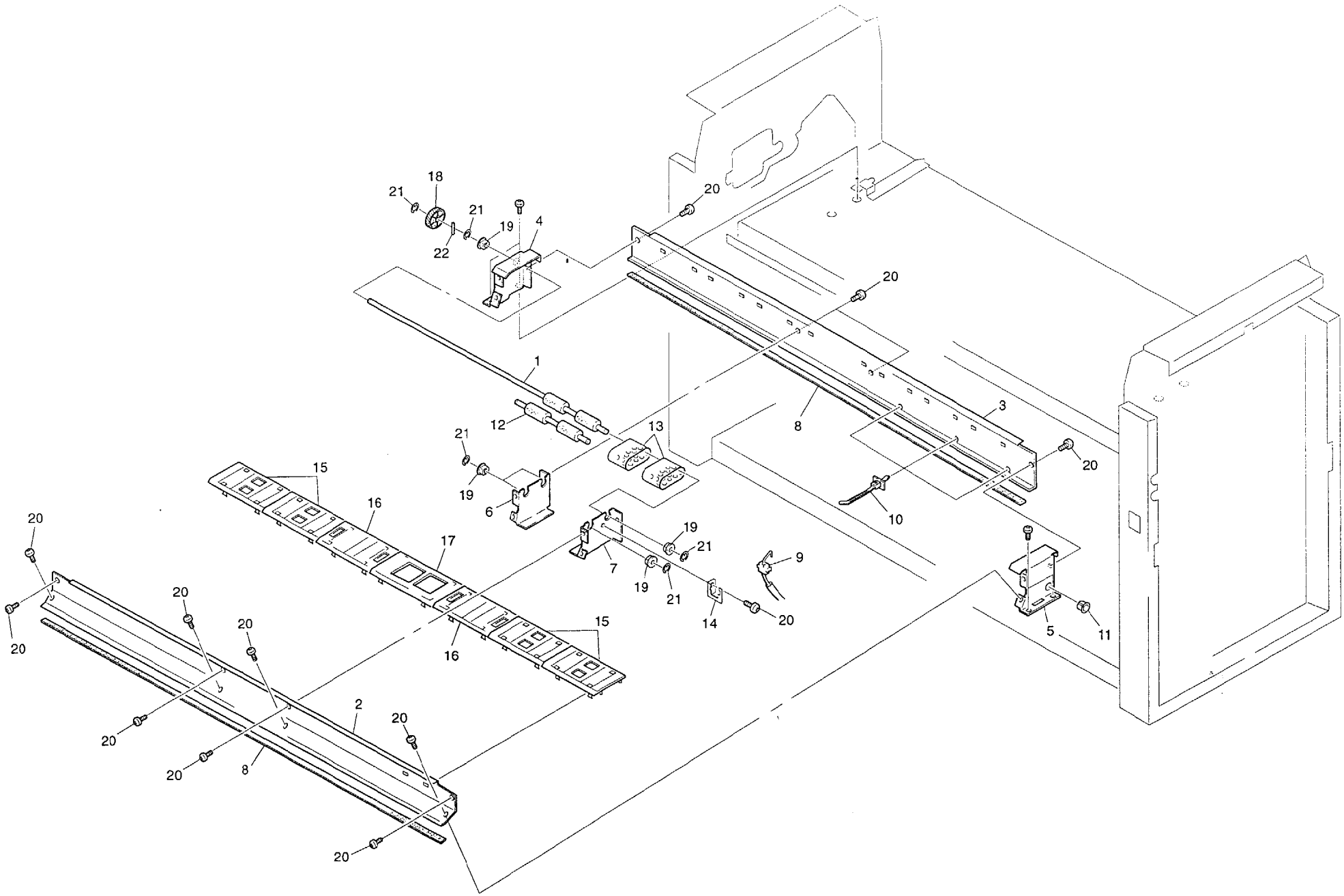
ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
39	4125 -24	SPACER φ12	ｽﾍﾟｰｻｰφ12	2	DEV	
40	4125 -25	DOCTOR SIDE SEAL	ﾄﾞｸﾀｰｻｲﾄﾞｼｰﾙ	2	DEV	
41	4225 - 6	BEARING CASE	ﾍﾞｱﾘﾝｸﾞｹｰｽ	1	DEV	
42	4225 - 7	SEAL PUSHER	ｼｰﾙ押え	4	DEV	
43	49353	TONER % SENSOR	ﾄﾅｰ濃度ｾﾝｻｰ	1	DEV	
44	5171	BALL BEARING	ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ608LLU	1	DEV	
45	5188	BALL BEARING	ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ626LLU	4	DEV	
46	6044B	OILLESS BEARING	軸受	3	DEV	
47	6049	OILLESS BEARING φ6	軸受(φ6)	1	DEV	
48	6107	WASHER SPECIAL	特殊ﾜｯｼｬｰt0.1	3	DEV	
49	6135	WASHER SPECIAL	特殊ﾜｯｼｬｰt0.5	5	DEV	
50	6136	WASHER SPECIAL	特殊ﾜｯｼｬｰt1.0	3	DEV	
51	6240	SPACER φ6x12	ｽﾍﾟｰｻｰφ6x12	1	DEV	
52	7071	V-RING(φ6)	Vﾘﾝｸﾞ(φ6)	4	DEV	
53	7072	V-RING(φ12)	Vﾘﾝｸﾞ(φ12)	1	DEV	
54	4625A- 1	BRACKET FIN	ﾌｨﾝﾌﾞﾗｹｯﾄ	1	DEV	
55	4625A- 2	PLATE CONTACT	導通板	1	DEV	
56	4625A- 3	FRAME HOPPER	ﾎｯﾊﾟｰﾌﾚｰﾑ	1	DEV	
57	4625A- 4	COIL HOPPER	ﾎｯﾊﾟｰｺｲﾙ	1	DEV	
58	4625A- 6	SIDE PLATE HOPPER A	ﾎｯﾊﾟｰ側板A	1	DEV	
59	4625A- 7	SIDE PLATE HOPPER B	ﾎｯﾊﾟｰ側板B	1	DEV	
60	4625A- 8	COVER TOP	ﾎｯﾊﾟｰ蓋	1	DEV	
61	4625A- 9	LEVER	ﾚﾊﾞｰ	1	DEV	
62	4625A-10	SEAL LEVER A	ﾚﾊﾞｰｼｰﾙ(下)	1	DEV	
63	4625A-11	SEAL LEVER B	ﾚﾊﾞｰｼｰﾙ(横)	1	DEV	
64	4625A-12	SEAL HOPPER A	ﾎｯﾊﾟｰｼｰﾙ	2	DEV	
65	4625A-13	SEAL SIDE B	ｻｲﾄﾞｼｰﾙ(1)	1	DEV	
66	4625A-14	SPRING	ｽﾌﾟﾘﾝｸﾞ	1	DEV	
67	4625A-15	COVER HARNESS	ﾊｰﾈｽｶﾊﾞｰ(上)	1	DEV	
68	4625A-16	SEAL SIDE A	ｻｲﾄﾞｼｰﾙA	1	DEV	
69	4625A-17	SEAL SIDE D	ｻｲﾄﾞｼｰﾙD	1	DEV	
70	4625A-18	SEAL SIDE(2)	ｻｲﾄﾞｼｰﾙ(2)	1	DEV	
71	4625A-19	SEAL COVER(A)	ｶﾊﾞｰｼｰﾙ(A)	1	DEV	
72	4625A-20	SEAL COVER(B)	ｶﾊﾞｰｼｰﾙ(B)	1	DEV	
73	4625A-21	SEAL COVER(C)	ｶﾊﾞｰｼｰﾙ(C)	1	DEV	
74	4625A-22	SEAL COVER(D)	ｶﾊﾞｰｼｰﾙ(D)	1	DEV	
75	4625F-0	SCREW SHAFT ASSY	ｽｸﾘｭｳ軸組立	1	DEV	*
76	4625A-24	SEAL FRONT	ﾌﾛﾝﾄｼｰﾙ	1	DEV	
77	4625A-25	SEAL REAR	ﾘｱｼｰﾙ	1	DEV	

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
78	3626A- 8B	SIDE SEAL A	ｻｲﾄﾞｼｰﾙA	2	DEV
79	3626A- 9B	SIDE SEAL B	ｻｲﾄﾞｼｰﾙB	1	DEV
80	3626A-10B	SIDE SEAL C	ｻｲﾄﾞｼｰﾙC	1	DEV
81					DEV
82	4125A- 7- 1	SENSOR BASE	ｾﾝｻｰﾌﾞﾗｹｯﾄ	1	DEV
83	4125A- 8B	CONECTOR BRACKET	ｺﾈｸﾀｰﾌﾞﾗｹｯﾄ	1	DEV
84	4125A-10B	FOUR FIN	4枚ﾌｨﾝ	1	DEV
85	4125A-11A	WIPER	ﾜｲﾊﾟｰ	1	DEV
86	4125A-12	WIPER A	ﾜｲﾊﾟｰA	3	DEV
87	4625E-0	TONER SENSOR ASSY	ﾄﾅｰｾﾝｻｰ組立	1	DEV
88					DEV
89	4625B- 1	SHAFT SCREW FRONT	ｽｸﾘｭｰ軸(前)	1	DEV
90	4625B- 2	SCREW SENDER(L)	ｾﾝﾀﾞｰｽｸﾘｭｰ(左)	20	DEV
91	3626 -18	SENDER SCREW(R)	ｾﾝﾀﾞｰｽｸﾘｭｰ(右)	2	DEV
92	3626 -19	SENDER SCREW(L)	ｾﾝﾀﾞｰｽｸﾘｭｰ(左)	2	DEV
93	3626 -31	COLLAR	ｶﾗｰ	2	DEV
94	3626 -38B	SEAL. FELT	ｼｰﾙﾌｪﾙﾄ	4	DEV
95	4125 -28	WASHER	ﾜｯｼｬｰ	8	DEV
96					DEV
97	4625C- 1	SHAFT SCREW REAR	ｽｸﾘｭｰ軸(後)	1	DEV
98	4625C- 2	SCREW SENDER(R)	ｾﾝﾀﾞｰｽｸﾘｭｰ(右)	29	DEV
99	4625D- 1	SEAL	下ｶﾊﾞｰｼｰﾙ	1	DEV
100	4625D- 2	COVER LOWER	下ｶﾊﾞｰ	1	DEV
101	4625D- 3	SEAL LOWER	ﾛｱｼｰﾙ	1	DEV
102	4125D- 4	SIDE SEAL A	ｻｲﾄﾞｼｰﾙA	1	DEV
103	4125D- 5	SIDE SEAL B	ｻｲﾄﾞｼｰﾙB	1	DEV
104	4607C- 0	BODY CARTRIDGE	ﾄﾅｰｶｰﾄﾘｯｼﾞ	1	DEV
105	4625-12	SEAL MYLAR	ｼｰﾙﾏｲﾗｰ	1	DEV
106	6924212168	TAP. SCREW. PAN HD. 4x18	4×18 ﾅﾍﾞﾀｯﾋﾟﾝｸﾞ	12	DEV
107	6923212100	TAP. SCREW. BINDING HD. 4x8	4×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	2	DEV
108	6902203102	SCREW. PAN HD. M4x12	M4×12 ﾅﾍﾞﾈｼﾞ	12	DEV
109	6908201099	SCREW. BINDING HD. M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾕﾆｸﾛ	13	DEV
110	6908205076	SCREW. BINDING HD. BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	11	DEV
111	6905203076	SCREW. FLUSH HD. M3x6	M3×6 皿ﾈｼﾞ	1	DEV
112	6908208167	SCREW. BINDING HD. Bs M3x4	M3×4 ﾊﾞｲﾝﾄﾞ真鍮	2	DEV
113	6923212077	TAP. SCREW. BINDING HD. 3x8	3×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	4	DEV
114	6922212076	TAP. SCREW. FLUSH HD. 3x6	3×6 皿ﾀｯﾋﾟﾝｸﾞ	2	DEV
115	6803015231	FLAT WASHER M4	M4 平座金	6	DEV
116	6807012308	RETAINING RING. E-TYPE #5	Eﾘﾝｸﾞ#5	5	DEV

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
117	6813014309	RETAINING RING. C-TYPE #6	Cﾘﾝｸﾞ#6	3	DEV
118	6813014315	RETAINING RING. C-TYPE #12	Cﾘﾝｸﾞ#12	3	DEV
119	6824014356	GRIP RING #4	Gｸﾞﾘｯﾌﾟ#4	3	DEV
120	6824014360	GRIP RING #8	Gｸﾞﾘｯﾌﾟ#8	6	DEV
121	6817036032	PARALLEL PIN. φ2x14	φ2×14 平行ﾋﾟﾝ	6	DEV
122	6809061432	SPRING PIN. φ2x12	φ2×12 ｽﾌﾟﾘﾝｸﾞﾋﾟﾝ	2	DEV
123	4659F-0	DEVE. HARNESS ASSY (1)	ﾃﾞﾍﾞﾊｰﾈｽ組立(1)	1	DEV
124	4659G-0	DEVE. HARNESS ASSY (2)	ﾃﾞﾍﾞﾊｰﾈｽ組立(2)	1	DEV
125	6924014358	GRIP RING #6	Gｸﾞﾘｯﾌﾟ#6	2	DEV
126	6960	VERSION SEAL	ﾊﾞｰｼﾞｮﾝｼｰﾙ	1	DEV
127	4625A-26	SEAL COVER(E)	ｶﾊﾞｰｼｰﾙ(E)	1	DEV

Feeder Assy

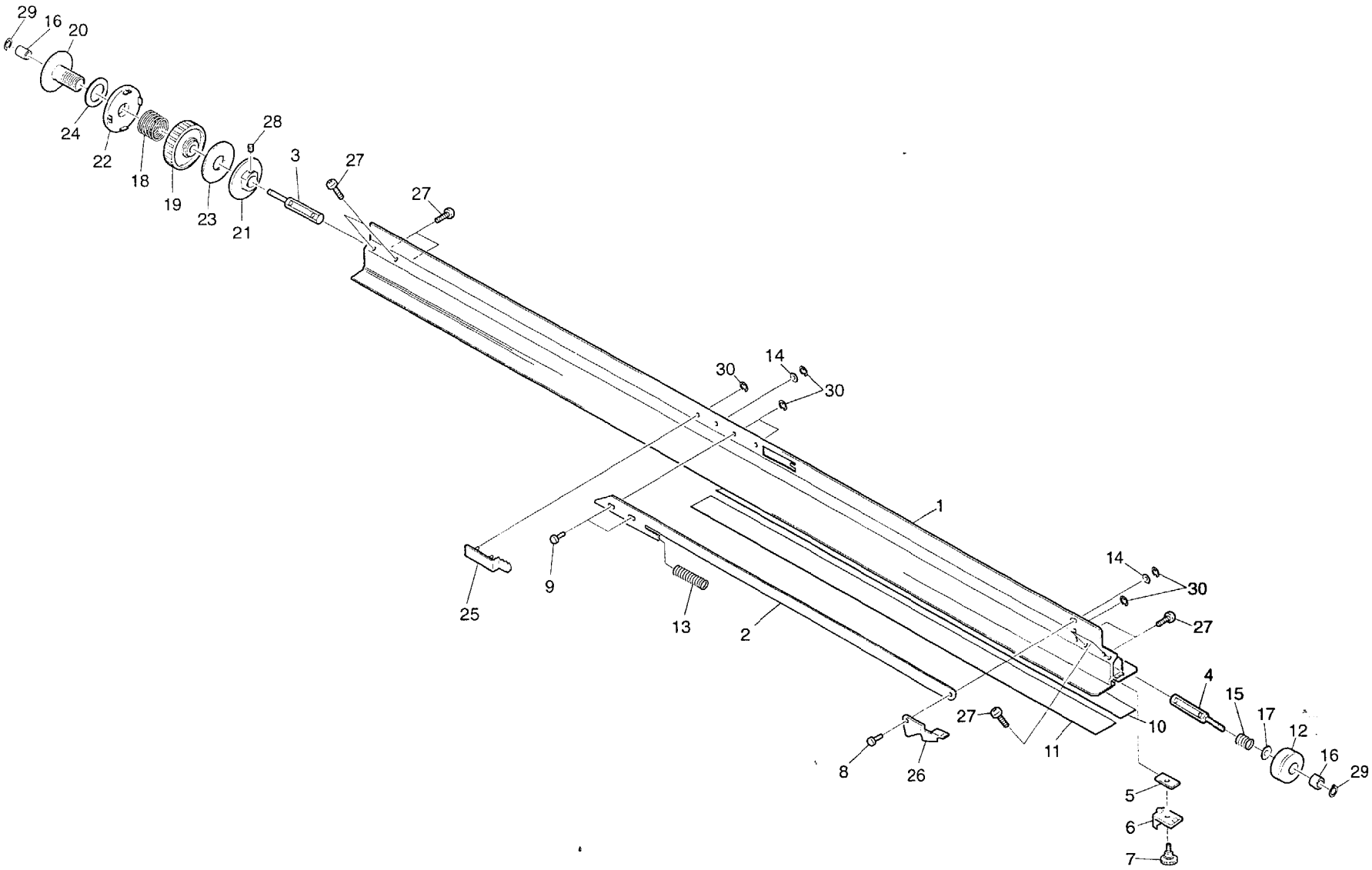
4628-0　搬送部組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4628 - 0	FEEDER ASSY	搬送部組立	1	FED
1	4628 - 1	ROLLER DRIVE BELT	駆動ﾍﾞﾙﾄﾛｰﾗｰ	1	FED
2	4628 - 2	STAY C	ｽﾃｲC	1	FED
3	4628 - 3	STAY D	ｽﾃｲD	1	FED
4	4628 - 4	SIDE PLATE A	側板A	1	FED
5	4628 - 5	SIDE PLATE B	側板B	1	FED
6	4628 - 6	CENTER PLATE A	中側板A	1	FED
7	4628 - 7	CENTER PLATE B	中側板B	1	FED
8	4628 - 8	SEAL	ｼｰﾙ	2	FED
9	3637B- 0B	EXIT SENSOR ASSY	EXITｾﾝｻｰ組立	1	FED
10	39316B	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	3	FED
11	39373	BUSHING φ16	ﾜﾝﾀｯﾁﾌﾞｯｼｭ16φ	1	FED
12	4128 - 8	DRIVEN BELT ROLLER	従動ﾍﾞﾙﾄﾛｰﾗｰ	1	FED
13	4128 - 9	BELT	ﾍﾞﾙﾄ	2	FED
14	4128 -10A	SENSOR FIXING PLATE	ｾﾝｻｰ取付板	1	FED
15	4128 -11	GUIDE PLATE A	ｶﾞｲﾄﾞ板A	4	FED
16	4128 -12	GUIDE PLATE B	ｶﾞｲﾄﾞ板B	2	FED
17	4128 -13	GUIDE PLATE C	ｶﾞｲﾄﾞ板C	1	FED
18	4628-9	GEAR HERICAL 20T RH	20Tはすば歯車（右）	1	FED
19	6049	OILLESS BEARING φ6	軸受(φ6)	5	FED
20	6908201099	SCREW.BINDING HD M4x6	M4x6ﾊﾞｲﾝﾄﾞﾆｸﾛ	13	FED
21	6807012308	RETAINING RING.E-TYPE #5	Eﾘﾝｸﾞ#5	5	FED
22	6817036032	PARALLEL PIN. φ2x14	φ2x14平行ﾋﾟﾝ	1	FED

