

FS-6525MFP FS-6530MFP



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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	20 June 2012	1-3-12, 1-4-20, Address	-
2	20 August 2012	1-3-65, 1-3-121, 1-3-122, 2-4-12	-

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КУОСЕКА

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.
- AWARNING: Serious bodily injury or death may result from insufficient attention to or incorrect compliance with warning messages using this symbol.
- ACAUTION: Bodily injury or damage to property may result from insufficient attention to or incorrect compliance with warning messages using this symbol.

Symbols

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



Warning of high temperature.

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



General prohibited action.



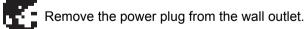
Disassembly prohibited.

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



General action required.







Always ground the copier.

1. Installation Precautions

WARNING

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



ACAUTION:

•	Do not place the copier on an infirm or angled surface: the copier may tip over, causing injury	\odot
•	Do not install the copier in a humid or dusty place. This may cause fire or electric shock	\odot
•	Do not install the copier near a radiator, heater, other heat source or near flammable material. This may cause fire.	\odot
•	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	\odot
•	Always handle the machine by the correct locations when moving it.	0
•	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.	0
•	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.	0
•	Advice customers that they must always follow the safety warnings and precautions in the copier's	

instruction handbook.

2. Precautions for Maintenance

	æ.
Always remove the power plug from the wall outlet before starting machine disassembly	
Always follow the procedures for maintenance described in the service manual and other related brochures.	\odot
Under no circumstances attempt to bypass or disable safety features including safety mechanisms and protective circuits.	\odot
Always use parts having the correct specifications.	\odot
 Always use the thermostat or thermal fuse specified in the service manual or other related brochure when replacing them. Using a piece of wire, for example, could lead to fire or other serious acci- dent. 	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	υ
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.	\odot
Handle the charger sections with care. They are charged to high potentials and may cause electric shock if handled improperly.	A

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

Do not remove the ozone filter, if any, from the copier except for routine replacement	\bigcirc
 Do not pull on the AC power cord or connector wires on high-voltage components when removing 	Ä
them; always hold the plug itself.	\odot
• 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.	\odot
• Treat the ends of the wire carefully when installing a new charger wire to avoid electric leaks	0
Remove toner completely from electronic components	A
Run wire harnesses carefully so that wires will not be trapped or damaged	A
 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. 	0
Check that all the caution labels that should be present on the machine according to the instruction handbook are clean and not peeling. Replace with new ones if necessary	0
	A
 Handle greases and solvents with care by following the instructions below: Use only a small amount of solvent at a time, being careful not to spill. Wipe spills off completely. Ventilate the room well while using grease or solvents. 	
 Allow applied solvents to evaporate completely before refitting the covers or turning the power switch on. Always wash hands afterwards. 	
Never dispose of toner or toner bottles in fire. Toner may cause sparks when exposed directly to fire in a furnace, etc.	0
Should smoke be seen coming from the copier, remove the power plug from the wall outlet immedi- ately.	C

3. Miscellaneous

WARNING

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



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Installation Guide

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

1-1-1 Specifications

Machine

Item		Specifications	
		25ppm	30ppm
Туре		Desktop	
Printing method		Electrophotography by semiconductor laser, single drum system	
Originals		Sheet, Book, 3-dimensional objects (maximum original size: A3/Ledger)	
Original fe	ed system	Fixed	
Paper weight	Cassette	60 to 163 g/m ² (Duplex: 60 to 163 g/m ²)	
raper weight	MP tray	45 to 256 g/m ² , (Sizes is larger than A4/Letter: 52 to 163 g/m ²)	
	Cassette	Plain, Preprinted, Bond, Recycled, Ve punched, Thick, High quality, Custom	ellum, Rough, Letter Head, Color, Pre- 1 to 8 (Duplex: Same as simplex)
Paper type	MP tray	Plain, Preprinted, Bond, Recycled, Vellum, Rough, Letter Head, Color, Pre- punched, Thick, High quality, Envelope, Cardstock, Transparency, Labels, Custom1 to 8	
	Cassette	A3, A4, A5, B4, B5, Ledger, Letter, Le 16K	egal, Statement, Oficio II, Folio, 8K,
Paper size	Paper sizeA3, A4, A5, A6, B4, B5, ISO B5, B6, Ledger, Letter, Legal, StatemeMP trayA3, A4, A5, A6, B4, B5, ISO B5, B6, Ledger, Letter, Legal, StatemeExecutive, Oficio II, Folio, 8K, 16K, Envelope #10, Envelope #9, Envelope #6, Envelope Monarch, Envelope DL, Envelope C4, Env C5, Postcards, Return postcard, Youkei 2, Youkei 4, Custom		nvelope #10, Envelope #9, velope DL, Envelope C4, Envelope
Zoom	level	Manual mode : 25 to 400%, 1% increments Auto mode : 400%, 200%, 141%, 122%, 115%, 86%, 81%, 70%, 50%, 25%	
Copying speed	When the DP is not used	A4/Letter: 25 sheets/minA4/LetterR: 18 sheets/minA3/Ledger: 12 sheets/minB4/Legal: 12 sheets/minB5: 25 sheets/minB5R: 16 sheets/minA5R: 12 sheets/min	A4/Letter: 30 sheets/minA4/LetterR: 22 sheets/minA3/Ledger: 15 sheets/minB4/Legal: 15 sheets/minB5: 30 sheets/minB5R: 20 sheets/minA5R: 15 sheets/min
(Cassette) (Simplex)	When using the DP	A4/Letter: 20 sheets/minA4/LetterR: 14 sheets/minA3/Ledger: 10 sheets/minB4/Legal: 11 sheets/minB5: 20 sheets/minB5R: 16 sheets/minA5R: 12 sheets/min	A4/Letter: 20 sheets/minA4/LetterR: 14 sheets/minA3/Ledger: 10 sheets/minB4/Legal: 11 sheets/minB5: 20 sheets/minB5R: 16 sheets/minA5R: 15 sheets/min
First co (A4, feed fro	py time om cassette)	When the DP is not used : 7.8 s or lessWhen using the DP: 9.2 s or less	
Warm-up time (22 °C/71.6 °F, 60% RH)		Power on: 20 s or lessLow power mode: 10 s or lessSleep mode: 20 s or less	

Item		Specifications	
Ite	em.	25ppm	30ppm
Paper Cassette		500 sheets (80g/m²)	
capacity MP tray		100 sheets (80 g/m², plain paper, A4/Letter or less)	
Output tray capacity		250 sheets (80g/m ²)	
Continuous copying		1 to 999 sheets	
Light s	source	White LED	
Scanning	g system	Flat bed scanning by CCD image sensor	
Photoco	onductor	a-Si drum (diameter 30 mm)	
Image wri	te system	Semiconductor laser:	
Charging	g system	Contact charger roller method	
Develope	er system	Mono component dry developing met Toner replenishing: Automatic from th	
Transfei	' system	Transfer roller method	
Separatio	n system	Small diameter separation, dischager	brush
Cleaning	g system	Counter blade cleaning + cleaning rol	ler
Charge eras	sing system	Exposure by cleaning lamp (LED)	
Fusing	system	Heat and pressure fusing with the heat Heat source: halogen heater Abnormally high temperature protection	
CF	งป	PowerPC464 (800MHz)	
Main	Standard	d 1.0 GB	
memory	Maximum	2.0 GB	
Interface	Standard	USB interface connector: 1 (USB 2.0) USB host: 2 (USB 2.0) Network interface: 1 (10BASE-T/100E	
	Option	eKUIO slot: 2	
Reso	ution	600 × 600 dpi	
	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 × 694 mm / 23 1/4" × 23 1	I/4 "× 27 5/16"
Weight (with toner container)		52.2 kg / 115.1 lb	
Space requ	ired (W × D)	878 × 590 mm / 34 9/16" × 23 1/4" (u	sing MP tray)
Power	source	120 V AC, 60 Hz, more than 12.0 A 220 - 240 V AC, 50/60 Hz, more than	6.5 A
Options		Paper feeder (single cassette), Paper finisher, Network kit, Fax kit, Expande	· · · · · · · · · · · · · · · · · · ·

Document processor

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

Printer

ltem		Specifications		
		25ppm	30ppm	
Printing speed (Cassette)	Simplex	A4/Letter: 25 sheets/minA4/LetterR: 18 sheets/minA3/Ledger: 12 sheets/minB4/Legal: 12 sheets/minB5: 25 sheets/minB5R: 16 sheets/minA5R: 12 sheets/min	A4/Letter: 30 sheets/minA4/LetterR: 22 sheets/minA3/Ledger: 15 sheets/minB4/Legal: 15 sheets/minB5: 30 sheets/minB5R: 20 sheets/minA5R: 15 sheets/min	
	Duplex	A4/Letter: 25 sheets/minA4/LetterR: 11 sheets/minA3/Ledger: 9 sheets/minB4/Legal: 9 sheets/minB5: 25 sheets/minB5R: 11 sheets/minA5R: 12 sheets/min	A4/Letter: 28 sheets/minA4/LetterR: 12 sheets/minA3/Ledger: 10 sheets/minB4/Legal: 10 sheets/minB5: 28 sheets/minB5R: 12 sheets/minA5R: 15 sheets/min	
First print time (A4, feed from cassette)		8.5 s or less		
Resolution		600 × 600 dpi, Fast 1200		
Operating system		Windows2000, WindowsXP(32bit), Windows XP Professional x64 Edition, Windows Server 2003 (32-Bit x86), Windows Server 2003 x64 Edition, Windows Vista x86 Edition, Windows Vista x64 Edition, Windows Server 2008 (32-Bit x86), Windows Server 2008 x64 Edition, Windows 7 (32-Bit x86), Windows 7 (64-Bit x64), Mac OS 9.x, Mac OS X		
System requirements		IBM PC/AT compatible CPU: Celeron 266 MHz or higher RAM: It is based on the recommend environment of each OS. HDD free space: 20 MB or more		
Page description language		PRESCRIBE		

Scanner

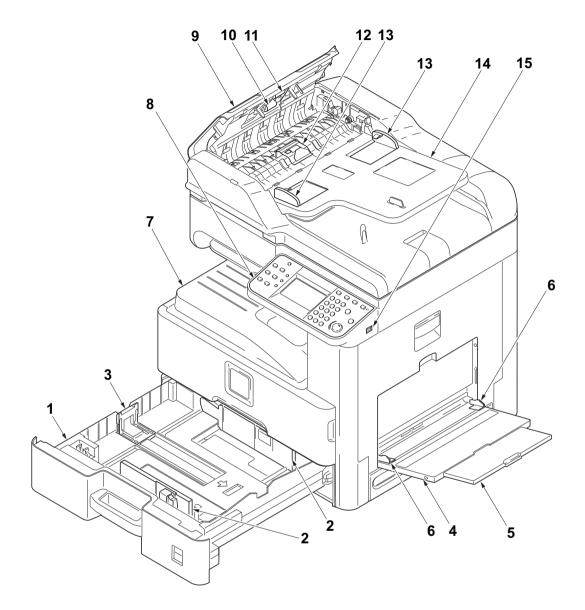
Item		Specifications	
Operating system		Windows XP (32bit/64bit), Windows Vista (32bit/64bit), Windows 7 (32bit/64bit), Windows Server 2003 (32bit/64bit), Windows Server 2008 (32bit/64bit), Windows Server 2008 R2	
Resolution		600 dpi, 400 dpi, 300 dpi, 200 dpi, 200 × 100dpi, 200 × 400dpi	
File format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

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

NOTE: These specifications are subject to change without notice.

1-1-2 Parts names

(1) Machine (front side)





- 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

2MW/2MX

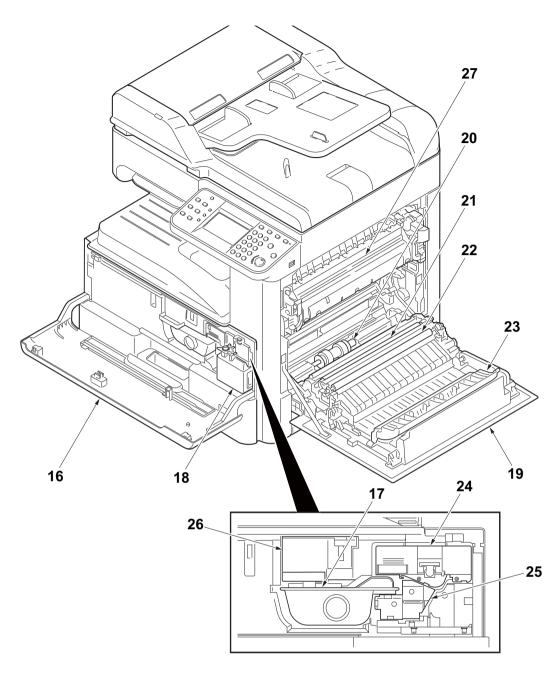


Figure 1-1-2

- 16. Front cover
- 17. Toner container
- 18. Waste toner box
- 19. Right cover 1
- 20. MP paper feed roller
- 21. Registration roller
- 22. Transfer roller

- 23. Feed shift guide
- 24. Drum unit
- 25. Developing unit
- 26. Toner container lever
- 27. Fuser unit

(2) Machine (rear side)

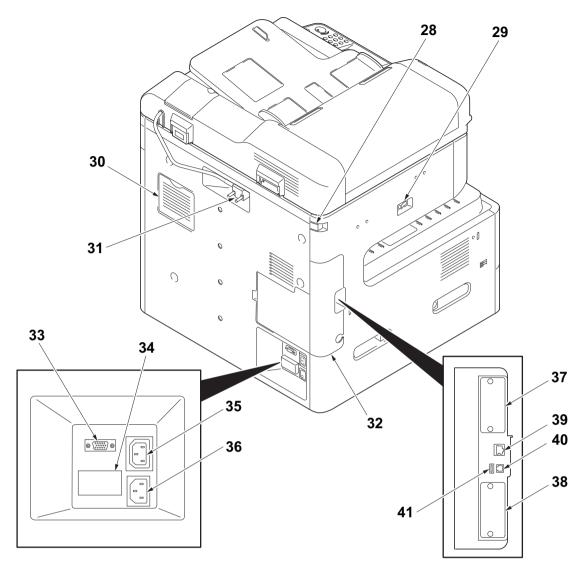


Figure 1-1-3

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

(3) Operation panel

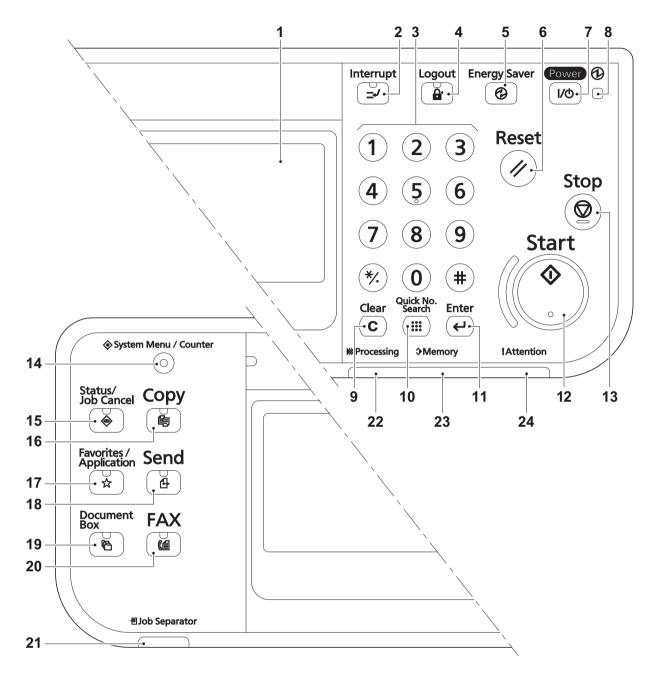


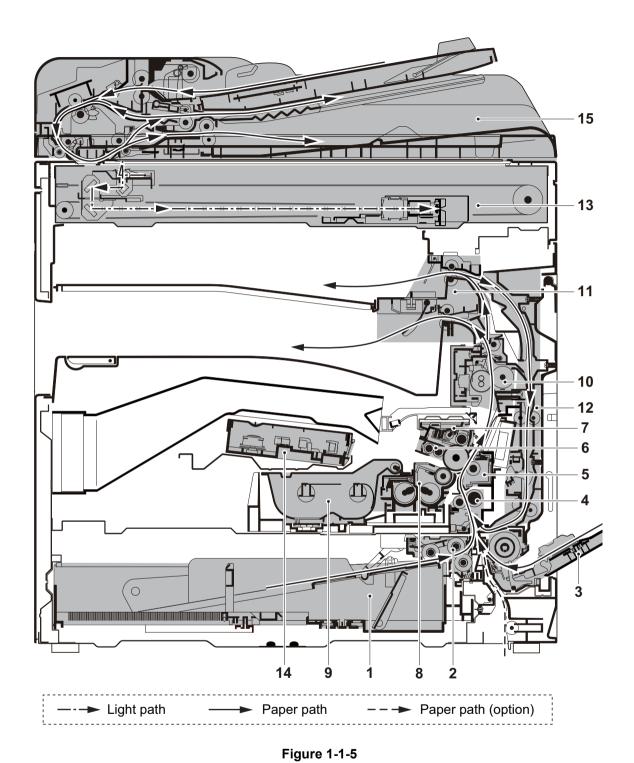
Figure 1-1-4

- 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/Application key / LED
- 18. Send key / LED
- 19. Document box key / LED
- 20. FAX key / LED
- 21. Job separator LED
- 22. Processing LED
- 23. Memory LED
- 24. Attention LED

1-1-3 Machine cross section



1. Cassette

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

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1-2-1 Installation environment

- 1. Temperature: 10 to 32.5°C/50 to 90.5°F
- 2. Humidity: 15 to 80% RH
- 3. Power supply: 120 V AC, 12.0 A

220 - 240 V AC, 6.5 A

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

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

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

Avoid places subject to dust and vibrations.

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

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

Avoid air-borne substances that may adversely affect the machine or degrade the photoconductor, such as mercury, acidic 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.

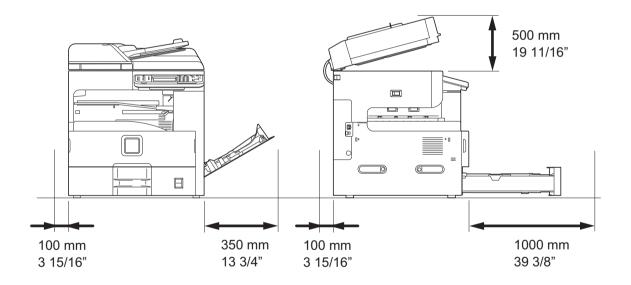
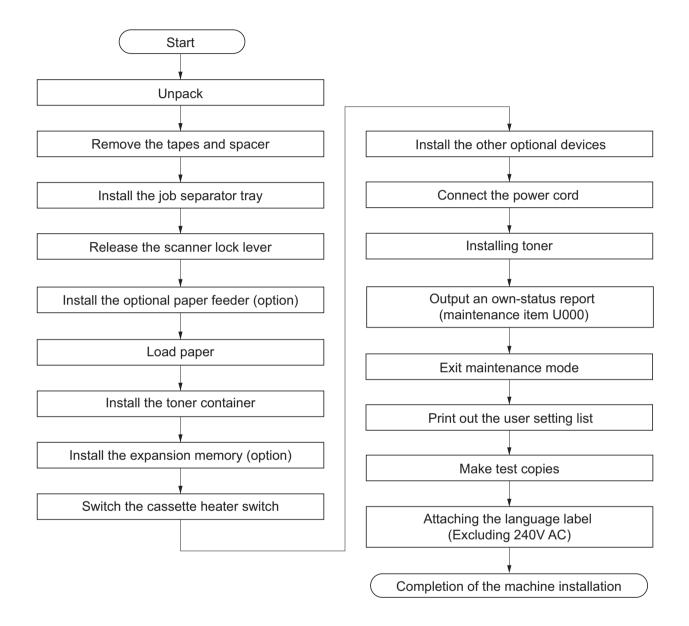
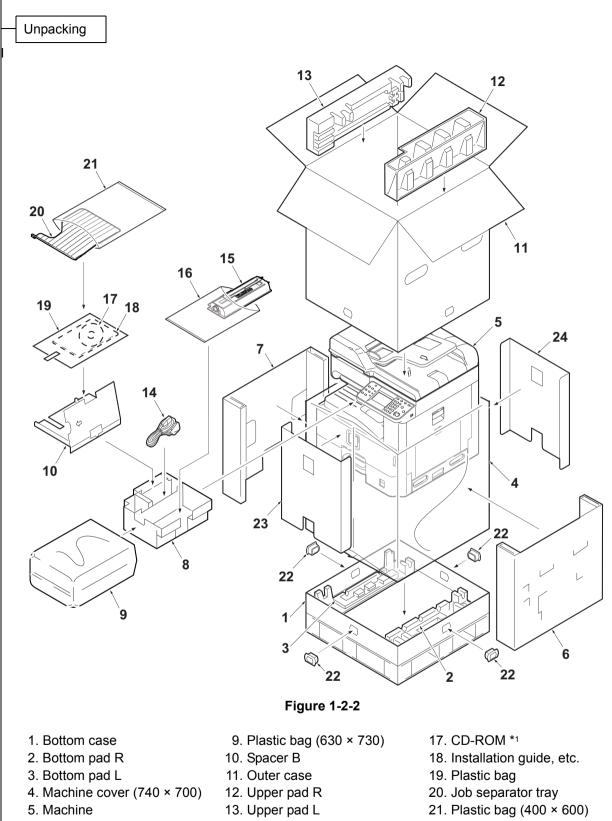


Figure 1-2-1

1-2-2 Unpacking and installation

(1) Installation procedure





- 6. Inner case R
- 7. Inner case L
- 8. Spacer A

- 14. Power cord
- 15. Toner container
- 16. Plastic bag (400 × 600)
- 22. Hinge joints
- 23. Inner case F
- 24. Inner case B

*1 Excluding 230V AC model

Place the machine on a level surface.

Remove the tapes and spacer

1. Remove four tapes.

- - Figure 1-2-3

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

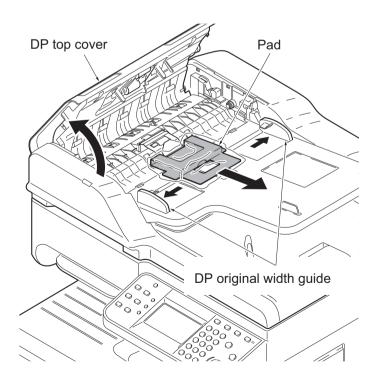
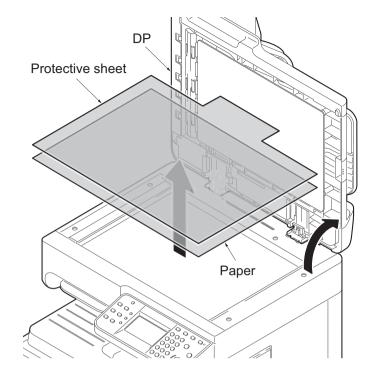


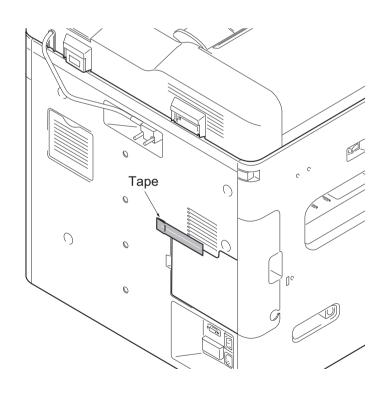
Figure 1-2-4

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





7. Remove the tape.





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

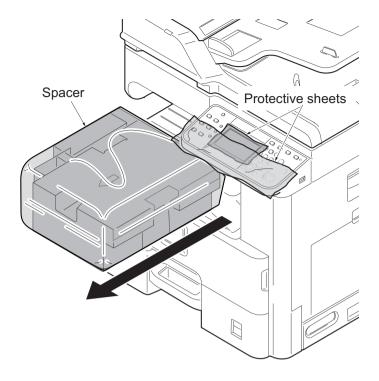
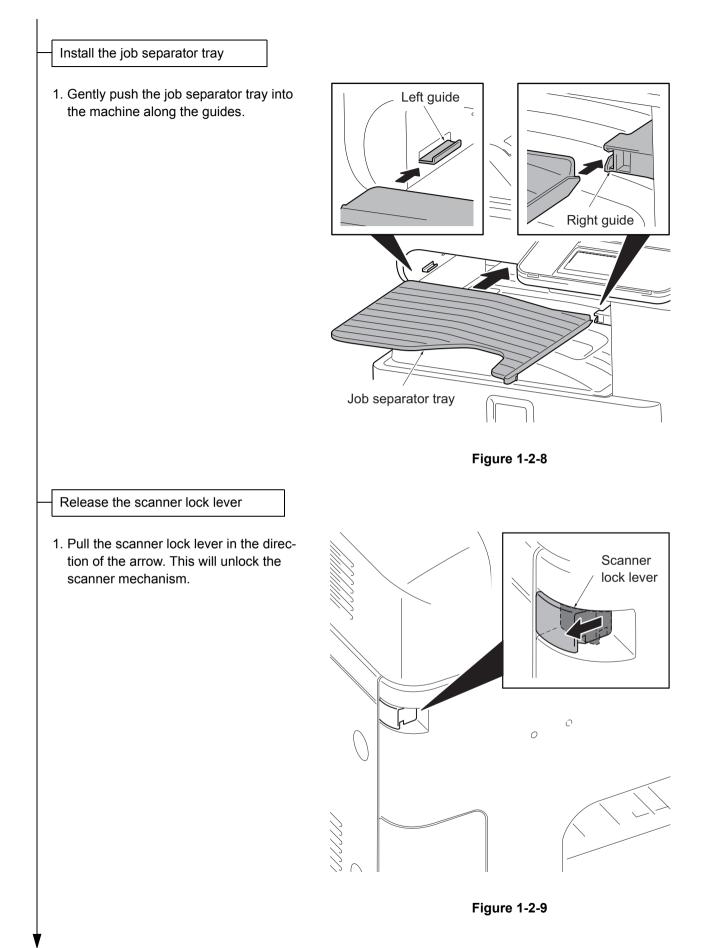
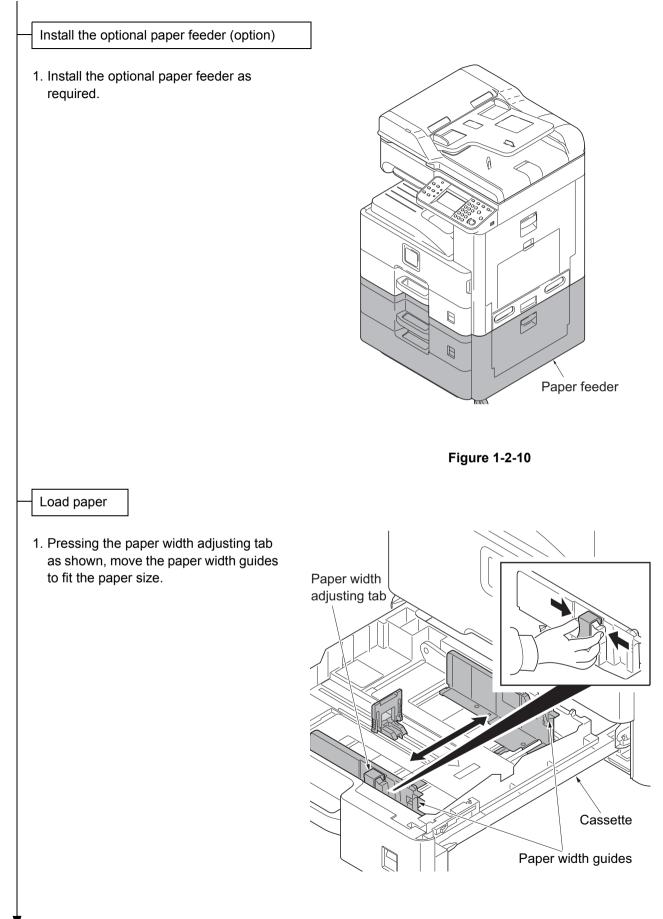
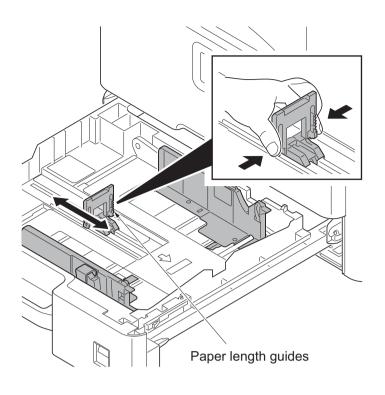


Figure 1-2-7





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





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

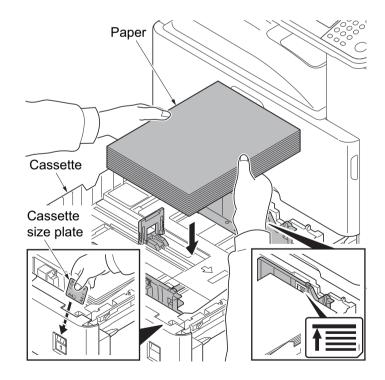
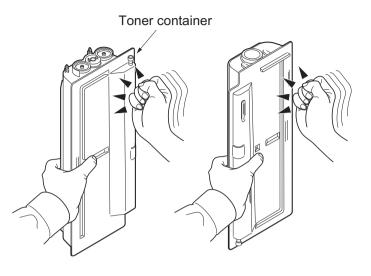


Figure 1-2-13

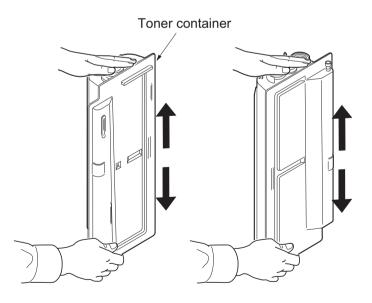
Install the toner container

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





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





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

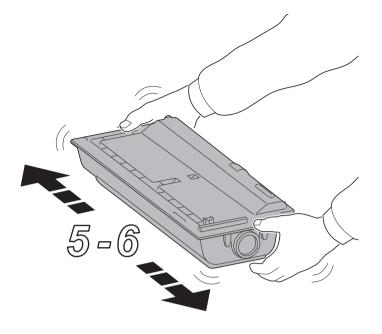
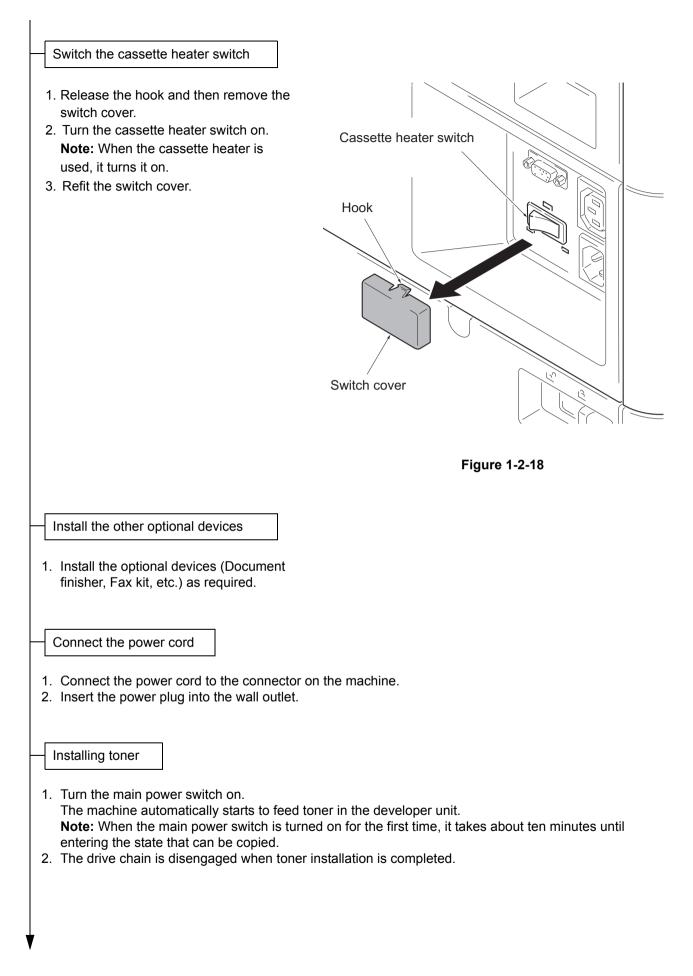


Figure 1-2-16

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





Output an own-status report (maintenance item U000)
 Enter 000 using the numeric keys and press the start key. Select Maintenance and press the start key to output a list of the current settings of the maintenance items. Press the stop key.
Exit maintenance mode
1. Enter "001" using the numeric keys and press the start key.
Print out a user setting list 1. Select [Report Print] to print a user setting list.
Make test copies
1. Place an original and make test copies.
Attaching the language label (Excluding 240V AC)
1. Attach the corresponding language label as required.

Installation is completed.

(2) Setting initial copy modes

Factory settings are as follows:

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

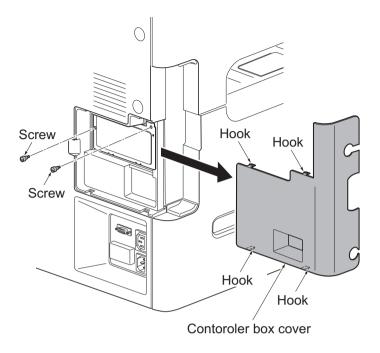
1-2-3 Install the expansion memory (option)

Procedure

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

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

- 2. Remove the controller box cover.
- 3. Remove two screws.





- 4. Remove the memory slot cover.
- 5. Insert the expansion memory into the memory socket so that the notches on the memory align with the corresponding protrusions in the slot.
- 6. Refit the memory slot cover.
- 7. Refit the screw.
- 8. Refit the controller box cover.
- 9. Print a status page to check the memory expansion.

If memory expansion has been properly performed, information on the installed memory is printed with the total memory capacity has been increased. Standard memory capacity 1 GB.

