

FS-C8520MFP FS-C8525MFP

SERVICE MANUAL

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CAUTION

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

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

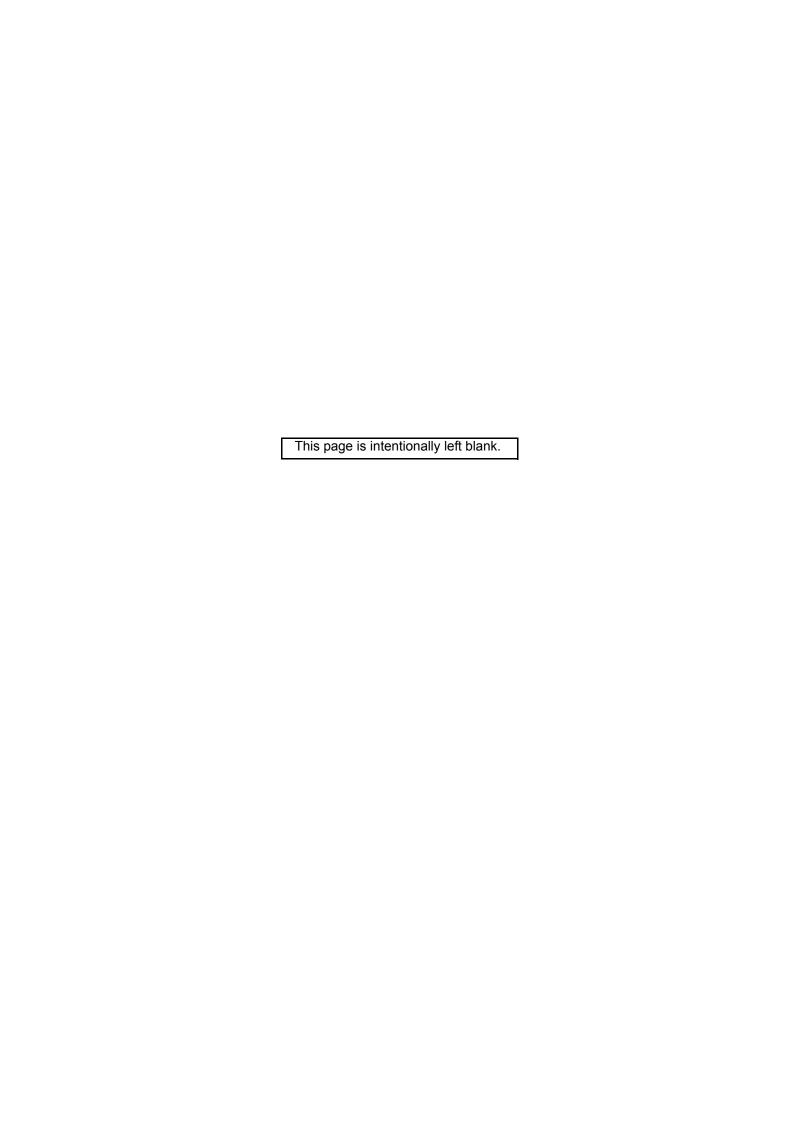
ATTENTION

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

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

Revision history

Revision	Date	Replaced pages	Remarks
1	21 June 2012	Contents, 1-3-15, 1-3-95, 1-3-96, 1-4-35, 1-5-15	-
2	19 July 2012	Contents, 1-4-36, 2-4-10 to 20	-
3	20 August 2012	1-3-82, 1-3-146 to 1-3-148, 2-4-22	-



Safety precautions

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

Safety warnings and precautions

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

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

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

A 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

A 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.	S
•	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.	0
4	A CAUTION:	
•	Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury	ē
•	Do not install the copier in a humid or dusty place. This may cause fire or electric shock	\triangle
•	Do not install the copier near a radiator, heater, other heat source or near flammable material. This may cause fire.	\mathbb{S}
•	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	Š
•	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.	8
•	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.

Advice customers that they must always follow the safety warnings and precautions in the copier's instruction handbook.

2. Precautions for Maintenance

AWARNING

Always remove the power plug from the wall outlet before starting machine disassembly	Œ
Always follow the procedures for maintenance described in the service manual and other related brochures.	\bigcirc
Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits.	\bigcirc
Always use parts having the correct specifications.	\Diamond
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.	0
When the service manual or other serious brochure specifies a distance or gap for installation of a part, always use the correct scale and measure carefully.	0
Always check that the copier is correctly connected to an outlet with a ground connection	٥
Check that the power cable covering is free of damage. Check that the power plug is dust-free. If it is dirty, clean it to remove the risk of fire or electric shock.	0
Never attempt to disassemble the optical unit in machines using lasers. Leaking laser light may damage eyesight.	O
Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly.	⚠

ACAUTION

 Wear safe clothing. If wearing loose clothing or accessories such as ties, make sure they are safely secured so they will not be caught in rotating sections.



• 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.

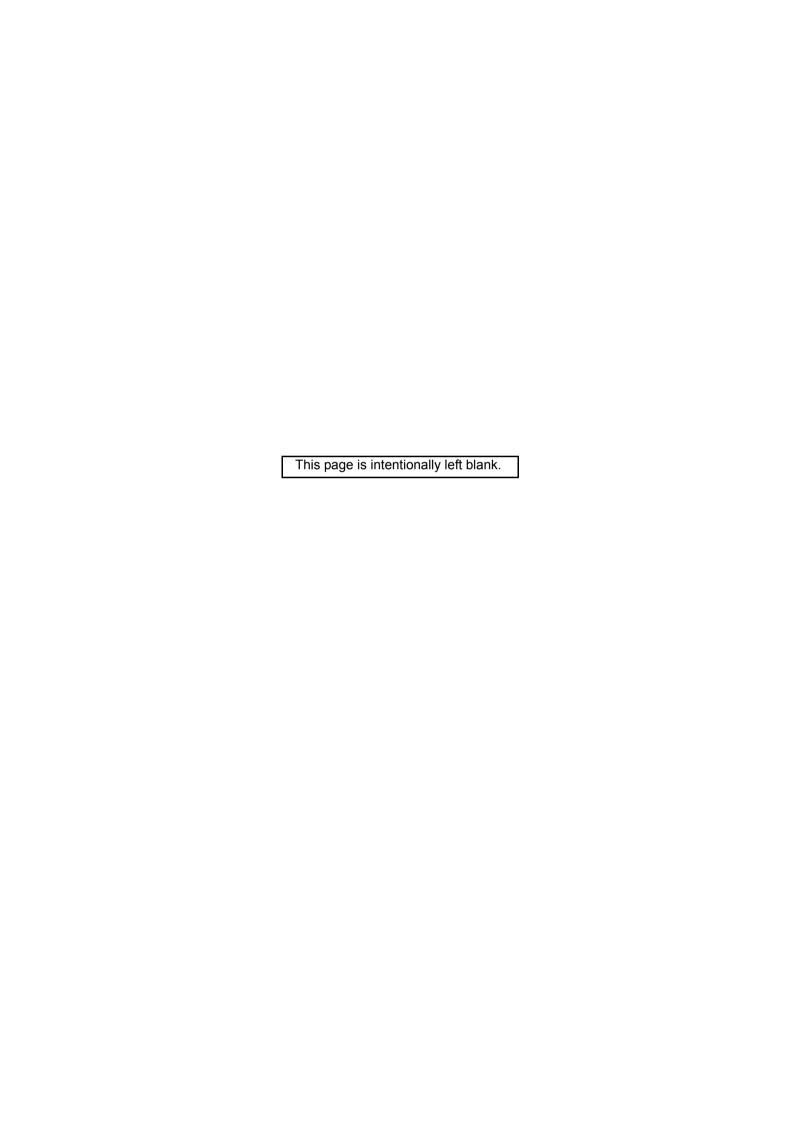


Check that the fixing unit thermistor, heat and press rollers are clean. Dirt on them can cause abnormally high temperatures.



	f(x, y)
Do not remove the ozone filter, if any, from the copier except for routine replacement	7
Do not pull on the AC power cord or connector wires on high-voltage components when removing them; always hold the plug itself.	\Diamond
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.	Ō
Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks	Á
Remove toner completely from electronic components.	<u> </u>
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. 	9
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.	0
 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. 	Y
Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc.	\bigcirc
Should smoke be seen coming from the copier, remove the power plug from the wall outlet immediately.	Œ
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.	\bigcirc
Keep the machine away from flammable liquids, gases, and aerosols. A fire or an electric shock	$\langle \nabla \rangle$

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

No.		Specifications					
Item		20ppm 25ppm		opm			
Туре		Desktop					
Printing	method	Electrophotograph	ny by semiconducto	r laser, tandem (4)	drum system		
Origi	inals	Sheet, Book, 3-dir	nensional objects (r	maximum original s	ize: A3/Ledger)		
Original fe	ed system	Fixed					
Paper weight	Cassette	60 to 256 g/m² (Du	uplex: 60 to 220 g/n	n²)			
Paper weight	MP tray	60 to 256 g/m², 230μm (Cardstock)					
	Cassette	•	Bond, Recycled, Veigh quality, Custom	-			
Paper type	MP tray	punched, Thick, H	Plain, Preprinted, Bond, Recycled, Vellum, Rough, Letter Head, Color, Prepunched, Thick, High quality, Coated, Envelope, Cardstock, Transparency, Labels, Custom1 to 8				
	Cassette	A3, A4, A5, B4, B5 16K	5, Ledger, Letter, Le	egal, Statement, Ofi	cio II, Folio, 8K,		
Paper size	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%					
		Color	B/W	Color	B/W		
	A4/Letter	20 sheets/min	20 sheets/min	25 sheets/min	25 sheets/min		
Copying speed	A4R/LetterR	14 sheets/min	14 sheets/min	17 sheets/min	17 sheets/min		
(Simplex)	A3/Ledger	8 sheets/min	10 sheets/min	9 sheets/min	13 sheets/min		
(When the DP is not	B4/Legal	9 sheets/min	10 sheets/min	10 sheets/min	13 sheets/min		
used)	B5	20 sheets/min	20 sheets/min	25 sheets/min	25 sheets/min		
,	B5R	14 sheets/min	14 sheets/min	17 sheets/min	17 sheets/min		
	A5R	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min		
	A4/Letter	20 sheets/min	20 sheets/min	20 sheets/min	20 sheets/min		
Conving	A4R/LetterR	14 sheets/min	14 sheets/min	14 sheets/min	14 sheets/min		
Copying speed	A3/Ledger	8 sheets/min	10 sheets/min	9 sheets/min	10 sheets/min		
(Simplex)	B4/Legal	9 sheets/min	10 sheets/min	10 sheets/min	11 sheets/min		
(When using the DP)	B5	20 sheets/min	20 sheets/min	20 sheets/min	20 sheets/min		
	B5R	14 sheets/min	14 sheets/min	16 sheets/min	16 sheets/min		
	A5R	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min		

Item		Specifications		
		20ppm	25ppm	
First copy time When the DP is not used		B/W : 11.7 s or less Color : 13.6 s or less	B/W : 11.7 s or less Color : 13.6 s or less	
(A4, feed from cassette)	When using the DP	B/W : 12.7 s or less Color : 15.6 s or less	B/W : 11.7 s or less Color : 13.6 s or less	
Warm-1 (22 °C/71.6	up time °F, 60% RH)	Power on : 55 s or less Low powermode : 10 s or less Sleep mode : 23 s or less	Power on : 45 s or less Low powermode : 10 s or less Sleep mode : 23 s or less	
Paper	Cassette	500 sheets (80g/m²)		
capacity	MP tray	100 sheets (80 g/m², plain paper, A4/Letter or less) 25 sheets (80 g/m², plain paper, A4/Letter or more)		
Output tra	y capacity	Inner tray : 250 sheets (80g/m²) Job separator : 30 sheets (80g/m²)		
Continuou	is copying	1 to 999 sheets		
Light	source	White LED		
Scanning	g system	Flat bed scanning by CCD image sen	sor	
Photoco	nductor	OPC drum (diameter 30 mm)		
lmage wri	te system	Semiconductor laser:		
Charging	g system	Contact charger roller method		
Developer system		Touch down developing system Developer: 2-component Toner replenishing: Automatic from the toner container		
Transfer	system	Primary: Transfer belt Secondary: Transfer roller		
Separatio	n system	Small diameter separation, separation	n electrode	
Cleaning	g system	Counter blade cleaning		
Charge eras	sing system	Exposure by cleaning lamp (LED)		
Fusing	system	One axis IH established method Heat source: IH inverter heating Abnormally high temperature protection devices: thermostat		
CPU		PowerPC464 (800MHz)		
Main Standard		1.5 GB		
memory Maximum		2.0 GB		
Interface Standard Option		USB interface connector: 1 (USB Hi-speed) USB host: 2 (USB Hi-speed) Network interface: 1 (10BASE-T/100BASE-TX/1000BASE-T)		
		eKUIO slot: 2		
Resolution		600 × 600 dpi		

Item		Specifications	
ILE	eiii	20ppm	25ppm
	Temperature	10 to 32.5 °C/50 to 90.5 °F	
Operating	Humidity	15 to 80% RH	
environment	Altitude	2,500 m/8,202 ft or less	
	Brightness	1,500 lux or less	
Dimensions (W × D × H)		590 × 590 × 748 mm / 23 1/4" × 23 1/4 "× 29 7/16"	
Weight		80 kg / 176.4 lb (with toner containers)	
Space required (W × D)		874× 590 mm / 34 7/16" × 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 7.2 A	
Options		Paper feeder (single cassette), Paper feeder (double cassette), Document finisher, Network kit, Fax kit, Expanded memory, Card Authentication KIT	

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/m²) or less

Printer

Item		Specifications				
		20ppm		25ppm		
		Color	B/W	Color	B/W	
Printing speed (Simplex)	A4/Letter	20 sheets/min	20 sheets/min	25 sheets/min	25 sheets/min	
	A4R/LetterR	14 sheets/min	14 sheets/min	17 sheets/min	17 sheets/min	
	A3/Ledger	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min	
	B4/Legal	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min	
	B5	20 sheets/min	20 sheets/min	25 sheets/min	25 sheets/min	
	B5R	14 sheets/min	14 sheets/min	17 sheets/min	17 sheets/min	
	A5R	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min	
	A4/Letter	19 sheets/min	19 sheets/min	23 sheets/min	23 sheets/min	
	A4R/LetterR	7 sheets/min	7 sheets/min	9 sheets/min	9 sheets/min	
Printing	A3/Ledger	6 sheets/min	6 sheets/min	7 sheets/min	7 sheets/min	
speed	B4/Legal	6sheets/min	6sheets/min	7 sheets/min	7 sheets/min	
(Duplex)	B5	19 sheets/min	19 sheets/min	23 sheets/min	23 sheets/min	
	B5R	7 sheets/min	7 sheets/min	9sheets/min	9sheets/min	
	A5R	10 sheets/min	10 sheets/min	13 sheets/min	13 sheets/min	
First print time (A4, feed from cassette)		B/W : 11.0 s or less Color : 14.0 s or less		B/W : 10.0 s or less Color : 12.0 s or less		
Reso	Resolution		600 × 600 dpi			
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 600 MHz or higher RAM: It is based on the recommend environment of each OS. HDD free space: 20 MB or more				
Page descrip	tion language	PRESCRIBE				

Scanner

ltem		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		TIFF (JPEG6.0, tn2), JPEG, XPS, PDF (1.4, /A)		
Scanning speed	Simplex	B/W : 40 images/min Color: 40 images/min (A4 landscape,300 dpi, Image quality: Text/Photo original)		
	Duplex	B/W : 14 images/min Color : 14 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 R2

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Machine (front side)

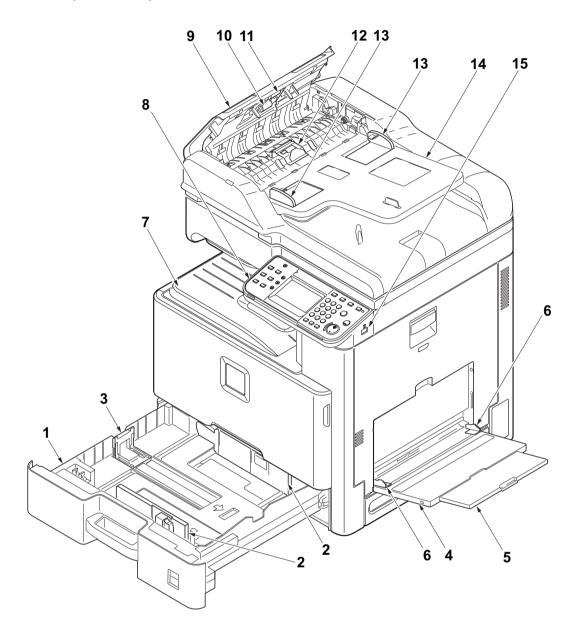


Figure 1-1-1

- 1. Cassette
- 2. Paper width guides
- 3. Paper length guide
- 4. MP (multi purpose) tray
- 5. MP tray extension
- 6. MP Paper width guides
- 7. Inner tray
- 8. Operation panel

- 9. DP top cover
- 10. DP paper feed roller
- 11. DP forwarding roller
- 12. DP separation pully
- 13. DP original width guides
- 14. Original table
- 15. USB memory slot

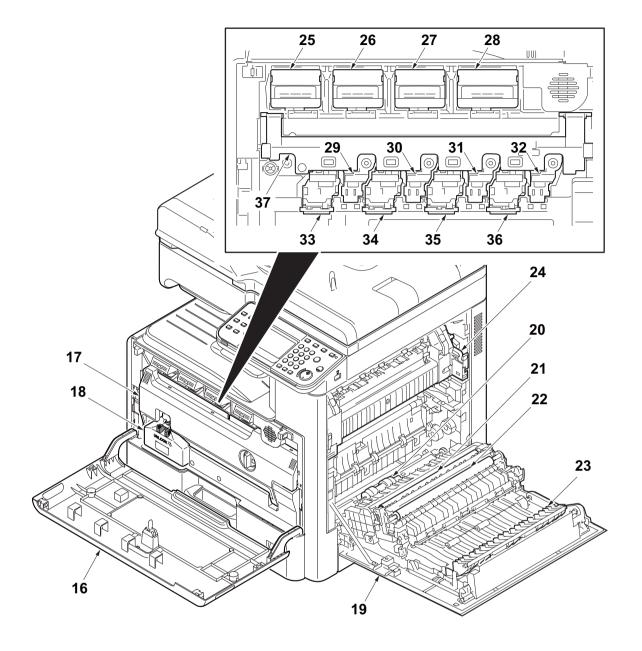


Figure 1-1-2

- 16. Front cover
- 17. Duct cover
- 18. Waste toner box
- 19. Right cover 1
- 20. MP paper feed roller
- 21. Right registration roller
- 22. Secondary transfer roller
- 23. Feed shift guide

- 24. Fuser unit
- 25. Toner container /Y
- 26. Toner container /C
- 27. Toner container /M
- 28. Toner container /K
- 29. Drum unit /Y
- 30. Drum unit /C
- 31. Drum unit /M

- 32. Drum unit /K
- 33. Developer unit /Y
- 34. Developer unit /C
- 35. Developer unit /M
- 36. Developer unit /K
- 37. Duct holder

(2) Machine (rear side)

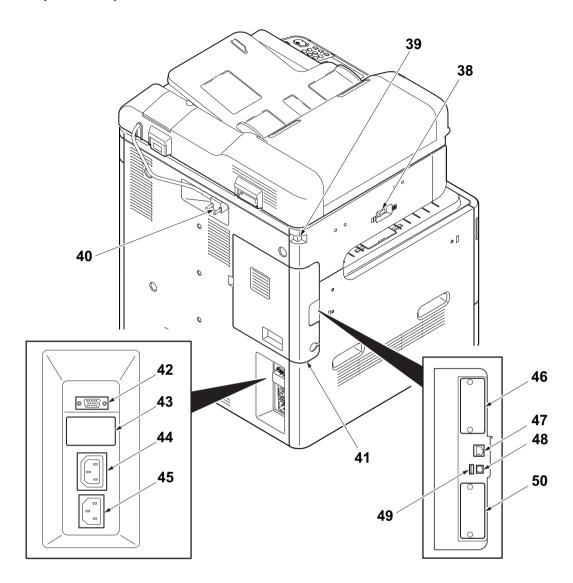


Figure 1-1-3

- 38. Main power switch
- 39. Scanner lock lever
- 40. DP interface connector
- 41. Controller box cover
- 42. DF interface connector
- 43. Cassette heater switch (cover)
- 44. Outlet connector

- 45. Inlet connector
- 46. Option interface slot 1
- 47. Network interface connector
- 48. USB port
- 49. USB interface connector
- 50. Option interface slot 2

(3) Operation panel

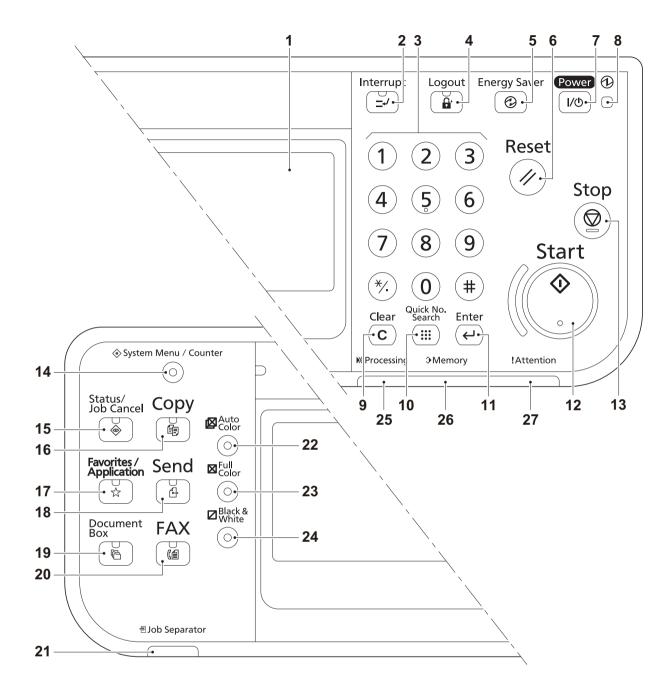


Figure 1-1-4

- 1. Message display
- 2. Interrupt key / LED
- 3. Numeric keys
- 4. Logout key / LED
- 5. Energy saver / LED
- 6. Reset key
- 7. Power key / LED
- 8. Main power LED
- 9. Clear key
- 10. Quick No.search key

- 11. Enter key
- 12. Start key / LED
- 13. Stop key
- 14. System menu/Counter key / LED
- 15. Status/Job cancel / LED
- 16. Copy key / LED
- 17. Favorite key / Appricathion / LED
- 18. Send key / LED

- 19. Document box key / LED
- 20. FAX key / LED
- 21. Job separator LED
- 22. Auto color key / LED
- 23. Full color key / LED
- 24. Black & white key / LED
- 25. Processing LED
- 26. Memory LED
- 27. Attention LED

1-1-3 Machine cross section

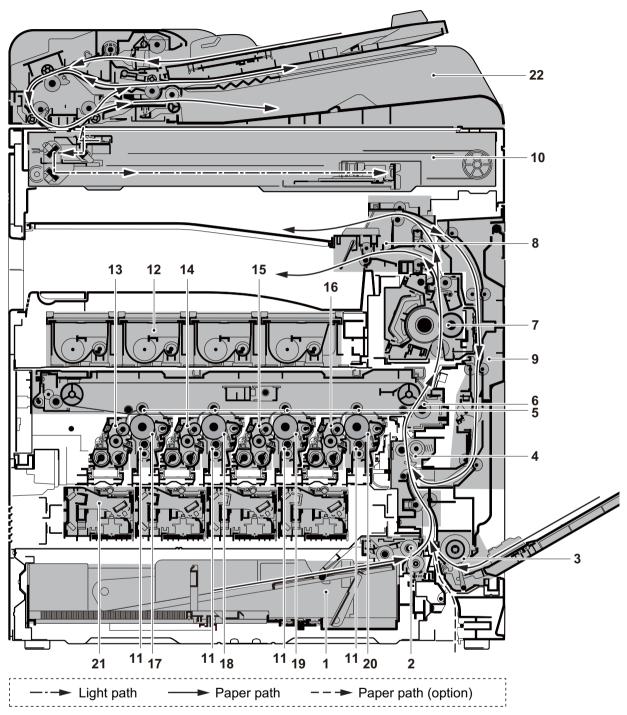


Figure 1-1-5

- 1. Cassette
- 2. Cassette paper feed section
- 3. MP tray paper feed section
- 4. Conveying section
- 5. Primary transfer section
- 6. Secondary transfer section / Separation sections
- 7. Fuser unit

- 8. Eject section
- 9. Duplex/conveyning section
- 10. Image scanner unit (ISU)
- 11. Charger roller unit
- 12. Toner container /YCMK
- 13. Developer unit /Y
- 14. Developer unit /C
- 15. Developer unit /M

- 16. Developer unit /K
- 17. Drum unit /Y
- 18. Drum unit /C
- 19. Drum unit /M
- 20. Drum unit /K
- 21. Laser scanner unit (LSU) /YCMK
- 22. Document processor (DP)

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 ±2%/60 Hz ±2%

5. Installation location

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

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

Avoid places subject to dust and vibrations.

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

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

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

Select a well-ventilated location.

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

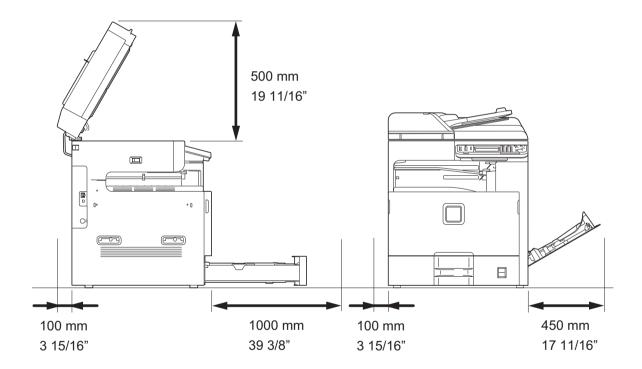
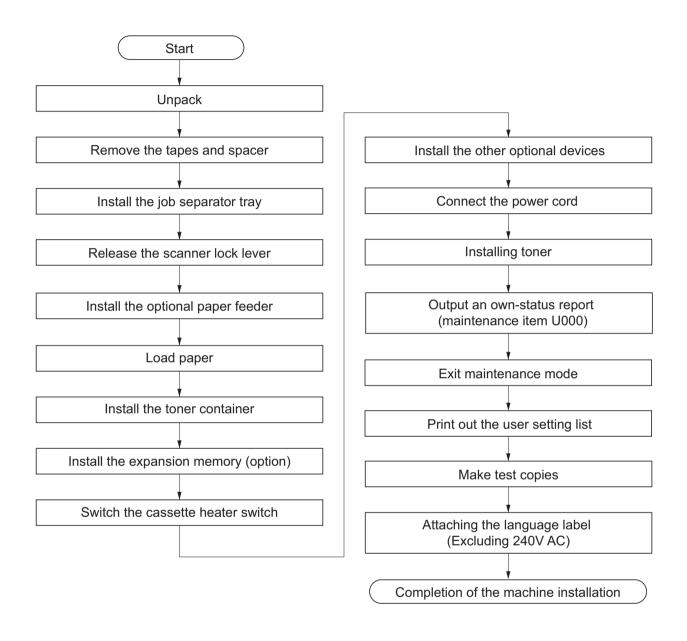
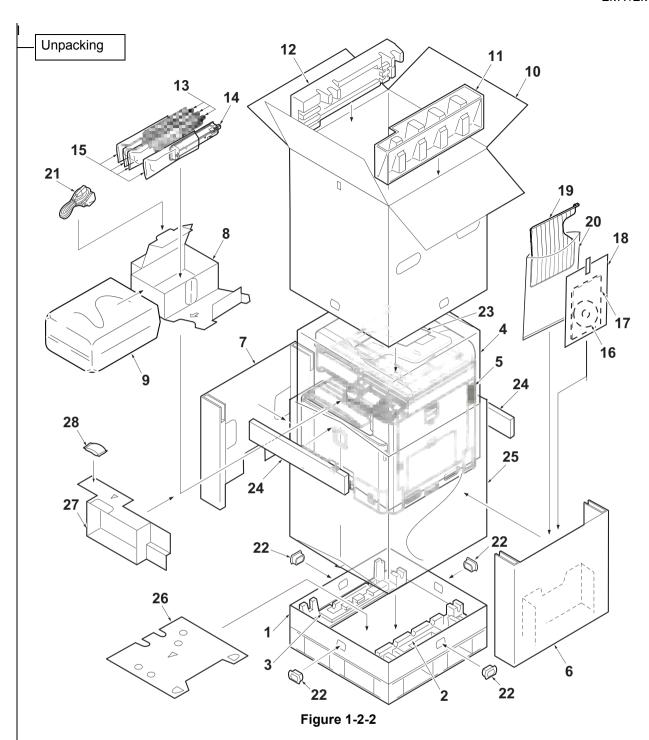


Figure 1-2-1

1-2-2 Unpacking and installation

(1) Installation procedure





- 1. Bottom case
- 2. Bottom pad R
- 3. Bottom pad L
- 4. Machine cover
- 5. Machine
- 6. Inner case R
- 7. Inner case L
- 8. Spacer A
- 9. Plastic bag (540 × 950)
- 10. Outer case

- 11. Upper pad R 12. Upper pad L
 - 13. Toner container /YCM
 - 14. Toner container /K
 - 15. Plastic bag (250 × 650)
 - 16. CD-ROM *1
 - 17. Installation guide, etc.
 - 18. Plastic bag
 - 19. Job separator tray
 - 20. Plastic bag (400 × 600)

- 21. Power cord
- 22. Hinge joints
- 23. Quick installation guide
- 24. Reinforcement parts
- 25. Plastic bag
- 26. Lower pad
- 27. Front pad
- 28. Desiccant

*1 Excluding 230V AC model

Place the machine on a level surface.

Remove the tapes and spacer

1. Remove four tapes.

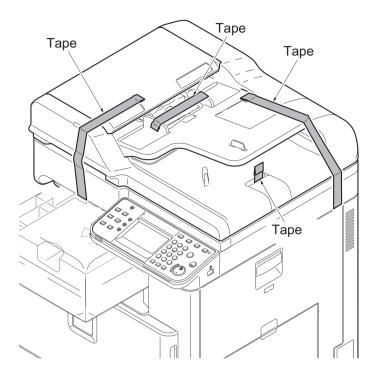


Figure 1-2-3

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

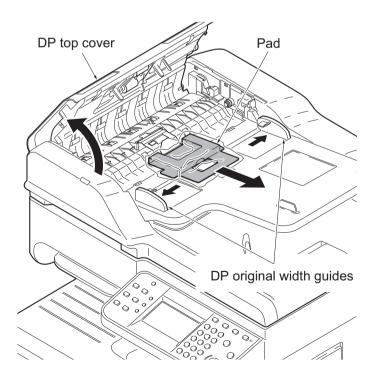


Figure 1-2-4

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

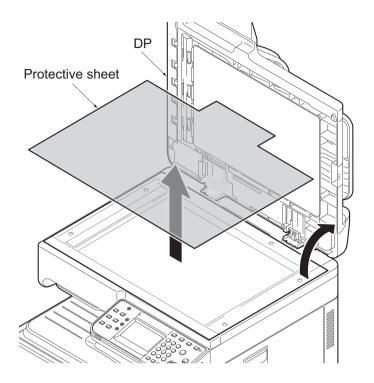


Figure 1-2-5

- 7. Remove the paper.
- 8. Close the DP.

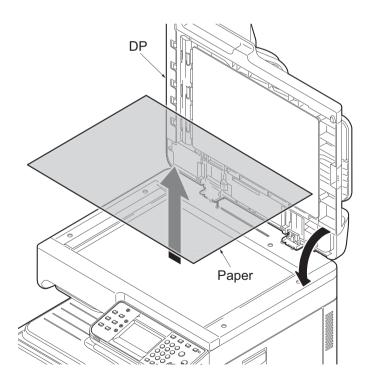


Figure 1-2-6

9. Remove the tape.

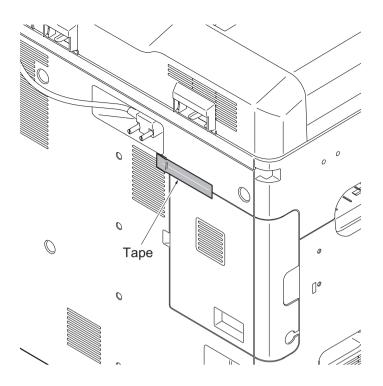


Figure 1-2-7

- 10. Peel off two protective sheets.
- 11. Remove the spacer.

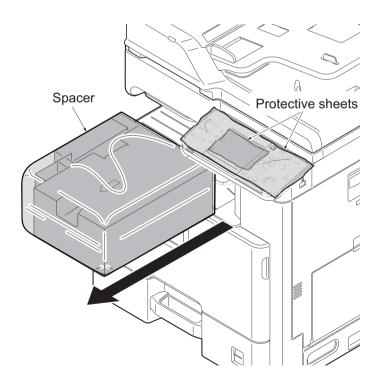
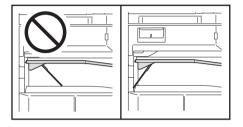


Figure 1-2-8

Install the job separator tray

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

ATTENTION: When installing the Job separator tray, are cautious of the position of a paper guide.



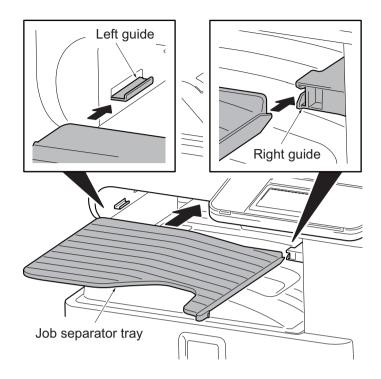


Figure 1-2-9

Release the scanner lock lever

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

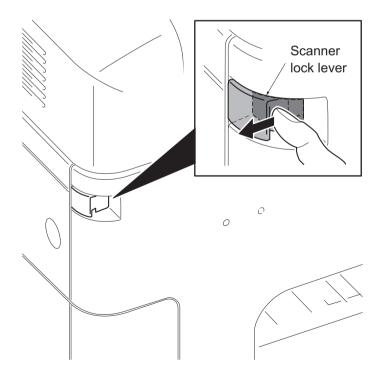


Figure 1-2-10

Install the optional paper feeder

1. Install the optional paper feeder as required.

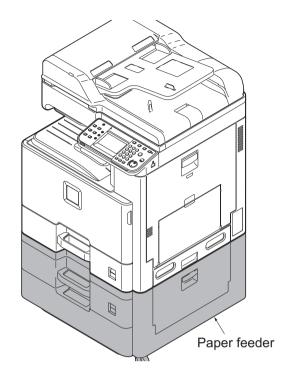


Figure 1-2-11

Load paper

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

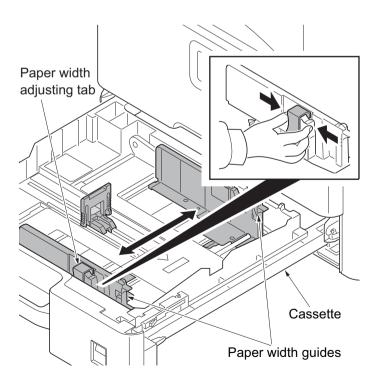


Figure 1-2-12

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

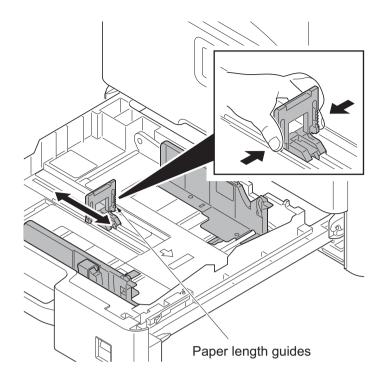


Figure 1-2-13

- 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.

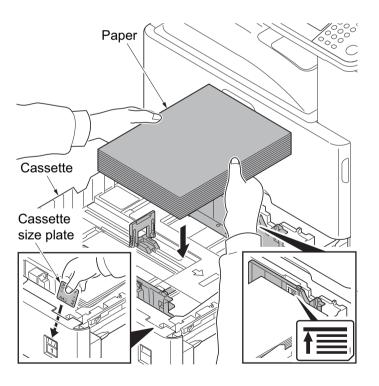


Figure 1-2-14

Install the toner container

- 1. Open the front cover.
- 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.

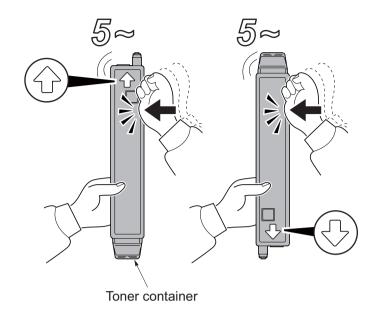


Figure 1-2-15

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

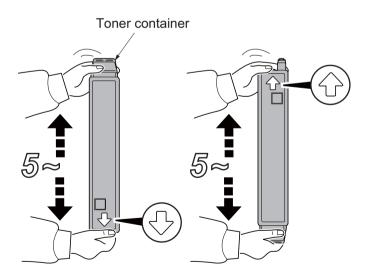


Figure 1-2-16

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

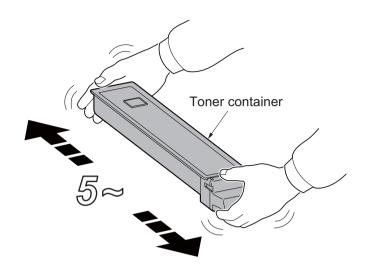


Figure 1-2-17

5. Gently push the toner container into the machine.

Push the container all the way into the machine until it locks in place.

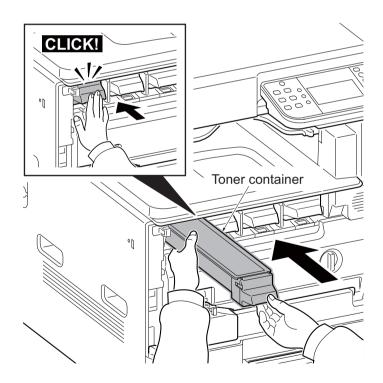


Figure 1-2-18

Switch the cassette heater switch

- 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.

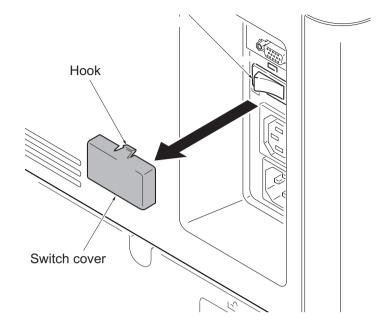


Figure 1-2-19

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 one minute 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

- 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. Release four hooks and then remove the controller box cover.
- 3. Remove two screws.

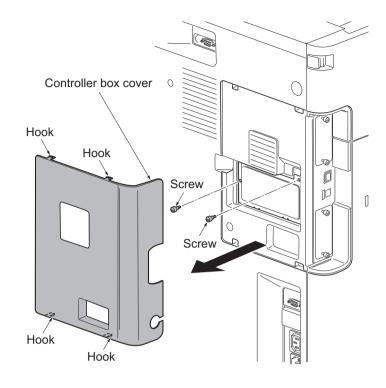


Figure 1-2-20

- 4. Remove the memory slot cover.
- 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 two screws.
- 8. Refit the controller box cover.
- Print a status page to check the memory expansion. (See 1-3-135)
 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 is 1024 MB.

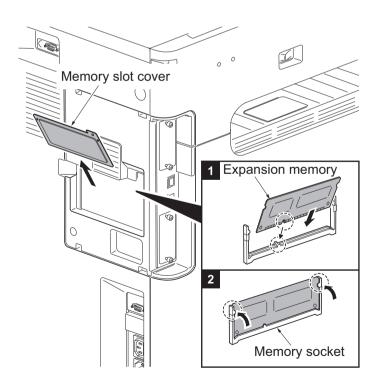
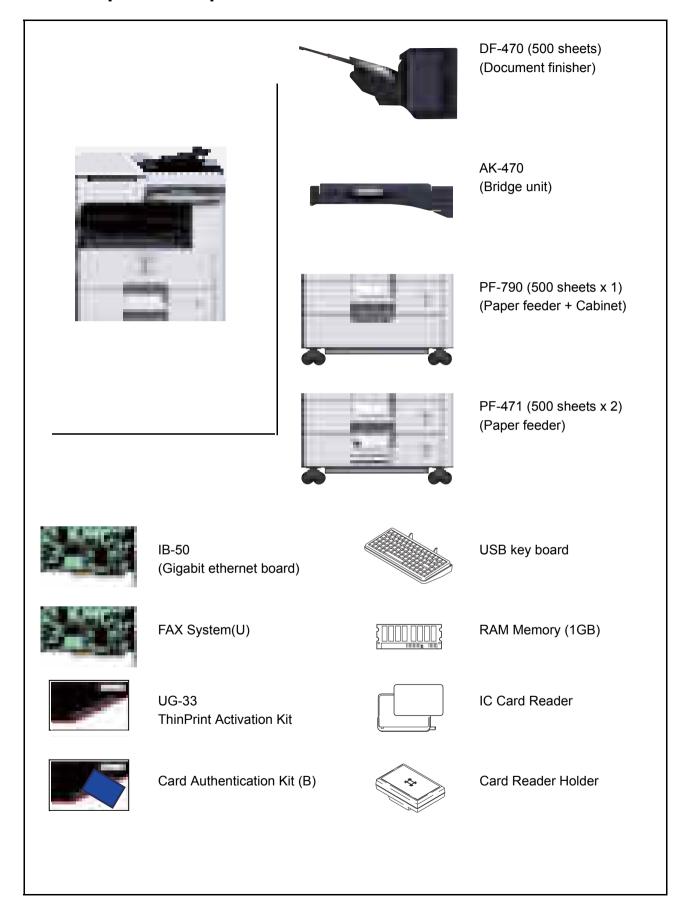


Figure 1-2-21

1-2-4 Option composition

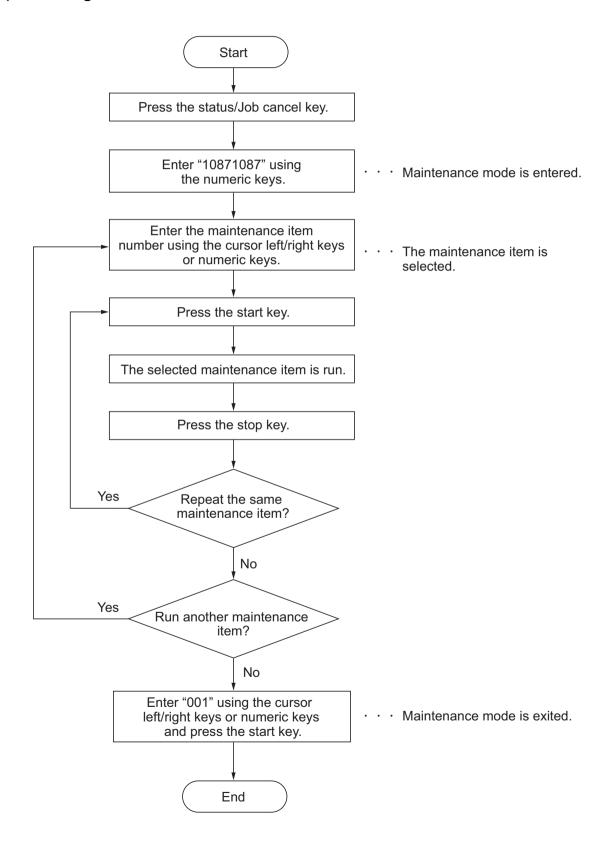


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1-3-1 Maintenance mode

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	Content of maintenance item	Initial	setting
Section	No.	Content of maintenance item	20ppm	25ppm
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	U030	Checking the operation of the motors		-
feed and	U031	Checking switches and sensors for paper conveying		-
paper con- veying sys-	U032	Checking the operation of the clutches		-
tem	U033	Checking the operation of the solenoids		-
	U034	Adjusting the print start timing Leading edge registration Center line	41/4 0/0/0	1/41 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	-1/-3/-4/ -4/-3/-3/13 -3/-2/-3/ -3/-1/-1/3 -1/-3/-3/ -3/-2/-2/10	-1/-3/-5/ -5/-3/-3/13 -3/-2/-3/ -3/-1/-1/3 -1/-3/-4/ -4/-2/-2/10
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
	U074	Adjusting the DP input light luminosity	()
	U089	Outputting a MIP-PG pattern		-
	U099	Adjusting original size detection	50/50	/20/19 /50/49 is installed.)

Section	Item	Content of maintenance item	Initial	setting
Section	No.	Content of maintenance item	20ppm	25ppm
High voltage	U100	Setting the main high voltage	0/0. -/-, 145/145. Mo	uto /0/0 /-/- /145/145 de0
	U101	Setting the voltage for the primary transfer	40/25 0/4/4/4 -2/2/2/2 24	45/25 0/5/5/5 -3/2/2/2 30
	U106	Setting the voltage for the secondary transfer	66/46/34 70/48/32 68/48/35 72/50/34 51/36/26 54/37/25 43/30/22 45/31/22 40/33/25 59/42/31 62/42/32 66/44/32 48/33/25 51/34/24 43/30/22 45/31/22	83/58/42 88/60/40 85/60/44 90/62/42 64/45/33 68/47/32 43/30/22 45/31/21 40/33/25 59/42/31 78/53/40 83/55/38 60/41/31 64/43/30 43/30/22 45/31/21
	U107	Setting the voltage for the intermediate transfer cleaning	10/9/9 10/9/9 72/45/54 60/42/35 72/45/72 60/42/35	13/9/10 13/9/10 90/45/68 90/68/45 90/45/90 90/68/45
	U108	Setting separation shift bias	16/16 8/10 8/8 8/8 2/0/0/100	20/20 10/12 10/10 8/8 3/0/0/100
	U111	Checking the drum drive time	0/0	/0/0
	U118	Displaying the drum history		-
	U123	Displaying the transfer belt unit history		-
	U127	Checking/clearing the transfer count		-

0 1'	Item	0	Initial	setting
Section	No.	Content of maintenance item	20ppm	25ppm
Developer	U135	Checking toner motor operation		_
	U136	Setting toner near end detection	0	/0
	U139	Displaying the temperature and humidity outside the machine		-
	U140	Setting developer bias	480/480/450/450 50/50/50/50 380/380/350/350 180/180/150/150 150/150/150/150 180/180/150/150 36/36/36/36 36/36/36/36 36/36/36/36 37/37/37/37 33/33/33/33 33/33/33/33 1500/1500/1500/1500 1150/1150/1150/1150 1150/1150/1150/1150 0/0/0/0	
	U147	Setting for toner applying operation	0/	60
	U150	Checking sensors for toner		_
	U157	Checking the developing drive time	0/0	/0/0
Fuser	U161	Setting the fuser control temperature	210/240/ 190/95/85/ 110/135/ 140/140/ 115/135/ 240/85/40/ 200/85	210/240/ 190/100/90/ 115/140/ 145/145/ 120/140/ 240/90/45/ 200/90
	U167	Displaying fuser heater temperature		Ö
	U168	Confirmation/setting the fuser drive time	0	/0
	U169	Confirmation/setting the fuser drive time		_
	U199	Displaying fuser heater temperature		_
Operation	U201	Initializing the touch panel		_
panel and	U203	Checking DP operation		_
support equipment	U207	Checking the operation panel keys		_
- equipinient	U222	Setting the IC card type	Ot	her
	U243	Checking the operation of the DP motors		-
	U244	Checking the DP switches		-

Section	Item	Content of maintenance item	Initial setting	
Section	No.	Content of maintenance item	20ppm	25ppm
Mode setting	U250	Checking/clearing the maintenance cycle	200000/2	200000/0
	U251	Checking/clearing the maintenance counter)/0
	U252	Setting the destination		-
	U253	Switching between double and single counts	Double count (A3/Ledger)	
	U260	Selecting the timing for copy counting	Eje	ect
	U265	Setting OEM purchaser code		-
	U285	Setting service status page	0	N
	U325	Setting the paper interval	,	1
	U326	Setting the black line cleaning indication	ON	N/8
	U332	Setting the size conversion factor	1	.0
	U341	Specific paper feed location setting for printing function	Off/C	off/Off
	U343	Switching between duplex/simplex copy mode	С	off
	U345	Setting the value for maintenance due indication	()
Image	U402	Adjusting margins of image printing	3.0/2.5	/2.5/5.0
processing	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	()
	U411	Adjusting the scanner automatically	-	-
	U425	Setting the target White Black Gray1 Gray2 Gray3 C M Y R G B Adjust original	76.2/-(25.2/-0 25.2/-0 51.3/-(72.6/-32 48.1/69 86.2/-18 46.7/54 67.8/-5	0.2/-0.7 0.2/1.2 0.2/-0.2 0.3/0.3 0.8/-11.5

Section	Item	Item Content of maintenance item	Initial setting		
Section	No.	Content of maintenance item	20ppm	25ppm	
Image processing	U429	Setting the offset for the color balance Text+Photo Photo Text Graphics/Map Copy/Printout	0/0/0/0/0 0/0/0/0/0 0/0/0/0/0 0/0/0/0/0		
	U432	Setting the center offset for the exposure	0/0	0/0	
	U464	Setting the ID correction operation	On/On 10/20/10 935/400 895/200 885/200 846/130		
	U467	Setting the color registration adjustment		-	
	U468	Checking the color registration data		-	
	U470	Setting the JPEG compression ratio Copy Send HC-PDF Photo Text System	15/25/60/ 30/40/5 30/40/5 30/40/5 30/40/5	/85/85 /15/25/60 1/70/90/ 1/70/90 1/70/90/ 1/70/90	
	U473	Adjusting laser power output		/92/50	
	U486	Setting color/black and white operation mode		de2	
Fax	U600	Initializing all data	-		
	U601	Initializing permanent data	-		
	U603	Setting user data 1	DT	MF	
	U604	Setting user data 2	2 (12	20 V) -240 V)	
	U605	Clearing data		-	
	U610	Setting system 1 Setting the number of lines to be ignored when receiving a fax at 100% magnification	()	
		Setting the number of lines to be ignored when receiving a fax in the auto reduction mode	;	3	
		Setting the number of lines to be ignored when receiving a fax (A4R/LetterR) in the auto reduction mode	()	

Section	Item	Content of maintenance item	Initial sett	
Section	No.	Content of maintenance item	20ppm	25ppm
Fax	U611	Setting system 2 Setting the number of adjustment lines for automatic reduction Setting the number of adjustment lines for automatic reduction when A4 paper is set Setting the number of adjustment lines for automatic reduction when letter size paper is set	7 22 26	
	U612	Setting system 3 Selecting if auto reduction in the auxiliary direction is to be performed Setting the automatic printing of the protocol list)n)ff
	U615	Setting system 6	Lec	lger
	U620	Setting the remote switching mode	0	ne
	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) 14400bps/V17 14400bps 300	
	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		
	U631	Setting communication control 2 Setting ECM transmission Setting ECM reception Setting the frequency of the CED signal	C	0n 0n 00
	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 On On Once 15%	
	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		
	U634	Setting communication control 5)

Section	Item	Content of maintenance item	Initial s	
Section	No.	Content of maintenance item	20ppm	25ppm
Fax	U640	Setting communication time 1 Setting the one-shot detection time for remote switching Setting the continuous detection time for remote switching		
	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 Tc time-out time Setting the Td time-out time		
	U650	Setting modem 1 Setting the G3 transmission cable equalizer Setting the G3 reception cable equalizer Setting the modem detection level	0	dB dB dBm
	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 PSTN On On Loop On	
	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		
	U670	Outputting lists		-
	U695	FAX function customize	Or	/Off
	U699	Setting the software switches		-

0	Item	em Content of maintenance item	Initial setting	
Section	No.	Content of maintenance item	20ppm	25ppm
Others	U901	Checking copy counts by paper feed locations	0/0/0/0/0	
	U903	Checking/clearing the paper jam counts		-
	U904	Checking/clearing the call for service counts		-
	U905	Checking counts by optional devices	0/0/0/0	
	U910	Clearing the print coverage data		-
	U917	Setting backup data reading/writing		-
	U927	Clearing the all copy counts and machine life counts (one time only)		-
	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		-

Item No.	Description
U000	Outputting an own-status report
	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.
	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.
	Method
	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.

Display	Output list
Maintenance	List of the current settings of the maintenance modes
Event	Outputs the event log
All	Outputs the all reports

4. Press the start key. A list is output.

Method: Send to the USB memory

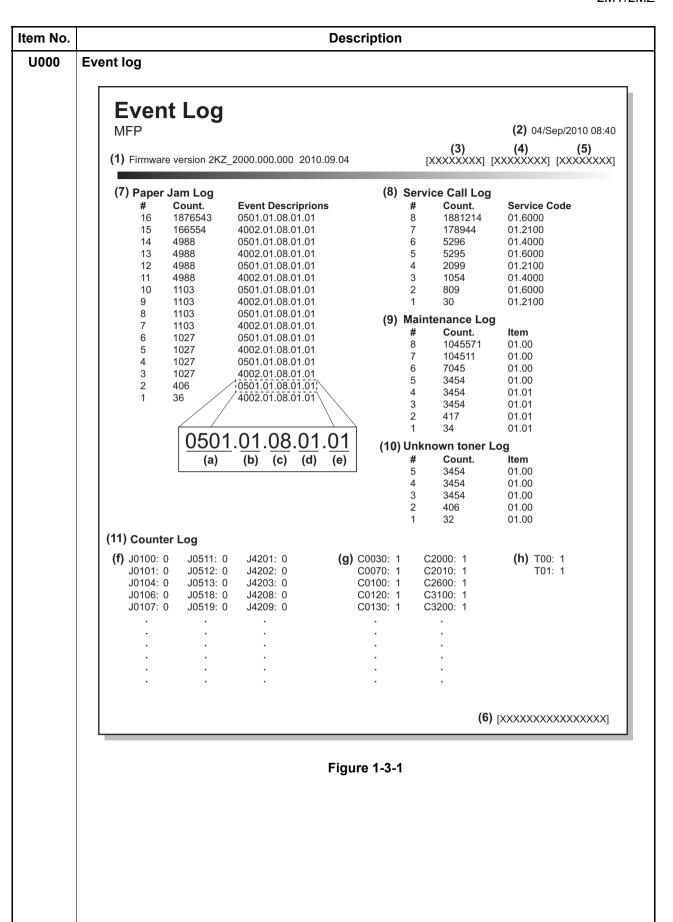
- 1. Press the power key on the operation panel, and after verifying the main power indicator has gone off, switch off the main power switch.
- 2. Insert USB memory in USB memory slot.
- 3. Turn the main power switch on.
- 4. Enter the maintenance item.
- 5. Press the start key.
- 6. Select the item to be send.
- 7. Select [Text] or [HTML].

