



FS-6525MFP

FS-6530MFP

SERVICE

MANUAL

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Rev.3

CAUTION

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

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

ATTENTION

IL Y A UN RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UN MODÈLE DE TYPE INCORRECT. METTRE AU REBUT LES BATTERIES UTILISÉES SELON LES INSTRUCTIONS DONNÉES.

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

Revision history

Revision	Date	Replaced pages	Remarks
1	20 June 2012	1-3-12, 1-4-20, Address	-
2	20 August 2012	1-3-65, 1-3-121, 1-3-122, 2-4-12	-
3	1 December 2012	CONTENTS, 1-6-2, 2-4-9	-

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Safety precautions


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

Safety warnings and precautions


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

 **DANGER:** High risk of serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **WARNING:** Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

 **CAUTION:** Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

Symbols

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



General warning.



Warning of risk of electric shock.



Warning of high temperature.

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



General prohibited action.



Disassembly prohibited.

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



General action required.



Remove the power plug from the wall outlet.



Always ground the copier.

1. Installation Precautions

WARNING

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













CAUTION:

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


















2. Precautions for Maintenance

WARNING

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



CAUTION

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

- Do not remove the ozone filter, if any, from the copier except for routine replacement. 
- Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself. 
- Do not route the power cable where it may be stood on or trapped. If necessary, protect it with a cable cover or other appropriate item. 
- Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks. 
- Remove toner completely from electronic components. 
- Run wire harnesses carefully so that wires will not be trapped or damaged. 
- After maintenance, always check that all the parts, screws, connectors and wires that were removed, have been refitted correctly. Special attention should be paid to any forgotten connector, trapped wire and missing screws. 
- Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary. 
- Handle greases and solvents with care by following the instructions below: 
- Use only a small amount of solvent at a time, being careful not to spill. Wipe spills off completely.
- Ventilate the room well while using grease or solvents.
- Allow applied solvents to evaporate completely before refitting the covers or turning the power switch on.
- Always wash hands afterwards.
- Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc. 
- Should smoke be seen coming from the copier, remove the power plug from the wall outlet immediately. 

3. Miscellaneous

WARNING

- Never attempt to heat the drum or expose it to any organic solvents such as alcohol, other than the specified refiner; it may generate toxic gas. 
- Keep the machine away from flammable liquids, gases, and aerosols. A fire or an electric shock might occur. 

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Installation Guide

PF-470/471(Paper feeder)
DF-470/AK-470(Document finisher)
FAX System(U)

1-1-1 Specifications

Machine

Item		Specifications	
		25ppm	30ppm
Type		Desktop	
Printing method		Electrophotography by semiconductor laser, single drum system	
Originals		Sheet, Book, 3-dimensional objects (maximum original size: A3/Ledger)	
Original feed system		Fixed	
Paper weight	Cassette	60 to 163 g/m ² (Duplex: 60 to 163 g/m ²)	
	MP tray	45 to 256 g/m ² , (Sizes is larger than A4/Letter: 52 to 163 g/m ²)	
Paper type	Cassette	Plain, Preprinted, Bond, Recycled, Vellum, Rough, Letter Head, Color, Pre-punched, Thick, High quality, Custom1 to 8 (Duplex: Same as simplex)	
	MP tray	Plain, Preprinted, Bond, Recycled, Vellum, Rough, Letter Head, Color, Pre-punched, Thick, High quality, Envelope, Cardstock, Transparency, Labels, Custom1 to 8	
Paper size	Cassette	A3, A4, A5, B4, B5, Ledger, Letter, Legal, Statement, Oficio II, Folio, 8K, 16K	
	MP tray	A3, A4, A5, A6, B4, B5, ISO B5, B6, Ledger, Letter, Legal, Statement, Executive, Oficio II, Folio, 8K, 16K, Envelope #10, Envelope #9, Envelope #6, Envelope Monarch, Envelope DL, Envelope C4, Envelope C5, Postcards, Return postcard, Youkei 2, Youkei 4, Custom	
Zoom level		Manual mode : 25 to 400%, 1% increments Auto mode : 400%, 200%, 141%, 122%, 115%, 86%, 81%, 70%, 50%, 25%	
Copying speed (Cassette) (Simplex)	When the DP is not used	A4/Letter : 25 sheets/min A4/LetterR : 18 sheets/min A3/Ledger : 12 sheets/min B4/Legal : 12 sheets/min B5 : 25 sheets/min B5R : 16 sheets/min A5R : 12 sheets/min	A4/Letter : 30 sheets/min A4/LetterR : 22 sheets/min A3/Ledger : 15 sheets/min B4/Legal : 15 sheets/min B5 : 30 sheets/min B5R : 20 sheets/min A5R : 15 sheets/min
	When using the DP	A4/Letter : 20 sheets/min A4/LetterR : 14 sheets/min A3/Ledger : 10 sheets/min B4/Legal : 11 sheets/min B5 : 20 sheets/min B5R : 16 sheets/min A5R : 12 sheets/min	A4/Letter : 20 sheets/min A4/LetterR : 14 sheets/min A3/Ledger : 10 sheets/min B4/Legal : 11 sheets/min B5 : 20 sheets/min B5R : 16 sheets/min A5R : 15 sheets/min
First copy time (A4, feed from cassette)		When the DP is not used : 7.8 s or less When using the DP : 9.2 s or less	
Warm-up time (22 °C/71.6 °F, 60% RH)		Power on : 20 s or less Low power mode : 10 s or less Sleep mode : 20 s or less	

Item		Specifications	
		25ppm	30ppm
Paper capacity	Cassette	500 sheets (80g/m ²)	
	MP tray	100 sheets (80 g/m ² , plain paper, A4/Letter or less)	
Output tray capacity		250 sheets (80g/m ²)	
Continuous copying		1 to 999 sheets	
Light source		White LED	
Scanning system		Flat bed scanning by CCD image sensor	
Photoconductor		a-Si drum (diameter 30 mm)	
Image write system		Semiconductor laser:	
Charging system		Contact charger roller method	
Developer system		Mono component dry developing method Toner replenishing: Automatic from the toner container	
Transfer system		Transfer roller method	
Separation system		Small diameter separation, discharger brush	
Cleaning system		Counter blade cleaning + cleaning roller	
Charge erasing system		Exposure by cleaning lamp (LED)	
Fusing system		Heat and pressure fusing with the heat roller and the press roller Heat source: halogen heater Abnormally high temperature protection devices: thermostat	
CPU		PowerPC464 (800MHz)	
Main memory	Standard	1.0 GB	
	Maximum	2.0 GB	
Interface	Standard	USB interface connector: 1 (USB 2.0) USB host: 2 (USB 2.0) Network interface: 1 (10BASE-T/100BASE-TX/1000BASE-T)	
	Option	eKUIO slot: 2	
Resolution		600 × 600 dpi	
Operating environment	Temperature	10 to 32.5 °C/50 to 90.5 °F	
	Humidity	15 to 80% RH	
	Altitude	2,500 m/8,202 ft or less	
	Brightness	1,500 lux or less	
Dimensions (W × D × H)		590 × 590 × 694 mm / 23 1/4" × 23 1/4" × 27 5/16"	
Weight (with toner container)		52.2 kg / 115.1 lb	
Space required (W × D)		878 × 590 mm / 34 9/16" × 23 1/4" (using MP tray)	
Power source		120 V AC, 60 Hz, more than 12.0 A 220 - 240 V AC, 50/60 Hz, more than 6.5 A	
Options		Paper feeder (single cassette), Paper feeder (double cassette), Document finisher, Network kit, Fax kit, Expanded memory, USB Keyboard	

Document processor

Item	Specifications
Original feed method	Automatic feed
Supported original types	Sheet originals
Original sizes	Maximum: A3/Ledger Minimum : A5/Statement
Original weights	Simplex: 45 to 160 g/m ² Duplex : 50 to 120 g/m ²
Loading capacity	50 sheets (50 to 80 g/m ²) or less

Printer

Item		Specifications	
		25ppm	30ppm
Printing speed (Cassette)	Simplex	A4/Letter : 25 sheets/min A4/LetterR : 18 sheets/min A3/Ledger : 12 sheets/min B4/Legal : 12 sheets/min B5 : 25 sheets/min B5R : 16 sheets/min A5R : 12 sheets/min	A4/Letter : 30 sheets/min A4/LetterR : 22 sheets/min A3/Ledger : 15 sheets/min B4/Legal : 15 sheets/min B5 : 30 sheets/min B5R : 20 sheets/min A5R : 15 sheets/min
	Duplex	A4/Letter : 25 sheets/min A4/LetterR : 11 sheets/min A3/Ledger : 9 sheets/min B4/Legal : 9 sheets/min B5 : 25 sheets/min B5R : 11 sheets/min A5R : 12 sheets/min	A4/Letter : 28 sheets/min A4/LetterR : 12 sheets/min A3/Ledger : 10 sheets/min B4/Legal : 10 sheets/min B5 : 28 sheets/min B5R : 12 sheets/min A5R : 15 sheets/min
First print time (A4, feed from cassette)		8.5 s or less	
Resolution		600 × 600 dpi, Fast 1200	
Operating system		Windows2000, WindowsXP(32bit), Windows XP Professional x64 Edition, Windows Server 2003 (32-Bit x86), Windows Server 2003 x64 Edition, Windows Vista x86 Edition, Windows Vista x64 Edition, Windows Server 2008 (32-Bit x86), Windows Server 2008 x64 Edition, Windows 7 (32-Bit x86), Windows 7 (64-Bit x64), Mac OS 9.x, Mac OS X	
System requirements		IBM PC/AT compatible CPU: Celeron 266 MHz or higher RAM: It is based on the recommend environment of each OS. HDD free space: 20 MB or more	
Page description language		PRESCRIBE	

Scanner

Item		Specifications
Operating system		Windows XP (32bit/64bit), Windows Vista (32bit/64bit), Windows 7 (32bit/64bit), Windows Server 2003 (32bit/64bit), Windows Server 2008 (32bit/64bit), Windows Server 2008 R2
Resolution		600 dpi, 400 dpi, 300 dpi, 200 dpi, 200 × 100dpi, 200 × 400dpi
File format		JPEG, TIFF, PDF, XPS
Scanning speed	Simplex	B/W : 40 images/min Color: 20 images/min (A4 landscape, 300 dpi, Image quality: Text/Photo original)
	Duplex	B/W : 14 images/min Color: 9 images/min (A4 landscape, 300 dpi, Image quality: Text/Photo original)
Network protocol		TCP/IP
Transmission system		PC transmission SMB :Scan to PC FTP transmission FTP, FTP over SSL :Scan to FTP E-mail transmission SMTP :Scan to E-mail USB transmission USB :Scan to USB TWAIN SCAN TWAIN, WIA * WSDScan WSD-SCAN

* Available operating system: Windows Vista (32bit/64bit), Windows 7 (32bit/64bit), Windows Server 2008 (32bit/64bit), Windows Server 2008 R2

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Machine (front side)

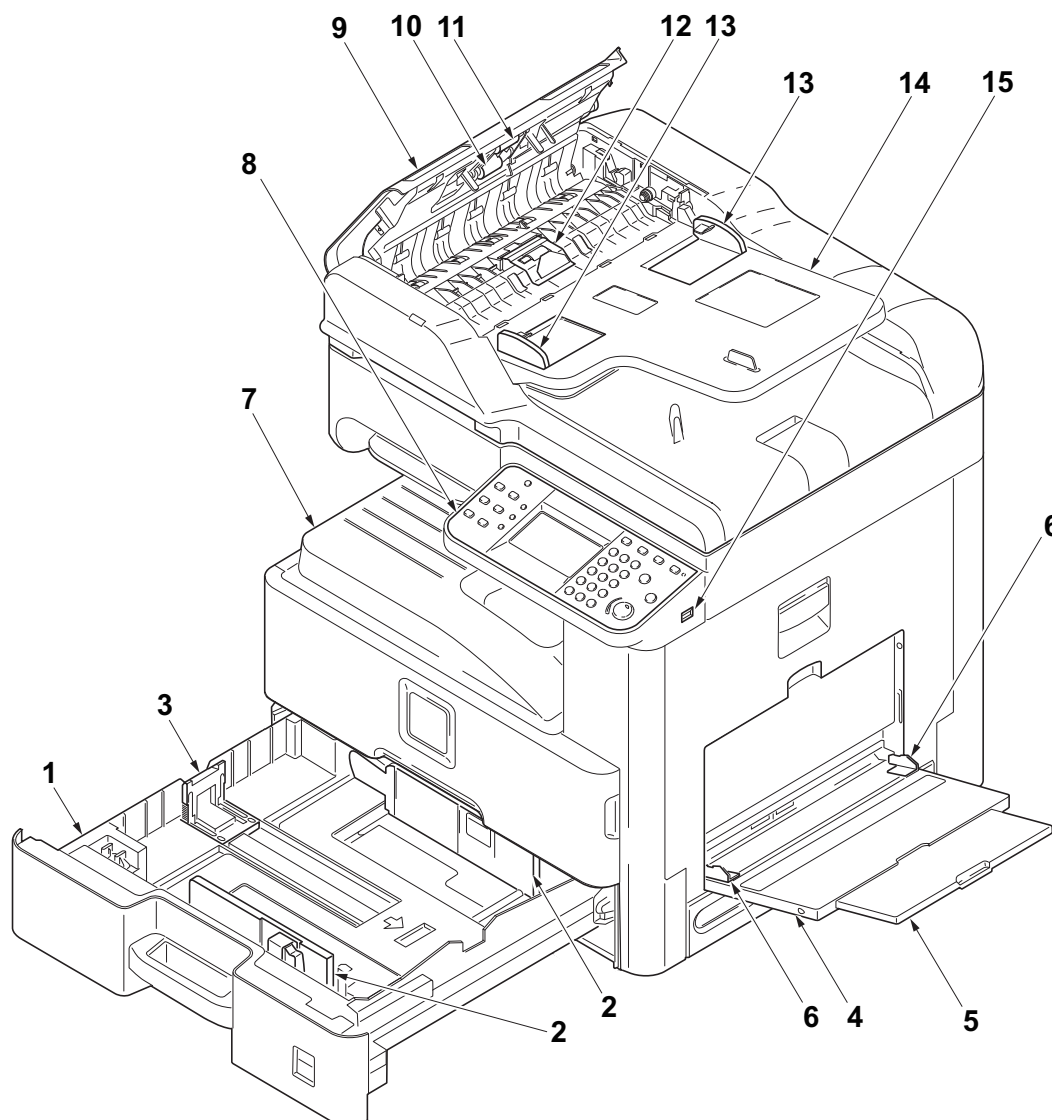


Figure 1-1-1

- | | |
|----------------------------|------------------------------|
| 1. Cassette | 9. DP top cover |
| 2. Paper width guides | 10. DP paper feed roller |
| 3. Paper length guide | 11. DP forwarding roller |
| 4. MP (multi purpose) tray | 12. DP separation pulley |
| 5. MP tray extension | 13. DP original width guides |
| 6. MP Paper width guides | 14. Original table |
| 7. Inner tray | 15. USB memory slot |
| 8. Operation panel | |

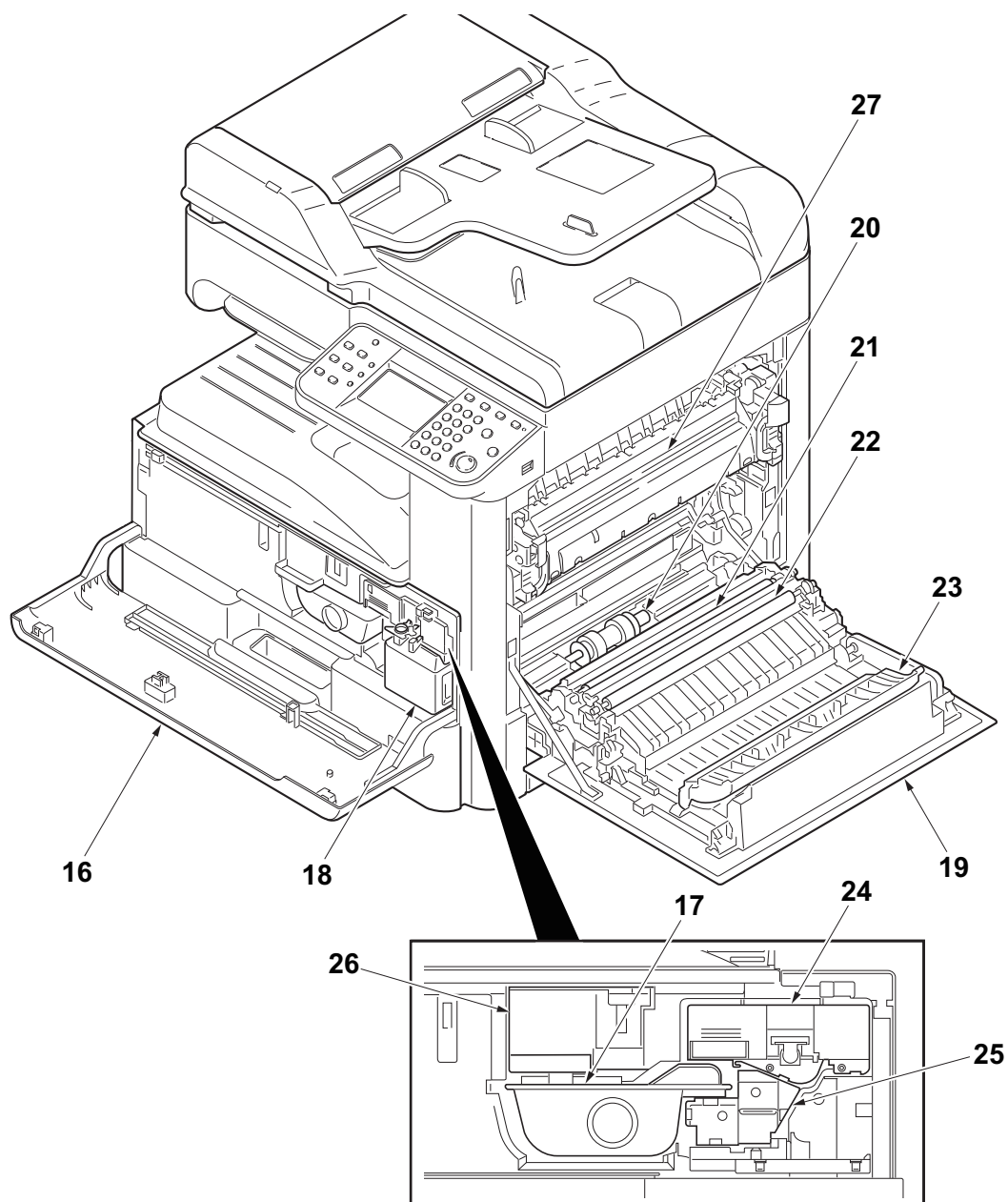
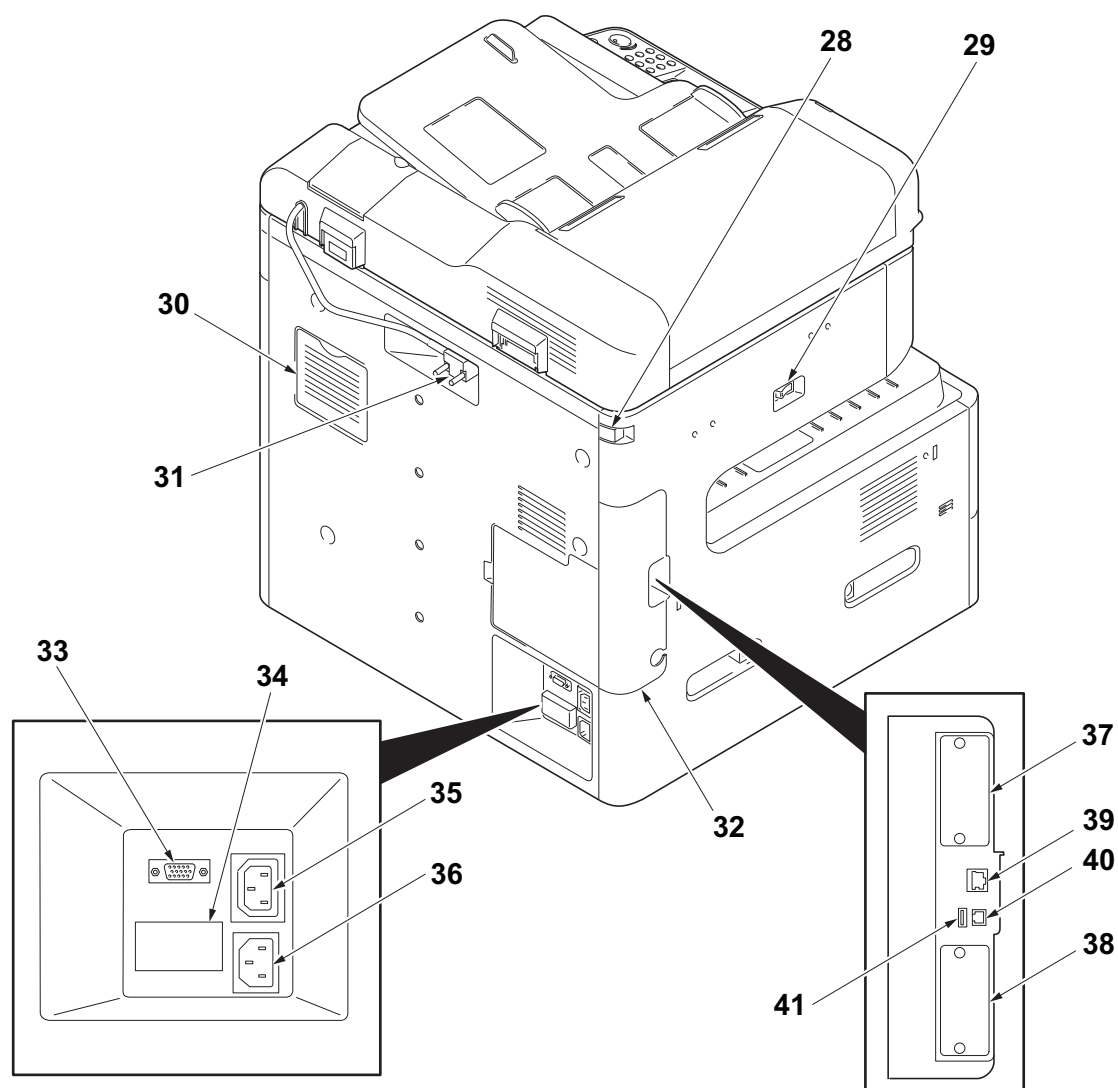
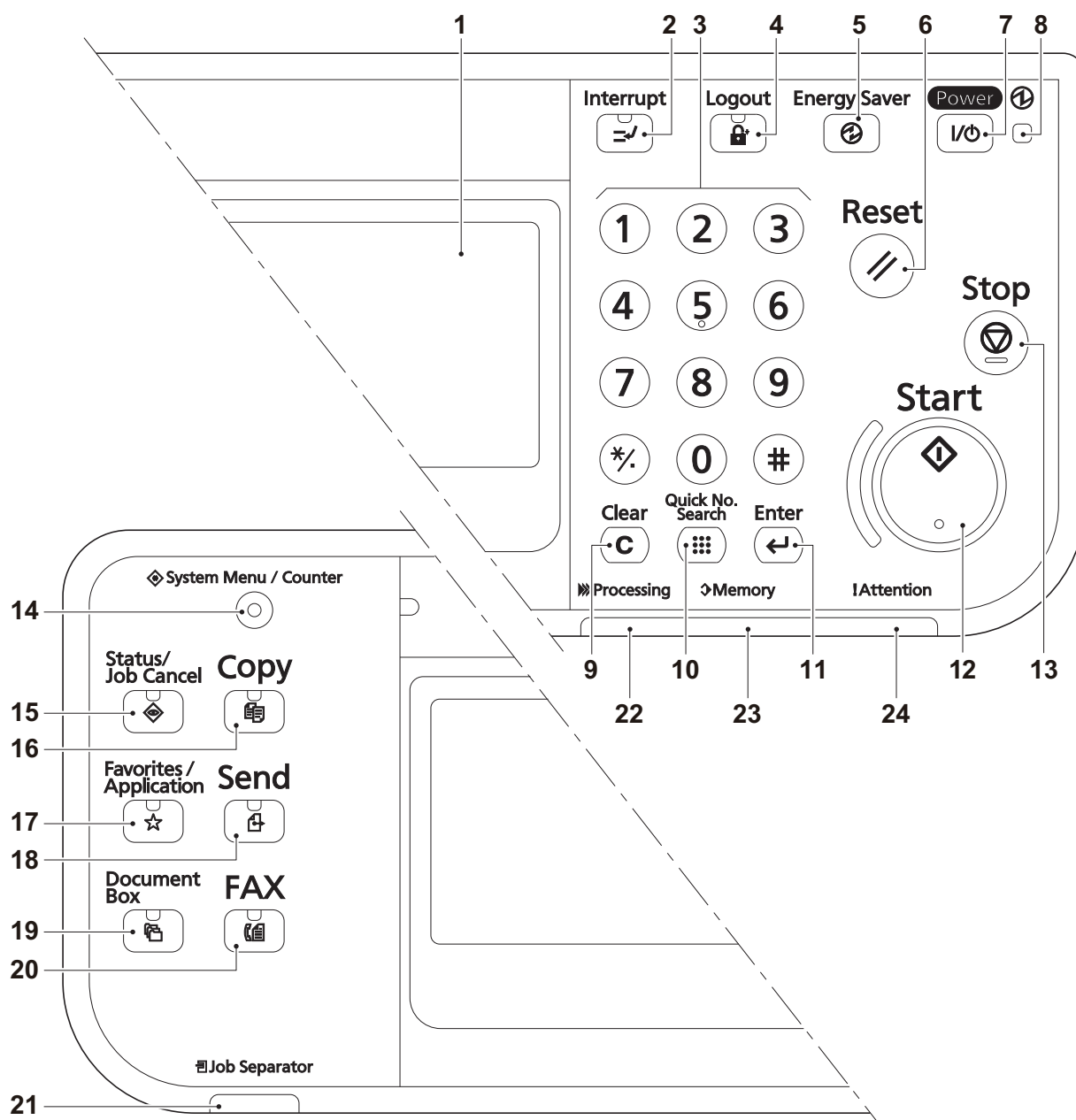


Figure 1-1-2

- | | |
|--------------------------|---------------------------|
| 16. Front cover | 23. Feed shift guide |
| 17. Toner container | 24. Drum unit |
| 18. Waste toner box | 25. Developing unit |
| 19. Right cover 1 | 26. Toner container lever |
| 20. MP paper feed roller | 27. Fuser unit |
| 21. Registration roller | |
| 22. Transfer roller | |

(2) Machine (rear side)**Figure 1-1-3**

- | | |
|------------------------------------|---------------------------------|
| 28. Scanner lock lever | 35. Outlet connector |
| 29. Main power switch | 36. Inlet connector |
| 30. Filter cover | 37. Option interface slot 1 |
| 31. DP interface connector | 38. Option interface slot 2 |
| 32. Controller box cover | 39. Network interface connector |
| 33. DF interface connector | 40. USB port |
| 34. Cassette heater switch (cover) | 41. USB interface connector |

(3) Operation panel**Figure 1-1-4**

- | | | |
|------------------------|-----------------------------------|------------------------------------|
| 1. Message display | 10. Quick No.search key | 17. Favorite/Application key / LED |
| 2. Interrupt key / LED | 11. Enter key | 18. Send key / LED |
| 3. Numeric keys | 12. Start key / LED | 19. Document box key / LED |
| 4. Logout key / LED | 13. Stop key | 20. FAX key / LED |
| 5. Energy saver / LED | 14. System menu/Counter key / LED | 21. Job separator LED |
| 6. Reset key | 15. Status/Job cancel / LED | 22. Processing LED |
| 7. Power key / LED | 16. Copy key / LED | 23. Memory LED |
| 8. Main power LED | | 24. Attention LED |
| 9. Clear key | | |

1-1-3 Machine cross section

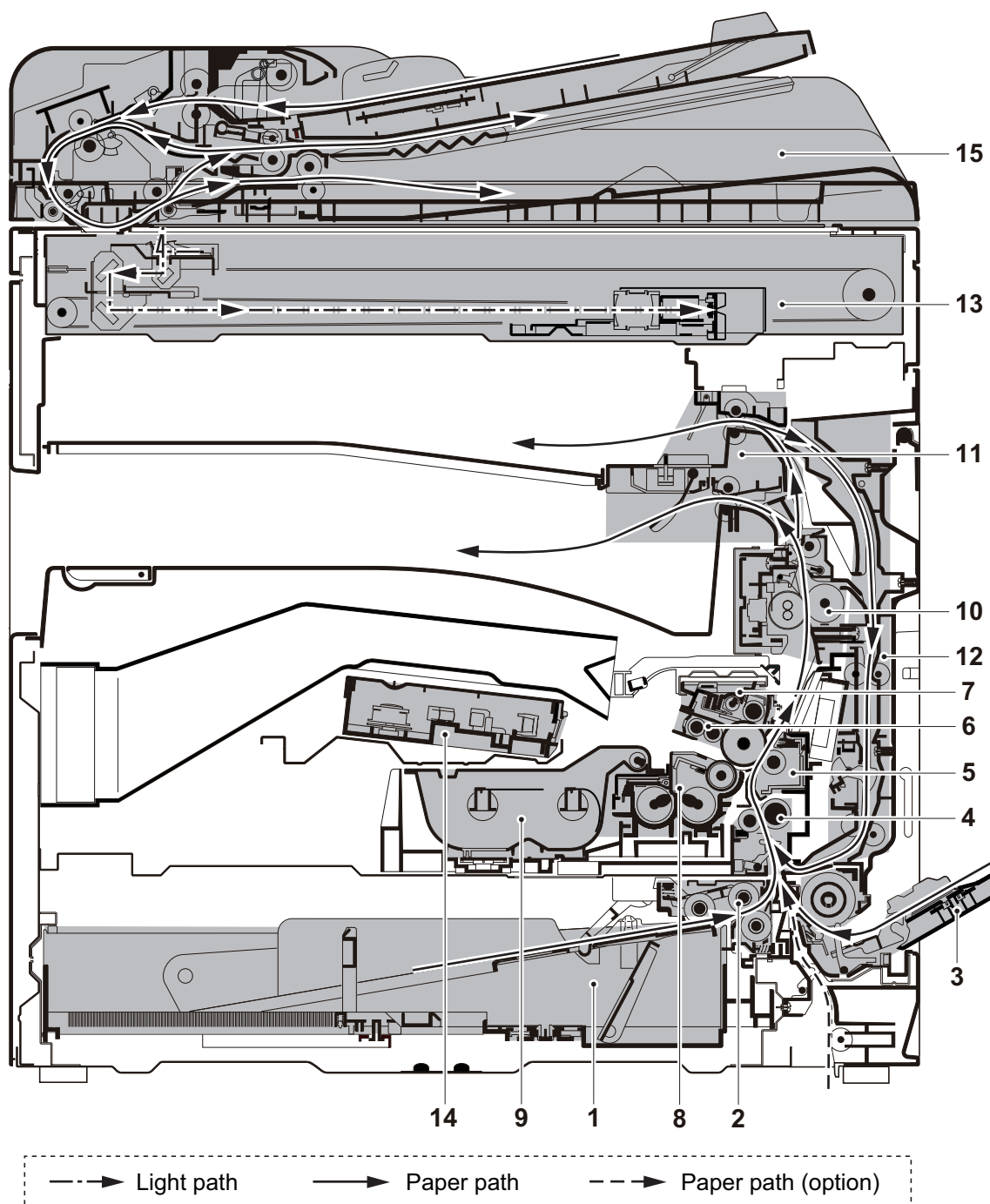


Figure 1-1-5

- | | | |
|--------------------------------|------------------------------|------------------------------|
| 1. Cassette | 7. Drum unit | 13. Image scanner unit (ISU) |
| 2. Cassette paper feed section | 8. Developer unit | 14. Laser scanner unit (LSU) |
| 3. MP tray paper feed section | 9. Toner container | 15. Document processor (DP) |
| 4. Conveying section | 10. Fuser unit | |
| 5. Transfer/Separation section | 11. Eject section | |
| 6. Charger roller unit | 12. Duplex/conveying section | |

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1-2-1 Installation environment

1. Temperature: 10 to 32.5°C/50 to 90.5°F
2. Humidity: 15 to 80% RH
3. Power supply: 120 V AC, 12.0 A
220 - 240 V AC, 6.5 A
4. Power supply frequency: 50 Hz $\pm 2\%$ /60 Hz $\pm 2\%$
5. Installation location

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

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

Avoid places subject to dust and vibrations.

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

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

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

Select a well-ventilated location.

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

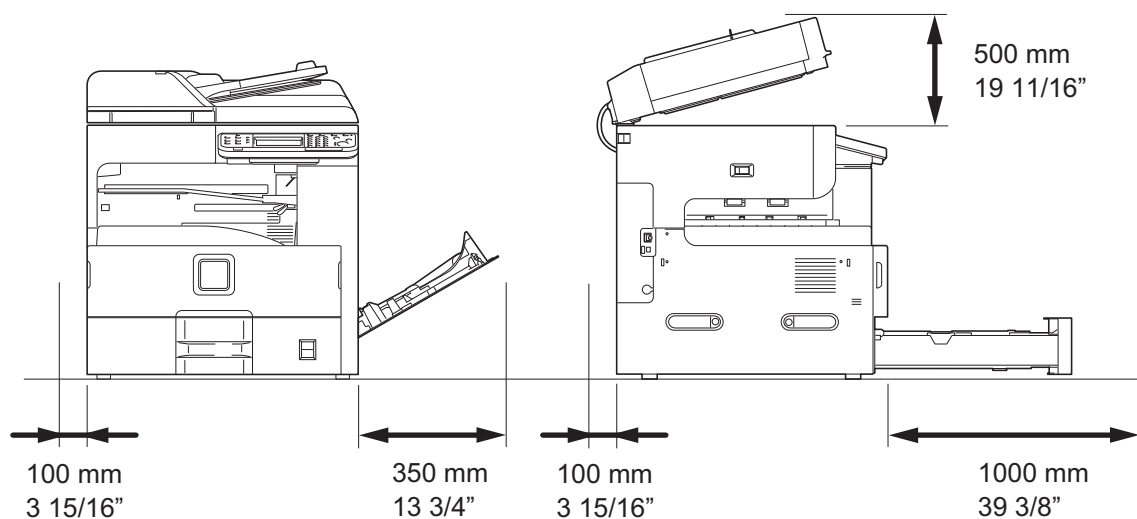
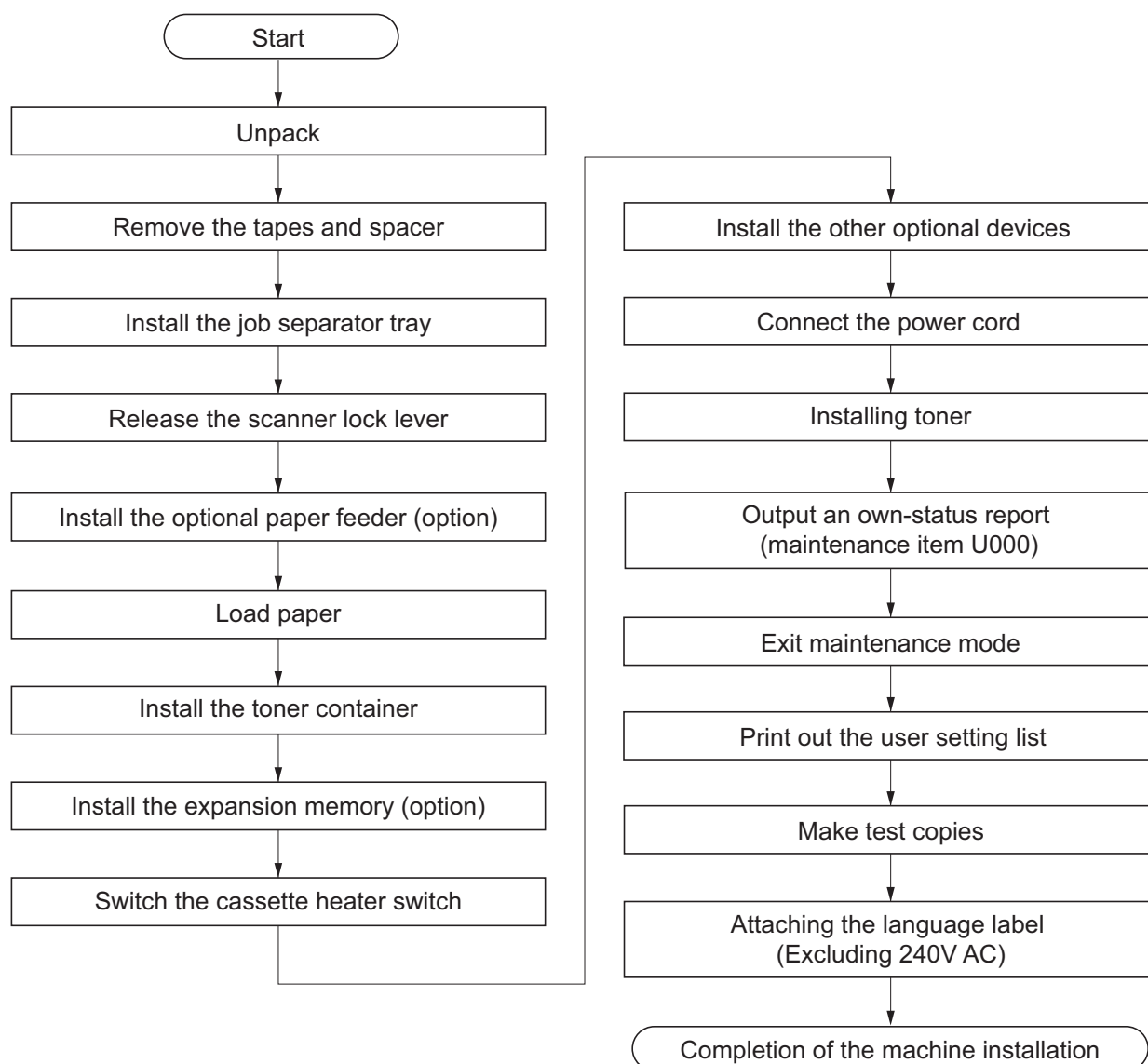


Figure 1-2-1

1-2-2 Unpacking and installation

(1) Installation procedure



Unpacking

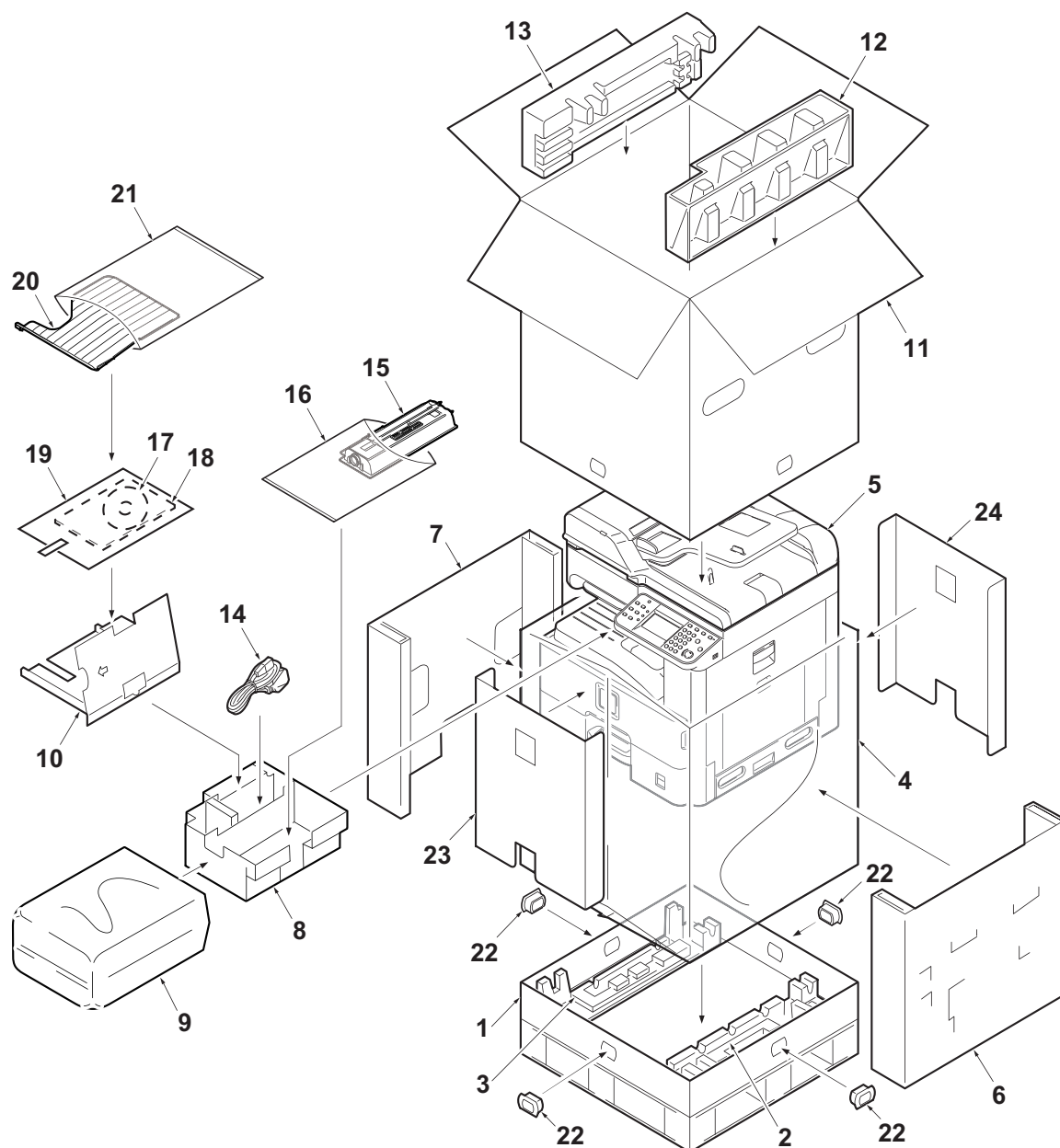


Figure 1-2-2

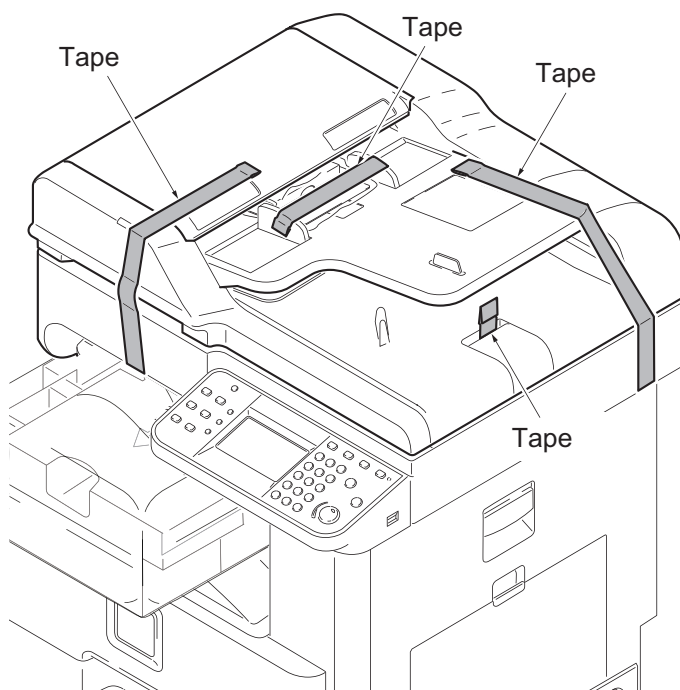
- | | | |
|------------------------------|-----------------------------|------------------------------|
| 1. Bottom case | 9. Plastic bag (630 × 730) | 17. CD-ROM *1 |
| 2. Bottom pad R | 10. Spacer B | 18. Installation guide, etc. |
| 3. Bottom pad L | 11. Outer case | 19. Plastic bag |
| 4. Machine cover (740 × 700) | 12. Upper pad R | 20. Job separator tray |
| 5. Machine | 13. Upper pad L | 21. Plastic bag (400 × 600) |
| 6. Inner case R | 14. Power cord | 22. Hinge joints |
| 7. Inner case L | 15. Toner container | 23. Inner case F |
| 8. Spacer A | 16. Plastic bag (400 × 600) | 24. Inner case B |

*1 Excluding 230V AC model

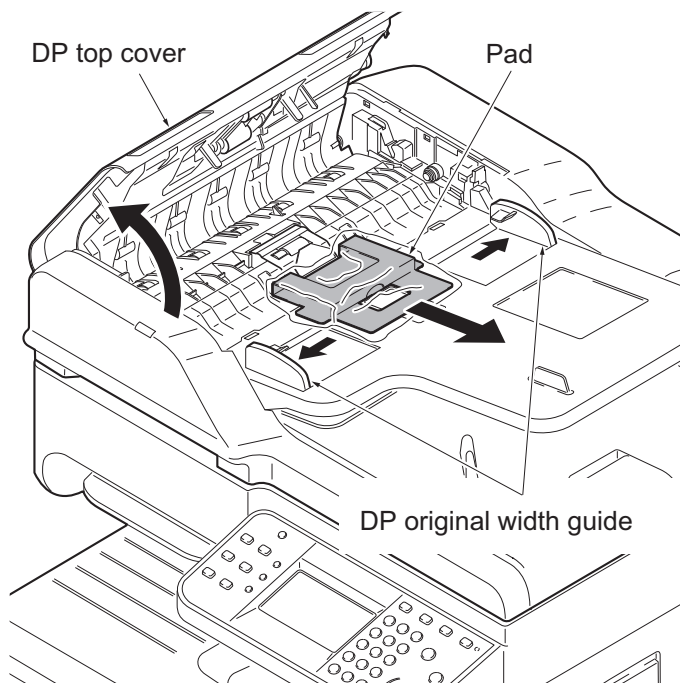
Place the machine on a level surface.

Remove the tapes and spacer

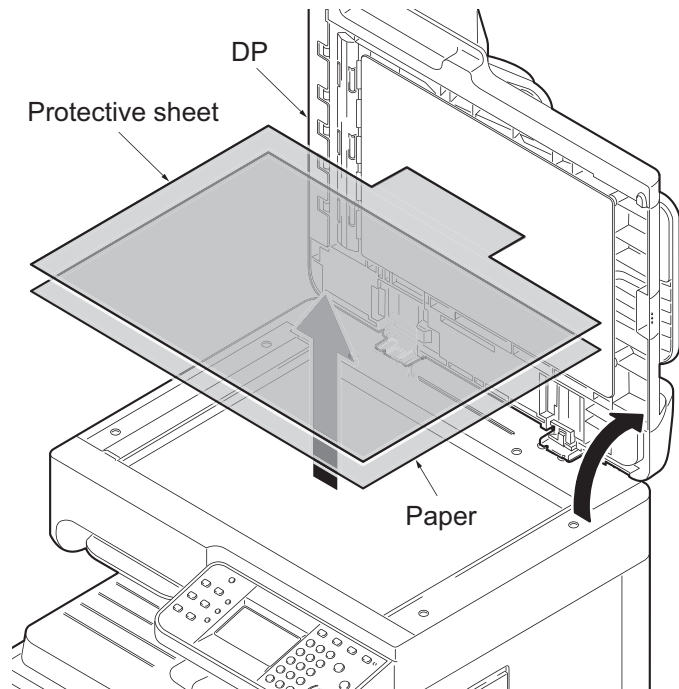
1. Remove four tapes.

**Figure 1-2-3**

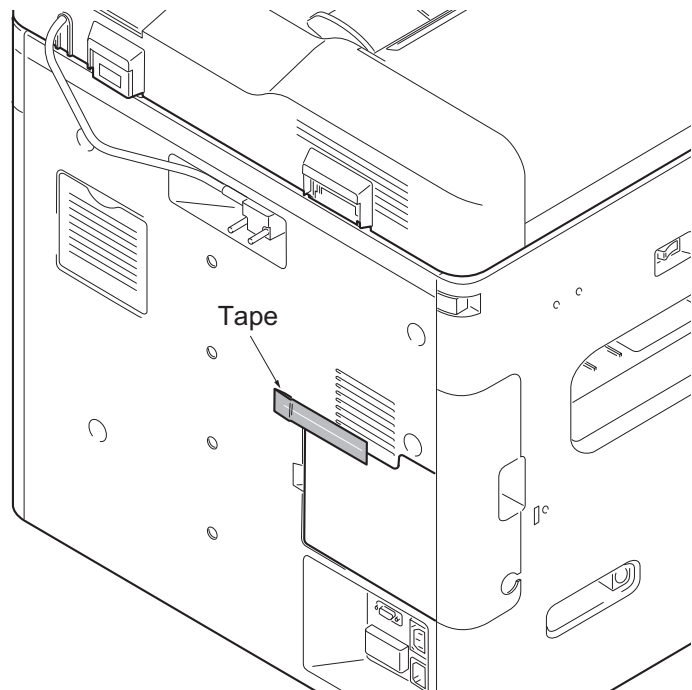
2. Open the DP top cover.
3. Slide two DP original width guides and then remove the pad.
4. Close the DP top cover.

**Figure 1-2-4**

5. Open the DP.
6. Remove the protective sheet and paper.

**Figure 1-2-5**

7. Remove the tape.

**Figure 1-2-6**

8. Peel off two protective sheets.
9. Remove the spacer.

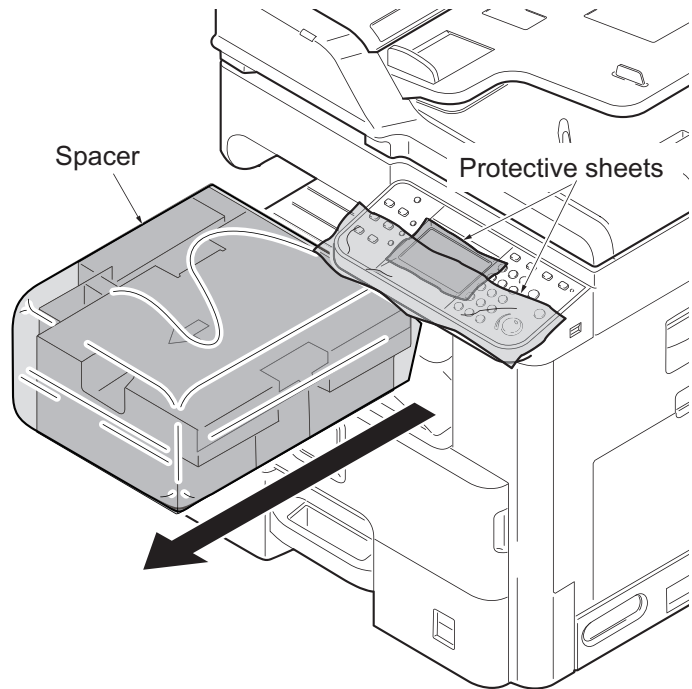
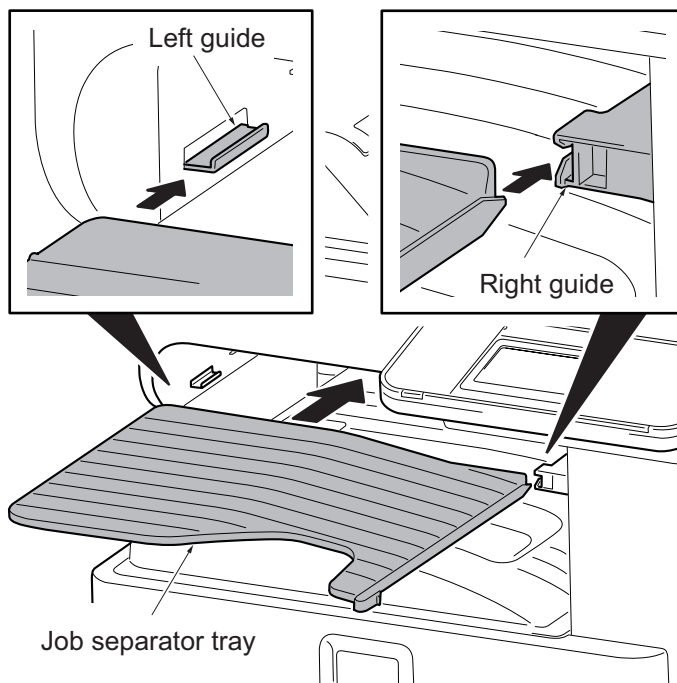


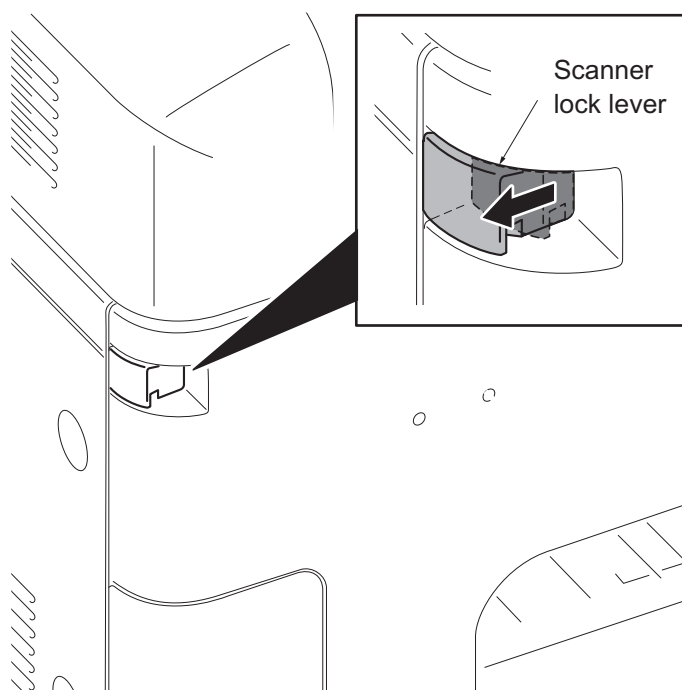
Figure 1-2-7

Install the job separator tray

1. Gently push the job separator tray into the machine along the guides.

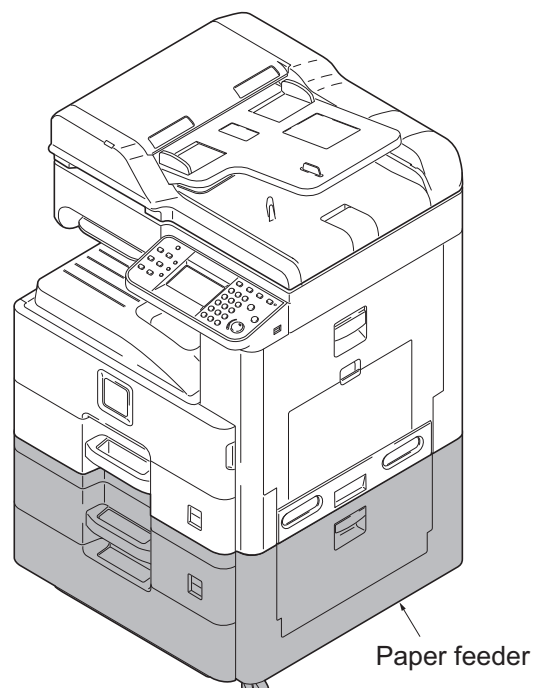
**Figure 1-2-8****Release the scanner lock lever**

1. Pull the scanner lock lever in the direction of the arrow. This will unlock the scanner mechanism.

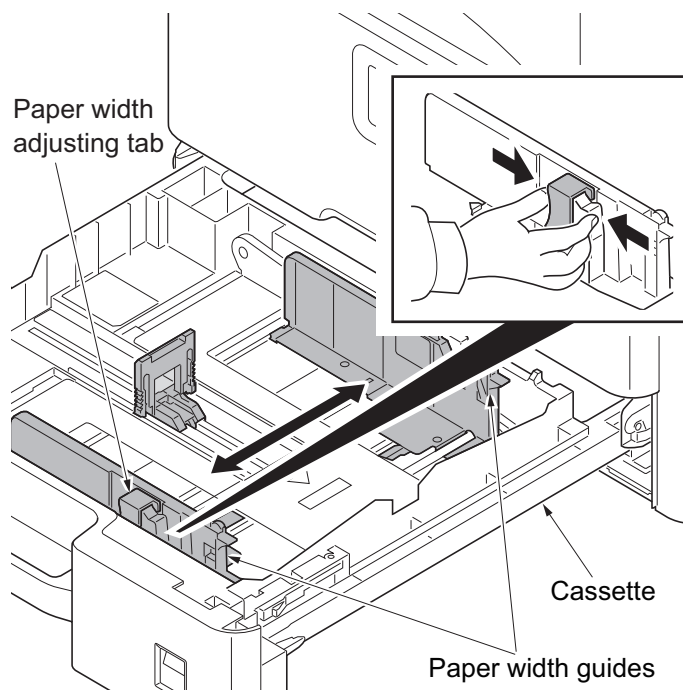
**Figure 1-2-9**

Install the optional paper feeder (option)

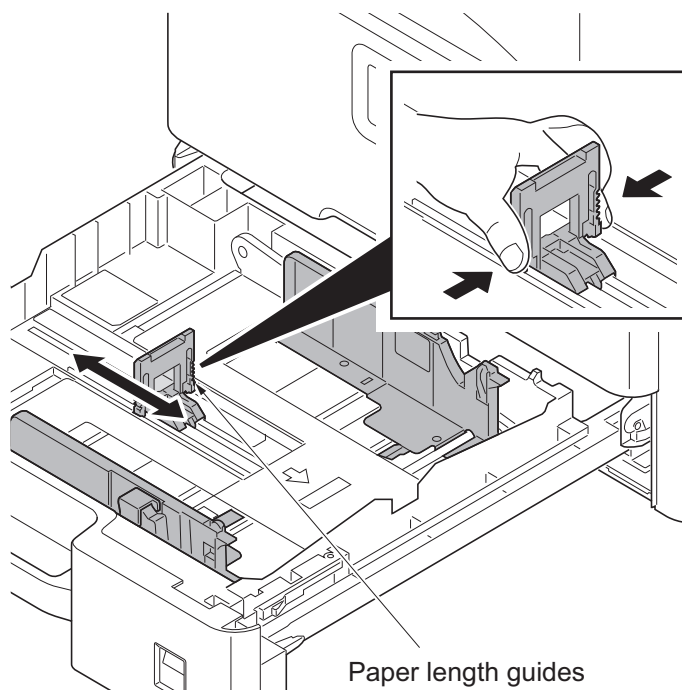
1. Install the optional paper feeder as required.

**Figure 1-2-10****Load paper**

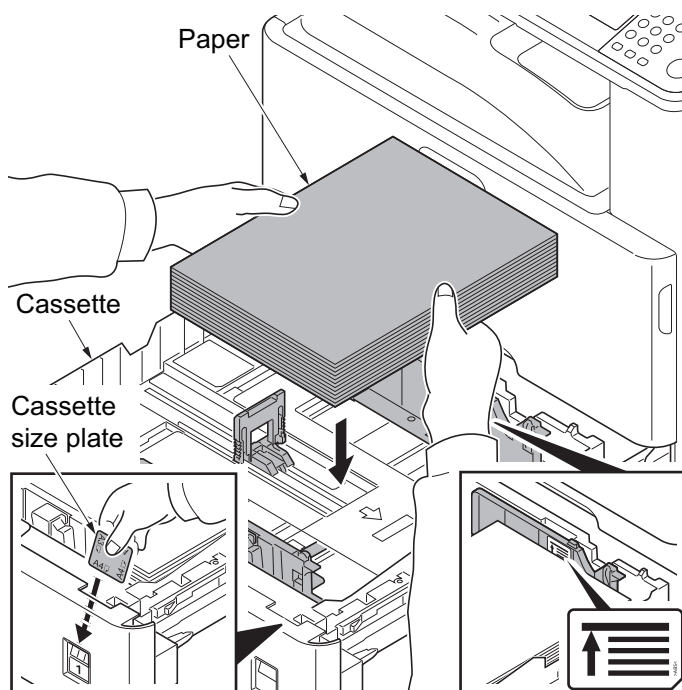
1. Pressing the paper width adjusting tab as shown, move the paper width guides to fit the paper size.

**Figure 1-2-11**

2. Adjust the paper length guide to fit the paper size.

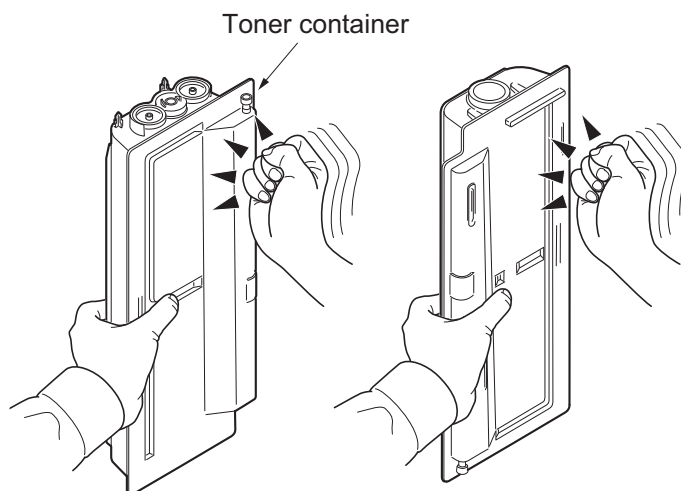
**Figure 1-2-12**

3. Align the paper so that it is abut with the right end of the cassette.
4. Insert the cassette size plate.
5. Gently push the cassette back in.

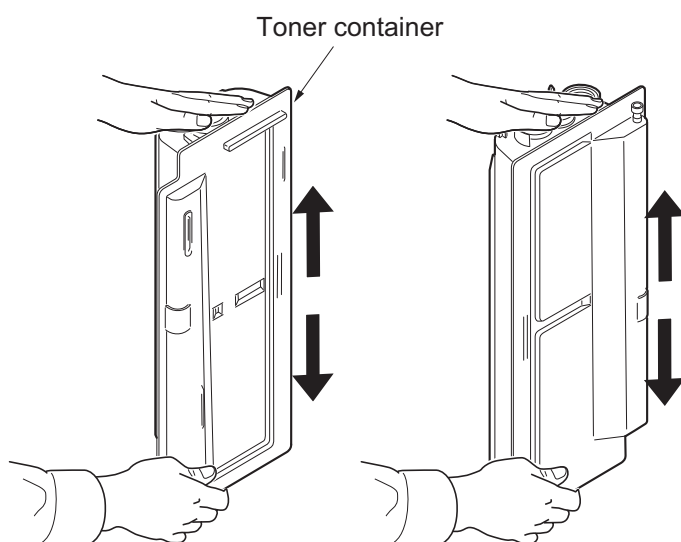
**Figure 1-2-13**

Install the toner container

1. Open the front cover.
2. Hold the toner container vertically and tap the upper part five times or more. Turn the toner container upside down and tap the upper part five times or more.

**Figure 1-2-14**

3. Shake the toner container up and down five times or more. Turn the toner container upside down and shake it five times or more.

**Figure 1-2-15**

4. Shake the toner container approximately five or six times in the horizontal direction to stir toner.

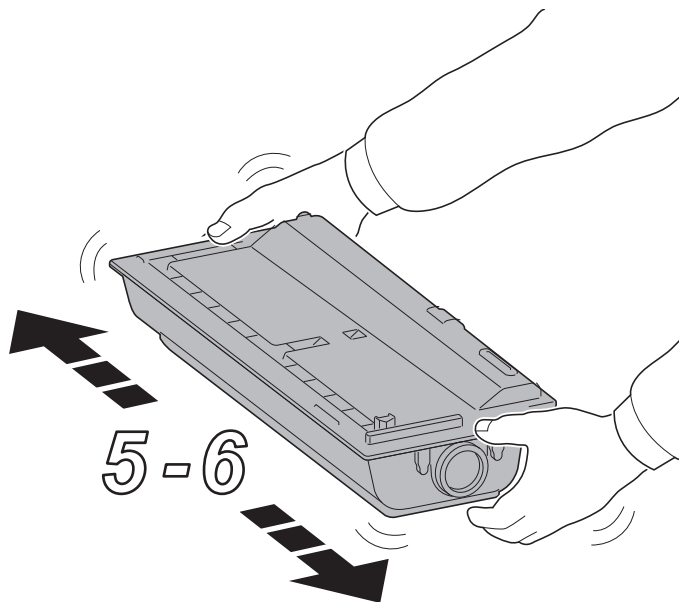


Figure 1-2-16

5. Gently push the toner container into the machine.
Push the container all the way into the machine until it locks in place.

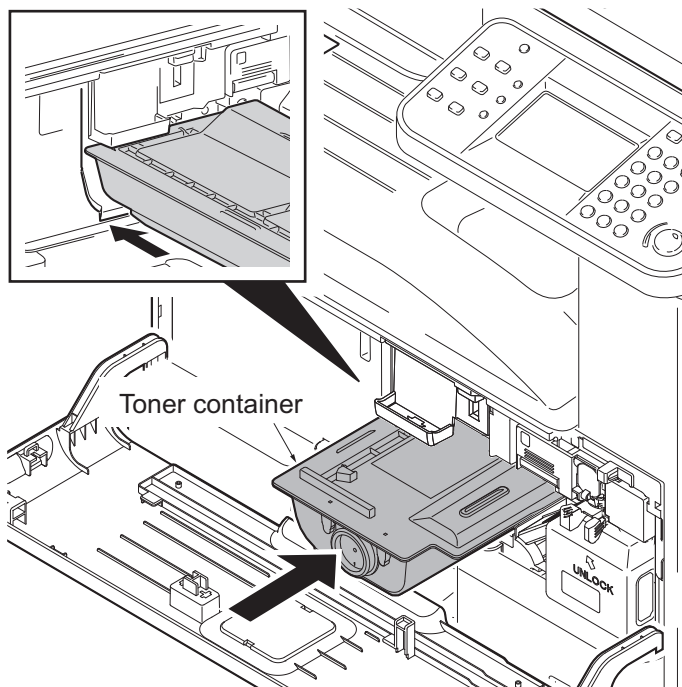


Figure 1-2-17

Switch the cassette heater switch

1. Release the hook and then remove the switch cover.
2. Turn the cassette heater switch on.
Note: When the cassette heater is used, it turns it on.
3. Refit the switch cover.

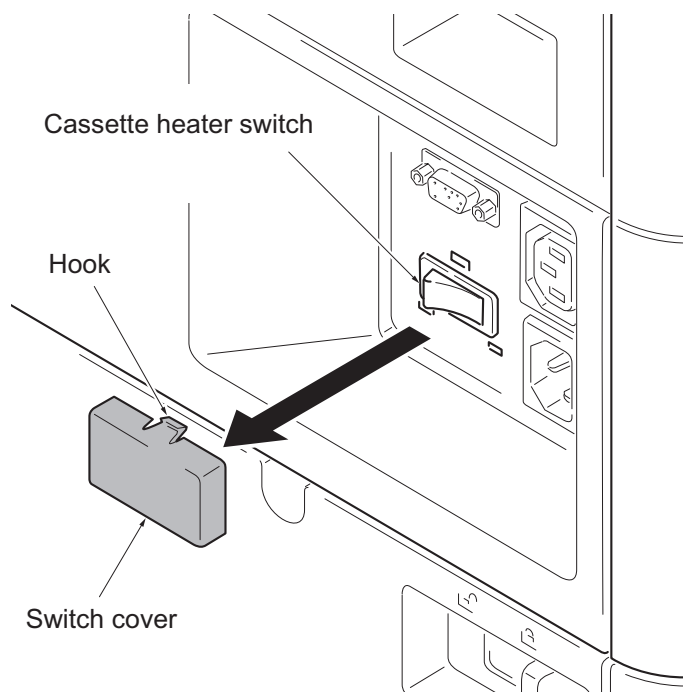


Figure 1-2-18

Install the other optional devices

1. Install the optional devices (Document finisher, Fax kit, etc.) as required.

Connect the power cord

1. Connect the power cord to the connector on the machine.
2. Insert the power plug into the wall outlet.

Installing toner

1. Turn the main power switch on.
The machine automatically starts to feed toner in the developer unit.
Note: When the main power switch is turned on for the first time, it takes about ten minutes until entering the state that can be copied.
2. The drive chain is disengaged when toner installation is completed.

Output an own-status report (maintenance item U000)

1. Enter 000 using the numeric keys and press the start key.
2. Select Maintenance and press the start key to output a list of the current settings of the maintenance items.
3. Press the stop key.

Exit maintenance mode

1. Enter "001" using the numeric keys and press the start key.

Print out a user setting list

1. Select [Report Print] to print a user setting list.

Make test copies

1. Place an original and make test copies.

Attaching the language label (Excluding 240V AC)

1. Attach the corresponding language label as required.

Installation is completed.

(2) Setting initial copy modes

Factory settings are as follows:

Maintenance item No.	Contents	Factory setting
U253	Switching between double and single counts	Double count (A3/Ledger)
U260	Selecting the timing for copy counting	Eject
U285	Setting service status page	On
U326	Setting the black line cleaning indication	On/8
U343	Switching between duplex/simplex copy mode	Off

1-2-3 Install the expansion memory (option)

Procedure

1. Turn off the main power switch.
Caution: Do not insert or remove expansion memory while machine power is on.
Doing so may cause damage to the machine and the expansion memory.
2. Remove the controller box cover.
3. Remove two screws.

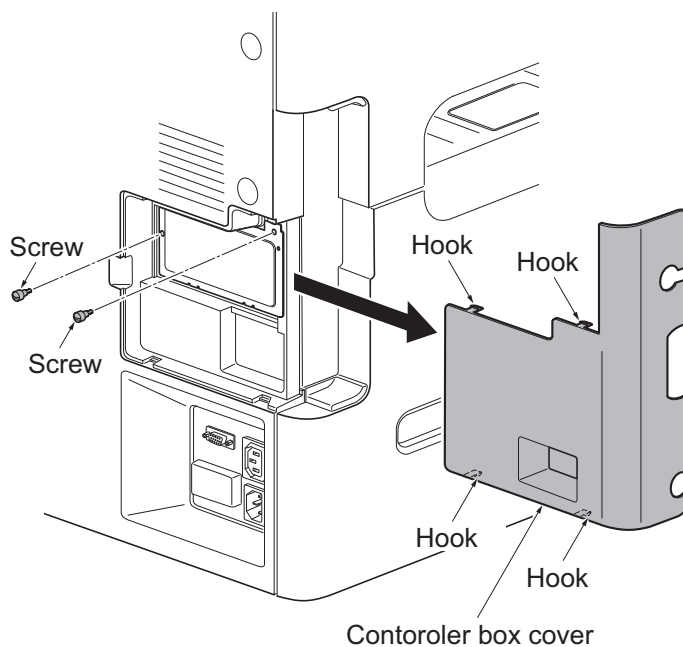


Figure 1-2-19

4. Remove the memory slot cover.
 5. Insert the expansion memory into the memory socket so that the notches on the memory align with the corresponding protrusions in the slot.
 6. Refit the memory slot cover.
 7. Refit the screw.
 8. Refit the controller box cover.
 9. Print a status page to check the memory expansion.
- If memory expansion has been properly performed, information on the installed memory is printed with the total memory capacity has been increased. Standard memory capacity 1 GB.

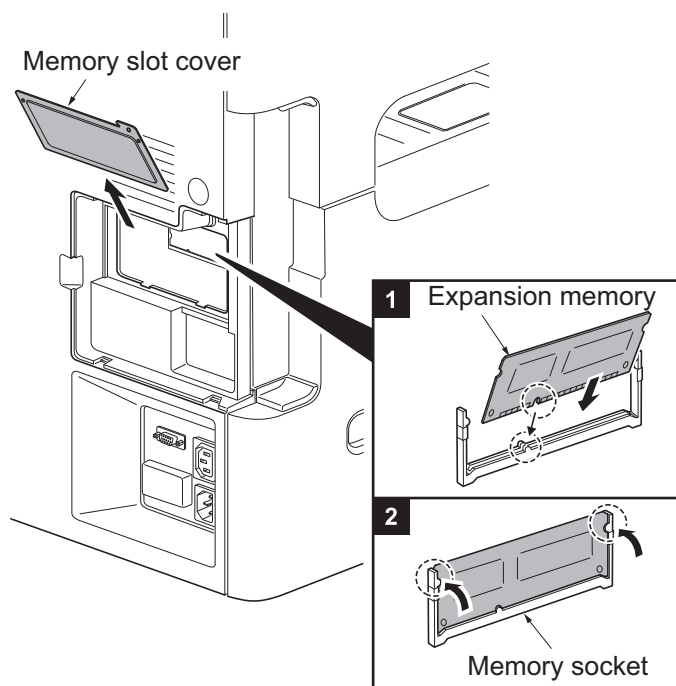


Figure 1-2-20

1-2-4 Option composition



DF-470 (500 sheets)
(Document finisher)



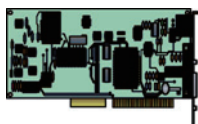
AK-470
(Bridge unit)



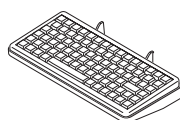
PF-790 (500 sheets x 1)
(Paper feeder + Cabinet)



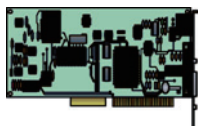
PF-471 (500 sheets x 2)
(Paper feeder)



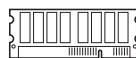
IB-50
(Gigabit ethernet board)



USB key board



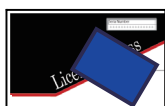
FAX System(U)



RAM Memory



UG-33
ThinPrint Activation Kit



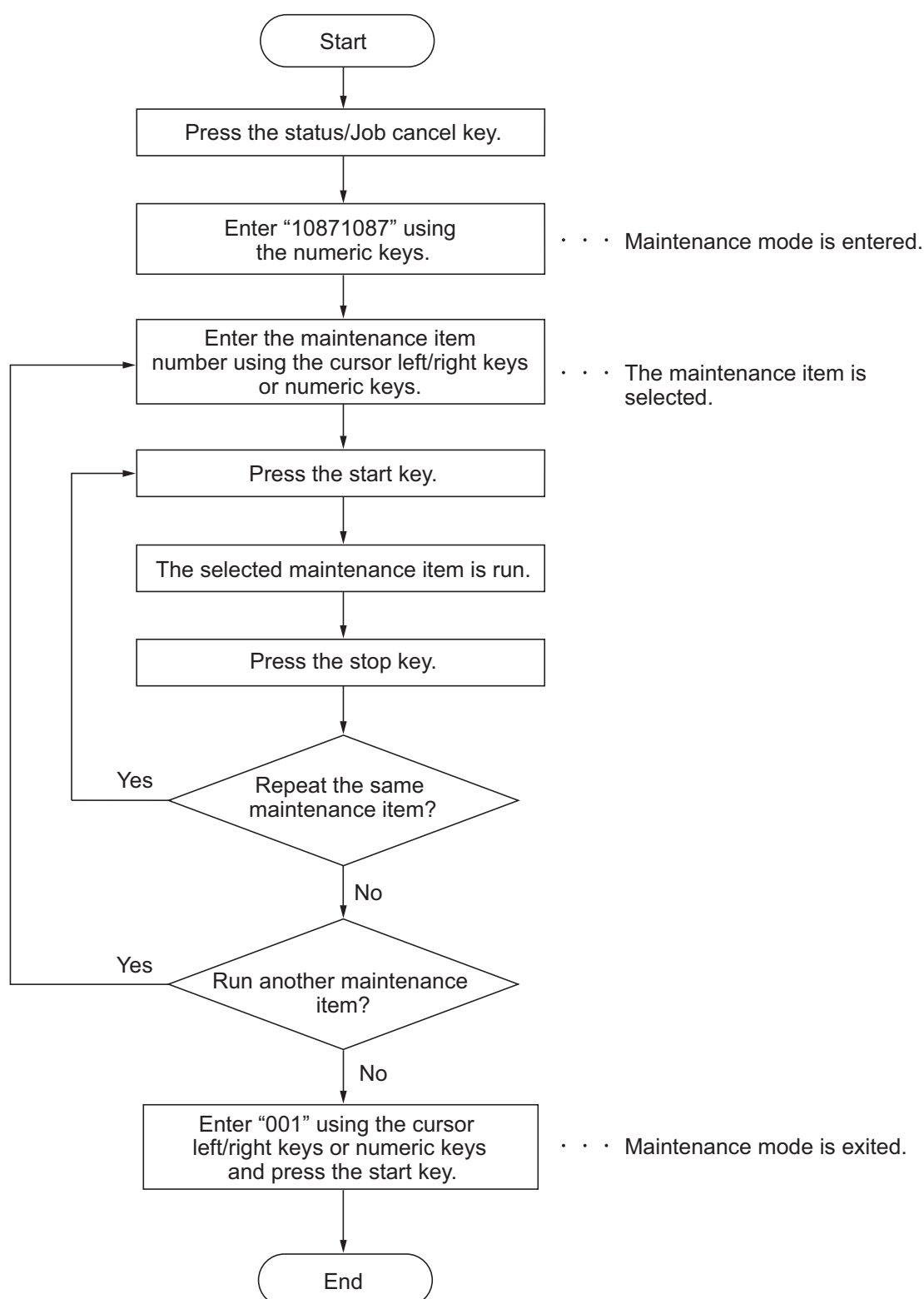
Card Authentication Kit (B)

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1-3-1 Maintenance mode

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

(1) Executing a maintenance item



(2) Maintenance modes item list

Section	Item No.	Content of maintenance item	Initial setting
General	U000	Outputting an own-status report	-
	U001	Exiting the maintenance mode	-
	U002	Setting the factory default data	-
	U004	Setting the machine number	-
	U019	Displaying the ROM version	-
Initialization	U021	Memory initializing	-
Drive, paper feed and paper conveying system	U030	Checking the operation of the motors	-
	U031	Checking switches and sensors for paper conveying	-
	U032	Checking the operation of the clutches	-
	U033	Checking the operation of the solenoids	-
	U034	Adjusting the print start timing Leading edge registration Center line	0/0/0 0/0/0/0/0
	U035	Setting the printing area for folio paper	330/210
	U037	Checking the operation of the fan motors	-
	U051	Adjusting the deflection in the paper	0/0/0/0
	U053	Setting the adjustment of the motor speed	-2/-2/-6/0/0
Optical	U063	Adjusting the shading position	0
	U065	Adjusting the scanner magnification	0/0
	U066	Adjusting the scanner leading edge registration	0/0
	U067	Adjusting the scanner center line	0/0
	U068	Adjusting the scanning position for originals from the DP	0/0
	U070	Adjusting the DP magnification	0/0
	U071	Adjusting the DP scanning timing	0/0/0/0
	U072	Adjusting the DP center line	0/0
	U089	Outputting a MIP-PG pattern	-
	U099	Adjusting original size detection	40/30/20/19 50/50/50/49 (when DP is installed)

Section	Item No.	Content of maintenance item	Initial setting
High voltage	U100	Setting the main high voltage	-/-/0/0 -/-/1800 off
	U101	Setting the voltage for the primary transfer	0/0/0/0/190/650/900 1100/450/650/750
	U108	Setting separation shift bias	4
	U111	Checking the drum drive time	-
	U118	Displaying the drum history	-
	U127	Checking/clearing the transfer count	0/0
Developer	U139	Displaying the temperature and humidity outside the machine	-
	U140	Displaying developer bias	170/2700/60
	U147	Setting for toner applying operation	Mode1
	U150	Checking sensors for toner	-
	U157	Checking the developer drive time	-
Fuser	U161	Setting the fuser control temperature	135/150/165/175/1/1
	U199	Displaying fuser heater temperature	-
Operation panel and support equipment	U201	Initializing the touch panel	-
	U203	Checking DP operation	-
	U207	Checking the operation panel keys	-
	U222	Setting the IC card type	Other
	U243	Checking the operation of the DP motors	-
	U244	Checking the DP switches	-
Mode setting	U250	Checking/clearing the maintenance cycle	300000/0
	U251	Checking/clearing the maintenance counter	0/0
	U252	Setting the destination	-
	U253	Switching between double and single counts	Double count (A3/Ledger)
	U260	Selecting the timing for copy counting	Eject
	U265	Setting OEM purchaser code	-
	U285	Setting service status page	On
	U326	Setting the black line cleaning indication	On/8
	U332	Setting the size conversion factor	1.0
	U341	Specific paper feed location setting for printing function	Off/Off/Off
	U343	Switching between duplex/simplex copy mode	Off
	U345	Setting the value for maintenance due indication	0

Section	Item No.	Content of maintenance item	Initial setting
Image processing	U402	Adjusting margins of image printing	3.0/2.5/2.5/5.0
	U403	Adjusting margins for scanning an original on the contact glass	2.0/2.0/2.0/2.0
	U404	Adjusting margins for scanning an original from the DP	3.0/2.5/3.0/4.0
	U407	Adjusting the leading edge registration for memory image printing	0
	U411	Adjusting the scanner automatically	-
	U425	Setting the target	-
	U432	Setting the center offset for the exposure	0/0/0
Image processing	U470	Setting the JPEG compression ratio Copy Send System	85/85 85/85 15/25/60/15/25/60 30/40/51/70/90/ 30/40/51/70/90 30/40/51/70/90/ 30/40/51/70/90 90/90
Fax	U600	Initializing all data	-
	U601	Initializing permanent data	-
	U603	Setting user data 1	DTMF
	U604	Setting user data 2	2 (120V) 1 (220-240V)
	U605	Clearing data	-
	U610	Setting system 1	
		Setting the number of lines to be ignored when receiving a fax at 100% magnification	0
		Setting the number of lines to be ignored when receiving a fax in the auto reduction mode	3
		Setting the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode	0
	U611	Setting system 2	
		Setting the number of adjustment lines for automatic reduction	7
		Setting the number of adjustment lines for automatic reduction when A4 paper is set	22
		Setting the number of adjustment lines for automatic reduction when letter size paper is set	26
	U612	Setting system 3	
		Selecting if auto reduction in the auxiliary direction is to be performed	On
		Setting the automatic printing of the protocol list	Off
	U615	Setting system 6	Ledger
	U620	Setting the remote switching mode	One

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

Section	Item No.	Content of maintenance item	Initial setting
Fax	U651	Setting modem 2 Modem output level DTMF output level (main value) DTMF output level (level difference)	-11 (120 V) -11 (220-240 V) 6 (120 V) 8 (220-240 V) 2 (120 V) 2 (220-240 V)
	U660	Setting the NCU Setting the connection to PBX/PSTN Setting PSTN dial tone detection Setting busy tone detection Setting for a PBX Setting the loop current detection before dialing	PSTN On On Loop On
	U670	Outputting lists	-
	U695	FAX function customize	On/Off
	U699	Setting the software switches	-
Others	U901	Checking copy counts by paper feed locations	0/0/0/0/0
	U903	Checking/clearing the paper jam counts	0/0
	U904	Checking/clearing the call for service counts	0/0
	U905	Checking counts by optional devices	0/0/0/0
	U910	Clearing the print coverage data	0
	U917	Setting backup data reading/writing	-
	U927	Clearing the all copy counts and machine life counts (one time only)	-
	U935	Relay board maintenance	-
	U942	Setting of deflection for feeding from DP	0/0
	U977	Data capture mode	-
	U984	Checking the developing unit number	-
	U985	Displaying the developer history	-

(3) Contents of the maintenance mode items

Item No.	Description																
U000	<p>Outputting an own-status report</p> <p>Description Outputs lists of the current settings of the maintenance items and paper jam and service call occurrences. Outputs the event log. Also sends output data to the USB memory.</p> <p>Purpose To check the current setting of the maintenance items, or paper jam or service call occurrences. Before initializing or replacing the backup RAM, output a list of the current settings of the maintenance items to reenter the settings after initialization or replacement.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be output using the cursor up/down keys. 3. Select On or Off using the cursor left/right keys or numeric keys. <table border="1"> <thead> <tr> <th>Display</th><th>Output list</th></tr> </thead> <tbody> <tr> <td>Maintenance</td><td>List of the current settings of the maintenance modes</td></tr> <tr> <td>Event</td><td>Outputs the event log</td></tr> <tr> <td>All</td><td>Outputs the all reports</td></tr> </tbody> </table> <ol style="list-style-type: none"> 4. Press the start key. A list is output. <p>Method: Send to the USB memory</p> <ol style="list-style-type: none"> 1. Press the power key on the operation panel, and after verifying the main power indicator has gone off, switch off the main power switch. 2. Insert USB memory in USB memory slot. 3. Turn the main power switch on. 4. Enter the maintenance item. 5. Press the start key. 6. Select the item to be send. 7. Select [Text] or [HTML]. <table border="1"> <thead> <tr> <th>Display</th><th>Output list</th></tr> </thead> <tbody> <tr> <td>Print</td><td>Outputs the report</td></tr> <tr> <td>USB (Text)</td><td>Sends output data to the USB memory (text type)</td></tr> <tr> <td>USB (HTML)</td><td>Sends output data to the USB memory (HTML type)</td></tr> </tbody> </table> <ol style="list-style-type: none"> 8. Press the start key. Output will be sent to the USB memory. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Output list	Maintenance	List of the current settings of the maintenance modes	Event	Outputs the event log	All	Outputs the all reports	Display	Output list	Print	Outputs the report	USB (Text)	Sends output data to the USB memory (text type)	USB (HTML)	Sends output data to the USB memory (HTML type)
Display	Output list																
Maintenance	List of the current settings of the maintenance modes																
Event	Outputs the event log																
All	Outputs the all reports																
Display	Output list																
Print	Outputs the report																
USB (Text)	Sends output data to the USB memory (text type)																
USB (HTML)	Sends output data to the USB memory (HTML type)																

Item No.	Description				
U000	Detail of event log				
	No.	Items	Description		
	(1)	System version			
	(2)	System date			
	(3)	Engine soft version			
	(4)	Engine boot version			
	(5)	Operation panel mask version			
	(6)	Machine serial number			
	(7)	Paper Jam Log	#	Count.	Event
			Remembers 1 to 16 of occurrence. If the occurrence of the previous paper jam is less than 16, all of the paper jams are logged. When the occurrence exceeds 16, the oldest occurrence is removed.	The total page count at the time of the paper jam.	Log code (hexadecimal, 5 categories) (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type (e) Paper eject
			(a) Cause of paper jam (Hexadecimal)		
			Refer to P.1-4-1 for paper jam location 0000: Initial jam 0100: Secondary paper feed request time out 0101: Waiting for process package to be ready 0104: Waiting for conveying package to be ready 0106: Paper feeding request for duplex printing time out 0107: Waiting for fuser package to be ready 0110: Right cover open 0111: Front cover open 0120: Receiving a duplex paper feeding request while paper is empty 0121: Exceeding number of duplex pages circulated 0210: Right lower cover open 0501: No paper feed from cassette 1 0502: No paper feed from cassette 2 0503: No paper feed from cassette 3 0508: No paper feed from duplex section 0509: No paper feed from MP tray 0511: Multiple sheets in cassette 1 0512: Multiple sheets in cassette 2 0513: Multiple sheets in cassette 3 0518: Multiple sheets in duplex section 0519: Multiple sheets in MP tray 1403: PF feed sensor 1 non arrival jam 1413: PF feed sensor 1 stay jam 4002: Registration sensor non arrival jam (cassette 2) 4003: Registration sensor non arrival jam (cassette 3)		

Item No.	Description		
U000			
	No.	Items	Description
(7) cont.	Paper Jam Log	4012: Registration sensor stay jam (cassette 2) 4013: Registration sensor stay jam (cassette 3) 4201: Eject sensor non arrival jam (cassette 1) 4202: Eject sensor non arrival jam (cassette 2) 4203: Eject sensor non arrival jam (cassette 3) 4208: Eject sensor non arrival jam (duplex) 4209: Eject sensor non arrival jam (Mp tray) 4211: Eject sensor stay jam (cassette 1) 4212: Eject sensor stay jam (cassette 2) 4213: Eject sensor stay jam (cassette 3) 4218: Eject sensor stay jam (duplex) 4219: Eject sensor stay jam (MP tray) 4301: Duplex sensor non arrival jam (cassette 1) 4302: Duplex sensor non arrival jam (cassette 2) 4303: Duplex sensor non arrival jam (cassette 3) 4309: Duplex sensor non arrival jam (MP tray) 4311: Duplex sensor stay jam (cassette 1) 4312: Duplex sensor stay jam (cassette 2) 4313: Duplex sensor stay jam (cassette 3) 4319: Duplex sensor stay jam (MP tray) 4901: Bridge conveying sensor 1 non arrival jam (cassette 1) 4902: Bridge conveying sensor 1 non arrival jam (cassette 2) 4903: Bridge conveying sensor 1 non arrival jam (cassette 3) 4908: Bridge conveying sensor 1 non arrival jam (duplex) 4909: Bridge conveying sensor 1 non arrival jam (MP tray) 4911: Bridge conveying sensor 1 stay jam (cassette 1) 4912: Bridge conveying sensor 1 stay jam (cassette 2) 4913: Bridge conveying sensor 1 stay jam (cassette 3) 4918: Bridge conveying sensor 1 stay jam (duplex) 4919: Bridge conveying sensor 1 stay jam (MP tray) 5001: Bridge conveying sensor 3 non arrival jam (cassette 1) 5002: Bridge conveying sensor 3 non arrival jam (cassette 2) 5003: Bridge conveying sensor 3 non arrival jam (cassette 3) 5008: Bridge conveying sensor 3 non arrival jam (duplex) 5009: Bridge conveying sensor 3 non arrival jam (MP tray) 5011: Bridge conveying sensor 3 stay jam (cassette 1) 5012: Bridge conveying sensor 3 stay jam (cassette 2) 5013: Bridge conveying sensor 3 stay jam (cassette 3) 5018: Bridge conveying sensor 3 stay jam (duplex) 5019: Bridge conveying sensor 3 stay jam (MP tray) 6023: Staple cover open 6043: DF top cover open 6103: DF paper conveying sensor non arrival jam 6113: DF paper conveying sensor stay jam 6123: DF paper conveying sensor remaining jam 6413: DF eject paper sensor stay jam 6423: DF eject paper sensor remaining jam 6803: Front adjustment plate operation ON error	