Roll Paper Spool Assy

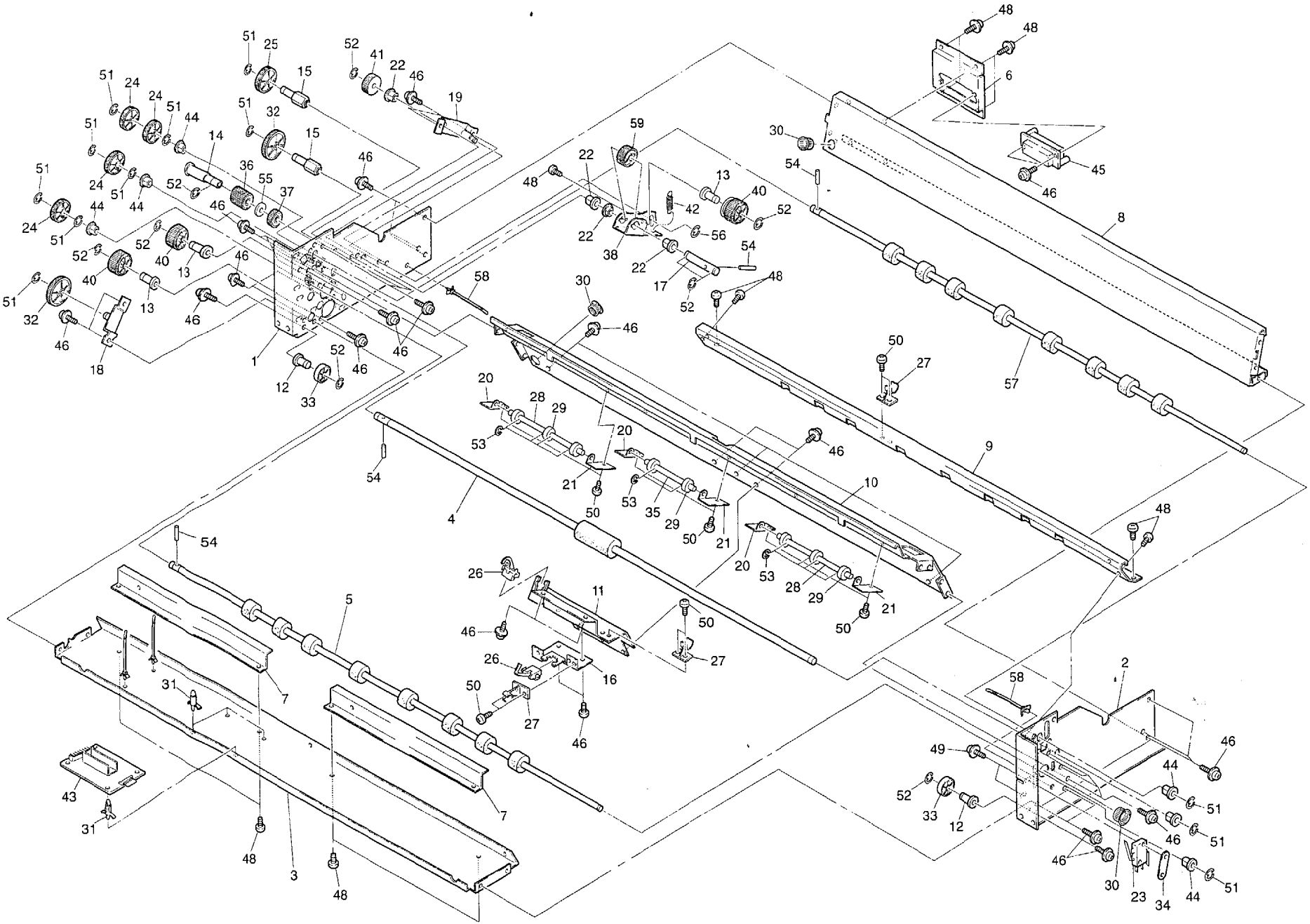
4631-0　ロールペーパースプール組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4631 - 0	ROLL PAPER SPOOL ASSY	ロールﾍﾟｰﾊﾟｰｽﾌﾟｰﾙ組立	1	SPOL
1	4631 - 1	FRAME SPOOL	ﾎﾙﾀﾞｰ	1	SPOL
2	4631 - 2	ROD PULL	ｽﾗｲﾄﾞ板	1	SPOL
3	4631 - 3	SHAFT SPOOL A	ﾎﾙﾀﾞｰ軸A	1	SPOL
4	4631 - 4	SHAFT SPOOL B	ﾎﾙﾀﾞｰ軸B	1	SPOL
5	4631 - 5	PLATE NUT	ﾅｯﾄ板	1	SPOL
6	4631 - 6	STOPPER	ｽﾄｯﾊﾟｰ	1	SPOL
7	4631 - 7	THUMB BOLT	ﾂﾏﾐﾎﾞﾙﾄ	1	SPOL
8	4631 - 8	PIN LEVER	ﾚﾊﾞｰﾋﾟﾝ	1	SPOL
9	4631 - 9	PIN SLIDE	ｽﾗｲﾄﾞﾋﾟﾝ	2	SPOL
10	4631 -10	LABEL(DIN)	ｻｲｽﾞﾗﾍﾞﾙ(DIN)	1	SPOL
11	4631 -11	LABEL(US)	ｻｲｽﾞﾗﾍﾞﾙ(US)	1	SPOL
12	1731 - 6D	COLLAR	ｶﾗｰ	1	SPOL
13	4131 -10A	SLIDE PLATE SPRING	ｽﾗｲﾄﾞ板ｽﾌﾟﾘﾝｸﾞ	1	SPOL
14	4131 -13B	SLIDE WASHER	ｽﾗｲﾄﾞﾜｯｼｬｰ	2	SPOL
15	4131 -14A	THRUST SPRING	ｽﾗｽﾄﾊﾞﾈ	1	SPOL
16	6004	OILLESS BEARING	ｵｲﾚｽﾍﾞｱﾘﾝｸﾞ	2	SPOL
17	6116	WASHER-SPECIAL	特殊ﾜｯｼｬｰ	1	SPOL
18	4631A- 1	SPRING	ﾌﾘｸｼｮﾝｽﾌﾟﾘﾝｸﾞ	1	SPOL
19	4131A- 1	FRICTION GEAR	ﾌﾘｸｼｮﾝｷﾞｱ	1	SPOL
20	4131A- 2	COLLAR SHAFT	ｶﾗｰｼｬﾌﾄ	1	SPOL
21	4131A- 3	FRICTION BASE	ﾌﾘｸｼｮﾝﾍﾞｰｽ	1	SPOL
22	4131A- 4	SPRING BASE	ｽﾌﾟﾘﾝｸﾞﾍﾞｰｽ	1	SPOL
23	4131A- 6	FRICTION FELT	ﾌﾘｸｼｮﾝﾌｪﾙﾄ	1	SPOL
24	4131A- 7	SUB FRICTION FELT	ｻﾌﾞﾌﾘｸｼｮﾝﾌｪﾙﾄ	1	SPOL
25	4631B- 0	PLATE STOPPER	ﾛｰﾙｽﾄｯﾊﾟｰ	1	SPOL
26	4631C- 0	LEVER	ﾚﾊﾞｰ	1	SPOL
27	6908201099	SCREW.BINDING HD.M4x6	M4x6ﾊﾞｲﾝﾄﾞﾆｸﾛ	6	SPOL
28	6941421509	SCREW.SET M4x6	M4x6ｾｯﾄｽｸﾘｭｳ	1	SPOL
29	6827014360	RETAINING.RING S-TYPE #8	丸S形止め輪#8	2	SPOL
30	6807012306	RETAINING.RING E-TYPE #3	Eﾘﾝｸﾞ#3	6	SPOL

Paper Feeder (A) Assy Part 1

4633-0-300 上段給紙組立

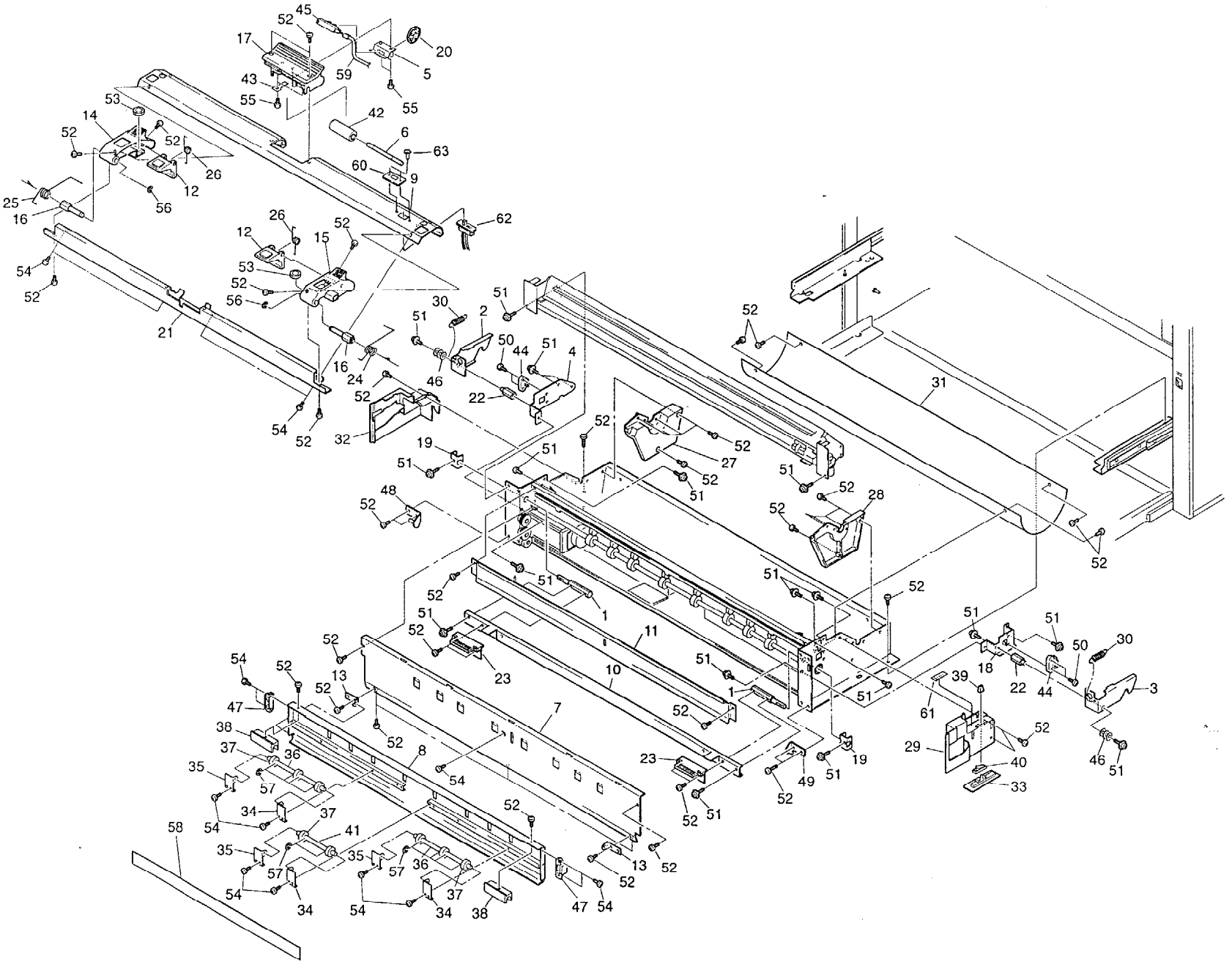


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4633 - 0-300	PAPER FEEDER(A) ASSY(SC)	上段給紙組立(SC)	1	PFE-U P-1	
1	4633 - 1	SIDE PLATE PF(A)	給紙側板(A)	1	PFE-U P-1	
2	4633 - 2	SIDE PLATE PF(B)	給紙側板(B)	1	PFE-U P-1	
3	4633 - 3	BEAM B	ﾋﾞｰﾑB	1	PFE-U P-1	
4	4633 - 6	ROLLER FEED(1)	ﾌｨｰﾄﾞﾛｰﾗｰ(1)	1	PFE-U P-1	
5	4633 - 7	ROLLER FEED	ﾌｨｰﾄﾞﾛｰﾗｰ(中間)	1	PFE-U P-1	
6	4633 -14	PLATE CONNECTOR A	ｺﾈｸﾀｰ取付板(上)	1	PFE-U P-1	
7	4633 -20	COVER HARNESS	ﾊｰﾈｽｶﾊﾞｰ	2	PFE-U P-1	
8	4633 -27	BEAM D	ﾋﾞｰﾑ(D)	1	PFE-U P-1	
9	4633 -31	PLATE GUIDE(3)	ｶﾞｲﾄﾞ板(3)	1	PFE-U P-1	
10	4633 -35	PLATE GUIDE(2)	ｶﾞｲﾄﾞ板(2)	1	PFE-U P-1	
11	4633 -40	BASE SENSOR(1)	ｾﾝｻｰﾍﾞｰｽ(1)	1	PFE-U P-1	
12	4633 -48	STUD	ﾛｰﾗｰ軸	2	PFE-U P-1	
13	4633 -51	STUD	ﾋﾟｯﾁ円ｷﾞｱ軸	3	PFE-U P-1	*
14	4633 -58	PIN GEAR	20Tﾀﾞﾌﾞﾙｷﾞｱ軸	1	PFE-U P-1	
15	4633 -59	STUD IDLER	ｱｲﾄﾞﾗｰｷﾞｱ軸	2	PFE-U P-1	
16	4633 -61	BRACKET SENSOR	ｾﾝｻｰﾍﾞｰｽ(2)	1	PFE-U P-1	
17	4633 -74	SHAFT DRIVE	駆動連結軸	1	PFE-U P-1	
18	4633D- 0	PLATE SHAFT	50Tｷﾞｱ軸	1	PFE-U P-1	
19	4633F- 0	BASE DRIVE	駆動座板	1	PFE-U P-1	
20	4613 -19	TENSIONER ROLL A	軸押えﾊﾞﾈ(A)	3	PFE-U P-1	
21	4613 -20	TENSIONER ROLL B	軸押えﾊﾞﾈ(B)	3	PFE-U P-1	
22	1712 -57	BEARING, PA(φ6)	PA軸受(φ6)	4	PFE-U P-1	
23	3124	MICRO SWITCH V-162-1C25	ﾏｲｸﾛｽｲｯﾁ(V-162-1C25)	1	PFE-U P-1	
24	3611 -14B	GEAR(30TOOTH), DIA. 8	30Tｷﾞｱ(φ8)	4	PFE-U P-1	
25	3611 -21D	GEAR SHAFT	ｽﾊﾟｰｷﾞｱ(4008)	1	PFE-U P-1	
26	3611C- 0A	INP. SENSOR ASSY	INPｾﾝｻｰ組立	2	PFE-U P-1	
27	3612 - 9C	BEARING	軸受	3	PFE-U P-1	
28	3635 -19A	FEEDING ROLLER, SHAFT B	送りｺﾛ軸B	2	PFE-U P-1	
29	3635 -20C	FEEDING ROLLER	送りｺﾛ	8	PFE-U P-1	
30	39520	ONE TOUCH BUSH	ｵｰﾌﾟﾝｸﾛｰｽﾞﾄﾌﾞｯｼﾝｸﾞ	3	PFE-U P-1	
31	3998	LOCKING CB SUPPORT	ﾛｯｷﾝｸﾞCBｻﾎﾟｰﾄ	4	PFE-U P-1	
32	4112 -66B	50T SPUR GEAR	50枚平歯車	2	PFE-U P-1	
33	4112 -87B	ROLLER	ﾛｰﾗｰ	2	PFE-U P-1	
34	4112D- 3	PLATE NUT	ﾅｯﾄ板M3	1	PFE-U P-1	
35	4113 - 7	INSIDE DRIVEN SHAFT	従動ｺﾛ軸 (中)	1	PFE-U P-1	
36	4125 -20B	20T SPUR GEAR	２０枚平歯車	1	PFE-U P-1	
37	4128 -14B	20T SPUR GEAR φ6	２０枚平歯車 (φ6)	1	PFE-U P-1	*

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
38	4133 -31	DRIVE COUPLING BRACKET	駆動連結ﾌﾞﾗｹｯﾄ	1	PFE-U P-1	
39					PFE-U P-1	*
40	4133 -34B	30T PITCH CIRCLE GEAR	30Tﾋﾟｯﾁ円ｷﾞｱ	3	PFE-U P-1	
41	4133 -37	ONE-WAY 20T GEAR	ﾜﾝｳｪｲ20枚歯車	1	PFE-U P-1	
42	4133 -38	COUPLING SPRING	連結用ﾊﾞﾈ	1	PFE-U P-1	
43	49515	MOTOR DRIVER SPD-001B	ﾓｰﾀｰﾄﾞﾗｲﾊﾞｰ SPD-001B	1	PFE-U P-1	
44	6039B	BEARING PA(φ8)	PA軸受(φ8)	6	PFE-U P-1	
45	4659C-0-300	PH HARNESS ASSY(1)	給紙ﾊｰﾈｽ組立(1)	1	PFE-U P-1	
46	6916203100	SCREW POLYWAVE M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	42	PFE-U P-1	
47	6908201100	SCREW BINDING HD.M4x8	M4×8 ﾊﾞｲﾝﾄﾞﾆｸﾛ	8	PFE-U P-1	
48	6908201099	SCREW BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	13	PFE-U P-1	
49	6915203081	SCREW PAN HD.SW/FW M3x16	M3×16 ﾅﾍﾞ3点	2	PFE-U P-1	
50	6908205076	SCREW.BINDING HD.BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	16	PFE-U P-1	
51	6807012310	RETAINING RING E-TYPE #7	Eﾘﾝｸﾞ#7	12	PFE-U P-1	
52	6807012308	RETAINING RING E-TYPE #5	Eﾘﾝｸﾞ#5	7	PFE-U P-1	
53	6807012307	RETAINING RING E-TYPE #4	Eﾘﾝｸﾞ#4	10	PFE-U P-1	
54	6817036032	PARALLEL PIN. φ2x14	φ2×14 平行ﾋﾟﾝ	4	PFE-U P-1	
55	6803015236	FLAT WASHER M8	M8 平座金	1	PFE-U P-1	
56	6807012306	RETAINING RING E-TYPE #3	Eﾘﾝｸﾞ#3	1	PFE-U P-1	
57	4612 -61	ROLLER MAIN	ﾒｲﾝﾛｰﾗｰ	1	PFE-U P-1	
58	39316B	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	6	PFE-U P-1	
59	4633-83	20T SPUR GEAR φ6(BOSS)	20T枚平歯車φ6(ﾎﾞｽ付)	1	PFE-U P-1	*