Display	Output list
Print	Outputs the report
USB (Text)	Sends output data to the USB memory (text type)
USB (HTML)	Sends output data to the USB memory (HTML type)

8. Press the start key. Output will be sent to the USB memory.

Completion

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



1-3-11

m No.			Desc	ription			
U000	Detail	of event log					
	No.	Items		Description			
	(1)	System vers	sion				
	(2)	System date	•				
	(3)	Engine soft	version				
	(4)	Engine boot	version				
	(5)	_	anel mask version				
	(6)	Machine serial number					
	(7)	Paper Jam	# Count. Event				
		Log	Remembers 1 to 16 of	The total page count	Log code (hexadeci-		
			occurrence. If the occurrence of the previous paper jam is less than	at the time of the paper jam.	mal, 5 categories) (a) Cause of a paper		
			16, all of the paper jams are logged. When the occurrence excesseds		jam (b) Paper source (c) Paper size		
			16, the oldest occur- rence is removed.		(d) Paper type		
				lavadasimal)	(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 for 0101: Waiting for process 0104: Waiting for conveyi 0106: Paper feeding requi 0107: Waiting for fuser par 0110: Right cover open 0111: Front cover open 0120: Receiving a duplex 0121: Exceeding number 0210: Right lower cover of 0501: No paper feed from 0502: No paper feed from 0503: No paper feed from 0508: No paper feed from 0509: No paper feed from 0509: No paper feed from 0511: Multiple sheets in of 0513: Multiple sheets in of 0518: Multiple sheets in of 0519: Multiple sheets in of	a package to be ready ng package to be ready lest for duplex printing ackage to be ready a paper feeding request of duplex pages circul open a cassette 1 a cassette 2 a cassette 3 a duplex section a MP tray assette 1 beassette 2 cassette 3 a luplex section a MP tray assette 3	time out		
			1403: PF feed sensor 1 n 1413: PF feed sensor 1 s 4002: Registration sensor 4003: Registration sensor	tay jam r non arrival jam (casse	•		

Item No.			Description
U000			
	No.	Items	Description
	(7)	Paper Jam	4012: Registration sensor stay jam (cassette 2)
	cont.	Log	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 1)
			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 open6103: 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
			,

		Desc	cription	
No	Itoms		Description	
(7) cont.	Paper Jam Log	6903: Rear adjustmer 6913: Rear adjustmer 7013: Staple operation 7023: Staple initial operation 7923: Sequence error 7923: Sequence error 7943: Sequence error 7943: Sequence error 7953: Sequence error 9000: No original feed 9001: DP original con 9004: DP original swin 9010: DP open 9011: DP top cover open 9011: DP top cover open 9010: DP paper feed 9200: DP registration 9400: DP timing sens 9410: DP timing sens	nt plate operation OFF ent plate operation ON ent plate operation OFF ent plate operation OFF ent plate operation OFF ent plate operation OFF ent plate operation error of 1 (operation prohibited 2 (initialoperation error 3 (Error in the reception 4 (standby) of 5 (Error in between copy of the plate of t	ror error)) n of backup data)
		03: Cassette 3 (paper 04 to 09: Reserved	feeder 2)	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
	, ,	(7) Paper Jam	(7) Paper Jam Log 6903: Rear adjustmen 6913: Rear adjustmen 7013: Staple operation 7023: Staple initial operation 7023: Sequence error 7923: Sequence error 9000: No original feed 9001: DP original con 9004: DP original swite 9010: DP open 9011: DP top cover open 9011: DP top cover open 9011: DP timing sense 9200: DP registration 9400: DP timing sense 9410:	(7) Cont. Paper Jam Log 6813: Front adjustment plate operation OFF e 6903: Rear adjustment plate operation OFF e 6903: Rear adjustment plate operation OFF e 7013: Staple operation error 7023: Staple initial operation error 7913: Sequence error 1 (operation prohibited 7923: Sequence error 2 (initialoperation error 7933: Sequence error 3 (Error in the reception 7943: Sequence error 4 (standby) 7953: Sequence error 5 (Error in between cop 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) 00: (Not specified) 00: (Not specified) 00: A5R 03: International DL 00: A6 04: International DL 05: A6 04: International C5 05: Executive 10: Commercial #9 06: Letter-R 11: Commercial #9 06: Letter-R 11: Commercial #6 86: Letter-E 12: ISO B5 07: Legal 13: Custom size 08: A4R 1E: C4 88: A4E 1F: Postcard 09: B5R

No.	Items		Description	
(7)	Paper Jam	(d) Detail of paper type (Hexadecimal)		
cont.	Log	01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead (e) Detail of paper eje	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated 0F: 2nd side 10: Thick 11: High quality	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5 1A: Custom 6 1B: Custom 7 1C: Custom 8
		02: Face up (FU)/Doo 03: Document finishe		ир (FU)/
(8)	Service Call	#	Count.	Service Code
	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 1-4-9) Example: 01.6000 01: Self diagnostic error 6000: Self diagnostic erro code number
(9)	Maintenance	#	Count.	Item
	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-896A 02: MK-896B

Item No.			Desc	ription	
U000	No.	Items		Description	
I -	(10)	Unknown Toner	#	Count.	Item
		Log	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.	The total page count at the time of the toner empty error with using an unknown toner container.	Unknown toner log code (1 byte, 2 categories) First byte 01: Toner container (Fixed) Second byte 00: Black
	(11)	Counter Log	(f) Paper jam	(g) Self diagnostic error	(h) Maintenance item replacing
		Comprised of three log counters including paper jams, self diagnostics errors, and replacement of the toner container.	Indicates the log counter of paper jams depending on location. Refer to Paper Jam Log. All instances including those are not occurred are displayed.	Indicates the log counter of self diagnostics errors depending on cause. (See page 1-3-12) Example: C6000: 4 Self diagnostics error 6000 has happened four times.	Indicates the log counter depending on the maintenance item for maintenance. T: Toner container 00: Black M: Maintenance kit 01: MK-477/475/479 Example: T00: 1 The toner container has been replaced once.

Item No.	Description				
U001	Exiting the maintenance mo	ode			
	Description Exits the maintenance mode and returns to the normal copy mode. Purpose To exit the maintenance mode. Method				
	Press the start key. The normal copy mode is entered.				
U002	Setting the factory default data				
	Purpose	ons to the factory default settings. ne scanner to the position for transport			
	 Method Press the start key. Select [Mode1(All)]. Press the start key. The mirror frame of the scanner returns to the position for transport. Turn the main power switch off and on. An error code is displayed in case of an initialization error.				
	Error codes Codes	Description			
	0001	Entity error			
	0002	Controller error			
	0020	Engine error			
	0040	Scanner error			

Item No.		Description		
U004	Setting the machine number			
	Description Sets or displays the machine number. Purpose To check or set the machine number. Method 1. Press the start key.			
	If the machine serial num	ber of engine PWB matches with that of main PWB		
	Display	Description		
	Machine No.	Displays the machine serial number		
	If the machine serial num	ber of engine PWB does not match with that of main PWB		
	Display	Description		
	Machine No.(Main)	Displays the machine serial number of main		
	Machine No.(Eng)	Displays the machine serial number of engine		
	1. Select [Execute]. 2. Press the start key. Writin 3. Turn the main power swite Completion Press the stop key. The screen			

Item No.		Description
U019	Displaying the ROM vers	ion
	Purpose To check the part number of Method 1. Press the start key. The	of the ROM fitted to each PWB. or to decide, if the newest version of ROM is installed. e ROM version are displayed.
		ng the cursor up/down keys.
	Display	Description
	Main	Main ROM
	MMI 	Operation ROM
	Engine	Engine ROM
	Engine Boot	Engine booting
	RFID	RFID ROM
	IH CPU	IH CPU ROM
	IH CPU Boot	IH CPU booting
	IO CPU	IO CPU ROM
	IO CPU Boot	IO CPU booting
	LSU CPU	LSU CPU ROM
	LSU CPU Boot	LSU CPU booting
	Browser	Browser ROM
	Option Language	Optional language ROM
	Dictionary	Kanji dictionary ROM
	Color Table1	Color Table1 ROM
	Color Table2	Color Table2 ROM
	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
	Completion Press the stop key. The sc	reen for selecting a maintenance item No. is displayed.

Item No.		Description	
U021	Memory initializing		
	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. Purpose To return the machine settings to their factory default. Method 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. * : 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.		
	Error codes		
	Codes	Description	
	0001	Entity error	
	0002	Controller error	
	0020	Engine error	
	0040	Scanner error	

Item No.		Description
U030	Checking the operation of	the motors
	Description Drives each motor. Purpose To check the operation of each Method 1. Press the start key.	ch motor.
	 Select the motor to be op Press the start key. The 	
	Display	Description
	Feed	Conveying motor (CM) is turned on
	Exit(CW)	Eject motor (EM) is turned on clockwise
	Exit(CCW)	Eject motor (EM) is turned on counterclockwise
	Drum K	Drum motor K (DRM-K) is turned on
	Drum COL	Drum motor YCM (DRM-YCM) is turned on
	DLP K(CW)	Developer motor K (DRM-K) is turned on clockwise
	DLP K(CCW)	Developer motor K (DRM-K) is turned on counterclockwise
	DLP COL(CW)	Developer motor YCM (DRM-YCM) is turned on clockwise
	DLP COL(CCW)	Developer motor YCM (DRM-YCM) is turned on counterclockwise
	4. To stop operation, press	the stop key.
	Completion	
	-	en for selecting a maintenance item No. is displayed.

Item No.		Description	
U031	Checking switches and sen	sors for paper conveying	
	Purpose	each paper detection switch or sensor on the paper path. sensors for paper conveying operate correctly.	
	 Method 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 sensor will be "1". 		
	Display	Switches and sensors	
	Switch 00000000		
	1st digit	Euser pre sensor (FUPS)	
	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)	
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.	

Item No.		Description		
U032	Checking the operation o	f the clutches		
	Description Turns each clutch on. Purpose To check the operation of e Method 1. Press the start key. 2. Select the clutch to be of the start key. 3. Press the start key. The	operated.		
	Display	Description		
	Main	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		
	Middle	Middle clutch (MCL) is turned on		
	DLP	Developer stop clutch (DEVSCL) is turned on		
	4. Press the stop key.			
U033	Checking the operation o Description Turns each solenoid on. Purpose			
	To check the operation of each solenoid. Method 1. Press the start key. 2. Select the solenoid to be operated. 3. Press the start key. The operation starts.			
	Display	Description		
	MPT	MP solenoid (MPSOL) is turned on		
	Eject	Feedshift solenoid (FSSOL) is turned on		
	4. Press the stop key.			
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			

Item No. Description U034 Adjusting the print start timing Description Adjusts the leading edge registration or center line. 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.

Method

- 1. Press the start key.
- 2. Select the item to be adjusted.

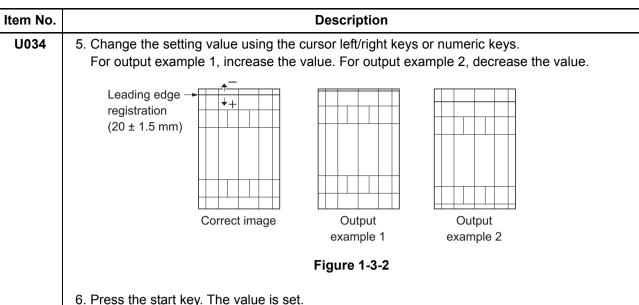
Display	Description
LSU Out Top	Leading edge registration adjustment
LSU Out Left	Center line adjustment

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.

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	41	0.1 mm
Cassette(L)	Paper feed from cassette (when large size paper is used)	-128 to 127	41	0.1 mm
Duplex(L)	Duplex mode (second) (when large size paper is used)	-128 to 127	41	0.1 mm

Large size: 218 mm or more in width of paper.



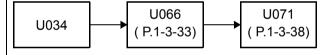
6. Press the start key. The value is set.

Remark

Changing the larger sizes settings affects those for the smaller sizes.

Caution

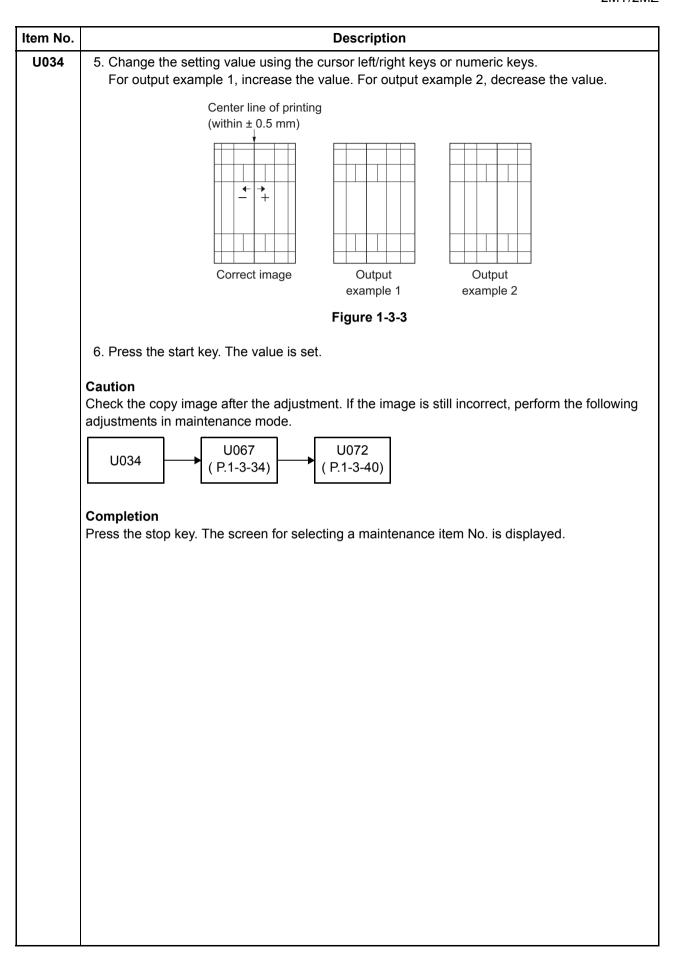
Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.



Adjustment: Center line 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.

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



11005	Description				
U035	Setting the printing area for folio paper				
	Purpose	d images on		er. left/right side of copy pa	aper by setting the
	Setting 1. Press the start 2. Select the item 3. Change the se	to be set.	sing the cursor left/I	right keys.	
	Display		Description	Setting range	Initial setting
	Length	Length		330 to 356 mm	330
	Width	Width		200 to 220 mm	210
	4. Press the start	key. The va	ue is set.		
U037	Checking the ope Description Drives each fan mo Purpose To check the opera	eration of the otor.	e fan motors	ntenance item No. is dis	ріауец.
	Press the start Select the fan Press the start	motor to be	•		
	2. Select the fan	motor to be of key. The op	eration starts.	Description	
	2. Select the fan in 3. Press the start Displa	motor to be of key. The op	eration starts. All fan motors are tu	urned on	
	2. Select the fan in 3. Press the start Displain All Low Power	motor to be of key. The op	eration starts. All fan motors are tu	urned on notor (PSFM) is turned o	on
	2. Select the fan in 3. Press the start Displai All Low Power Container	motor to be of key. The op	eration starts. All fan motors are tu Power source fan m Container fan motor	urned on notor (PSFM) is turned on r (CFM) is turned on	on
	2. Select the fan in 3. Press the start Displai All Low Power Container IH Coil	motor to be of key. The op	All fan motors are tu Power source fan m Container fan motor	urned on notor (PSFM) is turned on (CFM) is turned on HCFM) is turned on	
	2. Select the fan in 3. Press the start Display All Low Power Container IH Coil LSU Cooling	motor to be of key. The op	All fan motors are tu Power source fan m Container fan motor IH Coil fan motor (IH	urned on notor (PSFM) is turned or (CFM) is turned on HCFM) is turned on otor (LSUFM) is turned o	
	2. Select the fan in 3. Press the start Displai All Low Power Container IH Coil LSU Cooling IH Edge	motor to be of key. The op	All fan motors are tu Power source fan m Container fan motor IH Coil fan motor (IH LSU Cooling fan mo	urned on notor (PSFM) is turned or (CFM) is turned on HCFM) is turned on otor (LSUFM) is turned o	
	2. Select the fan in 3. Press the start Display All Low Power Container IH Coil LSU Cooling	motor to be of key. The op	All fan motors are tu Power source fan m Container fan motor IH Coil fan motor (IH LSU Cooling fan mo	urned on notor (PSFM) is turned or (CFM) is turned on HCFM) is turned on otor (LSUFM) is turned o	

m No.		D	escription		
J051	Adjusting the defle	ction in the paper			
	Description				
		n in the paper at the re	gistration roller		
	Purpose Make the adjustment	t if the leading edge of t	he copy image	e is missing or varies	s randomly, or if
	copy paper is Z-folde			g	, , , , , , , , , , , , , , , , , , ,
	Adjustment				
	1. Press the start k	•			
	Press the system Results an original	and press the start key	v to make a tes	st copy.	
	4. Press the system	-	, 10		
	5. Select the item to	o be adjusted.			
	Display	Descrip	otion	Setting range	Initial setting
	MPT	Paper feed from Mi	⊃ tray	-30 to 20	0
	Cassette	Paper feed from ca	ssette 1	-30 to 20	0
	PF	Paper feed from pa	per feeder	-30 to 20	0
				00.4- 00	
	For output exam	ng value using the curs ple 1, increase the value, the larger the de	or left/right ke	example 2, decreas	e the value.
	6. Change the setti For output exam The greater the v	ng value using the curs ple 1, increase the valu	or left/right ke	ys or numeric keys. example 2, decreas	e the value.
	6. Change the setti For output exam The greater the v	ng value using the curs ple 1, increase the valu	or left/right ke	ys or numeric keys. example 2, decreas	e the value.
	6. Change the setti For output exam The greater the v	ng value using the curs ple 1, increase the valu	or left/right ke	ys or numeric keys. example 2, decreas	e the value.
	6. Change the setti For output exam The greater the v	ng value using the curs ple 1, increase the valu value, the larger the de	cor left/right key ie. For output of flection; the sm	ys or numeric keys. example 2, decreas naller the value, the	e the value.
	6. Change the setti For output exam The greater the v tion.	ng value using the curs ple 1, increase the valu value, the larger the de	cor left/right key le. For output e flection; the sn Copy example 1	ys or numeric keys. example 2, decreas naller the value, the	e the value.
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl
	6. Change the setti For output exam The greater the value tion. 7. Press the start kee Completion	ng value using the curs ple 1, increase the valu value, the larger the de Original F ey. The value is set.	Copy example 1	ys or numeric keys. example 2, decreas naller the value, the Copy example 2	e the value. smaller the defl

Item No.	Description
U053	Setting the adjustment of the motor speed
	Description
	Performs fine adjustment of the speeds of the motors.

PurposeBasically, the setting need not be changed. Modify settings by interlock setting only if faulty images occur.

Method

- 1. Press the start key.
- 2. Select the item. The screen for executing each item is displayed.

Display	Description
Full	Speed correction value setting at full velocity
Half	Speed correction value setting at half velocity
3/4	Speed correction value setting at 3/4 velocity

- 3. Press the system menu key.
- 4. Place an original and press the start key to make a test copy.
- 5. Press the system menu key.
- 6. Select the item to be adjusted.

Display	Description	Setting range
Feed	Conveying motor (CM) speed adjustment	-50 to 50
Exit	Eject motor (EM) speed adjustment	-40 to 40
Drum(CMY)	Drum motor (DRM-YCM) speed adjustment	-50 to 50
Drum(K)	Drum motor (DRM-K) speed adjustment	-50 to 50
DLP(CMY)	DLP motor (DEVM-YCM) speed adjustment	-50 to 50
DLP(K)	DLP motor (DEVM-K) speed adjustment	-50 to 50
Fixing	Fixing motor(FUM) speed adjustment	-50 to 50

- 7. Change the setting value using the cursor left/right keys or numeric keys.
- 8. Press the start key. The value is set.

Completion

Press the stop key. The indication for selecting a maintenance item No. appears.

Item No.		Descriptio	n		
U063	Adjusting the shading position				
	Description				
	-	ing position of the scanner.			
	Purpose				
		ite line continue to appear longitudi	nally on the in	nage after	the shading plate is
	cleaned. This is due to flaws	s or stains inside the shading plate	To prevent the	nis nrohler	m the shading nosi-
		nged so that shading is possible w	•	•	<u> </u>
	Setting				
	1. Press the start	•			
	2. Select [Position	-			
	3. Change the se	tting value using the cursor left/righ	nt keys or nun	1	T
	Display	Description	Setting range	Initial setting	Change in value per step
	Position	Shading position	-6 to 18	0	0.091 mm
	Increasing the	value moves the shading position	toward the ma	achine left	, and decreasing it
	4. Press the start	ition toward the machine right. key. The value is set.			
	Supplement				
		ance item is being executed, copyi	-	-	vailable in interrupt
	copying mode (whi	ich is activated by pressing the sys	tem menu ke	y).	
	Completion				
	_	. The screen for selecting a mainte	nance item N	o. is displa	ayed.

Item No. Description U065 Adjusting the scanner magnification Description Adjusts the magnification of the original scanning. 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. Adjust the magnification of the scanner in the following order. U065 U065 U053 U067 U070 main scanauxiliary scan-(P.1-3-29) (P.1-3-34) P.1-3-37) ning direction ning direction Method

- 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.

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 %

Adjustment: [Y Scan Zoom]

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.

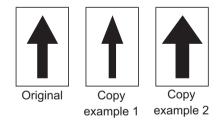


Figure 1-3-5

2. Press the start key. The value is set.

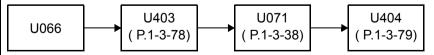
Item No.	Description
U065	Adjustment: [X Scan Zoom]
	 Change the setting value using the cursor left/right keys or numeric keys.
	For copy example 1, increase the value. For copy example 2, decrease the value.
	Original Copy Copy example 1 example 2
	Figure 1-3-6
	2. Press the start key. The value is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

em No.		Descriptio	n			
U066	Adjusting the scar	ner leading edge registration				
	Purpose	leading edge registration of the c			the copy image a	
	Adjustment 1. Press the start k 2. Press the system 3. Place an original 4. Press the system 5. Select the item	n menu key. Il and press the start key to make m menu key.	a test copy.			
	Display	Description	Setting range	Initial setting	Change in value per step	
	Front	Scanner leading edge registration	-45 to 45	0	0.091 mm	
	Rotate	Scanner leading edge registration (rotate copying)	-45 to 45	0	0.100mm	
	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. Scanner leading edge registration (within ± 2.5 mm) Original Copy Copy example 1 example 2					

7. Press the start key. The value is set.

Caution

Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.



Completion

	2MY				2MY/2M	
Item No.	Description					
U067	Adjusting the scan	ner center line				
	Description					
	•	center line of the original scanning	ıa.			
	Purpose	ocinci mie er are en ginar eeumin	.9.			
<u> </u>	nent if there is a unmatching error	between the	center line	s of the copy image		
	and original.					
	Adjustment					
	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 t	_				
	Display	Description	Setting	Initial	Change in	

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

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.

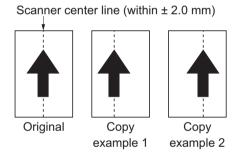
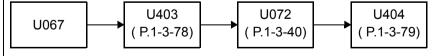


Figure 1-3-8

7. Press the start key. The value is set.

Caution

Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.



Completion

em No.			Description	n		
U068	Adjusting the	scan	ning position for originals from	n the DP		
	ning positions Purpose Used when the	after a	e fogging occurs because the sca	anning position	on is not pr	oper when the DF
	Setting		adjust the timing of DP leading ed	dge when the	e scanning	position is chang
	1. Press the		Description	Setting range	Initial setting	Change in value per step
	DP Read	l	Starting position adjustment for scanning originals	-55 to 55	0	0.091 mm
	Black Lin	ie	Scanning position for the test copy originals	0 to 3	0	-
	7. Press the 8. Set the or 9. Press the 10. Perform th	start k iginal (start k ne test	ing using the cursor left/right keys rey. The value is set. (the one which density is known) rey. Test copy is executed. copy at each scanning position ver e appears and the image is norm	in the DP an	d press the	•
	-	o key. ⁻	The screen for selecting a mainte	enance item I	No. is displ	ayed.

em No.		Descriptio	n		
U070	Adjusting the DP r	magnification			
	Purpose	inal scanning speed. ment if the magnification is incorre	ect in the auxil	iary scanr	ning direction who
	Adjustment 1. Press the start I 2. Press the syste	m menu key. al on the DP and press the start ke m menu key.	ey to make a t	est copy.	
	Display	Description	Setting range	Initial setting	Change in value per step
	Y Scan Zoom	Magnification in the main scan- ning direction	-125 to 125	0	0.02 %
	X Scan Zoom	Magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %
		ting value using the cursor left/righ			
	1. Change the set	ting value using the cursor left/right ole 1, increase the value. For copy Original Copy example 1	copy example 2		
	1. Change the set	ting value using the cursor left/right ole 1, increase the value. For copy Original Copy	copy example 2		
	1. Change the set	ting value using the cursor left/right ole 1, increase the value. For copy Original Copy example 1	copy example 2		
	1. Change the set	ting value using the cursor left/right ole 1, increase the value. For copy Original Copy example 1	copy example 2		
	1. Change the set	ting value using the cursor left/right ole 1, increase the value. For copy Original Copy example 1	copy example 2		

Item No.	Description
U070	2. Press the start key. The value is set.
	Adjustment: [X Scan Zoom] 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.
	Original Copy Copy example 1 example 2
	Figure 1-3-10
	2. Press the start key. The value is set.
	Caution Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.
	U070 U071 (P.1-3-38) U404 (P.1-3-79)
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.

Item No.	Description
U071	Adjusting the DP scanning timing
	Description
	Adjusts the DP original scanning timing.
	Purpose
	Make the adjustment if there is a regular error between the leading or trailing edges of the origi-
	nal and the copy image when the DP is used.

- 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.I

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

Adjustment: Leading edge registration

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.

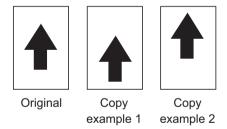


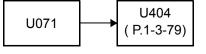
Figure 1-3-11

2. Press the start key. The value is set.

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.



Item No. **Description** U071 Adjustment: Trailing edge registration 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. Original Сору Copy example 1 example 2 Figure 1-3-12 2. Press the start key. The value is set. 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. U404 U071 (P.1-3-79) Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.

No.		Description	n		
072	Adjusting the DP	center line			
	Description				
	Description Adjusts the scanni	ng start position for the DP original	1		
	Purpose	ing start position for the Dr. original	•		
	•	ment if there is a regular error betw	een the cente	rs of the c	original and the co
	image when the Di	P is used.			
	Adjustment				
	1. Press the start	-			
	2. Press the syste				
	_	nal on the DP and press the start k	ey to make a t	est copy.	
	4. Press the system	•			
	5. Select the item	i to be adjusted.i			
	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
		etting value using the cursor left/right hple 1, increase the value. For copy			
		original Copy	y example 2, c	decrease t	
		nple 1, increase the value. For copy	copy example 2, of the control of th	decrease t	
	For copy exam	Original Copy example Figure 1-3-	copy example 2, of the control of th	decrease t	
	7. Press the start	Original Copy example	copy example 2, of the control of th	decrease t	
	7. Press the start Caution If the first side is a	Original Copy example Figure 1-3-	Copy example 2	decrease t	he value.
	7. Press the start Caution If the first side is adjustment.	Original Copy example Figure 1-3- key. The value is set. djusted, check the second side and hage after the adjustment. If the image of the copy of the copy of the copy example of the	Copy example 2 Capy example 2	t is require	the value.
	7. Press the start Caution If the first side is a adjustment. Check the copy im adjustments in ma	Original Copy example Figure 1-3-t key. The value is set. djusted, check the second side and large after the adjustment. If the imagintenance mode.	Copy example 2 Capy example 2	t is require	the value.
	7. Press the start Caution If the first side is a adjustment. Check the copy im	Original Copy example Figure 1-3- key. The value is set. djusted, check the second side and hage after the adjustment. If the imaintenance mode.	Copy example 2 Capy example 2	t is require	the value.
	7. Press the start Caution If the first side is adjustment. Check the copy imadjustments in mai	Original Copy example Figure 1-3-t key. The value is set. djusted, check the second side and large after the adjustment. If the imagintenance mode.	Copy example 2 Capy example 2	t is require	the value.
	7. Press the start Caution If the first side is acadjustment. Check the copy imadjustments in mail U072 Completion	Original Copy example Figure 1-3-t key. The value is set. djusted, check the second side and large after the adjustment. If the imagintenance mode.	Copy example 2 Copy example 2 d if adjustmen age is still inco	t is require	ed, carry out the

Item No. **Description** U074 Adjusting the DP input light luminosity **Description** Sets the luminosity correction for scanning originals from the DP. Modify the setting only if a spotted background appears when a bluish original is scanned from the DP. Setting 1. Press the start key. 2. Change the setting value using the cursor left/right keys or numeric keys. Display **Description** Setting Initial setrange ting 0 to 3 0 Coefficient DP input light luminosity correction Settings 0: No correction / 1: Slight correction / 2: Medium correction / 3: Strong correction 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.		Descriptio	n				
U089	Outputting a MIP-PG pat	tern					
	Description Selects and outputs the MIP-PG pattern created in the machine. Purpose To check copier status other than scanner when adjusting image printing, using MIP-PG poutput (with-out scanning).						
	Method 1. Press the start key. 2. Select the MIP-PG pattern to be output and press the start key.						
	Display	PG pattern to be output	- T				
	256GRADATION	256-gradation PG	To check the gradation reproducibility				
	COLOR BELT	Four color belts PG	To check the developing state and the engine section ID				
	GRAY(C)	Cyan PG	To check the drum quality				
	GRAY(M)	Magenta PG	To check the drum quality				
	GRAY(Y)	Yellow PG	To check the drum quality				
	GRAY(K)	Black PG	To check the drum quality				
	WHITE	Blank paper PG	To check the drum quality				
	GRADATION GRAY	5-graduation gray PG	To check for vertical lines on the laser scanner unit				
	Completion	MIP-PG pattern is output.	enance item No. is displayed.				

Item No.	Description
U099	Adjusting original size detection
	Description
	Checks the operation of the original size sensor and sets the sensing threshold value.
	Purpose
	To adjust the consitiuity of the concer and size independent time if the original size concer malfund

To adjust the sensitivity of the sensor and size judgement time if the original size sensor malfunctions frequently due to incident light or the like.

Method

- 1. Press the start key.
- 2. Select the item. The screen for executing each item is displayed.

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)

Method: [Data1/Data2]

1. Place the original and close the original cover or DP. The detection sensor transmission data is displayed.

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	

Setting: [B/W Level1]

- 1. Select an item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.l

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*

When DP is installed.

Note: A smaller value increases the sensor sensitivity, and a larger value decreases it.

3. Press the start key. The value is set.

Completion

Item No.		Description			
U100	Setting the main high volt	age			
	Description				
	Controls the charger roller voltage to optimize the surface potential.				
	Purpose				
	To change the setting value to adjust the image if an image failure (background blur, etc.) of Method				
	1. Press the start key.				
	2. Select the item. The screen for executing each item is displayed.				
	Display	Description			
	Base	MC DC bias			
	Protect Table	Drum protection control table			
	Drum Aging	Aging for an electrification roller			

Method:[Base]

1. Select the item. The screen for executing each item is displayed.

Display	Description	
Mode	MC compensation mode	
Bias	MC DC bias	

Setting:[Mode]

1. Select the item. The screen for executing each item is displayed.

Display	Description		
Auto	Each color radical semi- value display and a degree setup of a standard value		
Manual	A value setup of each color		

Initial setting: Auto

Description			
Setting:[Bias]			
1. Select an item to be set.			
2. Change the setting value using the +/- keys or numeric keys.			

Display	Description	Setting range	Initial setting
1st	Manual adjustment value (1st)	0 to 250	145
2nd	Manual adjustment value (2nd)	0 to 250	145
3rd	Manual adjustment value (3rd)	0 to 250	145
4th	Manual adjustment value (4th)	0 to 250	145
Default(1st)	Manual adjustment base value (1st)	0 to 250	-
Default(2nd)	Manual adjustment base value (2nd)	0 to 250	-
Default(3rd)	Manual adjustment base value (3rd)	0 to 250	-
Default(4th)	Manual adjustment base value (4th)	0 to 250	-

3. Press the start key. The value is set.

Setting:[Bias]

- 1. Select an item to be set.
- 2. Change the setting value using the +/- keys or numeric keys.

Display	Description	Setting range	Initial setting
1st	MC DC bias (1st)	0 to 250	145
2nd	MC DC bias (2nd)	0 to 250	145
3rd	MC DC bias (3rd)	0 to 250	145
4th	MC DC bias (4th)	0 to 250	145

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).

Item No. **Description** U100 Setting:[Protect table] 1. Select an item to be set. Display **Description** Mode0 It changes by drum drive time. Mode1 Initial fixation Initial setting: Mode0 2. Press the start key. The value is set. Setting:[Drum Aging] 1. Select an item to be set. **Display Description** On with aging (it operates by lapsed time) Off with not aging Initial setting: Off 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	Setting the voltage for the primary transfer
	Description

Sets the control voltage for the primary transfer.

Purpose

To change the setting when any density problems, such as too dark or light, occur.

Method

- 1. Press the start key.
- 2. Select the item. The screen for executing each item is displayed.

Display	Description	
Base	Standard value	
1st side	Correction value of single-side printing	
2nd side	Correction value of duplex printing	
B/W	Correction value of monochrome printing	

Setting: [Base]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Dieplay	Description	Setting range	Initial setting	
Display			20ppm	25ppm
Full	Full speed printing	0 to 100	40	45
Half	Half speed printing	0 to 100	25	25

3. Press the start key. The value is set.

Setting: [1st side/02nd side]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting	Initial setting	
		range	20ppm	25ppm
1st	Correction value (Yellow)	-50 to 50	0/-2	0/-3
2nd	Correction value (Cyan)	-50 to 50	4/2	5/2
3rd	Correction value (Magenta)	-50 to 50	4/2	0/2
4th	Correction value (Black)	-50 to 50	4/2	5/2

3. Press the start key. The value is set.

Item No.	Description						
U101		ting: [B/W]	to be not				
	 Select the item to be set. Change the setting value using the cursor left/right keys or numeric keys. 						
		Display	Description	Setting	Initial	setting	
				range	20ppm	25ppm	
		Value	Correction value	-50 to 50	24	30	
	3.	Press the start I	key. The value is set.				
		mpletion					
	Pre	ss the stop key.	The screen for selecting a mainter	nance item No). is displayed	d.	

Item No.	Description		
U106	Setting the voltage for the secondary transfer		
	Description		
	Sets the control voltage for the secondary transfer.		
	Purpose		
	To change the setting when any density problems, such as too dark or light, occur.		
	Method		
	1. Press the start key.		
	2. Select the item. The screen for executing each item is displayed.		

2. Select the item. The screen for executing each item is displayed.

Display	Description
Color	Correction value of color printing
B/W	Correction value of monochrome printing

Method:[Color]

1. Select the item. The screen for executing each item is displayed.

Display	Description
Light/Normal1	Weight of paper (light to usual 1)
Normal2/3	Weight of paper (usual 2 to 3)
Heavy1	Weight of paper (heavy 1)
Heavy2-3	Weight of paper (heavy 2 to 3)
OHP	Kind of paper (OHP)
Coated	Kind of paper (Coated paper)

Method: [Light/Normal1 / Normal2/3 / Heavy1 / Heavy2-3]

1. Select the item. The screen for executing each item is displayed.

Display	Description
1st side	Correction value of single-side printing
2nd side	Correction value of duplex printing

Setting:[1st side/2nd side]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting Initial setting range 20ppm 2	setting	
Display	Description		25ppm	
Width<160	width of paper<160	0 to 200	66/68/51/43 70/72/54/45	83/85/64/43 88/90/68/45
160<=Width<220	160<= width of paper <220	0 to 200	46/48/36/30 48/50/37/31	58/60/45/30 60/62/47/31
220<=Width	220<= width of paper	0 to 200	34/35/26/22 32/34/25/22	42/44/33/22 40/42/32/21

3. Press the start key. The value is set.

Item No. Description

U106 Setting:[OHP/Coated]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Dienlay	Description	Setting	ng Initial setting	
Display	Description	range 20ppm 25		25ppm
Width<160	width of paper<160	0 to 200	40/59	40/59
160<=Width<220	160<= width of paper <220	0 to 200	33/42	33/42
220<=Width	220<= width of paper	0 to 200	25/31	25/31

3. Press the start key. The value is set.

Method:[B/W]

1. Select the item. The screen for executing each item is displayed.

Display	Description
Light/Normal1	Weight of paper (light to usual 1)
Heavy1	Weight of paper (heavy 1)
Heavy2-3	Weight of paper (heavy 2 to 3)

Method: [Light/Normal1 / Heavy1 / Heavy2-3]

1. Select the item. The screen for executing each item is displayed.

Display	Description
1st side	Correction value of single-side printing
2nd side	Correction value of duplex printing

Setting:[1st side/2nd side]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting Initial setting		setting
Display	Description	range	20ppm	25ppm
Width<160	width of paper<160	0 to 200	62/48/43 66/51/45	78/60/43 83/64/45
160<=Width<220	160<= width of paper <220	0 to 200	42/33/30 44/34/31	53/41/30 55/43/31
220<=Width	220<= width of paper	0 to 200	32/25/22 32/24/22	40/31/22 38/30/21

3. Press the start key. The value is set.

Completion

Item No.	Description	
U107	Setting the voltage for the intermediate transfer cleaning	
	Description	

Sets the control voltage for the intermediate transfer cleaning.

Purpose

To change the setting when the offset by a defective cleaning of the transfer belt is generate.

Method

- 1. Press the start key.
- 2. Select the item. The screen for executing each item is displayed.

Display	Description
Belt(A)	Correction value of belt A
Belt(B)	Correction value of belt B
Belt(C)	Correction value of belt C

Setting

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting	Initial setting	
Display	Description	range	20ppm	25ppm
Full	Full speed printing of color	0 to 200	10/72/72	13/90/90
Half	Half speed printing of color	0 to 200	9/45/45	9/45/45
3/4	75% of full speed printing of color	0 to 200	9/54/72	10/68/90
B/W Full	Full speed printing of monochrome	0 to 200	10/60/60	13/90/90
B/W Half	Half speed printing of monochrome	0 to 200	9/42/42	9/68/68
B/W 3/4	75% of full speed printing of monochrome	0 to 200	9/35/35	10/45/45

^{3.} Press the start key. The value is set.

Completion

Item No.	Description
U108	Setting separation shift bias
	Description
	Adjusts output of separation shift bias and ON/OFF timing.
	Purpose

Method

- 1. Press the start key.
- 2. Select the item. The screen for executing each item is displayed.

To set when the separated malfunction of the paper occurs.

Display	Description
Light/Normal1	Weight of paper (light to usual 1)
Normal2/3	Weight of paper (usual 2 to 3)
Heavy1	Weight of paper (heavy 1)
Coated	Kind of paper (Coated paper)
Timing	Setting of the separation timing

Method

1. Select the item. The screen for executing each item is displayed.

Display	Description	Setting range	Initial setting
1st side	Correction value of single-side printing	0 to 40	22/10/10/10
2nd side	Correction value of duplex printing	0 to 40	22/12/10/10

Setting

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial setting
Add Normal Lead	for the leading edge on paper	0 to 20	3
On Timing 1	Adjustment of the ON Timing 1	-100 to 100	0
On Timing 2	Adjustment of the ON Timing 2	-100 to 100	0
Off Timing	Adjustment of the OFF Timing	-100 to 100	100

3. Press the start key. The value is set.

Completion

Description				
Checking the drum drive time				
Description Displays the drum drive time for checking a figure, which is used as a reference when correcting the high voltage based on time. Purpose To check the drum status.				
Method1. Press the start key.2. Select the item. The drum drive time is displayed.				
Display	Description			
С	Cyan drum drive time			
M	Magenta drum drive time			
Y	Yellow drum drive time			
К	Black drum drive time			
Completion	Screen for selecting a maintenance item No. is displayed.			
	Description Displays the drum drive the high voltage based of Purpose To check the drum statu Method 1. Press the start key. 2. Select the item. The Display C M Y K Setting 1. Change the drum dr 2. Press the start key. Completion			

Item No.		Description				
U118	Displaying the drum history					
	Description Displays the past record of machine number and the drum counter. Purpose					
	To check the count value of machine number and the drum counter. Method 1. Press the start key. The each history displayed by five cases.					
	Display	Description				
	С	Cyan drum past record				
	M	Magenta drum past record				
	Y	Yellow drum past record				
	К	Black drum past record				
	The history of a machine cases.T	ne number and a drum counter for each color is displayed by three				
	Display	Description				
	Machine History 1 - 3	Historical records of the machine number				
	Cnt History 1 - 3	Historical records of drum counter				
		reen for selecting a maintenance item No. is displayed.				
U123	Displaying the transfer b	elt unit history				
	Purpose	machine number and the transfer belt unit counter.				
	To check the count value of machine number and the transfer counter.					
	Method 1. Press the start key. The history of a machine number and a transfer belt unit counter for each color is display by three cases.					
	Display	Description				
	Machine History 1 - 3	Historical records of the machine number				
	Count History 1 - 3	Historical records of transfer belt unit counter				
	Completion Press the stop key. The sc	reen for selecting a maintenance item No. is displayed.				

Item No.	Description			
U127	Checking/clearing the trans	fer count		
	Description Displays and clears the counts of the transfer counter. Purpose To check the count after replacement of the transfer belt unit or transfer roller. Also to clear the counts after replacing transfer roller. Method			
	1. Press the start key. The c	urrent counts of the transfer counter is displayed.		
	Display	Description		
	Mid Trans	Transfer belt unit counter value		
	2nd Trans	Transfer roller counter value		
	Clearing 1. Select [Clear]. 2. Press the start key. The c	ounter value is cleared.		
	Setting 1. Change the counter value 2. Press the start key. The c	e using the cursor left/right keys or numeric keys. ounter value is set.		
		en for selecting a maintenance item No. is displayed.		
U135	Checking toner motor opera	ation		
	Description Drives toner motors. Purpose To check the operation of tone	er motors.		
	Remarks When driving the toner motors full and is locked.	s long time or several times, developing section becomes the toner		
	Method 1. Press the start key. 2. Select [Toner]. 3. Press the start key. The o	peration starts.		
	Completion Press the stop key after operaplayed.	ation stops. The screen for selecting a maintenance item No. is dis-		

Item No.	o. Description						
U136	Setting toner near end detection						
	near end to toner e	empty. ng to advan	e number of sheets that can be printed nce detection of near end if the interval f				
	Setting 1. Press the star 2. Select the iter 3. Change the s	n to be set.	using the cursor left/right keys or nume	eric keys.			
	Display		Description	Setting range	Initial setting		
	K	Setting t	the level of black toner	0 to 10*	0		
	CMY	Setting t	the level of cyan/magenta/yellow toner	0 to 10*	0		
	Decreasing the lf 0 is set, ton the change 4. Press the start	ne setting m er near end is not in the	lkes the interval from toner near end to akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set.		-		
	Decreasing the lf 0 is set, ton to the change 4. Press the star Completion	ne setting mer near end er near end er is not in the text to be to	akes the interval from toner near end to will not be detected. e level of set value 5 to 10.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key	ne setting mer near end is not in the table to the table to the table ta	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose	ne setting mer near end er near end er is not in the transfer to the vertical transfer to the screen transfer transfer to the screen transfer trans	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. n for selecting a maintenance item No.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporary Method	ne setting mer near end is not in the tag. The variation. The screen mperature attended temperature and	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine. ature and humidity outside the machine.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporary Method	ne setting mer near end is not in the interest	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine ature and humidity outside the machine. humidity outside the machine.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporal Method 1. Press the star	ne setting mer near end er near end er near end er to key. The volume and erature and erat	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine. In the machine item humidity outside the machine. In the machine item humidity outside the machine. In the machine item humidity outside the machine.	toner empt	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporal Method 1. Press the star Displays	ne setting mer near end er near end er near end er to key. The volume and er to key. The column are to key.	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine. In the machine of the machine.	toner empt	y shorter.		
U139	Decreasing the lf 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporal Method 1. Press the star Displays	ne setting mer near end is not in the street key. The variation and the street tender and the street key. The color and the street key.	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine ature and humidity outside the machine. In the machine are the machine at the machine at the machine at the machine. Description External temperature (°C)	is displayed.	y shorter.		
U139	Decreasing the If 0 is set, ton *: The change 4. Press the star Completion Press the stop key Displaying the ter Description Displays the detect Purpose To check the temporal Method 1. Press the star Displays the detect Displays the detect Purpose To check the temporal Method 1. Press the star Displays the detect Displays t	ne setting mer near end er near end er is not in the er teep. The vertical teep teep teep teep teep teep teep tee	akes the interval from toner near end to will not be detected. e level of set value 5 to 10. value is set. In for selecting a maintenance item No. and humidity outside the machine. In the machine of the machine of the machine. In the machine of the machine of the machine. In the machine of the machine of the machine. In the machine of the machine of the machine. In the machine of the machine of the machine. In the machine of the machine of the machine. In the machine of the machine of the machine of the machine. In the machine of the machine of the machine of the machine. In the machine of the machine. In the machine of the	o toner empty is displayed. displayed.	t (°C)		

Item No.	Description
U140	Setting developer bias
	Description
	Setting the value of various developer bias.
	Purpose
	To check and setting the value of developer bias.
	Method
	Press the start key.

2. Select the item to be set or displayed.

Display	Description
Mag DC	Setting the value of magnet DC bias.
Sleeve DC	Setting the value of sleeve DC bias.
Clock Freq	Setting the value of clock frequency.
Clock Duty	Setting the value of clock duty.
AC Ctrl	Setting the value of AC control voltage.
On Timing	Setting the value of developer On timing.
Off Timing	Setting the value of developer Off timing.

Setting: [Mag DC/Sleeve DC/Clock Freq/Clock Duty/AC Ctrl]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Initial setting
1st	Setting the value of yellow.	480/180/36/37/1500
2nd	Setting the value of cyan.	480/180/36/37/1500
3rd	Setting the value of magenta.	450/150/36/37/1500
4th	Setting the value of black.	450/150/36/37/1500
Remove 1st	Setting the value of remove yellow.	50/150/36/33/1150
Remove 2nd	Setting the value of remove cyan.	50/150/36/33/1150
Remove 3rd	Setting the value of remove magenta.	50/150/36/33/1150
Remove 4th	Setting the value of remove black.	50/150/36/33/1150
Remove 1st Half	Setting the value of remove yellow Half.	380/180/36/33/1150
Remove 2nd Half	Setting the value of remove cyan Half.	380/180/36/33/1150
Remove 3rd Half	Setting the value of remove magenta Half.	350/150/36/33/1150
Remove 4th Half	Setting the value of remove black Half.	350/150/36/33/1150

3. Press the start key. The value is set.

Display	Description	Setting range	Initial setting
1st	Setting the value of yellowt.	-500 to 500	0/0
2nd	Setting the value of cyan.	-500 to 500	0/0
3rd	Setting the value of magenta.	-500 to 500	0/0
4th	Setting the value of black.	-500 to 500	0/0

3. Press the start key. The value is set.

Completion

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

U147 Setting for toner applying operation

Description

Sets the mode for removing charged toner in the developer unit (T7 control: Toner applying operation).

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.

Setting

- 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.

Display	Description	Setting range	Initial setting
T7	T7 Operational mode	0 to 1	0
Drum T7	Drum T7 operational mode	0 to 255	60

4. Press the start key. The setting is set.

Completion

Item No.	Description
U150	Checking sensors for toner
	Description
	Displays the on-off status of each sensor or switch related to toner.
	Purpose
	To check if the sensors and switches operate correctly.
	Method
	Press the start key.
	2. Select the item. The screen for executing each item is displayed.

Select the item. The screen for executing each item is displayed.

Display	Description
T/C	Displays the state of the toner sensor.
Waste Box	Displays the state of the waste toner box.

Method: [T/C]

1. 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"

Display	Switches and sensors
T/C Sensor 1st	Displays the state of the toner sensor (Yellow).
T/C Sensor 2nd	Displays the state of the toner sensor (Cyan).
T/C Sensor 3rd	Displays the state of the toner sensor (Magenta).
T/C Sensor 4th	Displays the state of the toner sensor (Black).
Motor	Drives developer motor, developer clutch.

2. To stop motor driving, press the stop key.

Method: [Waste Box]

1. 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"

Display	Switches and sensors
Waste Box Sensor	Displays the state of the waste toner box.
Motor	Drives developer motor, developer clutch.

2. To stop motor driving, press the stop key.

Completion

Item No. Description

U157 Checking the developing drive time

Description

Displays the developing drive time for checking a figure, which is used as a reference when correcting the toner control.

Purpose

To check the developing drive time after replacing the developing unit.

Method

1. Press the start key. The developing drive time of each color is displayed.

Display	Description
С	Cyan developing drive time (min)
М	Magenta developing drive time (min)
Υ	Yellow developing drive time (min)
Κ	Black developing drive time (min)

Setting

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial setting
С	Cyan developing drive time (min)	0 to 59999	0
M	Magenta developing drive time (min)	0 to 59999	0
Υ	Yellow developing drive time (min)	0 to 59999	0
K	Black developing drive time (min)	0 to 59999	0

3. Press the start key. The setting is set.

Completion

Item No.	Description
U161	Setting the fuser control temperature
	Description
	Changes the fuser control temperature and control temperature correction value and other set values.
	Purpose
	Normally no change is necessary. However, this mode can be used to prevent curling or creasing of paper, or solve a fuser problem on thick paper.

Setting

- 1. Press the start key.
- 2. Select the item to be set.
- 3. Change the setting value using the cursor left/right keys.

Display	Description	Setting range	Initial setting	
			20ppm	25ppm
Copy Curb(Edge)	Prevention temperature of overtemperature rise under copy	100 to 250	210	210
Curb(Edge)	Prevention temperature of overtemperature rise	100 to 250	240	240
Return(Edge)	Return temperature of overtemperature rise	100 to 250	190	190
Ready(Edge)	Ready display temperature	0 to 200	95	100
Pressure(Press)	Pressurizing beginning temperature	0 to 200	85	90
High speed(Center)	Full speed shift temperature	0 to 200	110	115
Ready(Center)	Ready display temperature	100 to 200	135	140
Drive(Center)	The second stability temperature	100 to 200	140	145
Full speed(Center)	Print control temperature	100 to 200	140	145
Wait(Center)	Control temperature when being standing by	100 to 200	115	120
WarmUp Curb(Center)	Electric power control temperature at start-up	0 to 200	135	140
Curb(Center)	Prevention temperature of overtemperature rise	170 to 250	240	240
Low power(Center)	Low electric power control temperature	0 to 200	85	90
Ready(Press)	Ready display temperature	0 to 200	40	45
Curb(Press)	Prevention temperature of overtemperature rise	170 to 250	200	200
Wait Off- set(Press)	Correction temperature when being standing by	0 to 200	85	90

Item No.		Description	
U161	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.		
U167	Checking/setting	the fuser count	
	Purpose To check or set the Method	he fuser count for checking. fuser count after replacement of the fuser unit. key. The fuser count is displayed.	
	Display	Description	
	Cnt	Fuser count value	
U168	2. Change the setting using the cursor left/right keys or numeric keys. 3. Press the start key. The setting is set. Completion Press the stop key. The screen for selecting a maintenance item No. is displayed. Confirmation/setting the fuser drive time Description Displays and settings the specification of fuser drive time for checking. Purpose To check or set the drive time of fuser unit after replacement of the fuser unit. Method		
		key. The drive time of fuser unit is displayed.	
	Displ Press		
	Release	Counts of the fuser drive time (Pressing force)	
	Setting 1. Select the item to be set. 2. Change the setting using the cursor left/right keys or numeric keys. 3. Press the start key. The value is set. Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.		

	Description		
U169	Confirmation/setting the fo	user power supply	
	Description Displays and settings the specification of fuser power supply for checking. Purpose To check or set the specification of fuser power supply after replacement of the fuser power supply.		
	Method 1. Press the start key. The specification of fuser power supply is displayed.		
	Display	Description	
	Mode	Specification of fuser power supply (1: 100V, 2: 200V, 3: 120V)	
	Setting 1. Change the setting using 2. Press the start key. The	g the cursor left/right keys or numeric keys. value is set.	
	Completion Press the stop key. The scre	een for selecting a maintenance item No. is displayed.	
U199	Displaying fuser heater tell Description Displays the detected fuser Purpose To check the fuser temperat Method 1 Press the start key The	temperature.	
	Display	Description	
	Fix Press	Press roller center temperature (°C)	
	Fix Edge	Heat roller edge temperature (°C)	
	Fix Center	Heat roller center temperature (°C)	

Item No.	Description	
U201	Initializing the touch panel	
Description Automatically correct the positions of the X- and Y-axes of the touch panel Purpose To automatically correct the display positions on the touch panel after it is Method 1. Press the start key. 2. Select the [Initialize] or [Check].		isplay positions on the touch panel after it is replaced.
	Display	Description
	Initialize	Adjusts the display on the panel automatically
	Check	Checks the display on the touch panel
	The touch panel is adjusted 3. Press the indicated three 4. Press the stop key. The sometimes when a djusting the displacement of the stop key. The sometimes when adjusting the displacement of the stop key. The sometimes when a djusting the displacement of the stop key. The sometimes when a djusting the displacement of the stop key. The sometimes when a djusting the displacement of the stop key. The sometimes when a djusting the displacement of the stop key.	keys. Be sure to press three + keys displayed in order. ed automatically. + keys, and then check the display. creen for selecting a maintenance item No. is displayed. + keys, and then check the display. ay, press [Initialize] to execute the adjustment automatically. creen for selecting a maintenance item No. is displayed. en for selecting a maintenance item No. is displayed.

Item No.	Description		
U203	Checking DP operation		
	Description Simulates the original conveying operation separately in the DP. Purpose To check the DP operation. Method 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.		
	Display	Description	
	Normal Speed	Normal reading (600 dpi)	
	High Speed	High-speed reading	
	4. Select the item to be ope	erated.	
	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	
	5. Press the start key. The operation starts. 6. To stop continuous operation, press the stop key. Completion		
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.		

Item No.	Description			
U207	Checking the operation panel keys			
	Description Checks operation of the operation panel keys. Purpose To check operation of all the keys and LEDs on the operation panel. Method 1. Press the start key. The screen for executing is displayed.			
	 [Count0] is displayed and the leftmost LED on the operation panel lights. 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. When all the keys on the operation panel have been pressed, all the LEDs light for up to 10 seconds. 			
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			
U222	Setting the IC card type			
	Description Sets the type of IC card. Purpose To change the type of IC card. Setting 1. Press the start key. 2. Select the item.			
	Display	Description		
	Other	The type of IC card is SSFC.		
	SSFC	The type of IC card is not SSFC.		
	* : Initial setting: Other 3. Press the start key. The setting is set.			
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.		

Item No.	Description		
U243	Checking the operation of t	he DP motors	
	Description Turns the motors or clutches in the DP on. Purpose To check the operation of the DP motors and clutches. Method 1. Press the start key. 2. Select the item to be operated.		
	3. Press the start key. The o	1	
	Display Conv Motor	Description Description	
		DP paper feed motor (DPPFM) is turned on	
	Rev Motor Feed Clutch	DP switchback motor (DPSBM) is turned on	
	Regist Clutch	DP paper feed clutch (DPPFCL) is turned on DP registration clutch (DPRCL) is turned on	
	To turn each motor off, pre		
	i. To taill each motor on, pro	occ the ctop key.	

Item No.	Description		
U244	Checking the DP switches		
	Description Displays the status of the respective switches in the DP. Purpose To check if the respective switches in the DP operate correctly.		
	 Method 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". 		
	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	-	
	Completion Press the stop key. The screen	en for selecting a maintenance item No. is displayed.	

tem No.	Description						
U250	Checking/clearing the maintenance cycle						
	Description						
	Changes preset values for maintenance cycle and automatic grayscale adjustment.						
	Purpose						
	_	ng the time when the message to acknowled	ge to conduct mair	itenance and			
	automatic grayscale adjustment is periodically displayed.						
	Setting						
	1. Press the sta	•					
		em to be changed.	aorio kovo				
		setting using the cursor left/right keys or num	<u> </u>	1 141 1			
	Display	Description	Setting range	Initial setting			
	M.Cnt A	Project values for maintenance evals (A)	0 to 0000000	200000			
		Preset values for maintenance cycle (A)	0 to 9999999				
	M.Cnt B	Preset values for maintenance cycle (B)	0 to 9999999	200000			
	M.Cnt HT	Preset values for automatic grayscale adjustment	0 to 9999999	0			
		adjustinent					
	Clearing 1. Select [Clea 2. Press the sta	r]. art key. The setting value is cleared.					
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d			
	Select [Clea Press the state Completion	-	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			
	Select [Clea Press the state Completion	art key. The setting value is cleared.	tem No. is displaye	d.			

tem No.	Description							
J251	Checking/clearing the maintenance counter							
	Description							
	<u>-</u>	rs or changes the maintenance count and a	utomatic grayscale	adjustment				
	count.	-						
	Purpose To verify the maintenance counter count and automatic grayscale count. Also to clear the counter to be a subject to							
	To verify the maintenance counter count and automatic grayscale count. Also to clear the countering maintenance service.							
	Setting							
	1. Press the star							
		n to be changed. etting using the cursor left/right keys or num	paric kays					
	Display	Description	Setting range	Initial setting				
	M.Cnt A	Count value for maintenance cycle (A)	0 to 9999999	0				
	M.Cnt B	Count value for maintenance cycle (B)	0 to 9999999	0				
	M.Cnt HT	Automatic grayscale adjustment count	0 to 9999999	0				
		t key. The setting value is set.		l				
	Completion							
	Press the stop ke	y. The screen for selecting a maintenance it	em No. is displayed	l.				
	1							

		Description
U252	Setting the destination	
	Description	
	Switches the operations a	nd screens of the machine according to the destination.
	Purpose To be executed after initial	lizing the backup RAM, in order to return the setting to the value be
	replacement or initialization	· ·
	Madead	
	Method 1. Press the start key.	
	2. Select the destination	
	Display	Description
	Japan Metric	Metric (Japan) specifications
	Inch	Inch (North America) specifications
	Europe Metric	Metric (Europe) specifications
	Asia Pacific	Metric (Asia Pacific) specifications
	Asia Facilic	
	Australia	Australia specifications
		Australia specifications China specifications
	Australia China Korea 3. Press the start key. 4. Turn the main power s *: An error code is dis	China specifications Korea specifications switch off and on. splayed in case of an initialization error.
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization us
	Australia China Korea 3. Press the start key. 4. Turn the main power s *: An error code is dis When errors occur	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization us
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item Error codes Codes	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization usu252. Description
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item Error codes Codes 0001	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization usu252. Description Entity error
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item Error codes Codes 0001 0002	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization usu252. Description Entity error Controller error
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item Error codes Codes 0001 0002 0003	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization usu252. Description Entity error Controller error OS error
	Australia China Korea 3. Press the start key. 4. Turn the main power s * : An error code is dis When errors occur maintenance item Error codes Codes 0001 0002	China specifications Korea specifications switch off and on. splayed in case of an initialization error. red, turn main power switch off then on, and execute initialization usu252. Description Entity error Controller error

Item No.		Description
U253	Switching between double	and single counts
	Purpose Used to select, according to t	r the total counter and other counters. the preference of the user (copy service provider), if folio size paper to (single count) or two sheets (double count).
	Setting 1. Press the start key. 2. Select the item to set.	
	Display	Description
	Color	Count system of color mode
	B/W	Count system of black/white mode
	3. Select the count system.	
	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
	* : Initial setting: DBL (A3 4. Press the start key. The s	· ·
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.
U260	Selecting the timing for cop	by counting
	Description Changes the copy count timir Purpose To be set according to user re	ng for the total counter and other counters.
	Setting 1. Press the start key. 2. Select the copy count tim	ing.
	Display	Description
	Feed	When secondary paper feed starts
	Eject	When the paper is ejected
	* : Initial setting: Eject 3. Press the start key. The s	etting is set.
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.