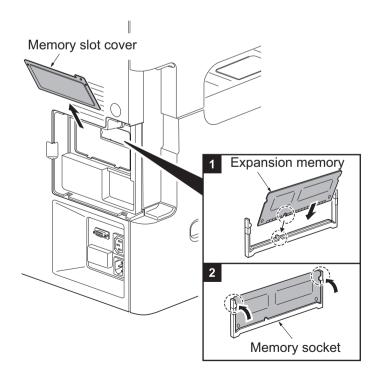


Figure 1-2-20

1-2-4 Option composition

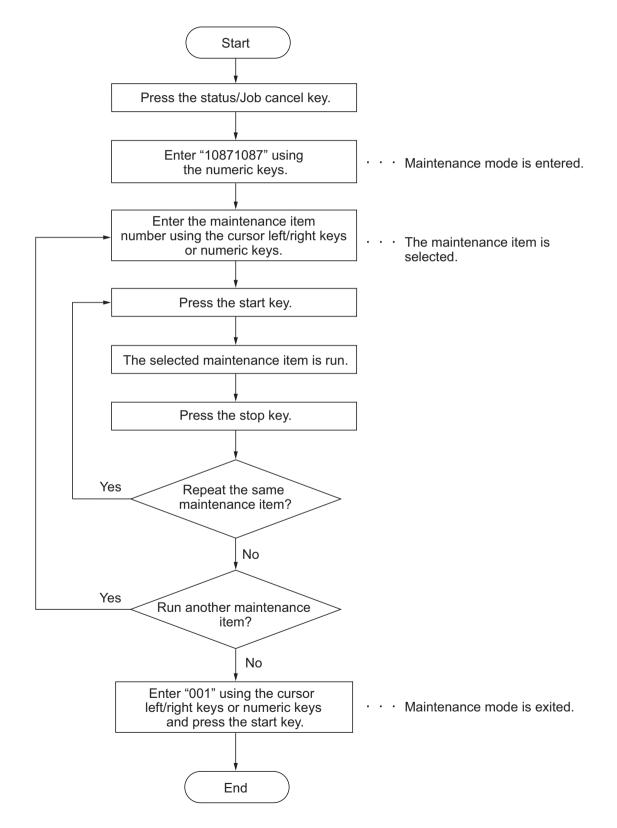


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1-3-1 Maintenance mode

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

(1) Executing a maintenance item



(2) Maintenance modes item list

Section	ltem No.	Content of maintenance item	Initial setting
General	U000	Outputting an own-status report	-
	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 paper con-	U031	Checking switches and sensors for paper conveying	-
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	0/0/0 0/0/0/0/0
	U035	Setting the printing area for folio paper	330/210
	U037	Checking the operation of the fan motors	-
	U051	Adjusting the deflection in the paper	0/0/0/0
	U053	Setting the adjustment of the motor speed	-2/-2/-6/0/0
Optical	U063	Adjusting the shading position	0
	U065	Adjusting the scanner magnification	0/0
	U066	Adjusting the scanner leading edge registration	0/0
	U067	Adjusting the scanner center line	0/0
	U068	Adjusting the scanning position for originals from the DP	0/0
	U070	Adjusting the DP magnification	0/0
	U071	Adjusting the DP scanning timing	0/0/0/0
	U072	Adjusting the DP center line	0/0
	U089	Outputting a MIP-PG pattern	-
	U099	Adjusting original size detection	40/30/20/19
			50/50/50/49 (when DP is installed)

Section Item Content of maintenance ite		Content of maintenance item	Initial setting
High voltage	U100	Setting the main high voltage	-/-/0/0 -/-/1800 off
	U101	Setting the voltage for the primary transfer	0/0/0/0/190/650/900 1100/450/650/750
	U108	Setting separation shift bias	4
	U111	Checking the drum drive time	-
	U118	Displaying the drum history	-
	U127	Checking/clearing the transfer count	0/0
Developer	U139	Displaying the temperature and humidity outside the machine	-
	U140	Displaying developer bias	170/2700/60
	U147	Setting for toner applying operation	Mode1
	U150	Checking sensors for toner	-
	U157	Checking the developer drive time	-
Fuser	U161	Setting the fuser control temperature	135/150/165/175/1/1
	U199	Displaying fuser heater temperature	-
Operation	U201	Initializing the touch panel	-
panel and support	U203	Checking DP operation	-
equipment	U207	Checking the operation panel keys	-
	U222	Setting the IC card type	Other
	U243	Checking the operation of the DP motors	-
	U244	Checking the DP switches	-
Mode setting	U250	Checking/clearing the maintenance cycle	30000/0
	U251	Checking/clearing the maintenance counter	0/0
	U252	Setting the destination	-
	U253	Switching between double and single counts	Double count (A3/Ledger)
	U260	Selecting the timing for copy counting	Eject
	U265	Setting OEM purchaser code	-
	U285	Setting service status page	On
	U326	Setting the black line cleaning indication	On/8
	U332	Setting the size conversion factor	1.0
	U341	Specific paper feed location setting for printing function	Off/Off/Off
	U343	Switching between duplex/simplex copy mode	Off
	U345	Setting the value for maintenance due indication	0

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

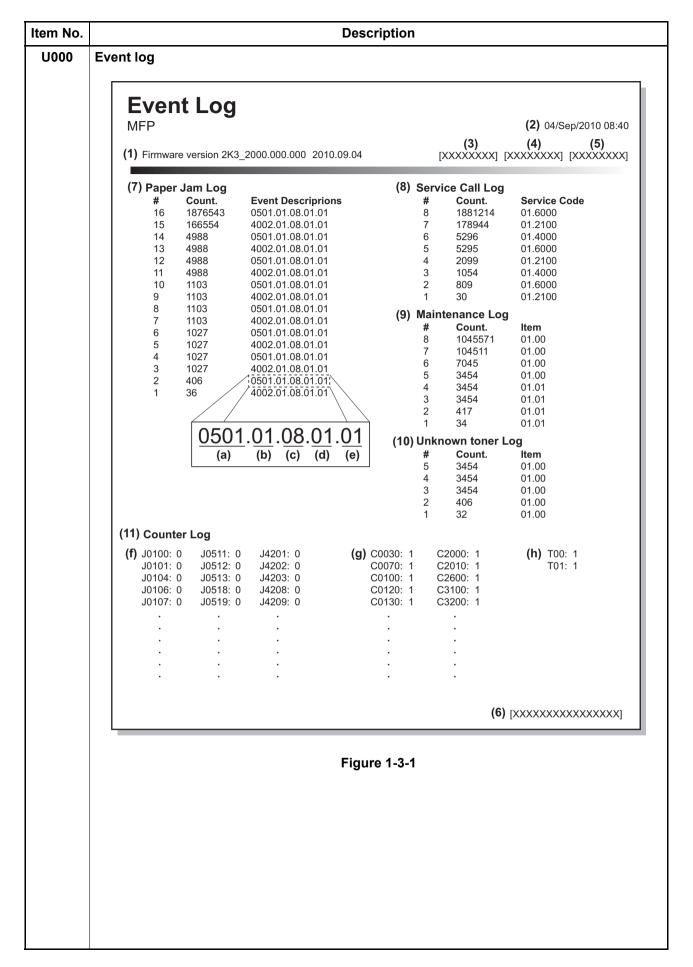
Section	ltem No.	Content of maintenance item	Initial setting
Fax	U625	Setting the transmission system 1 Setting the auto redialing interval Setting the number of times of auto redialing	3 (120 V) 2 (220-240 V) 2 (120 V) 3 (220-240 V)
	U630	Setting communication control 1 Setting the communication starting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

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

(3) Contents of the maintenance mode items

Item No.		Description						
U000	Outputting an own-status	Outputting an own-status report						
	Description							
	Outputs lists of the current settings of the maintenance items and paper jam and service call							
	-	rent 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 replacin	g the backup RAM, output a list of the current settings of the mainte- ettings after initialization or replacement.						
	Method							
	1. Press the start key.							
		put using the cursor up/down keys. ne 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 lis	t is output.						
	Method: Send to the USB	memory						
		the operation panel, and after verifying the main power indicator has						
	gone off, switch off the n 2. Insert USB memory in U	•						
	3. Turn the main power sw	-						
	4. Enter the maintenance i	tem.						
	 5. Press the start key. 6. Select the item to be ser 	nd						
	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	e USB memory.						
	Completion							
	-	een for selecting a maintenance item No. is displayed.						
<u> </u>								

2MW/2MX



J000	Detail	of event log	Desc	•			
0000	No.	Items		Description			
				Description			
	(1)	System vers					
	(2)	System date					
	(3)	Engine soft	version				
	(4)	(4) Engine boot version					
	(5)	Operation pa	anel mask version				
	(6)	Machine ser	ial number				
	(7)	Paper Jam	#	Count.	Event		
		Log	Remembers 1 to 16 of occurrence. If the occur- rence of the previous paper jam is less than 16, all of the paper jams are logged. When the occurrence excesseds 16, the oldest occur-	The total page count at the time of the paper jam.	Log code (hexadeci- mal, 5 categories) (a) Cause of a paper jam (b) Paper source (c) Paper size (d) Paper type		
			rence is removed.		(e) Paper eject		
			(a) Cause of paper jam (Hexadecimal)				
			0000: Initial jam 0100: Secondary paper fe 0101: Waiting for process 0104: Waiting for conveyi 0106: Paper feeding requ 0107: Waiting for fuser pa 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 0511: Multiple sheets in of 0512: Multiple sheets in of 0513: Multiple sheets in of 0513: Multiple sheets in of 0519: Multiple sheets in of 0	a package to be ready ng package to be ready lest for duplex printing ackage to be ready ackage to be ready appen feeding request of duplex pages circul open a cassette 1 a cassette 2 a cassette 3 a duplex section a MP tray assette 1 cassette 2 cassette 3 luplex section AP tray on arrival jam tay jam r non arrival jam (casset	time out t while paper is empty ated		

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 2)			
			4313: Duplex sensor stay jam (cassette 3)			
			4319: Duplex sensor stay jam (MP tray)			
			4901: Bridge conveying sensor 1 non arrival jam (cassette 1)			
			4902: Bridge conveying sensor 1 non arrival jam (cassette 2)			
			4903: Bridge conveying sensor 1 non arrival jam (cassette 3)			
			4908: Bridge conveying sensor 1 non arrival jam (duplex)			
			4909: Bridge conveying sensor 1 non arrival jam (MP tray)			
			4911: Bridge conveying sensor 1 stay jam (cassette 1)			
			4912: Bridge conveying sensor 1 stay jam (cassette 2)			
			4913: Bridge conveying sensor 1 stay jam (cassette 3)			
			4918: Bridge conveying sensor 1 stay jam (duplex)			
			4919: Bridge conveying sensor 1 stay jam (MP tray)			
			5001: Bridge conveying sensor 3 non arrival jam (cassette 1)			
			5002: Bridge conveying sensor 3 non arrival jam (cassette 2)			
			5003: Bridge conveying sensor 3 non arrival jam (cassette 3)			
			5008: Bridge conveying sensor 3 non arrival jam (duplex)			
			5009: Bridge conveying sensor 3 non arrival jam (MP tray)			
			5011: Bridge conveying sensor 3 stay jam (cassette 1)			
			5012: Bridge conveying sensor 3 stay jam (cassette 2)			
			5013: Bridge conveying sensor 3 stay jam (cassette 3)			
			5018: Bridge conveying sensor 3 stay jam (duplex)			
			5019: Bridge conveying sensor 3 stay jam (MP tray)			
			6023: Staple cover open			
			6043: DF top cover 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			

Description					
No.	Items	Description			
(7) cont.	Paper Jam Log	 6903: Rear adjustmer 6913: Rear adjustmer 6913: Staple operation 7023: Staple initialope 7913: Sequence error 7923: Sequence error 7933: Sequence error 7943: Sequence error 7953: Sequence error 9000: No original feed 9001: DP original swid 9010: DP open 9011: DP top cover of 9110: DP paper feed 9200: DP registration 9400: DP timing sens 9410: DP timing sens 9410: DP timing sens 9410: DP timing sens 9410: DP timing sens 920: MP tray 01: Cassette 1 02: Cassette 2 (paper 03: Cassette 3 (paper 	Ant plate operation OFF en ant plate operation ON error the plate operation OFF en- error erration error 1 (operation prohibited) 2 (initialoperation error) 3 (Error in the reception 4 (standby) 5 (Error in between cop veying jam chback jam been sensor stay jam sensor non arrival jam or non arrival jam proce (Hexadecimal) feeder 1)	ror rror) n of backup data)	
		00: (Not specified) 01: Monarch 02: Business 03: International DL 04: International C5 05: Executive 06: Letter-R 86: Letter-R 86: Letter-E 07: Legal 08: A4R 88: A4E 09: B5R 89: B5E	0B: B4 0C: Ledger 0D: A5R 0E: A6 0F: B6 10: Commercial #9 11: Commercial #6 12: ISO B5 13: Custom size 1E: C4 1F: Postcard 20: Reply-paid post- card	 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 	
	(7)	(7) Paper Jam	No.Items(7)Paper Jam Log6813: Front adjustmer 6903: Rear adjustmer 7013: Staple operation 7023: Staple initialope 7913: Sequence error 7923: Sequence error 7933: Sequence error 7933: Sequence error 7943: Sequence error 9000: No original feed 9001: DP original com 9004: DP original swid 9010: DP open 9011: DP top cover op 9110: DP paper feed a 9200: DP registration 9400: DP timing sense 9410: DP timing	No. Items Description (7) Paper Jam 6813: Front adjustment plate operation OFF e cont. Log 6903: Rear adjustment plate operation OFF e 7013: Staple operation error 7023: Staple initialoperation error 7023: Staple operation error 7033: Sequence error 2 (initialoperation error 793: Sequence error 3 (Error in the reception 7943: Sequence error 3 (Error in between cop 9000: No original feed 9001: DP original conveying jam 9010: DP open 9011: DP top cover open 9110: DP paper feed sensor stay jam 9200: DP registration sensor non arrival jam 9410: DP timing sensor non arrival jam 9410: DP timing sensor stay jam (b) Detail of paper size (Hexadecimal) 00: (Not specified) 00: (Not specified) 0B: B4 01: Moarch 0E: A6 02: Business 0D: A5R 03: International DL 0E: A6 04: International C5	

n No.		De	scription			
000						
No.	Items	Description				
(7)	Paper Jam	(d) Detail of paper type (Hexadecimal)				
cont.	Log	01: Plain 02: Transparency 03: Preprinted 04: Labels 05: Bond	0A: Color 0B: Prepunched 0C: Envelope 0D: Cardstock 0E: Coated	15: Custom 1 16: Custom 2 17: Custom 3 18: Custom 4 19: Custom 5		
		05: Bond 06: Recycled 07: Vellum 08: Rough 09: Letterhead	0E: Coaled 0F: 2nd side 10: Thick 11: High quality	1A: Custom 6 1B: Custom 7 1C: Custom 8		
		(e) Detail of paper eje 01: Face down (FD)	ect location (Hexadec	imal)		
		02: Face up (FU)/Doc 03: Document finishe		ıp (FU)/		
(8)	Service Call	#	Count.	Service Code		
	Log	Remembers 1 to 8 of occurrence of self diagnostics error. If the occurrence of the previous diag- nostics error is less than 8, all of the	The total page count at the time of the self diagnostics error.	Self diagnostic error code (See page 1-4-7) Example: 01.6000 01: Self diagnostic error		
		diagnostics errors are logged.		6000: Self diagnostic error code number		
(9)	Maintenance Log	# Remembers 1 to 8 of occurrence of replacement. If the occurrence of the previous replace- ment of toner con- tainer is less than 8, all of the occur- rences of replace- ment are logged.	Count. The total page count at the time of the replacement of the toner container.	Item Code of maintenance replacing item (1 byte, 2 categories) First byte (Replacing item) 01: Toner container Second byte (Type of replacing item) 00: Black First byte (Replacing item) 02: Maintenance kit Second byte (Type of replacing item) 01: MK-477/475/479		

10.		Desc	ription	
0 No.	Items		Description	
(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 con- tainer.	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 coun- ters including paper jams, self diagnostics errors, and replacement of the toner con- tainer.	Indicates the log counter of paper jams depending on location. Refer to Paper Jam Log. All instances includ- ing those are not occurred are dis- played.	Indicates the log counter of self diag- nostics errors depending on cause. (See page 1-3-7) Example: C6000: 4 Self diagnostics error 6000 has hap- pened four times.	Indicates the log coun- ter 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.

		Description	
U001	Exiting the maintenanc	e mode	
	Description		
		ode and returns to the normal copy mode.	
	Purpose		
	To exit the maintenance	mode.	
	Method		
	Press the start key. The r	normal copy mode is entered.	
U002	Setting the factory defa	ault data	
0002			
	Description		
		onditions to the factory default settings.	
	Purpose	and the second sector the second line of the second sector s	
	To move the mirror frame	e of the scanner to the position for transport	
	Method		
	1. Press the start key.		
	2. Select [Mode1(All)].		
	3. Press the start key.		
		he scanner returns to the position for transport.	
	4. Turn the main power	lisplayed in case of an initialization error.	
		irred, turn main power switch off then on, and execute initialization	ation using
	maintenance item		
	Error codes	Description	
	Codes	Description	
	0001	Entity error	
	0001 0002	Entity error Controller error	
	0002	Controller error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	
	0002 0020	Controller error Engine error	

m No.		Description
004	Setting the machine numb	ber
	Description Sets or displays the machin Purpose To check or set the machine	
	Method 1. Press the start key. If the machine serial num	mber of engine PWB matches with that of main PWB
	Display	Description
	Machine No.	Displays the machine serial number
	If the machine serial nu	mber 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
		sen for selecting a maintenance item not is displayed.
	Completion Press the stop key. The scro	een for selecting a maintenance item No. is displayed.

em No.		Description
U019	Displaying the ROM ver	sion
	Description Displays the part number Purpose	of the ROM fitted to each PWB.
	-	or to decide, if the newest version of ROM is installed.
	Method	
	1. Press the start key. T	ne ROM version are displayed.
	_	sing the cursor up/down keys.
	Display	Description
	Main	Main ROM
	MMI	Operation ROM
	Engine	Engine ROM
	Engine Boot	Engine booting
	RFID	RFID ROM
	IO CPU	IO CPU ROM
	IO CPU Boot	IO CPU booting
	Option Language	Optional language ROM
	Dictionary	-
	DP	Document processor ROM
	DP Boot	Document processor booting
	PF	Paper feeder ROM
	PF Boot	Paper feeder booting
	DF	Document finisher ROM
	DF Boot	Document finisher booting
	AK	Bridge ROM
	AK Boot	Bridge booting
	Fax APL	Fax control PWB APL
	Fax Boot	Fax control PWB booting
	Fax IPL	Fax control PWB IPL

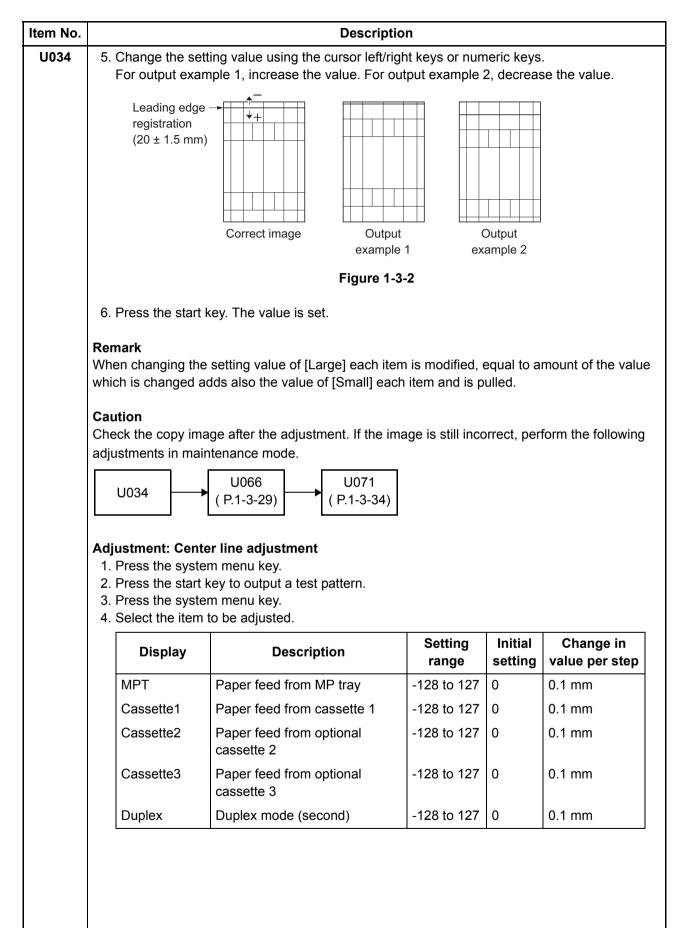
Press the stop key. The screen for selecting a maintenance item No. is displayed.

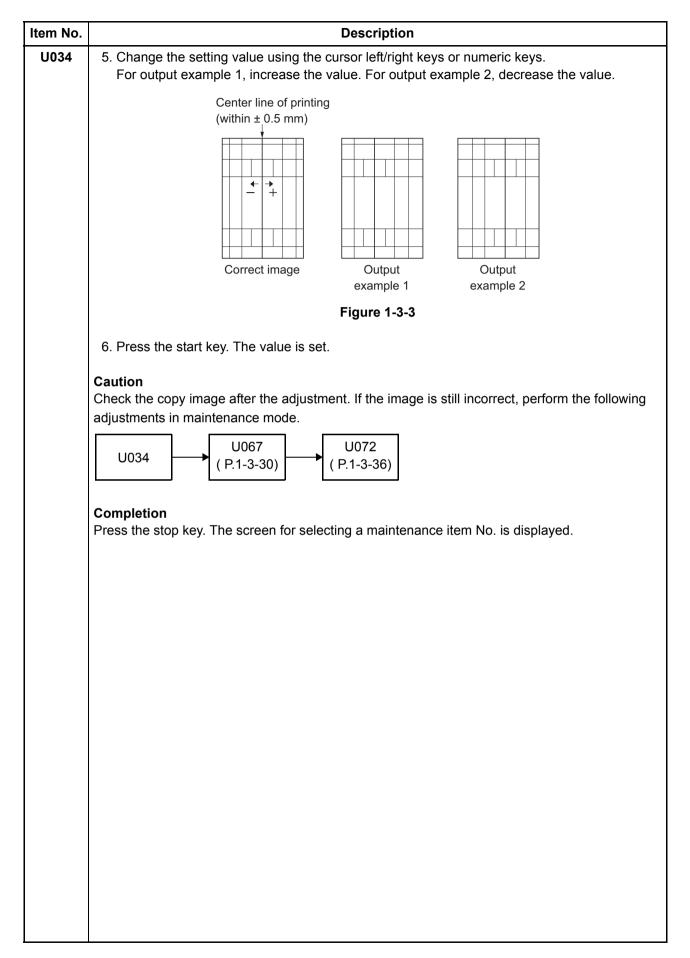
Item No.		Description
U021	Memory initializing	
	vice call history and mode set	those pertinent to the type of machine, namely each counter, ser- tting. Also initializes backup RAM according to region specification U252 Setting the destination. s to their factory default.
	machines is initialized bas 4. Turn the main power swite * : An error code is displa	yed in case of an initialization error. turn main power switch off then on, and execute initialization using
	Codes	Description
	0001	Entity error
	0002	Controller error
	0020	Engine error
	0040	Scanner error

Item No.			Description
U030	Checking the op	eration of t	he motors
	Description		
	Drives each moto	ır.	
	Purpose		
	To check the oper	ration of eac	h motor.
	Method		
	 Press the star Select the model 	•	aratad
	3. Press the star	•	
	Disp	lay	Description
	Main	-	Main motor (MM) is turned on
	Exit (CW)		Eject motor (EM) is turned on clockwise
	Exit (CCW)		Eject motor (EM) is turned on counterclockwise
	4. To stop opera	tion, press t	
		<i>,</i> ,	
	Completion Press the stop ke	v. The scree	n for selecting a maintenance item No. is displayed.
U031	-	•	sors for paper conveying
	encennig enner		
	Description	ff atatus of a	ack nonce detection quiteb or concer on the paper with
	Purpose	IT STATUS OF E	each paper detection switch or sensor on the paper path.
	•	itches and s	sensors for paper conveying operate correctly.
	Method		
	1. Press the star	rt key.	
			or on and off manually to check the status.
	When a switc sensor will be		is detected to be in the ON position, the display for that switch or
	Disp		Switches and sensors
	Switch	00000000	
	1st c		Power source PWB (PSPWB) *
	2nd o	digit	Bridge detection switch (BRDSW)
	3rd c	•	Job paper full sensor (JPFS)
	4th c	•	Paper full sensor (PFS)
	5th c	•	Feed sensor (FS)
	6th c	-	Duplex sensor (DUS)
	7th c	-	Eject sensor (ES)
	8th c	-	Registration sensor (RS)
			control) / 1:Excluding 100V (Fuser half wave control))
1	Completion		
	Press the stop ke	y. The scree	en for selecting a maintenance item No. is displayed.

Item No.		Description
U032	Checking the operation of	the clutches
	Description	
	Turns each clutch on.	
	Purpose	
	To check the operation of ea	ach clutch.
	Method	
	 Press the start key. Select the clutch to be c 	nerated
	3. Press the start key. The	
	Display	Description
	Motor	Main motor (MM) is turned on
	Feed	Paper feed clutch (PFCL) is turned on
	Regist	Registration clutch (RCL) is turned on
	Duplex	Duplex clutch (DUCL) is turned on
	4. Press the stop key.	
	O a market i a m	
	Completion Press the stop key. The scre	een for selecting a maintenance item No. is displayed.
U033	Checking the operation of	the solenoids
	Description Turns each solenoid on.	
	Purpose	
	To check the operation of ea	ach solenoid.
	Method	
	1. Press the start key.	
	 Select the solenoid to be Press the start key. The 	•
	Display	Description
	MPT	MP solenoid (MPSOL) is turned on
	Eject	Feedshift solenoid (FSSOL) is turned on
	4. Press the stop key.	recusing solehold (FSSOE) is turned of
	4. 1 1033 the stop key.	
	Completion	
	Press the stop key. The scre	een for selecting a maintenance item No. is displayed.

Item No.			Descriptio	n		
U034	Adjusting the prin	t start tim	ing			
	Purpose Make the adjustme original.	nt if there i	stration or center line. is a regular error betwee is a regular error betwee			
	1. Press the start 2. Select the item	•	sted			
	Displa	-		Descriptio	n	
	LSU Out Top		Leading edge registrat	-		
	LSU Out Left		Center line adjustment			
	3. Press the syste4. Select the itemDisplay		Idjusted. Description Setting Initial Change in			
	Display MPT(L)	Paper fe	Description ed from MP tray	range	setting	value per step
		(when la	rge size paper is used)			
	Cassette(L)	-	ed from cassette rge size paper is used)	-128 to 127	0	0.1 mm
	Duplex(L)		node (second) rge size paper is used)	-128 to 127	0	0.1 mm
	Large size: 218	mm or mo	ore in width of paper.			





Item No.				Descript	tion	
U035	Set	ting the printing a	area fo	r folio paper		
	Cha Pu i To	pose	nages o		er. left/right side of copy pa	aper by setting the
	1. 2.	ting Press the start ke Select the item to Change the settin	be set.	using the cursor left/r	right keys.	
		Display		Description	Setting range	Initial setting
		Length	Leng	th	330 to 356 mm	330
		Width	Width	ı	200 to 220 mm	210
	4.	Press the start key	y. The v	alue is set.		
		npletion ss the stop key. Th	ne scree	en for selecting a mair	ntenance item No. is dis	splaved.
U037	-	ecking the operat				
	Me 1. 2.	thod Press the start key Select the fan mot Press the start key	y. tor to be	e operated.		
	0.	Display	<i>j.</i> 1110 0		Description	
		All		All fan motors are tu	-	
		Eject		Eject fan motor (EFI		
		Low Power			otor (PSFM) is turned o	n
	То	stop operation, pre	ss the s	stop key.		
		npletion ss the stop key. Th	ne scree	en for selecting a mair	ntenance item No. is dis	splayed.

		Description		
Adj	usting the defled	ction in the paper		
Adjı Pur	usts the deflectior pose			
	•		e is missing or varies	s randomly, or if th
1. 2. 3. 4.	Press the start ke Press the system Place an original Press the system	menu key. and press the start key to make a tes menu key.	st copy.	
	Display	Description	Setting range	Initial setting
	MPT	Paper feed from MP tray	-30 to 20	0
	Cassette	Paper feed from cassette 1	-30 to 20	0
	PF	Paper feed from paper feeder	-30 to 20	0
	Duplex	Duplex mode (second)	-30 to 20	0
		Original Copy example 1	Copy example 2	
		Figure 1-3-4		
7.	Press the start ke	ey. The value is set.		
	-	he indication for selecting a maintena	ance item No. appe	
		j i i i		ars.
				ars.
				ars.
	Des Adju Pur Mak cop Adj 1. 2. 3. 4. 5. 6. 6.	Description Adjusts the deflection Purpose Make the adjustment copy paper is Z-folde Adjustment 1. Press the start ke 2. Press the system 3. Place an original 4. Press the system 5. Select the item to Display MPT Cassette PF Duplex 6. Change the settin For output examp The greater the v tion.	Adjusts the deflection in the paper at the registration roller Purpose Make the adjustment if the leading edge of the copy image copy paper is Z-folded. 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 4. Press the system menu key. 5. Select the item to be adjusted.	Description Adjusts the deflection in the paper at the registration roller. Purpose Make the adjustment if the leading edge of the copy image is missing or varies copy paper is Z-folded. 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. MPT Paper feed from MP tray Cassette Paper feed from cassette 1 PF Paper feed from paper feeder Duplex Duplex mode (second) -30 to 20 6. Change the setting value using the cursor left/right keys or numeric keys. For output example 1, increase the value. For output example 2, decrease the value. For output example 1, increase the value. For output example 2, decrease the value, the larger the deflection; the smaller the value, the tion. Image: Copy Copy Copy Copy example 1 Copy Copy Copy example 2 Figure 1-3-4

Display Description	tem No.		Description		
Performs fine adjustment of the speeds of the motors. Purpose To adjust the speed of the respective motors when the magnification is not correct. 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. Main Main Main motor (MM) speed adjustment -50 to 50 -2 Main(MPT) Main motor (MM) speed adjustment -50 to 50 -2 Main(Duplex) Main motor (MM) speed adjustment -50 to 50 -2 Polygon Polygon motor (PM) speed adjustment -50 to 50 -6 in duplex output -50 to 50 -6 -6 Main(Duplex) Main motor (MM) speed adjustment -20 to 20 0 Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion	U053	Setting the adjustme	nt of the motor speed		
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 Main Main motor (MM) speed adjustment -50 to 50 -2 Main(MPT) Main motor (MM) speed adjustment -50 to 50 -2 Main(Duplex) Main motor (MM) speed adjustment -50 to 50 -6 in duplex output -50 to 50 Polygon Polygon motor (PM) speed adjustment -20 to 20 0 Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion		Performs fine adjustme Purpose		ation is not co	rrect.
DisplayDescriptionrangesettingMainMain motor (MM) speed adjustment-50 to 50-2Main(MPT)Main motor (MM) speed adjustment in MPT output-50 to 50-2Main(Duplex)Main motor (MM) speed adjustment in duplex output-50 to 50-6PolygonPolygon motor (PM) speed adjustment is get adjustment-20 to 200ExitEject motor (EM) speed adjustment 		 Press the start key Press the system r Place an original a Press the system r 	menu key. nd press the start key to make a test copy menu key.	I.	
Main(MPT) Main motor (MM) speed adjustment in MPT output -50 to 50 -2 Main(Duplex) Main motor (MM) speed adjustment in duplex output -50 to 50 -6 Polygon Polygon motor (PM) speed adjustment -20 to 20 0 Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion		Display	Description	-	Initial setting
in MPT output in MPT output Main(Duplex) Main motor (MM) speed adjustment -50 to 50 -6 Polygon Polygon motor (PM) speed adjustment -20 to 20 0 Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion		Main	Main motor (MM) speed adjustment	-50 to 50	-2
in duplex output -20 to 20 0 Polygon Polygon motor (PM) speed adjustment -20 to 20 0 Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion		Main(MPT)		-50 to 50	-2
Exit Eject motor (EM) speed adjustment -40 to 40 0 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. Completion		Main(Duplex)		-50 to 50	-6
 6. Change the setting value using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 		Polygon	Polygon motor (PM) speed adjustment	-20 to 20	0
7. Press the start key. The value is set. Completion		Exit	Eject motor (EM) speed adjustment	-40 to 40	0
		7. Press the start key Completion	. The value is set.	-	ars.

		Descriptio	n					
U063	Adjusting the shading position							
	Description							
	Description Changes the shading position of the scanner.							
	Purpose	ng position of the scanner.						
	•	te line continue to appear longitudi	nally on the ir	nade after	the shading plate			
	cleaned.	te ime continue to appear longitudi	nally on the li	nage allei	the shading plate			
		or stains inside the shading plate	To prevent t	his probler	m the shading po			
		nged so that shading is possible w	•	•	• •			
	Setting							
	1. Press the start	key.						
	2. Select [Positior	-						
	3. Change the set	ting value using the cursor left/right	nt keys or nur	neric keys				
	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 m	achina laft	and decreasing			
	While this maintena		-					
	copying mode (whi	ance item is being executed, copyi ch is activated by pressing the sys	-	-	vailable in interru			
	copying mode (whi Completion		stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				
	copying mode (whi Completion	ch is activated by pressing the sys	stem menu ke	ey).				

		Descriptio	n					
U065	Adjusting the scanner magnification							
	Description Adjusts the magnification of the original scanning.							
	Purpose							
	•	t if the magnification in the main	-					
	Make the adjustment if the magnification in the auxiliary scanning direction is incorrect.							
	Caution							
	Adjust the magnifica	ation of the scanner in the followin	ng order.					
	U053	U065 U065 main scan- → auxiliary scan-	U067		U070			
	(P.1-3-25)	ning direction ning direction	(P.1-3-	30)	(P.1-3-33)			
	Method							
	1. Press the start k	-						
	2. Press the system	-	a taat aanu					
	4. Press the system	I and press the start key to make m menu key.	a test copy.					
	5. Select the item	•						
	Display	Description	Setting	Initial	Change in			
		-	range	setting	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.							
		Original Copy	Сору					
	example 1 example 2							
	Figure 1-3-5							
		Figure 1-3-	•					
	2. Press the start k	Figure 1-3· ey. The value is set.	•					
	2. Press the start k	_	•					
	2. Press the start k	_	•					
	2. Press the start k	_	•					
	2. Press the start k	_	•					
	2. Press the start k	_	•					

Item No.	Description					
U065	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 example 1 Copy 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.					

Item No.		Descriptio	n				
U066	Adjusting the scanner leading edge registration						
	Description Adjusts the scanner leading edge registration of the original scanning. Purpose Make the adjustment if there is a regular error between the leading edges of the copy image original. Adjustment						
	 Press the start key. Press the system menu key. Place an original and press the start key to make a test copy. Press the system menu key. Select the item to be adjusted. 						
	Display	Description	Setting range	Initial setting	Change in value per step		
	Front	Scanner leading edge registra- tion	-45 to 45	0	0.091 mm		
	Rotate	Scanner leading edge registra- tion (rotate copying)	-45 to 45	0	0.100mm		
	For copy exar	nple 1, increase the value. For copy Scanner leading edge regis	stration (within Copy example 2		ne value.		
	Figure 1-3-7						
	Caution	t key. The value is set. nage after the adjustment. If the ima aintenance mode. U403 (P.1-3-61) (P.1-3-34)	uqe is still inco U40 (P.1-3-	4	form the following		
	Completion Press the stop ke	y. The screen for selecting a mainte	nance item N	lo. is displ	ayed.		