Item No.	Description				
U000	(7) cont.	Paper Jam Log	Description		
			6813: Front adjustment plate operation OFF error 6903: Rear adjustment plate operation ON error 6913: Rear adjustment plate operation OFF error 7013: Staple operation error 7023: Staple initialoperation error 7913: Sequence error 1 (operation prohibited) 7923: Sequence error 2 (initialoperation error) 7933: Sequence error 3 (Error in the reception of backup data) 7943: Sequence error 4 (standby) 7953: Sequence error 5 (Error in between copies) 9000: No original feed 9001: DP original conveying jam 9004: DP original swichback jam 9010: DP open 9011: DP top cover open 9110: DP paper feed sensor stay jam 9200: DP registration sensor non arrival jam 9400: DP timing sensor non arrival jam 9410: DP timing sensor stay jam		
			(b) Detail of paper source (Hexadecimal)		
			00: MP tray 01: Cassette 1 02: Cassette 2 (paper feeder 1) 03: Cassette 3 (paper feeder 2) 04 to 09: Reserved		
			(c) Detail of paper size (Hexadecimal)		
			00: (Not specified) 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 86: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E 0A: A3	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Postcard 20: Reply-paid post-card 21: Oficio II	22: Special 1 23: Special 2 24: A3 wide 25: Ledger wide 26: Full bleed paper (12 x 8) 27: 8K 28: 16K-R A8: 16K-E 32: Statement-R B2: Statement-E 33: Folio 34: Western type 2 35: Western type 4

Item No.	Description			
U000				
	No.	Items	Description	
	(7) cont.	Paper Jam Log	(d) Detail of paper type (Hexadecimal)	
			01: Plain	0A: Color
			02: Transparency	0B: Prepunched
			03: Preprinted	0C: Envelope
			04: Labels	0D: Cardstock
			05: Bond	0E: Coated
			06: Recycled	0F: 2nd side
			07: Vellum	10: Thick
			08: Rough	11: High quality
			09: Letterhead	15: Custom 1
				16: Custom 2
				17: Custom 3
				18: Custom 4
				19: Custom 5
				1A: Custom 6
				1B: Custom 7
				1C: Custom 8
			(e) Detail of paper eject location (Hexadecimal)	
			01: Face down (FD)	
			02: Face up (FU)/Document finisher face up (FU)/	
			03: Document finisher face down (FD)	
	(8)	Service Call Log	#	Count.
			Service Code	
	(8)	Service Call Log	Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diagnostics error is less than 8, all of the diagnostics errors are logged.	The total page count at the time of the self diagnostics error.
				Self diagnostic error code (See page 1-4-7) Example: 01.6000 01: Self diagnostic error 6000: Self diagnostic error code number
	(9)	Maintenance Log	#	Count.
			Item	
	(9)	Maintenance Log	Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replacement of toner container is less than 8, all of the occurrences of replacement are logged.	The total page count at the time of the replacement of the toner container.
				Code of maintenance replacing item (1 byte, 2 categories) First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 01: MK-477/475/479

Item No.	Description			
U000				
	No.	Items	Description	
	(10)	Unknown Toner Log	<p>#</p> <p>Remembers 1 to 5 of occurrence of unknown toner detection. If the occurrence of the previous unknown toner detection is less than 5, all of the unknown toner detection are logged.</p>	<p>Count.</p> <p>The total page count at the time of the toner empty error with using an unknown toner container.</p>
			<p>Item</p> <p>Unknown toner log code (1 byte, 2 categories)</p> <p>First byte 01: Toner container (Fixed) Second byte 00: Black</p>	
(11)	Counter Log	(f) Paper jam	(g) Self diagnostic error	(h) Maintenance item replacing
		<p>Comprised of three log counters including paper jams, self diagnostics errors, and replacement of the toner container.</p> <p>Indicates the log counter of paper jams depending on location.</p> <p>Refer to Paper Jam Log.</p> <p>All instances including those are not occurred are displayed.</p>	<p>Indicates the log counter of self diagnostics errors depending on cause.</p> <p>(See page 1-3-7)</p> <p>Example: C6000: 4</p> <p>Self diagnostics error 6000 has happened four times.</p>	<p>Indicates the log counter depending on the maintenance item for maintenance.</p> <p>T: Toner container 00: Black M: Maintenance kit 01: MK-477/475/479</p> <p>Example: T00: 1 The toner container has been replaced once.</p>

Item No.	Description										
U001	<p>Exiting the maintenance mode</p> <p>Description Exits the maintenance mode and returns to the normal copy mode.</p> <p>Purpose To exit the maintenance mode.</p> <p>Method Press the start key. The normal copy mode is entered.</p>										
U002	<p>Setting the factory default data</p> <p>Description Restores the machine conditions to the factory default settings.</p> <p>Purpose To move the mirror frame of the scanner to the position for transport</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Mode1(All)]. 3. Press the start key. The mirror frame of the scanner returns to the position for transport. 4. Turn the main power switch off and on. <p>* : An error code is displayed in case of an initialization error. When errors occurred, turn main power switch off then on, and execute initialization using maintenance item U002.</p> <p>Error codes</p> <table> <tr> <th>Codes</th><th>Description</th></tr> <tr> <td>0001</td><td>Entity error</td></tr> <tr> <td>0002</td><td>Controller error</td></tr> <tr> <td>0020</td><td>Engine error</td></tr> <tr> <td>0040</td><td>Scanner error</td></tr> </table>	Codes	Description	0001	Entity error	0002	Controller error	0020	Engine error	0040	Scanner error
Codes	Description										
0001	Entity error										
0002	Controller error										
0020	Engine error										
0040	Scanner error										

Item No.	Description										
U004	<p>Setting the machine number</p> <p>Description Sets or displays the machine number.</p> <p>Purpose To check or set the machine number.</p> <p>Method</p> <ol style="list-style-type: none"> Press the start key. <p>If the machine serial number of engine PWB matches with that of main PWB</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Machine No.</td><td>Displays the machine serial number</td></tr> </tbody> </table> <p>If the machine serial number of engine PWB does not match with that of main PWB</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Machine No.(Main)</td><td>Displays the machine serial number of main</td></tr> <tr> <td>Machine No.(Eng)</td><td>Displays the machine serial number of engine</td></tr> </tbody> </table> <p>Setting Carry out if the machine serial number does not match.</p> <ol style="list-style-type: none"> Select [Execute]. Press the start key. Writing of serial No. starts. Turn the main power switch off and on. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Machine No.	Displays the machine serial number	Display	Description	Machine No.(Main)	Displays the machine serial number of main	Machine No.(Eng)	Displays the machine serial number of engine
Display	Description										
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Display	Description										
Machine No.(Main)	Displays the machine serial number of main										
Machine No.(Eng)	Displays the machine serial number of engine										

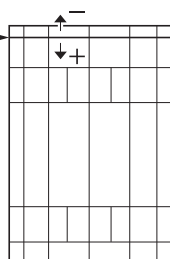
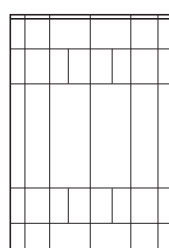
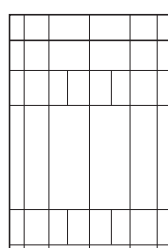
Item No.	Description																																										
U019	<p>Displaying the ROM version</p> <p>Description Displays the part number of the ROM fitted to each PWB.</p> <p>Purpose To check the part number or to decide, if the newest version of ROM is installed.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. The ROM version are displayed. 2. Change the screen using the cursor up/down keys. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr><td>Main</td><td>Main ROM</td></tr> <tr><td>MMI</td><td>Operation ROM</td></tr> <tr><td>Engine</td><td>Engine ROM</td></tr> <tr><td>Engine Boot</td><td>Engine booting</td></tr> <tr><td>RFID</td><td>RFID ROM</td></tr> <tr><td>IO CPU</td><td>IO CPU ROM</td></tr> <tr><td>IO CPU Boot</td><td>IO CPU booting</td></tr> <tr><td>Option Language</td><td>Optional language ROM</td></tr> <tr><td>Dictionary</td><td>-</td></tr> <tr><td>DP</td><td>Document processor ROM</td></tr> <tr><td>DP Boot</td><td>Document processor booting</td></tr> <tr><td>PF</td><td>Paper feeder ROM</td></tr> <tr><td>PF Boot</td><td>Paper feeder booting</td></tr> <tr><td>DF</td><td>Document finisher ROM</td></tr> <tr><td>DF Boot</td><td>Document finisher booting</td></tr> <tr><td>AK</td><td>Bridge ROM</td></tr> <tr><td>AK Boot</td><td>Bridge booting</td></tr> <tr><td>Fax APL</td><td>Fax control PWB APL</td></tr> <tr><td>Fax Boot</td><td>Fax control PWB booting</td></tr> <tr><td>Fax IPL</td><td>Fax control PWB IPL</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Main	Main ROM	MMI	Operation ROM	Engine	Engine ROM	Engine Boot	Engine booting	RFID	RFID ROM	IO CPU	IO CPU ROM	IO CPU Boot	IO CPU booting	Option Language	Optional language ROM	Dictionary	-	DP	Document processor ROM	DP Boot	Document processor booting	PF	Paper feeder ROM	PF Boot	Paper feeder booting	DF	Document finisher ROM	DF Boot	Document finisher booting	AK	Bridge ROM	AK Boot	Bridge booting	Fax APL	Fax control PWB APL	Fax Boot	Fax control PWB booting	Fax IPL	Fax control PWB IPL
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Option Language	Optional language ROM																																										
Dictionary	-																																										
DP	Document processor ROM																																										
DP Boot	Document processor booting																																										
PF	Paper feeder ROM																																										
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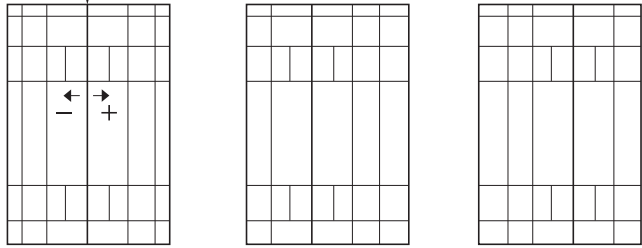
Item No.	Description										
U021	<p>Memory initializing</p> <p>Description Initializes all settings, except those pertinent to the type of machine, namely each counter, service call history and mode setting. Also initializes backup RAM according to region specification selected in maintenance item U252 Setting the destination.</p> <p>Purpose To return the machine settings to their factory default.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Execute]. 3. Press the start key. All data other than that for adjustments due to variations between machines is initialized based on the destination setting. 4. Turn the main power switch off and on. <p>* : An error code is displayed in case of an initialization error. When errors occurred, turn main power switch off then on, and execute initialization using maintenance item U021.</p> <p>Error codes</p> <table border="1"> <thead> <tr> <th>Codes</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0001</td><td>Entity error</td></tr> <tr> <td>0002</td><td>Controller error</td></tr> <tr> <td>0020</td><td>Engine error</td></tr> <tr> <td>0040</td><td>Scanner error</td></tr> </tbody> </table>	Codes	Description	0001	Entity error	0002	Controller error	0020	Engine error	0040	Scanner error
Codes	Description										
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0040	Scanner error										

Item No.	Description																				
U030	<p>Checking the operation of the motors</p> <p>Description Drives each motor.</p> <p>Purpose To check the operation of each motor.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the motor to be operated. 3. Press the start key. The operation starts. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Main</td><td>Main motor (MM) is turned on</td></tr> <tr> <td>Exit (CW)</td><td>Eject motor (EM) is turned on clockwise</td></tr> <tr> <td>Exit (CCW)</td><td>Eject motor (EM) is turned on counterclockwise</td></tr> </tbody> </table> <ol style="list-style-type: none"> 4. To stop operation, press the stop key. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Main	Main motor (MM) is turned on	Exit (CW)	Eject motor (EM) is turned on clockwise	Exit (CCW)	Eject motor (EM) is turned on counterclockwise												
Display	Description																				
Main	Main motor (MM) is turned on																				
Exit (CW)	Eject motor (EM) is turned on clockwise																				
Exit (CCW)	Eject motor (EM) is turned on counterclockwise																				
U031	<p>Checking switches and sensors for paper conveying</p> <p>Description Displays the on-off status of each paper detection switch or sensor on the paper path.</p> <p>Purpose To check if the switches and sensors for paper conveying operate correctly.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Turn each switch or sensor on and off manually to check the status. When a switch or sensor is detected to be in the ON position, the display for that switch or sensor will be "1". <table border="1"> <thead> <tr> <th>Display</th><th>Switches and sensors</th></tr> </thead> <tbody> <tr> <td>Switch 00000000</td><td></td></tr> <tr> <td>1st digit</td><td>Power source PWB (PSPWB) *</td></tr> <tr> <td>2nd digit</td><td>Bridge detection switch (BRDSW)</td></tr> <tr> <td>3rd digit</td><td>Job paper full sensor (JPFS)</td></tr> <tr> <td>4th digit</td><td>Paper full sensor (PFS)</td></tr> <tr> <td>5th digit</td><td>Feed sensor (FS)</td></tr> <tr> <td>6th digit</td><td>Duplex sensor (DUS)</td></tr> <tr> <td>7th digit</td><td>Eject sensor (ES)</td></tr> <tr> <td>8th digit</td><td>Registration sensor (RS)</td></tr> </tbody> </table> <p>*: 0:100V (Fuser phase control) / 1:Excluding 100V (Fuser half wave control))</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches and sensors	Switch 00000000		1st digit	Power source PWB (PSPWB) *	2nd digit	Bridge detection switch (BRDSW)	3rd digit	Job paper full sensor (JPFS)	4th digit	Paper full sensor (PFS)	5th digit	Feed sensor (FS)	6th digit	Duplex sensor (DUS)	7th digit	Eject sensor (ES)	8th digit	Registration sensor (RS)
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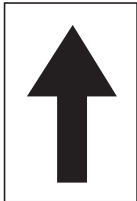

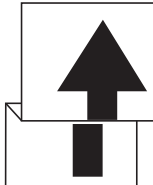
Item No.	Description										
U032	<p>Checking the operation of the clutches</p> <p>Description Turns each clutch on.</p> <p>Purpose To check the operation of each clutch.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the clutch to be operated. 3. Press the start key. The operation starts. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Motor</td><td>Main motor (MM) is turned on</td></tr> <tr> <td>Feed</td><td>Paper feed clutch (PFCL) is turned on</td></tr> <tr> <td>Regist</td><td>Registration clutch (RCL) is turned on</td></tr> <tr> <td>Duplex</td><td>Duplex clutch (DUCL) is turned on</td></tr> </tbody> </table> <ol style="list-style-type: none"> 4. Press the stop key. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Motor	Main motor (MM) is turned on	Feed	Paper feed clutch (PFCL) is turned on	Regist	Registration clutch (RCL) is turned on	Duplex	Duplex clutch (DUCL) is turned on
Display	Description										
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Feed	Paper feed clutch (PFCL) is turned on										
Regist	Registration clutch (RCL) is turned on										
Duplex	Duplex clutch (DUCL) is turned on										
U033	<p>Checking the operation of the solenoids</p> <p>Description Turns each solenoid on.</p> <p>Purpose To check the operation of each solenoid.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the solenoid to be operated. 3. Press the start key. The operation starts. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>MPT</td><td>MP solenoid (MPSOL) is turned on</td></tr> <tr> <td>Eject</td><td>Feedshift solenoid (FSSOL) is turned on</td></tr> </tbody> </table> <ol style="list-style-type: none"> 4. Press the stop key. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MPT	MP solenoid (MPSOL) is turned on	Eject	Feedshift solenoid (FSSOL) is turned on				
Display	Description										
MPT	MP solenoid (MPSOL) is turned on										
Eject	Feedshift solenoid (FSSOL) is turned on										

Item No.	Description																										
U034	<p>Adjusting the print start timing</p> <p>Description Adjusts the leading edge registration or center line.</p> <p>Purpose Make the adjustment if there is a regular error between the leading edges of the copy image and original. Make the adjustment if there is a regular error between the center lines of the copy image and original.</p> <p>Method 1. Press the start key. 2. Select the item to be adjusted.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>LSU Out Top</td><td>Leading edge registration adjustment</td></tr><tr><td>LSU Out Left</td><td>Center line adjustment</td></tr></table> <p>Adjustment: Leading edge registration adjustment 1. Press the system menu key. 2. Press the start key to output a test pattern. 3. Press the system menu key. 4. Select the item to be adjusted.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>MPT(L)</td><td>Paper feed from MP tray (when large size paper is used)</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Cassette(L)</td><td>Paper feed from cassette (when large size paper is used)</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Duplex(L)</td><td>Duplex mode (second) (when large size paper is used)</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr></table> <p>Large size: 218 mm or more in width of paper.</p>	Display	Description	LSU Out Top	Leading edge registration adjustment	LSU Out Left	Center line adjustment	Display	Description	Setting range	Initial setting	Change in value per step	MPT(L)	Paper feed from MP tray (when large size paper is used)	-128 to 127	0	0.1 mm	Cassette(L)	Paper feed from cassette (when large size paper is used)	-128 to 127	0	0.1 mm	Duplex(L)	Duplex mode (second) (when large size paper is used)	-128 to 127	0	0.1 mm
Display	Description																										
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Cassette(L)	Paper feed from cassette (when large size paper is used)	-128 to 127	0	0.1 mm																							
Duplex(L)	Duplex mode (second) (when large size paper is used)	-128 to 127	0	0.1 mm																							

Item No.	Description																														
U034	<div><div>5. Change the setting value using the cursor left/right keys or numeric keys. For output example 1, increase the value. For output example 2, decrease the value.</div><div><div><div>Leading edge registration (20 ± 1.5 mm)</div><div></div></div><div>Correct image</div><div></div><div>Output example 1</div><div></div><div>Output example 2</div></div><div>Figure 1-3-2</div><div>6. Press the start key. The value is set.</div><div><div>Remark</div><div>When changing the setting value of [Large] each item is modified, equal to amount of the value which is changed adds also the value of [Small] each item and is pulled.</div></div><div><div>Caution</div><div>Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div></div><div><div><div>U034</div><div>→</div><div><div>U066 (P.1-3-29)</div><div>→</div><div><div>U071 (P.1-3-34)</div></div></div></div></div><div><div>Adjustment: Center line adjustment</div><div><div>1. Press the system menu key.</div><div>2. Press the start key to output a test pattern.</div><div>3. Press the system menu key.</div><div>4. Select the item to be adjusted.</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>MPT</td><td>Paper feed from MP tray</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Cassette1</td><td>Paper feed from cassette 1</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Cassette2</td><td>Paper feed from optional cassette 2</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Cassette3</td><td>Paper feed from optional cassette 3</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr><tr><td>Duplex</td><td>Duplex mode (second)</td><td>-128 to 127</td><td>0</td><td>0.1 mm</td></tr></table></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	MPT	Paper feed from MP tray	-128 to 127	0	0.1 mm	Cassette1	Paper feed from cassette 1	-128 to 127	0	0.1 mm	Cassette2	Paper feed from optional cassette 2	-128 to 127	0	0.1 mm	Cassette3	Paper feed from optional cassette 3	-128 to 127	0	0.1 mm	Duplex	Duplex mode (second)	-128 to 127	0	0.1 mm
Display	Description	Setting range	Initial setting	Change in value per step																											
MPT	Paper feed from MP tray	-128 to 127	0	0.1 mm																											
Cassette1	Paper feed from cassette 1	-128 to 127	0	0.1 mm																											
Cassette2	Paper feed from optional cassette 2	-128 to 127	0	0.1 mm																											
Cassette3	Paper feed from optional cassette 3	-128 to 127	0	0.1 mm																											
Duplex	Duplex mode (second)	-128 to 127	0	0.1 mm																											

Item No.	Description
U034	<div>5. Change the setting value using the cursor left/right keys or numeric keys. For output example 1, increase the value. For output example 2, decrease the value.</div> <div><div>Center line of printing (within ± 0.5 mm)</div><div></div><div>Correct image Output example 1 Output example 2</div></div> <div>Figure 1-3-3</div> <div>6. Press the start key. The value is set.</div> <div>Caution Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div> <div><div>U034</div><div>→</div><div>U067 (P.1-3-30)</div><div>→</div><div>U072 (P.1-3-36)</div></div> <div>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</div>




Item No.	Description												
U035	<p>Setting the printing area for folio paper</p> <p>Description Changes the printing area for copying on folio paper.</p> <p>Purpose To prevent cropped images on the trailing edge or left/right side of copy paper by setting the actual printing area for folio paper.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be set.3. Change the setting value using the cursor left/right keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Length</td><td>Length</td><td>330 to 356 mm</td><td>330</td></tr><tr><td>Width</td><td>Width</td><td>200 to 220 mm</td><td>210</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Length	Length	330 to 356 mm	330	Width	Width	200 to 220 mm	210
Display	Description	Setting range	Initial setting										
Length	Length	330 to 356 mm	330										
Width	Width	200 to 220 mm	210										
U037	<p>Checking the operation of the fan motors</p> <p>Description Drives each fan motor.</p> <p>Purpose To check the operation of each fan motor.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select the fan motor to be operated.3. Press the start key. The operation starts. <table><tr><th>Display</th><th>Description</th></tr><tr><td>All</td><td>All fan motors are turned on</td></tr><tr><td>Eject</td><td>Eject fan motor (EFM) is turned on</td></tr><tr><td>Low Power</td><td>Power source fan motor (PSFM) is turned on</td></tr></table> <p>To stop operation, press the stop key.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	All	All fan motors are turned on	Eject	Eject fan motor (EFM) is turned on	Low Power	Power source fan motor (PSFM) is turned on				
Display	Description												
All	All fan motors are turned on												
Eject	Eject fan motor (EFM) is turned on												
Low Power	Power source fan motor (PSFM) is turned on												

Item No.	Description																				
U051	<p>Adjusting the deflection in the paper</p> <p>Description Adjusts the deflection in the paper at the registration roller.</p> <p>Purpose Make the adjustment if the leading edge of the copy image is missing or varies randomly, or if the copy paper is Z-folded.</p> <p>Adjustment</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>MPT</td><td>Paper feed from MP tray</td><td>-30 to 20</td><td>0</td></tr><tr><td>Cassette</td><td>Paper feed from cassette 1</td><td>-30 to 20</td><td>0</td></tr><tr><td>PF</td><td>Paper feed from paper feeder</td><td>-30 to 20</td><td>0</td></tr><tr><td>Duplex</td><td>Duplex mode (second)</td><td>-30 to 20</td><td>0</td></tr></table> <ol style="list-style-type: none">6. Change the setting value using the cursor left/right keys or numeric keys. For output example 1, increase the value. For output example 2, decrease the value. The greater the value, the larger the deflection; the smaller the value, the smaller the deflection. <div><div><p>Original</p></div><div><p>Copy example 1</p></div><div><p>Copy example 2</p></div></div> <p>Figure 1-3-4</p> <ol style="list-style-type: none">7. Press the start key. The value is set. <p>Completion Press the stop key. The indication for selecting a maintenance item No. appears.</p>	Display	Description	Setting range	Initial setting	MPT	Paper feed from MP tray	-30 to 20	0	Cassette	Paper feed from cassette 1	-30 to 20	0	PF	Paper feed from paper feeder	-30 to 20	0	Duplex	Duplex mode (second)	-30 to 20	0
Display	Description	Setting range	Initial setting																		
MPT	Paper feed from MP tray	-30 to 20	0																		
Cassette	Paper feed from cassette 1	-30 to 20	0																		
PF	Paper feed from paper feeder	-30 to 20	0																		
Duplex	Duplex mode (second)	-30 to 20	0																		

Item No.	Description																								
U053	<p>Setting the adjustment of the motor speed</p> <p>Description Performs fine adjustment of the speeds of the motors.</p> <p>Purpose To adjust the speed of the respective motors when the magnification is not correct.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Main</td><td>Main motor (MM) speed adjustment</td><td>-50 to 50</td><td>-2</td></tr><tr><td>Main(MPT)</td><td>Main motor (MM) speed adjustment in MPT output</td><td>-50 to 50</td><td>-2</td></tr><tr><td>Main(Duplex)</td><td>Main motor (MM) speed adjustment in duplex output</td><td>-50 to 50</td><td>-6</td></tr><tr><td>Polygon</td><td>Polygon motor (PM) speed adjustment</td><td>-20 to 20</td><td>0</td></tr><tr><td>Exit</td><td>Eject motor (EM) speed adjustment</td><td>-40 to 40</td><td>0</td></tr></table> <ol style="list-style-type: none">6. Change the setting value using the cursor left/right keys or numeric keys.7. Press the start key. The value is set. <p>Completion Press the stop key. The indication for selecting a maintenance item No. appears.</p>	Display	Description	Setting range	Initial setting	Main	Main motor (MM) speed adjustment	-50 to 50	-2	Main(MPT)	Main motor (MM) speed adjustment in MPT output	-50 to 50	-2	Main(Duplex)	Main motor (MM) speed adjustment in duplex output	-50 to 50	-6	Polygon	Polygon motor (PM) speed adjustment	-20 to 20	0	Exit	Eject motor (EM) speed adjustment	-40 to 40	0
Display	Description	Setting range	Initial setting																						
Main	Main motor (MM) speed adjustment	-50 to 50	-2																						
Main(MPT)	Main motor (MM) speed adjustment in MPT output	-50 to 50	-2																						
Main(Duplex)	Main motor (MM) speed adjustment in duplex output	-50 to 50	-6																						
Polygon	Polygon motor (PM) speed adjustment	-20 to 20	0																						
Exit	Eject motor (EM) speed adjustment	-40 to 40	0																						

Item No.	Description										
U063	<p>Adjusting the shading position</p> <p>Description Changes the shading position of the scanner.</p> <p>Purpose Used when the white line continue to appear longitudinally on the image after the shading plate is cleaned. This is due to flaws or stains inside the shading plate. To prevent this problem, the shading position should be changed so that shading is possible without being affected by the flaws or stains.</p> <p>Setting</p> <div><div>1. Press the start key.</div><div>2. Select [Position].</div><div>3. Change the setting value using the cursor left/right keys or numeric keys.</div></div> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Position</td><td>Shading position</td><td>-6 to 18</td><td>0</td><td>0.091 mm</td></tr></table> <p>Increasing the value moves the shading position toward the machine left, and decreasing it moves the position toward the machine right.</p> <div><div>4. Press the start key. The value is set.</div></div> <p>Supplement While this maintenance item is being executed, copying from an original is available in interrupt copying mode (which is activated by pressing the system menu key).</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	Position	Shading position	-6 to 18	0	0.091 mm
Display	Description	Setting range	Initial setting	Change in value per step							
Position	Shading position	-6 to 18	0	0.091 mm							







Item No.	Description															
U065	<div><div>Adjusting the scanner magnification</div><div><div>Description</div><div>Adjusts the magnification of the original scanning.</div><div>Purpose</div><div>Make the adjustment if the magnification in the main scanning direction is incorrect. Make the adjustment if the magnification in the auxiliary scanning direction is incorrect.</div><div>Caution</div><div>Adjust the magnification of the scanner in the following order.</div><div><div><div>U053 (P.1-3-25)</div><div>U065 main scan- ning direction</div><div>U065 auxiliary scan- ning direction</div><div>U067 (P.1-3-30)</div><div>U070 (P.1-3-33)</div></div></div><div><div>Method</div><div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select the item to be adjusted.</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Y Scan Zoom</td><td>Scanner magnification in the main scanning direction</td><td>-75 to 75</td><td>0</td><td>0.02 %</td></tr><tr><td>X Scan Zoom</td><td>Scanner magnification in the auxiliary scanning direction</td><td>-125 to 125</td><td>0</td><td>0.02 %</td></tr></table><div><div>Adjustment: [Y Scan Zoom]</div><div><div>1. Change the setting value using the cursor left/right keys or numeric keys.</div><div>For copy example 1, increase the value. For copy example 2, decrease the value.</div><div><div><div><div></div></div><div>Original</div></div><div><div><div></div></div><div>Copy example 1</div></div><div><div><div></div></div><div>Copy example 2</div></div></div></div><div><div>Figure 1-3-5</div><div><div>2. Press the start key. The value is set.</div></div></div></div></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	Y Scan Zoom	Scanner magnification in the main scanning direction	-75 to 75	0	0.02 %	X Scan Zoom	Scanner magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %
Display	Description	Setting range	Initial setting	Change in value per step												
Y Scan Zoom	Scanner magnification in the main scanning direction	-75 to 75	0	0.02 %												
X Scan Zoom	Scanner magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %												

Item No.	Description
U065	<div><p>Adjustment: [X Scan Zoom]</p><p>1. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</p><div><div><p>Original</p></div><div><p>Copy example 1</p></div><div><p>Copy example 2</p></div></div><p>Figure 1-3-6</p><p>2. Press the start key. The value is set.</p><p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p></div>




Item No.	Description															
U066	<p>Adjusting the scanner leading edge registration</p> <p>Description Adjusts the scanner leading edge registration of the original scanning.</p> <p>Purpose Make the adjustment if there is a regular error between the leading edges of the copy image and original.</p> <p>Adjustment</p> <div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select the item to be adjusted.</div></div> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Front</td><td>Scanner leading edge registra-tion</td><td>-45 to 45</td><td>0</td><td>0.091 mm</td></tr><tr><td>Rotate</td><td>Scanner leading edge registra-tion (rotate copying)</td><td>-45 to 45</td><td>0</td><td>0.100mm</td></tr></table> <div><div>6. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</div><div><div>Scanner leading edge registration (within ± 2.5 mm)</div><div><div><div></div><div></div><div></div></div><div>OriginalCopy example 1Copy example 2</div></div></div><p>Figure 1-3-7</p><div><div>7. Press the start key. The value is set.</div><div><div>Caution Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div><div><div>U066</div><div>U403 (P.1-3-61)</div><div>U071 (P.1-3-34)</div><div>U404 (P.1-3-62)</div></div><div><div>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</div></div></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	Front	Scanner leading edge registra-tion	-45 to 45	0	0.091 mm	Rotate	Scanner leading edge registra-tion (rotate copying)	-45 to 45	0	0.100mm
Display	Description	Setting range	Initial setting	Change in value per step												
Front	Scanner leading edge registra-tion	-45 to 45	0	0.091 mm												
Rotate	Scanner leading edge registra-tion (rotate copying)	-45 to 45	0	0.100mm												




Item No.	Description															
U067	<p>Adjusting the scanner center line</p> <p>Description Adjusts the scanner center line of the original scanning.</p> <p>Purpose Make the adjustment if there is a regular error between the center lines of the copy image and original.</p> <p>Adjustment</p> <div><div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select the item to be adjusted.</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Front</td><td>Scanner center line</td><td>-40 to 40</td><td>0</td><td>0.085 mm</td></tr><tr><td>Rotate</td><td>Scanner center line (rotate copying)</td><td>-40 to 40</td><td>0</td><td>0.100 mm</td></tr></table><div><div>6. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</div><div><div>Scanner center line (within ± 2.0 mm)</div><div><div><div><div></div><div></div><div></div></div><div>Original</div></div><div><div><div></div><div></div><div></div></div><div>Copy example 1</div></div><div><div><div></div><div></div><div></div></div><div>Copy example 2</div></div></div></div><p>Figure 1-3-8</p><div><div>7. Press the start key. The value is set.</div><div><div><div><div>U067</div></div><div><div>U403 (P.1-3-61)</div></div><div><div>U072 (P.1-3-36)</div></div><div><div>U404 (P.1-3-62)</div></div></div></div><p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	Front	Scanner center line	-40 to 40	0	0.085 mm	Rotate	Scanner center line (rotate copying)	-40 to 40	0	0.100 mm
Display	Description	Setting range	Initial setting	Change in value per step												
Front	Scanner center line	-40 to 40	0	0.085 mm												
Rotate	Scanner center line (rotate copying)	-40 to 40	0	0.100 mm												

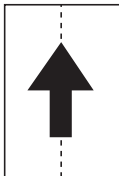


Item No.	Description															
U068	<p>Adjusting the scanning position for originals from the DP</p> <p>Description Adjusts the position for scanning originals from the DP. Performs the test copy at the four scanning positions after adjusting.</p> <p>Purpose Used when the image fogging occurs because the scanning position is not proper when the DP is used. Run U071 to adjust the timing of DP leading edge when the scanning position is changed.</p> <p>Setting 1. Press the start key.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>DP Read</td><td>Starting position adjustment for scanning originals</td><td>-55 to 55</td><td>0</td><td>0.091 mm</td></tr><tr><td>Black Line</td><td>Scanning position for the test copy originals</td><td>0 to 3</td><td>0</td><td>-</td></tr></table> <p>2. Select [DP Read].</p> <p>3. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves to the left when the setting value is decreased.</p> <p>4. Press the start key. The value is set.</p> <p>5. Select [Black Line].</p> <p>6. Change the setting using the cursor left/right keys or numeric keys.</p> <p>7. Press the start key. The value is set.</p> <p>8. Set the original (the one which density is known) in the DP and press the system menu key.</p> <p>9. Press the start key. Test copy is executed.</p> <p>10. Perform the test copy at each scanning position with the setting value from 0 to 3 and check that no black line appears and the image is normally scanned.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	DP Read	Starting position adjustment for scanning originals	-55 to 55	0	0.091 mm	Black Line	Scanning position for the test copy originals	0 to 3	0	-
Display	Description	Setting range	Initial setting	Change in value per step												
DP Read	Starting position adjustment for scanning originals	-55 to 55	0	0.091 mm												
Black Line	Scanning position for the test copy originals	0 to 3	0	-												

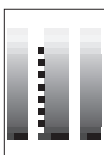


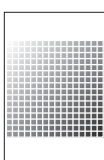
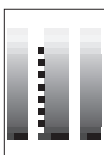


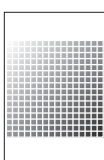
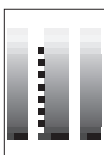


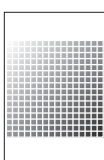
Item No.	Description															
U070	<p>Adjusting the DP magnification</p> <p>Description Adjusts the DP original scanning speed.</p> <p>Purpose Make the adjustment if the magnification is incorrect in the auxiliary scanning direction when the DP is used.</p> <p>Adjustment</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original on the DP and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Y Scan Zoom(F)</td><td>Magnification in the main scanning direction</td><td>-125 to 125</td><td>0</td><td>0.02 %</td></tr><tr><td>X Scan Zoom(B)</td><td>Magnification in the auxiliary scanning direction</td><td>-125 to 125</td><td>0</td><td>0.02 %</td></tr></table> <p>Adjustment: [Y Scan Zoom]</p> <ol style="list-style-type: none">1. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value. <div><div></div><div>Original</div><div></div><div>Copy example 1</div><div></div><div>Copy example 2</div></div> <p>Figure 1-3-9</p> <ol style="list-style-type: none">2. Press the start key. The value is set. <p>Adjustment: [X Scan Zoom]</p> <ol style="list-style-type: none">1. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value. <div><div></div><div>Original</div><div></div><div>Copy example 1</div><div></div><div>Copy example 2</div></div> <p>Figure 1-3-10</p> <ol style="list-style-type: none">2. Press the start key. The value is set.	Display	Description	Setting range	Initial setting	Change in value per step	Y Scan Zoom(F)	Magnification in the main scanning direction	-125 to 125	0	0.02 %	X Scan Zoom(B)	Magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %
Display	Description	Setting range	Initial setting	Change in value per step												
Y Scan Zoom(F)	Magnification in the main scanning direction	-125 to 125	0	0.02 %												
X Scan Zoom(B)	Magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %												

Item No.	Description
U070	<div><div><div>Caution</div><div>Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div><div><div><div>U070</div><div>→</div><div><div>U071 (P.1-3-34)</div><div>→</div><div><div>U404 (P.1-3-62)</div></div></div></div></div><div><div>Completion</div><div>Press the stop key. The screen for selecting a maintenance item No. is displayed.</div></div></div></div>

Item No.	Description																									
U071	<p>Adjusting the DP scanning timing</p> <p>Description Adjusts the DP original scanning timing.</p> <p>Purpose Make the adjustment if there is a regular error between the leading or trailing edges of the original and the copy image when the DP is used.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original on the DP and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Front Head</td><td>Leading edge registration (first side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr><tr><td>Front Tail</td><td>Trailing edge registration (first side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr><tr><td>Back Head</td><td>Leading edge registration (second side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr><tr><td>Back Tail</td><td>Trailing edge registration (second side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr></table> <p>Adjustment: Leading edge registration</p> <ol style="list-style-type: none">1. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value. <div><div></div><div>Original</div></div> <div><div></div><div>Copy example 1</div></div> <div><div></div><div>Copy example 2</div></div> <p>Figure 1-3-11</p> <ol style="list-style-type: none">2. Press the start key. The value is set. <p>Caution If the first side is adjusted, check the second side and if adjustment is required, carry out the adjustment. Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U071</div><div>→</div><div>U404 (P.1-3-62)</div></div>	Display	Description	Setting range	Initial setting	Change in value per step	Front Head	Leading edge registration (first side)	-80 to 80	0	0.119 mm	Front Tail	Trailing edge registration (first side)	-80 to 80	0	0.119 mm	Back Head	Leading edge registration (second side)	-80 to 80	0	0.119 mm	Back Tail	Trailing edge registration (second side)	-80 to 80	0	0.119 mm
Display	Description	Setting range	Initial setting	Change in value per step																						
Front Head	Leading edge registration (first side)	-80 to 80	0	0.119 mm																						
Front Tail	Trailing edge registration (first side)	-80 to 80	0	0.119 mm																						
Back Head	Leading edge registration (second side)	-80 to 80	0	0.119 mm																						
Back Tail	Trailing edge registration (second side)	-80 to 80	0	0.119 mm																						

Item No.	Description
U071	<p>Adjustment: Trailing edge registration</p> <p>1. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value.</p> <div><div><p>Original</p></div><div><p>Copy example 1</p></div><div><p>Copy example 2</p></div></div> <p>Figure 1-3-12</p> <p>2. Press the start key. The value is set.</p> <p>Caution If the first side is adjusted, check the second side and if adjustment is required, carry out the adjustment. Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U071</div><div>→</div><div>U404 (P.1-3-62)</div></div> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>

Item No.	Description															
U072	<p>Adjusting the DP center line</p> <p>Description Adjusts the scanning start position for the DP original.</p> <p>Purpose Make the adjustment if there is a regular error between the centers of the original and the copy image when the DP is used.</p> <p>Adjustment</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original on the DP and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Front</td><td>DP center line (first side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr><tr><td>Back</td><td>DP center line (second side)</td><td>-80 to 80</td><td>0</td><td>0.119 mm</td></tr></table> <ol style="list-style-type: none">6. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, increase the value. For copy example 2, decrease the value. <div><div><p>Original</p></div><div><p>Copy example 1</p></div><div><p>Copy example 2</p></div></div> <p>Figure 1-3-13</p> <ol style="list-style-type: none">7. Press the start key. The value is set. <p>Caution If the first side is adjusted, check the second side and if adjustment is required, carry out the adjustment. Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U072</div><div>→</div><div>U404 (P.1-3-62)</div></div> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	Front	DP center line (first side)	-80 to 80	0	0.119 mm	Back	DP center line (second side)	-80 to 80	0	0.119 mm
Display	Description	Setting range	Initial setting	Change in value per step												
Front	DP center line (first side)	-80 to 80	0	0.119 mm												
Back	DP center line (second side)	-80 to 80	0	0.119 mm												

Item No.	Description															
U089	<p>Outputting a MIP-PG pattern</p> <p>Description Selects and outputs the MIP-PG pattern created in the machine.</p> <p>Purpose To check copier status other than scanner when adjusting image printing, using MIP-PG pattern output (with-out scanning).</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select the MIP-PG pattern to be output and press the start key. <table><tr><th>Display</th><th>PG pattern to be output</th><th>Purpose</th></tr><tr><td>Gray Scale</td><td></td><td>To check the laser scanner unit engine output characteristics</td></tr><tr><td>Mono1 (Output density: 0)</td><td></td><td>To check the drum quality</td></tr><tr><td>Mono4 (Output density: 70)</td><td></td><td>To check the drum quality</td></tr><tr><td>256-Level</td><td></td><td>To check resolution reproducibility in printing</td></tr></table> <ol style="list-style-type: none">3. Press the system menu key.4. Press the start key. A MIP-PG pattern is output. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	PG pattern to be output	Purpose	Gray Scale		To check the laser scanner unit engine output characteristics	Mono1 (Output density: 0)		To check the drum quality	Mono4 (Output density: 70)		To check the drum quality	256-Level		To check resolution reproducibility in printing
Display	PG pattern to be output	Purpose														
Gray Scale		To check the laser scanner unit engine output characteristics														
Mono1 (Output density: 0)		To check the drum quality														
Mono4 (Output density: 70)		To check the drum quality														
256-Level		To check resolution reproducibility in printing														

Item No.	Description																																									
U099	<p>Adjusting original size detection</p> <p>Description Checks the operation of the original size sensor and sets the sensing threshold value.</p> <p>Purpose To adjust the sensitiveness of the sensor and size judgement time if the original size sensor malfunctions frequently due to incident light or the like.</p> <p>Method</p> <p>1. Press the start key.</p> <p>2. Select the item. The screen for executing each item is displayed.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Data1</td><td>Displaying original size sensor transmission data</td></tr><tr><td>B/W Level1</td><td>B/W LEVEL setting original size sensor threshold value Setting original size judgment time</td></tr><tr><td>Data2</td><td>Displaying original size sensor transmission data (when DP is installed)</td></tr></table> <p>Method: [Data1/Data2]</p> <p>1. Place the original and close the original cover or DP. The detection sensor transmission data is displayed.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Original Area (dot)</td><td>Detected original width size (dot)</td></tr><tr><td>Original Area (mm)</td><td>Detected original width size (mm)</td></tr><tr><td>Size SW L</td><td>Displays the original size sensor (OSS) ON/OFF</td></tr></table> <p>Setting: [B/W Level1]</p> <p>1. Select an item to be set.</p> <p>2. Change the setting value using the cursor left/right keys or numeric keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th colspan="2">Initial setting</th></tr><tr><td>Original 1</td><td>Original threshold value</td><td>0 to 255</td><td>40</td><td>50*</td></tr><tr><td>Original 2</td><td>Original threshold value</td><td>0 to 255</td><td>30</td><td>50*</td></tr><tr><td>Original 2</td><td>Original threshold value</td><td>0 to 255</td><td>20</td><td>50*</td></tr><tr><td>Light Source</td><td>Light source threshold value</td><td>0 to 255</td><td>19</td><td>49*</td></tr></table> <p>*: When DP is installed.</p> <p>Note: A smaller value increases the sensor sensitivity, and a larger value decreases it.</p> <p>3. Press the start key. The value is set.</p> <p>Completion Press the stop key. The screen for maintenance item No. is displayed.</p>	Display	Description	Data1	Displaying original size sensor transmission data	B/W Level1	B/W LEVEL setting original size sensor threshold value Setting original size judgment time	Data2	Displaying original size sensor transmission data (when DP is installed)	Display	Description	Original Area (dot)	Detected original width size (dot)	Original Area (mm)	Detected original width size (mm)	Size SW L	Displays the original size sensor (OSS) ON/OFF	Display	Description	Setting range	Initial setting		Original 1	Original threshold value	0 to 255	40	50*	Original 2	Original threshold value	0 to 255	30	50*	Original 2	Original threshold value	0 to 255	20	50*	Light Source	Light source threshold value	0 to 255	19	49*
Display	Description																																									
Data1	Displaying original size sensor transmission data																																									
B/W Level1	B/W LEVEL setting original size sensor threshold value Setting original size judgment time																																									
Data2	Displaying original size sensor transmission data (when DP is installed)																																									
Display	Description																																									
Original Area (dot)	Detected original width size (dot)																																									
Original Area (mm)	Detected original width size (mm)																																									
Size SW L	Displays the original size sensor (OSS) ON/OFF																																									
Display	Description	Setting range	Initial setting																																							
Original 1	Original threshold value	0 to 255	40	50*																																						
Original 2	Original threshold value	0 to 255	30	50*																																						
Original 2	Original threshold value	0 to 255	20	50*																																						
Light Source	Light source threshold value	0 to 255	19	49*																																						

Item No.	Description																																
U100	<p>Setting the main high voltage</p> <p>Description Performs main charging.</p> <p>Purpose To check main charging.</p> <p>Method</p> <p>1. Press the start key.</p> <p>2. Select the item. The screen for executing each item is displayed.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Main charger</td><td>Confirming of main motor driving and main charger operating</td></tr><tr><td>Laser</td><td>Confirming of laser operating</td></tr><tr><td>DC Bias</td><td>DC bias setting</td></tr><tr><td>Idc Bias</td><td>Idc bias setting</td></tr><tr><td>Set Low Temp</td><td>Control setting of main charger (At the low temperature)</td></tr></table> <p>Method:[Main charger/Laser]</p> <p>1. Press the start key.</p> <p>2. Select [Execute] and press the start key.The operation starts.</p> <p>Setting: [DC Bias]</p> <p>1. Select an item to be set.</p> <p>2. Change the setting value using the cursor left/right keys or numeric keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Full</td><td>DC bias regulations value at the full speed (Only the display)</td><td>0 to 255</td><td>-</td></tr><tr><td>Half</td><td>DC bias regulations value at the half speed (Only the display)</td><td>0 to 255</td><td>-</td></tr><tr><td>Adj Full</td><td>DC bias setting value at the full speed</td><td>-500 to 500</td><td>0</td></tr><tr><td>Adj Half</td><td>DC bias setting value at the half speed</td><td>-500 to 500</td><td>0</td></tr></table> <p>3. Press the start key. The value is set.</p>	Display	Description	Main charger	Confirming of main motor driving and main charger operating	Laser	Confirming of laser operating	DC Bias	DC bias setting	Idc Bias	Idc bias setting	Set Low Temp	Control setting of main charger (At the low temperature)	Display	Description	Setting range	Initial setting	Full	DC bias regulations value at the full speed (Only the display)	0 to 255	-	Half	DC bias regulations value at the half speed (Only the display)	0 to 255	-	Adj Full	DC bias setting value at the full speed	-500 to 500	0	Adj Half	DC bias setting value at the half speed	-500 to 500	0
Display	Description																																
Main charger	Confirming of main motor driving and main charger operating																																
Laser	Confirming of laser operating																																
DC Bias	DC bias setting																																
Idc Bias	Idc bias setting																																
Set Low Temp	Control setting of main charger (At the low temperature)																																
Display	Description	Setting range	Initial setting																														
Full	DC bias regulations value at the full speed (Only the display)	0 to 255	-																														
Half	DC bias regulations value at the half speed (Only the display)	0 to 255	-																														
Adj Full	DC bias setting value at the full speed	-500 to 500	0																														
Adj Half	DC bias setting value at the half speed	-500 to 500	0																														

Item No.	Description																
U100	Setting: [Idc Bias] 1. Select an item to be set. 2. Change the setting value using the cursor left/right keys or numeric keys.																
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Full</td><td>Idc bias regulations value at the full speed (Only the display)</td><td>0?255</td><td>-</td></tr><tr><td>Half</td><td>Idc bias regulations value at the half speed (Only the display)</td><td>0?255</td><td>-</td></tr><tr><td>Adj Freq</td><td>Setting value of bias frequency</td><td>1000?4000</td><td>1800</td></tr></table>	Display	Description	Setting range	Initial setting	Full	Idc bias regulations value at the full speed (Only the display)	0?255	-	Half	Idc bias regulations value at the half speed (Only the display)	0?255	-	Adj Freq	Setting value of bias frequency	1000?4000	1800
	Display	Description	Setting range	Initial setting													
	Full	Idc bias regulations value at the full speed (Only the display)	0?255	-													
	Half	Idc bias regulations value at the half speed (Only the display)	0?255	-													
	Adj Freq	Setting value of bias frequency	1000?4000	1800													
	3. Press the start key. The value is set.																
	Setting: [Set Low Temp] 1. Select an item to be set.																
	<table><tr><th>Display</th><th>Description</th></tr><tr><td>On</td><td>Setting of main charger :On (At the low temperature)</td></tr><tr><td>Off</td><td>Setting of main charger :Off (At the low temperature)</td></tr></table>	Display	Description	On	Setting of main charger :On (At the low temperature)	Off	Setting of main charger :Off (At the low temperature)										
	Display	Description															
On	Setting of main charger :On (At the low temperature)																
Off	Setting of main charger :Off (At the low temperature)																
2. Press the start key. The value is set.																	
Completion Press the stop key when main charger output stops. The screen for selecting a maintenance item No. is displayed.																	

Item No.	Description																																																
U101	<p>Setting the voltage for the primary transfer</p> <p>Description Sets the control voltage for the primary transfer.</p> <p>Purpose To change the setting when any density problems, such as too dark or light, occur.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be set.3. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>On Timing</td><td>Transfer bias ON timing</td><td>-1000 to 1000</td><td>0</td></tr><tr><td>Off Timing</td><td>Transfer bias OFF timing</td><td>-1000 to 1000</td><td>0</td></tr><tr><td>Pre On Timing</td><td>Transfer bias Pre ON timing</td><td>-1000 to 1000</td><td>0</td></tr><tr><td>Pre Bias</td><td>Pre Transfer bias</td><td>0 to 2000</td><td>0</td></tr><tr><td>Rev Bias</td><td>Rev Transfer bias</td><td>0 to 2000</td><td>190</td></tr><tr><td>Bias(L)</td><td>Transfer bias for large sizes</td><td>0 to 2000</td><td>650</td></tr><tr><td>Bias(M)</td><td>Transfer bias for medium sizes</td><td>0 to 2000</td><td>900</td></tr><tr><td>Bias(S)</td><td>Transfer bias for small sizes</td><td>0 to 2000</td><td>1100</td></tr><tr><td>Bias Half(L)</td><td>Half Transfer bias for large sizes</td><td>0 to 2000</td><td>450</td></tr><tr><td>Bias Half(M)</td><td>Half Transfer bias for medium sizes</td><td>0 to 2000</td><td>650</td></tr><tr><td>Bias Half(S)</td><td>Half Transfer bias for small sizes</td><td>0 to 2000</td><td>750</td></tr></table> <p>Increasing the setting makes the transfer voltage higher, and decreasing it makes the voltage lower. large sizes:(more than 220 mm wide), medium sizes (more than 170 to under 220 mm wide),small sizes: (under 170 mm wide)</p> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	On Timing	Transfer bias ON timing	-1000 to 1000	0	Off Timing	Transfer bias OFF timing	-1000 to 1000	0	Pre On Timing	Transfer bias Pre ON timing	-1000 to 1000	0	Pre Bias	Pre Transfer bias	0 to 2000	0	Rev Bias	Rev Transfer bias	0 to 2000	190	Bias(L)	Transfer bias for large sizes	0 to 2000	650	Bias(M)	Transfer bias for medium sizes	0 to 2000	900	Bias(S)	Transfer bias for small sizes	0 to 2000	1100	Bias Half(L)	Half Transfer bias for large sizes	0 to 2000	450	Bias Half(M)	Half Transfer bias for medium sizes	0 to 2000	650	Bias Half(S)	Half Transfer bias for small sizes	0 to 2000	750
Display	Description	Setting range	Initial setting																																														
On Timing	Transfer bias ON timing	-1000 to 1000	0																																														
Off Timing	Transfer bias OFF timing	-1000 to 1000	0																																														
Pre On Timing	Transfer bias Pre ON timing	-1000 to 1000	0																																														
Pre Bias	Pre Transfer bias	0 to 2000	0																																														
Rev Bias	Rev Transfer bias	0 to 2000	190																																														
Bias(L)	Transfer bias for large sizes	0 to 2000	650																																														
Bias(M)	Transfer bias for medium sizes	0 to 2000	900																																														
Bias(S)	Transfer bias for small sizes	0 to 2000	1100																																														
Bias Half(L)	Half Transfer bias for large sizes	0 to 2000	450																																														
Bias Half(M)	Half Transfer bias for medium sizes	0 to 2000	650																																														
Bias Half(S)	Half Transfer bias for small sizes	0 to 2000	750																																														

Item No.	Description								
U108	<p>Setting separation shift bias</p> <p>Description Adjusts output of separation shift bias and ON/OFF timing.</p> <p>Purpose To set when the separated malfunction of the paper occurs.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Mode].3. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Mode</td><td>ON/OFF timing adjustment with paper position</td><td>1 to 8</td><td>4</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Mode	ON/OFF timing adjustment with paper position	1 to 8	4
Display	Description	Setting range	Initial setting						
Mode	ON/OFF timing adjustment with paper position	1 to 8	4						

Item No.	Description						
U111	<p>Checking the drum drive time</p> <p>Description Displays the drum drive time for checking a figure, which is used as a reference when correcting the high voltage based on time.</p> <p>Purpose To check the drum status.</p> <p>Method 1. Press the start key. The drum drive time is displayed.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
U118	<p>Displaying the drum history</p> <p>Description Displays the past record of machine number and the drum counter.</p> <p>Purpose To check the count value of machine number and the drum counter.</p> <p>Method 1. Press the start key. The each history displayed by three cases.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Machine History 1 - 3</td><td>Historical records of the machine number</td></tr> <tr> <td>Cnt History 1 - 3</td><td>Historical records of drum counter</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Machine History 1 - 3	Historical records of the machine number	Cnt History 1 - 3	Historical records of drum counter
Display	Description						
Machine History 1 - 3	Historical records of the machine number						
Cnt History 1 - 3	Historical records of drum counter						

Item No.	Description						
U127	<p>Checking/clearing the transfer count</p> <p>Description Displays and clears the counts of the transfer counter.</p> <p>Purpose To check the count after replacement of the transfer roller. Also to clear the counts after replacing transfer roller.</p> <p>Method 1. Press the start key. The current counts of the transfer counter is displayed.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Cnt</td><td>Transfer counter value</td></tr> </tbody> </table> <p>Clearing 1. Select [Clear]. 2. Press the start key. The counter value is cleared.</p> <p>Setting 1. Change the counter value using the cursor left/right keys or numeric keys. 2. Press the start key. The counter value is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Cnt	Transfer counter value		
Display	Description						
Cnt	Transfer counter value						
U139	<p>Displaying the temperature and humidity outside the machine</p> <p>Description Displays the detected temperature and humidity outside the machine.</p> <p>Purpose To check the temperature and humidity outside the machine.</p> <p>Method 1. Press the start key. The detected temperature and humidity are displayed.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>External Temp</td><td>External temperature (°C)</td></tr> <tr> <td>External Humidity</td><td>External humidity (g/m³)</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	External Temp	External temperature (°C)	External Humidity	External humidity (g/m³)
Display	Description						
External Temp	External temperature (°C)						
External Humidity	External humidity (g/m³)						

Item No.	Description																
U140	<p>Displaying developer bias</p> <p>Description Displays various developer bias value.</p> <p>Purpose To check the developer bias value.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be set.3. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Bias</td><td>Developer magnet roller bias</td><td>0 to 255</td><td>170</td></tr><tr><td>Clock</td><td>Developer magnet roller frequency</td><td>0 to 255</td><td>2700</td></tr><tr><td>Duty</td><td>Developer magnet roller duty</td><td>0 to 255</td><td>60</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Bias	Developer magnet roller bias	0 to 255	170	Clock	Developer magnet roller frequency	0 to 255	2700	Duty	Developer magnet roller duty	0 to 255	60
Display	Description	Setting range	Initial setting														
Bias	Developer magnet roller bias	0 to 255	170														
Clock	Developer magnet roller frequency	0 to 255	2700														
Duty	Developer magnet roller duty	0 to 255	60														

Item No.	Description										
U147	<p>Setting for toner applying operation</p> <p>Description Sets the mode for removing charged toner in the developer unit (T7 control: Toner applying operation).</p> <p>Purpose Changing settings are not required. However, when the documents with lower print density (e.g. less than 2%) should customarily printed in a great volume, mode must be changed. If the charged toner stays inside the developer unit, density decreases.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key 2. Select the item to be set. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Mode0</td><td>Normal mode</td></tr> <tr> <td>Mode1</td><td>Toner consumption mode</td></tr> </tbody> </table> <p>* : Initial setting; Mode1</p> <ol style="list-style-type: none"> 3. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Mode0	Normal mode	Mode1	Toner consumption mode				
Display	Description										
Mode0	Normal mode										
Mode1	Toner consumption mode										
U150	<p>Checking sensors for toner</p> <p>Description Displays the on-off status of each sensor or switch related to toner.</p> <p>Purpose To check if the sensors and switches operate correctly.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Turn each switch or sensor on and off manually to check the status. When a switch or sensor is detected to be in the ON position, the display for that switch or sensor will be "1" <table border="1"> <thead> <tr> <th>Display</th><th>Switches and sensors</th></tr> </thead> <tbody> <tr> <td>Container Set</td><td>Toner container switch (TCSW)</td></tr> <tr> <td>Container Sensor</td><td>Toner sensor (TS)</td></tr> <tr> <td>Waste Box Sensor</td><td>Waste toner sensor (WTS)</td></tr> <tr> <td>Motor</td><td>Main motor (MM) is turned on</td></tr> </tbody> </table> <ol style="list-style-type: none"> 3. To stop motor driving, press the stop key. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches and sensors	Container Set	Toner container switch (TCSW)	Container Sensor	Toner sensor (TS)	Waste Box Sensor	Waste toner sensor (WTS)	Motor	Main motor (MM) is turned on
Display	Switches and sensors										
Container Set	Toner container switch (TCSW)										
Container Sensor	Toner sensor (TS)										
Waste Box Sensor	Waste toner sensor (WTS)										
Motor	Main motor (MM) is turned on										

Item No.	Description																												
U157	<p>Checking the developer drive time</p> <p>Description Displays the developer drive time for checking a figure, which is used as a reference when correcting the toner control.</p> <p>Purpose To check the developer drive time after replacing the developer unit.</p> <p>Method 1. Press the start key. The developer drive time of each color is displayed.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																												
U161	<p>Setting the fuser control temperature</p> <p>Description Changes the fuser control temperature.</p> <p>Purpose Normally no change is necessary. However, can be used to prevent curling or creasing of paper, or solve a fuser problem on thick paper.</p> <p>Setting 1. Press the start key. 2. Select the item to be set. 3. Change the setting value using the cursor left/right keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>T1</td><td>Setting of target temperature of 1st stable temperature. (Ready)</td><td>120 to 185(°C)</td><td>135</td></tr><tr><td>T2</td><td>Setting of target temperature of 2nd stable temperature. (Standby)</td><td>120 to 185(°C)</td><td>150</td></tr><tr><td>T3</td><td>Setting of target temperature at a continuation copy. (1st copy)</td><td>130 to 220(°C)</td><td>165</td></tr><tr><td>T4</td><td>Setting of target temperature at a continuation copy. (Final)</td><td>130 to 220(°C)</td><td>175</td></tr><tr><td>T5</td><td>Setting of target temperature at a continuation copy. (Addition temperature in every sheet)</td><td>1 to 99(°C)</td><td>1</td></tr><tr><td>T6</td><td>Setting of target temperature at a continuation copy. (Subtraction temperature in every sheet)</td><td>1 to 99(°C)</td><td>1</td></tr></table> <p>4. Press the start key. The value is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	T1	Setting of target temperature of 1st stable temperature. (Ready)	120 to 185(°C)	135	T2	Setting of target temperature of 2nd stable temperature. (Standby)	120 to 185(°C)	150	T3	Setting of target temperature at a continuation copy. (1st copy)	130 to 220(°C)	165	T4	Setting of target temperature at a continuation copy. (Final)	130 to 220(°C)	175	T5	Setting of target temperature at a continuation copy. (Addition temperature in every sheet)	1 to 99(°C)	1	T6	Setting of target temperature at a continuation copy. (Subtraction temperature in every sheet)	1 to 99(°C)	1
Display	Description	Setting range	Initial setting																										
T1	Setting of target temperature of 1st stable temperature. (Ready)	120 to 185(°C)	135																										
T2	Setting of target temperature of 2nd stable temperature. (Standby)	120 to 185(°C)	150																										
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T4	Setting of target temperature at a continuation copy. (Final)	130 to 220(°C)	175																										
T5	Setting of target temperature at a continuation copy. (Addition temperature in every sheet)	1 to 99(°C)	1																										
T6	Setting of target temperature at a continuation copy. (Subtraction temperature in every sheet)	1 to 99(°C)	1																										

Item No.	Description						
U199	<p>Displaying fuser heater temperature</p> <p>Description Displays the detected fuser temperature.</p> <p>Purpose To check the fuser temperature.</p> <p>Method 1. Press the start key. The fuser temperature is displayed.</p> <p>Completion Press the stop key. The screen for selecting a maintenance mode No. is displayed.</p>						
U201	<p>Initializing the touch panel</p> <p>Description Automatically correct the positions of the X- and Y-axes of the touch panel.</p> <p>Purpose To automatically correct the display positions on the touch panel after it is replaced.</p> <p>Method 1. Press the start key. 2. Select the [Initialize] or [Check].</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Initialize</td><td>Adjusts the display on the panel automatically</td></tr> <tr> <td>Check</td><td>Checks the display on the touch panel</td></tr> </tbody> </table> <p>Method: [Initialize] 1. Press the start key. 2. Press the center of the + keys. Be sure to press three + keys displayed in order. The touch panel is adjusted automatically. 3. Press the indicated three + keys, and then check the display. 4. Press the stop key. The screen for selecting a maintenance item No. is displayed.</p> <p>Method: [Check] 1. Press the start key. 2. Press the indicated three + keys, and then check the display. When adjusting the display, press [Initialize] to execute the adjustment automatically. 3. Press the stop key. The screen for selecting a maintenance item No. is displayed.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Initialize	Adjusts the display on the panel automatically	Check	Checks the display on the touch panel
Display	Description						
Initialize	Adjusts the display on the panel automatically						
Check	Checks the display on the touch panel						

Item No.	Description																
U203	<p>Checking DP operation</p> <p>Description Simulates the original conveying operation separately in the DP.</p> <p>Purpose To check the DP operation.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Place an original in the DP if running this simulation with paper. 3. Select the speed to be operated. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Normal Speed</td><td>Normal reading (600 dpi)</td></tr> <tr> <td>High Speed</td><td>High-speed reading</td></tr> </tbody> </table> <ol style="list-style-type: none"> 4. Select the item to be operated. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>CCD ADP (Non-P)</td><td>Without paper, single-sided original of CCD (continuous operation)</td></tr> <tr> <td>CCD ADP</td><td>With paper, single-sided original of CCD</td></tr> <tr> <td>CCD RADP (Non-P)</td><td>Without paper, double-sided original of CCD (continuous operation)</td></tr> <tr> <td>CCD RADP</td><td>With paper, double-sided original of CCD</td></tr> </tbody> </table> <ol style="list-style-type: none"> 5. Press the start key. The operation starts. 6. To stop continuous operation, press the stop key. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Normal Speed	Normal reading (600 dpi)	High Speed	High-speed reading	Display	Description	CCD ADP (Non-P)	Without paper, single-sided original of CCD (continuous operation)	CCD ADP	With paper, single-sided original of CCD	CCD RADP (Non-P)	Without paper, double-sided original of CCD (continuous operation)	CCD RADP	With paper, double-sided original of CCD
Display	Description																
Normal Speed	Normal reading (600 dpi)																
High Speed	High-speed reading																
Display	Description																
CCD ADP (Non-P)	Without paper, single-sided original of CCD (continuous operation)																
CCD ADP	With paper, single-sided original of CCD																
CCD RADP (Non-P)	Without paper, double-sided original of CCD (continuous operation)																
CCD RADP	With paper, double-sided original of CCD																

Item No.	Description						
U207	<p>Checking the operation panel keys</p> <p>Description Checks operation of the operation panel keys.</p> <p>Purpose To check operation of all the keys and LEDs on the operation panel.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. The screen for executing is displayed. 2. [Count0] is displayed and the leftmost LED on the operation panel lights. 3. As the keys lined up in the same line as the lit indicator are pressed in the order from the top to the bottom, the figure shown on the touch panel increases in increments of 1. When all the keys in that line are pressed and if there are any LEDs corresponding to the keys in the line on the immediate right, the top LED in that line will light. 4. When all the keys on the operation panel have been pressed, all the LEDs light for up to 10 seconds. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>						
U222	<p>Setting the IC card type</p> <p>Description Sets the type of IC card.</p> <p>Purpose To change the type of IC card.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Other</td><td>The type of IC card is SSFC.</td></tr> <tr> <td>SSFC</td><td>The type of IC card is not SSFC.</td></tr> </tbody> </table> <p>* : Initial setting: Other</p> <ol style="list-style-type: none"> 3. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Other	The type of IC card is SSFC.	SSFC	The type of IC card is not SSFC.
Display	Description						
Other	The type of IC card is SSFC.						
SSFC	The type of IC card is not SSFC.						

Item No.	Description										
U243	<p data-bbox="290 241 813 275">Checking the operation of the DP motors</p> <p data-bbox="290 311 440 340">Description</p> <p data-bbox="290 344 791 374">Turns the motors or clutches in the DP on.</p> <p data-bbox="290 380 400 409">Purpose</p> <p data-bbox="290 414 933 443">To check the operation of the DP motors and clutches.</p> <p data-bbox="290 486 387 515">Method</p> <ol data-bbox="308 519 815 618" style="list-style-type: none"> 1. Press the start key. 2. Select the item to be operated. 3. Press the start key. The operation starts. <table data-bbox="338 631 1401 871"> <tr> <th data-bbox="338 631 641 676">Display</th><th data-bbox="641 631 1401 676">Description</th></tr> <tr> <td data-bbox="338 676 641 721">Conv Motor</td><td data-bbox="641 676 1401 721">DP paper feed motor (DPPFM) is turned on</td></tr> <tr> <td data-bbox="338 721 641 766">Rev Motor</td><td data-bbox="641 721 1401 766">DP switchback motor (DPSBM) is turned on</td></tr> <tr> <td data-bbox="338 766 641 810">Feed Clutch</td><td data-bbox="641 766 1401 810">DP paper feed clutch (DPPFCL) is turned on</td></tr> <tr> <td data-bbox="338 810 641 855">Regist Clutch</td><td data-bbox="641 810 1401 855">DP registration clutch (DPRCL) is turned on</td></tr> </table> <ol data-bbox="308 880 833 909" style="list-style-type: none"> 4. To turn each motor off, press the stop key. <p data-bbox="290 949 440 978">Completion</p> <p data-bbox="290 983 1430 1048">Press the stop key when operation stops. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Conv Motor	DP paper feed motor (DPPFM) is turned on	Rev Motor	DP switchback motor (DPSBM) is turned on	Feed Clutch	DP paper feed clutch (DPPFCL) is turned on	Regist Clutch	DP registration clutch (DPRCL) is turned on
Display	Description										
Conv Motor	DP paper feed motor (DPPFM) is turned on										
Rev Motor	DP switchback motor (DPSBM) is turned on										
Feed Clutch	DP paper feed clutch (DPPFCL) is turned on										
Regist Clutch	DP registration clutch (DPRCL) is turned on										

Item No.	Description																				
U244	<p>Checking the DP switches</p> <p>Description Displays the status of the respective switches in the DP.</p> <p>Purpose To check if respective switches in the DP operate correctly.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Turn each switch or sensor on and off manually to check the status. <p>When a switch or sensor is detected to be in the ON position, the display for that switch or sensor will be "1".</p> <table border="1"> <thead> <tr> <th>Display</th><th>Switches and sensors</th></tr> </thead> <tbody> <tr> <td>Switch 00000000</td><td></td></tr> <tr> <td>1st digit</td><td>DP interlock switch (DPILSW)</td></tr> <tr> <td>2nd digit</td><td>DP open/close sensor (DPOCS)</td></tr> <tr> <td>3rd digit</td><td>DP paper feed sensor (DPPFS)</td></tr> <tr> <td>4th digit</td><td>DP registration sensor (DPRS)</td></tr> <tr> <td>5th digit</td><td>DP timing sensor (DPTS)</td></tr> <tr> <td>6th digit</td><td>DP original sensor (DPOS)</td></tr> <tr> <td>7th digit</td><td>DP original size length sensor (DPOLS)</td></tr> <tr> <td>8th digit</td><td>-</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Switches and sensors	Switch 00000000		1st digit	DP interlock switch (DPILSW)	2nd digit	DP open/close sensor (DPOCS)	3rd digit	DP paper feed sensor (DPPFS)	4th digit	DP registration sensor (DPRS)	5th digit	DP timing sensor (DPTS)	6th digit	DP original sensor (DPOS)	7th digit	DP original size length sensor (DPOLS)	8th digit	-
Display	Switches and sensors																				
Switch 00000000																					
1st digit	DP interlock switch (DPILSW)																				
2nd digit	DP open/close sensor (DPOCS)																				
3rd digit	DP paper feed sensor (DPPFS)																				
4th digit	DP registration sensor (DPRS)																				
5th digit	DP timing sensor (DPTS)																				
6th digit	DP original sensor (DPOS)																				
7th digit	DP original size length sensor (DPOLS)																				
8th digit	-																				

Item No.	Description									
U250	<p>Checking/clearing the maintenance cycle</p> <p>Description Changes preset values for maintenance cycle and automatic grayscale adjustment.</p> <p>Purpose Provides changing the time when the message to acknowledge to conduct maintenance and automatic grayscale adjustment is periodically displayed.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be changed.3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th></tr><tr><td>M.Cnt A</td><td>Preset values for maintenance cycle</td><td>0 to 9999999</td></tr><tr><td>M.Cnt HT</td><td>Preset values for automatic grayscale adjustment</td><td>0 to 9999999</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The setting value is set. <p>Clearing</p> <ol style="list-style-type: none">1. Select [Clear].2. Press the start key. The setting value is cleared. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	M.Cnt A	Preset values for maintenance cycle	0 to 9999999	M.Cnt HT	Preset values for automatic grayscale adjustment	0 to 9999999
Display	Description	Setting range								
M.Cnt A	Preset values for maintenance cycle	0 to 9999999								
M.Cnt HT	Preset values for automatic grayscale adjustment	0 to 9999999								
U251	<p>Checking/clearing the maintenance counter</p> <p>Description Displays and clears or changes the maintenance count and automatic grayscale adjustment count.</p> <p>Purpose To verify the maintenance counter count and automatic grayscale count. Also to clear the count during maintenance service.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be changed.3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th></tr><tr><td>M.Cnt A</td><td>Count value for maintenance cycle</td><td>0 to 9999999</td></tr><tr><td>M.Cnt HT</td><td>Automatic grayscale adjustment count</td><td>0 to 9999999</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The setting value is set. <p>Clearing</p> <ol style="list-style-type: none">1. Select [Clear].2. Press the start key. The setting value is cleared. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	M.Cnt A	Count value for maintenance cycle	0 to 9999999	M.Cnt HT	Automatic grayscale adjustment count	0 to 9999999
Display	Description	Setting range								
M.Cnt A	Count value for maintenance cycle	0 to 9999999								
M.Cnt HT	Automatic grayscale adjustment count	0 to 9999999								

Item No.	Description																												
U252	<p>Setting the destination</p> <p>Description Switches the operations and screens of the machine according to the destination.</p> <p>Purpose To be executed after initializing the backup RAM, in order to return the setting to the value before replacement or initialization.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the destination. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Japan Metric</td><td>Metric (Japan) specifications</td></tr> <tr> <td>Inch</td><td>Inch (North America) specifications</td></tr> <tr> <td>Europe Metric</td><td>Metric (Europe) specifications</td></tr> <tr> <td>Asia Pacific</td><td>Metric (Asia Pacific) specifications</td></tr> <tr> <td>Australia</td><td>Australia specifications</td></tr> <tr> <td>China</td><td>China specifications</td></tr> <tr> <td>Korea</td><td>Korea specifications</td></tr> </tbody> </table> <ol style="list-style-type: none"> 3. Press the start key. 4. Turn the main power switch off and on. <p>* : An error code is displayed in case of an initialization error. When errors occurred, turn main power switch off then on, and execute initialization using maintenance item U252.</p> <p>Error codes</p> <table border="1"> <thead> <tr> <th>Codes</th><th>Description</th></tr> </thead> <tbody> <tr> <td>0001</td><td>Entity error</td></tr> <tr> <td>0002</td><td>Controller error</td></tr> <tr> <td>0003</td><td>OS error</td></tr> <tr> <td>0020</td><td>Engine error</td></tr> <tr> <td>0040</td><td>Scanner error</td></tr> </tbody> </table>	Display	Description	Japan Metric	Metric (Japan) specifications	Inch	Inch (North America) specifications	Europe Metric	Metric (Europe) specifications	Asia Pacific	Metric (Asia Pacific) specifications	Australia	Australia specifications	China	China specifications	Korea	Korea specifications	Codes	Description	0001	Entity error	0002	Controller error	0003	OS error	0020	Engine error	0040	Scanner error
Display	Description																												
Japan Metric	Metric (Japan) specifications																												
Inch	Inch (North America) specifications																												
Europe Metric	Metric (Europe) specifications																												
Asia Pacific	Metric (Asia Pacific) specifications																												
Australia	Australia specifications																												
China	China specifications																												
Korea	Korea specifications																												
Codes	Description																												
0001	Entity error																												
0002	Controller error																												
0003	OS error																												
0020	Engine error																												
0040	Scanner error																												

Item No.	Description										
U253	<p>Switching between double and single counts</p> <p>Description Switches the count system for the total counter and other counters.</p> <p>Purpose Used to select, according to the preference of the user (copy service provider), if folio size paper is to be counted as one sheet (single count) or two sheets (double count).</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [B/W]. 3. Select the count system. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>SGL (All)</td><td>Single count for all size paper</td></tr> <tr> <td>DBL (A3/Ledger)</td><td>Double count for A3/Ledger size or larger</td></tr> <tr> <td>DBL (B4)</td><td>Double count for B4 size or larger</td></tr> <tr> <td>DBLFolio)</td><td>Double count for Folio size or larger</td></tr> </tbody> </table> <p>* : Initial setting: DBL (A3/Ledger)</p> <ol style="list-style-type: none"> 4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	SGL (All)	Single count for all size paper	DBL (A3/Ledger)	Double count for A3/Ledger size or larger	DBL (B4)	Double count for B4 size or larger	DBLFolio)	Double count for Folio size or larger
Display	Description										
SGL (All)	Single count for all size paper										
DBL (A3/Ledger)	Double count for A3/Ledger size or larger										
DBL (B4)	Double count for B4 size or larger										
DBLFolio)	Double count for Folio size or larger										
U260	<p>Selecting the timing for copy counting</p> <p>Description Changes the copy count timing for the total counter and other counters.</p> <p>Purpose To be set according to user request.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the copy count timing. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Feed</td><td>When secondary paper feed starts</td></tr> <tr> <td>Eject</td><td>When the paper is ejected</td></tr> </tbody> </table> <p>* : Initial setting: Eject</p> <ol style="list-style-type: none"> 3. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Feed	When secondary paper feed starts	Eject	When the paper is ejected				
Display	Description										
Feed	When secondary paper feed starts										
Eject	When the paper is ejected										

Item No.	Description						
U265	<p>Setting OEM purchaser code</p> <p>Description Sets the OEM purchaser code.</p> <p>Purpose Sets the code when replacing the main PWB and the like.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Change the preset value using the numeric keys. 3. Press the start key. The setting is set. 4. Turn the main power switch off and on. 						
U285	<p>Setting service status page</p> <p>Description Determines displaying the print coverage report on reporting.</p> <p>Purpose According to user request, changes the setting.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [On] or [Off]. <table border="1" data-bbox="338 1059 1401 1205"> <thead> <tr> <th data-bbox="338 1059 641 1104">Display</th><th data-bbox="641 1059 1401 1104">Description</th></tr> </thead> <tbody> <tr> <td data-bbox="338 1104 641 1149">On</td><td data-bbox="641 1104 1401 1149">Displays the print coverage</td></tr> <tr> <td data-bbox="338 1149 641 1205">Off</td><td data-bbox="641 1149 1401 1205">Not to display the print coverage</td></tr> </tbody> </table> <p>* : Initial setting: On</p> <ol style="list-style-type: none"> 3. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	On	Displays the print coverage	Off	Not to display the print coverage
Display	Description						
On	Displays the print coverage						
Off	Not to display the print coverage						

Item No.	Description																				
U326	<p>Setting the black line cleaning indication</p> <p>Description Sets whether to display the cleaning guidance when detecting the black line.</p> <p>Purpose Displays the cleaning guidance in order to make the call for service with the black line decrease by the rubbish on the contact glass when scanning from the DP.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to set. The screen for setting each item is displayed. <table><tr><th>Display</th><th>Description</th></tr><tr><td>Black Line Mode</td><td>Black line cleaning guidance ON/OFF setting</td></tr><tr><td>Black Line Cnt</td><td>Setting counts of the cleaning guidance indication</td></tr></table> <p>Setting: [Black Line Mode]</p> <ol style="list-style-type: none">1. Select [On] or [Off]. <table><tr><th>Display</th><th>Description</th></tr><tr><td>On</td><td>Displays the cleaning guidance</td></tr><tr><td>Off</td><td>Not to display the cleaning guidance</td></tr></table> <p>* : Initial setting: On</p> <ol style="list-style-type: none">2. Press the start key. The setting is set. <p>Setting: [Black Line Cnt]</p> <ol style="list-style-type: none">1. Select [Cnt].2. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Cnt</td><td>Setting counts of the cleaning guidance indication (x 1000 sheets)</td><td>0 to 255</td><td>8</td></tr></table> <p>* : When setting is 0, the black line cleaning indication is displayed only if the black line is detected.</p> <ol style="list-style-type: none">3. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Black Line Mode	Black line cleaning guidance ON/OFF setting	Black Line Cnt	Setting counts of the cleaning guidance indication	Display	Description	On	Displays the cleaning guidance	Off	Not to display the cleaning guidance	Display	Description	Setting range	Initial setting	Cnt	Setting counts of the cleaning guidance indication (x 1000 sheets)	0 to 255	8
Display	Description																				
Black Line Mode	Black line cleaning guidance ON/OFF setting																				
Black Line Cnt	Setting counts of the cleaning guidance indication																				
Display	Description																				
On	Displays the cleaning guidance																				
Off	Not to display the cleaning guidance																				
Display	Description	Setting range	Initial setting																		
Cnt	Setting counts of the cleaning guidance indication (x 1000 sheets)	0 to 255	8																		

Item No.	Description								
U332	<p>Setting the size conversion factor</p> <p>Description Sets the coefficient of nonstandard sizes in relation to the A4/Letter size. The coefficient set here is used to convert the black ratio in relation to the A4/Letter size and to display the result in user simulation.</p> <p>Purpose To set the coefficient for converting the black ratio for nonstandard sizes in relation to the A4/Letter size.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Rate].3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Rate</td><td>Size parameter</td><td>0.1 to 3.0</td><td>1.0</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Rate	Size parameter	0.1 to 3.0	1.0
Display	Description	Setting range	Initial setting						
Rate	Size parameter	0.1 to 3.0	1.0						
U341	<p>Specific paper feed location setting for printing function</p> <p>Description Sets a paper feed location specified for printer output.</p> <p>Purpose To use a paper feed location only for printer output. A paper feed location specified for printer output cannot be used for copy output.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select the paper feed location for the printer.3. Select [On] or [Off] using the cursor left/right keys. <table><tr><th>Display</th><th>Description</th></tr><tr><td>Cassette1</td><td>Cassette 1</td></tr><tr><td>Cassette2</td><td>Cassette 2 (optional paper feeder)</td></tr><tr><td>Cassette3</td><td>Cassette 3 (optional paper feeder)</td></tr></table> <p>* : When an optional paper feed device is not installed, the corresponding count is not displayed.</p> <ol style="list-style-type: none">4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Cassette1	Cassette 1	Cassette2	Cassette 2 (optional paper feeder)	Cassette3	Cassette 3 (optional paper feeder)
Display	Description								
Cassette1	Cassette 1								
Cassette2	Cassette 2 (optional paper feeder)								
Cassette3	Cassette 3 (optional paper feeder)								

Item No.	Description								
U343	<p>Switching between duplex/simplex copy mode</p> <p>Description Switches the initial setting between duplex and simplex copy.</p> <p>Purpose To be set according to frequency of use: set to the more frequently used mode.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select [On] or [Off]. <table><tr><th>Display</th><th>Description</th></tr><tr><td>On</td><td>Duplex copy</td></tr><tr><td>Off</td><td>Simplex copy</td></tr></table> <p>* : Initial setting: Off</p> <ol style="list-style-type: none">3. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	On	Duplex copy	Off	Simplex copy		
Display	Description								
On	Duplex copy								
Off	Simplex copy								
U345	<p>Setting the value for maintenance due indication</p> <p>Description Sets when to display a message notifying that the time for maintenance is about to be reached, by setting the number of copies that can be made before the current maintenance cycle ends. When the difference between the number of copies of the maintenance cycle and that of the maintenance count reaches the set value, the message is displayed.</p> <p>Purpose To change the time for maintenance due indication.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Cnt].3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Cnt</td><td>Time for maintenance due indication (Remaining number of copies that can be made before the current maintenance cycle ends)</td><td>0 to 9999</td><td>0</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Clearing</p> <ol style="list-style-type: none">1. Select [Clear].2. Press the start key. The value is cleared. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Cnt	Time for maintenance due indication (Remaining number of copies that can be made before the current maintenance cycle ends)	0 to 9999	0
Display	Description	Setting range	Initial setting						
Cnt	Time for maintenance due indication (Remaining number of copies that can be made before the current maintenance cycle ends)	0 to 9999	0						

Item No.	Description																									
U402	<p>Adjusting margins of image printing</p> <p>Description Adjusts margins for image printing.</p> <p>Purpose Make the adjustment if margins are incorrect.</p> <p>Adjustment</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Press the start key to output a test pattern.4. Press the system menu key.5. Select the item to be adjusted. <table><thead><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr></thead><tbody><tr><td>Lead</td><td>Printer leading edge margin</td><td>0 to 10.0</td><td>3.0</td><td>0.1 mm</td></tr><tr><td>A Margin</td><td>Printer left margin</td><td>0 to 10.0</td><td>2.5</td><td>0.1 mm</td></tr><tr><td>C Margin</td><td>Printer right margin</td><td>0 to 10.0</td><td>2.5</td><td>0.1 mm</td></tr><tr><td>Trail</td><td>Printer trailing edge margin</td><td>0 to 10.0</td><td>5.0</td><td>0.1 mm</td></tr></tbody></table> <ol style="list-style-type: none">6. Change the setting value using the cursor left/right keys or numeric keys. Increasing the value makes the margin wider, and decreasing it makes the margin narrower. <div><p style="text-align: center;">Figure 1-3-14</p></div> <ol style="list-style-type: none">7. Press the start key. The value is set. <p>Caution Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</p> <div><div>U402</div><div>→</div><div>U403 (P.1-3-61)</div><div>→</div><div>U404 (P.1-3-62)</div></div> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	Lead	Printer leading edge margin	0 to 10.0	3.0	0.1 mm	A Margin	Printer left margin	0 to 10.0	2.5	0.1 mm	C Margin	Printer right margin	0 to 10.0	2.5	0.1 mm	Trail	Printer trailing edge margin	0 to 10.0	5.0	0.1 mm
Display	Description	Setting range	Initial setting	Change in value per step																						
Lead	Printer leading edge margin	0 to 10.0	3.0	0.1 mm																						
A Margin	Printer left margin	0 to 10.0	2.5	0.1 mm																						
C Margin	Printer right margin	0 to 10.0	2.5	0.1 mm																						
Trail	Printer trailing edge margin	0 to 10.0	5.0	0.1 mm																						

Item No.	Description																									
U403	<div>Adjusting margins for scanning an original on the contact glass</div> <div><div>Description</div>Adjusts margins for scanning the original on the contact glass.</div> <div><div>Purpose</div>Make the adjustment if margins are incorrect.</div> <div><div>Adjustment</div><div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select the item to be adjusted.</div></div></div> <table><thead><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr></thead><tbody><tr><td>A Margin</td><td>Scanner left margin</td><td>0 to 10.0</td><td>2.0</td><td>0.5 mm</td></tr><tr><td>B Margin</td><td>Scanner leading edge margin</td><td>0 to 10.0</td><td>2.0</td><td>0.5 mm</td></tr><tr><td>C Margin</td><td>Scanner right margin</td><td>0 to 10.0</td><td>2.0</td><td>0.5 mm</td></tr><tr><td>D Margin</td><td>Scanner trailing edge margin</td><td>0 to 10.0</td><td>2.0</td><td>0.5 mm</td></tr></tbody></table> <div><div>6. Change the setting value using the cursor left/right keys or numeric keys.</div><div>Increasing the value makes the margin wider, and decreasing it makes the margin narrower.</div></div> <div><div><div>Scanner leading edge margin (3.0 ± 2.5 mm)</div><div>Scanner left margin (2.5 +1.5/-2.0 mm)</div><div>Scanner right margin (2.5 +1.5/-2.0 mm)</div><div>Scanner trailing edge margin (3.0 ± 2.0 mm)</div></div></div> <div><div>Figure 1-3-15</div></div> <div><div>7. Press the start key. The value is set.</div></div> <div><div>Caution</div><div>Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.</div></div> <div><div><div>U403</div><div>→</div><div>U404 (P.1-3-62)</div></div></div> <div><div>Completion</div><div>Press the stop key. The indication for selecting a maintenance item No. appears.</div></div>	Display	Description	Setting range	Initial setting	Change in value per step	A Margin	Scanner left margin	0 to 10.0	2.0	0.5 mm	B Margin	Scanner leading edge margin	0 to 10.0	2.0	0.5 mm	C Margin	Scanner right margin	0 to 10.0	2.0	0.5 mm	D Margin	Scanner trailing edge margin	0 to 10.0	2.0	0.5 mm
Display	Description	Setting range	Initial setting	Change in value per step																						
A Margin	Scanner left margin	0 to 10.0	2.0	0.5 mm																						
B Margin	Scanner leading edge margin	0 to 10.0	2.0	0.5 mm																						
C Margin	Scanner right margin	0 to 10.0	2.0	0.5 mm																						
D Margin	Scanner trailing edge margin	0 to 10.0	2.0	0.5 mm																						

Item No.	Description																									
U404	<div><div>Adjusting margins for scanning an original from the DP</div><div><div>Description</div><div>Adjusts margins for scanning the original from the DP.</div><div>Purpose</div><div>Make the adjustment if margins are incorrect.</div><div>Caution</div><div>Before making this adjustment, ensure that the following adjustments have been made in maintenance mode</div><div><div><div>U402 (P.1-3-60)</div><div>→</div><div>U403 (P.1-3-61)</div><div>→</div><div>U404</div></div><div>Adjustment</div><div><div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original on the DP and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select the item to be adjusted.</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>A Margin</td><td>DP left margin</td><td>0 to 10.0</td><td>3.0</td><td>0.5 mm</td></tr><tr><td>B Margin</td><td>DP leading edge margin</td><td>0 to 10.0</td><td>2.5</td><td>0.5 mm</td></tr><tr><td>C Margin</td><td>DP right margin</td><td>0 to 10.0</td><td>3.0</td><td>0.5 mm</td></tr><tr><td>D Margin</td><td>DP trailing edge margin</td><td>0 to 10.0</td><td>4.0</td><td>0.5 mm</td></tr></table><div><div>6. Change the setting value using the cursor left/right keys or numeric keys.</div><div>Increasing the value makes the margin wider, and decreasing it makes the margin narrower.</div><div><div><div><div>DP leading edge margin (3.0 ± 1.5 mm)</div><div>DP left margin (2.0 ± 1.0 mm)</div><div>DP right margin (2.0 ± 1.0 mm)</div><div>DP trailing edge margin (2.0 ± 1.0 mm)</div></div><div><div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div></div></div></div><div><div>Figure 1-3-16</div><div><div>7. Press the start key. The value is set.</div><div>Completion</div><div>Press the stop key. The screen for selecting a maintenance item No. is displayed.</div></div></div></div></div></div></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	A Margin	DP left margin	0 to 10.0	3.0	0.5 mm	B Margin	DP leading edge margin	0 to 10.0	2.5	0.5 mm	C Margin	DP right margin	0 to 10.0	3.0	0.5 mm	D Margin	DP trailing edge margin	0 to 10.0	4.0	0.5 mm
Display	Description	Setting range	Initial setting	Change in value per step																						
A Margin	DP left margin	0 to 10.0	3.0	0.5 mm																						
B Margin	DP leading edge margin	0 to 10.0	2.5	0.5 mm																						
C Margin	DP right margin	0 to 10.0	3.0	0.5 mm																						
D Margin	DP trailing edge margin	0 to 10.0	4.0	0.5 mm																						

Item No.	Description										
U407	<div><div>Adjusting the leading edge registration for memory image printing</div><div><div>Description</div><div>Adjusts the leading edge registration during memory copying.</div><div>Purpose</div><div>Make the following adjustment if there is a regular error between the leading edge of the copy image on the front face and that on the reverse face during duplex switchback copying.</div><div>Caution</div><div>Before making this adjustment, ensure that the following adjustments have been made in maintenance mode</div><div><div><div><div>U034 (P.1-3-20)</div><div>U402 (P.1-3-60)</div><div>U066 (P.1-3-29)</div><div>U403 (P.1-3-61)</div><div>U071 (P.1-3-34)</div></div><div><div>U404 (P.1-3-62)</div><div>U407</div></div></div><div>Adjustment</div><div><div><div>1. Press the start key.</div><div>2. Press the system menu key.</div><div>3. Place an original and press the start key to make a test copy.</div><div>4. Press the system menu key.</div><div>5. Select [Adj Data].</div></div><table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Adj Data</td><td>Leading edge registration for memory image printing</td><td>-47 to 47</td><td>0</td><td>0.1 mm</td></tr></table><div><div><div>6. Change the setting value using the cursor left/right keys or numeric keys.</div><div>For copy example 1, decrease the value. For copy example 2, increase the value.</div><div><div><div><div><div></div><div></div><div></div></div><div>Original</div></div><div><div><div><div></div><div></div><div></div></div><div>Copy example 1</div></div><div><div><div><div></div><div></div><div></div></div><div>Copy example 2</div></div></div></div><div>Figure 1-3-17</div><div><div>7. Press the start key. The value is set.</div><div>Completion</div><div>Press the stop key. The screen for selecting a maintenance item No. is displayed.</div></div></div></div></div></div></div></div></div></div>	Display	Description	Setting range	Initial setting	Change in value per step	Adj Data	Leading edge registration for memory image printing	-47 to 47	0	0.1 mm
Display	Description	Setting range	Initial setting	Change in value per step							
Adj Data	Leading edge registration for memory image printing	-47 to 47	0	0.1 mm							