Item No.			Description	on		
U265	Setting OEM pu Description	rchaser cod	е			
	Sets the OEM pu	ırchaser code	э.			
	Purpose					
	Sets the code wh	nen replacing	the main PWB and the	e like.		
	Setting					
	1. Press the sta					
	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	Setting service	status page				
	Description	andres the				
	Determines displ	ayıng the prii	nt coverage report on r	eporting.		
	•	r request ich	anges the setting.			
			g			
	Setting	يدما اس				
	Press the sta Select [On] o	-				
	Disp			Description		
	On	,	Displays the print cov	<u> </u>		
	Off		Not to display the prin	-		
	* : Initial setti	ing: On		-		
	3. Press the sta	•	etting is set.			
	Completion					
			n for selecting a maint	enance item No. is displaye	ed.	
U325	Setting the pape	er interval				
	Description					
			en pages and the tone	r replenishment amount wh	en printing pages	
	with high print co	verage.				
	Modify the setting		ootted background or u	neven density appears who	en printing pages	
	with high print co	verage.				
	Method					
	1. Press the sta	•	the euroes left/sisist list	o or numeric keys		
	l	tung using i	the cursor left/right key		T 1	
	Display		Description	Setting range	Initial setting	
	Rank	Setting the	rank	0 to 4	1	
	3. Press the sta	rt key. The se	etting value is set.	·		
	Completion					
	Completion Press the stop ke	ev. The scree	n for selecting a maint	enance item No. is displaye	ed.	

Item No. Description

U326 Setting the black line cleaning indication

Description

Sets whether to display the cleaning guidance when detecting the black line.

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.

Method

- 1. Press the start key.
- 2. Select the item to set. The screen for setting each item is displayed.

Display	Description
Black Line Mode	Black line cleaning guidance ON/OFF setting
Black Line Cnt	Setting counts of the cleaning guidance indication

Setting: [Black Line Mode]

1. Select [On] or [Off].

Display	Description
On	Displays the cleaning guidance
Off	Not to display the cleaning guidance

^{*:} Initial setting: On

2. Press the start key. The setting is set.

Setting: [Black Line Cnt]

- 1. Select [Cnt].
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial setting
Cnt	Setting counts of the cleaning guidance indication (x 1000 sheets)	0 to 255	8

^{*:} When setting is 0, the black line cleaning indication is displayed only if the black line is detected.

3. Press the start key. The value is set.

Completion

ltem No.		Descripti	on			
U332	Setting the size conve	ersion factor				
	Description					
	Sets the coefficient of r	nonstandard sizes in relation t	o the A4/Letter size. The	e coefficient set he		
		plack ratio in relation to the A	4/Letter size and to disp	lay the result in us		
	simulation. Purpose					
	To set the coefficient for converting the black ratio for nonstandard sizes in relation to the A4/Let					
	ter size. Setting 1. Press the start key.	-	ii nonstandard sizes iii i	elation to the A4/L		
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting	using the cursor left/right key	ys or numeric keys.			
	ter size. Setting 1. Press the start key. 2. Select [Rate].			Initial setting		
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting	using the cursor left/right key	ys or numeric keys.			
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting Display	using the cursor left/right key Description Size parameter	ys or numeric keys. Setting range	Initial setting		
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting Display Rate 4. Press the start key.	using the cursor left/right key Description Size parameter	ys or numeric keys. Setting range	Initial setting		
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting Display Rate 4. Press the start key. Completion	Description Size parameter The value is set.	Setting range 0.1 to 3.0	Initial setting		
	ter size. Setting 1. Press the start key. 2. Select [Rate]. 3. Change the setting Display Rate 4. Press the start key. Completion	using the cursor left/right key Description Size parameter	Setting range 0.1 to 3.0	Initial setting		

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.

Method

- 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.

Display	Description
Cassette1	Cassette 1
Cassette2	Cassette 2 (optional paper feeder)
Cassette3	Cassette 3 (optional paper feeder)

^{*:} When an optional paper feed device is not installed, the corresponding count is not displayed.

4. Press the start key. The setting is set.

Completion

		2MY/2M2				
Item No.		Description				
U343	Switching between duple	k/simplex copy mode				
	Description					
	Switches the initial setting between duplex and simplex copy.					
	Purpose To be set according to frequency of use: set to the more frequently used mode.					
	Setting 1. Press the start key. 2. Select [On] or [Off].					
	Display	Description				
	On	Duplex copy				
	Off	Simplex copy				
	* : Initial setting: Off 3. Press the start key. The	setting is set.				
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.					
U345	Setting the value for maintenance due indication					
	by setting the number of co When the difference between	sage notifying that the time for maintenance is about to be reached, pies that can be made before the current maintenance cycle ends. en the number of copies of the maintenance cycle and that of the the set value, the message is displayed.				

To change the time for maintenance due indication.

Setting

- 1. Press the start key.
- 2. Select [Cnt].
- 3. Change the setting using the cursor left/right keys or numeric keys.

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

4. Press the start key. The value is set.

Clearing

- 1. Select [Clear].
- 2. Press the start key. The value is cleared.

Completion

Item No.	. Description				
U402	Adjusting margins	s of image printing			
	Description				
	Adjusts margins for	image printing.			
	Purpose				
	Make the adjustme	nt if margins are incorrect.			
	Adjustment				
	1. Press the start key.				
	2. Press the system menu key.				
	3. Press the start key to output a test pattern.				
	4. Press the syste	m menu key.			
	5. Select the item	to be adjusted.			
	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

Printer left margin

Printer right margin

Trail Printer trailing edge margin 0 to 10.0 5.0 0.1 mm

6. Change the setting value using the cursor left/right keys or numeric keys.

0 to 10.0

0 to 10.0

2.5

2.5

0.1 mm

0.1 mm

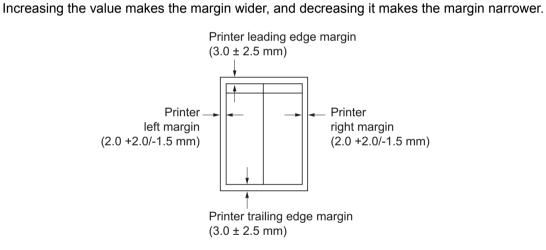


Figure 1-3-14

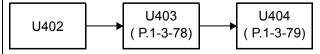
7. Press the start key. The value is set.

Caution

A Margin

C Margin

Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.



Completion

Item No.		Descriptio	n		
U403	Adjusting margins	for scanning an original on the	contact glas	SS	
	Description				
	Adjusts margins for scanning the original on the contact glass.				
	Purpose				
	Perform the adjustment if margins are incorrect.				
	Adjustment				
	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.				
			Cotting	Initial	Change in

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

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.

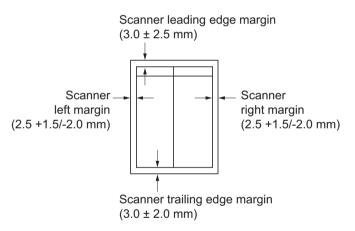
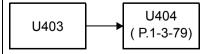


Figure 1-3-15

7. Press the start key. The value is set.

Caution

Check the copy image after the adjustment. If the image is still incorrect, perform the following adjustments in maintenance mode.



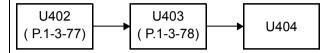
Completion

Press the stop key. The indication for selecting a maintenance item No. appears.

Item No. Description U404 Adjusting margins for scanning an original from the DP Description Adjusts margins for scanning the original from the DP. Purpose

Caution

Before making this adjustment, ensure that the following adjustments have been made in maintenance mode



Perform the adjustment if margins are incorrect.

Adjustment

- 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.

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

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.

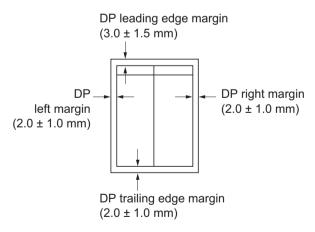


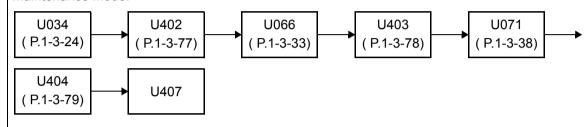
Figure 1-3-16

7. Press the start key. The value is set.

Completion

Item No. Description U407 Adjusting the leading edge registration for memory image printing Description Adjusts the leading edge registration during memory copying. Perform 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. Caution

Before Performing this adjustment, ensure that the following adjustments have been made in maintenance mode.



Adjustment

- 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 [Adj Data].

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

6. Change the setting value using the cursor left/right keys or numeric keys. For copy example 1, decrease the value. For copy example 2, increase the value.

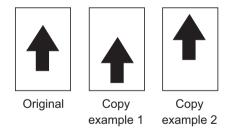


Figure 1-3-17

7. Press the start key. The value is set.

Completion

	ZMY/ZMZ
Item No.	Description
U411	Adjusting the scanner automatically
	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
	Purpose
	To perform automatic adjustment of various items in the scanner and the DP scanning sections.

Method

- 1. Press the start key.
- 2. Select the item.

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	-

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.

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.
 - * : 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.

Item No.		Description
U411	Method: DP	
	* : When in the DP 3. Press the * : When a occurs and op	cified original (P/N: 302AC68243) in the DP. running this test chart, you first must clean the feed rollers with alcohol and ensure width guides are correctly positioned against the original. start key. Auto adjustment starts. automatic adjustment has normally completed, [OK] is displayed. If a problem during auto adjustment, [NG XX] (XX is replaced by an error code) is displayed eration stops. Should this happen, determine the details of the problem and repeat ocedure from the beginning.
	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
	Of	Auxiliary scanning direction magnification error
	10	Auxiliary scanning direction leading edge detection error
	11	Auxiliary scanning direction trailing edge detection error
	12	Auxiliary scanning direction skew 1.5 error
	13	Maintenance request error
	14	Main scanning direction center line error
	15	Main scanning direction skew 1.5 error
	16	Main scanning direction magnification error
	17	Service call error
	18	DP paper misfeed error

Item No.		Description
U411		
	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
	Completion	
	Press the stop	key. The screen for selecting a maintenance item is displayed.

tem No.		Description	
U425	Setting the target		
	adjustment. Purpose	nat is indicated on the back of the chorder to correct for differences in orig	
	Press the start key. Select the item to be		
	Display	Des	scription
	White	Setting the white patch for the	e original for adjustment
	Black	Setting the black patch for the	e original for adjustment
	Gray1	Setting the Gray1 patch for t	he original for adjustment
	Gray2	Setting the Gray2 patch for t	he original for adjustment
	Gray3	Setting the Gray3 patch for t	he original for adjustment
	С	Setting the cyan patch for the	e original for adjustment
	M	Setting the magenta patch for	or the original for adjustment
	Y	Setting the yellow patch for t	he original for adjustment
	R	Setting the red patch for the	original for adjustment
	G	Setting the green patch for the	ne original for adjustment
	В	Setting the blue patch for the	original for adjustment
	Adjust Original	Setting the main and auxiliar	y scanning directions
	3. Select the item to b	e set.	
	Display	Description	Setting range
	L	Setting the L value	0.0 to 100.0
	а	Setting the a value	-200.0 to 200.0
	b	Setting the b value	-200.0 to 200.0
	4. Enters the value the numeric keys. 5. Press the start key.	at is indicated on the back of the cha	art using the cursor left/right keys o

Item No.	Description
U425	Setting: [Adjust Original]
	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
	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
	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.
	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.
	o. I rode the start key. The value is set.
	30mm 148.5mm 267mm
	Black belt 1 B C Leading edge
	7
	Black
	belt 2 D
	Φ [DIST1]=(A+B+C)/3
	[DIST1]=(A+B+C)/3 [DIST2]=F [DIST3]=D/2+E/2
	□ [DIST3]=D/2+E/2
	<u> </u>
	COLOR SCANNER CHART AA
	No. 302K357010
	Original for adjustment (P/N: 7505000005)
	Figure 1-3-18
	Completion
	Press the stop key. The screen for selecting a maintenance item No. is displayed.

Item No.	Description
U429	Setting the offset for the color balance

Description

Displays and changes the density for each color during copying in the various image quality modes.

Purpose

To change the balance for each color.

Method

- 1. Press the start key.
- 2. Select the image quality mode. The setting screen for the selected item is displayed.

Display	Description
Text + Photo	Density of each color in the text & photo mode
Photo	Density of each color in the photo mode
Text	Density of each color in the text mode
Graphics/Map	Density of each color in the graphics/map mode
Copy/Print out	Density of each color in the printed document mode

Setting

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial set- ting
С	Value of the cyan setting	-5 to 5	0
M	Value of the magenta setting	-5 to 5	0
Υ	Value of the yellow setting	-5 to 5	0
K	Value of the black setting	-5 to 5	0

Increasing the value darkens the density and decreasing it lightens the density.

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

2MY/2MZ Item No. Description U432 Setting the center offset for the exposure 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. **Purpose** Set according to the preference of the user. Setting 1. Press the start key. 2. Select the item to be set. The setting screen for the selected item is displayed. **Description Display** Color Exposure offset setting for the color mode B/W Exposure offset setting for the black and white mode 3. Select image quality mode to be set. 4. Change the setting value using the cursor left/right keys or numeric keys. Setting Initial **Display** Description setting range Text + Photo -3 to 3 0 Offset value for the text & photo mode Photo Offset value for the photo mode -3 to 3 0 Offset value for the text mode -3 to 3 0 Text

*: 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.

5. 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

Item No. Description Setting the ID correction operation U464

Description

Turns ID correction (calibration) on or off. Also, this determines the duration of calibration and the timing of calibration during printing. Also, this allows individual settings for calibration operation by enabling custom settings.

Purpose

To restrict calibration when poor image quality is generated. Also, this allows individual settings for calibration by enabling custom settings in setting the calibration cycle under the machine defaults depending on the user preferences.

Method

- 1. Press the start key.
- 2. Select the item to be set. The setting screen for the selected item is displayed.

Display	Description
Permission	Setting of operation permission
Time Interval	Setting of driving time
Bias Target	Setting of Bias target
Gamma Target	Setting of quantities of light target
Calib	Execution of calibration

Setting: [Permission]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial set- ting
Calib	Setting the permission of calibration.	On/Off	On
Paper Int Calib	Setting the permission of calibration between paper.	On/Off	On

3. Press the start key. The value is set.

Setting: [Time Interval]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting	Initial set-
Paper Int Calib	Setting the driving time of the calibration between paper.	0 to 100	10
Sleep Out	Setting the execution time of sleeve return calibration.	0 to 100	20
T/C Calib	Setting the execution time of T/C calibration.	0 to 100	10

3. Press the start key. The value is set.

Item No. Description

U464 Setting: [Bias Target/Gamma Target]

- 1. Select the item to be set.
- 2. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial set- ting
1st	Setting of target (Yellow)	10 to 1000	935/400
2nd	Setting of target (Cyan)	10 to 1000	895/200
3rd	Setting of target (Magenta)	10 to 1000	885/200
4th	Setting of target (Black)	10 to 1000	846/130

3. Press the start key. The value is set.

Method: [Calib]

- 1. Select the item to be set
- 2. Press the start key. The operation starts.

Display	Description
Regist	Executes the calibration to correct registration.
Gamma	Executes the calibration to quantities of light.
Paper Int	Executes the calibration between paper.
Color Regist	Executes the calibration to color registration.

To stop operation, press the stop key.

Completion

Item No.	Description		
U467	Setting the color registra	ition adjustment	
	Description Sets the color registration adjustment. Purpose If color variance is uneven due to a sensor failure, etc., turn this off and temporarily make a ual adjustment.		
	Method 1. Press the start key. 2. Select the item to be se	et.	
	Display	Description	
	Permission	Setting of operation permission	
	Timing	Setting of execution timing of resist correction	
	2. Press the start key. The Completion	ue using the cursor left/right keys or numeric keys. e value is set. reen for selecting a maintenance item No. is displayed.	
	Checking the color registration data		
U468		tration data	
U468	Description Displays the color registrat Purpose To check the corresponding Method 1. Press the start key.	tion correction data and transfer belt speed correction data. g data.	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be re-	tion correction data and transfer belt speed correction data. g data. eference. The screen for the selected item is displayed.	
U468	Description Displays the color registrat Purpose To check the corresponding Method 1. Press the start key.	g data. eference. The screen for the selected item is displayed. Description Display the auto color registration adjustment value for 1st	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be responding	g data. eference. The screen for the selected item is displayed. Description	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be responding Display Auto (1st)	g data. eference. The screen for the selected item is displayed. Description Display the auto color registration adjustment value for 1st color Display the auto color registration adjustment value for 2nd	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be responding Display Auto (1st) Auto (2nd)	g data. eference. The screen for the selected item is displayed. Description Display the auto color registration adjustment value for 1st color Display the auto color registration adjustment value for 2nd color Display the auto color registration adjustment value for 3rd	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be responding Auto (1st) Auto (2nd) Auto (3rd) Manual (1st) Manual (2nd)	g data. eference. The screen for the selected item is displayed. Description Display the auto color registration adjustment value for 1st color Display the auto color registration adjustment value for 2nd color Display the auto color registration adjustment value for 3rd color Display the auto color registration adjustment value for 3rd color Display the manual color registration adjustment value for 1st	
U468	Description Displays the color registrate Purpose To check the corresponding Method 1. Press the start key. 2. Select the item to be responding Display Auto (1st) Auto (2nd) Auto (3rd) Manual (1st)	g data. Beference. The screen for the selected item is displayed. Description Display the auto color registration adjustment value for 1st color Display the auto color registration adjustment value for 2nd color Display the auto color registration adjustment value for 3rd color Display the auto color registration adjustment value for 3rd color Display the manual color registration adjustment value for 1st color Display the manual color registration adjustment value for 1st color Display the manual color registration adjustment value for 2nd	

Item No.	Displaying: [Auto] 1. Select [Auto(1st)], [Auto(2nd)] or [Auto(3rd)]. The current value is displayed. Display Description	
U468		
	LSU Out Top	Image up-to-date timing
	LSU Out Left	Image optical axis adjustment
	Magnification(Whole)	Correction data of original size magnification in whole

Displaying: [Manual]

1. Select [Manua(1st)], [Manual(2nd)] or [Manual(3rd)]. The current value is displayed.

Display	Description
LSU Out Top	Image up-to-date timing
LSU Out Left	Image optical axis adjustment
Magnification(Whole)	Correction data of original size magnification in whole
Magnification(Part1)	Correction data of original size magnification in a part 1
Magnification(Part2)	Correction data of original size magnification in a part 2
Magnification(Part3)	Correction data of original size magnification in a part 3
Magnification(Part4)	Correction data of original size magnification in a part 4
Magnification(Part5)	Correction data of original size magnification in a part 5
Magnification(Part6)	Correction data of original size magnification in a part 6
Magnification(Part7)	Correction data of original size magnification in a part 7
Magnification(Part8)	Correction data of original size magnification in a part 8

Method: [Initialize]

- 1. Select [Initialize].
- 2. Select [Execute] and then press the start key.
 - *: Initialization is executed.

Display	Description
Execute	Execution of initialization

Completion

Item No. Description U470 Setting the JPEG compression ratio

Description

Sets the compression ratio for JPEG images in each image quality mode.

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.

Method

- 1. Press the start key.
- 2. Select the item to be set.

Display	Description
Сору	Compression ratio for copying
Send	Compression ratio for sending
System	Compression ratio for temporary storage in system

Setting: [Copy]

1. Select the item to be set.

Display	Description
Photo	Compression ratio in the photo mode
Text	Compression ratio in the text mode

- 2. Select the item to be set.
- 3. Change the setting value using the cursor left/right keys or numeric keys.

Display	Description	Setting range	Initial setting
Υ	Compression ratio of brightness	1 to 100	85
CbCr	Compression ratio of color differential	1 to 100	85

4. Press the start key. The value is set.

Item No.	Description		
U470	Setting: [Send] 1. Select the item to be set.		

Display	Description	
Photo	Compression ratio in the photo mode	
Text	Compression ratio in the text mode	
HC-PDF	Compression ratio of high compression PDF	

- 2. Select the item to be set.
- 3. Change the setting value using the cursor left/right keys or numeric keys. [Photo] or [Text]

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]

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.

Display	Description	Setting range	Initial setting
Υ	Y Compression ratio of brightness		90
CbCr Compression ratio of color differential		1 to 100	90

3. Press the start key. The value is set.

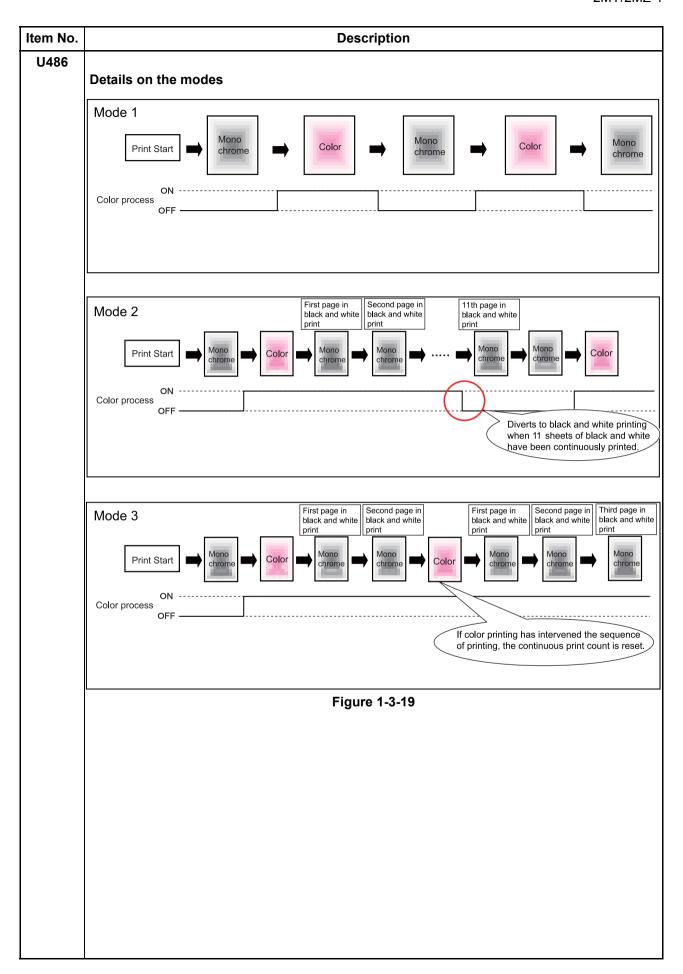
Supplement

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

Item No.		Description		
U473	Adjusting laser pov			
	Purpose	put power for each color. lensity correction data after replacing the lase	er scanner unit.	
	Enter the exposure density correction data after replacing the laser scanner unit. Setting 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.			
	Display	Description Description	Setting range	Initial setting
	1st	Setting the LSU laser power (Yellow)	0 to 255	92
	2nd	Setting the LSU laser power (Cyan)	0 to 255	92
	3rd	Setting the LSU laser power (Magenta)	0 to 255	92
	4th	Setting the LSU laser power (Black)	0 to 255	50
	4. Press the start ke	ey. The value is set.	·	
	Completion			

em No.	Description			
U486	Setting color/black and white operation mode			
	Description When color and B/W documents are mixed, sets operation mode after a color document is detected. Purpose To ensure productivity when copying color and B/W documents in ACS mode, select Mode3. However, selecting Mode3 will increase the maintenance count for cyan, magenta, and yellow color developer units even when there is a B/W original after a color original.			
	Setting 1. Press the s 2. Select the	· · · · · · · · · · · · · · · · · · ·		
	Display	Description		
	Mode1	A mode suited for the user with high black-and-white usage in which the occurrence of color printing during continuous printing is minimum.		
		Color / monochrome mode is switched for every original.		
	Mode2	A mode suited for the user with high black-and-white usage in which the occurrence of color printing during continuous printing is maximum.		
		Printing in color mode resumes up to 10 pages in a row even an interrupt is made to switch to black and white mode, until printing is diverted to black and white mode from color mode at the 11th page (color processing is terminated).		
	Mode3	A mode suited for the user with high black-and-white usage in which the occurrence of color printing during continuous printing is maximum.		
		Mode suited for high color printing volume Once diverted to color mode, the black and white printings are executed in color processing mode.		
	Auto	Mode that allows to select from modes 1 through 3 depending on the usage. Mode is selected from three modes depending on the percentage of color and black and white printings in the total number of print pages during a predetermined period.		
	Initial settin	ng: Mode2 start key. The setting is set.		
	Completion Press the stop	key. The screen for selecting a maintenance item No. is displayed.		



Item No.	Description
U600	Initializing all data
	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	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.
	Purpose
	To initialize the FAX control PWB.
	Method
	1. Press the start key.
	Select [Country Code] and enter a destination code using the numeric keys.
	Refer to the destination code list on following for the destination code

- 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.

Destination code list

Code	Destination	Code	Destination
000	Japan	253	CTR21 (European nations)
009	Australia		Italy
038	China		Germany
080	Hong Kong		Spain
084	Indonesia		U.K.
088	Israel		Netherlands
097	Korea		Sweden
108	Malaysia		France
126	New Zealand		Austria
136	Peru		Switzerland
137	Philippines		Belgium
152	Middle East		Denmark
156	Singapore		Finland
159	South Africa		Portugal
169	Thailand		Ireland
181	U.S.A.		Norway
242	South America	254	Taiwan
243	Saudi Arabia		

Item No.	Description		
U601	Initializing permanent data		
	Description Initializes software switches on the FAX control PWB according to the destination and OEM. Purpose To initialize the FAX control PWB without changing user registration data. Method 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 1-3-97 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	Setting user data 1		
	Description Makes user settings to enable the use of the machine as a fax. Purpose To be executed as required. Setting 1. Press the start key. 2. Select [Line Type]. 3. Select the setting.		
	Display	Description	
	DTMF	DTMF	
	10PPS	10 PPS	
	20PPS	20 PPS	
	* : Initial setting: DTMF		
	4. Press the start key. The s	setting is set.	
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.		

Item No.		Description		
U604	Setting user data 2			
	Purpose Use this if the user w fax receiving mode w Method 1. Press the start ke 2. Select [Rings(F/)]	•	that occur before the abled.	e unit switches into
	Display	Description	Setting range	Initial setting
	Rings(F/T) #	Number of fax/telephone rings	0 to 15	2 (120 V)/ 1 (220-240 V)
	* : If you set this 4. Press the start ke	to 0, the unit will start fax reception ey. The value is set.	without any ringing.	
	Completion Press the stop key. T	he screen for selecting a maintenar	nce item No. is displa	ayed.
U605	Clearing data			
	Purpose To clear the transmis Method 1. Press the start ke 2. Select [Comm Rl 3. Press the start ke	Эу.		
	Completion Press the stop key. T	he screen for selecting a maintenar	nce item No. is displa	ayed.

Item No.	Description
U610	Setting system 1
	Description

Makes settings for fax reception regarding the sizes of the fax paper and received images and automatic printing of the protocol list.

Method

- 1. Press the start key.
- 2. Select the item to be set.

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.

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.

1. Change the setting using the cursor left/right keys or numeric keys.

Description	Setting range	Initial setting	Change in value per step
Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode	0 to 22	0	16 lines

^{*:} 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.

2. Press the start key. The value is set.

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.

1. Change the setting using the cursor left/right keys or numeric keys.

Description	Setting range	Initial setting	Change in value per step
Number of lines to be ignored when receiving at 100%	0 to 22	3	16 lines

^{*:} Increase the setting if a blank second page is output, and decrease it if the received image does not include the entire transmitted data.

2. Press the start key. The value is set.

Item No.		De	escription		
U610	Sets the ing call is below ther re	Setting the number of lines to be ignored when receiving a fax 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. If the number of excess lines is below the setting, those lines are ignored. If over the setting, the entire data on a page is further reduced so that it can be recorded on the same page. 1. Change the setting using the cursor left/right keys or numeric keys.			
		Description	Setting range	Initial setting	Change in value per step
		lumber of lines to be ignored when eceiving in the auto reduction mode	0 to 22	0	16 lines
		Increase the setting if a page received much trailing edge margin is left. Dec transmitted data. ess the start key. The value is set.			
	-	letion the stop key. The screen for selecting	a maintenance	item No. is disp	layed.

Item No.	Description
U611	Setting system 2
	Description

Description

Sets the number of adjustment lines for automatic reduction.

Method

- 1. Press the start key.
- 2. Select the item to be 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.

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.

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.

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

Item No.	Description
U612	Setting system 3

Description

Makes settings for fax transmission regarding operation and automatic printing of the protocol list.

Method

- 1. Press the start key.
- 2. Select the item to be set using the cursor up/down keys.

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.

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.

1. Select the setting using the cursor left/right keys.

Display	Description
On	Auto reduction is performed if the received document is longer than the fax paper.
Off	Auto reduction is not performed.

^{*:} Initial setting: On

2. Press the start key. The setting is set.

Setting the automatic printing of the protocol list

Sets if the protocol list is automatically printed out.

1. Select the setting using the cursor left/right keys.

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.

^{*:} Initial setting: Off

2. Press the start key. The setting is set.

Completion

Item No.	Description			
U615	Setting system 6			
	Description Makes settings for fax reception regarding the sizes of the fax paper and received images. Purpose To set the maximum recording width and processing method when 11" width fax paper is loade on an inch specification machine. Setting 1. Press the start key. 2. Select [RX Width For 11"]. 3. Select the setting.			
	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.		
	* : Initial setting: Ledger 4. Press the start key. The setting is set.			
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			
	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. Setting 1. Press the start key. 2. Select [Remort Mode]. 3. Select the mode.			
	Display	Description		
	One	One-shot detection		
	Cont	Continuous detection		
	*: Initial setting: One 4. Press the start key. The setting is set. Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			

2MY/2MZ Item No. **Description** U625 Setting the transmission system 1 Description Makes settings for the auto redialing interval and the number of times of auto redialing. 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. Method 1. Press the start key. 2. Select the item to be set. Display **Description** Interval Setting the auto redialing interval **Times** Setting the number of times of auto redialing

Setting the auto redialing interval

1. Change the setting using the cursor left/right keys.

Description	Setting range	Initial setting
Redialing interval	1 to 9 (min.)	3 (120 V)/2 (220-240 V)

2. Press the start key. The value is set.

Setting the number of times of auto redialing

1. Change the setting using the cursor left/right keys or numeric keys.

Description	Setting range	Initial setting
Number of redialing	0 to 15	2 (120 V)/3 (220-240 V)

2. Press the start key. The value is set.

Completion

Item No.	Description
U630	Setting communication control 1
	Description
	Makes settings for fax transmission regarding the communication.

Method

- 1. Press the start key.
- 2. Select the item to be set.

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.

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.

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

^{*:} Initial setting: 14400bps/V17

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.

Display	Description
14400bps	V.17, V.33, V.29, V.27ter
9600bps	V.29, V.27ter
4800bps	V.27ter
2400bps	V.27ter (fallback only)

^{*:} Initial setting: 14400bps

^{2.} Press the start key. The setting is set.

^{2.} Press the start key. The setting is set.

em No.	em No. Description		Description
U630	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. 1. Select the setting.		
		Display	Description
		500	Sends a DCS 500 ms after receiving a DIS.
		300	Sends a DCS 300 ms after receiving a DIS.
		*: Initial setting: 300 Press the start key. The	
	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. Use when problems occur due to echoes at the receiver. 1. Select the setting.		
		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.
		Press the start key. The	
		mpletion ss the stop key. The sc	reen for selecting a maintenance item No. is displayed.
		-	reen for selecting a maintenance item No. is displayed.
		-	reen for selecting a maintenance item No. is displayed.
		-	reen for selecting a maintenance item No. is displayed.
		-	reen for selecting a maintenance item No. is displayed.

Item No.	Description
U631	Setting communication control 2
	Description

Makes settings regarding fax transmission.

Method

- 1. Press the start key.
- 2. Select the item to be set.

Display	Description
ECM TX	Sets ECM transmission.
ECM RX	Sets ECM reception.
CED Freq	Sets the frequency of the CED signal.

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.

Display	Description
On	ECM transmission is enabled.
Off	ECM transmission is disabled.

^{*:} Initial setting: On

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.

Display	Description
On	ECM reception is enabled.
Off	ECM reception is disabled.

^{*:} Initial setting: On

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.

Display	Description
2100	2100 Hz
1100	1100 Hz

^{*:} Initial setting: 2100

Completion

^{2.} Press the start key. The setting is set.

^{2.} Press the start key. The setting is set.

^{2.} Press the start key. The setting is set.

	2IVI Y/2I
Item No.	Description
U632	Setting communication control 3
	Description
	Makes settings for fax transmission regarding the communication.
	Method
	1. Press the start key.
	2. Select the item to be set.

Display	Description
DIS 4Byte	Sets the DIS signal to 4 bytes.
Num OF CNG(F/T)	Sets the CNG detection times in the fax/telephone auto select mode.

Setting the DIS signal to 4 bytes

Sets if bit 33 and later bits of the DIS/DTC signal are sent.

1. Select the setting.

Display	Description
On	Bit 33 and later bits of the DIS/DTC signal are not sent.
Off	Bit 33 and later bits of the DIS/DTC signal are sent.

^{*:} Initial setting: Off

Setting the CNG detection times in the fax/telephone auto select mode

Sets the CNG detection times in the fax/telephone auto select mode.

1. Select the setting.

Display	Description
1Time	Detects CNG once.
2Time	Detects CNG twice.

^{*:} Initial setting: 2Time

Completion

^{2.} Press the start key. The setting is set.

^{2.} Press the start key. The setting is set.

Item No.	Description
U633	Setting communication control 4
	Description
	Makes settings for fax transmission regarding the communication.
	Purpose
	To reduce transmission errors when a low quality line is used.
	Method
	1. Press the start key.
	2. Select the item to be set.

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.

Enabling/disabling V.34 communication

Sets whether V.34 communication is enabled/disabled for transmission and reception.

1. Select the setting.

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.

^{* :} Initial setting: On

Setting the V.34 symbol speed (3429 Hz)

Sets if the V.34 symbol speed 3429 Hz is used.

1. Select the setting.

Display	Description
On	V.34 symbol speed 3429 Hz is used.
Off	V.34 symbol speed 3429 Hz is not used.

^{* :} Initial setting: On

^{2.} Press the start key. The setting is set.

^{2.} Press the start key. The setting is set.

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.

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.

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.

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

2MY/2MZ Item No. **Description** U640 Setting communication time 1 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.) Method 1. Press the start key. 2. Select the item to be set. **Description Display** Time (One) Sets the one-shot detection time for remote switching. Time (Cont) Sets the continuous detection time for remote switching. Setting the one-shot detection time for remote switching 1. Change the setting using the cursor left/right keys. Description Setting range Initial setting 0 to 255 7 One-shot detection time for remote switching 2. Press the start key. The value is set. Setting the continuous detection time for remote switching 1. Change the setting using the cursor left/right keys. **Description** Setting range Initial setting Continuous detection time for remote switching 0 to 255 80 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
U641	Setting communication time 2
	Description
	Sets the time-out time for fax transmission.
	Purpose

To improve transmission performance for international communications mainly.

- Method
 1. Press the start key.
- 2. Select the item to be 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.

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.

1. Change the setting using the cursor left/right keys.

Description	Setting range	Initial setting
T0 time-out time	30 to 90 s	56

2. Press the start key. The value is set.

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.

1. Change the setting using the cursor left/right keys.

Description	Setting range	Initial setting
T1 time-out time	30 to 90 s	36

2. Press the start key. The value is set.

Item No.	Description			
U641	Setting the T2 time-out time The T2 time-out time decides the following CFR signal output to image date from image data reception to the new In ECM, from RNR signal detection 1. Change the setting using the current.	ata reception ext signal reception to the next signal rece	ption	
	Description	Setting range	Initial setting	Change in value per step
	T2 time-out time	1 to 255	69	100 ms

2. Press the start key. The value is set.

Setting the Ta time-out time

In the fax/telephone auto select mode, sets the time to continue ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-20). 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.

1. Change the setting using the cursor left/right keys.

Description	Setting range	Initial setting
Ta time-out time	1 to 255	30

2. Press the start key. The value is set.

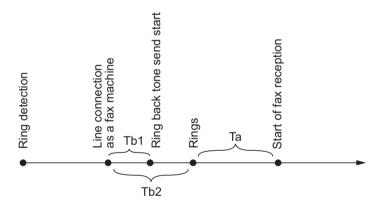


Figure 1-3-20 Ta/Tb1/Tb2 time-out time

Setting the Tb1 time-out time

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 1-3-20). In fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call.

1. Change the setting using the cursor left/right keys.

Description	Setting range	Initial setting	Change in value per step
Tb1 time-out time	1 to 255	20	100 ms

2. Press the start key. The value is set.

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 1-3-20). 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.

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.

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.

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

Item No.		Description				
U650	Setting modem 1					
	Description Sets the G3 cable equalizer. Sets the modem detection level.					
	Purpose Perform the following adjustment to make the equalizer compatible with the line characteristics.					
		ent to make the equalizer compatible with the line characteristics. performance when a low quality line is used.				
	Method					
	Press the start key.					
	2. Select the item to be set.					
	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.				
	* : Initial setting: -43dBm 2. Press the start key. The se	or [12dB]. etting is set. ble equalizer or [12dB]. etting is set. etting is set. n level], [-43dBm] or [-48dBm] using the cursor up/down keys.				
	Completion Press the stop key. The scree	n for selecting a maintenance item No. is displayed.				

em No.	Description			
U651	Setting modem 2			
	Description			
	Sets the modem outp			
	Sets the DTMF outpu	ut level of a push-button dial tel	ephone.	
	_	cur when sending a signal with	a push-button dial tele	ephone.
	Setting 1. Press the start ke	2 V		
	2. Select the item to	-		
	3. Change the setting	ng using the cursor left/right ke	ys or numeric keys.	
	Display	Description	Setting range	Initial setting
	Sgl LV Mdm	Modem output level	1 to 15	9 (120 V) 10 (220-240 V)
	DTMF LV(C)	DTMF output level (main value)	0 to 15.0	5 (120 V) 10.5 (220-240 V)
	DTMF LV(D)	DTMF output level (level difference)	0 to 5.5	2 (120 V) 2.5 (220-240 V)
	4. Press the start ke	ey. The setting is set.		
	Completion Press the stop key. T	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	he screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.
	-	The screen for selecting a main	tenance item No. is di	splayed.

	Description		
Setting the NCU			
Description Makes setting regarding the network control unit (NCU). Purpose To be executed as required.			
1. Press the start key.			
	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 PSTN	Description Connected to the public switched telephone network.		
	Description		
	Connected to a PBX.		
2. Press the start key. The Setting PSTN dial tone det	tection ected to check the telephone is off the hook when a fax is conne		
Display	Description		
	Detects the dial tone.		
On	Detects the dial tone.		
On Off	Does not detect the dial tone.		
	Makes setting regarding the Purpose To be executed as required. Method 1. Press the start key. 2. Select the item to be set Display Exchange Dial Tone Busy Tone PBX Setting DC Loop Setting the connection to Selects if a fax is to be conn 1. Select the setting. Display PSTN PBX *: Initial setting: PSTN 2. Press the start key. The Setting PSTN dial tone det Selects if the dial tone is det		

Item No. Description

U660 Setting busy tone detection

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.

1. Select the setting.

Display	Description
On	Detects busy tone.
Off	Does not detect busy tone.

^{*:} Initial setting: On

2. Press the start key. The setting is set.

Setting for a PBX

Selects the mode to connect an outside call when connected to a PBX.

According to the type of the PBX connected, select the mode to connect an outside call.

1. Select the setting.

Display	Description	
Flash	Flashing mode	
Loop	Code number mode	

^{*:} Initial setting: Loop

2. Press the start key. The setting is set.

Setting the loop current detection before dialing

Sets if the loop current detection is performed before dialing.

1. Select the setting.

Display	Description
On	Performs loop current detection before dialing.
Off	Does not perform loop current detection before dialing.

^{*:} Initial setting: On

2. Press the start key. The setting is set.

Completion

Outputting lists	Description			
Description				
Outputs a list of data regarding fax transmissions.				
_	ither when a job is remaining in the buffer or when [Pause All Print			
Jobs] is pressed to halt pri Purpose	nung.			
•	e, settings and transmission procedures of the fax.			
Method				
1. Press the start key.				
	·			
	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.			
	1. Press the start key. 2. Select the item to be of 3. Press the start key. The Display Sys Conf Report Action List Self Sts Report Protocol List Error List Addr List(No.) Addr List(Idx)			

Item No.	No. Description		
U695	FAX function customize		
	Description Sets fax batch transmission ON/OFF. Also changes the print size priority at the time of small size reception. Purpose To be executed as required. Setting		
	1. Select the setting. Display	Description	
	FAX Bulk TX	fax batch transmission On/Off	
	A5 Pt Pri Chg	Change of print size priority at the time of small size reception	

Setting: [FAX Bulk TX]

1. Select [On] or [Off] using the cursor left/right keys.

Display	Description
On	Fax batch transmission is enabled.
Off	Fax batch transmission is disabled.

^{*:} Initial setting: On

2. Press the start key. The setting is set.

Setting: [A5 Pt Pri Chg]

1. Select [On] or [Off] using the cursor left/right keys.

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

^{*:} Initial setting: Off

2. Press the start key. The setting is set.

Completion

Item No.		Description		
U699	Setting the software switches			
	Description			
		ftware switche	s on the FAX control PWB individually.	
	Purpose			
	_	_	en a problem such as split output of received originals occurs.	
	changed.	ommunication	performance is largely affected, normally this setting need not be	
	Method			
		ne 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. 			
		·		
	Completion			
	Press the st	top key. The s	creen for selecting a maintenance item No. is displayed.	
	List of Soft	ware Switche	es of Which the Setting Can Be Changed	
	List of Johnware Switches of Which the Jetting San Be Shanged		s of Whom the Octaing out he changed	
	<communication control="" procedure=""></communication>			
	No.	Bit	Item	
	36	7654	Coding format in transmission	
		3210	Coding format in reception	
	37	5	33600 bps/V34	
		4	31200 hns/\/34	

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	

tem No. U699	Communication time setting>			
	<commun< td=""><td>ı</td><td></td></commun<>	ı		
	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 s<="" td=""><td>etting></td><td></td></modem>	etting>		
	No.	Bit	Item	
	89	76543	RX gain adjust	
	<ncu setting=""></ncu>			
	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 td="" ting<=""><td>ne setting></td><td></td></calling>	ne 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	
		76543210	Time for transmitting selection signal after closing the DC circuit	
	149			

Item No.	Description		
U901	Checking copy counts by	y paper feed locations	
	Description Displays or clears copy counts by paper feed locations. Purpose To check the time to replace consumable parts. Also to clear the counts after replacing the consumable parts. Method 1. Press the start key. The counts by paper feed locations are displayed.		
	Display	Description	
	MPT	MP tray	
	Cassette1	Cassette 1	
	Cassette2	Cassette 2 (optional paper feeder)	
	Cassette3	Cassette 3 (optional paper feeder)	
	Duplex	Duplex unit	
	* : When an optional p	aper feed device is not installed, the corresponding count is not dis-	
	2. Select the counts for a	ette3] cannot be cleared. Il and press [Clear]. e counter value is cleared.	
	•	reen for selecting a maintenance item No. is displayed.	

Item No.	Description		
U903	Checking/clearing the paper jam counts		
	Description Displays or clears the jam counts by jam locations. Purpose To check the paper jam status. Also to clear the jam counts after replacing consumable parts. Method 1. Press the start key. 2. Select the item.		
		Description	
		-	
	Total Cnt	Displays the total jam counts	
	Select the item. Display Description Cnt Displays/clears the jam counts		

Item No.		Description
U904	Checking/clearing the call f	or service counts
	Description Displays or clears the service Purpose To check the service call code Also to clear the service call c	
	Method 1. Press the start key. 2. Select the item.	
	Display	Description
	Cnt	Displays/clears the call for service counts
	Total Cnt	Displays the total call for service counts
	Codes for which the coun 2. Change the screen using 3. Select the count value for The individual counter car 4. Press the start key. The c Method: [Total Cnt] 1. Select [Total Cnt]. The total 2. Change the screen using The total number of service Completion	service call code and press [Clear]. nnot be cleared. ounter value is cleared. al number of service call counts by type is displayed.

Item No.			Description				
U905	Checking counts by	option	al devices				
	Purpose		t processor or document finisher.				
	Method 1. Press the start ke 2. Select the device		necked. The count of the selected device is displayed.				
	Display		Description				
	DP		Counts of document processor				
	DF		Counts of document finisher				
	DP						
	Display		Description				
	ADP	Cour	ts of single-sided originals that has passed through the DP				
	RADP	Cour	its of double-sided originals that has passed through the DP				
	DF						
	Display		Description				
	Sorter		Counts of copies that has passed through the sorter				
	Staple		Frequency the stapler has been activated				
U910	Completion Press the stop key. T		en for selecting a maintenance item No. is displayed.				
	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). Purpose To clear data as required at times such as during maintenance service.						
	Method 1. Press the start key. 2. Select [Execute]. 3. Press the start key. The print coverage data is cleared.						
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.						

Item No.	Description
U917	Setting backup data reading/writing
	Description
	Retrieves the backup data to a USB memory from the machine; or writes the data from the USB memory to the machine.
	Purpose
	Machine information is backed up and restored.
	Method
	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.

Display	Description
Import	Writing data from the USB memory to the machine
Export	Retrieving from the machine to a USB memory

7. Select the item.

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 managements
Shortcut	Shortcut information	Job accountings, user managements and document box information
Document Box	Document box information	Job accountings and user managements
Fax Forward	FAX transfer information	Job accountings, user managements and document box information
IC Card	IC Card information	-

- * : Since data are dependent with each other, data other than those assigned are also retrieved or written in.
- 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].

Item No.		Desci	ription	
U917	Error Cod	es		
	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

tem No.		Descripti	on	
U917	Error Cod	es		
	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	File copy error to the USB	
	Suppleme The total a ues are 10	of the counts back to zero.	ter can be	e cleared only once if all count va
	2. Select	the start key. [Execute]. the start key. All copy counts and machine	e life coun	ts are cleared.
	Completic Press the	on stop key. The screen for selecting a maint	enance ite	em No. is displayed.

Item No.		Descriptio	n		
U942	Setting of deflection	on for feeding from DP			
	Purpose	on generated when the document original non-feed jam, oblique fee or is used.			al occurs when the
	Press the syste Select the item	em menu key. al on the DP and press the start ke em menu key.			.I
	Display	Description	Setting range	Initial setting	Change in value per step
	Front	Deflection of DP paper feed motor (DPPFM)	-50 to 50	0	0.119 mm
	Back	Deflection of DP switchback motor (DPSBM)	-50 to 50	0	0.119 mm
	of original of 7. Press the start Completion	I non-feed jam or oblique feed occ ccurs, decrease the value. key. The value is set. The screen for selecting a mainte			

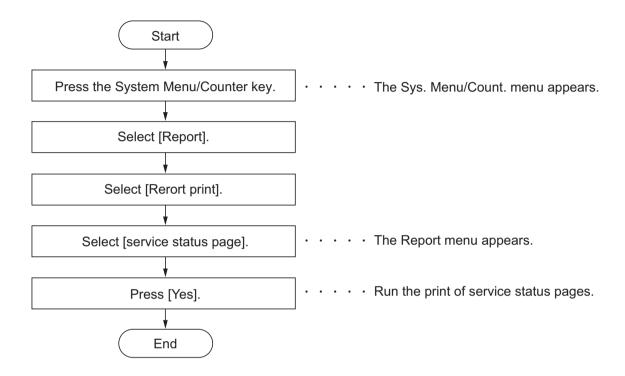
	Description					
Data capture mode						
Description						
Store the print data sent to the	e machine into USB memory.					
Purpose						
In case to occur the error at printing, check the print data sent to the machine.						
gone off, switch off the ma 2. Insert USB memory in US 3. Turn the main power switch 4. Enter maintenance item US 5. Select [Execute]. 6. Press the start key. 7. Send the print data to the Once the print data is stor	BB memory slot. ch on. J977.					
Checking the developing ur	nit number					
Description						
Displays the developing unit r	number.					
-	number.					
	developing unit number for each color is displayed.					
	Description					
С	Cyan developing unit number					
M	Magenta developing unit number					
Y	Yellow developing unit number					
K	Black developing unit number					
Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.						
	Description Store the print data sent to the Purpose In case to occur the error at p Method 1. Press the power key on the gone off, switch off the material data. Turn the main power swite. 3. Turn the main power swite. 4. Enter maintenance item U. S. Select [Execute]. 6. Press the start key. 7. Send the print data to the Once the print data is store. Completion Press the stop key. The screen completed in Displays the developing unit repurpose. To check the developing unit repurpose. To check the developing unit repurpose. Method 1. Press the start key. The Display C M Y K Completion					

Item No.		Description			
U985	Displaying the developer h	istory			
	Description Displays the past record of machine number and the developer counter. Purpose To check the count value of machine number and the developer counter.				
	Method 1. Press the start key. 2. Select the color to check				
	Display	Description			
	С	Cyan developing unit past record			
	M	Magenta developing unit past record			
	Y	Yellow developing unit past record			
	К	Black developing unit past record			
	The history of a machine three cases.	number and a developing counter for each color is displayed by			
	Display	Description			
	Machine History 1 - 3	Historical records of the machine number			
	Cnt History 1 - 3	Historical records of developer counter			
	Completion Press the stop key. The screen	en for selecting a maintenance item No. is displayed.			

1-3-2 Service mode

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

(1) Printing the service status page



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

ice items	Description						
	Service status	page	(1)				
N	Service St				(3)	(2) 2011/09/2 (4)	(5)
(1)	Firmware version 2M	Y_2F00.	001.001 2011.09.2	28	[XXXXXXXX]	[XXXXXXXX] [XXX	(XXXXX)
-							
(Controller Inform	nation	l				
ļ ₍ .	Memory status 7) Standard Size		128.0 KB	(29)	FRPO Status		
,	8) Option Slot		128.0 KB	(23)	User Top Margin	A1+A2/100	0.00
	9) Total Size		256.0 KB		User Left Margin	A3+A4/100	0.00
	Time						
(10	0) Local Time Zone		+01:00 Tokio		•		
	1) Date and Time		10/10/2010 12:00		•		
	2) Time Server		10.183.53.13				
	Installed Options						
(1:	3) Paper feeder		Cassette		-		
	4) Finisher		500-Finisher				
	5) Card Authentication	Kit (B)			•		
	6) USB Keyboard	()	Connected		•		
	7) USB Keyboard Type	Э	US -English		•		
(18	8) UG-33		Installed		•		
	Print Coverage				•		
(19		/ Usage	Page(A4/Letter Co	nversion)			
(20	0) Total		- ,	•			
	K: 1.10	/ 111111	11.11				
	C: 2.20	/ 22222					
	M: 3.30	/ 33333					
(2)	Y: 4.40	/ 44444	44.44		•		
(2	1) Copy K: 1.10	/ 111111	11 11		·		
	C: 2.20	/ 22222			•		
	M: 3.30	/ 33333			PDF mode	Y5	00
	Y: 4.40	/ 44444			. 51 111000	. 0	
(2:	2) Printer						
	K: 1.10	/ 111111					
	C: 2.20	/ 22222					
	M: 3.30	/ 33333					
(2)	Y: 4.40 3) FAX	/ 44444	44.44				
(2,	,	/ 111111	11 11				
(24	4) Period)/2009 - 03/11/2009 (08:40)			
	5) Last Page K/C/M/Y		00 / 2.22 / 3.33 / 4.4	,			
(2)	FAX Information	^					
	6) Rings (Normal) 7) Rings (FAX/TEL)	3 3					
	7) Rings (FAX/TEL) 8) Rings (TAD)	3					
(2)	, mgs (IAD)						
				1	(6) [XXXXXXXXXX	XXXXXX]
<u>_</u>							
				Figure	1-3-21		

ice items	Description									
	Service status pag	je (2)								
C	Service Stat	us Page								
	FP	us i age		2011/09/028 15:15						
	Firmware version 2MY_2F	00.001.001 2011.09.28	[XXXXXXX] [XXX	XXXXXX] [XXXXXXXXX]						
1	ngine Information		Send Informat	ion						
	NVRAM Version	_1F31225_1F31225	(34) Date and Time	09/03/05 15:30						
(31) FAX		(35) Address							
	FAX BOOT Version	2K3_5000.001.001								
	FAX APL Version	2K3_5100.001.001								
(32	FAX IPL Version	2K3_5200.001.001								
	MAC Address	00:C0:EE:D0:01:0D								
(33	DP Counters Total	1234								
	iotai	1234								
	1/2 (36) (37)									
) 100/100									
) 0/0/0/0/0									
	0/0/0/0/0									
(41) 0/0/0/0/0/0/0/0/									
(42	,	0/0000000/0000000/0000000/								
		0/000000/0000000/000000/00								
		70/0/0/abcde/1/0 (43) (44) (4) (51)						
		(52) (53) (5	4) (55) (56) (57)							
(58	(52) (53) (54) (55) (56) (57) (5) 0000/0000/0000/0000/0000/0000/0000/00									
/=0	0000/0000/0000/0000/0000/0000/0000/0000/0000									
(59	•	0/0000/0000/0000/0000/0000/00								
(00		0/0000/0000/0000/0000/0000/00								
		000000000000/00000000000000000000000000								
		000000000000000000000000000000000000000		0000/						
1:	:	000000000000000000000000000000000000000								
1	<u>'</u>	000000000000000000000000000000000000000		, /						
1 : .	:	000000000000/00000000000000000000000000		. '						
	•	000000000000000000000000000000000000000		\ \						
1 .	<u>'</u>	000000000000000000000000000000000000000		000000 / (0000000/						
1 :	:	000000000000000000000000000000000000000								
1:	:	000000000000000000000000000000000000000		/ /						
		000000000000000000000000000000000000000								
(70 73 4) 000000000000000000000000000000000000	000000000000000000000000000000000000000	00/000000000000000000000000000000000000	0000000000/						
		000000000000000000000000000000000000000								
(12	•	1234abcd567800001234abcd56								
		1234abcd567800001234abcd56								
		1234abcd567800001234abcd56								
		1234abcd567800001234abcd56	78/01234567890123456789012	2345678901/0008/00/07						
	2KV_D100.001.005/0/ (75	, , ,								
	[3NN_9000.001.016] (75		\ /77\ /79\							
	[2KX_81BR.001.010] [ABC	DEFGHIJ] [ABCDEFGHIJ] (76) (11) (1 0)	000/00000000/ /70\						
		/302A183C00/000100013D/879	IBEC305/00000000000/0000000	000/000000000/ (19)						
	000000000000000000000000000000000000000	000000000/00								
-	_{0/3/} (80) (81)									
-	1/ (82)	OUT III /ADODEEO:	NEE OLUMBIA (02)							
l _	ABCDEFGHIJKL/ABCDEF	GHIJKL/ABCDEFGHIJKL/ABCE		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						

Figure 1-3-22

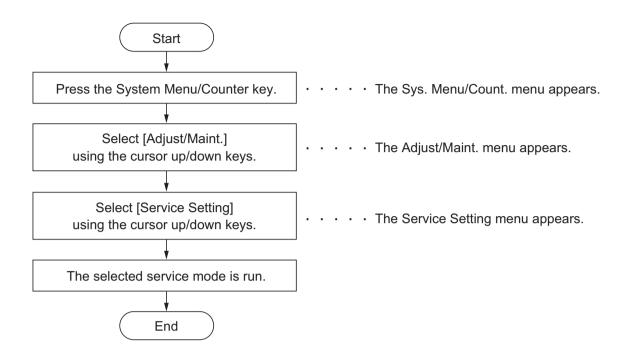
Service items	5	Description							
		Detail of service status page							
No	э.	Description	Supplement						
(1)	Firmware version	-						
(2	2)	System date	-						
(3	3)	Engine soft version	-						
(4	·)	Engine boot version	-						
(5	5)	Operation panel mask version	-						
(6	5)	Machine serial number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

Service items	Description								
No	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/Drum unit C/Drum unit M/Drum unit Y/ Intermediate transfer unit/Developer unit K/ Developer unit C/Developer unit M/Developer unit Y/Maintenance kit							
(43	Panel lock information	0: OFF/1: Partial lock/2: Full lock							

Service items	Description									
No.	Description	Supplement								
(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)	Color printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length)								
(47)	Black and white printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length)								
(48)	Billing counting timing	-								
(49)	Temperature (machine inside)	-								
(50)	Temperature (machine outside)	-								
(51)	Relative temperature (machine outside)	-								
(52)	Absolute temperature (machine outside)	-								
(53)	Thermistor temperature (LSU)	-								
(54)	Thermistor temperature (LSU2)	-								
(55)	Fixed assets number	-								
(56)	Job end judgment time-out time	-								
(57)	Job end detection mode	-								
(58)	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								
(59)	Calibration information	-								
(60)	Calibration information	76 Bytes								
(61)	The initial characteristic of a sensor	37 Bytes								
(62)	Calibration information	24 Bytes								
(63)	Calibration information	64 Bytes								
(64)	Calibration information	48 Bytes								

Service items		Description														
		<u> </u>														
	No.	Description						Supplement								
	(65)	Calibration information						64 Bytes								
	(66)	Calibration information						64 Bytes								
	(67)	The amount of gaps of resist compensation						tes								
	(68)	The interval tion	of res	sist co	mpen	sa-	56 Bytes									
	(69)	Patch length	of re	sist co	omper	nsa-	64 By	tes								
	(70)	Calibration i	nform	ation			64 By	tes								
	(71)	Calibration i	nform	ation			64 By	tes								
	(72)	RFID inform	ation				-									
	(73)	RFID reader/writer version information					-									
	(74)	Toner install mode information					0: Off t: On									
	(75)	Soft version of the optional paper feeder					Paper feeder 1/Paper feeder 2									
	(76)	Version of the optional message						-								
	(77)	Version of th		-												
	(78)	Version of s	econo	color	table		-									
	(79)	Maintenance	e info	rmatio	n		-									
	(80)	Altitude	0: Standard 1: High altitude 1 2: High altitude 2													
	(81)	Charger roll		1 to 5												
	(82)	Shift restrict original	0:Off 1:On													
	(83)	Drum serial		Black/Cyan/Magenta/Yellow												
			Α	В	С	D	Е	F	G	Н	I	J]			
			0	1	2	3	4	5	6	7	8	9	-			
													J			

(2) Executing a service mode



(3) Description of service mode

Service items	Description
Enable	Release the disconnection of the cassette and the document feeder.
Repaired Unit	
	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.
	Purpose
	Perform when the defective unit is replaced.
	Method
	1. Enter the service menu.
	2. Select [Enable Repaired Unit].
	3. Press [Start].
	Completion
	The unit is automatically powered after execution.