Paper Feeder (A) Assy Part 2

4633-0-300　上段給紙組立

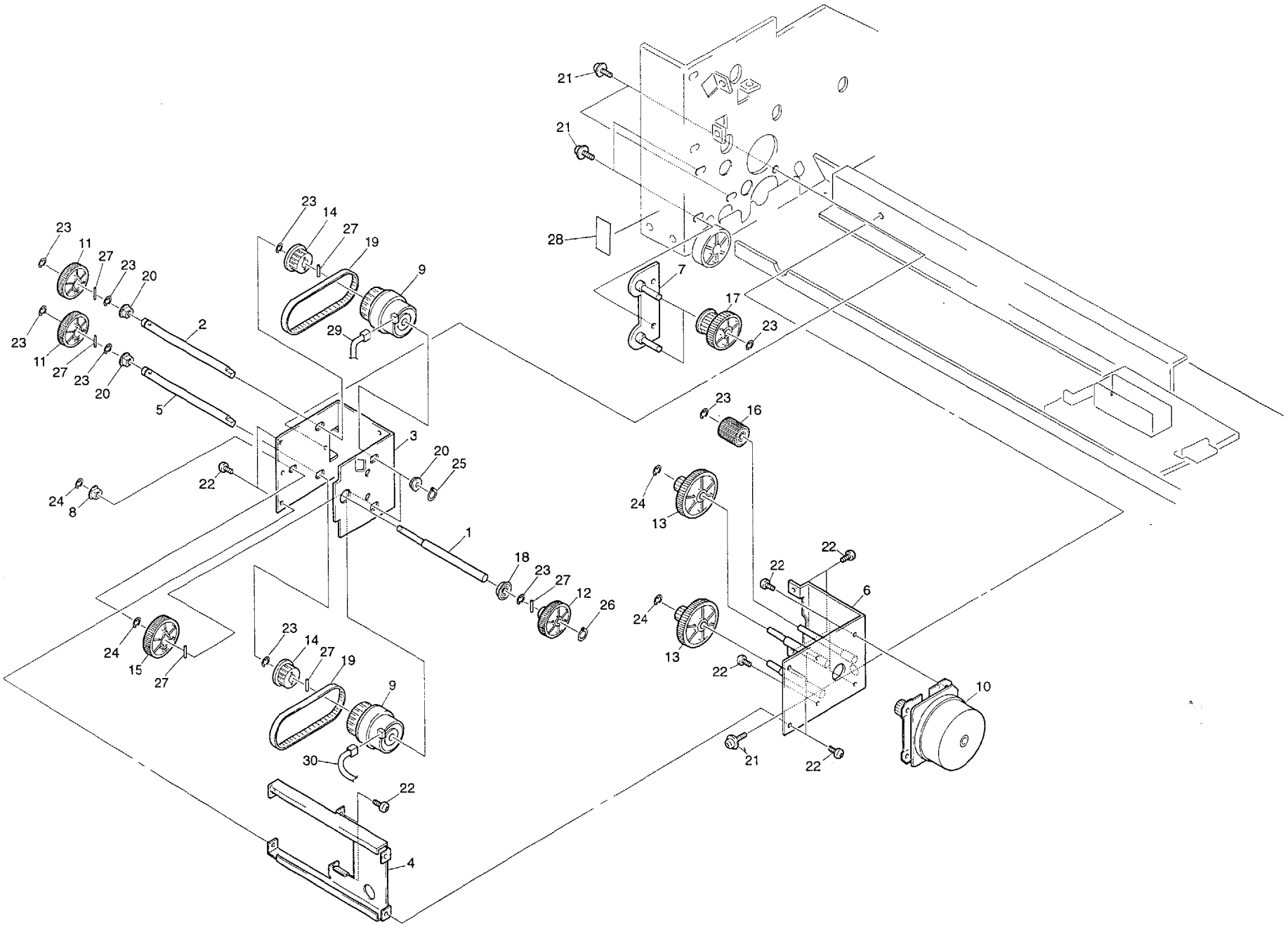


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4633 - 0-300	PAPER FEEDER(A) ASSY(SC)	上段給紙組立(SC)	1	PFE-U P-2
1	4633 -13	SHAFT HANDLE	取手軸	2	PFE-U P-2
2	4633 -22	HOOK A	ﾛｯｸﾌﾟﾚｰﾄA	1	PFE-U P-2
3	4633 -23	HOOK B	ﾛｯｸﾌﾟﾚｰﾄB	1	PFE-U P-2
4	4633 -24	BASE PLATE A	台座(A)	1	PFE-U P-2
5	4633 -25	PUSHER ENCODER	ｴﾝｺｰﾀﾞｰ受け	1	PFE-U P-2
6	4633 -26	SHAFT TENSIONER	ﾃﾝｼｮﾝﾌﾟｰﾘ軸	1	PFE-U P-2
7	4633 -32	PLATE GUIDE(5)	ｶﾞｲﾄﾞ板(5)	1	PFE-U P-2
8	4633 -33	PLATE GUIDE(6)	ｶﾞｲﾄﾞ板(6)	1	PFE-U P-2
9	4633 -34-300	COVER GUIDE(1)(SC)	第1ｶﾞｲﾄﾞ(上ｶﾊﾞｰ)(SC)	1	PFE-U P-2
10	4633 -36	BAR HANDLE	取手ﾌﾞﾗｹｯﾄ	1	PFE-U P-2
11	4633 -38	PLATE GUIDE(7)	ｶﾞｲﾄﾞ板(7)	1	PFE-U P-2
12	4633 -39	HOOK	ﾋﾟｯｸｱｯﾌﾟﾛｯｸ	2	PFE-U P-2
13	4633 -41	SUPPORT GUIDE	ｶﾞｲﾄﾞ板(6)支持板	2	PFE-U P-2
14	4633 -42	BLOCK LH	ｶﾞｲﾄﾞ板(1)ﾎﾙﾀﾞｰ(A)	1	PFE-U P-2
15	4633 -43	BLOCK RH	ｶﾞｲﾄﾞ板(1)ﾎﾙﾀﾞｰ(B)	1	PFE-U P-2
16	4633 -47	PIN GUIDE	ｶﾞｲﾄﾞ板(1)支持軸	2	PFE-U P-2
17	4633 -50	BLOCK CENTER	ｴﾝｺｰﾀﾞｰｹｰｽ	1	PFE-U P-2
18	4633 -52	BASE PLATE(B)	台座(B)	1	PFE-U P-2
19	4633 -53	PLATE CAM	ﾛｯｸｶﾑ	2	PFE U P-2
20	4633 -54	WHEEL ENCODER	ｴﾝｺｰﾀﾞｰ	1	PFE-U P-2
21	4633 -55	PLATE GUIDE(1)	ｶﾞｲﾄﾞ板(1)	1	PFE-U P-2
22	4633 -60	STUD LOCK(A)	ﾛｯｸﾌﾟﾚｰﾄ支点A	2	PFE-U P-2
23	4633 -65	LEVER	取手内ﾚﾊﾞｰ	2	PFE-U P-2
24	4633 -66	SPRING RH	開閉ﾊﾞﾈ(右)	1	PFE-U P-2
25	4633 -67	SPRING LH	開閉ﾊﾞﾈ(左)	1	PFE-U P-2
26	4633 -68	SPRING LOCK	ﾛｯｸ用ﾊﾞﾈ	2	PFE-U P-2
27	4633 -69	COVER ROLL(A)	内ｶﾊﾞｰ(A)	1	PFE-U P-2
28	4633 -70	COVER ROLL(B)	内ｶﾊﾞｰ(B)	1	PFE-U P-2
29	4633 -71	COVER OUTSIDE(B)	外ｶﾊﾞｰ(B)	1	PFE-U P-2
30	4633 -72	SPRING	ﾛｯｸ解除ﾊﾞﾈ	2	PFE-U P-2
31	4633 -73	SHEET MYLAR	ﾍﾟｰﾊﾟｰｷｬｯﾁ	1	PFE-U P-2
32	4633 -76	COVER OUTSIDE(A)	外ｶﾊﾞｰ(A)	1	PFE-U P-2
33	4633P- 0	SIZE SELECTOR PCB ASSY	ｻｲｽﾞｾﾚｸﾀｰ基板組立	1	PFE-U P-2
34	4613 -19	TENSIONER ROLL A	軸押えﾊﾞﾈ(A)	3	PFE-U P-2
35	4613 -20	TENSIONER ROLL B	軸押えﾊﾞﾈ(B)	3	PFE-U P-2
36	3635 -19A	FEEDING ROLLER, SHAFT B	送りｺﾛ軸B	2	PFE-U P-2
37	3635 -20C	FEEDING ROLLER	送りｺﾛ	8	PFE-U P-2

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
38	3638 -14	KNOB	把手	2	PFE-U P-2
39	4112Q- 2	KNOB SELECTOR	ｾﾚｸﾀｰﾉﾌﾞ	1	PFE-U P-2
40	4112Q- 3B	SPRING CLICK	ｸﾘｯｶｰ	1	PFE-U P-2
41	4113 - 7	INSIDE DRIVEN SHAFT	従動ｺﾛ軸(中)	1	PFE-U P-2
42	4133 -12B	TENSION PULLEY A	ﾃﾝｼｮﾝﾌﾟｰﾘA	1	PFE-U P-2
43	4133 -13	BEARING SPRING A	軸受ﾊﾞﾈA	2	PFE-U P-2
44	4133 -22	LOCK SHAFT RECEIVER	ﾛｯｸｼｬﾌﾄ受	2	PFE-U P-2
45	49193	PHOTO INTERRUPT	ﾎﾄｲﾝﾀﾗﾌﾟﾀGPIA22HR	1	PFE-U P-2
46	6106	WASHER-SPECIAL	特殊ﾜｯｼｬｰ	6	PFE-U P-2
47	7068	MAGNET CATCH	ﾏｸﾞﾈｯﾄｷｬｯﾁ	2	PFE-U P-2
48	4642D- 0	SUPPORT COVER(A)	ｶﾊﾞｰﾋﾟﾝA	1	PFE-U P-2
49	4642E- 0	SUPPORT COVER(B)	ｶﾊﾞｰﾋﾟﾝB	1	PFE-U P-2
50	6902203104	SCREW.PAN HD.M4x16	M4×16 ﾅﾍﾞｸﾛﾒｰﾄ	4	PFE U P 2
51	6916203100	SCREW.POLYWAVE M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	18	PFE-U P-2
52	6908201099	SCREW.BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾕﾆｸﾛ	44	PFE-U P-2
53	6801011245	PRESS NUT.M4	M4 圧入ﾅｯﾄ	2	PFE-U P-2
54	6908205076	SCREW.BINDING HD.BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	15	PFE-U P-2
55	6923212076	TAP.SCREW.BINDING HD 3x6	3×6 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	4	PFE-U P-2
56	6807012310	RETAINING RING E-TYPE #7	Eﾘﾝｸﾞ#7	2	PFE-U P-2
57	6807012307	RETAINING RING E-TYPE #4	Eﾘﾝｸﾞ#4	10	PFE-U P-2
58	4633-80	SHEET GUARD	ｶﾞｰﾄﾞﾏｲﾗｰ	1	PFE-U P-2
59	4659E-0-300	PH HARNESS ASSY(3)(SC)	給紙ﾊｰﾈｽ組立(3)(SC)	1	PFE-U P-2
60	4633-81-300	SWITCH PLATE	ｽｲｯﾁﾌﾟﾚｰﾄ(SC)	1	PFE-U P-2
61	4633-82-300	SIZE SELECTOR PLATE	ｻｲｽﾞｾﾚｸﾀｰ表示	1	PFE-U P-2
62	4633Q-0-300	PH SWITCH ASSY	給紙ｽｲｯﾁ組立	1	PFE-U P-2
63	6908202076	SCREW.BINDING.HD.Ni M3x6	M3x6ﾊﾞｲﾝﾄﾞﾆｯｹﾙ	2	PFE-U P-2

Paper Feeder (A) Assy Part 3

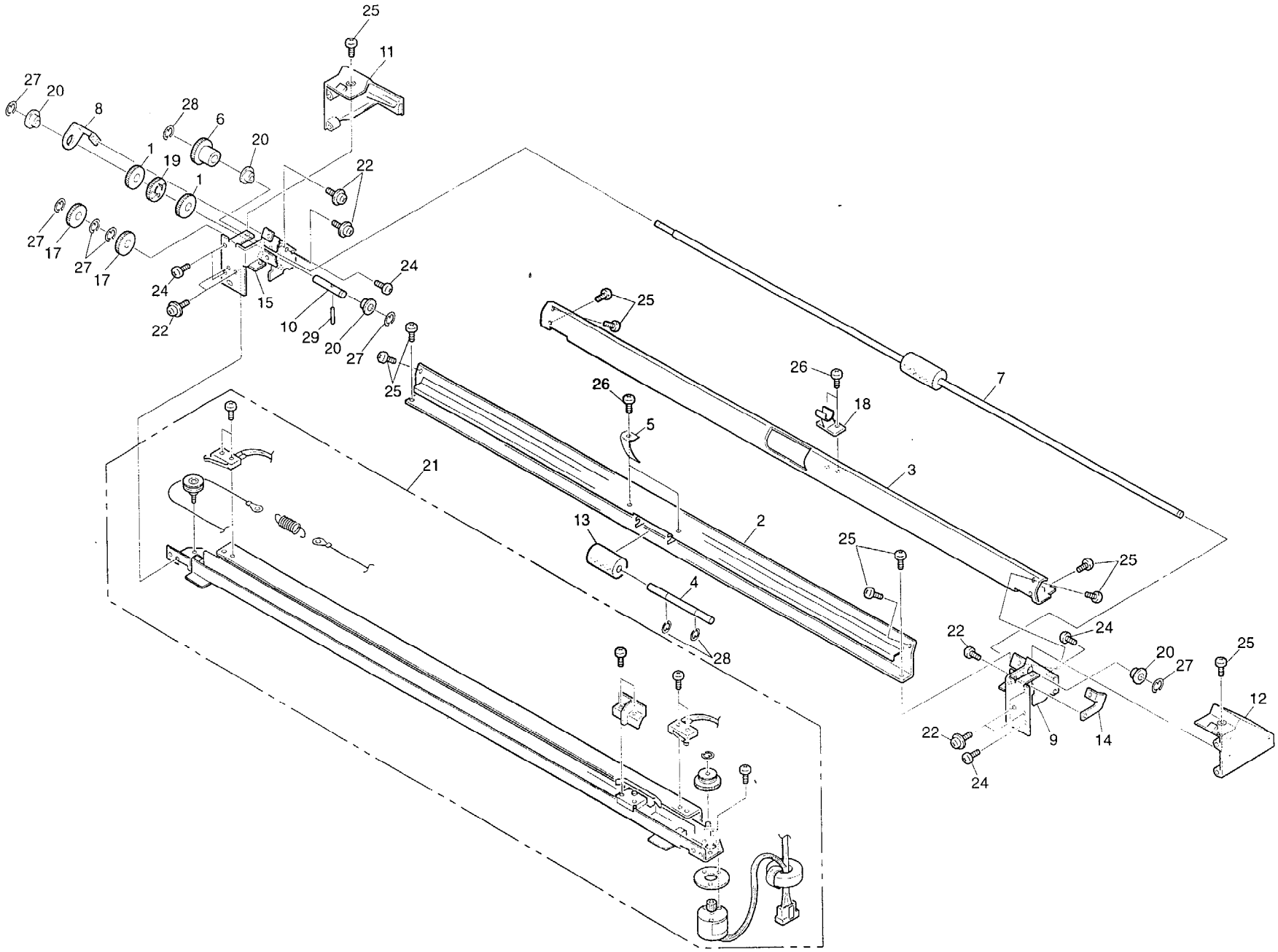
4633-0-300　上段給紙組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4633 - 0-300	PAPER FEEDER(A) ASSY(SC)	上段給紙組立(SC)	1	PFE-U P-3
1	4633 - 4	SHAFT	連結軸	1	PFE-U P-3
2	4633 - 5	SHAFT CLUTCH	ｸﾗｯﾁ軸(1)	1	PFE-U P-3
3	4633 -37	CASE CLUTCH	ｸﾗｯﾁｹｰｽ	1	PFE-U P-3
4	4633 -56	PLATE SUPPORT	ｸﾗｯﾁ補強板	1	PFE-U P-3
5	4633 -57	SHAFT CLUTCH	ｸﾗｯﾁ軸(2)	1	PFE-U P-3
6	4633A- 0	CASE MOTOR	ﾓｰﾀｰﾌﾞﾗｹｯﾄ	1	PFE-U P-3
7	4633C- 0	BRACKET KNOB	ﾉﾌﾞﾌﾞﾗｹｯﾄ	1	PFE-U P-3
8	1712 -57	BEARING, PA(φ6)	PA軸受(φ6)	1	PFE-U P-3
9	3341	MICRO CLUTCH MIC8	ﾏｲｸﾛｸﾗｯﾁMIC8	2	PFE-U P-3
10	35244	DC BRUSHLESS MOTOR	DCﾌﾞﾗｼﾚｽﾓｰﾀｰ	1	PFE-U P-3
11	3611 -14B	GEAR(30TOOTH), DIA. 8	30Tｷﾞｱ(φ8)	2	PFE-U P-3
12	3626 -24	GEAR. 30T	30枚平歯車	1	PFE-U P-3
13	4112C- 3B	12-45 DOUBLE GEAR	12-45ﾀﾞﾌﾞﾙｷﾞｱ	2	PFE-U P-3
14	4113 -17	33T PULLEY S2M	33Tﾌﾟｰﾘ(S2M)	2	PFE-U P-3
15	4125 -19	36T SPUR GEAR	36枚平歯車	1	PFE-U P-3
16	4125 -20B	20T SPUR GEAR	20枚平歯車	1	PFE-U P-3
17	4133 -24B	PAPER FEED KNOB	紙送りﾉﾌﾞ	2	PFE-U P-3
18	5177	BALL REARING	ﾍﾞｱﾘﾝｸﾞ	1	PFE-U P-3
19	5243	TIMING BELT	ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ40S2M224G	2	PFE-U P-3
20	6039B	BEARING PA(φ8)	PA軸受(φ8)	4	PFE-U P-3
21	6916203100	SCREW. POLYWAVE M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	5	PFE-U P-3
22	6908201099	SCREW. BINDING. HD M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	13	PFE-U P-3
23	6807012310	RETAINING RING. E-TYPE #7	Eﾘﾝｸﾞ#7	9	PFE-U P-3
24	6807012308	RETAINING RING. E-TYPE #5	Eﾘﾝｸﾞ#5	3	PFE-U P-3
25	6813014311	RETAINING RING. C-TYPE #8	Cﾘﾝｸﾞ#8	2	PFE-U P-3
26	6824014360	GRIP RING #8	Gｸﾞﾘｯﾌﾟ#8	1	PFE-U P-3
27	6817036032	PARALLEL PIN φ2x14	φ2×14 平行ﾋﾟﾝ	6	PFE-U P-3
28	4633-79	LABEL ROLL KNOB	ﾛｰﾙﾉﾌﾞﾗﾍﾞﾙ	1	PFE-U P-3
29	4659L-0	CLUTCH HARNESS ASSY(1)	ｸﾗｯﾁﾊｰﾈｽ組立(1)	1	PFE-U P-3
30	4659M-0	CLUTCH HARNESS ASSY(2)	ｸﾗｯﾁﾊｰﾈｽ組立(2)	1	PFE-U P-3

Paper Feeder (A) Assy Part 4

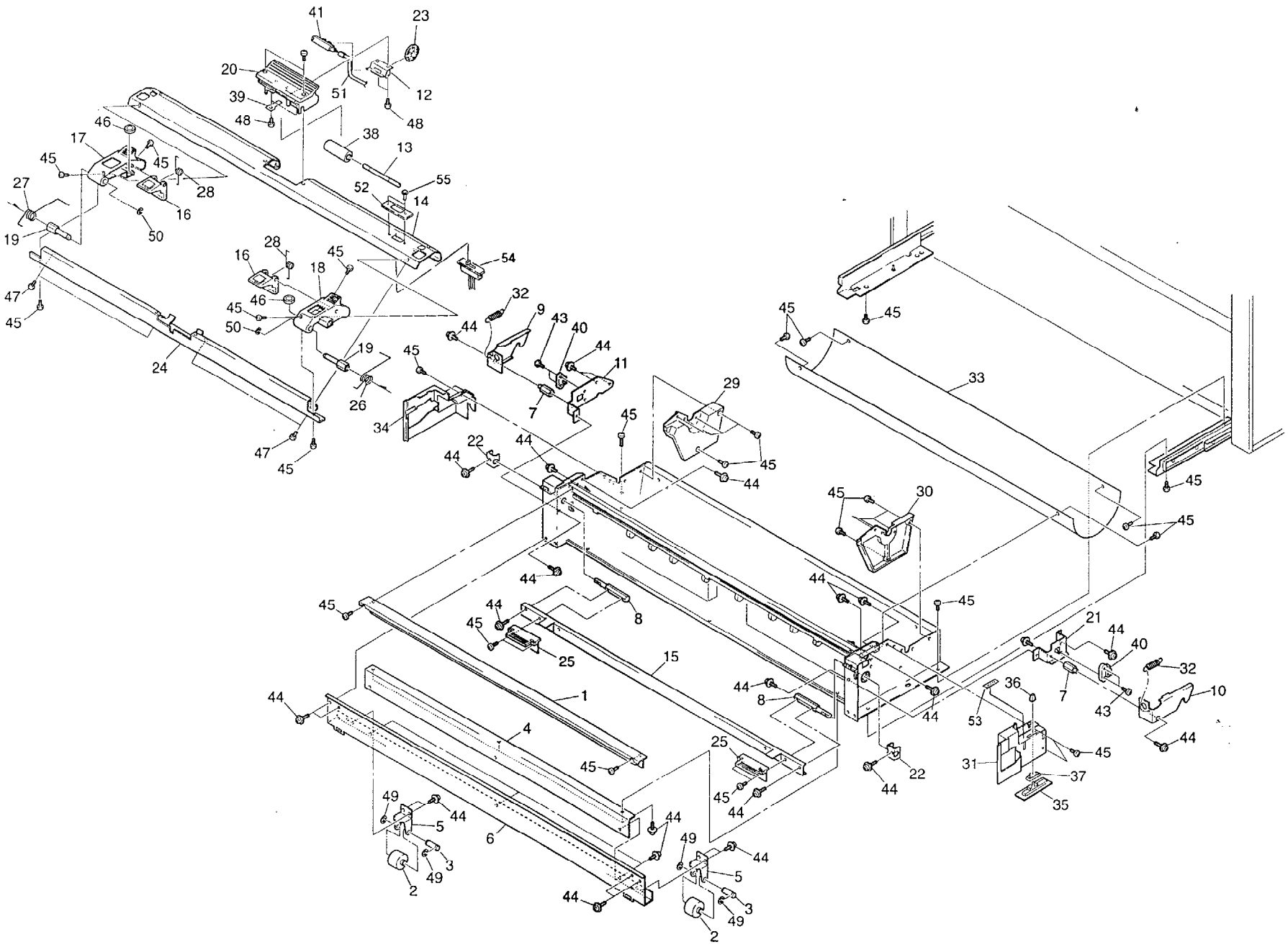
4633-0-300　上段給紙組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4633 - 0-300	PAPER FEEDER(A) ASSY(SC)	上段給紙組立(SC)	1	PFE-U P-4
1	4633 - 8	GEAR 30T ONEWAY	ﾜﾝｳｪｲ30T	2	PFE-U P-4
2	4633 -18	PLATE GUIDE(9)	ｶﾞｲﾄﾞ板(9)	1	PFE-U P-4
3	4633 -19	PLATE GUIDE(8)	ｶﾞｲﾄﾞ板(8)	1	PFE-U P-4
4	4633 -26	SHAFT TENSIONER	ﾃﾝｼｮﾝﾌﾟｰﾘ軸	1	PFE-U P-4
5	4633 -28	PLATE PRESSURE	出口ﾛｰﾗｰﾊﾞﾈ	2	PFE-U P-4
6	4633 -29	TORQUE LIMITTER	30Tﾄﾙｸﾘﾐｯﾀｰ	1	PFE-U P-4
7	4633 -30	ROLLER FEED(2)	ﾌｨｰﾄﾞﾛｰﾗｰ(2)	1	PFE-U P-4
8	4633 -45	MOUNT GEAR	ﾄﾘﾌﾟﾙｷﾞｱ支持板	1	PFE-U P-4
9	4633 -46	BRACKET CUTTER(B)	ｶｯﾀｰ取付板(B)	1	PFE-U P-4
10	4633 -49	SHAFT	ﾜﾝｳｪｲ軸	1	PFE-U P-4
11	4633 -63	COVER(A)	ｶｯﾀｰｶﾊﾞｰ(A)	1	PFE-U P-4
12	4633 -64	COVER(B)	ｶｯﾀｰｶﾊﾞｰ(B)	1	PFE-U P-4
13	4633 -77	TENTION PULLY(EXIT)	出口押えﾌﾟｰﾘｰ	1	PFE-U P-4
14	4633 -78	BRACKET GUIDE	ｶﾞｲﾄﾞ調整板	1	PFE-U P-4
15	4633B- 0	BRACKET CUTTER(A)	ｶｯﾀｰ取付板(A)	1	PFE-U P-4
16					PFE-U P-4
17	3611 -14B	GEAR(30TOOTH), DIA. 8	30Tｷﾞｱ(φ8)	2	PFE-U P-4
18	3612 - 9C	BEARING	軸受	1	PFE-U P-4
19	4112B- 5B	32T SPUR GEAR	32枚平歯車	1	PFE-U P-4
20	6039B	BEARING PA(φ8)	PA軸受(φ8)	4	PFE-U P-4
21	7078	CUTTER(A0)	ｶｯﾀｰ(A0)	1	PFE-U P-4
22					PFE-U P-4
23	6908201100	SCREW. BINDING HD. M4x8	M4×8 ﾊﾞｲﾝﾄﾞﾆｸﾛ	2	PFE-U P-4
24	6923212100	TAP. SCREW. BINDING HD 4x8	4×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	6	PFE-U P-4
25	6908201099	SCREW. BINDING HD M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	10	PFE-U P-4
26	6908205076	SCREW. BINDING HD. BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	4	PFE-U P-4
27	6807012310	RETAINIG RING E-TYPE #7	Eﾘﾝｸﾞ#7	6	PFE-U P-4
28	6807012308	RETAINIG RING E-TYPE #5	Eﾘﾝｸﾞ#5	3	PFE-U P-4
29	6817036032	PARALLEL PIN 2φx14	φ2×14 平行ﾋﾟﾝ	1	PFE-U P-4