Item No.	Description															
U411	<p>Adjusting the scanner automatically</p> <p>Description Uses a specified original and automatically adjusts the following items in the scanner and the DP scanning sections. Scanner section: Original size magnification, leading edge timing, center line, input gamma, input gamma in monochrome mode and matrix DP scanning section: Original size magnification, leading edge timing, center line</p> <p>Purpose To perform automatic adjustment of various items in the scanner and the DP scanning sections.</p> <p>Method 1. Press the start key. 2. Select the item.</p> <table><tr><th>Display</th><th>Description</th><th>Original to be used for adjustment (P/N)</th></tr><tr><td>Table</td><td>Automatic adjustment in the scanner section</td><td>7505000005</td></tr><tr><td>DP</td><td>Automatic adjustment in the DP scanning section:</td><td>302AC68243</td></tr><tr><td>All</td><td>Performs automatic adjustment in the DP scanning section following automatic adjustment in the scanner section</td><td>7505000005/ 302AC68243</td></tr><tr><td>Target</td><td>Set-up for obtaining the target value</td><td>-</td></tr></table> <p>Method: Table To manually enter the target value 1. Enter the target values which are shown on the specified original (P/N: 7505000005) executing maintenance item U425. 2. Set a specified original (P/N: 7505000005) on the platen. 3. Enter maintenance item U411. 4. Select [Target]. 5. Select [U425] using the cursor left/right keys. 6. Select [Table]. 7. Press the start key. Auto adjustment starts.</p> <p>To manually enter the target value The accuracy of adjustment is worse than the manual entry. 1. Set a specified original (P/N: 7505000005) on the platen. 2. Enter maintenance item U411. 3. Select [Target]. 4. Select [Auto] using the cursor left/right keys. 5. Select [Table]. 6. Press the start key. Auto adjustment starts.</p> <p>* : When automatic adjustment has normally completed, [OK] is displayed. If a problem occurs during auto adjustment, [NG XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and repeat the procedure from the beginning.</p>	Display	Description	Original to be used for adjustment (P/N)	Table	Automatic adjustment in the scanner section	7505000005	DP	Automatic adjustment in the DP scanning section:	302AC68243	All	Performs automatic adjustment in the DP scanning section following automatic adjustment in the scanner section	7505000005/ 302AC68243	Target	Set-up for obtaining the target value	-
Display	Description	Original to be used for adjustment (P/N)														
Table	Automatic adjustment in the scanner section	7505000005														
DP	Automatic adjustment in the DP scanning section:	302AC68243														
All	Performs automatic adjustment in the DP scanning section following automatic adjustment in the scanner section	7505000005/ 302AC68243														
Target	Set-up for obtaining the target value	-														

Item No.	Description																																																		
U411	<p>Method: DP</p> <ol style="list-style-type: none"> 1. Select [DP]. 2. Set a specified original (P/N: 302AC68243) in the DP. <ul style="list-style-type: none"> * : When running this test chart, you first must clean the feed rollers with alcohol and ensure the DP width guides are correctly positioned against the original. 3. Press the start key. Auto adjustment starts. <ul style="list-style-type: none"> * : When automatic adjustment has normally completed, [OK] is displayed. If a problem occurs during auto adjustment, [NG XX] (XX is replaced by an error code) is displayed and operation stops. Should this happen, determine the details of the problem and repeat the procedure from the beginning. <p>Error Codes</p> <table> <tr> <th>Codes</th><th>Description</th></tr> <tr><td>00</td><td>Automatic adjustment success</td></tr> <tr><td>01</td><td>Black band detection error (scanner leading edge registration)</td></tr> <tr><td>03</td><td>Black band detection error (scanner main scanning direction magnification)</td></tr> <tr><td>04</td><td>Black band is not detected (scanner leading edge registration)</td></tr> <tr><td>05</td><td>Black band is not detected (scanner center line)</td></tr> <tr><td>06</td><td>Black band is not detected (scanner main scanning direction magnification)</td></tr> <tr><td>07</td><td>Black band is not detected (scanner auxiliary scanning direction magnification)</td></tr> <tr><td>08</td><td>Black band is not detected (DP main scanning direction magnification far end)</td></tr> <tr><td>09</td><td>Black band is not detected (DP main scanning direction magnification near end)</td></tr> <tr><td>0a</td><td>Black band is not detected (DP auxiliary scanning direction magnification leading edge)</td></tr> <tr><td>0b</td><td>Black band is not detected (DP auxiliary scanning direction magnification leading edge original check)</td></tr> <tr><td>0c</td><td>Black band is not detected (DP auxiliary scanning direction trailing edge)</td></tr> <tr><td>0d</td><td>White band is not detected (DP auxiliary scanning direction trailing edge 2)</td></tr> <tr><td>0e</td><td>DMA time out</td></tr> <tr><td>0f</td><td>Auxiliary scanning direction magnification error</td></tr> <tr><td>10</td><td>Auxiliary scanning direction leading edge detection error</td></tr> <tr><td>11</td><td>Auxiliary scanning direction trailing edge detection error</td></tr> <tr><td>12</td><td>Auxiliary scanning direction skew 1.5 error</td></tr> <tr><td>13</td><td>Maintenance request error</td></tr> <tr><td>14</td><td>Main scanning direction center line error</td></tr> <tr><td>15</td><td>Main scanning direction skew 1.5 error</td></tr> <tr><td>16</td><td>Main scanning direction magnification error</td></tr> <tr><td>17</td><td>Service call error</td></tr> <tr><td>18</td><td>DP paper misfeed error</td></tr> </table>	Codes	Description	00	Automatic adjustment success	01	Black band detection error (scanner leading edge registration)	03	Black band detection error (scanner main scanning direction magnification)	04	Black band is not detected (scanner leading edge registration)	05	Black band is not detected (scanner center line)	06	Black band is not detected (scanner main scanning direction magnification)	07	Black band is not detected (scanner auxiliary scanning direction magnification)	08	Black band is not detected (DP main scanning direction magnification far end)	09	Black band is not detected (DP main scanning direction magnification near end)	0a	Black band is not detected (DP auxiliary scanning direction magnification leading edge)	0b	Black band is not detected (DP auxiliary scanning direction magnification leading edge original check)	0c	Black band is not detected (DP auxiliary scanning direction trailing edge)	0d	White band is not detected (DP auxiliary scanning direction trailing edge 2)	0e	DMA time out	0f	Auxiliary scanning direction magnification error	10	Auxiliary scanning direction leading edge detection error	11	Auxiliary scanning direction trailing edge detection error	12	Auxiliary scanning direction skew 1.5 error	13	Maintenance request error	14	Main scanning direction center line error	15	Main scanning direction skew 1.5 error	16	Main scanning direction magnification error	17	Service call error	18	DP paper misfeed error
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13	Maintenance request error																																																		
14	Main scanning direction center line error																																																		
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16	Main scanning direction magnification error																																																		
17	Service call error																																																		
18	DP paper misfeed error																																																		

Item No.	Description										
U411	<table border="1"> <thead> <tr> <th>Codes</th><th>Description</th></tr> </thead> <tbody> <tr> <td>1a</td><td>Original error (Dirt of the original for adjustment and damage)</td></tr> <tr> <td>1b</td><td>Original error (scanner input gamma adjustment)</td></tr> <tr> <td>1c</td><td>Original error (scanner matrix adjustment)</td></tr> <tr> <td>63</td><td>TestRAW acquisition completion</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item is displayed.</p>	Codes	Description	1a	Original error (Dirt of the original for adjustment and damage)	1b	Original error (scanner input gamma adjustment)	1c	Original error (scanner matrix adjustment)	63	TestRAW acquisition completion
Codes	Description										
1a	Original error (Dirt of the original for adjustment and damage)										
1b	Original error (scanner input gamma adjustment)										
1c	Original error (scanner matrix adjustment)										
63	TestRAW acquisition completion										

Item No.	Description																																						
U425	<p>Setting the target</p> <p>Description Enters the lab values that is indicated on the back of the chart (P/N: 7505000005) used for adjustment.</p> <p>Purpose Performs data input in order to correct for differences in originals during automatic adjustment.</p> <p>Method</p> <div><div>1. Press the start key.</div><div>2. Select the item to be set.</div></div> <table><tr><th>Display</th><th>Description</th></tr><tr><td>White</td><td>Setting the white patch for the original for adjustment</td></tr><tr><td>Black</td><td>Setting the black patch for the original for adjustment</td></tr><tr><td>Gray1</td><td>Setting the Gray1 patch for the original for adjustment</td></tr><tr><td>Gray2</td><td>Setting the Gray2 patch for the original for adjustment</td></tr><tr><td>Gray3</td><td>Setting the Gray3 patch for the original for adjustment</td></tr><tr><td>C</td><td>Setting the cyan patch for the original for adjustment</td></tr><tr><td>M</td><td>Setting the magenta patch for the original for adjustment</td></tr><tr><td>Y</td><td>Setting the yellow patch for the original for adjustment</td></tr><tr><td>R</td><td>Setting the red patch for the original for adjustment</td></tr><tr><td>G</td><td>Setting the green patch for the original for adjustment</td></tr><tr><td>B</td><td>Setting the blue patch for the original for adjustment</td></tr><tr><td>Adjust Original</td><td>Setting the main and auxiliary scanning directions</td></tr></table> <div><div>3. Select the item to be set.</div><table><tr><th>Display</th><th>Description</th><th>Setting range</th></tr><tr><td>L</td><td>Setting the L value</td><td>0.0 to 100.0</td></tr><tr><td>a</td><td>Setting the a value</td><td>-200.0 to 200.0</td></tr><tr><td>b</td><td>Setting the b value</td><td>-200.0 to 200.0</td></tr></table></div> <div><div>4. Enters the value that is indicated on the back of the chart using the cursor left/right keys or numeric keys.</div><div>5. Press the start key. The value is set.</div></div>	Display	Description	White	Setting the white patch for the original for adjustment	Black	Setting the black patch for the original for adjustment	Gray1	Setting the Gray1 patch for the original for adjustment	Gray2	Setting the Gray2 patch for the original for adjustment	Gray3	Setting the Gray3 patch for the original for adjustment	C	Setting the cyan patch for the original for adjustment	M	Setting the magenta patch for the original for adjustment	Y	Setting the yellow patch for the original for adjustment	R	Setting the red patch for the original for adjustment	G	Setting the green patch for the original for adjustment	B	Setting the blue patch for the original for adjustment	Adjust Original	Setting the main and auxiliary scanning directions	Display	Description	Setting range	L	Setting the L value	0.0 to 100.0	a	Setting the a value	-200.0 to 200.0	b	Setting the b value	-200.0 to 200.0
Display	Description																																						
White	Setting the white patch for the original for adjustment																																						
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Gray1	Setting the Gray1 patch for the original for adjustment																																						
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L	Setting the L value	0.0 to 100.0																																					
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b	Setting the b value	-200.0 to 200.0																																					

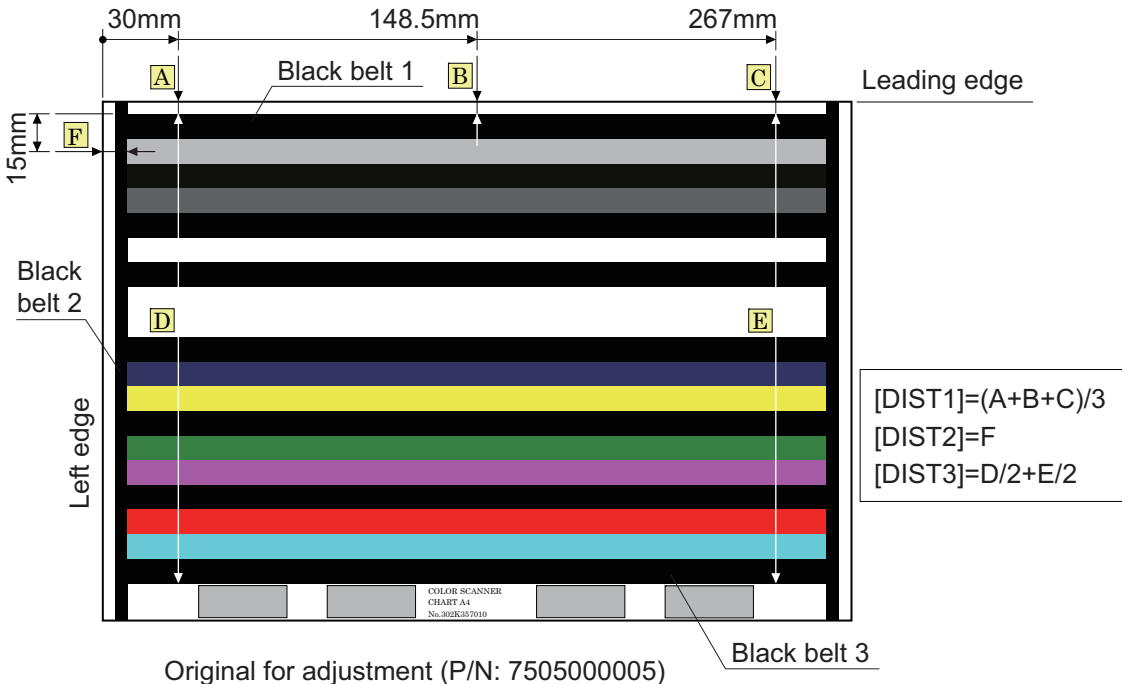
Item No.	Description
U425	<p>Setting: [Adjust Original]</p> <ol style="list-style-type: none"> 1. Measure the distance from the leading edge to the top of black belt 1 of the original at A, B and C. Measurement procedure <ol style="list-style-type: none"> 1) Measure the distance from the leading edge to the top of black belt 1 of the original at A (30 mm from the left edge), B (148.5 mm from the left edge) and C (267 mm from the left edge), respectively. 2) Apply the following formula for the values obtained: $((A + B + C) / 3)$ 2. Enter the values solved using the cursor left/right keys or numeric keys in [Dist1]. 3. Press the start key. The value is set. 4. Measure the distance from the left edge to the right edge black belt 2 of the original at F. Measurement procedure <ol style="list-style-type: none"> 1) Measure the distance from the left edge to the right edge black belt 2 of the original at F (15 mm from the top edge of black belt 1). 5. Enter the values using the cursor left/right keys or numeric keys in [Dist2]. 6. Press the start key. The value is set. 7. Measure the distance from the top edge of black belt 1 to the bottom of black belt 3 of the original at D and E. <ol style="list-style-type: none"> 1) Measure the distance from the top edge of black belt 1 to the bottom of black belt 3 of the original at D (30 mm from the left edge) and E (267 mm from the left edge), respectively. 2) Apply the following formula for the values obtained: $(D/2 + E/2)$ 8. Enter the measured value using the cursor left/right keys or numeric keys in [Dist3]. 9. Press the start key. The value is set.  <div data-bbox="1169 1473 1425 1601" style="border: 1px solid black; padding: 5px;"> $[DIST1] = (A+B+C)/3$ $[DIST2] = F$ $[DIST3] = D/2 + E/2$ </div>

Figure 1-3-18

Completion

Press the stop key. The screen for selecting a maintenance item No. is displayed.

Item No.	Description																
U432	<p>Setting the center offset for the exposure</p> <p>Description Sets the offset value for the setting data for exposure centering adjustment under user simulation. For example, if the value for the exposure centering adjustment is set to -1 and you change the offset value to +2, image processing is performed as though the exposure centering adjustment setting is +1.</p> <p>Purpose Set according to the preference of the user.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select [B/W].3. Select image quality mode to be set.4. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Text + Photo</td><td>Offset value for the text & photo mode</td><td>-3 to 3</td><td>0</td></tr><tr><td>Photo</td><td>Offset value for the photo mode</td><td>-3 to 3</td><td>0</td></tr><tr><td>Text</td><td>Offset value for the text mode</td><td>-3 to 3</td><td>0</td></tr></table> <p>* : If the setting value is increased to increase the exposure centering adjustment value, images is darker. If the setting value is decreased to decrease the exposure centering adjustment value, images is lighter.</p> <ol style="list-style-type: none">5. Press the start key. The value is set. <p>Supplement While this maintenance item is being executed, copying from an original is available in interrupt copying mode (which is activated by pressing the system menu key).</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Text + Photo	Offset value for the text & photo mode	-3 to 3	0	Photo	Offset value for the photo mode	-3 to 3	0	Text	Offset value for the text mode	-3 to 3	0
Display	Description	Setting range	Initial setting														
Text + Photo	Offset value for the text & photo mode	-3 to 3	0														
Photo	Offset value for the photo mode	-3 to 3	0														
Text	Offset value for the text mode	-3 to 3	0														

Item No.	Description																																		
U470	<p>Setting the JPEG compression ratio</p> <p>Description Sets the compression ratio for JPEG images in each image quality mode.</p> <p>Purpose To change the setting in accordance with the image that the user is copying. For example, in order to soften the coarseness of the image when making copies at over 200% magnification, change the level of compression by raising the value. Lowering the value will increase the compression and thereby lower the image quality; Raising the value will increase image quality but lower the image processing speed.</p> <p>Method</p> <p>1. Press the start key.</p> <p>2. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Copy</td><td>Compression ratio for copying</td></tr><tr><td>Send</td><td>Compression ratio for sending</td></tr><tr><td>System</td><td>Compression ratio for temporary storage in system</td></tr></table> <p>Setting: [Copy]</p> <p>1. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Photo</td><td>Compression ratio in the photo mode</td></tr><tr><td>Text</td><td>Compression ratio in the text mode</td></tr></table> <p>2. Select the item to be set.</p> <p>3. Change the setting value using the cursor left/right keys or numeric keys.</p> <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Y</td><td>Compression ratio of brightness</td><td>1 to 100</td><td>90</td></tr><tr><td>CbCr</td><td>Compression ratio of color differential</td><td>1 to 100</td><td>90</td></tr></table> <p>4. Press the start key. The value is set.</p> <p>Setting: [Send]</p> <p>1. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Photo</td><td>Compression ratio in the photo mode</td></tr><tr><td>Text</td><td>Compression ratio in the text mode</td></tr><tr><td>HC-PDF</td><td>Compression ratio of high compression PDF</td></tr></table>	Display	Description	Copy	Compression ratio for copying	Send	Compression ratio for sending	System	Compression ratio for temporary storage in system	Display	Description	Photo	Compression ratio in the photo mode	Text	Compression ratio in the text mode	Display	Description	Setting range	Initial setting	Y	Compression ratio of brightness	1 to 100	90	CbCr	Compression ratio of color differential	1 to 100	90	Display	Description	Photo	Compression ratio in the photo mode	Text	Compression ratio in the text mode	HC-PDF	Compression ratio of high compression PDF
Display	Description																																		
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CbCr	Compression ratio of color differential	1 to 100	90																																
Display	Description																																		
Photo	Compression ratio in the photo mode																																		
Text	Compression ratio in the text mode																																		
HC-PDF	Compression ratio of high compression PDF																																		

Item No.	Description												
U470	2. Select the item to be set.												
	3. Change the setting value using the cursor left/right keys or numeric keys. [Photo] or [Text]												
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Y1 to Y5</td><td>Compression ratio of brightness</td><td>1 to 100</td><td>30/40/51/70/90</td></tr><tr><td>CbCr1 to CbCr5</td><td>Compression ratio of color differential</td><td>1 to 100</td><td>30/40/51/70/90</td></tr></table>	Display	Description	Setting range	Initial setting	Y1 to Y5	Compression ratio of brightness	1 to 100	30/40/51/70/90	CbCr1 to CbCr5	Compression ratio of color differential	1 to 100	30/40/51/70/90
	Display	Description	Setting range	Initial setting									
	Y1 to Y5	Compression ratio of brightness	1 to 100	30/40/51/70/90									
	CbCr1 to CbCr5	Compression ratio of color differential	1 to 100	30/40/51/70/90									
	[HC-PDF]												
	<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Y3 to Y3</td><td>Compression ratio of brightness</td><td>1 to 100</td><td>15/25/60</td></tr><tr><td>CbCr3 to CbCr3</td><td>Compression ratio of color differential</td><td>1 to 100</td><td>15/25/60</td></tr></table>	Display	Description	Setting range	Initial setting	Y3 to Y3	Compression ratio of brightness	1 to 100	15/25/60	CbCr3 to CbCr3	Compression ratio of color differential	1 to 100	15/25/60
	Display	Description	Setting range	Initial setting									
	Y3 to Y3	Compression ratio of brightness	1 to 100	15/25/60									
CbCr3 to CbCr3	Compression ratio of color differential	1 to 100	15/25/60										
4. Press the start key. The value is set.													
Setting: [System]													
1. Select the item to be set.													
2. Change the setting value using the cursor left/right keys or numeric keys.													
<table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Y</td><td>Compression ratio of brightness</td><td>1 to 100</td><td>90</td></tr><tr><td>CbCr</td><td>Compression ratio of color differential</td><td>1 to 100</td><td>90</td></tr></table>	Display	Description	Setting range	Initial setting	Y	Compression ratio of brightness	1 to 100	90	CbCr	Compression ratio of color differential	1 to 100	90	
Display	Description	Setting range	Initial setting										
Y	Compression ratio of brightness	1 to 100	90										
CbCr	Compression ratio of color differential	1 to 100	90										
3. Press the start key. The value is set.													
Supplement													
	While this maintenance item is being executed, copying from an original is available in interrupt copying mode (which is activated by pressing the system menu key).												
Completion													
	Press the stop key. The screen for selecting a maintenance item No. is displayed.												

Item No.	Description																																																																												
U600	<p>Initializing all data</p> <p>Description Initializes software switches and all data in the backup data on the FAX control PWB, according to the destination and OEM. Executes the check of the file system, when abnormality of the file system is detected, initializes the file system, communication past record and register setting contents.</p> <p>Purpose To initialize the FAX control PWB.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Country Code] and enter a destination code using the numeric keys. Refer to the destination code list on following for the destination code. OEM code is no operation necessary.3. Select [Execute].4. Press the start key. Data initialization starts. To cancel data initialization, press the stop key.5. After data initialization, ROM version are displayed. A ROM version displays three kinds, application, boot, and IPL. <p>Destination code list</p> <table><tr><th>Code</th><th>Destination</th><th>Code</th><th>Destination</th></tr><tr><td>000</td><td>Japan</td><td>253</td><td>CTR21 (European nations)</td></tr><tr><td>009</td><td>Australia</td><td></td><td>Italy</td></tr><tr><td>038</td><td>China</td><td></td><td>Germany</td></tr><tr><td>080</td><td>Hong Kong</td><td></td><td>Spain</td></tr><tr><td>084</td><td>Indonesia</td><td></td><td>U.K.</td></tr><tr><td>088</td><td>Israel</td><td></td><td>Netherlands</td></tr><tr><td>097</td><td>Korea</td><td></td><td>Sweden</td></tr><tr><td>108</td><td>Malaysia</td><td></td><td>France</td></tr><tr><td>126</td><td>New Zealand</td><td></td><td>Austria</td></tr><tr><td>136</td><td>Peru</td><td></td><td>Switzerland</td></tr><tr><td>137</td><td>Philippines</td><td></td><td>Belgium</td></tr><tr><td>152</td><td>Middle East</td><td></td><td>Denmark</td></tr><tr><td>156</td><td>Singapore</td><td></td><td>Finland</td></tr><tr><td>159</td><td>South Africa</td><td></td><td>Portugal</td></tr><tr><td>169</td><td>Thailand</td><td></td><td>Ireland</td></tr><tr><td>181</td><td>U.S.A.</td><td></td><td>Norway</td></tr><tr><td>242</td><td>South America</td><td>254</td><td>Taiwan</td></tr><tr><td>243</td><td>Saudi Arabia</td><td></td><td></td></tr></table>	Code	Destination	Code	Destination	000	Japan	253	CTR21 (European nations)	009	Australia		Italy	038	China		Germany	080	Hong Kong		Spain	084	Indonesia		U.K.	088	Israel		Netherlands	097	Korea		Sweden	108	Malaysia		France	126	New Zealand		Austria	136	Peru		Switzerland	137	Philippines		Belgium	152	Middle East		Denmark	156	Singapore		Finland	159	South Africa		Portugal	169	Thailand		Ireland	181	U.S.A.		Norway	242	South America	254	Taiwan	243	Saudi Arabia		
Code	Destination	Code	Destination																																																																										
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084	Indonesia		U.K.																																																																										
088	Israel		Netherlands																																																																										
097	Korea		Sweden																																																																										
108	Malaysia		France																																																																										
126	New Zealand		Austria																																																																										
136	Peru		Switzerland																																																																										
137	Philippines		Belgium																																																																										
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181	U.S.A.		Norway																																																																										
242	South America	254	Taiwan																																																																										
243	Saudi Arabia																																																																												

Item No.	Description								
U601	<p>Initializing permanent data</p> <p>Description Initializes software switches on the FAX control PWB according to the destination and OEM.</p> <p>Purpose To initialize the FAX control PWB without changing user registration data.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Country Code] and enter a destination code using the numeric keys. Refer to the destination code list on page 1-3-72 for the destination code. OEM code is no operation necessary. 3. Select [Execute]. 4. Press the start key. Data initialization starts. To cancel data initialization, press the back key. 5. After data initialization, ROM version are displayed. A ROM version displays three kinds, application, boot, and IPL. 								
U603	<p>Setting user data 1</p> <p>Description Makes user settings to enable the use of the machine as a fax.</p> <p>Purpose To be executed as required.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Line Type]. 3. Select the setting. <table border="1" data-bbox="336 1234 1401 1426"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>DTMF</td><td>DTMF</td></tr> <tr> <td>10PPS</td><td>10 PPS</td></tr> <tr> <td>20PPS</td><td>20 PPS</td></tr> </tbody> </table> <p>* : Initial setting: DTMF</p> <ol style="list-style-type: none"> 4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	DTMF	DTMF	10PPS	10 PPS	20PPS	20 PPS
Display	Description								
DTMF	DTMF								
10PPS	10 PPS								
20PPS	20 PPS								

Item No.	Description								
U604	<p>Setting user data 2</p> <p>Description Makes user settings to enable the use of the machine as a fax.</p> <p>Purpose Use this if the user wishes to adjust the number of rings that occur before the unit switches into fax receiving mode when fax/telephone auto-select is enabled.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Rings(F/T) #].3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Rings(F/T) #</td><td>Number of fax/telephone rings</td><td>0 to 15</td><td>2 (120 V)/ 1 (220-240 V)</td></tr></table> <p>* : If you set this to 0, the unit will start fax reception without any ringing.</p> <ol style="list-style-type: none">4. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Rings(F/T) #	Number of fax/telephone rings	0 to 15	2 (120 V)/ 1 (220-240 V)
Display	Description	Setting range	Initial setting						
Rings(F/T) #	Number of fax/telephone rings	0 to 15	2 (120 V)/ 1 (220-240 V)						
U605	<p>Clearing data</p> <p>Description Initializes data related to the fax transmission such as transmission history.</p> <p>Purpose To clear the transmission history.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select [Comm REC].3. Press the start key. Initialization processing starts. When processing is finished, [Completed] is displayed. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>								

Item No.	Description																								
U610	<p>Setting system 1</p> <p>Description Makes settings for fax reception regarding the sizes of the fax paper and received images and automatic printing of the protocol list.</p> <p>Method 1. Press the start key. 2. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Cut Line:A4</td><td>Sets the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode.</td></tr><tr><td>Cut Line:100%</td><td>Sets the number of lines to be ignored when receiving a fax at 100% magnification.</td></tr><tr><td>Cut Line:Auto</td><td>Sets the number of lines to be ignored when receiving a fax in the auto reduction mode.</td></tr></table> <p>Setting the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode Sets the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode onto A4R or LetterR paper under the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.</p> <p>1. Change the setting using the cursor left/right keys or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode</td><td>0 to 22</td><td>0</td><td>16 lines</td></tr></table> <p>* : Increase the setting if a page received in the reduction mode is over-reduced and too much trailing edge margin is left. Decrease it if the received image does not include all transmitted data.</p> <p>2. Press the start key. The value is set.</p> <p>Setting the number of lines to be ignored when receiving a fax at 100% magnification Sets the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when recording the data at 100% magnification. If the number of excess lines is below the setting, those lines are ignored. If over the setting, they are recorded on the next page.</p> <p>1. Change the setting using the cursor left/right keys or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of lines to be ignored when receiving at 100%</td><td>0 to 22</td><td>3</td><td>16 lines</td></tr></table> <p>* : Increase the setting if a blank second page is output, and decrease it if the received image does not include the entire transmitted data.</p> <p>2. Press the start key. The value is set.</p>	Display	Description	Cut Line:A4	Sets the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode.	Cut Line:100%	Sets the number of lines to be ignored when receiving a fax at 100% magnification.	Cut Line:Auto	Sets the number of lines to be ignored when receiving a fax in the auto reduction mode.	Description	Setting range	Initial setting	Change in value per step	Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode	0 to 22	0	16 lines	Description	Setting range	Initial setting	Change in value per step	Number of lines to be ignored when receiving at 100%	0 to 22	3	16 lines
Display	Description																								
Cut Line:A4	Sets the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode.																								
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Description	Setting range	Initial setting	Change in value per step																						
Number of lines to be ignored when receiving at 100%	0 to 22	3	16 lines																						

Item No.	Description								
U610	<p>Setting the number of lines to be ignored when receiving a fax in the auto reduction mode</p> <p>Sets the maximum number of lines to be ignored if the received data volume exceeds the recording capacity when the data is recorded in the auto reduction mode. If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page.</p> <p>1. Change the setting using the cursor left/right keys or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of lines to be ignored when receiving in the auto reduction mode</td><td>0 to 22</td><td>0</td><td>16 lines</td></tr></table> <p>* : Increase the setting if a page received in the reduction mode is over-reduced and too much trailing edge margin is left. Decrease it if the received image does not include all transmitted data.</p> <p>2. Press the start key. The value is set.</p> <p>Completion</p> <p>Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Description	Setting range	Initial setting	Change in value per step	Number of lines to be ignored when receiving in the auto reduction mode	0 to 22	0	16 lines
Description	Setting range	Initial setting	Change in value per step						
Number of lines to be ignored when receiving in the auto reduction mode	0 to 22	0	16 lines						

Item No.	Description								
U611	Setting system 2								
	Description Sets the number of adjustment lines for automatic reduction.								
	Method 1. Press the start key. 2. Select the item to be set.								
	<table><tr><th>Display</th><th>Description</th></tr><tr><td>Adj Lines</td><td>Sets the number of adjustment lines for automatic reduction.</td></tr><tr><td>Adj Lines(A4)</td><td>Sets the number of adjustment lines for automatic reduction when A4 paper is set.</td></tr><tr><td>Adj Lines(LT)</td><td>Sets the number of adjustment lines for automatic reduction when letter size paper is set.</td></tr></table>	Display	Description	Adj Lines	Sets the number of adjustment lines for automatic reduction.	Adj Lines(A4)	Sets the number of adjustment lines for automatic reduction when A4 paper is set.	Adj Lines(LT)	Sets the number of adjustment lines for automatic reduction when letter size paper is set.
	Display	Description							
	Adj Lines	Sets the number of adjustment lines for automatic reduction.							
	Adj Lines(A4)	Sets the number of adjustment lines for automatic reduction when A4 paper is set.							
	Adj Lines(LT)	Sets the number of adjustment lines for automatic reduction when letter size paper is set.							
	Setting the number of adjustment lines for automatic reduction Sets the number of adjustment lines for automatic reduction. 1. Change the setting using the cursor left/right keys or numeric keys.								
	<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of adjustment lines for automatic reduction</td><td>0 to 22</td><td>7</td><td>16 lines</td></tr></table>	Description	Setting range	Initial setting	Change in value per step	Number of adjustment lines for automatic reduction	0 to 22	7	16 lines
	Description	Setting range	Initial setting	Change in value per step					
	Number of adjustment lines for automatic reduction	0 to 22	7	16 lines					
2. Press the start key. The value is set.									
Setting the number of adjustment lines for automatic reduction when A4 paper is set Sets the number of adjustment lines for automatic reduction when A4 paper is set. 1. Change the setting using the cursor left/right keys or numeric keys.									
<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of adjustment lines for automatic reduction when A4 paper is set</td><td>0 to 22</td><td>22</td><td>16 lines</td></tr></table>	Description	Setting range	Initial setting	Change in value per step	Number of adjustment lines for automatic reduction when A4 paper is set	0 to 22	22	16 lines	
Description	Setting range	Initial setting	Change in value per step						
Number of adjustment lines for automatic reduction when A4 paper is set	0 to 22	22	16 lines						
2. Press the start key. The value is set.									
Setting the number of adjustment lines for automatic reduction when letter size paper is set Sets the number of adjustment lines for automatic reduction when letter size paper is set. 1. Change the setting using the cursor left/right keys or numeric keys.									
<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Number of adjustment lines for automatic reduction when letter size paper is set</td><td>0 to 26</td><td>26</td><td>16 lines</td></tr></table>	Description	Setting range	Initial setting	Change in value per step	Number of adjustment lines for automatic reduction when letter size paper is set	0 to 26	26	16 lines	
Description	Setting range	Initial setting	Change in value per step						
Number of adjustment lines for automatic reduction when letter size paper is set	0 to 26	26	16 lines						
2. Press the start key. The value is set.									
Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.									

Item No.	Description																				
U612	<p>Setting system 3</p> <p>Description Makes settings for fax transmission regarding operation and automatic printing of the protocol list.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be set using the cursor up/down keys. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Auto Reduct</td><td>Selects if auto reduction in the auxiliary direction is to be performed.</td></tr> <tr> <td>Protocol List</td><td>Sets the automatic printing of the protocol list.</td></tr> </tbody> </table> <p>Selecting if auto reduction in the auxiliary direction is to be performed Sets whether to receive a long document by automatically reducing it in the auxiliary direction or at 100% magnification.</p> <ol style="list-style-type: none"> 1. Select the setting using the cursor left/right keys. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>Auto reduction is performed if the received document is longer than the fax paper.</td></tr> <tr> <td>Off</td><td>Auto reduction is not performed.</td></tr> </tbody> </table> <p>* : Initial setting: On</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. <p>Setting the automatic printing of the protocol list Sets if the protocol list is automatically printed out.</p> <ol style="list-style-type: none"> 1. Select the setting using the cursor left/right keys. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Err</td><td>The protocol list is automatically printed out after communication only if a communication error occurs.</td></tr> <tr> <td>On</td><td>The protocol list is automatically printed out after communication.</td></tr> <tr> <td>Off</td><td>The protocol list is not printed out automatically.</td></tr> </tbody> </table> <p>* : Initial setting: Off</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Auto Reduct	Selects if auto reduction in the auxiliary direction is to be performed.	Protocol List	Sets the automatic printing of the protocol list.	Display	Description	On	Auto reduction is performed if the received document is longer than the fax paper.	Off	Auto reduction is not performed.	Display	Description	Err	The protocol list is automatically printed out after communication only if a communication error occurs.	On	The protocol list is automatically printed out after communication.	Off	The protocol list is not printed out automatically.
Display	Description																				
Auto Reduct	Selects if auto reduction in the auxiliary direction is to be performed.																				
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Display	Description																				
Err	The protocol list is automatically printed out after communication only if a communication error occurs.																				
On	The protocol list is automatically printed out after communication.																				
Off	The protocol list is not printed out automatically.																				

Item No.	Description						
U615	<p>Setting system 6</p> <p>Description Makes settings for fax reception regarding the sizes of the fax paper and received images.</p> <p>Purpose To set the maximum recording width and processing method when 11" width fax paper is loaded on an inch specification machine.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [RX Width For 11"]. 3. Select the setting. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Ledger</td><td>Communicates to the destination unit 11" width as A3 width and records at 100% magnifications.</td></tr> <tr> <td>B4</td><td>Communicates to the destination unit 11" width as B4 width.</td></tr> </tbody> </table> <p>* : Initial setting: Ledger</p> <ol style="list-style-type: none"> 4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Ledger	Communicates to the destination unit 11" width as A3 width and records at 100% magnifications.	B4	Communicates to the destination unit 11" width as B4 width.
Display	Description						
Ledger	Communicates to the destination unit 11" width as A3 width and records at 100% magnifications.						
B4	Communicates to the destination unit 11" width as B4 width.						
U620	<p>Setting the remote switching mode</p> <p>Description Sets the signal detection method for remote switching. Be sure to change the setting according to the type of telephone connected to the machine.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Remort Mode]. 3. Select the mode. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>One</td><td>One-shot detection</td></tr> <tr> <td>Cont</td><td>Continuous detection</td></tr> </tbody> </table> <p>* : Initial setting: One</p> <ol style="list-style-type: none"> 4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	One	One-shot detection	Cont	Continuous detection
Display	Description						
One	One-shot detection						
Cont	Continuous detection						

Item No.	Description																		
U625	<p>Setting the transmission system 1</p> <p>Description Makes settings for the auto redialing interval and the number of times of auto redialing.</p> <p>Purpose Change the setting to prevent the following problems: fax transmission is not possible due to too short redial interval, or fax transmission takes too much time to complete due to too long redial interval.</p> <p>Method</p> <p>1. Press the start key. 2. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Interval</td><td>Setting the auto redialing interval</td></tr><tr><td>Times</td><td>Setting the number of times of auto redialing</td></tr></table> <p>Setting the auto redialing interval</p> <p>1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Redialing interval</td><td>1 to 9 (min.)</td><td>3 (120 V)/2 (220-240 V)</td></tr></table> <p>2. Press the start key. The value is set.</p> <p>Setting the number of times of auto redialing</p> <p>1. Change the setting using the cursor left/right keys or numeric keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Number of redialing</td><td>0 to 15</td><td>2 (120 V)/3 (220-240 V)</td></tr></table> <p>2. Press the start key. The value is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Interval	Setting the auto redialing interval	Times	Setting the number of times of auto redialing	Description	Setting range	Initial setting	Redialing interval	1 to 9 (min.)	3 (120 V)/2 (220-240 V)	Description	Setting range	Initial setting	Number of redialing	0 to 15	2 (120 V)/3 (220-240 V)
Display	Description																		
Interval	Setting the auto redialing interval																		
Times	Setting the number of times of auto redialing																		
Description	Setting range	Initial setting																	
Redialing interval	1 to 9 (min.)	3 (120 V)/2 (220-240 V)																	
Description	Setting range	Initial setting																	
Number of redialing	0 to 15	2 (120 V)/3 (220-240 V)																	

Item No.	Description																														
U630	<p>Setting communication control 1</p> <p>Description Makes settings for fax transmission regarding the communication.</p> <p>Method 1. Press the start key. 2. Select the item to be set.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>TX Speed</td><td>Sets the communication starting speed.</td></tr> <tr> <td>RX Speed</td><td>Sets the reception speed.</td></tr> <tr> <td>TX Echo</td><td>Sets the waiting period to prevent echo problems at the sender.</td></tr> <tr> <td>RX Echo</td><td>Sets the waiting period to prevent echo problems at the receiver.</td></tr> </tbody> </table> <p>Setting the communication starting speed Sets the initial communication speed when starting transmission. When the destination unit has V.34 capability, V.34 is selected for transmission, regardless of this setting. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>14400bps/V17</td><td>V.17, 14400 bps</td></tr> <tr> <td>9600bps/V29</td><td>V.17, 9600 bps</td></tr> <tr> <td>4800bps/V27ter</td><td>V.27ter, 4800 bps</td></tr> <tr> <td>2400bps/V27ter</td><td>V.27ter, 2400 bps</td></tr> </tbody> </table> <p>* : Initial setting: 14400bps/V17 2. Press the start key. The setting is set.</p> <p>Setting the reception speed Sets the reception speed that the sender is informed of using the DIS or NSF signal. When the destination unit has V.34 capability, V.34 is selected, regardless of the setting. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>14400bps</td><td>V.17, V.33, V.29, V.27ter</td></tr> <tr> <td>9600bps</td><td>V.29, V.27ter</td></tr> <tr> <td>4800bps</td><td>V.27ter</td></tr> <tr> <td>2400bps</td><td>V.27ter (fallback only)</td></tr> </tbody> </table> <p>* : Initial setting: 14400bps 2. Press the start key. The setting is set.</p>	Display	Description	TX Speed	Sets the communication starting speed.	RX Speed	Sets the reception speed.	TX Echo	Sets the waiting period to prevent echo problems at the sender.	RX Echo	Sets the waiting period to prevent echo problems at the receiver.	Display	Description	14400bps/V17	V.17, 14400 bps	9600bps/V29	V.17, 9600 bps	4800bps/V27ter	V.27ter, 4800 bps	2400bps/V27ter	V.27ter, 2400 bps	Display	Description	14400bps	V.17, V.33, V.29, V.27ter	9600bps	V.29, V.27ter	4800bps	V.27ter	2400bps	V.27ter (fallback only)
Display	Description																														
TX Speed	Sets the communication starting speed.																														
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14400bps/V17	V.17, 14400 bps																														
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Display	Description																														
14400bps	V.17, V.33, V.29, V.27ter																														
9600bps	V.29, V.27ter																														
4800bps	V.27ter																														
2400bps	V.27ter (fallback only)																														

Item No.	Description												
U630	<p>Setting the waiting period to prevent echo problems at the sender Sets the period before a DCS signal is sent after a DIS signal is received. Used when problems occur due to echoes at the sender.</p> <p>1. Select the setting.</p> <table border="1" data-bbox="336 389 1401 533"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>500</td><td>Sends a DCS 500 ms after receiving a DIS.</td></tr> <tr> <td>300</td><td>Sends a DCS 300 ms after receiving a DIS.</td></tr> </tbody> </table> <p>* : Initial setting: 300</p> <p>2. Press the start key. The setting is set.</p> <p>Setting the waiting period to prevent echo problems at the receiver Sets the period before an NSF, CSI or DIS signal is sent after a CED signal is received. Used when problems occur due to echoes at the receiver.</p> <p>1. Select the setting.</p> <table border="1" data-bbox="336 792 1401 936"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>500</td><td>Sends an NSF, CSI or DIS 500 ms after receiving a CED.</td></tr> <tr> <td>75</td><td>Sends an NSF, CSI or DIS 75 ms after receiving a CED.</td></tr> </tbody> </table> <p>* : Initial setting: 75</p> <p>2. Press the start key. The setting is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	500	Sends a DCS 500 ms after receiving a DIS.	300	Sends a DCS 300 ms after receiving a DIS.	Display	Description	500	Sends an NSF, CSI or DIS 500 ms after receiving a CED.	75	Sends an NSF, CSI or DIS 75 ms after receiving a CED.
Display	Description												
500	Sends a DCS 500 ms after receiving a DIS.												
300	Sends a DCS 300 ms after receiving a DIS.												
Display	Description												
500	Sends an NSF, CSI or DIS 500 ms after receiving a CED.												
75	Sends an NSF, CSI or DIS 75 ms after receiving a CED.												

Item No.	Description																										
U631	<p>Setting communication control 2</p> <p>Description Makes settings regarding fax transmission.</p> <p>Method 1. Press the start key. 2. Select the item to be set.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ECM TX</td><td>Sets ECM transmission.</td></tr> <tr> <td>ECM RX</td><td>Sets ECM reception.</td></tr> <tr> <td>CED Freq</td><td>Sets the frequency of the CED signal.</td></tr> </tbody> </table> <p>Setting ECM transmission To be set to Off when reduction of transmission costs is of higher priority than image quality. This should not be set to Off when connecting to the IP (Internet Protocol) telephone line. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>ECM transmission is enabled.</td></tr> <tr> <td>Off</td><td>ECM transmission is disabled.</td></tr> </tbody> </table> <p>* : Initial setting: On 2. Press the start key. The setting is set.</p> <p>Setting ECM reception To be set to Off when reduction of transmission costs is of higher priority than image quality. This should not be set to Off when connecting to the IP (Internet Protocol) telephone line. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>ECM reception is enabled.</td></tr> <tr> <td>Off</td><td>ECM reception is disabled.</td></tr> </tbody> </table> <p>* : Initial setting: On 2. Press the start key. The setting is set.</p> <p>Setting the frequency of the CED signal Sets the frequency of the CED signal. Used as one of the measures to improve transmission performance for international communications. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>2100</td><td>2100 Hz</td></tr> <tr> <td>1100</td><td>1100 Hz</td></tr> </tbody> </table> <p>* : Initial setting: 2100 2. Press the start key. The setting is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	ECM TX	Sets ECM transmission.	ECM RX	Sets ECM reception.	CED Freq	Sets the frequency of the CED signal.	Display	Description	On	ECM transmission is enabled.	Off	ECM transmission is disabled.	Display	Description	On	ECM reception is enabled.	Off	ECM reception is disabled.	Display	Description	2100	2100 Hz	1100	1100 Hz
Display	Description																										
ECM TX	Sets ECM transmission.																										
ECM RX	Sets ECM reception.																										
CED Freq	Sets the frequency of the CED signal.																										
Display	Description																										
On	ECM transmission is enabled.																										
Off	ECM transmission is disabled.																										
Display	Description																										
On	ECM reception is enabled.																										
Off	ECM reception is disabled.																										
Display	Description																										
2100	2100 Hz																										
1100	1100 Hz																										

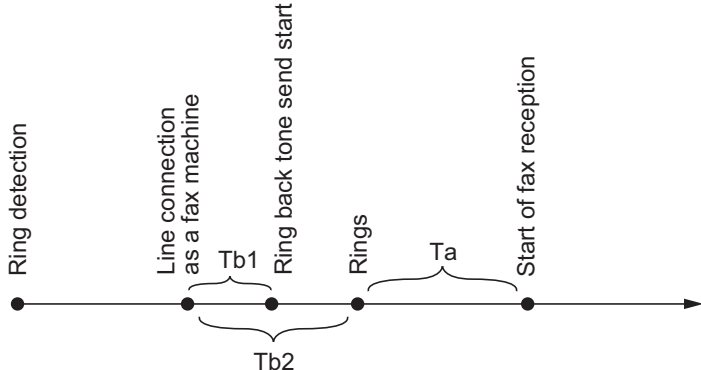
Item No.	Description																		
U632	<p>Setting communication control 3</p> <p>Description Makes settings for fax transmission regarding the communication.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be set. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>DIS 4Byte</td><td>Sets the DIS signal to 4 bytes.</td></tr> <tr> <td>Num OF CNG(F/T)</td><td>Sets the CNG detection times in the fax/telephone auto select mode.</td></tr> </tbody> </table> <p>Setting the DIS signal to 4 bytes Sets if bit 33 and later bits of the DIS/DTC signal are sent.</p> <ol style="list-style-type: none"> 1. Select the setting. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>Bit 33 and later bits of the DIS/DTC signal are not sent.</td></tr> <tr> <td>Off</td><td>Bit 33 and later bits of the DIS/DTC signal are sent.</td></tr> </tbody> </table> <p>* : Initial setting: Off</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. <p>Setting the CNG detection times in the fax/telephone auto select mode Sets the CNG detection times in the fax/telephone auto select mode.</p> <ol style="list-style-type: none"> 1. Select the setting. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>1Time</td><td>Detects CNG once.</td></tr> <tr> <td>2Time</td><td>Detects CNG twice.</td></tr> </tbody> </table> <p>* : Initial setting: 2Time</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	DIS 4Byte	Sets the DIS signal to 4 bytes.	Num OF CNG(F/T)	Sets the CNG detection times in the fax/telephone auto select mode.	Display	Description	On	Bit 33 and later bits of the DIS/DTC signal are not sent.	Off	Bit 33 and later bits of the DIS/DTC signal are sent.	Display	Description	1Time	Detects CNG once.	2Time	Detects CNG twice.
Display	Description																		
DIS 4Byte	Sets the DIS signal to 4 bytes.																		
Num OF CNG(F/T)	Sets the CNG detection times in the fax/telephone auto select mode.																		
Display	Description																		
On	Bit 33 and later bits of the DIS/DTC signal are not sent.																		
Off	Bit 33 and later bits of the DIS/DTC signal are sent.																		
Display	Description																		
1Time	Detects CNG once.																		
2Time	Detects CNG twice.																		

Item No.	Description																										
U633	<p>Setting communication control 4</p> <p>Description Makes settings for fax transmission regarding the communication.</p> <p>Purpose To reduce transmission errors when a low quality line is used.</p> <p>Method 1. Press the start key. 2. Select the item to be set.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>V.34</td><td>Enables or disables V.34 communication.</td></tr> <tr> <td>V.34-3429Hz</td><td>Sets the V.34 symbol speed (3429 Hz).</td></tr> <tr> <td>DIS 2Res</td><td>Sets the number of times of DIS signal reception.</td></tr> <tr> <td>RTN Check</td><td>Sets the reference for RTN signal output.</td></tr> </tbody> </table> <p>Enabling/disabling V.34 communication Sets whether V.34 communication is enabled/disabled for transmission and reception. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>V.34 communication is enabled for both transmission and reception.</td></tr> <tr> <td>TX</td><td>V.34 communication is enabled for transmission only.</td></tr> <tr> <td>RX</td><td>V.34 communication is enabled for reception only.</td></tr> <tr> <td>Off</td><td>V.34 communication is disabled for both transmission and reception.</td></tr> </tbody> </table> <p>* : Initial setting: On 2. Press the start key. The setting is set.</p> <p>Setting the V.34 symbol speed (3429 Hz) Sets if the V.34 symbol speed 3429 Hz is used. 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>V.34 symbol speed 3429 Hz is used.</td></tr> <tr> <td>Off</td><td>V.34 symbol speed 3429 Hz is not used.</td></tr> </tbody> </table> <p>* : Initial setting: On 2. Press the start key. The setting is set.</p>	Display	Description	V.34	Enables or disables V.34 communication.	V.34-3429Hz	Sets the V.34 symbol speed (3429 Hz).	DIS 2Res	Sets the number of times of DIS signal reception.	RTN Check	Sets the reference for RTN signal output.	Display	Description	On	V.34 communication is enabled for both transmission and reception.	TX	V.34 communication is enabled for transmission only.	RX	V.34 communication is enabled for reception only.	Off	V.34 communication is disabled for both transmission and reception.	Display	Description	On	V.34 symbol speed 3429 Hz is used.	Off	V.34 symbol speed 3429 Hz is not used.
Display	Description																										
V.34	Enables or disables V.34 communication.																										
V.34-3429Hz	Sets the V.34 symbol speed (3429 Hz).																										
DIS 2Res	Sets the number of times of DIS signal reception.																										
RTN Check	Sets the reference for RTN signal output.																										
Display	Description																										
On	V.34 communication is enabled for both transmission and reception.																										
TX	V.34 communication is enabled for transmission only.																										
RX	V.34 communication is enabled for reception only.																										
Off	V.34 communication is disabled for both transmission and reception.																										
Display	Description																										
On	V.34 symbol speed 3429 Hz is used.																										
Off	V.34 symbol speed 3429 Hz is not used.																										

Item No.	Description										
U633	Setting the number of times of DIS signal reception Sets the number of times to receive the DIS signal to once or twice. Used as one of the correction measures for transmission errors and other problems. 1. Select the setting.										
	<table><tr><th>Display</th><th>Description</th></tr><tr><td>Once</td><td>Responds to the first signal.</td></tr><tr><td>Twice</td><td>Responds to the second signal.</td></tr></table>	Display	Description	Once	Responds to the first signal.	Twice	Responds to the second signal.				
	Display	Description									
	Once	Responds to the first signal.									
	Twice	Responds to the second signal.									
	* : Initial setting: Once 2. Press the start key. The setting is set.										
	Setting the reference for RTN signal output Sets the error line rate as the reference for RTN signal output. If transmission errors occur frequently due to the quality of the line, they can be reduced by lowering this setting. 1. Select the setting.										
	<table><tr><th>Display</th><th>Description</th></tr><tr><td>5%</td><td>Error line rate of 5%</td></tr><tr><td>10%</td><td>Error line rate of 10%</td></tr><tr><td>15%</td><td>Error line rate of 15%</td></tr><tr><td>20%</td><td>Error line rate of 20%</td></tr></table>	Display	Description	5%	Error line rate of 5%	10%	Error line rate of 10%	15%	Error line rate of 15%	20%	Error line rate of 20%
	Display	Description									
	5%	Error line rate of 5%									
10%	Error line rate of 10%										
15%	Error line rate of 15%										
20%	Error line rate of 20%										
* : Initial setting: 15% 2. Press the start key. The setting is set.											
Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.											
U634	Setting communication control 5										
	Description Sets the maximum number of error bytes judged acceptable when receiving a TCF signal. Used as a measure to ease transmission conditions if transmission errors occur.										
	Setting 1. Press the start key. 2. Select [TCF Check]. 3. Change the setting using the cursor left/right keys or numeric keys.										
	<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Number of allowed error bytes when detecting TCF</td><td>0 to 255</td><td>0</td></tr></table>	Description	Setting range	Initial setting	Number of allowed error bytes when detecting TCF	0 to 255	0				
	Description	Setting range	Initial setting								
	Number of allowed error bytes when detecting TCF	0 to 255	0								
	4. Press the start key. The value is set.										
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.										

Item No.	Description																		
U640	<p>Setting communication time 1</p> <p>Description Sets the detection time when one-shot detection is selected for remote switching. (This setting item will be displayed, but the setting made is ineffective.) Sets the detection time when continuous detection is selected for remote switching. (This setting item will be displayed, but the setting made is ineffective.)</p> <p>Method 1. Press the start key. 2. Select the item to be set.</p> <table><tr><th>Display</th><th>Description</th></tr><tr><td>Time (One)</td><td>Sets the one-shot detection time for remote switching.</td></tr><tr><td>Time (Cont)</td><td>Sets the continuous detection time for remote switching.</td></tr></table> <p>Setting the one-shot detection time for remote switching 1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>One-shot detection time for remote switching</td><td>0 to 255</td><td>7</td></tr></table> <p>2. Press the start key. The value is set.</p> <p>Setting the continuous detection time for remote switching 1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Continuous detection time for remote switching</td><td>0 to 255</td><td>80</td></tr></table> <p>2. Press the start key. The value is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Time (One)	Sets the one-shot detection time for remote switching.	Time (Cont)	Sets the continuous detection time for remote switching.	Description	Setting range	Initial setting	One-shot detection time for remote switching	0 to 255	7	Description	Setting range	Initial setting	Continuous detection time for remote switching	0 to 255	80
Display	Description																		
Time (One)	Sets the one-shot detection time for remote switching.																		
Time (Cont)	Sets the continuous detection time for remote switching.																		
Description	Setting range	Initial setting																	
One-shot detection time for remote switching	0 to 255	7																	
Description	Setting range	Initial setting																	
Continuous detection time for remote switching	0 to 255	80																	

Item No.	Description																														
U641	<p>Setting communication time 2</p> <p>Description Sets the time-out time for fax transmission.</p> <p>Purpose To improve transmission performance for international communications mainly.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be set. <table><tr><th>Display</th><th>Description</th></tr><tr><td>T0 Time Out</td><td>Sets the T0 time-out time.</td></tr><tr><td>T1 Time Out</td><td>Sets the T1 time-out time.</td></tr><tr><td>T2 Time Out</td><td>Sets the T2 time-out time.</td></tr><tr><td>Ta Time Out</td><td>Sets the Ta time-out time.</td></tr><tr><td>Tb1 Time Out</td><td>Sets the Tb1 time-out time.</td></tr><tr><td>Tb2 Time Out</td><td>Sets the Tb2 time-out time.</td></tr><tr><td>Tc Time Out</td><td>Sets the Tc time-out time.</td></tr><tr><td>Td Time Out</td><td>Sets the Td time-out time.</td></tr></table> <p>Setting the T0 time-out time Sets the time before detecting a CED or DIS signal after a dialing signal is sent. Depending on the quality of the exchange, or when the auto select function is selected at the destination unit, a line can be disconnected. Change the setting to prevent this problem.</p> <ol style="list-style-type: none">1. Change the setting using the cursor left/right keys. <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>T0 time-out time</td><td>30 to 90 s</td><td>56</td></tr></table> <ol style="list-style-type: none">2. Press the start key. The value is set. <p>Setting the T1 time-out time Sets the time before receiving the correct signal after call reception. No change is necessary for this maintenance item.</p> <ol style="list-style-type: none">1. Change the setting using the cursor left/right keys. <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>T1 time-out time</td><td>30 to 90 s</td><td>36</td></tr></table> <ol style="list-style-type: none">2. Press the start key. The value is set.	Display	Description	T0 Time Out	Sets the T0 time-out time.	T1 Time Out	Sets the T1 time-out time.	T2 Time Out	Sets the T2 time-out time.	Ta Time Out	Sets the Ta time-out time.	Tb1 Time Out	Sets the Tb1 time-out time.	Tb2 Time Out	Sets the Tb2 time-out time.	Tc Time Out	Sets the Tc time-out time.	Td Time Out	Sets the Td time-out time.	Description	Setting range	Initial setting	T0 time-out time	30 to 90 s	56	Description	Setting range	Initial setting	T1 time-out time	30 to 90 s	36
Display	Description																														
T0 Time Out	Sets the T0 time-out time.																														
T1 Time Out	Sets the T1 time-out time.																														
T2 Time Out	Sets the T2 time-out time.																														
Ta Time Out	Sets the Ta time-out time.																														
Tb1 Time Out	Sets the Tb1 time-out time.																														
Tb2 Time Out	Sets the Tb2 time-out time.																														
Tc Time Out	Sets the Tc time-out time.																														
Td Time Out	Sets the Td time-out time.																														
Description	Setting range	Initial setting																													
T0 time-out time	30 to 90 s	56																													
Description	Setting range	Initial setting																													
T1 time-out time	30 to 90 s	36																													

Item No.	Description																						
U641	<p>Setting the T2 time-out time</p> <p>The T2 time-out time decides the following.</p> <p>From CFR signal output to image data reception</p> <p>From image data reception to the next signal reception</p> <p>In ECM, from RNR signal detection to the next signal reception</p> <p>1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>T2 time-out time</td><td>1 to 255</td><td>69</td><td>100 ms</td></tr></table> <p>2. Press the start key. The value is set.</p> <p>Setting the Ta time-out time</p> <p>In the fax/telephone auto select mode, sets the time to continue ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-19). A fax signal is received within the Ta set time, or the fax mode is selected automatically when the time elapses. In fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.</p> <p>1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Ta time-out time</td><td>1 to 255</td><td>30</td></tr></table> <p>2. Press the start key. The value is set.</p> <div></div> <p>Figure 1-3-19 Ta/Tb1/Tb2 time-out time</p> <p>Setting the Tb1 time-out time</p> <p>In the fax/telephone auto select mode, sets the time to start sending the ring back tone after receiving a call as a fax machine (see figure 1-3-19). In fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.</p> <p>1. Change the setting using the cursor left/right keys.</p> <table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Tb1 time-out time</td><td>1 to 255</td><td>20</td><td>100 ms</td></tr></table> <p>2. Press the start key. The value is set.</p>	Description	Setting range	Initial setting	Change in value per step	T2 time-out time	1 to 255	69	100 ms	Description	Setting range	Initial setting	Ta time-out time	1 to 255	30	Description	Setting range	Initial setting	Change in value per step	Tb1 time-out time	1 to 255	20	100 ms
Description	Setting range	Initial setting	Change in value per step																				
T2 time-out time	1 to 255	69	100 ms																				
Description	Setting range	Initial setting																					
Ta time-out time	1 to 255	30																					
Description	Setting range	Initial setting	Change in value per step																				
Tb1 time-out time	1 to 255	20	100 ms																				

Item No.	Description								
U641	Setting the Tb2 time-out time In the fax/telephone auto select mode, sets the time to start ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-19). In the fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call. 1. Change the setting using the cursor left/right keys.								
	<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Tb2 time-out time</td><td>1 to 255</td><td>80</td><td>100 ms</td></tr></table>	Description	Setting range	Initial setting	Change in value per step	Tb2 time-out time	1 to 255	80	100 ms
	Description	Setting range	Initial setting	Change in value per step					
	Tb2 time-out time	1 to 255	80	100 ms					
	2. Press the start key. The value is set.								
	Setting the Tc time-out time In the TAD mode, set the time to check if there are any triggers for shifting to fax reception after a connected telephone receives a call. Only the telephone function is available if shifting is not made within the set Tc time. In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.								
	1. Change the setting using the cursor left/right keys.								
	<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Tc time-out time</td><td>1 to 255</td><td>60</td></tr></table>	Description	Setting range	Initial setting	Tc time-out time	1 to 255	60		
	Description	Setting range	Initial setting						
	Tc time-out time	1 to 255	60						
2. Press the start key. The value is set.									
Setting the Td time-out time Sets the length of the time required to determine silent status (fax), one of the triggers for Tc time check. In the TAD mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call. Be sure not to set it too short; otherwise, the mode may be shifted to fax while the unit is being used as a telephone.									
1. Change the setting using the cursor left/right keys.									
<table><tr><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Td time-out time</td><td>1 to 255</td><td>9 (120 V)/6 (220-240 V)</td></tr></table>	Description	Setting range	Initial setting	Td time-out time	1 to 255	9 (120 V)/6 (220-240 V)			
Description	Setting range	Initial setting							
Td time-out time	1 to 255	9 (120 V)/6 (220-240 V)							
2. Press the start key. The value is set.									
Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.									

Item No.	Description								
U650	<p>Setting modem 1</p> <p>Description Sets the G3 cable equalizer. Sets the modem detection level.</p> <p>Purpose Perform the following adjustment to make the equalizer compatible with the line characteristics. To improve the transmission performance when a low quality line is used.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be set. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Reg G3 TX Eqr</td><td>Sets the G3 transmission cable equalizer.</td></tr> <tr> <td>Reg G3 RX Eqr</td><td>Sets the G3 reception cable equalizer.</td></tr> <tr> <td>RX Mdm Level</td><td>Sets the modem detection level.</td></tr> </tbody> </table> <p>Setting the G3 transmission cable equalizer</p> <ol style="list-style-type: none"> 1. Select [0dB], [4dB], [8dB] or [12dB]. * : Initial setting: 0dB 2. Press the start key. The setting is set. <p>Setting the G3 reception cable equalizer</p> <ol style="list-style-type: none"> 1. Select [0dB], [4dB], [8dB] or [12dB]. * : Initial setting: 0dB 2. Press the start key. The setting is set. <p>Setting the modem detection level</p> <ol style="list-style-type: none"> 1. Select [-33dBm], [-38dBm], [-43dBm] or [-48dBm] using the cursor up/down keys. * : Initial setting: -43dBm 2. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Reg G3 TX Eqr	Sets the G3 transmission cable equalizer.	Reg G3 RX Eqr	Sets the G3 reception cable equalizer.	RX Mdm Level	Sets the modem detection level.
Display	Description								
Reg G3 TX Eqr	Sets the G3 transmission cable equalizer.								
Reg G3 RX Eqr	Sets the G3 reception cable equalizer.								
RX Mdm Level	Sets the modem detection level.								

Item No.	Description																
U651	<p>Setting modem 2</p> <p>Description Sets the modem output level. Sets the DTMF output level of a push-button dial telephone.</p> <p>Purpose Used if problems occur when sending a signal with a push-button dial telephone.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Select the item to be set.3. Change the setting using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th></tr><tr><td>Sgl LV Mdm</td><td>Modem output level</td><td>1 to 15</td><td>9 (120 V) 10 (220-240 V)</td></tr><tr><td>DTMF LV(C)</td><td>DTMF output level (main value)</td><td>0 to 15.0</td><td>5 (120 V) 10.5 (220-240 V)</td></tr><tr><td>DTMF LV(D)</td><td>DTMF output level (level difference)</td><td>0 to 5.5</td><td>2 (120 V) 2.5 (220-240 V)</td></tr></table> <ol style="list-style-type: none">4. Press the start key. The setting is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Sgl LV Mdm	Modem output level	1 to 15	9 (120 V) 10 (220-240 V)	DTMF LV(C)	DTMF output level (main value)	0 to 15.0	5 (120 V) 10.5 (220-240 V)	DTMF LV(D)	DTMF output level (level difference)	0 to 5.5	2 (120 V) 2.5 (220-240 V)
Display	Description	Setting range	Initial setting														
Sgl LV Mdm	Modem output level	1 to 15	9 (120 V) 10 (220-240 V)														
DTMF LV(C)	DTMF output level (main value)	0 to 15.0	5 (120 V) 10.5 (220-240 V)														
DTMF LV(D)	DTMF output level (level difference)	0 to 5.5	2 (120 V) 2.5 (220-240 V)														

Item No.	Description																								
U660	<p>Setting the NCU</p> <p>Description Makes setting regarding the network control unit (NCU).</p> <p>Purpose To be executed as required.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be set. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Exchange</td><td>Sets the connection to PBX/PSTN.</td></tr> <tr> <td>Dial Tone</td><td>Sets PSTN dial tone detection.</td></tr> <tr> <td>Busy Tone</td><td>Sets busy tone detection.</td></tr> <tr> <td>PBX Setting</td><td>Setting for a PBX.</td></tr> <tr> <td>DC Loop</td><td>Sets the loop current detection before dialing.</td></tr> </tbody> </table> <p>Setting the connection to PBX/PSTN Selects if a fax is to be connected to either a PBX or public switched telephone network.</p> <ol style="list-style-type: none"> 1. Select the setting. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>PSTN</td><td>Connected to the public switched telephone network.</td></tr> <tr> <td>PBX</td><td>Connected to a PBX.</td></tr> </tbody> </table> <p>* : Initial setting: PSTN</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. <p>Setting PSTN dial tone detection Selects if the dial tone is detected to check the telephone is off the hook when a fax is connected to a public switched telephone network.</p> <ol style="list-style-type: none"> 1. Select the setting. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>Detects the dial tone.</td></tr> <tr> <td>Off</td><td>Does not detect the dial tone.</td></tr> </tbody> </table> <p>* : Initial setting: On</p> <ol style="list-style-type: none"> 2. Press the start key. The setting is set. 	Display	Description	Exchange	Sets the connection to PBX/PSTN.	Dial Tone	Sets PSTN dial tone detection.	Busy Tone	Sets busy tone detection.	PBX Setting	Setting for a PBX.	DC Loop	Sets the loop current detection before dialing.	Display	Description	PSTN	Connected to the public switched telephone network.	PBX	Connected to a PBX.	Display	Description	On	Detects the dial tone.	Off	Does not detect the dial tone.
Display	Description																								
Exchange	Sets the connection to PBX/PSTN.																								
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Busy Tone	Sets busy tone detection.																								
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PBX	Connected to a PBX.																								
Display	Description																								
On	Detects the dial tone.																								
Off	Does not detect the dial tone.																								

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

Item No.	Description																				
U670	<p>Outputting lists</p> <p>Description Outputs a list of data regarding fax transmissions. Printing a list is disabled either when a job is remaining in the buffer or when [Pause All Print Jobs] is pressed to halt printing.</p> <p>Purpose To check conditions of use, settings and transmission procedures of the fax.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the item to be output. 3. Press the start key. The selected list is output. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Sys Conf Report</td><td>Outputs a list of software switches, self telephone number, confidential boxes, ROM versions and other information.</td></tr> <tr> <td>Action List</td><td>Outputs a list of error history, transmission line details and other information.</td></tr> <tr> <td>Self Sts Report</td><td>Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only.</td></tr> <tr> <td>Protocol List</td><td>Outputs a list of transmission procedures.</td></tr> <tr> <td>Error List</td><td>Outputs a list of error.</td></tr> <tr> <td>Addr List(No.)</td><td>Outputs address book in order IDs were added</td></tr> <tr> <td>Addr List(Idx)</td><td>Outputs address book in order of names</td></tr> <tr> <td>One-touch List</td><td>Outputs a list of one-touch.</td></tr> <tr> <td>Group List</td><td>Outputs a list of group.</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Sys Conf Report	Outputs a list of software switches, self telephone number, confidential boxes, ROM versions and other information.	Action List	Outputs a list of error history, transmission line details and other information.	Self Sts Report	Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only.	Protocol List	Outputs a list of transmission procedures.	Error List	Outputs a list of error.	Addr List(No.)	Outputs address book in order IDs were added	Addr List(Idx)	Outputs address book in order of names	One-touch List	Outputs a list of one-touch.	Group List	Outputs a list of group.
Display	Description																				
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One-touch List	Outputs a list of one-touch.																				
Group List	Outputs a list of group.																				

Item No.	Description																		
U695	<p>FAX function customize</p> <p>Description Sets fax batch transmission ON/OFF. Also changes the print size priority at the time of small size reception.</p> <p>Purpose To be executed as required.</p> <p>Setting 1. Select the setting.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>FAX Bulk TX</td><td>fax batch transmission On/Off</td></tr> <tr> <td>A5 Pt Pri Chg</td><td>Change of print size priority at the time of small size reception</td></tr> </tbody> </table> <p>Setting: [FAX Bulk TX] 1. Select [On] or [Off] using the cursor left/right keys.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>Fax batch transmission is enabled.</td></tr> <tr> <td>Off</td><td>Fax batch transmission is disabled.</td></tr> </tbody> </table> <p>* : Initial setting: On</p> <p>2. Press the start key. The setting is set.</p> <p>Setting: [A5 Pt Pri Chg] 1. Select [On] or [Off] using the cursor left/right keys.</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>On</td><td>At the time of A5 size reception: A5→B5→A4→B4→A3</td></tr> <tr> <td>Off</td><td>At the time of A5 size reception: A5→A4→B5→A3→B4</td></tr> </tbody> </table> <p>* : Initial setting: Off</p> <p>2. Press the start key. The setting is set.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	FAX Bulk TX	fax batch transmission On/Off	A5 Pt Pri Chg	Change of print size priority at the time of small size reception	Display	Description	On	Fax batch transmission is enabled.	Off	Fax batch transmission is disabled.	Display	Description	On	At the time of A5 size reception: A5→B5→A4→B4→A3	Off	At the time of A5 size reception: A5→A4→B5→A3→B4
Display	Description																		
FAX Bulk TX	fax batch transmission On/Off																		
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Off	At the time of A5 size reception: A5→A4→B5→A3→B4																		

Item No.	Description																																														
U699	<p>Setting the software switches</p> <p>Description Sets the software switches on the FAX control PWB individually.</p> <p>Purpose To change the setting when a problem such as split output of received originals occurs. Since the communication performance is largely affected, normally this setting need not be changed.</p> <p>Method 1. Press the start key. 2. Press [SW No.]. 3. Enter the desired software switch number (3 digits) using the numeric keys and press the enter key. 4. Use numeric keys 7 to 0 to switch each bit between 0 and 1. 5. Press the start key to set the value.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p> <p>List of Software Switches of Which the Setting Can Be Changed</p> <p><Communication control procedure></p> <table><tr><th>No.</th><th>Bit</th><th>Item</th></tr><tr><td rowspan="2">36</td><td>7654</td><td>Coding format in transmission</td></tr><tr><td>3210</td><td>Coding format in reception</td></tr><tr><td rowspan="6">37</td><td>5</td><td>33600 bps/V34</td></tr><tr><td>4</td><td>31200 bps/V34</td></tr><tr><td>3</td><td>28800 bps/V34</td></tr><tr><td>2</td><td>26400 bps/V34</td></tr><tr><td>1</td><td>24000 bps/V34</td></tr><tr><td>0</td><td>21600 bps/V34</td></tr><tr><td rowspan="8">38</td><td>7</td><td>19200 bps/V34</td></tr><tr><td>6</td><td>16800 bps/V34</td></tr><tr><td>5</td><td>14400 bps/V34</td></tr><tr><td>4</td><td>12000 bps/V34</td></tr><tr><td>3</td><td>9600 bps/V34</td></tr><tr><td>2</td><td>7200 bps/V34</td></tr><tr><td>1</td><td>4800 bps/V34</td></tr><tr><td>0</td><td>2400 bps/V34</td></tr><tr><td>41</td><td>3</td><td>FSK detection in V.8</td></tr><tr><td rowspan="2">42</td><td>4</td><td>4800 bps when low-speed setting is active</td></tr><tr><td>2</td><td>FIF length in transmission of more than 4 times of DIS/DTC signal</td></tr></table>	No.	Bit	Item	36	7654	Coding format in transmission	3210	Coding format in reception	37	5	33600 bps/V34	4	31200 bps/V34	3	28800 bps/V34	2	26400 bps/V34	1	24000 bps/V34	0	21600 bps/V34	38	7	19200 bps/V34	6	16800 bps/V34	5	14400 bps/V34	4	12000 bps/V34	3	9600 bps/V34	2	7200 bps/V34	1	4800 bps/V34	0	2400 bps/V34	41	3	FSK detection in V.8	42	4	4800 bps when low-speed setting is active	2	FIF length in transmission of more than 4 times of DIS/DTC signal
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Item No.	Description		
U699	<Communication time setting>		
	No.	Bit	Item
	53	76543210	T3 timeout setting
	54	76543210	T4 timeout setting (automatic equipment)
	55	76543210	T5 timeout setting
	60	76543210	Time before transmission of CNG (1100 Hz) signal
	63	76543210	T0 timeout setting (manual equipment)
	64	7	Phase C timeout in ECM reception
	66	76543210	Timeout 1 in countermeasures against echo
	68	76543210	Timeout for FSK detection start in V.8
	<Modem setting>		
	No.	Bit	Item
	89	76543	RX gain adjust
	<NCU setting>		
	No.	Bit	Item
	121	7654	Dial tone/busy tone detection pattern
	122	7654	Busy tone detection pattern
		1	Busy tone detection in automatic FAX/TEL switching
	125	76543210	Access code registration for connection to PSTN
	126	7654	FAX/TEL automatic switching ring back tone ON/OFF cycle
	<Calling time setting>		
	No.	Bit	Item
	133	76543210	DTMF signal transmission time
	134	76543210	DTMF signal pause time
	141	76543210	Ringer detection cycle (minimum)
	142	76543210	Ringer detection cycle (maximum)
	143	76543210	Ringer ON time detection
	144	76543210	Ringer OFF time detection
	145	76543210	Ringer OFF non-detection time
	147	76543210	Dial tone detection time (continuous tone)
	148	76543210	Allowable dial tone interruption time
	149	76543210	Time for transmitting selection signal after closing the DC circuit
	151	76543210	Ringer frequency detection invalid time

Item No.	Description												
U901	<p data-bbox="288 241 882 275">Checking copy counts by paper feed locations</p> <p data-bbox="288 311 440 340">Description</p> <p data-bbox="288 344 943 376">Displays or clears copy counts by paper feed locations.</p> <p data-bbox="288 380 400 409">Purpose</p> <p data-bbox="288 414 1417 481">To check the time to replace consumable parts. Also to clear the counts after replacing the consumable parts.</p> <p data-bbox="288 517 387 546">Method</p> <p data-bbox="308 553 1161 584">1. Press the start key. The counts by paper feed locations are displayed.</p> <table data-bbox="336 595 1401 884"> <tr> <th data-bbox="336 595 639 645">Display</th><th data-bbox="639 595 1401 645">Description</th></tr> <tr> <td data-bbox="336 645 639 689">MPT</td><td data-bbox="639 645 1401 689">MP tray</td></tr> <tr> <td data-bbox="336 689 639 734">Cassette1</td><td data-bbox="639 689 1401 734">Cassette 1</td></tr> <tr> <td data-bbox="336 734 639 779">Cassette2</td><td data-bbox="639 734 1401 779">Cassette 2 (optional paper feeder)</td></tr> <tr> <td data-bbox="336 779 639 824">Cassette3</td><td data-bbox="639 779 1401 824">Cassette 3 (optional paper feeder)</td></tr> <tr> <td data-bbox="336 824 639 884">Duplex</td><td data-bbox="639 824 1401 884">Duplex unit</td></tr> </table> <p data-bbox="336 896 1404 963">* : When an optional paper feed device is not installed, the corresponding count is not displayed.</p> <p data-bbox="288 999 400 1028">Clearing</p> <p data-bbox="308 1034 916 1167">1. Select the counts to be cleared. [Cassette2] and [Cassette3] cannot be cleared. 2. Select the counts for all and press [Clear]. 3. Press the start key. The counter value is cleared.</p> <p data-bbox="288 1202 440 1232">Completion</p> <p data-bbox="288 1238 1254 1270">Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	MPT	MP tray	Cassette1	Cassette 1	Cassette2	Cassette 2 (optional paper feeder)	Cassette3	Cassette 3 (optional paper feeder)	Duplex	Duplex unit
Display	Description												
MPT	MP tray												
Cassette1	Cassette 1												
Cassette2	Cassette 2 (optional paper feeder)												
Cassette3	Cassette 3 (optional paper feeder)												
Duplex	Duplex unit												

Item No.	Description						
U903	<p data-bbox="288 239 798 273">Checking/clearing the paper jam counts</p> <p data-bbox="288 311 438 340">Description</p> <p data-bbox="288 344 890 374">Displays or clears the jam counts by jam locations.</p> <p data-bbox="288 380 399 409">Purpose</p> <p data-bbox="288 414 1391 443">To check the paper jam status. Also to clear the jam counts after replacing consumable parts.</p> <p data-bbox="288 483 386 512">Method</p> <ol data-bbox="308 517 564 582" style="list-style-type: none"> 1. Press the start key. 2. Select the item. <table data-bbox="336 595 1401 739"> <tr> <th data-bbox="336 595 639 640">Display</th><th data-bbox="639 595 1401 640">Description</th></tr> <tr> <td data-bbox="336 640 639 685">Cnt</td><td data-bbox="639 640 1401 685">Displays/clears the jam counts</td></tr> <tr> <td data-bbox="336 685 639 739">Total Cnt</td><td data-bbox="639 685 1401 739">Displays the total jam counts</td></tr> </table> <p data-bbox="288 786 466 815">Method: [Cnt]</p> <ol data-bbox="308 819 1002 1023" style="list-style-type: none"> 1. Select [Cnt]. The count of jam code by type is displayed. Codes for which the count value is 0 are not displayed. 2. Change the screen using the cursor up/down keys. 3. Select the count value for jam code and press [Clear]. The individual counter cannot be cleared. 4. Press the start key. The counter value is cleared. <p data-bbox="288 1064 534 1093">Method: [Total Cnt]</p> <ol data-bbox="308 1097 1149 1196" style="list-style-type: none"> 1. Select [Total Cnt]. The total number of jam code by type is displayed. 2. Change the screen using the cursor up/down keys. The total number of jam count cannot be cleared. <p data-bbox="288 1236 438 1265">Completion</p> <p data-bbox="288 1270 1254 1299">Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Cnt	Displays/clears the jam counts	Total Cnt	Displays the total jam counts
Display	Description						
Cnt	Displays/clears the jam counts						
Total Cnt	Displays the total jam counts						

Item No.	Description						
U904	<p data-bbox="290 241 858 275">Checking/clearing the call for service counts</p> <p data-bbox="290 311 438 340">Description</p> <p data-bbox="290 344 954 376">Displays or clears the service call code counts by types.</p> <p data-bbox="290 380 400 409">Purpose</p> <p data-bbox="290 414 839 445">To check the service call code status by types.</p> <p data-bbox="290 450 1174 481">Also to clear the service call code counts after replacing consumable parts.</p> <p data-bbox="290 517 387 546">Method</p> <ol data-bbox="308 553 564 616" style="list-style-type: none"> 1. Press the start key. 2. Select the item. <table data-bbox="336 631 1401 777"> <tr> <th data-bbox="336 631 641 678">Display</th><th data-bbox="641 631 1401 678">Description</th></tr> <tr> <td data-bbox="336 678 641 725">Cnt</td><td data-bbox="641 678 1401 725">Displays/clears the call for service counts</td></tr> <tr> <td data-bbox="336 725 641 772">Total Cnt</td><td data-bbox="641 725 1401 772">Displays the total call for service counts</td></tr> </table> <p data-bbox="290 822 466 851">Method: [Cnt]</p> <ol data-bbox="308 857 1150 1059" style="list-style-type: none"> 1. Select [Cnt]. The count for service call detection by type is displayed. Codes for which the count value is 0 are not displayed. 2. Change the screen using the cursor up/down keys. 3. Select the count value for service call code and press [Clear]. The individual counter cannot be cleared. 4. Press the start key. The counter value is cleared. <p data-bbox="290 1099 534 1128">Method: [Total Cnt]</p> <ol data-bbox="308 1135 1259 1232" style="list-style-type: none"> 1. Select [Total Cnt]. The total number of service call counts by type is displayed. 2. Change the screen using the cursor up/down keys. The total number of service call count cannot be cleared. <p data-bbox="290 1272 438 1301">Completion</p> <p data-bbox="290 1308 1254 1339">Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Cnt	Displays/clears the call for service counts	Total Cnt	Displays the total call for service counts
Display	Description						
Cnt	Displays/clears the call for service counts						
Total Cnt	Displays the total call for service counts						

Item No.	Description																		
U905	<p>Checking counts by optional devices</p> <p>Description Displays the counts of document processor or document finisher.</p> <p>Purpose To check the use of document processor or document finisher.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select the device to be checked. The count of the selected device is displayed. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>DP</td><td>Counts of document processor</td></tr> <tr> <td>DF</td><td>Counts of document finisher</td></tr> </tbody> </table> <p>DP</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>ADP</td><td>Counts of single-sided originals that has passed through the DP</td></tr> <tr> <td>RADP</td><td>Counts of double-sided originals that has passed through the DP</td></tr> </tbody> </table> <p>DF</p> <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Sorter</td><td>Counts of copies that has passed through the sorter</td></tr> <tr> <td>Staple</td><td>Frequency the stapler has been activated</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	DP	Counts of document processor	DF	Counts of document finisher	Display	Description	ADP	Counts of single-sided originals that has passed through the DP	RADP	Counts of double-sided originals that has passed through the DP	Display	Description	Sorter	Counts of copies that has passed through the sorter	Staple	Frequency the stapler has been activated
Display	Description																		
DP	Counts of document processor																		
DF	Counts of document finisher																		
Display	Description																		
ADP	Counts of single-sided originals that has passed through the DP																		
RADP	Counts of double-sided originals that has passed through the DP																		
Display	Description																		
Sorter	Counts of copies that has passed through the sorter																		
Staple	Frequency the stapler has been activated																		
U910	<p>Clearing the print coverage data</p> <p>Description Clears the accumulated data for the print coverage per A4 size paper and its period of time (as shown on the service status report).</p> <p>Purpose To clear data as required at times such as during maintenance service.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Execute]. 3. Press the start key. The print coverage data is cleared. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>																		

Item No.	Description																																				
U917	<p>Setting backup data reading/writing</p> <p>Description Retrieves the backup data to a USB memory from the machine; or writes the data from the USB memory to the machine.</p> <p>Purpose Machine information is backed up and restored.</p> <p>Method</p> <ol style="list-style-type: none">1. Press the power key on the operation panel, and after verifying the power indicator has gone off, switch off the main power switch.2. Insert USB memory in USB memory slot.3. Turn the main power switch on. Wait for 10 seconds to allow the machine to recognize the USB memory.4. Enter the maintenance item.5. Press the start key.6. Select [Export] or [Import] and press the start key. <table><tr><th>Display</th><th>Description</th></tr><tr><td>Import</td><td>Writing data from the USB memory to the machine</td></tr><tr><td>Export</td><td>Retrieving from the machine to a USB memory</td></tr></table> <ol style="list-style-type: none">7. Select the item. <table><tr><th>Display</th><th>Description</th><th>Depending data</th></tr><tr><td>Address Book</td><td>Address book</td><td>-</td></tr><tr><td>Job Account</td><td>Job accounting</td><td>-</td></tr><tr><td>One Touch</td><td>Information on one-touch key</td><td>Address book</td></tr><tr><td>User</td><td>User managements</td><td>Job accounting</td></tr><tr><td>Program</td><td>Program information</td><td>Job accountings and user manage- ments</td></tr><tr><td>Shortcut</td><td>Shortcut information</td><td>Job accountings, user managements and document box information</td></tr><tr><td>Document Box</td><td>Document box information</td><td>Job accountings and user manage- ments</td></tr><tr><td>Fax Forward</td><td>FAX transfer information</td><td>Job accountings, user managements and document box information</td></tr><tr><td>IC card</td><td>IC card information</td><td>-</td></tr></table> <p>* : Since data are dependent with each other, data other than those assigned are also retrieved or written in.</p> <ol style="list-style-type: none">8. Select [On] using the cursor left/right keys.9. Press the start key. Starts reading or writing. The progress of selected item is displayed in %. When an error occurs, the operation is canceled and an error code is displayed.10. When normally completed, [Fin] is displayed.11. Turn the main power switch off and on after completing writing when selecting [Import].	Display	Description	Import	Writing data from the USB memory to the machine	Export	Retrieving from the machine to a USB memory	Display	Description	Depending data	Address Book	Address book	-	Job Account	Job accounting	-	One Touch	Information on one-touch key	Address book	User	User managements	Job accounting	Program	Program information	Job accountings and user manage- ments	Shortcut	Shortcut information	Job accountings, user managements and document box information	Document Box	Document box information	Job accountings and user manage- ments	Fax Forward	FAX transfer information	Job accountings, user managements and document box information	IC card	IC card information	-
Display	Description																																				
Import	Writing data from the USB memory to the machine																																				
Export	Retrieving from the machine to a USB memory																																				
Display	Description	Depending data																																			
Address Book	Address book	-																																			
Job Account	Job accounting	-																																			
One Touch	Information on one-touch key	Address book																																			
User	User managements	Job accounting																																			
Program	Program information	Job accountings and user manage- ments																																			
Shortcut	Shortcut information	Job accountings, user managements and document box information																																			
Document Box	Document box information	Job accountings and user manage- ments																																			
Fax Forward	FAX transfer information	Job accountings, user managements and document box information																																			
IC card	IC card information	-																																			

Item No.	Description			
U917	Error Codes			
	Codes	Description	Codes	Description
	e002	Parameter error	e31e	User managements error
	e003	File write error	e31f	User managements open error
	e004	File initialization error	e320	User managements error
	e005	File error	e321	User managements open error
	e006	Processing error	e322	User managements list error
	e010	Address book clear error (contact)	e323	User managements list error
	e011	Address book open error (contact)	e324	Shortcut open error
	e012	Address book list error (contact)	e325	Shortcut list error
	e013	Address book list error (contact)	e326	Shortcut list error
	e014	Address book clear error (group)	e410	Box file open error
	e015	Address book open error (group)	e411	Box error in writing
	e016	Address book list error (group)	e412	Box error in reading
	e017	Address book list error (group)	e413	Box list error
	e110	Job accounting clear error	e414	Box list error
	e111	Job accounting open error	e415	Box error
	e112	Job accounting open error	e416	Box error
	e113	Job accounting error in writing	e417	Box open error
	e114	Job accounting list error	e418	Box close error
	e115	Job accounting list error	e419	Box creation error
	e210	One-touch open error	e41a	Box creation error
	e211	One-touch list error	e41b	Box deletion error
	e212	One-touch list error	e41c	Box movement error
	e310	User managements backup error	e510	Program error in writing
	e311	User managements clear error	e511	Program error in reading
	e312	User managements open error	e710	Fax memory open error
	e313	User managements open error	e711	Fax memory initialization error
	e314	User managements open error	e712	Fax memory list error
	e315	User managements error in writing	e713	Fax memory error
	e316	User managements list error	e714	Fax memory error
	e317	User managements list error	e715	Fax memory mode error
	e318	User managements list error	e716	Fax memory error
	e319	User managements list error	e717	Fax memory error
	e31a	User managements open error	e718	Fax memory mode error
	e31b	User managements error	e910	File reading error
	e31c	User managements error	e911	File writing error
	e31d	User managements open error	e912	Data mismatch

Item No.	Description			
U917	Error Codes			
	Codes	Description	Codes	Description
	e913	Log file open error	d008	File rename error
	e914	Log file error in writing	d009	File open error
	e915	Directory open error	d00a	File close error
	e916	Directory error in reading	d00b	File reading error
	e917	Synchronization error	d00c	File writing error
	e918	Synchronization error	d00d	File copy error
	d000	Unspecified error	d00e	File compressed error
	d001	HDD unavailable	d00f	File decompressed error
	d002	USB memory is not inserted	d010	Directory open error
	d003	File for writing is not found in the USB	d011	Directory creation error
	d004	File for reading is not found in the HDD	d012	File writing error
	d005	USB error in writing	d013	File reading error
	d006	USB error in reading	d014	File deletion error
	d007	USB unmount error	d015	File copy error to the USB
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			
U927	Clearing the all copy counts and machine life counts (one time only)			
Description Resets all of the counts back to zero.				
Supplement The total account counter and the machine life counter can be cleared only once if all count values are 1000 or less.				
Method 1. Press the start key. 2. Select [Execute]. 3. Press the start key. All copy counts and machine life counts are cleared.				
Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.				