Description Adjusts the scann Purpose Make the adjustm original. Adjustment 1. Press the stan 2. Press the sys 3. Place an origi 4. Press the sys 5. Select the iter Display Front Rotate 6. Change the s	tem menu key. Inal and press the start key to make	en the center a test copy. Setting range -40 to 40 -40 to 40 ht keys or nu y example 2,	Initial setting 0 0 meric keys	Change in value per step 0.085 mm 0.100 mm			
Adjusts the scann Purpose Make the adjustmoriginal. Adjustment 1. Press the stance 2. Press the system 3. Place an original 4. Press the system 5. Select the item Display Front Rotate 6. Change the stance Purpose Purpose Rotate Rotate Rotate	t key. tem menu key. nal and press the start key to make tem menu key. m to be adjusted.! Description Scanner center line Scanner center line (rotate copying) etting value using the cursor left/riginal mple 1, increase the value. For copy	en the center a test copy. Setting range -40 to 40 -40 to 40 ht keys or nu y example 2,	Initial setting 0 0 meric keys	Change in value per step 0.085 mm 0.100 mm			
 Press the star Press the sys Place an original equation of the sys Press the sys Select the iter Display Front Rotate Change the s 	tem menu key. inal and press the start key to make tem menu key. m to be adjusted.I Description Scanner center line Scanner center line (rotate copying) etting value using the cursor left/rigingle 1, increase the value. For copy	Setting range -40 to 40 -40 to 40 ht keys or nu y example 2,	setting 0 0 meric keys	value per step 0.085 mm 0.100 mm			
Front Rotate 6. Change the s	Scanner center line Scanner center line (rotate copying) etting value using the cursor left/rig mple 1, increase the value. For copy	range -40 to 40 -40 to 40 ht keys or nu y example 2,	setting 0 0 meric keys	value per step 0.085 mm 0.100 mm			
Rotate 6. Change the s	Scanner center line (rotate copying) etting value using the cursor left/right mple 1, increase the value. For copy	-40 to 40 ht keys or nu y example 2,	0 meric keys	0.100 mm			
6. Change the s	copying) etting value using the cursor left/right nple 1, increase the value. For cop	ht keys or nu y example 2,	meric keys				
-	etting value using the cursor left/rig mple 1, increase the value. For cop	y example 2,	•				
	Original Copy example 1	Copy example 2					
	Figure 1-3-8						
7. Press the sta	rt key. The value is set.						
Caution Check the copy image after the adjustment. If the image is still incorrect, perform the adjustments in maintenance mode. $U067 \qquad U403 \qquad U072 \qquad U404 \qquad (P.1-3-61) \qquad (P.1-3-36) \qquad (P.1-3-62)$ Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.							
	Caution Check the copy ir adjustments in ma U067 Completion	example 1 Figure 1-3 7. Press the start key. The value is set. Caution Check the copy image after the adjustment. If the imagination and the image and	example 1 example 2 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 ind adjustments in maintenance mode. U067 U403 U072 U404 (P.1-3-36) U404 (P.1-3-36)	example 1 example 2 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, per adjustments in maintenance mode. U067 U403 U072 U404 (P.1-3-61) U072 U404 (P.1-3-62) Completion			

Description Adjusts the position for scanning originals from the DP. Performs the test copy at the four scanning positions after adjusting. Purpose Used when the image fogging occurs because the scanning position is not proper when the DI used. Run U071 to adjust the timing of DP leading edge when the scanning position is change Setting 1. Press the start key.! Display Description	m No.		Descriptio	n		
Adjusts the position for scanning originals from the DP. Performs the test copy at the four scanning positions after adjusting. Purpose Used when the image fogging occurs because the scanning position is not proper when the DI used. Run U071 to adjust the timing of DP leading edge when the scanning position is change Setting 1. Press the start key.I Display Description Setting Initial Change in value per step DP Read Starting position adjustment for scanning originals -55 to 55 0 0.091 mm Black Line Scanning position for the test opy originals 0 to 3 0 - 2. Select [DP Read]. 3. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. 4. Press the start key. The value is set. 5. Select [Black Line]. 6. Change the setting using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 8. Set the original (the one which density is known) in the DP and press the system menu key. 9. Press the start key. Test copy is executed. 10. Perform the test copy at each scanning position with the setting value from 0 to 3 and che that no black line appears and the image is normally scanned.	J068	Adjusting the sca	nning position for originals fron	n the DP		
1. Press the start key.! Display Description Setting Initial Change in value per step DP Read Starting position adjustment for scanning originals -55 to 55 0 0.091 mm Black Line Scanning position for the test ot o 3 0 - - 2. Select [DP Read]. 3. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. 4. Press the start key. The value is set. 5. Select [Black Line]. 6. Change the setting using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 8. Select [Black Line]. 6. Change the setting using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 8. Set the original (the one which density is known) in the DP and press the system menu k 9. Press the start key. Test copy is executed. 10. Perform the test copy at each scanning position with the setting value from 0 to 3 and che that no black line appears and the image is normally scanned. Completion		Adjusts the position ning positions after Purpose Used when the ima used. Run U071 to	adjusting. ge fogging occurs because the sca	anning positio	on is not pr	oper when the DI
Display Description range setting value per step DP Read Starting position adjustment for scanning originals -55 to 55 0 0.091 mm Black Line Scanning position for the test copy originals 0 to 3 0 - 2. Select [DP Read]. 3. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. 4. Press the start key. The value is set. 5. Select [Black Line]. 6. Change the setting using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 8. Set the original (the one which density is known) in the DP and press the system menu key. 9. Press the start key. Test copy is executed. 10. Perform the test copy at each scanning position with the setting value from 0 to 3 and char that no black line appears and the image is normally scanned.		-	key.l			
Black Line scanning originals 0 to 3 0 - 2. Select [DP Read]. 3. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. 4. Press the start key. The value is set. 5. Select [Black Line]. 6. Change the setting using the cursor left/right keys or numeric keys. 7. Press the start key. The value is set. 8. Set the original (the one which density is known) in the DP and press the system menu k 9. Press the start key. Test copy is executed. 10. Perform the test copy at each scanning position with the setting value from 0 to 3 and chat that no black line appears and the image is normally scanned. Completion		Display	Description	-		Change in value per step
 copy originals Select [DP Read]. Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. Press the start key. The value is set. Select [Black Line]. Change the setting using the cursor left/right keys or numeric keys. Press the start key. The value is set. Set the original (the one which density is known) in the DP and press the system menu k Press the start key. Test copy is executed. Perform the test copy at each scanning position with the setting value from 0 to 3 and chat that no black line appears and the image is normally scanned. 		DP Read		-55 to 55	0	0.091 mm
 Change the setting using the cursor left/right keys or numeric keys. When the setting value is increased, the scanning position moves to the right and it moves the left when the setting value is decreased. Press the start key. The value is set. Select [Black Line]. Change the setting using the cursor left/right keys or numeric keys. Press the start key. The value is set. Set the original (the one which density is known) in the DP and press the system menu k Press the start key. Test copy is executed. Perform the test copy at each scanning position with the setting value from 0 to 3 and che that no black line appears and the image is normally scanned. 		Black Line	•	0 to 3	0	-
		Completion		-		ayed.

Item No.		Description				
U070	 U070 Adjusting the DP magnification Description Adjusts the DP original scanning speed. Purpose Make the adjustment if the magnification is incorrect in the auxiliary scanning direction when th DP is used. Adjustment Press the start key. Press the system menu key. Place an original on the DP and press the start key to make a test copy. Press the system menu key. Select the item to be adjusted. 					
	Display	Description	Setting range	Initial setting	Change in value per step	
	Y Scan Zoom(F)	Magnification in the main scan- ning direction	-125 to 125	0	0.02 %	
	X Scan Zoom(B)	Magnification in the auxiliary scanning direction	-125 to 125	0	0.02 %	
	 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. Image the setting value using the cursor left/right keys or numeric keys. For copy example 1 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 example 1	Copy example 2			
		Figure 1-3-10				
	2. Press the start key	. The value is set.				

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

Item No.		Descriptio	on					
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 original and the copy image when the DP is used. 							
	Method 1. Press the start 2. Press the syste 3. Place an origina 4. Press the syste 5. Select the item	m menu key. al on the DP and press the start k m menu key.	ey to make a	test copy.				
	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			
	1. Change the set	ing edge registration ting value using the cursor left/rig ple 1, increase the value. For copy Original Copy example 1 Figure 1-3-	y example 2,	•				
	2. Press the start	key. The value is set.						
	adjustment.	ljusted, check the second side and age after the adjustment. If the ima ntenance mode. U404 (P.1-3-62)	-		-			

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 Original 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.
	U071 U404 (P.1-3-62)
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.

Item No.		Description						
U072	Adjusting the DP center line							
	Description Adjusts the scanning start position for the DP original. Purpose Make the adjustment if there is a regular error between the centers of the original and the co image when the DP is used.							
	1. 2. 3. 4.	Press the syste	em menu key. al on the DP and press the start ke	1				
		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		
	Original Copy Copy example 1 example 2							
			Figure 1-3-	13				
	7.	Press the start	key. The value is set.					
	 7. 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. U072 U404 (P.1-3-62) Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.							

P-PG pattern uts the MIP-PG pattern create status other than scanner whe scanning). rt key. P-PG pattern to be output and ay PG pattern to be c sity: 0)	en adjusting image printing, using MIP-PG patte d press the start key.
etatus other than scanner whe scanning). rt key. P-PG pattern to be output and ay PG pattern to be c	en adjusting image printing, using MIP-PG patte d press the start key. Dutput Purpose To check the laser scanner unit engine output characteristics
P-PG pattern to be output and ay PG pattern to be c	Dutput Purpose To check the laser scanner unit engine output characteristics
	To check the laser scanner unit engine output characteristics
sity: 0)	output characteristics
sity: 0)	To check the drum quality
sity: 70)	To check the drum quality
	To check resolution reproducibility in printing
rt key. A MIP-PG pattern is ou	utput. maintenance item No. is displayed.
5	stem menu key. rt key. A MIP-PG pattern is ou

em No.			Description				
J099	Adjusting original	size dete	ction				
	 Description Checks the operation of the original size sensor and sets the sensing threshold value. Purpose To adjust the sensitiveness of the sensor and size judgement time if the original size set functions frequently due to incident light or the like. 						
	Method						
	1. Press the start k	•	- for an ending of the second its and	ia dia dia data d			
	2. Select the item. Display	Description					
	Data1		Displaying original size se	-	sion dat	a	
	B/W Level1		B/W LEVEL setting origin Setting original size judgr	al size sensor			
	Data2		Displaying original size se (when DP is installed)	ensor transmis	sion dat	a	
	Method: [Data1/Da 1. Place the origina is displayed. Display	al and clos	se the original cover or DP.	. The detection	sensor	transmission da	
			Detected original width size (dot)				
	Original Area (dot) Original Area (mm)		Detected original width size (mm)				
	Size SW L		Displays the original size sensor (OSS) ON/OFF				
	Setting: [B/W Leve 1. Select an item to 2. Change the sett Display	be set.	using the cursor left/right k Description	eys or numeric Setting range	c keys.l	Initial setting	
	Original 1	Origina	al threshold value	0 to 255	40	50*	
	Original 2	Origina	al threshold value	0 to 255	30	50*	
	Original 2	Origina	al threshold value	0 to 255	20	50*	
	Light Source	Light s	ource threshold value	0 to 255	19	49*	
	*: When DP is ir Note: A smaller		reases the sensor sensitivi	ity, and a large	r value o	decreases it.	
	3. Press the start k	ey. The v	alue is set.				
	Completion Press the stop key.	The scree	en for maintenance item No	o. is displayed.			

	No. Description				
100	Setting the main	high volta	ge		
	Description Performs main cha Purpose To check main cha				
	Method				
	 Press the start Select the item 	•	en for executing each item is display	ved.	
	Displ		Descripti		
	Main charger		Confirming of main motor driving a		ger operating
	Laser		Confirming of laser operating		
	DC Bias		DC bias setting		
	Idc Bias		Idc bias setting		
	Set Low Temp Control setting of main charger (At the low temperature)			erature)	
	1. Select an item 2. Change the se Display		using the cursor left/right keys or nu Description	imeric keys. Setting range	Initial setting
	Full		regulations value at the full speed e display)	0 to 255	-
	Half	DC bias	regulations value at the half speed e display)	0 to 255	-
	Half Adj Full	DC bias (Only th	regulations value at the half speed	0 to 255 -500 to 500	-
		DC bias (Only the DC bias DC bias	regulations value at the half speed e display) setting value at the full speed setting value at the half speed		- 0 0

tem No.		Description		
U100	Setting: [Idc Bias] 1. Select an item 2. Change the se		or numeric keys.	
	Display	Description	Setting range	Initial setting
	Full	Idc bias regulations value at the full speed (Only the display)	0?255	-
	Half	ldc bias regulations value at the half speed (Only the display)	0?255	-
	Adj Freq	Setting value of bias frequency	1000?4000	1800
	3. Press the start	key. The value is set.		
	Setting: [Set Low 1. Select an item			
	Display	Descriptio		
	On	Setting of main charger :On (At the low	temperature)	
	Off	Setting of main charger :Off (At the low	temperature)	

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. Setting Press the start key. Select the item to be set. 							
	Display	g value using the cursor left/right keys or Description	Setting range	Initial setting				
	On Timing	Transfer bias ON timing	-1000 to 1000	0				
	Off Timing	Transfer bias OFF timing	-1000 to 1000	0				
	Pre On Timing	Transfer bias Pre ON timing	-1000 to 1000	0				
	Pre Bias	Pre Transfer bias	0 to 2000	0				
	Rev Bias	Rev Transfer bias	0 to 2000	190				
	Bias(L)	Transfer bias for large sizes	0 to 2000	650				
	Bias(M)	Transfer bias for medium sizes	0 to 2000	900				
	Bias(S)	Transfer bias for small sizes	0 to 2000	1100				
	Bias Half(L)	Half Transfer bias for large sizes	0 to 2000	450				
	Bias Half(M)	Half Transfer bias for medium sizes	0 to 2000	650				
	Bias Half(S)	Half Transfer bias for small sizes	0 to 2000	750				
	lower. large sizes:(more	ting makes the transfer voltage higher, an than 220mm wide), ore than 170 to under 220mm wide),sma y. The value is set.	-					
	Completion Press the stop key. Th	ne screen for selecting a maintenance ite	m No. is displayed	d.				

em No.		Description				
U108	Setting separation shift bias					
	Description					
	-	aration shift bias and ON/OFF timing.				
	Purpose					
	Io set when the sepa	rated malfunction of the paper occurs.				
	Setting					
	1. Press the start ke	ey.				
	2. Select [Mode]. 3. Change the setting	ng value using the cursor left/right keys or n	umeric kevs			
			Setting	Initial		
	Display	Description	range	setting		
	Mode	ON/OFF timing adjustment with paper	1 to 8	4		
		position				
	4. Press the start ke	ey. The value is set.				
		he screen for selecting a maintenance item				
		J				

Item No.		Description				
U111	Checking the drum drive tin	ne				
	Description Displays the drum drive time for checking a figure, which is used as a reference when correctine the high voltage based on time. Purpose To check the drum status. Method 1. Press the start key. The drum drive time is displayed.					
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.				
U118	Displaying the drum history					
	Purpose To check the count value of m Method	achine number and the drum counter.				
		ach history displayed by three cases.				
	Display	Description				
	Machine History 1 - 3	Historical records of the machine number				
	Cnt History 1 - 3	Historical records of drum counter				
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.				

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

	Description					
U140	Displaying develope	er bias				
	Description					
	Displays various deve	eloper bias value.				
	Purpose					
	To check the develop	er blas value.				
	Setting					
	 Press the start ke Select the item to 					
		ng value using the cursor left/right keys or	numeric keys.			
	Display	Description	Setting range	Initial setting		
	Bias	Developer magnet roller bias	0 to 255	170		
	Clock	Developer magnet roller frequency	0 to 255	2700		
	Duty	Developer magnet roller duty	0 to 255	60		
	4. Press the start ke					

Item No.	Description			
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 Press the start key 			
	2. Select the item to be set.	· · · · · · · · · · · · · · · · · · ·		
	Display	Description		
	Mode0	Normal mode		
	Mode1	Toner consumption mode		
	* : Initial setting; Mode1 3. Press the start key. The s	setting is set.		
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			
U150	Checking sensors for tone	r		
	 Purpose To check if the sensors and s Method 1. Press the start key. 2. Turn each switch or sense 	each sensor or switch related to toner. switches operate correctly. sor on and off manually to check the status. is detected to be in the ON position, the display for that switch or		
	Display	Switches and sensors		
	Container Set	Toner container switch (TCSW)		
	Container Sensor	Toner sensor (TS)		
	Waste Box Sensor	Waste toner sensor (WTS)		
	Motor	Main motor (MM) is turned on		
	3. To stop motor driving, pre	ess the stop key.		
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			

Item No.		Description			
U157	Checking the	e developer drive time			
	 Description Displays the developer drive time for checking a figure, which is used as a reference where recting the toner control. Purpose To check the developer drive time after replacing the developer unit. 			e when cor-	
	Method				
	1. Press the start key. The developer drive time of each color is displayed.				
	Completion				
	Press the stop	b key. The screen for selecting a maintenance item I	No. is displayed.		
U161	Setting the fu	iser control temperature			
	Description Changes the fuser control temperature. Purpose Normally no change is necessary. However, can be used to prevent curling or creasing of pape or solve a fuser problem on thick paper.			ing of paper,	
	2. Select the	Setting1. Press the start key.2. Select the item to be set.3. Change the setting value using the cursor left/right keys.			
	DisplayDescriptionSettingInitialrangesetting				
	T1	Setting of target temperature of 1st stable temperature. (Ready)	120 to 185(°C)	135	
	T2	Setting of target temperature of 2nd stable temperature. (Standby)	120 to 185(°C)	150	
	T3 Setting of target temperature at a continuation 130 to 220(°C) 1 copy. (1st copy)				
	T4	Setting of target temperature at a continuation copy. (Final)	130 to 220(°C)	175	
	Т5	Setting of target temperature at a continuation copy. (Addition temperature in every sheet)	1 to 99(°C)	1	
	Т6	Setting of target temperature at a continuation copy. (Subtraction temperature in every sheet)	1 to 99(°C)	1	
	4. Press the	start key. The value is set.		·/	
	Completion Press the stop	o key. The screen for selecting a maintenance item I	No. is displayed.		

Item No.		Description		
U199	Displaying fuser heater temperature			
	Description Displays the detected fuser temperature. Purpose To check the fuser temperature.			
	Method 1. Press the start key. The fu	user temperature is displayed.		
	Completion Press the stop key. The scree	n for selecting a maintenance mode No. is displayed.		
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 replaced. Method 			
	 Press the start key. Select the [Initialize] or [Check]. 			
	Display	Description		
	Initialize	Adjusts the display on the panel automatically		
	Check	Checks the display on the touch panel		
	 Method: [Initialize] Press the start key. Press the center of the + keys. Be sure to press three + keys displayed in order. The touch panel is adjusted automatically. Press the indicated three + keys, and then check the display. Press the stop key. The screen for selecting a maintenance item No. is displayed. Method: [Check] 			
	 Press the start key. Press the indicated three + keys, and then check the display. When adjusting the display, press [Initialize] to execute the adjustment automatically. Press the stop key. The screen for selecting a maintenance item No. is displayed. 			
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.			

m No.			Description		
203	Checking I	DP operation			
	Description Simulates the original conveying operation separately in the DP. Purpose To check the DP operation.				
	Method1. 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		
	Norma	al Speed	Normal reading (600 dpi)		
	High S	speed	High-speed reading		
	4. Select t	the item to be ope	erated.		
		Display	Description		
	CCD A	ADP (Non-P)	Without paper, single-sided original of CCD (continuous operation)		
	CCD A	ADP	With paper, single-sided original of CCD		
	CCD F	RADP (Non-P)	Without paper, double-sided original of CCD (continuous operation)		
	CCD F	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 Press the stop key. The screen for selecting a maintenance item No. is displayed.				

Item No.	Description		
U207	Checking the operation pan	el keys	
	Description		
	Checks operation of the opera	ation panel keys.	
	Purpose To check operation of all the k	eys and LEDs on the operation panel.	
	Mathaad		
	 Method 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 scree	n for selecting a maintenance item No. is displayed.	
U222	Setting the IC card type		
	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: Other3. Press the start key. The setting is set.		
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.		

		Description	
U243	Checking the operation	of the DP motors	
	Description		
	Turns the motors or clutches in the DP on.		
	Purpose To check the operation of the DP motors and clutches.		
	Method		
	 Press the start key. Select the item to be 	operated.	
	3. Press the start key. T		
	Display	Description	
	Conv Motor	DP paper feed motor (DPPFM) is turned on	
	Rev Motor	DP switchback motor (DPSBM) is turned on	
	Feed Clutch	DP paper feed clutch (DPPFCL) is turned on	
	Regist Clutch	DP registration clutch (DPRCL) is turned on	
	4. To turn each motor of	f. press the stop key.	

			Description	
U244	Checking the	DP switches		
	Description Displays the status of the respective switches in the DP. Purpose			
	To check if respective switches in the DP operate correctly.			
	Method			
	1. Press the s	-		
			or on and off manually to check the status. is detected to be in the ON position, the display for that switch or	
	sensor will		s detected to be in the ON position, the display for that switch of	
	D	isplay	Switches and sensors	
	Switch	00000000		
	1:	st digit	DP interlock switch (DPILSW)	
	2r	nd digit	DP open/close sensor (DPOCS)	
		rd digit	DP paper feed sensor (DPPFS)	
		th digit	DP registration sensor (DPRS)	
		th digit	DP timing sensor (DPTS)	
	6t	th digit	DP original sensor (DPOS)	
		th digit	DP original size length sensor (DPOLS)	
		th digit	_	
	Completion			
		key. The scree	n for selecting a maintenance item No. is displayed.	

Item No.	Description					
U250	Checking/clearing the maintenance cycle					
	Des	cription				
	Description Changes preset values for maintenance cycle and automatic grayscale adjustment.					
	Purp		a when the measure to acknowledge to cond	ust maintananas and		
	Provides changing the time when the message to acknowledge to conduct maintenance and automatic grayscale adjustment is periodically displayed.					
	Sett	•				
		Press the start key. Select the item to be c	hanged.			
			ng the cursor left/right keys or numeric keys.			
	Γ	Display	Description	Setting range		
	-	M.Cnt A	Preset values for maintenance cycle	0 to 9999999		
		M.Cnt HT	Preset values for automatic grayscale adjustment	0 to 9999999		
	4. F	Press the start key. Th	e setting value is set.			
	Clea	ring				
		Select [Clear]. Press the start key. Th	e setting value is cleared.			
		Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.				
U251	Che	cking/clearing the m	aintenance counter			
	Description Displays and clears or changes the maintenance count and automatic grays count. Purpose To verify the maintenance counter count and automatic grayscale count. Also					
	uum	ng maintenance servic	с.			
	2. 8	Press the start key. Select the item to be c	hanged. ng the cursor left/right keys or numeric keys.			
	[Display	Description	Setting range		
		M.Cnt A	Count value for maintenance cycle	0 to 9999999		
		M.Cnt HT	Automatic grayscale adjustment count	0 to 9999999		
	4. F	Press the start key. Th	e setting value is set.			
		Select [Clear].	e setting value is cleared.			
		pletion s the stop key. The sc	reen for selecting a maintenance item No. is	displayed.		

Item No.			Description
U252	Set	ting the destination	
	Swi Pur To t	pose	screens of the machine according to the destination. g the backup RAM, in order to return the setting to the value before
	Met	hod	
		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
		Australia	Australia specifications
		China	China specifications
		Korea Press the start key.	Korea specifications
			yed in case of an initialization error. turn main power switch off then on, and execute initialization using
		Codes	Description
		0001	Entity error
		0002	Controller error
		0003	OS error
		0020	Engine error
		0040	Scanner error
	1		

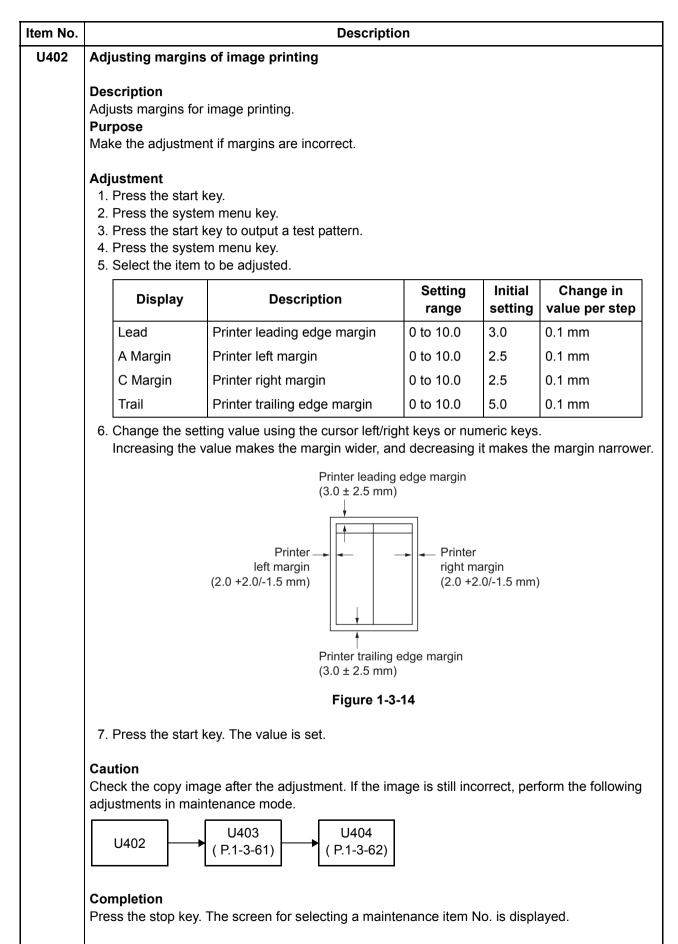
Item No.		Description		
U253	Switching between double and single counts			
	DescriptionSwitches the count system for the total counter and other counters.PurposeUsed to select, according to the preference of the user (copy service provider), if folio size paperis to be counted as one sheet (single count) or two sheets (double count).			
	Setting 1. Press the start key. 2. Select [B/W]. 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			
U260	CompletionPress the stop key. The screen for selecting a maintenance item No. is displayed.Selecting the timing for copy counting			
	 Description Changes the copy count timing for the total counter and other counters. Purpose To be set according to user request. Setting Press the start key. Select the copy count timing. 			
	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	
U265	Setting OEM purchaser cod	le	
	 Description Sets the OEM purchaser code. Purpose Sets the code when replacing the main PWB and the like. Setting Press the start key. Change the preset value using the numeric keys. Press the start key. The setting is set. Turn the main power switch off and on. 		
U285	Setting service status page		
	Description Determines displaying the print coverage report on reporting. Purpose According to user request, changes the setting. Setting 1. Press the start key. 2. Select IOpl or IOff		
	Display	Description	
	On	Displays the print coverage	
	Off	Not to display the print coverage	
	On Displays the print coverage		

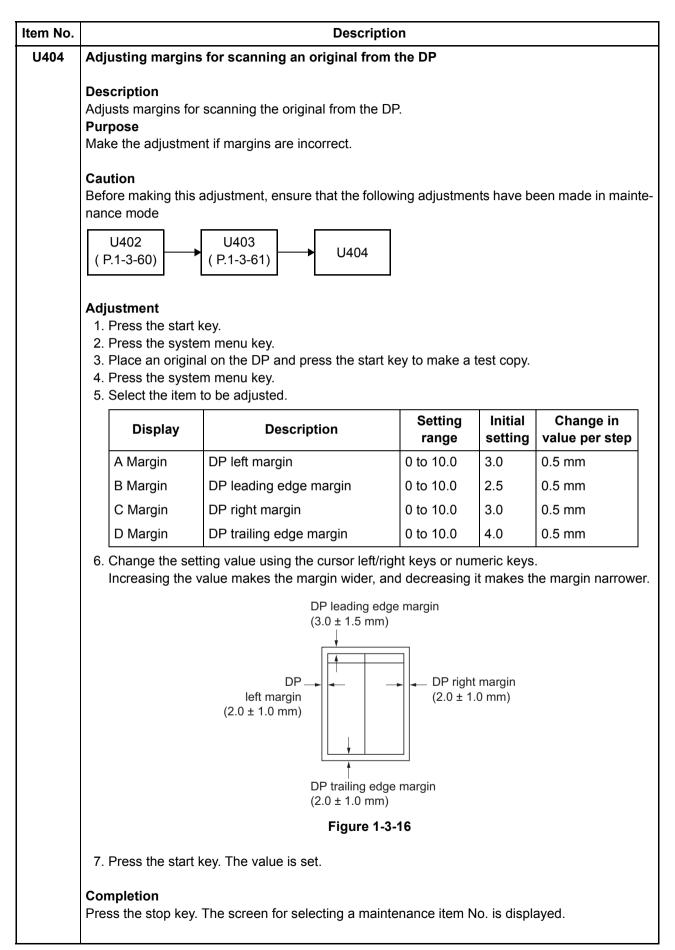
tem No.				Description			
U326	Sett	ing the black line	clean	ing indication			
	DescriptionSets whether to display the cleaning guidance when detecting the black line.PurposeDisplays the cleaning guidance in order to make the call for service with the black line decreasby the rubbish on the contact glass when scanning from the DP.						
	Method Press the start key. Select the item to set. The screen for setting each item is displayed. 						
		Display		Descrip	tion		
		Black Line Mode		Black line cleaning guidance ON/	OFF setting		
		Black Line Cnt		Setting counts of the cleaning gui	dance indicat	ion	
		ing: [Black Line N Select [On] or [Off]	-				
		Display		Descrip	tion		
		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		ng counts of the cleaning guidance ation (x 1000 sheets)	0 to 255	8	
		* : When setting is detected. Press the start key.		black line cleaning indication is dis alue is set.	played only if	the black line is	
		n pletion is the stop key. The	e scree	n for selecting a maintenance item	ı No. is displa	yed.	

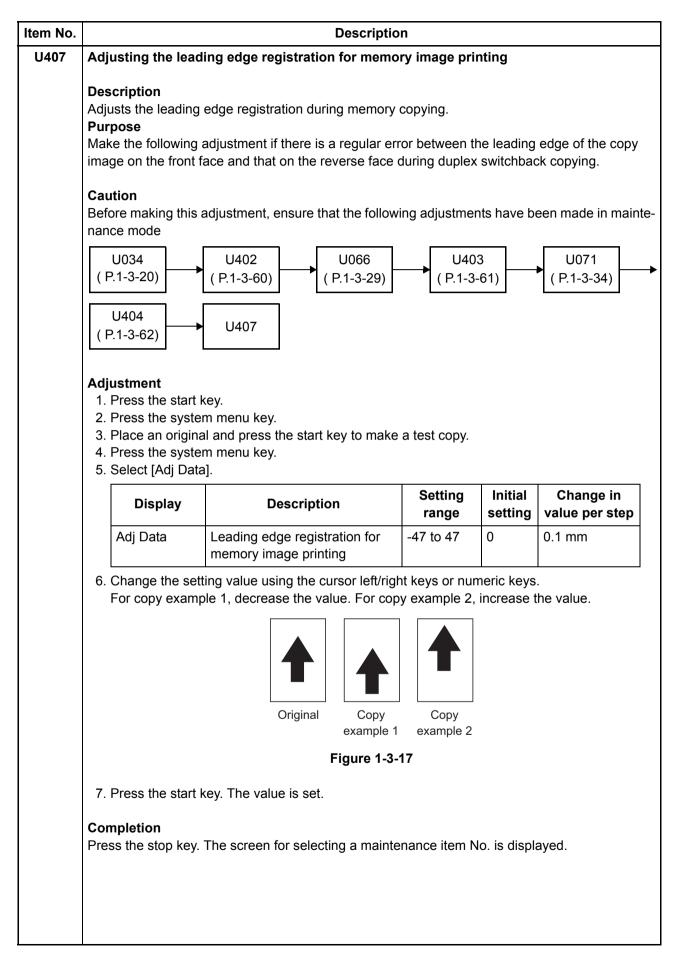
ltem No.				Descriptio	on			
U332	Setting the size conversion factor							
	Description Sets the coefficient of nonstandard sizes in relation to the A4/Letter size. The coefficient set here is used to convert the black ratio in relation to the A4/Letter size and to display the result in user simulation. Purpose To set the coefficient for converting the black ratio for nonstandard sizes in relation to the A4/Letter size.							
	1. 2.	ting Press the start key Select [Rate]. Change the setting	s or numeric keys.					
		Display		Description	Setting range	Initial setting		
		Rate	Size	parameter	0.1 to 3.0	1.0		
	4.	Press the start key	γ . The v	alue is set.		_		
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.							
U341				n setting for printing f				
	 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 Press the start key. Select the paper feed location for the printer. Select [On] or [Off] using the cursor left/right keys. 							
	3.		Jusing		Description]		
		Display Cassette1		Cassette 1	Description			
		Cassette2		Cassette 2 (optional p	aper feeder)			
	Cassette3 Cassette 3 (optional paper feeder)							
	 * : When an optional paper feed device is not installed, the corresponding count is not dis played. 4. Press the start key. The setting is set. 							
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.							

tem No.	Description								
U343	Switching betv	veen duplex/	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 Press the start key. Select [On] or [Off]. 								
	Dis	splay	Description						
	On		Duplex copy						
	Off		Simplex copy						
	* : Initial set 3. Press the st	-	setting is set.						
	Completion Press the stop k	ey. The scree	en for selecting a maintenance item No	o. is displayed	d.				
U345	Setting the val	ue for mainte	enance due indication						
	 maintenance count reaches the set value, the message is displayed. Purpose To change the time for maintenance due indication. Setting Press the start key. Select [Cnt]. Change the setting using the cursor left/right keys or numeric keys. 								
	Display		Description	Setting	Initial				
	Cnt	(Remaining	aintenance due indication number of copies that can be made current maintenance cycle ends)	range 0 to 9999	setting				
	4. Press the start key. The value is set.								
	Clearing 1. Select [Clea	ır].	value is cleared.						



tem No.	Description					
U403	Adjusting margins for scanning an original on the contact glass					
	Purpose Make the Adjustm 1. Pres 2. Pres 3. Place 4. Pres	margins for a adjustment s the start l s the syste e an origina s the syste	scanning the original on the conta nt if margins are incorrect. key. m menu key. al and press the start key to make m menu key. to be adjusted.	-		
		Display	Description	Setting range	Initial setting	Change in value per step
	AM	largin	Scanner left margin	0 to 10.0	2.0	0.5 mm
	ВM	largin	Scanner leading edge margin	0 to 10.0	2.0	0.5 mm
	CN	largin	Scanner right margin	0 to 10.0	2.0	0.5 mm
	DN	largin	Scanner trailing edge margin	0 to 10.0	2.0	0.5 mm
			Scanner leading (3.0 ± 2.5 mm)	Scanne right ma (2.5 +1) edge margin		
			Figure 1-3-	15		
	7. Pres	s the start I	key. The value is set.			
	adjustme	e copy ima ents in mair 3	age after the adjustment. If the imantenance mode. U404 (P.1-3-62)	age is still inco	orrect, per	form the following
	Complet Press the		The indication for selecting a main	ntenance iten	n No. appe	ears.





m No.	Description						
J411	Adjusting the scanner automatically						
	Description Uses a specified original and automatically adjusts the following items in the scanner and the D						
	scanning sections.						
		ginal size magnification, leading edge timing, ce	enter line, input gamma, in				
	•	ome mode and matrix n: Original size magnification, leading edge timi	ng, center line				
	Purpose		-				
	lo perform automati	c adjustment of various items in the scanner ar	nd the DP scanning section				
	Method						
	 Press the start k Select the item. 	ey.					
			Original to be used				
	Display	Description	for adjustment (P/N)				
	Table	Automatic adjustment in the scanner sec- tion	7505000005				
	DP	Automatic adjustment in the DP scanning section:	302AC68243				
	All	Performs automatic adjustment in the DP	7505000005/				
		scanning section following automatic adjustment in the scanner section	302AC68243				
	Target	Set-up for obtaining the target value	-				
	ing maintenance 2. Set a specified c 3. Enter maintenan 4. Select [Target]. 5. Select [U425] us 6. Select [Table].	values which are shown on the specified original item U425. original (P/N: 7505000005) on the platen. ice item U411. ing the cursor left/right keys. ey. Auto adjustment starts.	al (P/N: 7505000005) exe				
	-	ustment is worse than the manual entry.					
	 Set a specified of 2. Enter maintenant 	priginal (P/N: 7505000005) on the platen.					
	3. Select [Target].						
		ng the cursor left/right keys.					
	 Select [Table]. Press the start k 	ey. Auto adjustment starts.					
		atic adjustment has normally completed, [OK] is					
	and operation	auto adjustment, [NG XX] (XX is replaced by a n stops. Should this happen, determine the deta e from the beginning.					

tem No.		Description
U411	* : When i the DP 3. Press the * : When a occurs and op	
	Error Coc	
	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 06	Black band is not detected (scanner center line)
	07	Black band is not detected (scanner main scanning direction magnification)
	07	Black band is not detected (scanner auxiliary scanning direction magnification) Black band is not detected (DP main scanning direction magnification far end)
	08	Black band is not detected (DP main scanning direction magnification near end)
	09 0a	Black band is not detected (DP auxiliary scanning direction magnification lead- ing edge)
	0b	Black band is not detected (DP auxiliary scanning direction magnification lead- ing 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	o key. The screen for selecting a maintenance item is displayed.