Service items	Description
Maintenance (A)	Reset the counter of the maintenance kit(A).
	Description Reset the kit counter when replacing the maintenance kit. The menu is displayed only when replacing the maintenance kit. Purpose
	Perform when the maintenance kit is replaced.
	Method 1. Enter the service menu. 2. Select [Maintenance (A)]. 3. Press [Start].
	Completion Automatically completes when the confirmation display is shown.
Maintenance (B)	Reset the counter of the maintenance kit(B).
	Description Reset the kit counter when replacing the maintenance kit. The menu is displayed only when replacing the maintenance kit. Purpose Perform when the maintenance kit is replaced. Method 1. Enter the service menu. 2. Select [Maintenance (B)]. 3. Press [Start]. Completion Automatically completes when the confirmation display is shown.

Service items	Description
Center line	Alignment of the cassette and MP tray and duplex
alighment	Description
	Description Perform settings for the center line adjustment.
	a chain county or the content of adjacentonic
	Purpose
	Perform if the alignment has not been obtained after the center line adjustment.
	Method
	1. Enter the service menu.
	Select [Center Line Adjustment].
	3. Press [Save].
	Completion
	Press the Save key in the setting display.

Service items	Description				
FAX country	Description Initializes software switches and all data in the backup data on the FAX control PWB, according to the destination. Purpose To initialize the FAX control PWB. Method 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.				
ode					
	Destination co	de list			
	Code	Destination	Code	Destination	
	000	Japan	253	CTR21 (European nations)	
	009	Australia		Italy	
	038	China		Germany	
	080	Hong Kong		Spain	
	084	Indonesia		U.K.	
	088	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			
	Completion Press the stop I	key.			

Service items			Description		
FAX call Setting	FAX	FAX call setting			
	Description Selects if a fax is to be connected to either a PBX or public switched telephone net Selects the mode to connect an outside call when connected to a PBX. Access code registration for connection to PSTN. Purpose To be executed as required. Method 1. Enter the Service Setting menu. 2. Select [FAX Call Set.] using the cursor up/down keys. 3. Press the start key.				
		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		
	2. 3. 4. Sett 1. 2. 3. 4. Sett 1. 2. 3. 4. Cor	Setting the connection to PBX/PSTN 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. Setting for PBX 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. Setting access code to PSTN 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. Completion Press the stop key.			

Service items	Description
Altitude	Setting altitude adjustment
adjustment	Description Sets the altitude adjustment mode. Purpose Used when print quality deteriorates in an installation at the altitude of 1,500 meters or higher. Method 1. Enter the Service Setting menu. 2. Select [Altitude Adj.]. 3. Press the start key. 4. Select [Normal], [High 1], [High 2] or [High 3)]. 5. Press the start key. The setting is set.
	Completion Press the stop key.
Main charger adjustment	Setting main charger output Description Sets the main charger output. This is executable only when the altitude adjustment mode is set to [Normal]. Purpose Execute when the image density declines or an offset has occurred. Method 1. Enter the Service Setting menu. 2. Select [MC]. 3. Press the start key. 4. Select [1], [2], [3], [4] or [5]. 5. Press the start key. The setting is set. Completion Press the stop key.

Service items	Description
Developer	Setting developer cleaning
cleaning	
	Description Execute toner discharging and replenishing repeatedly to cast the deteriorated toner out
	of the developer unit.
	Purpose
	The deterioration of image due to the low development density and blurring will be
	reduced.
	Method
	Enter the Service Setting menu.
	2. Select [DEV-CLN].
	3. Press [Start].
	Completion
	Press the [OK] key in the confirmation display.
Main chager	Setting main chager roller cleaning
roller cleaning	Jetting main chager roller cleaning
	Description
	White streaks are resulted by the conductive substance, soaked in the charging roller,
	being adhered at a nip formed between the charging roller and the drum when they have
	been left inactive for a prolonged period. White streaks are prevented by rotating the drum before the image is formed, because the conductive substance is scraped off with
	the cleaning blade.
	OFF: Aging to cancel bleeding is not performed.
	OFF: Aging to cancel bleeding is performed.
	Purpose
	Conduct when white streaks are resulted in the lengthwise direction of the drum.
	Method
	Enter the Service Setting menu.
	2. Select [MC-CLN].
	3. Select [OFF] or [ON].

Service items	Description
Memory	Perform a memory diagnostic
Diagnostics	
	Description Diagnose memory at power up (whether reading and writing are executable).
	Purpose
	Execute memory check in purpose of rectifying a defective memory device which may possibly cause an unresolvable F call, locking, or abnormal images.
	Method
	Enter the Service Setting menu.
	2. Select [Memory Diagnostics].
	3. Press [Start].4. Turn the main power switch off and on. Allow more than 5 seconds between Off and
	On.

1-4-1 Paper misfeed detection

(1) Paper misfeed indication

When a paper misfeed occurs, the machine immediately stops copying and displays the jam location on the operation panel.

Paper misfeed counts sorted by component can be checked by maintenance item U903.

To remove the paper jammed in the machine, open the right cover and pull the cassette out.

To remove the original jammed in DP or the document finisher, open the top cover.

Paper misfeed can be reset by opening and closing the respective covers.

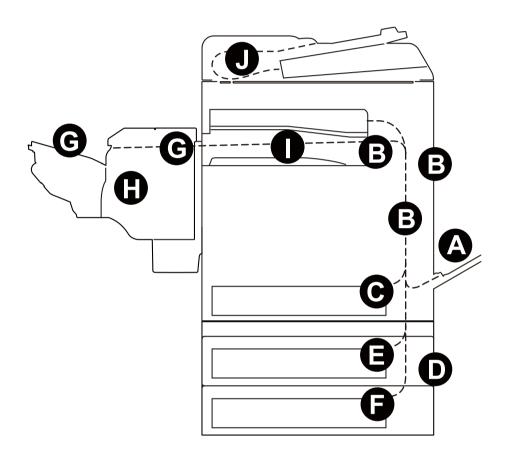


Figure 1-4-1

- (A) Misfeed in the MP tray
- (B) Misfeed in right cover 1
- (C) Misfeed in cassette 1
- (D) Misfeed in right cover 3
- (E) Misfeed in cassette 2
- (F) Misfeed in cassette 3
- (G) Misfeed in the document finisher
- (H) Stapler problem
- (I) Misfeed in the bridge
- (J) Misfeed in the document processor

(2) Paper misfeed detection component

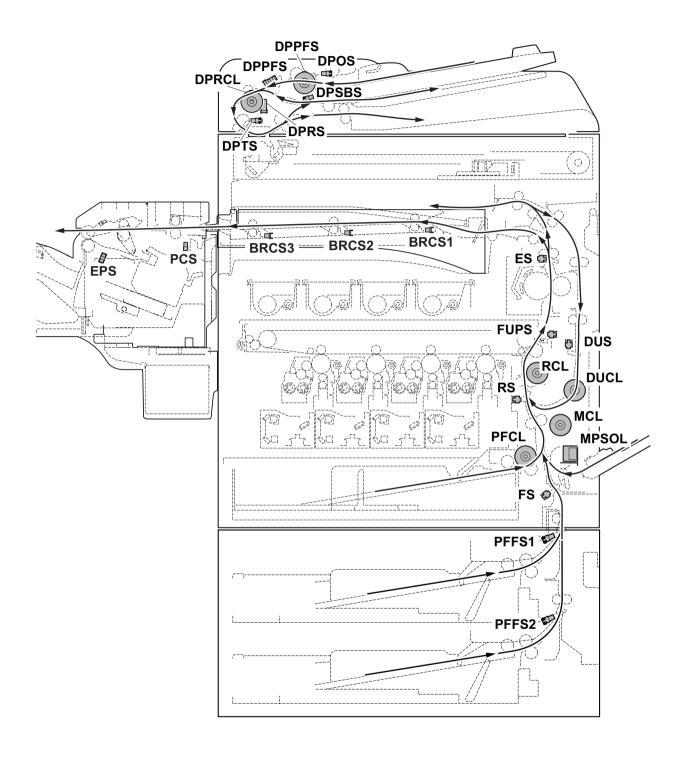


Figure 1-4-2

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.	В
0101	Waiting for process package to be ready	Process package won't be ready.	В
0104	Waiting for conveying package to be ready	Conveying package won't be ready.	В
0106	Paper feeding request for duplex printing time out	Paper feeding request for duplex printing given by the controller is unreachable.	В
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.	В
0121	Exceeding number of duplex pages circulated	The controller issued the duplex section a request for more pages than the duplex print cycle contains.	В
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.	С
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).	E
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).	F
0508	No paper feed from duplex section	The registration sensor (RS) does not turn on during paper feed from the duplex section.	В
0509	No paper feed from MP tray	The registration sensor (RS) does not turn on during paper feed from the MP tray.	Α
0511	Multiple sheets in cassette 1	The registration sensor (RS) does not turn off during paper feed from cassette 1.	С
0512	Multiple sheets in cassette 2	PF feed sensor 1 (PFFS1) does not turn off during paper feed from cassette 2.	E
0513	Multiple sheets in cassette 3	PF feed sensor 2 (PFFS2) does not turn off during paper feed from cassette 3.	F
0518	Multiple sheets in duplex section	The registration sensor (RS) does not turn off during paper feed from the duplex section.	В
0519	Multiple sheets in MP tray	The registration sensor (RS) does not turn off during paper feed from theMP tray.	А

^{*:} 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.	D
1413	PF feed sensor 1 stay jam	PF feed sensor 1 (PFFS1) does not turn off during paper feed from cassette 3.	D
4002	Registration sensor non arrival jam	The registration sensor (RS) does not turn on during paper feed from cassette 2.	D
4003		The registration sensor (RS) does not turn on during paper feed from cassette 3.	D
4012	Registration sensor stay jam	The registration sensor (RS) does not turn off during paper feed from cassette 2.	D
4013		The registration sensor (RS) does not turn off during paper feed from cassette 3.	D
4101	Fuser pre sensor non arrival jam	The fuser pre sensor (FUPS) does not turn on during paper feed from cassette 1.	В
4102		The fuser pre sensor (FUPS) does not turn on during paper feed from cassette 2.	В
4103		The fuser pre sensor (FUPS) does not turn on during paper feed from cassette 3.	В
4108		The fuser pre sensor (FUPS) does not turn on during paper feed from duplex section.	В
4109		The fuser pre sensor (FUPS) does not turn on during paper feed from MP tray.	В
4111	Fuser pre sensor stay jam	The fuser pre sensor (FUPS) does not turn off during paper feed from cassette 1.	В
4112		The fuser pre sensor (FUPS) does not turn off during paper feed from cassette 2.	В
4113		The fuser pre sensor (FUPS) does not turn off during paper feed from cassette 3.	В
4118		The fuser pre sensor (FUPS) does not turn off during paper feed from the duplex section.	В
4119		The fuser pre sensor (FUPS) does not turn off during paper feed from the MP tray.	В

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

Code	Contents	Conditions	Jam location*
4201	Eject sensor non arrival jam	The eject sensor (ES) does not turn on during paper feed from cassette 1.	В
4202		The eject sensor (ES) does not turn on during paper feed from cassette 2.	В
4203		The eject sensor (ES) does not turn on during paper feed from cassette 3.	В
4208		The eject sensor (ES) does not turn on during paper feed from duplex section.	В
4209		The eject sensor (ES) does not turn on during paper feed from MP tray.	В
4211	Eject sensor stay jam	The eject sensor (ES) does not turn off during paper feed from cassette 1.	В
4212		The eject sensor (ES) does not turn off during paper feed from cassette 2.	В
4213		The eject sensor (ES) does not turn off during paper feed from cassette 3.	В
4218		The eject sensor (ES) does not turn off during paper feed from the duplex section.	В
4219		The eject sensor (ES) does not turn off during paper feed from the MP tray.	В
4301	Duplex sensor non arrival jam	The duplex sensor (DUS) does not turn on during paper feed from cassette 1.	В
4302		The duplex sensor (DUS) does not turn on during paper feed from cassette 2.	В
4303		The duplex sensor (DUS) does not turn on during paper feed from cassette 3.	В
4309		The duplex sensor (DUS) does not turn on during paper feed from the MP tray.	В
4311	Duplex sensor stay jam	The duplex sensor (DUS) does not turn off during paper feed from cassette 1.	В
4312		The duplex sensor (DUS) does not turn off during paper feed from cassette 2.	В
4313		The duplex sensor (DUS) does not turn off during paper feed from cassette 3.	В
4319		The duplex sensor (DUS) does not turn off during paper feed from the MP tray.	В

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

Code	Contents	Conditions	Jam location*
4901	Bridge conveying sensor 1 non arrival jam	The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 1.	В
4902		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 2.	В
4903		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from cassette 3.	В
4908		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from duplex section.	В
4909		The bridge conveying sensor 1 (BRCS1) does not turn on during paper feed from the MP tray.	В
4911	Bridge conveying sensor 1 stay jam	The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 1.	_
4912		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 2.	I
4913		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from cassette 3.	-
4918		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from duplex section.	_
4919		The bridge conveying sensor 1 (BRCS1) does not turn off during paper feed from the MP tray.	Ι
5001	Bridge conveying sensor 3 non arrival jam	The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 1.	_
5002		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 2.	1
5003		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from cassette 3.	I
5008		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from the duplex section.	I
5009		The bridge conveying sensor 3 (BRCS3) does not turn on during paper feed from theMP tray.	I
5011	Bridge conveying sensor 3 stay jam	The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 1.	I
5012		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 2.	I
5013		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from cassette 3.	I
5018		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from duplex section.	I
5019		The bridge conveying sensor 3 (BRCS3) does not turn off during paper feed from the MP tray.	I

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

Code	Contents	Conditions	Jam location*
6023	Staple cover open	The staple cover is opened during operation.	G
6043	DF top cover open	The DF top cover is opened during operation.	G
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.	_
6113	DF paper conveying sensor stay jam	The paper conveying sensor (PCS) does not turn off within the specified time of its turning on.	G
6123	DF paper conveying sensor remaining jam	The paper conveying sensor (PCS) does not turned on when the power is turned on or the cover is closed.	D
6413	DF eject paper sensor stay jam	The eject paper sensor (EPS) does not turn off within the specified time.	G
6423	DF eject paper sensor remaining jam	The eject paper sensor (EPS) does not turned on when the power is turned on or the cover is closed.	G
6803	Front adjustment plate operation ON error	The adjustment sensor 1 (ADS1) does turned on when the job is executed.	Н
6813	Front adjustment plate operation OFF error	The adjustment sensor 1 (ADS1) does not turned off when the job is executed.	Н
6903	Rear adjustment plate operation ON error	The adjustment sensor 2 (ADS2) does not turned on when the job is executed.	Н
6913	Rear adjustment plate operation OFF error	The adjustment sensor 2 (ADS2) does not turned off when the job is executed.	Τ
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.	Н
7023	Staple initial operation error	Head-poking has not been accomplished after 10 attempts in the initialization at power up or closing the cover.	Н
7913	Sequence error 1 (operation prohibited)	Operation commenced in the state the finisher is prohibited to operate.	G
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.	G
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.	G
7943	Sequence error 4 (standby)	Operation has started in the state standby is prohibited.	G
7953	Sequence error 5 (Error in between copies)	An illegal inter-page or inter-copy interval has occurred.	G

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

Code	Contents	Conditions	Jam location*
7963	Sequence error 6	The finisher does not deliver the eject-complete command in 15 seconds after the bridge eject sensor is turned off.	G
9001	DP original conveying jam	DP timing sensor (DPTS) turns off within the specified time since the sensor turns on.	J
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.	J
9010	DP open	The DP is opened during original feeding. Sensor in the conveying system is on when the power is turned on or the cover is closed.	1
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 the specified time of the DP timing sensor (DPTS) turning on.	J
9200	DP registration sensor non arrival jam	The DP registration sensor (DPRS) does not turn on within the specified time of the DP paper feed sensor (DPPFS) turning on.	J
9400	DP timing sensor non arrival jam	The DP timing sensor (DPTS) does not turn on within the specified time of the DP registration sensor (DPRS) turning on (Retry 5 times).	J
9410	DP timing sensor stay jam	The DP timing sensor (DPTS) does not turned off within the specified time its turning on.	J

^{*:} 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 with service personnel and a four-digit error code indicating the type of the error.

(2) Self-diagnostic codes

If the part causing the problems not designated as a service part, replace the assembly comprising the part.

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.
0070	FAX control PWB incompatible detection error In the initial communication with the FAX control PWB, the normal communication com-	Defective FAX software. Defective FAX control PWB.	Install the fax software. Replace the fax control PWB and check for correct operation.
0100	mand is not transmitted. Backup memory device error	Defective flash memory. Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
0120	MAC address data error The data includes an invalid MAC address.	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-31).
	ivii to addi occi.	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
0130	Backup memory read/write error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-31).
		Defective main PWB.	
0140	Backup memory data error (main PWB)	Defective flash memory.	Replace the main PWB and check for correct operation (see page 1-5-31).
		Defective main PWB.	

Code	Contents	Causes	Check procedures/ corrective measures
0150	Backup memory read/write error (engine PWB) Detecting engine PWB EEPROM communication	The engine PWB EEPROM was improperly installed.	Check the EEPROM is properly installed and remedy if necessary.
	error.	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
		Defective EEPROM.	Contact the Service Administrative Division.
0160	Backup memory data error (engine PWB)	Defective flash memory. Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
0170	Billing counting error A checksum error is detected	Data in the EEPROM .	Contact the Service Administrative Division.
	in the main and engine backup memories for the billing counters.	Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1-5-31, 1-5-32).
0180	Machine number mismatch Machine number of main and engine does not match.	Data in the 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 1-5-31,1-5-32)
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 1-5-31).
0800	Image processing error The JAM100 fee counter is continuously generated.	Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
0830	FAX control PWB flash program area checksum error	Defective FAX soft- ware.	Install the fax software.
	A checksum error occurred with the program of the FAX control PWB.	Defective FAX control PWB.	Replace the FAX control PWB.

Code	Contents	Causes	Check procedures/ corrective measures
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 1-5-31).
0870	FAX control PWB to main PWB high capacity data transfer error	Improper installation FAX control PWB.	Reinstall the FAX control PWB.
	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.	Defective FAX control PWB or main PWB.	Replace the FAX control PWB or main PWB and check for correct operation (see page 1-5-31).
0920	Fax file system error The backup data is not retained for file system abnor- mality of flash memory of the FAX control PWB.	Defective FAX control PWB.	Replace the FAX control PWB and check for correct operation.
1010	Lift motor error After cassette 1 is inserted, the lift sensor does not turn on within 12 s. This error is	Defective bottom plate elevation mechanism in the cassette.	Check to see if the bottom plate can move smoothly and repair any problem that is found.
	detected four times successively.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, 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 necessary.
		Defective lift motor.	Replace the lift motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
1020	PF lift motor 1 error (paper feeder) After cassette 2 is inserted, PF lift sensor 1 does not turn on within 12 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 any problem that is found.
		Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, 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 necessary.
		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 of the paper feeder).
1030	PF lift motor 2 error (paper feeder) After cassette 3 is inserted, PF lift sensor 2 does not turn on within 12 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 of the connector cable. If necessary, 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 of the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1800		Improper installation of the paper feeder.	Follow the installation instruction carefully again.
	detected 10 times in succession.	Defective connector cable or poor contact of the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, 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 1-5-32).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual of the paper feeder).
1900	Paper feeder EEPROM error When writing the data, the	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual of the paper feeder).
	write data and the read data is not continuously in agreement 4 times.	Device damage of EEPROM.	Contact the Service Administrative Division.
1950	Transfer belt unit EEPROM error	Defective transfer PWB.	Replace the transfer PWB and check for correct operation.
	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.	Device damage of EEPROM.	Contact the Service Administrative Division.
2101	Developer motor K steady- state error The rated speed signal detected the stability OFF	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, replace the cable. Developer motor K and engine PWB (YC4)
	continuously for 1 s after the developer motor K stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if necessary.
		Defective motor.	Replace the Developer motor K.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
2102	2102 Developer motor YCM steady-state error The rated speed signal detected the stability OFF continuously for 1 s after the	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 motor YCM and engine PWB (YC3)
	developer motor YCM stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Developer motor YCM.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2111	Developer motor K startup error Developer motor K is not sta- bilized within 2 s since the	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, replace the cable. Developer motor K and engine PWB (YC4)
	motor is activated.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if necessary.
		Defective motor.	Replace the Developer motor K.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2112	Developer motor YCM startup error Developer motor YCM is not stabilized within 2 s since the motor is activated.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If necessary, replace the cable. Developer motor YCM and engine PWB (YC4)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if necessary.
		Defective motor.	Replace the Developer motor YCM.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
2201	Drum motor K steady-state error The rated speed signal detected the stability OFF	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 motor K and engine PWB (YC3)
	continuously for 1 s after the drum motor K stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Drum motor K.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2202	Drum motor YCM steady- state error The rated speed signal detected the stability	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 motor YCM and engine PWB (YC3)
	OFFcontinuously for 1 s after the drum motor YCM stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Drum motor YCM.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2211	Drum motor K startup error Drum motor K is not stabilized within 2 s since the 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. Drum motor K and engine PWB (YC3)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Drum motor K.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2212	Drum motor YCM startup error Drum motor YCM is not stabi- lized within 2 s since the	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 motor YCM and engine PWB (YC3)
	motor is activated.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Drum motor YCM.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
2300	Fuser motor steady-state error The rated speed signal detected the stability OFF	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 motor and engine PWB (YC4)
	continuously for 1 s after the fuser motor stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Fuser motor.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2310	Fuser motor startup error Fuser motor is not stabilized within 2 s since the 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. Fuser motor and engine PWB (YC3)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the fuser motor.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2550	Conveying motor steady- state error The rated speed signal detected the stability OFF	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. Conveying motor and engine PWB (YC2)
	continuously for 1 s after the conveying motor stabilizes.	Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the Conveying motor.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
2560	Conveying motor startup error Conveying motor is not stabilized within 2 s since the 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. Conveying motor and engine PWB (YC2)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the conveying motor.
		Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
2600	PF drive motor error (paper feeder) When the PF drive motor is driven, error signal 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. PF drive motor and PF main PWB (YC2)
	continuously for 1 s.	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.
		Defective motor.	Replace the PF drive motor.
		Defective PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
2700	TC belt motor error When the TC belt motor is driven, error signal is detected continuously for 1 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. TC belt motor and TC PWB(YC2) TC PWB and TC connect PWB(YC1) TC connect PWB and engine PWB(YC5)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the TC belt motor.
		Defective PWB.	Replace the engine PWB or TC PWB or TC connect PWB check for correct operation (see page 1-5-32).
3100	ISU home position error ON/OFF of the HP sensor doesn't change by retrying, after a prescribed pulse passes from power supply	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)
	ON.	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 1-5-21).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
3200	Exposure lamp error The peak count during CCD turned on does not count up for 300 seconds. When the white standard data	Defective connector cable or poor contact of the connector.	Reinsert the connector. Also check for continuity within the connector cable. If necessary, replace the cable. LED PWB and main PWB (YC112) CCD PWB and main PWB (YC113)
	at the time of an initial is lower than a rated value.	Defective exposure lamp.	Replace the image scanner unit (see page 1-5-21).
		Defective CCD PWB.	
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
3500	Communication error A wrong read-back 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. CCD PWB and main PWB (YC113)
		Defective CCD PWB.	Replace the image scanner unit (see page 1-5-21).
		Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
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 1-5-31 or 1-5-32).
4001	Polygon motor (K) steady- state error The rated speed signal detected the stability OFF continuously for 1 s after the polygon motor (K) stabilizes.	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 (K) and LSU connect PWB(YC5) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (K).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4002	Polygon motor (C) steady- state error The rated speed signal detected the stability OFF continuously for 1 s after the polygon motor (C) stabilizes.	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 (C) and LSU connect PWB(YC6) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (C).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
4003	Polygon motor (M) steady- state error The rated speed signal detected the stability OFF continuously for 1 s after the polygon motor (M) stabilizes.	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 (M) and LSU connect PWB(YC7) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (M).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4004	Polygon motor (Y) steady- state error The rated speed signal detected the stability OFF continuously for 1 s after the polygon motor (Y) stabilizes.	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 (Y) and LSU connect PWB(YC8) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (Y).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4011	Polygon motor (K) startup error Polygon motor (K) is not stabilized within 10 s since the 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. Laser scanner unit (K) and LSU connect PWB(YC5) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (K).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4012	Polygon motor (C) startup error Polygon motor (C) is not stabilized within 10 s since the 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. Laser scanner unit (C) and LSU connect PWB(YC6) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (C).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
4013	Polygon motor (M) startup error Polygon motor (M) is not stabilized within 10 s since the 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. Laser scanner unit (M) and LSU connect PWB(YC7) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (M).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4014	Polygon motor (Y) startup error Polygon motor (Y) is not stabilized within 10 s since the 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. Laser scanner unit (Y) and LSU connect PWB(YC8) LSU connect PWB and engine PWB (YC12)
		Defective motor.	Replace the Laser scanner unit (Y).
		Defective PWB.	Replace the engine PWB or LSU connect PWB and check for correct operation (see page 1-5-32).
4101	BD initialization problem (K) BD is not detected within one second after the polygon motor stabilizes.	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. BDPWB and APCPWB APCPWB and LSU connect PWB (YC1) LSU connect PWB and engine PWB (YC12)
		Defective APCPWB.	Replace the Laser scanner unit (K). (see page 1-5-20)
		Defective BDPWB.	
		Defective Main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
4102	BD initialization problem (C) BD is not detected within one second after the polygon motor stabilizes.	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. BDPWB and APCPWB APCPWB and LSU connect PWB (YC2) LSU connect PWB and engine PWB (YC12)
		Defective APCPWB.	Replace the Laser scanner unit (C). (see page 1-5-20)
		Defective BDPWB.	
		Defective Main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).

Code	Contents	Causes	Check procedures/ corrective measures
4103	BD initialization problem (M) BD is not detected within one second after the polygon motor stabilizes.	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. BDPWB and APCPWB APCPWB and LSU connect PWB (YC3) LSU connect PWB and engine PWB (YC12)
		Defective APCPWB. Defective BDPWB.	Replace the Laser scanner unit (M). (see page 1-5-20)
		Defective Main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
4104	BD initialization problem (Y) BD is not detected within one second after the polygon motor stabilizes.	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. BDPWB and APCPWB APCPWB and LSU connect PWB (YC4) LSU connect PWB and engine PWB (YC12)
		Defective APCPWB. Defective BDPWB.	Replace the Laser scanner unit (M). (see page 1-5-20)
		Defective Main PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
4600	LSU cleaning motor error When the LSU cleaning motor is driven, an error signal is detected continuously for 1 s.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If none, replace the cable. LSU cleaning motor and LSU connect PWB(YC11) LSU connect PWB and engine PWB(YC12)
		Defective drive transmission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushings and gears. Check for broken gears and replace if any.
		Defective motor.	Replace the LSU cleaning motor.
		Defective PWB.	Replace the engine PWB or LSU connect PWB check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
4700	VIDEO ASIC device error 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. 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 1-5-31, 1-5-32).
4950	LSU CPU communication error A communication error is detected 10 times in succes-	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 and engine PWB (YC26)
	sion.	Defective PWB.	Replace the main PWB or engine PWB and check for correct operation (see page 1-5-31, 1-5-32).
6000	Broken fuser heater wire Fuser thermistor 2 does not reach 80° C/176 °F even after20 s during warming up. The detected temperature of fuser thermistor2 does not reach the specified tempera- ture (ready indication temper- ature) for 200 s in warming up after reached to 80° C/176 °F.	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. IH coil unit and IHPWB IHPWB and engine PWB (YC7)
		Deformed connector 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 connectors.
		Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-18).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6020	Abnormally high fuser thermistor 2 (center) temperature The fuser thermistor 2 detects a temperature higher than 240°C/464°F continuously for 1 s.	Deformed connector 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 connectors.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
6030	Fuser thermistor 2 (center) break error A/D value of the fuser thermistor 2 exceeds 1010 bit continuously for 1 s during warming	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 thermister2 and fuser PWB (YC2) Fuser unit and engine PWB (YC22)
	up.	Deformed connector 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 connectors.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6040	NC sensor error When a sensor detected the temperature higher than 150 °C/302 °F continuously for 5 seconds.	Deformed connector 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 connectors.
		Shorted fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6050	Abnormally low fuser thermistor 2 (center) temperature The fuser temperature lower than 100 °C/212 °F is detected continuously for 1 s	Deformed connector 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 connectors.
	during printing.	Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective fuser heater.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
6120	Abnormally high fuser thermistor 3 (press roller) temperature The fuser temperature exceeds 200 °C/392 °F for 1	Deformed connector 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 connectors.
	S.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6130	roller) break error Fuser thermistor 3 does not reach 30° C/86 °F even after60 s during warming up. The detected temperature of fuser thermistor3 does not reach the specified temperature (ready indication temperature) for 200 s in 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 thermistor 3 and fuser PWB (YC4) Fuser unit and engine PWB (YC22)
		Deformed connector 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 connectors.
	after reached to 30° C/86 °F.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6150	Abnormally low fuser thermistor 3 (press roller) temperature The fuser temperature lower than 30 °C/86 °F is detected continuously for 1 s.	Deformed connector 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 connectors.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective fuser heater.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
6200	Broken fuser edge heater wire Fuser thermistor 1 does not reach 50° C/122 °F even after20 s during warming up. The detected temperature of fuser thermistor1 does not reach the specified temperature (ready indication temperature) for 60 s in warming up after reaching 50° C/122 °F.	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. IH coil unit and IHPWB IHPWB and engine PWB (YC7)
		Deformed connector 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 connectors.
		Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-18).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6220	Abnormally high fuser thermistor 1 (edge) temper- ature The fuser temperature exceeds 240 °C/464 °F for 1	Deformed connector 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 connectors.
	S.	Defective cooling fan motor.	Replace the fuser fan motor.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6230	break error During warming up a hearter, fuser thermistor 2 detects a temperature of 100 °C/212 °F or higher and, fuser thermistor 1 detects a temperature of 37 °C/99 °F or lower.	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 thermistor 1 and fuser PWB (YC3) Fuser unit and engine PWB (YC22)
		Deformed connector 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 connectors.
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
6250	Abnormally low fuser thermistor 1 (edge) temperature The fuser temperature lower than 80 °C/176 °F is detected	Deformed connector 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 connectors.
	continuously for 1 s during printing.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective fuser thermistor.	Replace the fuser unit (see page 1-5-18).
		Defective fuser heater.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6410	Fuser unit type mismatch problem Absence of the fuser unit is	Fuser unit connector inserted incorrectly.	Reinsert the fuser unit connector if necessary.
	detected.	Different type of the fuser unit is installed.	Install the correct fuser unit.
6600	Belt rotation error The belt was detected to stop	Defective fuser motor.	Replace the fuser motor.
	for 2 s continuously during motor remote is on.	Defective IH belt.	Replace the fuser unit (see page 1-5-18).
	motor remote is on.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6710	CPU thermal runaway (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
6720	Belt rotation error (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective fuser motor.	Replace the fuser motor.
		Defective fuser unit.	Replace the fuser unit.
6730	Abnormally high IGBT1 temperature (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective cooling fan motor.	Replace the IH fan motor.

Code	Contents	Causes	Check procedures/ corrective measures
6740	Abnormally high IGBT2 temperature (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective cooling fan motor.	Replace the IH fan motor.
6750	Abnormally output overcurrent (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective fuser unit.	Replace the fuser unit.
6760	Abnormally AC input over- current (IHPWB)	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
6770	Abnormally low electric power (IHPWB)	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 IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
6930	IH coil fan motor error The alarm signal was detected for 5 seconds continuously during operation.	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. IH coil fan motor and engine PWB(YC21)
		Defective cooling fan motor.	Replace the IH coil fan motor.
		Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
6950	IH CPU communication error A communication error is detected 3 times in succes-	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.
	sion.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
6990	Fuser unit type mismatch problem Absence of the fuser unit is detected.	Defective IH PWB.	Replace the IH PWB and check for correct operation (see page 1-5-36).

	Toner sensor K error Toner sensor C error	Defective Developer unit. Defective PWB. Defective Developer	Replace the developer unit K (see page 1-5-14). Replace the engine PWB check for correct operation (see page 1-5-32).
7102	Toner sensor C error	Defective Devel-	
7102	Toner sensor C error		- - - - - - - - - -
		oper unit.	Replace the developer unit C (see page 1-5-14).
		Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7103	Toner sensor M error	Defective Developer unit.	Replace the developer unit M (see page 1-5-14).
		Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7104	Toner sensor Y error	Defective Developer unit.	Replace the developer unit Y (see page 1-5-14).
		Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7601 II	D sensor 1 (front) error	Defective ID sensor.	Replace the ID sensor 1.
		Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7602 II	D sensor 2 (rear) error	Defective ID sensor.	Replace the ID sensor 2.
		Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
V	ID sensor (K) density error When ID sensor 2 detected	Defective ID sensor.	Replace the ID sensor.
	CTD is 500 or less.	Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
V	D sensor (C) density error When ID sensor 2 detected	Defective ID sensor.	Replace the ID sensor.
	CTD is 500 or less.	Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
V	D sensor (M) density error When ID sensor 2 detected	Defective ID sensor.	Replace the ID sensor.
	CTD is 500 or less.	Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
7614	ID sensor (Y) density error When ID sensor 2 detected	Defective ID sensor.	Replace the ID sensor.
	CTD is 500 or less.	Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7620	ID sensor timing error Color registration correction	Defective ID sensor.	Replace the ID sensor.
	was failed.	Defective PWB.	Replace the engine PWB check for correct operation (see page 1-5-32).
7800	Broken external thermistor wire The external thermistor delivers 0.3V 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.
7810	Short-circuited external thermistor wire external thermistor delivers 3V 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.
7901	Drum K 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	Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit (K) and drum connect PWB(YC5) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC9)
	times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective drum PWB.	Replace the drum unit K (see 1-5-16).

Code	Contents	Causes	Check procedures/ corrective measures
7902	Drum C 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.	Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit (C) and drum connect PWB(YC3) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC9) Replace the drum unit C (see 1-5-16).
	Mismatch between writing data and reading data occurs eight times successively.	PWB.	
7903	Drum M 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	Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit (M) and drum connect PWB(YC4) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC9)
	times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective drum PWB.	Replace the drum unit M (see 1-5-16).
7904	Drum Y 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	Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Drum unit (Y) and drum connect PWB(YC2) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC9)
	times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective drum PWB.	Replace the drum unit Y (see 1-5-16).
7911	Developing unit K 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	Poor contact in the connector terminals.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit (K) and drum connect PWB(YC9) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC12)
	times successively. Mismatch between writing data and reading data occurs eight times successively.	Defective developing PWB.	Replace the developer unit K (see 1-5-14).

Code	Contents	Causes	Check procedures/ corrective measures
7912	Developing unit C 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.	Poor contact in the connector terminals. Defective developing PWB.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit (C) and drum connect PWB(YC7) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC12) Replace the developer unit C (see 1-5-14).
7913	Developing unit M 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.	Poor contact in the connector terminals. Defective developing PWB.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit (M) and drum connect PWB(YC8) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC12) Replace the developer unit M (see 1-5-14).
7914	Developing unit Y 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.	Poor contact in the connector terminals. Defective developing PWB.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Developer unit (Y) and drum connect PWB(YC6) drum connect PWB and engine connect PWB (YC4) Engine connect PWB and engine PWB (YC12) Replace the developer unit Y (see 1-5-14).

Code	Contents	Causes	Check procedures/ corrective measures
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 sen- sor 1/2.	Replace the sensor.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
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 sole- noid.	Replace the belt solenoid.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
8140	Tray elevation motor prob- lem (document finisher) The tray low limit sensor or paper surface sensor 1/2 can- not be detected to be on within 10 s since the tray ele- vation 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 sen- sor 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
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.
8320	Adjustment motor 2 prob- lem (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 adjust- ment sensor 2.	Replace the adjustment sensor 2.
		Defective adjust- ment 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 prob- lem (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 adjust- ment sensor 1.	Replace the adjustment sensor 1.
		Defective adjust- ment motor 1.	Replace the adjustment motor 1.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.

Code	Contents	Causes	Check procedures/ corrective measures
8350	Roller motor problem (document finisher) The roller sensor does not turn on/off within specified time of the roller motor turning	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)
	on.	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.
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 1-5-32).

Code	Contents	Causes	Check procedures/ corrective measures
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 1-5-32).
8900	Backup memory data prob- lem (document finisher) Read and write data does not match 3 times in succession.	Defective connector cable or poor contact in the connector.	Check the connection of connector on the finisher main PWB and the connector of the machine, and the continuity across the connector terminals. Repair or replace if necessary.
		EEPROM installed incorrectly.	Install EEPROM correctly.
		Defective finisher main PWB.	Replace the finisher main PWB and check for correct operation.
9000	Document processor communication error A communication error is detected 10 times in succes-	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)
	sion.	Defective DP main PWB.	Replace the DP main PWB and check for correct operation (see page 1-5-29).
9060	DP EEPROM error Mismatch between writing	Defective DP main PWB.	Replace the DP main PWB and check for correct operation (see page 1-5-29).
	data and reading data occurs three times successively. Mismatch of reading data from two locations occurs three times successively.	Device damage of EEPROM.	Contact the Service Administrative Division.
9500			Contact the Service Administrative Division.
9510 9520			

Code	Contents	Causes	Check procedures/ corrective measures
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 1-5-31).
		Defective operation panel PWB.	Replace the operation panel PWB and check for correct operation.
F010	Main PWB checksum error	Defective main	Turn the main power switch off/on to restart
F011		PWB.	the machine. If the error is not resolved, replace main PWB (see page 1-5-31).
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 1-5-31).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
F050	Print engine ROM check- sum error	Defective engine PWB.	Turn the main power switch off/on to restart the machine. If the error is not resolved, replace engine PWB (see page 1-5-32).

NOTE:

The other F codes are indicated to the appendix (see page 2-4-10).

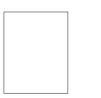
1-4-3 Image quality problems

If the part causing the problem is not designated as a service part, replace with the assembly comprising the part.

(3) Image is too

light.

(1) No image appears (entirely white).



See page 1-4-38
(6) Black streaks
are printed verti-

cally.

(2) No image appears (entirely black).



See page 1-4-38

(7) Streaks are printed horizon-tally.



See page 1-4-39

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

(4) The background is colored.



See page 1-4-39

(9) Spots are printed.

(5) White streaks are printed vertically.



See page 1-4-39 (10)Image is blurred.



See page 1-4-40

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



See page 1-4-40

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



See page 1-4-40

(13)Paper is wrinkled.



See page 1-4-41

(14)Offset occurs.



See page 1-4-41 (15)Part of image is missing.



See page 1-4-41



See page 1-4-41

(16)Fusing is loose. (17)Image is out of focus.



See page 1-4-42

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



See page 1-4-42



See page 1-4-42



See page 1-4-42



See page 1-4-43



See page 1-4-43

(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 of the connector cable. If necessary, replace the cable. High voltage PWB and engine PWB (YC15) High voltage PWB sub and engine PWB (YC13)
		Defective high voltage PWB.	Replace the high voltage PWB.
		Defective high voltage PWB sub.	Replace the high voltage PWB sub.
		Defective engine PWB.	Replace the engine PWB (see page 1-5-32).
	Defective developer bias output.	Defective connector cable or poor contact in the connector.	Reinsert the connector. Also check for continuity of the connector cable. If necessary, replace the cable. High voltage PWB and engine PWB (YC15)
		Defective high voltage PWB.	Replace the high voltage PWB.
		Defective engine PWB.	Replace the engine PWB (see page 1-5-32).
	No LSU laser is out-	Defective laser scanner unit.	Replace the laser scanner unit (see page 1-5-20).
	put.	Defective main PWB.	Replace the main PWB (see page 1-5-31).

(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 (YC15)
		Defective charger roller unit.	Replace the charger roller unit (see page 1-5-16).
		Defective high voltage PWB.	Replace the high voltage PWB.
		Defective engine PWB.	Replace the engine PWB (see page 1-5-32).
	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 1-5-21).
		Defective main PWB.	Replace the main PWB (see page 1-5-31).

(3) Image is too light.

Print example	Causes		Check procedures/corrective measures
	Defective transfer charger out- put.	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 (YC15) High voltage PWB sub and engine PWB (YC13)
		Defective high voltage PWB.	Replace the high voltage PWB (see page 1-5-36).
		Defective high voltage PWB sub.	Replace the high voltage PWB sub (see page 1-5-36).
		Defective engine PWB.	Replace the engine PWB (see page 1-5-32).
	Insufficient to	ner.	If the display shows the message requesting toner replenishment, replace the container.
	Deteriorated	toner.	Perform the drum refresh operation.

(4) The background is colored.

Print example	Causes		Check procedures/corrective measures
	Defective main charger out- put.	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 (YC15)
		Defective high voltage PWB.	Replace the high voltage PWB.
		Defective engine PWB.	Replace the engine PWB (see page 1-5-32).
	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 1-5-14).
	Dirty shading plate.	Clean the shading plate.
	Adhesion of soiling to transfer belt.	Clean the transfer belt. Replace the intermadiate transfer unit if it is extremely dirty (see page 1-5-17).
	Adhesion of soiling to transfer roller.	Clean the transfer roller. Replace the transfer roller unit if it is extremely dirty (see page 1-5-17).
	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 1-5-16).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-16).
	Defective transfer belt.	Replace the intermidiate transfer unit (see page 1-5-17).
	Defective transfer roller.	Replace the transfer roller unit(see page 1-5-17).
	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 1-5-16).
	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 1-5-16).

(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 1-5-24).

(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 1-5-16).
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-16).
	Flawed developer roller.	Replace the developer unit (see page 1-5-14).
	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 fuser unit (see page 1-5-18).
	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.

Р	rint example	Causes	Check procedures/corrective measures
		Misadjusted leading edge registration.	Run maintenance mode U034 to readjust the leading edge registration (see page 1-3-24).
		Misadjusted scanner leading edge registration.	Run maintenance mode U066 to readjust the scanner leading edge registration (see page 1-3-33).

(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 1-5-18).

(14) Image is off-set.

Print example	Causes	Check procedures/corrective measures
	Deformed or worn cleaning blade in the drum unit.	Replace the drum unit (see page 1-5-16).
	Defective fuser unit.	Replace the fuser unit (see page 1-5-18).
	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 1-5-16).
	Dirty transfer belt.	Clean the transfer belt. Replace the intermidate transfer unit if it is extremely dirty (see page 1-5-17).
	Dirty transfer roller.	Clean the transfer roller. Replace the transfer roller unit if it is extremely dirty (see page 1-5-17).

(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 1-5-18).
	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 1-5-21).
1	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 1-3-25).
	Misadjusted scanner center line.	Run maintenance item U067 to readjust the scanner leading edge registration (see page 1-3-34).
	Original is not placed correctly.	Place the original correctly.

1-4-4 Electric problems

If the part causing the problem s not designated as a service part, replace with the assembly comprising the part.

Troubleshooting to each failure must be made in the order of the numbered Problems.

Problem	Causes	Check procedures/corrective measures
(1) The machine does	No electricity at the power outlet.	Measure the input voltage.
not operate when the main power switch is turned on.	The power cord is not plugged in prop- erly.	Check the contact between the power plug and the outlet.
	3. Broken power cord.	Check for continuity. If none, replace the cord.
	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 1-5-33).
	6. Defective power source PWB.	Replace the power source PWB (see page 1-5-33).
(2) ISU motor does not operate.	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 (YC17)
	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the ISU motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(3) Eject motor does not operate.	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)
	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the eject motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Problem	Causes	Check procedures/corrective measures
(4) ID Shutter motor does not operate.	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. ID Shutter motor and engine connect PWB (YC17) engine connect PWB and engine PWB (YC9)
	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the ID Shuttermotor.
	4. Defective PWB.	Replace the engine PWB or engin connect PWB and check for correct operation (see page 1-5-32).
(5) Fuser pressure release motor does	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 pressure release motor and engine PWB (YC22)
not operate.	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the Fuser pressure release motor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(6) Controller fan motor does not	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)
operate.	2. Defective motor.	Replace the controller fan motor.
	3. Defective PWB.	Replace the main PWB and check for correct operation (see page 1-5-31).
(7) Power source fan motor does not operate.	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 engine connect PWB (YC11) engine connect PWB and engine PWB (YC9)
	2. Defective motor.	Replace the power source fan motor.
	3. Defective PWB.	Replace the engine PWB or engine connect PWB and check for correct operation (see page 1-5-32).
(8) Developer fan motor does not operate.	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 fan motor and engine connect PWB (YC6) engine connect PWB and engine PWB (YC9)
	2. Defective motor.	Replace the developer fan motor.
	3. Defective PWB.	Replace the engine PWB or engine connect PWB and check for correct operation (see page 1-5-32).

Problem	Causes	Check procedures/corrective measures
(9) LSU fan motor does not operate.	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. LSU fan motor and engine connect PWB (YC6) Engine connect PWB and engine PWB (YC9)
	2. Defective motor.	Replace the LSU fan motor.
	3. Defective PWB.	Replace the engine PWB engine connect PWB and check for correct operation (see page 1-5-32).
(10) IH fan motor does not operate.	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. IH fan motor and main PWB (YC4)
	2. Defective motor.	Replace the IH fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(11) Fuser fan motor does not operate.	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 fan motor and engine PWB (YC28)
	2. Defective motor.	Replace the Fuser fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(12) Container fan motor does not	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. Container fan motor and engine PWB (YC21)
operate.	2. Defective motor.	Replace the container fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(13) IH coil fan motor does not operate.	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. IH coil fan motor and engine PWB (YC21)
	2. Defective motor.	Replace the IH coil fan motor.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(14) Imaging fan motor does not operate.	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. Imaging fan motor and engine connect PWB (YC11) Engine connect PWB and engine PWB
	2. Defective motor.	Replace the Imaging fan motor.
	3. Defective PWB.	Replace the engine PWB or engine connect PWB and check for correct operation (see page 1-5-32).
(15) Paper feed clutch does not operate.	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 (YC2)
	2. Defective clutch.	Replace the paper feed clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Problem	Causes	Check procedures/corrective measures
(16) Mid clutch does not operate.	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. Mid clutch and engine PWB (YC2)
	2. Defective clutch.	Replace the mid clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(17) Registration clutch does not operate.	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 (YC2)
	2. Defective clutch.	Replace the registration clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(18) Duplex clutch does not operate.	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 (YC2)
	2. Defective clutch.	Replace the duplex clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(19) Developer stop clutch does not	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 stop clutch and engine PWB (YC3)
operate.	2. Defective clutch.	Replace the developer stop clutch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(20) MP solenoid does not operate.	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 (YC2)
	2. Defective solenoid.	Replace the MP solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(21) Feedshift solenoid does not operate.	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 (YC20)
	2. Defective solenoid.	Replace the Feedshift solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).

Problem	Causes	Check procedures/corrective measures
(22) The message requesting paper to be loaded is shown	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 connect PWB (YC15) Engine connect PWB to engine PWB (YC9)
when paper is present on the cassette.	Deformed actuator of the paper sensor.	Check visually and replace if necessary.
octio.	3. Defective paper sensor.	Replace the cassette PWB.
	4. Defective PWB.	Replace the engine PWB or engine connect PWB and check for correct operation (see page 1-5-32).
(23) The message requesting paper to	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 (YC28)
be loaded is shown when paper is present on the MP	Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
tray.	Defective MP paper sensor.	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-32).
(24) The size of paper on the cassette is not displayed cor-	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 (YC14) Paper size length switch and engine PWB (YC14)
rectly.	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 1-5-32).
(25) A paper jam in the paper feed, paper conveying or eject section is indicated when the	1. A piece of paper torn from paper is caught around registration sensor, duplex sen- sor, feed sensor or eject sensor.	Check visually and remove it, if any.
main power switch is turned on.	2. Defective sensor.	Replace the registration sensor, duplex sensor, feed sensor or eject sensor.
(26) A message indicat-	Deformed actuator of the interlock switch.	Check visually and replace if necessary.
ing cover open is displayed when the front cover or right cover is closed.	Defective interlock switch.	Replace the interlock switch.

Problem	Causes	Check procedures/corrective measures
(27) The LED lamp does not turn on when original is	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)
present on the DP.	Defective DP origi- nal sensor.	Replace the DP original sensor.
	3. Defective PWB.	Replace the DPLED PWB and check for correct operation.
		Replace the engine PWB and check for correct operation (see page 1-5-32).
(28) The size of original on the DP is not displayed correctly.	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)
	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 1-5-29,1-5-32).
(29) DP paper feed motor does not operate.	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)
	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP paper feed motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-29,1-5-32).
(30) DP switchback motor does not operate.	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)
	Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP switchback motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-29,1-5-32).

Problem	Causes	Check procedures/corrective measures
(31) DP paper feed clutch does not operate.	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 1-5-29,1-5-32).
(32) DP registration clutch does not operate.	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 1-5-29,1-5-32).
(33) 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.
(34) A message indicating cover open is displayed when the	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)
DP top cover is closed.	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 dusts. Pickup roller Paper feed roller MP paper feed roller	Clean with isopropyl alcohol.
	Check if any of 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. Right registration roller Left registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in the cassette are installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4)	Check if the paper is excessively curled.	Change the paper.
Multiple sheets of paper are fed.	Paper is loaded incorrectly.	Load the paper correctly.
paper are led.	Check if the retard roller is worn.	Replace the retard roller if it is worn (see page 1-5-10).
(5)	Check if the paper is excessively curled.	Change the paper.
Paper jams.	Check if the contact between the right and left 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 1-5-18).
(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.

Problem	Causes/check procedures	Corrective measures
(7) Abnormal noise is	Check if the rollers, pulleys and gears operate smoothly.	Grease the bushes and gears.
heard.	Check if the following clutches are installed correctly. Paper feed clutch Mid clutch Registration clutch Duplex clutch	Check visually and remedy if necessary.
(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 1-5-27).
(9)	Original is not correctly set.	Set the original correctly.
Multiple sheets of original are fed.	Check if the DP separation pulley is worn.	Replace the DP separation pulley if it is worn (see page 1-5-27).
(10) Originals jam.	Originals being used do not conform with the specifications.	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 switch-back 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.	 Confirm the destined host. Confirm thedevice's network parameters. Confirm the parameters of the network to which the device is connected are correct.
1102	Login to the host has failed.	 Confirm user name and password. Confirm the parameters of the network to which the device is connected are correct. Check the host if the folder is properly shared.
1103	Destined host, folder, and/or file names are invalid.	 Check illegal characters are not contained within these names. Check the name of the folder and files conform with the naming syntax. Confirm destined host and folder.
1105	SMB protocol is not enabled.	Confirm device's SMB protocols.
2101	Login to the host has failed.	 Confirm the destined host. Confirm that the LAN cable is properly connected to the device. Check the SMB port number. Confirm the device's network parameters. Confirm the parameters of the network to which the device is connected are correct.
2201	Writing scanned data has failed.	 Check the file name to save the scanned data. Confirm the device's network parameters. Confirm the parameters of the network to which the device is connected are correct.

(2) Scan to FTP error codes

Code	Contents	Check procedures/corrective measures
1101	FTP server does not exist on the network.	Check the FTP server name. Confirm device's network parameters. Confirm the parameters of the network to which the device is connected are correct.
1102	Login to the FTP server has failed.	Confirm user name and password. Check the FTP server name.
1103	Destined folder is invalid.	Check that the illegal characters are not contained within these names. Check the FTP server name.
1105	FTP protocol is not enabled.	Confirm device's FTP protocols.
1131	Initializing TLS has failed.	Confirm device's security parameters.
1132	TLS negotiation has failed.	Confirm device's security parameters. Check the FTP server name.
2101	Access to the FTP server has failed.	 Check the FTP server name. Confirm that the LAN cable is properly connected to the device. Check the FTP port number. Confirm device's network parameters. Confirm the network parameters the device is connected. Check the FTP server name.
2102	Access to the FTP server has failed. (Connection timeout)	 Check the FTP server name. Check the FTP port number. Confirm device's network parameters. Confirm the network parameters the device is connected. Check the FTP server name.
2201	Connection with the FTP server has failed.	 Confirm device's network parameters. Confirm the network parameters the device is connected. Confirm destined folder. Check the FTP server name.
2202	Connection with the FTP server has failed. (Timeout)	Confirm device's network parameters. Confirm the network parameters the device is connected.
2231	Connection with the FTP server has failed. (FTPS communication)	Confirm device's network parameters. Confirm the network parameters the device is connected.
3101	FTP server responded with an error.	 Confirm device's network parameters. Confirm the network parameters the device is connected. 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.	 Check the SMTP/POP3 server name. Confirm device's network parameters. Confirm the parameters of the network to which the device is connected are correct.
1102	Login to the SMTP/POP3 server has failed.	 Confirm user name and password. Check the SMTP/POP3 server.
1104	The domain the destined address belongs is prohibited by scanning restriction.	Confirm device's SMTP parameters.
1105	SMTP protocol is not enabled.	Confirm device's SMTP protocols.
1106	Sender's address is not specified.	Confirm device's SMTP protocols.
2101	Connection to the SMTP/POP3 server has failed.	 Check the SMTP/POP3 server name. Confirm that the LAN cable is properly connected to the device. Check the SMTP/POP3 port number. Confirm device's network parameters. Confirm the network parameters the device is connected. Check the SMTP/POP3 server.
2102	Connection to the SMTP/POP3 server has failed. (Connection timeout)	 Check the SMTP/POP3 server name. Check the SMTP/POP3 port number. Confirm device's network parameters. Confirm the network parameters the device is connected. Check the SMTP/POP3 server.
2201	Connection to the SMTP/POP3 server has failed.	Confirm device's network parameters. Confirm the network parameters the device is connected.
2202	Connection to the SMTP/POP3 server has failed. (Timeout)	Confirm device's network parameters. Confirm the network parameters the device is connected.
2204	The size of scanning exceeded its limit.	Confirm device's network parameters.
3101	SMTP/POP3 server responded with an error.	 Confirm device's network parameters. Confirm the network parameters the device is connected. Check the SMTP/POP3 server.
3201	No SMTP authentication is found.	Check the SMTP server. 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 containers in a cool, dark place.