Item No.	Description						
U935	<p>Relay board maintenance</p> <p>Description Sets the mode when call for service (C0060) occurs.</p> <p>Purpose Sets the machine status temporarily when call for service (C0060) occurs. However, after the setting, call for service (C0060) occurs again when progress of period.</p> <p>Setting</p> <ol style="list-style-type: none"> 1. Press the start key. 2. Select [Mode]. 3. Change the setting using the cursor left/right keys. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Mode0</td><td>Setting mode: OFF</td></tr> <tr> <td>Mode1</td><td>Setting mode: ON (Usable up to three times of use)</td></tr> </tbody> </table> <p>* : Initial setting: Mode0</p> <ol style="list-style-type: none"> 4. Press the start key. The setting is set. 5. Turn the main power switch off and on. <p>Supplement After removing the cause of the problem, be sure to change the setting in OFF.</p>	Display	Description	Mode0	Setting mode: OFF	Mode1	Setting mode: ON (Usable up to three times of use)
Display	Description						
Mode0	Setting mode: OFF						
Mode1	Setting mode: ON (Usable up to three times of use)						

Item No.	Description																				
U942	<p>Setting of deflection for feeding from DP</p> <p>Description Adjusts the deflection generated when the document processor is used.</p> <p>Purpose Use this mode if an original non-feed jam, oblique feed or wrinkling of original occurs when the document processor is used.</p> <p>Setting</p> <ol style="list-style-type: none">1. Press the start key.2. Press the system menu key.3. Place an original on the DP and press the start key to make a test copy.4. Press the system menu key.5. Select the item to be adjusted.6. Change the setting value using the cursor left/right keys or numeric keys. <table><tr><th>Display</th><th>Description</th><th>Setting range</th><th>Initial setting</th><th>Change in value per step</th></tr><tr><td>Front</td><td>Deflection of DP paper feed motor (DPPFM)</td><td>-31 to 31</td><td>0</td><td>0.1758 mm</td></tr><tr><td>Back</td><td>Deflection of DP switchback motor (DPSBM)</td><td>-31 to 31</td><td>0</td><td>0.1758 mm</td></tr><tr><td>Mix</td><td>Set value of mixing the original</td><td>-31 to 31</td><td>0</td><td>0.1758 mm</td></tr></table> <p>* : The greater the value, the larger the deflection; the smaller the value, the smaller the deflection. If an original non-feed jam or oblique feed occurs, increase the setting value. If wrinkling of original occurs, decrease the value.</p> <ol style="list-style-type: none">7. Press the start key. The value is set. <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Setting range	Initial setting	Change in value per step	Front	Deflection of DP paper feed motor (DPPFM)	-31 to 31	0	0.1758 mm	Back	Deflection of DP switchback motor (DPSBM)	-31 to 31	0	0.1758 mm	Mix	Set value of mixing the original	-31 to 31	0	0.1758 mm
Display	Description	Setting range	Initial setting	Change in value per step																	
Front	Deflection of DP paper feed motor (DPPFM)	-31 to 31	0	0.1758 mm																	
Back	Deflection of DP switchback motor (DPSBM)	-31 to 31	0	0.1758 mm																	
Mix	Set value of mixing the original	-31 to 31	0	0.1758 mm																	

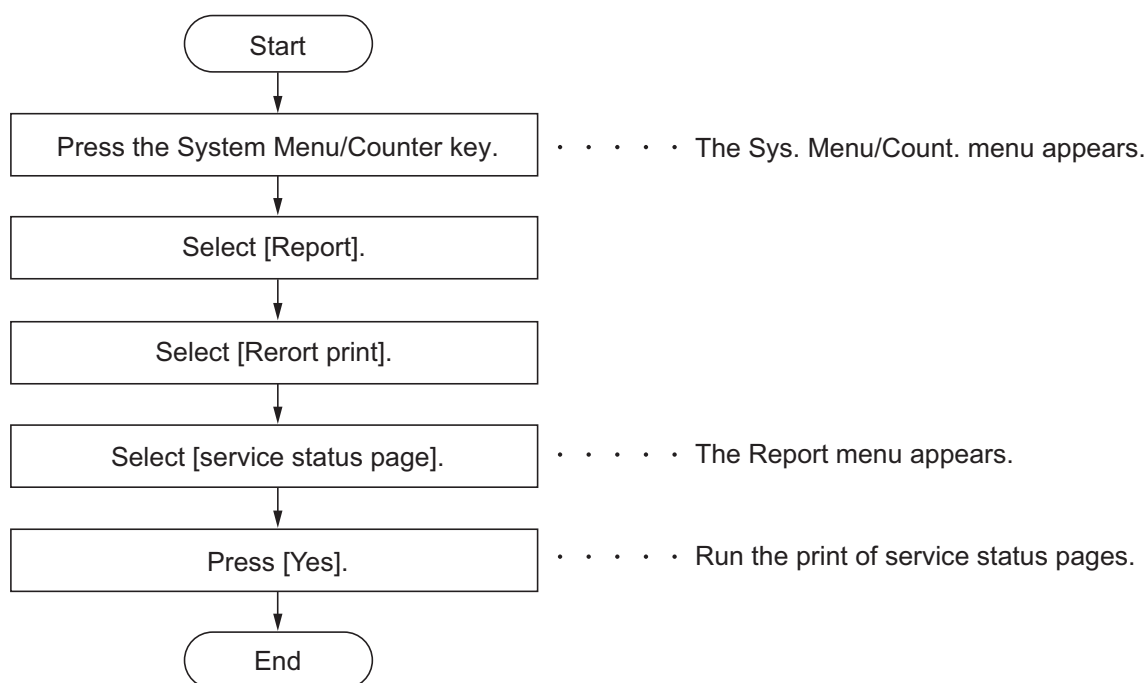
Item No.	Description				
U977	<p>Data capture mode</p> <p>Description Store the print data sent to the machine into USB memory.</p> <p>Purpose In case to occur the error at printing, check the print data sent to the machine.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the power key on the operation panel, and after verifying the main power indicator has gone off, switch off the main power switch. 2. Insert USB memory in USB memory slot. 3. Turn the main power switch on. 4. Enter maintenance item U977. 5. Select [Execute]. 6. Press the start key. 7. Send the print data to the machine. <p>Once the print data is stored into USB memory, [Finish] will be displayed.</p> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>				
U984	<p>Checking the developing unit number</p> <p>Description Displays the developing unit number.</p> <p>Purpose To check the developing unit number.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Press the start key. The developing unit number is displayed. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>K</td><td>Black developing unit number</td></tr> </tbody> </table> <p>Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	K	Black developing unit number
Display	Description				
K	Black developing unit number				

Item No.	Description						
U985	<p data-bbox="290 241 707 275">Displaying the developer history</p> <p data-bbox="290 311 440 340">Description</p> <p data-bbox="290 344 1139 376">Displays the past record of machine number and the developer counter.</p> <p data-bbox="290 380 400 409">Purpose</p> <p data-bbox="290 414 1147 445">To check the count value of machine number and the developer counter.</p> <p data-bbox="290 483 387 512">Method</p> <p data-bbox="308 517 1058 548">1. Press the start key. The each history displayed by five cases.</p> <table data-bbox="338 562 1401 705"> <tr> <th data-bbox="338 562 641 607">Display</th><th data-bbox="641 562 1401 607">Description</th></tr> <tr> <td data-bbox="338 607 641 651">Machine History 1 - 5</td><td data-bbox="641 607 1401 651">Historical records of the machine number</td></tr> <tr> <td data-bbox="338 651 641 705">Cnt History 1 - 5</td><td data-bbox="641 651 1401 705">Historical records of developer counter</td></tr> </table> <p data-bbox="290 752 440 781">Completion</p> <p data-bbox="290 786 1254 817">Press the stop key. The screen for selecting a maintenance item No. is displayed.</p>	Display	Description	Machine History 1 - 5	Historical records of the machine number	Cnt History 1 - 5	Historical records of developer counter
Display	Description						
Machine History 1 - 5	Historical records of the machine number						
Cnt History 1 - 5	Historical records of developer counter						

1-3-2 Service mode

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

(1) Printing the service status page



Service items	Description
Service Status	<p>Printing a status page for service purpose</p> <p>Description Prints a status page for service purpose. The status page includes various settings and service cumulative.</p> <p>Purpose To acquire the current printing environmental parameters and cumulative information.</p> <p>Method 1. Select [Service status]. 2. Select [YES]. Two pages will be printed.</p> <p>Completion Press the System Menu/Counter key.</p>

Service items	Description
	<div><div>Service status page (1)</div><div><div>Service Status Page</div><div>MFP</div><div>(2) 2011/09/28 15:15</div><div>(1) Firmware version 2MW_2F00.001.001 2011.09.28<div>(3) [XXXXXXXX] (4) [XXXXXXXX] (5) [XXXXXXXX]</div></div><div>Controller Information</div><div><div>Memory status</div><div>(7) Standard Size 128.0 KB</div><div>(8) Option Slot 128.0 KB</div><div>(9) Total Size 256.0 KB</div><div>Time</div><div>(10) Local Time Zone +01:00 Tokio</div><div>(11) Date and Time 10/10/2010 12:00</div><div>(12) Time Server 10.183.53.13</div><div>Installed Options</div><div>(13) Paper feeder Cassette</div><div>(14) Finisher 500-Finisher</div><div>(15) Card Authentication Kit (B) Installed</div><div>(16) USB Keyboard Connected</div><div>(17) USB Keyboard type US-English</div><div>(18) UG-33 Installed</div><div>Print Coverage</div><div>(19) Average(%) / Usage Page(A4/Letter Conversion)</div><div>(20) Total</div><div> K: 1.10 / 1111111.11</div><div>(21) Copy</div><div> K: 1.10 / 1111111.11</div><div>(22) Printer</div><div> K: 1.10 / 1111111.11</div><div>(23) FAX</div><div> K: 1.10 / 1111111.11</div><div>(24) Period (27/10/2009 - 03/11/2009 08:40)</div><div>(25) Last Page (%) 1.00 / 2.22 / 3.33 / 4.44</div><div>FAX Information</div><div>(26) Rings (Normal) 3</div><div>(27) Rings (FAX/TEL) 3</div><div>(28) Rings (TAD) 3</div><div>1</div><div>(6) [XXXXXXXXXXXXXXXXXXXX]</div></div></div></div>

Figure 1-3-20

Figure 1-3-20

Service items	Description
	Service status page (2)

Service Status Page

MFP2011/09/28 15:15

Firmware version 2MW_2F00.001.001 2011.09.28[XXXXXXXX] [XXXXXXXX] [XXXXXXXX]

Engine Information

(30) NVRAM Version _1F31225_1F31225
 (31) FAX
 FAX BOOT Version 2K3_5000.001.001
 FAX APL Version 2K3_5100.001.001
 FAX IPL Version 2K3_5200.001.001
 (32) MAC Address 00:C0:EE:D0:01:0D
 (33) DP Counters
 Total 1234

Send Information

(34) Date and Time 09/03/05 15:30
 (35) Address mail@bjd.ne.jp

1/2 (36) (37)
 (38) 100/100
 (39) 0/0/0/0
 (40) 0/0/0/0
 (41) 0/0/0/0/0/0/0/
 (42) 0000000/0000000/0000000/0000000/0000000/0000000/
 0000000/0000000/0000000/0000000/
 F00/U00/0/0/0/30/30/70/70/abcde/1/0 (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54)
 (55) 0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
 0000/0000/0000/0000/0000/0000/0000/0000/0000/0000/
 (56) 12345678/11223344/00001234abcd567800001234abcd5678/01234567890123456789012345678901/0008/00/07
 2KV_D100.001.005/0/ (57) (58)
 [3NN_9000.001.016] (59)
 [2KX_81BR.001.010] (60)
 (61) 0000000000/F80C001A37/302A183C00/000100013D/8791BEC305/000000000/0000000000/00
 0/3/ (62) (63)
 1/ (64)
 (65) ABCDEFGHIJ/

2
[XXXXXXXXXXXXXXXXXX]

Figure 1-3-21

Figure 1-3-21

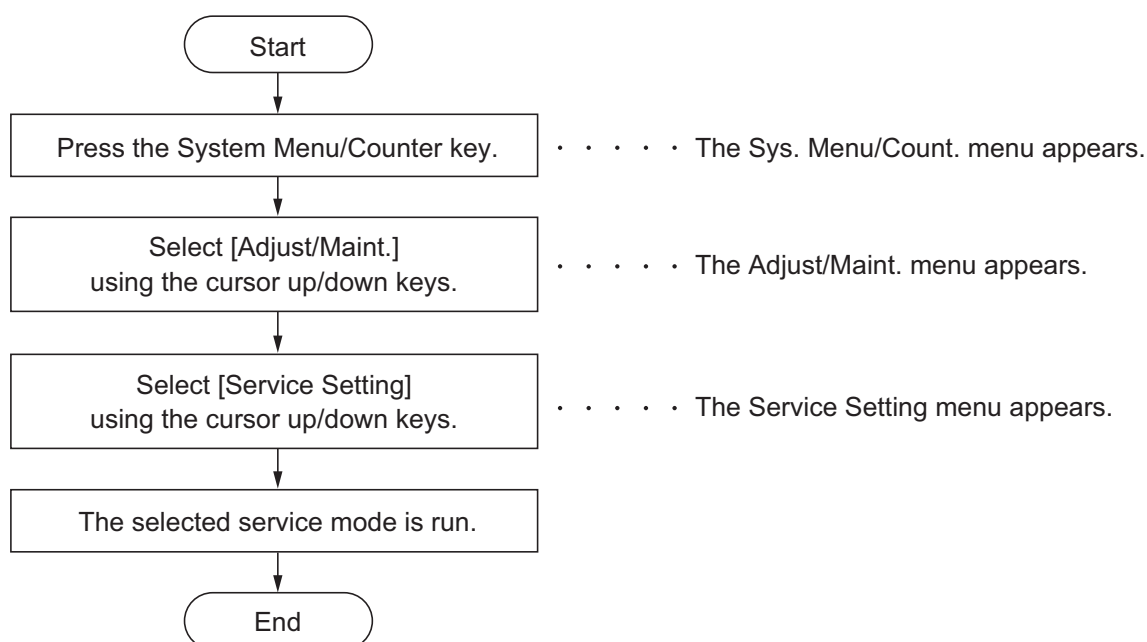
Service items	Description	
	Detail of service status page	
	No.	Description
		Supplement
	(1)	Firmware version -
	(2)	System date -
	(3)	Engine soft version -
	(4)	Engine boot version -
	(5)	Operation panel mask version -
	(6)	Machine serial number -
	(7)	Standard memory size -
	(8)	Optional memory size -
	(9)	Total memory size -
	(10)	Local time zone -
	(11)	Report output date Day/Month/Year hour:minute
	(12)	NTP server name -
	(13)	Presence or absence of the optional paper feeder Paper feeder 1/Paper feeder 2/Not Installed
	(14)	Presence or absence of the optional paper finisher 500-Finisher/Not Installed
	(15)	Presence or absence of the optional IC card authentication kit Installed/Not Installed/Trial
	(16)	The connection state of an optional USB keyboard Connected/Not Connected
	(17)	Displays setting of optional USB Keyboard US-English/US English with Euro/German/ French
	(18)	Presence or absence of optional UG-33 Installed/Not Installed/Trial
	(19)	Page of relation to the A4/Letter -
	(20)	Average coverage for total Black/Cyan/Magenta/Yellow
	(21)	Average coverage for copy Black/Cyan/Magenta/Yellow
	(22)	Average coverage for printer Black/Cyan/Magenta/Yellow
	(23)	Average coverage for fax Black/Cyan/Magenta/Yellow
	(24)	Cleared date and output date -
	(25)	Coverage on the final output page -
	(26)	Number of rings 0 to 15
	(27)	Number of rings before automatic switching 0 to 15
	(28)	Number of rings before connecting to answering machine 0 to 15

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

Service items	Description	
	No.	Description
		Supplement
	(43)	Panel lock information 0: OFF/1: Partial lock/2: Full lock
	(44)	USB information U00: Not installed/U01: Full speed/U02: Hi speed
	(45)	Paper handling information 0: Paper source unit select/1: Paper source unit
	(46)	Black and white printing double count mode 0: All single counts 3: Folio, Single count, Less than 330 mm (length)
	(47)	Billing counting timing -
	(48)	Temperature (machine inside) -
	(49)	Temperature (machine outside) -
	(50)	Relative temperature (machine outside) -
	(51)	Absolute temperature (machine outside) -
	(52)	Fixed assets number -
	(53)	Job end judgment time-out time -
	(54)	Job end detection mode -
	(55)	Media type attributes 1 to 28 (Not used: 18, 19, 20)
		Weight settings 0: Light 1: Normal 1 2: Normal 2 3: Normal 3 4: Heavy 1 5: Heavy 2 6: Heavy 3 7: Extra Heavy
		Fuser settings 0: High 1: Middle 2: Low 3: Vellum Duplex settings 0: Disable 1: Enable
	(56)	RFID information -
	(57)	RFID reader/writer version information -
	(58)	Toner install mode information 0: Off t: On
	(59)	Soft version of the optional paper feeder Paper feeder 1/Paper feeder 2
	(60)	Version of the optional message -
	(61)	Maintenance information -

Service items	Description																												
	No.	Description				Supplement																							
	(62)	Altitude				0: Standard 1: High altitude 1 2: High altitude 2																							
	(63)	Charger roller correction				1 to 5																							
	(64)	Shift restrictions of an one-sheet original				0:Off 1:On																							
	(65)	Drum serial number				Black																							
		Code conversion																											
	<table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td></tr><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr></table>										A	B	C	D	E	F	G	H	I	J	0	1	2	3	4	5	6	7	8
A	B	C	D	E	F	G	H	I	J																				
0	1	2	3	4	5	6	7	8	9																				

(2) Executing a service mode



(3) Description of service mode

Service items	Description
Enable Repaired Unit	<p>Release the disconnection of the cassette and the document feeder.</p> <p>Description Restore the system control when the defective unit is replaced to enable the unit. The menu is displayed only when the unit is detached for failure.</p> <p>Purpose Perform when the defective unit is replaced.</p> <p>Method 1. Enter the service menu. 2. Select [Enable Repaired Unit]. 3. Press [Start].</p> <p>Completion The unit is automatically powered after execution.</p>

Service items	Description
Maintenance	<p>Reset the counter of the maintenance kit.</p> <p>Description Reset the kit counter when replacing the maintenance kit. The menu is displayed only when replacing the maintenance kit.</p> <p>Purpose Perform when the maintenance kit is replaced.</p> <p>Method 1. Enter the service menu. 2. Select [Maintenance]. 3. Press [Start].</p> <p>Completion Automatically completes when the confirmation display is shown.</p>
Center line alignment	<p>Alignment of the cassette and MP tray and duplex</p> <p>Description Perform settings for the center line adjustment.</p> <p>Purpose Perform if the alignment has not been obtained after the center line adjustment.</p> <p>Method 1. Enter the service menu. 2. Select [Center Line Adjustment]. 3. Press [Save].</p> <p>Completion Press the Save key in the setting display.</p>
Developer	<p>Perform the toner installation of the developer unit.</p> <p>Description Perform the toner installation when the developer unit has been replaced.</p> <p>Purpose Perform when the developer unit is replaced.</p> <p>Method 1. Enter the service menu. 2. Select [Developer unit]. 3. Press [Start] in the confirmation display.</p> <p>Completion The toner installation is performed when power is turned on and off.</p>

Service items	Description																																																																												
FAX country code	<p>FAX Country Code</p> <p>Description Initializes software switches and all data in the backup data on the FAX control PWB, according to the destination.</p> <p>Purpose To initialize the FAX control PWB.</p> <p>Method</p> <ol style="list-style-type: none">1. Enter the Service Setting menu.2. Select [FAX Country Code] using the cursor up/down keys.3. Press the start key.4. Enter a destination code using the numeric keys.5. Press the start key. The setting is set.6. Press the start key. Data initialization starts. <p>Destination code list</p> <table><tr><th>Code</th><th>Destination</th><th>Code</th><th>Destination</th></tr><tr><td>000</td><td>Japan</td><td>253</td><td>CTR21 (European nations)</td></tr><tr><td>009</td><td>Australia</td><td></td><td>Italy</td></tr><tr><td>038</td><td>China</td><td></td><td>Germany</td></tr><tr><td>080</td><td>Hong Kong</td><td></td><td>Spain</td></tr><tr><td>084</td><td>Indonesia</td><td></td><td>U.K.</td></tr><tr><td>088</td><td>Israel</td><td></td><td>Netherlands</td></tr><tr><td>097</td><td>Korea</td><td></td><td>Sweden</td></tr><tr><td>108</td><td>Malaysia</td><td></td><td>France</td></tr><tr><td>126</td><td>New Zealand</td><td></td><td>Austria</td></tr><tr><td>136</td><td>Peru</td><td></td><td>Switzerland</td></tr><tr><td>137</td><td>Philippines</td><td></td><td>Belgium</td></tr><tr><td>152</td><td>Middle East</td><td></td><td>Denmark</td></tr><tr><td>156</td><td>Singapore</td><td></td><td>Finland</td></tr><tr><td>159</td><td>South Africa</td><td></td><td>Portugal</td></tr><tr><td>169</td><td>Thailand</td><td></td><td>Ireland</td></tr><tr><td>181</td><td>U.S.A.</td><td></td><td>Norway</td></tr><tr><td>242</td><td>South America</td><td>254</td><td>Taiwan</td></tr><tr><td>243</td><td>Saudi Arabia</td><td></td><td></td></tr></table> <p>Completion Press the stop key.</p>	Code	Destination	Code	Destination	000	Japan	253	CTR21 (European nations)	009	Australia		Italy	038	China		Germany	080	Hong Kong		Spain	084	Indonesia		U.K.	088	Israel		Netherlands	097	Korea		Sweden	108	Malaysia		France	126	New Zealand		Austria	136	Peru		Switzerland	137	Philippines		Belgium	152	Middle East		Denmark	156	Singapore		Finland	159	South Africa		Portugal	169	Thailand		Ireland	181	U.S.A.		Norway	242	South America	254	Taiwan	243	Saudi Arabia		
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126	New Zealand		Austria																																																																										
136	Peru		Switzerland																																																																										
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152	Middle East		Denmark																																																																										
156	Singapore		Finland																																																																										
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169	Thailand		Ireland																																																																										
181	U.S.A.		Norway																																																																										
242	South America	254	Taiwan																																																																										
243	Saudi Arabia																																																																												

Service items	Description								
FAX call Setting	<p>FAX call setting</p> <p>Description Selects if a fax is to be connected to either a PBX or public switched telephone network. Selects the mode to connect an outside call when connected to a PBX. Access code registration for connection to PSTN.</p> <p>Purpose To be executed as required.</p> <p>Method</p> <ol style="list-style-type: none"> 1. Enter the Service Setting menu. 2. Select [FAX Call Set.] using the cursor up/down keys. 3. Press the start key. <table border="1"> <thead> <tr> <th>Display</th><th>Description</th></tr> </thead> <tbody> <tr> <td>Exchange Select.</td><td>Setting the connection to PBX/PSTN</td></tr> <tr> <td>PBX Setting</td><td>Setting for a PBX</td></tr> <tr> <td>Dial No. to PSTN</td><td>Setting access code to PSTN</td></tr> </tbody> </table> <p>Setting the connection to PBX/PSTN</p> <ol style="list-style-type: none"> 1. Select [Exchange Select.] using the cursor up/down keys. 2. Press the start key. 3. Select [PBX] or [PSTN] using the cursor up/down keys. 4. Press the start key. The setting is set. <p>Setting for PBX</p> <ol style="list-style-type: none"> 1. Select [PBX Setting] using the cursor up/down keys. 2. Press the start key. 3. Select [Loop], [Flash] or [Earth] using the cursor up/down keys. 4. Press the start key. The setting is set. <p>Setting access code to PSTN</p> <ol style="list-style-type: none"> 1. Select [Dial No. to PSTN] using the cursor up/down keys. 2. Press the start key. 3. Enter access code using the numeric keys. (0 to 9, 00 to 99) 4. Press the start key. The setting is set. <p>Completion Press the stop key.</p>	Display	Description	Exchange Select.	Setting the connection to PBX/PSTN	PBX Setting	Setting for a PBX	Dial No. to PSTN	Setting access code to PSTN
Display	Description								
Exchange Select.	Setting the connection to PBX/PSTN								
PBX Setting	Setting for a PBX								
Dial No. to PSTN	Setting access code to PSTN								

Service items	Description
Memory Diagnostics	<p data-bbox="389 244 767 275">Perform a memory diagnostic</p> <p data-bbox="389 313 539 344">Description</p> <p data-bbox="389 347 1299 378">Diagnose memory at power up (whether reading and writing are executable).</p> <p data-bbox="389 383 497 414">Purpose</p> <p data-bbox="389 416 1406 481">Execute memory check in purpose of rectifying a defective memory device which may possibly cause an unresolvable F call, locking, or abnormal images.</p> <p data-bbox="389 519 485 551">Method</p> <ol data-bbox="405 555 1426 723" style="list-style-type: none"><li data-bbox="405 555 815 586">1. Enter the Service Setting menu.<li data-bbox="405 591 783 622">2. Select [Memory Diagnostics].<li data-bbox="405 627 587 658">3. Press [Start].<li data-bbox="405 663 1426 723">4. Turn the main power switch off and on. Allow more than 5 seconds between Off and On.

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1-4-1 Paper misfeed detection

(1) Paper misfeed indication

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

(2) Paper misfeed detection condition

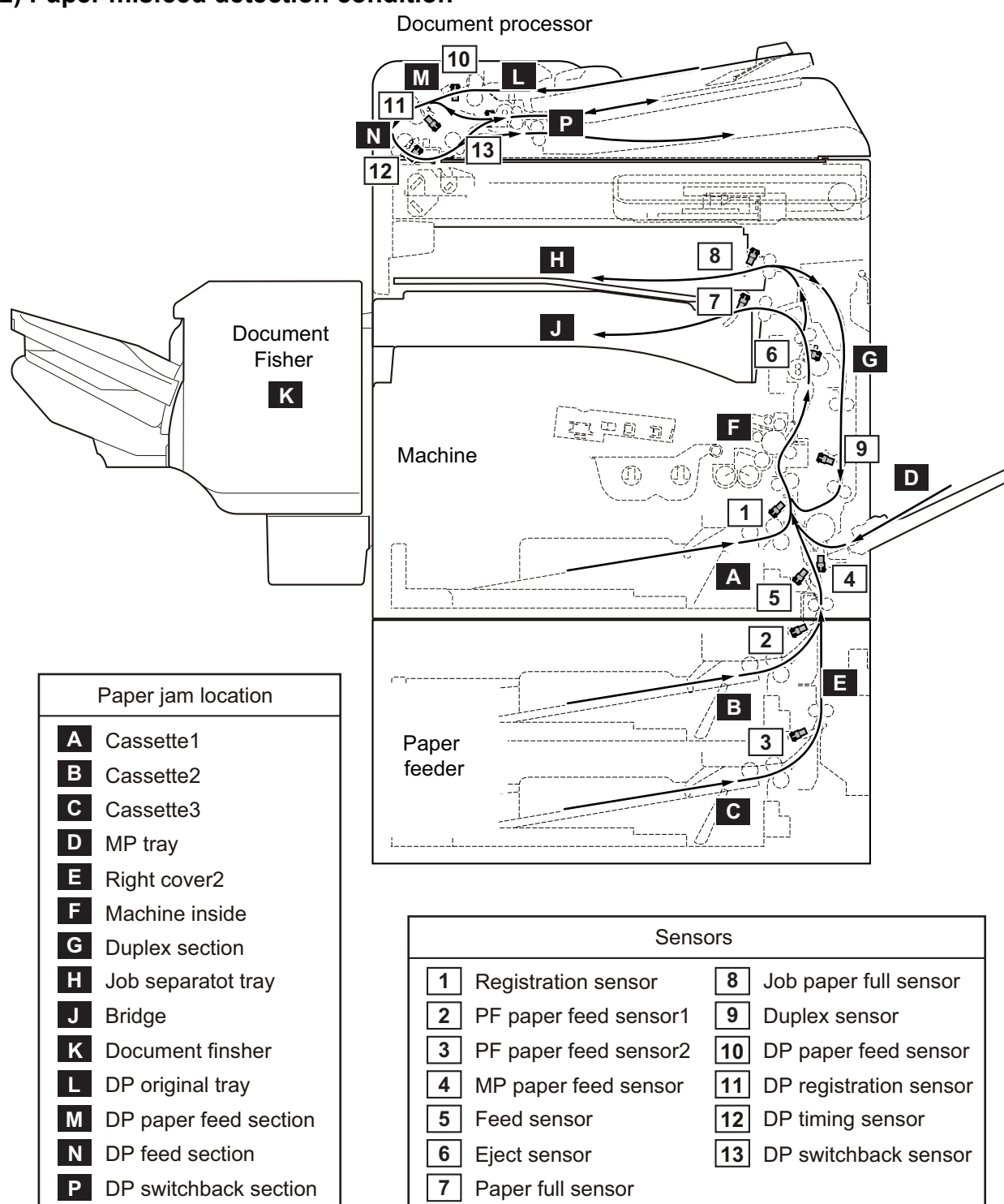


Figure 1-4-1 Paper jam location

Code	Contents	Conditions	Jam location*
0000	Initial jam	The power is turned on when a sensor in the conveying system is on.	-
0100	Secondary paper feed request time out	Secondary paper feed request given by the controller is unreachable.	F
0101	Waiting for process package to be ready	Process package won't be ready.	F
0104	Waiting for conveying package to be ready	Conveying package won't be ready.	F
0106	Paper feeding request for duplex printing time out	Paper feeding request for duplex printing given by the controller is unreachable.	F
0107	Waiting for fuser package to be ready	Fuser package won't be ready.	-
0110	Right cover open	The right cover is opened during printing.	-
0111	Front cover open	The front cover is opened during printing.	-
0120	Receiving a duplex paper feeding request while paper is empty	Paper feed request was received from the duplex section despite the absence of paper in the duplex section.	G
0121	Exceeding number of duplex pages circulated	The controller issued the duplex section a request for more pages than the duplex print cycle contains.	G
0210	Right lower cover open	The right lower cover is opened during printing.	-
0501	No paper feed from cassette 1	The registration sensor (RS) does not turn on during paper feed from cassette 1.	A
0502	No paper feed from cassette 2	PF feed sensor 1 (PFFS1) does not turn on during paper feed from cassette 2 (Retry 1 times).	B
0503	No paper feed from cassette 3	PF feed sensor 2 (PFFS2) does not turn on during paper feed from cassette 3 (Retry 1 times).	C
0508	No paper feed from duplex section	The registration sensor (RS) does not turn on during paper feed from duplex section.	G
0509	No paper feed from MP tray	The registration sensor (RS) does not turn on during paper feed from MP tray.	D
0511	Multiple sheets in cassette 1	The registration sensor (RS) does not turn off during paper feed from cassette 1.	A
0512	Multiple sheets in cassette 2	PF feed sensor 1 (PFFS1) does not turn off during paper feed from cassette 2.	B
0513	Multiple sheets in cassette 3	PF feed sensor 2 (PFFS2) does not turn off during paper feed from cassette 3.	C
0518	Multiple sheets in duplex section	The registration sensor (RS) does not turn off during paper feed from duplex section.	G
0519	Multiple sheets in MP tray	The registration sensor (RS) does not turn off during paper feed from MP tray.	D

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

Code	Contents	Conditions	Jam location*
1403	PF feed sensor 1 non arrival jam	PF feed sensor 1 (PFFS1) does not turn on during paper feed from cassette 3.	E
1413	PF feed sensor 1 stay jam	PF feed sensor 1 (PFFS1) does not turn off during paper feed from cassette 3.	E
4002	Registration sensor non arrival jam	The registration sensor (RS) does not turn on during paper feed from cassette 2.	E
4003		The registration sensor (RS) does not turn on during paper feed from cassette 3.	E
4012	Registration sensor stay jam	The registration sensor (RS) does not turn off during paper feed from cassette 2.	E
4013		The registration sensor (RS) does not turn off during paper feed from cassette 3.	E
4201	Eject sensor non arrival jam	The eject sensor (ES) does not turn on during paper feed from cassette 1.	F
4202		The eject sensor (ES) does not turn on during paper feed from cassette 2.	F
4203		The eject sensor (ES) does not turn on during paper feed from cassette 3.	F
4208		The eject sensor (ES) does not turn on during paper feed from duplex section.	F
4209		The eject sensor (ES) does not turn on during paper feed from MP tray.	F
4211	Eject sensor stay jam	The eject sensor (ES) does not turn off during paper feed from cassette 1.	F
4212		The eject sensor (ES) does not turn off during paper feed from cassette 2.	F
4213		The eject sensor (ES) does not turn off during paper feed from cassette 3.	F
4218		The eject sensor (ES) does not turn off during paper feed from duplex section.	F
4219		The eject sensor (ES) does not turn off during paper feed from MP tray.	F
4301	Duplex sensor non arrival jam	The duplex sensor (DUS) does not turn on during paper feed from cassette 1.	F
4302		The duplex sensor (DUS) does not turn on during paper feed from cassette 2.	F
4303		The duplex sensor (DUS) does not turn on during paper feed from cassette 3.	F
4309		The duplex sensor (DUS) does not turn on during paper feed from MP tray.	F

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

Code	Contents	Conditions	Jam location*
4311	Duplex sensor stay jam	The duplex sensor (DUS) does not turn off during paper feed from cassette 1.	G
4312		The duplex sensor (DUS) does not turn off during paper feed from cassette 2.	G
4313		The duplex sensor (DUS) does not turn off during paper feed from cassette 3.	G
4319		The duplex sensor (DUS) does not turn off during paper feed from MP tray.	G
4901	Bridge conveying sensor 1 non arrival jam	The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 1.	F
4902		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 2.	F
4903		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 3.	F
4908		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from duplex section.	F
4909		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from MP tray.	F
4911	Bridge conveying sensor 1 stay jam	The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 1.	J
4912		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 2.	J
4913		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 3.	J
4918		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from duplex section.	J
4919		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from MP tray.	J
5001	Bridge conveying sensor 3 non arrival jam	The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 1.	J
5002		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 2.	J
5003		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 3.	J
5008		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from duplex section.	J
5009		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from MP tray.	J

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

Code	Contents	Conditions	Jam location*
5011	Bridge conveying sensor 3 stay jam	The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 1.	J
5012		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 2.	J
5013		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 3.	J
5018		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from duplex section.	J
5019		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from MP tray.	J
6023	Staple cover open	The staple cover is opened during operation.	K
6043	DF top cover open	The DF top cover is opened during operation.	K
6103	DF paper conveying sensor non arrival jam	The paper conveying sensor (PCS) does not turned on even if a specified time has elapsed after the machine eject signal was received.	J
6113	DF paper conveying sensor stay jam	The paper conveying sensor (PCS) does not turn off within specified time of its turning on.	K
6123	DF paper conveying sensor remaining jam	The paper conveying sensor (PCS) does turned on when the power is turned on or cover close.	K
6413	DF eject paper sensor stay jam	The eject paper sensor (EPS) does not turn off within specified time of its turning on.	K
6423	DF eject paper sensor remaining jam	The eject paper sensor (EPS) does turned on when the power is turned on or cover close.	K
6803	Front adjustment plate operation ON error	The adjustment sensor 1 (ADS1) does turned on when job is executed.	K
6813	Front adjustment plate operation OFF error	The adjustment sensor 1 (ADS1) does turned off when job is executed.	K
6903	Rear adjustment plate operation ON error	The adjustment sensor 2 (ADS2) does turned on when job is executed.	K
6913	Rear adjustment plate operation OFF error	The adjustment sensor 2 (ADS2) does turned off when job is executed.	K
7013	Staple operation error	The next staple hasn't head-poked for the next copy to bind after a predetermined interval while clinching has commenced.	K
7023	Staple initial operation error	Head-poking has not been accomplished after 10 attempts in the initialization at power up or closing the cover.	K
7913	Sequence error 1 (operation prohibited)	Operation commenced in the state the finisher is prohibited to operate.	K
7923	Sequence error 2 (initialoperation error)	A request for maintenance mode has occurred in the state the finisher is prohibited to operate or has commenced operation.	K

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

Code	Contents	Conditions	Jam location*
7933	Sequence error 3 (Error in the reception of backup data)	A backup data command has been received in the state the operation has initiated.	K
7943	Sequence error 4 (standby)	Start of operation has been received in the state of prohibiting to stand by.	K
7953	Sequence error 5 (Error in between copies)	An illegal inter-page or inter-copy interval has occurred.	K
7963	Sequence error 6	The finisher does not deliver the eject-complete command in 15 seconds after the bridge eject sensor is turned off.	K
9000	No original feed	The DP paper feed sensor (DPPFS) does not turn on within specified time during the first sheet feeding (Retry 5 times).	L
9001	DP original conveying jam	DP timing sensor (DPTS) turns off within the specified time since the sensor turns on.	N
9004	DP original switchback jam	During duplex switchback scanning, the DP registration sensor (DPRS) does not turn on within specified time of the DP timing sensor (DPTS) turning off.	P
9010	DP open	The DP is opened during original feeding. Sensor in the conveying system is on when the power is turned on or cover close.	-
9011	DP top cover open	The DP top cover is opened during original feeding.	-
9110	DP paper feed sensor stay jam	The DP paper feed sensor (DPPFS) or DP registration sensor (DPRS) does not turn off within specified time of the DP timing sensor (DPTS) turning on.	N
9200	DP registration sensor non arrival jam	The DP registration sensor (DPRS) does not turn on within specified time of the DP paper feed sensor (DPPFS) turning on.	M
9400	DP timing sensor non arrival jam	The DP timing sensor (DPTS) does not turn on within specified time of the DP registration sensor (DPRS) turning on (Retry 5 times).	M
9410	DP timing sensor stay jam	The DP timing sensor (DPTS) does not turned off within specified time its turning on.	N

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

1-4-2 Self-diagnostic function

(1) Self-diagnostic function

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

(2) Self diagnostic codes

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

Code	Contents	Causes	Check procedures/ corrective measures
0030	FAX control PWB system error Processing with the fax software was disabled due to a hardware problem.	Defective FAX control PWB.	Replace the fax control PWB and check for correct operation. .
0060	Engine PWB type error	Defective engine sub PCB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
0070	FAX control PWB incompatible detection error Abnormal detection of FAX control PWB incompatibility In the initial communication with the FAX control PWB, any normal communication command is not transmitted.	Defective FAX software.	Install the fax software.
		Defective FAX control PWB.	Replace the fax control PWB and check for correct operation..
0100	Backup memory device error	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-34).
		Defective main PWB.	
0120	MAC address data error For data in which the MAC address is invalid.	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
0130	Backup memory read/write error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-34).
		Defective main PWB.	
0140	Backup memory data error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-34).
		Defective main PWB.	

Code	Contents	Causes	Check procedures/ corrective measures
0150	Backup memory read/write error (engine PWB) Detecting engine PWB EEPROM communication error.	Improper installation engine PWB EEPROM.	Check the installation of the EEPROM and remedy if necessary.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
		Device damage of EEPROM.	Contact the Service Administrative Division.
0160	Backup memory data error (engine PWB)	Defective flash memory.	Replace the engine PWB and check for correct operation (see page 1-5-35).
		Defective engine PWB.	
0170	Billing counting error A checksum error is detected in the main and engine backup memories for the billing counters.	Data damage of EEPROM.	Contact the Service Administrative Division.
		Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-34, 1-5-35).
0180	Machine number mismatch Machine number of main and engine does not match.	Data damage of EEPROM.	Contact the Service Administrative Division.
0320	I/O CPU communication error A communication error is detected 10 times in succession.	Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation.(see page 1-5-34,1-5-35)
0630	DMA error DMA transmission of image data does not complete within the specified period of time.	Poor contact in the connector terminals.	Check the connection the signal cable for CIS and the main PWB, and the continuity across the connector terminals. Repair or replace if necessary.
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).
0800	Image processing error JAM010x is detected twice.	Defective main PWB.	Replace the main PWB and check for correct operation(see page 1-5-34).
0830	FAX control PWB flash program area checksum error A checksum error occurred with the program of the FAX control PWB.	Defective FAX software.	Install the fax software.
		Defective FAX control PWB.	Replace the FAX control PWB.
0840	Faults of RTC The time is judged to go back based on the comparison of the RTC time and the current time or five years or more have passed.	The battery is disconnected from the main PWB.	Check visually and remedy if necessary
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).

Code	Contents	Causes	Check procedures/ corrective measures
0870	FAX control PWB to main PWB high capacity data transfer error High-capacity data transfer between the FAX control PWB and the main PWB of the machine was not normally performed even if the data transfer was retried the specified times.	Improper installation FAX control PWB.	Reinstall the FAX control PWB.
		Defective FAX control PWB or main PWB.	Replace the FAX control PWB or main PWB and check for correct operation (see page 1-5-34).
0920	Fax file system error The backup data is not retained for file system abnormality of flash memory of the FAX control PWB.	Defective FAX control PWB.	Replace the FAX control PWB and check for correct operation.
1010	Lift motor error After cassette 1 is inserted, lift sensor does not turn on within 15 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Lift motor and engine PWB (YC1)
		Defective drive transmission system of the lift motor.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective lift motor.	Replace the lift motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

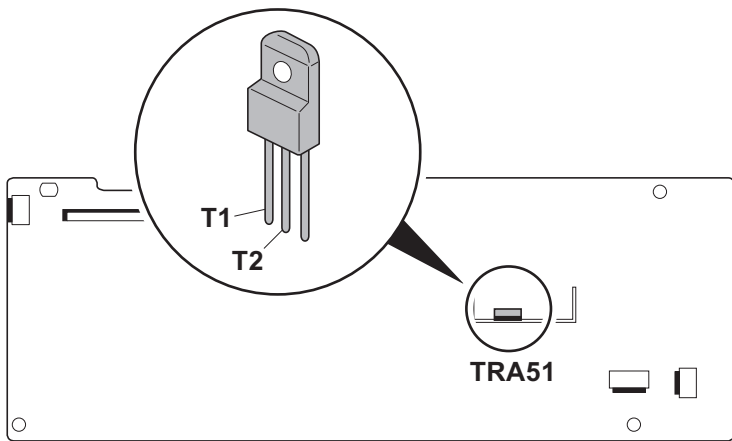
Code	Contents	Causes	Check procedures/ corrective measures
1020	PF lift motor error (paper feeder) After cassette 2 is inserted, PF lift sensor 1 does not turn on within 15 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 1 and PF main PWB (YC4)
		Defective drive transmission system of the PF lift motor 1.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor 1.	Replace the PF lift motor 1.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1030	PF lift motor error (paper feeder) After cassette 3 is inserted, PF lift sensor 2 does not turn on within 15 s. This error is detected four times successively.	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair it if any problem is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF lift motor 2 and PF main PWB (YC7)
		Defective drive transmission system of the PF lift motor 2.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor 2.	Replace the PF lift motor 2.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1800	Paper feeder communication error A communication error is detected 10 times in succession.	Improper installation paper feeder.	Follow installation instruction carefully again.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC20)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1900	Paper feeder EEPROM error When writing the data, the write data and the read data is not continuously in agreement 5 times.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	Contact the Service Administrative Division.
2000	Main motor steady-state error Stable OFF is detected for 1 s continuously after main motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC16)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
2010	Main motor drive error The main motor is not stabilized within 2 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC16)
		Defective drive transmission system of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
2600	PF drive motor error (paper feeder) When the PF drive motor is driven, error signal is detected continuously for 2 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. PF drive motor and PF main PWB (YC2)
		Defective drive transmission system of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
3100	ISU home position error The home position is not correct when the power is turned on or at the start of copying using the table.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Home position sensor and engine PWB (YC13)
		Defective home position sensor.	Replace the home position sensor.
		Defective ISU motor.	Replace the ISU motor.
		Defective CCD PWB.	Replace the image scanner unit (see page 1-5-24).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
3200	Exposure lamp error The peak count during CCD turned on does not count up for 300 seconds . When the white standard data at the time of an initial is lower than a rated value.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. LED PWB and main PWB (YC112) CCD PWB and main PWB (YC113)
		Defective exposure lamp.	Replace the image scanner unit (see page 1-5-24).
		Defective CCD PWB.	
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).
3500	Communication error between scanner and ASIC When the lead backing value is different.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. CCD PWB and main PWB (YC113)
		Defective CCD PWB.	Replace the image scanner unit (see page 1-5-24).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).
3600	Scanner sequence error	Defective main PWB or engine PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-34 or 1-5-35).
4000	Polygon motor synchronization error The polygon motor is not stabilized within 10 s after driving starts.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Laser scanner unit and engine PWB (YC11)
		Defective polygon motor.	Replace the laser scanner unit (see page 1-5-23).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
4010	Polygon motor steady-state error Stable OFF is detected for 1 s continuously after polygon motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Laser scanner unit and engine PWB (YC11)
		Defective polygon motor.	Replace the laser scanner unit (see page 1-5-23).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
4100	BD initialization error BD is not detected within 1 s after polygon motor stabilized.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. BD PWB and APC PWB (YC1) APC PWB (YC2) and main PWB (YC103)
		Defective APC PWB.	Replace the laser scanner unit (see page 1-5-23).
		Defective BD PWB.	
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).
4700	VIDEO ASIC device error	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Main PWB (YC105) and engine PWB (YC17)
		Defective main PWB or engine PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-34, 1-5-35).
6000	Broken fuser heater wire The detected temperature of fuser thermistor does not reach the specified temperature (ready indication temperature) after the fuser heater has been turned on continuously for 60 s in warming up. The fusing temperature at 5.6 seconds and 16 seconds since fuser temperature control has occurred differs by 43°C/109.4°F or less.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC102) Fuser unit and engine PWB (YC7)
		Deformed connector pin.	See page 1-4-15.
		Defective triac.	See page 1-4-15.
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-21).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
6020	Abnormally high fuser thermistor temperature The fuser thermistor detects a temperature higher than 230°C/446°F continuously for 40 ms. High fuser temperature signal detects a temperature of 255°C/491°F continuously for 40 ms.	Deformed connector pin.	See page 1-4-15.
		Defective triac.	See page 1-4-15.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-21).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
6030	Broken fuser thermistor wire A/D value of the fuser thermistor exceeds 251 bit continuously for 5.6 s during warming up.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC102) Fuser unit and engine PWB (YC7)
		Deformed connector pin.	See page 1-4-15.
		Defective triac.	See page 1-4-15.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-21).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
6050	Abnormally low fuser thermistor temperature As the stable temperature has reached the second time, the decrease in the fuser thermistor temperature of 60°C/140°F or greater is detected for one second.	Deformed connector pin.	See page 1-4-15.
		Defective triac.	See page 1-4-15.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-21).
		Defective fuser heater.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
6000/ 6020/ 6030/ 6050 Com- bined	Broken fuser heater wire Abnormally high fuser thermistor temperature Broken fuser thermistor wire Abnormally low fuser thermistor temperature	Deformed connec- tor pin.	If the I/F connector pins of the fuser unit and the main unit are deformed owing to foreign matters, such as paper dusts, replace the connectors or the units including the con- nectors.
		Defective triac.	Remove the power cord and check that the resistance between terminals T1 and T2 of the triac TRA51 is of several Mega-Ohms and not shorted (see figure 1-4-2). If failed, replace the power source PWB (see page 1-5-35).
		 <p>Power source PWB</p> <p>Figure 1-4-2</p>	
6400	Zero-cross signal error While fuser heater control is performed, the zero-cross signal is not input within 3 s.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Power source PWB (YC4) and engine PWB (YC21)
		Defective power source PWB or engine PWB.	Replace the power source PWB or the engine PWB and check for correct operation (see page 1-5-35).
7800	Broken external thermistor wire The thermistor output value is 0.3 V or less.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Temperature sensor and engine PWB (YC21)
		Defective tempera- ture sensor.	Replace the temperature sensor.

Code	Contents	Causes	Check procedures/ corrective measures
7810	Short-circuited external thermistor wire The thermistor output value is 3 V or more.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Temperature sensor and engine PWB (YC21)
		Defective temperature sensor.	Replace the temperature sensor.
7900	Drum unit EEPROM error No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated five times successively. Mismatch of reading data from two locations occurs eight times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit and engine PWB (YC15)
		Defective drum unit.	Replace the drum unit (see 1-5-19).
7910	Developer unit EEPROM error No response is issued from the device in reading/writing for 5 ms or more and this problem is repeated five times successively. Mismatch of reading data from two locations occurs eight times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit and engine PWB (YC12)
		Defective developer unit.	Replace the developer unit (see 1-5-16).
8030	Tray upper limit detection problem (document finisher) When the tray elevation motor raises a tray, the ON status of the tray upper limit sensor is detected.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Tray upper limit sensor and DF main PWB (CN5) Paper surface sensor 1/2 and DF main PWB (CN6)
		Defective tray upper limit sensor, paper surface sensor 1/2.	Replace the sensor.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.

Code	Contents	Causes	Check procedures/ corrective measures
8040	Belt problem (document finisher) The belt sensor does not turn on/off within specified time of the belt solenoid turning on.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Belt sensor and DF main PWB (CN10) Belt solenoid and DF main PWB (CN21)
		Defective belt sensor.	Replace the belt sensor.
		Defective belt solenoid.	Replace the belt solenoid.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8140	Tray elevation motor problem (document finisher) The tray low limit sensor or paper surface sensor 1/2 cannot be detected to be on within 10 s since the tray elevation motor is activated.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Tray elevation motor and DF main PWB (CN12)
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Tray lower limit sensor, and DF main PWB (CN5) Paper surface sensor 1/2 and DF main PWB (CN6)
		The tray elevation motor malfunctions.	Replace the tray elevation motor.
		Defective tray lower limit sensor, paper surface sensor 1/2.	Replace the sensor.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8210	Stapler problem (document finisher) Jam 7012 or 7023 is indicated.	Defective connector cable of staple or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable.
		The stapler is blocked with a staple.	Remove the stapler cartridge, and check the cartridge and the stapling section of the stapler.
		The stapler is broken.	Replace the stapler and check for correct operation.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.

Code	Contents	Causes	Check procedures/ corrective measures
8320	Adjustment motor 2 problem (document finisher) The adjustment sensor 2 does not turn on/off within specified time of the adjustment motor 2 turning on.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Adjustment motor 2 and DF main PWB (CN18) Adjustment sensor 2 and DF main PWB (CN7)
		Defective adjustment sensor 2.	Replace the adjustment sensor 2.
		Defective adjustment motor 2.	Replace the adjustment motor 2.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8330	Adjustment motor 1 problem (document finisher) The adjustment sensor 1 does not turn on/off within specified time of the adjustment motor 1 turning on.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Adjustment motor 1 and DF main PWB (CN18) Adjustment sensor 1 and DF main PWB (CN7)
		Defective adjustment sensor 1.	Replace the adjustment sensor 1.
		Defective adjustment motor 1.	Replace the adjustment motor 1.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8350	Roller motor problem (document finisher) The roller sensor does not turn on/off within specified time of the roller motor turning on.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Roller motor and DF main PWB (CN20) Roller sensor and DF main PWB (CN11)
		Defective roller sensor.	Replace the roller sensor.
		Defective roller motor.	Replace the roller motor.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.

Code	Contents	Causes	Check procedures/ corrective measures
8360	Slide motor problem (document finisher) The slide sensor does not turn on/off within specified time of the slide motor turning on.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Slide motor and DF main PWB (CN14) Slide sensor and DF main PWB (CN22)
		Defective slide sensor.	Replace the slide sensor.
		Defective slide motor.	Replace the slide motor.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8460	EEPROM problem (document finisher) Reading from or writing to EEPROM cannot be performed.	Defective EEPROM or DF main PWB.	Replace the DF main PWB and check for correct operation.
8800	Document finisher communication error A communication error is detected 10 times in succession.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Engine PWB (YC19) and DF relay PWB (YC2) DF relay PWB (YC3) and DF main PWB (CN1)
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
8830	Bridge communication error (document finisher) A communication error is detected 10 times in succession.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Engine PWB (YC19) and DF relay PWB (YC2) DF relay PWB (YC4) and bridge PWB (YC5)
		Defective bridge PWB.	Replace the bridge PWB and check for correct operation.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
8990	Document finisher communication error	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
		Defective bridge PWB.	Replace the bridge PWB and check for correct operation.
9000	Document processor communication error A communication error is detected 10 times in succession.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP main PWB and engine PWB (YC18)
		Defective DP main PWB.	Replace the DP main PWB and check for correct operation (see page 1-5-32).
9060	DP EEPROM error Read and write data does not match. Data in the specified area of the backup memory does not match the specified values.	Defective DP main PWB.	Replace the DP main PWB and check for correct operation (see page 1-5-32).
		Device damage of EEPROM.	Contact the Service Administrative Division.
9500			Contact the Service Administrative Division.
9510			
9520			
9530			Contact the Service Administrative Division.
9540			
9550			
F000	Main PWB - operation panel PWB communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-34).
		Defective operation panel PWB.	Replace the operation panel PWB and check for correct operation.
F010	Main PWB checksum error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-34).
F011			
F012			
F013			
F040	Main PWB - print engine communication error	Defective main PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace main PWB (see page 1-5-34).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
F050	Print engine ROM checksum error	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-35).

1-4-3 Image formation problems

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

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



See page 1-4-22

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



See page 1-4-22

- (3) Image is too light.



See page 1-4-23

- (4) The background is colored.



See page 1-4-23

- (5) White streaks are printed vertically.



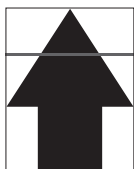
See page 1-4-23

- (6) Black streaks are printed vertically.



See page 1-4-24

- (7) Streaks are printed horizontally.



See page 1-4-24

- (8) One side of the print image is darker than the other.



See page 1-4-24

- (9) Spots are printed.



See page 1-4-25

- (10) Image is blurred.



See page 1-4-25

- (11) The leading edge of the image is consistently misaligned with the original.



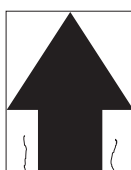
See page 1-4-25

- (12) The leading edge of the image is sporadically misaligned with the original.



See page 1-4-25

- (13) Paper is wrinkled.



See page 1-4-26

- (14) Offset occurs.



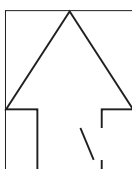
See page 1-4-26

- (15) Part of image is missing.



See page 1-4-26

- (16) Fusing is loose.



See page 1-4-26

- (17) Image is out of focus.



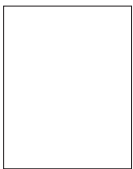
See page 1-4-27

- (18) Image center does not align with the original center.




See page 1-4-27

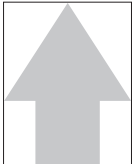
(1) No image appears (entirely white).

Print example	Causes		Check procedures/corrective measures
	Defective transfer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC10)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-37).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-35).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC10)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-37).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-35).
	No LSU laser is output.	Defective laser scanner unit.	Replace the laser scanner unit (see page 1-5-23).
		Defective main PWB.	Replace the main PWB (see page 1-5-34).

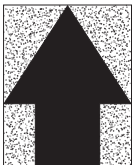
(2) No image appears (entirely black).

Print example	Causes		Check procedures/corrective measures
	No main charging.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC10)
		Defective charger roller unit.	Replace the charger roller unit (see page 1-5-19).
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-37).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-35).
	Exposure lamp fails to light.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. LED PWB and main PWB (YC112) CCD PWB and main PWB (YC113)
		Defective CCD PWB.	Replace the image scanner unit (see page 1-5-24).
		Defective main PWB.	Replace the main PWB (see page 1-5-34).


(3) Image is too light.

Print example	Causes		Check procedures/corrective measures
	Defective transfer charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC10)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-37).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-35).
	Insufficient toner.		If the display shows the message requesting toner replenishment, replace the container.
	Deteriorated toner.		Perform the drum refresh operation.
			Perform the gradation adjustment in a system menu.

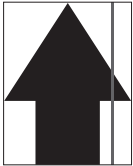
(4) The background is colored.

Print example	Causes		Check procedures/corrective measures
	Defective main charger output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. High voltage PWB and engine PWB (YC10)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-37).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-35).
	Deteriorated toner.		Perform the drum refresh operation.

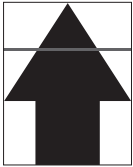
(5) White streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Foreign matter in the developer unit.	Check if the magnetic brush is formed uniformly. Replace the developer unit if any foreign matter (see page 1-5-16).
	Dirty shading plate.	Clean the shading plate.
	Adhesion of soiling to transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-20).
	Dirty LSU dust shield glass.	Perform the LSU dust shield glass cleaning.


(6) Black streaks are printed vertically.

Print example	Causes	Check procedures/corrective measures
	Dirty contact glass.	Clean the contact glass.
	Dirty slit glass.	Clean the slit glass.
	Dirty or flawed drum.	Perform the drum refresh operation. Flawed drum. Replace the drum unit (see page 1-5-19).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-19).
	Defective transfer roller.	Replace the transfer roller (see page 1-5-20).
	Dirty scanner mirror.	Clean the scanner mirror.


(7) Streaks are printed horizontally.

Print example	Causes	Check procedures/corrective measures
	Dirty or flawed drum.	Perform the drum refresh operation. Flawed drum. Replace the drum unit (see page 1-5-19).
	Dirty developer section.	Clean any part contaminated with toner in the developer section.
	Poor contact of grounding terminal of drum unit.	Check the installation of the drum unit. If it operates incorrectly, replace it (see page 1-5-19).

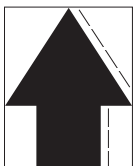
(8) One side of the print image is darker than the other.

Print example	Causes	Check procedures/corrective measures
	Defective exposure lamp.	Replace the LED PWB (see page 1-5-27).

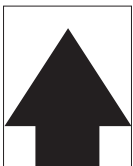
(9) Spots are printed.

Print example	Causes	Check procedures/corrective measures
	Dirty contact glass.	Clean the contact glass.
	Dirty or flawed drum.	Perform the drum refresh operation. Flawed drum. Replace the drum unit (see page 1-5-19).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-19).
	Flawed developer roller.	Replace the developer unit (see page 1-5-16).
	Dirty heat roller and press roller.	Clean the heat roller and press roller.


(10) Image is blurred.

Print example	Causes	Check procedures/corrective measures
	Scanner moves erratically.	Check if there is any foreign matter on the front and rear scanner rails. If any, remove it.
	Deformed press roller.	Replace the fuse unit (see page 1-5-21).
	Paper conveying section drive problem.	Check the gears and belts and, if necessary, grease them.

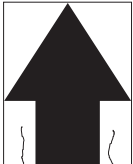
(11) The leading edge of the image is consistently misaligned with the original.

Print example	Causes	Check procedures/corrective measures
	Misadjusted leading edge registration.	Run maintenance mode U034 to readjust the leading edge registration (see page 1-3-20).
	Misadjusted scanner leading edge registration.	Run maintenance mode U066 to readjust the scanner leading edge registration (see page 1-3-29).

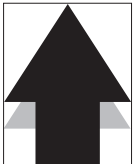
(12) The leading edge of the image is sporadically misaligned with the original.

Print example	Causes	Check procedures/corrective measures
	Paper feed clutch, registration clutch or duplex clutch operating incorrectly.	Check the installation of the clutch. If it operates incorrectly, replace it.


(13) Paper is wrinkled.

Print example	Causes	Check procedures/corrective measures
	Paper curled.	Check the paper storage conditions.
	Paper damp.	Check the paper storage conditions.
	Defective pressure springs.	Replace the fuser unit (see page 1-5-21).

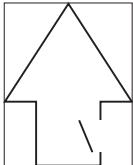
(14) Offset occurs.

Print example	Causes	Check procedures/corrective measures
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-19).
	Defective fuser unit.	Replace the fuser unit (see page 1-5-21).
	Wrong types of paper.	Check if the paper meets specifications. Replace paper.


(15) Part of image is missing.

Print example	Causes	Check procedures/corrective measures
	Paper damp.	Check the paper storage conditions.
	Paper creased.	Replace the paper.
	Drum condensation.	Perform the drum refresh operation.
	Dirty or flawed drum.	Perform the drum refresh operation. Flawed drum. Replace the drum unit (see page 1-5-19).
	Dirty transfer roller.	Clean the transfer roller. Replace the transfer roller if it is extremely dirty (see page 1-5-20).


(16) Fusing is loose.

Print example	Causes	Check procedures/corrective measures
	Wrong types of paper.	Check if the paper meets specifications, replace paper.
	Flawed heat roller or press roller.	Replace the fuser unit (see page 1-5-21).
	Defective pressure springs.	
	Defective fuser heater.	

(17) Image is out of focus.

Print example	Causes	Check procedures/corrective measures
	Defective image scanning unit.	Replace the image scanning unit (see page 1-5-24).
	Drum condensation.	Perform the drum refresh operation.

(18) Image center does not align with the original center.

Print example	Causes	Check procedures/corrective measures
	Misadjusted image center line.	Run maintenance item U034 to readjust the center line of image printing (see page 1-3-20).
	Misadjusted scanner center line.	Run maintenance item U067 to readjust the scanner leading edge registration (see page 1-3-30).
	Original is not placed correctly.	Place the original correctly.

1-4-4 Electric problems

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

Problem	Causes	Check procedures/corrective measures
(1) The machine does not operate when the main power switch is turned on.	1. No electricity at the power outlet.	Measure the input voltage.
	2. The power cord is not plugged in properly.	Check the contact between the power plug and the outlet.
	3. Broken power cord.	Check for continuity. If none, replace the cord.
	4. Defective main power switch.	Check for continuity across the contacts. If none, replace the power switch.
	5. Defective interlock switch.	Check for continuity across the contacts of interlock switch. If none, replace the power source PWB (see page 1-5-35).
	6. Defective power source PWB.	Replace the power source PWB (see page 1-5-35).
(2) Eject motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Eject motor and engine PWB (YC6)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the eject motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(3) Power source fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Power source fan motor and main PWB (YC22)
	2. Defective motor.	Replace the power source fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(4) Eject fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Eject fan motor and engine PWB (YC4)
	2. Defective motor.	Replace the eject fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Problem	Causes	Check procedures/corrective measures
(5) Controller fan motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Controller fan motor and main PWB (YC41)
	2. Defective motor.	Replace the controller fan motor.
	3. Defective PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).
(6) ISU motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. ISU motor and engine PWB (YC14)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the ISU motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(7) Paper feed clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper feed clutch and engine PWB (YC1)
	2. Defective clutch.	Replace the paper feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(8) Registration clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Registration clutch and engine PWB (YC1)
	2. Defective clutch.	Replace the registration clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(9) Duplex clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Duplex clutch and engine PWB (YC1)
	2. Defective clutch.	Replace the duplex clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(10) MP solenoid does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP solenoid and engine PWB (YC1)
	2. Defective solenoid.	Replace the MP solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

Problem	Causes	Check procedures/corrective measures
(11) Feedshift solenoid does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Feedshift solenoid and engine PWB (YC5)
	2. Defective solenoid.	Replace the Feedshift solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(12) The message requesting paper to be loaded is shown when paper is present on the cassette.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper sensor and engine PWB (YC2)
	2. Deformed actuator of the paper sensor.	Check visually and replace if necessary.
	3. Defective paper sensor.	Replace the cassette PWB.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(13) The message requesting paper to be loaded is shown when paper is present on the MP tray.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP paper sensor and engine PWB (YC3)
	2. Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
	3. Defective MP paper sensor.	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(14) The size of paper on the cassette is not displayed correctly.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper size width switch and engine PWB (YC2) Paper size length switch and engine PWB (YC2)
	2. Defective cassette size switch.	Replace the paper size width switch or paper size length switch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(15) A paper jam in the paper feed, paper conveying or eject section is indicated when the main power switch is turned on.	1. A piece of paper torn from paper is caught around registration sensor, duplex sensor, feed sensor or eject sensor.	Check visually and remove it, if any.
	2. Defective sensor.	Replace the registration sensor, duplex sensor, feed sensor or eject sensor.

Problem	Causes	Check procedures/corrective measures
(16) A message indicating cover open is displayed when the front cover or right cover is closed.	1. Deformed actuator of the interlock switch.	Check visually and replace if necessary.
	2. Defective interlock switch.	Replace the interlock switch.
(17) The LED lamp does not turn on when original is present on the DP.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP original sensor and DP main PWB (YC3) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective DP original sensor.	Replace the DP original sensor.
	3. Defective PWB.	Replace the DP LED PWB and check for correct operation.
		Replace the engine PWB and check for correct operation (see page 1-5-35).
(18) The size of original on the DP is not displayed correctly.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP original size width sensor and DP main PWB (YC4) DP original size length sensor and DP main PWB (YC2) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective original size sensor.	Replace the DP original size width sensor or DP original size length sensor.
	3. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32, 1-5-35).
(19) DP paper feed motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP paper feed motor and DP main PWB (YC9) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP paper feed motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32, 1-5-35).
(20) DP switchback motor does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP switchback motor and DP main PWB (YC9) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP switchback motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32, 1-5-35).

Problem	Causes	Check procedures/corrective measures
(21) DP paper feed clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP paper feed clutch and DP main PWB (YC8) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective clutch.	Replace the DP paper feed clutch.
	3. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32, 1-5-35).
(22) DP registration clutch does not operate.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP registration clutch and DP main PWB (YC8) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective clutch.	Replace the DP registration clutch.
	3. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32, 1-5-35).
(23) An original jams when the main power switch is turned on.	1. A piece of paper torn from an original is caught around the DP paper feed sensor, DP registration sensor or DP timing sensor.	Check visually and remove it, if any.
	2. Defective sensor.	Replace the DP paper feed sensor, DP registration sensor or DP timing sensor.
(24) A message indicating cover open is displayed when the DP top cover is closed.	1. Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP open/close sensor and DP main PWB (YC5) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective DP open/close sensor.	Replace the DP open/close sensor.

1-4-5 Mechanical problems

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

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Pickup roller Paper feed roller MP paper feed roller	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller MP paper feed roller	Check visually and replace any deformed (see page 1-5-10, 1-5-11).
	Defective paper feed clutch installation.	Check visually and remedy if necessary.
(2) No secondary paper feed.	Check if the surfaces of the following rollers are dirty with paper powder. Upper registration roller Lower registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4) Multiple sheets of paper are fed.	Check if the paper is excessively curled.	Change the paper.
	Paper is loaded incorrectly.	Load the paper correctly.
	Check if the retard roller is worn.	Replace the retard roller if it is worn (see page 1-5-10).
(5) Paper jams.	Check if the paper is excessively curled.	Change the paper.
	Check if the contact between the upper and lower registration rollers is correct.	Check visually and remedy if necessary.
	Check if the heat roller or press roller is extremely dirty or deformed.	Check visually and replace the fuser unit (see page 1-5-21).
(6) Toner drops on the paper conveying path.	Check if the drum unit or developer unit is extremely dirty.	Clean the drum unit or developer unit.
(7) Abnormal noise is heard.	Check if the rollers, pulleys and gears operate smoothly.	Grease the bushes and gears.
	Check if the following clutches are installed correctly. Paper feed clutch Registration clutch Duplex clutch	Check visually and remedy if necessary.

Problem	Causes/check procedures	Corrective measures
(8) No primary original feed.	Check if the surfaces of the following pulleys are dirty with paper powder. DP forwarding pulley DP paper feed roller	Clean with isopropyl alcohol.
	Check if the following pulleys is deformed. DP forwarding pulley DP paper feed roller	Check visually and replace any deformed (see page 1-5-30).
(9) Multiple sheets of original are fed.	Original is not correctly set.	Set the original correctly.
	Check if the DP separation pulley is worn.	Replace the DP separation pulley if it is worn (see page 1-5-30).
(10) Originals jam.	Originals outside the specifications are used.	Use only originals conforming to the specifications.
	Check if the surfaces of the following pulleys are dirty with paper powder. DP forwarding pulley DP paper feed roller	Clean with isopropyl alcohol.
	Check if the contact between the registration roller and registration pulley is correct.	Check visually and remedy if necessary.
	Check if the contact between the conveying roller and conveying pulley is correct.	Check visually and remedy if necessary.
	Check if the contact between the eject roller and eject pulley is correct.	Check visually and remedy if necessary.
	Check if the contact between the switchback roller and switchback pulley is correct.	Check visually and remedy if necessary.

1-4-6 Send error code

This section describes the scanning errors and descriptions, preventive actions, as well as corrective actions. Error codes not described here could fall within software errors.

If such an error is encountered, turn power off then on, and advise the service representative.

(1) Scan to SMB error codes

Code	Contents	Check procedures/corrective measures
1101	Host destined does not exist on the network.	<ol style="list-style-type: none"> 1. Confirm destined host. 2. Confirm device's network parameters. 3. Confirm the network parameters the device is connected.
1102	Login to the host has failed.	<ol style="list-style-type: none"> 1. Confirm user name and password. 2. Confirm the network parameters the device is connected. 3. Check the host if the folder is properly shared.
1103	Destined host, folder, and/or file names are invalid.	<ol style="list-style-type: none"> 1. Check illegal characters are not contained within these names. 2. Check the name of the folder and files conform with the naming syntax. 3. Confirm destined host and folder.
1105	SMB protocol is not enabled.	<ol style="list-style-type: none"> 1. Confirm device's SMB protocols.
2101	Login to the host has failed.	<ol style="list-style-type: none"> 1. Confirm destined host. 2. Confirm that the LAN cable is properly connected to the device. 3. Check the SMB port number. 4. Confirm device's network parameters. 5. Confirm the network parameters the device is connected.
2201	Writing scanned data has failed.	<ol style="list-style-type: none"> 1. Check the scanning file name. 2. Confirm device's network parameters. 3. Confirm the network parameters the device is connected.

(2) Scan to FTP error codes

Code	Contents	Check procedures/corrective measures
1101	FTP server does not exist on the network.	<ol style="list-style-type: none"> 1. Check the FTP server name. 2. Confirm device's network parameters. 3. Confirm the network parameters the device is connected.
1102	Login to the FTP server has failed.	<ol style="list-style-type: none"> 1. Confirm user name and password. 2. Check the FTP server name.
1103	Destined folder is invalid.	<ol style="list-style-type: none"> 1. Check illegal characters are not contained within these names. 2. Check the FTP server name.
1105	FTP protocol is not enabled.	<ol style="list-style-type: none"> 1. Confirm device's FTP protocols.
1131	Initializing TLS has failed.	<ol style="list-style-type: none"> 1. Confirm device's security parameters.
1132	TLS negotiation has failed.	<ol style="list-style-type: none"> 1. Confirm device's security parameters. 2. Check the FTP server name.
2101	Access to the FTP server has failed.	<ol style="list-style-type: none"> 1. Check the FTP server name. 2. Confirm that the LAN cable is properly connected to the device. 3. Check the FTP port number. 4. Confirm device's network parameters. 5. Confirm the network parameters the device is connected. 6. Check the FTP server name.
2102	Access to the FTP server has failed. (Connection timeout)	<ol style="list-style-type: none"> 1. Check the FTP server name. 2. Check the FTP port number. 3. Confirm device's network parameters. 4. Confirm the network parameters the device is connected. 5. Check the FTP server name.
2201	Connection with the FTP server has failed.	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected. 3. Confirm destined folder. 4. Check the FTP server name.
2202	Connection with the FTP server has failed. (Timeout)	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected.
2231	Connection with the FTP server has failed. (FTPS communication)	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected.
3101	FTP server responded with an error.	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected. 3. Check the FTP server.

(3) Scan to E-mail error codes

Code	Contents	Check procedures/corrective measures
1101	SMTP/POP3 server does not exist on the network.	<ol style="list-style-type: none"> 1. Check the SMTP/POP3 server name. 2. Confirm device's network parameters. 3. Confirm the network parameters the device is connected.
1102	Login to the SMTP/POP3 server has failed.	<ol style="list-style-type: none"> 1. Confirm user name and password. 2. Check the SMTP/POP3 server.
1104	The domain the destined address belongs is prohibited by scanning restriction.	<ol style="list-style-type: none"> 1. Confirm device's SMTP parameters.
1105	SMTP protocol is not enabled.	<ol style="list-style-type: none"> 1. Confirm device's SMTP protocols.
1106	Sender's address is not specified.	<ol style="list-style-type: none"> 1. Confirm device's SMTP protocols.
2101	Connection to the SMTP/POP3 server has failed.	<ol style="list-style-type: none"> 1. Check the SMTP/POP3 server name. 2. Confirm that the LAN cable is properly connected to the device. 3. Check the SMTP/POP3 port number. 4. Confirm device's network parameters. 5. Confirm the network parameters the device is connected. 6. Check the SMTP/POP3 server.
2102	Connection to the SMTP/POP3 server has failed. (Connection timeout)	<ol style="list-style-type: none"> 1. Check the SMTP/POP3 server name. 2. Check the SMTP/POP3 port number. 3. Confirm device's network parameters. 4. Confirm the network parameters the device is connected. 5. Check the SMTP/POP3 server.
2201	Connection to the SMTP/POP3 server has failed.	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected.
2202	Connection to the SMTP/POP3 server has failed. (Timeout)	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected.
2204	The size of scanning exceeded its limit.	<ol style="list-style-type: none"> 1. Confirm device's network parameters.
3101	SMTP/POP3 server responded with an error.	<ol style="list-style-type: none"> 1. Confirm device's network parameters. 2. Confirm the network parameters the device is connected. 3. Check the SMTP/POP3 server.
3201	No SMTP authentication is found.	<ol style="list-style-type: none"> 1. Check the SMTP server. 2. The device supports SMTP authentication services including CRAM-MD5, DIGEST-MD5, PLAIN and LOGIN.

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1-5-1 Precautions for assembly and disassembly

(1) Precautions

Before starting disassembly, press the Power key on the operation panel to off. Make sure that the Power lamp is off before turning off the main power switch. Unplug the power cable from the wall outlet.

When the fax kit is installed, be sure to disconnect the modular code before starting disassembly.

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

The PWBs are susceptible to static charge.

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

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

Take care not to get the cables caught.

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

(2) Drum unit

Note the following when handling or storing the drum unit.

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

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

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

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

(3) Toner

Store the toner container in a cool, dark place.

Avoid direct light and high humidity.

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

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

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

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

A shiny or gold-colored band when seen through the right side window (☼)

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

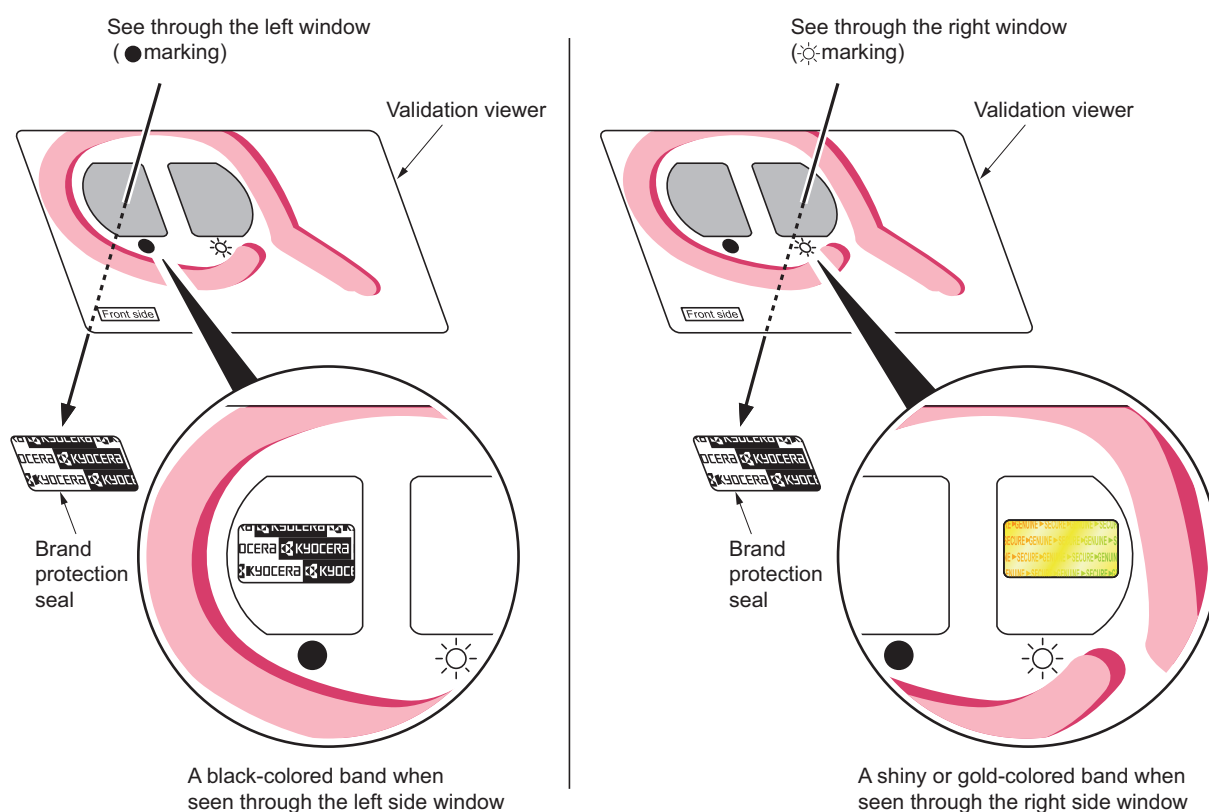


Figure 1-5-1

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

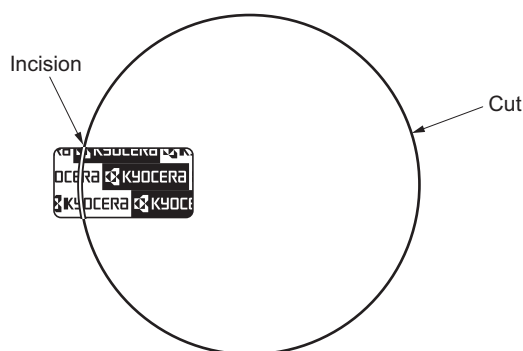


Figure 1-5-2

1-5-2 Outer covers

(1) Detaching and refitting the front cover

Procedure

1. Remove the cassette.
(See page 1-5-10)
2. Open the front cover.

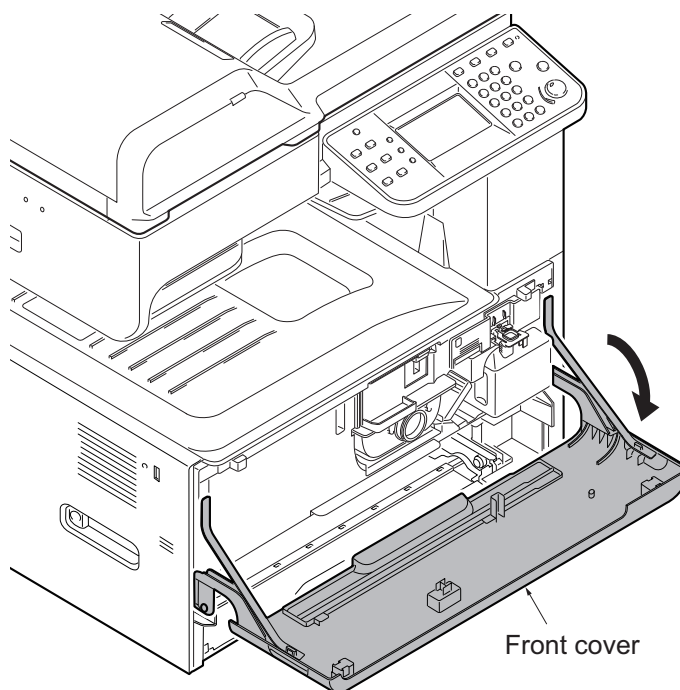


Figure 1-5-3

3. Unhitch the straps by squeezing the hooks inward as shown.

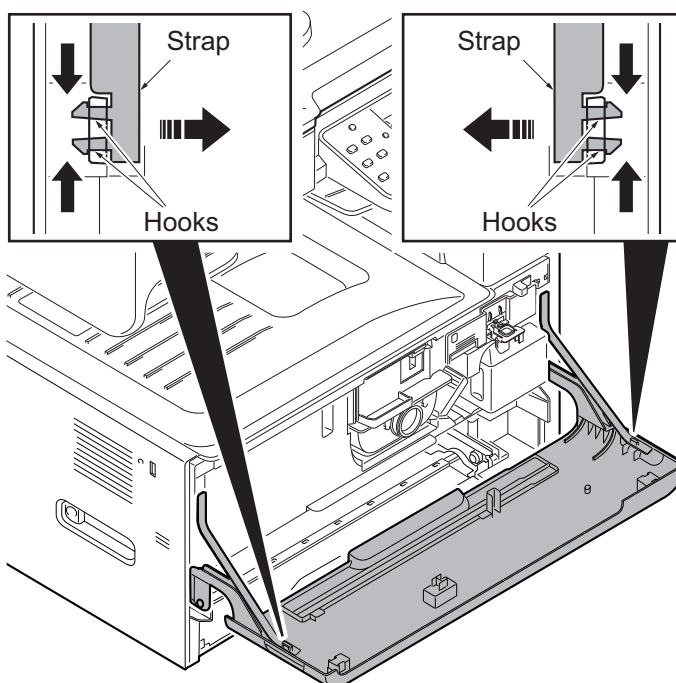


Figure 1-5-4

4. Remove two fulcrum axes of the front cover.
5. Remove the front cover.

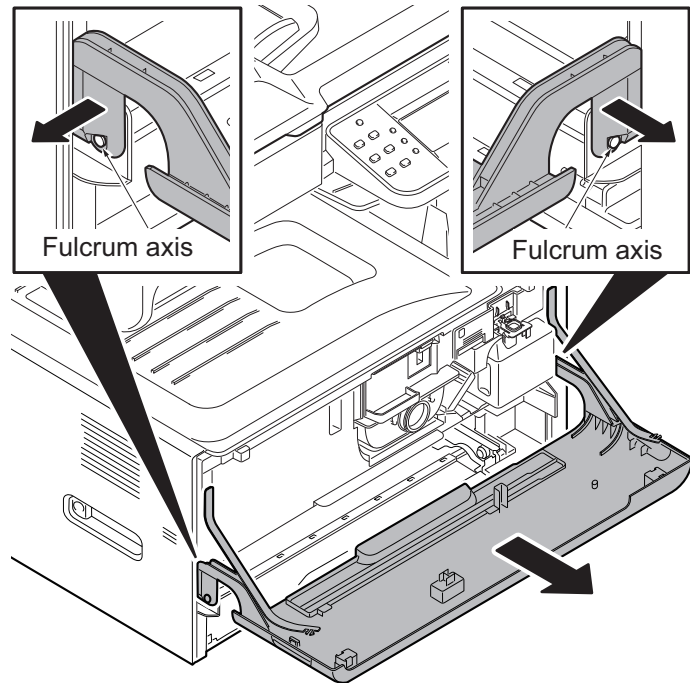


Figure 1-5-5

(2) Detaching and refitting the rear cover

Procedure

1. Remove the power cord.
If the document feeder is installed, remove its interface connector.
2. Remove two screws of the DP interface connector and then remove the DP interface connector.
(See page 1-5-29)
3. Remove the controller box cover.
4. Remove six screws.
5. Pull the rear cover upwards and then release three hooks.
6. Remove the rear cover.

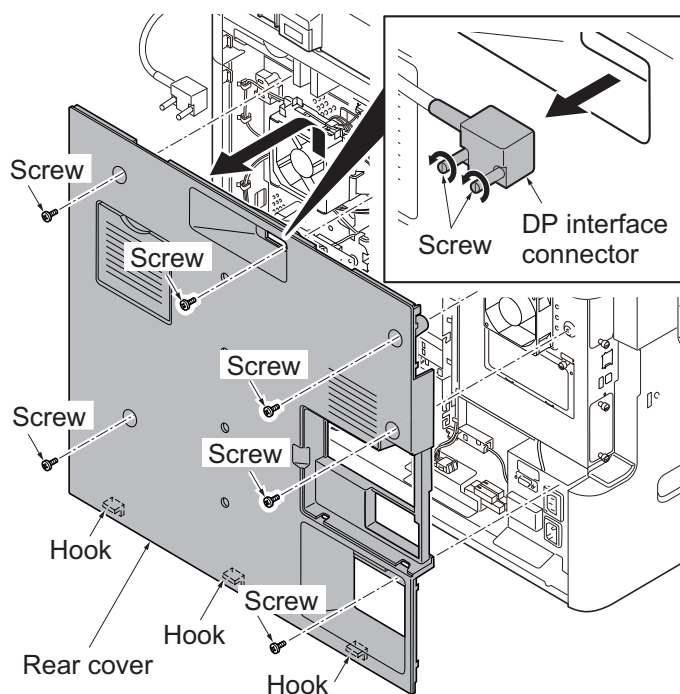


Figure 1-5-6

(3) Detaching and refitting the inner tray

Procedure

1. Release the lock lever and then remove the job separator tray.

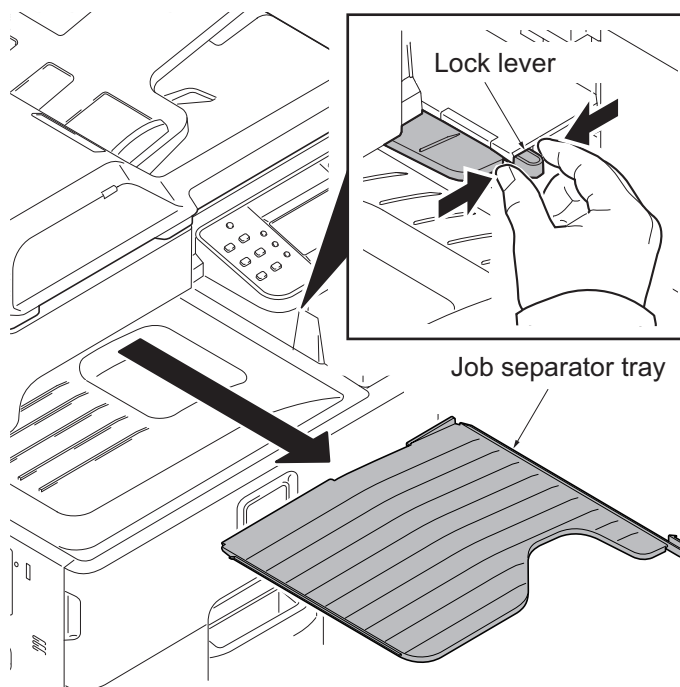


Figure 1-5-7

2. Remove the cassette.
(See page 1-5-10)
3. Open the front cover.(See page 1-5-3)
4. Remove two screws.
5. Release three hooks A.
6. Pull the left lower cover upwards and then release nine hooks B.
7. Remove the left lower cover.

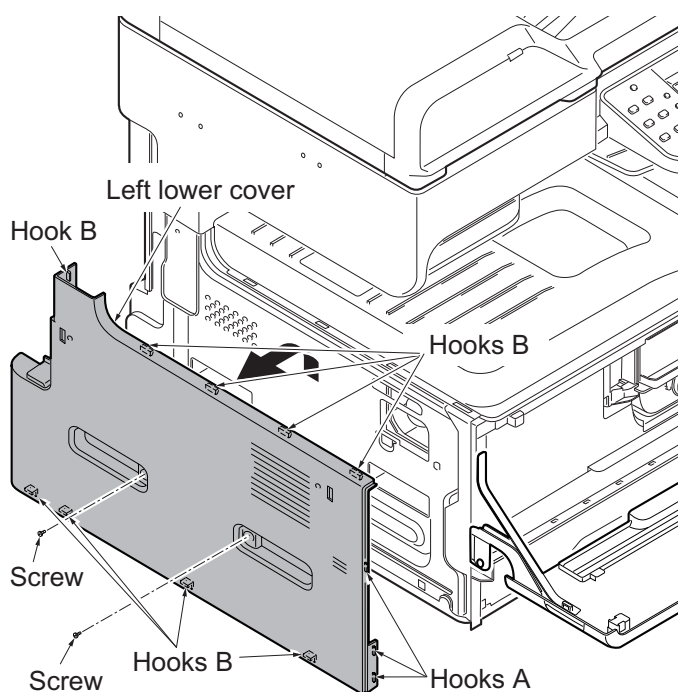
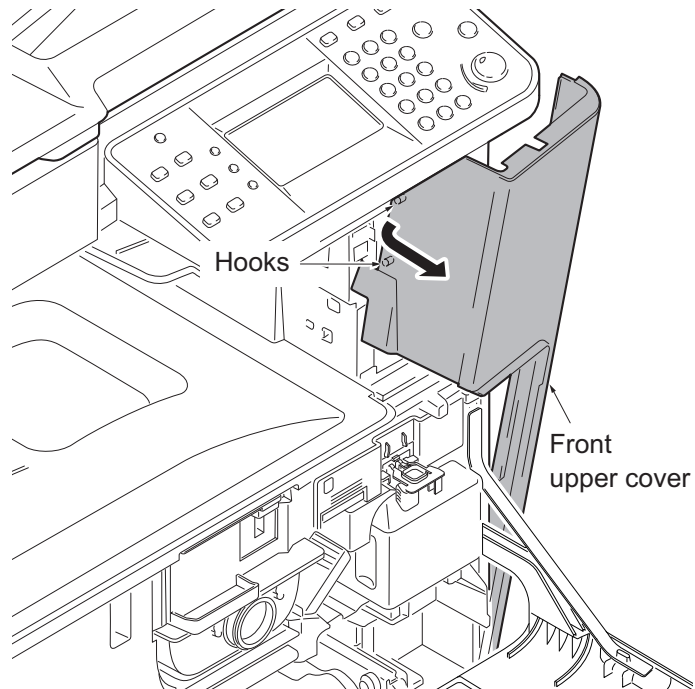
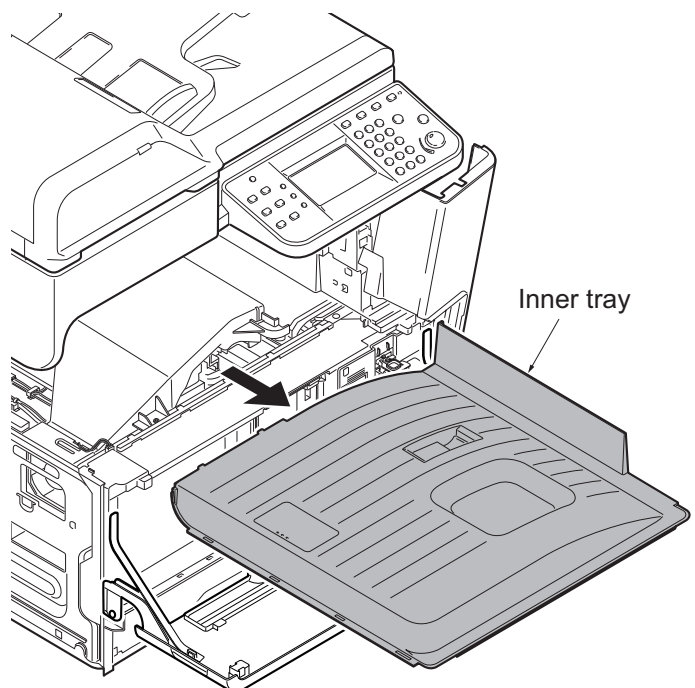


Figure 1-5-8

8. Release two hooks of the front upper cover.
9. Tilt the front upper cover forward.

**Figure 1-5-9**

10. Remove the inner tray.

**Figure 1-5-10**

(4) Detaching and refitting the eject rear cover

Procedure

1. Release the hook by using a flat screwdriver and then remove the tray left cover.

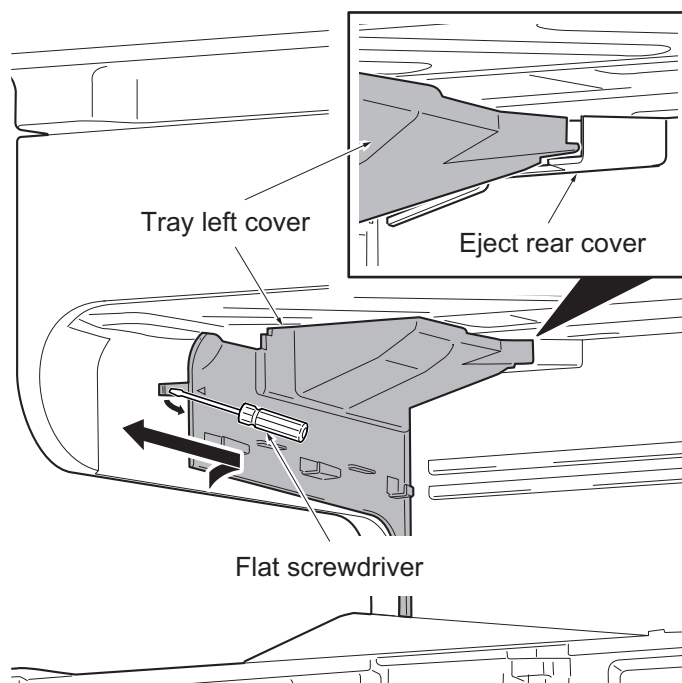


Figure 1-5-11

2. Release the hook of the left upper cover at the rear side.
3. Pull the left upper cover upwards and then release three hooks.
4. Remove the left upper cover.