Paper Feeder (B) Assy Part 1

4634-0-300　下段給紙組立

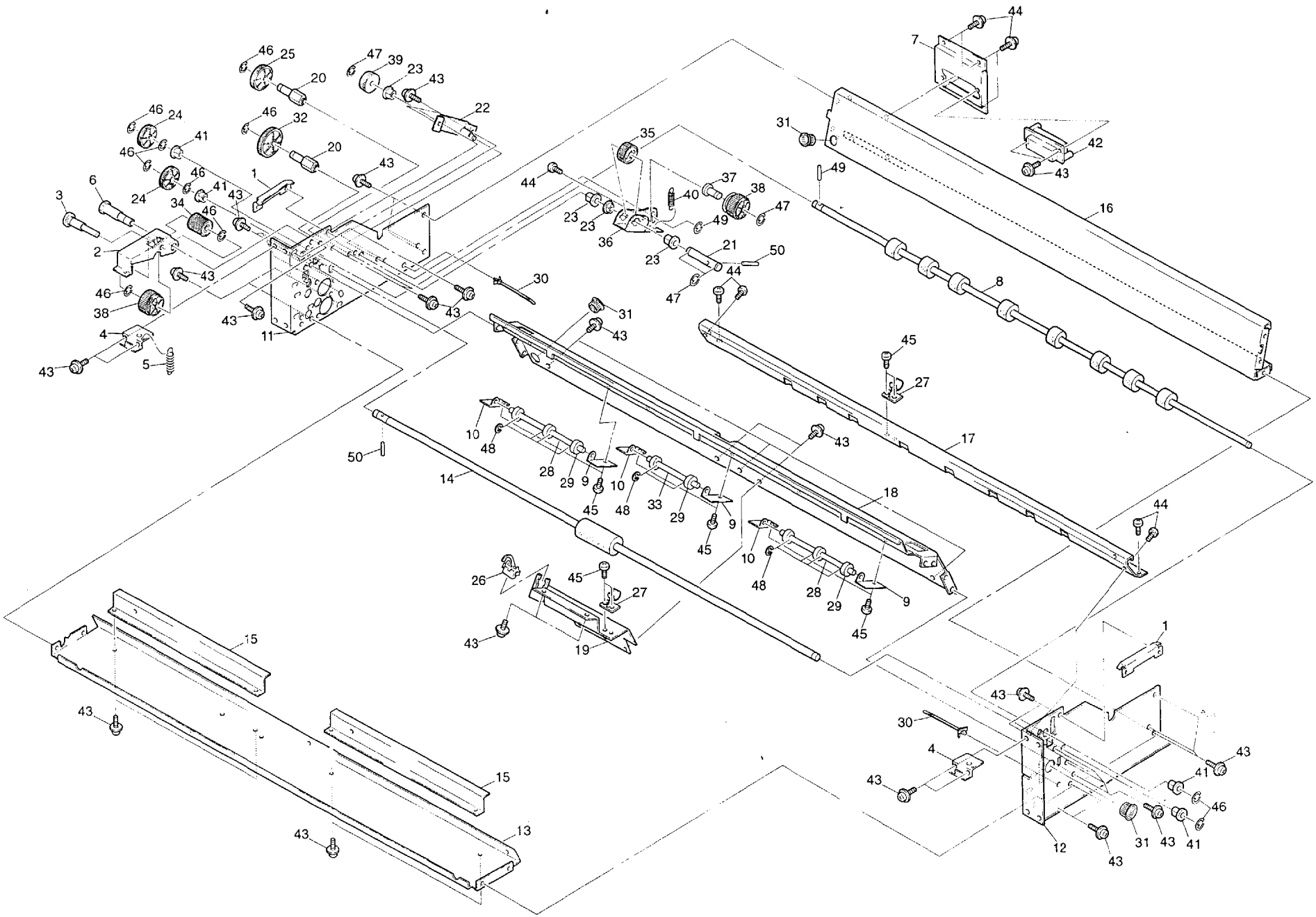


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4634 - 0-300	PAPER FEEDER(B) ASSY(SC)	下段給紙組立(SC)	1	PFE-L P-1
1	4634 - 1	PLATE GUIDE(4)	ｶﾞｲﾄﾞ板(4)	1	PFE-L P-1
2	4634 - 7	CASTER	車輪	2	PFE-L P-1
3	4634 - 9	SHAFT	車輪軸	2	PFE-L P-1
4	4634 -10	BEAM	ﾌﾛﾝﾄﾋﾞｰﾑ(後)	1	PFE-L P-1
5	4634 -11	FRAME CASTER	車輪ﾌﾞﾗｹｯﾄ	2	PFE-L P-1
6	4634 -12	BEAM F	ﾌﾛﾝﾄﾋﾞｰﾑ(前)	1	PFE-L P-1
7	4634 -14	STUD LOCK(B)	ﾛｯｸﾌﾟﾚｰﾄ支点B	2	PFE-L P-1
8	4633 -13	SHAFT HANDLE	取手軸	2	PFE-L P-1
9	4633 -22	HOOK A	ﾛｯｸﾌﾟﾚｰﾄA	1	PFE-L P-1
10	4633 -23	HOOK B	ﾛｯｸﾌﾟﾚｰﾄB	1	PFE-L P-1
11	4633 -24	BASE PLATE A	台座(A)	1	PFE-L P-1
12	4633 -25	PUSHER ENCODER	ｴﾝｺｰﾀﾞｰ受け	1	PFE-L P-1
13	4633 -26	SHAFT TENSIONER	ﾃﾝｼｮﾝﾌﾟｰﾘ軸	1	PFE-L P-1
14	4633 -34-300	COVER GUIDE(1)(SC)	第1ｶﾞｲﾄﾞ(上ｶﾊﾞｰ)(SC)	1	PFE-L P-1
15	4633 -36	BAR HANDLE	取手ﾌﾞﾗｹｯﾄ	1	PFE-L P-1
16	4633 -39	HOOK	ﾋﾟｯｸｱｯﾌﾟﾛｯｸ	2	PFE-L P-1
17	4633 -42	BLOCK LH	ｶﾞｲﾄﾞ板(1)ﾎﾙﾀﾞｰ(A)	1	PFE-L P-1
18	4633 -43	BLOCK RH	ｶﾞｲﾄﾞ板(1)ﾎﾙﾀﾞｰ(B)	1	PFE-L P-1
19	4633 -47	PIN GUIDE	ｶﾞｲﾄﾞ板(1)支持軸	2	PFE-L P-1
20	4633 -50	BLOCK CENTER	ｴﾝｺｰﾀﾞｰｹｰｽ	1	PFE-L P-1
21	4633 -52	BASE PLATE(B)	台座(B)	1	PFE-L P-1
22	4633 -53	PLATE CAM	ﾛｯｸｶﾑ	2	PFE-L P-1
23	4633 -54	WHEEL ENCODER	ｴﾝｺｰﾀﾞｰ	1	PFE-L P-1
24	4633 -55	PLATE GUIDE(1)	ｶﾞｲﾄﾞ板(1)	1	PFE-L P-1
25	4633 -65	LEVER	取手内ﾚﾊﾞｰ	2	PFE-L P-1
26	4633 -66	SPRING RH	開閉ﾊﾞﾈ(右)	1	PFE-L P-1
27	4633 -67	SPRING LH	開閉ﾊﾞﾈ(左)	1	PFE-L P-1
28	4633 -68	SPRING LOCK	ﾛｯｸ用ﾊﾞﾈ	2	PFE-L P-1
29	4633 -69	COVER ROLL(A)	内ｶﾊﾞｰ(A)	1	PFE-L P-1
30	4633 -70	COVER ROLL(B)	内ｶﾊﾞｰ(B)	1	PFE-L P-1
31	4633 -71	COVER OUTSIDE(B)	外ｶﾊﾞｰ(B)	1	PFE-L P-1
32	4633 -72	SPRING	ﾛｯｸ解除ﾊﾞﾈ	2	PFE-L P-1
33	4633 -73	SHEET MYLAR	ﾍﾟｰﾊﾟｰｷｬｯﾁ	1	PFE-L P-1
34	4633 -76	COVER OUTSIDE(A)	外ｶﾊﾞｰ(A)	1	PFE-L P-1
35	4633P- 0	SIZE SELECTOR PCB ASSY	ｻｲｽﾞｾﾚｸﾀｰ基板組立	1	PFE-L P-1
36	4112Q- 2	KNOB SELECTOR	ｾﾚｸﾀｰﾉﾌﾞ	1	PFE-L P-1
37	4112Q- 3B	SPRING CLICK	ｸﾘｯｶｰ	1	PFE-L P-1

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
38	4133 -12B	TENSION PULLEY A	ﾃﾝｼｮﾝﾌﾟｰﾘA	1	PFE-L P-1
39	4133 -13	BEARING SPRING A	軸受ﾊﾞﾈA	2	PFE-L P-1
40	4133 -22	LOCK SHAFT RECEIVER	ﾛｯｸｼｬﾌﾄ受	2	PFE-L P-1
41	49193	PHOTO INTERRUPT	ﾎﾄｲﾝﾀﾗﾌﾟﾀGPIA22HR	1	PFE-L P-1
42					PFE-L P-1
43	6902203104	SCREW. PAN HD. M4x16	M4×16 ﾅﾍﾞｸﾛﾒｰﾄ	4	PFE-L P-1
44	6916203100	SCREW. POLYWAVE M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	29	PFE-L P-1
45	6908201099	SCREW. BINDING HD. M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｯｸﾛ	39	PFE-L P-1
46	6801011245	PRESS NUT M4	M4圧入ﾅｯﾄ	2	PFE-L P-1
47	6908205076	SCREW. BINDING HD. BK M3x6	M3×6ﾊﾞｲﾝﾄﾞ黒	6	PFE-L P-1
48	6923212076	TAP. SCREW. BINDING HD. 3x6	3×6ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	4	PFE-L P-1
49	6807012311	RETAINING RING. E-TYPE #8	Eﾘﾝｸﾞ#8	4	PFE-L P-1
50	6807012310	RETAINING RING. E-TYPE #7	Eﾘﾝｸﾞ#7	2	PFE-L P-1
51	4959E-0-300	PH HARNESS ASSY(3)	給紙ﾊｰﾈｽ組立(3)	1	PFE-L P-1
52	4633-81-300	SWITCH PLATE	ｽｲｯﾁﾌﾟﾚｰﾄ(SC)	1	PFE-L P-1
53	4633-82-300	SIZE SELECTOR PLATE	ｻｲｽﾞｾﾚｸﾀｰ表示	1	PFE-L P-1
54	4633Q-0-300	PH SWITCH ASSY	給紙ｽｲｯﾁ組立	1	PFE-L P-1
55	6908202076	SCREW. BINDING. HO. NI. M3x6	M3x6ﾊﾞｲﾝﾄﾞﾆｯｹﾙ	2	PFE-L P-1

Paper Feeder (B) Assy Part 2

4634-0-300　下段給紙組立

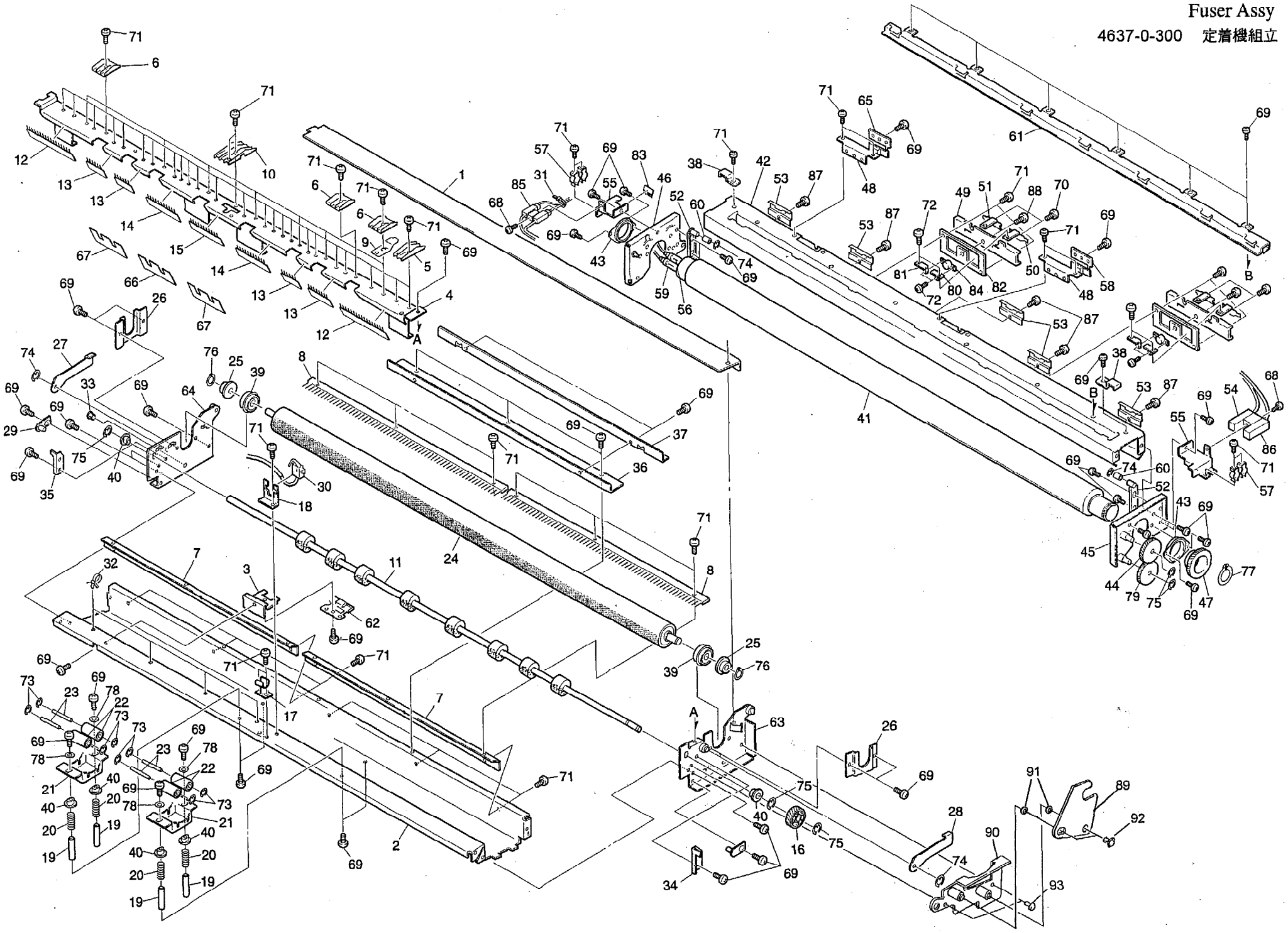


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4634 - 0-300	PAPER FEEDER(B) ASSY(SC)	下段給紙組立(SC)	1	PFE-L P-2	
1	4634 - 2	SUPPORTER	ﾚｰﾙ	2	PFE-L P-2	
2	4634 - 3	PLATE SWING	ｽｲﾝｸﾞﾌﾟﾚｰﾄ	1	PFE-L P-2	
3	4634 - 4	PIN GEAR	ｽｲﾝｸﾞｷﾞｱ軸	1	PFE-L P-2	
4	4634 - 5	HOOK COVER	ｶﾊﾞｰﾌｯｸ	2	PFE-L P-2	
5	4634 - 6	SPRING SWING	ｽｲﾝｸﾞﾊﾞﾈ	1	PFE-L P-2	
6	4634 - 8	STUD GEAR	20Tｷﾞｱ支点	1	PFE-L P-2	
7	4634 -13	PLATE CONNECTOR B	ｺﾈｸﾀｰ取付板(下)	1	PFE-L P-2	
8	4612 -61	ROLLER MAIN	ﾒｲﾝﾛｰﾗｰ	1	PFE-L P-2	
9	4613 -19	TENSIONER ROLL A	軸押えﾊﾞﾈ(A)	3	PFE-L P-2	
10	4613 -20	TENSIONER ROLL B	軸押えﾊﾞﾈ(B)	3	PFE-L P-2	
11	4633 - 1	SIDE PLATE PF(A)	給紙側板(A)	1	PFE-L P-2	
12	4633 - 2	SIDE PLATE PF(B)	給紙側板(B)	1	PFE-L P-2	
13	4633 - 3	BEAM B	ﾋﾞｰﾑB	1	PFE-L P-2	
14	4633 - 6	ROLLER FEED(1)	ﾌｨｰﾄﾞﾛｰﾗｰ(1)	1	PFE-L P-2	
15	4633 -20	COVER HARNESS	ﾊｰﾈｽｶﾊﾞｰ	2	PFE-L P-2	
16	4633 -27	BEAM D	ﾋﾞｰﾑ(D)	1	PFE-L P-2	
17	4633 -31	PLATE GUIDE(3)	ｶﾞｲﾄﾞ板(3)	1	PFE-L P-2	
18	4633 -35	PLATE GUIDE(2)	ｶﾞｲﾄﾞ板(2)	1	PFE-L P-2	
19	4633 -40	BASE SENSOR(1)	ｾﾝｻｰﾍﾞｰｽ(1)	1	PFE-L P-2	
20	4633 -59	STUD IDLER	ｱｲﾄﾞﾗｰｷﾞｱ軸	2	PFE-L P-2	
21	4633 -74	SHAFT DRIVE	駆動連結軸	1	PFE-L P-2	
22	4633F-0	BASE DRIVE	駆動座板	1	PFE-L P-2	
23	1712 -57	BEARING, PA(φ6)	PA軸受(φ6)	4	PFE-L P-2	
24	3611 -14B	GEAR(30TOOTH), DIA. 8	30Tｷﾞｱ(φ8)	2	PFE-L P-2	
25	3611 -21D	GEAR SHAFT	ｽﾊﾟｰｷﾞｱ(4008)	1	PFE-L P-2	
26	3611C- 0A	INP, SENSOR ASSY	INPｾﾝｻｰ組立	1	PFE-L P-2	
27	3612 - 9C	BEARING	軸受	2	PFE-L P-2	
28	3635 -19A	FEEDING ROLLER, SHAFT B	送りｺﾛ軸B	2	PFE-L P-2	
29	3635 -20C	FEEDING ROLLER	送りｺﾛ	8	PFE-L P-2	
30	39316B	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	2	PFE-L P-2	
31	39520	ONE TOUCH BUSH	ｵｰﾌﾟﾝｸﾛｰｽﾞﾄﾌﾞｯｼﾝｸﾞ	3	PFE-L P-2	
32	4112 -66B	50T SPUR GEAR	50枚平歯車	1	PFE-L P-2	
33	4113 - 7	INSIDE DRIVEN SHAFT	従動ｺﾛ軸(中)	1	PFE-L P-2	
34	4125 -20B	20T SPUR GEAR	20枚平歯車	1	PFE-L P-2	
35	4633 -83	20T SPUR GEAR φ6(BOSS)	20枚平歯車φ6 (ﾎﾞｽ付)	1	PFE-L P-2	*
36	4133 -31	DRIVE COUPLING BRACKET	駆動連結ﾌﾞﾗｹｯﾄ	1	PFE-L P-2	
37	4633 -51	STUD	ﾋﾟｯﾁ円ｷﾞｱ軸	1	PFE-L P 2	*

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
38	4133 -34B	30T PITCH CIRCLE GEAR	30Tﾋﾟｯﾁ円ｷﾞｱ	2	PFE-L P-2
39	4133 -37	ONE-WAY 20T GEAR	ﾜﾝｳｪｲ20枚歯車	1	PFE-L P-2
40	4133 -38	COUPLING SPRING	連結用ﾊﾞﾈ	1	PFE-L P-2
41	6039B	BEARING PA(φ8)	PA軸受(φ8)	4	PFE-L P-2
42	4659D- 0-300	PH HARNESS ASSY(2)	給紙ﾊｰﾈｽ組立(2)	1	PFE-L P-2
43	6916203100	SCREW.POLYWAVE M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	44	PFE-L P-2
44	6908201099	SCREW.BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	9	PFE-L P-2
45	6908205076	SCREW.BINDING HD.BK.M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	10	PFE-L P-2
46	6807012310	RETAINING RING E-TYPE #7	Eﾘﾝｸﾞ#7	10	PFE-L P-2
47	6807012308	RETAINING RING E-TYPE #5	Eﾘﾝｸﾞ#5	3	PFE-L P-2
48	6807012307	RETAINING RING E-TYPE #4	Eﾘﾝｸﾞ#4	10	PFE-L P-2
49	6807012306	RETAINING RING E-TYPE #3	Eﾘﾝｸﾞ#3	1	PFE-L P-2
50	6817036032	PARALLEL PIN φ2x14	φ2×14 平行ﾋﾟﾝ	3	PFE-L P-2