U425 Setting the target Description Enters the lab values that is indicated on the back of the chart (P/N: 7505000005) adjustment. Purpose Performs data input in order to correct for differences in originals during automatic Method 1. Press the start key. 2. Select the item to be set. Description White Setting the white patch for the original for adjustment Black Setting the black patch for the original for adjustment Gray1 Setting the Gray1 patch for the original for adjustment Gray3 Setting the Gray3 patch for the original for adjustment C Setting the Gray3 patch for the original for adjustment M Setting the gray3 patch for the original for adjustment Y Setting the gray3 patch for the original for adjustment	c adjustment.
Enters the lab values that is indicated on the back of the chart (P/N: 7505000005) adjustment. Purpose Performs data input in order to correct for differences in originals during automation Method 1. Press the start key. 2. Select the item to be set. Display Description White Setting the white patch for the original for adjustment Black Setting the black patch for the original for adjustment Gray1 Setting the Gray1 patch for the original for adjustment Gray3 Setting the Gray3 patch for the original for adjustment C Setting the Gray3 patch for the original for adjustment M Setting the cyan patch for the original for adjustment Y Setting the gray3 patch for the original for adjustment	c adjustment.
Display Description White Setting the black patch for the original for adjustme Gray1 Setting the Gray1 patch for the original for adjustme Gray3 Setting the Gray3 patch for the original for adjustme C Setting the Gray3 patch for the original for adjustme Y Setting the watch for the original for adjustme Setting the Gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting the gray3 patch for the original for adjustme Setting	c adjustment.
Purpose Performs data input in order to correct for differences in originals during automation Method 1. Press the start key. 2. Select the item to be set. Display Description White Setting the white patch for the original for adjustment Black Setting the black patch for the original for adjustment Gray1 Setting the Gray1 patch for the original for adjustment Gray2 Setting the Gray2 patch for the original for adjustment Gray3 Setting the Gray3 patch for the original for adjustment C Setting the cyan patch for the original for adjustment M Setting the under original for adjustment Y Setting the under or the original for adjustment	nt
Display Description White Setting the white patch for the original for adjustme Black Setting the Gray1 patch for the original for adjustme Gray3 Setting the Gray3 patch for the original for adjustme C Setting the Gray3 patch for the original for adjustme Y Setting the watch for the original for adjustme Setting the Gray1 patch for the original for adjustme Gray3 Setting the Gray3 patch for the original for adjustme Y Setting the watch for the original for adjustme	nt
Display Description White Setting the white patch for the original for adjustme Black Setting the black patch for the original for adjustme Gray1 Setting the Gray1 patch for the original for adjustme Gray2 Setting the Gray2 patch for the original for adjustme Gray3 Setting the Gray3 patch for the original for adjustme C Setting the cyan patch for the original for adjustme M Setting the magenta patch for the original for adjustme Y Setting the yellow patch for the original for adjustme	nt
Display Description White Setting the white patch for the original for adjustme Black Setting the black patch for the original for adjustme Gray1 Setting the Gray1 patch for the original for adjustme Gray2 Setting the Gray2 patch for the original for adjustme Gray3 Setting the Gray3 patch for the original for adjustme C Setting the cyan patch for the original for adjustme M Setting the magenta patch for the original for adjustme Y Setting the yellow patch for the original for adjustme	nt
DisplayDescriptionWhiteSetting the white patch for the original for adjustmeBlackSetting the black patch for the original for adjustmeGray1Setting the Gray1 patch for the original for adjustmeGray2Setting the Gray2 patch for the original for adjustmeGray3Setting the Gray3 patch for the original for adjustmeCSetting the cyan patch for the original for adjustmeMSetting the magenta patch for the original for adjustmeYSetting the yellow patch for the original for adjustme	nt
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BlackSetting the black patch for the original for adjustme Gray1Gray1Setting the Gray1 patch for the original for adjustm Gray2Gray3Setting the Gray3 patch for the original for adjustm CCSetting the Cray3 patch for the original for adjustme Setting the cyan patch for the original for adjustme MMSetting the magenta patch for the original for adjustm Setting the yellow patch for the original for adjustme Setting the yellow patch for the original for adjustme	nt
Gray1Setting the Gray1 patch for the original for adjustmGray2Setting the Gray2 patch for the original for adjustmGray3Setting the Gray3 patch for the original for adjustmCSetting the cyan patch for the original for adjustmentMSetting the magenta patch for the original for adjustmYSetting the yellow patch for the original for adjustment	
Gray2Setting the Gray2 patch for the original for adjustmGray3Setting the Gray3 patch for the original for adjustmCSetting the cyan patch for the original for adjustmentMSetting the magenta patch for the original for adjustYSetting the yellow patch for the original for adjustment	ont
Gray3Setting the Gray3 patch for the original for adjustmeCSetting the cyan patch for the original for adjustmeMSetting the magenta patch for the original for adjustYSetting the yellow patch for the original for adjustme	ent
CSetting the cyan patch for the original for adjustmentMSetting the magenta patch for the original for adjustYSetting the yellow patch for the original for adjustment	ent
M Setting the magenta patch for the original for adjus Y Setting the yellow patch for the original for adjustment	ent
Y Setting the yellow patch for the original for adjustm	nt
	tment
	ent
R Setting the red patch for the original for adjustment	
G Setting the green patch for the original for adjustme	ent
B Setting the blue patch for the original for adjustmer	nt
Adjust OriginalSetting the main and auxiliary scanning directions	
3. Select the item to be set.	
Display Description Setting range	
L Setting the L value 0.0 to 100.0	
a Setting the a value -200.0 to 200.0	
b Setting the b value -200.0 to 200.0	
 4. Enters the value that is indicated on the back of the chart using the cursor left numeric keys. 5. Press the start key. The value is set. 	/right keys or

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. 								
	30mm 148.5mm 267mm								
	A Black belt 1 B C Leading edge								
	Black belt 2 D E								
	Big Image: Constraint of the second seco								
	CILOR SCONDER CILOR SCONDER CILOR SCONDER No.300637010								
	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.								

tion. For example, if the	set for the exposure r the setting data for exposure centering a e value for the exposure centering adjustn mage processing is performed as though	•	der user simula	
Sets the offset value fo tion. For example, if the the offset value to +2, i ment setting is +1.	e value for the exposure centering adjustn	•	der user simula	
•	eference of the user		•	nge
Setting 1. Press the start key 2. Select [B/W]. 3. Select image qualit	y mode to be set.	-	I	1
Display	Description	range	setting	
Text + Photo	Offset value for the text & photo mode	-3 to 3	0	
Photo	Offset value for the photo mode	-3 to 3	0	
Text	Offset value for the text mode	-3 to 3	0	
images is lighte 5. Press the start key Supplement While this maintenance copying mode (which is Completion	r. The value is set. e item is being executed, copying from an s activated by pressing the system menu	original is ava key).	ilable in interru	
	Setting 1. Press the start key. 2. Select [B/W]. 3. Select image qualit 4. Change the setting Display Text + Photo Photo Text * : If the setting val images is darke If the setting val images is lighte 5. Press the start key. Supplement While this maintenance copying mode (which is Completion	 Press the start key. Select [B/W]. Select image quality mode to be set. Change the setting value using the cursor left/right keys or n Display Description Text + Photo Offset value for the text & photo mode Photo Offset value for the photo mode Text Offset value for the text mode * : If the setting value is increased to increase the exposure images is darker. If the setting value is decreased to decrease the exposure images is lighter. Press the start key. The value is set. Supplement While this maintenance item is being executed, copying from an copying mode (which is activated by pressing the system menu	Setting 1. Press the start key. 2. Select [B/W]. 3. Select image quality mode to be set. 4. Change the setting value using the cursor left/right keys or numeric keys. Display Description Setting range Text + Photo Offset value for the text & photo mode -3 to 3 Photo Offset value for the photo mode -3 to 3 Text Offset value for the text mode -3 to 3 * : If the setting value is increased to increase the exposure centering adjuinages is darker. If the setting value is decreased to decrease the exposure centering adjuinages 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 to pressing the system menu key).	Setting 1. Press the start key. 2. Select [B/W]. 3. Select image quality mode to be set. 4. Change the setting value using the cursor left/right keys or numeric keys. Display Description Setting Initial setting Text + Photo Offset value for the text & photo mode -3 to 3 0 Photo Offset value for the text mode -3 to 3 0 *: 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. Chress the start key. The value is set. Supplement While this maintenance item is being executed, copying from an original is available in interructopying mode (which is activated by pressing the system menu key).

Item No.			Description				
U470	Setting the JPEG compression ratio						
	Purpose To change the setting order to soften the co change the level of co pression and thereby lower the image proc	g in acco parsenes ompress lower th	r JPEG images in each image qual rdance with the image that the use s of the image when making copies ion by raising the value. Lowering t le image quality; Raising the value peed.	r is copying. Fo at over 200% he value will ir	magnification, ncrease the com-		
	Method 1. Press the start ke	ey.					
	2. Select the item to	be set.					
	Display		Descript	tion			
	Сору		Compression ratio for copying				
	Send		Compression ratio for sending				
	System		Compression ratio for temporary s	storage in syste	em		
	Setting: [Copy] 1. Select the item to						
	Display		Description				
	Photo		Compression ratio in the photo mode				
	Text		Compression ratio in the text mode				
	 Select the item to Change the settir 		using the cursor left/right keys or n	umeric keys.			
	Display		Description	Setting range	Initial setting		
	Y	Com	pression ratio of brightness	1 to 100	90		
	CbCr	Com	pression ratio of color differential	1 to 100	90		
	4. Press the start ke	ey. The v	alue is set.				
	Setting: [Send] 1. Select the item to	be set.					
	Display		Description				
	Photo		Compression ratio in the photo me	ode			
	Text		Compression ratio in the text mode				
	HC-PDF		Compression ratio of high compre	ssion PDF			

n No.		Description		
170	 Select the item to Change the settin [Photo] or [Text] 	be set. g value using the cursor left/right keys o	r numeric key	S.
	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]		L	
	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 ke	y. The value is set.		
		g value using the cursor left/right keys o	r numeric key Settin	
	Display	Description	range	e setting
	Y	Compression ratio of brightness	1 to 100	90
	CbCr	Compression ratio of color differential	1 to 100	90
	3. Press the start ke	y. The value is set.		
	Supplement While this maintenanc copying mode (which Completion	y. The value is set. the item is being executed, copying from is activated by pressing the system mer the screen for selecting a maintenance it	nu key).	

		Descri	ption		
U600	Initializing all	data			
	Description				
	-	are switches and all data in the ba	ackup data o	on the FAX control PWB, according	
	to the destination			~	
	Executes the check of the file system, when abnormality of the file system is detected the file system, communication past record and register setting contents.				
	Purpose			ig contento.	
	To initialize the	FAX control PWB.			
	Method				
	1. Press the s	tart key.			
	-	intry Code] and enter a destination	-	-	
		e destination code list on following is no operation necessary.	for the dest	ination code.	
	3. Select [Exe				
		-		ta initialization, press the stop key	
		nitialization, ROM version are disp sion displays three kinds, applicat	•	nd IPL.	
			- , , -		
	Destination co			1	
	Code	Destination	Code	Destination	
	000	lanan	252	CTR21 (European nations)	
	000	Japan	253	CTR2T (European hations)	
	009	Australia	255	Italy	
			200		
	009	Australia	200	Italy	
	009 038	Australia China	233	Italy Germany	
	009 038 080	Australia China Hong Kong	233	Italy Germany Spain	
	009 038 080 084	Australia China Hong Kong Indonesia	200	Italy Germany Spain U.K.	
	009 038 080 084 088	Australia China Hong Kong Indonesia Israel	233	Italy Germany Spain U.K. Netherlands	
	009 038 080 084 088 097	Australia China Hong Kong Indonesia Israel Korea	233	Italy Germany Spain U.K. Netherlands Sweden	
	009 038 080 084 088 097 108	Australia China Hong Kong Indonesia Israel Korea Malaysia	233	Italy Germany Spain U.K. Netherlands Sweden France	
	009 038 080 084 088 097 108 126	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand	233	Italy Germany Spain U.K. Netherlands Sweden France Austria	
	009 038 080 084 088 097 108 126 136	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru	233	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland	
	009 038 080 084 088 097 108 126 136 137	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru Philippines	233	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland Belgium	
	009 038 080 084 088 097 108 126 136 137 152	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru Philippines Middle East	233	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland Belgium Denmark	
	009 038 080 084 088 097 108 126 136 136 137 152 156	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru Philippines Middle East Singapore	233	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland Belgium Denmark Finland	
	009 038 080 084 088 097 108 126 136 137 152 156 159	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru Philippines Middle East Singapore South Africa	233	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland Belgium Denmark Finland Portugal	
	009 038 080 084 088 097 108 126 136 137 152 156 159 169	Australia China Hong Kong Indonesia Israel Korea Malaysia New Zealand Peru Philippines Middle East Singapore South Africa Thailand	253	Italy Germany Spain U.K. Netherlands Sweden France Austria Switzerland Belgium Denmark Finland Portugal Ireland	

Item No.		Description
U601	Initializing permanent data	
	Purpose	on the FAX control PWB according to the destination and OEM. WB without changing user registration data.
	 Refer to the destination c OEM code is no operation 3. Select [Execute]. 4. Press the start key. Data 5. After data initialization, Reference of the start s	initialization starts. To cancel data initialization, press the back key.
U603	Setting user data 1	
	Description Makes user settings to enable Purpose To be executed as required. Setting 1. Press the start key. 2. Select [Line Type]. 3. Select the setting.	e the use of the machine as a fax.
	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 scree	en for selecting a maintenance item No. is displayed.

Item No.			Description		
U604	Set	ting user data 2			
	Mał Pur Use	pose this if the user wis	enable the use of the machine as hes to adjust the number of rings en fax/telephone auto-select is er	that occur before the	e unit switches into
	1. 2.	thod Press the start key Select [Rings(F/T) Change the setting		numeric keys.	
		Display	Description	Setting range	Initial setting
		Rings(F/T) #	Number of fax/telephone rings	0 to 15	2 (120 V)/ 1 (220-240 V)
	4.	* : If you set this to Press the start key	0, the unit will start fax reception . The value is set.	without any ringing.	
		mpletion ss the stop key. The	e screen for selecting a maintena	nce item No. is displa	ayed.
U605	Cle	aring data			
	Initia Pur To c Met 1. 2.	pose clear the transmissi t hod Press the start key Select [Comm REC		ansmission history.	
			s finished, [Completed] is displaye	ed.	
		mpletion ss the stop key. The	e screen for selecting a maintena	nce item No. is displa	ayed.

range setting value Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode 0 to 22 0 16 line * : Increase the setting if a page received in the reduction mode is over-reduct much trailing edge margin is left. Decrease it if the received image does not							
Makes settings for fax reception regarding the sizes of the fax paper and received 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 receive (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receive 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receive the auto reduction mode. Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exceing capacity when the data is recorded in the auto reduction mode onto A4R or Letunder the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over 1 entire data on a page is further reduced so that it can be recorded on the same partine data on a page is further reduced so that it can be recorded on the same partine of lines to be ignored when receiving a fax (A4R/LetterR range Number of lines to be ignored when received in the setting If other range 1. Change the setting using the cursor left/right keys or numeric keys. Image is setting Value Number of lines to be ignored when received i							
Makes settings for fax reception regarding the sizes of the fax paper and received 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 receive (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receive 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receive the auto reduction mode. Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exceing capacity when the data is recorded in the auto reduction mode onto A4R or Letunder the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over 1 entire data on a page is further reduced so that it can be recorded on the same part 1. Change the setting using the cursor left/right keys or numeric keys. Image: Setting a fax (A4R, letter) in the auto reduction mode is over-reduce reduction mode * : Increase the setting if a page received in the reduction mode is over-reduce much trailing edge margin is left. Decrease it if the received image does not set of the mage does not set of the mage does not set of the mage does not the set of the mage does not training does	Description						
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 receiv (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receiv 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receiv the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exces ing capacity when the data is recorded in the auto reduction mode onto A4R or Le under the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over entire data on a page is further reduced so that it can be recorded on the same pa 1. Change the setting using the cursor left/right keys or numeric keys. Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode 16 line * : Increase the setting if a page received in the reduction mode is over-reduction much trailing edge margin is left. Decrease it if the received image does not	t images and						
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 receiv (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receiv 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receiv the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exceing capacity when the data is recorded in the auto reduction mode onto A4R or Letunder the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over the entire data on a page is further reduced so that it can be recorded on the same part. 1. Change the setting using the cursor left/right keys or numeric keys. Description Setting Initial C Number of lines to be ignored when received in the auto reduction mode 16 line * : Increase the setting if a page received in the reduction mode is over-reduction mode * : Increase the setting if a page received in the reduction mode is over-reduction much trailing edge margin is left. Decrease it if the received image does not set is in the received	C C						
2. Select the item to be set. Display Description Cut Line:A4 Sets the number of lines to be ignored when receive (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receive 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receive the auto reduction mode. Sets the number of lines to be ignored when receive the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exceeting capacity when the data is recorded in the auto reduction mode onto A4R or Letter autor the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over the entire data on a page is further reduced so that it can be recorded on the same path. 1. Change the setting using the cursor left/right keys or numeric keys. Value Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode is over-reduced in the reduction mode * : Increase the setting if a page received in the reduction mode is over-reduce much trailing edge margin is left. Decrease it if the received image does not set the reduction mode is over-reduce much trailing edge margin is left.							
Display Description Cut Line:A4 Sets the number of lines to be ignored when receiv (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when receiv 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when receiv the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume excee ing capacity when the data is recorded in the auto reduction mode onto A4R or Let under the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over entire data on a page is further reduced so that it can be recorded on the same part. 1. Change the setting using the cursor left/right keys or numeric keys. Image: Description interaction mode is over-reduced in the auto reduction mode Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode * : Increase the setting if a page received in the reduction mode is over-reduced much trailing edge margin is left. Decrease it if the received image does not							
Cut Line:A4 Sets the number of lines to be ignored when received (A4R/LetterR) in the auto reduction mode. Cut Line:100% Sets the number of lines to be ignored when received 100% magnification. Cut Line:Auto Sets the number of lines to be ignored when received the auto reduction mode. Setting the number of lines to be ignored when received the auto reduction mode. Sets the number of lines to be ignored when received the auto reduction mode. Setting the number of lines to be ignored when receiving a fax (A4R/LetterR reduction mode Sets the maximum number of lines to be ignored if the received data volume exceeting capacity when the data is recorded in the auto reduction mode onto A4R or Letunder the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over the entire data on a page is further reduced so that it can be recorded on the same path. 1. Change the setting using the cursor left/right keys or numeric keys. Image the setting using the cursor left/right keys or numeric keys. Image not path and the auto reduction mode is over-reduction mode Number of lines to be ignored when received in the reduction mode is over-reduction reduction mode * : Increase the setting if a page received in the reduction mode is over-reduction much trailing edge margin is left. Decrease it if the received image does not much trailing edge margin is left.							
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reduction mode Sets the maximum number of lines to be ignored if the received data volume excering capacity when the data is recorded in the auto reduction mode onto A4R or Let under the conditions below. If the number of excess lines is below the setting, those lines are ignored. If over 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 Initial C Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode 0 to 22 0 16 line * : Increase the setting if a page received in the reduction mode is over-reduction mode	'ing a fax in						
Number of lines to be ignored when receiving a fax (A4R, letter) in the auto reduction mode 0 to 22 0 16 line * : Increase the setting if a page received in the reduction mode is over-reduction much trailing edge margin is left. Decrease it if the received image does not be approximately and the reduction mode image does not be approximately and the reduction mode image does not be approximately and the received image does not be approximately and the received image does not be approximately and the reduction mode image does not be approximately and the reduction mode image does not be approximately and the reduction mode image does not be approximately and the reduction mode image does not be approximately and the reduction mode image does not be approximately approximately and the reduction mode image does not be approximately app	-						
receiving a fax (A4R, letter) in the auto reduction mode * : Increase the setting if a page received in the reduction mode is over-reduction much trailing edge margin is left. Decrease it if the received image does not	ue per step						
much trailing edge margin is left. Decrease it if the received image does not	16 lines						
2. Press the start key. The value is set. Setting the number of lines to be ignored when receiving a fax at 100% mag							
Sets the maximum number of lines to be ignored if the received data volume excerning capacity when recording the data at 100% magnification. If the number of excerning below the setting, those lines are ignored. If over the setting, they are recorded or 1. Change the setting using the cursor left/right keys or numeric keys.	eds the reco ess lines is h the next pa						
	hange in Je per step						
Number of lines to be ignored when receiving at 100%0 to 22316 line	nes						
 * : Increase the setting if a blank second page is output, and decrease it if the image does not include the entire transmitted data. 2. Press the start key. The value is set. 	received						

tem No.		De	scription		
U610	Seta ing is b the	ting the number of lines to be ignored s the maximum number of lines to be ignored capacity when the data is recorded in the elow the setting, those lines are ignored. r reduced so that it can be recorded on th Change the setting using the cursor left/r	ored if the recei auto reduction If over the setti e same page.	ved data volum mode. If the nuing, the entire d	e exceeds the recor umber of excess line
		Description	Setting range	Initial setting	Change in value per step
		Number of lines to be ignored when receiving in the auto reduction mode	0 to 22	0	16 lines
	2.	 * : Increase the setting if a page received much trailing edge margin is left. Dece transmitted data. Press the start key. The value is set. 			
		mpletion ss the stop key. The screen for selecting	a maintenance	item No. is disr	haved
	Pre	ss the stop key. The screen for selecting	a maintenance	item no. is disp	blayed.

Adj Lines Se Adj Lines(A4) Se wh Adj Lines(LT) Se	escription ets the numb ets the numb en A4 pape ets the numb en letter siz ent lines fo nes for autor cursor left/r	per of adjustme per of adjustme er is set. per of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto ent lines for auto ent lines for auto eduction	omatic reduction. omatic reduction omatic reduction
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Sets the number of adjustment line Method 1. Press the start key. 2. Select the item to be set. Display De Adj Lines Se Adj Lines(A4) Se Wh Adj Lines(LT) Setting the number of adjustment line Sets the number of adjustment line 1. Change the setting using the Description Number of adjustment lines the	escription ets the numb ets the numb en A4 pape ets the numb en letter siz ent lines fo nes for autor cursor left/r	per of adjustme per of adjustme er is set. per of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto ent lines for auto ent lines for auto ent lines for auto eduction n. imeric keys.	omatic reduction
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1. Press the start key. 2. Select the item to be set. Display De Adj Lines Se Adj Lines(A4) Se Adj Lines(LT) Se Setting the number of adjustment line Sets the number of adjustment line 1. Change the setting using the Description Number of adjustment lines to matic reduction Number of adjustment lines to matic reduction	ets the numb ets the numb een A4 pape ets the numb een letter siz ent lines fo nes for autor cursor left/r	per of adjustme er is set. Der of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto	omatic reduction
DisplayDeAdj LinesSeAdj Lines(A4)SeAdj Lines(LT)SeAdj Lines(LT)SeSetting the number of adjustment lineSets the number of adjustment line1. Change the setting using theDescriptionNumber of adjustment lines toNumber of adjustment lines toAdjustment lineNumber of adjustment line	ets the numb ets the numb een A4 pape ets the numb een letter siz ent lines fo nes for autor cursor left/r	per of adjustme er is set. Der of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto	omatic reduction
Adj Lines Se Adj Lines(A4) Se Adj Lines(A4) Se Adj Lines(LT) Se Setting the number of adjustment line Sets the number of adjustment line Sets the number of adjustment line Description Number of adjustment lines to matic reduction Number of adjustment lines to matic reduction	ets the numb ets the numb een A4 pape ets the numb een letter siz ent lines fo nes for autor cursor left/r	per of adjustme er is set. Der of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto	omatic reduction
Adj Lines(A4) Se Adj Lines(LT) Se Adj Lines(LT) Se Setting the number of adjustment line Sets the number of adjustment line 1. Change the setting using the Description Number of adjustment lines to matic reduction Number of adjustment lines to matic reduction	ets the numb nen A4 pape ets the numb nen letter siz ent lines fo nes for auto cursor left/r	per of adjustme er is set. Der of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto	omatic reduction
Adj Lines(LT) wh Setting the number of adjustment wh Sets the number of adjustment line 1. Change the setting using the Description Number of adjustment lines to matic reduction	nen A4 pape ets the numb nen letter siz ent lines fo nes for autor cursor left/r	er is set. ber of adjustme re paper is set. r automatic re matic reduction ight keys or nu Setting	ent lines for auto eduction n. imeric keys.	
wh Setting the number of adjustment Sets the number of adjustment line 1. Change the setting using the Description Number of adjustment lines to matic reduction	nen letter siz ent lines fo nes for autor cursor left/r	r automatic re matic reduction ight keys or nu Setting	eduction n. Imeric keys.	omatic reduction
Sets the number of adjustment lin 1. Change the setting using the Description Number of adjustment lines matic reduction	nes for autor cursor left/r	matic reduction ight keys or nu Setting	n. Imeric keys.	
Number of adjustment lines to matic reduction	for auto-	-	Initial	
matic reduction	for auto-	range	setting	Change in value per ste
2. Press the start key. The value		0 to 22	7	16 lines
Setting the number of adjustme Sets the number of adjustment lir	ent lines fo			• •
1. Change the setting using the				5 15 501.
Description		Setting range	Initial setting	Change in value per ste
Number of adjustment lines matic reduction when A4 page		0 to 22	22	16 lines
2. Press the start key. The value	e is set.		1	
Setting the number of adjustme set Sets the number of adjustment lir 1. Change the setting using the	nes for auto	matic reduction	n when letter siz	
Description		Setting range	Initial setting	Change in value per ste
			26	16 lines
Number of adjustment lines to matic reduction when letter s is set		0 to 26	26	

ltem No.		Description
U612	Setting system 3	
	Description Makes settings for fax list.	transmission regarding operation and automatic printing of the protocol
	Method 1. Press the start key	<i>/</i>
	-	be set using the cursor up/down keys.
	Display	Description
	Auto Reduct	Selects if auto reduction in the auxiliary direction is to be per- formed.
	Protocol List	Sets the automatic printing of the protocol list.
	at 100% magnification 1. Select the setting Display	n. using the cursor left/right keys. Description
	Display On	Description Auto reduction is performed if the received document is longer than the fax paper.
	Off	Auto reduction is not performed.
	Sets if the protocol list	c printing of the protocol list is automatically printed out. using the cursor left/right keys.
	Display	Description
	Err	The protocol list is automatically printed out after communica- tion only if a communication error occurs.
	On	The protocol list is automatically printed out after communica- tion.
	Off	The protocol list is not printed out automatically.
	* : Initial setting: C 2. Press the start key	
	Completion Press the stop key. Th	e screen for selecting a maintenance item No. is displayed.

Item No.		Description
U615	Setting system 6	
	Purpose	ion regarding the sizes of the fax paper and received images. g width and processing method when 11" width fax paper is loade nine.
	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 s	etting is set.
	Completion Press the stop key. The scree	en for selecting a maintenance item No. is displayed.
U620	Setting the remote switchin	ig mode
	 Description Sets the signal detection meth the type of telephone connect Setting Press the start key. Select [Remort Mode]. Select the mode. 	nod for remote switching. Be sure to change the setting according t ted to the machine.
	Display	Description
	One	One-shot detection
	Cont	Continuous detection
	* : Initial setting: One 4. 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.

tem No.		Descri	ption	
U625	Setting the transmission sy	/stem 1		
	Description			
	Makes settings for the auto re	edialing interval and	the number of time	es of auto redialing.
	Purpose	-		-
	Change the setting to preven	• ·		-
	short redial interval, or fax tra interval.			piece due to too long redial
	Method			
	 Press the start key. Select the item to be set. 			
	Display		Description	
	Interval	Setting the auto re		·
	Times	-	r of times of auto re	adialing
	Times	Setting the numbe		eulainiy
	Setting the auto redialing in	ntorval		
	1. Change the setting using		keys.	
	Descript	tion	Setting range	Initial setting
	Redialing interval		1 to 9 (min.)	3 (120 V)/2 (220-240 V)
	2. Press the start key. The v	aluo is sot		
	Setting the number of times	-	kevs or numeric ke	evs.
	1. Change the setting using	the cursor left/right	-	
	1. Change the setting using Descript	the cursor left/right	Setting range	Initial setting
	1. Change the setting using Descript Number of redialing	the cursor left/right	-	
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing 2. Press the start key. The vertex 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)
	 Change the setting using Descript Number of redialing Press the start key. The v Completion 	the cursor left/right tion value is set.	Setting range 0 to 15	Initial setting 2 (120 V)/3 (220-240 V)

U630	Setting communication					
	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.				
		ition speed when starting transmission. When the destination unit hat ected for transmission, regardless of this 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/V172. Press the start key. The setting is set.					
	• •	eed that the sender is informed of using the DIS or NSF signal. When the capability, V.34 is selected, regardless of 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.					

ltem No.	Description				
U630		d to prevent echo problems at the sender CS signal is sent after a DIS signal is received. Used when problems sender.			
	Display	Description			
	500	Sends a DCS 500 ms after receiving a DIS.			
	300	Sends a DCS 300 ms after receiving a DIS.			
	* : Initial setting: 300 2. Press the start key. The	e setting is set.			
		d to prevent echo problems at the receiver NSF, CSI or DIS signal is sent after a CED signal is received. Used to echoes at the receiver.			
	Display	Description			
	500	Sends an NSF, CSI or DIS 500 ms after receiving a CED.			
	75	Sends an NSF, CSI or DIS 75 ms after receiving a CED.			
	* : Initial setting: 75 2. Press the start key. The Completion	e setting is set.			

Item No.	Description							
U631	Setting communication of	control 2						
	Description							
	Makes settings regarding fax transmission.							
	Method							
	1. Press the start key.							
	2. Select the item to be se	et.						
	Display	Description						
	ECM TX	Sets ECM transmission.						
	ECM RX	Sets ECM reception.						
	CED Freq	Sets the frequency of the CED signal.						
	Setting ECM transmissio	n						
	-	tion of transmission costs is of higher priority than image quality.						
	This should not be set to C	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: On2. Press the start key. The	a acting is act						
	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							
	2. Press the start key. The setting is set.							
	Setting the frequency of Sets the frequency of the C formance for international 1. Select the setting.	ED signal. Used as one of the measures to improve transmission per-						
	Display	Description						
	2100	2100 Hz						
	1100	1100 Hz						
	* : Initial setting: 2100 2. Press the start key. The	e setting is set.						
	Completion Press the stop key. The sc	reen for selecting a maintenance item No. is displayed.						
<u>. </u>	-							

U632	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 se	et.					
	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 a Sets if bit 33 and later bits o 1. Select the setting.	4 bytes of the DIS/DTC signal are sent.					
	Display	Description					
	On	Bit 33 and later bits of the DIS/DTC signal are not sent.					
	Off	Bit 33 and later bits of the DIS/DTC signal are sent.					
	* : Initial setting: Off 2. Press the start key. The						
		es in the fax/telephone auto select mode.					
	1. Select the setting.						
	1. Select the setting. Display	Description					
	_	Description Detects CNG once.					
	Display						
	Display 1Time	Detects CNG once. Detects CNG twice.					
	Display 1Time 2Time * : Initial setting: 2Time 2. Press the start key. The Completion	Detects CNG once. Detects CNG twice.					

em No.			Description			
J633	Setting communica	tion cor	trol 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 k 2. Select the item t					
	Display	1	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: 2. Press the start k Setting the V.34 symbol Sets if the V.34 symbol 1. Select the setting 	ey. The s nbol spe pol speed	eed (3429 Hz)			
	Display	1	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. 					

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	De	escription				
	Once	Responds to the first signal					
	Twice	Responds to the second sig	gnal.				
	* : Initial setting: Once 2. Press the start key. The	setting is set.					
		RTN signal output he reference for RTN signal our the line, they can be reduced					
	Display	De	escription				
	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 c	ontrol 5					
	 Description Sets the maximum number of error bytes judged acceptable when receiving a TCF signal. Us as a measure to ease transmission conditions if transmission errors occur. Setting Press the start key. Select [TCF Check]. Change the setting using the cursor left/right keys or numeric keys. 						
	De	scription	Setting range	Initial setting			
		or bytes when detecting TCF	0 to 255	0			
	4. Press the start key. The	value is set.	I	<u> </u>			
	Completion Press the stop key. The scr	een for selecting a maintenand	ce item No. is disp	layed.			