ATTENTION: At the time of replace the left upper cover, confirm the position of the scanner lock lever .

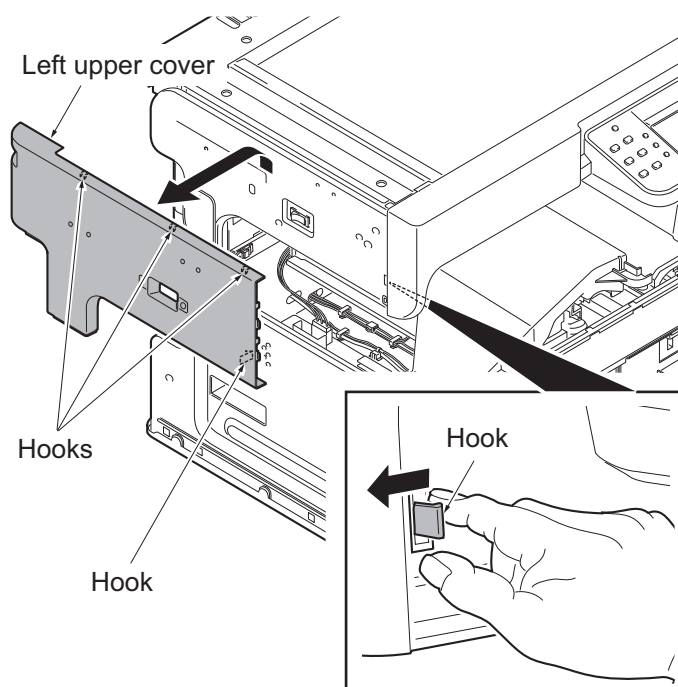


Figure 1-5-12

5. Remove the eject upper cover while supporting the rear tray cover.

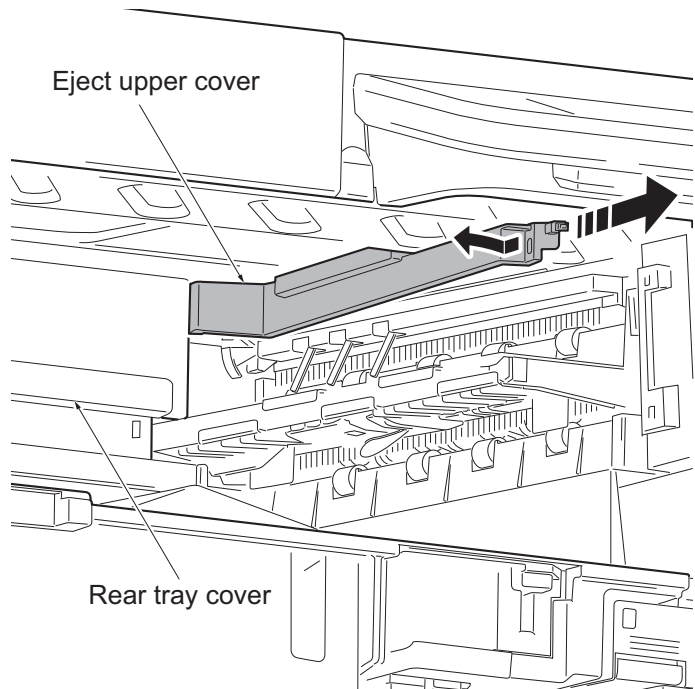


Figure 1-5-13

6. Remove the rear tray cover.

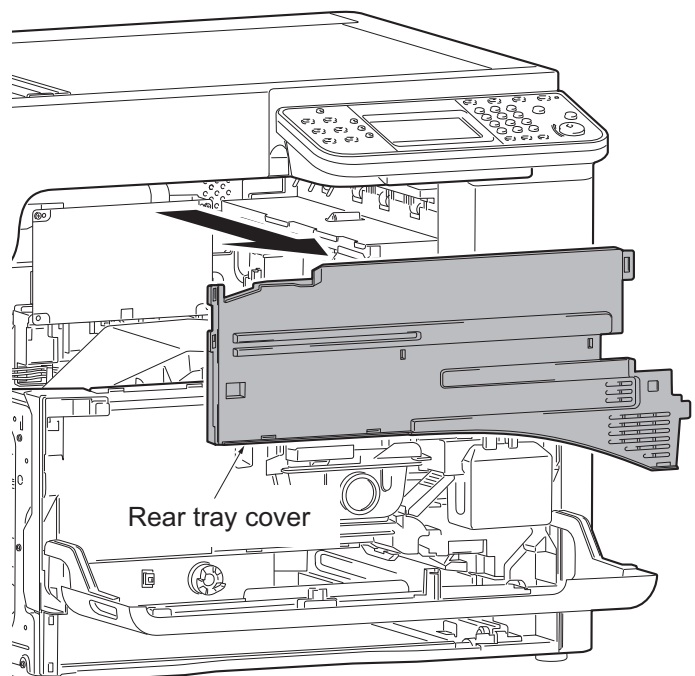


Figure 1-5-14

1-5-3 Paper feed section

(1) Detaching and refitting the primary paper feed unit

Procedure

1. Remove the cassette.

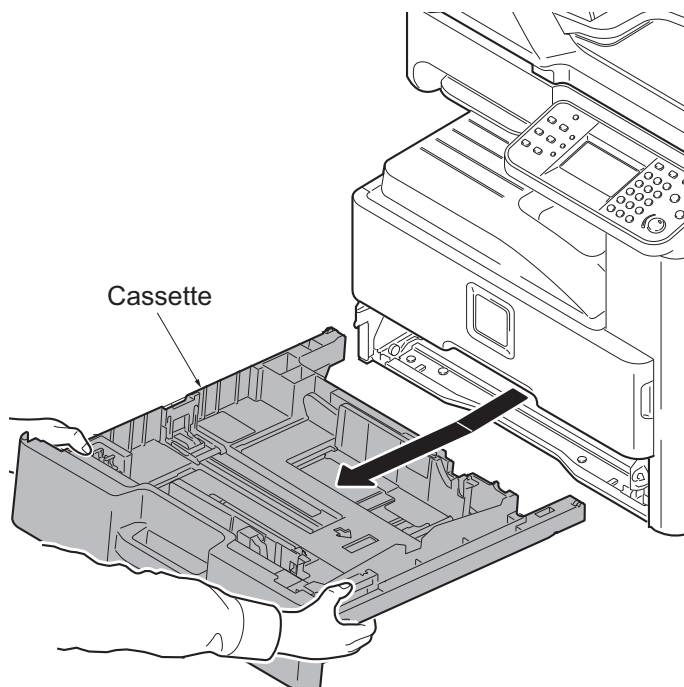


Figure 1-5-15

2. Release the feed lever (yellow) and then remove the primary feed unit.
3. Check or replace the primary paper feed unit and refit all the removed parts.

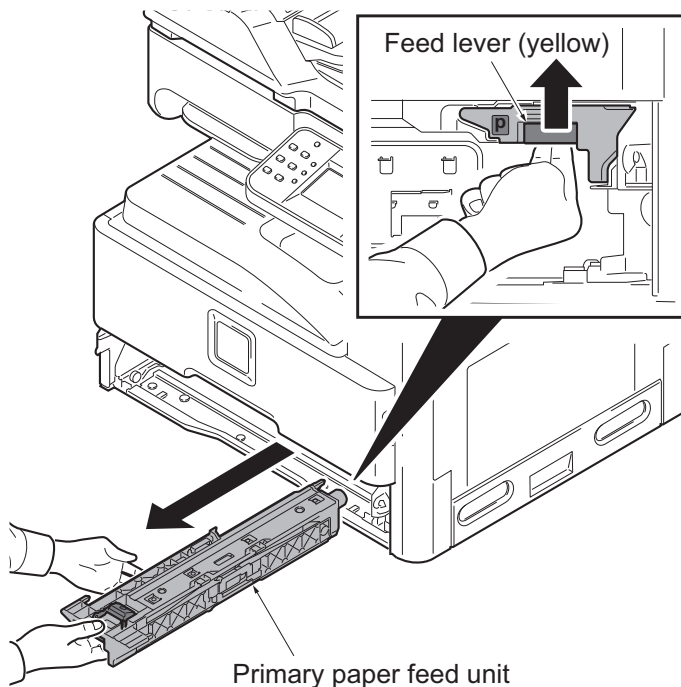


Figure 1-5-16

(2) Detaching and refitting the MP paper feed roller and MP separation pad

Procedure

1. Open the right cover 1.

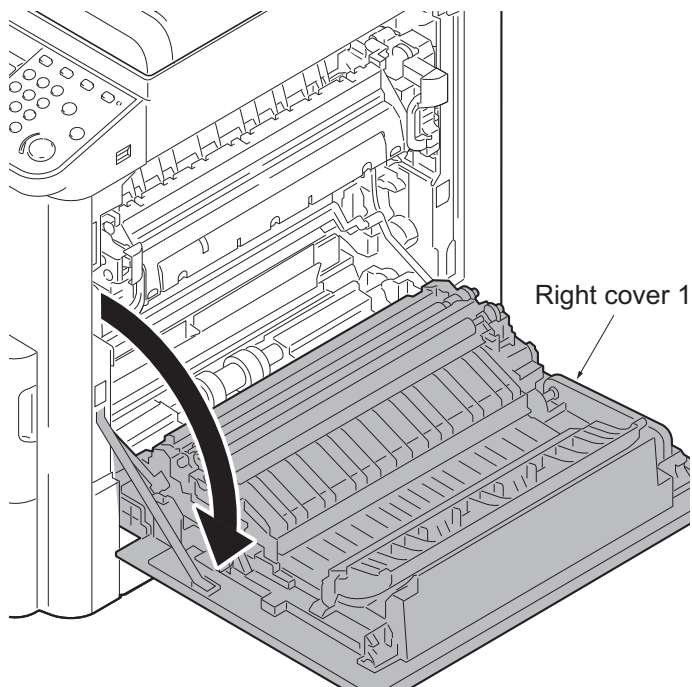


Figure 1-5-17

2. While squeezing the holder inward, remove the MP feed roller.

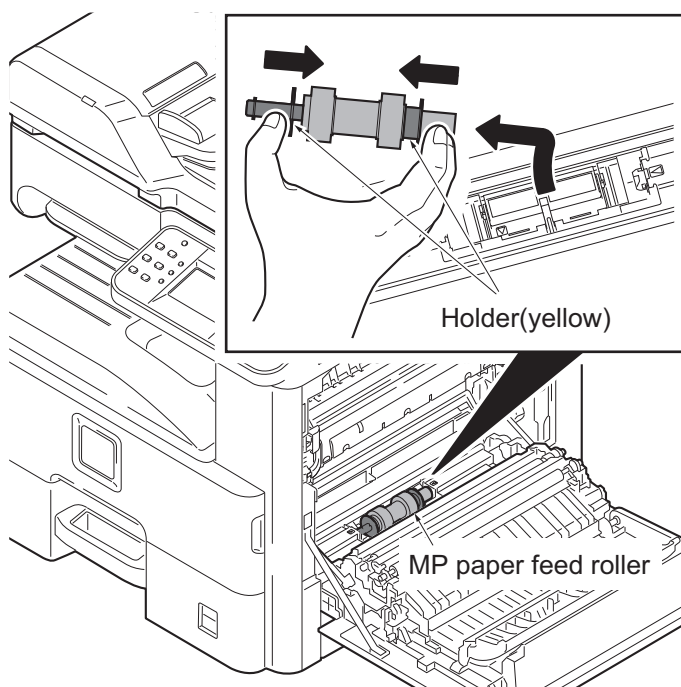


Figure 1-5-18

3. Tilt the MP separation pad forward and then remove it upwards.
4. Check or replace the MP paper feed roller and MP separation pad and refit all the removed parts.

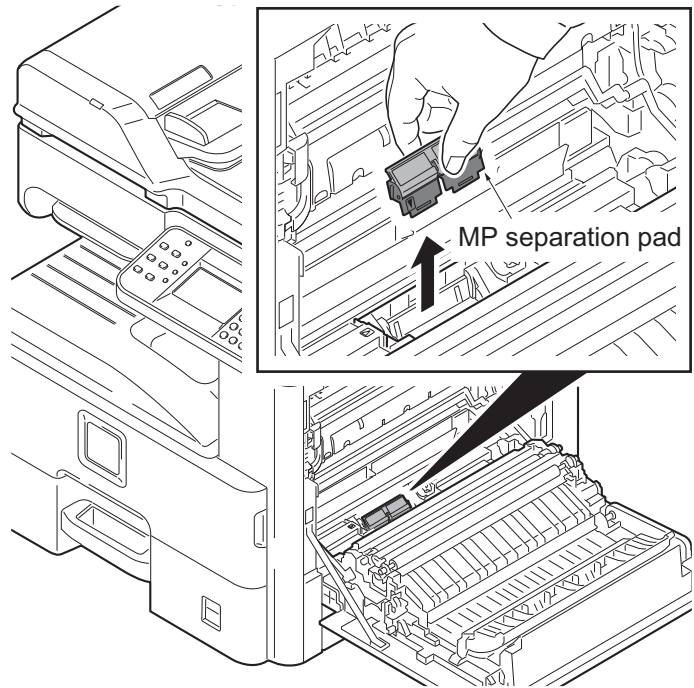


Figure 1-5-19

(3) Detaching and refitting the registration roller

Procedure

1. Open the right cover 1
(See page 1-5-11).
2. Remove the conveying unit.
(See page 1-5-39)
3. Release four hooks and then remove the feed guide A from the conveying unit.

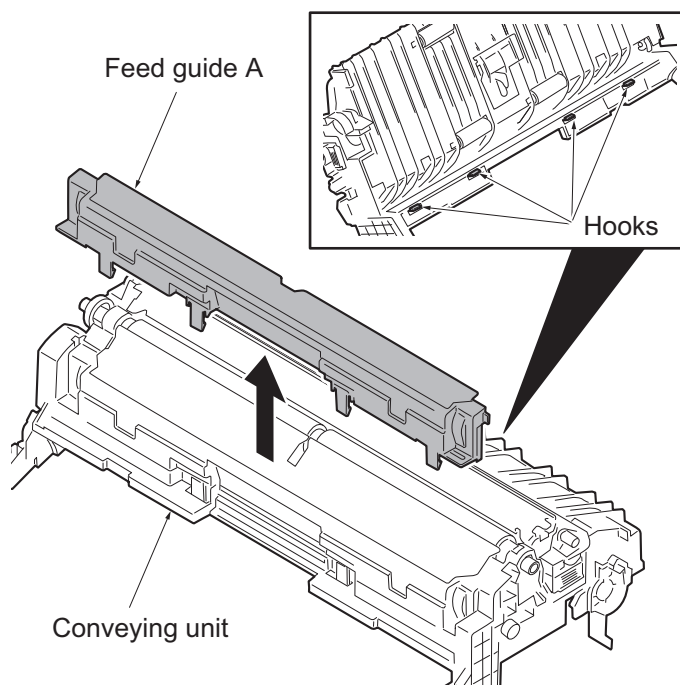


Figure 1-5-20

4. Release eight hooks and then remove the duplex conveying guide from the conveying unit.

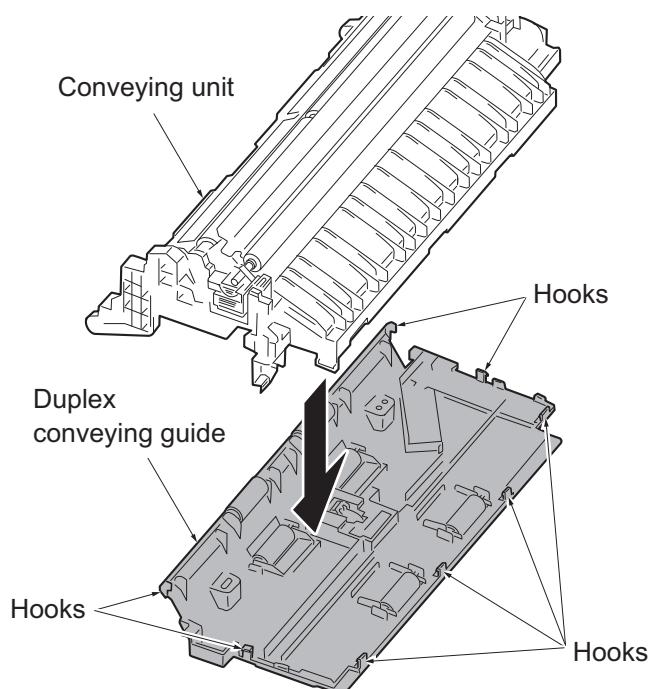


Figure 1-5-21

5. Remove a spring in the middle at the back of the conveying unit.

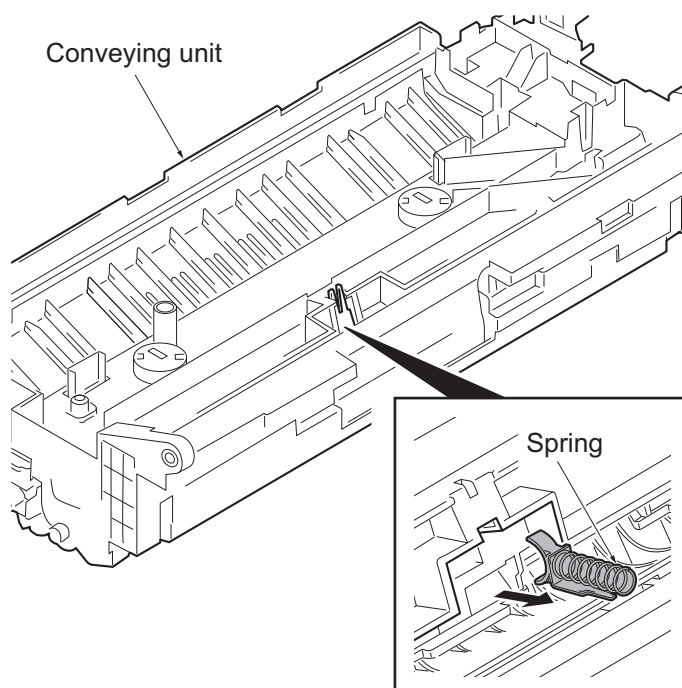


Figure 1-5-22

6. Remove the transfer roller unit.
(See page 1-5-20)
7. Remove two springs at the front and back of the registration roller.
8. Remove the cap and gear.
9. Slide and remove the registration roller.
10. Check or replace the registration roller and refit all the removed parts.

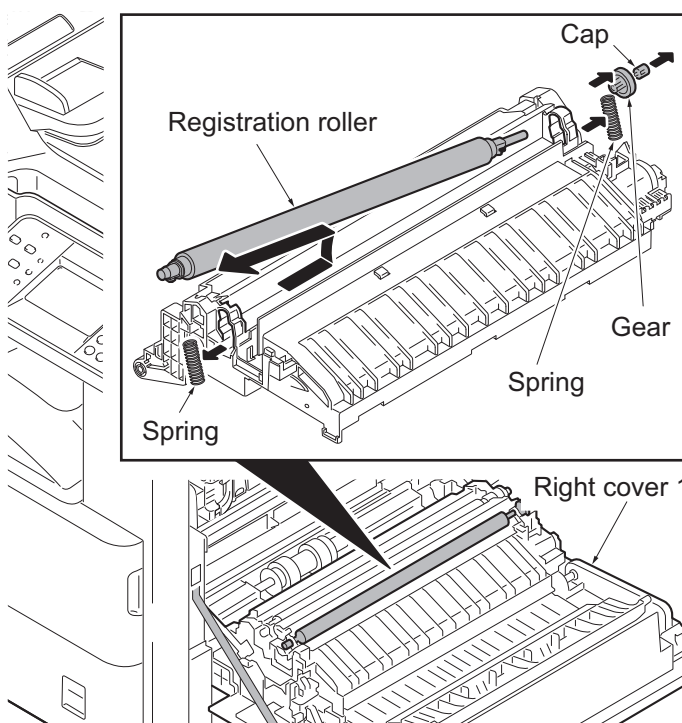


Figure 1-5-23

(4) Detaching and refitting the registration cleaner

Procedure

1. Open the right cover 1.
(See page 1-5-11)
2. Open the front cover. (See page 1-5-3)
3. Open the developing cover.
(See page 1-5-17)
4. Set the cleaner lever (yellow) up and draw the registration cleaner frontward.
5. Check or replace the registration cleaner and refit all the removed parts.

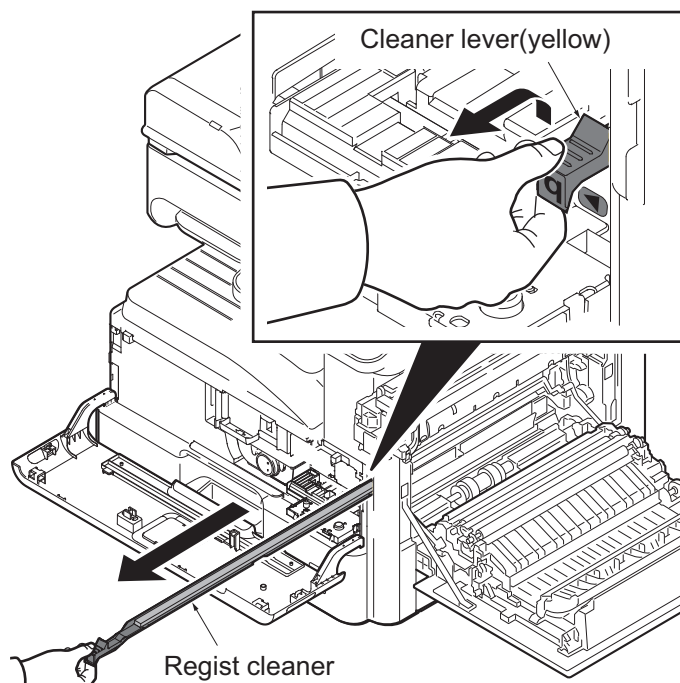


Figure 1-5-24

(5) Detaching and refitting the MP tray

Procedure

1. Open the MP tray.
2. Release two fulcrums of the MP tray by using a flat screwdriver.
3. Pull two straps upwards to remove.
4. Remove the MP tray.

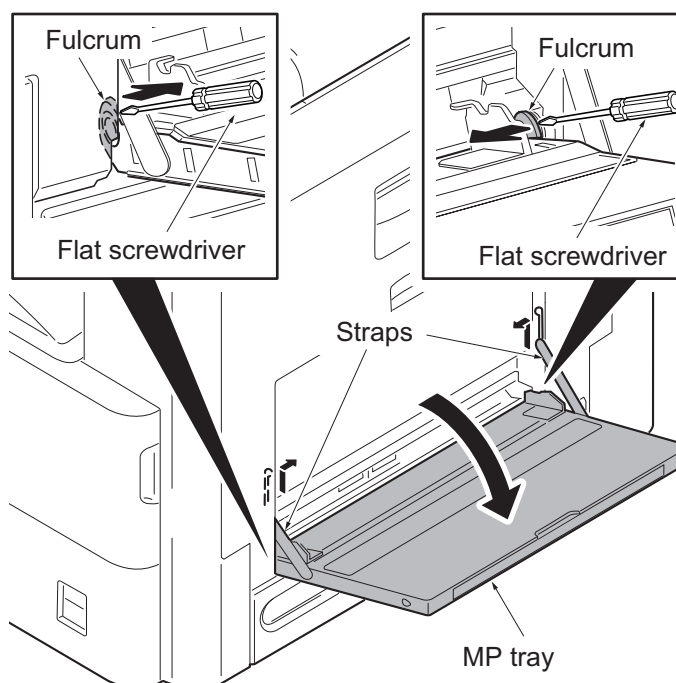


Figure 1-5-25

1-5-4 Developing section

(1) Detaching and refitting the developing unit

Procedure

1. Open the front cover. (See page 1-5-3)
2. Release the lock lever and then remove the waste toner box.

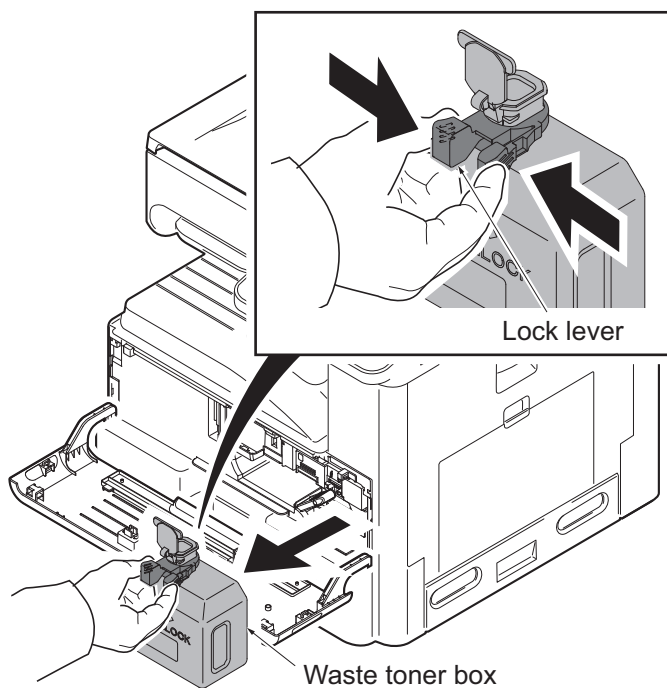


Figure 1-5-26

3. Release the toner container lever (blue) and then remove the toner container.

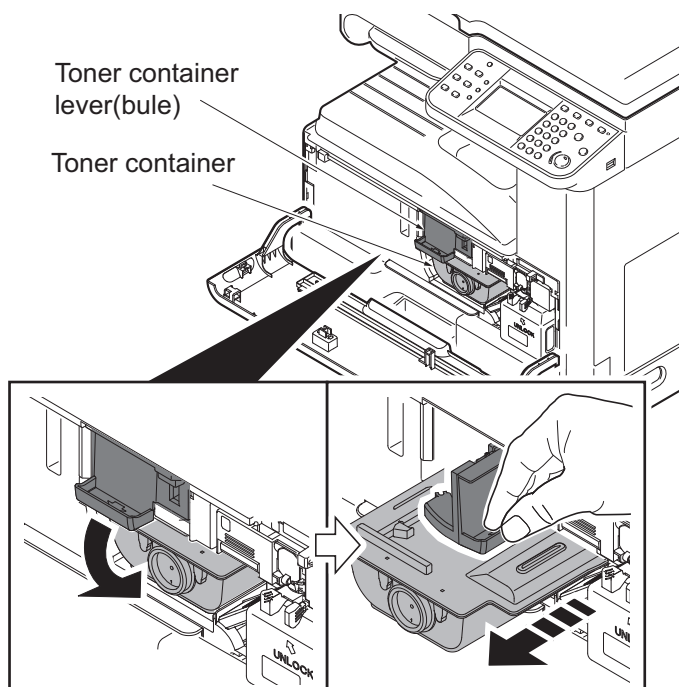


Figure 1-5-27

4. Release the lock lever (yellow).

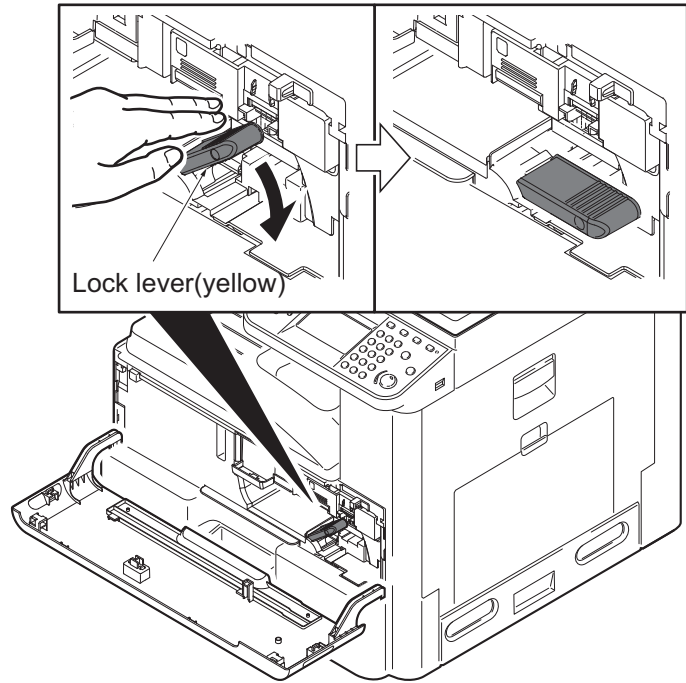


Figure 1-5-28

5. Release the lock lever (yellow) of the developing cover to open.

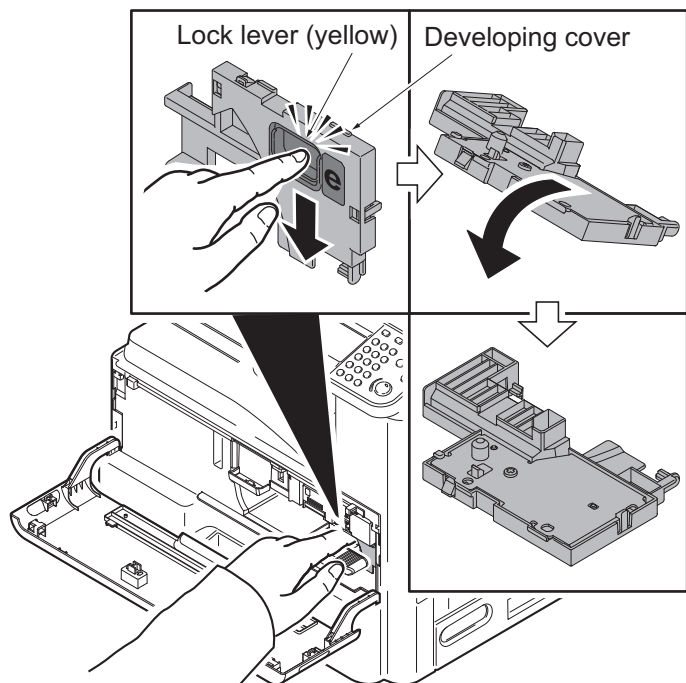


Figure 1-5-29

6. Release the lock lever (yellow) and then remove the developing unit.
7. Check or replace the developing unit and refit all the removed parts.

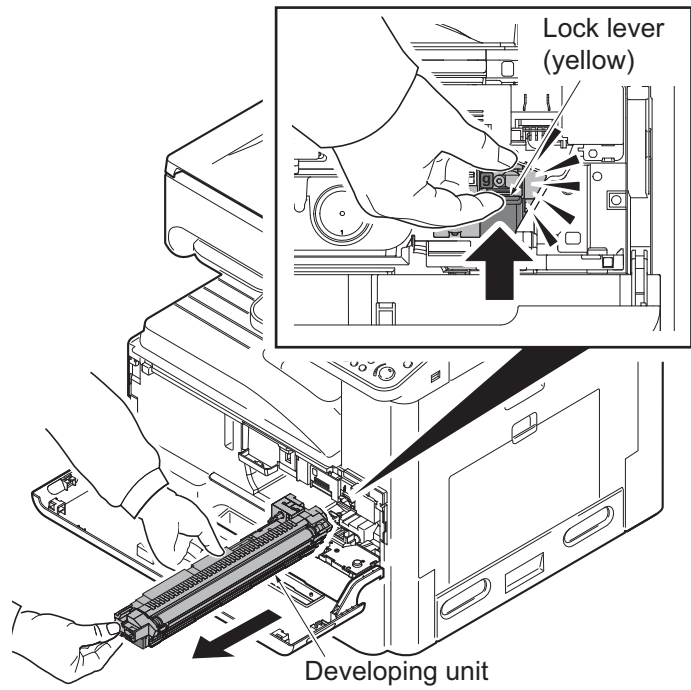


Figure 1-5-30

1-5-5 Drum section

(1) Detaching and refitting the drum unit

Procedure

1. Open the front cover. (See page 1-5-3)
2. Release the waste toner box.
(See page 1-5-16)
3. Release the lock lever and then open the developing cover.
(See page 1-5-17)
4. Open the right cover 1.
(See page 1-5-11)
5. Release the lock lever (yellow) and then remove the drum unit.
6. Check or replace the drum unit and refit all the removed parts.

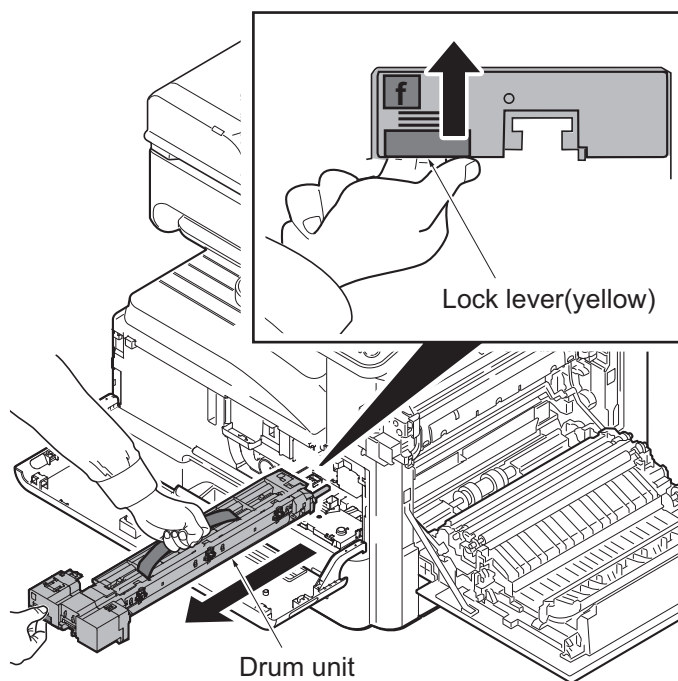


Figure 1-5-31

(2) Detaching and refitting the charger roller unit

Procedure

1. Remove the drum unit.
(See page 1-5-19)
2. Release the lock lever and then remove the charger roller unit.
3. Check or replace the charger roller unit and refit all the removed parts.

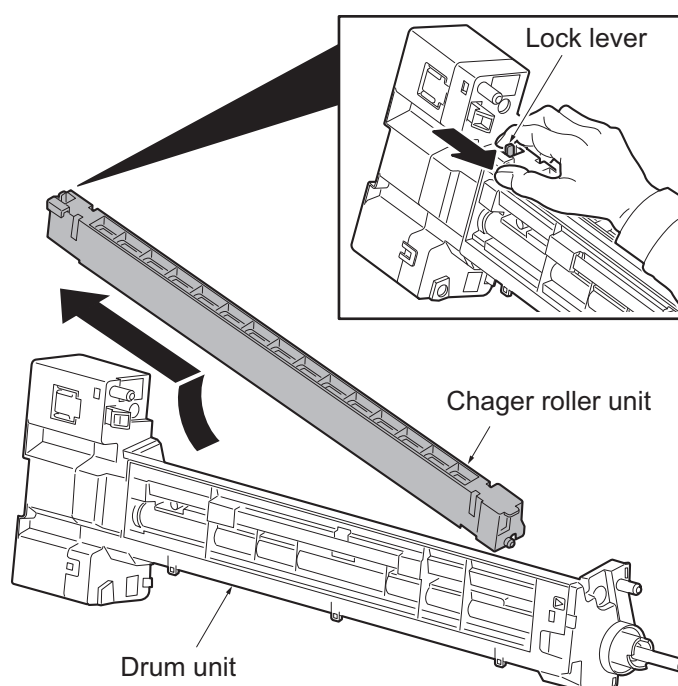


Figure 1-5-32

1-5-6 Transfer/separation section

(1) Detaching and refitting the transfer roller unit

Procedure

1. Open the right cover 1.
(See page 1-5-11)
2. Release two lock levers (yellow) and then remove the transfer roller unit.
3. Check or replace the transfer roller unit and refit all the removed parts.

CAUTION: Inserting the transfer roller unit in place until it click in, when refitting the transfer roller unit.

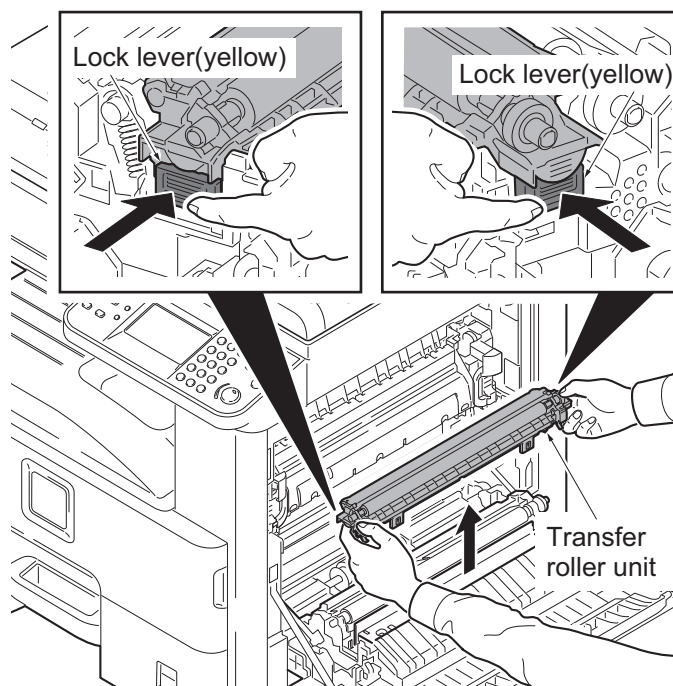


Figure 1-5-33

1-5-7 Fuser section

(1) Detaching and refitting the fuser unit

Procedure

1. Open the right cover 1.
(See page 1-5-11)
2. Cause two knobs (yellow).
3. Release the lock lever (blue) and then remove the fuser unit.
4. Check or replace the fuser unit and refit all the removed parts.

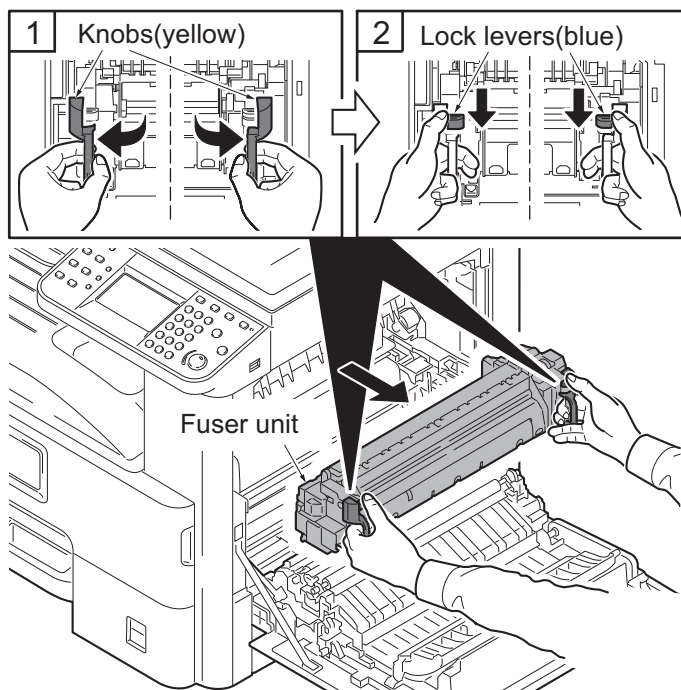


Figure 1-5-34

1-5-8 Drive section

(1) Detaching and refitting the main motor

Procedure

1. Remove the rear cover.
(See page 1-5-5)
2. Remove the connector from the engine PWB.
3. Remove the wire from the hook.
4. Remove four screws and then remove the main motor.

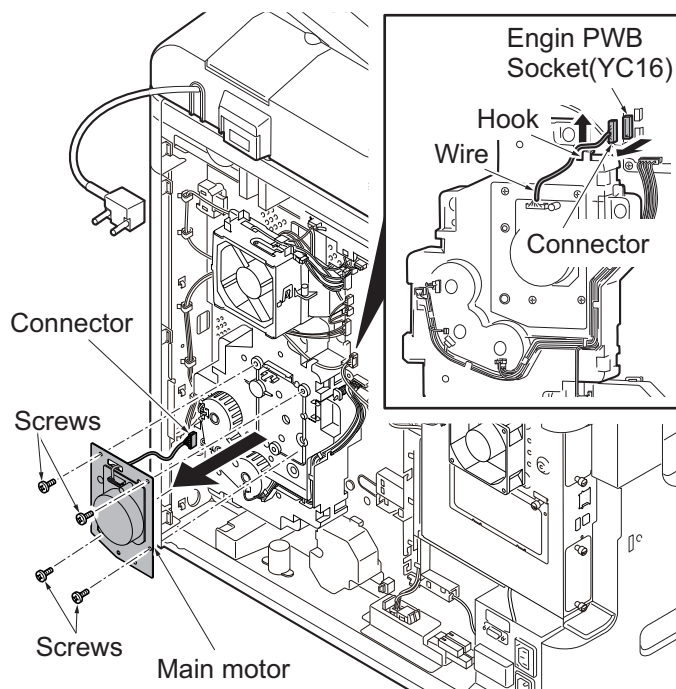


Figure 1-5-35

(2) Detaching and refitting the drive unit

Procedure

1. Remove the rear cover.
(See page 1-5-5)
2. Remove the connector from the engine PWB.
3. Remove five screws and then remove the drive unit.
4. Check or replace the drive unit and refit all the removed parts.

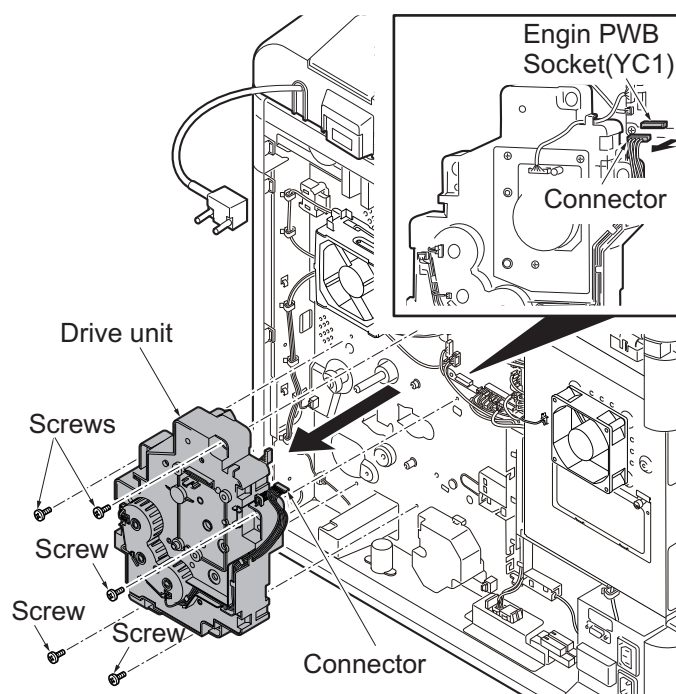


Figure 1-5-36

1-5-9 Optical section

(1) Detaching and refitting the laser scanner unit

Procedure

1. Remove the rear cover and inner tray. (See page 1-5-5, 1-5-6)
2. Remove the connector.
3. Remove the screw and then remove the power source fan motor.

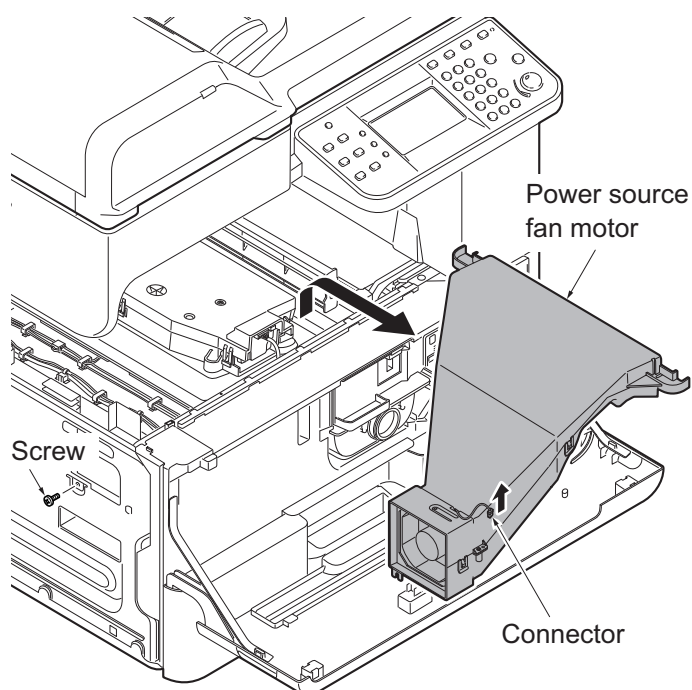


Figure 1-5-37

4. Remove the connector.
5. Remove four screws and then remove the laser scanner unit.
6. Check or replace the laser scanner unit and refit all the removed parts.

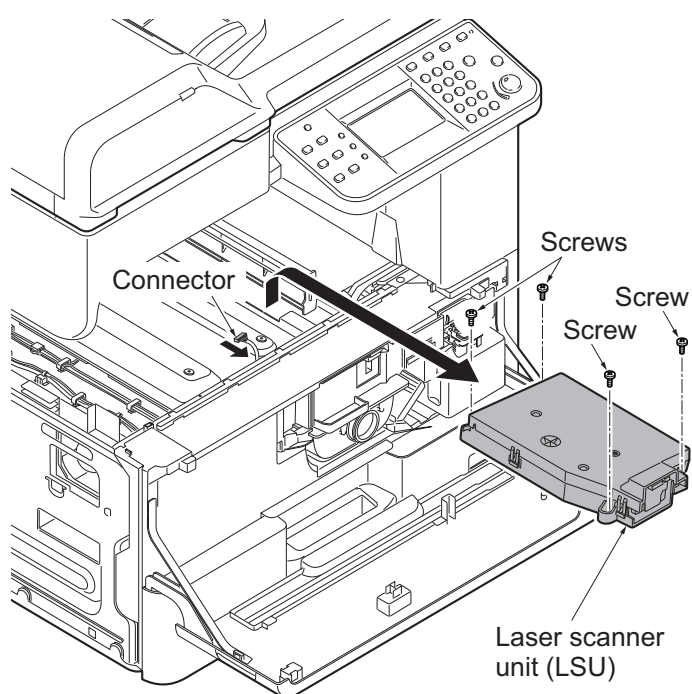


Figure 1-5-38

(2) Detaching and refitting the image scanner unit

Procedure

1. Remove the DP or original cover.
(See page 1-5-29)
2. Remove two screws and then remove the scanner right cover.

CAUTION: To reinstall the scanner right cover, position it close to the platen.

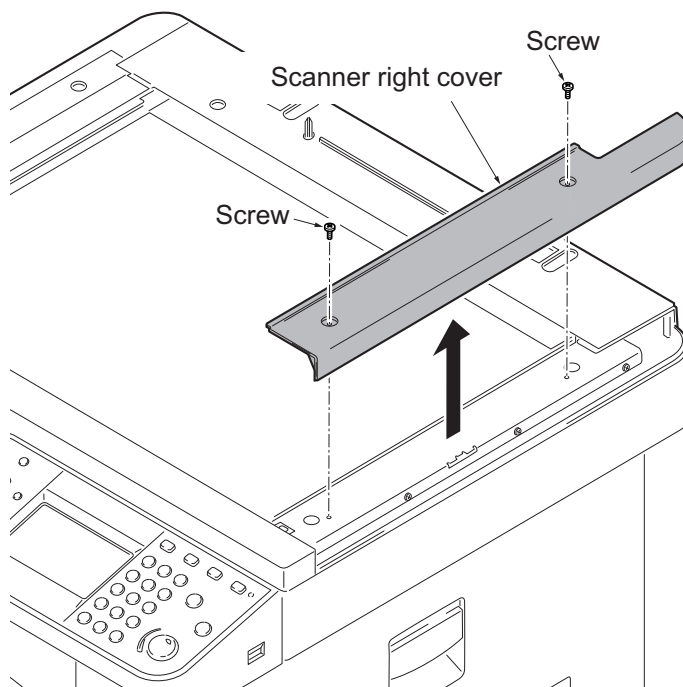


Figure 1-5-39

3. Remove the platen.

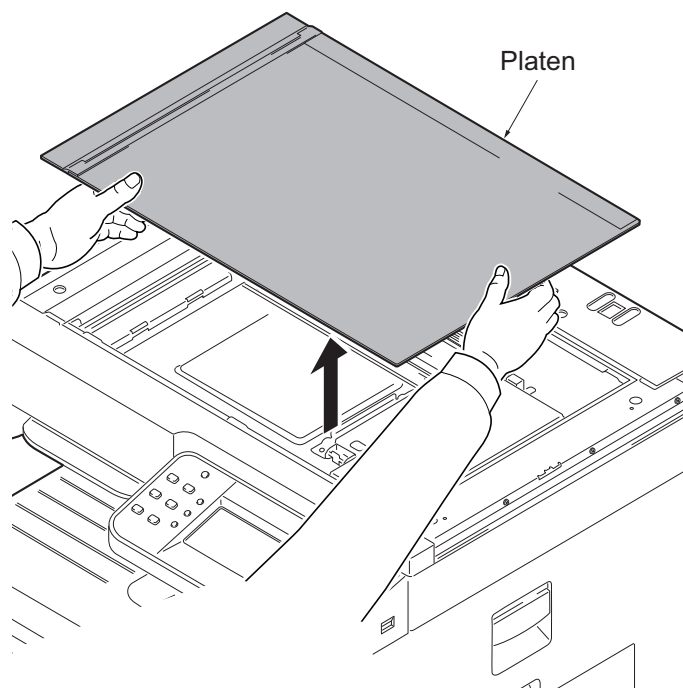


Figure 1-5-40

4. Remove four screws and then remove the scanner cover.

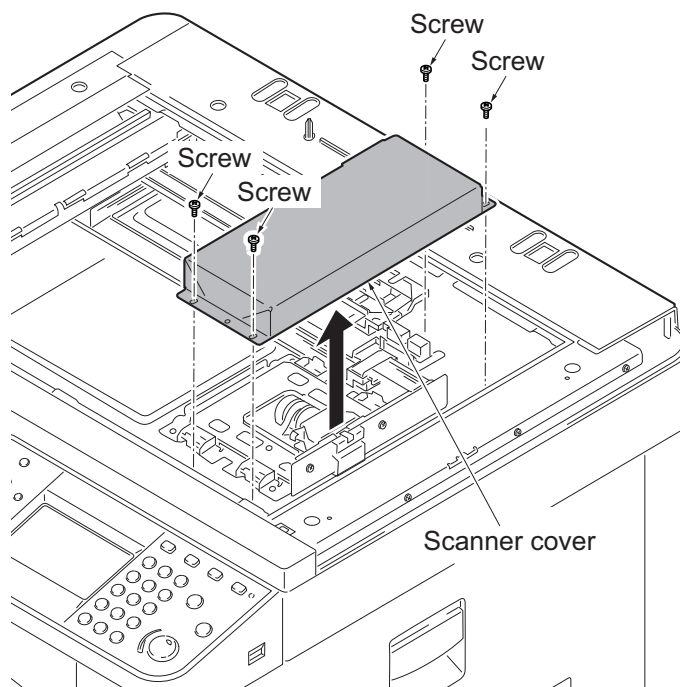


Figure 1-5-41

5. Remove the FFC from the connector.
6. Remove four screws and then remove the image scanner unit.

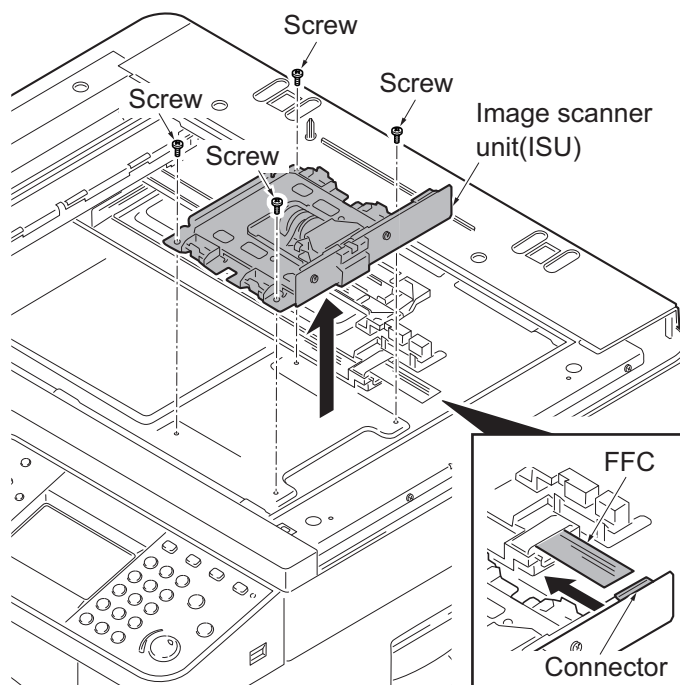


Figure 1-5-42

Refitting the ISU

7. When re-installation, fix the image scanner unit by matching to the scale of a former position.

When exchange, decide the fix position of ISU by the following.

The right and left of machine:

Confirm the number marked (a) and then match the line (c) of ISU to the positioning line (b) of same number on frame side.

(Line (c) is the one which is marked with the appropriate number.)

The rear and front of machine:

Match the edge (e) of ISU to the positioning line (d) on frame side.

8. Fix the ISU as before with four screws.
9. Check or replace the image scanner unit and refit all the removed parts.

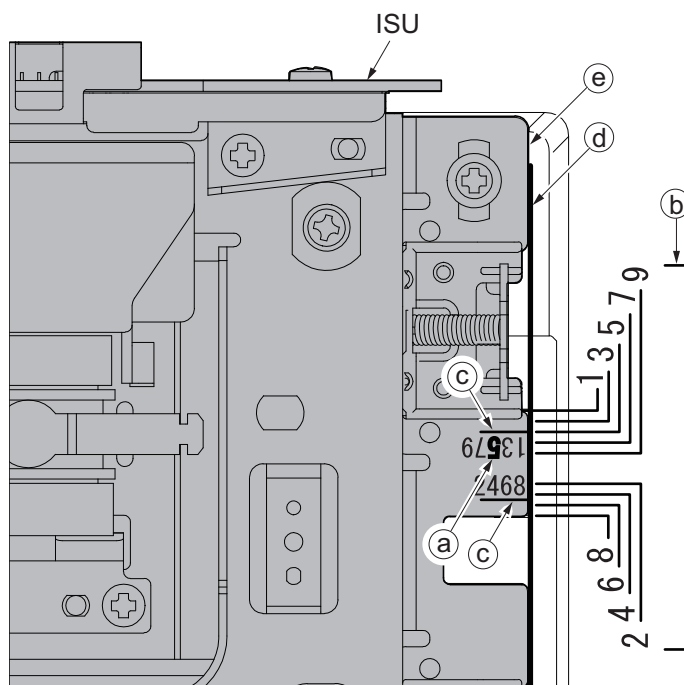


Figure 1-5-43

(3) Detaching and refitting the LED unit

Procedure

1. Remove the DP or original cover.
(See page 1-5-29)
2. Remove the sanner right cover and platen.(See page 1-5-24)
3. Remove the ISU front cover.

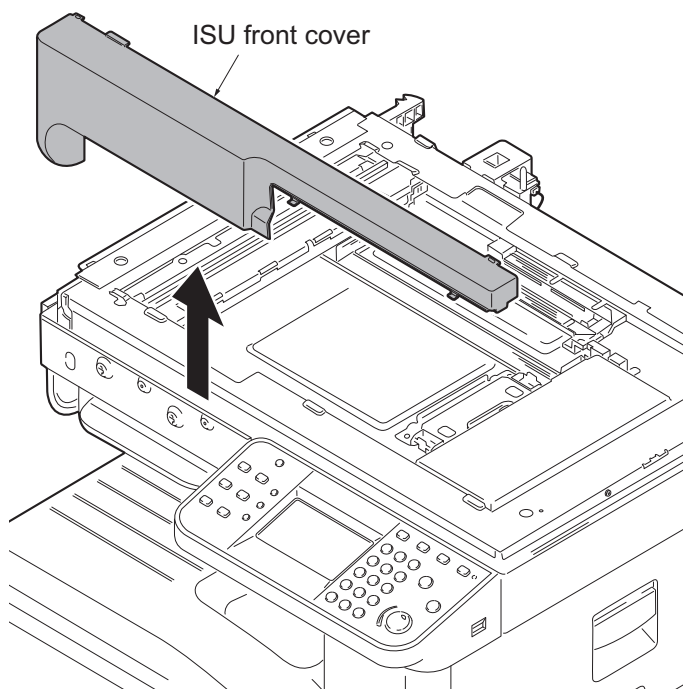


Figure 1-5-44

4. Remove two screws and then remove the ISU rear cover.

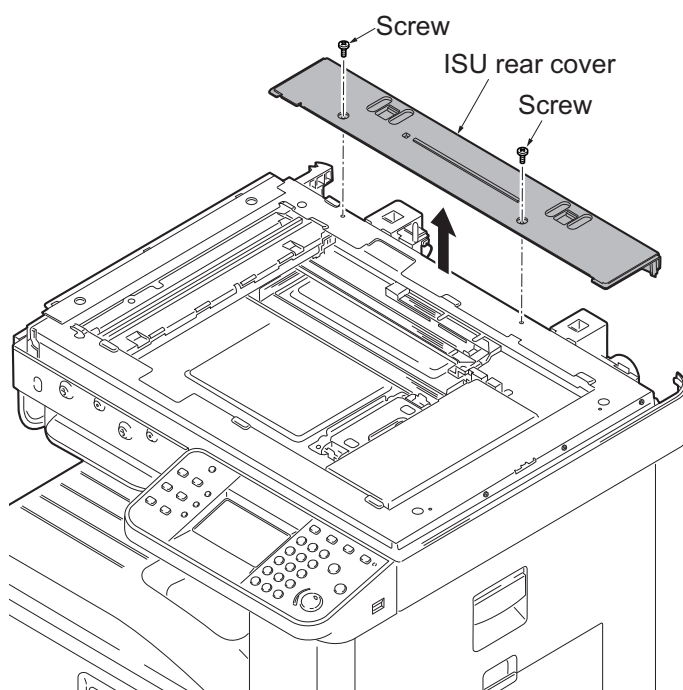


Figure 1-5-45

5. Move the exposure unit to the cutting lack part.
6. Release the hook and then remove the FFC cover.

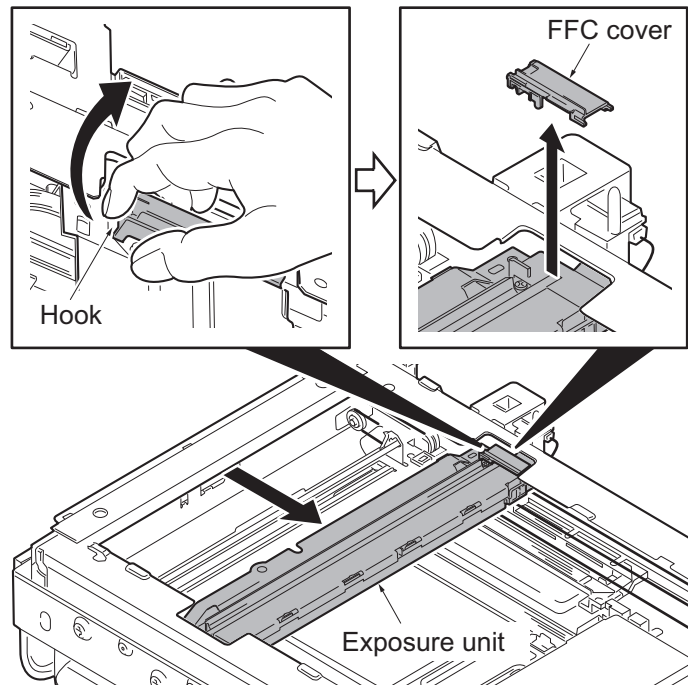


Figure 1-5-46

7. Remove the FFC from the connector.
8. Remove two screws and then remove the LED unit.
9. Check or replace the LED unit and refit all the removed parts.

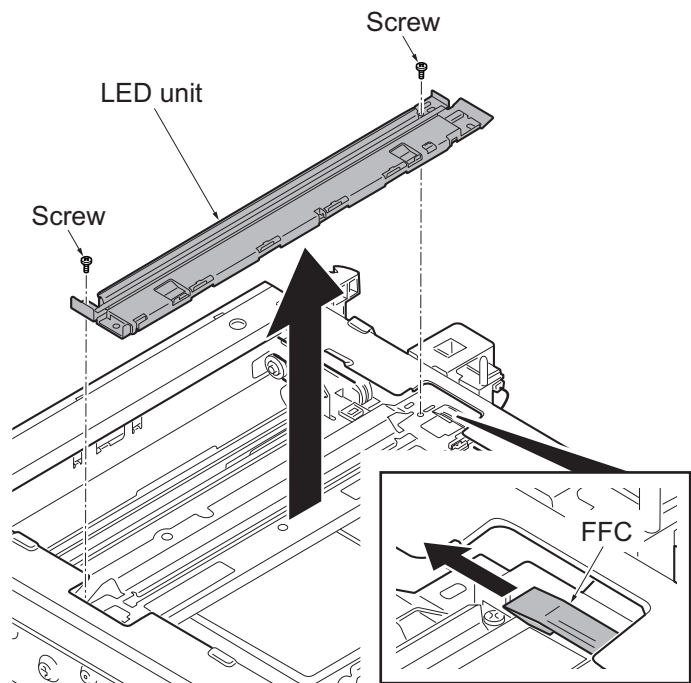


Figure 1-5-47

1-5-10 Document processor

(1) Detaching and refitting the document processor

Procedure

1. Remove the restriction parts.
2. Open the document processor on vertically.

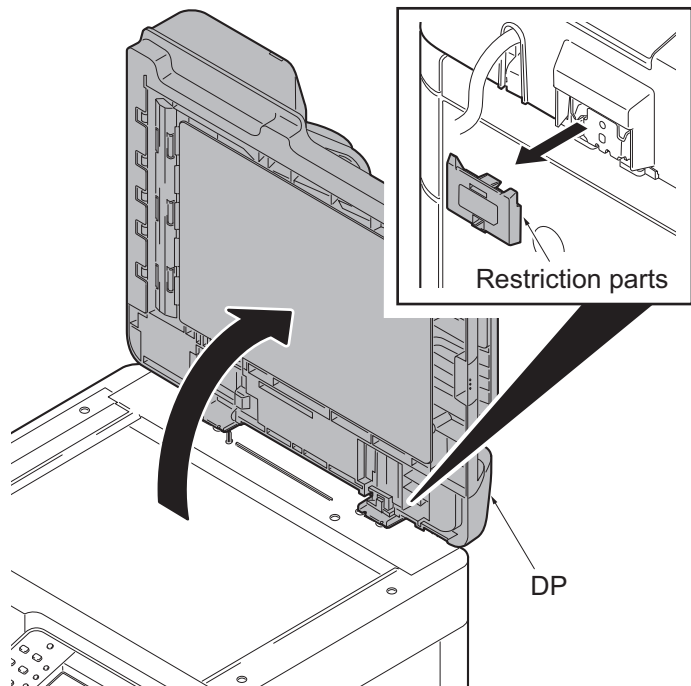


Figure 1-5-48

3. Remove two screws and then remove the DP interface connector.
4. Pull the document processor upwards out.

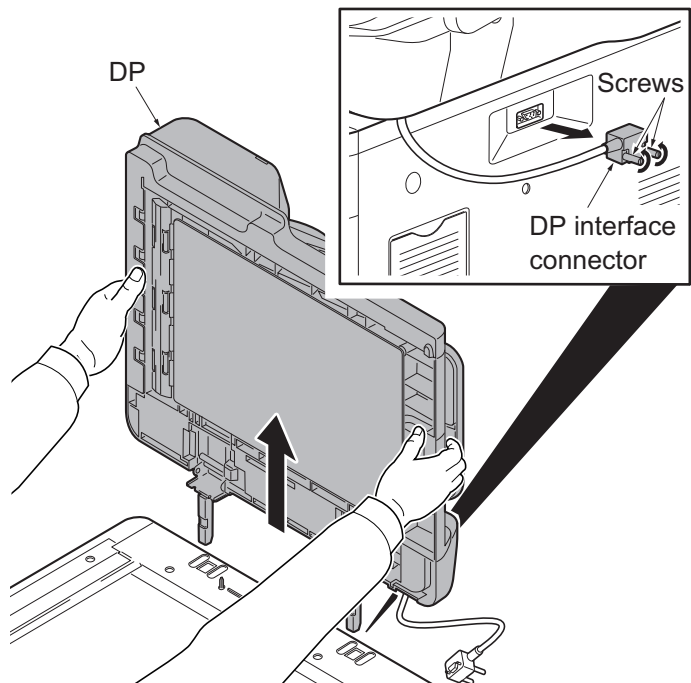


Figure 1-5-49

(2) Detaching and refitting the DP paper feed roller and DP separation pulley

Procedure

1. Open the DP top cover.

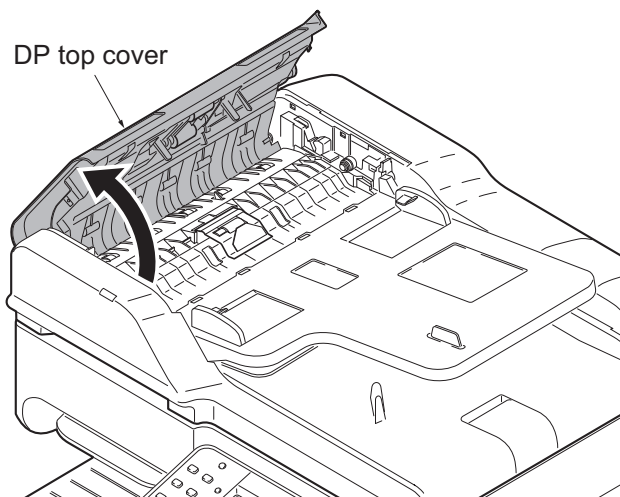


Figure 1-5-50

2. Pull the DP paper feed lever (yellow) down and then open it.
3. Knock the DP paper feed roller down forward.

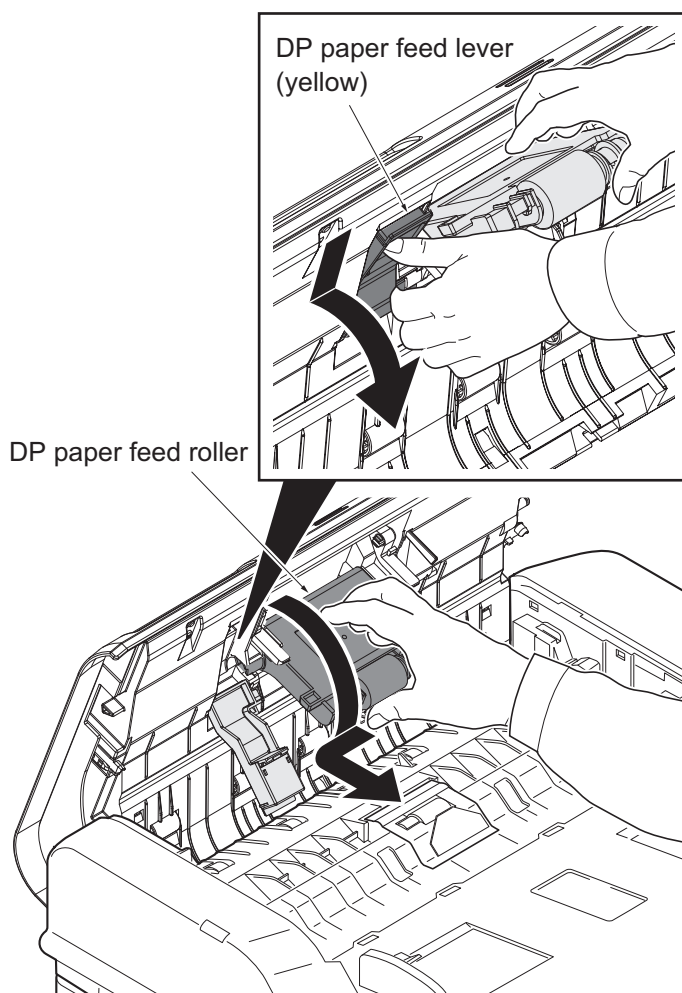


Figure 1-5-51

4. Release the hook and then remove DP separation pulley cover.

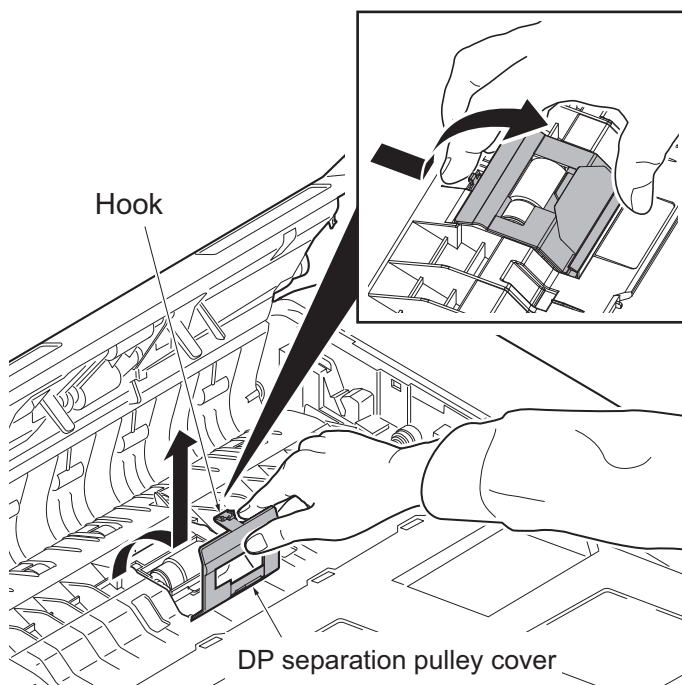


Figure 1-5-52

5. Raise the DP separation pulley and remove it by pulling upward.
6. Check or replace the DP paper feed roller and DP separation pulley and refit all the removed parts.

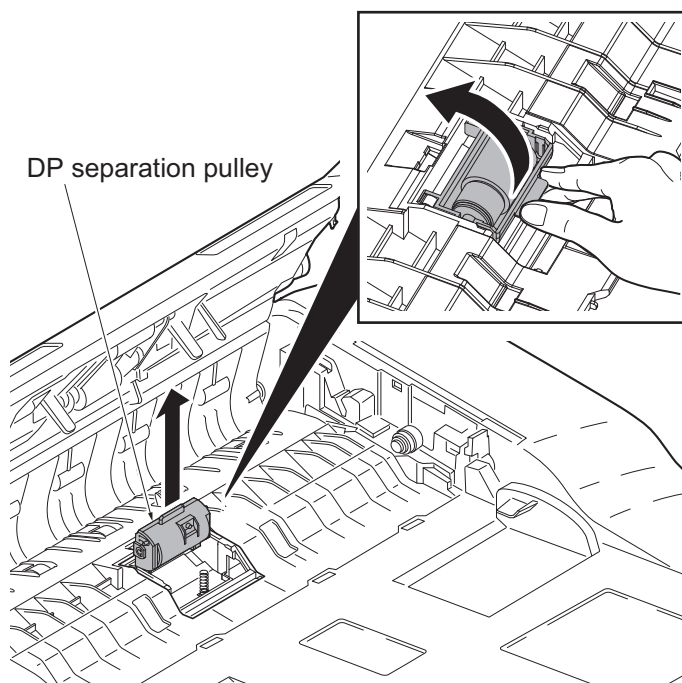


Figure 1-5-53

(3) Detaching and refitting the DP main PWB

Procedure

1. Open the document processor.
2. Release three hooks of the DP rear cover.

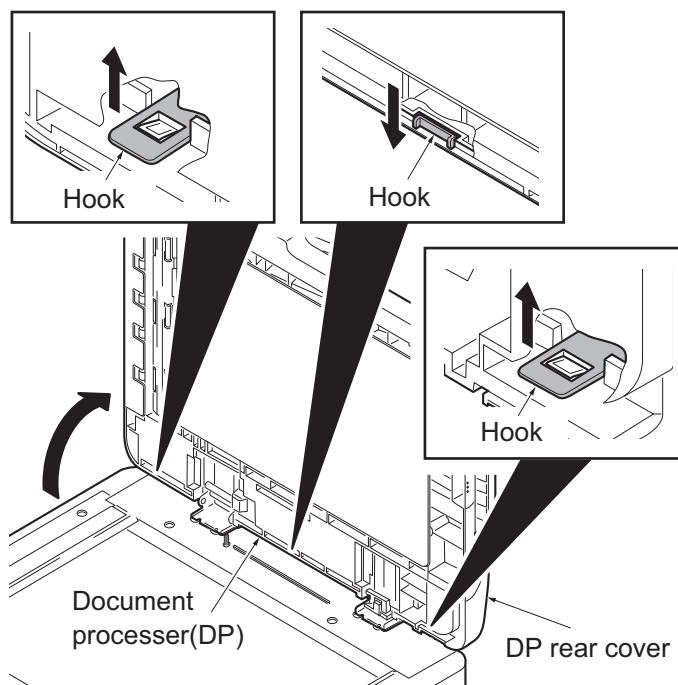


Figure 1-5-54

3. Release two hooks of the DP rear cover and then remove it.

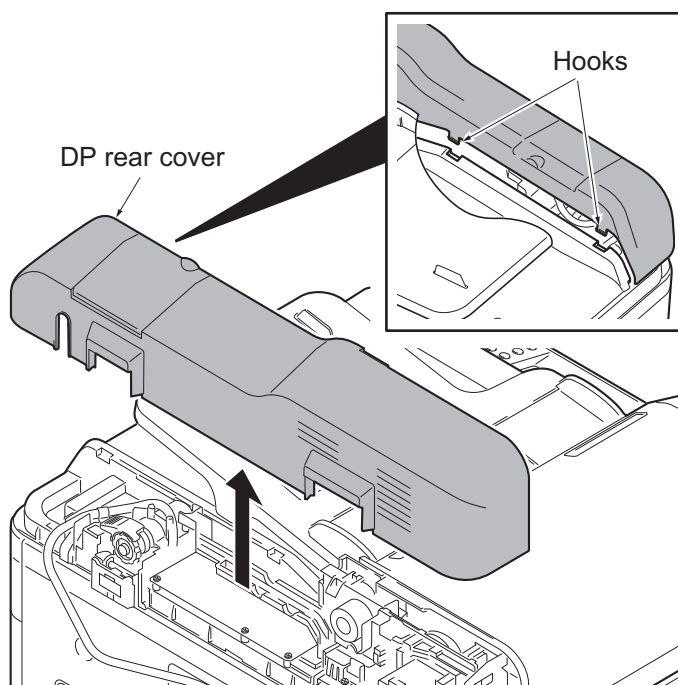


Figure 1-5-55

4. Remove all connectors from DP main PWB.
5. Remove five clamps and then remove the wires from holder.
6. Remove two screws and then remove the holder.

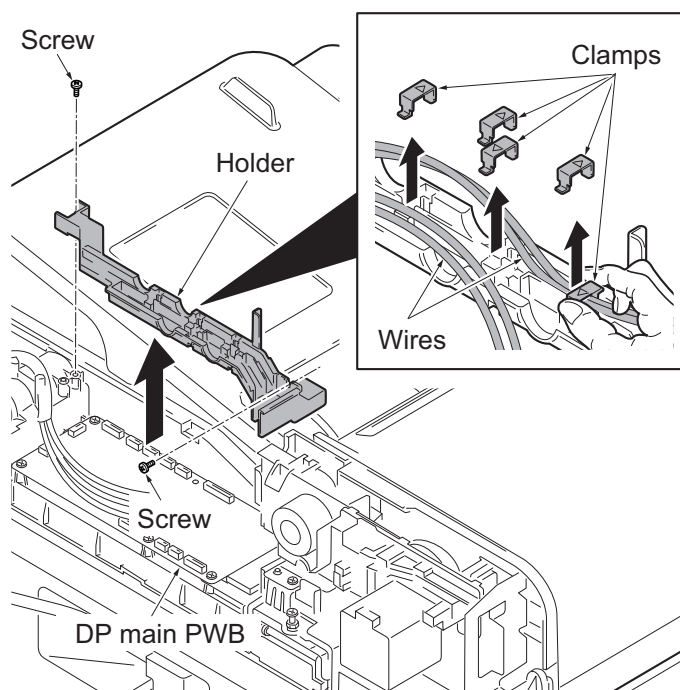


Figure 1-5-56

7. Remove six screws and then remove the DP main PWB.
8. Check or replace the DP main PWB and refit all the removed parts.

CAUTION: When replacing the DP main PWB, remove the EEPROM from the DP main PWB that has been removed and then reattach it to the new DP main PWB.

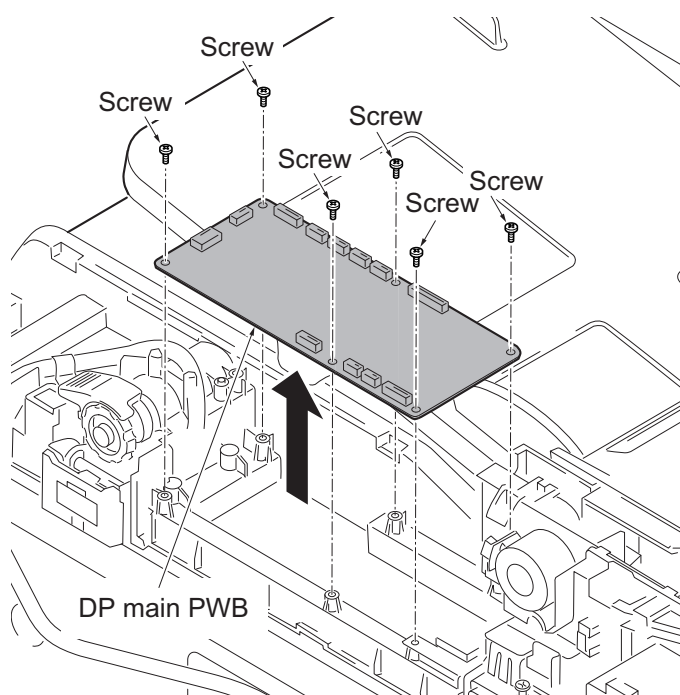


Figure 1-5-57

1-5-11 PWBs

(1) Detaching and refitting the main PWB

Procedure

1. Remove the rear cover.
(See page 1-5-5)
2. Remove the left lower cover.
(See page 1-5-6)
3. Remove the connector.
4. Remove the wire from the clamp.
5. Remove eleven screws and then remove the controller box.

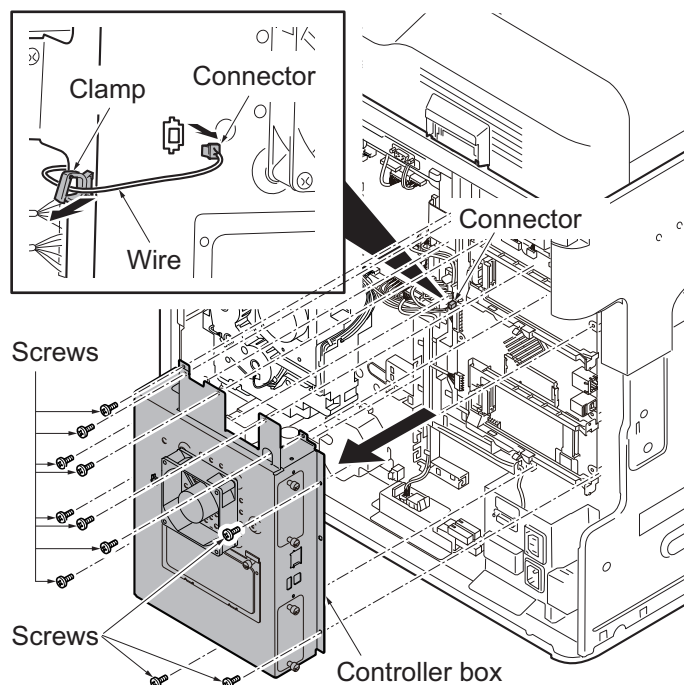


Figure 1-5-58

6. Remove all connectors for the main PWB.
7. Remove seven screws and then remove the main PWB.
8. Check or replace the main PWB and refit all the removed parts.

CAUTION: When replacing the main board, perform a re-setup in maintenance mode with reference to "1-6-2 Remarks on PWB replacement (See page 1-6-4)".

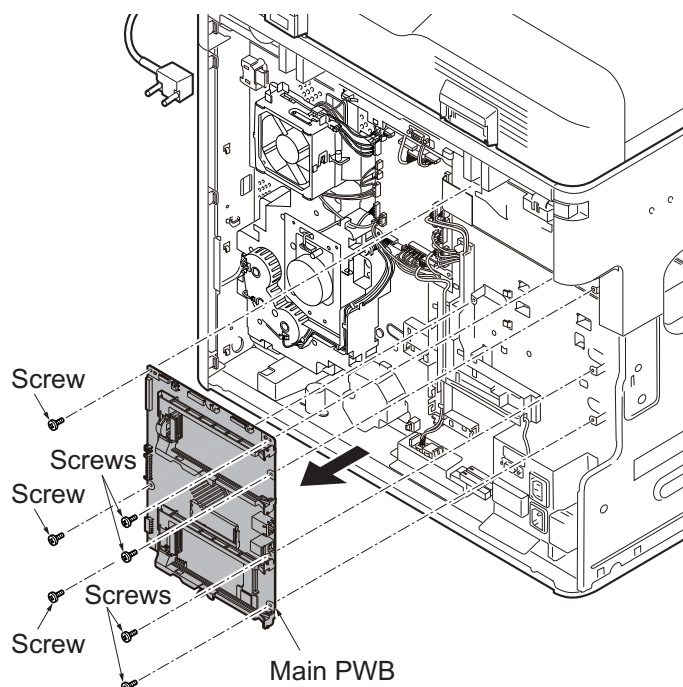


Figure 1-5-59

(2) Detaching and refitting the engine PWB

Procedure

1. Remove the rear cover.
(See page 1-5-5)
2. Remove all connectors from the engine PWB.
3. Remove four screws and then remove the engine PWB.
4. Check or replace the engine PWB and refit all the removed parts.

CAUTION: When replacing the engine PWB, remove the EEPROM (U12) from the engine PWB that has been removed and then reattach it to the new engine PWB.

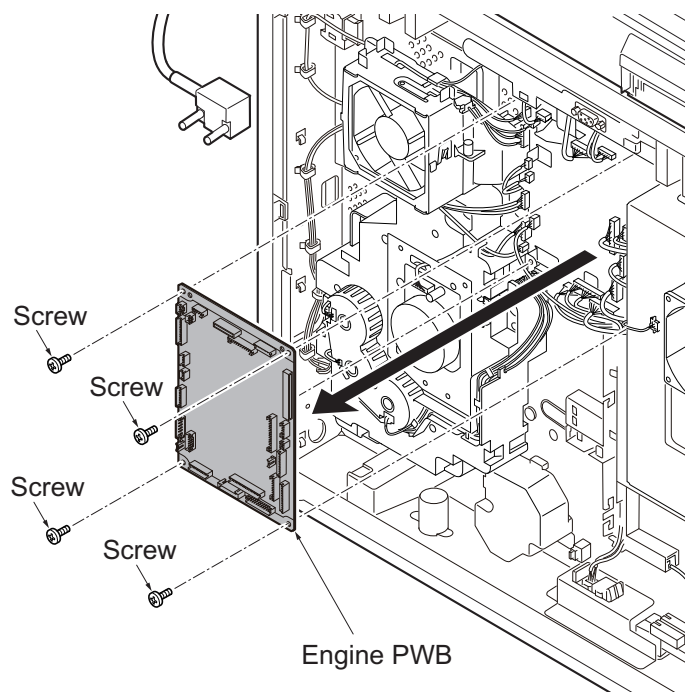


Figure 1-5-60

(3) Detaching and refitting the power source PWB

Procedure

1. Remove the rear cover and inner tray. (See page 1-5-5, 1-5-6)
2. Remove the power source fan motor. (See page 1-5-23)
3. Remove all connectors from the power source PWB.
4. Remove four screws and then remove the power source PWB.
5. Check or replace the power source PWB and refit all the removed parts.

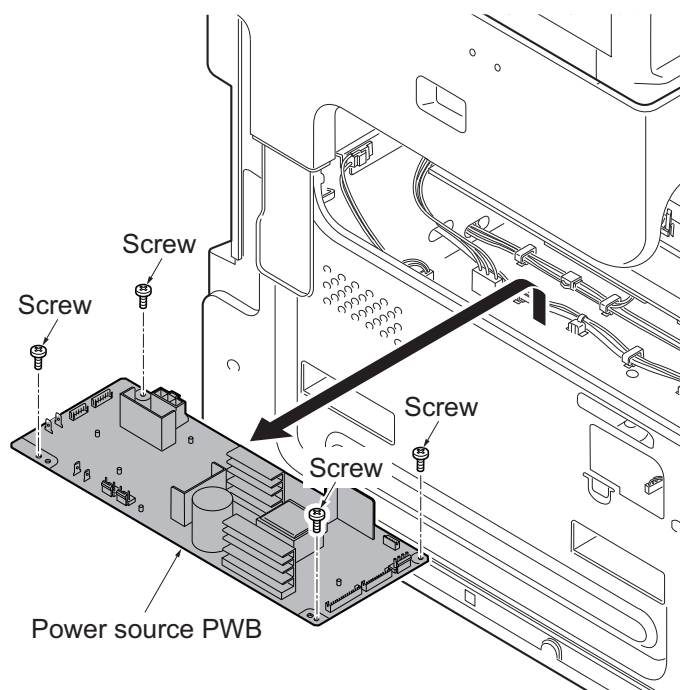


Figure 1-5-61

(4) Detaching and refitting the operation panel PWB main

Procedure

1. Remove the language sheets.
(See page 1-5-38)
2. Remove two screws.

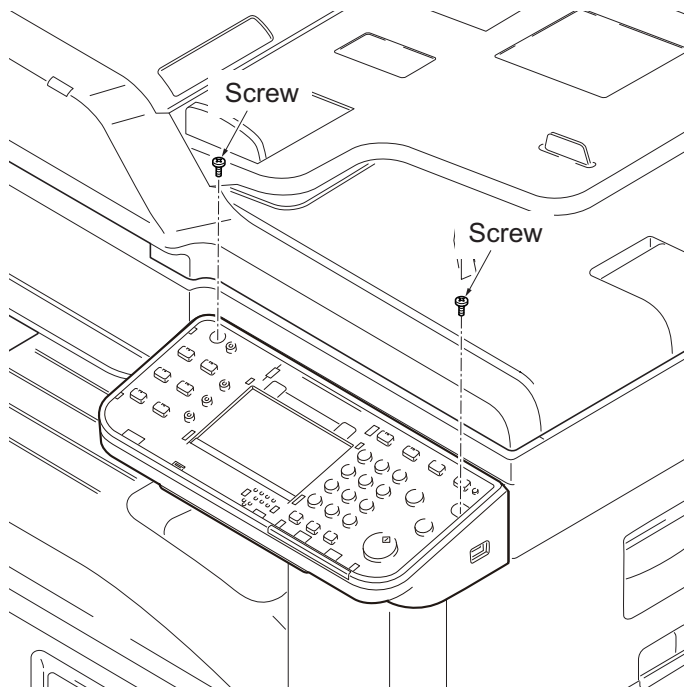


Figure 1-5-62

3. Remove three connectors from the operation panel PWB main.
4. Remove the operation panel upper unit.

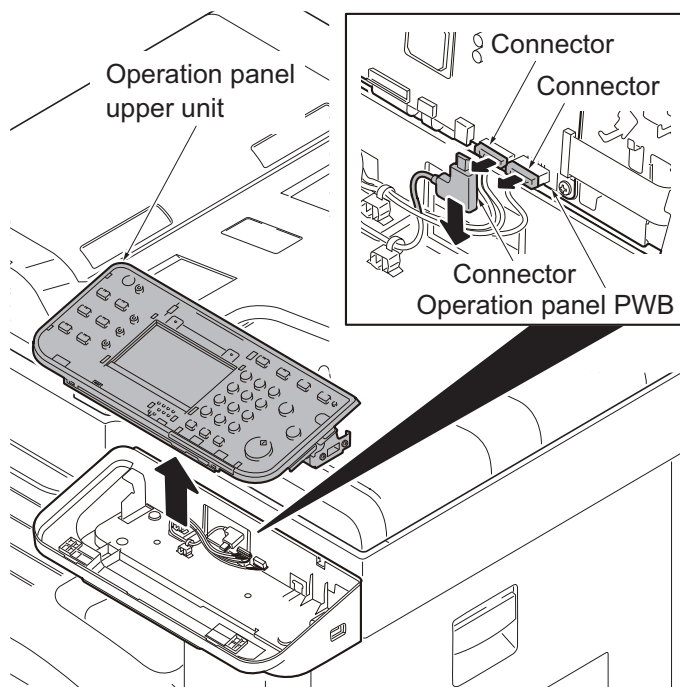


Figure 1-5-63

5. Remove four FFCs from the operation panel PWB main.
6. Remove four screws and then remove the operation panel PWB main.
7. Check or replace the operation panel PWB main and refit all the removed parts.