Fuser Assy

4637-0-300　定着機組立



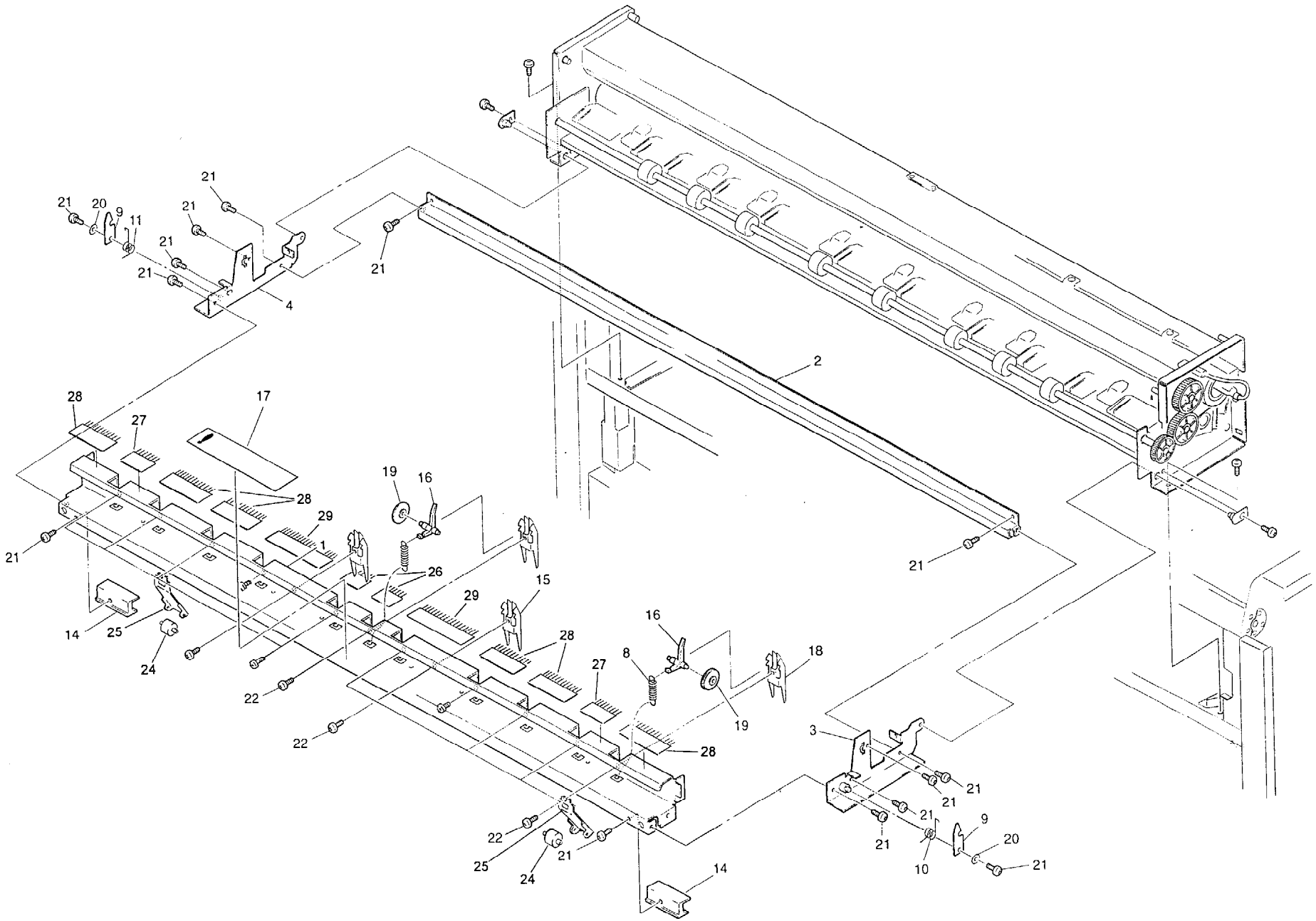
ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4637 -0 -400	FUSER ASSY J480	定着機組立 J480	0	FUS	
0	4637 -0 -500	FUSER ASSY U480	定着機組立 U480	1	FUS	
0	4637 -0 -600	FUSER ASSY E480	定着機組立 E480	0	FUS	
1	4637 - 1	PLATE GUIDE FUSER	ﾋｰﾀｰ入口ｶﾞｲﾄﾞ板	1	FUS	
2	4637 - 2	FRAME	ﾌﾚｰﾑ	1	FUS	
3	4637 - 3	BRACKET THURMISTOR	ｻｰﾐｽﾀｰﾌﾞﾗｹｯﾄ(下)	1	FUS	
4	4637 - 4	GUIDE EXIT	出口ｶﾞｲﾄﾞ板	1	FUS	
5	4637 - 5	GUIDE FUSER A	剥離ｶﾞｲﾄﾞｺﾏ	24	FUS	
6	4637 - 6	GUIDE FUSER B	剥離爪取付ｶﾞｲﾄﾞ	10	FUS	
7	4637 - 7	BRACKET BRUSH	除電ﾌﾞﾗｼ取付板	2	FUS	
8	4637 - 8	BRUSH DISCHARGE	除電ﾌﾞﾗｼ	2	FUS	
9	4637 - 9	PLATE STRIP	剥離爪(下)	8	FUS	
10	4637 -10	GUIDE FUSER C	剥離ｶﾞｲﾄﾞｾﾝﾀｰ	1	FUS	
11	4637 -11-300	ROLLER EXIT	出口ﾛｰﾗｰ	1	FUS	
12	4637 -12	BRUSH DISCHARGE(1)	除電ﾌﾞﾗｼ(1)	2	FUS	
13	4637 -13	BRUSH DISCHARGE(2)	除電ﾌﾞﾗｼ(2)	4	FUS	
14	4637 -14	BRUSH DISCHARGE(3)	除電ﾌﾞﾗｼ(3)	2	FUS	
15	4637 -15	BRUSH DISCHARGE(4)	除電ﾌﾞﾗｼ(4)	1	FUS	
16	4612A-20	GEAR HERICAL 30T PH	30Tはすば歯車 (右)	1	FUS	
17	3612 - 9C	BEARING	軸受	1	FUS	
18	3612 -10B	SENSOR BRACKET B	ｾﾝｻｰﾌﾞﾗｹｯﾄB	1	FUS	
19	3637 - 4B	SLIDE SHAFT	ｽﾗｲﾄﾞ軸	4	FUS	
20	3637 - 5	SPRING	ｽﾌﾟﾘﾝｸﾞ	4	FUS	
21	3637 - 6A	PRESSURE ROLLER,CASE	加圧ﾛｰﾗｰｹｰｽ	2	FUS	
22	4137-21	PRESSURE ROLLER	加圧ﾛｰﾗｰ	4	FUS	*
23	3637 - 8A	ROLLER SHAFT	ﾛｰﾗｰ軸	4	FUS	
24	3637 - 9D	BACK-UP ROLLER	ﾊﾞｯｸｱｯﾌﾟﾛｰﾗｰ	1	FUS	
25	3637 -10B	COLLAR	ｶﾗｰ	2	FUS	
26	3637 -11A	BEARING STOPPER	ﾍﾞｱﾘﾝｸﾞ止め	2	FUS	
27	3637 -17A	LEVER A	ﾚﾊﾞｰA	1	FUS	
28	3637 -18A	LEVER B	ﾚﾊﾞｰB	1	FUS	
29	3637 -21B	HINGE	ﾋﾝｼﾞ	2	FUS	
30	3637B- 0B	EXIT SENSOR ASSY	EXITｾﾝｻｰ組立	1	FUS	
31	39213	TIE-BAND,KS-100	結線ﾊﾞﾝﾄﾞ	1	FUS	
32	39316B	SNAP BAND SG-130	ｽﾅｯﾌﾟﾊﾞﾝﾄﾞ	4	FUS	
33	39373	BUSHING φ16	ﾜﾝﾀｯﾁﾌﾞｯｼｭ16φ	1	FUS	
34	4137 -17B	UPPER HEATER BRACKET A	上ﾋｰﾀｰ固定板A	1	FUS	
35	4137 -18B	UPPER HEATER BRACKET B	上ﾋｰﾀｰ固定板B	1	FUS	

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
36	4237 -10C	HOLDING PLATE A	支持板A	1	FUS
37	4237 -11C	HOLDING PLATE B	支持板B	1	FUS
38	4637A-10-300	WIRE STOPPER BRACKET	線止めﾌﾞﾗｹｯﾄ	2	FUS
39	5136	BALL BEARING	ﾍﾞｱﾘﾝｸﾞ6002ZZNR	2	FUS
40	6039B	BEARING PA(φ8)	PA軸受(φ8)	6	FUS
41	4637A- 1	HEAT ROLLER	ﾋｰﾄﾛｰﾙ	1	FUS
42	4637A- 2-300	HEAT ROLL CASE	ﾋｰﾄﾛｰﾙｹｰｽ	1	FUS
43	2737A- 8	BEARING ROLLER	定着ﾛｰﾗｰ軸受	2	FUS
44	4637A-3	GEAR HERICAL PH(4008)	ﾍﾘｶﾙｷﾞｱ右(4008)	1	FUS
45	3637A- 1D	UPPER SIDE PLATE A	上側板A	1	FUS
46	3637A- 2F	UPPER SIDE PLATE B	上側板B	1	FUS
47	4637A-5	FUSER GEAR,(50TOOTH)	定着ｷﾞｱ(50T)	1	FUS
48	3637A- 8A	THERMISTOR BRACKET	ｻｰﾐｽﾀｰﾌﾞﾗｹｯﾄ	2	FUS
49	3637A- 9C	TERMINAL BASE	端子台	2	FUS
50	3637A-10A	TEMINAL A	端子A	2	FUS
51	3637A-11A	TERMINAL B	端子B	2	FUS
52	3637A-12A	ROD	ﾛｯﾄﾞ	2	FUS
53	3637A-14B	WIRE STOPPER,BRACKET A	線止めﾌﾞﾗｹｯﾄA	5	FUS
54	4659AK-0-300	FUSER HARNESS (3) ASSY	ﾌｭｰｻﾞｰﾊｰﾈｽ(3)組立	1	FUS
55	4637A-6-300	BRACKET HEATER LAMP	ﾋｰﾀｰﾗﾝﾌﾟﾌﾞﾗｹｯﾄ	2	FUS
56	3764	LAMP HEATER (CENTER)100V	ﾋｰﾀｰﾗﾝﾌﾟ (中央) 100V	0	FUS
56	3766	LAMP HEATER (CENTER)230V	ﾋｰﾀｰﾗﾝﾌﾟ (中央) 230V	0	FUS
56	3768	LAMP HEATER (CENTER)120V	ﾋｰﾀｰﾗﾝﾌﾟ (中央) 120V	1	FUS
57	3637A-19B	HEATER LAMP HOLDER	ﾋｰﾀｰﾗﾝﾌﾟﾎﾙﾀﾞｰ	4	FUS
58	3637D-0	THERMISTOR ASSY	ｻｰﾐｽﾀｰ組立	1	FUS
59	3765	LAMP HEATER (SIDE)100V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 100V	0	FUS
59	3767	LAMP HEATER (SIDE)230V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 230V	0	FUS
59	3769	LAMP HEATER (SIDE)120V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 120V	1	FUS
60	7047	INNER RING, IR6x9x12	内輪IR6x9x12	2	FUS
61	4637B- 0	CLEANING FELT ASSY	ｸﾘｰﾆﾝｸﾞﾌｪﾙﾄ組立	1	FUS
62	4637C- 0	THERMISTOR ASSY	ｻｰﾐｽﾀｰ(2)組立	1	FUS
63	4637D- 0	SIDE PLATE LOWER A	下側板A	1	FUS
64	4637E- 0	SIDE PLATE LOWER B	下側板B	1	FUS
65	4637G-0-300	THERMISTOR (3) ASSY	ｻｰﾐｽﾀｰ組立(3)	1	FUS
66	4637-20-300	MYLAR(1)	ﾏｲﾗｰ(1)	1	FUS
67	4637-21-300	MYLAR(2)	ﾏｲﾗｰ(2)	2	FUS
68	6902203104	SCREW.PAN HD.M4x16	M4×16 ﾅﾍﾞﾈｼﾞ	2	FUS
69	6908201099	SCREW.BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	49	FUS

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
70	6923212077	TAP. SCREW. BINDING HD. 3x8	3×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	4	FUS
71	6908205076	SCREW. BINDING HD. BK M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	63	FUS
72	6915208076	SCREW. PAN HD. BS S/F M3x6	M3×6 ﾅﾍﾞ真鍮 3点 ﾆｯｹﾙ	8	FUS
73	6807012307	RETAINING RING E-TYPE #4	Eﾘﾝｸﾞ#4	8	FUS
74	6807012308	RETAINING RING E-TYPE #5	Eﾘﾝｸﾞ#5	4	FUS
75	6807012310	RETAINING RING E-TYPE #7	Eﾘﾝｸﾞ#7	5	FUS
76	6813014318	RETAINING RING C-TYPE #15	Cﾘﾝｸﾞ#15	2	FUS
77	6813014332	RETAINING RING C-TYPE #32	Cﾘﾝｸﾞ#32	1	FUS
78	6102G	WASHER-SPECIAL	特殊ﾜｯｼｬｰ	4	FUS
79	4637A-4	GEAR HERICAL LH(4008)	ﾍﾘｶﾙｷﾞｱ左(4008)	1	FUS
80	4637A-7-300	BRACKET THERMOSTAD A	ｻｰﾓｽﾀｯﾄﾞﾌﾞﾗｹｯﾄ A	2	FUS
81	4637A-8-300	BRACKET THERMOSTAD B	ｻｰﾓｽﾀｯﾄﾞﾌﾞﾗｹｯﾄ B	2	FUS
82	4637A-9-300	BRACKET TERMINAL BASE	端子台ﾌﾞﾗｹｯﾄ	2	FUS
83	4637A-11-300	BRASH DISCHRGE HEATROLL	除電ﾌﾞﾗｼ	1	FUS
84	49517	THERMOSTAD	ｻｰﾓｽﾀｯﾄﾞ	2	FUS
85	4659AH-0-300	FUSER HARNESS (1) ASSY	ﾌｭｰｻﾞｰﾊｰﾈｽ組立(1)	1	FUS
86	4659AJ-0-300	FUSER HARNESS (2) ASSY	ﾌｭｰｻﾞｰﾊｰﾈｽ組立(2)	1	FUS
87	6915203076	SCREW. PAN HD. S/F M3x6	M3x6 ナベ3点	5	FUS
88	6908203075	SCREW. BINDING HD. M3x5	M3x5ﾊﾞｲﾝﾄﾞ	2	FUS
89	4637-27	HOLDER	ｷﾞｱﾎﾙﾀﾞｰ	1	FUS
90	4637H-0	HOLDER PLATE	ﾎﾙﾀﾞｰﾌﾟﾚｰﾄ(2)	1	FUS
91	6109	WASHER-SPECIAL	特殊ﾜｯｼｬｰ	2	FUS
92	6916203125	SCREW. POLYWAVE. M5x8	M5x8ﾎﾟﾘｳｪｰﾌﾞ	2	FUS
93	6908201100	SCREW. BINDING HD. M4x8	M4x8ﾊﾞｲﾝﾄﾞﾆｯｸﾛ	2	FUS

Exhaust Unit Assy

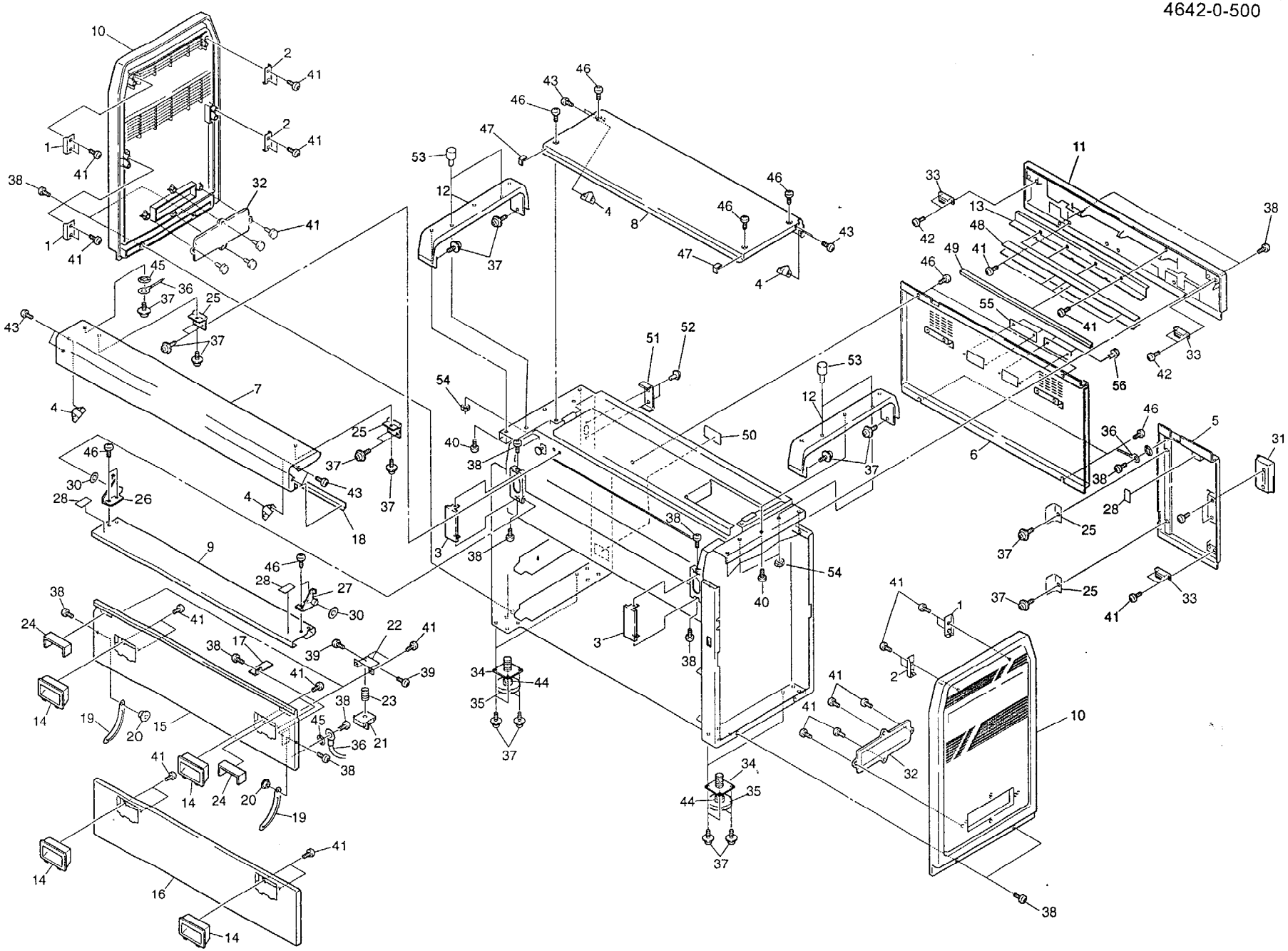
4638-0-300　排出部組立



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4638 - 0-300	EXHAUST UNIT ASSY(SC)	排出部組立(SC)	1	EXHA
1	4638 - 1	BEAM A	ﾋﾞｰﾑA	1	EXHA
2	4638 - 2	BEAM B	ﾋﾞｰﾑB	1	EXHA
3	4638A- 0	PLATE SIDE A	側板A	1	EXHA
4	4638B- 0	PLATE SIDE B	側板B	1	EXHA
5					EXHA
6					EXHA
7					EXHA
8	3638 - 7A	STRIPPING NAIL, SPRING	剥離爪ﾊﾞﾈ	11	EXHA
9	3638 - 9A	HOOK	ﾌｯｸ	2	EXHA
10	3638 -10	HOOK SPRING A	ﾌｯｸﾊﾞﾈA	1	EXHA
11	3638 -11	HOOK SPRING B	ﾌｯｸﾊﾞﾈB	1	EXHA
12					EXHA
13					EXHA
14	3638 -14B	KNOB	把手	2	EXHA
15	3638 -15A	STRIPPING NAIL, FIXING PLATE	剥離爪取付板B	4	EXHA
16	3738 -16B	FINGER	剥離爪(上)	11	EXHA
17	4138 - 9	CAUTION LABEL, TMP	高温注意ﾗﾍﾞﾙ	1	EXHA
18	4238 -13C	STRIPPING NAIL, FIXING PLATE	剥離爪取付板B	11	EXHA
19	4238 -14	ROLL PUSHER	押えｺﾛ	11	EXHA
20	6102G	WASHER-SPECIAL	特殊ﾜｯｼｬｰ	2	EXHA
21	6908201099	SCREW. BINDING HD. M4x6	M4x6ﾊﾞｲﾝﾄﾞﾆｯｹﾛ	14	EXHA
22	6908205076	SCREW. BINDING HD. BK M3x6	M3x6ﾊﾞｲﾝﾄﾞ黒	21	EXHA
23	6807012307	RETAINING RING E-TYPE #4	Eﾘﾝｸﾞ#4	8	EXHA
24	4638-3-300	EXIT ROLLER(D)	排紙ｺﾛ(D)	8	EXHA
25	4604A-6	SPRING ROLLER	軸押ｴﾊﾞﾈ	8	EXHA
26	4638-4-300	BRUSH DISCHARGE(5)	除電ﾌﾞﾗｼ(5)	2	EXHA
27	4638-5-300	BRUSH DISCHARGE(6)	除電ﾌﾞﾗｼ(6)	2	EXHA
28	4638-6-300	BRUSH DISCHARGE(7)	除電ﾌﾞﾗｼ(7)	6	EXHA
29	4638-7-300	BRUSH DISCHARGE(8)	除電ﾌﾞﾗｼ(8)	2	EXHA