Item No.		Description				
U640	Setting communication time 1					
	Description Sets the detection time when one-shot detection is selected for remote switching. (T item will be displayed, but the setting made is ineffective.) Sets the detection time when continuous detection is selected for remote switching. item will be displayed, but the setting made is ineffective.)					
	Method 1. Press the start key. 2. Select the item to be set.					
	Display		Description			
	Time (One)	Sets the one-shot detect	-	switching.		
	Time (Cont)	Sets the continuous dete		-		
	•	Setting the one-shot detection time for remote switching 1. Change the setting using the cursor left/right keys.				
	Desc	ription	Setting range	Initial setting		
	One-shot detection time	for remote switching	0 to 255	7		
	1. Change the setting using Desc	the cursor left/right keys.	Setting range	Initial setting		
	Continuous detection tim	-	0 to 255	80		
	2. Press the start key. The v	alue is set.				
	Press the stop key. The scree	n for selecting a maintena	ance item No. is disp	layed.		

1044	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	escription					
	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						
	Tb1 Time Out						
	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.						
	 destination unit, a line can be disconnected. Change the setting to prevent this problem. 1. Change the setting using the cursor left/right keys. 						
	1. Change the setting us	ing the cursor left/right keys.	setting to prevent t				
	1. Change the setting us	-	setting to prevent t Setting range				
	1. Change the setting us T0 time-out time	ing the cursor left/right keys.	setting to prevent t	his problem.			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time 	bing the cursor left/right keys.	Setting to prevent to Setting range	his problem. Initial setting 56			
	1. Change the setting us T0 time-out time 2. Press the start key. Th Setting the T1 time-out the Sets the time before received this maintenance item.	bing the cursor left/right keys. Description The value is set. time twing the correct signal after call	Setting to prevent to Setting range	his problem. Initial setting 56			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out the sets the time before received this maintenance item. Change the setting us 	ing the cursor left/right keys. Description ne value is set. time iving the correct signal after call sing the cursor left/right keys.	setting to prevent t Setting range 30 to 90 s reception. No cha	this problem. Initial setting 56 nge is necessary			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out the setting the T1 time-out the setting us Change the setting us 	bing the cursor left/right keys. Description The value is set. time twing the correct signal after call	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time Sets the time before recent this maintenance item. Change the setting us T1 time-out time 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	setting to prevent t Setting range 30 to 90 s reception. No cha	this problem. Initial setting 56 nge is necessary			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out the setting the T1 time-out the setting us Change the setting us 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time Sets the time before recent this maintenance item. Change the setting us T1 time-out time 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time Sets the time before recent this maintenance item. Change the setting us T1 time-out time 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time Sets the time before recent this maintenance item. Change the setting us T1 time-out time 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			
	 Change the setting us T0 time-out time Press the start key. The setting the T1 time-out time Sets the time before recent this maintenance item. Change the setting us T1 time-out time 	bing the cursor left/right keys. Description The value is set. time time ting the correct signal after call bing the cursor left/right keys. Description	Setting to prevent to Setting range 30 to 90 s reception. No cha	his problem. Initial setting 56 nge is necessary Initial setting			

m No.	Description							
U641	Setting the T2 time-out time The T2 time-out time decides the following. From CFR signal output to image data reception From image data reception to the next signal reception In ECM, from RNR signal detection to the next signal reception 1. Change the setting using the cursor left/right keys.							
		Description	Setting range	Initial setting	Change in value per step			
	T2 time-out	ime	1 to 255	69	100 ms			
	2. Press the sta	rt key. The value	is set.					
	connected teleph received within th In fax/telephone a telephone fails to	one after receivin e Ta set time, or auto select mode receive a call.	ode, sets the time to co ng a call as a fax machin the fax mode is selecter , change the setting wh cursor left/right keys.	ne (see figure 1- d automatically v	3-19). A fax signal i when the time elaps			
		Descripti	ion	Setting range	e Initial setting			
	Ta time-out t	ime		1 to 255	30			
	2. Press the star	t key. The value	is set.					
	Pring detection Line connection as a fax machine Rings Rings Start of fax reception							
	Figure 1-3-19 Ta/Tb1/Tb2 time-out time							
	receiving a call as the setting when	ne auto select me s a fax machine (fax reception is u	ode, sets the time to sta see figure 1-3-19). In fa nsuccessful or a teleph cursor left/right keys.	x/telephone auto	select mode, char			
		Description	Setting range	Initial setting	Change in value per step			
	Tb1 time-out	time	1 to 255	20	100 ms			
	2. Press the sta	rt key. The value	is set.					

			Description					
U641	 Setting the Tb2 time-out time In the fax/telephone auto select mode, sets the time to start ringing an operator through the connected telephone after receiving a call as a fax machine (see figure 1-3-19). In the fax/telephone auto select mode, change the setting when fax reception is unsuccessful or a telephone fails to receive a call. 1. Change the setting using the cursor left/right keys. 							
		Description	Setting range	Initia settin		Change in value per step		
		Tb2 time-out time	1 to 255	80	-	100 ms		
	2.	Press the start key. The value is set.		·				
	ma In ti rec	nected telephone receives a call. Only de within the set Tc time. he TAD mode, change the setting wher eive a call. Change the setting using the cursor le	fax reception is			C C		
		Description		Setting r	ange	Initial setting		
		Tc time-out time		1 to 255		60		
		s the length of the time required to dete eck. In the TAD mode, change the settir		. ,				
	che fails whi	eck. In the TAD mode, change the settin s to receive a call. Be sure not to set it t le the unit is being used as a telephone	g when fax rece oo short; otherw	ption is un	succes	sful or a telephon		
	che fails whi	eck. In the TAD mode, change the settings to receive a call. Be sure not to set it t	g when fax rece oo short; otherw t/right keys.	ption is un	succes ode ma	sful or a telephon		
	che fails whi 1.	eck. In the TAD mode, change the settin s to receive a call. Be sure not to set it t le the unit is being used as a telephone Change the setting using the cursor le	g when fax rece oo short; otherw t/right keys.	ption is un ise, the mo	succes ode ma	sful or a telephon by be shifted to fax		

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 To improve the transmission performance when a low quality line is used.					
	Method 1. 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.				
	 Press the start key. The s Setting the G3 reception ca Select [0dB], [4dB], [8dB] Initial setting: 0dB Press the start key. The s Setting the modem detection Select [-33dBm], [-38dBm * : Initial setting: -43dBm Press the start key. The s Completion 	ble equalizer or [12dB]. etting is set. on level n], [-43dBm] or [-48dBm] using the cursor up/down keys.				
	Press the stop key. The scree	en for selecting a maintenance item No. is displayed.				

Item No.	. Description							
U651	Setting modem 2							
	Description Sets the modem output level. Sets the DTMF output level of a push-button dial telephone. Purpose							
	Used if problems of	ccur when sending a signal with	a push-button dial tele	ephone.				
	Setting 1. Press the start 2. Select the item 3. Change the set	-	evs 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)				

CU regarding the as required. tart key. tem to be set splay ng nnection to		
as required. tart key. tem to be set splay	t. Description Sets the connection to PBX/PSTN. Sets PSTN dial tone detection. Sets busy tone detection. Sets process of the proces of the process of the proces of the process of the p	
tart key. tem to be set splay	t. Description Sets the connection to PBX/PSTN. Sets PSTN dial tone detection. Sets busy tone detection. Setting for a PBX.	
tem to be set splay ng	Description Sets the connection to PBX/PSTN. Sets PSTN dial tone detection. Sets busy tone detection. Setting for a PBX.	
e ng	Sets the connection to PBX/PSTN. Sets PSTN dial tone detection. Sets busy tone detection. Setting for a PBX.	
e ng	Sets PSTN dial tone detection. Sets busy tone detection. Setting for a PBX.	
ng	Sets busy tone detection. Setting for a PBX.	
ng	Setting for a PBX.	
nnection to	Sets the loop current detection before dialing.	
nnection to		
splay	Description	
	Connected to the public switched telephone network. Connected to a PBX.	
tting: PSTN		
* : Initial setting: PSTN2. Press the start key. The setting is set.		
Setting PSTN dial tone detection Selects if the dial tone is detected to check the telephone is off the hook when a fax is connecte to a public switched telephone network. 1. Select the setting.		
splay	Description	
	Detects the dial tone.	
	Does not detect the dial tone.	
-	setting is set.	
	etting: On start key. The	

em No.	Description			
J660	detected, or the busy tone Fax transmission may fail	tion s, sets whether the line is disconnected immediately after a busy tone is e is not detected and the line remains connected until T0 time-out time I due to incorrect busy tone detection. When set to 2, this problem may he line is not disconnected within the T0 time-out time even if the dest		
	Display	Description		
	On	Detects busy tone.		
	Off	Does not detect busy tone.		
		nect an outside call when connected to a PBX.		
	1. Select the setting.	he PBX connected, select the mode to connect an outside call.		
	Display	Description		
	Flash	Flashing mode		
	Loop * : Initial setting: Loop	Code number mode		
		t detection before dialing etection is performed before dialing.		
	Display	Description		
	On	Performs loop current detection before dialing.		
	Off	Does not perform loop current detection before dialing.		
	* : Initial setting: On2. Press the start key. The setting is set.			
		he setting is set.		

tem No.	Description				
U670	Outputting lists				
	Description				
	Outputs a list of data regarding fax transmissions.				
	Printing a list is disabled either when a job is remaining in the buffer or when [Pause All Print				
	Jobs] is pressed to halt printing. Purpose				
	To check conditions of use, settings and transmission procedures of the fax. Method				
	1. Press the start key.				
	 Select the item to be of Press the start key. The 	•			
		·			
	Display	Description			
	Sys Conf Report	Outputs a list of software switches, self telephone number,			
		confidential boxes, ROM versions and other information.			
	Action List	Outputs a list of error history, transmission line details and other information.			
	Action List Self Sts Report	Outputs a list of error history, transmission line details and			
		Outputs a list of error history, transmission line details and other information. Outputs a list of settings in maintenance mode (own-status			
	Self Sts Report	Outputs a list of error history, transmission line details and other information. Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only.			
	Self Sts Report Protocol List	Outputs a list of error history, transmission line details and other information. Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only. Outputs a list of transmission procedures.			
	Self Sts Report Protocol List Error List	Outputs a list of error history, transmission line details and other information. Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only. Outputs a list of transmission procedures. Outputs a list of error.			
	Self Sts Report Protocol List Error List Addr List(No.)	Outputs a list of error history, transmission line details and other information. Outputs a list of settings in maintenance mode (own-status report) regarding fax transmission only. Outputs a list of transmission procedures. Outputs a list of error. Outputs address book in order IDs were added			

Item No.	Description			
U695	FAX function customize			
	Description Sets fax batch transmission reception. Purpose To be executed as required	n ON/OFF. Also changes the print size priority at the time of small size		
	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] usir	ng the cursor left/right keys.		
	Display	Description		
	On	Fax batch transmission is enabled.		
	Off	Fax batch transmission is disabled.		
		ng the cursor left/right keys.		
	Display	Description		
	On	At the time of A5 size reception: $A5 \rightarrow B5 \rightarrow A4 \rightarrow B4 \rightarrow A3$		
	Off	At the time of A5 size reception: $A5 \rightarrow A4 \rightarrow B5 \rightarrow A3 \rightarrow B4$		
	* : Initial setting: Off2. Press the start key. The setting is set.			
	Completion Press the stop key. The sci	reen for selecting a maintenance item No. is displayed.		

	Description				
U699	Setting the software switches				
	Description Sets the software switches on the FAX control PWB individually.				
	Purpose	the setting whe	en a problem such as split output of received originals occurs.		
	Since the communication performance is largely affected, normally this setting need not be changed.				
	Method				
	1. Press the start key.				
	2. Press [SW No.].3. Enter the desired software switch number (3 digits) using the numeric keys and press the				
	enter k	ey.			
		-	o 0 to switch each bit between 0 and 1.		
	J. Fless l	he start key to	SET THE VALUE.		
	Completio				
	Press the s	stop key. The s	creen for selecting a maintenance item No. is displayed.		
	List of Sof	tware Switche	es of Which the Setting Can Be Changed		
		ication contro			
	No.	Bit	Item		
	36	7654	Coding format in transmission		
		3210	Coding format in reception		
	37	5	33600 bps/V34		
	37	5	33600 bps/V34 31200 bps/V34		
	37	5 4 3	33600 bps/V34 31200 bps/V34 28800 bps/V34		
	37	5	33600 bps/V34 31200 bps/V34 28800 bps/V34		
	37	5 4 3	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34		
		5 4 3 2	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34		
	37	5 4 3 2 1	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34		
		5 4 3 2 1 0	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34		
		5 4 3 2 1 0 7	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34		
		5 4 3 2 1 0 7 6	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34		
		5 4 3 2 1 0 7 6 5	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34		
		5 4 3 2 1 1 0 7 6 5 4	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34		
		5 4 3 2 1 1 0 7 6 5 4 3	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34		
		5 4 3 2 1 1 0 7 6 5 5 4 3 2	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 16800 bps/V34 12000 bps/V34 9600 bps/V34 7200 bps/V34		
		5 4 3 2 1 0 7 6 5 4 3 2 2 1	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34 7200 bps/V34 4800 bps/V34		
	38	5 4 3 2 1 0 7 6 5 5 4 3 2 2 1 0	33600 bps/V34 31200 bps/V34 28800 bps/V34 26400 bps/V34 24000 bps/V34 21600 bps/V34 19200 bps/V34 16800 bps/V34 14400 bps/V34 12000 bps/V34 9600 bps/V34 2400 bps/V34 2400 bps/V34		

Item No.				Description
U699	<co< th=""><th>ommuni</th><th>cation time s</th><th>etting></th></co<>	ommuni	cation time s	etting>
		No.	Bit	Item
		53	76543210	T3 timeout setting
		54	76543210	T4 timeout setting (automatic equipment)
		55	76543210	T5 timeout setting
		60	76543210	Time before transmission of CNG (1100 Hz) signal
		63	76543210	T0 timeout setting (manual equipment)
		64	7	Phase C timeout in ECM reception
		66	76543210	Timeout 1 in countermeasures against echo
		68	76543210	Timeout for FSK detection start in V.8
		LI		

<Modem setting>

No.	Bit	Item
89	76543	RX gain adjust

<NCU setting>

No.	Bit	Bit Item	
121	7654	7654 Dial tone/busy tone detection pattern	
122	7654	7654 Busy tone detection pattern	
	1	Busy tone detection in automatic FAX/TEL switching	
125	76543210	76543210 Access code registration for connection to PSTN	
126	7654	FAX/TEL automatic switching ring back tone ON/OFF cycle	

<Calling time setting>

No.	Bit	Item	
133	76543210	DTMF signal transmission time	
134	76543210	DTMF signal pause time	
141	76543210	Ringer detection cycle (minimum)	
142	76543210	Ringer detection cycle (maximum)	
143	76543210	Ringer ON time detection	
144	76543210	Ringer OFF time detection	
145	76543210	Ringer OFF non-detection time	
147	76543210	Dial tone detection time (continuous tone)	
148	76543210	Allowable dial tone interruption time	
149	76543210	Time for transmitting selection signal after closing the DC circuit	
151	76543210	Ringer frequency detection invalid time	

-	
Displays or clears copy counts Purpose To check the time to replace c	aper feed locations
sumable parts.	s by paper feed locations. consumable parts. Also to clear the counts after replacing the con-
Method	
1. Press the start key. The co	ounts 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
played. Clearing 1. Select the counts to be clea [Cassette2] and [Cassette 2. Select the counts for all ar 3. Press the start key. The co Completion	3] cannot be cleared. nd press [Clear].

Item No.	Description			
U903	Checking/clearing the paper jam counts			
	Description Displays or clears the jam cou Purpose To check the paper jam status	unts by jam locations. s. Also to clear the jam counts after replacing consumable parts.		
	Method Press the start key. Select the item. 			
	Display	Description		
	Cnt	Displays/clears the jam counts		
	Total Cnt	Displays the total jam counts		
	 Change the screen using The total number of jam c Completion 	jam code and press [Clear]. nnot be cleared. ounter value is cleared. al number of jam code by type is displayed. the cursor up/down keys.		

tem No.		Description	
U904	Checking/clearing the call for service counts		
	Description Displays or clears the service Purpose To check the service call code Also to clear the service call of		
		code counts alter replacing consumable parts.	
	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	
	 Change the screen using Select the count value for The individual counter can Press the start key. The c Method: [Total Cnt] Select [Total Cnt]. The tot 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	5 Checking counts by optional devices							
	Description Displays the counts of document processor or document finisher. Purpose							
	To check the use of	o check the use of document processor or document finisher.						
	Method1. Press the start key.2. Select the device to be checked. The count of the selected device is displayed.							
	Display		Description					
	DP DF		Counts of document processor					
			Counts of document finisher					
	DP							
	Display		Description Counts of single-sided originals that has passed through the DP					
	ADP	Coun						
	RADP	Counts 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. The screen for selecting a maintenance item No. is displayed. Clearing the print coverage data							
	Description							
	 Description Clears the accumulated data for the print coverage per A4 size paper and its period of time of shown on the service status report). Purpose To clear data as required at times such as during maintenance service. Method Press the start key. Select [Execute]. 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.							

tem 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 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 gon										
	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. 										
			and press the start key.	D							
	Display		Description								
	Import		-	ng data from the USB memory to the machine							
	Export		Retrieving from the ma	chine to a USB memory							
	7. Select the item.										
	Display		Description	Depending data							
	Address Book	Address book		-							
	Job Account	Job ac	counting	-							
	One Touch Information on one-touc		ation on one-touch key	Address book Job accounting Job accountings and user manage- ments							
	User	User managements									
	Program Progra		m information								
	Shortcut	Shortcut information		Job accountings, user managements and document box information							
	Document Box	Document box information		Job accountings and user manage- ments							
	Fax Forward	FAX tra	ansfer information	Job accountings, user managements and document box information							
	IC card	IC card information		-							
	retrieved or w 8. Select [On] using 9. Press the start ke The progress of s When an error oc 10. When normally c	ritten in. the curs y. Starts selected ccurs, the ompleted	or left/right keys. reading or writing. item is displayed in %. e operation is canceled a d, [Fin] is displayed.	a other than those assigned are also and an error code is displayed. leting writing when selecting [Import].							

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

Item No.		Descripti	on								
U917	Error Codes										
	Codes	Description	Codes	Description							
	e913	Log file open error	d008	File rename error							
	e914	Log file error in writing	d009	File open error							
	e915	Directory open error	d00a	File close error							
	e916	Directory error in reading	d00b	File reading error							
	e917	Synchronization error	d00c	File writing error							
	e918	Synchronization error	d00d	File copy error							
	d000	Unspecified error	d00e	File compressed error							
	d001	HDD unavailable	d00f	File decompressed error							
	d002	USB memory is not inserted	d010	Directory open error							
	d003	File for writing is not found in the USB	d011	Directory creation error							
	d004	File for reading is not found in the HDD	d012	File writing error							
	d005	USB error in writing	d013	File reading error							
	d006	USB error in reading	d014	File deletion error							
	d007	File copy error to the USB									
	Suppleme The total a	of the counts back to zero. e nt ccount counter and the machine life coun	ter can be	e cleared only once if all count val-							
	 ues are 1000 or less. Method Press the start key. Select [Execute]. Press the start key. All copy counts and machine life counts are cleared. Completion 										
		stop key. The screen for selecting a maint									

Item No.		Description								
U935	Relay board maintenance									
	Description									
	Sets the mode when call for s	ervice (C0060) occurs.								
	Purpose									
	-	orarily when call for service (C0060) occurs. However, after the set- occurs again when progress of period								
	ting, call for service (C0060) occurs again when progress of period.									
	Setting									
	 Press the start key. Select [Mode]. Change the setting using the cursor left/right keys. 									
	Display	Description								
	Mode0	Setting mode: OFF								
	Mode1	Setting mode: ON (Usable up to three times of use)								
	* : Initial setting: Mode0									
	4. Press the start key. The s	etting is set.								
	5. Turn the main power swite	ch off and on.								
	Supplement									
		ne problem, be sure to change the setting in OFF.								

Item No.		Descriptio	n									
U942	Setting of deflection for feeding from DP Description Adjusts the deflection generated when the document processor is used. Purpose Use this mode if an original non-feed jam, oblique feed or wrinkling of original occurs when the document processor is used.											
	 Press the syst Select the iter 	em menu key. nal on the DP and press the start ke tem menu key.			.1							
	Display	Description	Setting range	Initial setting	Change in value per step							
	Front	Deflection of DP paper feed motor (DPPFM)	-31 to 31	0	0.1758 mm							
	Back	Deflection of DP switchback motor (DPSBM)	-31 to 31	0	0.1758 mm							
	Mix	Set value of mixing the original	-31 to 31	0	0.1758 mm							
	deflection. If an origin of original	r the value, the larger the deflection al non-feed jam or oblique feed occ occurs, decrease the value. t key. The value is set.										
		y. The screen for selecting a mainte	enance item N	No. is displ	ayed.							

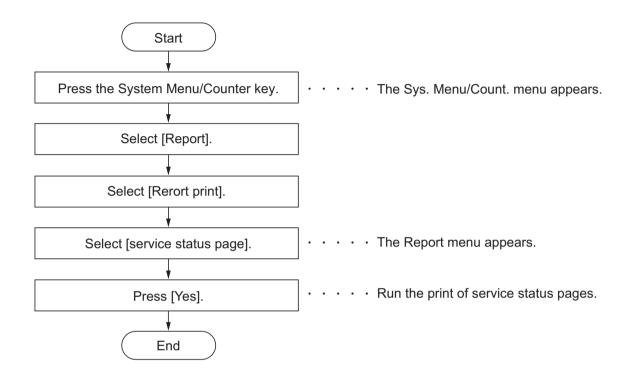
Item No.		Description								
U977	Data capture mode									
	Description									
	Store the print data sent to the m Purpose	achine into USB memory.								
	In case to occur the error at printing, check the print data sent to the machine.									
		ing, check the philt data sent to the machine.								
	Method									
		peration panel, and after verifying the main power indicator has								
	gone off, switch off the main									
	2. Insert USB memory in USB r									
	3. Turn the main power switch of									
	4. Enter maintenance item U97	7.								
	5. Select [Execute].									
	6. Press the start key.									
	7. Send the print data to the ma									
	Once the print data is stored	into USB memory, [Finish] will be displayed.								
	Completion									
	-	or selecting a maintenance item No. is displayed.								
U984	Checking the developing unit r	number								
	Description									
	Displays the developing unit num Purpose	iber.								
	To check the developing unit nun	hber								
	Method									
	1. Press the start key. The dev	reloping unit number is displayed.								
	Display	Description								
	К	Black developing unit number								
	Completion									
	Press the stop key. The screen for	or selecting a maintenance item No. is displayed.								
1										

Item No.										
U985	Displaying the developer hi	istory								
	Description									
	Displays the past record of m	achine number and the developer counter.								
	 Purpose To check the count value of machine number and the developer counter. Method 1. Press the start key. The each history displayed by five cases. 									
	Display Description									
	Machine History 1 - 5	Historical records of the machine number								
	Cnt History 1 - 5	Historical records of developer counter								
	Completion Press the stop key. The screen for selecting a maintenance item No. is displayed.									

1-3-2 Service mode

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

(1) 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
	1. Select [Service status].
	2. Select [YES].
	Two pages will be printed.
	Completion
	Press the System Menu/Counter key.

2MW/2MX

vice items	Description											
	Service statu	s page	(1)									
	Service S	Statu	is Pa	age			(2) 2011	1/09/28 15:15				
(1) Firmware version 2	MW 2F00	001 001	2011 09 28		(3) [XXXXXXX	(4) [XXXXXXXX]	(5)				
	 0) Total K: 1.10 1) Copy K: 1.10 2) Printer K: 1.10 3) FAX K: 1.10 4) Period 	s on Kit (B) pe / Usage F / 1111111. / 1111111. / 1111111. (27/10/2 1.00 / 2.	128.0 KB 128.0 KB 256.0 KB +01:00 Tol 10/10/2011 10.183.53 Cassette 500-Finish Installed Connected US-Englis Installed Page(A4/Le .11 .11 .11	kio 0 12:00 .13 her d h etter Conversic	User I	Fop Margin Left Margin	A1+A2/1 A3+A4/1					
							(6) [XXXXXX	xxxxxxxxxx				
Ļ				Fig	ure 1-3-2	0						

2MW/2MX

Service items	Description								
	Service status page	e (2)							
	Service Statu	us Page		2011/09/28 15:15					
	Firmware version 2MW_2F0	00.001.001 2011.09.28		(XXXXX) [XXXXXXXX]					
-									
	Engine Information 0) NVRAM Version	_1F31225_1F31225	Send Information (34) Date and Time 09/03/05 15:30						
(32	 FAX FAX BOOT Version FAX APL Version FAX IPL Version MAC Address DP Counters Total 	2K3_5000.001.001 2K3_5100.001.001 2K3_5200.001.001 00:C0:EE:D0:01:0D 1234	(35) Address	mail@bjd.ne.jp					
(39 (4) (42 (55 (56 (67	 5) 0000/0000/0000/0000/0000/ 0000/0000/0000/0000/0000/ 6) 12345678/11223344/000012 2KV_D100.001.005/0/ (57) [3NN_9000.001.016] (59) [2KX_81BR.001.010] (60) 	0000000/ abcde/1/0 (43) (44) (45) (46 0000/0000/0000/0000/0000/0000/ 0000/0000/0000/0000/0000/ 234abcd567800001234abcd5678	0/0000/0000/0000/0000/ 0/01234567890123456789012	2345678901/0008/00/07					
-		2							
-		Figure	9 1-3-21						

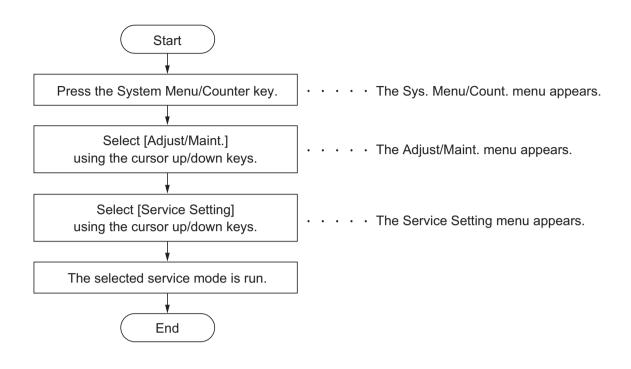
Service it	ems		Description							
		Detail of service status page								
	No.	Description	Supplement							
	(1)	Firmware version	-							
	(2)	System date	-							
	(3)	Engine soft version	-							
	(4)	Engine boot version	-							
	(5)	Operation panel mask version	-							
	(6)	Machine serial number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

ervice items	Description							
No.	Description	Supplement						
(29)	-	-						
(30)	-	_ 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 (f) The oldest time stamp of the ME database version (g) and (g) are underscored, and (g) and (h) and (g) are underscored, and (g) and 						
(31)	Fax firmware version	-						
(32)	Mac address	-						
(33)	Number of original feed from DP	-						
(34)	The last sent date and time	-						
(35)	Transmission address	-						
(36)	Destination information	-						
(37)	Area information	-						
(38)	Margin settings	Top margin/Left margin						
(39)	Top offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/Duplex/ Page rotation						
(40)	Left offset for each paper source	MP tray/Paper feeder 1/Paper feeder 2/Duplex/ Page rotation						
(41)	Margin/Page length/Page width settings	Top margin integer part/Top margin decimal part/ Left margin integer part/Left margin decimal part/ Page length integer part/Page length decimal part/ Page width integer part/Page width decimal part						
(42)	Life counter (The first line)	Machine life/MP tray/Cassette/Paper feeder 1/ Paper feeder 2 /Duplex						
	Life counter (The second line)	Drum unit K/Intermediate transfer unit/ Developing unit K/Maintenance kit						

	S	Description								
N	lo.	Description	Supplement							
(4	13)	Panel lock information	0: OFF/1: Partial lock/2: Full lock							
(4	14)	USB information	U00: Not installed/U01: Full speed/U02: Hi speed							
(4	1 5)	Paper handling information	0: Paper source unit select/1: Paper source unit							
(4	16)	Black and white printing double count mode	0: All single counts 3: Folio, Single count, Less than 330 mm (length)							
(4	47)	Billing counting timing	-							
(4	18)	Temperature (machine inside)	-							
(4	19)	Temperature (machine outside)	-							
(5	50)	Relative temperature (machine outside)	-							
(5	51)	Absolute temperature (machine outside)	-							
(5	52)	Fixed assets number	-							
(5	53)	Job end judgment time-out time	-							
(5	54)	Job end detection mode	-							
(5	55)	Media type attributes 1 to 28 (Not used: 18, 19, 20)	Weight settingsFuser settings0: Light0: High1: Normal 11: Middle2: Normal 22: Low3: Normal 33: Vellum4: Heavy 1Duplex settings5: Heavy 20: Disable6: Heavy 31: Enable7: Extra Heavy							
(5	56)	RFID information	-							
(5	57)	RFID reader/writer version infor- mation	-							
(5	58)	Toner install mode information	0: Off t: On							
(5	59	Soft version of the optional paper feeder	Paper feeder 1/Paper feeder 2							
(6	60)	Version of the optional message	-							
10	61)	Maintenance information	-							

Service it	Service items						Des	cript	ion					
	No.	Description					Supplement							
	(62)					0: Star 1: Higl 2: Higl	h altitu							
	(63)	Charger rolle	er cor	rectio	n		1 to 5							
	(64)	Shift restricti original	ions o	f an o	ne-sh		0:Off 1:On							
	(65)	Drum serial	numb	er			Black							
			Code	conve	ersion									
			А	В	С	D	Е	F	G	Н	Ι	J		
			0	1	2	3	4	5	6	7	8	9]	

(2) Executing a service mode



(3) Description of service mode

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

Service items	Description			
AX country ode	according to th Purpose To initialize the Method 1. Enter the S 2. Select [FA) 3. Press the s 4. Enter a des 5. Press the s	are switches and all data e destination. FAX control PWB. ervice Setting menu. (Country Code] using th	e cursor up/do numeric keys. et.	data on the FAX control PWB
	Destination co		0.1	Destaura
	Code	Destination	Code	Destination
	000	Japan	253	CTR21 (European nations)
	009	Australia		Italy
	038	China		Germany
	080	Hong Kong Indonesia		Spain U.K.
	088	Israel		Netherlands
	000	Korea		Sweden
	108	Malaysia		France
	126	New Zealand		Austria
	120	Peru		Switzerland
	130	Philippines		Belgium
	152	Middle East		Denmark
	152	Singapore		Finland
	159	South Africa		Portugal
	169	Thailand		Ireland
	181	U.S.A.		Norway
	242	South America	254	Taiwan
	242	Saudi Arabia	204	
	270			
	Completion Press the stop	key.		

Service items	Description		
FAX call Setting	FAX call setting		
	Selects the mode to con Access code registration Purpose To be executed as requi Method 1. Enter the Service Se		
	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	
	 Press the start key. Select [Loop], [Flash 4. Press the start key. Setting access code to 1. Select [Dial No. to P 2. Press the start key. 	PSTN STN] using the cursor up/down keys. sing the numeric keys. (0 to 9, 00 to 99)	
	Completion Press the stop key.		

Service items	Description
Memory Diagnostics	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 1. 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.

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1-4-1 Paper misfeed detection

(1) Paper misfeed indication

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

(2) Paper misfeed detection condition

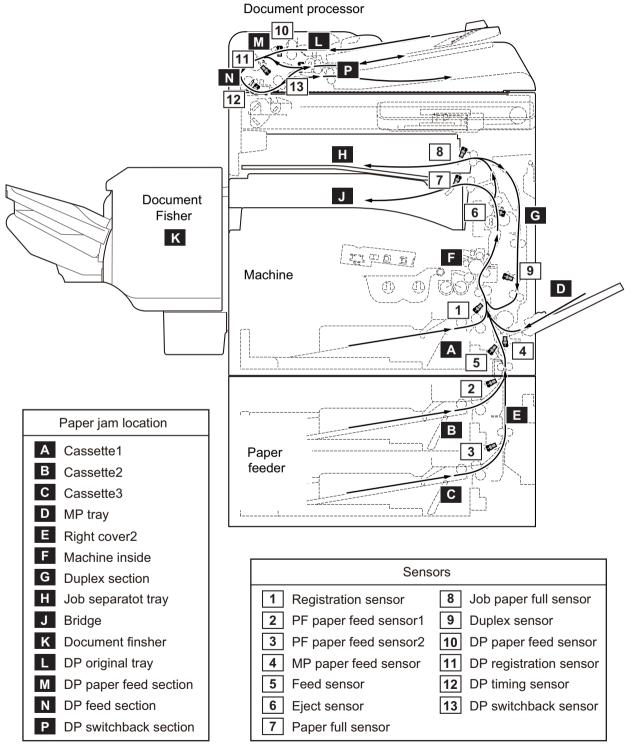


Figure 1-4-1 Paper jam location

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

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

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

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

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

1-4-2 Self-diagnostic function

(1) Self-diagnostic function

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

(2) Self diagnostic codes

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

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

Backup memory read/write error (engine PWB) Detecting engine PWB	Improper installa- tion engine PWB	Check the installation of the EEPROM and
	EEPROM.	remedy if necessary.
EEPROM communication error.	Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
	Device damage of EEPROM.	Contact the Service Administrative Division.
Backup memory data error (engine PWB)	Defective flash memory. Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
Billing counting error A checksum error is detected	Data damage of EEPROM.	Contact the Service Administrative Division.
in the main and engine backup memories for the bill- ing counters.	Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1- 5-34, 1-5-35).
Machine number mismatch Machine number of main and engine does not match.	Data damage of EEPROM.	Contact the Service Administrative Division.
I/O CPU communication error A communication error is detected 10 times in succes- sion.	Defective PWB.	Replace the main PWB or the engine PWB and check for correct operation.(see page 1- 5-34,1-5-35)
DMA error DMA transmission of image data does not complete within the specified period of time.	Poor contact in the connector termi- nals.	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 cor- rect operation (see page 1-5-34).
Image processing error JAM010x is detected twice.	Defective main PWB.	Replace the main PWB and check for cor- rect operation(see page 1-5-34).
FAX control PWB flash pro- gram area checksum error	Defective FAX soft- ware.	Install the fax software.
A checksum error occurred with the program of the FAX control PWB.	Defective FAX con- trol PWB.	Replace the FAX control PWB.
Faults of RTC The time is judged to go back based on the comparison of	The battery is dis- connected from the main PWB.	Check visually and remedy if necessary
the RTC time and the current time or five years or more have passed.	Defective main PWB.	Replace the main PWB and check for correct operation (see page 1-5-34).