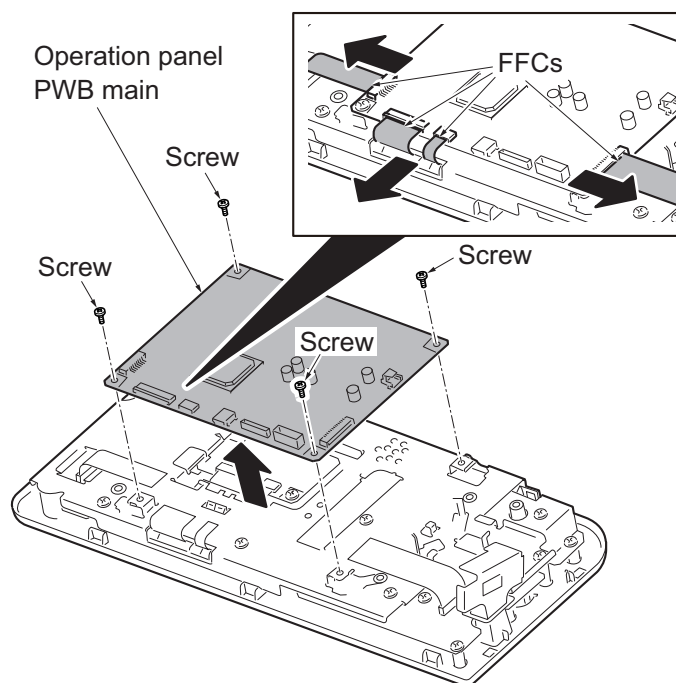


Figure 1-5-64

(5) Detaching and refitting the high voltage PWB

Procedure

1. Remove the rear cover, inner tray and eject rear cover.
(See page 1-5-5, 1-5-6 and 1-5-8)
2. Remove the FFC from the high voltage PWB.
3. Remove four screws and then remove the high voltage PWB.
4. Check or replace the high voltage PWB and refit all the removed parts.

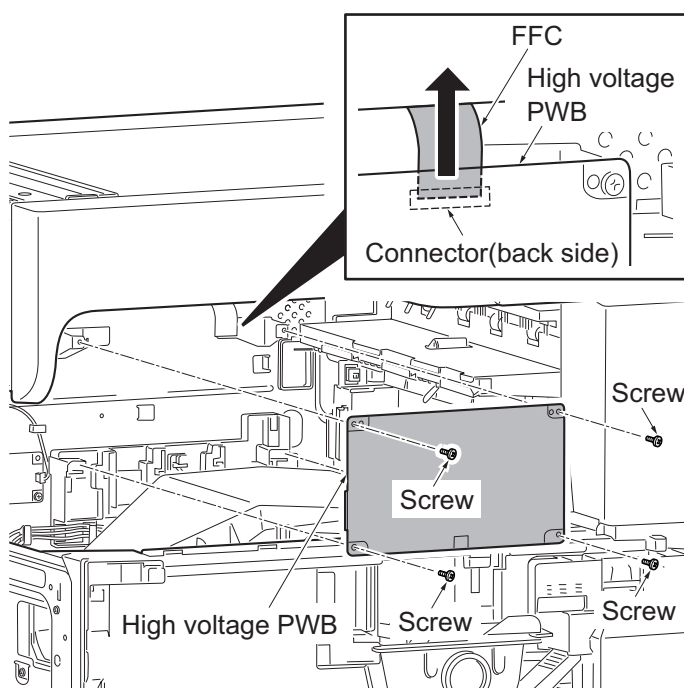


Figure 1-5-65

1-5-12 Others

(1) Detaching and refitting the language sheet

Procedure

1. Remove the upper cover by using a pen.
2. Remove the LCD cover.
3. Remove two operation panel covers
4. Remove two language sheets.
5. Check or replace the language sheet and refit all the removed parts.

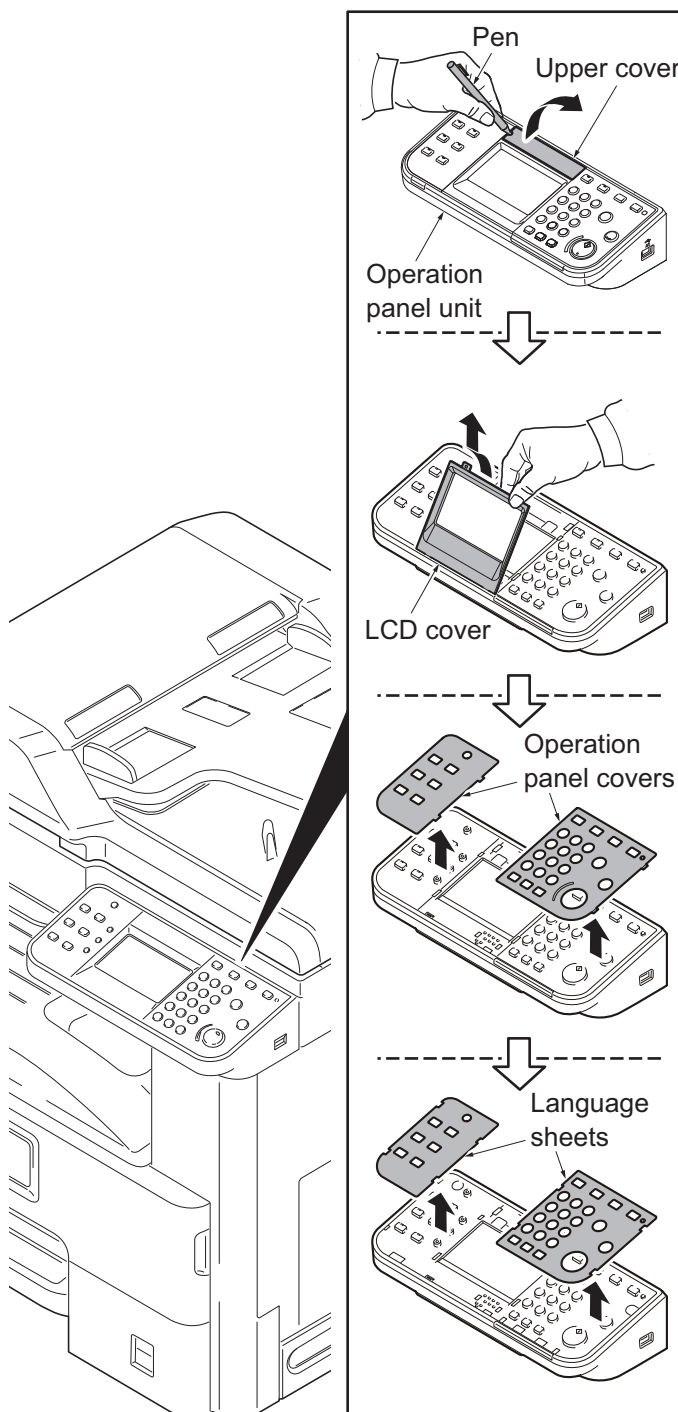


Figure 1-5-66

(2) Detaching and refitting the conveying unit

Procedure

1. Remove the MP tray. (See page 1-5-15)
2. Remove the right cover 1.
(See page 1-5-11)

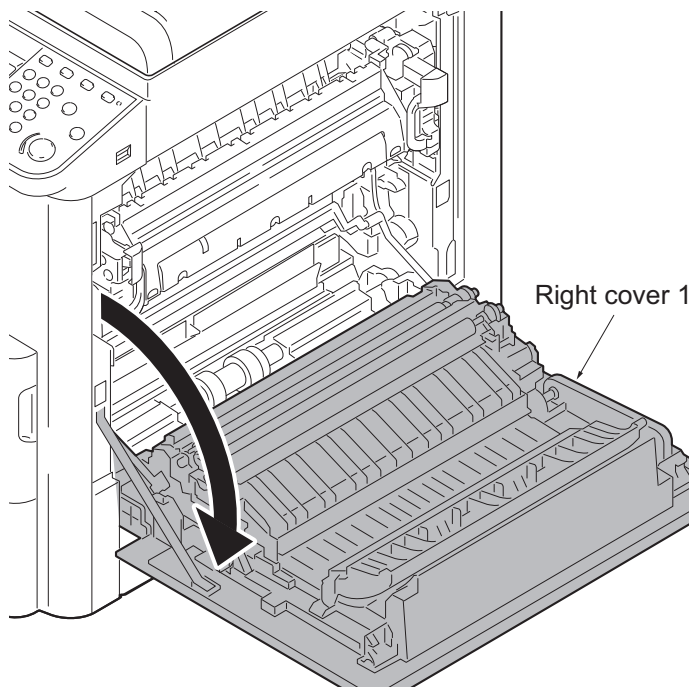


Figure 1-5-67

3. Remove two screws and then remove two straps.

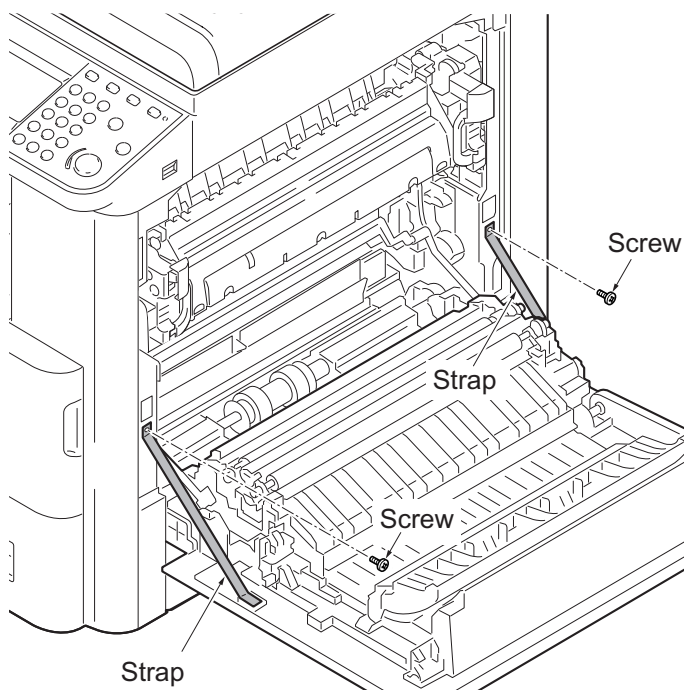


Figure 1-5-68

4. Remove the stop ring from the rear side of conveying unit and then remove the link F.
5. To similar,remove the stop ring from the rear side of conveying unit and then remove the link R.

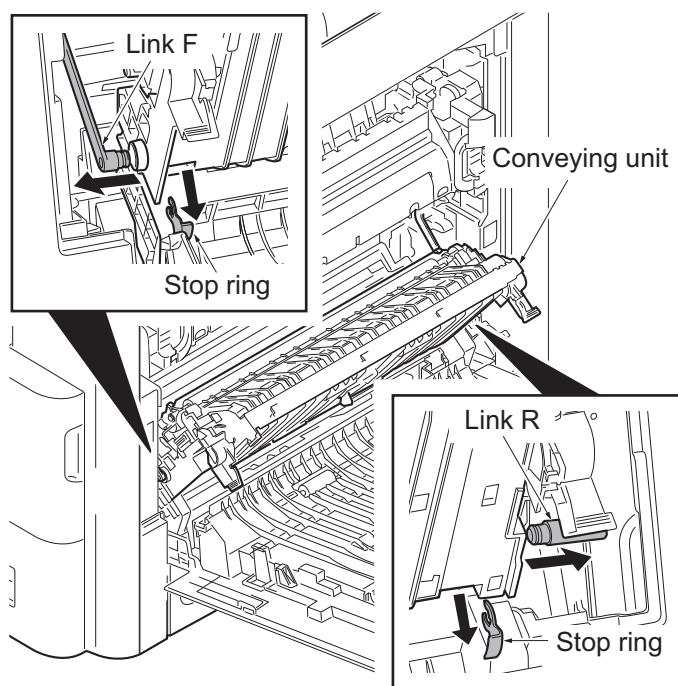


Figure 1-5-69

6. Rotate the wire cover.
7. Remove the connector.
8. Rotate the fulcrum axis and slide it forward.
9. Pull the right cover 1 backward and then remove it.

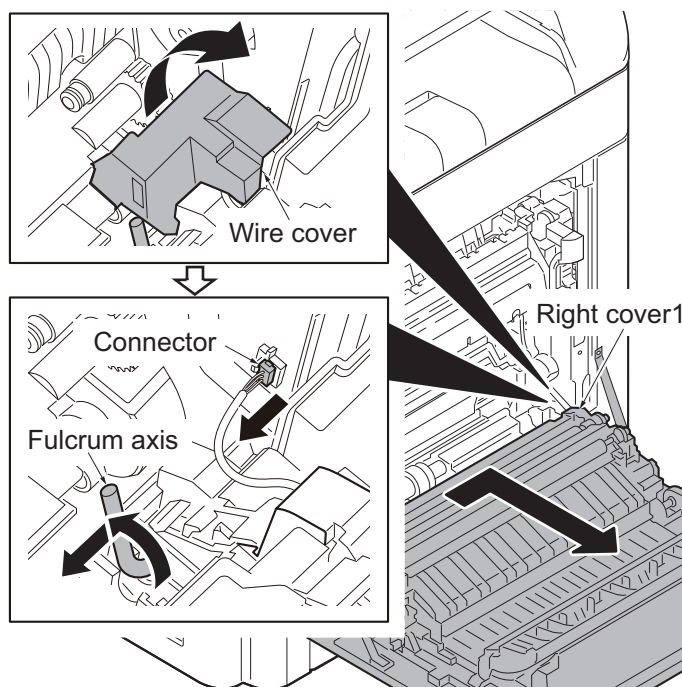


Figure 1-5-70

(3) Detaching and refitting the eject fan motor

Procedure

1. Remove the rear cover.
(See page 1-5-5)
2. Remove the connector and then remove two wires from three hooks respectively.
3. Remove two screws and then remove the eject fan motor.

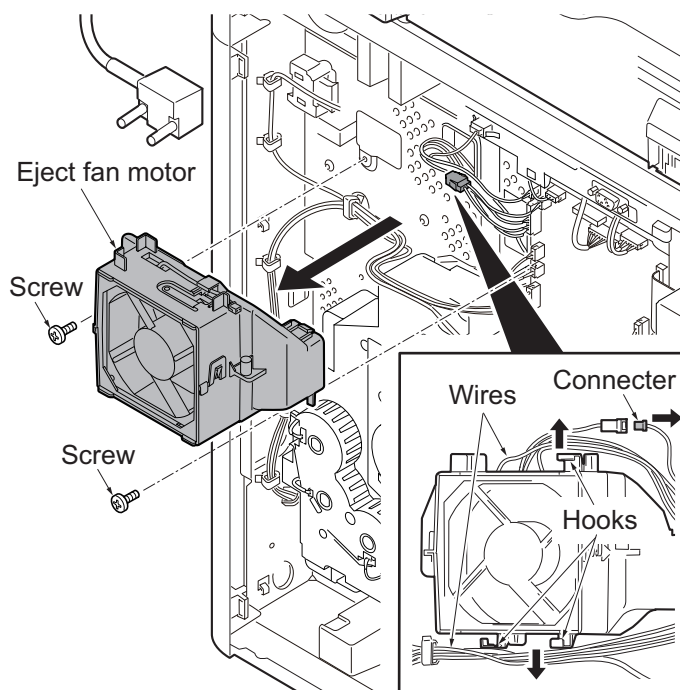


Figure 1-5-71

(4) Direction of installing the principal fan motors

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

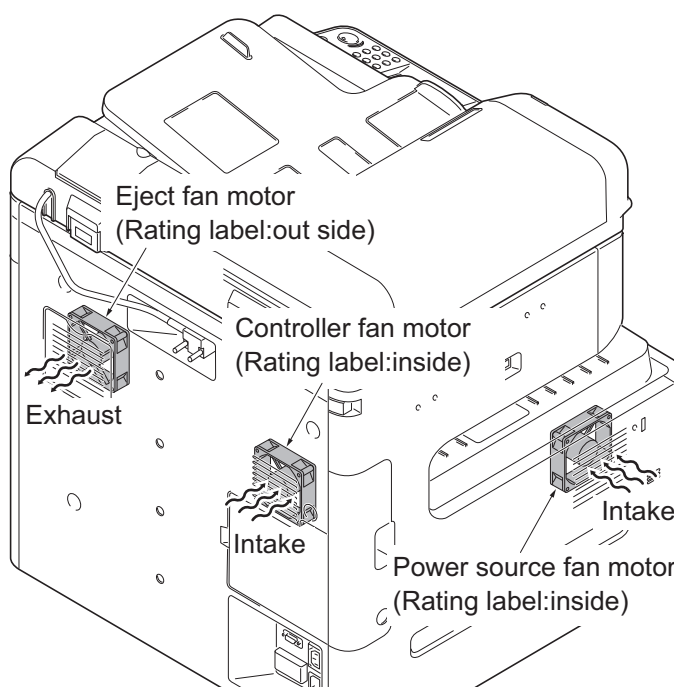


Figure 1-5-72

1-6-1 Upgrading the firmware

Follow the procedure to upgrade the firmware below.

- | | |
|----------------------|------------------------------|
| * Main PWB (CTRL) | * Engine PWB (ENGX) |
| * DP main PWB (DP) | * FAX PWB (FAX) |
| * PF main PWB (PF) | * Language data (OPT) |
| * DF main PWB (DF) | * Dictionary data (DIC) |
| * Bridge PWB (AK) | * Operation panel PWB (PANL) |
| * Engine IO PWB (IO) | |

Preparation

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

NOTE: To improve Firmware Upgrade speed, a separate SKIP file can be added to the USB Memory Stick with the Firmware Upgrade package. The Skip file will allow ONLY the Firmware that has been Upgraded to a New Version to load, skipping duplicate Firmware Levels.

Procedure

1. Turn ON the main power switch and confirm if the screen shows "Ready to print" then, turn OFF the main power switch.
2. Insert USB memory that has the firm-ware in the USB memory slot.
3. Turn ON the main power switch.
4. About 50 seconds later, "Farmware Update" will be displayed (this shows to start the download).
5. Display the software that now upgrad-ing.

CTRL → DP → PF → DF → AK → IO
→ ENGX → FAX → OPT → DIC →
PANL

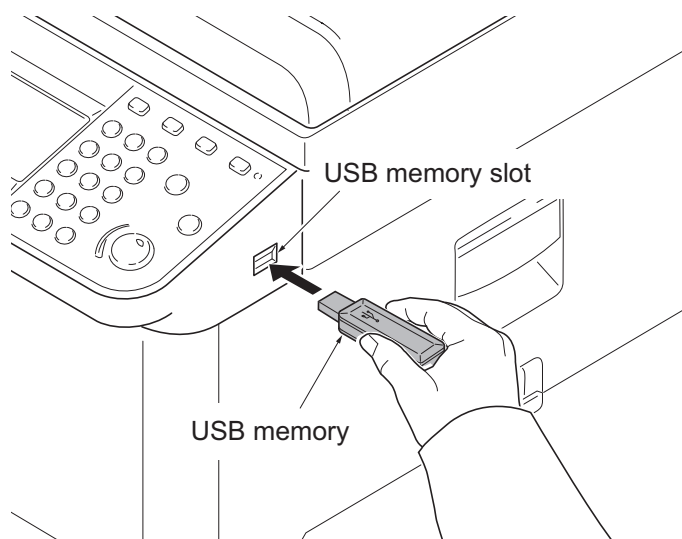


Figure 1-6-1

SAMPLE:

```
=====
Firmware Update
CTRL
xxx%
=====
```

The first line: Display shown while updating it
The second line: Display that shows update object
The third line: The progress of the update is displayed with %.

Caution:

Never turn off the power switch or remove the USB flash device during upgrading.

6. Display the completion of the upgrade.
7. ROM version is confirmed by the content of the display.
8. Turn OFF the main power switch and remove the USB memory.

Emergency-UPDATE

If the device is accidentally switched off and upgrading was incomplete, upgrade becomes impossible. In that case, retry upgrading after recovering the software by following the procedure below.

Preparation

The USB memory must be formatted in FAT or FAT32 in advance.

Extract the main firmware to download from the file.

Rename the file which was extracted from the archive. [DL_CTRL.2MW] to [KM_EMRG.2MW]

Copy the all extracted files to the root of the USB memory.

Procedure

1. Turn the main power switch off.
2. Insert the USB memory which contains the firmware into the USB memory slot.
3. Turn the main power switch on.
4. Rewriting of the PWB software will start for restoration.
The memory and attention LEDs will be blinking.
5. Only the Memory LED will be blinking when rewriting is successful.
* : Only the Attention LED will be blinking when rewriting is failed.
6. Turn the main power switch off.
7. Wait for several seconds and then remove the USB memory from the USB memory slot.

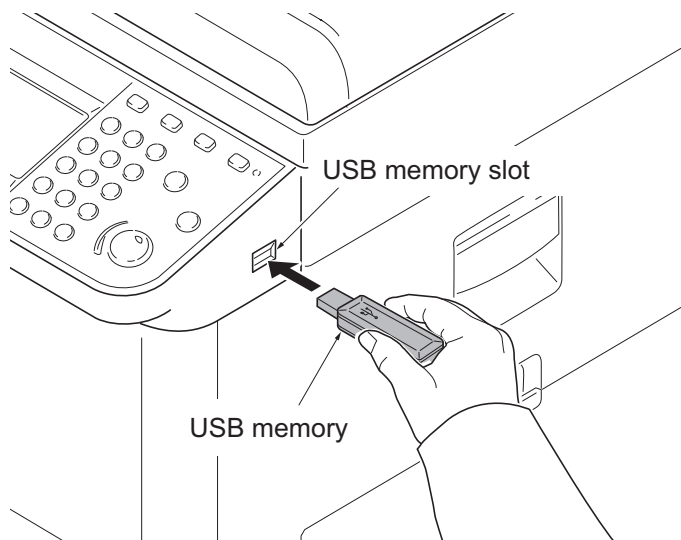


Figure 1-6-2

8. Extract the firmware to download from the archive and copy to the root of the formatted USB memory.
NOTE: Deletes the "ES_SKIP.on" file When it is contained directly under the USB memory.
9. Insert the USB memory in which the firmware was copied into the USB memory slot.
10. Perform steps 3 to 8 on the previous page.
11. Turn the main power switch on.
12. Perform maintenance item U000 (Print a maintenance report) to check that the version of ROM U019 has been upgraded.

1-6-2 Remarks on PWB replacement

(1) Engine PWB

NOTE: When replacing the PWB, remove the EEPROM from the PWB and then reattach it to the new PWB.

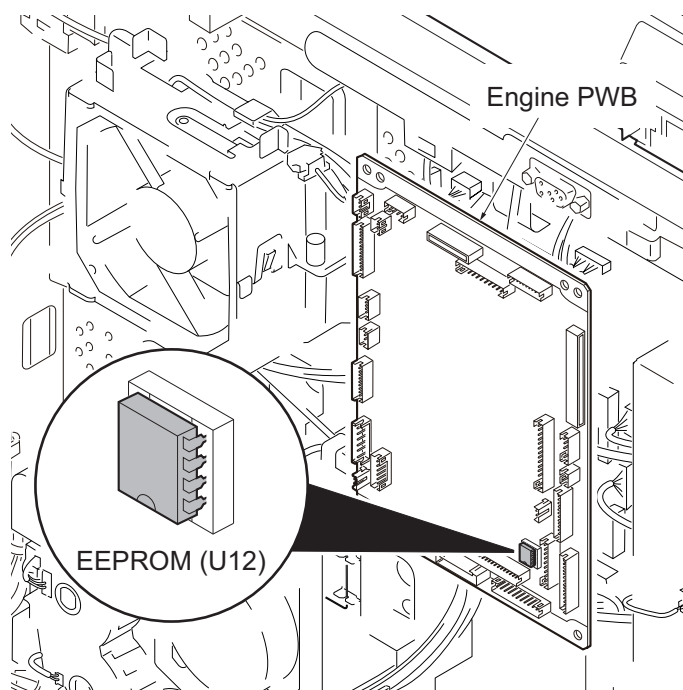


Figure 1-6-3

(2) DP main PWB

NOTE: When replacing the PWB, remove the EEPROM from the PWB and then reattach it to the new PWB.

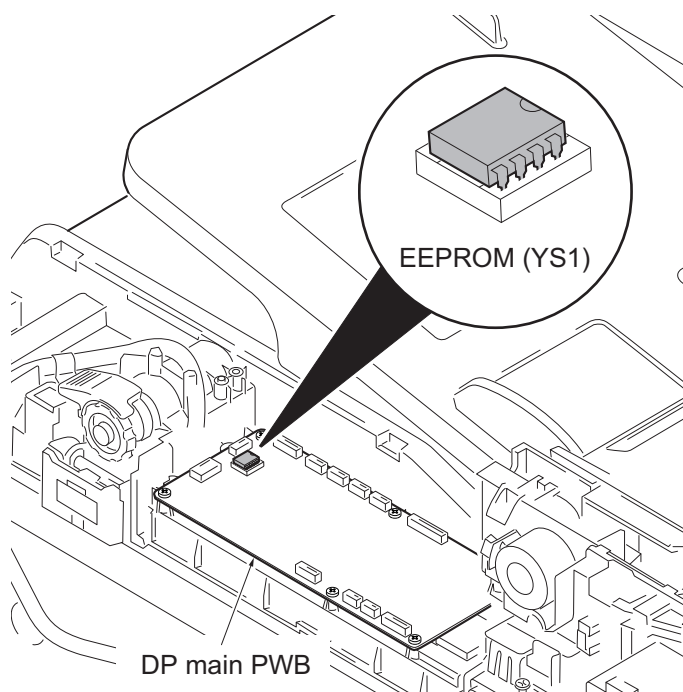


Figure 1-6-4

(3) Main PWB

NOTE:The following operations are required when replacing the main board.

1. Execute maintenance mode U004 to resolve machine number mismatch that appears after replacing the main board.
2. Adjust the scanner image.
 - (1)Input the value in the auto scanner adjustment chart by using the maintenance mode U425.
 - (2)Execute the maintenance mode U411 with the auto scanner adjustment chart.
 - (3)Execute [Halftone adjustment] from the system menu
3. Reactivate the license for optional products if any were installed.
 - (1)Reactivate ID CARD AUTHENTICATION KIT B).
 - (2)Register an ID card again by using the maintenance mode U222.
4. Import data if any was exported from the machine before replacing the main board by using the maintenance mode U917. (The export and import is also available via KM-Net Viewer)
5. Register the initial user settings and FAX settings from the system menu or command center.
6. Execute the maintenance mode as below if necessary.

No.	Main machine related maintenance modes	No.	Fax related maintenance modes
U250	Checking/clearing the maintenance cycle	U603	Setting user data 1
U251	Checking/clearing the maintenance counter	U604	Setting user data 2
U253	Switching between double and single counts	U610	Setting system 1
U260	Selecting the timing for copy counting	U611	Setting system 2
U326	Setting the black line cleaning indication	U612	Setting system 3
U341	Specific paper feed location setting for printing function	U615	Setting system 6
U343	Switching between duplex/simplex copy mode	U625	Setting the transmission system 1
U345	Setting the value for maintenance due indication	U695	FAX function customize
U402	Adjusting margins of image printing		
U403	Adjusting margins for scanning an original on the contact glass		
U404	Adjusting margins for scanning an original from the DP		
U407	Adjusting the leading edge registration for memory image printing		
U425	Setting the target		
U429	Setting the offset for the color balance		
U432	Setting the center offset for the exposure		
U470	Setting the JPEG compression ratio		

2-1-1 Paper feed/conveying section

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

(1) Cassette paper feed section

The cassette can contain 500 sheets. The sheet from the cassette is pulled out by rotation of the pickup roller and sent to the paper conveying section by rotation of the paper feed roller. Also the retard roller prevents multiple feeding of paper.

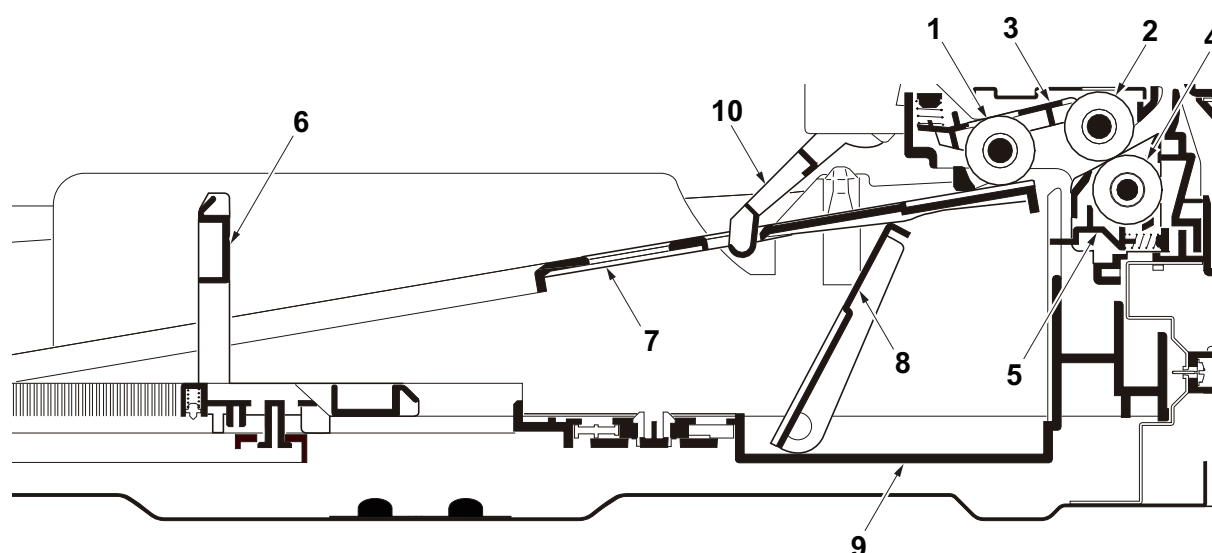


Figure 2-1-1 Cassette paper feed section

- | | |
|----------------------|-----------------------------|
| 1. Pickup roller | 6. Paper length guide |
| 2. Paper feed roller | 7. Bottom plate |
| 3. Feed holder | 8. Lift work plate |
| 4. Retard roller | 9. Cassette base |
| 5. Retard holder | 10. Actuator (paper sensor) |

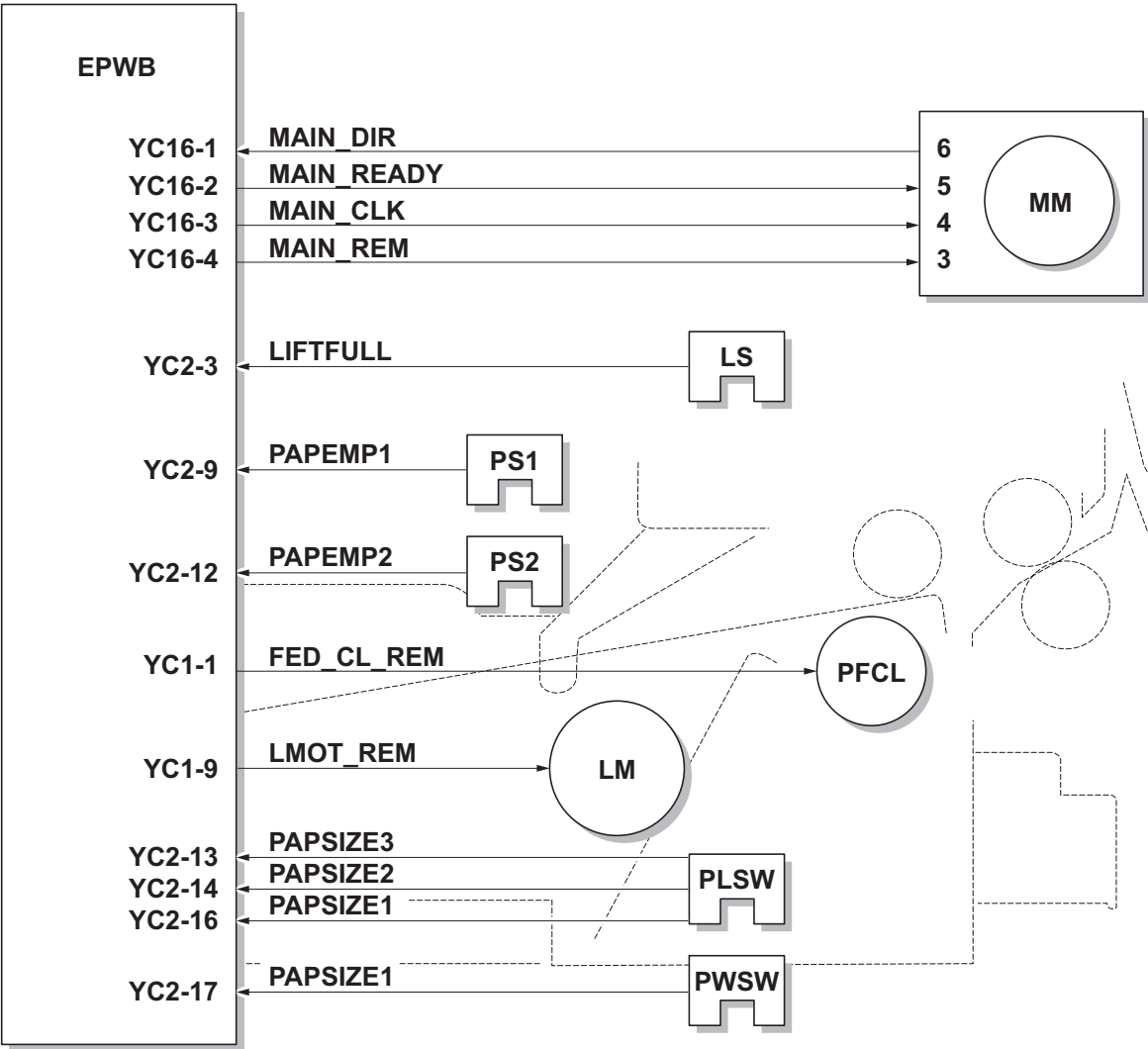


Figure 2-1-2 Cassette paper feed section block diagram

(2) MP tray paper feed section

The MP tray can contain 100 sheets. Feeding from the MP tray is performed by the rotation of the MP paper feed roller. Also, function of the MP separation pad prevents paper from multiple feeding.

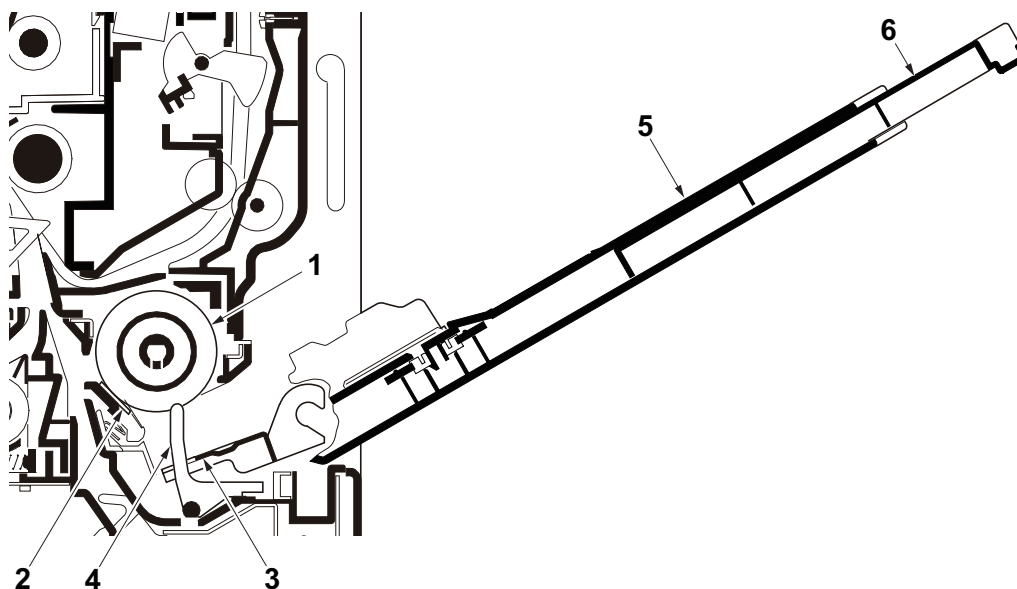


Figure 2-1-3 MP tray paper feed section

- | | |
|-------------------------|-----------------------------------|
| 1. MP paper feed roller | 4. Actuator(MP paper feed sensor) |
| 2. MP separation pad | 5. MP (multi purpose)tray |
| 3. MP bottom plate | 6. MP tray extension |

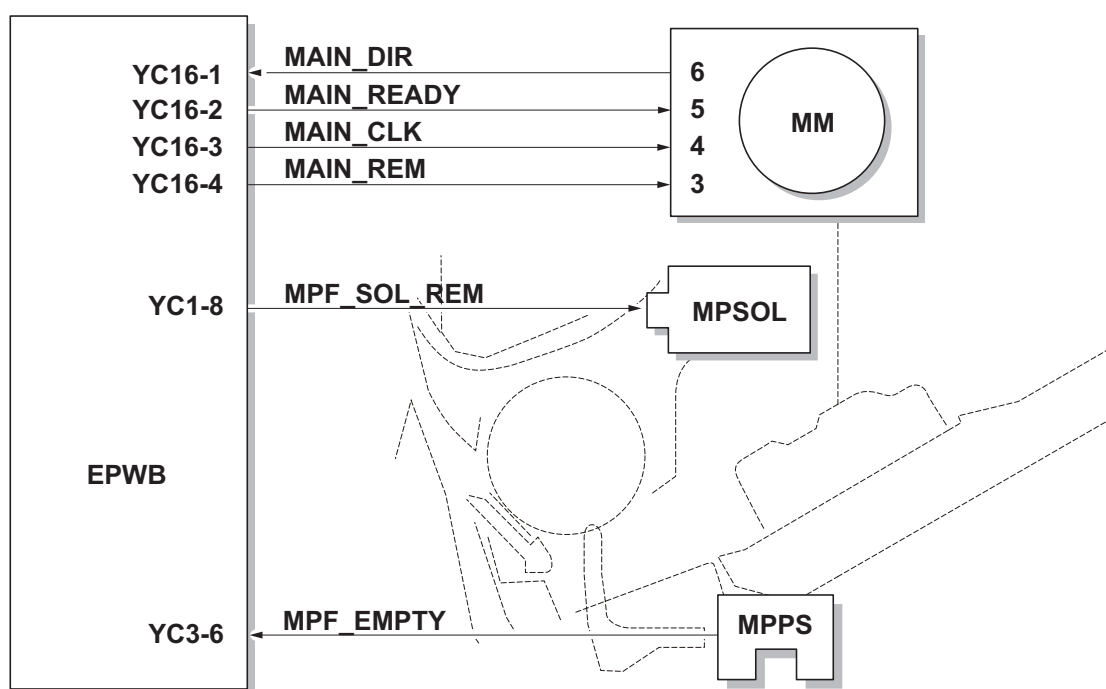


Figure 2-1-4 MP tray paper feed section block diagram

(3) Conveying section

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

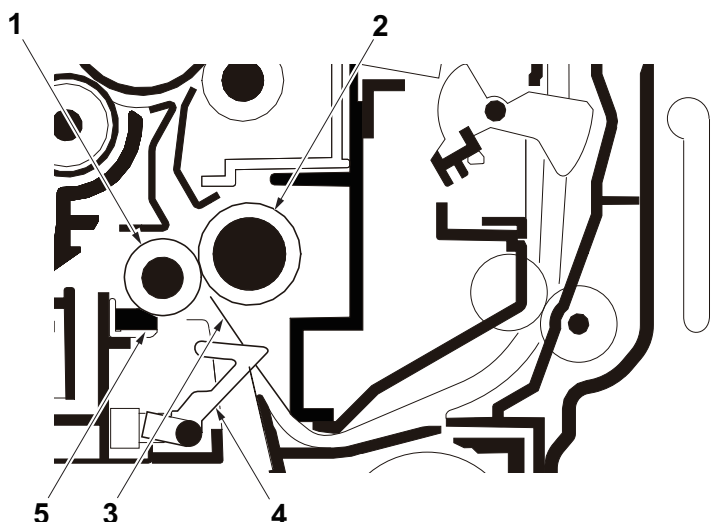


Figure 2-1-5 Conveying section

- | | |
|-----------------------------------|-------------------------|
| 1. Left registration roller | 5. Registration cleaner |
| 2. Right registration roller | |
| 3. Registration guide | |
| 4. Actuator (registration sensor) | |

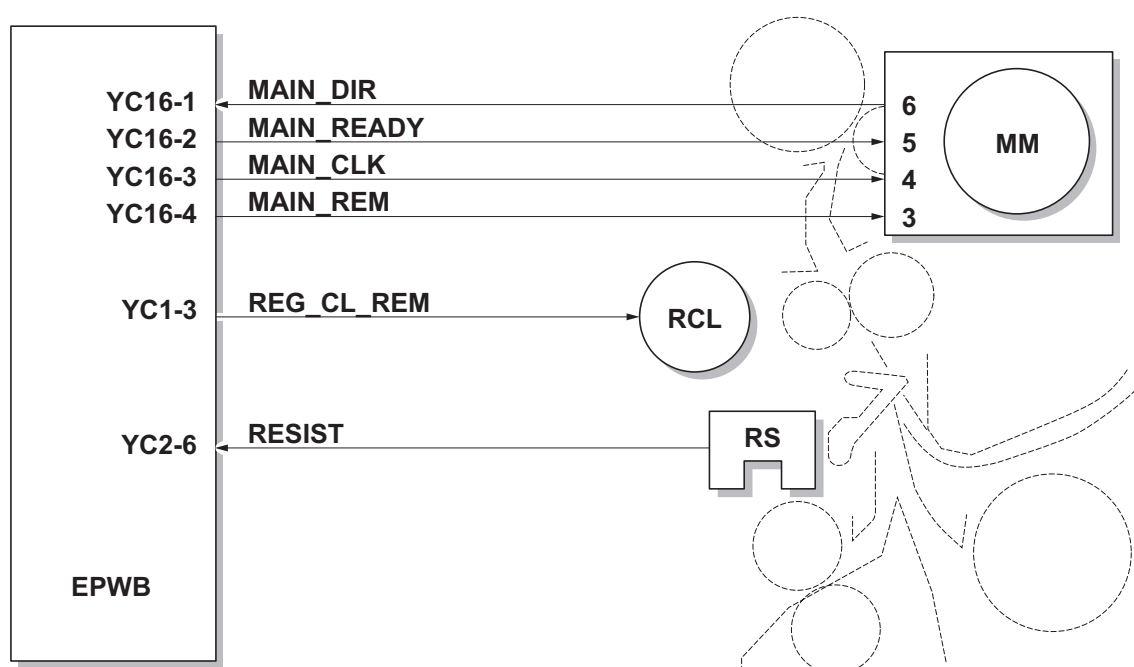


Figure 2-1-6 Paper conveying section block diagram

2-1-2 Drum section

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

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

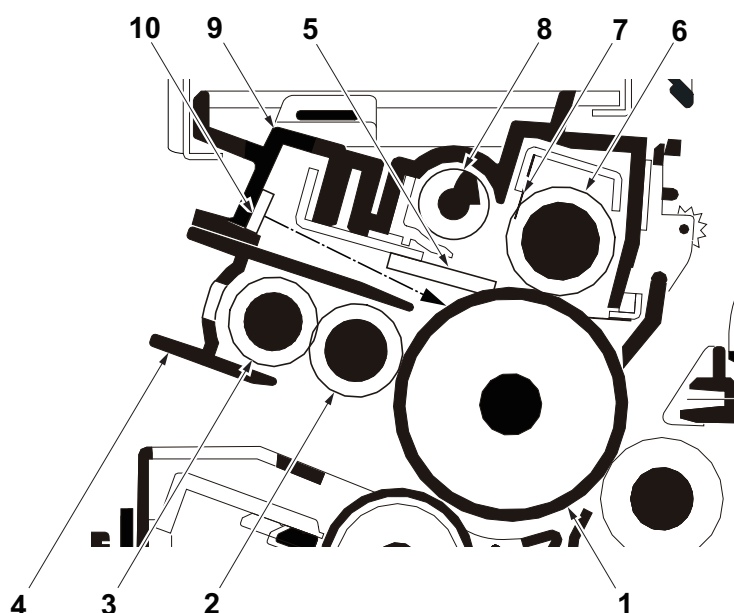


Figure 2-1-7 Drum section

- | | |
|----------------------------|------------------------|
| 1. Drum | 6. Cleaning roller |
| 2. Charger roller | 7. Scraper |
| 3. Charger cleaning roller | 8. Sweep roller |
| 4. Charger case | 9. Drum frame |
| 5. Cleaning blade | 10. Cleaning lamp (CL) |

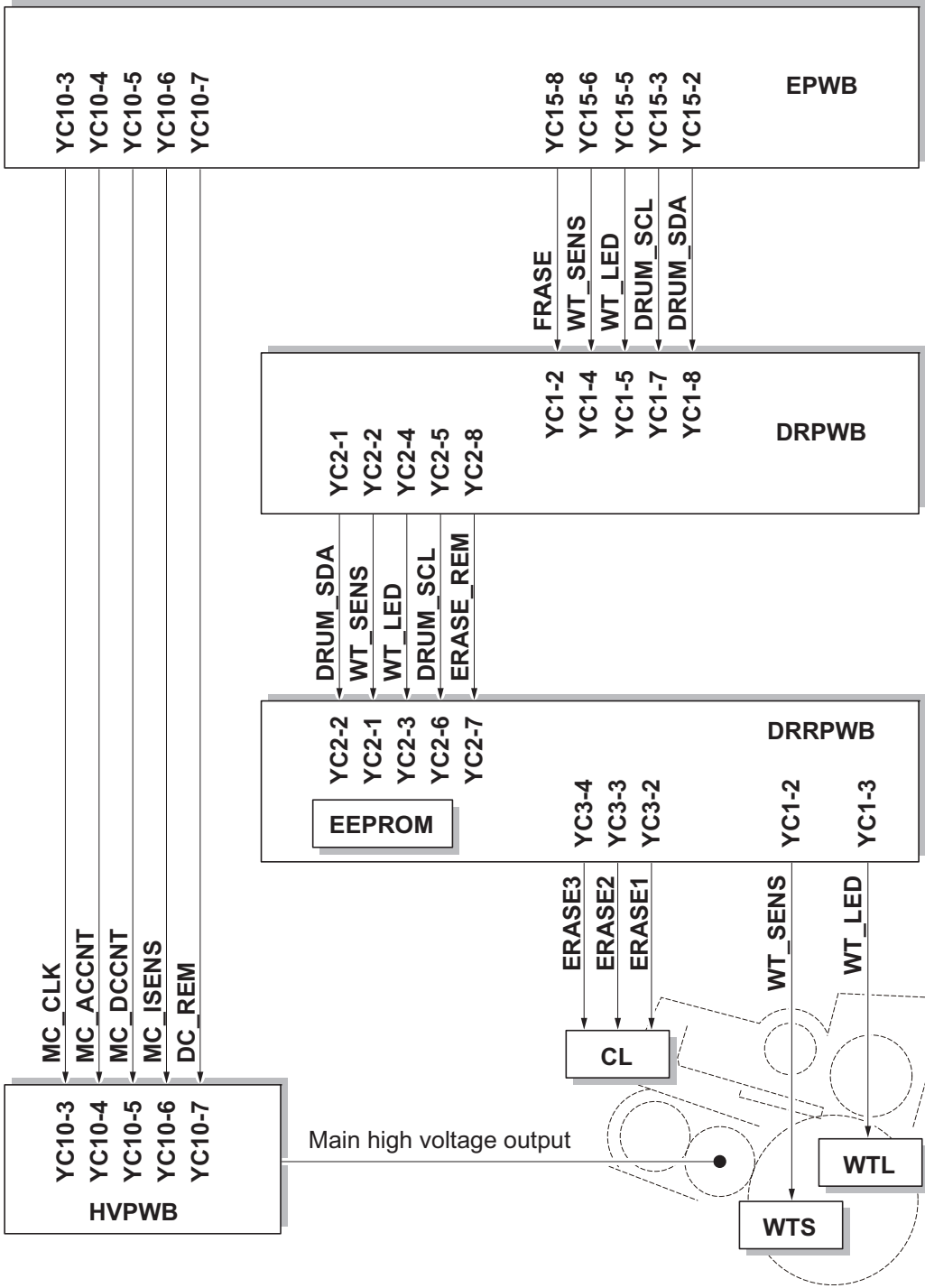


Figure 2-1-8 Drum section block diagram

2-1-3 Developing section

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

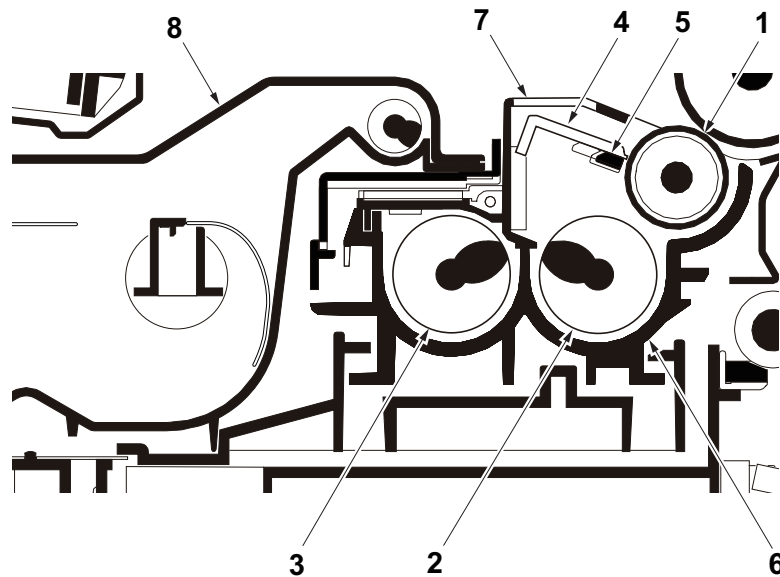


Figure 2-1-9 Developing section

- | | |
|-----------------------|--------------------------|
| 1. Developing roller | 5. Magnet blade |
| 2. Developing screw A | 6. Developer case |
| 3. Developing screw B | 7. Upper developer cover |
| 4. Developing blade | 8. Toner container |

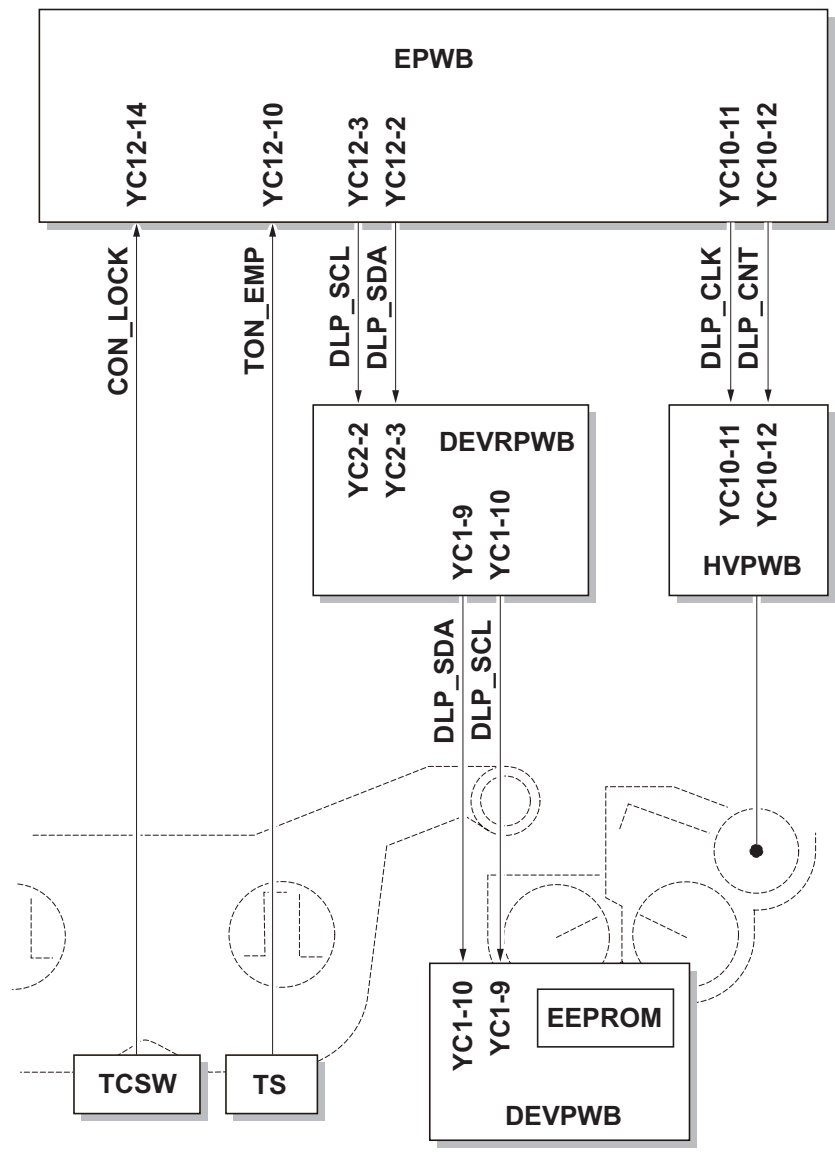


Figure 2-1-10 Developing section block diagram

2-1-4 Optical section

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

(1) Image scanner section

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

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

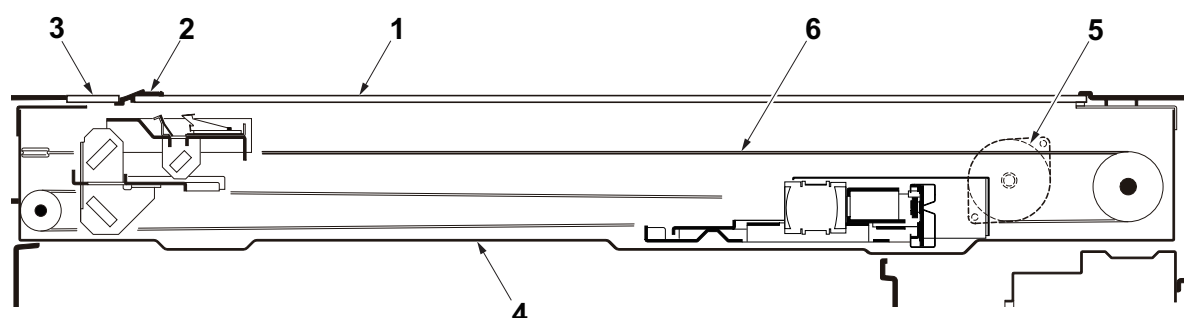


Figure 2-1-11 Scanner unit

- | | |
|----------------------------------|---------------------|
| 1. Platen | 4. ISU frame |
| 2. Original size indicator plate | 5. ISU motor (ISUM) |
| 3. DP contact glass | 6. ISU wire |

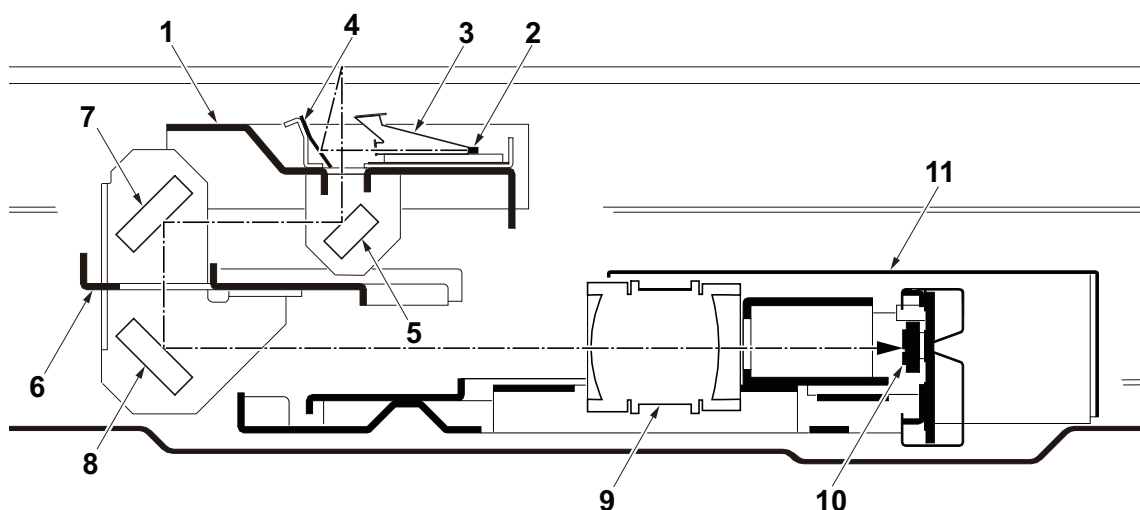


Figure 2-1-12 Image scanner unit (ISU)

- | | |
|----------------------------|----------------------|
| 1. The first mirror frame | 7. Mirror B |
| 2. Exposure lamp (EL) | 8. Mirror C |
| 3. Exposure lens | 9. ISU lens |
| 4. Reflector | 10. CCD PWB (CCDPWB) |
| 5. Mirror A | 11. Scanner cover |
| 6. The second mirror frame | |

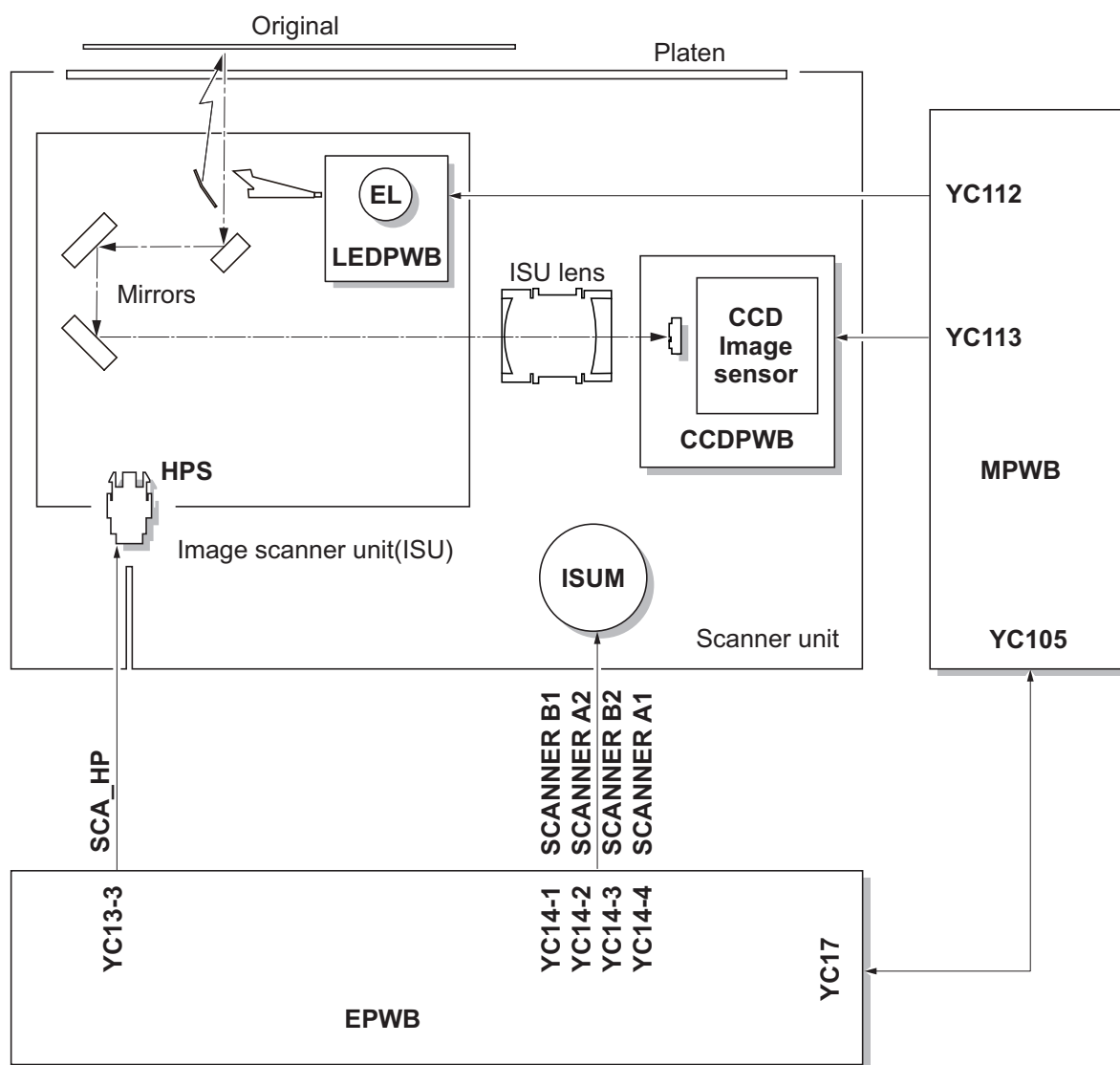


Figure 2-1-13 Scanner unit block diagram

(2) Laser scanner section

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

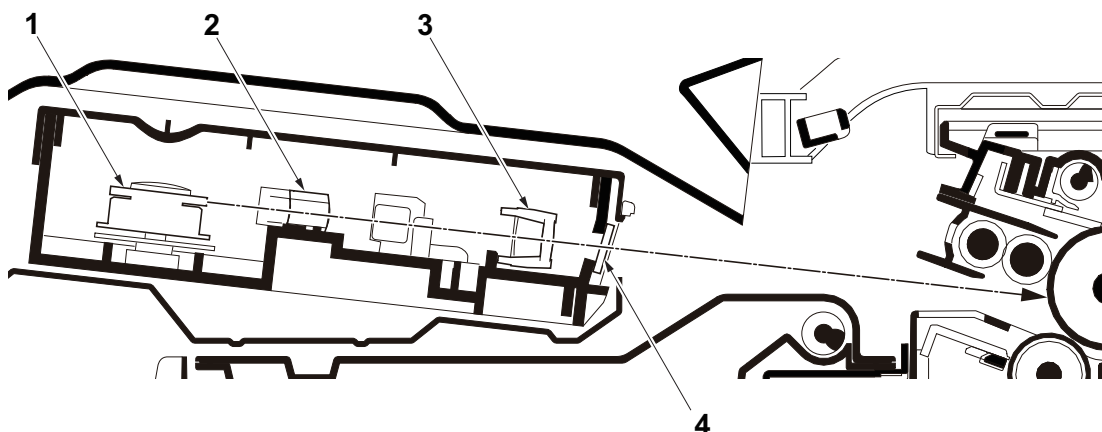


Figure 2-1-14 Laser scanner unit (LSU)

- | | |
|-----------------------|--------------------------|
| 1. Polygon motor (PM) | 3. fθ main lens |
| 2. fθ sub lens | 4. LSU dust shield glass |

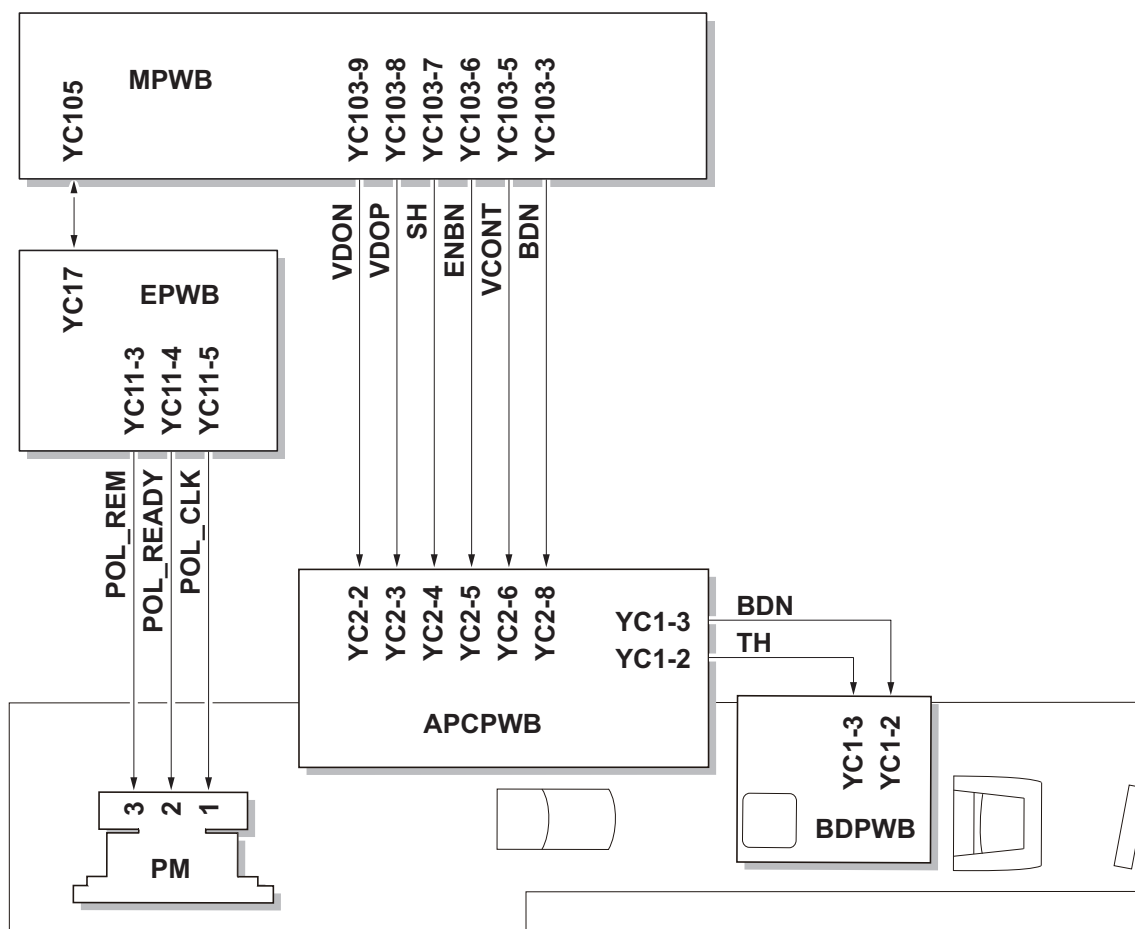


Figure 2-1-15 Laser scanner unit block diagram

2-1-5 Transfer/Separation section

The transfer and separation section consists mainly of the transfer roller, separation electrode and drum separation claws.

A high voltage generated by the high voltage PWB (HVPWB) is applied to the transfer roller for transfer charging.

Paper after transfer is separated from the drum by applying separation charging that is output from the high voltage PWB (HVPWB) to the separation electrode.

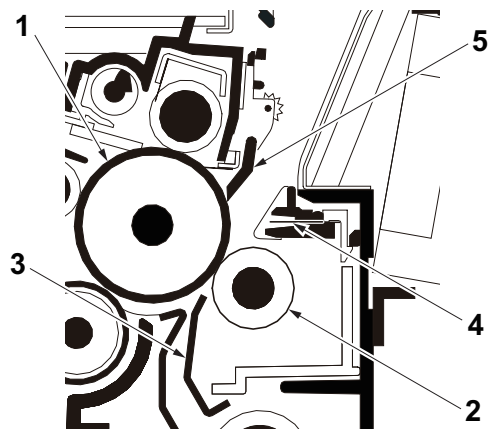


Figure 2-1-16 Transfer/Separation section

1. Drum

2. Transfer roller

3. Paper chute guide
4. Separation needle

5. Drum separation claws

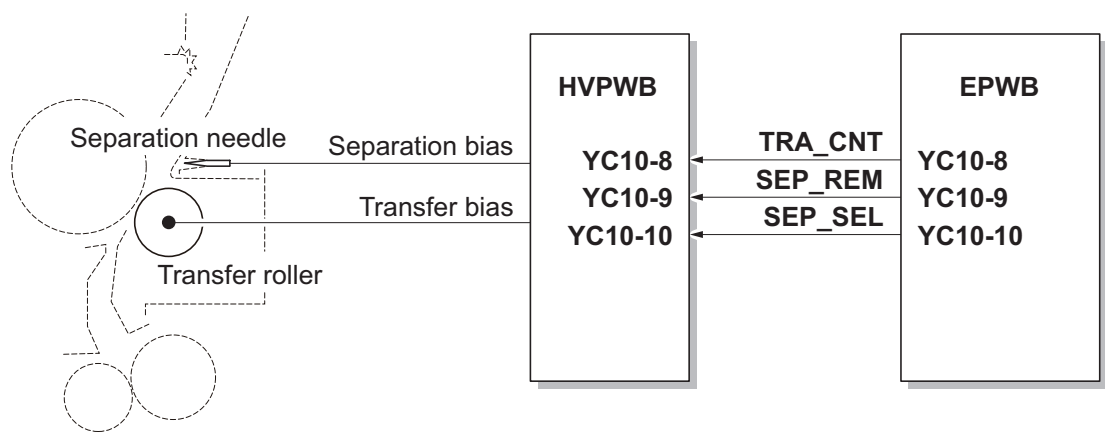


Figure 2-1-17 Transfer/Separation section block diagram

2-1-6 Fuser section

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

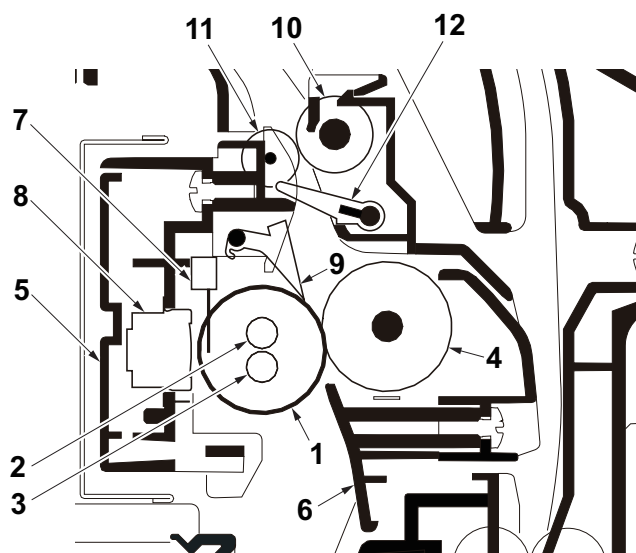


Figure 2-1-18 Fuser section

- | | |
|------------------------|----------------------------|
| 1. Heat roller | 7. Fuser thermistor (FTH) |
| 2. Fuser heater 1(FH1) | 8. Fuser thermostat (FTS) |
| 3. Fuser heater 2(FH2) | 9. Separators |
| 4. Press roller | 10. Eject roller |
| 5. Upper fuser frame | 11. Eject pulley |
| 6. Fuser paper guide | 12. Actuator(eject sensor) |

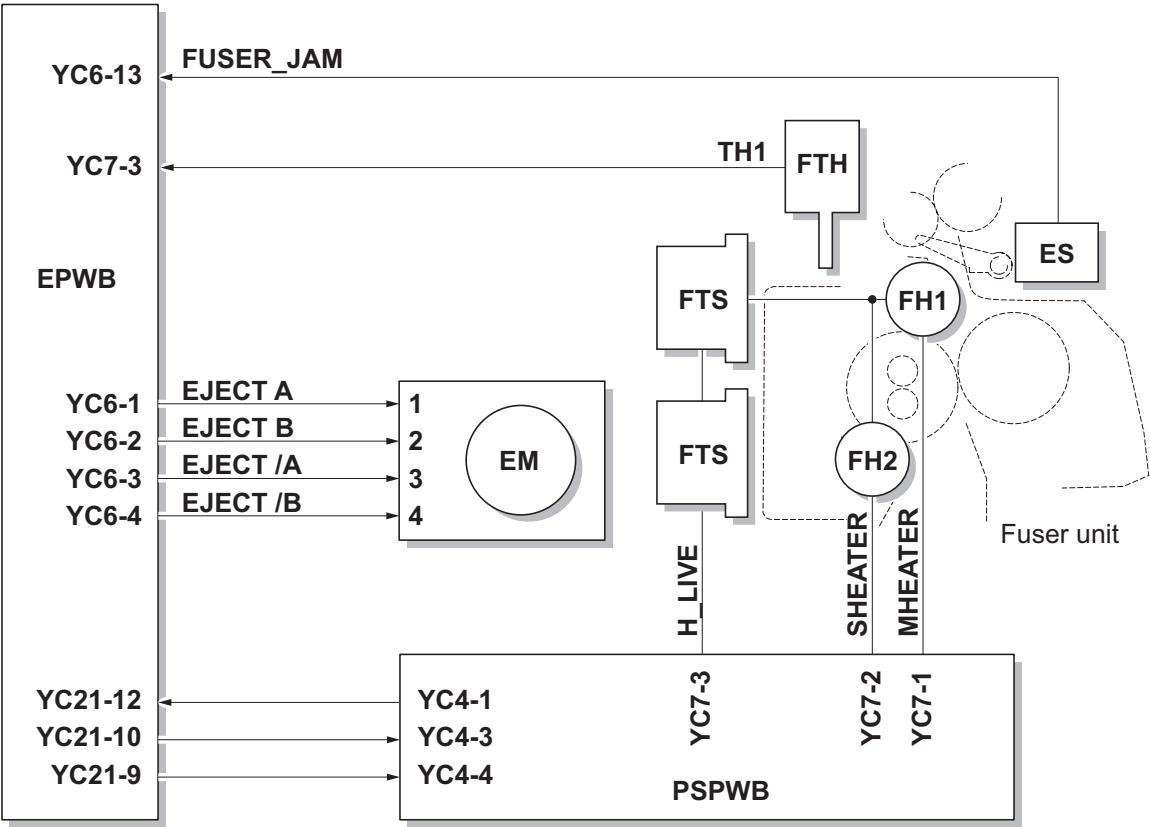


Figure 2-1-19 Fuser section block diagram

2-1-7 Eject/Feedshift section

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

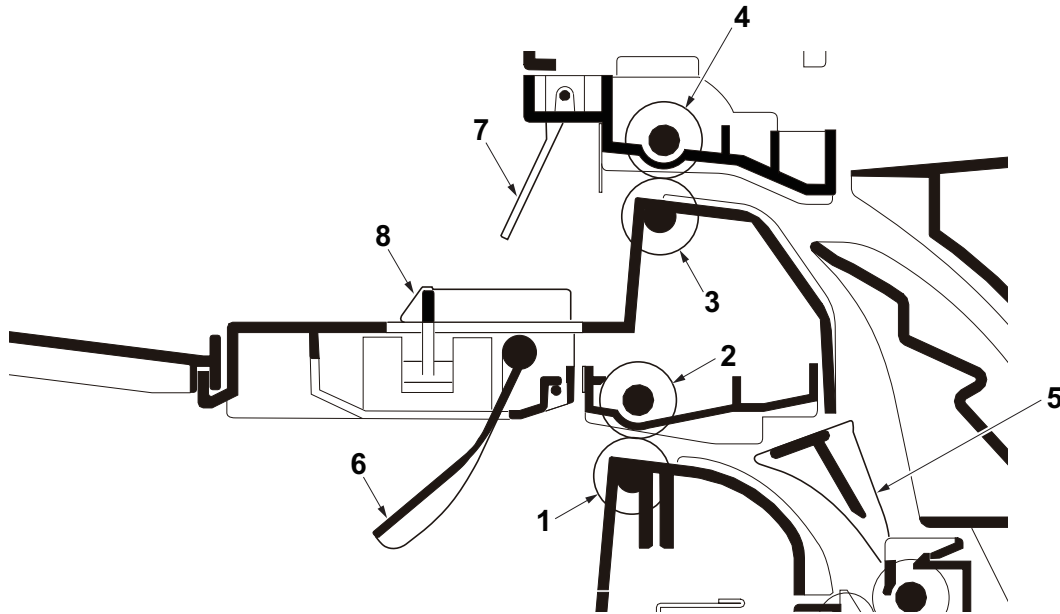


Figure 2-1-20 Eject/Feedshift section

- | | |
|--------------------|--------------------------------------|
| 1. Eject roller | 6. Actuator (paper full sensor) |
| 2. Eject pulley | 7. Actuator |
| 3. Eject roller | (job paper full sensor) |
| 4. Eject pulley | 8. Actuator (job eject paper sensor) |
| 5. Feedshift guide | |

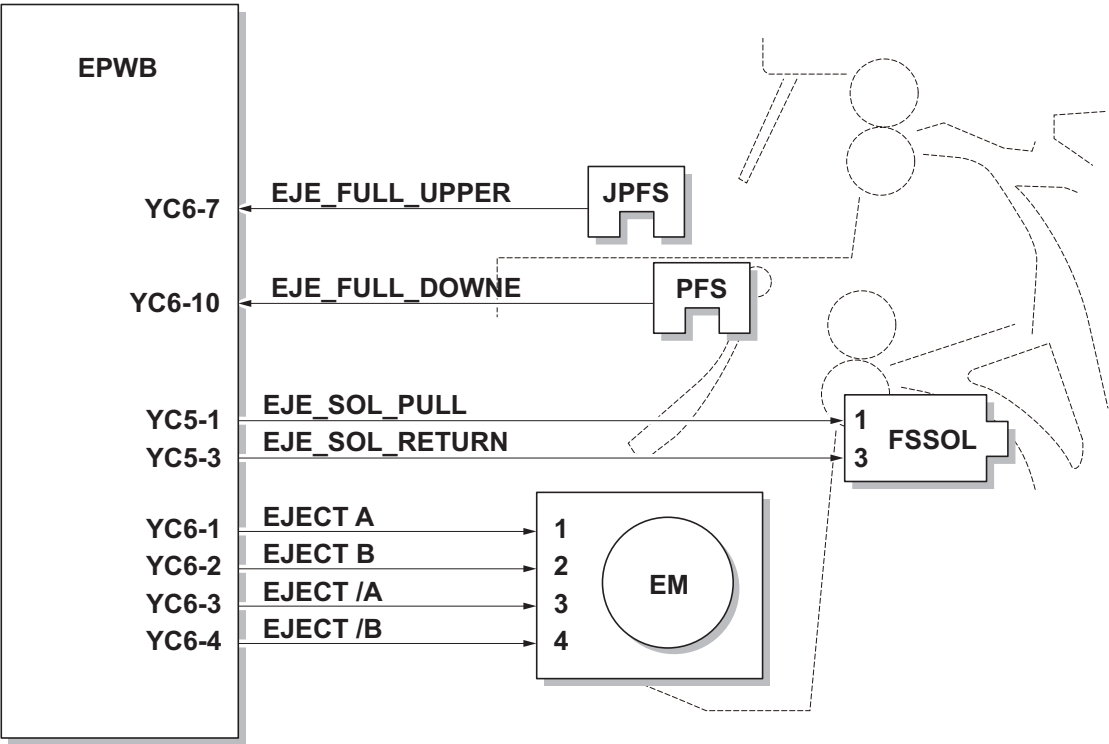


Figure 2-1-21 Eject/Feed shift section block diagram

2-1-8 Duplex conveying section

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

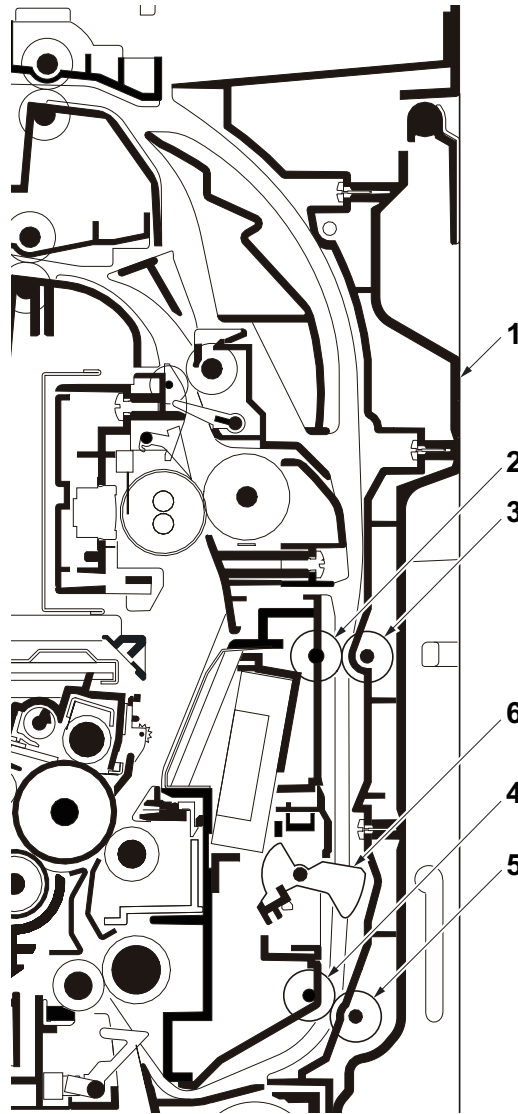


Figure 2-1-22 Duplex conveying section

- | | |
|-------------------------|-----------------------------|
| 1. Right cover 1 | 4. Duplex feed roller B |
| 2. Duplex feed roller A | 5. Duplex feed pulley B |
| 3. Duplex feed pulley A | 6. Actuator (duplex sensor) |

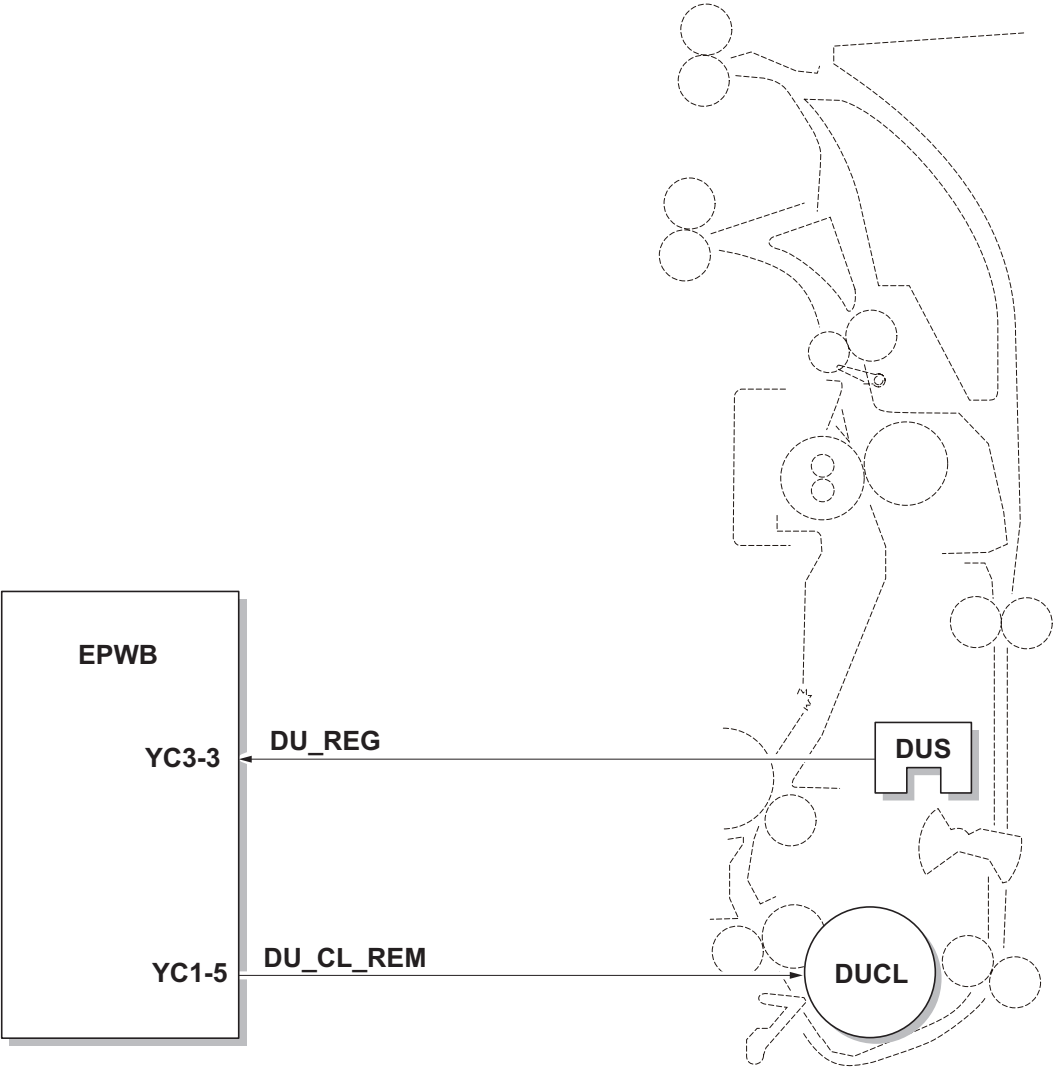


Figure 2-1-23 Duplex conveying section block diagram

2-1-9 Document processor

(1) Original feed section

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

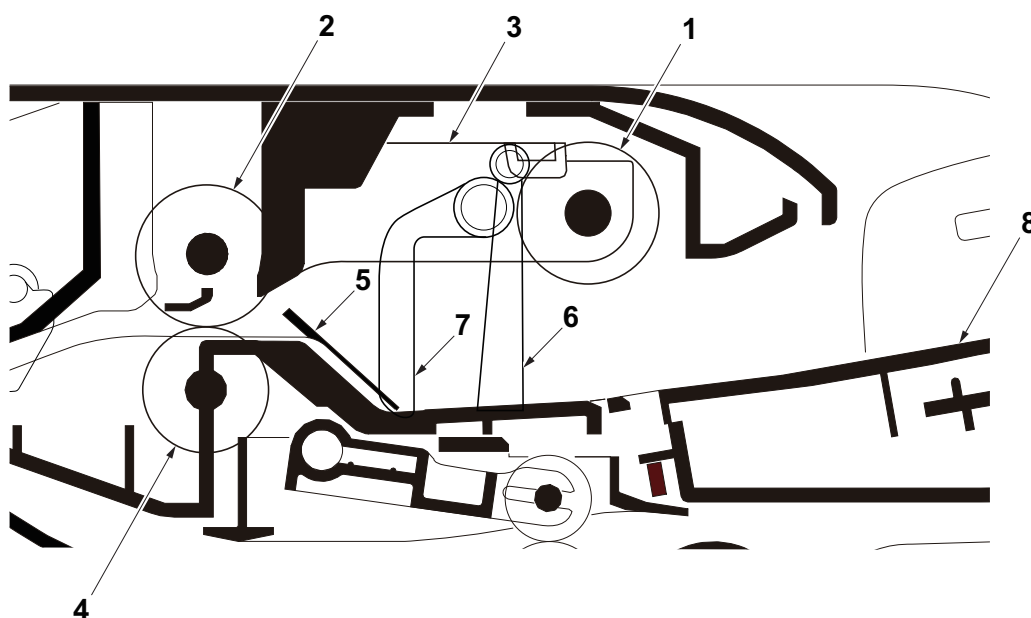


Figure 2-1-24 Original feed section

- | | |
|-------------------------|----------------------------------|
| 1. DP forwarding pulley | 6. Actuator (DP original sensor) |
| 2. DP paper feed roller | 7. PF stopper |
| 3. DP feed holder | 8. Original tray |
| 4. DP separation pulley | |
| 5. Front separation pad | |