Avoid exposing the toner containers to 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.

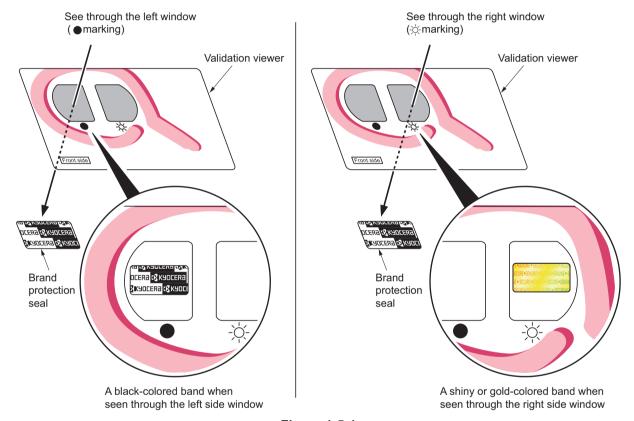


Figure 1-5-1

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

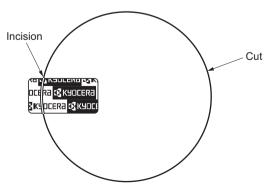


Figure 1-5-2

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.

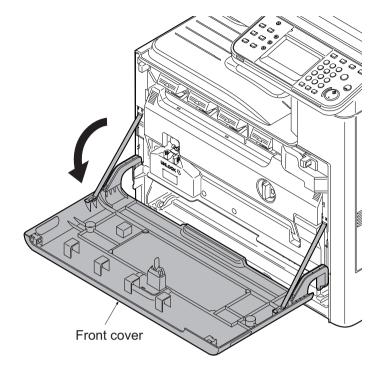


Figure 1-5-3

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

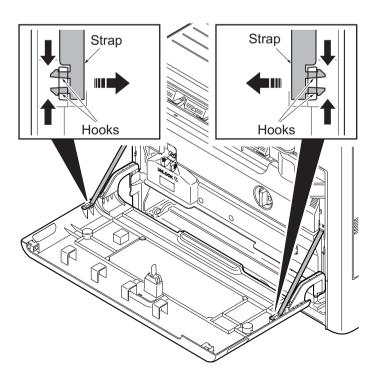


Figure 1-5-4

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

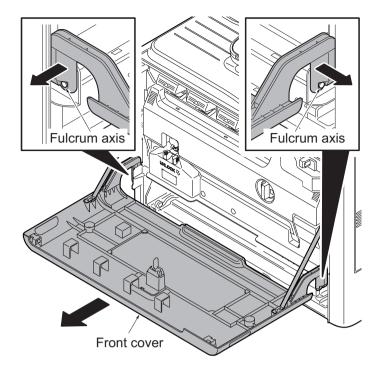


Figure 1-5-5

(2) Detaching and refitting the rear cover

Procedure

- Remove the power cord.
 If the document feeder is installed, remove its interface connector.
- 2. Release four hooks and then remove the controller box cover.

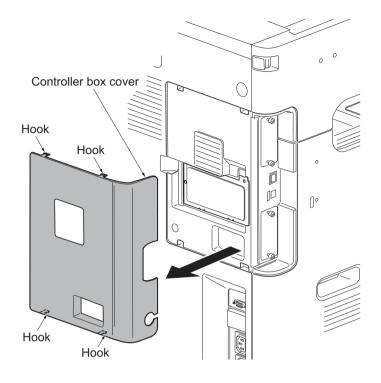


Figure 1-5-6

- Remove two screws of the DP interface connector and then remove the DP interface connector. (See page 1-5-26)
- 4. Remove six screws.
- 5. Pull the rear cover upwards and then release three hooks.
- 6. Remove the rear cover.

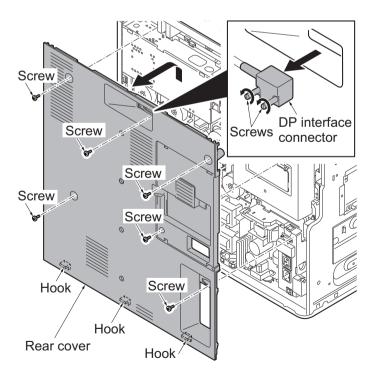


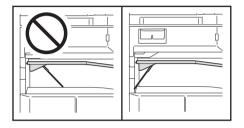
Figure 1-5-7

(3) Detaching and refitting the inner tray

Procedure

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

ATTENTION: When refitting the Job separator tray, are cautious of the position of a paper guide.



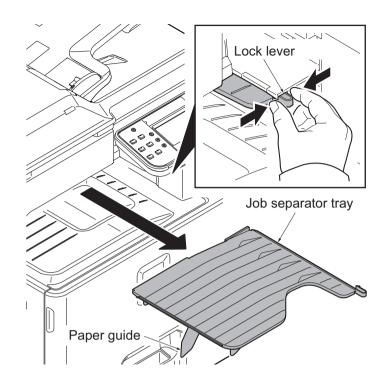


Figure 1-5-8

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

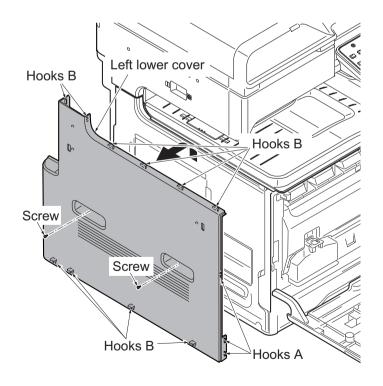


Figure 1-5-9

- 9. Release the hook of the front upper cover.
- 10. Tilt the front upper cover forward.

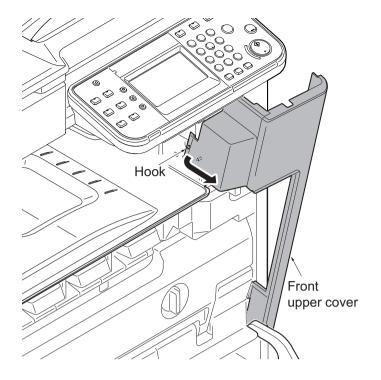


Figure 1-5-10

11. Remove the inner tray.

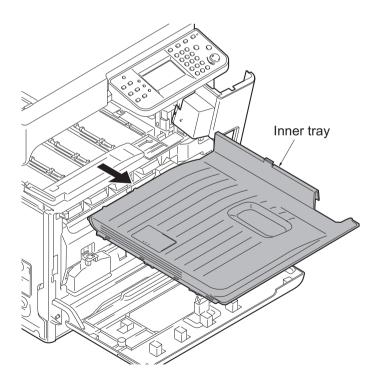


Figure 1-5-11

(4) Detaching and refitting the eject rear cover

Procedure

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

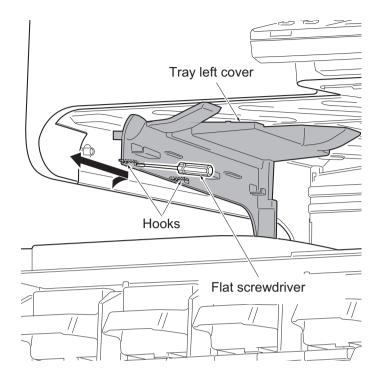


Figure 1-5-12

- 2. Pull the left upper cover downwards and then release two hooks A.
- 3. Pull the left upper cover upwards and then release three hooks B.
- 4. Remove the left upper cover.

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

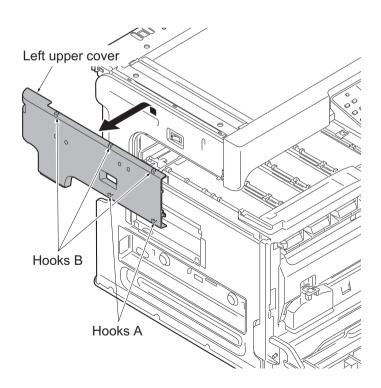


Figure 1-5-13

5. Remove the eject rear cover.

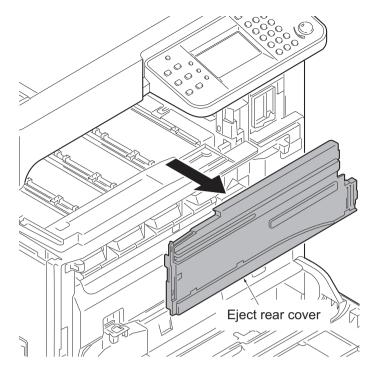


Figure 1-5-14

1-5-3 Paper feed section

(1) Detaching and refitting the primary paper feed unit

Procedure

1. Remove the cassette.

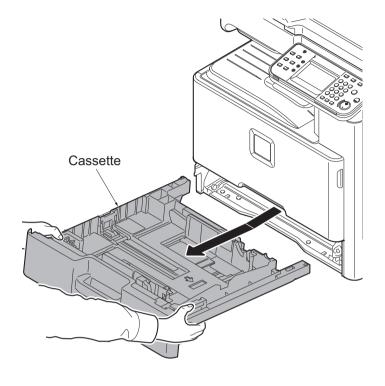


Figure 1-5-15

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

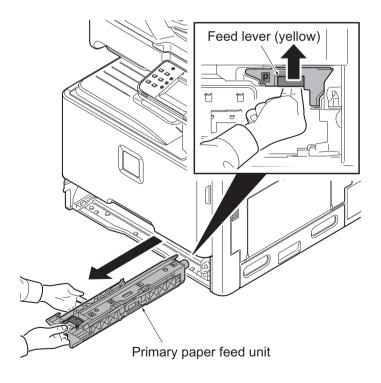


Figure 1-5-16

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

Procedure

1. Open the right cover 1.

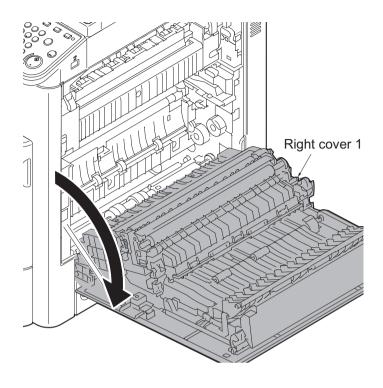


Figure 1-5-17

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

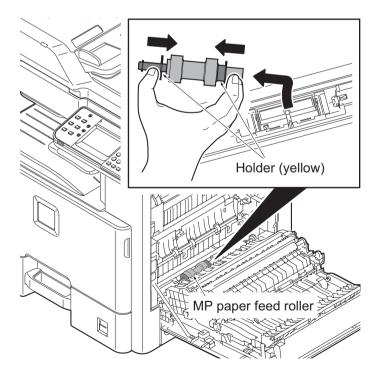


Figure 1-5-18

- 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.

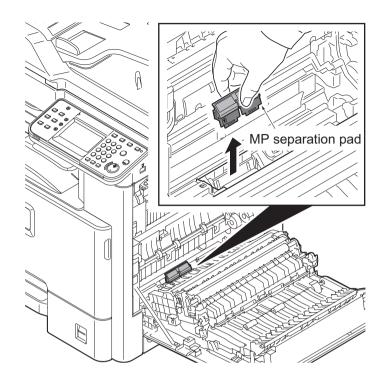


Figure 1-5-19

(3) Detaching and refitting the registration roller

- 1. Open the right cover 1 (See page 1-5-11).
- 2. Remove the transfer roller unit. (See page 1-5-17)
- 3. Remove two springs at the front and back of the registration roller right.
- 4. Remove the cap and gear.
- 5. Slide and remove the registration roller right.
- 6. Check or replace the registration roller right and refit all the removed parts.

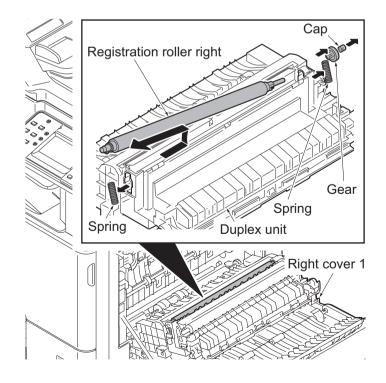


Figure 1-5-20

(4) Detaching and refitting the registration cleaner

Procedure

- 1. Open the front cover. (See page 1-5-3)
- 2. Open the duct cover. (See page 1-5-15)
- 3. Set the cleaner lever (yellow) up and draw the registration cleaner frontward.
- 4. Check or replace the registration cleaner and refit all the removed parts.

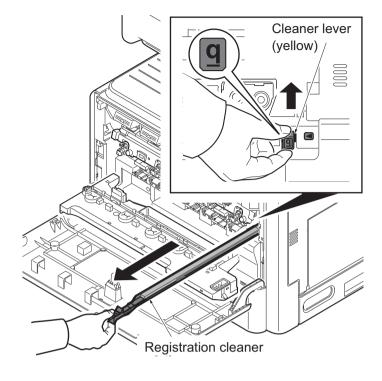


Figure 1-5-21

(5) Detaching and refitting the MP tray

- 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.

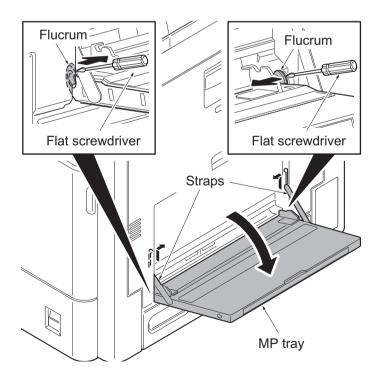


Figure 1-5-22

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.

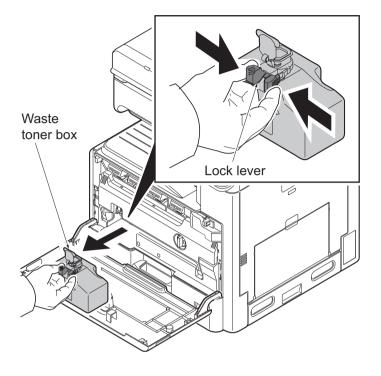


Figure 1-5-23

3. Turn the lock lever (yellow) to the right and then knock down the duct cover forwards.

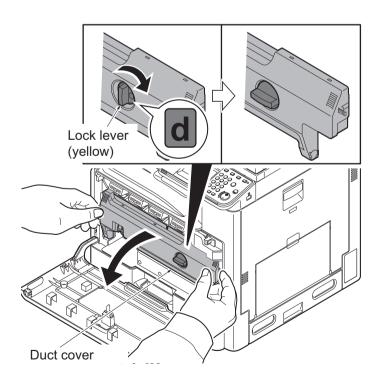


Figure 1-5-24

4. Lift the lever and turn the duct holder upwards.

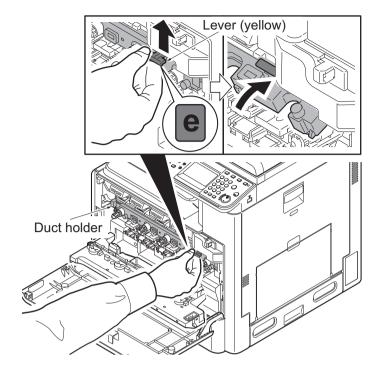


Figure 1-5-25

- 5. Push the lock lever (yellow) of the development unit upwards and then remove the developer unit.
- 6. Check or replace the developer unit and refit all the removed parts.

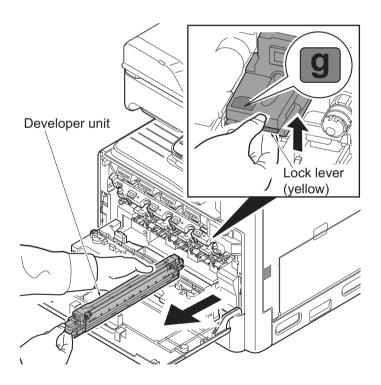


Figure 1-5-26

CAUTION: Please don't store or transport the developing units in the state that are put on slant or lengthways.

Please carry the developing units and the main machine horizontally without the shock or vibration when relocating.

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 1-5-14)
- Turn the lock lever to the right and then knock down the duct cover forwards. (See page 1-5-15)
- 4. Lift the lever and turn the duct holder upwards.(See page1-5-11)
- 5. Push the lock lever (yellow) of the drum unit upwards and then remove the drum unit.
- 6. Check or replace the drum unit and refit all the removed parts.

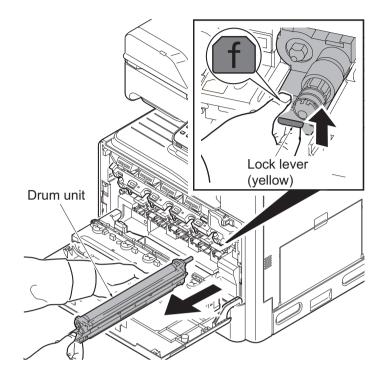


Figure 1-5-27

(2) Detaching and refitting the chager roller unit

- 1. Remove the drum unit. (See page 1-5-16)
- 2. Release two lock levers and then remove the chager roller unit.
- 3. Check or replace the chager roller unit and refit all the removed parts.

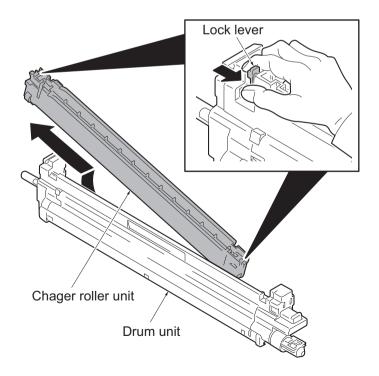


Figure 1-5-28

1-5-6 Transfer/separation section

(1) Detaching and refitting the intermediate transfer unit

Procedure

- 1. Open the right cover 1. (See page 1-5-11)
- 2. Pull the intermediate transfer unit forwards by holding two knobs A(yellow)
- 3. .Change to the knob B from the knob A and then remove the intermediate transfer unit.
- 4. Check or replace the intermediate transfer unit and refit all the removed parts.

CAUTION: When refitting the transfer roller unit, insert it in place until it clicks in.

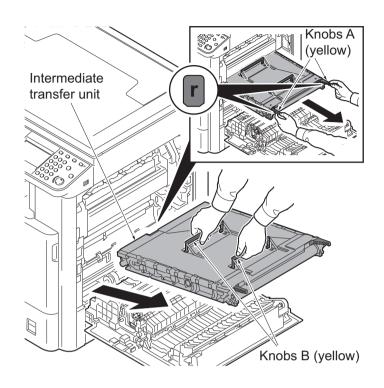


Figure 1-5-29

(2) Detaching and refitting the secondary 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 secondary transfer roller unit.
- Check or replace the secondary transfer roller unit and refit all the removed parts.

ATTENTION: When refitting the secondary transfer roller unit, insert it in place until it clicks in.

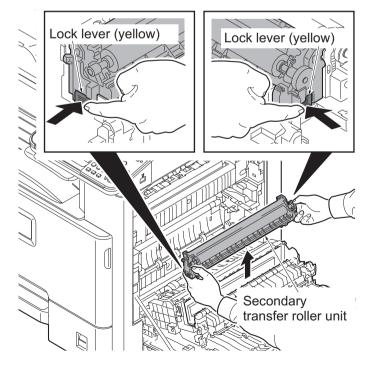


Figure 1-5-30

1-5-7 Fuser section

(1) Detaching and refitting the fuser unit

- 1. Open the right cover 1. (See page 1-5-11)
- 2. Release two mount levers (yellow) and then pull the fuser unit forwards

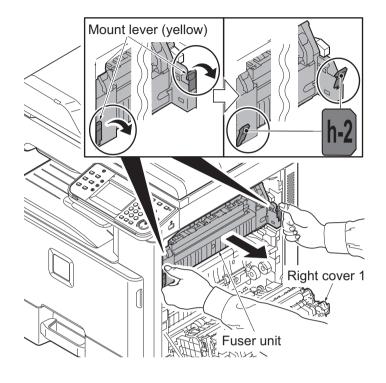


Figure 1-5-31

- 3. Grip two knobs (yellow) of the fuser unit.
- 4. Lift the fuser unit upwards and then remove the fuser unit.
- 5. Check or replace the fuser unit and refit all the removed parts.

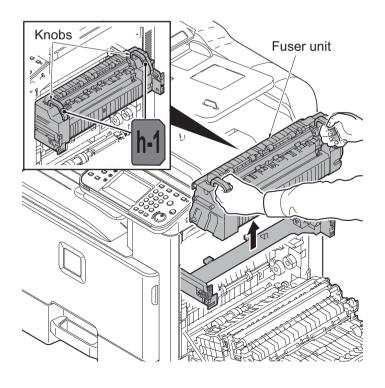


Figure 1-5-32

1-5-8 Drive section

(1) Detaching and refitting the conveying motor

Procedure

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

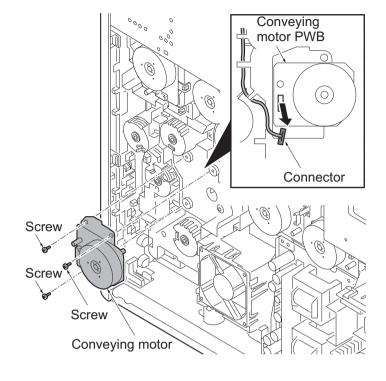


Figure 1-5-33

(2) Detaching and refitting the drive unit

- 1. Remove the rear cover. (See page 1-5-5)
- 2. Remove three connectors and then release the waires from the hooks.
- 3. Remove four screws and then remove the drive unit.
- 4. Check or replace the drive unit and refit all the removed parts.

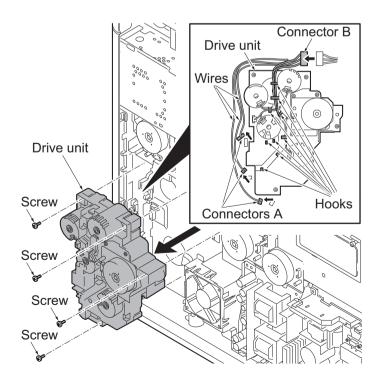


Figure 1-5-34

1-5-9 Optical section

(1) Detaching and refitting the laser scanner unit

- 1. Remove the cassette. (See page 1-5-10)
- 2. Remove the rear cover and left lower cover.(See page 1-5-5,1-5-6)
- 3. Remove two connectors.
- Remove four screws and then remove the laser scanner unit assy by pulling it forwards.

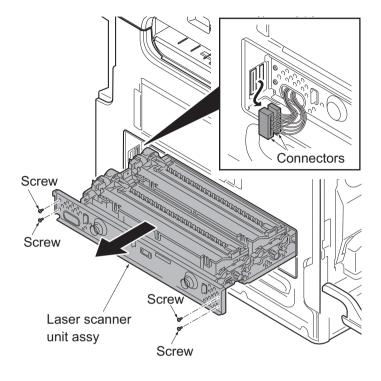


Figure 1-5-35

- 5. Release the clamp and then remove the FFC from the connector.
- 6. Remove two screws.
- 7. Remove the pin and spring and then remove the unit holder Y.
- 8. Lift the laser scanner unit Y upwards and then remove the laser scanner unit Y (LSU-Y).
- 9. Similarly, remove the laser scanner unit C/M/K(LSU-C/M/K).
- 10. Check or replace the laser scanner unit and refit all the removed parts.

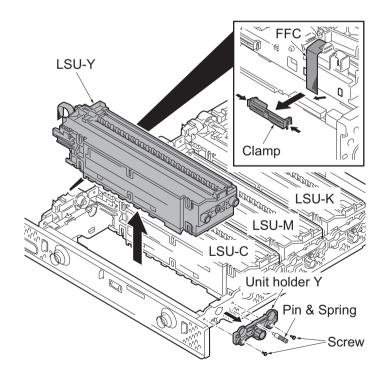


Figure 1-5-36

(2) Detaching and refitting the image scanner unit

Procedure

- 1. Remove the DP or original cover. (See page 1-5-26)
- 2. Remove two screws and then remove the scanner right cover.

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

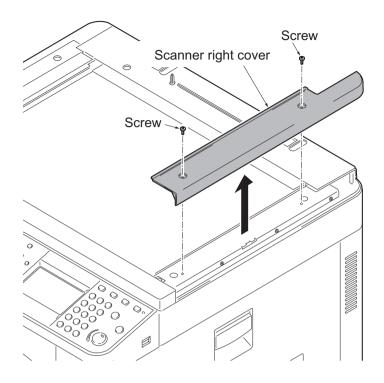


Figure 1-5-37

3. Remove the platen.

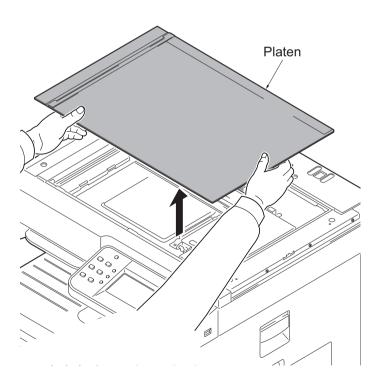


Figure 1-5-38

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

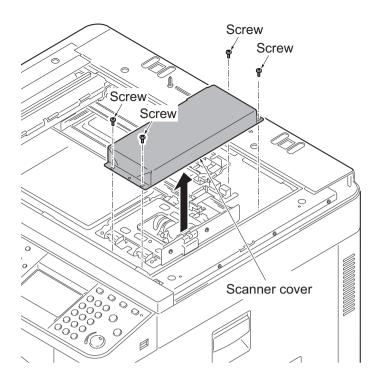


Figure 1-5-39

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

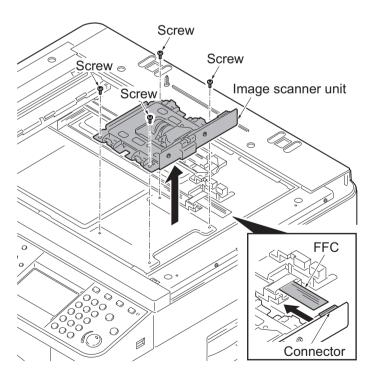


Figure 1-5-40

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.

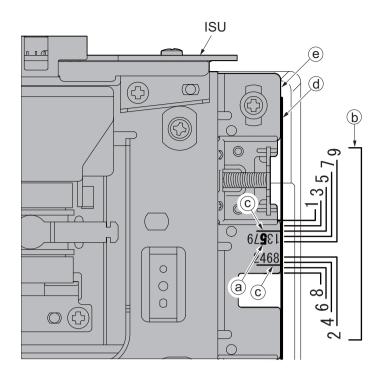


Figure 1-5-41

(3) Detaching and refitting the LED unit

Procedure

- 1. Remove the DP or original cover. (See page 1-5-26)
- 2. Remove the sanner right cover and platen.(See page 1-5-21)
- 3. Remove the ISU front cover.

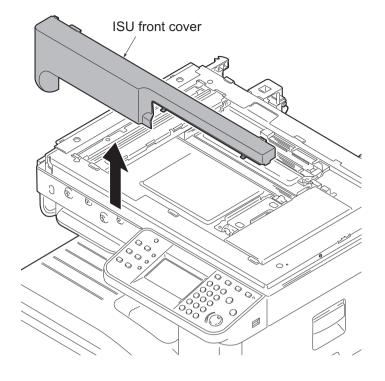


Figure 1-5-42

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

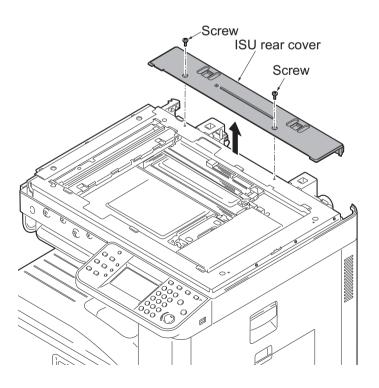


Figure 1-5-43

- 5. Move the exposure unit to the cutting lack part.
- 6. Peel off the sheet.
- 7. Release the hook and then remove the FFC cover.

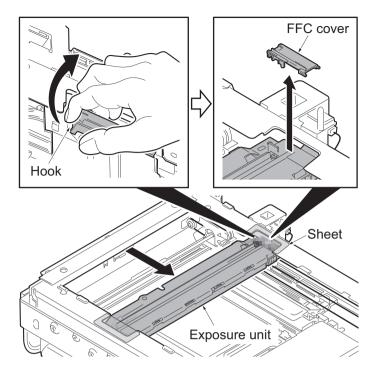


Figure 1-5-44

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

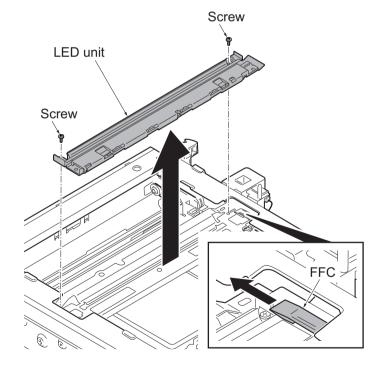


Figure 1-5-45

1-5-10 Document processor

(1) Detaching and refitting the document processor

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

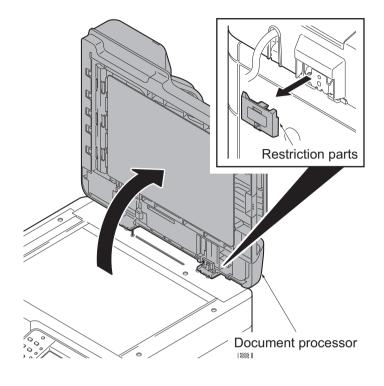


Figure 1-5-46

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

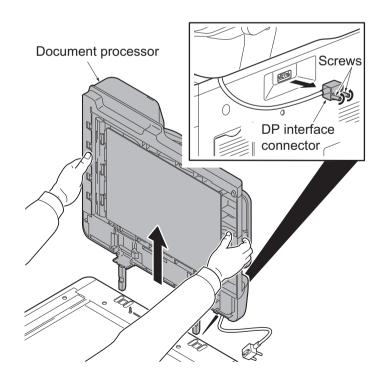


Figure 1-5-47

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

Procedure

1. Open the DP top cover.

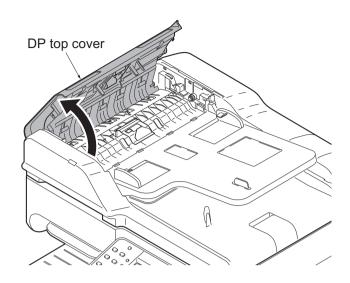


Figure 1-5-48

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

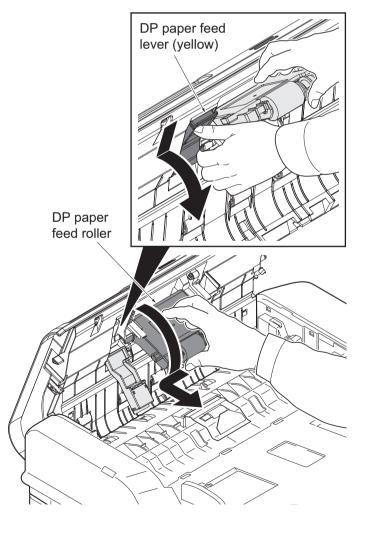


Figure 1-5-49

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

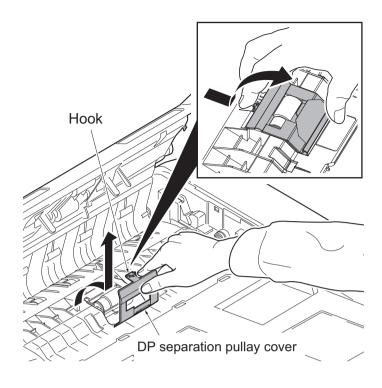


Figure 1-5-50

- 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.

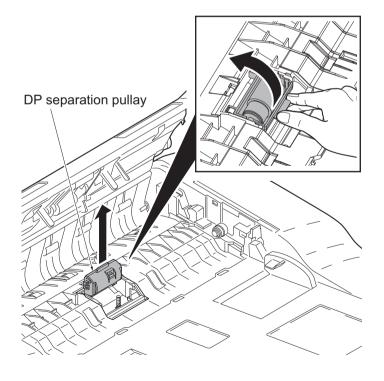


Figure 1-5-51

(3) Detaching and refitting the DP main PWB

Procedure

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

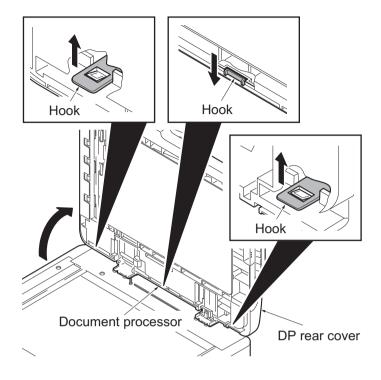


Figure 1-5-52

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

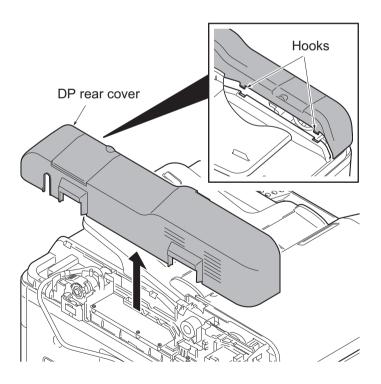


Figure 1-5-53

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

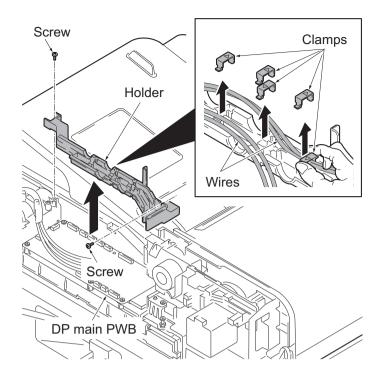


Figure 1-5-54

- 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.

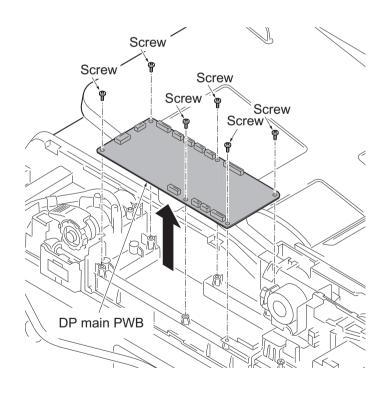


Figure 1-5-55

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 ten screws and then remove the controller box.

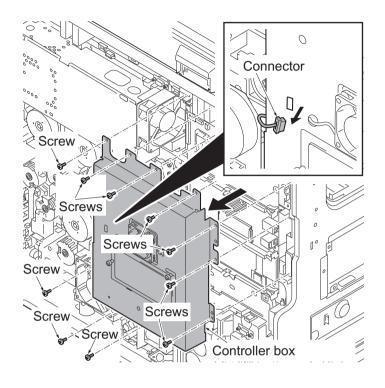


Figure 1-5-56

- 6. Remove all connectors and FFCs for the main PWB.
- 7. Remove eight 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)".

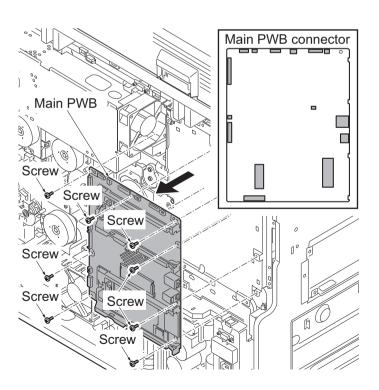


Figure 1-5-57

(2) Detaching and refitting the engine PWB

Procedure

- 1. Remove the rear cover. (See page 1-5-5)
- 2. Remove the main PWB. (See page 1-5-5)
- 3. Remove fourteen screws and then remove the mount board for main PWB.

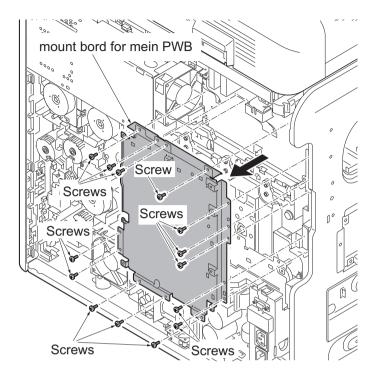


Figure 1-5-58

- 4. Remove all conectors from the engine PWB.
- 5. Remove four screws and then remove the engin PWB.
- 6. Check or replace the engine PWB and refit all the removed parts.

CAUTION: When replacing the engine PWB, remove the EEPROM (U15) from the engine PWB that has been removed and then reattach it to the new engine PWB.

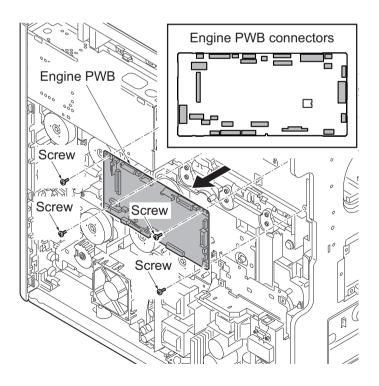


Figure 1-5-59

(3) Detaching and refitting the power source PWB

- 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 1-5-20)
- 3. Remove all connecters 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.

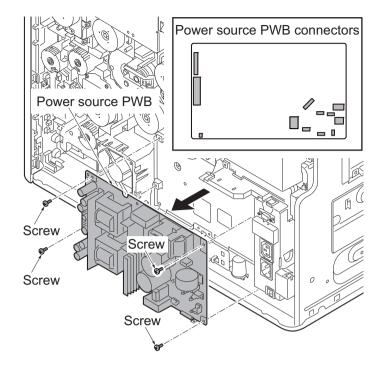


Figure 1-5-60

(4) Detaching and refitting the operation panel PWB main

- 1. Remove the language sheets. (See page 1-5-37)
- 2. Remove two screws.

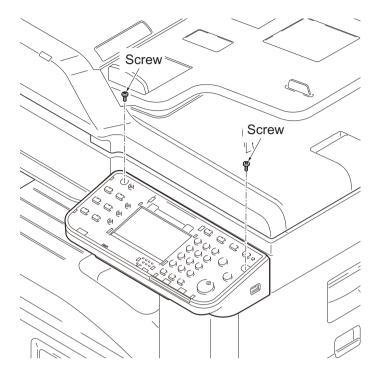


Figure 1-5-61

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

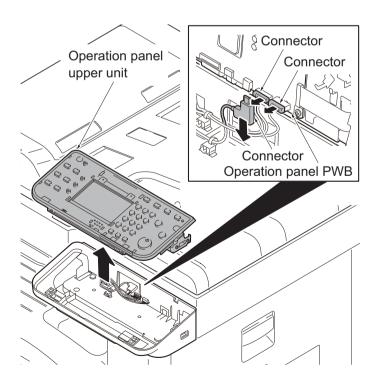


Figure 1-5-62

- 5. Remove four FFCs from the operatioon 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.

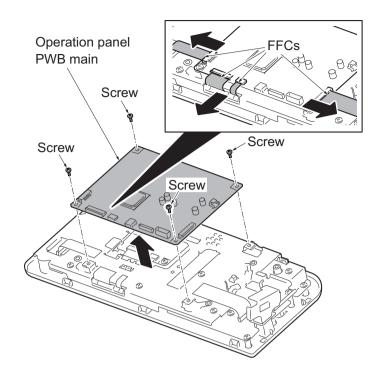


Figure 1-5-63

(5) Detaching and refitting the IH PWB

- 1. Remove the scanner right cover. (See page 1-5-5)
- 2. Remove the right upper cover.
- 3. Remove the right rear cover.

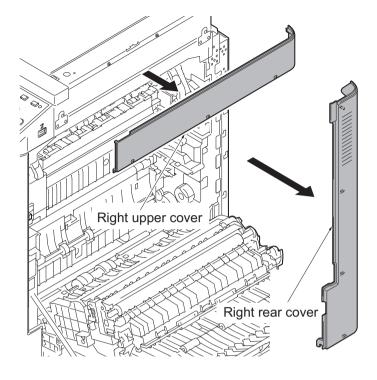


Figure 1-5-64

- 4. Remove two screws and then remove the IH box cover.
- Remove all connectors from the IH PWB.
- 6. Remove six screws and then remove the IH PWB.
- 7. Check or replace the IH PWB and refit all the removed parts.

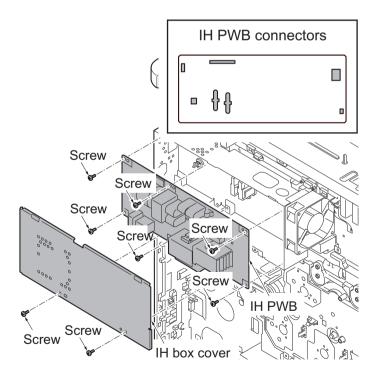


Figure 1-5-65

1-5-12 Others

(1) Detaching and refitting the language sheet

- 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.

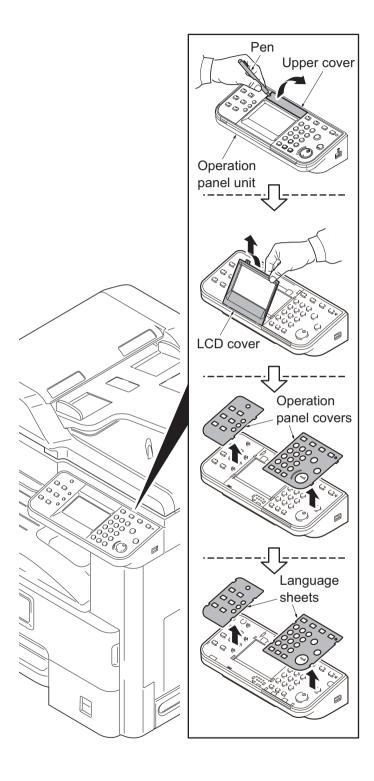


Figure 1-5-66

(2) Detaching and refitting the conveying unit

Procedure

- 1. Remove the MP tray.(See page 1-5-13)
- 2. Remove the right cover 1. (See page 1-5-11)

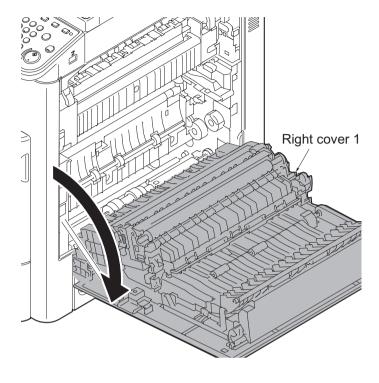


Figure 1-5-67

3. Remove two screws and then remove two straps.

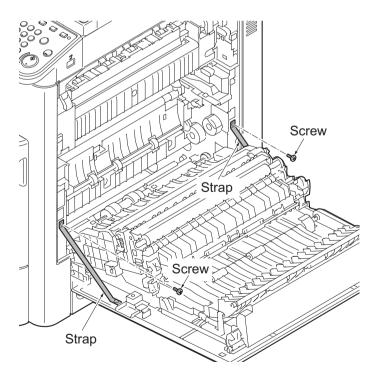


Figure 1-5-68

- 4. Rotate the wire cover.
- 5. Remove two connectors.
- 6. Rotate the fulcrum axis and slide it forward.
- 7. Pull the right cover 1 backward and then remove it.

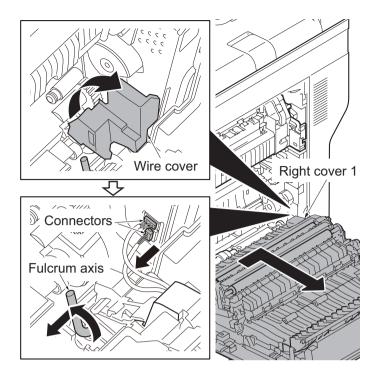


Figure 1-5-69

(3) Detaching and refitting the imaging fan motor

Procedure

- 1. Remove the rear cover. (See page 1-5-5)
- 2. Remove four clamps and then remove the wires and the connector.
- 3. Unhook four hooks and then remove the imaging fan motor.

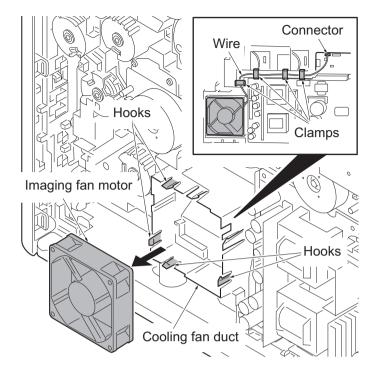


Figure 1-5-70

(4) Direction of installing the principal fan motors

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

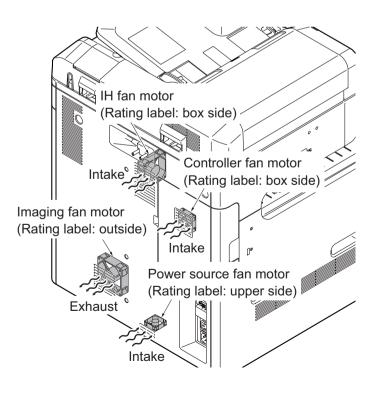


Figure 1-5-71

1-6-1 Upgrading the firmware

Follow the procedure to upgrade the firmware below.

*	Main	PWB	(CTRL	_)
---	------	------------	-------	----

* DP main PWB (DP)

* PF main PWB (PF)

* DF main PWB (DF)

* Bridge PWB (AK)

* Engin fuser PWB (IH)

* Engine LSU PWB (LSU)

* Engine IO PWB (IO)

* Engine PWB (ENGN)

* FAX PWB (FAX)

* First color table (CLT1)

* Second color table (CLT2)

* Language data (OPT)

* Dictionary data (DIC)

* Operation panel PWB (PANL)

Preparation

Extract the file that has the download firmware and store them in a 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

- Turn ON the main power switch and confirm if the screen shows "Ready to print" then, turn OFF the main power switch.
- 2. Insert USB memory that has the firmware in the USB memory slot.
- 3. Turn ON the main power switch.
- About 50 seconds later, "Farmware Update" will be displayed (this shows that downloading is ready to start).
- 5. Select the firmware to upgrade by referring to the following codes:

$$\begin{split} \mathsf{CTRL} \to \mathsf{DP} \to \mathsf{PF} \to \mathsf{DF} \to \mathsf{AK} \to \mathsf{IH} \\ \to \mathsf{LSU} \to \mathsf{IO} \to \mathsf{ENGN} \to \mathsf{FAX} \to \mathsf{CLT1} \\ \to \mathsf{CLT2} \to \mathsf{OPT} \to \mathsf{DIC} \to \mathsf{PANL} \end{split}$$

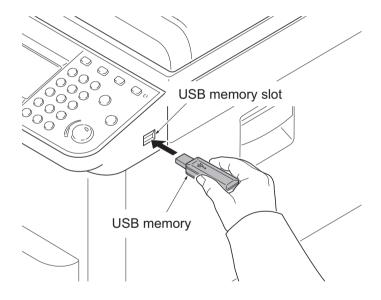


Figure 1-6-1

Example:

Firmware Update First line: Status of upgrading.

CTRL Second line: Firm ware for upgrading.

xxx% Third line: The progress of upgrading in %.

Caution:

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

- 6. Confirm that upgrading is completed.
- 7. Confirm that the version of the firmware is correctly displayed.
- 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 from a USB flash device.

In that case, retry upgrading after recovering the software by following the procedure below.

Preparation

The CF memory card 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.2MY] to [KM_EMRG.2MY] Copy the all extracted files to the root of the CF memory.

Procedure

- 1. Turn the main power switch off.
- 2. Install the CF memory card which contains the firmware onto the main PWB.
- 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.
- Wait for several seconds and then remove the CF memory from the main PWB.
- 8. Extract the firmware to download from the archive and copy to the root of the USB flash device.

NOTE: Deletes the "ES_SKIP.on" file When it is contained directly under the USB memory.

- 9. Insert the USB flash device in which the firmware was copied into the slot on the machine.
- Perform steps 3 to 8 on the previous page.
- 11. Turn the main power switch on.
- Perform maintenance item U000 (Print a maintenance report) to check that the version of ROM U109 has been upgraded.

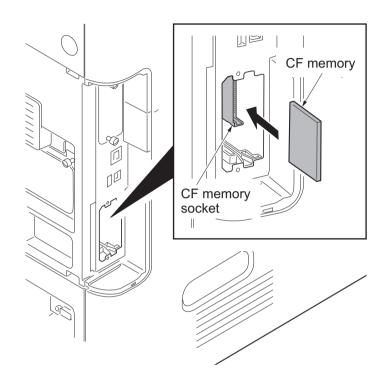


Figure 1-6-2

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.

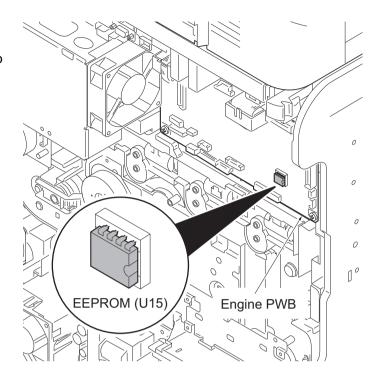


Figure 1-6-3

(2) DP main PWB

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

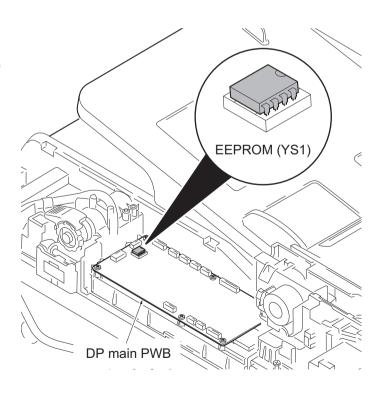


Figure 1-6-4

(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	U260 Selecting the timing for copy counting		U611	Setting system 2
U326	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

The 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.

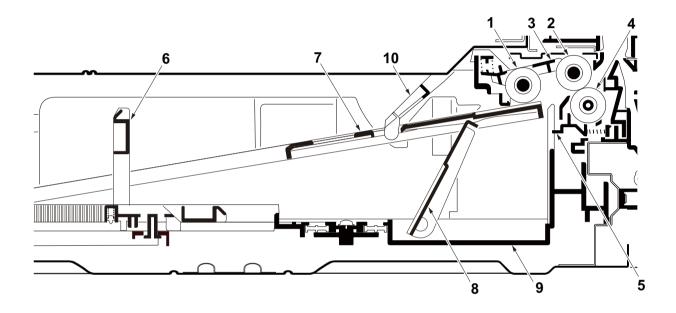


Figure 2-1-1 Cassette paper feed section

- 1. Pickup roller
- 2. Paper feed roller
- 3. Feed holder
- 4. Retard roller
- 5. Retard holder

- 6. Paper length guide
- 7. Bottom plate
- 8. Lift work plate
- 9. Cassette base
- 10. Actuator (paper sensor)

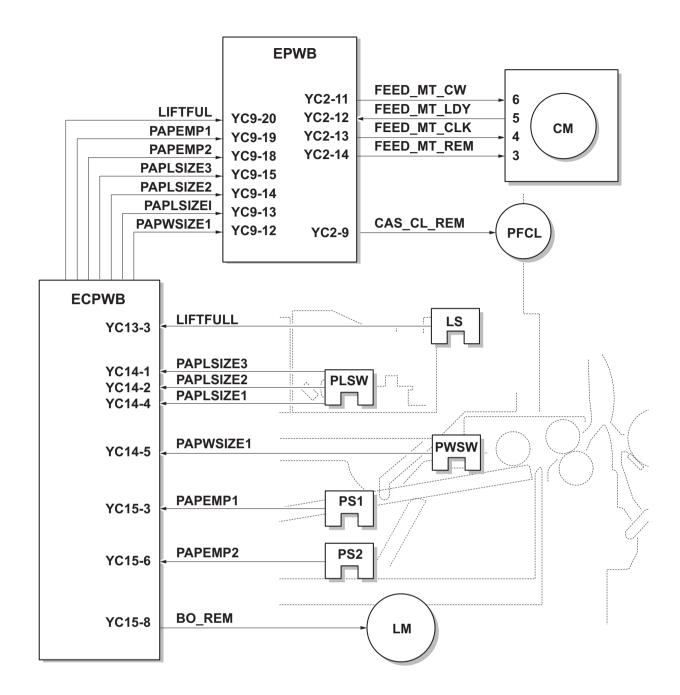


Figure 2-1-2 Cassette paper feed section block diagram

(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.

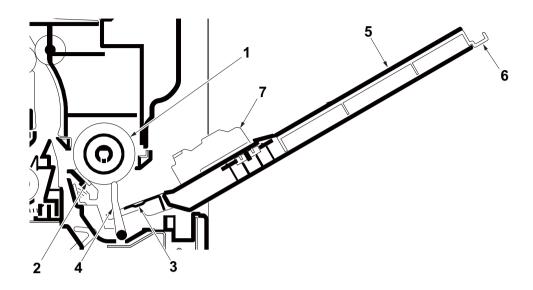


Figure 2-1-3 MP tray paper feed section

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

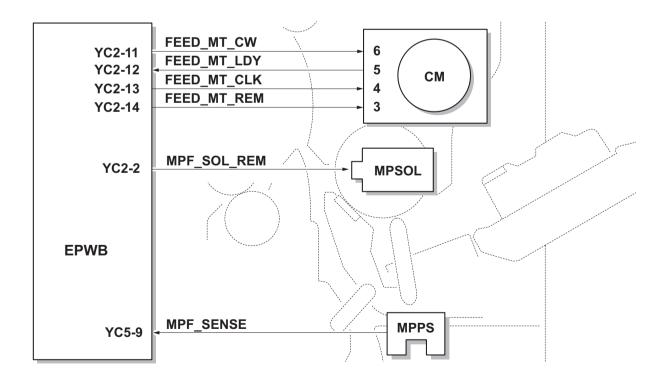


Figure 2-1-4 MP tray paper feed section block diagram

(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.

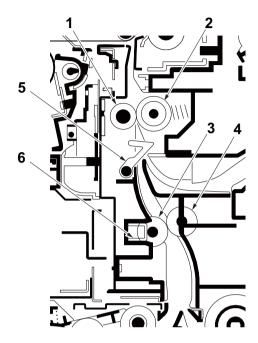


Figure 2-1-5 Conveying section

- 1. Left registration roller
- 2. Right registration roller
- 3. Left feed roller

- 4. Right feed roller
- 5. Actuator (registration sensor)
- 6. Registration cleaner

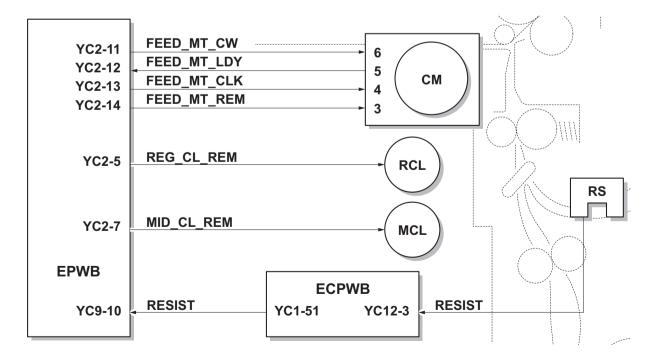


Figure 2-1-6 Paper conveying section block diagram

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 sweep roller. The cleaning lamp (CL) consists of LEDs and removes residual charge on the drum before main charging.