Code	Contents	Causes	Check procedures/ corrective measures
0870	FAX control PWB to main PWB high capacity data transfer error	Improper installa- tion 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 speci- fied times.	Defective FAX con- trol PWB or main PWB.	Replace the FAX control PWB or main PWB and check for correct operation (see page 1- 5-34).
0920	Fax file system error The backup data is not retained for file system abnor- mality of flash memory of the FAX control PWB.	Defective FAX con- trol PWB.	Replace the FAX control PWB and check for correct operation.
1010	Lift motor error After cassette 1 is inserted, lift sensor does not turn on within 15 s. This error is detected	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.
	four times successively.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable.
		Defective drive transmission sys- tem of the lift motor.	Lift motor and engine PWB (YC1) Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective lift motor.	Replace the lift motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-35).

Code	Contents	Causes	Check procedures/ corrective measures
1020	20 PF lift motor error (paper feeder) After cassette 2 is inserted, PF lift sensor 1 does not turn on within 15 s. This error is detected four times succes- sively.	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 connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF lift motor 1 and PF main PWB (YC4)
		Defective drive transmission sys- tem of the PF lift motor 1.	Check if the gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF lift motor 1.	Replace the PF lift motor 1.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
1030	PF lift motor error (paper feeder) After cassette 3 is inserted, PF lift sensor 2 does not turn on within 15 s. This error is detected four times succes- sively.	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 connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF lift motor 2 and PF main PWB (YC7)
		Defective drive transmission sys- tem 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 ser- vice manual for the paper feeder).
1800	Paper feeder communica- tion error	Improper installa- tion paper feeder.	Follow installation instruction carefully again.
	A communication error is detected 10 times in succes- sion.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF main PWB (YC3) and engine PWB (YC20)
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

Code	Contents	Causes	Check procedures/ corrective measures
1900	Paper feeder EEPROM error When writing the data, the write data and the read data is not continuously in agreement 5 times.	Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).
		Device damage of EEPROM.	Contact the Service Administrative Division.
2000	00 Main motor steady-state error Stable OFF is detected for 1 s continuously after main motor stabilized.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC16)
		Defective drive transmission sys- tem of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for cor- rect operation (see page 1-5-35).
2010	Main motor drive error The main motor is not stabi- lized within 2 s after driving starts.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Main motor and engine PWB (YC16)
		Defective drive transmission sys- tem of the main motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective main motor.	Replace the main motor.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
2600	PF drive motor error (paper feeder) When the PF drive motor is driven, error signal is detected	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. PF drive motor and PF main PWB (YC2)
	continuously for 2 s.	Defective drive transmission sys- tem of the PF drive motor.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
		Defective PF drive motor.	Replace the PF drive motor.
		Defective PF main PWB.	Replace the PF main PWB (Refer to the service manual for the paper feeder).

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

Code	Contents	Causes	Check procedures/ corrective measures
4010	4010 Polygon motor steady-state error Stable OFF is detected for 1 s continuously after polygon motor stabilized.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Laser scanner unit and engine PWB (YC11)
		Defective polygon motor.	Replace the laser scanner unit (see page 1- 5-23).
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
4100	 BD initialization error BD is not detected within 1 s after polygon motor stabilized. 	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. BD PWB and APC PWB (YC1) APC PWB (YC2) and main PWB (YC103)
		Defective APC PWB.	Replace the laser scanner unit (see page 1- 5-23).
		Defective BD PWB.	
		Defective main PWB.	Replace the main PWB and check for cor- rect operation (see page 1-5-34).
4700	700 VIDEO ASIC device error	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Main PWB (YC105) and engine PWB (YC17)
		Defective main PWB or engine PWB.	Replace the main PWB or the engine PWB and check for correct operation (see page 1- 5-34, 1-5-35).
6000	Broken fuser heater wire The detected temperature of fuser thermistor does not reach the specified tempera- ture (ready indication temper- ature) after the fuser heater has been turned on continu- ously for 60 s in warming up.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Fuser heater and power source PWB (YC102) Fuser unit and engine PWB (YC7)
		Deformed connec- tor pin.	See page 1-4-15.
	The fusing temperature at 5.6 seconds and 16 seconds	Defective triac.	See page 1-4-15.
	since fuser temperature con- trol has occurred differs by 43°C/109.4°F or less.	Fuser thermostat triggered.	Reinsert the fuser unit (see page 1-5-21).
		Broken fuser heater wire.	
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).

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

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

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

ishe i The t on/of	problem (document fin- er) belt sensor does not turn ff within specified time of belt solenoid turning on.	Defective connec- tor cable or poor contact in the con- nector. Defective belt sen- sor.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Belt sensor and DF main PWB (CN10) Belt solenoid and DF main PWB (CN21) Replace the 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.
lem (The t pape not b	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 connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Tray elevation motor and DF main PWB (CN12)
		Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Tray lower limit sensor, and DF main PWB (CN5) Paper surface sensor 1/2 and DF main PWB (CN6)
		The tray elevation motor malfunc- tions.	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.
finis	7012 or 7023 is indi-	Defective connec- tor cable of staple or poor contact in the connector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable.
		The stapler is blocked with a sta- ple.	Remove the stapler cartridge, and check the cartridge and the stapling section of the stapler.
		The stapler is bro- ken.	Replace the stapler and check for correct operation.
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.

Code	Contents	Causes	Check procedures/ corrective measures
8320	Adjustment motor 2 prob- lem (document finisher) The adjustment sensor 2 does not turn on/off within specified time of the adjustment motor 2 turning on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. 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 connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. 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.
8350	Roller motor problem (doc- ument finisher) The roller sensor does not turn on/off within specified time of the roller motor turning	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. 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.

Code	Contents	Causes	Check procedures/ corrective measures
8360	Slide motor problem (docu- ment finisher) The slide sensor does not turn on/off within specified time of the slide motor turning on.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. 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 (docu- ment finisher) Reading from or writing to EEPROM cannot be per- formed.	Defective EEPROM or DF main PWB.	Replace the DF main PWB and check for correct operation.
8800	Document finisher commu- nication error A communication error is detected 10 times in succes- sion.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. Engine PWB (YC19) and DF relay PWB (YC2) DF relay PWB (YC3) and DF main PWB (CN1)
		Defective DF main PWB.	Replace the DF main PWB and check for correct operation.
		Defective engine PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
8830	Bridge communication error (document finisher) A communication error is detected 10 times in succes- sion.	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable. 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 cor- rect operation (see page 1-5-35).

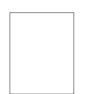
Code	Contents	Causes	Check procedures/ corrective measures
8990	Document finisher commu- nication error	Defective connec- tor cable or poor contact in the con- nector.	Reinsert the connector. Also check for conti- nuity within the connector cable. If none, replace the cable.
		Defective DF main PWB.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

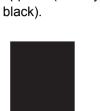
Image formation problems 1-4-3

(2) No image

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

(1) No image appears (entirely white).





appears (entirely

See page 1-4-22

(6) Black streaks are printed vertically.



(11) The leading

original.

edge of the

image is consistently mis-

aligned with the

(7) Streaks are printed horizontally.

See page 1-4-22



See page 1-4-24 (12)The leading

See page 1-4-24 edge of the image is sporadically misaligned with the



See page 1-4-25 (16)Fusing is loose.



See page 1-4-25 (17)Image is out of focus.



See page 1-4-26

See page 1-4-27



(3) Image is too

light.

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



See page 1-4-24 (13)Paper is wrinkled.

See page 1-4-26 (18)Image center does not align with the original center.



See page 1-4-27

(4) The background is colored.

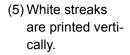


See page 1-4-23 (9) Spots are

printed.



See page 1-4-25 (14)Offset occurs.





See page 1-4-23 (10)Image is blurred.



See page 1-4-25 (15)Part of image is missing.



See page 1-4-26



See page 1-4-26

(1) No image appears (entirely white).

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

(2) No image appears (entirely black).

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

(3) Image is too light.

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

(4) The background is colored.

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

(5) White streaks are printed vertically.

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

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

(6) Black streaks are printed vertically.

(7) Streaks are printed horizontally.

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

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

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

(9) Spots are printed.

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

(10) Image is blurred.

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

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

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

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

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

(13) Paper is wrinkled.

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

(14) Offset occurs.

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

(15) Part of image is missing.

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

(16) Fusing is loose.

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

(17) Image is out of focus.

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

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

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

1-4-4 Electric problems

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

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

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

Problem	Causes	Check procedures/corrective measures
(11) Feedshift solenoid does not operate.	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Feedshift solenoid and engine PWB (YC5)
	2. Defective solenoid.	Replace the Feedshift solenoid.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(12) The message requesting paper to	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper sensor and engine PWB (YC2)
be loaded is shown when paper is present on the cas-	 Deformed actuator of the paper sensor. 	Check visually and replace if necessary.
sette.	 Defective paper sen- sor. 	Replace the cassette PWB.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(13) The message requesting paper to	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. MP paper sensor and engine PWB (YC3)
be loaded is shown when paper is present on the MP	2. Deformed actuator of the MP paper sensor.	Check visually and replace if necessary.
tray.	 Defective MP paper sensor. 	Replace the MP paper sensor.
	4. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(14) The size of paper on the cassette is not displayed cor-	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. Paper size width switch and engine PWB (YC2) Paper size length switch and engine PWB (YC2)
rectly.	2. Defective cassette size switch.	Replace the paper size width switch or paper size length switch.
	3. Defective PWB.	Replace the engine PWB and check for correct operation (see page 1-5-35).
(15) A paper jam in the paper feed, paper conveying or eject section is indi- cated when the	 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.

Problem	Causes	Check procedures/corrective measures
(16) A message indicat-	1. 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.	2. Defective interlock switch.	Replace the interlock switch.
(17) The LED lamp does not turn on when original is	1. Defective connector cable or poor con- tact in the connector.	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP 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 1-5-35).
(18) The size of original on the DP is not displayed correctly.	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP 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 1-5-32,1-5-35).
(19) DP paper feed motor does not operate.	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP paper feed motor and DP main PWB (YC9) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP paper feed motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32,1-5-35).
(20) DP switchback motor does not operate.	 Defective connector cable or poor con- tact in the connector. 	Reinsert the connector. Also check for continuity within the connector cable. If none, replace the cable. DP switchback motor and DP main PWB (YC9) DP main PWB (YC1) and engine PWB (YC18)
	2. Defective drive trans- mission system.	Check if the rollers and gears rotate smoothly. If not, grease the bushes and gears. Check for broken gears and replace if any.
	3. Defective motor.	Replace the DP switchback motor.
	4. Defective PWB.	Replace the DP main PWB or engine PWB and check for correct operation (see page 1-5-32,1-5-35).

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

1-4-5 Mechanical problems

Problem	Causes/check procedures	Corrective measures
(1) No primary paper feed.	Check if the surfaces of the following roll- ers are dirty with paper powder. Pickup roller Paper feed roller MP paper feed roller	Clean with isopropyl alcohol.
	Check if the following rollers is deformed. Pickup roller Paper feed roller MP paper feed roller	Check visually and replace any deformed (see page 1-5-10, 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 roll- ers are dirty with paper powder. Upper registration roller Lower registration roller	Clean with isopropyl alcohol.
	Defective registration clutch installation.	Check visually and remedy if necessary.
(3) Skewed paper feed.	Paper width guide in a cassette installed incorrectly.	Check the paper width guide visually and remedy or replace if necessary.
(4)	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 reu.	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 upper and lower registration rollers is correct.	Check visually and remedy if necessary.
	Check if the heat roller or press roller is extremely dirty or deformed.	Check visually and replace the fuser unit (see page 1-5-21).
(6) Toner drops on the paper conveying path.	Check if the drum unit or developer unit is extremely dirty.	Clean the drum unit or developer unit.
(7) Abnormal noise is	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 Registration clutch Duplex clutch	Check visually and remedy if necessary.

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

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

1-4-6 Send error code

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 net- work.	 Confirm destined host. Confirm device's network parameters. Confirm the network parameters the device is connected.
1102	Login to the host has failed.	 Confirm user name and passowrd. Confirm the network parameters the device is connected. 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.	1. Confirm device's SMB protocols.
2101	Login to the host has failed.	 Confirm destined host. Confirm that the LAN cable is properly connected to the device. Check the SMB port number. Confirm device's network parameters. Confirm the network parameters the device is con- nected.
2201	Writing scanned data has failed.	 Check the scanning file name. Confirm device's network parameters. Confirm the network parameters the device is connected.

(2) Scan to FTP error codes

Code	Contents	Check procedures/corrective measures
1101	FTP server does not exist on the net- work.	 Check the FTP server name. Confirm device's network parameters. Confirm the network parameters the device is connected.
1102	Login to the FTP server has failed.	 Confirm user name and passowrd. Check the FTP server name.
1103	Destined folder is invalid.	 Check illegal characters are not contained within these names. Check the FTP server name.
1105	FTP protocol is not enabled.	1. Confirm device's FTP protocols.
1131	Initializing TLS has failed.	1. 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 con- nected. 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 network parameters the device is connected.
1102	Login to the SMTP/POP3 server has failed.	 Confirm user name and passowrd. Check the SMTP/POP3 server.
1104	The domain the destinede address belongs is prohibited by scanning restriction.	1. Confirm device's SMTP parameters.
1105	SMTP protocol is not enabled.	1. Confirm device's SMTP protocols.
1106	Sender's address is not specified.	1. 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 con- nected. 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.	1. 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 DWDs are successfille to static shares, do not touch pai

The PWBs are susceptible to static charge.

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

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

Take care not to get the cables caught.

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

(2) Drum unit

Note the following when handling or storing the drum unit.

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

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

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

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

(3) Toner

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

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

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

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

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

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

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

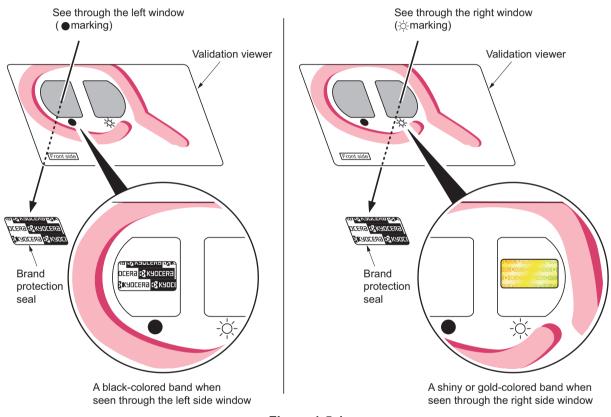


Figure 1-5-1

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

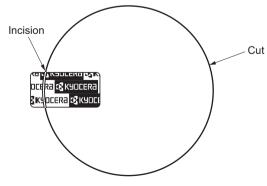


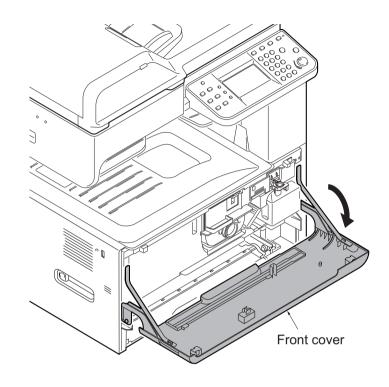
Figure 1-5-2

1-5-2 Outer covers

(1) Detaching and refitting the front cover

Procedure

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





 Unhitch the straps by squeezing the hooks inward as shown.

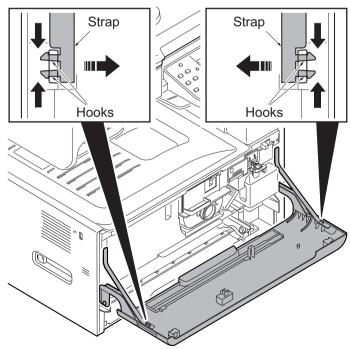


Figure 1-5-4

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

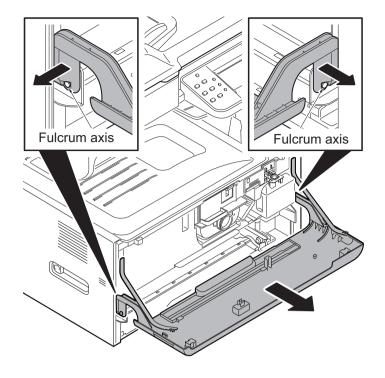


Figure 1-5-5

(2) Detaching and refitting the rear cover

Procedure

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

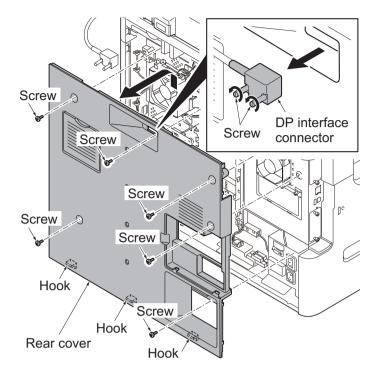
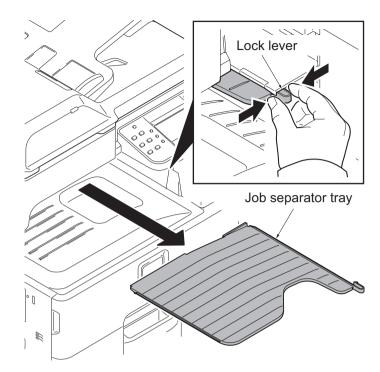


Figure 1-5-6

(3) Detaching and refitting the inner tray

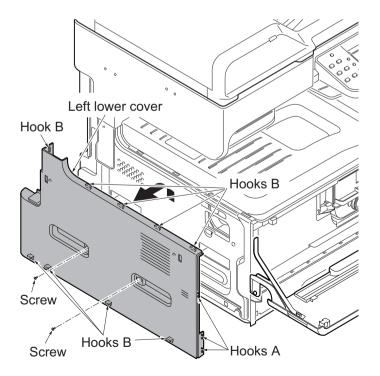
Procedure

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





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





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

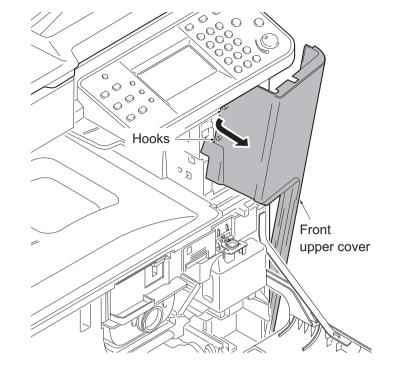


Figure 1-5-9

10. Remove the inner tray.

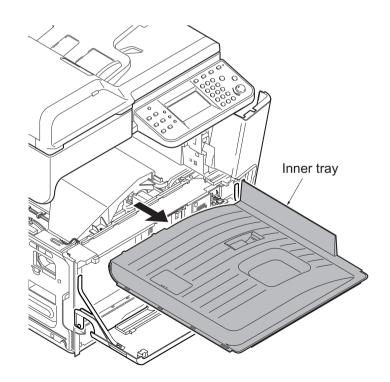


Figure 1-5-10

(4) Detaching and refitting the eject rear cover

Procedure

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

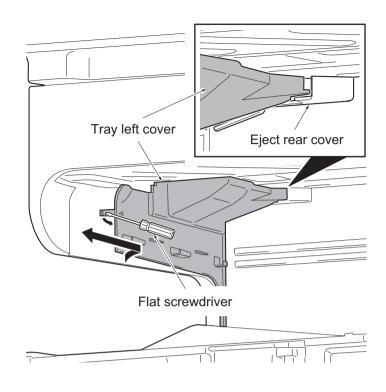


Figure 1-5-11

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

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

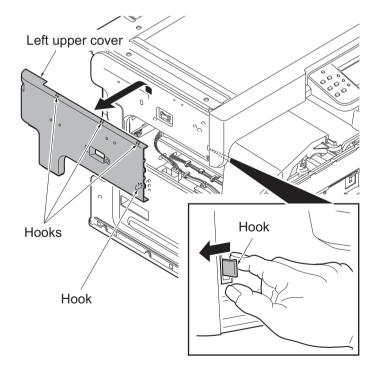
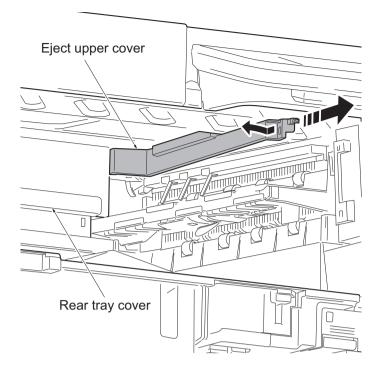


Figure 1-5-12

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





6. Remove the rear tray cover.

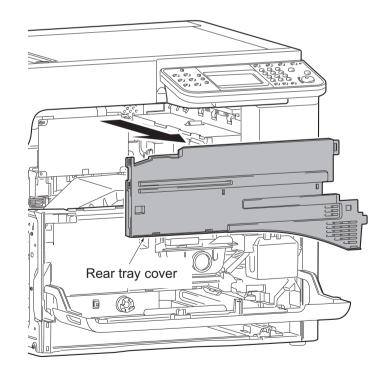


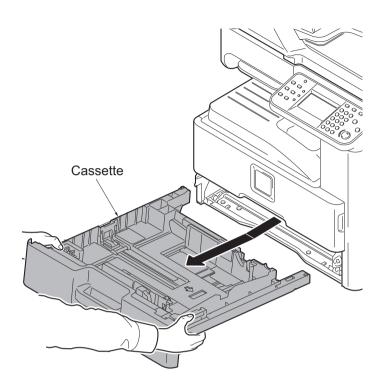
Figure 1-5-14

1-5-3 Paper feed section

(1) Detaching and refitting the primary paper feed unit

Procedure

1. Remove the cassette.





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

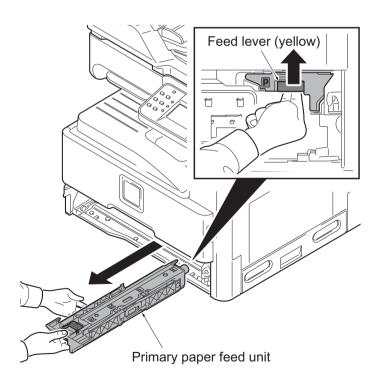


Figure 1-5-16

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

Procedure

1. Open the right cover 1.

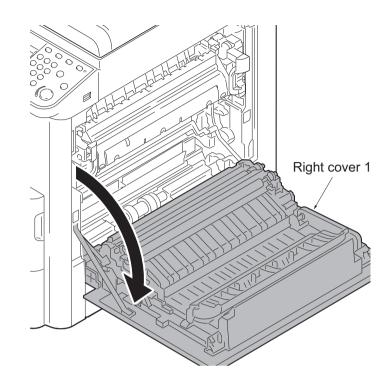


Figure 1-5-17

 Image: Constrained state stat

Figure 1-5-18

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

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

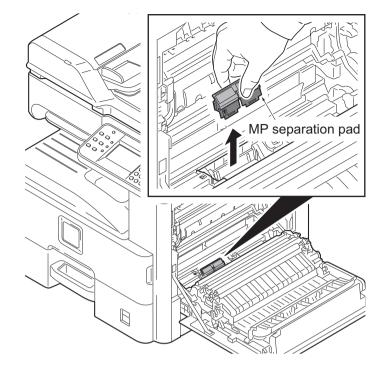


Figure 1-5-19

(3) Detaching and refitting the registration roller

Procedure

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

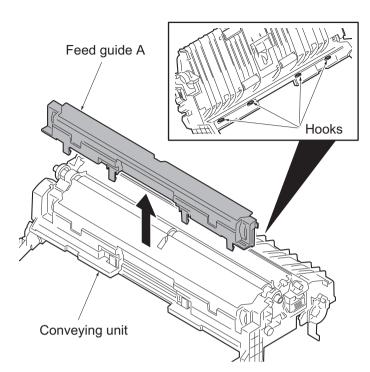


Figure 1-5-20

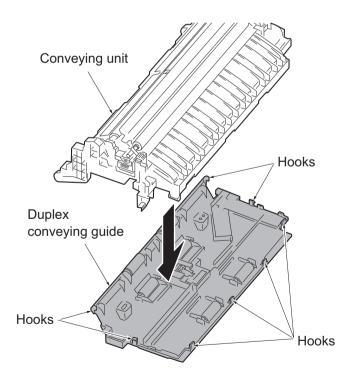


Figure 1-5-21

4. Release eight hooks and then remove the duplex conveying guide from the conveying unit. 5. Remove a spring in the middle at the back of the conveying unit.

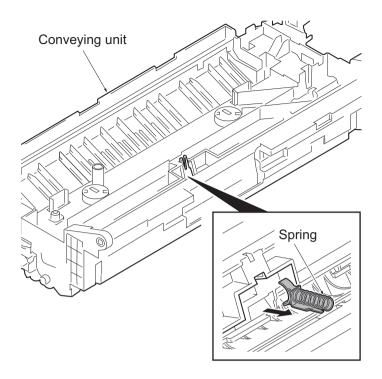


Figure 1-5-22

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

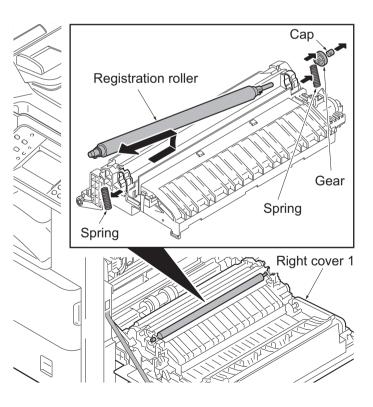
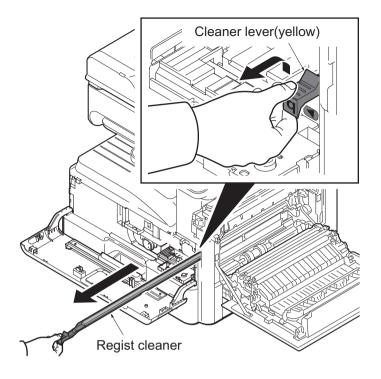


Figure 1-5-23

(4) Detaching and refitting the registration cleaner

Procedure

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





(5) Detaching and refitting the MP tray

Procedure

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

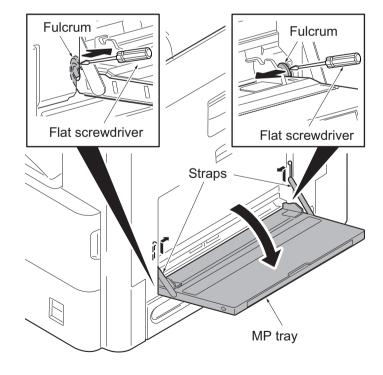


Figure 1-5-25

1-5-4 Developing section

(1) Detaching and refitting the developing unit

Procedure

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

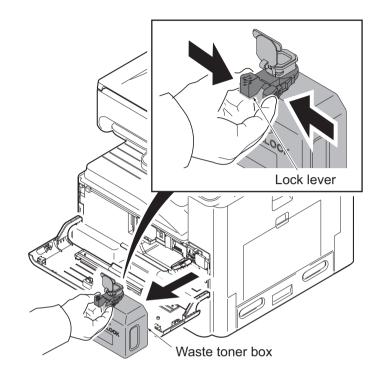
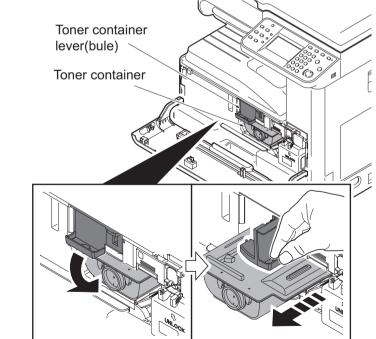


Figure 1-5-26



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



4. Release the lock lever (yellow).

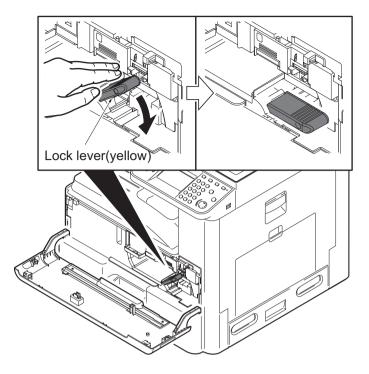


Figure 1-5-28

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

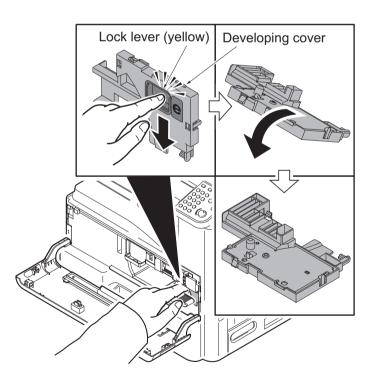


Figure 1-5-29

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

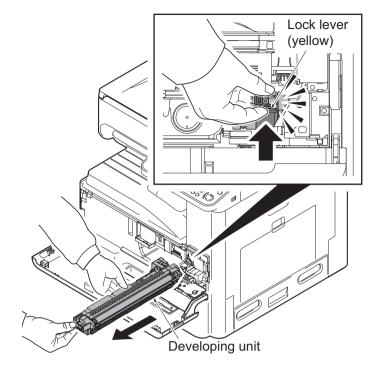


Figure 1-5-30

1-5-5 Drum section

(1) Detaching and refitting the drum unit

Procedure

- 1. Open the front cover. (See page 1-5-3)
- 2. Release the waste toner box. (See page 1-5-16)
- Release the lock lever and then open the developing cover. (See page 1-5-17)
- 4. Open the right cover 1. (See page1-5-11)
- 5. Release the lock lever (yellow) and then remove the drum unit.
- 6. Check or replace the drum unit and refit all the removed parts.

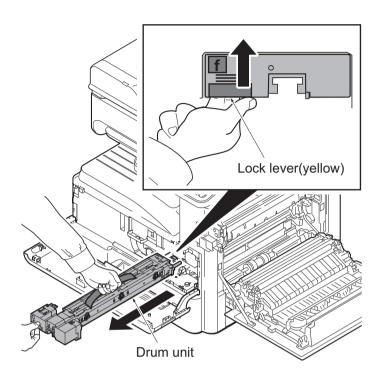
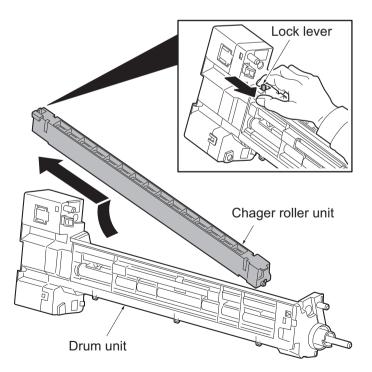


Figure 1-5-31

(2) Detaching and refitting the chager roller unit

Procedure

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





1-5-6 Transfer/separation section

(1) Detaching and refitting the transfer roller unit

Procedure

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

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

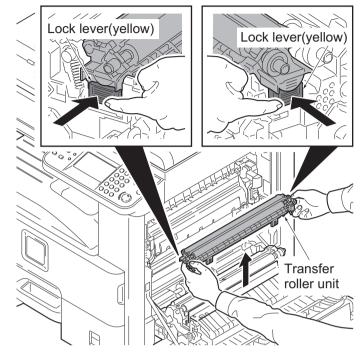


Figure 1-5-33

1-5-7 Fuser section

(1) Detaching and refitting the fuser unit

Procedure

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

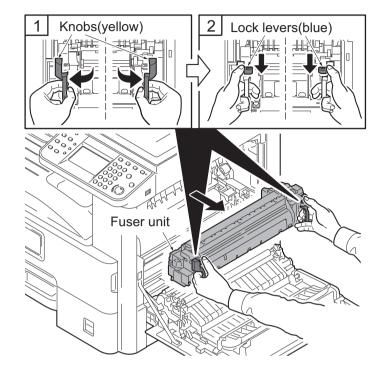


Figure 1-5-34

1-5-8 Drive section

(1) Detaching and refitting the main motor

Procedure

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

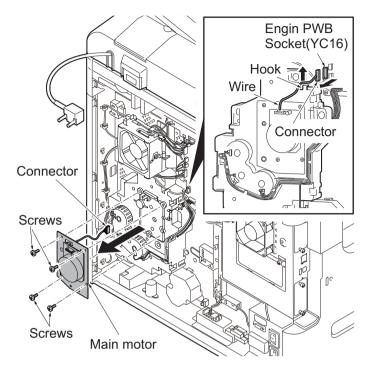


Figure 1-5-35

(2) Detaching and refitting the drive unit

Procedure

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

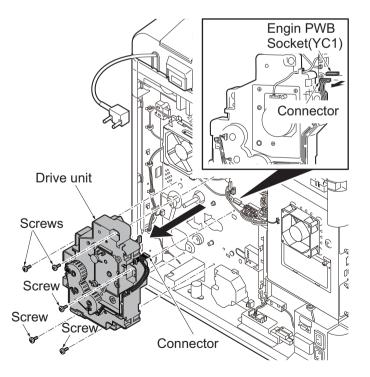


Figure 1-5-36

1-5-9 Optical section

(1) Detaching and refitting the laser scanner unit

Procedure

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

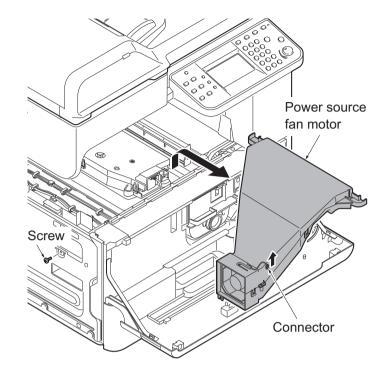


Figure 1-5-37

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

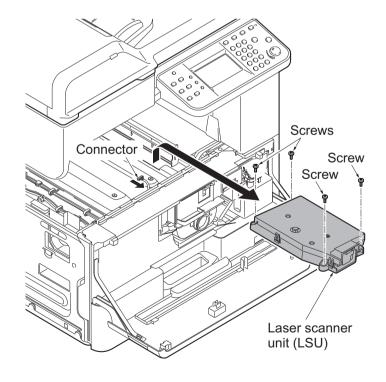


Figure 1-5-38

(2) Detaching and refitting the image scanner unit

Procedure

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

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

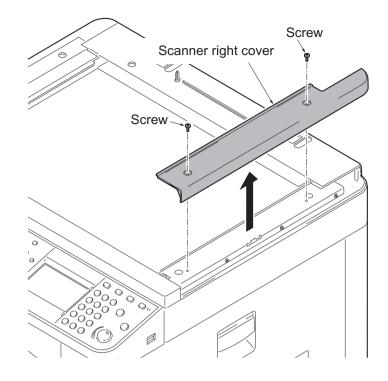


Figure 1-5-39

3. Remove the platen.

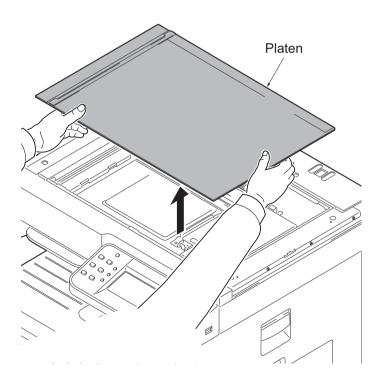


Figure 1-5-40

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

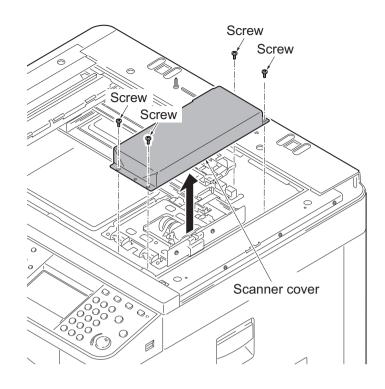


Figure 1-5-41

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

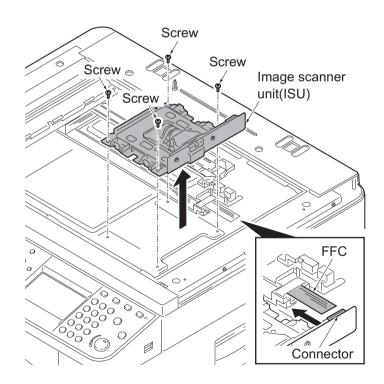


Figure 1-5-42

Refitting the ISU

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

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

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

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

The rear and front of machine: Match the edge (e) of ISU to the positioning line (d) on frame side.