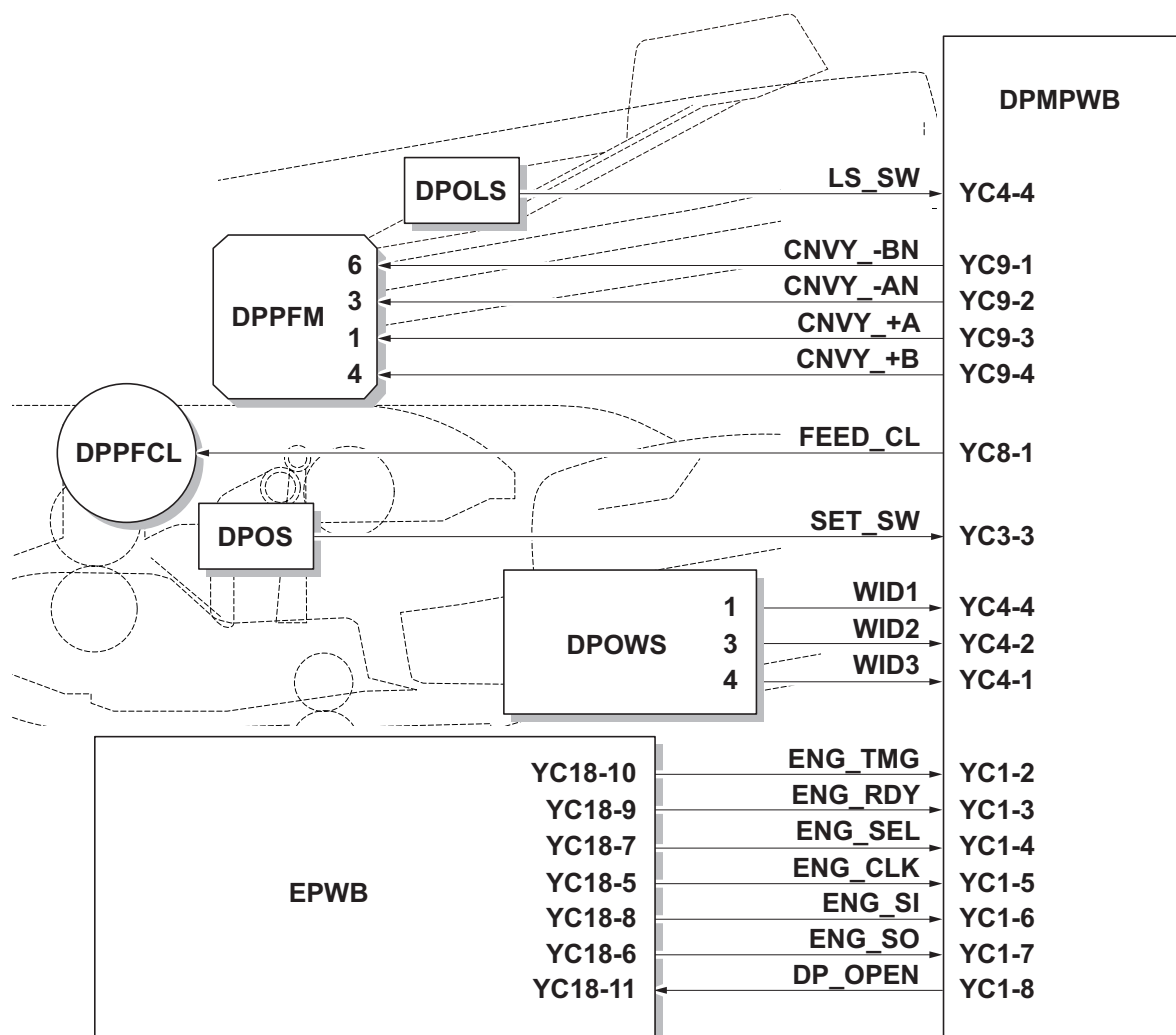


Figure 2-1-25 Original feed section block diagram

(2) Original conveying section

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

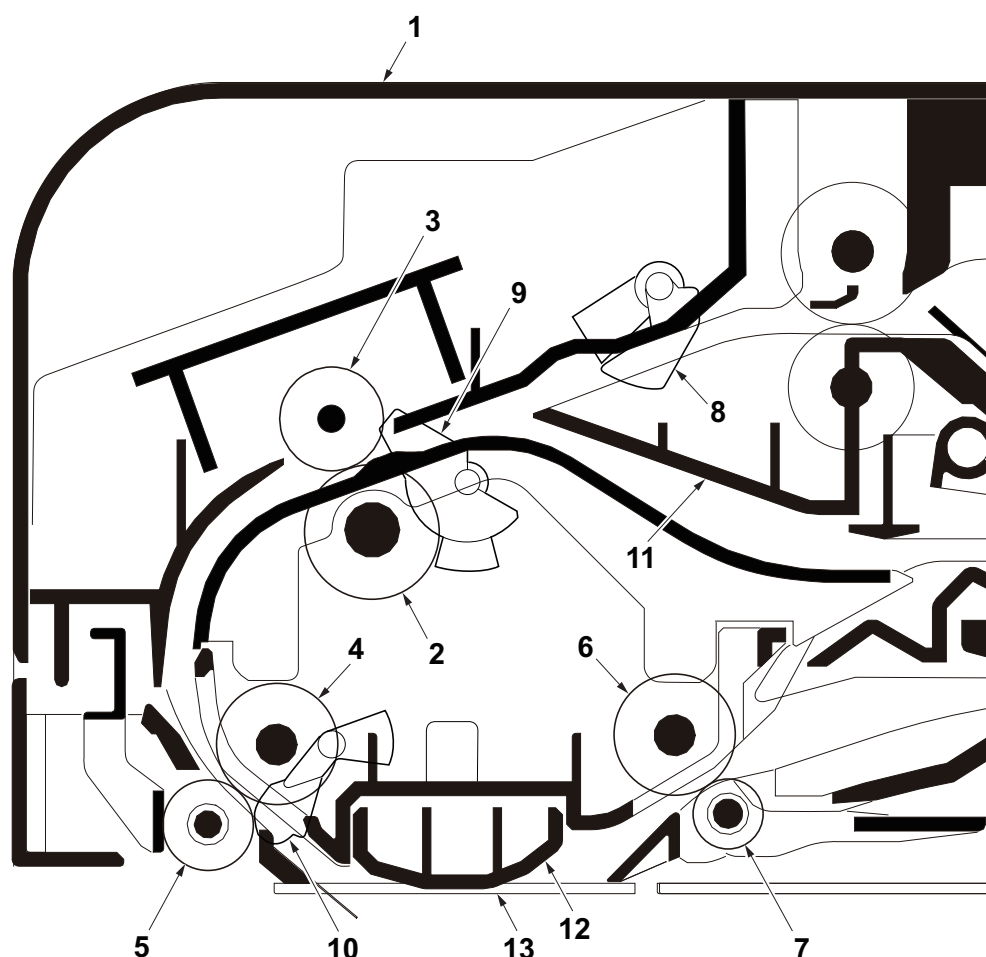


Figure 2-1-26 Original conveying section

- | | |
|---------------------------|--------------------------------------|
| 1. DP top cover | 8. Actuator (DP paper feed sensor) |
| 2. DP registration roller | 9. Actuator (DP registration sensor) |
| 3. DP registration pulley | 10. Actuator (DP timing sensor) |
| 4. Conveying roller | 11. Switchback guide |
| 5. Conveying pulley | 12. Reading guide |
| 6. Eject roller | 13. Slit glass |
| 7. Eject pulley | |

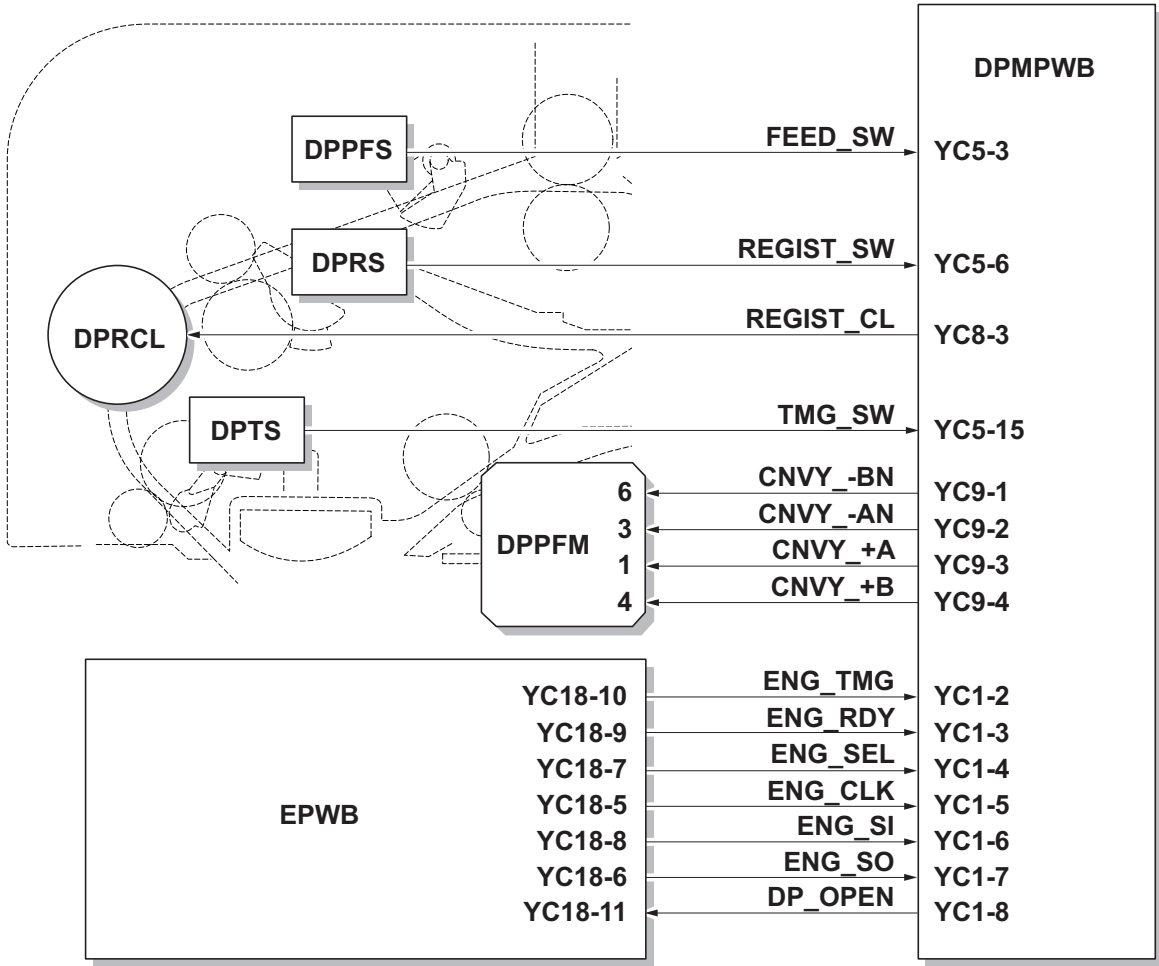


Figure 2-1-27 Original conveying section block diagram

(3) Original switchback/eject sections

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

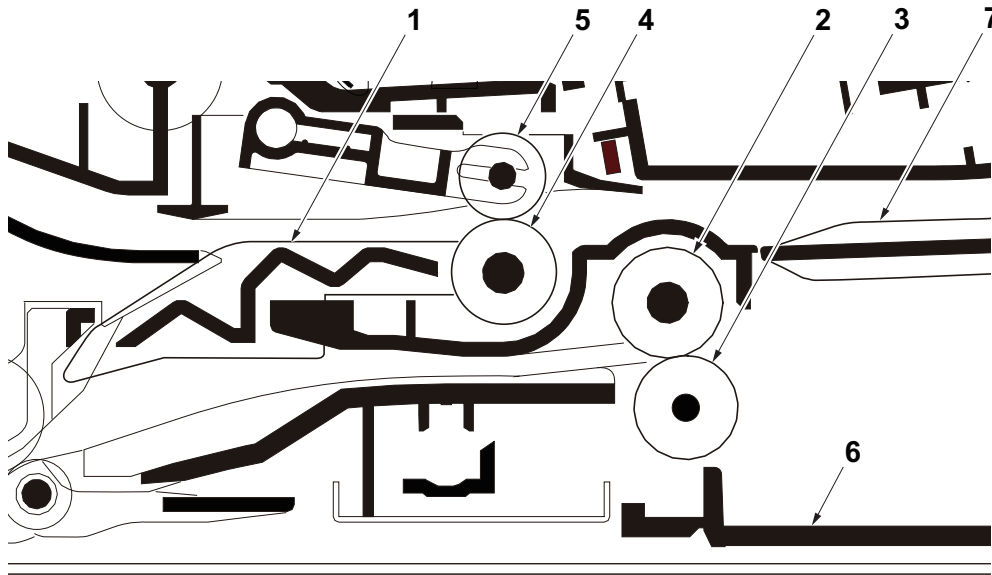


Figure 2-1-28 Original switchback/eject sections

- | | |
|----------------------|-------------------------|
| 1. Feedshift guide | 5. Switchback pulley |
| 2. Eject roller | 6. Original eject table |
| 3. Eject pulley | 7. Switchback tray |
| 4. Switchback roller | |

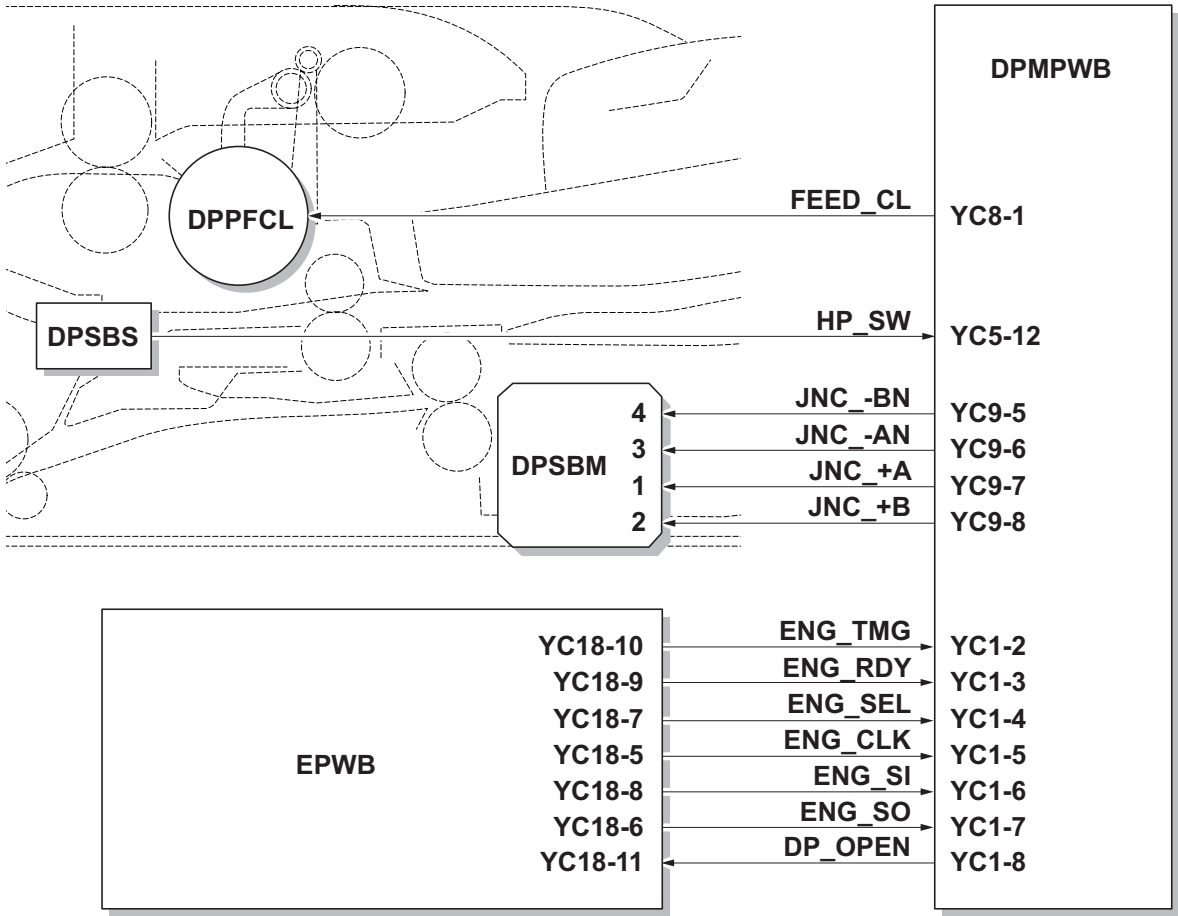


Figure 2-1-29 Original switchback/eject sections block diagram

2-2-1 Electrical parts layout

(1) PWBs

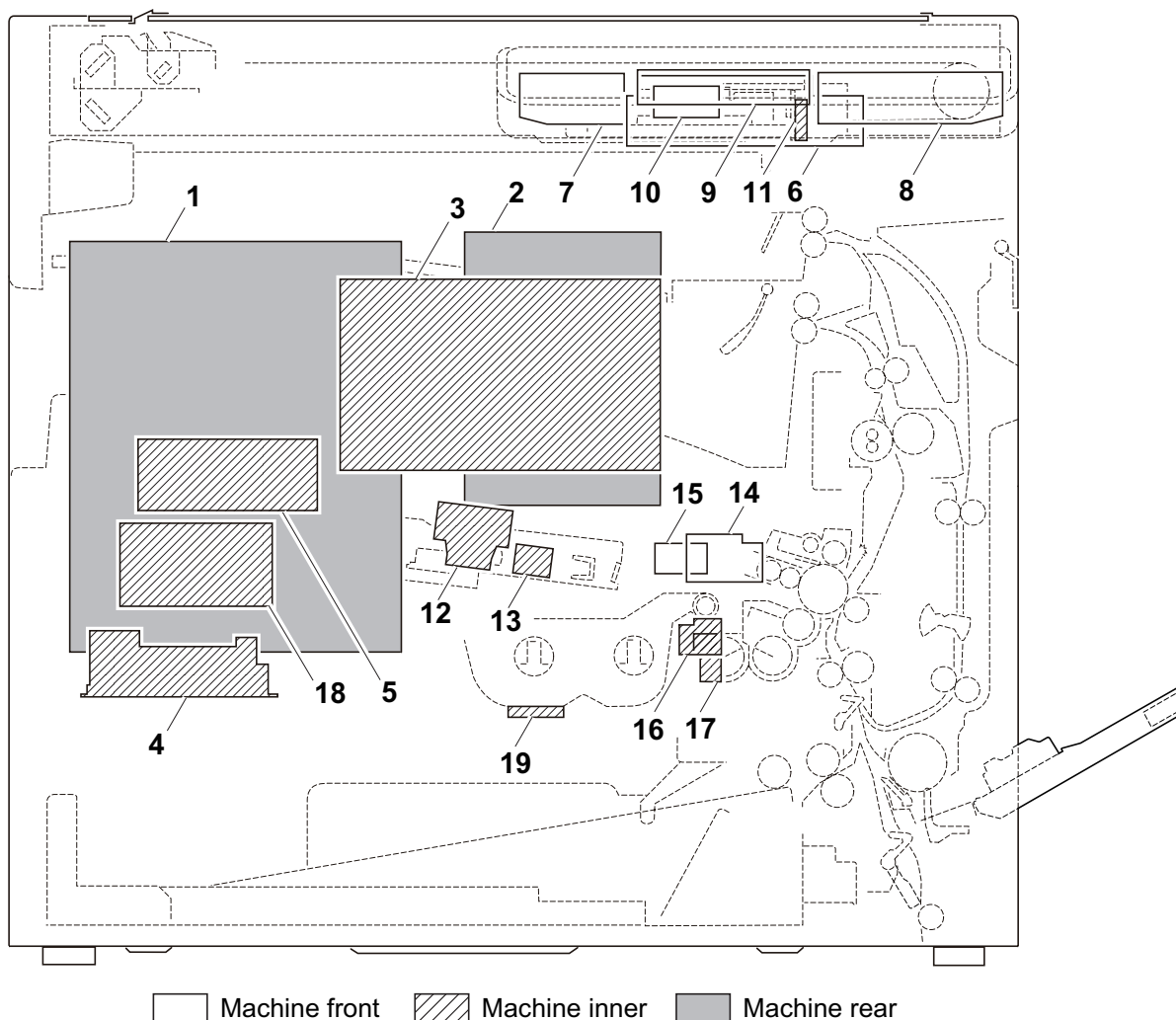


Figure 2-2-1 PWBs

1. Main PWB (MPWB) Controls the software such as the print data processing and provides the interface with computers.
2. Engine PWB (EPWB)..... Controls printer hardware such as high voltage/bias output control, paper printer conveying system control, and fuser temperature control, etc.
3. High voltage PWB (HVPWB) Generates main charging, developing bias, transfer bias.
4. Power source PWB (PSPWB) After full-wave rectification of AC power source input, switching for converting to 24 V DC for output. Controls the fuser heater.
5. Power source PWB sub (PSPWB-S) 5V output control when standing by.
6. Operation panel PWB main (OPPWB-M) Consists the LCD, LED indicators and key switches.
7. Operation panel PWB left (OPPWB-L) Consists the LED indicators and key switches.
8. Operation panel PWB right (OPPWB-R) Consists the LED indicators and key switches.
9. LCD PWB (LCDPWB) Controls the LCD display.

- 10. LCD relay PWB (LCDRPWB) Consists of wiring relay circuit between operation panel PWB main and LCD PWB.
- 11. CCD PWB (CCDPWB)..... Reads the image of originals.
- 12. APC PWB (APCPWB) Generates and controls the laser beam.
- 13. BD PWB (PDPWB) Controls horizontal synchronizing timing of laser beam.
- 14. Drum PWB (DRPWB) Relays wirings from electrical components on the drum unit.
Drum individual information in EEPROM storage.
- 15. Drum relay PWB (DRRPWB)..... Consists of wiring relay circuit between engine PWB and the drum unit.
- 16. Developing PWB (DEVPWB)..... Relays wirings from electrical components on the developing unit.
Developing individual information in EEPROM storage.
- 17. Developing relay PWB (DEVRPWB) Consists of wiring relay circuit between engine PWB and the developer unit.
- 18. Relay PWB (RYPWB) *1..... Consists of wiring relay circuit between main PWB and power source PWB.
- 19. RFID PWB (RFPWB) Reads the container information.

*1: Excluding 120V ACmodel

List of correspondences of PWB names

No.	Name used in service manual	Name used in parts list
1	Main PWB (MPWB)	PARTS PWB MAIN ASSY SP PARTS PWB MAIN ASSY SP EU
2	Engine PWB (EPWB)	PARTS PWB ENGINE ASSY SP
3	High voltage PWB (HVPWB)	PARTS HVU SP
4	Power source PWB (PSPWB)	PARTS LVU MAIN 120 SP PARTS LVU MAIN 200 SP
5	Power source PWB sub(PSPWB-S)	PARTS LVU SUB 100 SP PARTS LVU SUB 200 SP
6	Operation panel PWB main(OPPWB-M)	PARTS PWB PANEL MAIN ASSY SP PARTS OPERATION UNIT SP
7	Operation panel PWB left(OPPWB-L)	
8	Operation panel PWB right(OPPWB-R)	
9	LCD PWB (LCDPWB)	
10	LCD relay PWB (LCDRPWB)	
11	CCD PWB (CCDPWB)	PARTS ISU
12	APC PWB (APCPWB)	LK-475
13	BD PWB (BDPWB)	
14	Drum PWB (DRPWB)	DK-475 MK-475/MAINTENANCE KIT MK-477/MAINTENANCE KIT MK-479/MAINTENANCE KIT
15	Drum relay PWB (DRRPWB)	PARTS PWB DRUM CONNECT ASSY SP
16	Developing PWB (DEVPWB)	DV-475 MK-475/MAINTENANCE KIT MK-477/MAINTENANCE KIT MK-479/MAINTENANCE KIT
17	Developing relay PWB (DEVRPWB)	PARTS PWB DEVE CONNECT ASSY SP
18	Relay PWB (RYPWB)	PARTS LVU MAIN 200 SP
19	RFID PWB (RFPWB)	PARTS PWB RFID ASSY SP

(2) Switches and sensors

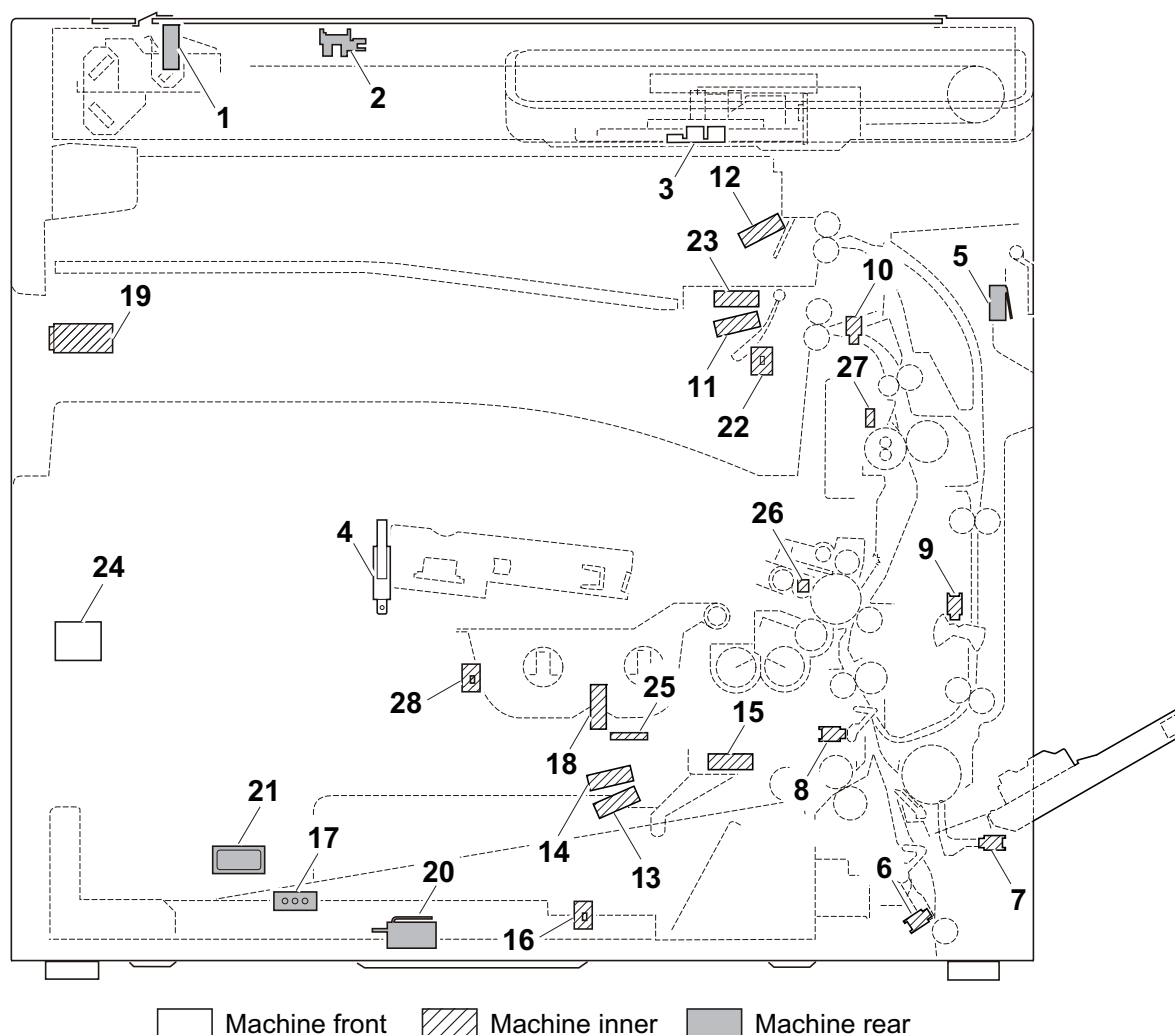


Figure 2-2-2 Switches and sensors

1. Home position sensor (HPS) Detects the ISU in the home position.
2. Original detection switch (ODSW) Operates the original size detection sensor.
3. Original size sensor (OSS) Detects the size of the original.
4. Front cover switch (FCSW)..... Detects the opening and closing of the front cover.
5. Right cover switch (RCSW) Detects the opening and closing of the right cover.
6. Feed sensor (FS)..... Detects a paper misfeed in the vertical conveying section.
7. MP paper sensor (MPPS) Detects the presence of paper on the MP tray.
8. Registration sensor (RS)..... Controls the secondary paper feed start timing.
9. Duplex sensor (DUS) Detects a paper jam in the duplex section.
10. Eject sensor (ES)..... Detects a paper misfeed in the fuser or eject section.
11. Paper full sensor (PFS)..... Detects the paper full in the inner tray.
12. Job paper full sensor (JPFS) Detects the paper full in the job separator tray.
13. Paper sensor 1 (PS1) Detects the presence of paper in the cassette.
14. Paper sensor 2 (PS2) Detects the presence of paper in the cassette.
15. Lift sensor (LS)..... Detects the top limit of the bottom plate.
16. Paper size width switch (PWSW)..... Detects the width of paper in the cassette.
17. Paper size length switch (PLSW) Detects the length of paper in the cassette.
18. Toner container lock sensor (TCLS) Detects the lock of toner in the toner container.

- 19. Main power switch (MSW) Turns ON/OFF the AC power source.
- 20. Interlock switch (ILSW) Shuts off 24 V DC power line when the front cover is opened.
- 21. Cassette heater switch (CHSW) Turns ON/OFF the cassette heater power source.
- 22. Bridge detection switch (BRDSW) Detects the presence of bridge.
- 23. Job eject papersensor (JEPS) Detects the presence of paper in the job separator.
- 24. Temperature sensor (TEMS)..... Detects the temperature and absolute humidity in the machine.
- 25. Toner sensor (TS) Detects the amount of toner remaining in the toner container.
- 26. Waste toner sensor (WTS)..... Detects when the waste toner box is full.
- 27. Fuser thermistor (FTH) Detects the heat roller temperature.
- 28. Toner container switch (TCSW) Detects the presence of toner container.

(3) Motors

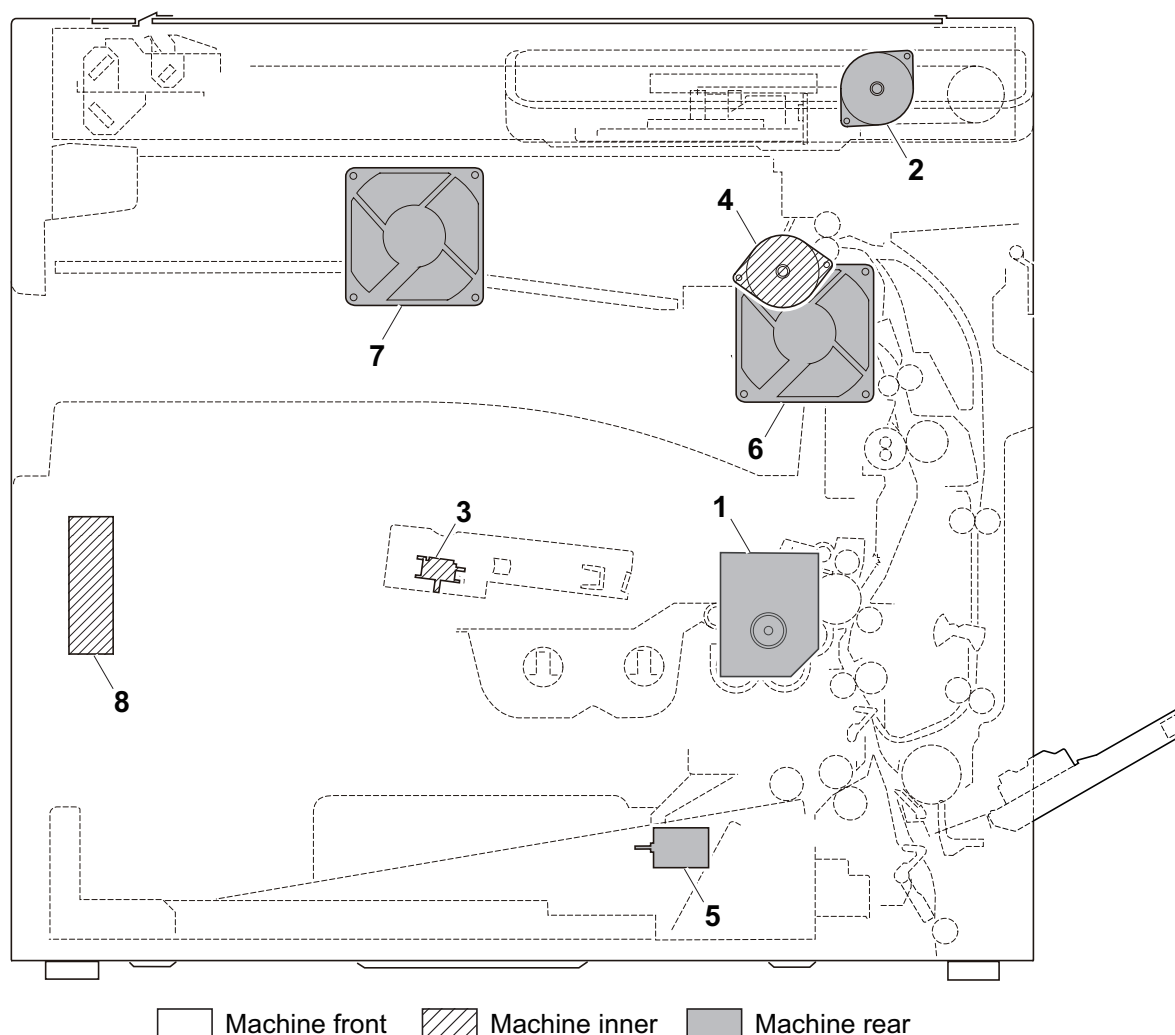
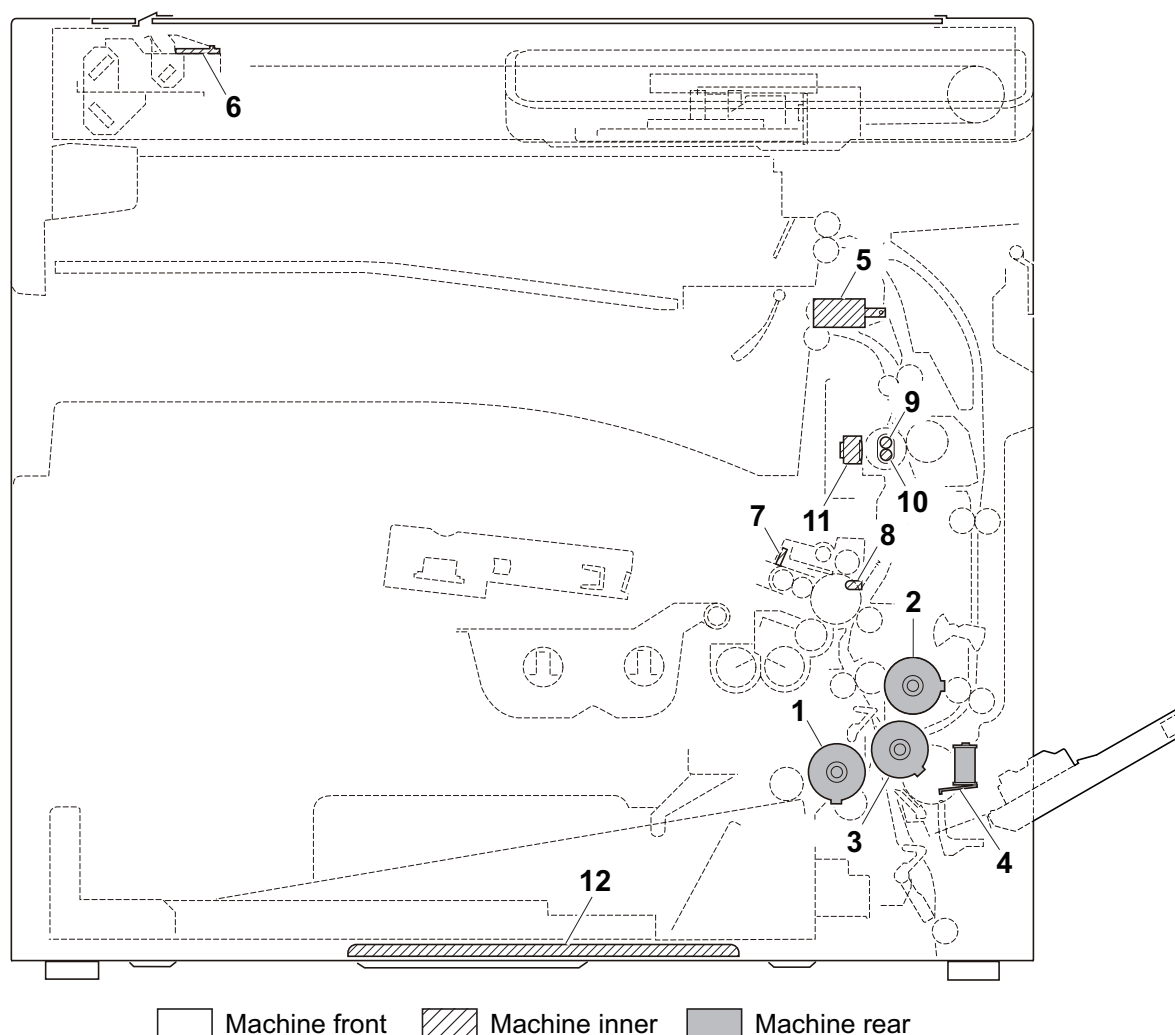
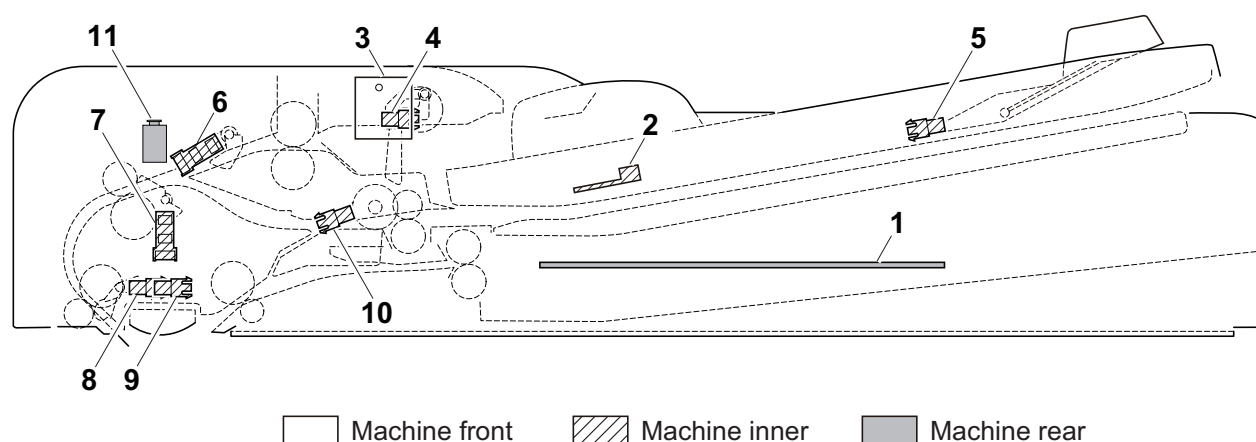


Figure 2-2-3 Motors

- | | |
|--|--|
| 1. Main motor (MM)..... | Drives the paper feed section and conveying section. |
| 2. ISU motor (ISUM) | Drives the ISU. |
| 3. Polygon motor (PM) | Drives the polygon mirror. |
| 4. Eject motor (EM) | Drives the fuser section and eject section. |
| 5. Lift motor (LM)..... | Operates the bottom plate. |
| 6. Eject fan motor (EFM)..... | Cools the fuser and eject sections. |
| 7. Controller fan motor (CONFM)..... | Cools the controller section. |
| 8. Power source fan motor (PSFM) | Cools the power source PWB and the laser scanner unit. |

(4) Others**Figure 2-2-4 Others**

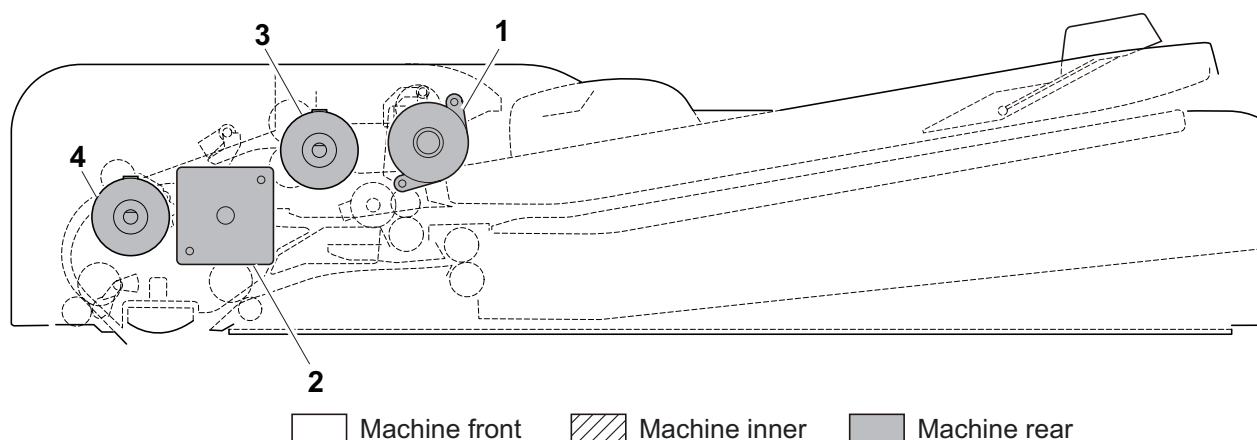
- | | |
|-------------------------------------|---|
| 1. Paper feed clutch (PFCL) | Primary paper feed from cassette. |
| 2. Registration clutch (RCL) | Controls the secondary paper feed. |
| 3. Duplex clutch (DUCL) | Controls the drive of the duplex feed roller. |
| 4. MP solenoid (MPSOL) | Controls the MP bottom plate. |
| 5. Feedshift solenoid (FSSOL) | Operates the feedshift guide. |
| 6. Exposure lamp (EL) | Exposes originals. |
| 7. Cleaning lamp (CL) | Eliminates the residual electrostatic charge on the drum. |
| 8. Waste toner lamp (WTL) | Lights at the brimmer of the toner box. |
| 9. Fuser heater 1 (FH1) | Heats the heat roller. |
| 10. Fuser heater 2 (FH2) | Heats the heat roller. |
| 11. Fuser thermostat (FTS) | Prevents overheating of the heat roller. |
| 12. Cassette heater (CH) | Dehumidifies the cassette section. |

(5) Document processor (PWBs and sensors)**Figure 2-2-5 Document processor**

1. DP main PWB (DPMPWB) Consists the motor and clutch driver circuit and wiring relay circuit.
2. DP original size width sensor (DPOWS) Detects the width of the original.
3. DP LED PWB (DPLEDPWB) Display the presence of the original.
4. DP original sensor (DPOS) Detects the presence of an original.
5. DP original size length sensor (DPOLS) Detects the length of the original.
6. DP paper feed sensor (DPPFS) Detects a paper misfeed.
7. DP registration sensor (DPRS) Controls the secondary paper feed start timing.
8. DP timing sensor (DPTS) Detects the original scanning timing.
9. DP open/close sensor (DPOCS) Detects the opening/closing of the DP.
10. DP switchback sensor (DPSBS) Detects the switchback guide in the home position.
11. DP interlock switch (DPILSW) Shuts off 24 V DC power line when the dp top cover is opened.

List of correspondences of PWB names

No.	Name used in service manual	Name used in parts list
1	DP main PWB (DPMPWB)	PARTS PWB DRIVE ASSY SP

(6) Document processor (Motors and clutches)**Figure 2-2-6 Document processor**

1. DP paper feed motor (DPPFM)..... Drives the original feed section.
2. DP switchback motor (DPSBM) Drives the original switchback section.
3. DP paper feed clutch (DPPFCL) Controls the drive of the DP forwarding pulley and DP paper feed roller.
4. DP registration clutch (DPRCL) Controls the secondary paper feed.

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Connector	Pin	Signal	I/O	Voltage	Description
YC100	1	VBUS	O	5 V DC	5 V DC power output
Connected to operation panel PWB main(USB)	2	DATA-	I/O	LVDS	USB data signal
	3	DATA+	I/O	LVDS	USB data signal
	4	ID	-	-	Not used
	5	GND	-	-	Ground
YC101	1	NC	-	-	Not used
Connected to operation panel PWB main (control)	2	GND	-	-	Ground
	3	PANEL_STAT US	I	0/3.3 V DC	Operation panel status signal
	4	INT_POWER KEY	I	0/3.3 V DC	Power key: On/Off
	5	PANEL_RESE T	O	0/3.3 V DC	OPPWB-M reset signal
	6	AUDIO	O	Analog	Voice output signal
	7	LIGHTOFF_P OWERON	O	0/3.3 V DC	Sleep return signal 1
	8	SHUTDOWN	O	0/3.3 V DC	24 V down signal
	9	LED_PROCE SSING_N	O	0/3.3 V DC	Processing LED control signal
	10	LED_ATTENT ION	O	0/3.3 V DC	Attention LED control signal
	11	LED_MEMOR Y	O	0/3.3 V DC	Memory LED control signal
	12	SUSPEND_P ower	O	5 V DC	5 V DC power output to OPPWB-M
	13	ENERGY_SA VE	O	0/3.3 V DC	Energy save signal
	14	BEEP_POWE RON	O	0/3.3 V DC	Sleep return signal 0
YC102	1	5V2	O	5 V DC	5 V DC power output to OPPWB-M
Connected to operation panel PWB main(power source)	2	5V2	O	5 V DC	5 V DC power output to OPPWB-M
	3	GND	-	-	Ground
	4	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC103	1	+3.3V4	O	3.3 V DC	3.3 V DC power output to BDPWB
Connected to APC PWB	2	GND	-	-	Ground
	3	BDN	I	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	4	GND	-	-	Ground
	5	VCONT	O	Analog	Laser control signal
	6	ENBN	O	0/3.3 V DC	Laser output permission signal
	7	SH	O	0/3.3 V DC	Sample/hold signal
	8	VD0P	O	LVDS	Video data signal (+)
	9	VD0N	O	LVDS	Video data signal (-)
	10	+5VIL	O	5 V DC	5 V DC power output to APCPWB (By way of ILSW)
YC105	1	SLEEPOFF	I	0/3.3 V DC	Sleep Off signal
Connected to engine PWB	2	ENG_HLD	O	0/3.3 V DC	Engine hold signal
	3	SCAN_HLD	O	0/3.3 V DC	Scan hold signal
	4	LIGHT_SLEEP N	O	0/3.3 V DC	Light sleep shift signal
	5	24V4	I	24 V DC	24 V DC power input from EPWB
	6	24V4	I	24 V DC	24 V DC power input from EPWB
	7	5V4	I	5 V DC	5 V DC power input from EPWB
	8	3.3V0	I	3.3 V DC	3.3 V DC power input from EPWB
	9	3.3V4	I	3.3 V DC	3.3 V DC power input from EPWB
	10	3.3V4	I	3.3 V DC	3.3 V DC power input from EPWB
	11	24VDOWN	I	0/3.3 V DC	24 V down signal
	12	GND	-	-	Ground
	13	GND	-	-	Ground
	14	GND	-	-	Ground
	15	GND	-	-	Ground
	16	GND	-	-	Ground
	17	HYP_SCL	I	0/3.3 V DC(pulse)	Clock signal
	18	HYP_SDA	I	0/3.3 V DC(pulse)	Data signal
	19	HYP_INT	O	0/3.3 V DC	Interrupt signal
	20	AQUA_CLK	I	0/3.3 V DC(pulse)	Clock signal
	21	AQUA_SO	O	0/3.3 V DC(pulse)	Serial communication data signal output
	22	AQUA_SI	I	0/3.3 V DC(pulse)	Serial communication data signal input
	23	AQUA_SEL	I	0/3.3 V DC	Select signal
	24	AQUA_RDY	O	0/3.3 V DC	Ready signal
	25	PVSYNC	I	0/3.3 V DC(pulse)	Vertical synchronizing signal

Connector	Pin	Signal	I/O	Voltage	Description
YC105	26	OVSYNCMON	O	0/3.3 V DC	Sub-scanning monitor signal
Connected to engine PWB	27	PAGEST	I	0/3.3 V DC	Sub-scanning standard signal
	28	EME_CLK	O	0/3.3 V DC(pulse)	Clock signal
	29	EME_SO	O	0/3.3 V DC(pulse)	Serial communication data signal output
	30	EME_SI	I	0/3.3 V DC(pulse)	Serial communication data signal input
	31	EME_BSY	I	0/3.3 V DC	Busy signal
	32	EME_DIR	I	0/3.3 V DC	Communication direction change signal
	33	EME_IRN	I	0/3.3 V DC	Interrupt signal
	34	5V4IL	-	DC5 V	5 V DC power input from EPWB
	35	BDN	O	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	36	VCONT	I	Analog	Leser control signal
	37	OUTPEN	I	0/3.3 V DC	Laser output permission signal
	38	N.C.	-	-	Not used
YC106 *1	1	GND	-	-	Ground
Connected to relay PWB	2	RLYREM	O	0/5 V DC	relay drive signal
	3	5V0	I	5 V DC	5 V DC power input from RYPWB
YC107	1	VBUS	O	5 V DC	5 V DC power output
Connected to USB-HOST	2	DATA-	I/O	LVDS	USB data signal
	3	DATA+	I/O	LVDS	USB data signal
	4	ID	-	-	Not used
	5	GND	-	-	Ground
YC112	1	+24V4	O	24 V DC	24 V DC power output to LEDPWB
Connected to exposure lamp (LED PWB)	2	+24V4	O	24 V DC	24 V DC power output to LEDPWB
	3	POW	O	0/3.3 V DC	LED driver: On/Off
	4	PWM	O	0/3.3 V DC	PWM signal
	5	PGND	-	-	Ground
	6	SGND	-	-	Ground
	7	VSET	O	Analog	Analog voltage
	8	SCL	O	0/3.3 V DC(pulse)	Clock signal
	9	SDA	I/O	0/3.3 V DC(pulse)	Data signal
	10	FAIL	I	0/3.3 V DC	Error signal
	11	5V4	O	5 V DC	5 V DC power output to LEDPWB

*1: Excluding 120V AC model

Connector	Pin	Signal	I/O	Voltage	Description
YC113	1	CCDPWR	O	12 V DC	12 V DC power output to CCDPWB
Connected to CCD PWB	2	CCDPWR	O	12 V DC	12 V DC power output to CCDPWB
	3	+5V4	O	5 V DC	5 V DC power output to CCDPWB
	4	+5V4	O	5 V DC	5 V DC power output to CCDPWB
	5	+5V4	O	5 V DC	5 V DC power output to CCDPWB
	6	+3.3V4	O	3.3 V DC	3.3 V DC power output to CCDPWB
	7	CCD_SH	O	0/3.3 V DC	Shift gate signal
	8	GND	-	-	Ground
	9	RS	O	0/3.3 V DC	Reset signal
	10	GND	-	-	Ground
	11	CP	O	0/3.3 V DC	Clamping signal
	12	GND	-	-	Ground
	13	CCDCLK1	O	0/3.3 V DC(pulse)	Clock signal
	14	GND	-	-	Ground
	15	OS1(B)	I	Analog	CCD Image output signal(B)
	16	GND	-	-	Ground
	17	OS2(G)	I	Analog	CCD Image output signal(G)
	18	GND	-	-	Ground
	19	OS3(R)	I	Analog	CCD Image output signal(R)
YC115	1	DEEPSLEEPN	O	0/3.3 V DC	Sleep signal: On/Off
Connected to power source PWB	2	GND	-	-	Ground
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	5V2	I	5 V DC	5 V DC power input from PSPWB
	10	5V2	I	5 V DC	5 V DC power input from PSPWB
	11	5V2	I	5 V DC	5 V DC power input from PSPWB
	12	5V2	I	5 V DC	5 V DC power input from PSPWB
	13	5V2	I	5 V DC	5 V DC power input from PSPWB
	14	5V2	I	5 V DC	5 V DC power input from PSPWB
	15	5V2	I	5 V DC	5 V DC power input from PSPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC118	1	AUTODOWN	O	0/3.3 V DC	Auto down signal
Connected to power source PWB sub	2	GND	-	-	Ground
	3	5V0	I	5 V DC	5 V DC power input from PSPWB-S
YC41	1	+24V1	O	24 V DC	24 V DC power output to CONFM
Connected to controller fan motor	2	CONTFANDR N	O	0/24 V DC	CONFM: On/Off
	3	N.C.	-	-	Not used

2-3-2 Engine PWB

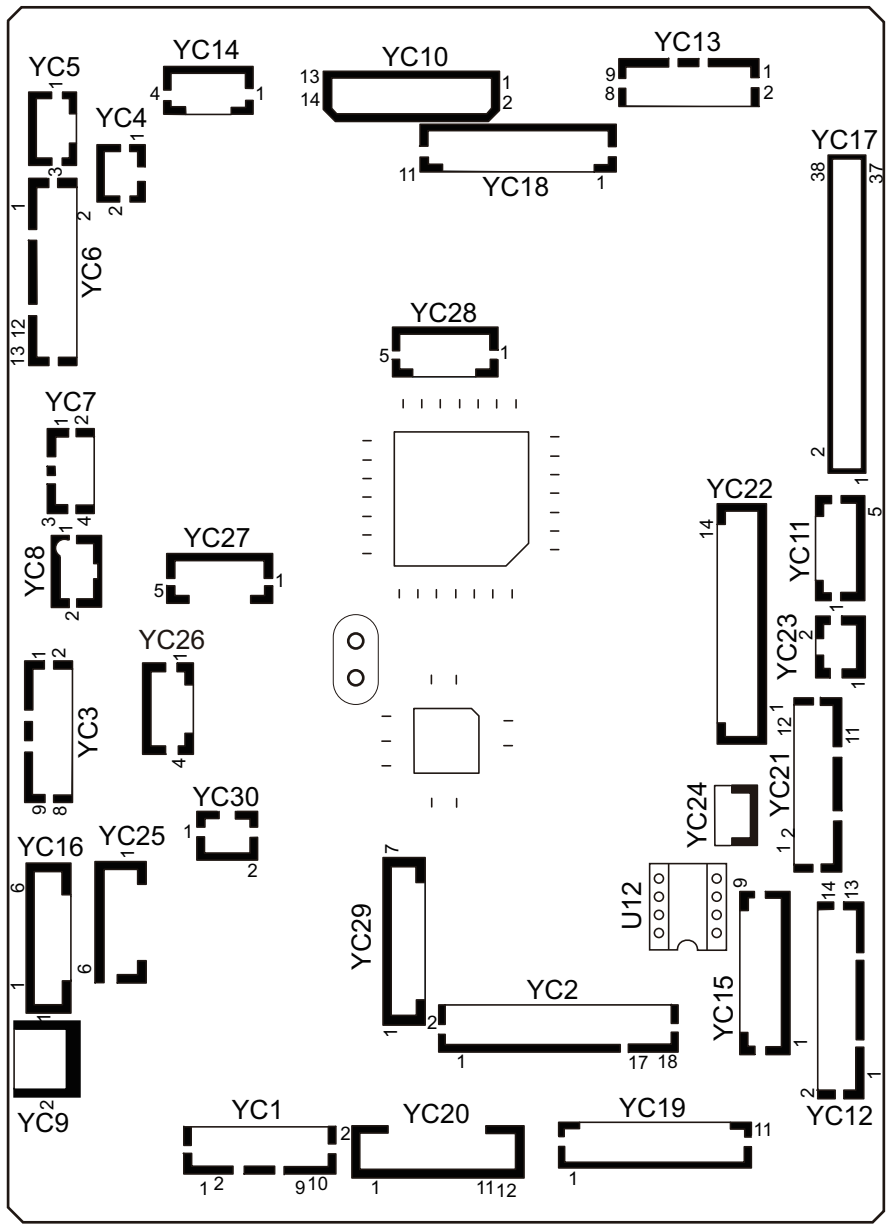


Figure 2-3-2 Engine PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	FEED_CL_RE M	O	0/24 V DC	PFCL: On/Off
Connected to paper feed clutch, registration clutch, duplex clutch, MP solenoid and lift motor	2	24V4	O	24 V DC	24V DC power output to PFCL
	3	REG_CL_RE M	O	0/24 V DC	RCL: On/Off
	4	24V4	O	24 V DC	24V DC power output to RCL
	5	DU_CL_REM	O	0/24 V DC	DUCL: On/Off
	6	24V4	O	24 V DC	24V DC power output to DUCL
	7	24V4	O	24 V DC	24V DC power output to MPSOL
	8	MPF_SOL_R EM	O	0/24 V DC	MPSOL: On/Off
	9	LMOT_REM	O	0/24 V DC	LM: On/Off
	10	24V4	O	24 V DC	24V DC power output to LM
YC2	1	3.3VLED	O	3.3V DC	3.3V DC power output to LS
Connected to lift sensor, registration sensor, paper sensor1, 2, paper size length switch and paper size width switch	2	GND	-	-	Ground
	3	LIFTFULL	I	0/3.3 V DC	LS: On/Off
	4	3.3VLED	O	3.3V DC	3.3V DC power output to RS
	5	GND	-	-	Ground
	6	RESIST	I	0/3.3 V DC	RS: On/Off
	7	3.3VLED	O	3.3V DC	3.3V DC power output to PS1
	8	GND	-	-	Ground
	9	PAPEMP1	I	0/3.3 V DC	PS1: On/Off
	10	3.3VLED	O	3.3V DC	3.3V DC power output to PS2
	11	GND	-	-	Ground
	12	PAPEMP2	I	0/3.3 V DC	PS2: On/Off
	13	PAPLSIZE3	I	0/3.3 V DC	PLSW: On/Off
	14	PAPLSIZE2	I	0/3.3 V DC	PLSW: On/Off
	15	GND	-	-	Ground
	16	PAPLSIZE1	I	0/3.3 V DC	PLSW: On/Off
	17	PAPWSIZE1	I	0/3.3 V DC	PWSW: On/Off
	18	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3VLED	O	3.3 V DC	3.3 V DC power output to DUS
Connected to duplex sensor, MP paper sensor and feed sensor	2	GND	-	-	Ground
	3	DU_REG	I	0/3.3 V DC	DUS: On/Off
	4	3.3VLEDDDS	O	3.3 V DC	3.3 V DC power output to MPPS
	5	GND	-	-	Ground
	6	MPF_EMPTY	I	0/3.3 V DC	MPPS: On/Off
	7	3.3VLED	O	3.3 V DC	3.3 V DC power output to FS
	8	GND	-	-	Ground
	9	PAPER_JAM	I	0/3.3 V DC	FS: On/Off
YC4	1	24V4	O	24 V DC	24 V DC power output to EFM
Connected to eject fan motor	2	EJECT_FAN_REM	O	0/24 V DC	EFM: On/Off
YC5	1	EJE_SOL_PUL	O	0/24 V DC	FSSOL: On(Pressurizing)/Off
Connected to feedshift solenoid	2	+24V4	O	24 V DC	24 V DC power output to FSSOL
	3	EJE_SOL_RETURN	O	0/24 V DC	FSSOL: On(Release)/Off
YC6	1	EJECT A	O	0/24 V DC(pulse)	EM drive control signal
Connected to eject motor, job paper full sensor, paper full sensor and eject sensor	2	EJECT B	O	0/24 V DC(pulse)	EM drive control signal
	3	EJECT /A	O	0/24 V DC(pulse)	EM drive control signal
	4	EJECT /B	O	0/24 V DC(pulse)	EM drive control signal
	5	3.3VLED	O	3.3 V DC	3.3 V DC power output to JPFS
	6	GND	-	-	Ground
	7	EJE_FULL_UPPER	I	0/3.3 V DC	JPFS: On/Off
	8	3.3VLED	O	3.3 V DC	3.3 V DC power output to PFS
	9	GND	-	-	Ground
	10	EJE_FULL_DOWNER	I	0/3.3 V DC	PFS: On/Off
	11	3.3VLED	O	3.3 V DC	3.3 V DC power output to ES
	12	GND	-	-	Ground
	13	FUSER_JAM	I	0/3.3 V DC	ES: On/Off
YC7	1	3.3V4	O	3.3 V DC	3.3 V DC power output to FTH
Connected to fuser thermistor	2	GND	-	-	Ground
	3	TH1	I	Analog	FTH Detection voltage
	4	TH2	I	Analog	FTH Detection voltage

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	BRSET	I	0/3.3 V DC	BRDSW: On/Off
Connected to bridge detection switch	2	GND	-	-	Ground
YC9	1	24VIL1	O	24 V DC	24 V DC power output to RCSW (By way of FCSW)
Connected to right cover switch	2	24VIL2	I	24 V DC	24 V DC power input from RCSW
YC10	1	24VIL	O	24 V DC	24 V DC power output to HVPWB
Connected to high voltage PWB	2	24VIL	O	24 V DC	24 V DC power output to HVPWB
	3	MC_CLK	O	0/3.3 V DC(pulse)	Charging AC clock signals
	4	MC_ACCNT	O	Analog	Charging AC output control signal
	5	MC_DCCNT	O	Analog	Charging DC output control signal
	6	MC_ISENS	I	Analog	Charging output current detection signal
	7	DC_REM	O	0/3.3 V DC	Charging DC/Transfer DC output : On/Off
	8	TRA_CNT	O	Analog	Transfer DC output control signal
	9	SEP_REM	O	0/3.3 V DC	Separation DC output: On/Off
	10	SEP_SEL	O	Analog	Separation DC output shift signal
	11	DLP_CLK	O	0/3.3 V DC(pulse)	Developing AC clock signal
	12	DLP_CNT	O	Analog	Developing DC output shift signal
	13	GND	-	-	Ground
	14	GND	-	-	Ground
YC11	1	24V4	O	24 V DC	24 V DC power output to PM
Connected to polygon motor	2	GND	-	-	Ground
	3	POL_REM	O	0/3.3 V DC	PM: On/Off
	4	POL_READY	I	0/3.3 V DC	PM ready signal
	5	POL_CLK	O	0/3.3 V DC(pulse)	PM clock

Connector	Pin	Signal	I/O	Voltage	Description
YC12	1	GND	-	-	Ground
Connected to developing relay PWB,RFID PWB,toner sensor,toner container lock sensor and toner container switch	2	DLP_SDA	I/O	0/3.3 V DC(pulse)	DEVPWB EEPROM data signal
	3	DLP_SCL	O	0/3.3 V DC(pulse)	DEVPWB EEPROM clock signal
	4	3.3V4	O	3.3 V DC	3.3 V DC power output to DEVPWB
	5	GND	-	-	Ground
	6	RFID_SDA	I/O	0/3.3 V DC(pulse)	RFPWB EEPROM data signal
	7	RFID_SCL	O	0/3.3 V DC(pulse)	RFPWB EEPROM clock signal
	8	3.3V4	O	3.3 V DC	3.3 V DC power output to RFPWB
	9	3.3V4	O	3.3 V DC	3.3 V DC power output to TS
	10	TON_EMP	I	0/3.3 V DC	TS: On/Off
	11	GND	-	-	Ground
	12	3.3VLED	O	3.3 V DC	3.3 V DC power output to TCLS
	13	GND	-	-	Ground
	14	CON_LOCK	I	0/3.3 V DC	TCLS: On/Off
	15	TCONSET	I	0/3.3 V DC	TCSW: On/Off
	16	GND	-	-	Ground
YC13	1	3.3VLED	O	3.3 V DC	3.3 V DC power output to HPS
Connected to home position sensor,original detection switch and original size sensor	2	GND	-	-	Ground
	3	SCA_HP	I	0/3.3 V DC	HPS: On/Off
	4	3.3VLED	O	3.3 V DC	3.3 V DC power output to ODSW
	5	GND	-	-	Ground
	6	SCA_COVER	I	0/3.3 V DC	ODSW: On/Off
	7	GND	-	-	Ground
	8	SCA_SIZE	O	0/3.3 V DC	OSS: On/Off
	9	5V4	I	5 V DC	5 V DC power output to OSS
YC14	1	SCANNER B1	O	0/24 V DC(pulse)	ISUM drive control signal
Connected to ISU motor	2	SCANNER A2	O	0/24 V DC(pulse)	ISUM drive control signal
	3	SCANNER B2	O	0/24 V DC(pulse)	ISUM drive control signal
	4	SCANNER A1	O	0/24 V DC(pulse)	ISUM drive control signal

Connector	Pin	Signal	I/O	Voltage	Description
YC15	1	3.3V4	O	3.3V DC	3.3V DC power output to DRPWB
Connected to drum relay PWB	2	DRUM_SDA	I/O	0/3.3 V DC(pulse)	DRPWB EEPROM data signal
	3	DRUM_SCL	O	0/3.3 V DC(pulse)	DRPWB EEPROM clock signal
	4	GND	-	-	Ground
	5	WT_LED	O	0/3.3 V DC	WTL: On/Off
	6	WT_SENS	I	Analog	WTS detection signal
	7	3.3VLED	O	3.3V DC	3.3V DC power output to WTS
	8	ERASE	O	0/24 V DC	CL: On/Off
	9	24V4	O	24 V DC	24 V DC power output to CL
YC16	1	MAIN_DIR	O	0/3.3 V DC	MM drive shift signal
Connected to main motor	2	MAIN_READY	I	0/3.3 V DC	MM ready signal
	3	MAIN_CLK	O	0/3.3 V DC(pulse)	MM clock signal
	4	MAIN_REM	O	0/24 V DC	MM: On/Off
	5	GND	-	-	Ground
	6	24VIL2	O	24 V DC	24V DC power output to MM
YC18	1	GND	-	-	Ground
Connected to DP main PWB	2	GND	-	-	Ground
	3	24V4	O	24 V DC	24V DC power output to DP
	4	24V4	O	24 V DC	24V DC power output to DP
	5	DP_CLK	O	0/3.3 V DC(pulse)	DP clock signal
	6	DP_SO	O	0/3.3 V DC(pulse)	Serial communication data signal
	7	DP_SEL	O	0/3.3 V DC	DP select signal
	8	DP_SI	I	0/3.3 V DC(pulse)	Serial communication data signal
	9	DP_RDY	I	0/3.3 V DC	DP ready signal
	10	DP_TMG	I	0/3.3 V DC	DPTS: On/Off
	11	DP_OPEN	I	0/3.3 V DC	DPOCS: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC19	1	EH_CLK	O	0/3.3 V DC(pulse)	Document finisher clock signal
Connected to document finisher	2	EH_SI	I	0/3.3 V DC(pulse)	Serial communication data signal
	3	EH_SO	O	0/3.3 V DC(pulse)	Serial communication data signal
	4	BR_SEL	O	0/3.3 V DC	Bridge unit select signal
	5	DF_SEL	O	0/3.3 V DC	Document finisher select signal
	6	DF_RDY	I	0/3.3 V DC	Document finisher ready signal
	7	DF_SET	O	0/3.3 V DC	Document finisher set signal
	8	3.3V4	O	3.3 V DC	3.3 V DC power output to DF
	9	3.3V4	O	3.3 V DC	3.3 V DC power output to DF
	10	GND	-	-	Ground
	11	GND	-	-	Ground
YC20	1	EH_CLK	O	0/3.3 V DC(pulse)	Paper feeder clock signal
Connected to paper feeder	2	EH_SI	I	0/3.3 V DC(pulse)	Serial communication data signal
	3	EH_SO	O	0/3.3 V DC(pulse)	Serial communication data signal
	4	PF_SEL	O	0/3.3 V DC	Paper feeder select signal
	5	PF_RDY	I	0/3.3 V DC	Paper feeder ready signal
	6	PF_SET	O	0/3.3 V DC	Paper feeder set signal
	7	PF_PAUSE	O	0/3.3 V DC	Paper feeder control signal
	8	24V4	O	24 V DC	24 V DC power output to paper feeder
	9	3.3V0	O	3.3 V DC	3.3 V DC power output to paper feeder
	10	3.3V4	O	3.3 V DC	3.3 V DC power output to paper feeder
	11	GND	-	-	Ground
	12	GND	-	-	Ground
YC21	1	GND	-	-	Ground
Connected to power source PWB and temperature sensor	2	HUM_DATA	I	Analog	TEMS detection voltage(Humidity)
	3	HUM_CLK2	O	0/3.3 V DC(pulse)	TEMS clock signal
	4	HUM_CLK1	O	0/3.3 V DC(pulse)	TEMS clock signal
	5	TEM_DATA	I	Analog	TEMS detection voltage(Temperature)
	6	3.3V4	O	3.3 V DC	3.3 V DC power output to TEMS
	7	ILVCC	O	3.3 V DC	3.3 V DC power output to PSPWB
	8	LIGHTSLEEP	O	0/3.3 V DC	CH: On/Off
	9	SHREM	O	0/3.3 V DC	FH2: On/Off
	10	MHREM	O	0/3.3 V DC	FH1: On/Off
	11	RELAYREM	O	0/3.3 V DC	Power relay signal: On/Off
	12	ZCROSS	I	0/3.3 V DC(pulse)	Zero-cross signal
	13	LVUSEL	O	0/3.3 V DC	Destination selection signal

Connector	Pin	Signal	I/O	Voltage	Description
YC22	1	24VIL1	O	24 V DC	24 V DC power input from PSPWB
Connected to power source PWB and power source fan motor	2	24VIL1	O	24 V DC	24 V DC power input from PSPWB
	3	24VIL1	O	24 V DC	24 V DC power input from PSPWB
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	24VIL2	O	24 V DC	24V DC power input from PSPWB
	9	GND	-	-	Ground
	10	GND	-	-	Ground
	11	24V2	O	24 V DC	24 V DC power input from PSPWB
	12	24V2	O	24 V DC	24 V DC power input from PSPWB
	13	24V4	O	24 V DC	24 V DC power output to PSFM
	14	LVU_FAN_REM	O	0/24 V DC	24 V DC power output to PSFM: On/Off

2-3-3 Power source PWB



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

Connector	Pin	Signal	I/O	Voltage	Description
TB	TB1	LIVE	I	120 V AC 220-240 V AC	AC power input
Connected to AC inlet and main power switch	TB2	NEUTRAL	I	120 V AC 220-240 V AC	AC power input
	TB3	LIVE(SW)	O	120 V AC 220-240 V AC	AC power output to MSW
	TB4	LIVE(SW)	I	120 V AC 220-240 V AC	AC power input from MSW
YC1	1	+5V2	O	5 V DC	5 V DC power output to MPWB
Connected to main PWB	2	+5V2	O	5 V DC	5 V DC power output to MPWB
	3	+5V2	O	5 V DC	5 V DC power output to MPWB
	4	+5V2	O	5 V DC	5 V DC power output to MPWB
	5	+5V2	O	5 V DC	5 V DC power output to MPWB
	6	+5V2	O	5 V DC	5 V DC power output to MPWB
	7	+5V2	O	5 V DC	5 V DC power output to MPWB
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	GND	-	-	Ground
	11	GND	-	-	Ground
	12	GND	-	-	Ground
	13	GND	-	-	Ground
	14	GND	-	-	Ground
	15	SLEEP	I	0/3.3 V DC	Sleep signal: On/Off
YC2	1	+24V2	O	24 V DC	24 V DC power output to EPWB
Connected to engine PWB	2	+24V2	O	24 V DC	24 V DC power output to EPWB
	3	GND	-	-	Ground
	4	GND	-	-	Ground
	5	+24VIL2	O	24 V DC	24 V DC power output to EPWB
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	GND	-	-	Ground
	10	+24VIL1	O	24 V DC	24 V DC power output to EPWB
	11	+24VIL1	O	24 V DC	24 V DC power output to EPWB
	12	+24VIL1	O	24 V DC	24 V DC power output to EPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	ILVCC	O	3.3 V DC	3.3 V DC power output to FCSW
Connected to front cover switch	2	24V2	I	24 V DC	24 V DC power input from FCSW
	3	NC	-	-	Not used
	4	24VIL1	O	24 V DC	24 V DC power output to FCSW
YC4	1	SELECT	I	0/3.3 V DC	Destination selection signal
Connected to engine PWB	2	ZCROSS	O	0/3.3 V DC(pulse)	Zero-cross signal
	3	RELAYREM	I	0/3.3 V DC	Power relay signal: On/Off
	4	MHREM	I	0/3.3 V DC	FH1: On/Off
	5	SHREM	I	0/3.3 V DC	FH2: On/Off
	6	CHREM	I	0/3.3 V DC	CH: On/Off
	7	ILVCC	I	3.3 V DC	3.3 V DC power input from MPWB
YC5	1	LIVE	O	120 V AC 220-240 V AC	AC power output to PFCH
Connected to paper feeder and cassette heater	2	LIVE	O	120 V AC 220-240 V AC	AC power output to CH
	3	NC	-	-	Not used
	4	NC	-	-	Not used
	5	NEUTRAL	O	120 V AC 220-240 V AC	AC power output to PFCH
	6	NEUTRAL	O	120 V AC 220-240 V AC	AC power output to CH
YC6	1	CH_SW	O	120 V AC 220-240 V AC	AC power output to CHSW
Connected to cassette heater switch	2	NC	-	-	Not used
	3	CH_COM	I	120 V AC 220-240 V AC	AC power input from CHSW
YC7	1	MHEATER	O	0/120 V AC 0/220-240 V AC	FH1: On/Off
Connected to fuser unit	2	SHEATER	O	0/120 V AC 0/220-240 V AC	FH2: On/Off
	3	H_LIVE	O	100V AC	AC power output to FH1,2

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	LIVE	O	120 V AC 220-240 V AC	AC power output
Connected to AC outlet	2	NEUTRAL	O	120 V AC 220-240 V AC	AC power output
YC9	1	LIVE	O	120 V AC 220-240 V AC	AC power output
Connected to power source PWB sub	2	NEUTRAL	O	120 V AC 220-240 V AC	AC power output
YC10 *2	1	AC_IN	I	120 V AC 220-240 V AC	AC power input
Connected to relay PWB	2	AC_OUT	O	120 V AC 220-240 V AC	AC power output

*2: Excluding 120V AC model

2-3-4 Operation panel PWB main

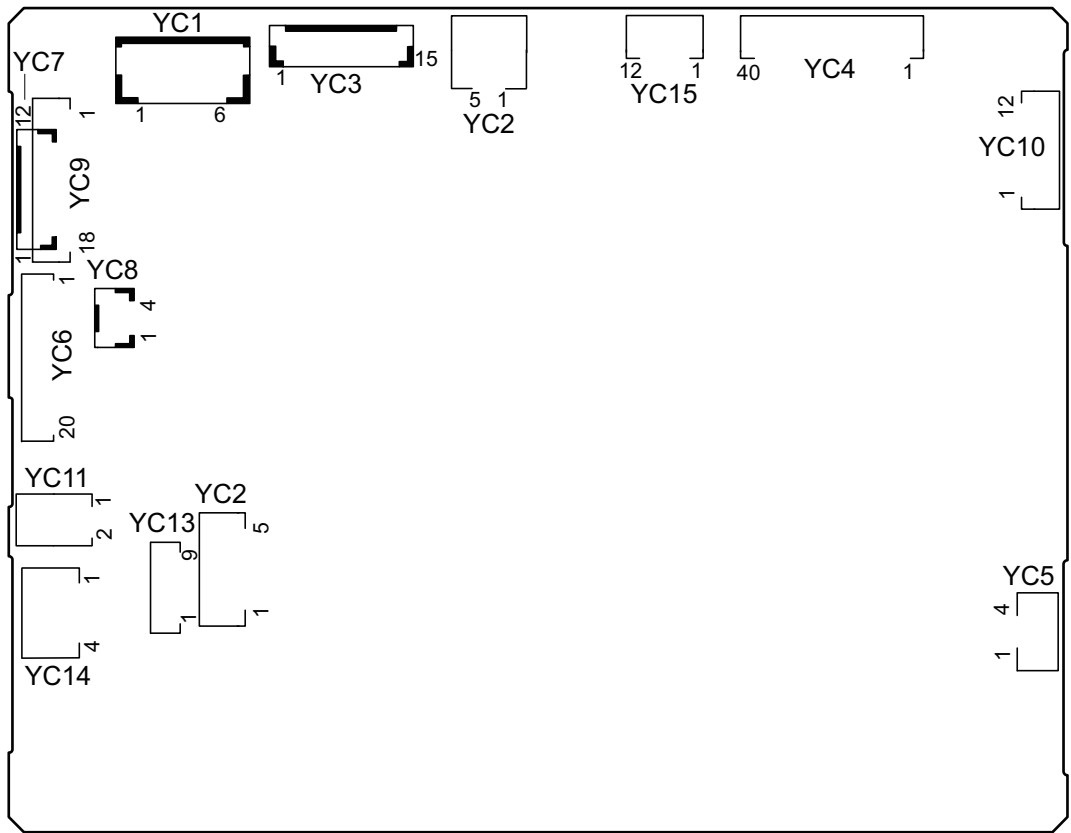


Figure 2-3-4 Operation panel PWB main silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	5V2	I	5 V DC	5 V DC power input from MPWB
Connected to main PWB	2	5V2	I	5 V DC	5 V DC power input from MPWB
	3	GND	-	-	Ground
	4	GND	-	-	Ground
YC2	1	VBUS	I	5 V DC	5 V DC power input
Connected to main PWB	2	DN	I/O	LVDS	USB data signal
	3	DP	I/O	LVDS	USB data signal
	4	ID	-	-	Not used
	5	GND	-	-	Ground
YC3	1	GND	-	-	Ground
Connected to main PWB	2	SECOND_TRAY_SW	I	0/3.3 V DC	JEPS: On/Off
	3	BEEP_POWERON	I	0/3.3 V DC	Sleep return signal 0
	4	ENERGY_SAVE	I	0/3.3 V DC	Energy save signal
	5	SUSPEND_Power	I	3.3V DC	3.3 V DC power input from MPWB
	6	LED_MEMORY	I	0/3.3 V DC	Memory LED control signal
	7	LED_ATTENTION	I	0/3.3 V DC	Attention LED control signal
	8	LED_PROCESSING_N	I	0/3.3 V DC	Processing LED control signal
	9	SHUTDOWN	I	0/3.3 V DC	24 V down signal
	10	LIGHTOFF_POWERON	I	0/3.3 V DC	Sleep return signal 1
	11	AUDIO	I	Analog	Voice output signal
	12	PANEL_RESET	I	0/3.3 V DC	Reset signal
	13	INT_POWERKEY	O	0/3.3 V DC	Power key: On/Off
	14	PANEL_STATUS	O	0/3.3 V DC	Operation panel status signal
	15	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC4	1	GND	-	-	Ground
Connected to LCD relay PWB	2	GND	-	-	Ground
	3	CK	O	0/3.3 V DC(pulse)	Clock signal
	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	SC	O	0/3.3 V DC	LCD Control signal
	7	R0	O	0/3.3 V DC	LCD Control signal
	8	R1	O	0/3.3 V DC	LCD Control signal
	9	R2	O	0/3.3 V DC	LCD Control signal
	10	GND	-	-	Ground
	11	R3	O	0/3.3 V DC	LCD Control signal
	12	R4	O	0/3.3 V DC	LCD Control signal
	13	R5	O	0/3.3 V DC	LCD Control signal
	14	GND	-	-	Ground
	15	G1	O	0/3.3 V DC	LCD Control signal
	16	G1	O	0/3.3 V DC	LCD Control signal
	17	G2	O	0/3.3 V DC	LCD Control signal
	18	GND	-	-	Ground
	19	G3	O	0/3.3 V DC	LCD Control signal
	20	G4	O	0/3.3 V DC	LCD Control signal
	21	G5	O	0/3.3 V DC	LCD Control signal
	22	GND	-	-	Ground
	23	B0	O	0/3.3 V DC	LCD Control signal
	24	B1	O	0/3.3 V DC	LCD Control signal
	25	B2	O	0/3.3 V DC	LCD Control signal
	26	GND	-	-	Ground
	27	B3	O	0/3.3 V DC	LCD Control signal
	28	B4	O	0/3.3 V DC	LCD Control signal
	29	B5	O	0/3.3 V DC	LCD Control signal
	30	GND	-	-	Ground
	31	H_SYNC	O	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	32	GND	-	-	Ground
	33	V_SYNC	O	0/3.3 V DC(pulse)	Vertical synchronizing signal
	34	GND	-	-	Ground
	35	ENB	O	0/3.3 V DC	LCD enable signal
	36	CM	O	0/3.3 V DC	LCD mode switch signal
	37	3.3V	O	3.3V DC	3.3 V DC power output to LCDRPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC4	38	3.3V	O	3.3 V DC	3.3 V DC power output to LCDRPWB
Connected to LCD relay PWB	39	3.3V	O	3.3 V DC	3.3 V DC power output to LCDRPWB
	40	3.3V	O	3.3 V DC	3.3 V DC power output to LCDRPWB
YC9	1	A_LED	O	0/3.3 V DC	Memory LED control signal
Connected to operation panel PWB left	2	M_LED	O	0/3.3 V DC	Attention LED control signal
	3	P_LED	O	0/3.3 V DC	Processing LED control signal
	4	KEY4	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 4
	5	INT_POWER KEY_N	O	0/5 V DC	Power key: On/Off
	6	KEY3	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 3
	7	KEY2	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 2
	8	KEY1	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 1
	9	LED1	O	0/3.3 V DC(pulse)	Operation panel LED display drive signal 1
	10	3.3V0	O	3.3V DC	3.3 V DC power output to OPPWB-L
	11	LED0	O	0/3.3 V DC(pulse)	Operation panel LED display drive signal 0
	12	KEY0	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 0
	13	SCAN4	O	0/3.3 V DC(pulse)	Scan signal 4
	14	SCAN3	O	0/3.3 V DC(pulse)	Scan signal 3
	15	SCAN2	O	0/3.3 V DC(pulse)	Scan signal 2
	16	SCAN1	O	0/3.3 V DC(pulse)	Scan signal 1
	17	SCAN0	O	0/3.3 V DC(pulse)	Scan signal 0
	18	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC10	1	S_LED	O	0/3.3 V DC	Memory LED control signal
Connected to operation panel PWB right	2	LED4	O	0/3.3 V DC(pulse)	Operation panel LED display drive signal 4
	3	LED2	O	0/3.3 V DC(pulse)	Operation panel LED display drive signal 2
	4	KEY5	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 5
	5	SCAN3	O	0/3.3 V DC(pulse)	Scan signal 3
	6	SCAN2	O	0/3.3 V DC(pulse)	Scan signal 2
	7	SCAN1	O	0/3.3 V DC(pulse)	Scan signal 1
	8	KEY7	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 7
	9	LED3	O	0/3.3 V DC(pulse)	Operation panel LED display drive signal 3
	10	KEY6	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 6
	11	SCAN0	O	0/3.3 V DC(pulse)	Scan signal 0
	12	GND	-	-	Ground
YC11	1	VO2	O	Analog	Speaker sound signal (+)
Connected to the speaker	2	VO1	O	Analog	Speaker sound signal (-)
YC15	1	GND	-	-	Ground
Connected to LCD relay PWB	2	SCK	O	0/3.3 V DC(pulse)	Clock signal
	3	SDI	O	0/3.3 V DC(pulse)	Serial communication data signal
	4	SPC_CS1N	O	0/3.3 V DC	LCD control signal
	5	SHUT	O	0/3.3 V DC	LCD control signal
	6	LCD_RESB	O	0/3.3 V DC	LCD control signal
	7	Y1(T)	I	Analog	Touch panel Y+Positional signal
	8	X2(L)	I	Analog	Touch panel X+Positional signal
	9	Y2(B)	I	Analog	Touch panel Y-Positional signal
	10	X1(R)	I	Analog	Touch panel X-Positional signal
	11	LED_A(+)	O	0/3.3 V DC	LED control signal
	12	LED_C(-)	I	0/3.3 V DC	LED control signal

2-3-5 DP main PWB

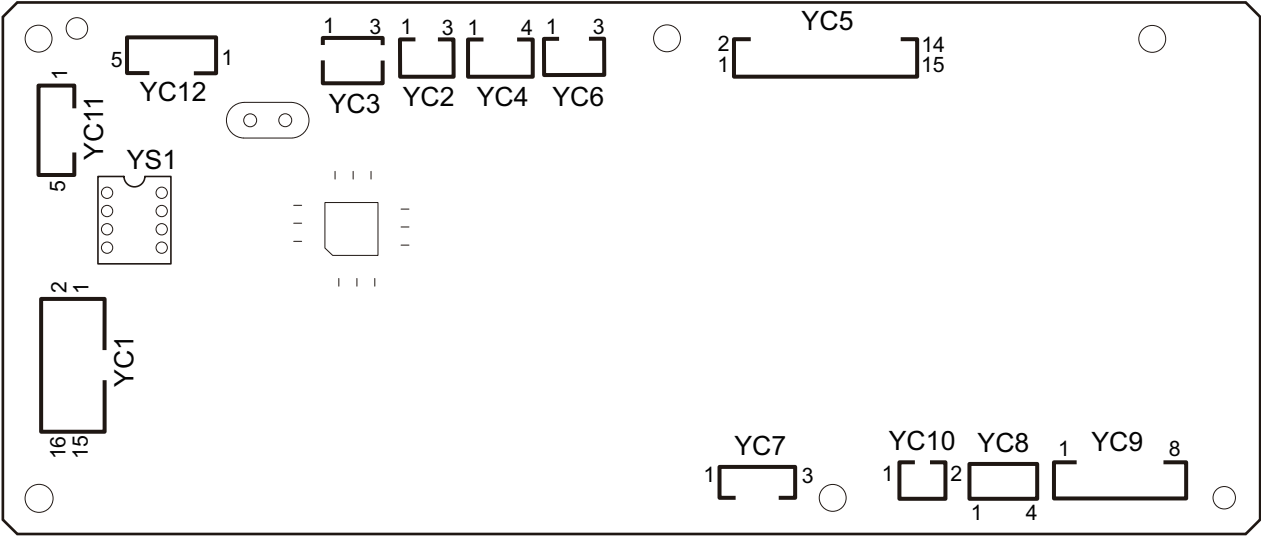


Figure 2-3-5 DP main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	FG	-	-	Ground
Connected to engine PWB	2	ENG_TMG	O	0/3.3 V DC	DPTS: On/Off
	3	ENG_RDY	O	0/3.3 V DC	Ready signal
	4	ENG_SEL	I	0/3.3 V DC	Select signal
	5	ENG_CLK	I	0/3.3 V DC(pulse)	Clock signal
	6	ENG_SI	I	0/3.3 V DC(pulse)	Serial communication data signal
	7	ENG_SO	O	0/3.3 V DC(pulse)	Serial communication data signal
	8	ENG_OPEN	O	0/3.3 V DC	DPOCS: On/Off
	9	NC	-	-	Not used
	10	GND	-	-	Ground
	11	GND	-	-	Ground
	12	GND	-	-	Ground
	13	NC	-	-	Not used
	14	+24V	O	24 V DC	24 V DC power input from EPWB
	15	+24V	O	24 V DC	24 V DC power input from EPWB
	16	+24V	O	24 V DC	24 V DC power input from EPWB
YC2	1	ANODE	O	3.3 V DC	3.3 V DC power output to DPOLS
Connected to DP original size length sensor	2	GND	-	-	Ground
	3	LS_SW	I	0/3.3 V DC	DPOLS: On/Off
YC3	1	ANODE	O	3.3 V DC	3.3 V DC power output to DPOS
Connected to DP original sensor	2	GND	-	-	Ground
	3	SET_SW	I	0/3.3 V DC	DPOS: On/Off
YC4	1	WID1	I	0/3.3 V DC	DPOWS: On/Off
Connected to DP original size width sensor	2	GND	-	-	Ground
	3	WID2	I	0/3.3 V DC	DPOWS: On/Off
	4	WID3	I	0/3.3 V DC	DPOWS: On/Off

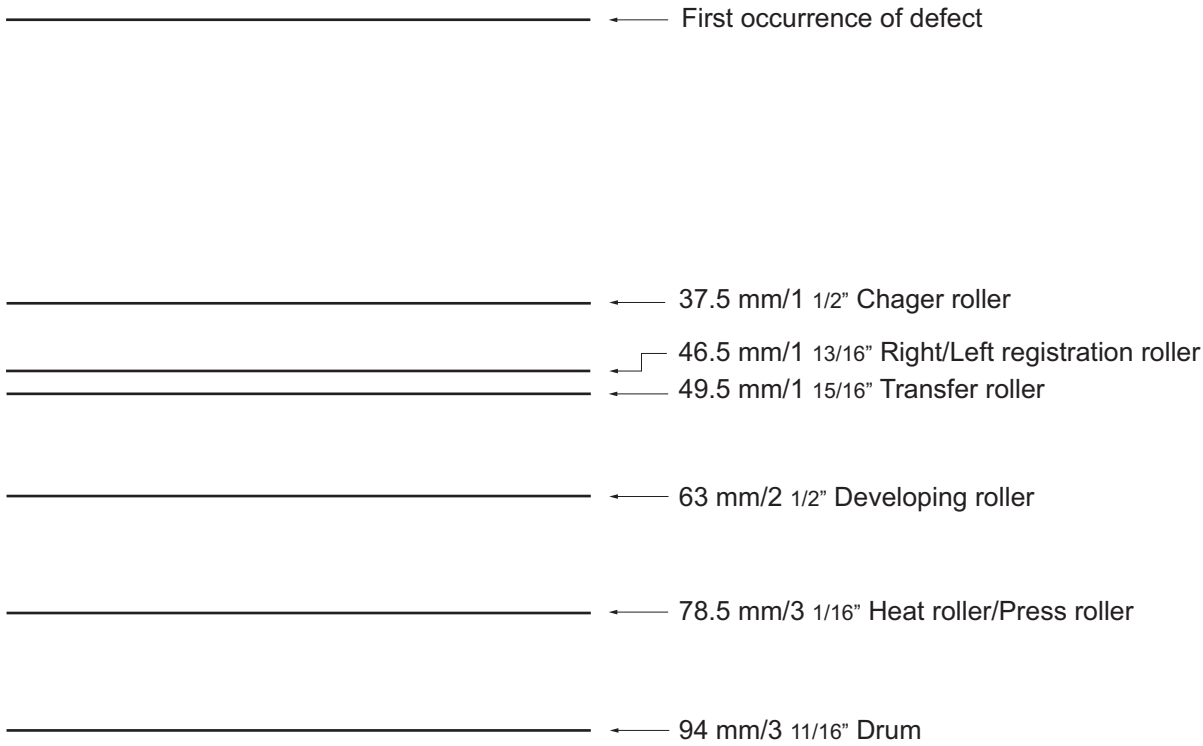
Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	ANODE	O	3.3 V DC	3.3 V DC power output to DPPFS
Connected to DP paper feed sensor, DP registration sensor, DP open/close sensor, DP switchback sensor and DP timing sensor	2	GND	-	-	Ground
	3	FEED SW	I	0/3.3 V DC	DPPFS: On/Off
	4	ANODE	O	3.3 V DC	3.3 V DC power output to DPRS
	5	GND	-	-	Ground
	6	REGIST_SW	I	0/3.3 V DC	DPRS: On/Off
	7	ANODE	O	3.3 V DC	3.3 V DC power output to DPOCS
	8	GND	-	-	Ground
	9	DP_OPENS	I	0/3.3 V DC	DPOCS: On/Off
	10	ANODE	O	3.3 V DC	3.3 V DC power output to DPSBS
	11	GND	-	-	Ground
	12	HP_SW	I	0/3.3 V DC	DPSBS: On/Off
	13	ANODE	O	3.3 V DC	3.3 V DC power output to DPTS
	14	GND	-	-	Ground
	15	TMG_SW	I	0/3.3 V DC	DPTS: On/Off
YC6	1	NC	-	-	Not used
Connected to DP LED PWB	2	GND	-	-	Ground
	3	LED_REM	O	0/3.3 V DC	LED control signal
YC7	1	+24V	O	24 V DC	24 V DC power output to DPILSW
Connected to DP interlock switch	2	GND	-	-	Ground
	3	+R24V	I	24 V DC	24 V DC power input from DPILSW
YC8	1	FEED_CL	O	0/24 V DC	DPPFCL: On/Off
Connected to DP paper feed clutch and DP registration clutch	2	+R24V	O	24 V DC	24 V DC power output to DPPFCL
	3	REGIST_CL	O	0/24 V DC	DPRCL: On/Off
	4	+R24V	O	24 V DC	24 V DC power output to DPRCL
YC9	1	CNVEY_-BN	O	0/24 V DC(pulse)	DPPFM drive control signal
Connected to DP paper feed motor and DP switchback motor	2	CNVEY_-AN	O	0/24 V DC(pulse)	DPPFM drive control signal
	3	CNVEY_+A	O	0/24 V DC(pulse)	DPPFM drive control signal
	4	CNVEY_+B	O	0/24 V DC(pulse)	DPPFM drive control signal
	5	JNC_-BN	O	0/24 V DC(pulse)	DPSBM drive control signal
	6	JNC_-AN	O	0/24 V DC(pulse)	DPSBM drive control signal
	7	JNC_+A	O	0/24 V DC(pulse)	DPSBM drive control signal
	8	JNC_+B	O	0/24 V DC(pulse)	DPSBM drive control signal

2-4-1 Appendixes

(1) Maintenance kits

Maintenance part name		Parts No.	Alternative part No.
Name used in service	Name used in parts list		
MK-477/MAINTENANCE KIT	MK-477/MAINTENANCE KIT	1702K37US0	072K37US
Primary paper feed unit	PRIMARY FEED UNIT	-	-
MP separation pad	SEPARATION PAD	-	-
MP paper feed roller	MPF ROLLER	-	-
Registration cleaner	REGIST CLEANER	-	-
Transfer roller unit	TR-475	-	-
Drum unit	DK-475	-	-
Developerunit	DV-475	-	-
Fuser unit	FK-475(U)	-	-
MK-475/MAINTENANCE KIT	MK-475/MAINTENANCE KIT	1702K38NL0	072K38NL
Primary paper feed unit	PRIMARY FEED UNIT	-	-
MP separation pad	SEPARATION PAD	-	-
MP paper feed roller	MPF ROLLER	-	-
Registration cleaner	REGIST CLEANER	-	-
Transfer roller unit	TR-475	-	-
Drum unit	DK-475	-	-
Developier unit	DV-475	-	-
Fuser unit	FK-475(E)	-	-
MK-479/MAINTENANCE KIT	MK-479/MAINTENANCE KIT	1702K38AS0	072K38AS
Primary paper feed unit	PRIMARY FEED UNIT	-	-
MP separation pad	SEPARATION PAD	-	-
MP paper feed roller	MPF ROLLER	-	-
Registration cleaner	REGIST CLEANER	-	-
Transfer roller unit	TR-475	-	-
Drum unit	DK-475	-	-
Developer unit	DV-475	-	-
Fuser unit	FK-475(E)	-	-
MK-470/MAINTENANCE KIT	MK-470/MAINTENANCE KIT	1703M80UN0	073M80UN
DP papar feed roller	FEED ROLLER (DP)	-	-
DP separation pulley cover	RETARD GUIDE (DP)	-	-
DP separation pulley	RETARD ROLLER (DP)	-	-

(2) Repetitive defects gauge



(3) Firmware environment commands

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

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

Using FRPO commands for reprogramming firmware

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

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

The FRPO command is sent to the printer in the following sequence:

!R! FRPO parameter, value; EXIT;

Example: Changing emulation mode to PC-PR201/65A

!R! FRPO P1, 11; EXIT;

FRPO parameters

Item	FRPO	Setting values	Factory setting
Default pattern resolution	B8	0: 300 dpi 1: 600 dpi	0
Copy count	C0	Number of copies to print: 1-999	1
Page orientation	C1	0: Portrait 1: Landscape	0
Default font No. *	C2	Middle two digits of power-up font	0
	C3	Last two digits of power-up font	0
	C5	First two digits of power-up font	0
PCL font switch	C8	0: HP compatibility mode (Characters higher than 127 are not printed.) 32: Conventional mode (Characters higher than 127 are printed. Supported symbol sets: ISO-60 Norway [00D], ISO-15 Italian [00I], ISO-11 Sweden [00S], ISO-6 ASCII [00U], ISO-4 U.K. [01E], ISO-69 France [01F], ISO-21 Germany [01G], ISO-17 Spain [02S], Symbol [19M] ^a)	0
Print density	D4	Number from 1 (Light) to 5 (Dark)	3
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5
Form feed time-out value	H9	Value in units of 5 seconds (0 to 99).	6
Reduce ratio	J0	0: 100 % 5: 70 % 6: 81 % 7: 86 % 8: 94 % 9: 98 %	0

Item	FRPO	Setting values	Factory setting
KIR mode	N0	0: Off 2: On	2
Duplex binding	N4	0: Off 1: Long edge 2: Short edge	0
Sleep timer time-out time	N5	1 to 240 minutes [0: Off]	15
Ecoprint level	N6	0: Off 2: On	0
Default emulation mode	P1	6: PCL 6 9: KPDL	9(U.S.A) or 6(Euro and other)
Carriage-return action *	P2	0: Ignores 0x0d 1: Carriage-return 2: Carriage-return+linefeed	1
Linefeed action *	P3	0: Ignores 0x0d 1: Linefeed 2: Linefeed+carriage-return	1
Automatic emulation sensing (For KPDL3)	P4	0: AES disabled 1: AES enabled	1(U.S.A) or 0(Euro and other)
Automatic emulation switching trigger (For KPDL3)	P7	0: Page eject commands 1: None 2: Page eject and prescribe EXIT 3: Prescribe EXIT 4: Formfeed (^L) 6: Page eject, prescribe EXIT and formfeed 10: Page eject commands; if AES fails, resolves to KPDL	11(U.S.A) or 10(Euro and other)
Command recognition character	P9	ASCII code of 33 to 126	82 (R)

Item	FRPO	Setting values	Factory setting
Default stacker	R0	1 (inner tray) 3 5	1
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches) 3: International DL (11 × 22 cm) 4: International C5 (16.2 × 22.9 cm) 5: Executive (7-1/4 × 10-1/2 inches) 6: US Letter (8-1/2 × 11 inches) 7: US Legal (8-1/2 × 14 inches) 8: A4 (21.0 × 29.7 cm) 9: JIS B5 (18.2 × 25.7 cm) 10: A3 (29.7 × 42 cm) 11: B4 (25.7 × 36.4 cm) 12: US Ledger (11 × 17 inches) 13: ISO A5 14: A6 (10.5 × 14.8 cm) 15: JIS B6 (12.8 × 18.2 cm) 16: Commercial #9 (3-7/8 × 8-7/8 inches) 17: Commercial #6 (3-5/8 × 6-1/2 inches) 18: ISO B5 (17.6 × 25 cm) 19: Custom (11.7 × 17.7 inches) 30: C4 (22.9 × 32.4 cm) 31: Hagaki (10 × 14.8 cm) 32: Ofuku-hagaki (14.8 × 20 cm) 33: Officio II 39: 8K 40: 16K 42: 8.5 × 13.5 inches 50: Statement 51: Folio 52: Youkei 2 53: Youkei 4	0
Default cassette	R4	0: MP tray 1: Cassette 1 2: Cassette 2 3: Cassette 3	1

Item	FRPO	Setting values	Factory setting
MP tray paper size	R7	Same as the R2 values except: 0	6(U.S.A) or 8(Euro and other)
A4/letter equation	S4	0: Off 1: On	1
Host buffer size	S5	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8)	1
RAM disk size	S6	1 to 1024 MB	400
RAM disk mode	S7	0: Off 1: On	0
Wide A4	T6	0: Off 1: On	0
Line spacing *	U0	Lines per inch (integer value)	6
Line spacing *	U1	Lines per inch (fraction value)	0
Character spacing *	U2	Characters per inch (integer value)	10
Character spacing *	U3	Characters per inch (fraction value)	0
Country code	U6	0: US-ASCII 1: France 2: Germany 3: UK 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US Legal 10: IBM PC-850 (Multilingual) 11: IBM PC-860 (Portuguese) 12: IBM PC-863 (Canadian French) 13: IBM PC-865 (Norwegian) 14: Norway 15: Denmark 2 16: Spain 2 17: Latin America 21: US ASCII (U7 = 50 SET) 77: HP Roman-8 (U7 = 52 SET)	41
Code set at power up in daisy-wheel emulation	U7	0: Same as the default emulation mode (P1) 1: IBM 6: IBM PC-8 50: US ASCII (U6 = 21 SET) 52: HP Roman-8 (U6 = 77 SET)	53

Item	FRPO	Setting values	Factory setting
Font pitch for fixed pitch scalable font	U8	Integer value in cpi: 0 to 99	10
	U9	Fraction value in 1/100 cpi: 0 to 99	0
Font height for the default scalable font *	V0	Integer value in 100 points: 0 to 9	0
	V1	Integer value in points: 0 to 99	12
	V2	Fraction value in 1/100 points: 0, 25, 50, 75	0
Default scalable font *	V3	Name of typeface of up to 32 characters, enclosed with single or double quotation marks	Courier
Default weight (courier and letter Gothic)	V9	0: Courier = darkness Letter Gothic = darkness 1: Courier = regular Letter Gothic = darkness 4: Courier = darkness Letter Gothic = regular 5: Courier = regular Letter Gothic = regular	5

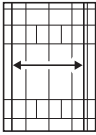
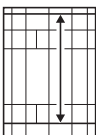
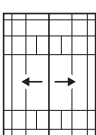
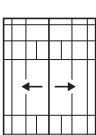
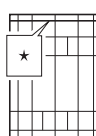
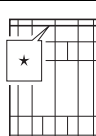
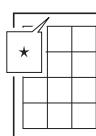
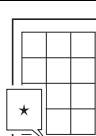
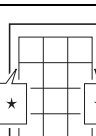
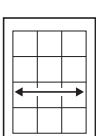
Item	FRPO	Setting values	Factory setting
Paper type for the MP tray	X0	1: Plain 1	1
		2: Transparency	
		3: Preprinted	
		4: Label	
		5: Bond	
		6: Recycle	
		7: Vellum	
		9: Letterhead	
		10: Color	
		11: Prepunched	
		12: Envelope	
		13: Cardstock	
		16: Thick	
		17: High quality	
		21: Custom1	
	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

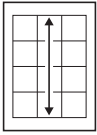
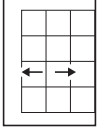
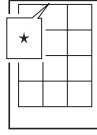
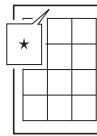
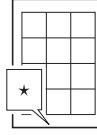
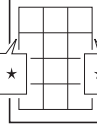
Item	FRPO	Setting values	Factory setting
Paper type for paper cassettes 1	X1	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1
Paper type for paper cassettes 2 to 4	X2 X3	1: Plain 3: Preprinted 5: Bond 6: Recycled 9: Letterhead 10: Color 11: Prepunched 17: High quality 21: Custom1 22: Custom2 23: Custom3 24: Custom4 25: Custom5 26: Custom6 27: Custom7 28: Custom8	1
PCL paper source	X9	0: Paper selection depending on an escape sequence compatible with HP-LJ5Si. 2: Paper selection depending on an escape sequence compatible with HP-LJ8000.	0

Item	FRPO	Setting values	Factory setting
Automatic continue for 'Press GO'	Y0	0: Off 1: On	0
Automatic continue timer	Y1	Number from 0 to 99 in increments of 5 seconds	6 (30 seconds)
Error message for device error	Y3	0: Not detect 1: Detect	0
Duplex operation for specified paper type (Prepunched, Preprinted and Letterhead)	Y4	0: Off 1: On	0
Default operation for PDF direct printing	Y5	0: Enlarges or reduces the image to fit in the current paper size. Loads paper from the current paper cassette. 1: Through the image. Loads paper which is the same size as the image. 2: Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the image size. 3: Through the image. Loads Letter, A4 size paper depending on the image size. 8: Through the image. Loads paper from the current paper cassette. 9: Through the image. Loads Letter, A4 size paper depending on the image size. 10: Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the image size.	0
e-MPS error	Y6	0: Does not print the error report and display the error message. 1: Prints the error report. 2: Displays the error message. 3: Prints the error report and displays the error message.	3

- a. Characters higher than 127 are printed regardless of the C8 value. However, setting C8 to 0 does not print character code 160.