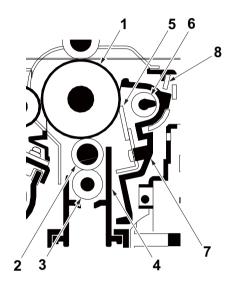


Figure 2-1-7 Drum section

- 1. Drum
- 2. Charger roller
- 3. Charger cleaning roller
- 4. Charger case
- 5. Cleaning blade

- 6. Sweep roller
- 7. Drum frame
- 8. Cleaning lamp (CL)

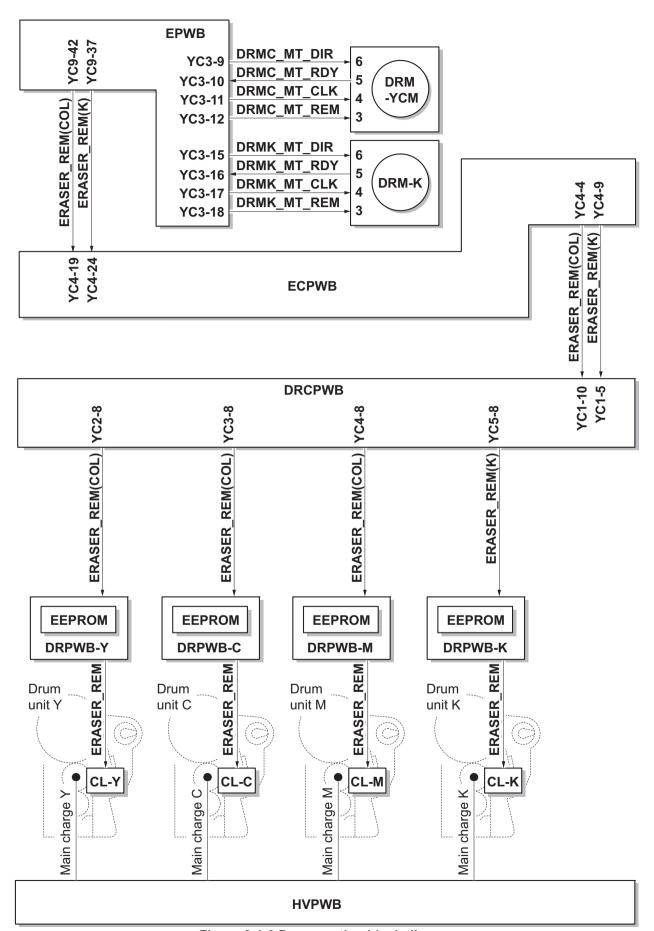


Figure 2-1-8 Drum section block diagram

2-1-3 Developing section

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

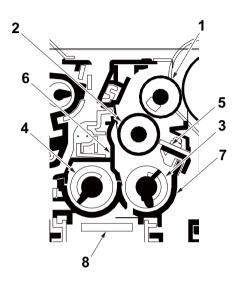


Figure 2-1-9 Developing section

- 1. Sleeve roller
- 2. Magnet roller
- 3. Developing screw A
- 4. Developing screw B
- 5. Developing blade
- 6. Developer case
- 7. Developer base
- 8. Toner sennsor (TS)

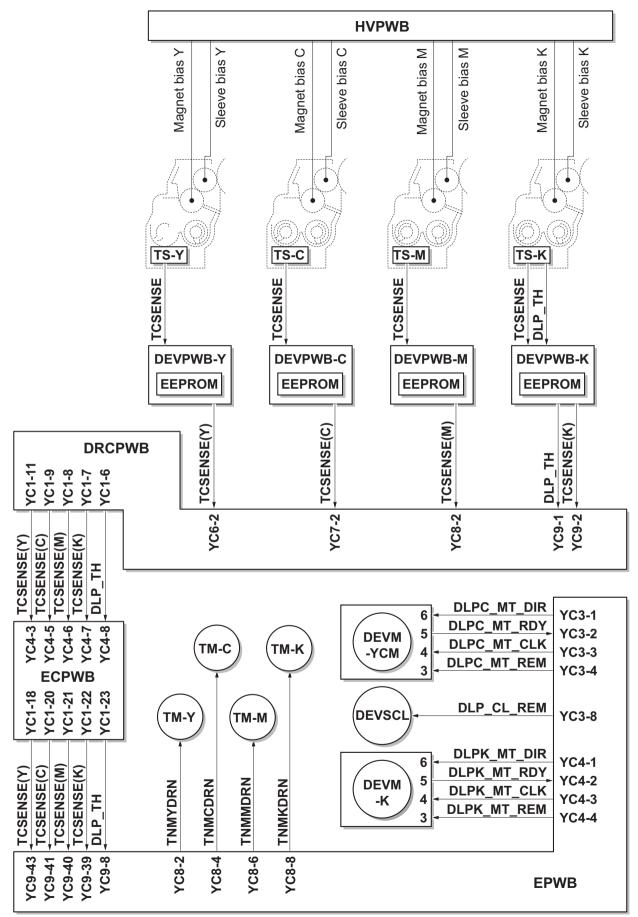


Figure 2-1-10 Developing section block diagram

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.

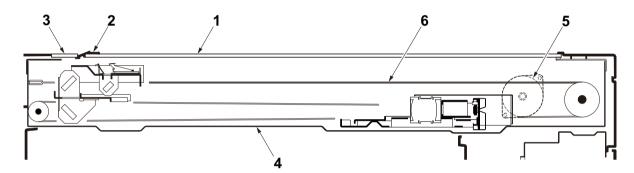


Figure 2-1-11 Scanner unit

- 1. Platen
- 2. Original size indicator plate
- 3. DP contact glass

- 4. ISU frame
- 5. ISU motor (ISUM)
- 6. ISU wire

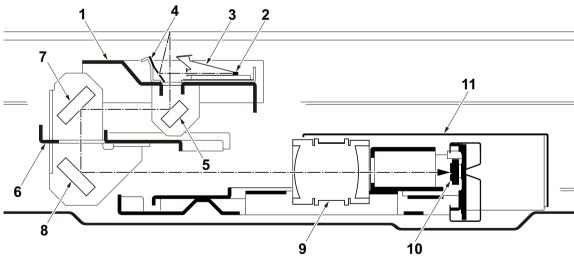


Figure 2-1-12 Image scanner unit (ISU)

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

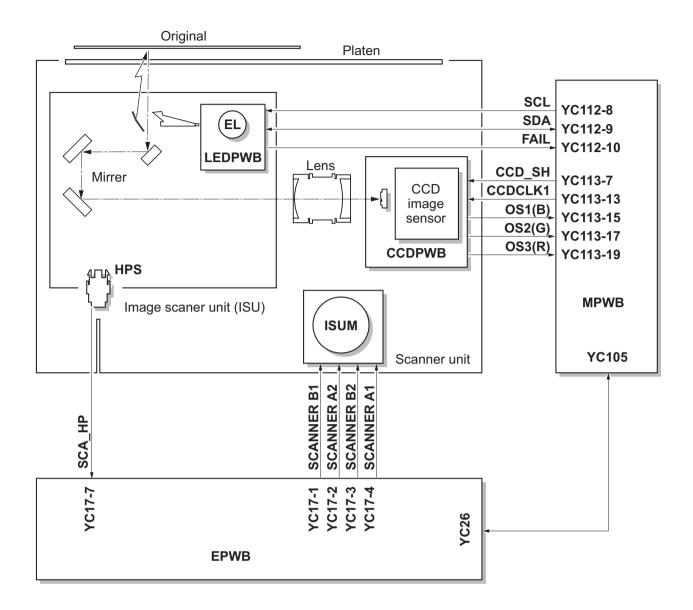


Figure 2-1-13 Scanner unit block diagram

(2) Laser scanner section

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

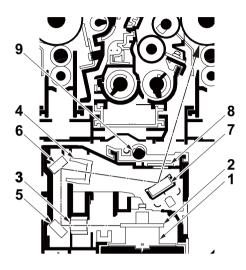


Figure 2-1-14 Laser scanner unit (LSU)

- 1. Polygon motor (PM)
- 2. Porygon mirrer
- 3. fθ lens A
- 4. fθ lens B
- 5. Mirrer A

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

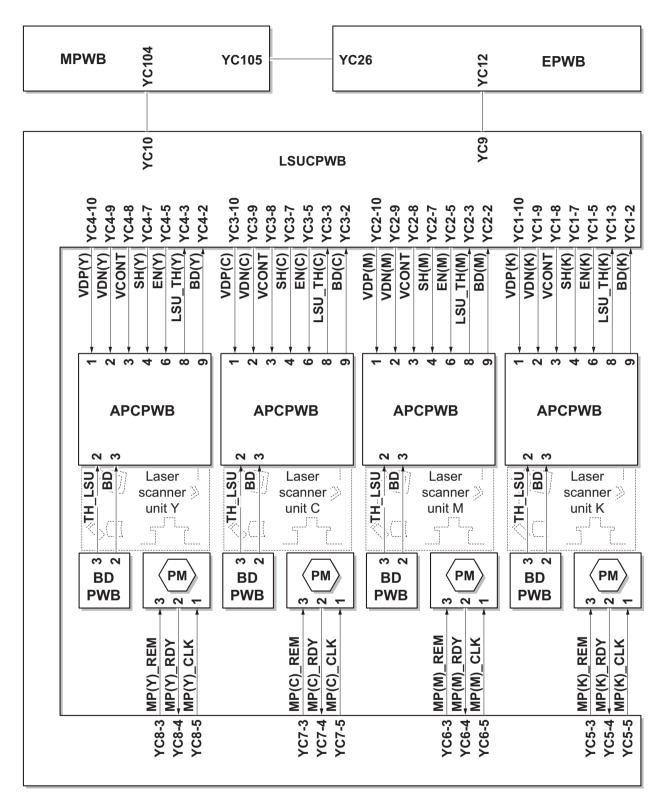


Figure 2-1-15 Laser scanner unit block diagram

2-1-5 Transfer/Separation section

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

(1) Intermediate transfer unit section

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

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

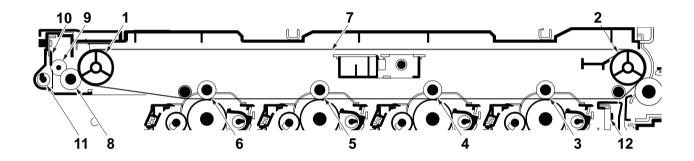


Figure 2-1-16 Inter mediate transfer unit section

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

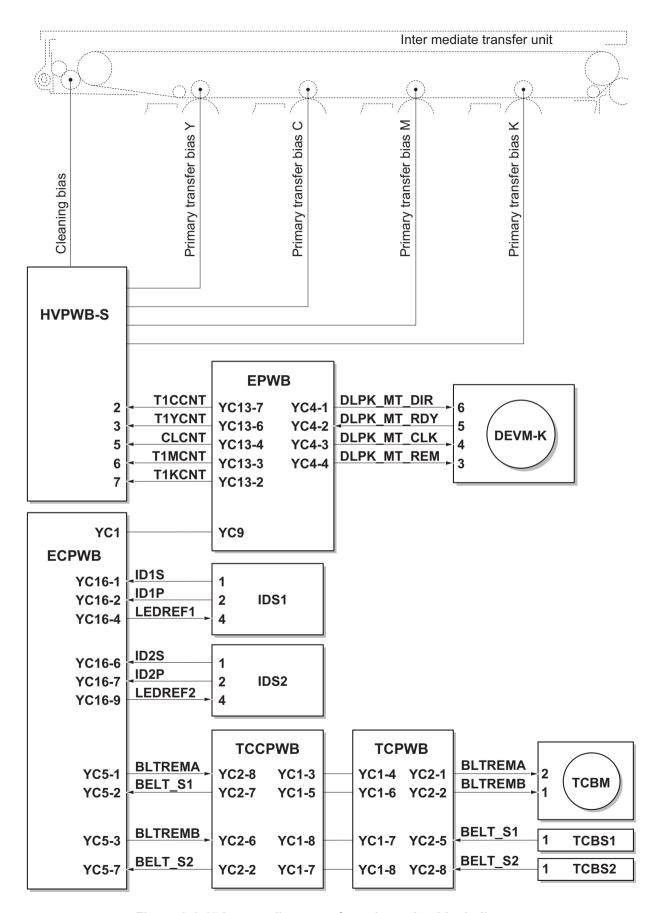


Figure 2-1-17 Intermediate transfer unit section block diagram

(2) Secondary transfer roller section

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

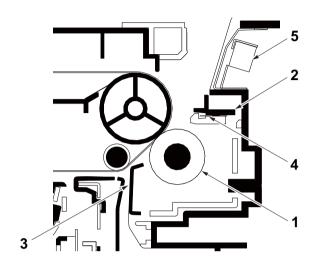


Figure 2-1-18 Secondary transfer roller section

- 1. Secondary transfer roller
- 2. Separation needle holder
- 3. Paper chute guide
- 4. Separation needle
- 5. Fuser pre sensor

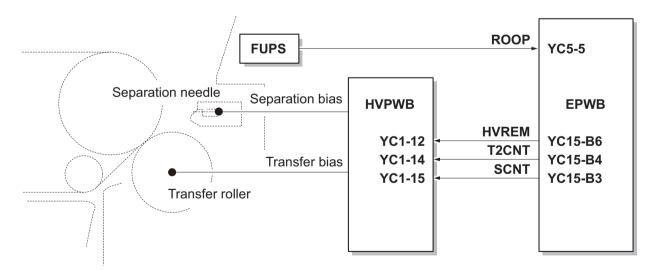


Figure 2-1-19 Secondary transfer roller section block diagram

2-1-6 Fuser section

The paper sent from the transfer/separation section is interleaved between the heat roller and the press roller. The heat roller is heated by the IH coil (IHC), 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 thermistor1 (FTH1), fuser thermistor2 (FTH2) and the surface temperature of press roller is detected by the fuser thermistor3 (FTH3) and controlled by the engine PWB (EPWB). If the fuser section shows extremely high temperature, the power line will be shut off and the IH coil (IHC) is forced to turn off.

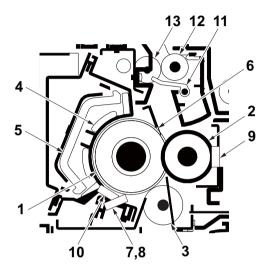


Figure 2-1-20 Fuser section

- 1. Heat roller
- 2. Press roller
- 3. Uniformity heat roller
- 4. IH coil (IHC)
- 5. Core
- 6. Separate plate
- 7. Fuser thermistor 1 (FTH1)
- 8. Fuser thermistor 2 (FTH2)
- 9. Fuser thermistor 3 (FTH3)
- 10. Fuser thermostat (FTS)
- 11. Actuator (eject sensor)
- 12. Eject roller
- 13. Eject pulley

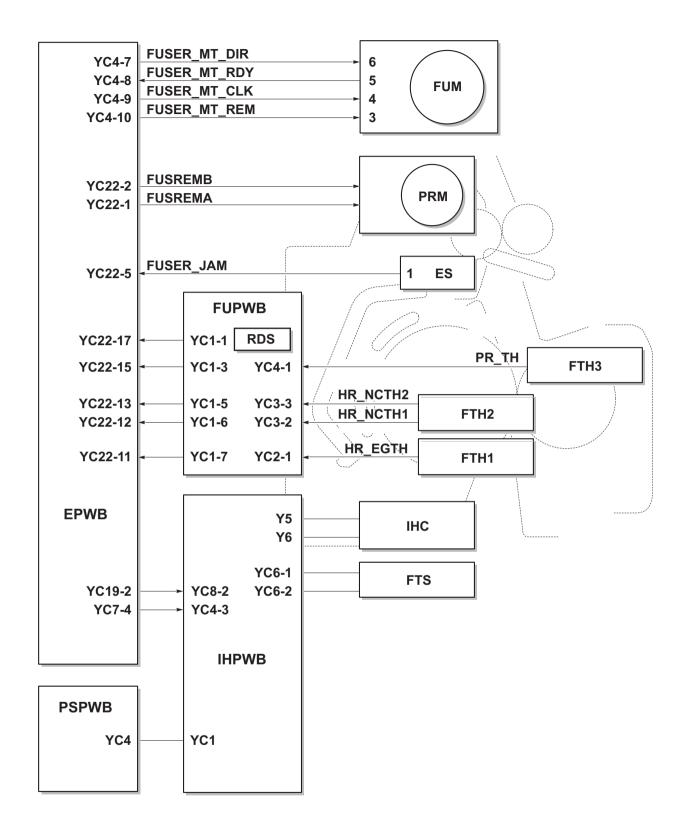


Figure 2-1-21 Fuser section block diagram

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.

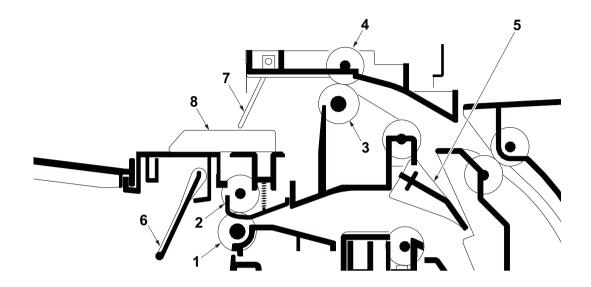


Figure 2-1-22 Eject/Feedshift section

- 1. Eject roller A
- 2. Eject pulley A
- 3. Eject roller B
- 4. Eject pulley B
- 5. Feedshift guide

- 6. Actuator (paper full sensor)
- 7. Actuator (job paper full sensor)
- 8. Actuator (job eject paper sensor)

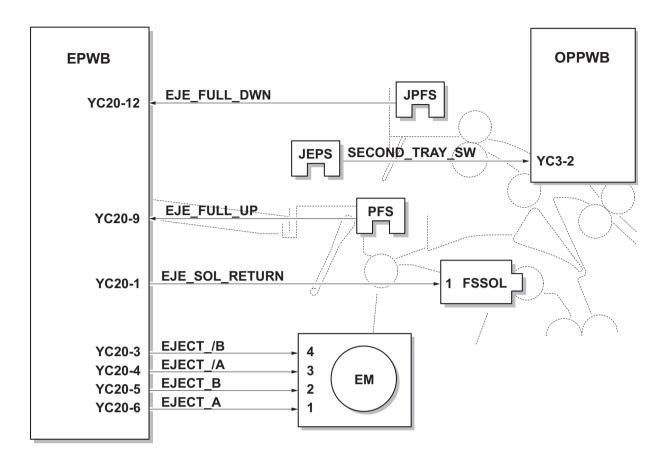


Figure 2-1-23 Eject/Feed shift section block diagram

2-1-8 Duplex conveying section

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

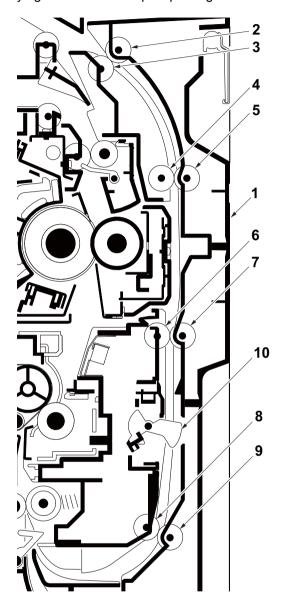


Figure 2-1-24 Duplex conveying section

- 1. Right cover 1
- 2. Duplex feed roller A
- 3. Duplex feed pulley A
- 4. Duplex feed roller B
- 5. Duplex feed pulley B
- 6. Duplex feed roller C
- 7. Duplex feed pulley C
- 8. Duplex feed roller D
- 9. Duplex feed pulley D
- 10. Actuater(duplex sensor)

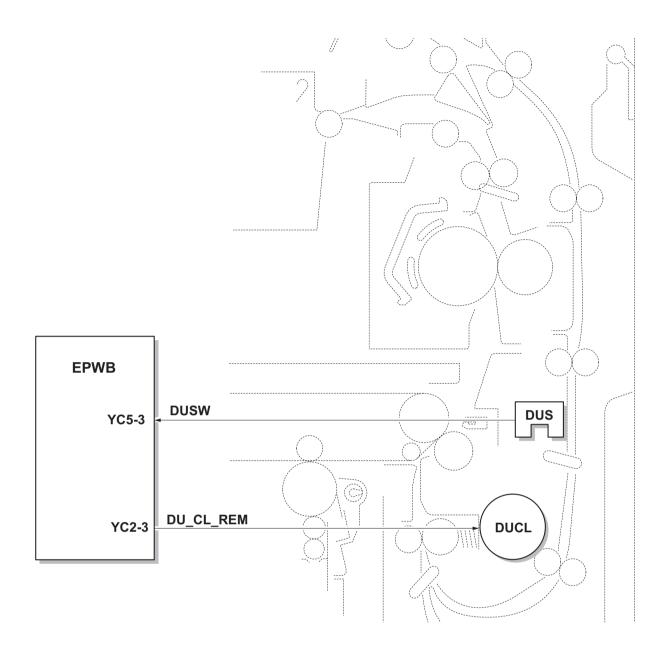


Figure 2-1-25 Duplex conveying section block diagram

2-1-9 Document processor

(1) Original feed section

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

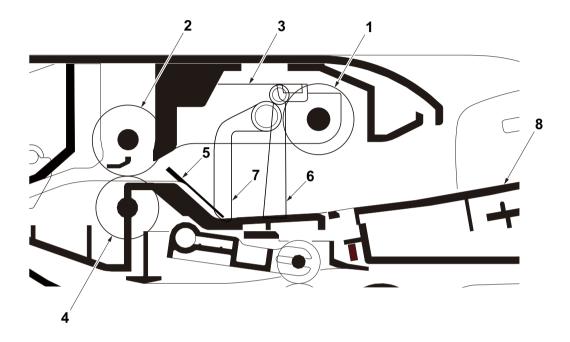


Figure 2-1-26 Original feed section

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

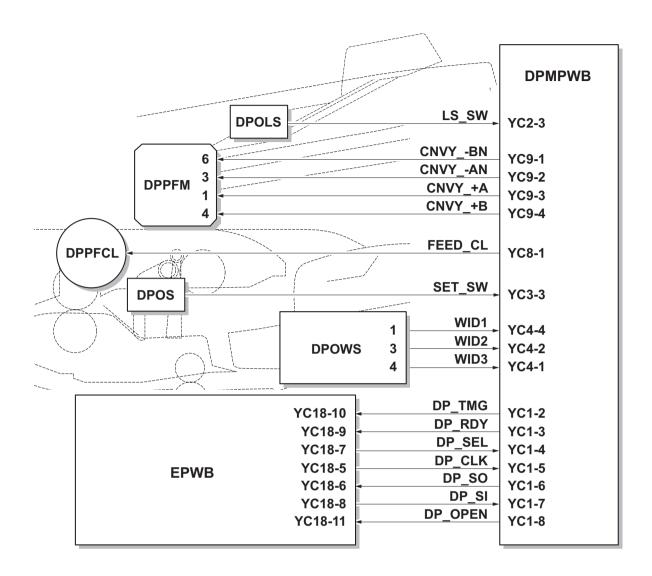


Figure 2-1-27 Original feed section block diagram

(2) Original conveying section

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

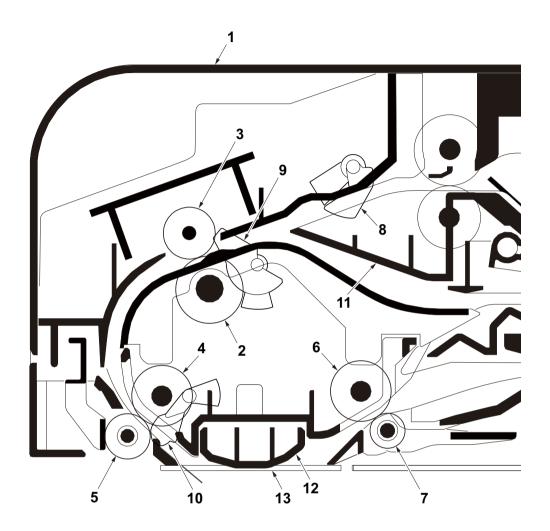


Figure 2-1-28 Original conveying section

- 1. DP top cover
- 2. DP registration roller
- 3. DP registration pulley
- 4. Conveying roller
- 5. Conveying pulley
- 6. Eject roller
- 7. Eject pulley

- 8. Actuator (DP paper feed sensor)
- 9. Actuator (DP registration sensor)
- 10. Actuator (DP timing sensor)
- 11. Switchback guide
- 12. Reading guide
- 13. Slit glass

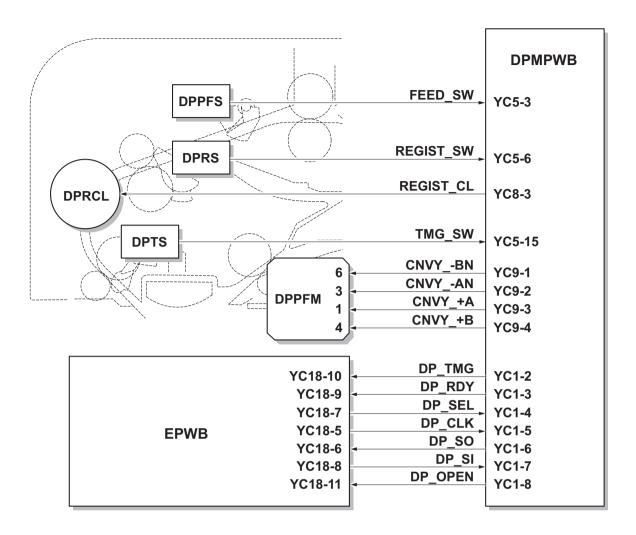


Figure 2-1-29 Original conveying section block diagram

(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.

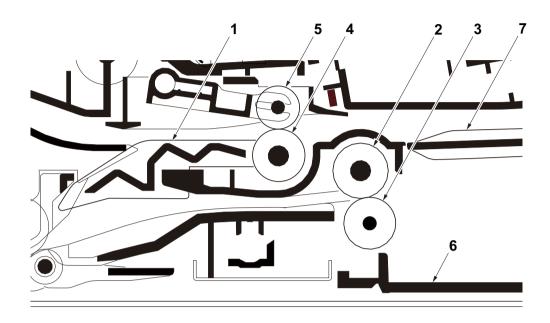


Figure 2-1-30 Original switchback/eject sections

- 1. Feedshift guide
- 2. Eject roller
- 3. Eject pulley
- 4. Switchback roller

- 5. Switchback pulley
- 6. Original eject table
- 7. Switchback tray

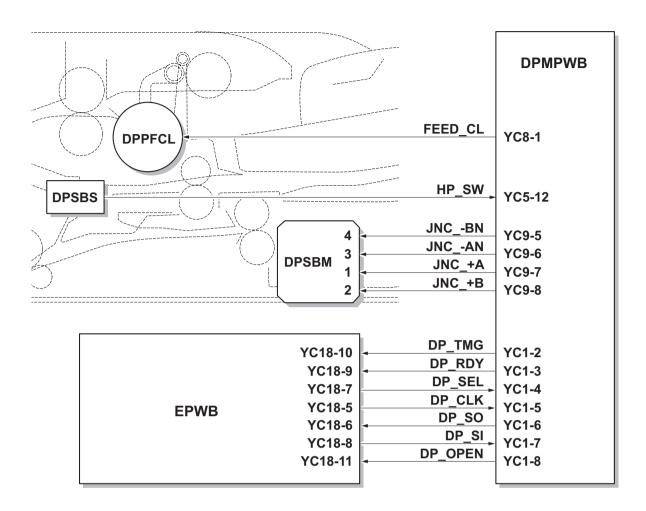


Figure 2-1-31 Original switchback/eject sections block diagram

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2-2-1 Electrical parts layout

(1) PWBs

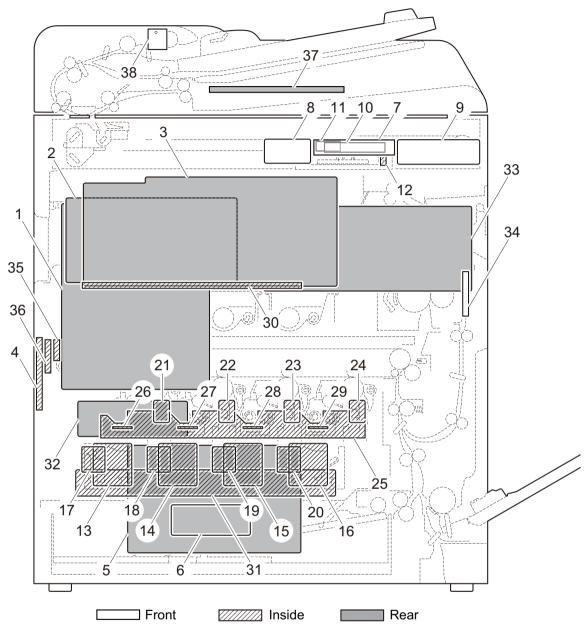


Figure 2-2-1 PWBs

1. Main PWB (MPWB)	Controls the software for print data processing and provides the interface with computers.
2. Engine PWB (EPWB)	. Controls printer hardware such as high voltage/bias output control, paper conveying system control, and fuser temperature control, etc.
3. High voltage PWB (HVPWB)	. Generates main charging, developing bias, secondary transfer bias.
4. High voltage PWB sub (HVPWB-S)	. Generates primary transfer bias, cleaning bias.
5. 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.
6. Power source PWB sub (PSPWB-S)	.5V output control when standing by.

7. Operation panel PWB main	
	Consists of the LCD, LED indicators and key switches.
8. Operation panel PWB left	
	Consists of the LED indicators and key switches.
9. Operation panel PWB right	
· · · · · · · · · · · · · · · · · · ·	Consists of the LED indicators and key switches.
10. LCD (LCD)	·
11. LCD relay PWB (LCDRPWB)	Consists of wiring relay circuits between the operation panel PWB
40, 00D DIAID (00DDIAID)	main and the LCD PWB.
12. CCD PWB (CCDPWB)	
	Generates and controls the laser beamfor yellow Generates and controls the laser beam for cyan.
· · · · · · · · · · · · · · · · · · ·	Generates and controls the laser beam for magenta.
· · · · · · · · · · · · · · · · · · ·	Generates and controls the laser beam for black.
,	Controls horizontal synchronizing timing of laser beam for yellow.
	Controls horizontal synchronizing timing of laser beam for cyan.
· · · · · · · · · · · · · · · · · · ·	Controls horizontal synchronizing timing of laser beam for
,	magenta.
20. BD PWB K (BDPWB-K)	Controls horizontal synchronizing timing of laser beam for black.
	Relays wirings from electrical components on the drum unit for
	yellow.
	Stores the drum's identifications a EEPROM.
22. Drum PWB C (DRPWB-C)	Relays wirings from electrical components on the drum unit for
	cyan.
	Stores the drum's identifications a EEPROM.
23. Drum PWB M (DRPWB-M)	Relays wirings from electrical components on the drum unit for
	magenta.
	Stores the drum's identifications a EEPROM.
24. Drum PWB K (DRPWB-K)	Relays wirings from electrical components on the drum unit for
	black. Stores the drum's identifications a EEPROM.
25 Drum connect DWP (DDCDWP)	Consists of wiring relay circuit between engine PWB and the
25. Druin connect PWB (DRCPWB)	drum unit.
26 Developing PWR V (DEVPWR-V)	Relays wirings from electrical components on the developing unit
20. Developing 1 VVD 1 (DEV1 VVD-1)	for yellow.
	Stores the developer's identifications a EEPROM.
27. Developing PWB C (DEVPWB-C)	Relays wirings from electrical components on the developing unit
3 - 7	for cyan.
	Stores the developer's identifications a EEPROM.
28. Developing PWB M (DEVPWB-M)	. Relays wirings from electrical components on the developing unit
	for magenta.
	Stores the developer's identifications a EEPROM.
29. Developing PWB K (DEVPWB-K)	Relays wirings from electrical components on the developing unit
	for black.
	Stores the developer's identifications a EEPROM.
30. RFID PWB (RFPWB)	
31. LSU connect PWB (LSUCPWB)	Consists of wiring relay circuit between main PWB, engine
22 Engine connect DMD (ECDMD)	connect PWB and LSU unit.
32. Engine connect PVVB (ECPVVB)	Consists of wiring relay circuit between engine PWB and drum connect PWB, transfer connect PWB, option unit.
33. IH PWB (IHPWB)	·
, ,	Relays wirings from electrical components on the fuser unit.
07. 1 4301 1 440 (1 01 440)	Fuser individual information in EEPROM storage.
	. acc. marriada mormation in EEI (Con Storage.

35. Transfer PWB (TCPWB)	Relays wirings from electrical components on the intermediate
	transfer unit.
	Intermediate transfer individual information in EEPROM storage.
36. Transfer connect PWB (TCCPWB)	Consists of wiring relay circuit between engine connect PWB and
	Transfer PWB.
37. DP main PWB (DPMPWB)	Consists the motor and clutch driver circuit and wiring relay cir-
	cuit.
38. DP LED PWB (DPLEDPWB)	Displays the presence of the original.

PWB names conversion

No.	Name used in service manual	Name used in parts list
1	Main PWB (MPWB)	PARTS PWB MAIN ASSY SP
2	Engine PWB (EPWB)	PARTS PWB ENGINE ASSY SP
3	Engine connect PWB (ECPWB)	PARTS PWB ENGINE CONNECT ASSY SP
4	High voltage PWB (HVPWB)	PARTS HVU1 SP
5	High voltage PWB sub (HVPWB-S)	PARTS HVU2 SP
6	Power source PWB (PSPWB)	PARTS LVU MAIN 100 SP PARTS LVU MAIN 200 SP
7	Power source PWB sub(PSPWB-S)	PARTS LVU SUB 100 SP PARTS LVU SUB 200 SP
8	IH PWB (IHPWB)	PARTS PWB IH 100 ASSY SP PARTS PWB IH 200 ASSY SP
9	Operation panel PWB main(OPPWB-M)	PARTS PWB PANEL MAIN ASSY SP
10	Drum connect PWB (DRCPWB)	PARTS PWB DRUM DLP CONNECT ASSY SP
11	Transfer connect PWB (TCCPWB)	PARTS PWB TRANSFER CONNECT ASSY SP
12	LSU connect PWB (LSUCPWB)	PARTS PWB LSU CONNECT ASSY SP
13	RFID PWB (RFIDPWB)	PARTS PWB RFID ASSY SP
14	DP main PWB (DPMPWB)	PARTS PWB DRIVE ASSY SP

(2) Switches and sensors

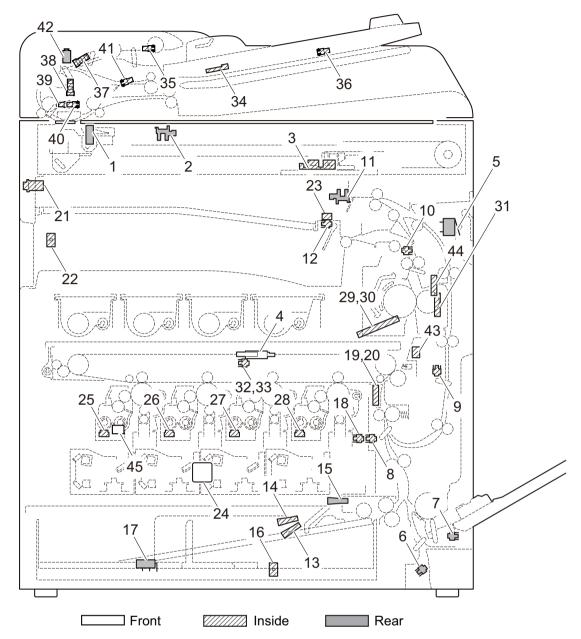


Figure 2-2-2 Switches and sensors

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. Job paper full sensor (JPFS)	Detects the paper full in the job separator tray.
12. Paper full sensor (PFS)	Detects the paper full in the inner 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.
	Detects activation of upper 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. ID shutter sensor (IDSS)	Detects the position of the iD shutter.
19. ID sensor 1 (IDS1)	Measurement of density of toner at calibration.
20. ID sensor 2 (IDS2)	Measurement of density of toner at calibration.
21. Main power switch (MSW)	Turns ON/OFF the AC power source.
22. Bridge detection switch (BRDSW)	Detects the presence the bridge.
23. Job eject papersensor (JEPS)	Detects the presence of paper in the job separator.
24. Temperature sensor (TEMS)	Detects temperature and absolute humidity in machine.
25. Toner sensor Y (TS-Y)	Detects the amount of toner remainder in the developing unit Y.
26. Toner sensor C (TS-C)	Detects the amount of toner remainder in the developing unit C.
27. Toner sensor M (TS-M)	Detects the amount of toner remainder in the developing unit M.
28. Toner sensor K (TS-K)	Detects the amount of toner remainder in the developing unit K.
` ,	Detects the heat roller temperature.(edge)
	Detects the heat roller temperature.(center)
31. Fuser thermistor 3 (FTH3)	Detects the press roller temperature.
32. TC belt sensor 1 (TCBS1)	Detects the position of the primary transfer belt.
· · · · · · · · · · · · · · · · · · ·	Detects the position of the primary transfer belt.
34. DP original size width sensor	
(DPOWS)	•
35. DP original sensor (DPOS)	Detects the presence of an original.
36. DP original size length sensor	
(DPOLS)	
37. DP paper feed sensor (DPPFS)	
• • • • • • • • • • • • • • • • • • • •	Controls the secondary paper feed start timing.
39. DP timing sensor (DPTS)	
40. DP open/close sensor (DPOCS)	· · · · · · · · · · · · · · · · · · ·
· · · · · · · · · · · · · · · · · · ·	Detects the switchback guide in the home position.
	Shuts off 24 V DC power line when the dp top coveris opened.
43. Fuser pre sensor (FUPS)	Detects the JAM on this side of fuser.
44. Fuser roller rotation detection sensor	Detects the actalian of the force . "
(FURDS)	
45. Waste toner sensor (WTS)	Detects when the waste toner box is full.

(3) Motors

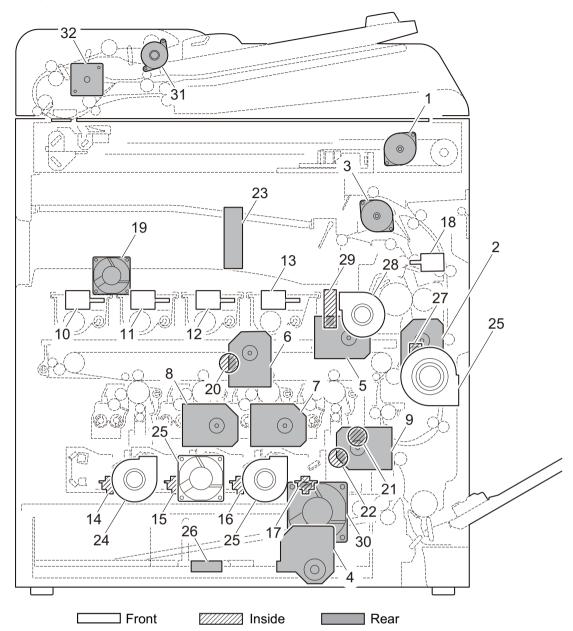


Figure 2-2-3 Motors

1. ISU motor (ISUM) Drives the ISU.	
2. Fuser motor (FUM) Drives the fuser section.	
3. Eject motor (EM)	
4. Lift motor (LM) Operates the bottom plate.	
5. Drum motor K (DRM-K) Drives the drum unit K.	
6. Drum motor YCM (DRM-YCM) Drives the drum unit YCM.	
7. Developer motor K (DEVM-K) Drives the developer unit K.	
8. Developer motor YCM (DEVM-YCM) Drives the developer unit YCM.	
9. Conveying motor (CM) Drives the paper feed section and conveying se	ction.
10. Toner motor Y (TM-Y) Replenishes toner to the developer unit Y.	
11. Toner motor C (TM-C) Replenishes toner to the developer unit C.	
12. Toner motor M (TM-M)Replenishes toner to the developer unit M.	
13. Toner motor K (TM-K) Replenishes toner to the developer unit K.	

14. Polygon motor Y (PM-Y) Drives the polygon mirror Y.
15. Polygon motor C (PM-C) Drives the polygon mirror C.
16. Polygon motor M (PM-M) Drives the polygon mirror M.
17. Polygon motor K (PM-K) Drives the polygon mirror K.
18. Fuser press release motor (FPRM) Drives the pressure release system of the fuser.
19. Controller fan motor (CONFM) Cools the controller section.
20. Transfer belt motor (TCBM) Drives the transfer belt.
21. ID shutter motor (IDSM) Drives the ID sensor cleaning section.
22. LSU cleaning motor (LSUCM) Drives the LSU cleaning section.
23. IH fan motor (IJHFM) Cools the IH PWB.
24. Developer fan motor (DEVFM) Cools the developer section.
25. LSU fan motor (LSUFM) Cools the LSU section.
26. Power source fan motor (PSFM) Cools the power source PWB.
27. Fuser fan motor (FUFM) Cools the fuser and eject sections.
28. Container fan motor (CFM) Cools the toner container section.
29. IH coil fan motor (IHCFM)Cools the IH coil.
30. Imaging fan motor (IMGFM) Cools the imaging section.
31. DP paper feed motor (DPPFM) Drives the original feed section.
32. DP switchback motor (DPSBM) Drives the original switchback section.

(4) Others

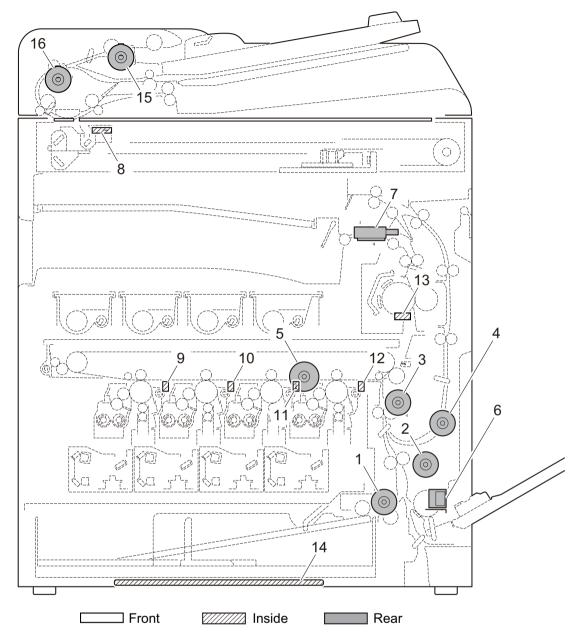


Figure 2-2-4 Others

1. Paper feed clutch (PFCL)	Controls the primary paper feed from cassette.
2. Mid clutch (MCL)	Controls the paper conveying.
3. Registration clutch (RCL)	Controls the secondary paper feed.
4. Duplex clutch (DUCL)	Controls the drive of the duplex feed roller.
5. Developer stop clutch (DEVSCL)	Controls the drive of the developer.
6. MP solenoid (MPSOL)	Controls the MP bottom plate.
7. Feedshift solenoid (FSSOL)	Operates the feedshift guide.
8. Exposure lamp (EL)	Exposes originals.
9. Cleaning lamp Y (CL-Y)	Eliminates the residual electrostatic charge on the drum.
10. Cleaning lamp C (CL-C)	Eliminates the residual electrostatic charge on the drum.
11. Cleaning lamp M (CL-M)	Eliminates the residual electrostatic charge on the drum.
12. Cleaning lamp K (CL-K)	Eliminates the residual electrostatic charge on the drum.
13. Fuser thermostat (FTS)	Prevents overheating of the heat roller.
14. Cassette heater (CH)	Dehumidifies the cassette section.

- 15. DP paper feed clutch (DPPFCL)........... Controls the drive of the DP forwarding pulley and DP paper feed roller.
- 16. DP registration clutch (DPRCL) Controls the secondary paper feed.

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2-3-1 Main PWB

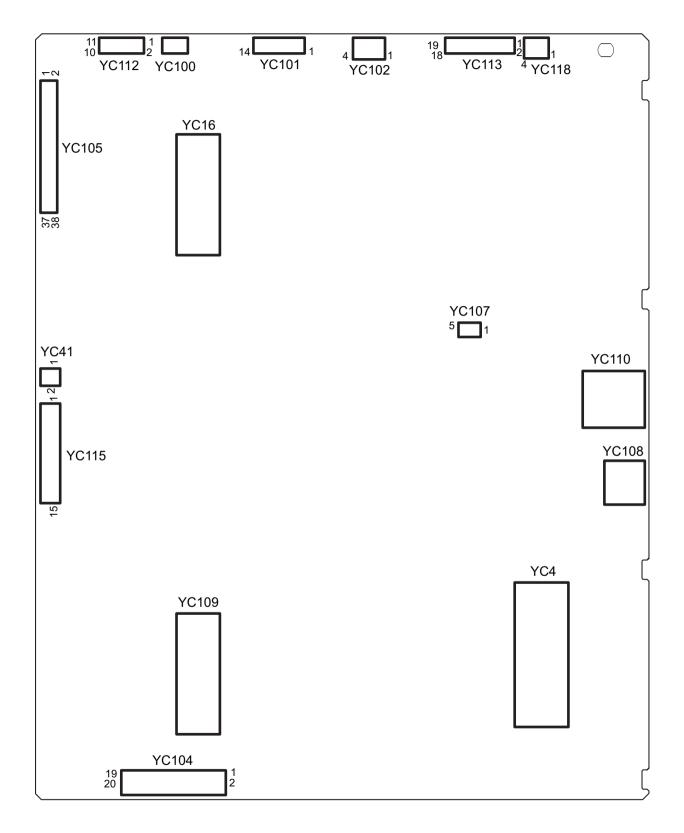


Figure 2-3-1 Main PWB silk-screen diagram

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

Connector	Pin	Signal	I/O	Voltage	Description
YC104	1	VDN(K)	0	LVDS	Video data signal (-)
Connected to	2	VDP(K)	0	LVDS	Video data signal (+)
LSU connect	3	SH(K)	0	0/3.3 V DC	Sample/hold signal
PWB	4	BD(K)	I	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	5	SGND	-	-	Ground
	6	VDN(M)	0	LVDS	Video data signal (-)
	7	VDP(M)	0	LVDS	Video data signal (+)
	8	SH(M)	0	0/3.3 V DC	Sample/hold signal
	9	BD(M)	I	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	10	SGND	-	-	Ground
	11	VDN(C)	0	LVDS	Video data signal (-)
	12	VDP(C)	0	LVDS	Video data signal (+)
	13	SH(C)	0	0/3.3 V DC	Sample/hold signal
	14	BD(C)	I	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	15	SGND	-	-	Ground
YC105	1	SLEEPOFF	I	0/3.3 V DC	Sleep Off signal
Connected to	2	ENG_HLD	0	0/3.3 V DC	Engine hold signal
engine PWB	3	SCAN_HLD	0	0/3.3 V DC	Scan hold signal
	4	LIGHTSLEEP N	0	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	0	0/3.3 V DC	Interrupt sijgnal
	20	AQUA_CLK	I	0/3.3 V DC(pulse)	Clock signal
	21	AQUA_SO	0	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 intput

Connector	Pin	Signal	I/O	Voltage	Description
YC105	23	AQUA_SEL	I	0/3.3 V DC	Select signal
Connected to	24	AQUA_RDY	0	0/3.3 V DC	Ready signal
engine PWB	25	PVSYNC	I	0/3.3 V DC(pulse)	Vertical synchronizing signal
	26	OVSYNCMON	0	0/3.3 V DC	Sub-scanning monitor signal
	27	PAGEST	- 1	0/3.3 V DC	Sub-scanning standard signal
	28	EME_CLK	0	0/3.3 V DC(pulse)	Clock signal
	29	EME_SO	0	0/3.3 V DC(pulse)	Serial communication data signal output
	30	EME_SI	- 1	0/3.3 V DC(pulse)	Serial communication data signal intput
	31	EME_BSY	1	0/3.3 V DC	Busy signal
	32	EME_DIR	1	0/3.3 V DC	Communication direction change signal
	33	EME_IRN	1	0/3.3 V DC	Interrupt signal
	34	5V4IL	-	DC5 V	5 V DC power input from EPWB
	35	BDN(K)	Ο	0/3.3 V DC(pulse)	Horizontal synchronizing signal (K)
	36	BDN(M)	1	0/3.3 V DC(pulse)	Horizontal synchronizing signal (M)
	37	BDN(C)	1	0/3.3 V DC(pulse)	Horizontal synchronizing signal (C)
	38	BDN(Y)	-	0/3.3 V DC(pulse)	Horizontal synchronizing signal (Y)
YC107	1	VBUS	0	5 V DC	5 V DC power output
Connected to	2	DATA-	I/O	LVDS	USB data signal
USB-HOST	3	DATA+	I/O	LVDS	USB data signal
	4	ID	-	-	Not used
	5	SHIELD_GND	-	-	Ground
YC112	1	+24V4	0	24 V DC	24 V DC power output to LEDPWB
Connected to	2	+24V4	0	24 V DC	24 V DC power output to LEDPWB
exposure lamp (LED	3	POW	0	0/3.3 V DC	LED driver: On/Off
PWB)	4	PWM	0	0/3.3 V DC	PWM signal
	5	PGND	-	-	Ground
	6	SGND	-	-	Ground
	7	VSET	0	Analog	Analog voltage
	8	SCL	0	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	Ο	5 V DC	5 V DC power output to LEDPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC113	1	CCDPWR	0	12 V DC	12 V DC power output to CCDPWB
Connected to	2	CCDPWR	0	12 V DC	12 V DC power output to CCDPWB
CCD PWB	3	+5V4	0	5 V DC	5 V DC power output to CCDPWB
	4	+5V4	0	5 V DC	5 V DC power output to CCDPWB
	5	+5V4	0	5 V DC	5 V DC power output to CCDPWB
	6	+3.3V4	0	3.3 V DC	3.3 V DC power output to CCDPWB
	7	CCD_SH	0	0/3.3 V DC	Shift gate signal
	8	GND	-	-	Ground
	9	RS	0	0/3.3 V DC	Reset signal
	10	GND	-	-	Ground
	11	СР	0	0/3.3 V DC	Clamping signal
	12	GND	-	-	Ground
	13	CCDCLK1	0	0/3.3 V DC(pulse)	Clock signal
	14	GND	-	-	Ground
	15	OS1(B)	- 1	Analog	CCD Image output signal(B)
	16	GND	-	-	Ground
	17	OS2(G)	1	Analog	CCD Image output signal(G)
	18	GND	-	-	Ground
	19	OS3(R)	1	Analog	CCD Image output signal(R)
YC115	1	DEEPSLEEP N	0	0/3.3 V DC	Sleep signal: On/Off
Connected to	2	GND	-	-	Ground
power source PWB	3	GND	-	-	Ground
PVVD	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	5V0	0	5 V DC	5 V DC power output to MSW
Connected to	2	AUTODOWN	0	0/3.3 V DC	Auto down signal
main	3	GND	-	-	Ground
switch,power source PWB	4	5V0	I	5 V DC	5 V DC power input from PSPWB-S
sub					
YC41	1	+24V1	0	24 V DC	24 V DC power output to CONFM
Connected to	2	CONTFANDR	0	0/24 V DC	CONFM: On/Off
controller fan	_	N	Ü	0,21130	
motor	3	N.C.	-	-	Not used
					1.00.000

2-3-2 Engine PWB

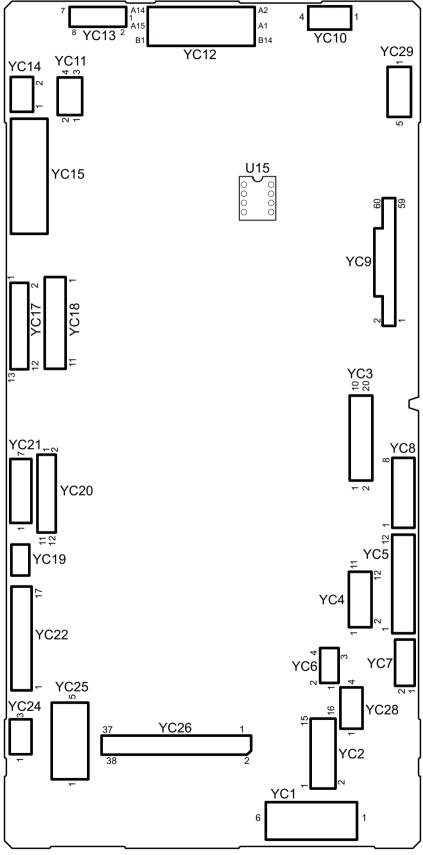


Figure 2-3-2 Engine PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	GND	-	-	GROUND
Connected to	2	GND	-	-	GROUND
power source PWB	3	GND	-	-	GROUND
	4	24V2	0	24 V DC	24 V DC power input from PSPWB
	5	24V2	0	24 V DC	24 V DC power input from PSPWB
	6	24V2	0	24 V DC	24 V DC power input from PSPWB
YC2	1	24V4	0	24 V DC	24 V DC power output to MPSOL
Connected to MP solenoid,	2	MPF_SOL_R EM	0	0/24 V DC	MPSOL: On/Off
duplex	3	DU_CL_REM	0	0/24 V DC	DUCL: On/Off
clutch, regis- tration clutch,	4	24V4	0	24 V DC	24 V DC power output to DUCL
mid clutch, feed clutch,	5	REG_CL_RE M	0	0/24 V DC	RCL: On/Off
conveying	6	24V4	0	24 V DC	24 V DC power output to RCL
motor	7	MID_CL_REM	0	0/24 V DC	MCL: On/Off
	8	24V4	0	24 V DC	24 V DC power output to MCL
	9	CAS_CL_RE M	0	0/24 V DC	PFCL: On/Off
	10	24V4	0	24 V DC	24 V DC power output to PFCL
	11	FEED_MT_DI R	0	0/5 V DC	CM drive shift signal
	12	FEED_MT_R DY	I	0/3.3 V DC	CM ready signal
	13	FEED_MT_CL K	0	0/5 V DC (pulse)	CM clock signal
	14	FEED_MT_R EM	0	0/5 V DC	CM: On/Off
	15	GND	-	-	GROUND
	16	24VIL	0	24 V DC	24 V DC power output to CM

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	DLPC_MT_DI	0	0/5V DC	DEVM-YCM drive shift signal
Connected to developer	2	R DLPC_MT_R DY	I	0/3.3 V DC	DEVM-YCM ready signal
motor YCM, developer	3	DLPC_MT_CL	0	0/5 V DC (pulse)	DEVM-YCM clock signal
stop clutch, drum motor YCM, drum	4	DLPC_MT_R EM	0	0/5 V DC	DEVM-YCM: On/Off
motor K	5	GND	-	-	GROUND
	6	24V4	0	24 V DC	24 V DC power output to DEVM-YCM
	7	24V4	0	24 V DC	24 V DC power output to DEVSCL
	8	DLP_CL_REM	0	0/3.3 V DC	DEVSCL: On/Off
	9	DRMC_MT_DI	0	0/5 V DC	DRM-YCM drive shift signal
	10	DRMC_MT_R DY	I	0/3.3 V DC	DRM-YCM ready signal
	11	DRMC_MT_C LK	0	0/5 V DC (pulse)	DRM-YCM clock signal
	12	DRMC_MT_R EM	0	0/5 V DC	DRM-YCM: On/Off
	13	GND	-	-	GROUND
	14	24VIL	0	24 V DC	24 V DC power output to DRM-YCM
	15	DRMK_MT_DI	0	0/5 V DC	DRM-K drive shift signal
	16	DRMK_MT_R DY	I	0/3.3 V DC	DRM-K ready signal
	17	DRMK_MT_C LK	0	0/5 V DC (pulse)	DRM-K clock signal
	18	DRMK_MT_R EM	0	0/5 V DC	DRM-K: On/Off
	19	GND	-	-	GROUND
	20	24VIL	0	24 V DC	24 V DC power output to DRM-K

Connector	Pin	Signal	I/O	Voltage	Description
YC4	1	DLPK_MT_DI	0	0/5 V DC	DEVM-K drive shift signal
		R			
Connected to developer	2	DLPK_MT_R DY	I	0/3.3 V DC	DEVM-K ready signal
motor K, fuser motor	3	DLPK_MT_CL K	0	0/5 V DC (pulse)	DEVM-K clock signal
	4	DLPK_MT_RE M	0	0/5 V DC	DEVM-K: On/Off
	5	GND	-	-	GROUND
	6	24VIL	0	24 V DC	24 V DC power output to DEVM-K
	7	FUSER_MT_ DIR	0	0/5 V DC	FUM drive shift signal
	8	FUSER_MT_ RDY	I	0/3.3 V DC	FUM ready signal
	9	FUSER_MT_ CLK	0	0/5 V DC (pulse)	FUM clock signal
	10	FUSER_MT_ REM	0	0/5 V DC	FUM: On/Off
	11	GND	-	-	GROUND
	12	24VIL	0	24 V DC	24 V DC power output to FUM
YC5	1	3.3V4	0	3.3 V DC	3.3 V DC power output to DUS
Connected to	2	GND	-	-	GROUND
duplex sen-	3	DUSW	I	0/3.3 V DC	DUS: On/Off
sor, MP paper sen-	4	GND	-	-	GROUND
sor, feed sen-	5	ROOP	-	-	FUPS: On/Off
sor	6	5V4	-	5 V DC	5 V DC power output to FUPS
	7	3.3V0	0	3.3 V DC	3.3 V DC power output to MPPS
	8	GND	-	-	GROUND
	9	MPF_SENSE	I	0/3.3 V DC	MPPS: On/Off
	10	3.3V4	0	3.3 V DC	3.3 V DC power output to FS
	11	GND	-	-	GROUND
	12	FEEDSW	I	0/3.3 V DC	FS: On/Off
YC6	1	SUB_SCL	0	3.3 V DC	Clock signal
Connected to	2	SUB_SDA	I/O	3.3 V DC	Data signal
sub PWB	3	GND	-	-	GROUND
	4	3.3V4	0	3.3 V DC	3.3 V DC power output to SPW