Panel Assy

4642-0-400 外裝組立
4642-0-500

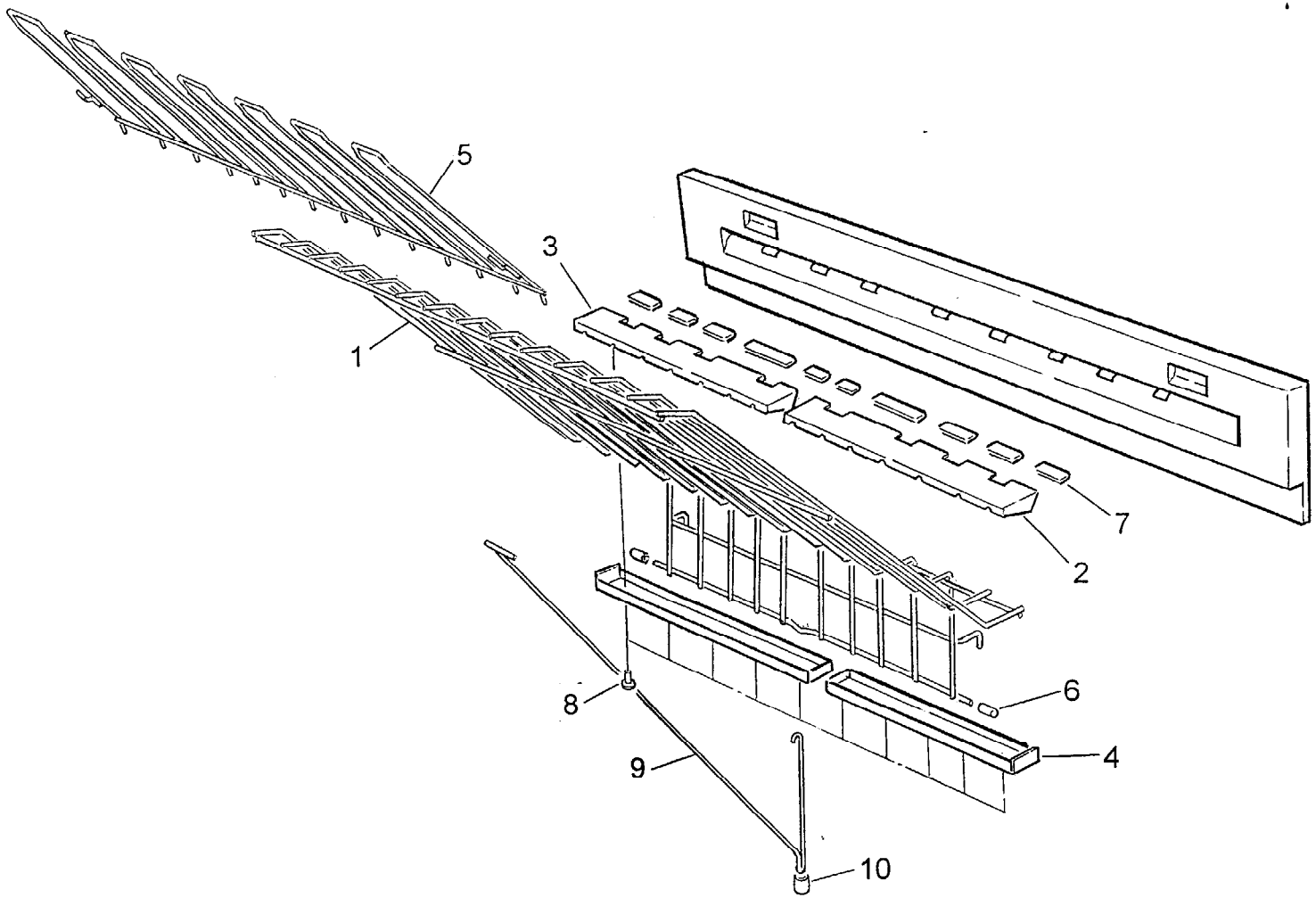


ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4642 - 0-400	PANEL ASSY(J480)	外装組立(J480)	0	PNL
0	4642 - 0-500	PANEL ASSY(U480)	外装組立(U480)	1	PNL
1	4642 1	HOOK(1)	ﾌｯｸ(1)	4	PNL
2	4642 - 2	HOOK(2)	ﾌｯｸ(2)	4	PNL
3	4642 - 3	COVER SUB C	ｻﾌﾞｶﾊﾞｰC	2	PNL
4	4642 4	TIP COVER	ｺｰﾅｰﾁｯﾌﾟ	4	PNL
5	4642 - 5	HATCH(D)	下ﾊｯﾁD	1	PNL
6	4642 - 6-300	PANEL D(SC)	下ﾊﾟﾈﾙ D(SC)	1	PNL
7	4642 - 7	COVER TOP(C)	上面ｶﾊﾞｰC	0	PNL
8	4642-8-201	COVER TOP(D)(CAL)	上面ｶﾊﾞｰD(CAL)	1	PNL
9	4642 - 9	TABLE	手差しﾃｰﾌﾞﾙ	1	PNL
10	4642 -10	COVER SIDE	ｻｲﾄﾞﾊﾟﾈﾙ	2	PNL
11	4642 -11	HATCH FUSER	ﾋｰﾀｰﾊｯﾁ	1	PNL
12	4642 -12-300	COVER TOP(SC)	ｻｲﾄﾞﾄｯﾌﾟｶﾊﾞｰ(SC)	2	PNL
13	4642 -13	BEAM HATCH	ﾋｰﾀｰﾊｯﾁﾋﾞｰﾑ	1	PNL
14	4642 -15	COVER HANDLE	取手	4	PNL
15	4642 -16	COVER PF(U)	給紙ｶﾊﾞｰ(上)	1	PNL
16	4642 -17	COVER PF(L)	給紙ｶﾊﾞｰ(下)	1	PNL
17	4642 -18	ACTUATOR	ｱｸﾁｭｴｰﾀｰ	1	PNL
18	4642 -22	CUSHION	上面ｶﾊﾞｰｸｯｼｮﾝ	1	PNL
19	4642 -23	STOPPER	ﾊﾟﾈﾙｽﾄｯﾊﾟｰ	2	PNL
20	4642 -24	STUD	ｽﾄｯﾊﾟｰ軸	2	PNL
21	4642 -25	HOOK	ﾌｯｸ	2	PNL
22	4642 -26	COVER HOOK	ﾌｯｸｶﾊﾞｰ	2	PNL
23	4642 -27	SPRING(HOOK)	ﾌｯｸ用ｽﾌﾟﾘﾝｸﾞ	2	PNL
24	4642 -28	GUARD	ｽｸﾘｭｰｶﾞｰﾄﾞ	2	PNL
25	4642A- 0	HINGE	ﾋﾝｼﾞ	2	PNL
26	4642B- 0	PIVOT A	ﾋﾟﾎﾞｯﾄA	1	PNL
27	4642C- 0	PIVOT B	ﾋﾟﾎﾞｯﾄB	1	PNL
28	4211-63B	BASE SEAL	ﾍﾞｰｽｼｰﾙ	3	PNL
29					PNL
30	3611 -23A	COLLAR	ｶﾗｰ	2	PNL
31	4142 -12C	PULL	取手	1	PNL
32	4142 -19	LID PANEL	ﾊﾟﾈﾙ蓋	1	PNL
33	7068	MAGNET CATCH	ﾏｸﾞﾈｯﾄｷｬｯﾁ	3	PNL
36	4142B- 0C	DOOR EARTH LEAD WIRE ASSY	ﾄﾞｱｱｰｽ線組立(ﾍﾟｰﾊﾟｰﾄﾞｱ)	3	PNL
37	6916203100	SCREW.POLYWAVE.M4x8	M4×8 ﾎﾟﾘｳｪｰﾌﾞ	11	PNL
38	6908201099	SCREW.BINDING HD.M4x6	M4×6 ﾊﾞｲﾝﾄﾞﾆｸﾛ	14	PNL
39	6908205076	SCREW.BINDING HD.BK.M3x6	M3×6 ﾊﾞｲﾝﾄﾞ黒	6	PNL

ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
40	6908203101	TAP. SCREW BINDING HD. 4x10	4×10 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	6	PNL
41	6923212100	TAP. SCREW BINDING HD. 4x8	4×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	42	PNL
42	6923212077	TAP. SCREW BINDING HD. 3x8	3×8 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞ	4	PNL
43	6923220075	TAP. SCREW BINDING HD. 3x5	3×5 ﾊﾞｲﾝﾄﾞﾀｯﾋﾟﾝｸﾞNi	8	PNL
44	6801015109	NUT M10	M10 ﾅｯﾄ	2	PNL
45	6805015270	WASHER. TOOTH LOCK M4	φ4 菊座	2	PNL
46	6914202099	SCREW. BID HD. W/TOOTH M4x6	M4x6 ﾊﾞｲﾝﾄﾞ菊座付ﾆｯｹﾙ	12	PNL
47	4642-29	SEAL	保護ｼｰﾙ	2	PNL
48	4642-30	BEAM HATCH B	ﾋｰﾀｰﾊｯﾁﾋﾞｰﾑ（下）	1	PNL
49	39347	EDGING t=1.2	ｴｯﾁﾝｸﾞ t=1.2	1	PNL
50	4642-33-300	LABEL INPUT	ｲﾝﾌﾟｯﾄﾗﾍﾞﾙ	1	PNL
51	4642-35-300	COVER CONNECTOR	ｺﾈｸﾀｰふた	1	PNL
52	6908205165	SCREW. BIND HD. STL M2. 6x4	M2. 6x4ﾊﾞｲﾝﾄﾞ黒	2	PNL
53	4642-31-300	PIN	ﾋﾟﾝ	4	PNL
54	6801015108	NUT-HEX, #1	M8ﾅｯﾄ	4	PNL
55	3500400370	TRANSPARENT COVER	ｽﾓｰｸｶﾊﾞｰ	2	PNL
56	6908205075	SCREW. BIND HD. BK. M3x5	M3x5ﾊﾞｲﾝﾄﾞ黒	4	PNL

Exit Stacker

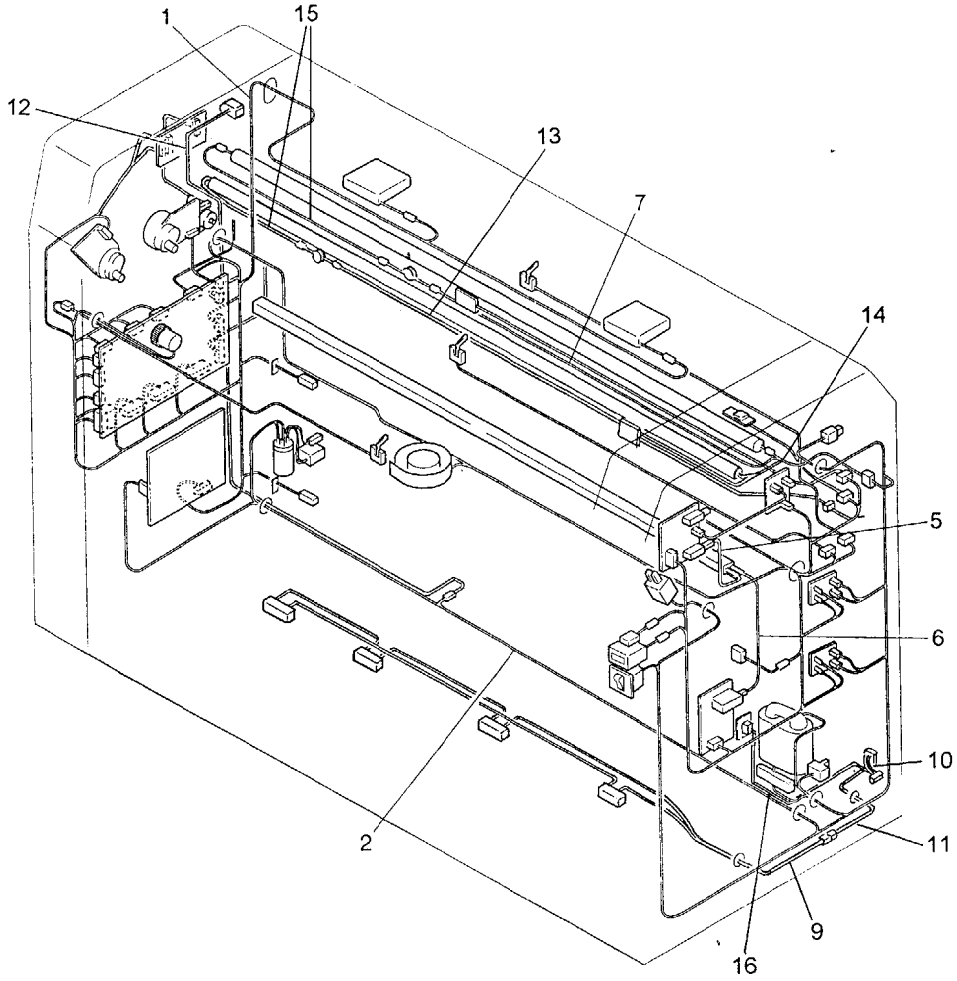
4642F-0-300　排紙トレイ

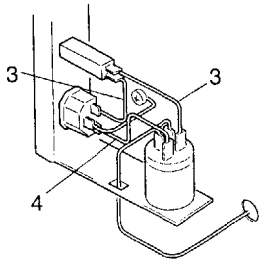


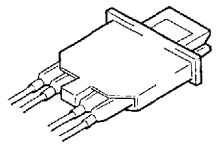
ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4642F-0-300	EXIT STACKER	排紙ﾄﾚｲ	1	STAC
1	4604C-1	TRAY	排紙ﾄﾚｲ	1	STAC
2	4604A-2	GUIDE STACKER A	排紙ｶﾞｲﾄﾞ A	1	STAC
3	4604A-3	GUIDE STACKER B	排紙ｶﾞｲﾄﾞ B	1	STAC
4	4604A-4	STAY GUIDE	ｽﾃｲ	2	STAC
5	4604C-2	SUB TRAY	ｻﾌﾞﾄﾚｲ	1	STAC
6	39536	VCP CAP VCP-4-23	VCPｷｬｯﾌﾟ VCP-4-23	2	STAC
7	9819	TAPE(PTFE)	ﾆﾄﾌﾛﾝﾃｰﾌﾟ	AR	STAC
8	6908201099	SCREW-BIND. HD STL M2.6x4	M2.6x4ﾊﾞｲﾝﾄﾞ黒	10	STAC
9	4604C-3	SHAFT(TRAY)	支柱	1	STAC
10	39451	SUMI TUBE DIA10	ｽﾐﾁｭｰﾌﾞ Fφ10	1	STAC

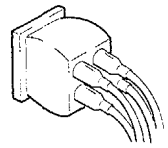
Harness List Part 1

4659-0-300　ハーネスリスト





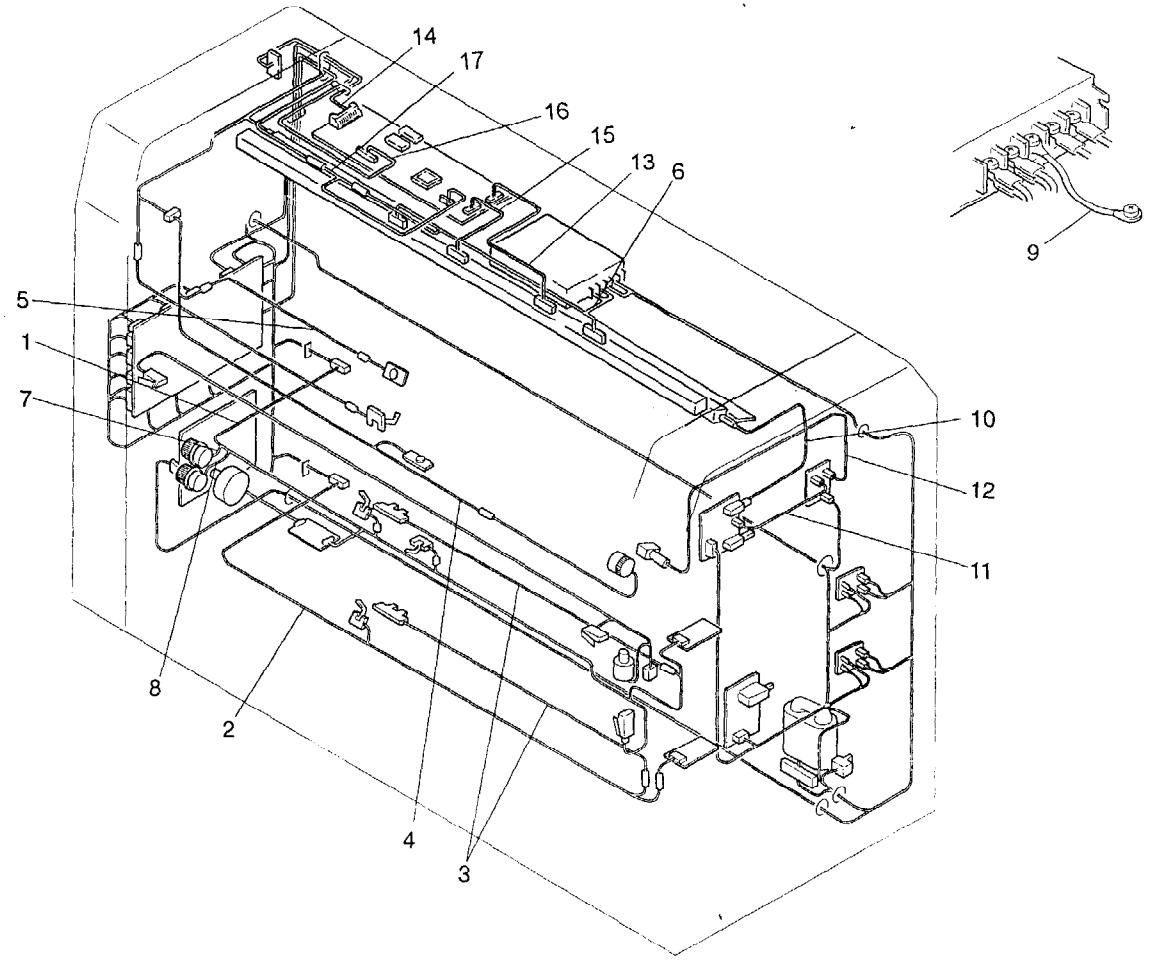




ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
0	4659 - 0-300	HARNESS LIST(SC)	ﾊｰﾈｽﾘｽﾄ(SC)	1	HAR P-1	
1	4659A 0-300	DC HARNESS ASSY	DCﾊｰﾈｽ組立	1	HAR P-1	
2	4659B- 0-300	AC HARNESS ASSY	ACﾊｰﾈｽ組立	1	HAR P-1	
3	4659J- 0	AC LINE HARNESS ASSY(1)	ACﾗｲﾝﾊｰﾈｽ組立(1)	2	HAR P-1	
4	4659K- 0	AC LINE HARNESS ASSY(2)	ACﾗｲﾝﾊｰﾈｽ組立(2)	1	HAR P-1	
5	4659Q- 0	HV HARNESS ASSY(2)	HVﾊｰﾈｽ組立(2)(TR)	1	HAR P-1	
6	4659R- 0	HV HARNESS ASSY(3)	HVﾊｰﾈｽ組立(3)(AC)	1	HAR P-1	
7					HAR P-1	
8					HAR P-1	*
9	4659Z-0-100	DH. HARNESS ASSY 1	除湿ﾋｰﾀｰﾊｰﾈｽ組立	0	HAR P-1	
10	4659AA-0-100	SWITCH HARNESS (1)	除湿ﾋｰﾀｰｽｲｯﾁﾊｰﾈｽ組立(1)	0	HAR P-1	
11	4659AB-0-100	SWITCH HARNESS (2)	除湿ﾋｰﾀｰｽｲｯﾁﾊｰﾈｽ組立(2)	0	HAR P-1	
12	4659Y-0	AC HARNESS (2)	ACﾊｰﾈｽ組立 (2)	1	HAR P-1	
13	4659AH-0-300	FUSER HARNESS ASSY(1)	ﾌｭｰｻﾞｰﾊｰﾈｽ(1)組立	1	HAR P-1	
14	4659AJ-0-300	FUSER HARNESS ASSY(2)	ﾌｭｰｻﾞｰﾊｰﾈｽ(2)組立	1	HAR P-1	
15	4659AK-0-300	FUSER HARNESS ASSY(3)	ﾌｭｰｻﾞｰﾊｰﾈｽ(3)組立	1	HAR P-1	
16	4659AL-0-300	SURGE HARNESS ASSY	ｻｰｼﾞﾊｰﾈｽ組立	1	HAR P-1	*