(4) Chart of image adjustment procedures

Adjusting order	Item	Image	Description	Maintenance mode		Original	Page	Remarks
				Item No.	Mode			
1	Adjusting the magnification in the main scanning direction (printing adjustment)		Polygon motor speed adjustment	U053	POLYGON	U053 test pattern	P.1-3-25	
2	Adjusting the magnification in the auxiliary scanning direction (printing adjustment)		Drive motor speed adjustment	U053	MAIN	U053 test pattern	P.1-3-25	
3	Adjusting the center line of the MP tray (printing adjustment)		Adjusting the LSU print start timing	U034	LSUOUT LEFT (MPT)	U034 test pattern	P.1-3-20	To make an adjustment for duplex copying, select LSUOUT LEFT (DUPLEX).
4	Adjusting the center line of the cassettes (printing adjustment)		Adjusting the LSU print start timing	U034	LSUOUT LEFT (CASSETTE 1) LSUOUT LEFT (CASSETTE 2) LSUOUT LEFT (CASSETTE 3)	U034 test pattern	P.1-3-20	Cassette 1: select Center (CASSETTE 1) Cassette 2: select Center (CASSETTE 2) Cassette 3: select Center (CASSETTE 3)
5	Adjusting the leading edge registration of the MP tray (printing adjustment)		Registration motor turning on timing (secondary paper feed start timing)	U034	LSUOUT TOP MPT(L) LSUOUT TOP MPT(S)	U034 test pattern	P.1-3-20	To make an adjustment for duplex copying, select LSUOUT TOP DUPLEX. L: PAPER WIDTH 218mm or more S: PAPER WIDTH less than 218mm
6	Adjusting the leading edge registration of the cassette (printing adjustment)		Registration motor turning on timing (secondary paper feed start timing)	U034	LSUOUT TOP CASSETTE(L) SUOUT TOP CASSETTE(S)	U034 test pattern	P.1-3-20	L: PAPER WIDTH 218mm or more S: PAPER WIDTH less than 218mm
7	Adjusting the leading edge margin (printing adjustment)		LSU illumination start timing	U402	LESD	U402 test pattern	P.1-3-60	
8	Adjusting the trailing edge margin (printing adjustment)		LSU illumination end timing	U402	TRAIL	U402 test pattern	P.1-3-60	
9	Adjusting the left and right margins (printing adjustment)		LSU illumination start/end timing	U402	A MARGIN C MARGIN	U402 test pattern	P.1-3-60	
10	Adjusting magnification of the scanner in the main scanning direction (scanning adjustment)		Data processing	U065 U070	Y SCAN ZOOM Y SCAN ZOOM	Test chart	P.1-3-27 P.1-3-33	U065: For copying an original placed on the platen. U070: For copying originals from the DP.

Adjusting order	Item	Image	Description	Maintenance mode		Original	Page	Remarks
				Item No.	Mode			
11	Adjusting magnification of the scanner in the auxiliary scanning direction (scanning adjustment)		Original scanning speed	U065	X SCAN ZOOM	Test chart	P.1-3-27	U065: For copying an original placed on the platen. U070: For copying originals from the DP.
				U070	X SCAN ZOOM		P.1-3-33	
12	Adjusting the center line (scanning adjustment)		Adjusting the original scan data (image adjustment)	U067	FRONT ROTATE	Test chart	P.1-3-30	U067: For copying an original placed on the platen. To make an adjustment for rotate copying, select ROTATE. U072: For copying originals from the DP. To make an adjustment for duplex copying, select BACK.
				U072	FRONT BACK		P.1-3-36	
13	Adjusting the leading edge registration (scanning adjustment)		Original scan start timing	U066	FRONT ROTATE	Test chart	P.1-3-29	U066: For copying an original placed on the platen. To make an adjustment for trailing edge registration, select ROTATE. U071: For copying originals from the DP. To make an adjustment for duplex copying, select BACK HEAD.
				U071	FRONT HEAD BACK HEAD		P.1-3-34	
14	Adjusting the leading edge margin (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403	B MARGIN	Test chart	P.1-3-61	U403: For copying an original placed on the contact glass U404: For copying originals from the DP.
				U404	B MARGIN		P.1-3-62	
15	Adjusting the trailing edge margin (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403	D MARGIN	Test chart	P.1-3-61	U403: For copying an original placed on the contact glass U404: For copying originals from the DP.
				U404	D MARGIN		P.1-3-62	
16	Adjusting the left and right margins (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403	A MARGIN	Test chart	P.1-3-61	U403: For copying an original placed on the contact glass U404: For copying originals from the DP.
				U404	C MARGIN A MARGIN C MARGIN		P.1-3-62	

When maintenance item U411 (Automatic adjustment in the scanner) is run using the specified original (P/N 7505000005),

the following adjustments are automatically made:

Adjusting the scanner magnification (U065)

Adjusting the scanner leading edge registration (U066)

Adjusting the scanner center line (U067)

When maintenance item U411 (Automatic adjustment in the DP) is run using the specified original (P/N 302AC68243), the following adjustments are automatically made:

* : When running this test chart, you first must clean the feed rollers with alcohol and ensure the DP width guides are correctly positioned against the original.

Adjusting the DP magnification (U070)

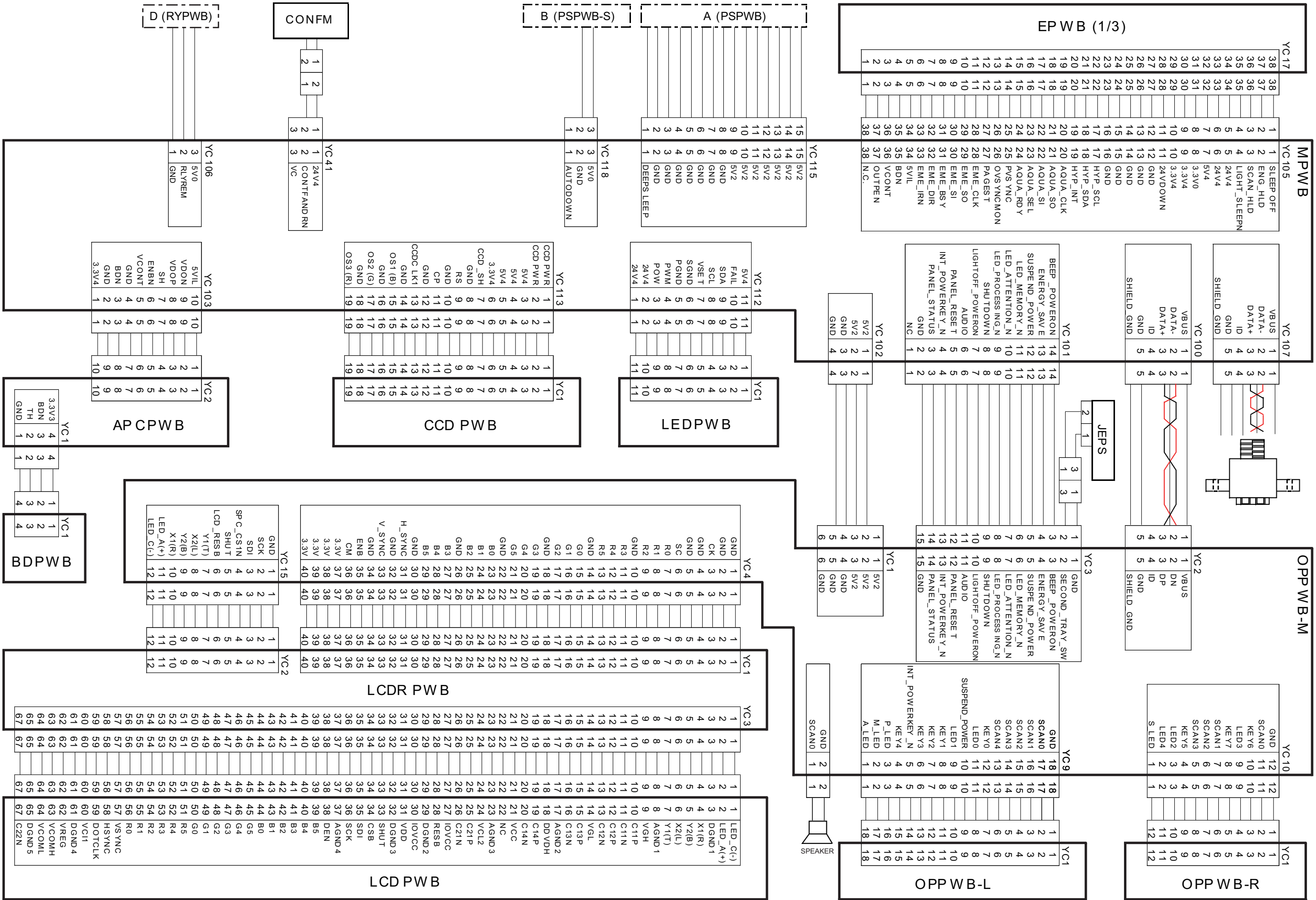
Adjusting the DP leading edge registration (U071)

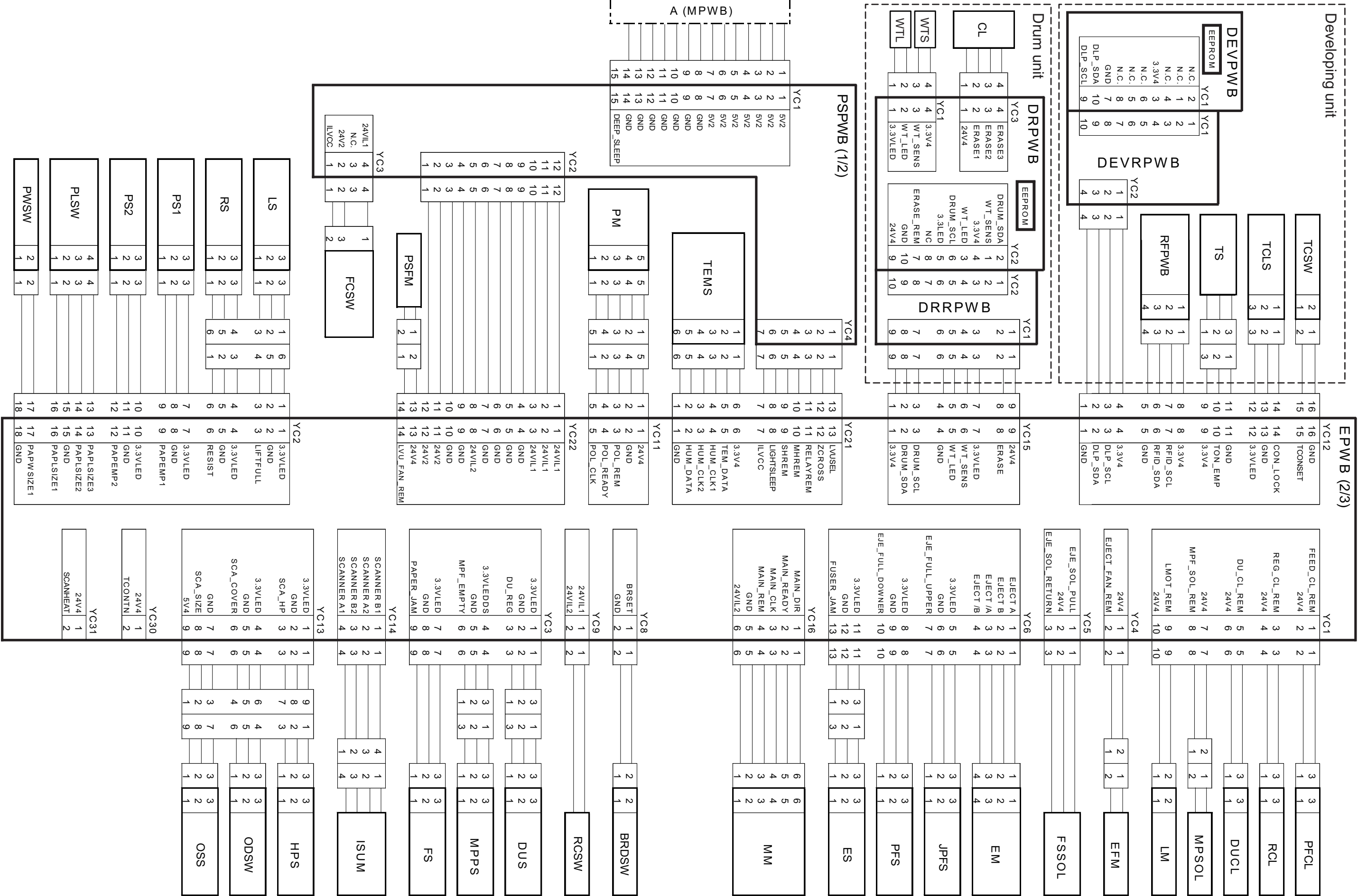
Adjusting the DP center line (U072)

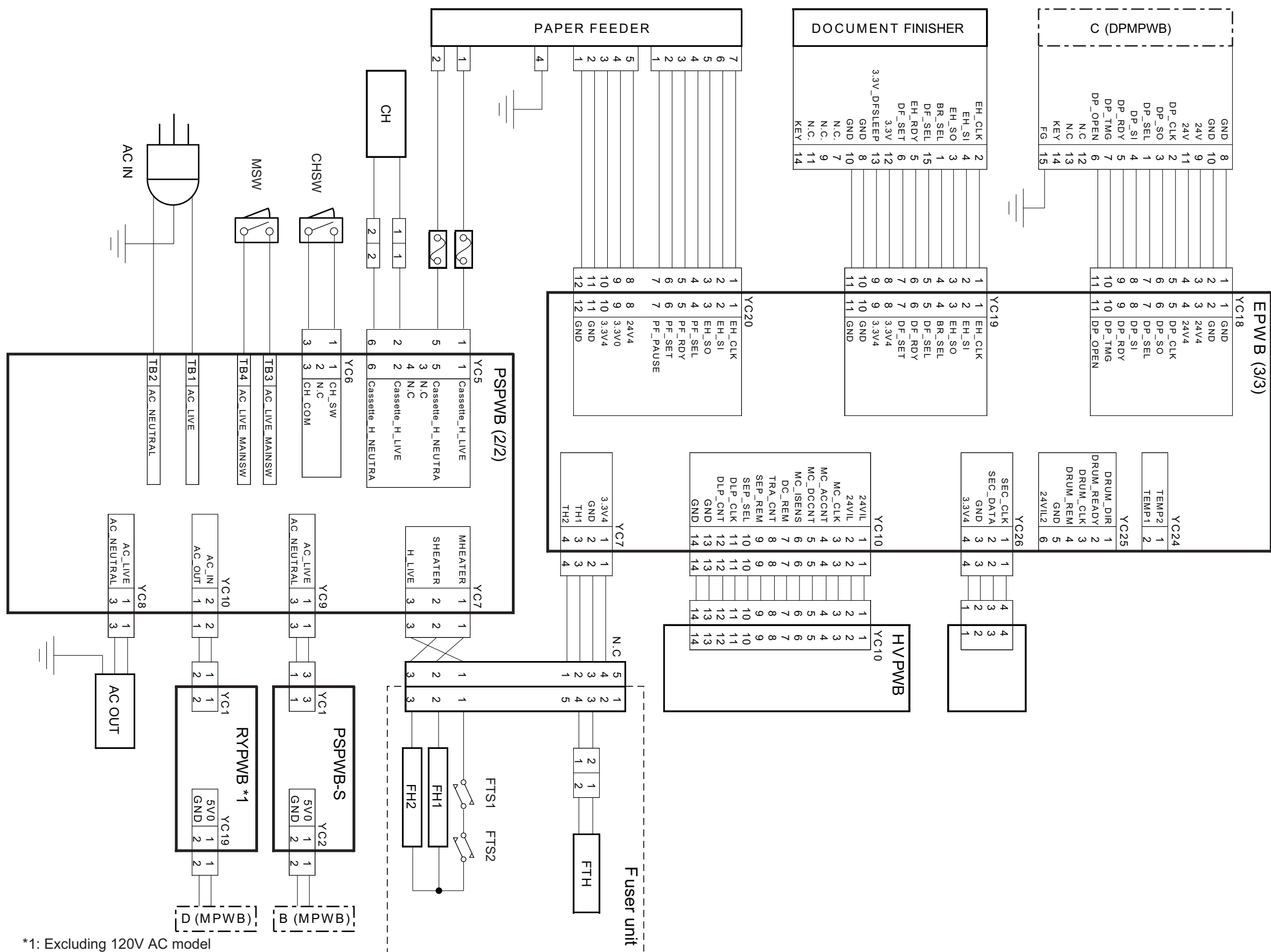
Image quality

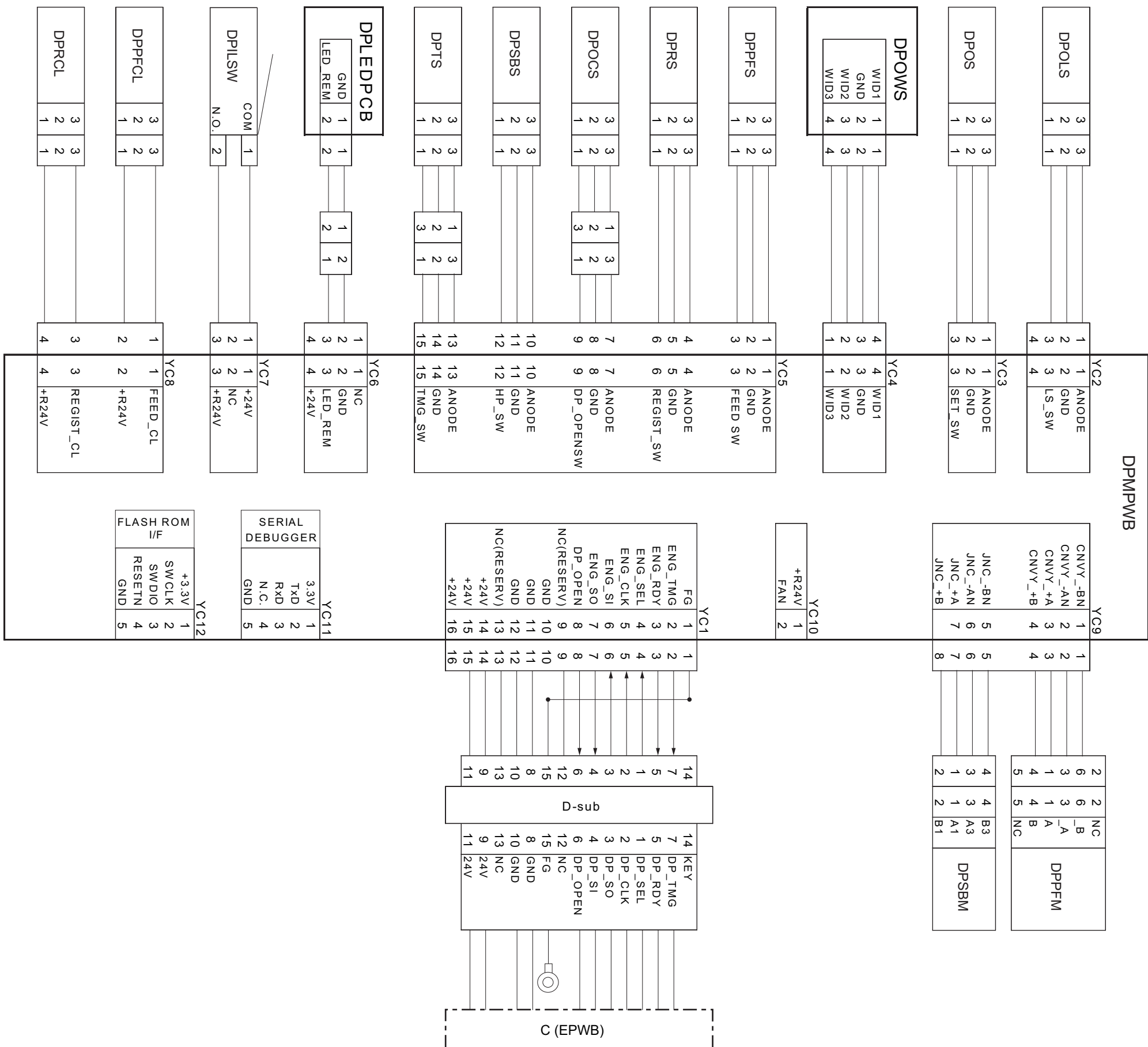
Item	Specifications
100% magnification	Machine: $\pm 0.8\%$ Using DP: $\pm 1.5\%$
Enlargement/reduction	Machine: $\pm 1.0\%$ Using DP: $\pm 1.5\%$
Lateral squareness	Machine: ± 1.5 mm/375 mm Using DP: ± 2.5 mm/375 mm
Leading edge registration	Cassette: $+1.0/-1.5$ mm MP tray: $+1.0/-1.5$ mm Duplex: $+1.0/-1.5$ mm
Skewed paper feed (left-right difference)	Cassette: 1.5 mm or less MP tray: 1.5 mm or less Duplex: 2.0 mm or less
Lateral image shifting	Cassette: ± 2.0 mm MP tray: ± 2.0 mm Duplex: ± 3.0 mm

(5) Wiring diagram





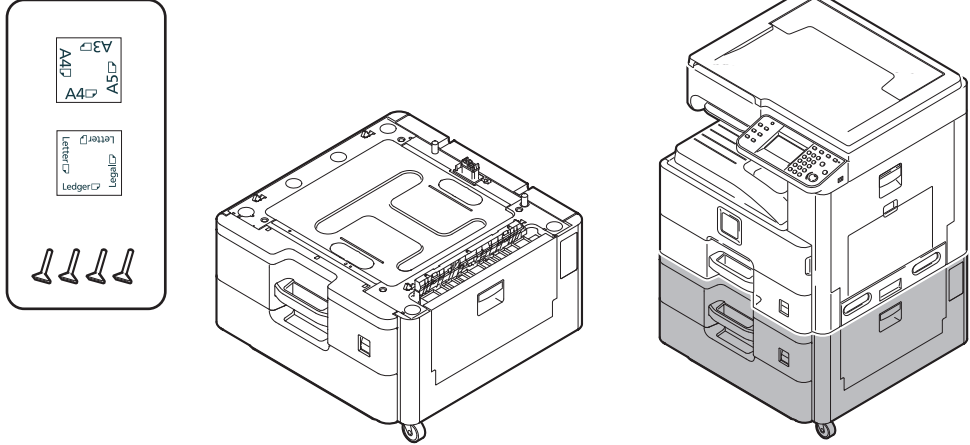




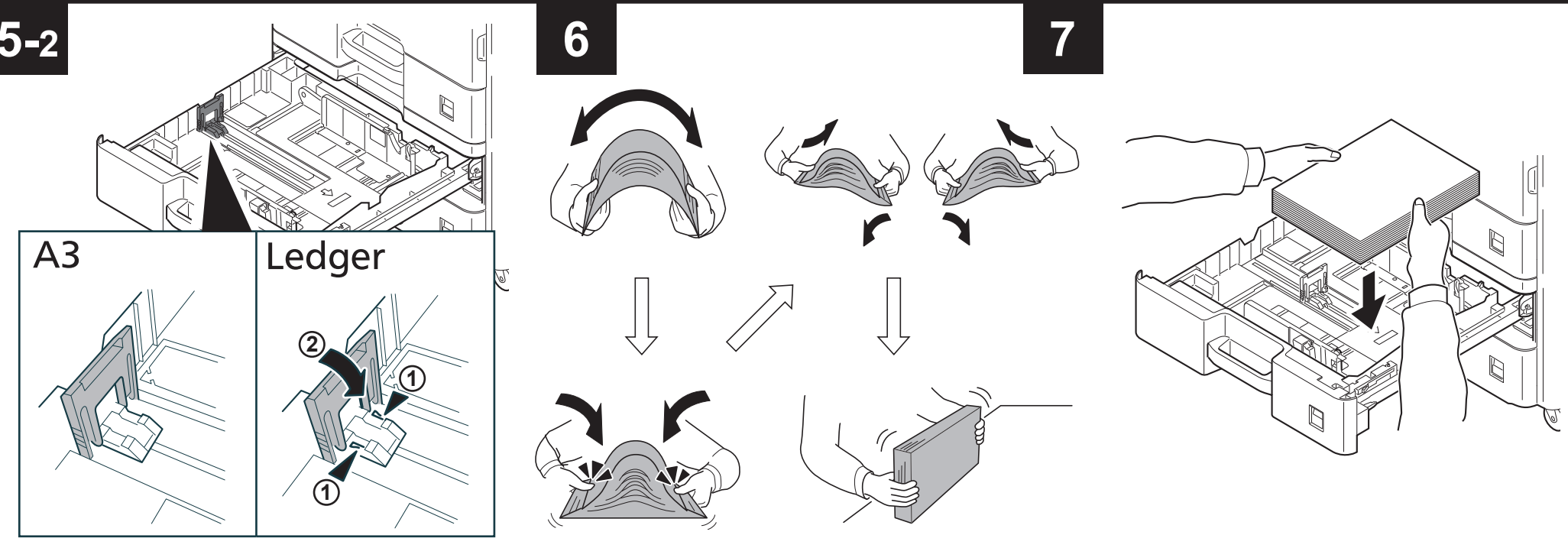
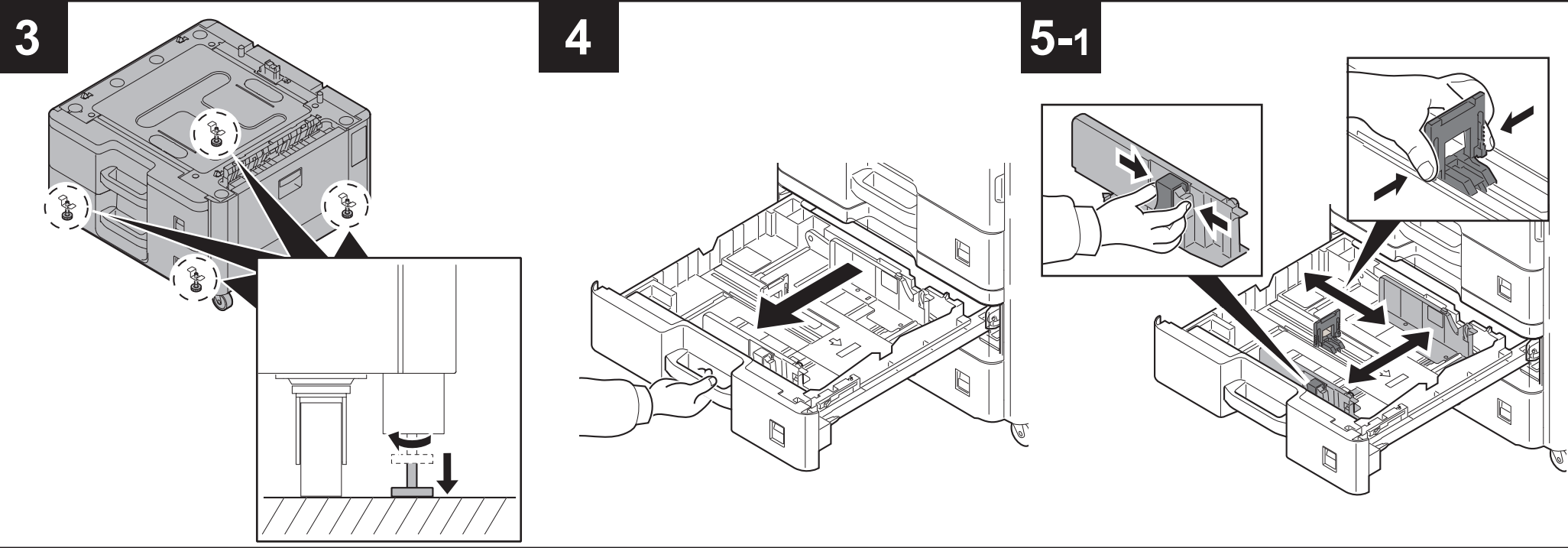
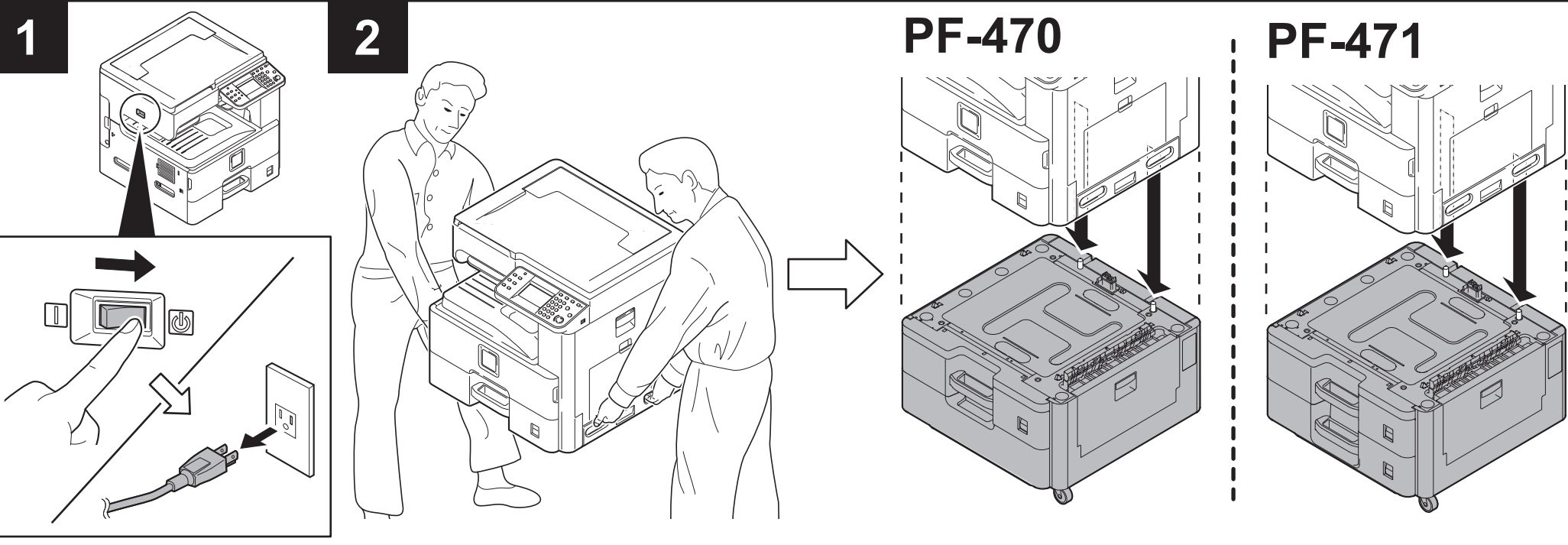
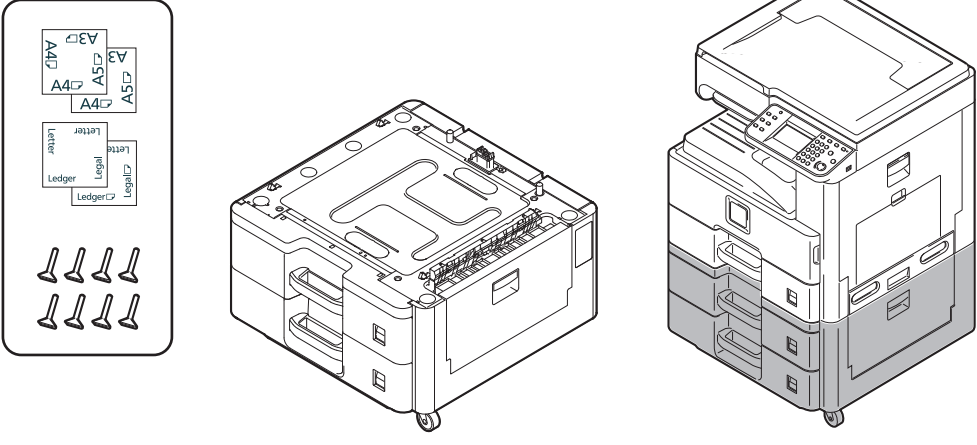
PF-470/471
(Paper feeder)
Installation Guide

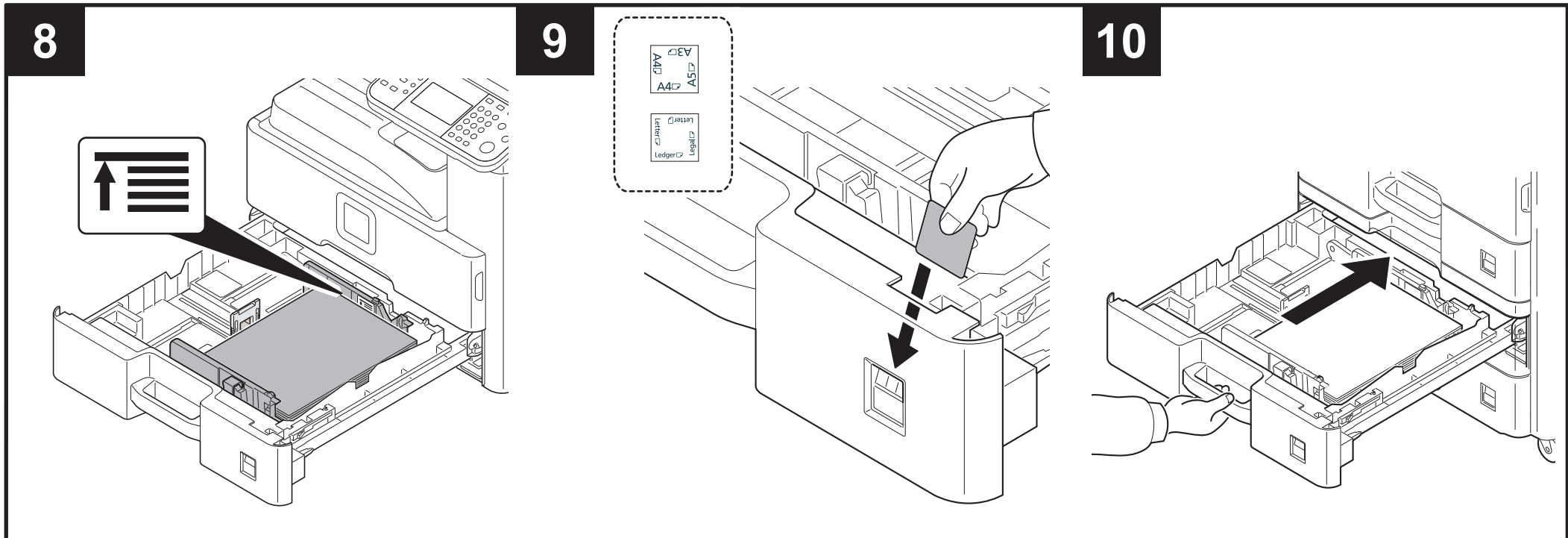
PF-470/471 PAPER FEEDER

PF-470



PF-471





(ENG)

Fix Paper Width Guide

You can fix the paper width guide using the supplied retaining pins. Follow the steps below as necessary.

(FR)

Fixation du guide de largeur du papier

Vous pouvez fixer le guide de largeur du papier en utilisant les goupilles de fixation fournies.

Suivez les étapes ci-dessous en fonction des besoins.

(ES)

Fijar la guía de anchura del papel

Puede fijar la guía de anchura del papel con los pernos de retén proporcionados. Siga los pasos siguientes según sea necesario.

(DE)

Papierbreitenführung befestigen

Sie können die Papierbreitenführung mit den gelieferten Haltebolzen befestigen. Folgen Sie den Schritten unten falls notwendig.

(IT)

Fissare la guida di larghezza carta

Per fissare la guida di larghezza carta, utilizzare i perni di fissaggio forniti. Eseguire i seguenti punti come necessario.

(CN)

固定纸张宽度导板

您可以使用附带的定位销固定纸张宽度导板。

必要时执行如下步骤。

(TW)

固定紙張寬度導板

您可以使用隨附的定位卡榫固定紙張寬度導板。

如有必要，請執行以下步驟。

(KO)

용지폭 가이드 고정

기기와 함께 제공된 핀으로 용지폭 가이드를 고정시킬 수 있습니다.

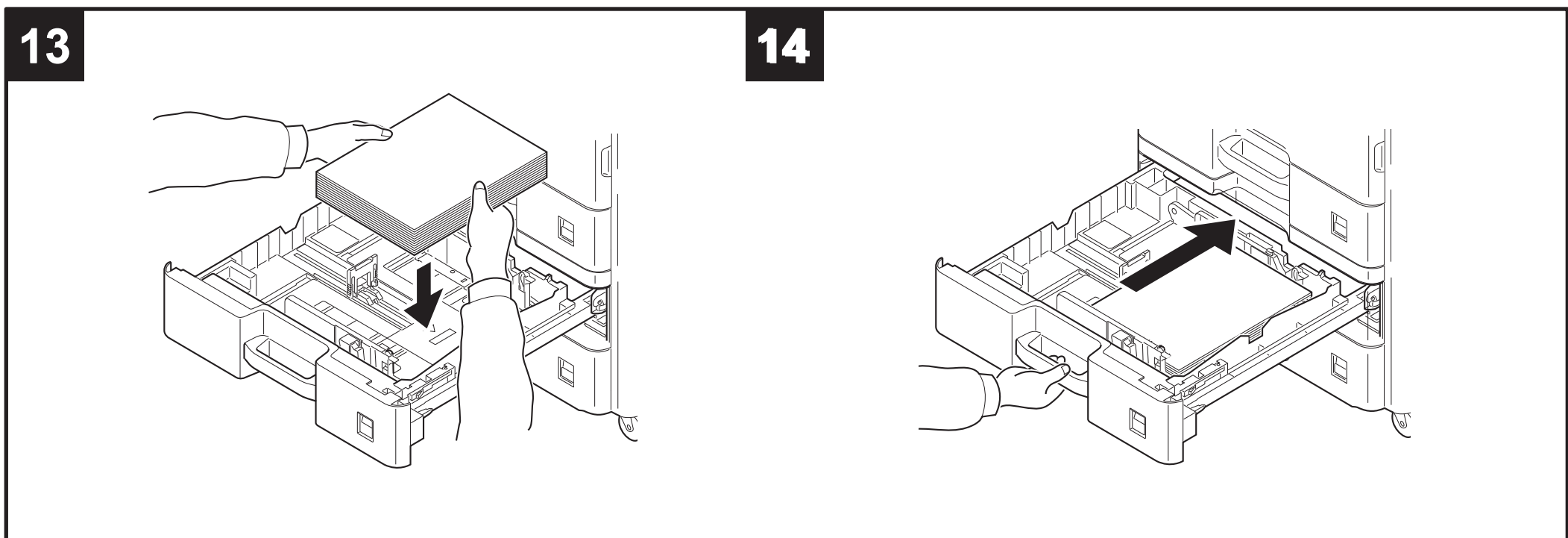
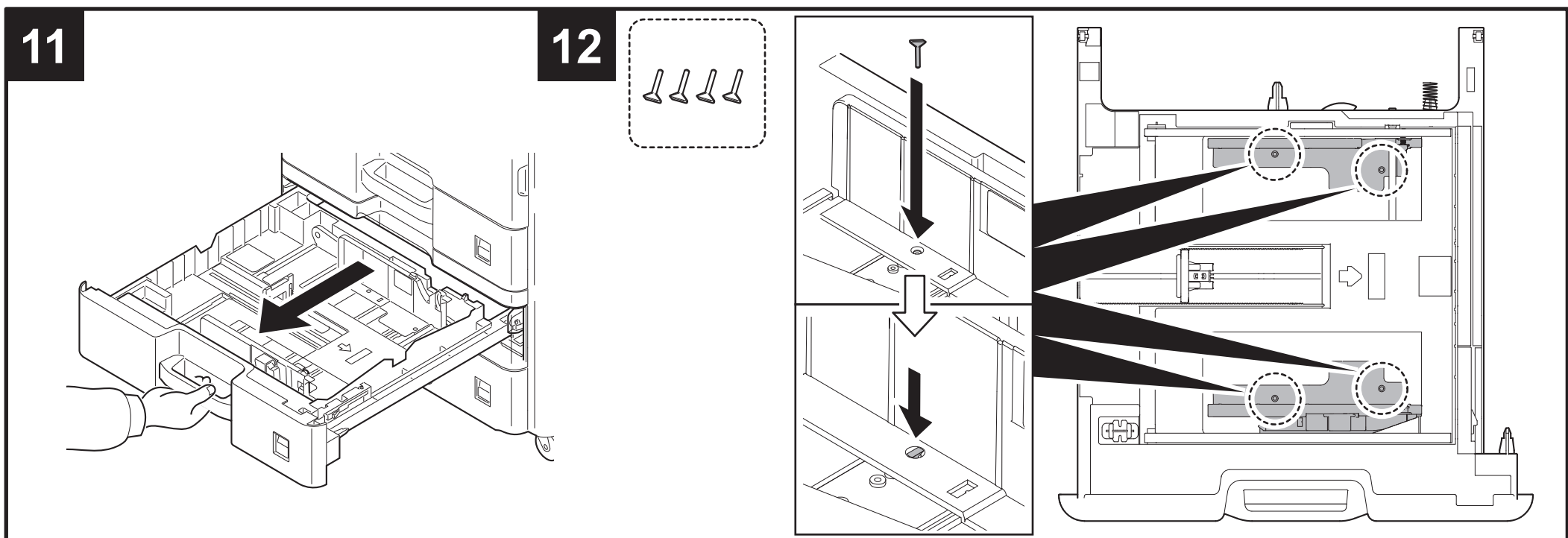
필요하면 아래의 작업을 하십시오.

(JP)

用紙幅ガイドの固定

用紙幅ガイドは同梱のピンで固定することが可能です。

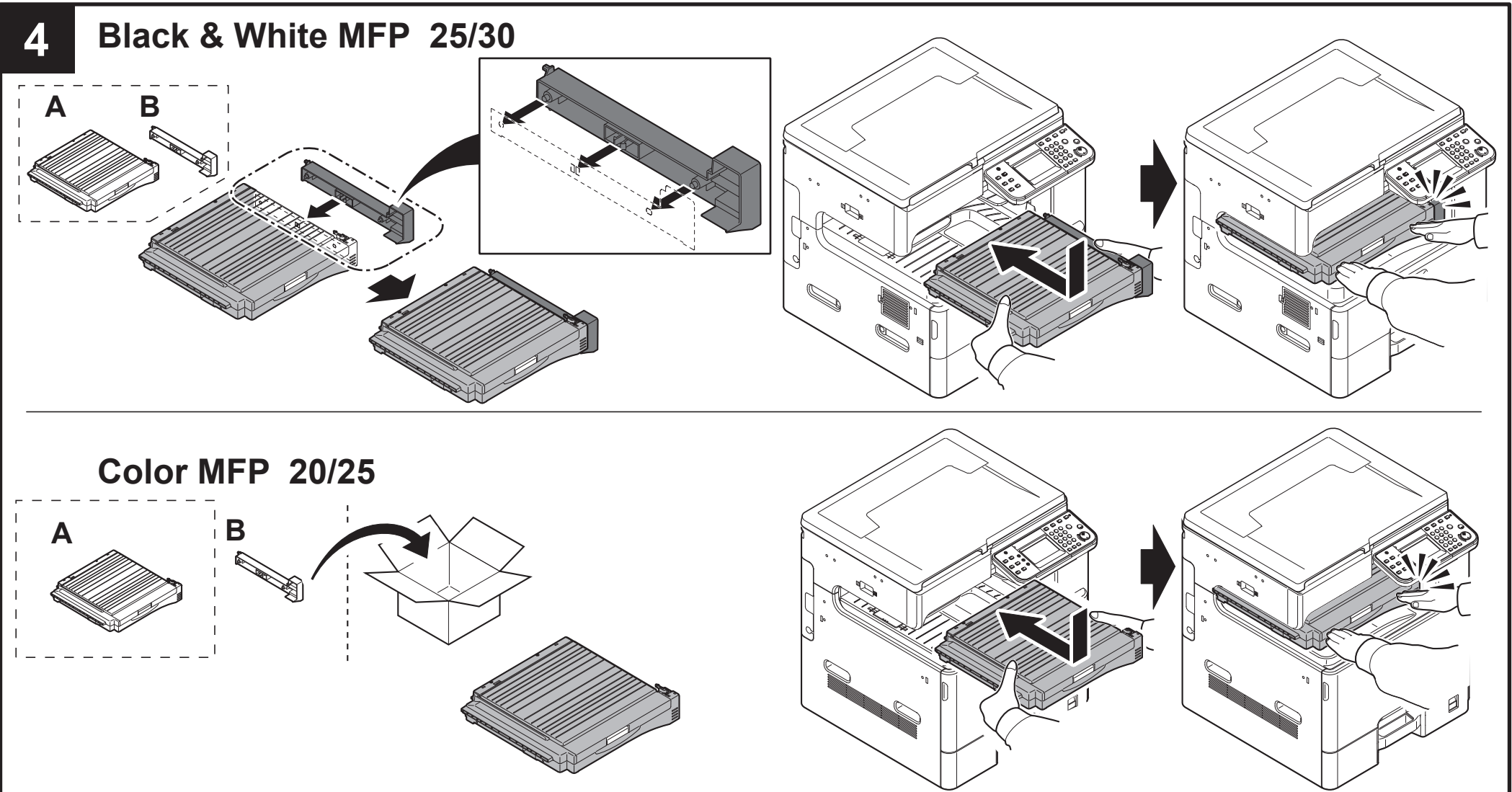
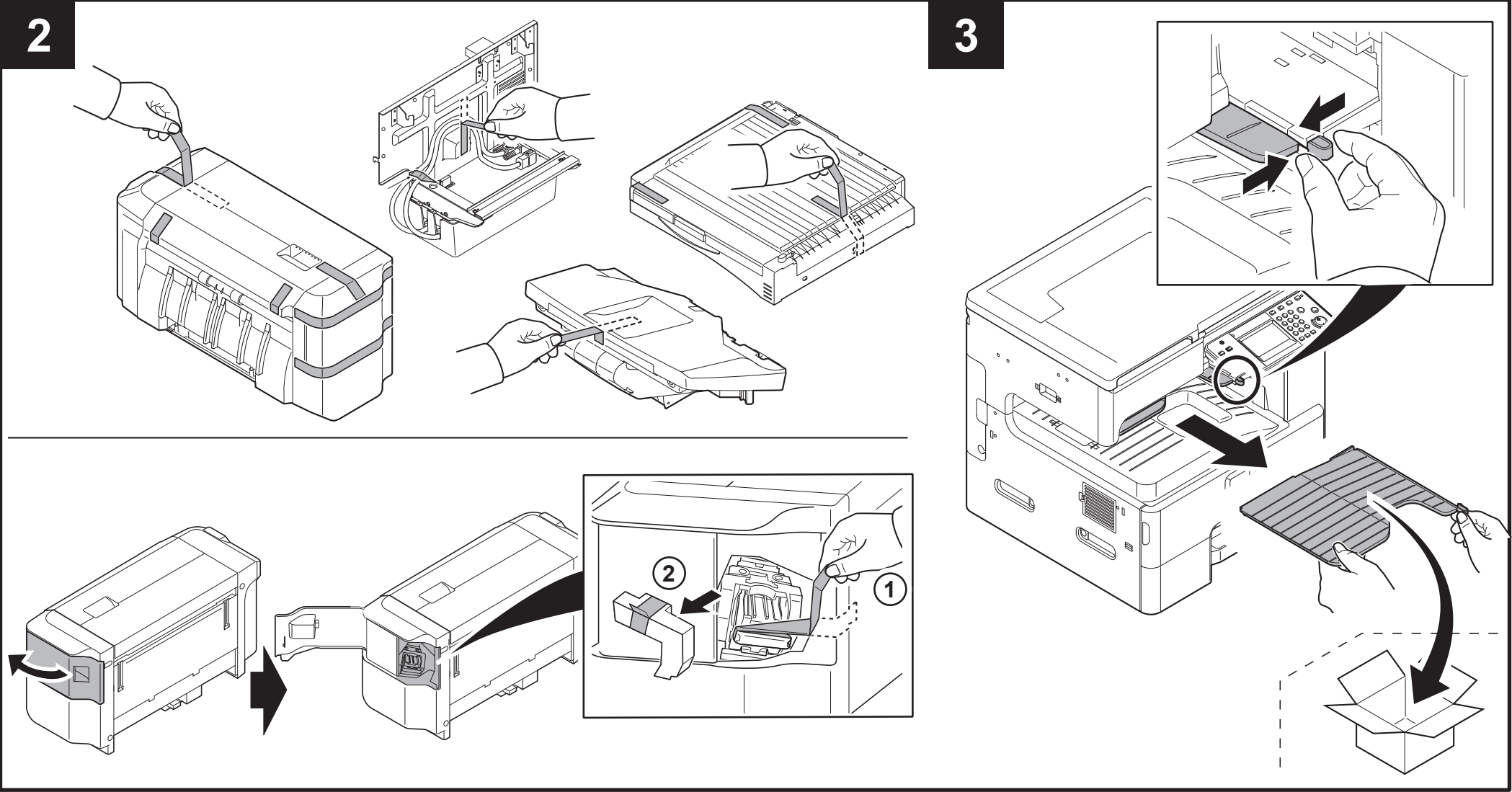
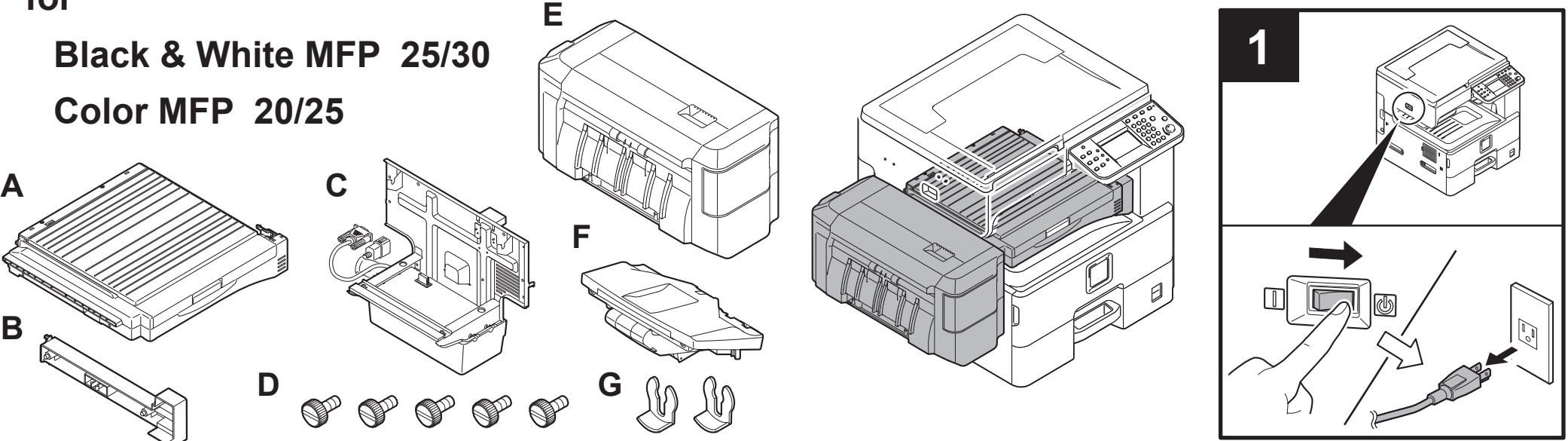
必要に応じて、以下の作業を行って下さい。

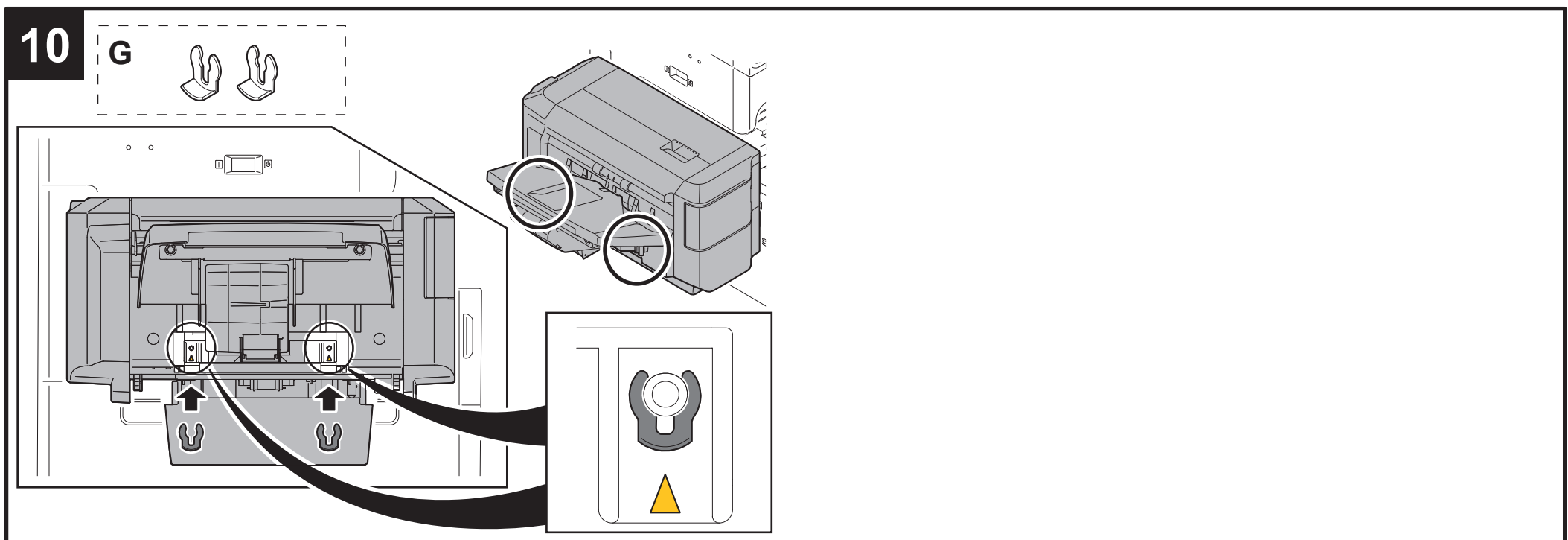
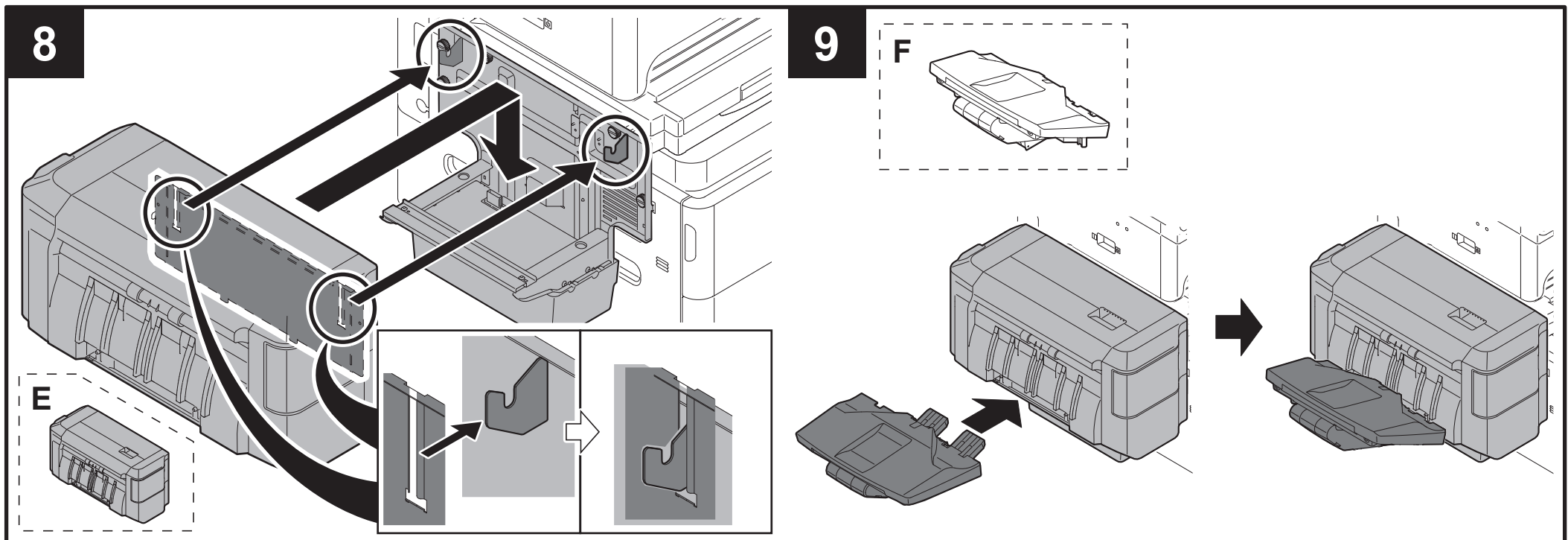
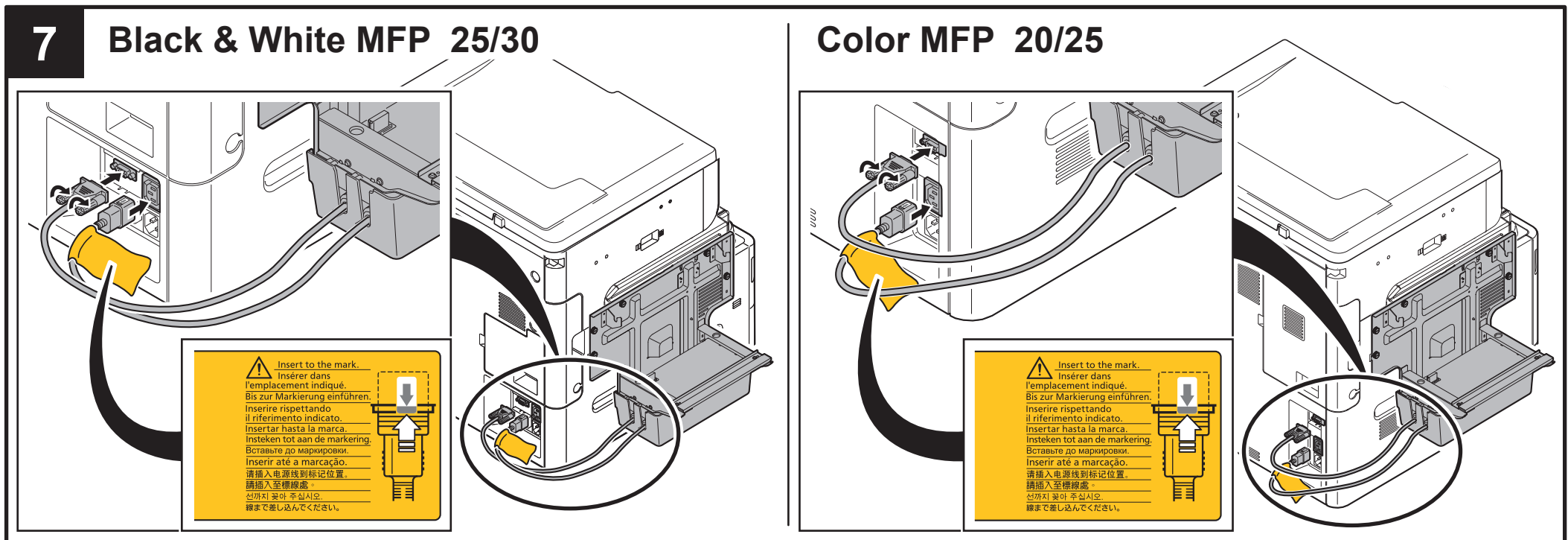
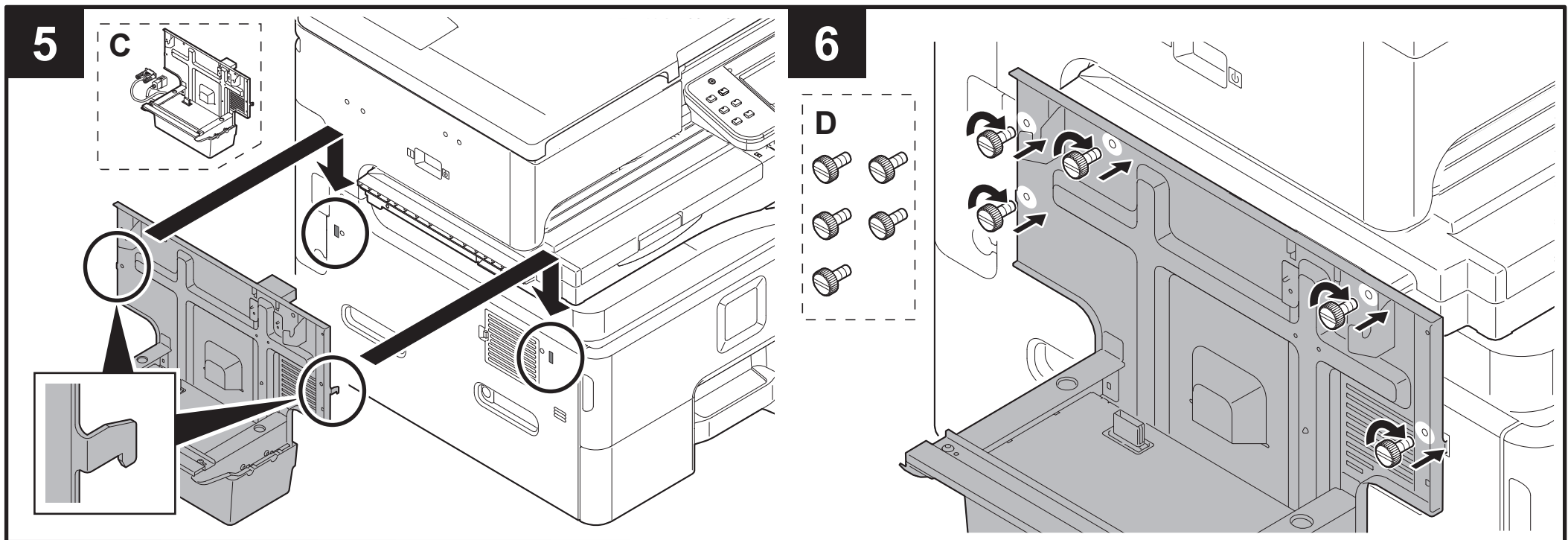


DF-470/AK-470
(Document finisher)
Installation Guide

DF-470 DOCUMENT FINISHER , AK-470 ATTACHMENT KIT

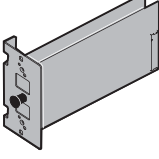
for
Black & White MFP 25/30
Color MFP 20/25



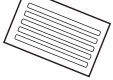


FAX System(U) Installation Guide


FAX System(U)






.....1



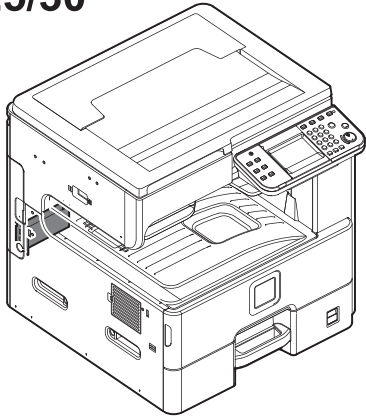
.....1
(100V0)



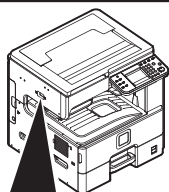
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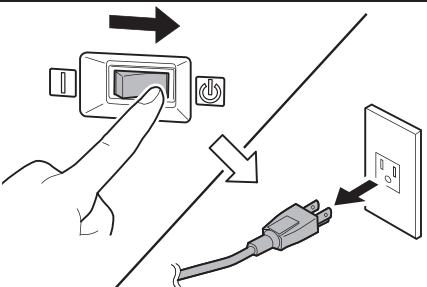
JP **US**1
  **PJJWC0016Z (UL Listed. HUAN HSIN Type TL)**1

Black & White MFP
25/30

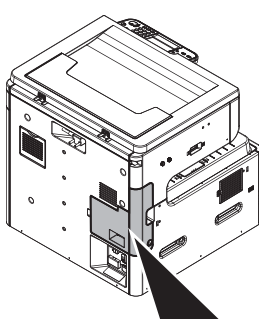


1

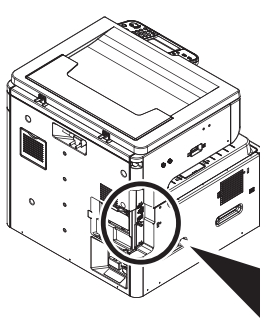




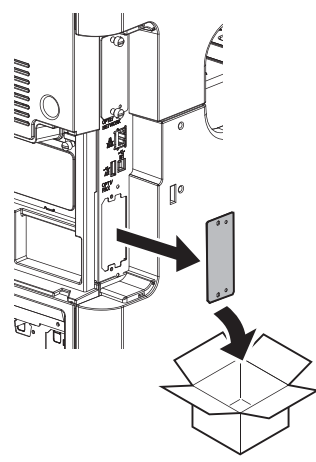
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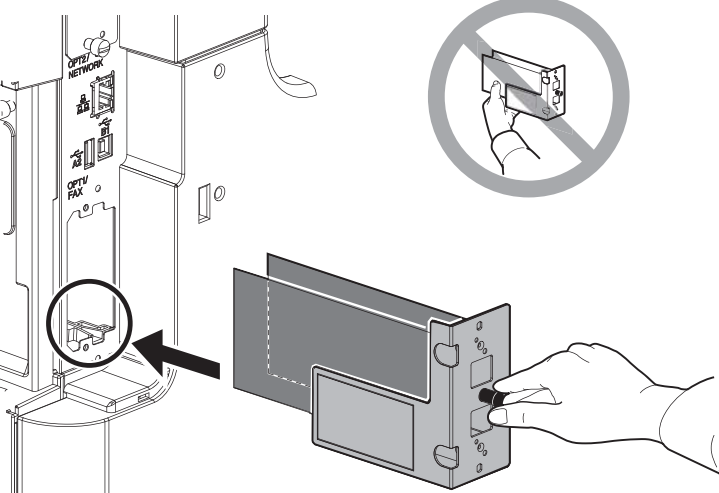
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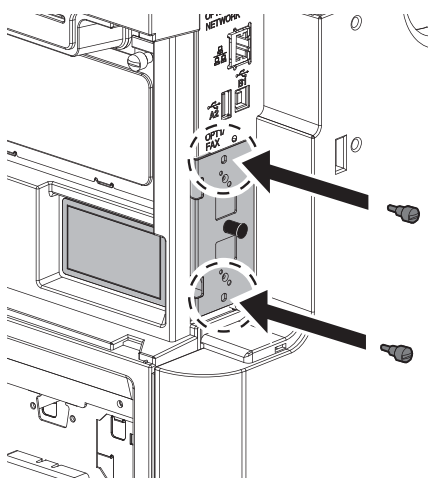
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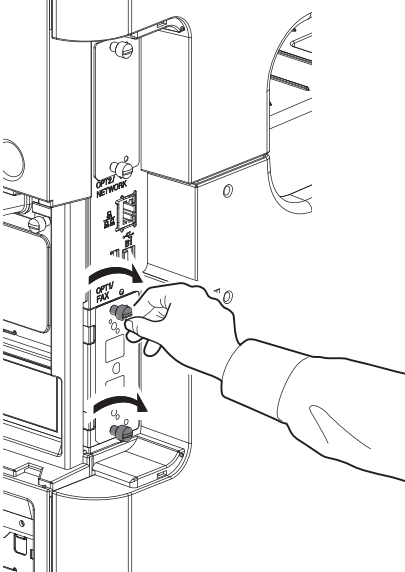
5



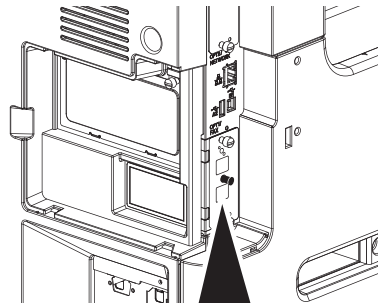
6



7



8



1	LINE connector	Connect the modular cord for the telephone line to this connector.
2	TEL connector	When using a commercially available telephone set, connect the modular cord to this connector.

1	Connecteur LINE	Brancher le cordon pour la ligne téléphonique sur cette prise.
2	Connecteur TEL	Lors de l'utilisation d'un téléphone standard, brancher le cordon téléphonique à cette prise.

1	Conector de LÍNEA	Conecte el cable modular de la línea telefónica a este conector.
2	Conector TEL	Si utiliza un aparato telefónico de los disponibles en el mercado, conecte el cable modular a este conector.

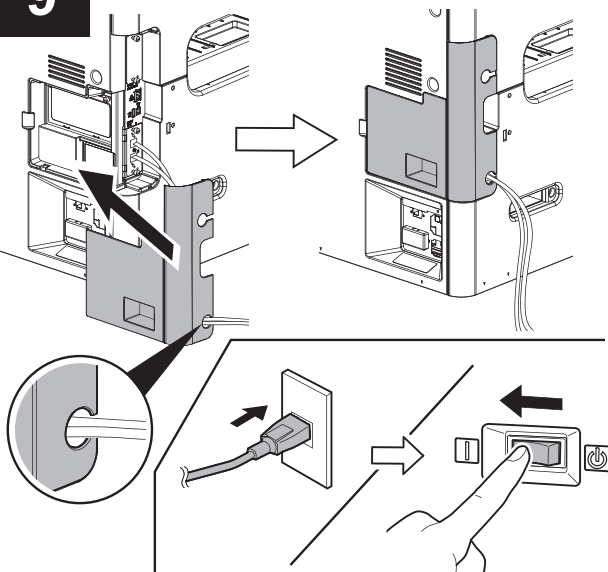
1	Leitungs-anschluss-buchse	Verbinden Sie diesen Anschluss mit der Telefondose.
2	Telefonanschlussbuchse	Hier kann ein Telefon angeschlossen werden.

1	Connettore LINEA	Collegare a questo connettore il cavo modulare della linea telefonica.
2	Connettore TEL	Se si desidera collegare al sistema un normale telefono, collegarlo a questo connettore.

1	LINHA conector	Conecte o cabo modular para a linha telefónica a este conector.
2	TEL conector	Ao usar um aparelho telefónico disponível comercialmente, conecte o cabo modular a este conector.

1	LINE接続コネクタ	電話回線のモジュラーコードを接続してください。
2	TEL接続コネクタ	市販の電話機を併用する場合は、ここに接続してください。

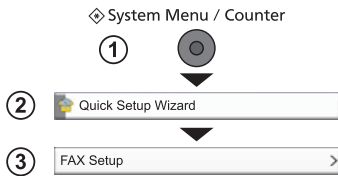
9



FAX Setup Wizard

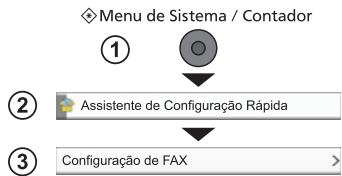
ENG

The machine provides Quick Setup Wizard in System Menu to set the FAX. Follow the instructions on the operation panel.



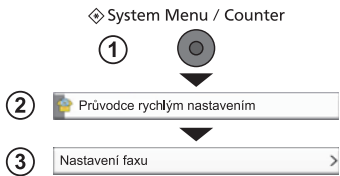
BR

A máquina fornece o Assistente de Configuração Rápida no Menu de Sistema para configurar o FAX. Siga as instruções no painel de operação.



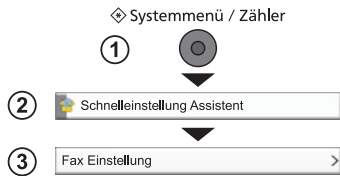
CZ

V systémové nabídce zařízení najdete Průvodce rychlým nastavením, pomocí něhož můžete nastavit FAX. Postupujte podle pokynů na provozním panelu.



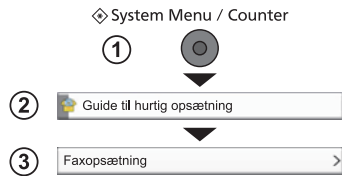
DE

Die Maschine bietet den Schnelleinstieg Wizard im Systemmenü an, um das Fax einzustellen: Folgen Sie den Anweisungen auf dem Bedienfeld.



DK

Maskinen indeholder en Guide til hurtig opsætning i System menuen til indstilling af faxen. Følg anvisningerne på betjeningspanelet.



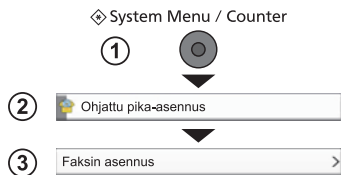
ES

La máquina dispone del Asistente de configuración rápida en el Menú Sistema para configurar el fax. Siga las instrucciones del panel de controles.



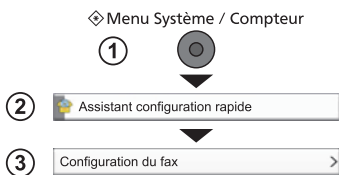
FI

Laitteen Järjestelmä-valikossa on ohjattu pika-asennustoiminto faksin asetusta varten. Noudata käyttöpaneelin ohjeita.



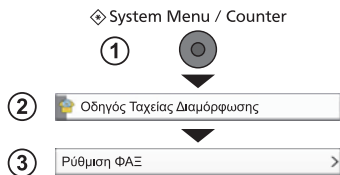
FR

L'appareil prévoit un Assistant de configuration rapide dans le menu système pour régler les paramètres du fax. Suivez les instructions sur le panneau de commande.



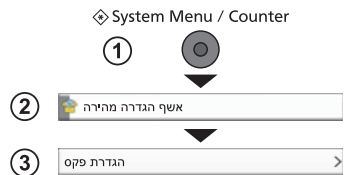
GR

Το μηχάνημα διαθέτει έναν Οδηγό Γρήγορης Εγκατάστασης στο Μενού Συστήματος για τη ρύθμιση του ΦΑΞ. Ακολουθήστε τις οδηγίες που εμφανίζονται στον πίνακα λειτουργίας.



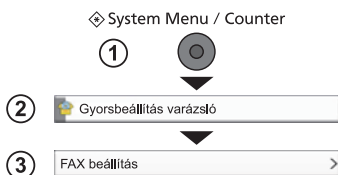
HEB

המכשיר מספק אשף הגדרה מהיר בתפריט המערכת, להגדרת הפקס. פעל לפי ההוראות המופיעות בלוח המפעיל.



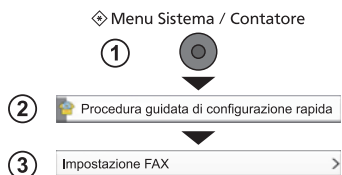
HU

A rendszeremenüben a gyorstelepítő varázsló lehetővé teszi a FAX beállítását. Kövesse a kezelőpulton megjelenő utasításokat.



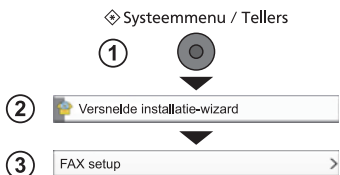
IT

È possibile utilizzare la procedura guidata di installazione rapida reperibile nel Menu Sistema per la configurazione del modulo FAX. Attenersi alle istruzioni visualizzate sul pannello comandi.



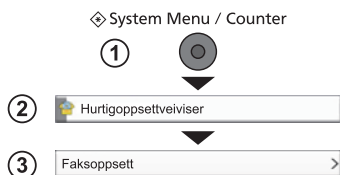
NL

In het Systeemmenu van het apparaat bevindt zich de wizard Snel installeren om de fax in te stellen. Volg de instructies op het bedieningspaneel van de fax.



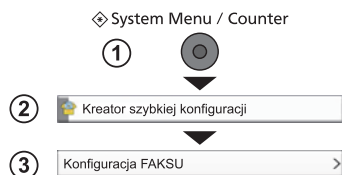
NO

Maskinen har en Hurtigoppsettveiviser i Systemmenyen til innstilling av faksen. Følg veiledningen på betjeningspanelet.



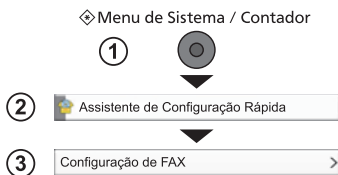
PL

W menu systemowym urządzenia dostępny jest Przewodnik szybkiej instalacji, który pozwoli ustawić funkcję FAKSU. Wykonuj instrukcje z panelu operacyjnego.



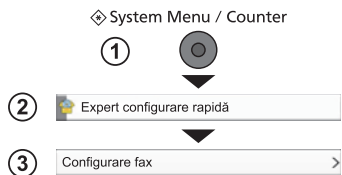
PT

A máquina proporciona o Assistente de Configuração Rápida no Menu do Sistema para definir o FAX. Siga as instruções no painel de funcionamento.



RO

Echipamentul are un expert de configurare rapidă în meniul Sistem pentru configurarea faxului. Urmăți instrucțiunile din panoul de utilizare.



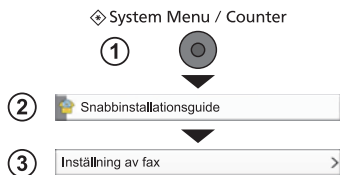
RU

Аппарат позволяет запустить мастер быстрой установки из системного меню для настройки факса. Выполните инструкции на панели управления.



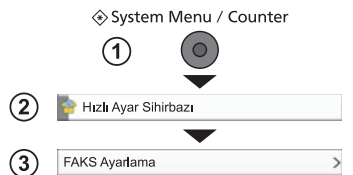
SV

Maskinen har en snabbstartguide i systemmenyn för att ställa in faxen: Följ instruktionerna som anges på kontrollpanelen.



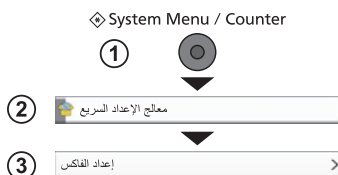
TR

Cihaz FAKS ayarlamak için Sistem Menü'sünde Hızlı Kurulum Sihirbazı sunar. İşletim panosundaki talimatları izleyin.



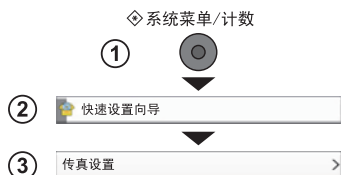
ARA

يوفر الجهاز معالج الإعداد السريع في قائمة النظام لإعداد الفاكس. اتبع التعليمات الموجودة على لوحة التشغيل.



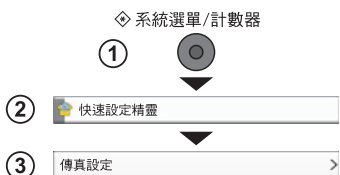
CN

可通过机器系统菜单中的快速设置向导设置传真。请遵循操作面板上的指导说明。



TW

可透過系統選單中的快速設定精靈進行傳真設定。請依照操作面板上的指示說明。



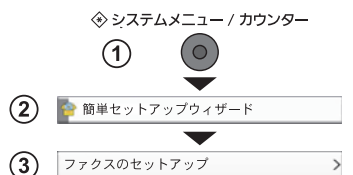
KO

기기의 시스템 메뉴에서 팩스를 설정할 수 있도록 빠른 설정 방법을 제공합니다. 조작 패널에 표시된 지침을 따르십시오.



JP

本機は、システムメニューに簡単セットアップウィザードを搭載しております。画面にしたがってファクスを設定してください。



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