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

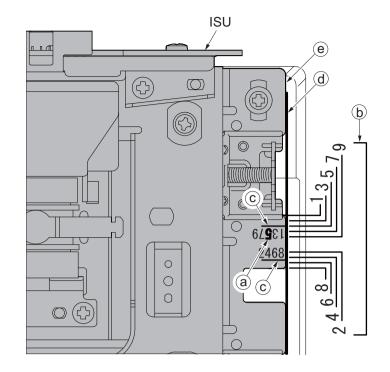


Figure 1-5-43

(3) Detaching and refitting the LED unit

Procedure

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

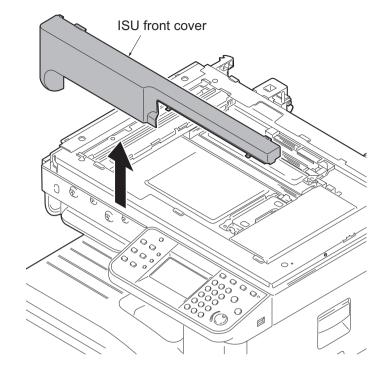


Figure 1-5-44

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

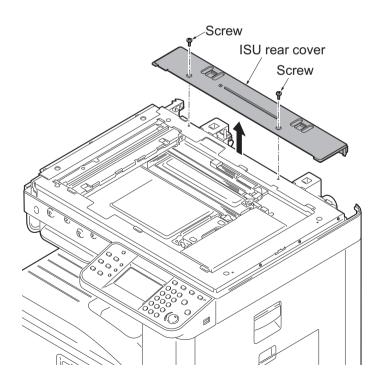


Figure 1-5-45

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

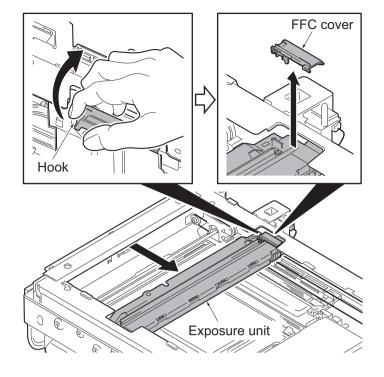


Figure 1-5-46

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

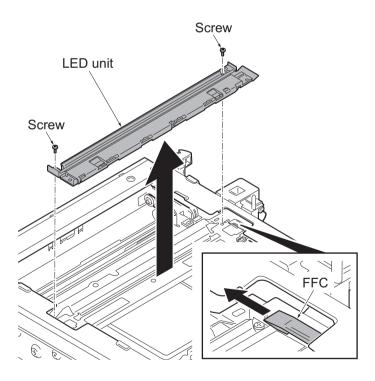


Figure 1-5-47

1-5-10 Document processer

(1) Detaching and refitting the document processer

Procedure

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

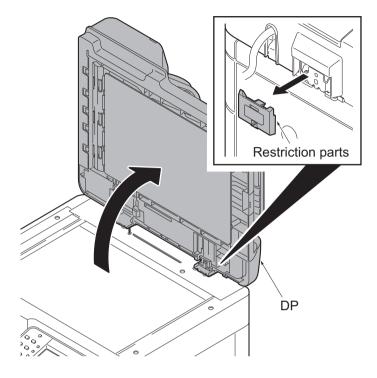


Figure 1-5-48

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

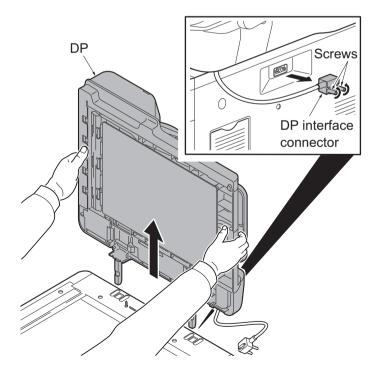


Figure 1-5-49

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

Procedure

1. Open the DP top cover.

2. Pull the DP paper feed lever (yellow)

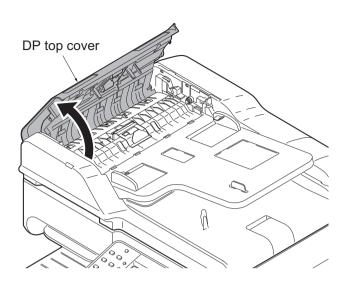


Figure 1-5-50

down and then open it. 3. Knock the DP paper feed roller down forward. DP paper feed roller DP paper feed roller DP paper feed roller DP paper feed roller

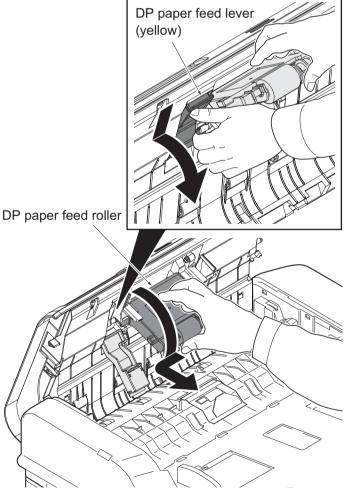


Figure 1-5-51

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

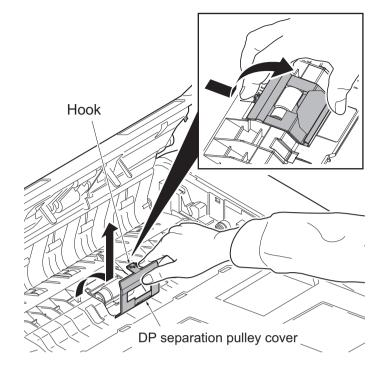


Figure 1-5-52

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



(3) Detaching and refitting the DP main PWB

Procedure

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

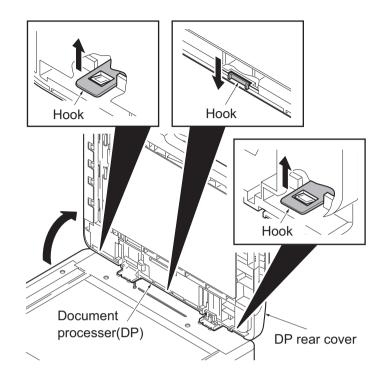


Figure 1-5-54

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

Figure 1-5-55

/

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

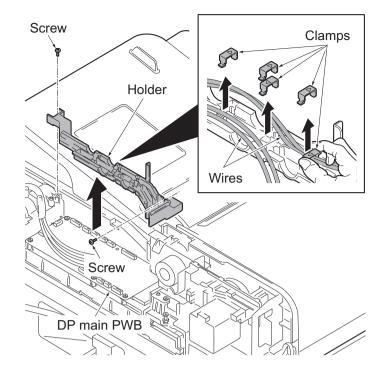


Figure 1-5-56

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

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

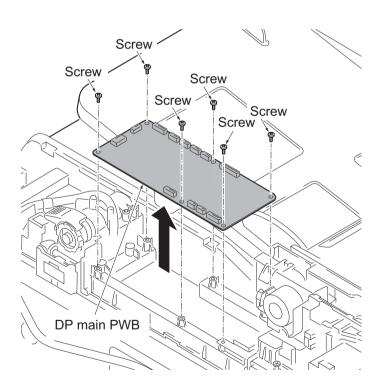


Figure 1-5-57

1-5-11 PWBs

(1) Detaching and refitting the main PWB

Procedure

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

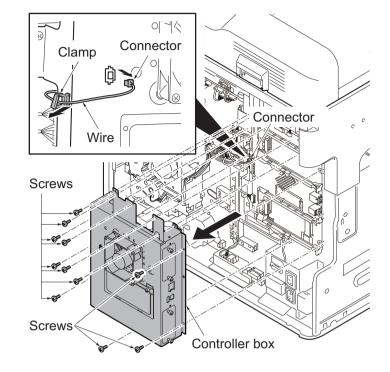


Figure 1-5-58

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

CAUTION: When replacing the main board, perform a re-setup in maintenance mode with reference to "1-6-2 Remarks on PWB replacement (See page 1-6-3)".

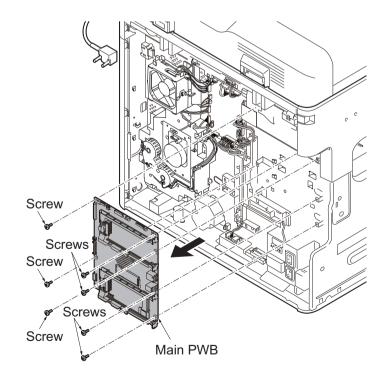


Figure 1-5-59

(2) Detaching and refitting the engine PWB

Procedure

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

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

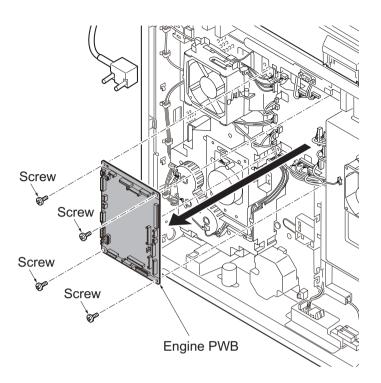
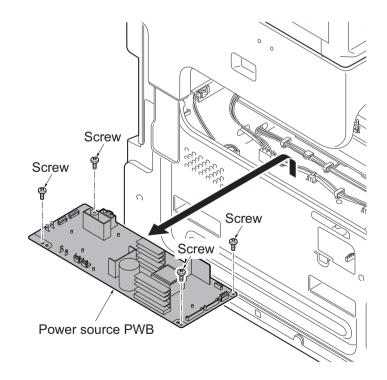


Figure 1-5-60

(3) Detaching and refitting the power source PWB

Procedure

- 1. Remove the rear cover and inner tray.(See page 1-5-5,1-5-6)
- 2. Remove the power source fan motor.(See page 1-5-23)
- 3. Remove all 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.





(4) Detaching and refitting the operation panel PWB main

Procedure

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

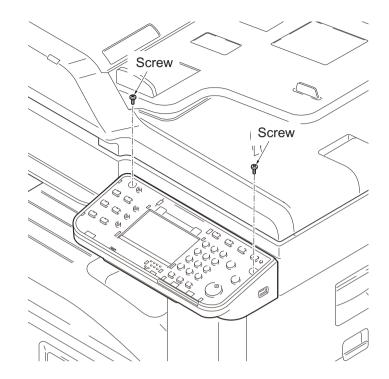


Figure 1-5-62

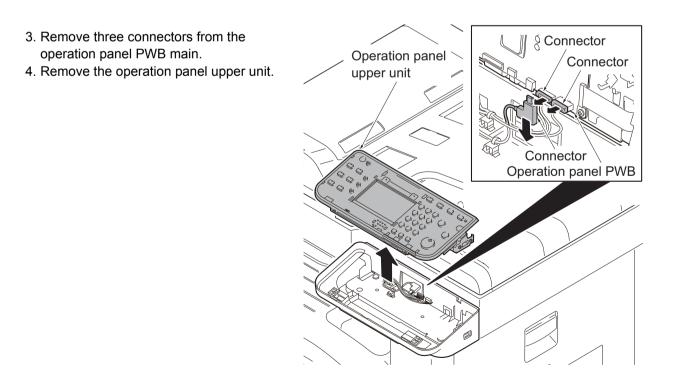


Figure 1-5-63

- 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.

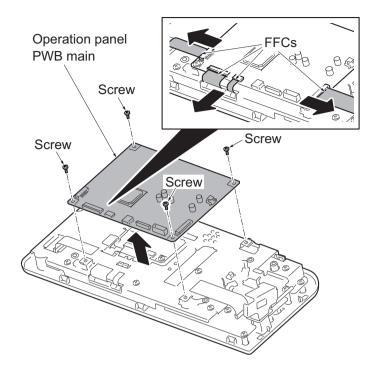


Figure 1-5-64

(5) Detaching and refitting the high voltage PWB

Procedure

1. Remove the rear cover, inner tray and eject rear cover.

(See page 1-5-5,1-5-6 and 1-5-8)

- 2. Remove the FFC from the high voltage PWB.
- 3. Remove four screws and then remove the high voltage PWB.
- 4. Check or replace the high voltage PWB and refit all the removed parts.

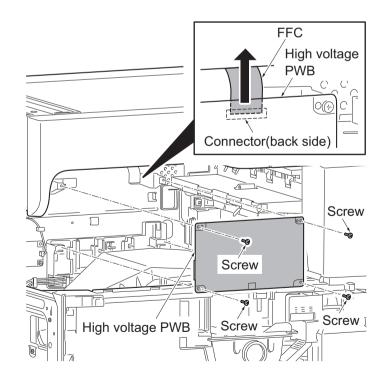


Figure 1-5-65

1-5-12 Others

(1) Detaching and refitting the language sheet

Procedure

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

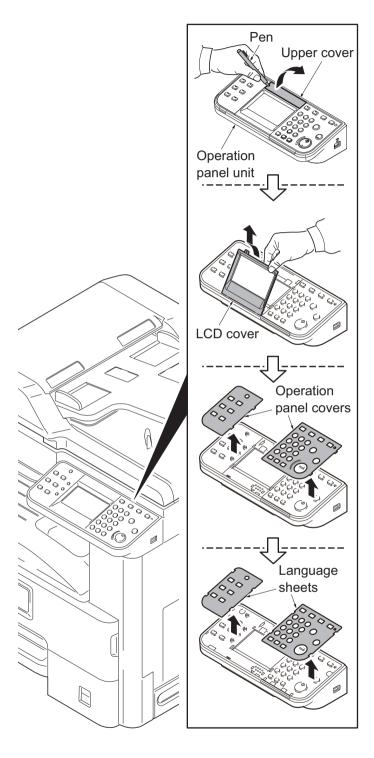


Figure 1-5-66

(2) Detaching and refitting the conveying unit

Procedure

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

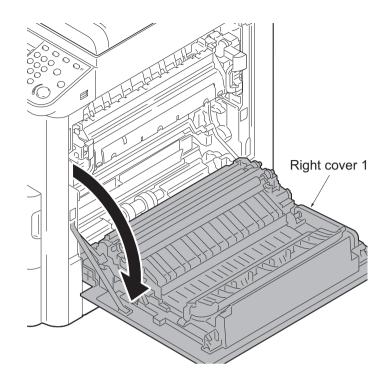


Figure 1-5-67

3. Remove two screws and then remove two straps.

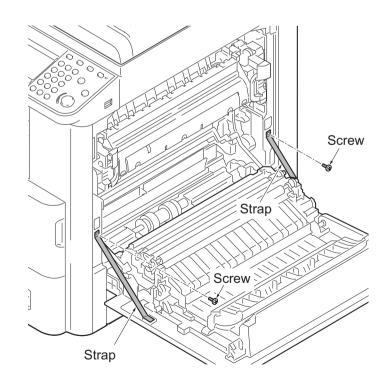


Figure 1-5-68

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

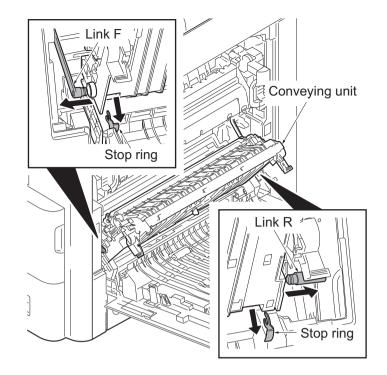


Figure 1-5-69

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

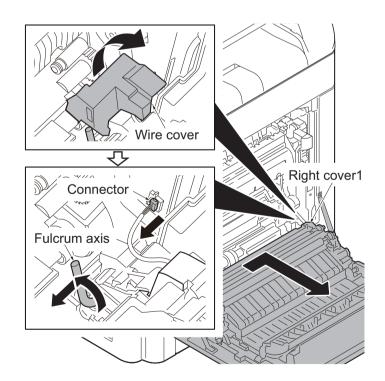
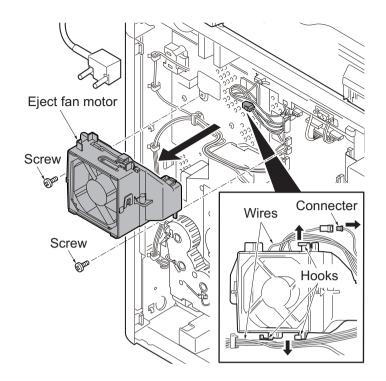


Figure 1-5-70

(3) Detaching and refitting the eject fan motor

Procedure

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





(4) Direction of installing the principal fan motors

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

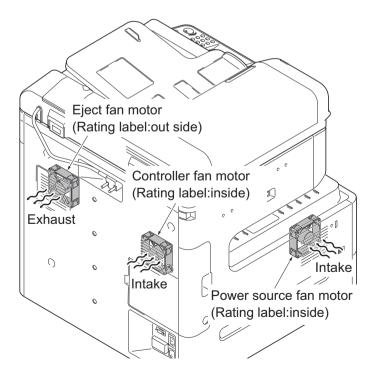


Figure 1-5-72

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)
- * Engine IO PWB (IO)

Preparation

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

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

* Engine PWB (ENGN)

* Language data (OPT)

* Dictionary data (DIC)

* Operation panel PWB (PANL)

* FAX PWB (FAX)

Procedure

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

 $CTRL \rightarrow DP \rightarrow PF \rightarrow DF \rightarrow AK \rightarrow IO$ \rightarrow ENGN \rightarrow FAX \rightarrow OPT \rightarrow DIC \rightarrow PANL

Firmware Update CTRL xxx%

The first line: The third line:

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

Caution:

SAMPLE:

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

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

'0₀ OUSB memory slot \cap 0 00 E **USB** memory

Figure 1-6-1

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.2MW] to [KM_EMRG.2MW] 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.
- Rewriting of the PWB software will start for restoration. The memory and attention LEDs will be blinking.
- 5. Only the Memory LED will be blinking when rewriting is successful.
 - * : Only the Attention LED will be blinking when rewriting is failed.
- 6. Turn the main power switch off.
- 7. Wait for several seconds and then remove the 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.
- 10. Perform steps 3 to 8 on the previous page.
- 11. Turn the main power switch on.
- 12. Perform maintenance item U000 (Print a maintenance report) to check that the version of ROM U109 has been upgraded.

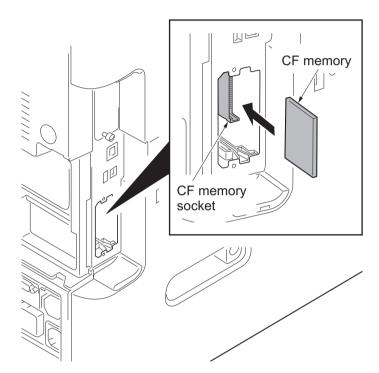


Figure 1-6-2

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.

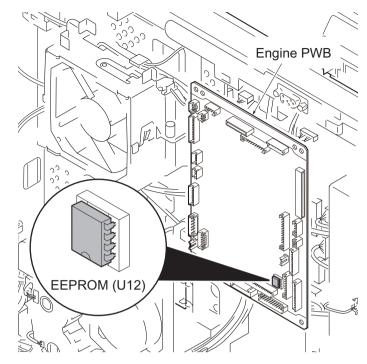


Figure 1-6-3

(2) DP main PWB

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

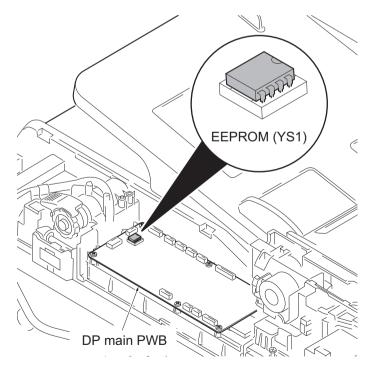


Figure 1-6-4

(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
- 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.
- Import data if any was exported from the machine before replacing the main board by using the maintenance mode U917. (The export and import is also available via KM-Net Viewer)
- 5. Register the initial user settings and FAX settings from the system menu or command center.
- 6. Execute the maintenance mode as below if necessary.

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

2-1-1 Paper feed/conveying section

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

(1) Cassette paper feed section

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

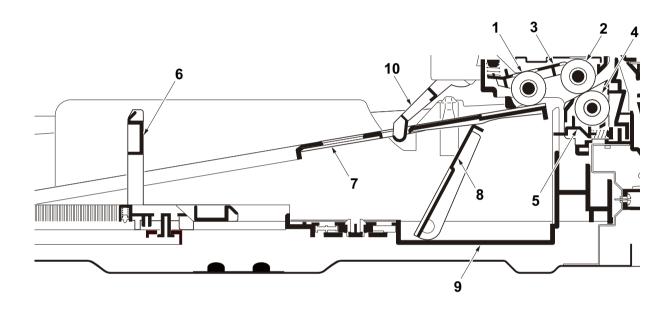


Figure 2-1-1 Cassette paper feed section

- 1. Pickup roller
- 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)

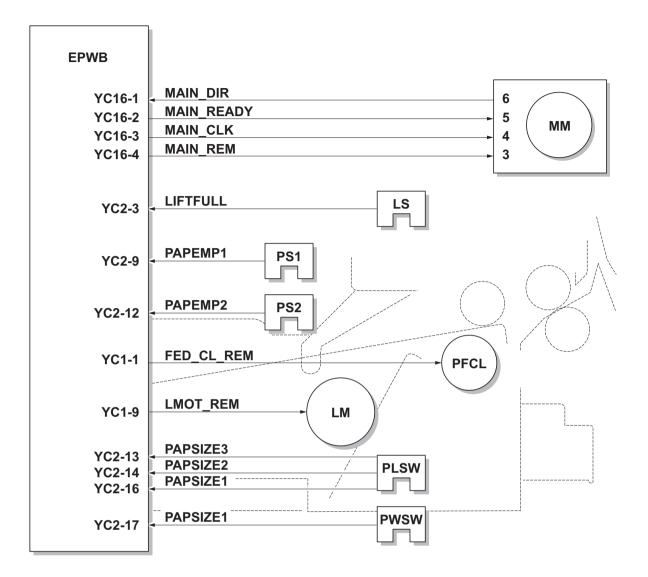


Figure 2-1-2 Cassette paper feed section block diagram

(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.

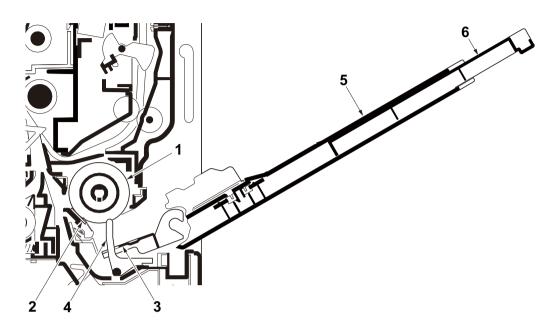


Figure 2-1-3 MP tray paper feed section

- 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

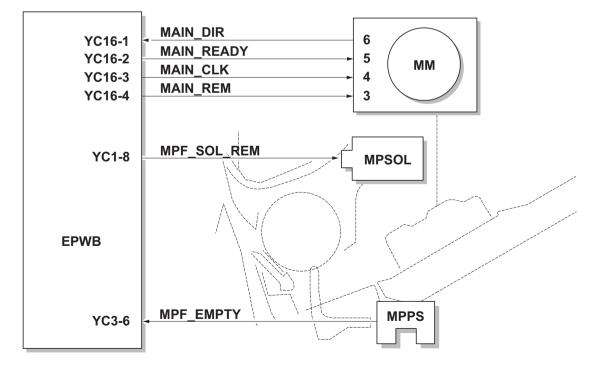


Figure 2-1-4 MP tray paper feed section block diagram

(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.

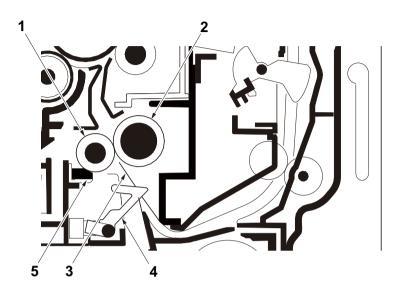


Figure 2-1-5 Conveying section

5. Registration cleaner

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

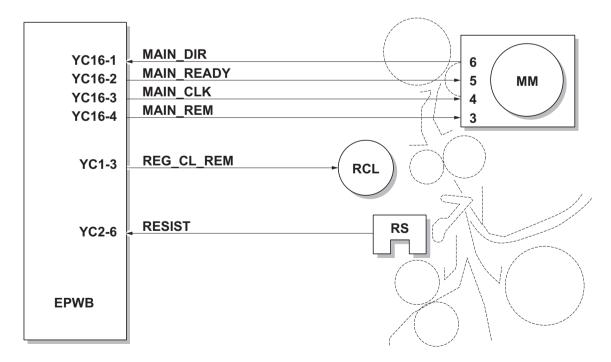


Figure 2-1-6 Paper conveying section block diagram

2-1-2 Drum section

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

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

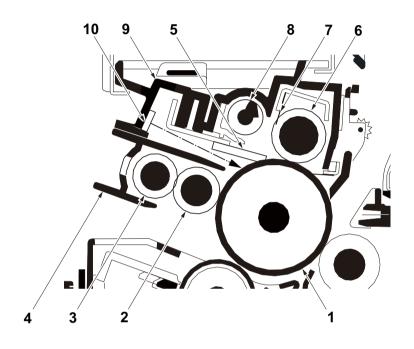


Figure 2-1-7 Drum section

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

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

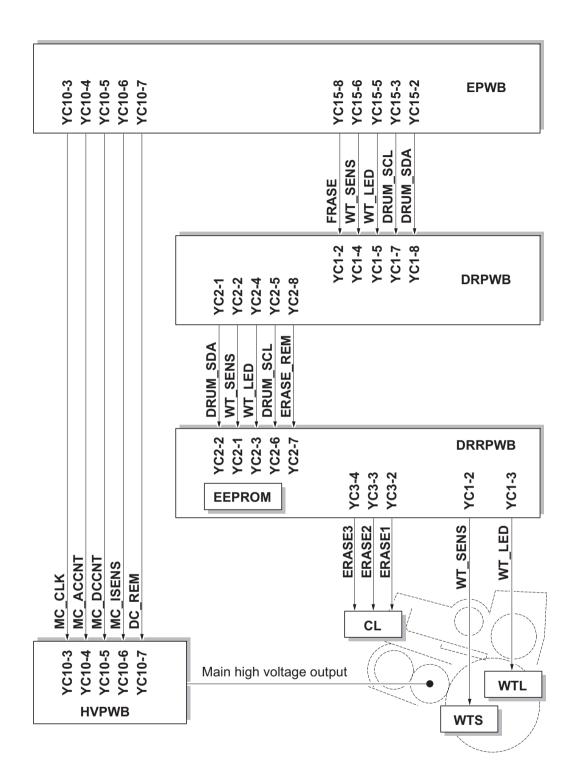


Figure 2-1-8 Drum section block diagram

2-1-3 Developing section

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

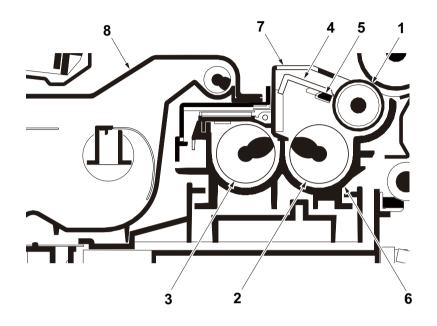


Figure 2-1-9 Developing section

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

- 5. Magnet blade
- 6. Developer case
- 7. Upper developer cover
- 8. Toner container

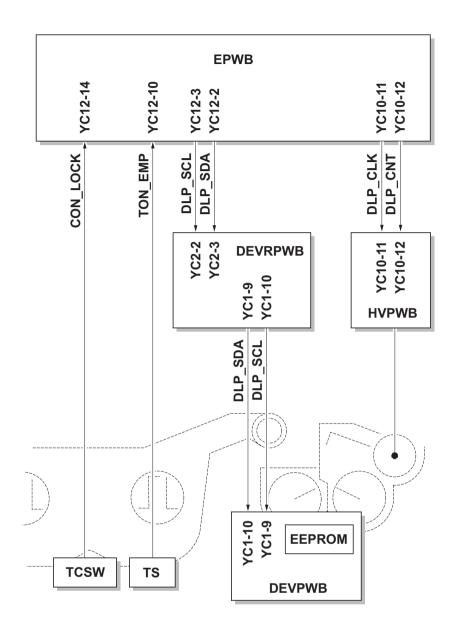


Figure 2-1-10 Developing section block diagram

2-1-4 Optical section

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

(1) Image scanner section

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

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

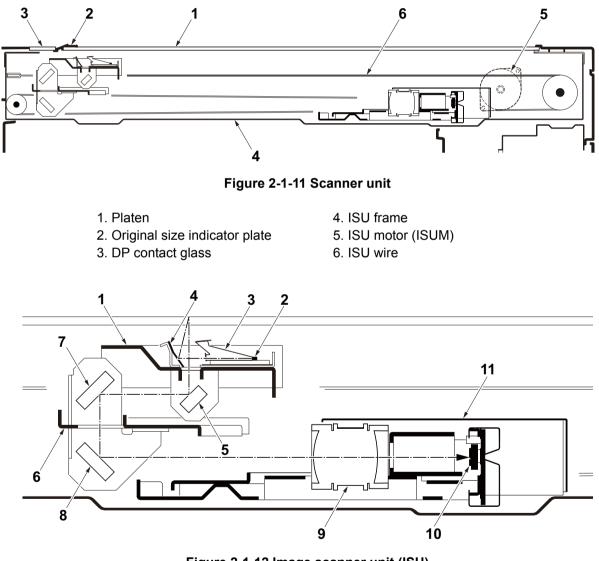


Figure 2-1-12 Image scanner unit (ISU)

- 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

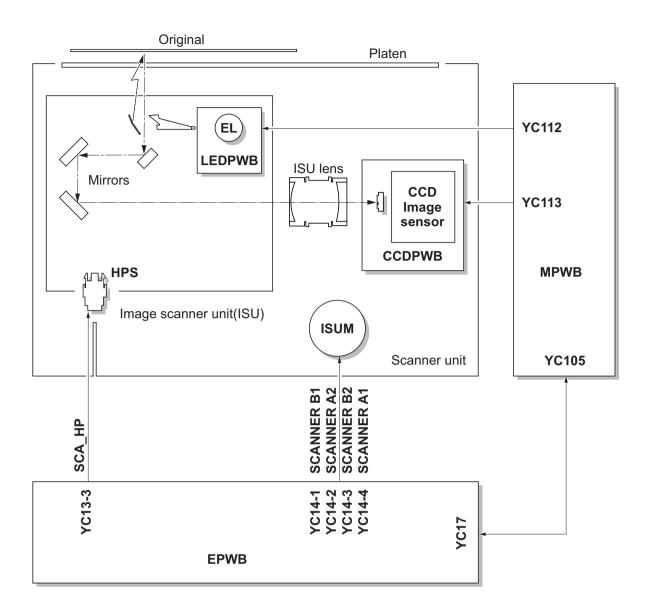


Figure 2-1-13 Scanner unit block diagram

(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.