Connector	Pin	Signal	I/O	Voltage	Description
YC7	1	RXD	I	3.3 V DC	Data input
Connected to	2	TXD	0	3.3 V DC	Data output
IH PWB	3	ROTATION	0	3.3 V DC	Rotation detection
	4	IH_REM	0	3.3 V DC	Heater remote
	5	3.3V4			
	6	GND			
YC8	1	24V4	0	24 V DC	24 V DC power output to TM-Y
Connected to	2	TNMYDRN	0	0/24 V DC	TM-Y: On/Off
toner motor	3	24V4	0	24 V DC	24 V DC power output to TM-C
Y/C/M/K	4	TNMCDRN	0	0/24 V DC	TM-C: On/Off
	5	24V4	0	24 V DC	24 V DC power output to TM-M
	6	TNMMDRN	0	0/24 V DC	TM-M: On/Off
	7	24V4	0	24 V DC	24 V DC power output to TM-K
	8	TNMKDRN	0	0/24 V DC	TM-K: On/Off
YC9	1	GND	-	-	GROUND
Connected to	2	GND	-	-	GROUND
engine con- nect PWB	3	GND	-	-	GROUND
Heori WB	4	ID2S	I	Analog	IDS2 detection signal
	5	ID2P	I	Analog	IDS2 detection signal
	6	ID1S	I	Analog	IDS1 detection signal
	7	ID1P	I	Analog	IDS1 detection signal
	8	LEDREF2	0	Analog	IDS2 control signal
	9	LEDREF1	0	Analog	IDS1 control signal
	10	RESIST	I	0/3.3 V DC	RS: On/Off
	11	NC	-	-	Not used
	12	PAPWSIZE1	I	0/3.3 V DC	PWSW: On/Off
	13	PAPLSIZE1	I	0/3.3 V DC	PLSW: On/Off
	14	PAPLSIZE2	I	0/3.3 V DC	PLSW: On/Off
	15	PAPLSIZE3	I	0/3.3 V DC	PLSW: On/Off
	16	LMOTOCP	I	0/3.3 V DC	LM detection signal
	17	LMOTRE	0	0/3.3 V DC	LM: On/Off
	18	PAPEMP2	I	0/3.3 V DC	PS2: On/Off
	19	PAPEMP1	I	0/3.3 V DC	PS1: On/Off
	20	LIFTFULL	I	0/3.3 V DC	LS: On/Off
	21	FANBHALF	0	0/3.3 V DC	FM drive shift signal
	22	FANBFULL	0	0/3.3 V DC	FM: On/Off

Pin	Signal	I/O	Voltage	Description
23	LIGHTSLEEP	0	0/3.3 V DC	Sleep signal: On/Off
	N			
24	PFPAUSE	0	0/3.3 V DC	Paper feeder control signal
25	PFSET	0	0/3.3 V DC	Paper feeder sleep return signal
26	DFSET	0	0/3.3 V DC	Finisher set signal
27	DFSEL	0	0/3.3 V DC	Finisher selection signal
28	BRSEL	0	0/3.3 V DC	Bridge selection signal
29	PFSEL	0	0/3.3 V DC	Paper feed selection signal
30	EHRDY	1	0/3.3 V DC	Ready signal
31	EHSO	0	0/3.3 V DC (pulse)	Serial communication data signal
32	EHSI	I	0/3.3 V DC (pulse)	Serial communication data signal
33	EHCLK	0	0/3.3 V DC (pulse)	Clock signal
34	FANCHALF	0	0/3.3 V DC	FM drive shift signal
35	FANCFULL	0	0/3.3 V DC	FM: On/Off
36	NC	-	-	Not used
37	ERASER_RE M(K)	0	0/24 V DC	CL-K: On/Off
38	DLP_TH	- 1	Analog	DEVTH detection voltege
39	TCSENSE(K)	I	0/3.3 V DC	TS-K: On/Off
40	TCSENSE(M)	I	0/3.3 V DC	TS-M: On/Off
41	TCSENSE(C)	I	0/3.3 V DC	TS-C: On/Off
42	ERASER_RE M(COL)	0	0/3.3 V DC	CL-YCM: On/Off
43	TCSENSE(Y)	1	0/3.3 V DC	TS-Y: On/Off
44	GND	-	-	GROUND
45	SDAC		0/3.3 V DC	Data
46	GND	-	-	GROUND
47	SCLC		0/3.3 V DC	Clock signal
48	GND	-	-	GROUND
49	SDAA		0/3.3 V DC	Data
50	GND	-	-	GROUND
51	SCLA		0/3.3 V DC	Clock signal
52	GND	-	-	GROUND
53	BLTHP2	I	0/3.3 V DC	BDS2: On/Off
54	BLTHP1	I	0/3.3 V DC	BDS1: On/Off
55	WTCFULLIN	I	Analog	WTDS detection voltage
56	WTCFULLOU T	0	0/3.3 V DC	WTDS: On/Off
	23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	23 LIGHTSLEEP N 24 PFPAUSE 25 PFSET 26 DFSEL 27 DFSEL 28 BRSEL 29 PFSEL 30 EHRDY 31 EHSO 32 EHSI 33 EHCLK 34 FANCHALF 35 FANCFULL 36 NC 37 ERASER_RE M(K) 40 TCSENSE(K) 40 TCSENSE(K) 41 TCSENSE(K) 42 ERASER_RE M(COL) 43 TCSENSE(Y) 44 GND 45 SDAC 46 GND 47 SCLC 48 GND 47 SCLC 48 GND 49 SDAA 50 GND 51 SCLA 52 GND 53 BLTHP1 55 <td>23 LIGHTSLEEP N O N 24 PFPAUSE O O 25 PFSET O O 26 DFSEL O O 27 DFSEL O O 28 BRSEL O O 30 EHRDY I 31 EHSO O O 32 EHSI I 33 EHCLK O O 34 FANCHALF O O 35 FANCFULL O O 36 NC - 37 ERASER_RE O O M(K) I 38 DLP_TH I 39 TCSENSE(K) I 40 TCSENSE(K) I 41 TCSENSE(K) I 42 ERASER_RE O O M(COL) - 43 TCSENSE(Y) I 44 GND - 45 SDAC - 46 GND - 47 SCLC - 48 GND -</td> <td> LIGHTSLEEP O O/3.3 V DC </td>	23 LIGHTSLEEP N O N 24 PFPAUSE O O 25 PFSET O O 26 DFSEL O O 27 DFSEL O O 28 BRSEL O O 30 EHRDY I 31 EHSO O O 32 EHSI I 33 EHCLK O O 34 FANCHALF O O 35 FANCFULL O O 36 NC - 37 ERASER_RE O O M(K) I 38 DLP_TH I 39 TCSENSE(K) I 40 TCSENSE(K) I 41 TCSENSE(K) I 42 ERASER_RE O O M(COL) - 43 TCSENSE(Y) I 44 GND - 45 SDAC - 46 GND - 47 SCLC - 48 GND -	LIGHTSLEEP O O/3.3 V DC

Connector	Pin	Signal	I/O	Voltage	Description
YC9	57	IDCLHP	I	0/3.3 V DC	IDS: On/Off
Connected to	58	3.3V0	0	3.3 V DC	3.3 V DC power output to ECPWB
engine con-	59	3.3V4	0	3.3 V DC	3.3 V DC power output to ECPWB
nect PWB	60	3.3V4	0	3.3 V DC	3.3 V DC power output to ECPWB
YC10	1	IDMOTA	0	24 V DC	IDSM: On/Off
Connected to	2	IDMOTB	0	24 V DC	IDSM: On/Off
engine con- nect PWB	3	BLTREMA	0	24 V DC	TCBM: On/Off
THECK PAND	4	BLTREMB	0	24 V DC	TCBM: On/Off
YC11	1	3.3V4	0	3.3 V DC	3.3 V DC power output to RFPWB
Connected to	2	RFID_SCL	0	0/3.3 V DC (pulse)	RFPWB EEPROM clock signal
RFID PWB	3	RFID_SDA	I/O	0/3.3 V DC (pulse)	RFPWB EEPROM data signal
	4	GND	-	-	GROUND
YC12	B1	LSUMOTB	0	0/24 V DC	LSUCM: Forward/Stop (Forward)
Connected to	B2	LSUMOTA	0	0/24 V DC	LSUCM: Forward/Stop (Reverse)
LSU connect	В3	MP(K)_REM	0	0/3.3 V DC	PM: On/Off
PWB	B4	24V4	0	24 V DC	24 V DC power output to PM
	B5	MP(K)_RDY	I	0/3.3 V DC	PM ready signal
	B6	MP(M)_REM	0	0/3.3 V DC	PM: On/Off
	B7	MP(C)_REM	0	0/3.3 V DC	PM: On/Off
	B8	MP(C)_RDY	- 1	0/3.3 V DC	PM ready signal
	В9	VCONT(K)	0	Analog	APCPWB laser power standard voltage
	B10	MP(Y)_RDY	- 1	0/3.3 V DC	PM ready signal
	B11	VCONT(M)	0	Analog	APCPWB laser power standard voltage
	B12	LSU_TH(Y)	I	Analog	LSU thermistor signal
	B13	VCONT(Y)	0	Analog	APCPWB laser power standard voltage
	B14	GND	-	-	GROUND
	B15	VCONT(C)	0	Analog	APCPWB laser power standard voltage
	A1	3.3VIL	0	3.3 V DC	3.3 V DC power output to BDPWB
	A2	GND	-	-	GROUND
	А3	LSU_TH(K)	I	Analog	LSU thermistor signal
	A4	EN(K)	0	0/3.3 V DC	APCPWB laser enable signal
	A5	EN?COL)	0	0/3.3 V DC	APCPWB laser enable signal
	A6	MP(Y)_CLK	0	0/3.3 V DC (pulse)	PM clock signal
	A7	MP(Y)_REM	0	0/3.3 V DC	PM: On/Off

Connector	Pin	Signal	I/O	Voltage	Description
YC12	A8	MP(C)_CLK	0	0/3.3 V DC (pulse)	PM clock signal
Connected to	A9	MP(M)_RDY	- 1	0/3.3 V DC	PM ready signal
LSU connect	A10	MP(M)_CLK	0	0/3.3 V DC (pulse)	PM clock signal
PWB	A11	MP(K)_CLK	0	0/3.3 V DC (pulse)	PM clock signal
	A12	GND	-	-	GROUND
	A13	24V4	0	24 V DC	24 V DC power output to PM
	A14	GND	-	-	GROUND
	A15	24V4	0	24 V DC	24 V DC power output to PM
YC13	1	GND	-	-	GROUND
Connected to high voltage	2	T1KCNT	0	PWM	Primary transfer bias control voltage (Black)
PWB sub	3	T1MCNT	0	PWM	Primary transfer bias control voltage (Magenta)
	4	CLCNT	0	PWM	Cleaning bias control signal
	5	HVREM	0	0/3.3 V DC (pulse)	Transfer bias remote signal
	6	T1YCNT	0	PWM	Primary transfer bias control voltage (Yellow)
	7	T1CCNT	0	PWM	Primary transfer bias control voltage (Cyan)
	8	24VIL	0	24 V DC	24 V DC power output to HVPWB-S
YC14	1	BRSET	I	0/3.3 V DC	BRDSW: On/Off
Connected to	2	GND	-	-	GROUND
bridge detec- tion switch					
YC15	B1	GND	-	-	GROUND
Connected to	B2	GND	-	-	GROUND
high voltage PWB	В3	SCNT	0	PWM	Separation control signal
	B4	T2CNT	0	PWM	Secondary transfer bias control voltage
	B5	MISENS	1	Analog	Chager roller AC current signal
	В6	HVREM	0	0/3.3 V DC (pulse)	Developing bias remote signal
	В7	BKSCNT	0	PWM	Developing sleeve roller bias control voltage (Black)
	В8	BMMCNT	0	PWM	Developing magnet roller bias control voltage (Magenta)
	В9	BKMCNT	0	PWM	Developing magnet roller bias control voltage (Black)
	B10	BMSCNT	0	PWM	Developing sleeve roller bias control voltage (Magenta)

Connector	Pin	Signal	I/O	Voltage	Description
YC15	B11	MKCNT	0	PWM	Chager roller control voltage (Black)
Connected to	B12	MMCNT	0	PWM	Chager roller control voltage (Magenta)
high voltage PWB	B13	BKBACCNT	0	PWM	Developing AC bias control voltage (Black)
	B14	HVCLKK	0	0/3.3 V DC (pulse)	Developing bias clock signal (Black)
	B15	HVCLKM	0	0/3.3 V DC (pulse)	Developing bias clock signal (Magenta)
	B16	24VIL	0	24 V DC	24 V DC power output to HVPWB
	B17	24VIL	0	24 V DC	24 V DC power output to HVPWB
	A1	CBACCNT	0	PWM	Developing AC bias control voltage (Cyan)
	A2	MBACCNT	0	PWM	Developing AC bias control voltage (Magenta)
	A3	MCCNT	0	PWM	Chager roller control voltage (Cyan)
	A4	HVCLKC	0	0/3.3 V DC (pulse)	Developing bias clock signal (Cyan)
	A5	BCSCNT	0	PWM	Developing sleeve roller bias control voltage (Cyan)
	A6	BYMCNT	0	PWM	Developing magnet roller bias control voltage (Yellow)
	A7	BCMCNT	0	PWM	Developing magnet roller bias control voltage (Cyan)
	A8	BYSCNT	0	PWM	Developing sleeve roller bias control voltage (Yellow)
	A9	MYCNT	0	PWM	Chager roller control voltage (Yellow)
	A10	YBACCNT	0	PWM	Developing AC bias control voltage (Yellow)
	A11	HVCLKY	0	0/3.3 V DC (pluse)	Developing bias clock signal (Yellow)
	A12	NC	-	-	Not used
	A13	NC	-	-	Not used
	A14	NC	-	-	Not used
	A15	NC	-	-	Not used
	A16	NC	-	-	Not used
	A17	NC	-	-	Not used

Connector	Pin	Signal	I/O	Voltage	Description
YC17	1	SCANNER B1	0	0/24 V DC	ISUM drive controll signal
Connected to	2	SCANNER A2	0	0/24 V DC	ISUM drive controll signal
ISU motor,	3	SCANNER B2	0	0/24 V DC	ISUM drive controll signal
home posi- tion sensor,	4	SCANNER A1	0	0/24 V DC	ISUM drive controll signal
original	5	3.3V4	0	3.3 V DC	3.3 V DC power output to HPS
detection	6	GND	-	-	GROUND
switch, origi-	7	SCA_HP	I	0/3.3 V DC	HPS: On/Off
nal size sen- sor	8	3.3V4	0	3.3 V DC	3.3 V DC power output to ODSW
	9	GND	-	-	GROUND
	10	SCA_COVER	1	0/3.3 V DC	ODSW: On/Off
	11	GND	-	-	GROUND
	12	SCA_SIZE	1	0/3.3 V DC	OSS: On/Off
	13	5V4	0	5 V DC	5 V DC power output to OSS
YC18	1	GND	-	-	GROUND
Connected to	2	GND	-	-	GROUND
document	3	24V4	0	24 V DC	24 V DC power output to DP
processor	4	24V4	0	24 V DC	24 V DC power output to DP
	5	DP_CLK	0	0/3.3 V DC (pulse)	DP clock signal
	6	DP_SO	0	0/3.3 V DC (pulse)	Serial communication data signal
	7	DP_SEL	0	0/3.3 V DC	DP select signal
	8	DP_SI	1	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
YC19	1	GND	-	-	GROUND
Connected to	2	RELAY	0	3.3 V DC	Relay remote
IH PWB	3	24V4	0	24 V DC	24 V DC power output to IHPWB
YC20	1	EJE_SOL_RE TURN	0	0/24 V DC	FSSOL: On/Off
Connected to	2	24V4	0	24 V DC	24 V DC power output to FSSOL
shift sole-	3	EJECT_/B	0	0/24 V DC (pluse)	EM drive control signal
noid, eject	4	EJECT_/A	0	0/24 V DC (pluse)	EM drive control signal
motor, paper full sensor,	5	EJECT_B	0	0/24 V DC (pluse)	EM drive control signal
job paper full	6	EJECT_A	0	0/24 V DC (pluse)	EM drive control signal
sensor	7	3.3V4	0	3.3 V DC	3.3 V DC power output to PFS
	8	GND	-	-	GROUND

Connector	Pin	Signal	I/O	Voltage	Description
YC20	9	EJE_FULL_U	I	0/3.3 V DC	PFS: On/Off
		P			
Connected to	10	3.3V4	0	3.3 V DC	3.3 V DC power output to JEPS
shift sole- noid, eject	11	GND	-	-	GROUND
motor, paper full sensor, job paper full sensor	12	EJE_FULL_D WN	I	0/3.3 V DC	JEPS: On/Off
YC21	1	IH_FAN2_RE	0	0/24 V DC	IHCFM: On/Off
		M			
Connected to	2	GND	-	-	GROUND
IH coil fan motor, devel-	3	IH_FAN2_AL M	ļ	0/3.3 V DC	IHCFM alarm signal
oper fan motor, con- tainer fan	4	DLP_FAN_RE M	0	0/24 V DC	DEVFM: On/Off
motor	5	GND	-	-	GROUND
	6	CON_FAN_R EM	0	0/24 V DC	TCFM: On/Off
	7	GND	-	-	GROUND
YC22	1	FUSREMA	0	0/24 V DC	PRM: On/Off
Connected to	2	FUSREMB	0	24 V DC	3.3 V DC power output to PRM
thermistor1,	3	3.3V4	0	3.3 V DC	3.3 V DC power output to ES
thermistor2, eject sensor,	4	GND	-	-	GROUND
fuser press	5	FUSER_JAM	I	0/3.3 V DC	ES: On/Off
release	6	3.3V4	-	-	Not used
motor	7	GND	-	-	Not used
	8	FUSER_PRE	-	-	Not used
	9	SUBSDA	I/O	3.3 V DC	Data
	10	SUBSCL	0	3.3 V DC	Clock
	11	PR_TH	I	Analog	FTH detection voltage (Press roller)
	12	HR_NCTH1	I	Analog	FTH detection voltage (Center)
	13	HR_NCTH2	I	Analog	FTH detection voltage (Center)
	14	3.3V4	0	3.3 V DC	3.3 V DC power output to FTH
	15	EG_TH	I	Analog	FTH detection voltage (Edge)
	16	GND	-	-	GROUND
	17	ROTATION	I	3.3 V DC	Rotation detection

Connector	Pin	Signal	I/O	Voltage	Description
YC24	1	IH_FAN1_RE	0	0/24 V DC	IHFM: On/Off
		M			
Connected to	2	GND	-	-	GROUND
IH fan motor	3	IH_FAN1_AL	I	0/3.3 V DC	IHFM alarm signal
		M			
YC25	1	24VIL2	I	24 V DC	24 V DC power input from RCSW
Connected to	2	24VIL1	Ο	24 V DC	24 V DC power output to RCSW
right cover	3	24VIL1	Ο	24 V DC	24 V DC power output to FCSW
switch, front cover switch	4	24V4	I	24 V DC	24 V DC power input from FCSW
COVER SWILLING	5	3.3V0	Ο	3.3 V DC	3.3 V DC power output to FCSW
YC26	1	BDY	0	0/3.3 V DC (pulse)	Horizontal synchronizing signal (Yellow)
Connected to	2	BDC	0	0/3.3 V DC (pulse)	Horizontal synchronizing signal (Cyan)
main PWB	3	BDM	Ο	0/3.3 V DC (pulse)	Horizontal synchronizing signal (Magenta)
	4	BDBK	Ο	0/3.3 V DC (pulse)	Horizontal synchronizing signal (Black)
	5	NC	-	-	Not used
	6	EME_IRN	0	0/3.3 V DC	Interruption signal
	7	EME_DIR	Ο	0/3.3 V DC	Communication direction change signal
	8	EME_BSY	0	0/3.3 V DC	Busy signal
	9	EME_SO	1	0/3.3 V DC (pulse)	Serial communication data signal input
	10	EME_SI	0	0/3.3 V DC (pulse)	Serial communication data signal output
	11	EME_CLK	- 1	0/3.3 V DC (pulse)	Clock signal
	12	PAGEST	Ο	0/3.3 V DC	Sub-scanning standard signal
	13	OVSYNCMON	1	0/3.3 V DC	Sub-scanning monitor signal
	14	PVSYNC	0	0/3.3 V DC (pulse)	Vertical synchronizing signal
	15	AQUA_RDY	- 1	0/3.3 V DC	Ready signal
	16	AQUA_SEL	0	0/3.3 V DC	Select signal
	17	AQUA_SO	I	0/3.3 V DC (pulse)	Serial communication data signal input
	18	AQUA_SI	Ο	0/3.3 V DC (pulse)	Serial communication data signal output
	19	AQUA_CLK	Ο	0/3.3 V DC (pulse)	Clock signal
	20	HYP_INT	I	0/3.3 V DC	Interruption signal
	21	HYP_SDA	Ο	0/3.3 V DC (pulse)	Data signal
	22	HYP_SCL	Ο	0/3.3 V DC (pulse)	Clock signal
	23	GND	-	-	GROUND
	24	GND	-	-	GROUND
	25	GND	-	-	GROUND
	26	GND	-	-	GROUND

Connector	Pin	Signal	I/O	Voltage	Description
YC26	27	GND	-	-	GROUND
Connected to	28	24VDOWN	- 1	24 V DC	24 V DC down signal
main PWB	29	3.3V4	0	0/3.3 V DC	3.3 V DC power output to MPWB
	30	3.3V4	0	0/3.3 V DC	3.3 V DC power output to MPWB
	31	3.3V0	0	0/3.3 V DC	3.3 V DC power output to MPWB
	32	5V4	0	5 V DC	5 V DC power output to MPWB
	33	24V4	0	24 V DC	24 V DC power output to MPWB
	34	24V4	0	24 V DC	24 V DC power output to MPWB
	35	LIGHT_SLEE PN	I	0/3.3 V DC	Light sleep shift signal
	36	SCAN_HLD	1	0/3.3 V DC	Scan hold signal
	37	ENG_HLD	- 1	0/3.3 V DC	Engine hold signal
	38	SLEEPOFF	0	0/3.3 V DC	Sleep return signal
YC28	1	FUSER_FAN_ REM	0	0/24 V DC	FUFM1: On/Off
Connected to	2	GND	-	-	GROUND
fuser fan motor	3	FUSER_FAN_ REM	0	0/24 V DC	FUFM2: On/Off
	4	GND	-	-	GROUND
YC29	1	GND	ı	-	GROUND
Connected to	2	TMPDATA	I	Analog	TEMS detection voltage (Temperature)
temperature sensor	3	WETCLK0	0	0/3.3 V DC (pulse)	TEMS clock signal
	4	WETCLK1	0	0/3.3 V DC (pulse)	TEMS clock signal
	5	HUMDATA	1	Analog	TEMS detection voltage (Humidity)

2-3-3 Power source PWB

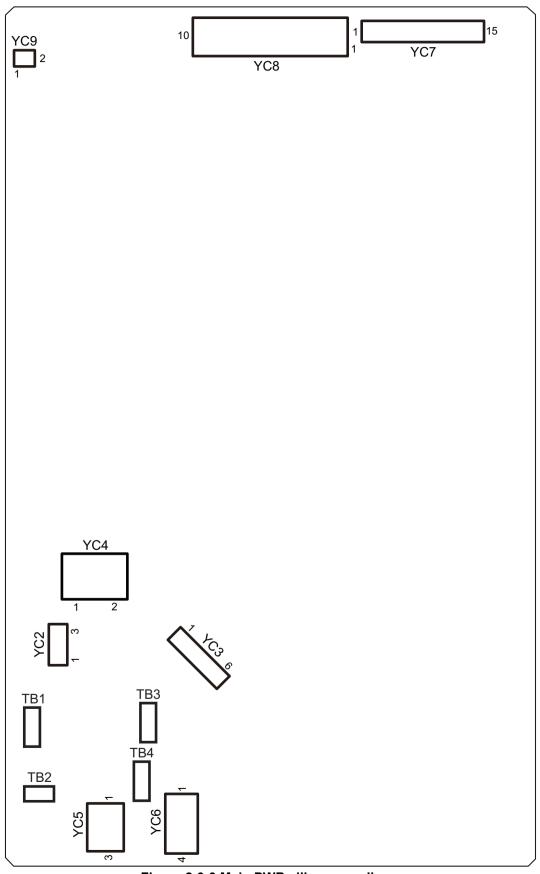


Figure 2-3-3 Main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
ТВ	TB1	LIVE	I	100 V AC	AC power input
Connected to	TB2	NEUTRAL	I	100 V AC	AC power input
AC inlet,	TB3	LIVE(SW)	0	100 V AC	AC power output to MSW
main switch	TB4	LIVE(SW)	ı	100 V AC	AC power input from MSW
YC2	1	CH_SW IN	0	100 V AC	AC power output to CHSW
Connected to	2	NC	-	-	Not used
cassette	3	CH_SW OUT	ı	100 V AC	AC power input from CHSW
heater switch					
V/00	4	111/15		100 V AC	AC news system to DECL
YC3	1	LIVE	0		AC power output to PFCH
Connected to paper feeder,	2	LIVE	0	100 V AC	AC power output to CH
cassette	3	NC	-	-	Not used
heater	4	NC	-	-	Not used
	5	NEUTRAL	0	100 V AC	AC power output to PFCH
	6	NEUTRAL	0	100 V AC	AC power output to CH
		L D /=		400.1/ 4.0	4.0
YC4	1	LIVE	0	100 V AC	AC power output to IHPWB
Connected to IH PWB	2	NEUTRAL	0	100 V AC	AC power output to IHPWB
YC5	1	LIVE	0	100 V AC	AC power output to PSPWB-S
Connected to	2	NC	_	-	Not used
powersource	3	NEUTRAL	0	100 V AC	AC power output to PSPWB-S
PWB sub		112011012		100 77.0	The period culput to 1 of 112 c
YC6	1	LIVE	0	100 V AC	Option AC power output
Connected to	2	NC	-	-	Not used
AC outlet	3	NC	-	-	Not used
	4	NEUTRAL	0	100 V AC	Option AC power output

Connector	Pin	Signal	I/O	Voltage	Description
YC7	1	+5V2	0	5 V DC	5 V DC power output to MPWB
Connected to	2	+5V2	0	5 V DC	5 V DC power output to MPWB
main PWB	3	+5V2	0	5 V DC	5 V DC power output to MPWB
	4	+5V2	0	5 V DC	5 V DC power output to MPWB
	5	+5V2	0	5 V DC	5 V DC power output to MPWB
	6	+5V2	0	5 V DC	5 V DC power output to MPWB
	7	+5V2	0	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	SLEEP1	1	0/3.3 V DC	Sleep 1 control signal: On/Off
YC8	1	+24V2	0	24 V DC	24 V DC power output to ECPWB
Connected to	2	+24V2	0	24 V DC	24 V DC power output to ECPWB
engine PWB,	3	GND	-	-	GROUND
engine con- nect PWB	4	GND	-	-	GROUND
HECK F WD	5	GND	-	-	GROUND
	6	GND	-	-	GROUND
	7	GND	-	-	GROUND
	8	+24V2	0	24 V DC	24 V DC power output to EPWB
	9	+24V2	0	24 V DC	24 V DC power output to EPWB
	10	+24V2	0	24 V DC	24 V DC power output to EPWB
YC9	1	NC	-	-	Not used
Connected to	2	SLEEP2	I	0/3.3 V DC	Sleep 2 control signal: On/Off
engine con-					
nect PWB					

2-3-4 IH PWB

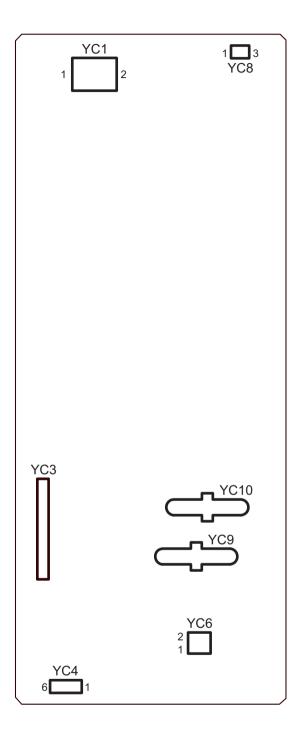


Figure 2-3-4 IH PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	IH_NEUTRAL	I	220 V AC	AC power input
Connected to power source PWB	2	IH_LIVE	I	220 V AC	AC power input
YC3	1	TH2	-	Analog	Low side IGBT case temperature
Connected to	2	TH1	-	Analog	High side IGBT case temperature
IH control PWB	3	AC_CURREN T	-	Analog	AC input current
	4	AC_VOLTAGE	-	Analog	AC input voltage
	5	OUT_CURRE NT	-	Analog	Output current
	6	IH_REM	-	0/5 V DC	IH: On/off
	7	ROTATION	-	0/5 V DC	TCBM control signal
	8	RXD	-	0/5 V DC (pulse)	Serial communication data signal input
	9	TXD	-	0/5 V DC (pulse)	Serial communication data signal output
	10	S1	-	0/5 V DC	For soft distinction
	11	IGBT1	-	0/5 V DC	gate output
	12	IGBT2	-	0/5 V DC	gate output
	13	S2	-	0/5 V DC	For soft distinction
	14	ERROR	-	0/5 V DC	Error signal
	15	5V	-	5 V DC	5 V DC power output to IHCPWB
	16	GND	-	-	Ground
YC4	1	SGND	-	-	Ground
Connected to	2	3.3V4	I	3.3 V DC	3.3 V DC power input from EPWB
engine PWB	3	IH_REM	I	0/3.3 V DC	IH: On/off
	4	ROTATION	I	0/3.3 V DC	TCBM control signal
	5	RXD	I	0/3.3 V DC (pulse)	Serial communication data signal input
	6	TXD	Ο	0/3.3 V DC (pulse)	Serial communication data signal output
YC6	1	+15V-1	0	15 V DC	Control power supply
Connected to thermostat	2	+15V-2	I	15 V DC	Gate drive power supply
YC8	1	24VIL	I	24 V DC	24 V DC power input from EPWB
Connected to	2	RELAY	I	0/3.3 V DC	RSW: On/Off
engine PWB	3	PGND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC9	1	IH_OUT1	0	390 V DC	Resonance circuit output
Connected to					
IH coil					
YC10	1	IH_OUT2	0	1000 V DC	Resonance circuit output
Connected to					
IH coil					

CAUTION: Connectors YC1, YC3, YC6, YC9 and YC10 are not grounded, therefore, use caution not to damage the connectors during measurement of voltages.

2-3-5 Operation panel PWB main

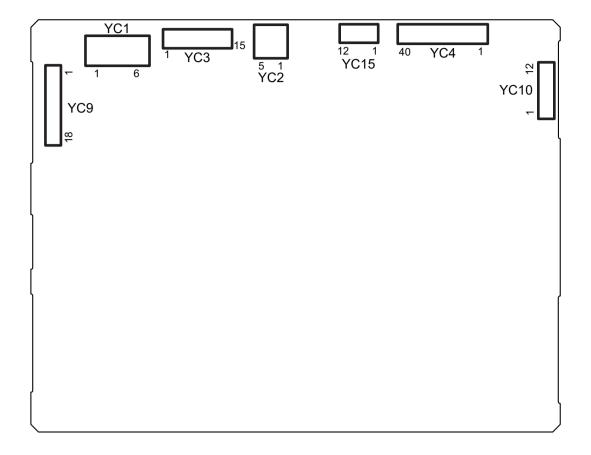


Figure 2-3-5 Operation panel PWB main silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	5V2	I	5 V DC	5 V DC power intput from MPWB
Connected to	2	5V2	I	5 V DC	5 V DC power input from MPWB
main PWB	3	GND	-	-	Ground
	4	GND	-	-	Ground
YC2	1	VBUS	I	5 V DC	5 V DC power input
Connected to	2	DN	I/O	LVDS	USB data signal
main PWB	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_TR AY_S	I	0/3.3 V DC	JEPS: On/Off
	3	BEEP_POWE RON	I	0/3.3 V DC	Sleep return signal 0
	4	ENERGY_SA VE	I	0/3.3 V DC	Energy save signal
	5	SUSPEND_P ower	I	3.3V DC	3.3 V DC power input from MPWB
	6	LED_MEMOR Y	I	0/3.3 V DC	Memory LED control signal
	7	LED_ATTENT ION	I	0/3.3 V DC	Attention LED control signal
	8	LED_PROCE SSING	I	0/3.3 V DC	Processing LED control signal
	9	SHUTDOWN	I	0/3.3 V DC	24 V down signal
	10	LIGHTOFF_P OWER	I	0/3.3 V DC	Sleep return signal 1
	11	AUDIO	I	Analog	Voice output signal
	12	PANEL_RESE T	I	0/3.3 V DC	Reset signal
	13	INT_POWER KEY	0	0/3.3 V DC	Power key: On/Off
	14	PANEL_STAT US	0	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	2	GND	-	-	Ground
LCD relay	3	CK	0	0/3.3 V DC(pulse)	Clock signal
PWB	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	SC	0	0/3.3 V DC	LCD Control signal
	7	R0	0	0/3.3 V DC	LCD Control signal
	8	R1	0	0/3.3 V DC	LCD Control signal
	9	R2	0	0/3.3 V DC	LCD Control signal
	10	GND	-	-	Ground
	11	R3	Ο	0/3.3 V DC	LCD Control signal
	12	R4	Ο	0/3.3 V DC	LCD Control signal
	13	R5	Ο	0/3.3 V DC	LCD Control signal
	14	GND	-	-	Ground
	15	G1	Ο	0/3.3 V DC	LCD Control signal
	16	G1	Ο	0/3.3 V DC	LCD Control signal
	17	G2	Ο	0/3.3 V DC	LCD Control signal
	18	GND	-	-	Ground
	19	G3	Ο	0/3.3 V DC	LCD Control signal
	20	G4	Ο	0/3.3 V DC	LCD Control signal
	21	G5	Ο	0/3.3 V DC	LCD Control signal
	22	GND	-	-	Ground
	23	В0	Ο	0/3.3 V DC	LCD Control signal
	24	B1	Ο	0/3.3 V DC	LCD Control signal
	25	B2	Ο	0/3.3 V DC	LCD Control signal
	26	GND	-	-	Ground
	27	B3	Ο	0/3.3 V DC	LCD Control signal
	28	B4	Ο	0/3.3 V DC	LCD Control signal
	29	B5	Ο	0/3.3 V DC	LCD Control signal
	30	GND	-	-	Ground
	31	H_SYNC	Ο	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	32	GND	-	-	Ground
	33	V_SYNC	Ο	0/3.3 V DC(pulse)	Vertical synchronizing signal
	34	GND	-	-	Ground
	35	ENB	Ο	0/3.3 V DC	LCD enable signal
	36	СМ	0	0/3.3 V DC	LCD mode switch signal
	37	3.3V	0	3.3V DC	3.3 V DC power output to LCDRPWB

Connector	Pin	Signal	I/O	Voltage	Description
YC4	38	3.3V	0	3.3 V DC	3.3 V DC power output to LCDRPWB
Connected to	39	3.3V	0	3.3 V DC	3.3 V DC power output to LCDRPWB
LCD relay	40	3.3V	0	3.3 V DC	3.3 V DC power output to LCDRPWB
PWB					
		A 150	0	0/0.0.1/ DO	Married ED and all all and
YC9	1	A_LED	0	0/3.3 V DC	Memory LED control signal
Connected to operation	2	M_LED	0	0/3.3 V DC	Attention LED control signal
panel PWB	3	P_LED	0	0/3.3 V DC	Processing LED control signal
left	4	KEY4	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 4
	5	INT_POWER KEY_N	0	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	1	0/3.3 V DC(pulse)	Operation panel key scan return signal 1
	9	LED1	0	0/3.3 V DC(pulse)	Operation panel LED display drive signal
	10	3.3V0	0	3.3V DC	3.3 V DC power output to OPPWB-L
	11	LED0	0	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	0	0/3.3 V DC(pulse)	Scan signal 4
	14	SCAN3	0	0/3.3 V DC(pulse)	Scan signal 3
	15	SCAN2	0	0/3.3 V DC(pulse)	Scan signal 2
	16	SCAN1	0	0/3.3 V DC(pulse)	Scan signal 1
	17	SCAN0	0	0/3.3 V DC(pulse)	Scan signal 0
	18	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC10	1	S_LED	0	0/3.3 V DC	Memory LED control signal
Connected to operation panel PWB right	2	LED4	0	0/3.3 V DC(pulse)	Operation panel LED display drive signal 4
	3	LED2	0	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	0	0/3.3 V DC(pulse)	Scan signal 3
	6	SCAN2	0	0/3.3 V DC(pulse)	Scan signal 2
	7	SCAN1	0	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	0	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	0	0/3.3 V DC(pulse)	Scan signal 0
	12	GND	-	-	Ground
YC15	1	GND	-	-	Ground
Connected to	2	SCK	0	0/3.3 V DC(pulse)	Clock signal
LCD relay PWB	3	SDI	0	0/3.3 V DC(pulse)	Serial communication data signal
FVVD	4	SPC_CS1N	0	0/3.3 V DC	LCD control signal
	5	SHUT	0	0/3.3 V DC	LCD control signal
	6	LCD_RESB	0	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(+)	0	0/3.3 V DC	LED control signal
	12	LED_C(-)	I	0/3.3 V DC	LED control signal

2-3-6 DP main PWB

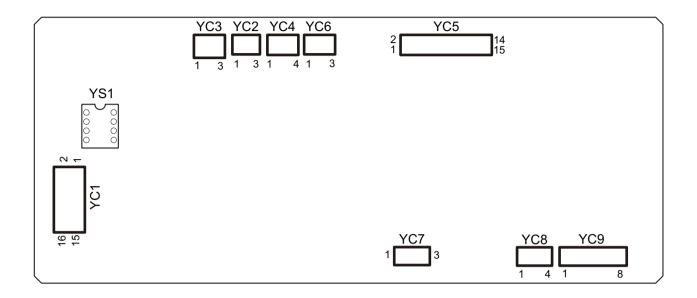


Figure 2-3-6 DP main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	FG	-	-	Ground
Connected to	2	ENG_TMG	0	0/3.3 V DC	DPTS: On/Off
engine PWB	3	ENG_RDY	0	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	0	0/3.3 V DC(pulse)	Serial communication data signal
	8	ENG_OPEN	0	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	0	24 V DC	24 V DC power input from EPWB
	15	+24V	0	24 V DC	24 V DC power input from EPWB
	16	+24V	0	24 V DC	24 V DC power input from EPWB
YC2	1	ANODE	0	3.3 V DC	3.3 V DC power output to DPOLS
Connected to	2	GND	-	-	Ground
DP original	3	LS_SW	ı	0/3.3 V DC	DPOLS: On/Off
size length sensor					
YC3	1	ANODE	0	3.3 V DC	3.3 V DC power output to DPOS
Connected to	2	GND	-	-	Ground
DP original	3	SET_SW	I	0/3.3 V DC	DPOS: On/Off
sensor		_			
YC4	1	WID1	I	0/3.3 V DC	DPOWS: On/Off
Connected to	2	GND	-	-	Ground
DP original size width	3	WID2	I	0/3.3 V DC	DPOWS: On/Off
sensor	4	WID3	I	0/3.3 V DC	DPOWS: On/Off
		l .		1	

Connector	Pin	Signal	I/O	Voltage	Description
YC5	1	ANODE	0	3.3 V DC	3.3 V DC power output to DPPFS
Connected to	2	GND	-	-	Ground
DP paper feed sensor,DP	3	FEED SW	I	0/3.3 V DC	DPPFS: On/Off
	4	ANODE	0	3.3 V DC	3.3 V DC power output to DPRS
registration	5	GND	-	-	Ground
sensor,DP	6	REGIST_SW	I	0/3.3 V DC	DPRS: On/Off
open/close	7	ANODE	0	3.3 V DC	3.3 V DC power output to DPOCS
sensor,DP switchback	8	GND	-	-	Ground
sensor and	9	DP_OPENSW	ı	0/3.3 V DC	DPOCS: On/Off
DP timing	10	ANODE	0	3.3 V DC	3.3 V DC power output to DPSBS
sensor	11	GND	-	-	Ground
	12	HP_SW	ı	0/3.3 V DC	DPSBS: On/Off
	13	ANODE	0	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	2	GND	-	-	Ground
DP LED	3	LED_REM	0	0/3.3 V DC	LED control signal
PWB					
YC7	1	+24V	0	24 V DC	24 V DC power output to DPILSW
Connected to	2	GND	-	-	Ground
DP interlock switch	3	+R24V	I	24 V DC	24 V DC power input from DPILSW
YC8	1	FEED_CL	0	0/24 V DC	DPPFCL: On/Off
Connected to	2	+R24V	0	24 V DC	24 V DC power output to DPPFCL
DP paper	3	REGIST_CL	0	0/24 V DC	DPRCL: On/Off
feed clutch and DP	4	+R24V	0	24 V DC	24 V DC power output to DPRCL
registration					
clutch					
YC9	1	CNVYBN	0	0/24 V DC(pulse)	DPPFM drive control signal
Connected to DP paper feed motor and DP switchback motor	2	CNVYAN	0	0/24 V DC(pulse)	DPPFM drive control signal
	3	CNVY_+A	0	0/24 V DC(pulse)	DPPFM drive control signal
	4	CNVY_+B	0	0/24 V DC(pulse)	DPPFM drive control signal
	5	JNCBN	0	0/24 V DC(pulse)	DPSBM drive control signal
	6	JNCAN	0	0/24 V DC(pulse)	DPSBM drive control signal
	7	JNC_+A	0	0/24 V DC(pulse)	DPSBM drive control signal
	8	JNC_+B	0	0/24 V DC(pulse)	DPSBM drive control signal

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2-4-1 Appendixes

(1) Maintenance kits

Mainte	Parts No.	Alternative		
Name used in service	Name used in parts list	Parts No.	part No.	
MK-896A/MAINTENANCE	MK-896A/MAINTENANCE KIT	1702MY0UN0	072MY0U0	
KIT				
(200,000 sheets)				
Transfer roller unit	HOLDER TRANSFER ASSY	-	-	
Drum unit	DRUM UNIT MK	-	-	
Developer unit K	DLP UNIT BK MK	-	-	
Intermediate transfer unit	IMAGE UNIT MK	-	-	
Fuser unit	FUSER UNIT MK	-	-	
Primary feed unit	PRIMARY FEED ASS'Y	-	-	
MP separation pad	PAD SEPARATION ASSY SP	-	-	
MP paper feed roller	ROLLER MPF ASSY SP	-	-	
MK-896B/MAINTENANCE	MK-896B/MAINTENANCE KIT	1702K00UN2	072K00U2	
KIT				
(200,000 sheets)				
Drum unit	DRUM UNIT	-	-	
Developer unit C	DLP UNIT C	-	-	
Developer unit M	DLP UNIT M	-	-	
Developer unit Y	DLP UNIT Y	-	-	
MK-470/MAINTENANCE KIT	MK-470/MAINTENANCE KIT	1703M80UN0	073M80UN	
(150,000 sheets)				
DP paper feed roller	PAPER FEED ASSY SP	-	-	
DP separation pullay cover	GUIDE RETARD ASSY SP	-	-	
DP separation pullay	HOLDER RETARD ASSY SP	-	-	

(2) Repetitive defects gauge

First occurrence of defect
46.5 mm/1 13/16" Left registration roller
 50.3 mm/2" Developing roller 62.0 mm/2 7/16" Right registration roller 65.7 mm/2 9/16" Transfer roller
- →— 94.2 mm/3 11/16" Drum/Press roller
94.2 mm/3 m/16 Didin/Fress toller
- ←— 125.7 mm/4 15/16" Heat roller

(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 the firmware

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

Note: Before changing any FRPO parameters, 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 Setti		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)		
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	
Duplex binding	N4	1 0: Off 1: Long edge 2: Short edge		
Sleep timer time-out time	N5	1 to 240 minutes [0: Off]	20 (20ppm) 30 (25ppm)	
Ecoprint level	N6	0: Off 2: On	0	

Item	FRPO	Setting values	Factory setting
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)
Default stacker	R0	1 (inner tray) 3 5	1

Item	FRPO	Setting values	Factory setting
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches) 3: International DL (11 × 22 cm) 4: International C5 (16.2 × 22.9 cm) 5: Executive (7-1/4 × 10-1/2 inches) 6: US Letter (8-1/2 × 11 inches) 7: US Legal (8-1/2 × 14 inches) 8: A4 (21.0 × 29.7 cm) 9: JIS B5 (18.2 × 25.7 cm) 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
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

Item	FRPO	Setting values	Factory setting	
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	
Font pitch for fixed pitch scalable	U8	Integer value in cpi: 0 to 99	10	
font	U9	Fraction value in 1/100 cpi: 0 to 99	0	
Font height for the default scal-	V0	Integer value in 100 points: 0 to 9	0	
able font *	V1	Integer value in points: 0 to 99	12	
	V2	Fraction value in 1/100 points: 0, 25, 50, 75	0	
Default scalable font *	V3	Name of typeface of up to 32 characters, enclosed with single or double quotation marks	Courier	

Item	FRPO	Setting values	Factory setting
Default weight	V9	0: Courier = darkness	5
(courier and letter Gothic)		Letter Gothic = darkness	
		1: Courier = regular	
		Letter Gothic = darkness	
		4: Courier = darkness	
		Letter Gothic = regular	
		5: Courier = regular	
		Letter Gothic = regular	
Color mode	W1	0: Monochrome (grayscale)	1
	•••	1: Color (CMYK)	·
Gloss mode	W6	0: Low (normal)	0
		1: High	
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: Performs paper selection depending on media type.1: Performs paper selection depending on paper sources.	0
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 secons)
Error message for device error	Y3	0: Not detect 1: Detect	0

Item FF		Setting values	Factory setting
Duplex operation for specified paper type (Prepunched, Preprintedand Letterhead)	Y4	0: Off 1: On	0
Default operation for PDF direct printing	Y5	 Enlarges or reduces the image to fit in the current paper size. Loads paper from the current paper cassette. Through the image. Loads paper which is the same size as the image. Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the image size. Through the image. Loads Letter, A4 size paper depending on the image size. Through the image. Loads paper from the current paper cassette. Through the image. Loads Letter, A4 size paper depending on the image size. Enlarges or reduces the image to fit in the current paper size. Loads Letter, A4 size paper depending on the imagesize. 	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) System Error (Fxxxx) Outline

The document is subscribed to describe the outline of the factors of the Fxxx errors that are not described in the

service manual. Please utilize it to refer to checking the factors.

Please utilize it as the measures when the system is not recovered after power off/on or it frequently occurs.

*: It may be from the hardware factor while the error (Fxxx) is indicated. Please initially check the following.

Check the DDR2 memory and neighboring parts:

Check the contact of YS1 or YS2 with the memory. Replace the memory if the error repeats.

Check the HDD if the error repeats after replacing the main board.

Take care, however, of handling the data when formatting or replacing the HDD.

Check the HDD: Replace the HDD if the error repeats after formatting the HDD.

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
-	Lock-up at Welcome display (TASKalfa/Ecosys) (The display unchages after a certain time (Note 1: *** seconds))	1) Check connection of the harness (Panel to Main board), (Main board to HDD) and connectors and check function. 2) Check contact of the DDR memory by detaching and reattaching. and check function. replace it if available and check function. 3) Format the HDD and check function. (U024 FULL formatting) (*1) 4) Execute the U021Memory initializing to initialize the controller backup memory and check function. 5) Replace the panelmain board and check function. 6) Replace the main board and check function. 7) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	*User data and installed software is deleted if executing the U024. Reinstallation is required.	[Main - Panel Interface] Main board: YC100, YC101, YC102 Panel board: YC1, YC2, YC3 (Note 1) 70 seconds [Check the contact with the DDR2 memory] Main board: YS1 A certain part of the memory may be faulty. The frequency of faiure occurrence is dependent on the frequency of access to the faulty bit. The memories except the DIMM are mounted on the main PWB. The mounted memories or the ASIC may be faulty if the DIMM is not sensitive.
F000	CF000 appears in a certain time (Note 2: *** seconds) after the Welcome display continues Panel—Main board communication error	1) Check connection of the harness (Panel to Main board), (Main board to HDD) and connectors and check function. 2) Check contact of the DDR memory by detaching and reattaching. and check function. replace it if available and check function. 3) Format the HDD and check function. (U024 FULL formatting) (*1) 4) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 5) Replace the main board and check function. 6) Replace the panelmain board and check function. 7) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		[Main-Panel Interface] Main board: YC100, YC101, YC102 Panel board: YC1, YC2, YC3 If the LEDs are in the state below when the F000 appears, the DDR2 memory failure may be the cause. Check contact of the YS1 with the memory. (DDR2 memory is the option item for the monochrome models, and is the standard item for the color models.) Memory LED turned on Attention LED turned on (Note 1) 70 seconds [Check the contact with the DDR2 memory] Main board: YS1 A certain part of the memory may be faulty. The frequency of faiure occurrence is dependent on the frequency of access to the faulty bit. The memories except the DIMM are mounted on the main PWB. The mounted memories or the ASIC may be faulty if the DIMM is not sensitive.
F10X	An error is detected at OS or some of device drivers.	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1)		
F11X		(*1) Replace the HDD and check function. (*1) (*1) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F12X	An error is detected at the Scan control section	1) Check connection of the harness (Scan/DP - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the Scan/DP board and check function. 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		[Main-Scan Interface] Main board: YC112 , YC113 CCD board: YC1 LED board: YC1
F13X	An error is detected at the Panel control section	1) Check connection of the harness (Panel - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the panel board and check function. (*2) 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only. (*2) For the model separating the main/panel PWBs.		[Main-Panel Interface] Main board: YC100, YC101, YC102 Panel board: YC1, YC2, YC3
F14X	An error is detected at the FAX control section	1) Check connection of the harness (FAX - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Execute the U671 Clear FAX back up data (FAX DIMM clear) and check function. (*3) (Take cae of the received data since it is cleared) 5) Replace the FAX_DIMM and check function. 6) Replace the FAX board and check function. 7) Replace the main board and check function. 8) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only. (*3) For the models using the main PWB with the flash for the FAX data.		F14A,F14F: KUIO error Main board (USB hub) [Main-KUIO Interface] Main board: YC109 (Reference) YC16 is at the side where the IB-50 is inserted. <note> 4) is not supported. 5) is unnecessary.</note>
F15X	An error is detected at the authentication device control section	1) Check connection of the harness (Authentication device - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the main board and check function. 5) Replace the HDD and check function. (*1) 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	Authentication device: Card Reader, etc.	[Main-USB Host Interface] Main board: YC107(USB Host where is at the side of the oparation unit) YC108(USB Host where is at the back side of the main frame)

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F16X	An error is detected at the KMAS control section	1) Check connection of the harness (KMAS - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		-
F17X	An error is detected at the print data control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F18X	An error is detected at the Video control secion	1) Check connection of the harness (Engine - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the engine board and check function. 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		<monochrome models=""> [Main-LSU Interface] Main board: YC103 LSU(APC PWB): YC2 [Main-Engine Interface] Main board: YC105 Engine board: YC17 <color models=""> [Main-LSU Interface] Main board: YC104 LSU relay board: YC10 [Main-Engine Interface] Main board: YC105 Engine board: YC26 [Relay connector] Between the main board and the LSU relay board.</color></monochrome>
F19X	An error is detected at the OS or some of device drivers	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1)		
F1AX	An error is detected at the Security management section	5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only. 1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F1CX	An error is detected at the File System management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	*The F1C4 error appears with the HDD security kit at work.	
F1DX	An error is detected at the Image memory management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	*The F1D4 error is RAM allocation error. 1. Check it with the U340 2. Initialize the setting valued with the U021	
F1EX		1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check		
F1FX	An error is detected at the OS or some of device drivers	function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division.		
F20X		(*1) For the HDD standard model only.		
F21X		1) Check contact of the DDR memory and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1)		DIMM <monochrome models:="" option=""> <color models:="" standard=""></color></monochrome>
F22X	An error is detected at the Image processing section	 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the main board and check function. 5) Replace the HDD and check function. (*1) 		[DDR2 memory contact check] Main board: YS1 A certain part of the memory may be faulty. The frequency of faiure occurrence is dependent on the frequency of access to the
F23X		Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		faulty bit. The memories except the DIMM are mounted on the main PWB. The mounted memories or the ASIC may be faulty if the DIMM is
F24X	An error is detected at the System management section	1) Check contact of the DDR memory and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the main board and check function. 5) Replace the HDD and check function. (*1) 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	*The F248 eror is printer process error. if it repeats with a certain print data, retrieve the capture data and USBLOG.	[DIMM] <monochrome models:="" option=""> <color models:="" standard=""> [DDR2 memory contact check] Main board: YS1 A certain part of the memory may be faulty. The frequency of faiure occurrence is dependent on the frequency of access to the faulty bit. The memories except the DIMM are mounted on the main PWB. The mounted memories or the ASIC may be faulty if the DIMM is not sensitive.</color></monochrome>

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F25X	An error is detected at the Network management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Retrieve the USBLOG and contact the Service Administratuve Division. (or retrieve the packet capture data depending on the reult of analysis) (*1) For the HDD standard model only.	*This may be owing to the users network environment.	
F26X F27X F28X F29X F2AX	An error is detected at the System management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F2BX F2CX F2DX F2EX F2FX F30X F31X F32X	An error is detected at the Network control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Retrieve the USBLOG and contact the Service Administratuve Division. (or retrieve the packet capture data depending on the reult of analysis) (*1) For the HDD standard model only.		
F33X	An error is detected at the Scan management section	1) Check connection of the harness (Scan/DP board - main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the Scan/DP board and check function. 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		[Main-Scan Interface] Main board: YC112, YC113 CCD PWB: YC1 LED PWB: YC1
F34X	An error is detected at the Panel management section	1) Check connection of the harness (Panel board - main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 4) Replace the panel board and check function. (*2) 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only. (*2) For the models separating the panel/main PWBs.		[Main-Panel Interface] Main board: YC100, YC101, YC102 Panel board: YC1, YC2, YC3
F35X	An error is detected at the Print control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F36X	An error is detected at the Print management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F37X	An error is detected at the FAX management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Execute the U671 Clear FAX back up data (FAX DIMM clear) and check function. (*3) (Take cae of the received data since it is cleared) 4) Replace the FAX_DIMM and check function. 5) Replace the main board and check function. 6) Replace the HDD and check function. (*1) 7) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only. (*3) For the models using the main PWB with the flash for the FAX data.		F14A,F14F: KUIO error Main board (USB hub) [Main-KUIO Interface] Main board: YC109 (Reference) YC16 is at the side where IB-50 is inserted. <note> 3) is not supported. 4) is unnecessary.</note>
F38X	An error is detected at the Authentication/permit management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F39X	An error is detected at the KMAS control section	1) Check connection of the harness (KMAS - Main board) and connectors and check function. 2) Format the HDD and check function. (U024 FULL formatting) (*1) 3) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		-
F3AX F3BX F3CX F3DX F3EX F40X F41X F41X F42X F43X F44X F45X	An error is detected at the Entity management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F46X	IPrint image process section	Replace the main board and check function. Retrieve the USBLOG (or retrieve the print capture data by case)	*The F46F is printer process error. If it repeats with a certain print data, retrieve the capture data and USBLOG.	
F47X		Format the HDD and check function. (U024 FULL formatting) (*1) Execute the U021 Memory initializing to initialize the controller backup memory and check function.		
F48X	Image edit process control	3) Replace the main board and check function. 4) Replace the HDD and check function. (*1)		
F49X		5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F4AX	An error is detected at the	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function.		
F4CX		4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F4DX	An error is detected at the	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function.		
F4EX	Entity control section	4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F4FX	An error is detected at the Job control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F50X		1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F51X F52X F53X F55X F56X F56X	An error is detected at the Job execution section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F58X F59X F5AX F5BX F5CX F5CX F5DX	An error is detected at the Service management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F5FX	An error is detected at the Service execution section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F60X	An error is detected at the Maintenance mode management section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F61X	An error is detected at the Report compiling section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F62X	An error is detected at the Service execution section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F63X	An error is detected at the Device control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		
F64X		1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check		
F65X	An error is detected at the	function. 3) Replace the main board and check function.		
F66X	Print image process section	4) Replace the HDD and check function. (*1)		
F67X		5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		

No.	Content	Check procedure & check point	Remark 1	TASKalfa 256ci/FS-C8525MFP, TASKalfa 206ci/FS-C8520MFP, TASKalfa 306i/FS-6530MFP, TASKalfa 256i/FS-6525MFP
F68X	An error is detected at the Storage device control section	1) Format the HDD and check function. (U024 FULL formatting) (*1) 2) Execute the U021 Memory initializing to initialize the controller backup memory and check function. 3) Replace the main board and check function. 4) Replace the HDD and check function. (*1) 5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.	*F684 is overwrite error with the HDD security kit	
F69X		Format the HDD and check function. (U024 FULL formatting) (*1) Execute the U021 Memory initializing to initialize the controller backup memory and check		[Check the using CF] Main board: YC4 (Where the CF is inserted.)
F6AX	IAN error is detected at the	function. 3) Replace the main board and check function.		A certain part of the CF may be faulty. The frequency of faiure
F6BX	Hypas control section	4) Replace the HDD and check function. (*1)		occurrence is dependent on the frequency of access to the faulty
F6CX		5) Retrieve the USBLOG and contact the Service Administrative Division. (*1) For the HDD standard model only.		The main PWB may be faulty if the CF is not sensitive.
F71X	External Server management section	1) Check the external server and check function. 2) Chekc the connection to the external server and check function. 3) Check the network settings and check function. 4) Replace the bridge board and check function. 5) Replace the main board and check function. 6) Retrieve the USBLOG and contact the Service Administrative Division.	*FieryOption related	-

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(5) Chart of image adjustment procedures

Adjusting	Item	Imaga	Description	Ma	aintenance mode	Original	Page	Remarks
order	item	Image	Description	Item No.	Mode	Original	Page	Remarks
1	Adjusting the magnification in the main scanning direction (printing adjustment)		Polygon motor speed adjustment	U053	POLYGON	U053 test pattern	P.1-3-29	
2	Adjusting the magnification in the auxiliary scanning direction (printing adjustment)		Drive motor speed adjustment	U053	MAIN	U053 test pattern	P.1-3-29	
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.1-3-24	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.1-3-24	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.1-3-24	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.1-3-24	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.1-3-77	
8	Adjusting the trailing edge margin (printing adjustment)	*	LSU illumination end timing	U402	TRAIL	U402 test pattern	P.1-3-77	
9	Adjusting the left and right margins (printing adjustment)	* *	LSU illumination start/end timing	U402	A MARGIN C MARGIN	U402 test pattern	P.1-3-77	
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.1-3-31 P.1-3-37	U065: For copying an original placed on the platen. U070: For copying originals from the DP.