Harness List Part 2

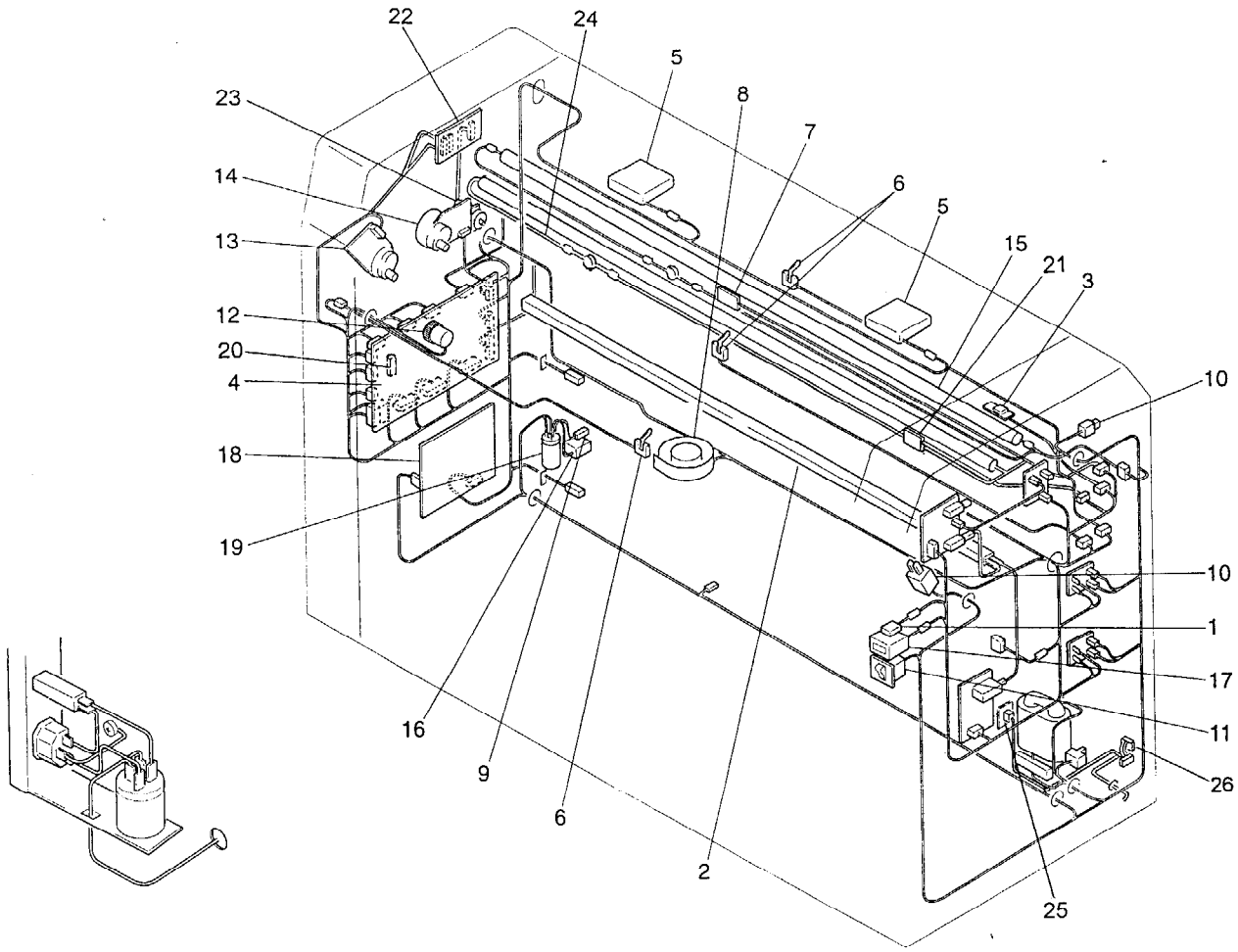
4659-0-300 ハーネスリスト

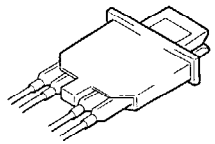


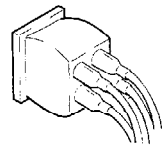
ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
0	4659 - 0-300	HARNESS LIST(SC)	ﾊｰﾈｽﾘｽﾄ(SC)	1	HAR P-2
1	4659C- 0-300	PH HARNESS ASSY(1)	給紙ﾊｰﾈｽ組立(1)	1	HAR P-2
2	4659D- 0-300	PH HARNESS ASSY(2)	給紙ﾊｰﾈｽ組立(2)	1	HAR P-2
3	4659E- 0-300	PH HARNESS ASSY(3)	給紙ﾊｰﾈｽ組立(3)	2	HAR P-2
4	4659F- 0	DEVE. HARNESS ASSY(1)	ﾃﾞﾍﾞﾊｰﾈｽ組立(1)	1	HAR P-2
5	4659G- 0	DEVE. HARNESS ASSY(2)	ﾃﾞﾍﾞﾊｰﾈｽ組立(2)	1	HAR P-2
6	4659H- 0-300	LED HARNESS ASSY	LEDﾊｰﾈｽ組立	1	HAR P-2
7	4659L- 0	CLUTCH HARNESS ASSY	ｸﾗｯﾁﾊｰﾈｽ組立(1)	1	HAR P-2
8	4659M- 0	CLUTCH HARNESS ASSY	ｸﾗｯﾁﾊｰﾈｽ組立(2)	1	HAR P-2
9	4659N- 0	EARTH WIRE ASSY	ｱｰｽ線組立(DC電源)	1	HAR P-2
10	4659P- 0	HV HARNESS ASSY(1)	HVﾊｰﾈｽ組立(1)(IM)	1	HAR P-2
11	4659S- 0	HV HARNESS ASSY(4)	HVﾊｰﾈｽ組立(4)(BIAS)	1	HAR P-2
12	4659T- 0	HV HARNESS ASSY(5)	HVﾊｰﾈｽ組立(5)(BIAS)	1	HAR P-2
13	4659X- 0	FLAT CABLE ASSY(3)	ﾌﾗｯﾄｹｰﾌﾞﾙ組立(3)	1	HAR P-2
14	4659AD-0-300	I/F CABLE ASSY	I/Fｹｰﾌﾞﾙ組立	1	HAR P-2 *
15	4659AE-0-300	FLAT CABLE ASSY(4)	ﾌﾗｯﾄｹｰﾌﾞﾙ組立(4)	1	HAR P-2
16	4659AF-0-300	SIGNAL CABLE ASSY	信号ｹｰﾌﾞﾙ組立	1	HAR P-2
17	4659AG-0-300	I/F POWER HARNESS ASSY(1)	I/F電源ﾊｰﾈｽ組立(1)	1	HAR P-2

Electrical Parts List Part 1

電気部品位置図



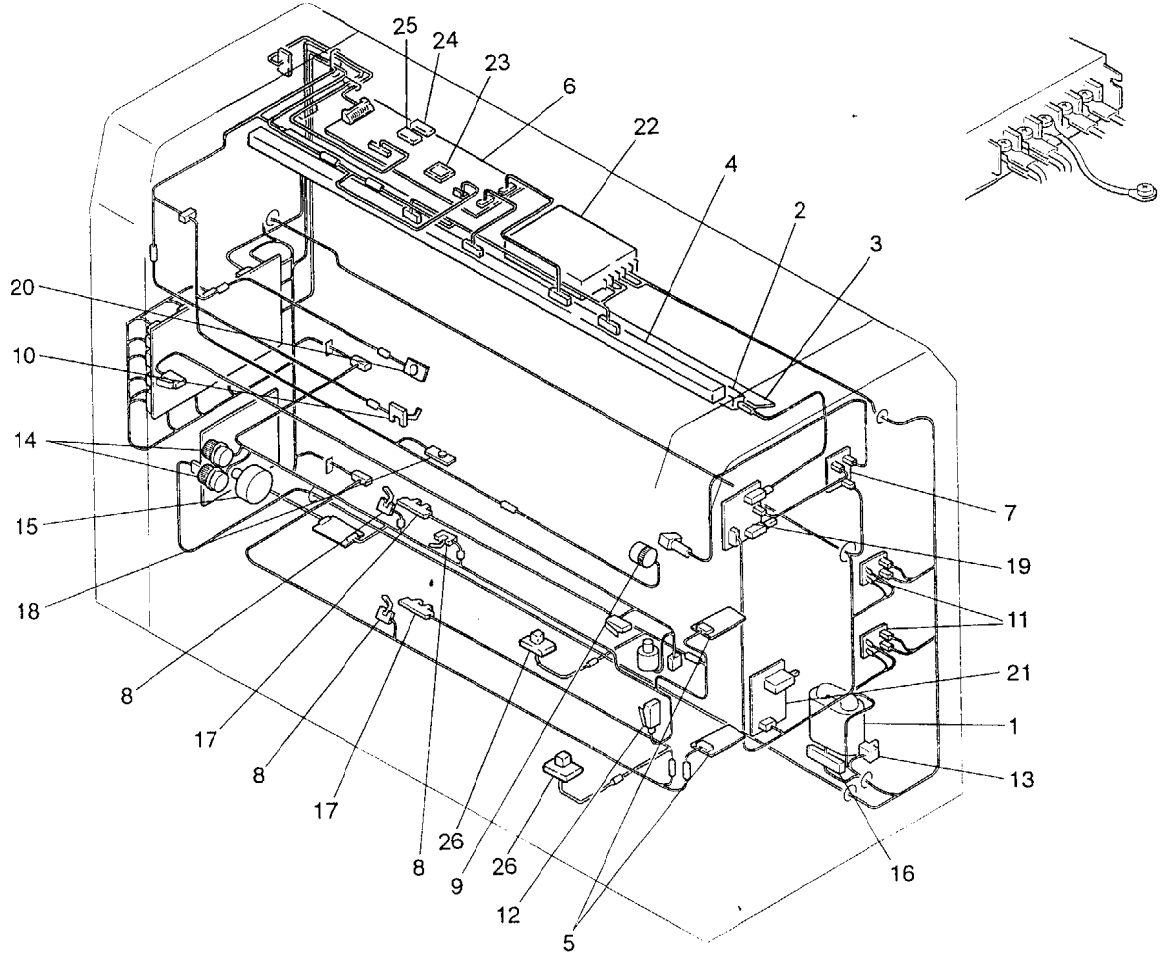




ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分
1	4612E - 0	SWITCH(TP)ASSY	ｽｲｯﾁ(TP)組立	1	ELE P-1
2	4624 - 0	Tr/St CORONA ASSY	Tr.St.ｺﾛﾅ組立	1	ELE P-1
3	4637C- 0	THERMISTOR ASSY	ｻｰﾐｽﾀｰ(2)組立	1	ELE P-1
4	4651 - 0-300	MAIN PCB ASSY	ﾒｲﾝ基板組立	1	ELE P-1
5	3611B- 0	FAN MOTOR ASSY	ﾌｧﾝﾓｰﾀｰ組立	2	ELE P-1
6	3637B- 0	EXIT SENSOR ASSY	EXIT ｾﾝｻｰ組立	3	ELE P-1
7	3637D- 0	THERMISTOR ASSY	ｻｰﾐｽﾀｰ組立	1	ELE P-1
8	3773F- 0	DC BRUSHLESS BLOWER	ﾌﾞﾛﾜｰ組立	1	ELE P-1
9	2938	CIRCUIT PROTECTOR	ｻｰｷｯﾄﾌﾟﾛﾃｸﾀｰ(USA)	1	ELE P-1
10	32113	INTERLOCK SWITCH	ｲﾝﾀｰﾛｯｸｽｲｯﾁ	2	ELE P-1
11	9000310122	LOCKER SWITCH	ﾛｯｶｰｽｲｯﾁ	1	ELE P-1 *
12	3339	MICRO CLUTCH MIC5	ﾏｲｸﾛｸﾗｯﾁMIC5	1	ELE P-1
13	35249	DC MOTOR	DCﾌﾞﾗｼﾚｽﾓｰﾀｰ	1	ELE P-1
14	35255	DC MOTOR	DCﾌﾞﾗｼﾚｽﾓｰﾀｰ	1	ELE P-1
15	3764	LAMP HEATER(CENTER)100V	ﾋｰﾀｰﾗﾝﾌﾟ(中央) 100V	0	ELE P-1
15	3766	LAMP HEATER(CENTER)230V	ﾋｰﾀｰﾗﾝﾌﾟ(中央) 230V	0	ELE P-1
15	3768	LAMP HEATER(CENTER)120V	ﾋｰﾀｰﾗﾝﾌﾟ(中央) 120V	1	ELE P-1
16	49349	INLET	ｲﾝﾚｯﾄ	1	ELE P-1
17	49469	COUNTER	ｶｳﾝﾀｰ	1	ELE P-1
18	49484 ,	DC POWER SUPPLY	DC電源HVC126-24	1	ELE P-1
19	49487	NOISE FILTER	ﾉｲｽﾞﾌｨﾙﾀｰ	1	ELE P-1
20	4653-1-300	PROGRAMED UVEPROM CONTROL	マシン制御用PROM(SC)	1	ELE P-1
21	4637G-0-300	THERMISTOR ASSY(3)	ｻｰﾐｽﾀｰ組立(3)	1	ELE P-1
22	49519	DRIVER SPD-002 B	ﾄﾞﾗｲﾊﾞｰ SPD-002 B	1	ELE P-1
23	35253	DC MOTER LGS-30-002	DC ﾓｰﾀｰ LGS-30-002	1	ELE P-1
24	3765	LAMP HEATER(SIDE)100V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 100V	0	ELE P-1
24	3467	LAMP HEATER(SIDE)230V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 230V	0	ELE P-1
24	3769	LAMP HEATER(SIDE)120V	ﾋｰﾀｰﾗﾝﾌﾟ(ｻｲﾄﾞ) 120V	1	ELE P-1
25	4806260020	SURGE ABSOBER PCB ASSY	ｻｰｼﾞｱﾌﾞｿｰﾊﾞｰ基板組立	1	ELE P-1
26	32118	LOCKER SWITCH	ﾛｯｶｰｽｲｯﾁ	0	ELE P-1

Electrical Parts List Part 2

電気部品位置図



ITEM	P/N 図番	DESCRIPTION	品名(JPN)	US	区分	
1	4612R-0-600	TRANSFORMER ASSY	電源ﾄﾗﾝｽ組立	0	ELE P-2	
2	4622-0	IMAGE CORONA ASSY	Im ｺﾛﾅ組立	1	ELE P-2	
3	4627-0	ER LAMP ASSY	ｲﾚｰｻｰ組立	1	ELE P-2	
4	4632-0	LED HEAD ASSY	LED ﾍｯﾄﾞ組立	1	ELE P-2	
5	4633P-0	SIZE SELECTOR PCB ASSY	ｻｲｽﾞｾﾚｸﾀｰ基板組立	2	ELE P-2	
6	4806270011	INTERFACE PCB ASSY	ｲﾝﾀｰﾌｪｰｽ基板組立	1	ELE P-2	*
7	4112S-0	BIAS SWITCH PCB ASSY	ﾊﾞｲｱｽ ｽｲｯﾁ基板組立	1	ELE P-2	
8	3611C-0	INP.SENSOR ASSY	INPｾﾝｻｰ組立	3	ELE P-2	
9	3626B-0	CLUTCH ASSY	ﾄﾅｰｸﾗｯﾁ組立	1	ELE P-2	
10	3637B-0	EXIT SENSOR ASSY	EXIT ｾﾝｻｰ組立	4	ELE P-2	
11	28114	SOLID STATE RELAY	ｿﾘｯﾄﾞｽﾃｰﾄﾘﾚｰ	2	ELE P-2	
12	3124	MICRO SWITCH V-162-1C25	ﾏｲｸﾛｽｲｯﾁ(V-162-1C25)	1	ELE P-2	
13	32113	INTERLOCK SWITCH	ｲﾝﾀｰﾛｯｸｽｲｯﾁ	1	ELE P-2	
14	3341	MICRO CLUTCH MIC8	ﾏｲｸﾛｸﾗｯﾁ MIC8	2	ELE P-2	
15	35244	DC BRUSHLESS MOTOR	DC ﾌﾞﾗｼﾚｽﾓｰﾀｰ	1	ELE P-2	
16	39622	TERMINAL BLOCK 3P	端子台 3P	1	ELE P-2	
17	49193	PHOTO INTERRUPT	ﾎﾄｲﾝﾀﾗﾌﾟﾀ GP1A22HR	2	ELE P-2	
18	49353	TONER % SENSOR	ﾄﾅｰ濃度ｾﾝｻｰ	1	ELE P-2	
19	49422	HV POWER SUPPLY DC	高圧電源 DC	1	ELE P-2	
20	4625E-0	TONER SENSOR ASSY	ﾄﾅｰｾﾝｻｰ組立	1	ELE P-2	
21	49449	HV.POWER SUPPLY AC	高圧電源AC	1	ELE P-2	
22	49496A	DC POWER SUPPLY	DC電源HV150-10	1	ELE P-2	
23	41063600200	FPGA-U248 U248 00	FPGA-U248 U248 00	1	ELE P-2	
24	2314690031	EPROM(FONT) 992423	EPROM(FONT) 992423	1	ELE P-2	
25	2314690042	EPROM(PATTERN) F22912	EPROM(PATTERN) F22912	1	ELE P-2	
26	4633Q-0-300	PH SWITCH ASSY	給紙ｽｲｯﾁ組立	2	ELE P-2	

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-001

TO: ALL TECHNICAL PERSONNEL

MODEL:KIP 2170

RE: Error Code EF on 2710

DATE: July 26, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		**x**
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	**YES**	**NO**

Please note the following error codes, which may not found in the KIP 2710 Service Manual.

EF heater motor error
Heater motor overload due to misfeed of media or defective drive compontents

En cutter IC error
Abnormal error on IC 29 for cutter motor

e1 specificartion Setting Error
Setting of Metric or Standard sizes has not been set

e2 Image Placement error
Image placement has not been set

Regards,

Technical Support

WR

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB –2710-002

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710 / KIP 2900

RE: Fuser Motor Speed Adjustment

DATE: August 15, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		X
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	YES	NO

The current procedure in the KIP 2710 Service Manual on how to adjust the fuser motor speed is incomplete. Please note the additional information to the instructions found in the manual. (pg. 3-27 Heater Motor Adjustment)

1) Turn printer main power switch off. Disconnect scanner PRINTER Cable (KIP 2021) from printer (KIP 2710), if scanner is present. Load appropriate media in the roll compartments in the KIP 2710. Set media type and size using selector switches.
2) Set 2710 into metric mode a.k.a. ISO (pg. 3-5)
3) Exit service Diagnostics. Cycle power.
4) Wait for 2710 to reach operating temperature
5) Turn on DSW1-4 then DSW1-2 on Main CPU
6) Enter service mode U (displayed in LED 4)
7) Read page 3-27 and 3-28 in the KIP 2710 Service Manual. Follow the steps on page 3-27 from SETTING METHOD # 4 to completion.

Regards,

Technical Support

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-003

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

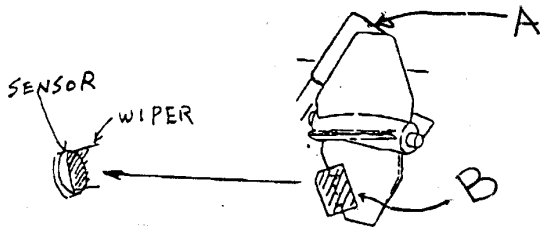
RE: Excessive Dev Ratio Errors

DATE: August 15, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		**x**
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	**YES**	**NO**

The Technical Support Team has received some concerns about excessive developer ratio errors on the KIP 2710.
The following are suggestions which should aid in the prevention and cure of these errors.

1) when setting up new developer in the KIP 2710 ensure the top exterior panel and developer cover are in place (no light leakage to photoreceptor which may draw out toner from developer assembly.)
2) ensure toner sensor is functioning properly. Use Service Diagnostics (pg. 3-6) Input No. 2-32 (pg. 3-7)……..no toner.. low signal and visa versa.
3) ensure the toner sensor wiper is functioning correctly. Note diagram below; wiper A carries toner to the surface of the sensor, wiper B wipes toner off the sensor .If the wiper B does not remove the toner, there is the possibility that the sensor will sense the existence of toner.



4) If upon installation of new developer, the Setup Procedure 4-2 fails (pg. 3-11) perform procedure on page 6-3 of Service Manual. Test point 5 on main CPU

should read approximately 2.25v with new developer.