Adjusting	Item	Imaga	Description	M	aintenance mode	Original	Page	Remarks
order	item	Image	Description	Item No.	Mode	Original	Page	Remarks
11	Adjusting magnification of the scanner in the auxiliary scanning direction		Original scanning speed	U065 U070	X SCAN ZOOM X SCAN ZOOM	Test chart	P.1-3-31 P.1-3-37	U065: For copying an original placed on the platen. U070: For copying originals from the DP.
	(scanning adjustment)			3070	X 307 11 2 3 3 11		1.1007	Governor copying originals from the Brit
12	Adjusting the center line (scanning adjustment)	← →	Adjusting the original scan data (image adjustment)	U067	FRONT ROTATE	Test chart	P.1-3-34	U067: For copying an original placed on the platen. To make an adjustment for rotate copying, select ROTATE.
				U072	FRONT BACK		P.1-3-40	U072: For copying originals from the DP. To make an adjustment for duplex copying, select BACK.
13	Adjusting the leading edge registration (scanning adjustment)	*	Original scan start timing	U066	FRONT ROTATE	Test chart	P.1-3-33	U066: For copying an original placed on the platen. To make an adjustment for trailing edge registration, select ROTATE.
. •				U071	FRONT HEAD BACK HEAD		P.1-3-38	U071: For copying originals from the DP. To make an adjustment for duplex copying, select BACK HEAD.
	Adjusting the leading edge margin (scanning adjustment)	*	Adjusting the original scan data (image adjustment)	U403	B MARGIN	Test chart	P.1-3-78	U403: For copying an original placed on the contact glass
14				U404	B MARGIN		P.1-3-79	U404: For copying originals from the DP.
	Adjusting the trailing edge margin (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403	D MARGIN	Test chart	P.1-3-78	U403: For copying an original placed on the contact glass
15		*		U404	D MARGIN		P.1-3-79	U404: For copying originals from the DP.
	Adjusting the left and right margins (scanning adjustment)		Adjusting the original scan data (image adjustment)	U403	A MARGIN C MARGIN	Test chart	P.1-3-78	U403: For copying an original placed on the contact glass
16		* *		U404	A MARGIN C MARGIN		P.1-3-79	U404: For copying originals from the DP.

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)

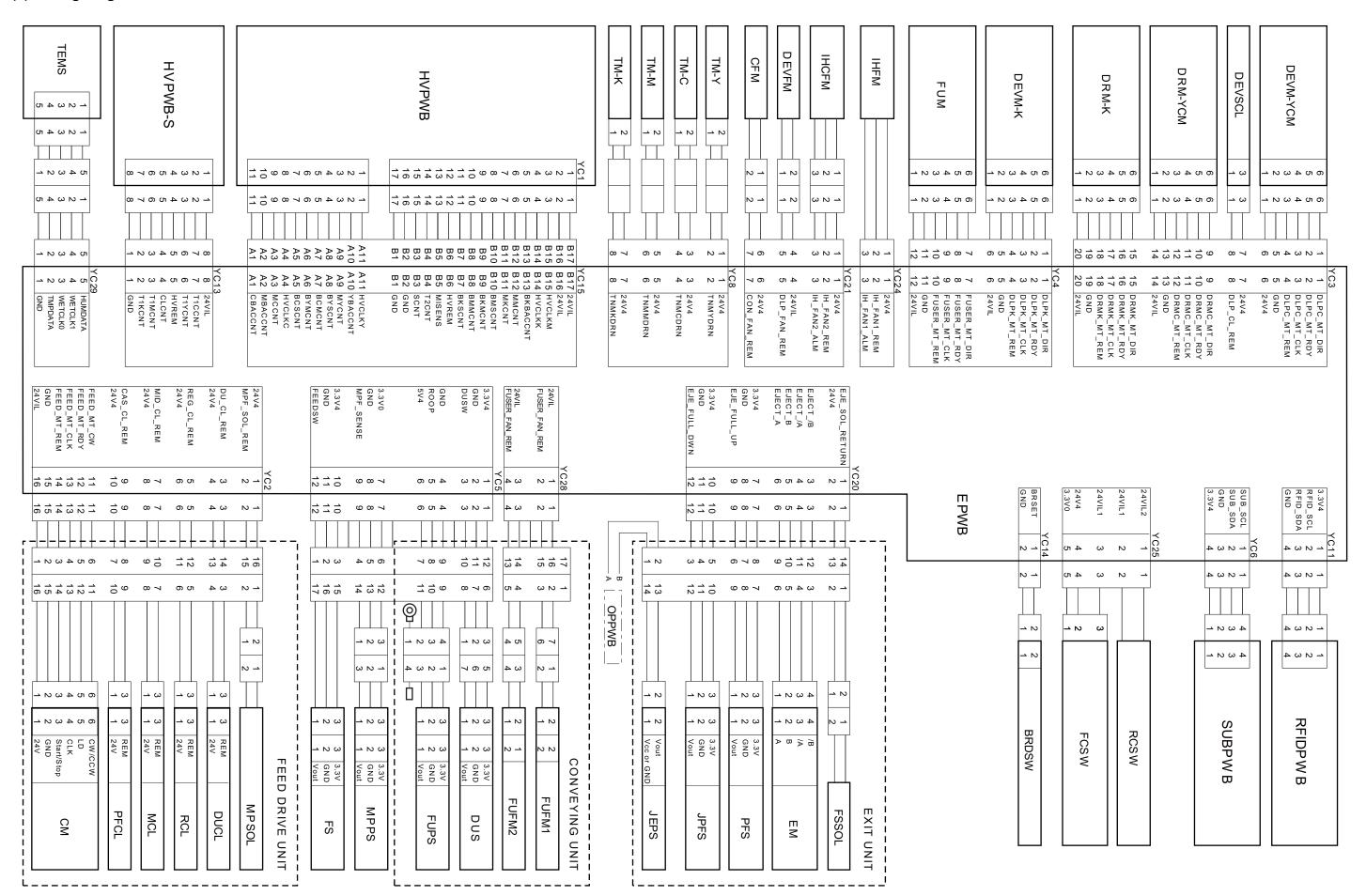
Adjusting the DP leading edge registration (U071)

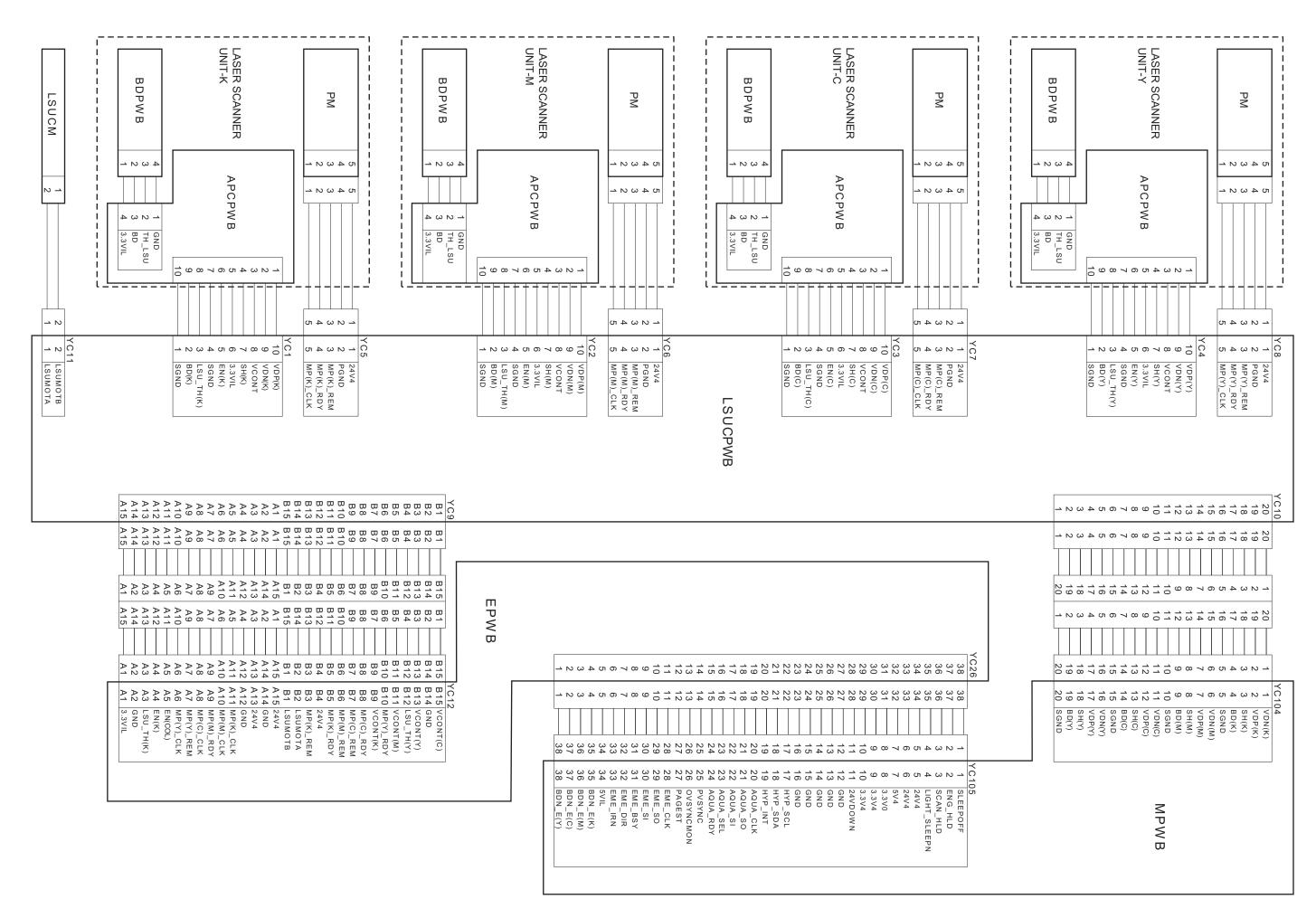
Adjusting the DP center line (U072)

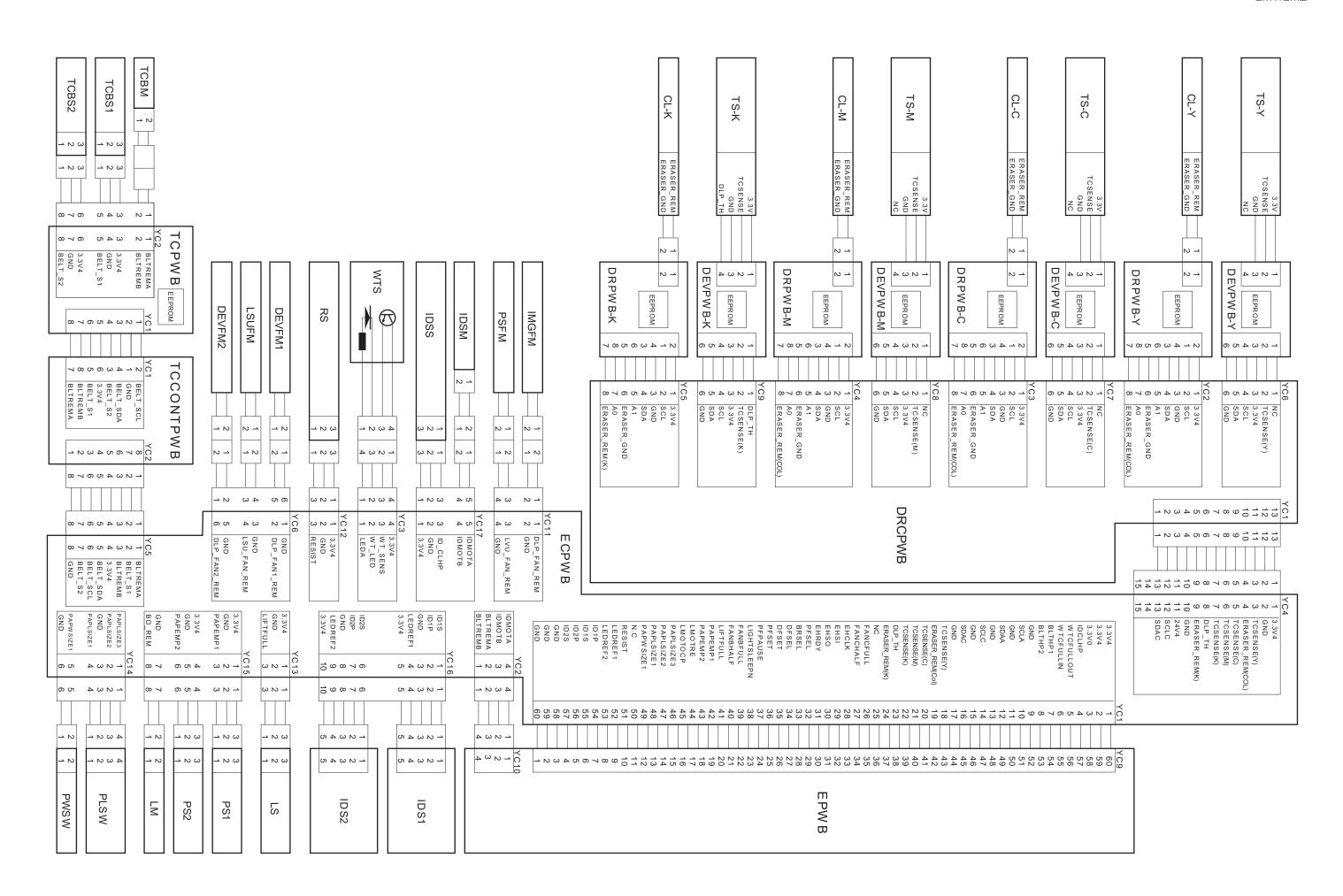
Image quality

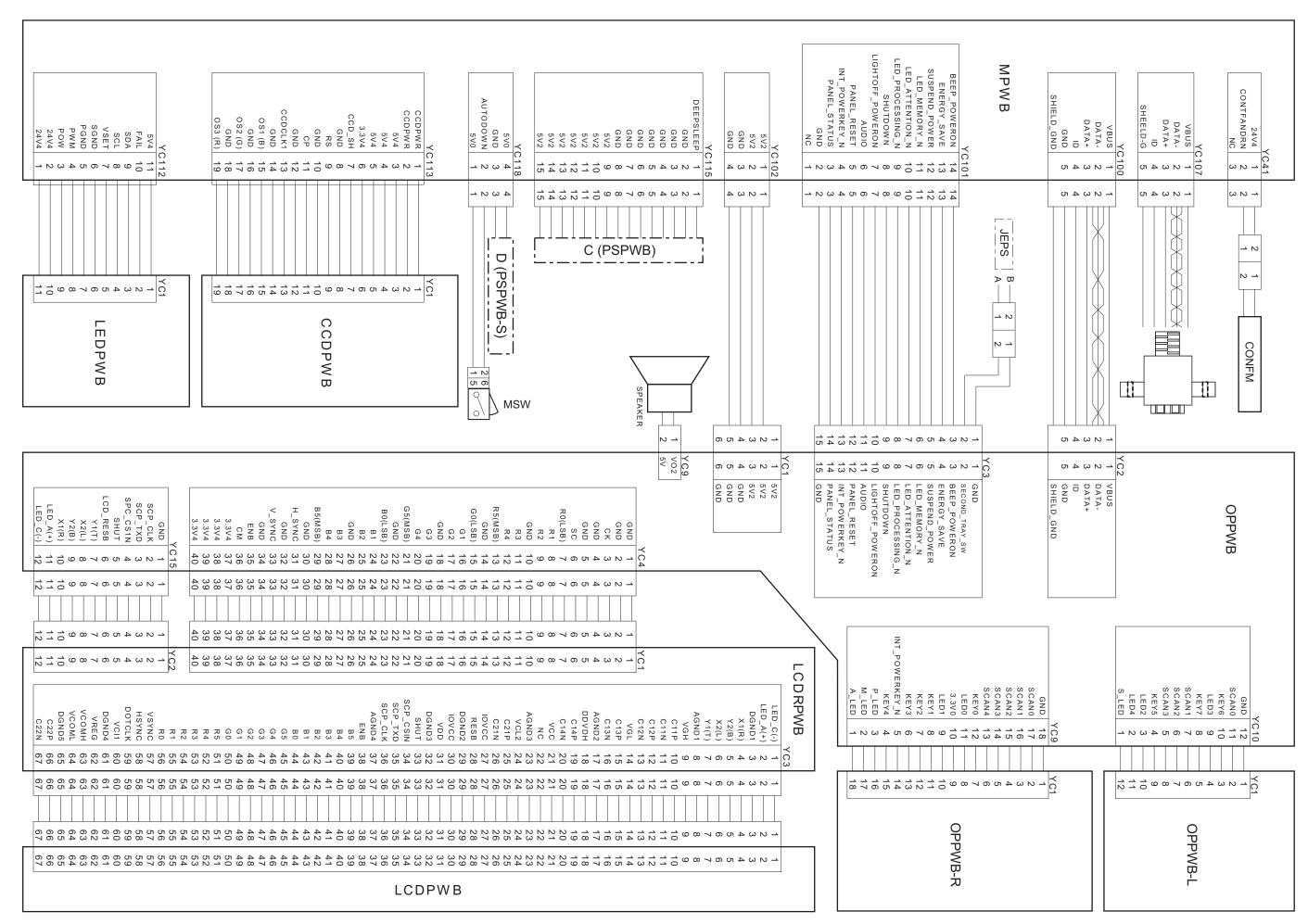
Item	Specifications
100% magnification	Machine: ±0.8%
	Using DP: ±1.5%
Enlargement/reduction	Machine: ±1.0%
	Using DP: ±1.5%
Lateral squareness	Machine: ±1.5 mm/375 mm
	Using DP: ±3.0 mm/375 mm
Leading edge registration	Cassette: ±2.5 mm
	MP tray: ±2.5 mm
	Duplex: ±2.5 mm
Skewed paper feed	Cassette: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

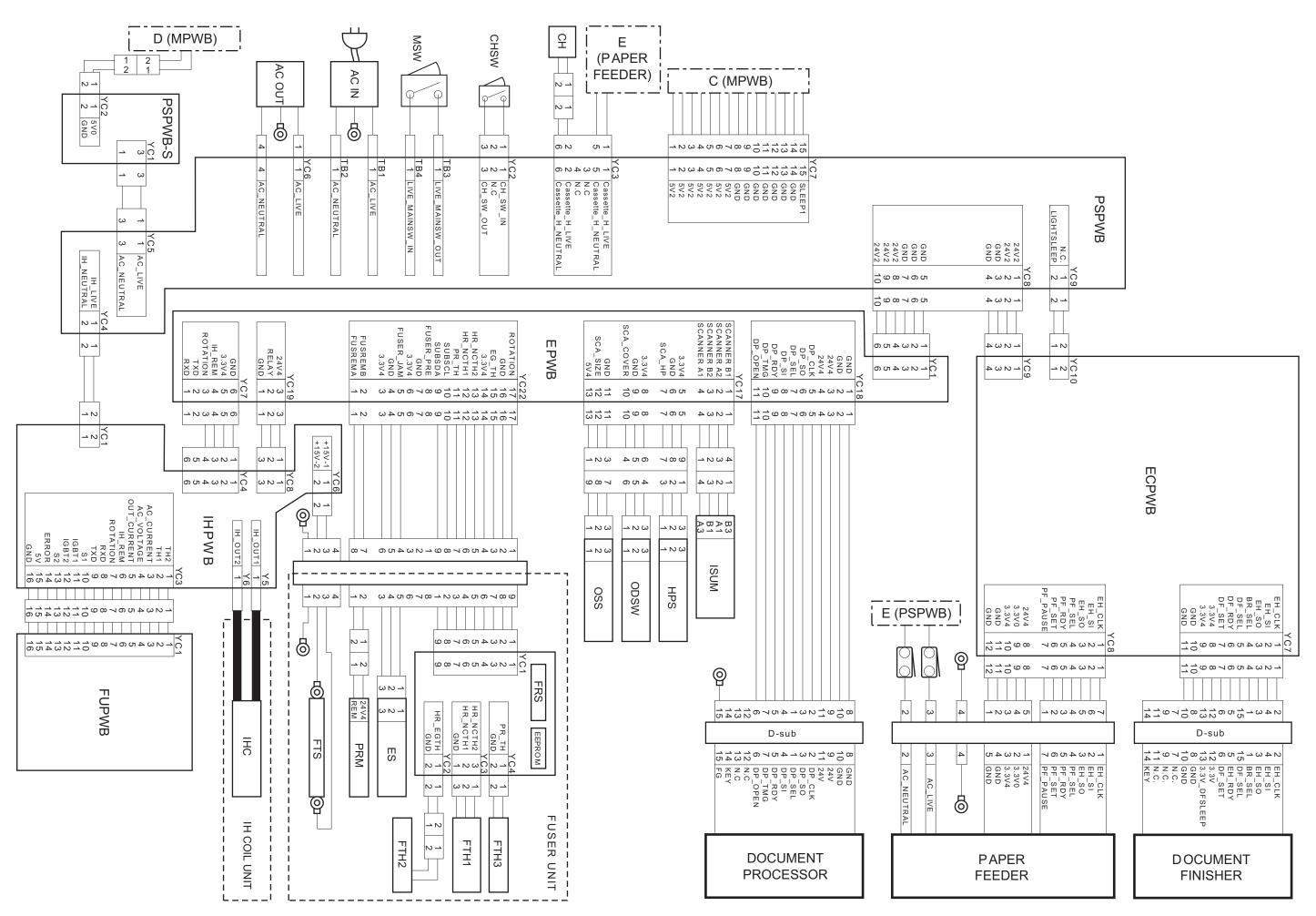
(6) Wiring diagram

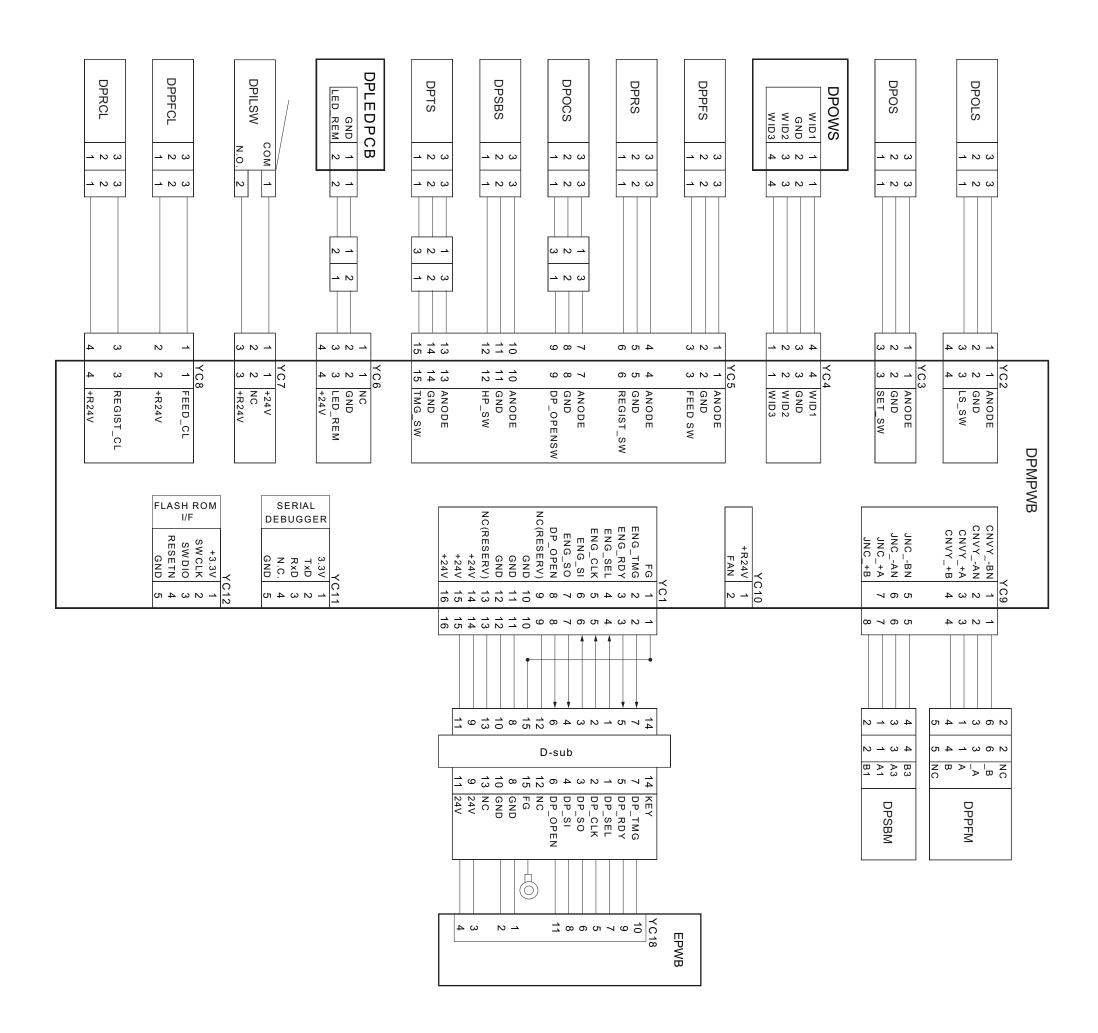






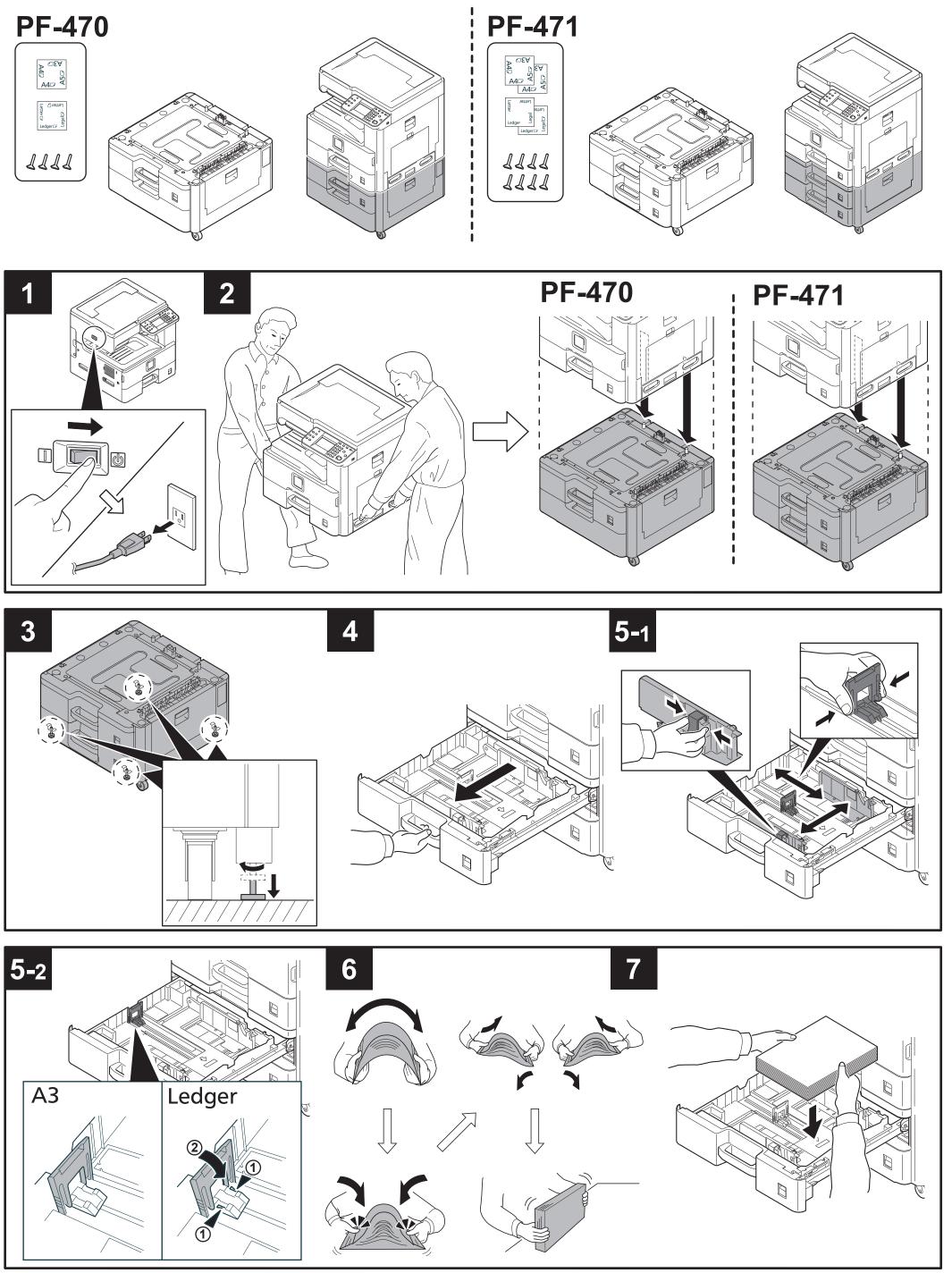


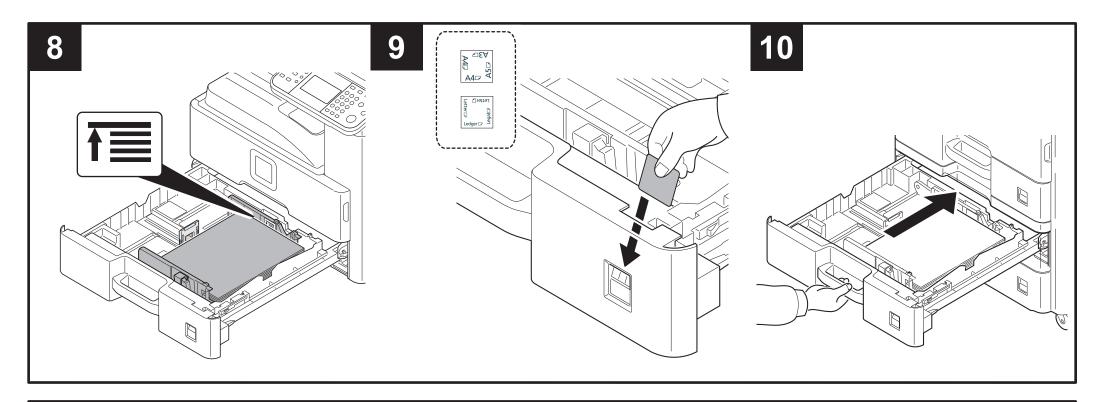




PF-470/471 (Paper feeder) Installation Guide

PF-470/471 PAPER FEEDER





ENG

Fix Paper Width Guide

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

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.

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.

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.

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。

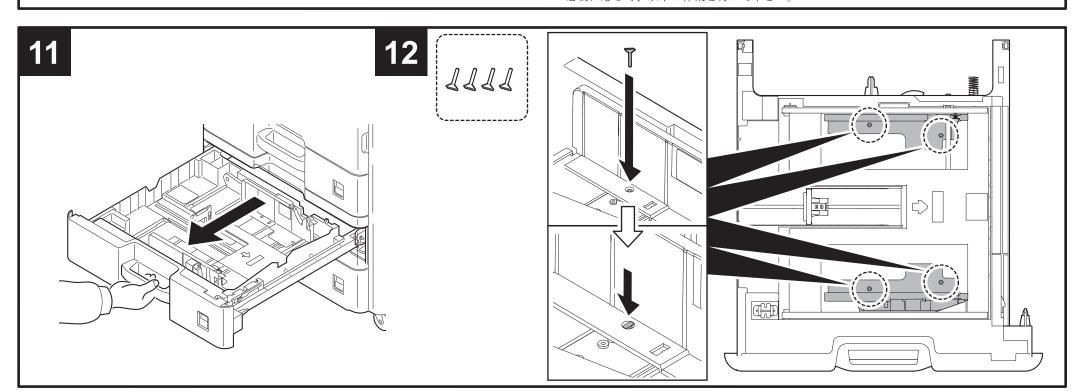
KO

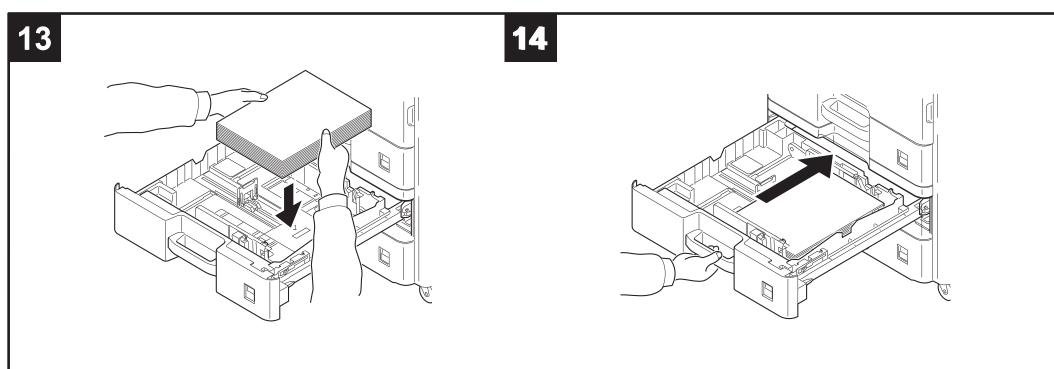
용지폭 가이드 고정 기기와 함께 제공된 핀으로 용지폭 가이드를 고정시킬 수 있습니다. 필요하면 아래의 작업을 하십시오.

(JP)

用紙幅ガイドの固定

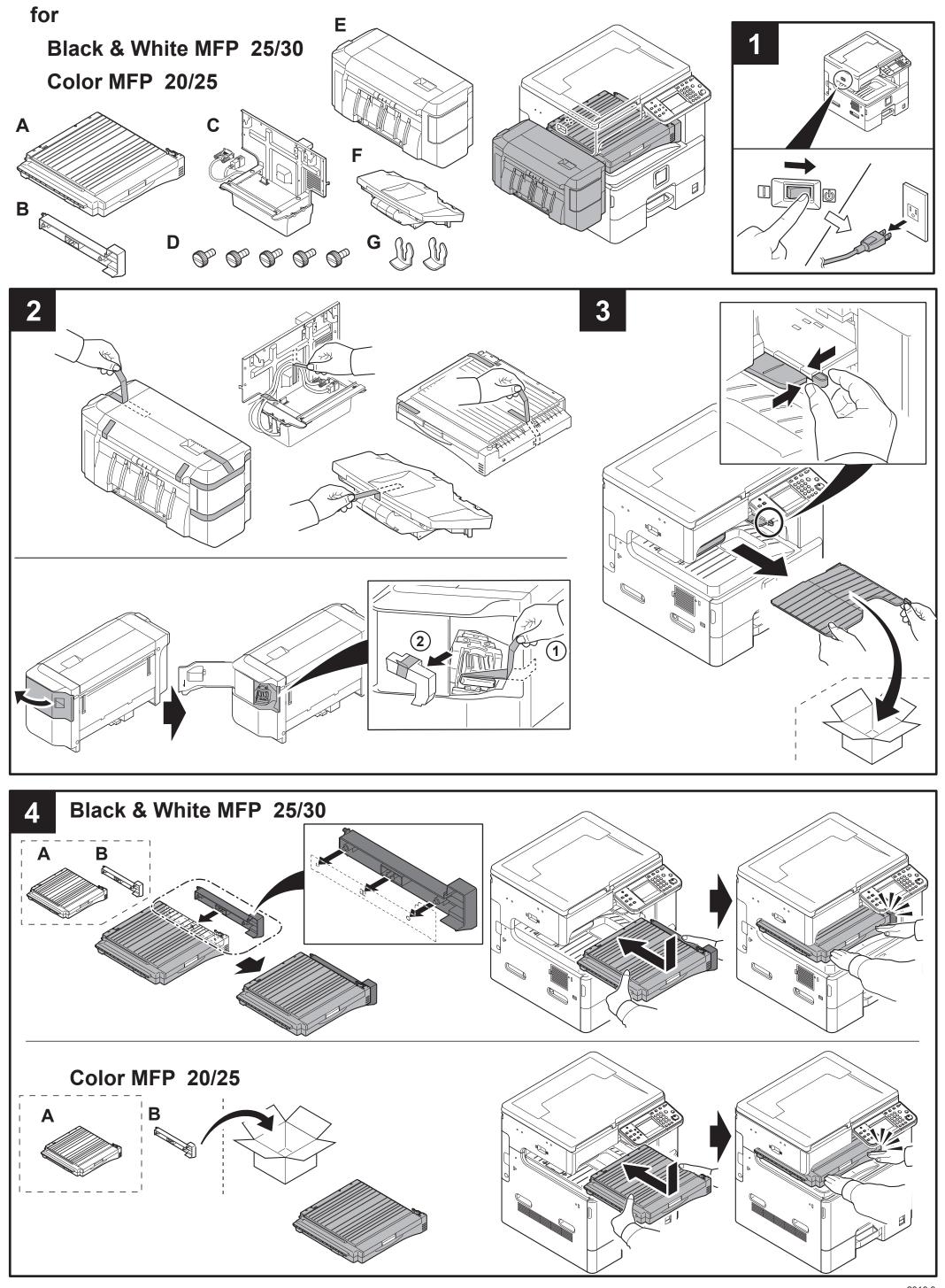
用紙幅ガイドは同梱のピンで固定することが可能です。 必要に応じて、以下の作業を行って下さい。

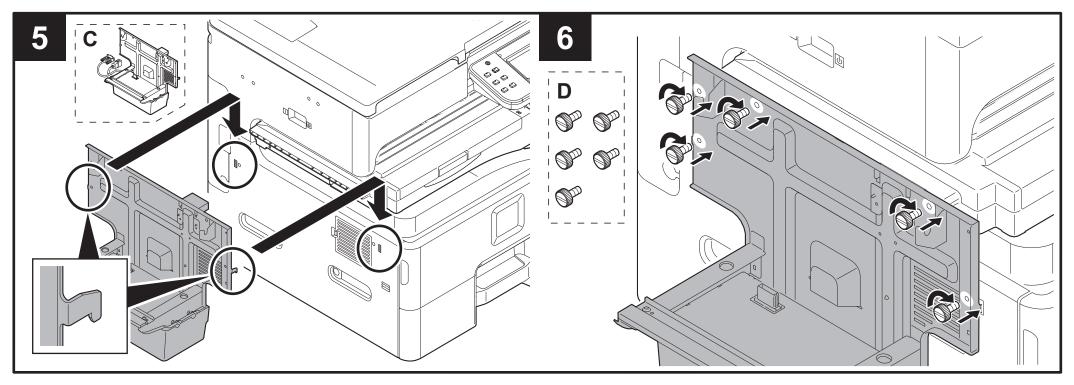


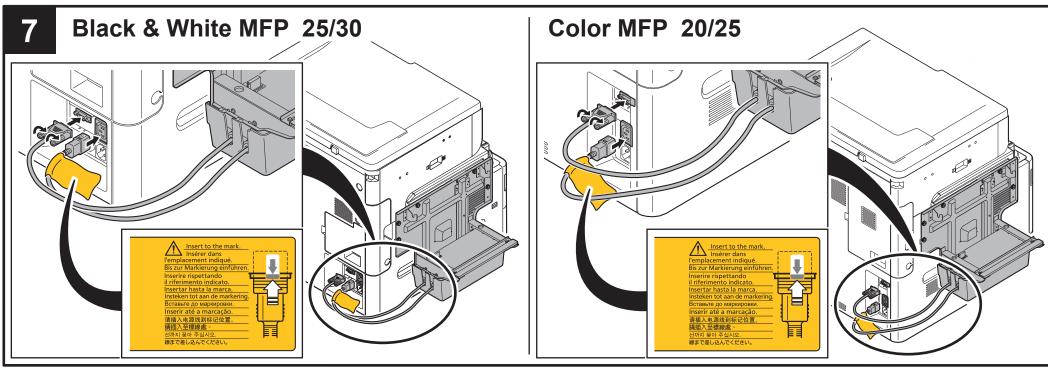


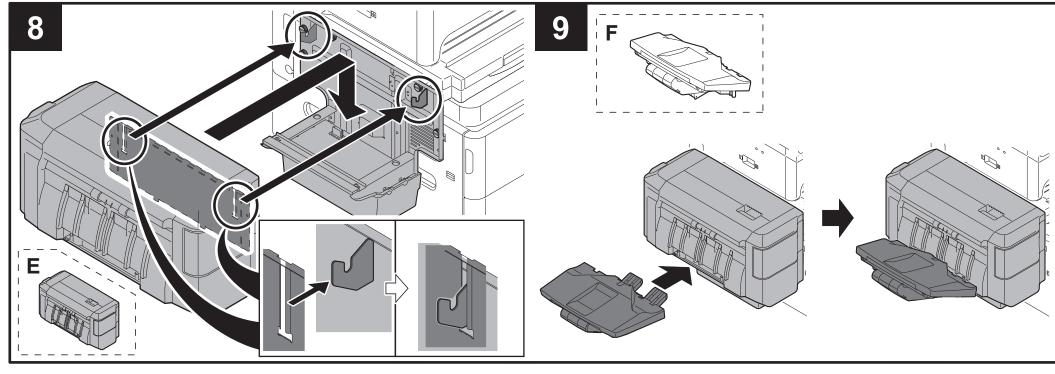
DF-470/AK-470 (Document finisher) Installation Guide

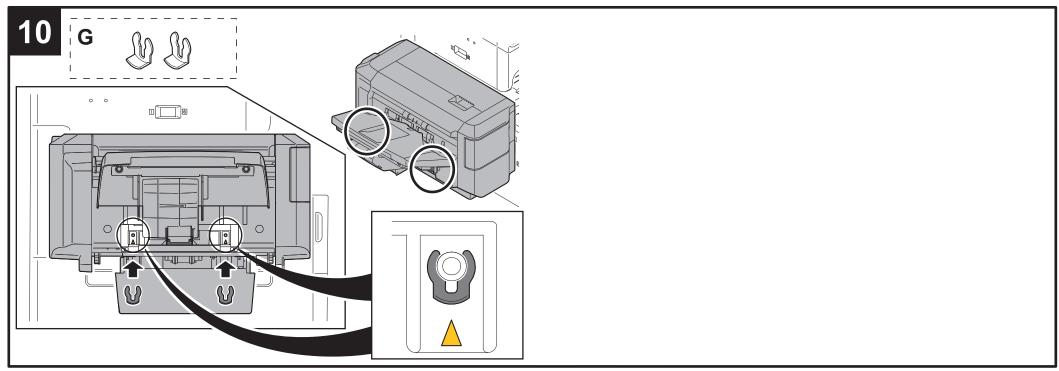
DF-470 DOCUMENT FINISHER, AK-470 ATTACHMENT KIT





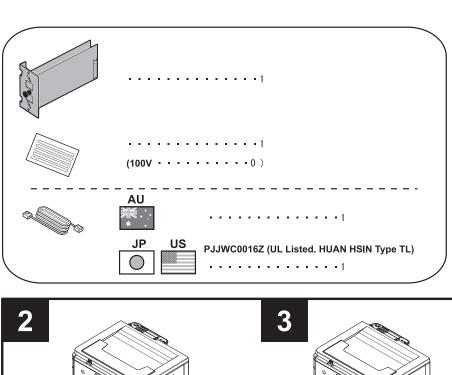




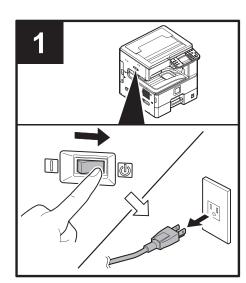


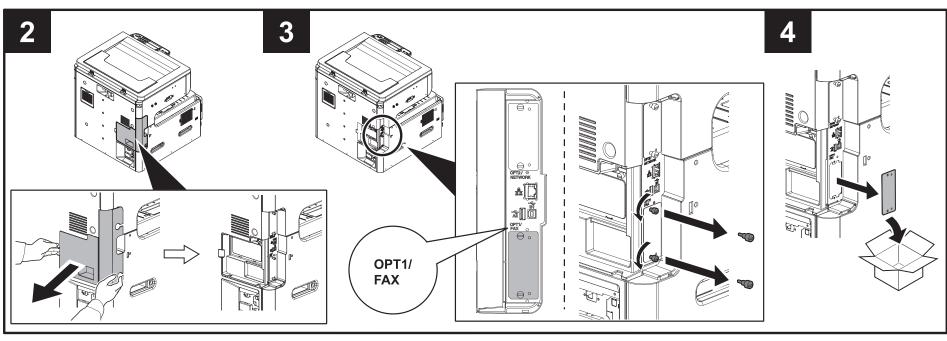
FAX System(U) Installation Guide

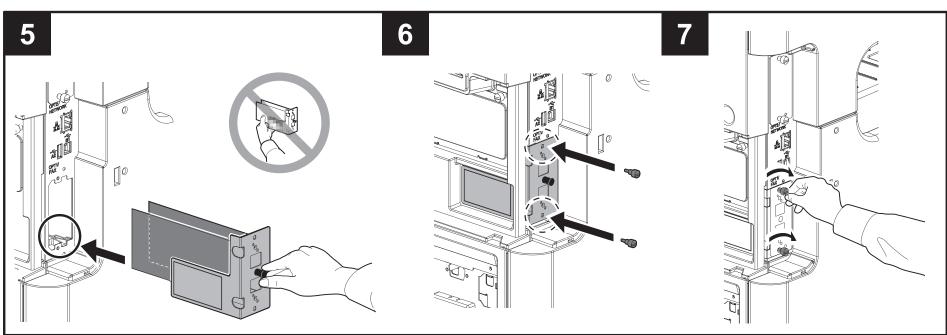
FAX System(U)

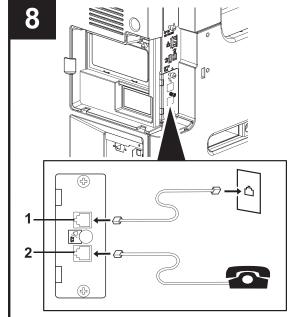




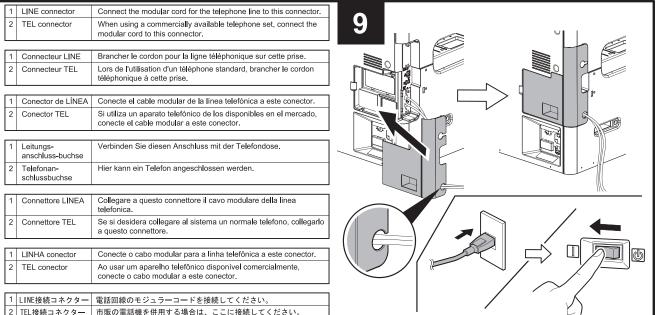








2	TEL connector	When using a commercially available telephone set, connect the modular cord to this connector.
1	Connecteur LINE	Brancher le cordon pour la ligne téléphonique sur cette prise.
2	Connecteur TEL	Lors de l'utilisation d'un téléphone standard, brancher le cordon téléphonique à cette prise.
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	Telefonan- schlussbuchse	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 telefônica a este conector.
2	TEL conector	Ao usar um aparelho telefônico disponível comercialmente, conecte o cabo modular a este conector.
1	LINE接続コネクター	電話回線のモジュラーコードを接続してください。
2	TEL接続コネクター	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。



FAX Setup Wizard



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

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 מהירה בתפריט המערכת, להגדרת הפקס. פעל לפי ההוראות המופיעות בלוח המפעיל.











(HU)

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

(IT)

(RO)

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 instalacj, 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.

Echipamentul are un expert de configurare rapidă în meniul Sistem pentru configurarea faxului.Urmați 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 Menüsünde 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 마법사를 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。











KYOCERA Document Solutions America, Inc.

Headquarters

225 Sand Road.

Fairfield, New Jersey 07004-0008, USA

Phone: +1-973-808-8444 Fax: +1-973-882-6000

Latin America

8240 NW 52nd Terrace Dawson Building, Suite 100

Miami, Florida 33166, USA Phone: +1-305-421-6640 Fax: +1-305-421-6666

KYOCERA Document Solutions Canada, Ltd.

6120 Kestrel Rd., Mississauga, ON L5T 1S8,

Canada

Phone: +1-905-670-4425 Fax: +1-905-670-8116

KYOCERA Document Solutions Mexico, S.A. de C.V.

Calle Arquimedes No. 130, 4 Piso, Colonia Polanco

Chapultepec, Delegacion Miguel Hidalgo, Distrito Federal, C.P. 11560, México

Phone: +52-555-383-2741 Fax: +52-555-383-7804

KYOCERA Document Solutions Brazil, Ltda.

Av.Tambore,1180 Mod.B-09 CEP 06460-000

Tambore-Barueri-SP, Brazil Phone: +55-11-4195-8496 Fax: +55-11-4195-6167

KYOCERA Document Solutions Australia Pty. Ltd.

Level 3, 6-10 Talavera Road North Ryde N.S.W, 2113,

Australia

Phone: +61-2-9888-9999 Fax: +61-2-9888-9588

KYOCERA Document Solutions New Zealand Ltd.

1-3 Parkhead Place, Albany, Auckland 1330,

New Zealand

Phone: +64-9-415-4517 Fax: +64-9-415-4597

KYOCERA Document Solutions Asia Limited

16/F., Mita Centre, 552-566, Castle Peak Road

Tsuenwan, NT, Hong Kong Phone: +852-2610-2181 Fax: +852-2610-2063

KYOCERA Document Solutions (Thailand) Corp., Ltd.

335 Ratchadapisek Road, Bangsue, Bangkok 10800,

Thailand

Phone: +66-2-586-0333 Fax: +66-2-586-0278

KYOCERA Document Solutions Singapore Pte. Ltd.

12 Tai Seng Street #04-01A, Luxasia Building, Singapore 534118

Phone: +65-6741-8733 Fax: +65-6748-3788

KYOCERA Document Solutions Hong Kong Limited

16/F., Mita Centre, 552-566, Castle Peak Road

Tsuenwan, NT, Hong Kong Phone: +852-2429-7422 Fax: +852-2423-2159

KYOCERA Document Solutions Taiwan Corporation

6F., No.37, Sec. 3, Minquan E. Rd.,

Zhongshan Dist., Taipei 104, Taiwan R.O.C.

Phone: +886-2-2507-6709 Fax: +886-2-2507-8432

KYOCERA Document Solutions Korea Co., Ltd.

18F, Kangnam bldg, 1321-1,

Seocho-Dong, Seocho-Gu, Seoul, Korea

Phone: +822-6933-4050 Fax: +822-747-0084

KYOCERA Document Solutions India Private Limited

First Floor, ORCHID CENTRE

Sector-53, Golf Course Road, Gurgaon 122 002,

India

Phone: +91-0124-4671000 Fax: +91-0124-4671001

KYOCERA Document Solutions Europe B.V.

Bloemlaan 4, 2132 NP Hoofddorp,

The Netherlands

Phone: +31-20-654-0000 Fax: +31-20-653-1256

KYOCERA Document Solutions Nederland B.V.

Beechavenue 25, 1119 RA Schiphol-Rijk,

The Netherlands Phone: +31-20-5877200 Fax: +31-20-5877260

KYOCERA Document Solutions (U.K.) Limited

8 Beacontree Plaza,

Gillette Way Reading, Berkshire RG2 0BS,

United Kingdom

Phone: +44-118-931-1500 Fax: +44-118-931-1108

KYOCERA Document Solutions Italia S.p.A.

Via Verdi, 89/91 20063 Cernusco s/N.(MI),

Italy

Phone: +39-02-921791 Fax: +39-02-92179-600

KYOCERA Document Solutions Belgium N.V.

Sint-Martinusweg 199-201 1930 Zaventem,

Belgium

Phone: +32-2-7209270 Fax: +32-2-7208748

KYOCERA Document Solutions France S.A.S.

Espace Technologique de St Aubin

Route de l'Orme 91195 Gif-sur-Yvette CEDEX,

France

Phone: +33-1-69852600 Fax: +33-1-69853409

KYOCERA Document Solutions Espana, S.A.

Edificio Kyocera, Avda. de Manacor No.2, 28290 Las Matas (Madrid), Spain

Phone: +34-91-6318392 Fax: +34-91-6318219

KYOCERA Document Solutions Finland Oy

Atomitie 5C, 00370 Helsinki,

Finland

Phone: +358-9-47805200 Fax: +358-9-47805390

KYOCERA Document Solutions

Europe B.V., Amsterdam (NL) Zürich Branch

Hohlstrasse 614, 8048 Zürich,

Switzerland

Phone: +41-44-9084949 Fax: +41-44-9084950

KYOCERA Document Solutions

Deutschland GmbH

Otto-Hahn-Strasse 12, 40670 Meerbusch,

Germany

Phone: +49-2159-9180 Fax: +49-2159-918100

KYOCERA Document Solutions Austria GmbH

Eduard-Kittenberger-Gasse 95, 1230 Vienna,

Austria

Phone: +43-1-863380 Fax: +43-1-86338-400

KYOCERA Document Solutions Nordic AB

Esbogatan 16B 164 75 Kista, Sweden

Phone: +46-8-546-550-00 Fax: +46-8-546-550-10

KYOCERA Document Solutions Norge NUF

Postboks 150 Oppsal, 0619 Oslo,

Norway

Phone: +47-22-62-73-00 Fax: +47-22-62-72-00

KYOCERA Document Solutions Danmark A/S

Ejby Industrivej 60, DK-2600 Glostrup,

Denmark

Phone: +45-70223880 Fax: +45-45765850

KYOCERA Document Solutions Portugal Lda.

Rua do Centro Cultural, 41 (Alvalade) 1700-106 Lisboa,

Portugal

Phone: +351-21-843-6780 Fax: +351-21-849-3312

KYOCERA Document Solutions South Africa (Pty) Ltd.

49 Kyalami Boulevard,

Kyalami Business Park 1685 Midrand, South Africa

Phone: +27-11-540-2600 Fax: +27-11-466-3050

KYOCERA Document Solutions Russia LLC

Botanichesky pereulok 5, Moscow, 129090,

Russia

Phone: +7(495)741-0004 Fax: +7(495)741-0018

KYOCERA Document Solutions Middle East

Dubai Internet City, Bldg. 17, Office 157 P.O. Box 500817, Dubai,

United Arab Emirates Phone: +971-04-433-0412

KYOCERA Document Solutions Inc.

2-28, 1-chome, Tamatsukuri, Chuo-ku

Osaka 540-8585, Japan Phone: +81-6-6764-3555

http://www.kyoceradocumentsolutions.com

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