5) replace developer sensor if 4) fails

Regards,

Technical Support

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-004

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710 / Starprint 3000

RE: Leading Edge of Print

DATE: August 24, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		**X**
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	**YES**	**NO**

On the KIP 2710 / Starprint 3000 the leading edge of media may vary. This fluctuation of the leading edge may appear only after approximately 40,000 linear feet of printing and progressively become worse. You may also experience the knife not cutting correctly with the media not being cut at a right angle.
The cause of the variance of lead edge and cutter malfunction is the mis-operation of the media feed roller clutch. The clutch is located below the drum entrance media guide (paper guide plate located before the transfer/ separation corona assy).

To correct this problem, simply clean the clutch plates or replace the clutch (part # 3342)
To remove clutch:

Open clamshell on KIP 2710 / Starprint 3000.Open top roll deck.
Remove TR/SP Corona Assy.
Remove four screw which secure media guide entrance plate.
Remove two screws from clutch mount.
Disconnect wire connector.
Dismantle clutch from mount, replace or clean clutch. (remove brass ring on gear side of clutch to clean, do not submerge clutch in any liquid, clean both face and plate of clutch with alcohol).
Reassemble in reverse.

Technical Support
wr

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-005

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

RE: Fuser misfeed

DATE: September 3, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		**x**
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	**YES**	**NO**

If a KIP 2710 is experiencing excessive fuser misfeed, perform the following adjustments or replace the following parts to cure the misfeed problem.

1) Replace the upper fuser roller fingers (part # 3738-16B, qty=11), ensure finger does not “bind” when secured with fastening screw (finger should return easily to resting position with finger spring.) If excessive toner has collected to the bottom of the fuser fingers, please note item # 6 on the following page.
2) Ensure plastic exit rollers (part # 4638-3-300, qty=8) are actively rotating on the rubber roller exit (part # 4637-11-300, qty=1). Replace the exit rollers springs (part # 4604A-6 ,qty=8) and the rubber roller exit (part # 4637-11-300 ,qty=1) to ensure proper media transportation. Note the exit roller springs should be secured when the spring is set as close to the Exhaust Unit as possible.
3) Remove the lower fuser roller stripper nails (plate stripper part # 4637-9, qty=8) Produce prints on all the customer’s media types (size of media and type of material), to ensure the media will not adhere to lower pressure roller while copies are made! Visually confirm media will encounter no problems, after the media has left the fuser rollers! If you experience misfeed or ‘dog-ears’ replace lower stripper nails (plate stripper part # 4637-9, qty=8)!
4) Replace fuser exit sensor (part # 3637B-0B, qty=1).
5) Adjust the rear copy receiving rack’s (KTA’s exit stacker assy part # 4642F-0-300) stacker guide (5 screws on guide Stacker Guide A, 5 screws on Stacker Guide B) There should be no gap between the guides and the fuser exit door.

6) The rubber exit roller (part # 4637-11-300 , qty=1) will wear with age and use. This roller will require replacement when the diameter of the rubber rollers' decreases, causing the media to exit the fuser at a reduced speed. Observe the media as it travels between the fusing rollers (upper fuser roller and lower pressure roller) and the rubber exit roller. If the media appears to 'wave' (usually easier to visualize on longer prints), the rubber exit roller's diameter has decreased. **Replace** the rubber exit roller.

N.B. A temporary solution may be to increase the diameter of the exit roller with a quality rubber faced tape. Ensure the tape is applied with the rotation of the rubber exit roller in mind. If the tape is applied incorrectly it will 'peal-off' when media passes over it. Also note if too much tape is applied, or a heavier gauge tape is used, the diameter may become too large. This will cause the media to exit faster than the fuser rollers will allow, causing other components to wear prematurely.

7) Ensure the intermediate transport belts (part # 4128-9 , qty=2) are not stretched and are turning properly. When these belts fail, smaller prints will misfeed in the fuser or Feeder Assembly area (part # 4628-0).Also ensure the sensor (part # 3637B-0B , qty=1) located in the Feeder Assy (sometimes know as the separation sensor) is functioning correctly.

The Technical Support Team trusts the above information will aid in finding the solution if you are experiencing excessive misfeeds in the fuser section on the KIP 2710.
If you have any questions or other suggestions, please forward your comments or concerns to your local KIP America Region Service Manager.

Best regards,

Technical Support
wr

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-007

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710 / 2900

RE: Ready Condition not Achieved

DATE: September 30, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		x
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	YES	NO

On the KIP 2710 / 2900 please check the following components if the Scanner Ready Light does not become active on the 2021 or if a 1,1 fuser warm-up code flashes in the LED Diagnostic display on the 2710 Printer. The Scanner Ready Light flashing and the 1,1 code displayed on the 2710 are indications which are displayed during normal unit operation but if these codes do not disappear or change after a reasonalbe length of time this indacates a problem with the printer.
With these codes the printer will warm-up but the fuser motor may not rotate nor will any fuser warm-up time out errors occur.

a) check lower fuser pressure roller thermistor for functionality. This sensor is located below the orange pressure roller in the fuser assemble.
b) Check all gears in the fuser drive for broken or damaged teeth
c) Replace fuser drive motor (the motor may operate correctly in diagnostics, although the gear pack in the motor housing may be worn, causing the motor to bind during normal operation.)

Item c) may occur after the printer output reaches 150,000 linear feet + on higher print volume units.

Thanks,

Tech Support

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-006

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

RE: Wavy Lines

DATE: September 4, 1998

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		**x**
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		**x**
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	**YES**	**NO**

If you are experiencing text or lines which print 'wavy' on the KIP 2710 please perform the following adjustments or replace the parts listed below.

1) replace the LED print Head Rollers (part # 4605-1 , qty=2)
2) Check the fuser drive gear helical 30t RH (part # 4612A-20) and the fuser gear 50t (part # 4736A-5) for binding. Open fuser exit cover, remove right side cover (two black screws) and check the gears. There should be some play between these two gears. If an adjustment is required, loosen the hex screw which holds the fuser unit to the main frame and pull the fuser unit to the rear of the KIP 2170. N.B. Use caution when performing this adjustment. If there is too much play between these gears, the plastic 30 t gear will be damaged.
3) Ensure Kynar is applied to the photoreceptor and cleaning blade to reduce blade friction.
4) Reduce the amount of pressure the cleaner blade applies to the photoreceptor. This may be preformed by gently stretching the blade springs (part # 4613-30, qty=2)
5) Replace the cleaning assembly (part # 4618-0).
6) On the roll media spool assemblies, reduce the amount of tension on the friction base and friction felt. On the gear side of the spool, there is a set screw which secures the friction base (part # 4131A-3) . Release the set screw and turn the friction base until it contact the spool frame. Fasten the set screw.

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-008

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710 / KIP 2700

RE: Developer Ratio Setting

DATE: January 30, 1999

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		X
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	YES	NO

The following documentation should assist in the understanding on how the Developer / Toner Ratio system operates on the KIP 2710 Printer.

OPERATION

During the set up procedure of new developer in the KIP 2710, service setting Mode 4-2 is used to set the small variance in the developer sensor core, variance in the DC Controller to the new developer powder.
The 4-2 procedure sets a control voltage (a level at which toner is added to the developer powder) in the DC Controller. These voltages are displayed at LED 4 and LED 5 on the controller as follows

LED	Control Voltage
-4	2.48 VDC
-3	2.42 VDC
-2	2.36 VDC
-1	2.30 VDC
0	2.25 VDC
1	2.19 VDC
2	2.13 VDC
3	2.07 VDC
4	2.01 VDC

If the Control voltage cannot be set between the above voltage levels, a –F or F is displayed.

During normal unit operation, the CPU monitors an analog voltage signal from the sensor and compares it to the control voltage. If the signal from the sensor increases past the control voltage range set in the CPU it will add toner to the Developer mix. And if the voltage decreases the CPU decides that there is enough toner in the mix, not adding any more toner. The signal which is monitored from the sensor can be read at TP 5 on the DC

Controller.

DEVELOPER SENSOR

The Developer Sensor has an adjustable core. The core's calibration is performed in the KTA factory and may have small calibration variations. Since Field Engineers **do not** have the tools required to perform the calibration to the sensor, **it is best not to adjust** the developer sensor's core. If the core is physical moved due to tampering or the sensor exposed to physical abuse (dropped or jarred) the sensor must be replaced!

DC CONTROLLER

A voltage is sent to the developer sensor from the DC Controller. This voltage can be read at TP6. The voltage sent to the developer sensor will differ in every machine and can be adjusted with VR1. This voltage will differ due to minor difference in the sensor's calibration as stated above. This stated, this voltage is used to calibrate the DC Controller to the developer sensor. This voltage is adjusted in the factory in such a fashion, that with new developer, TP5 should read 2.25 VDC (voltage back from sensor). During the setup procedure of 4-2 , if you receive a –F or F, VR1 may be set incorrectly or the sensor may be faulty.

DC Controller Calibration

If a –F or F is displayed in LED display during setup, calibration of the add toner system may be required. Only **new** developer can be used during setup!!

Ensure the main charge assembly, and the developer assembly have their electrical connections. If these units are not functioning correctly a large amount of toner will be drawn from the developer mix. Repair problems and replace developer if faults found.

Ensure all covers are on the machine, with exemption to the left side cover.
If the top cover is not in place during setup , new developer must be installed, as this will cause the drum it discharge, drawing a large volume of toner from the developer mix.

Enter diagnostic 4-1 (see manual) and run the KIP 2710 for two to three minutes.
While printer is operating, place a voltmeter on TP 6 to ground. Note value.
Place the voltmeter on TP 5 to ground. With new developer adjust VR1 so TP 5 reads 2.25 VDC. (this adjustment may take a minute), and the LED display should read 0. If 2.25 VDC is unattainable, replace developer sensor (remember 2.25 with **new** developer)

Take reading at TP 6. The voltage should be between 5 VDC to 10 VDC. If the voltage is above or below these values, the sensors output signal may become unstable. If the voltage at TP6 is above 10 VDC or below 5 VDC replace the developer sensor.
Once TP 5 reads an average of 2.25 VDC, stop 4-1 and proceed to 4-2 and execute as you would during normal setup.

Service Mode 4-3

This mode will manually increase or decrease the Control Voltage from the automatic setting of 4-2. There should be no reason to change the 4-2 setting with 4-3. Replace the

defective parts which will cause you to believe the toner ratio requires adjustment, rather than mask their failure with this mode.

If you do feel that a manual adjustment is required

-decreasing the value will increase the toner percentage
-increasing the value will decrease the toner percentage

Developer Error Codes

If you receive an e8 or an e4 error code on the printer, reset the error with Service mode 4-4 and perform the following:

- check the operation of the TONER EMPTY SENSOR located in the toner hopper. with service mode 2-32. See Technical Manual Pg. 3-5, 3-6.
- ensure that the paddle which wipes the toner add sensor is in good condition See TB-2710-003. Replace if required. If this sensor sends a incorrect signal to the CPU, the KIP 2710 may think it still has toner, although the hopper has run empty , causing the developer sensor to error.
- check TP5 for a voltage near 2.25. If the above conditions caused the error, TP5 will be greater than 2.5VDC.

Thanks to all the Support Staff for their contributions.
Regards,

Tech Support
wr.gm.rn.sv.jc.bm.

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-009

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		x
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	YES	NO

TO: ALL TECHNICAL PERSONNEL

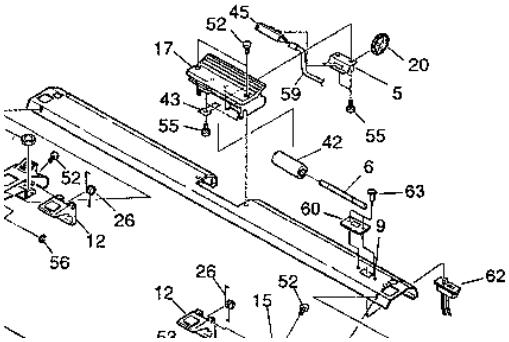
MODEL: KIP 2710

RE: Media unloading

DATE: February 17, 1999

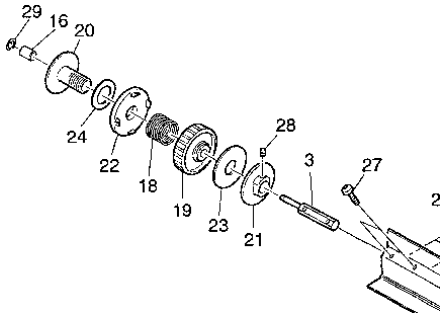
If you are experiencing the media unloading erratically during normal Printer operation in the KIP 2710 , inspect or adjust the following:

A) check the sensor located under the roll media entrance pressure roller.(PS8 & PS9) found on each roll deck. (item 45, 20, 5, 42,& 6) Remove the two chrome screws holding the roller bracket and remove roller. Ensure the sensor contacts the roller correctly and is functioning correctly. Service diagnostics 2-24 & 2-25.



B) clean all media feed rollers.

C) remove the tension from the two roll shafts brakes.



Loosen the hex screw, turn coupler which the hex screw sets.(item 21 & 28) Note the spring (18) inside of the brake assembly. Turn coupler until it reaches the end of the coupler shaft threads(20). Set hex screw. (if this fails to cure the unloading of media, remove the spring and set the tension manually, noting that this brake mechanism drives the roll media in the reverse direction)

D) inspect the gear packs on the upper and lower roll decks for gears which may bind or needle bearing gears which are malfunctioning.

Regards,

Tech Support
rm,pk,wr,gm

6) The rubber exit roller (part # 4637-11-300 , qty=1) will wear with age and use. This roller will require replacement when the diameter of the rubber rollers' decreases, causing the media to exit the fuser at a reduced speed. Observe the media as it travels between the fusing rollers (upper fuser roller and lower pressure roller) and the rubber exit roller. If the media appears to 'wave' (usually easier to visualize on longer prints), the rubber exit roller's diameter has decreased. **Replace** the rubber exit roller.

N.B. A temporary solution may be to increase the diameter of the exit roller with a quality rubber faced tape. Ensure the tape is applied with the rotation of the rubber exit roller in mind. If the tape is applied incorrectly it will 'peal-off' when media passes over it. Also note if too much tape is applied, or a heavier gauge tape is used, the diameter may become too large. This will cause the media to exit faster than the fuser rollers will allow, causing other components to wear prematurely.

7) Ensure the intermediate transport belts (part # 4128-9 , qty=2) are not stretched and are turning properly. When these belts fail, smaller prints will misfeed in the fuser or Feeder Assembly area (part # 4628-0).Also ensure the sensor (part # 3637B-0B , qty=1) located in the Feeder Assy (sometimes know as the separation sensor) is functioning correctly.

The Technical Support Team trusts the above information will aid in finding the solution if you are experiencing excessive misfeeds in the fuser section on the KIP 2710.
If you have any questions or other suggestions, please forward your comments or concerns to your local KIP America Region Service Manager.

Best regards,

Technical Support
wr

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-011

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710 / 2700

RE: Connectors in Roll Decks

DATE: May 18, 1999

ACTION REQUIRED	
REQUIRED ASAP	
REQUIRED NEXT VISIT	
FOR REFERENCE	x
PRODUCTION CHANGE ONLY	
PERFORM ONLY IF NECESSARY	
PARTS AUTOMATIC SHIP	
PLEASE ORDER AS NEEDED	
CONFIRM OF UPDATE REQUIRED	
RETURN OLD PARTS YES NO	

The connector blocks for the Roll Decks on the KIP 2710 can now be ordered separately from the Wire Harnesses. These are the “blue” connector blocks and are without the metal pins.

The item numbers are

4612-170 upper deck frame side
4633-591 upper deck drawer side
4612-171 lower deck frame side

TECHTL005 pin extractor (use to remove pins)

The pin extractor can only be rented for $20.00 and must be returned within 30 days or an additional charge will apply.

Tech Support
cq

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-010

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

RE: Part Changes in Fuser Exit

DATE: April 12, 1999

ACTION REQUIRED		
REQUIRED ASAP		
REQUIRED NEXT VISIT		
FOR REFERENCE		x
PRODUCTION CHANGE ONLY		
PERFORM ONLY IF NECESSARY		
PARTS AUTOMATIC SHIP		
PLEASE ORDER AS NEEDED		
CONFIRM OF UPDATE REQUIRED		
RETURN OLD PARTS	YES	NO

KTA has changed the composition of the FUSER EXIT ROLLER on the KIP 2710. This is a produce enhancement.
The new roller “rubber tires” are made from EPD Material rather than a CR Rubber. The new item number is **4637-11 Roller Exit**. The exit fingers have also been redesigned Their item number is **4138-8 Finger** (qty 11). This enhancement to the fuser exit started with KIP 2710 serial number 4809041341.

Please note the above item numbers when ordering this parts for your KIP 2710 with a Serial Number higher than that stated above.

Regards,

Tech Support

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-012

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

RE: Lubrication Of Parts

DATE: May 22, 1999

ACTION REQUIRED	
REQUIRED ASAP	
REQUIRED NEXT VISIT	
FOR REFERENCE	x
PRODUCTION CHANGE ONLY	
PERFORM ONLY IF NECESSARY	
PARTS AUTOMATIC SHIP	
PLEASE ORDER AS NEEDED	
CONFIRM OF UPDATE REQUIRED	
RETURN OLD PARTS YES NO	

KTA has issued a guide on which components require lubrication on the KIP 2710 Printer. Please review the following list and note items which require attention during Preventative Maintenance on the KIP 2710. Please note the Manufacturer Name is for reference only. (see 'kind' for a local supplier)

GREASING AREA	KIND OF GREASE	MANUFACTURER
1. All gears (except for heater , spool and clutch	Sumitec 505 No2B (grease for resin)	SUMICO LUBRICANT CO., LTD.
2. Bearing on the center of main roller	Sumitec 505 No2B (grease for resin)	SUMICO LUBRICANT CO., LTD.
3. Bearing on the center of paper exit roller	Sumitec 505 No2B (grease for resin)	SUMICO LUBRICANT CO., LTD.
4. Developer drive shaft in engine area (spacing roller)	Sumitec 505 No2B (grease for resin)	SUMICO LUBRICANT CO., LTD.
5. Caulking for 40T gear of fuser unit	Sumitec 505 No2B (grease for resin)	SUMICO LUBRICANT CO., LTD.
6. Main motor gear of drive unit	MOLYKOTE 822M (Heat resisting grease)	DOW CORNING ASIA LTD.
7. 40T/50T gears of fuser unit	MOLYKOTE 822M (Heat resisting grease)	DOW CORNING ASIA LTD.

8. 30T helical gear of drive unit	MOLYKOTE 822M (Heat resisting grease)	DOW CORNING ASIA LTD.
9. Drum earth	Sumitec 7571 (electric Conductive Grease)	SUMICO LUBRICANT CO., LTD.
10. Bearing of spacing roller of main roller counter (only center area)	MOLYKOTE BR2- (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
11. Bearing of spacing roller of paper exit roller counter (only center area)	MOLYKOTE BR2 (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
12. Spacing roller shaft of engine area (bearing adapter)	MOLYKOTE BR2 (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
13. Handle bracket shaft of paper feed area	MOLYKOTE BR2-Plus (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
14. Hook of engine unit	MOLYKOTE BR2-Plus (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
15. Hook of heater hatch	MOLYKOTE BR2-Plus (Grease for metal spacing roller)	DOW CORNING ASIA LTD.
16. Lock Plate of paper feed area	MOLYKOTE BR2-Plus (Grease for metal spacing roller)	DOW CORNING ASIA LTD.

Tech Support

KIP AMERICA / KIP CANADA

EQUIPMENT INFORMATION BULLETIN

Bulletin Number TB-2710-013

TO: ALL TECHNICAL PERSONNEL

MODEL: KIP 2710

RE: Wavy Lines in Print

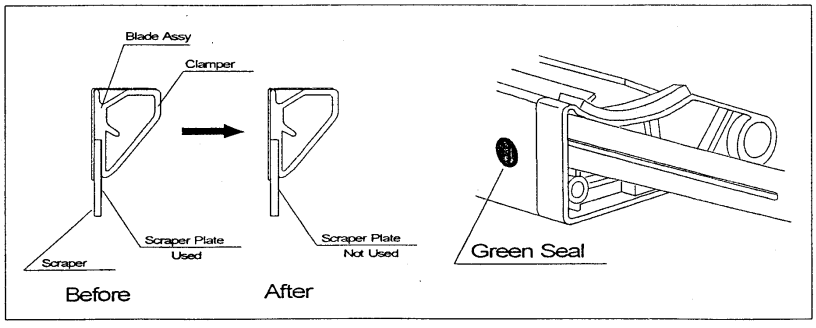
DATE: September 9, 1999

ACTION REQUIRED	
REQUIRED ASAP	
REQUIRED NEXT VISIT	
FOR REFERENCE	x
PRODUCTION CHANGE ONLY	
PERFORM ONLY IF NECESSARY	
PARTS AUTOMATIC SHIP	
PLEASE ORDER AS NEEDED	
CONFIRM OF UPDATE REQUIRED	
RETURN OLD PARTS YES NO	

If you are experiencing wavy lines in a KIP 2710 printer please perform the following:

Remove the cleaning blade push spring. All new KIP 2710's will have this item removed during the assembly of the printer. (starting Sn # 4909081483) Please note the change in item numbers.

	Old Part No.	New Part No.	Description	Q'ty
1	4618-0	4618-0-2	CLEANER ASSY	1
2	4618A-0	4618A-0-1	BLADE ASSY	1



Please also reference TB-2710-006.

Regards,

Tech Support