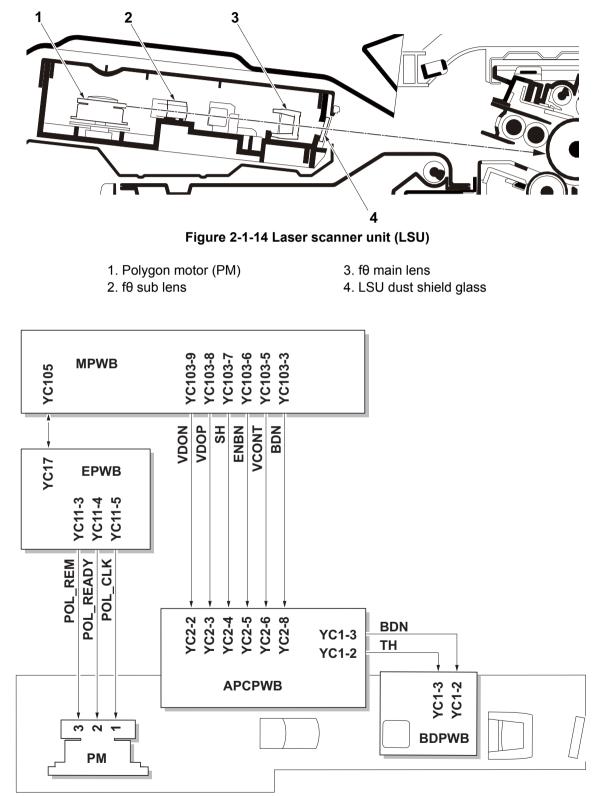


Figure 2-1-15 Laser scanner unit block diagram

2-1-5 Transfer/Separation section

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

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

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

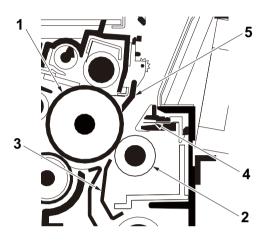


Figure 2-1-16 Transfer/Separation section

1. Drum

2. Transfer roller

3. Paper chute guide

- 4. Separation needle
- 5. Drum separation claws

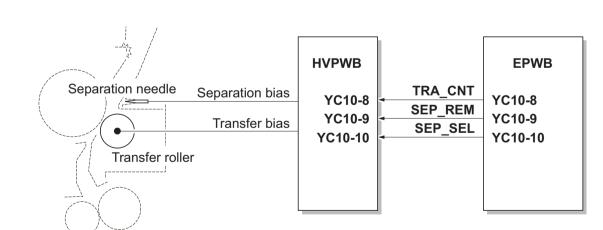


Figure 2-1-17 Transfer/Separation section block diagram

2-1-6 Fuser section

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

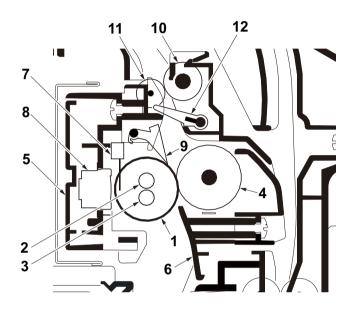


Figure 2-1-18 Fuser section

- 1. Heat roller
- 2. Fuser heater 1(FH1)
- 3. Fuser heater 2(FH2)
- 4. Press roller
- 5. Upper fuser frame
- 6. Fuser paper guide

- 7. Fuser thermistor (FTH)
- 8. Fuser thermostat (FTS)
- 9. Separators
- 10. Eject roller
- 11. Eject pulley
- 12. Actuater(eject sensor)

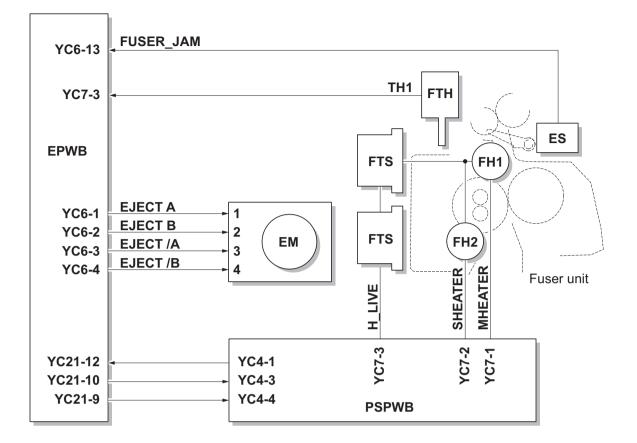


Figure 2-1-19 Fuser section block diagram

2-1-7 Eject/Feedshift section

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

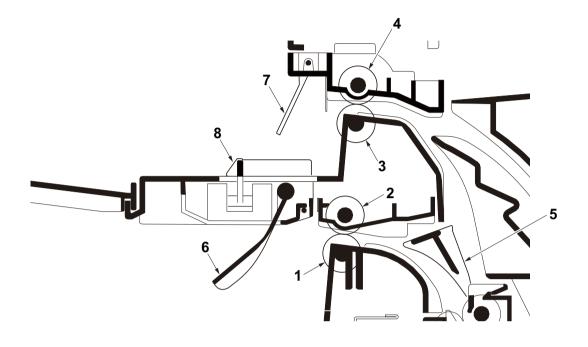


Figure 2-1-20 Eject/Feedshift section

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

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

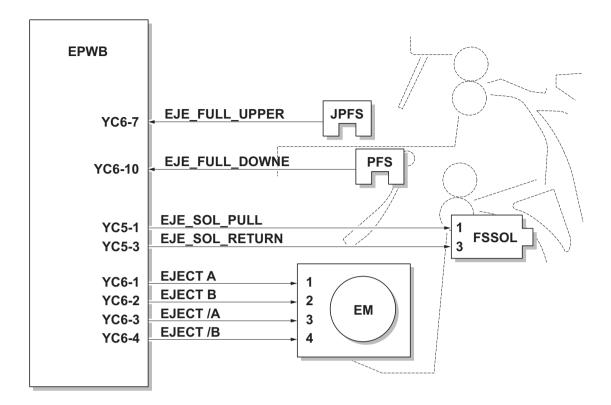
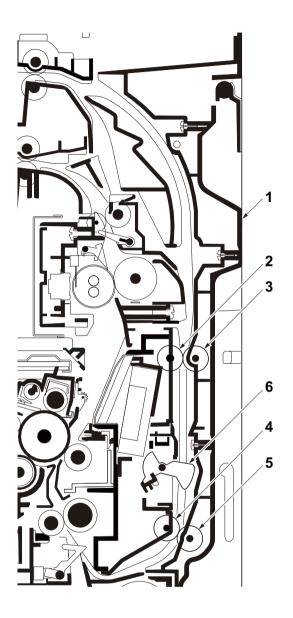


Figure 2-1-21 Eject/Feed shift section block diagram

2-1-8 Duplex conveying section

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





- 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. Actuater(duplex sensor)

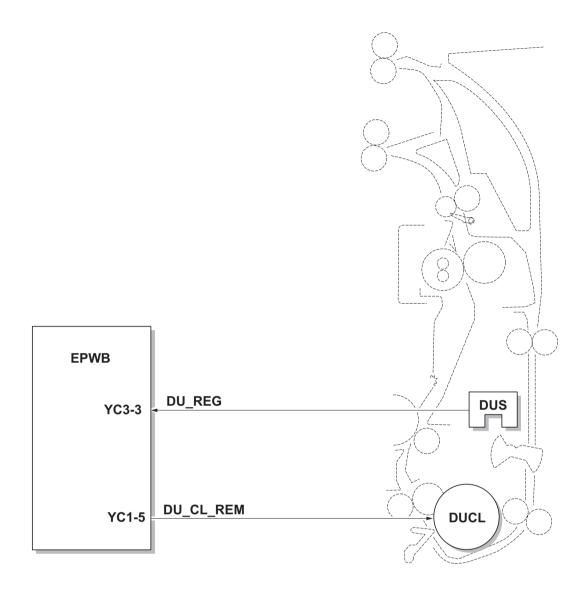


Figure 2-1-23 Duplex conveying section block diagram

2-1-9 Document processor

(1) Original feed section

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

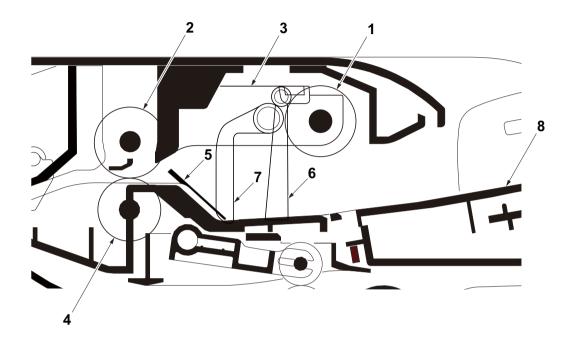


Figure 2-1-24 Original feed section

- 1. DP forwarding pulley
- 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

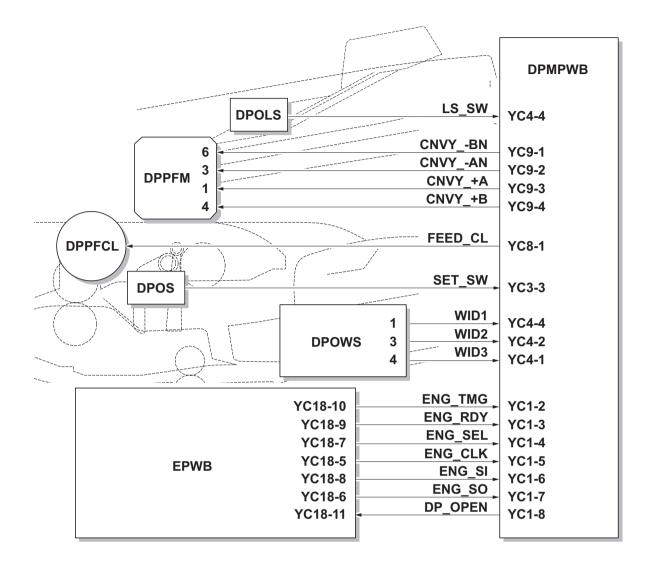


Figure 2-1-25 Original feed section block diagram

(2) Original conveying section

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

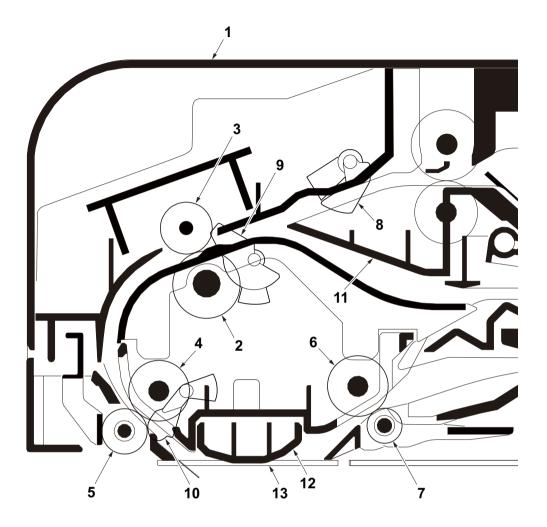


Figure 2-1-26 Original conveying section

- 1. DP top cover
- 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

2MW/2MX

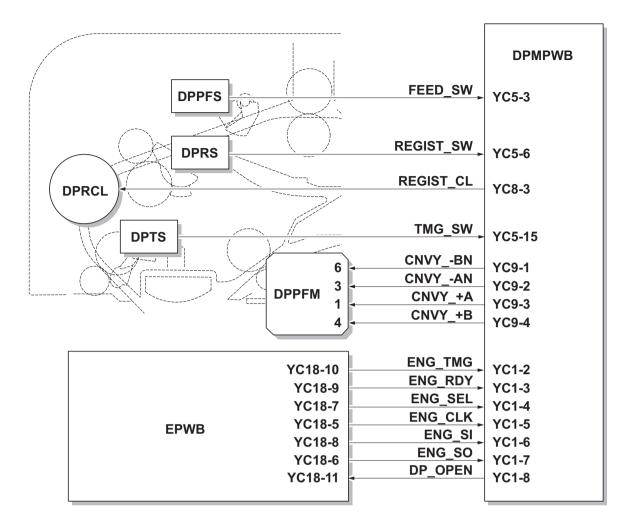


Figure 2-1-27 Original conveying section block diagram

(3) Original switchback/eject sections

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

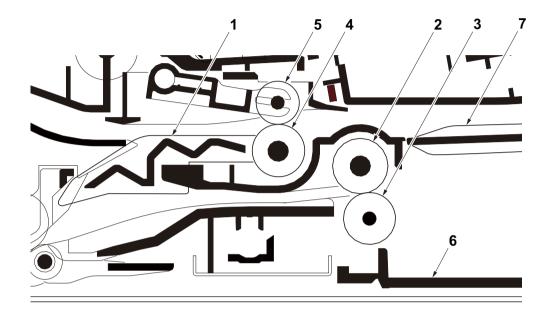


Figure 2-1-28 Original switchback/eject sections

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

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

2MW/2MX

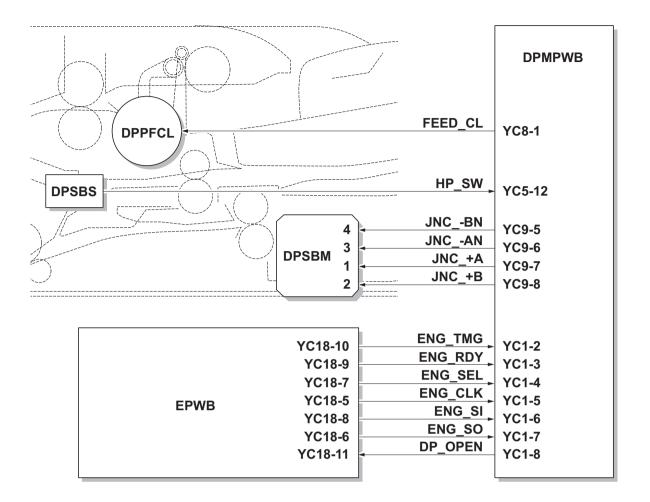
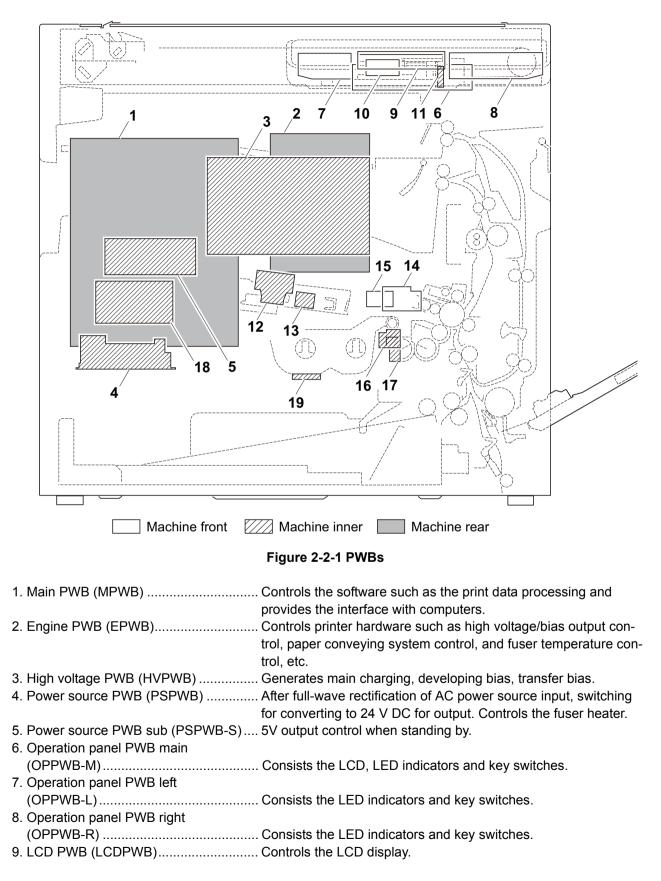


Figure 2-1-29 Original switchback/eject sections block diagram

2-2-1 Electrical parts layout

(1) PWBs



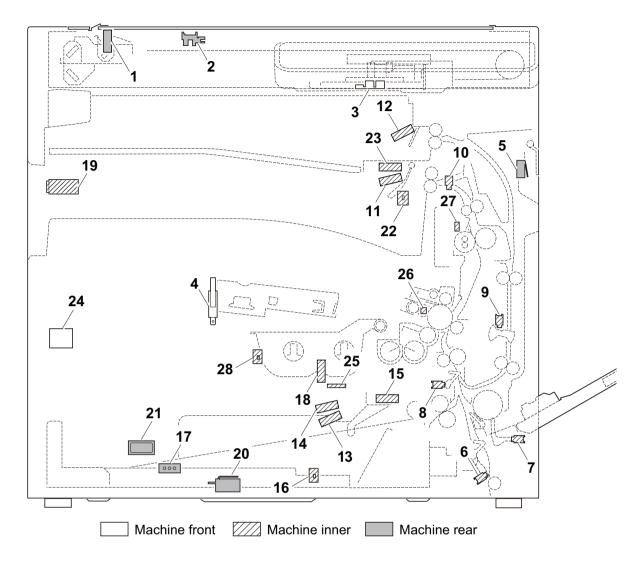
10. LCD relay PWB (LCDRPWB)	. Consists of wiring relay circuit between operation panel PWB main and LCD PWB.
11. CCD PWB (CCDPWB)	. Reads the image of originals.
12. APC PWB (APCPWB)	. Generates and controls the laser beam.
13. BD PWB (PDPWB)	. Controls horizontal synchronizing timing of laser beam.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

*1: Excluding 120V ACmodel

List of correspondences of PWB names

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

(2) Switches and sensors





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

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

(3) Motors

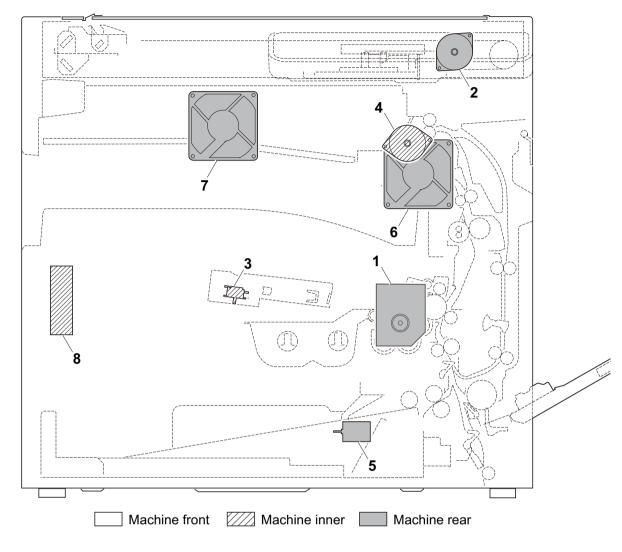
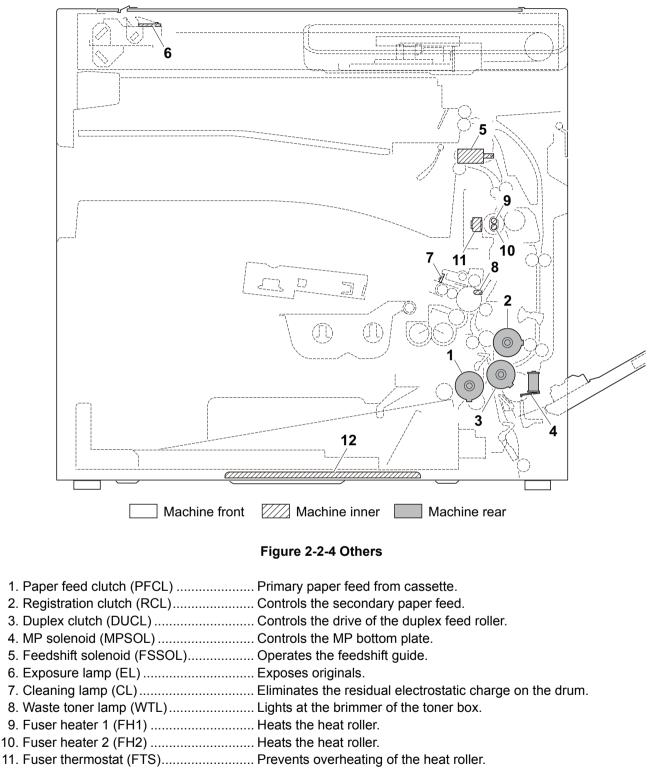


Figure 2-2-3 Motors

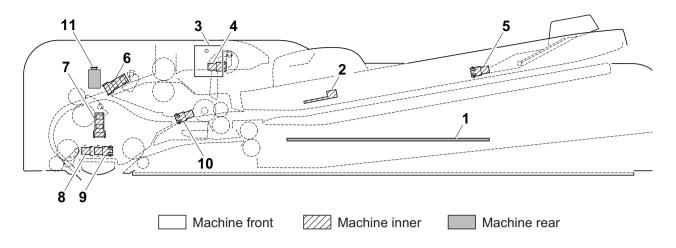
- 1. Main motor (MM)..... Drives the paper feed section and conveying section.
- 2. ISU motor (ISUM) Drives the ISU.
- 3. Polygon motor (PM)..... Drives the polygon mirror.
- 4. Eject motor (EM)..... Drives the fuser section and eject section.
- 5. Lift motor (LM)..... Operates the bottom plate.
- 6.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

(4) Others



12. Cassette heater (CH) Dehumidifies the cassette section.

(5) Document processor (PWBs and sensors)





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

List of correspondences of PWB names

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

(6) Document processor (Motors and clutches)

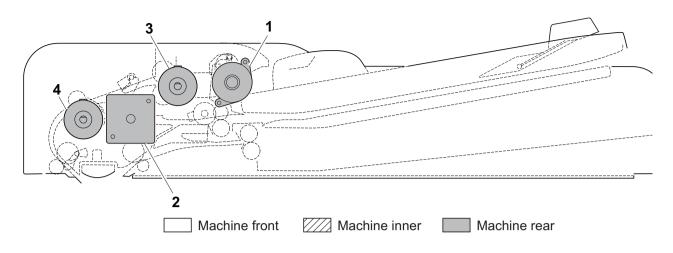


Figure 2-2-6 Document processor

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

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2-3-1 Main PWB

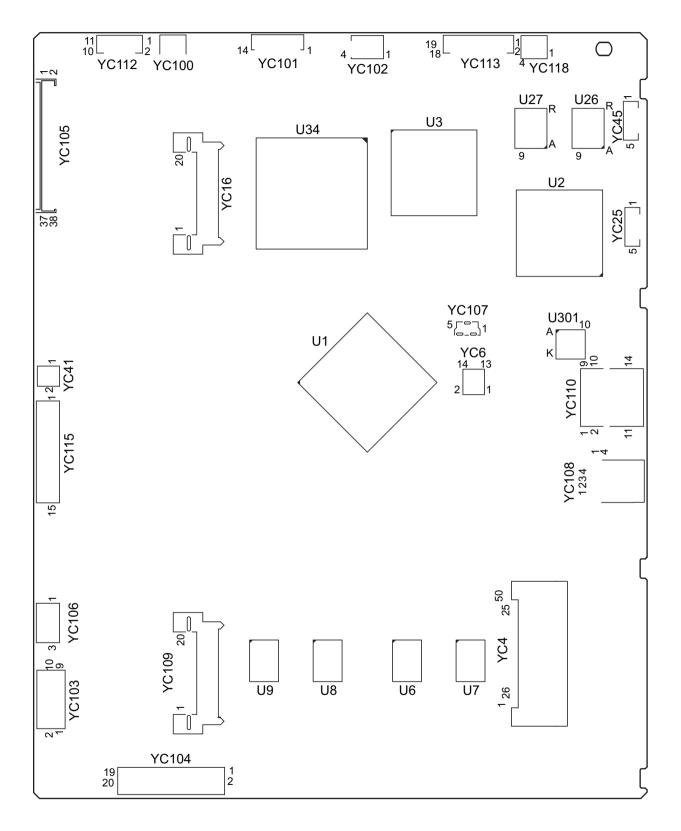


Figure 2-3-1 Main PWB silk-screen diagram

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
main(00D)	5	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	Ι	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 OWERON	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_N	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 source)	4	GND	-	-	Ground

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

Connector	Pin	Signal	I/O	Voltage	Description
YC105	26	OVSYNCMON	0	0/3.3 V DC	Sub-scanning monitor signal
Connected to	27	PAGEST	I	0/3.3 V DC	Sub-scanning standard signal
engine PWB	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	T	0/3.3 V DC(pulse)	Serial communication data signal intput
	31	EME_BSY	Т	0/3.3 V DC	Busy signal
	32	EME_DIR	T	0/3.3 V DC	Communication direction change signal
	33	EME_IRN	T	0/3.3 V DC	Interrupt signal
	34	5V4IL	-	DC5 V	5 V DC power input from EPWB
	35	BDN	0	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	36	VCONT	T	Analog	Leser control signal
	37	OUTPEN	T	0/3.3 V DC	Laser output permission signal
	38	N.C.	-	-	Not used
YC106 *1	1	GND	-	-	Ground
Connected to	2	RLYREM	0	0/5 V DC	relay drive signal
relay PWB	3	5V0	I	5 V DC	5 V DC power input from RYPWB
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	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	Ι	0/3.3 V DC	Error signal
	11	5V4	0	5 V DC	5 V DC power output to LEDPWB
*1: Excluding 1					

*1: Excluding 120V AC model

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)	I	Analog	CCD Image output signal(B)
	16	GND	-	-	Ground
	17	OS2(G)	I	Analog	CCD Image output signal(G)
	18	GND	-	-	Ground
	19	OS3(R)	I	Analog	CCD Image output signal(R)
YC115	1	DEEPSLEEPN	0	0/3.3 V DC	Sleep signal: On/Off
Connected to	2	GND	-	-	Ground
power source PWB	3	GND	-	-	Ground
FVVD	4	GND	-	-	Ground
	5	GND	-	-	Ground
	6	GND	-	-	Ground
	7	GND	-	-	Ground
	8	GND	-	-	Ground
	9	5V2	I	5 V DC	5 V DC power input from PSPWB
	10	5V2	I	5 V DC	5 V DC power input from PSPWB
	11	5V2	I	5 V DC	5 V DC power input from PSPWB
	12	5V2	I	5 V DC	5 V DC power input from PSPWB
	13	5V2	I	5 V DC	5 V DC power input from PSPWB
	14	5V2	I	5 V DC	5 V DC power input from PSPWB
	15	5V2	I	5 V DC	5 V DC power input from PSPWB

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

2-3-2 Engine PWB

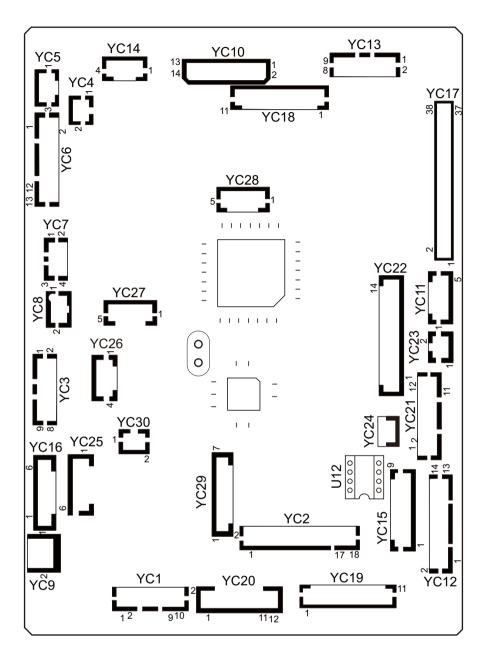


Figure 2-3-2 Engine PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	FEED_CL_RE	0	0/24 V DC	PFCL: On/Off
		Μ	_		
Connected to paper feed	2	24V4	0	24 V DC	24V DC power output to PFCL
clutch,	3	REG_CL_RE M	0	0/24 V DC	RCL: On/Off
registration	4	24V4	0	24 V DC	24V DC power output to RCL
clutch,	- 5	DU CL REM	0	0/24 V DC	DUCL: On/Off
duplex clutch, MP	6	24V4	0	24 V DC	24V DC power output to DUCL
solenoid and	7	24V4	0	24 V DC	24V DC power output to MPSOL
lift motor	, 8	MPF_SOL_R	0	0/24 V DC	MPSOL: On/Off
	0	EM	0	0,24 V 00	
	9	LMOT_REM	0	0/24 V DC	LM: On/Off
	10	24V4	0	24 V DC	24V DC power output to LM
YC2	1	3.3VLED	0	3.3V DC	3.3V DC power output to LS
Connected to	2	GND	-	-	Ground
lift sensor,	3	LIFTFULL	I	0/3.3 V DC	LS: On/Off
registration sensor,	4	3.3VLED	0	3.3V DC	3.3V DC power output to RS
paper	5	GND	-	-	Ground
sensor1, 2,	6	RESIST	I	0/3.3 V DC	RS: On/Off
paper size length switch	7	3.3VLED	0	3.3V DC	3.3V DC power output to PS1
and paper	8	GND	-	-	Ground
size width	9	PAPEMP1	I	0/3.3 V DC	PS1: On/Off
switch	10	3.3VLED	0	3.3V DC	3.3V DC power output to PS2
	11	GND	-	-	Ground
	12	PAPEMP2	I	0/3.3 V DC	PS2: On/Off
	13	PAPLSIZE3	T	0/3.3 V DC	PLSW: On/Off
	14	PAPLSIZE2	Ι	0/3.3 V DC	PLSW: On/Off
	15	GND	-	-	Ground
	16	PAPLSIZE1	I	0/3.3 V DC	PLSW: On/Off
	17	PAPWSIZE1	I	0/3.3 V DC	PWSW: On/Off
	18	GND	-	-	Ground

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	3.3VLED	0	3.3 V DC	3.3 V DC power output to DUS
Connected to	2	GND	-	-	Ground
duplex	3	DU_REG	I	0/3.3 V DC	DUS: On/Off
sensor, MP paper sensor	4	3.3VLEDDS	0	3.3 V DC	3.3 V DC power output to MPPS
and feed	5	GND	-	-	Ground
sensor	6	MPF_EMPTY	Ι	0/3.3 V DC	MPPS: On/Off
	7	3.3VLED	0	3.3 V DC	3.3 V DC power output to FS
	8	GND	-	-	Ground
	9	PAPER_JAM	Ι	0/3.3 V DC	FS: On/Off
YC4	1	24V4	0	24 V DC	24 V DC power output to EFM
Connected to	2	EJECT_FAN_	0	0/24 V DC	EFM: On/Off
eject fan		REM			
motor				0/04.)/ D.O	
YC5	1	EJE_SOL_PUL	0	0/24 V DC	FSSOL: On(Pressurizing)/Off
Connected to feedshift	2	+24V4	0	24 V DC	24 V DC power output to FSSOL
solenoid	3	EJE_SOL_RE	0	0/24 V DC	FSSOL: On(Release)/Off
YC6	1	EJECT A	0	0/24 V DC(pulse)	EM drive control signal
Connected to	2	EJECT B	Ο	0/24 V DC(pulse)	EM drive control signal
eject	3	EJECT /A	Ο	0/24 V DC(pulse)	EM drive control signal
motor,job	4	EJECT /B	0	0/24 V DC(pulse)	EM drive control signal
paper full sensor,	5	3.3VLED	ο	3.3 V DC	3.3 V DC power output to JPFS
paper full	6	GND	-	-	Ground
sensor and eject sensor	7	EJE_FULL_U PPER	Ι	0/3.3 V DC	JPFS: On/Off
	8	3.3VLED	ο	3.3 V DC	3.3 V DC power output to PFS
	9	GND	-	-	Ground
	10	EJE_FULL_D OWNER	I	0/3.3 V DC	PFS: On/Off
	11	3.3VLED	ο	3.3 V DC	3.3 V DC power output to ES
	12	GND	-	-	Ground
	13	FUSER_JAM	I	0/3.3 V DC	ES: On/Off
YC7	1	3.3V4	0	3.3 V DC	3.3 V DC power output to FTH
Connected to	2	GND	-	-	Ground
fuser	3	TH1	Ι	Analog	FTH Detection voltage
thermistor	4	TH2	Ι	Analog	FTH Detection voltage

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

Connector	Pin	Signal	I/O	Voltage	Description
YC12	1	GND	-	-	Ground
Connected to	2	DLP_SDA	I/O	0/3.3 V DC(pulse)	DEVPWB EEPROM data signal
developing	3	DLP_SCL	0	0/3.3 V DC(pulse)	DEVPWB EEPROM clock signal
relay PWB,RFID	4	3.3V4	0	3.3 V DC	3.3 V DC power output to DEVPWB
PWB,toner	5	GND	-	-	Ground
sensor,toner	6	RFID_SDA	I/O	0/3.3 V DC(pulse)	RFPWB EEPROM data signal
container	7	RFID_SCL	0	0/3.3 V DC(pulse)	RFPWB EEPROM clock signal
lock sensor and toner	8	3.3V4	0	3.3 V DC	3.3 V DC power output to RFPWB
container	9	3.3V4	0	3.3 V DC	3.3 V DC power output to TS
switch	10	TON_EMP	Ι	0/3.3 V DC	TS: On/Off
	11	GND	-	-	Ground
	12	3.3VLED	ο	3.3 V DC	3.3 V DC power output to TCLS
	13	GND	-	-	Ground
	14	CON_LOCK	I	0/3.3 V DC	TCLS: On/Off
	15	- TCONSET	I	0/3.3 V DC	TCSW: On/Off
	16	GND	-	-	Ground
YC13	1	3.3VLED	0	3.3 V DC	3.3 V DC power output to HPS
Connected to	2	GND	-	-	Ground
home position	3	SCA_HP	I	0/3.3 V DC	HPS: On/Off
sensor,origin	4	3.3VLED	0	3.3 V DC	3.3 V DC power output to ODSW
al detection	5	GND	-	-	Ground
switch and	6	SCA_COVER	I	0/3.3 V DC	ODSW: On/Off
original size sensor	7	GND	-	-	Ground
3611301	8	SCA_SIZE	0	0/3.3 V DC	OSS: On/Off
	9	5V4	I	5 V DC	5 V DC power output to OSS
YC14	1	SCANNER B1	0	0/24 V DC(pulse)	ISUM drive control signal
Connected to	2	SCANNER A2	0	0/24 V DC(pulse)	ISUM drive control signal
ISU motor	3	SCANNER B2	0	0/24 V DC(pulse)	ISUM drive control signal
	4	SCANNER A1	0	0/24 V DC(pulse)	ISUM drive control signal
	-				

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

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

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

2-3-3 Power source PWB

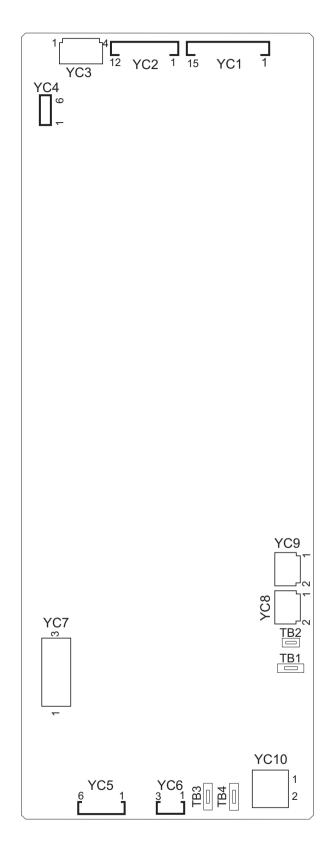


Figure 2-3-3 Main PWB silk-screen diagram

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

Connector	Pin	Signal	I/O	Voltage	Description
YC3	1	ILVCC	0	3.3 V DC	3.3 V DC power output to FCSW
Connected to	2	24V2	I	24 V DC	24 V DC power input from FCSW
front cover	3	NC	-	-	Not used
switch	4	24VIL1	0	24 V DC	24 V DC power output to FCSW
YC4	1	SELECT	I	0/3.3 V DC	Destination selection signal
Connected to	2	ZCROSS	0	0/3.3 V DC(pulse)	Zero-cross signal
engine PWB	3	RELAYREM	I	0/3.3 V DC	Power relay signal: On/Off
	4	MHREM	I	0/3.3 V DC	FH1: On/Off
	5	SHREM	I	0/3.3 V DC	FH2: On/Off
	6	CHREM	I	0/3.3 V DC	CH: On/Off
	7	ILVCC	I	3.3 V DC	3.3 V DC power input from MPWB
YC5	1	LIVE	0	120 V AC	AC power output to PFCH
				220-240 V AC	
Connected to	2	LIVE	0	120 V AC	AC power output to CH
paper feeder and cassette	•			220-240 V AC	
heater	3	NC	-	-	Not used
	4	NC	-	-	Not used
	5	NEUTRAL	0	120 V AC 220-240 V AC	AC power output to PFCH
	6	NEUTRAL	0	120 V AC	AC power output to CH
	-		-	220-240 V AC	
YC6	1	CH_SW	0	120 V AC	AC power output to CHSW
				220-240 V AC	
Connected to	2	NC	-	-	Not used
cassette heater switch	3	CH_COM	I	120 V AC	AC power input from CHSW
				220-240 V AC	
YC7	1		<u> </u>	0/120 V AC	
107	1	MHEATER	0	0/120 V AC 0/220-240 V AC	FH1: On/Off
Connected to	2	SHEATER	0	0/120 V AC	FH2: On/Off
fuser unit	_			0/220-240 V AC	
	3	H_LIVE	0	100V AC	AC power output to FH1,2

Connector	Pin	Signal	I/O	Voltage	Description
YC8	1	LIVE	0	120 V AC 220-240 V AC	AC power output
Connected to AC outlet	2	NEUTRAL	0	120 V AC 220-240 V AC	AC power output
YC9	1	LIVE	0	120 V AC 220-240 V AC	AC power output
Connected to power source PWB sub	2	NEUTRAL	Ο	120 V AC 220-240 V AC	AC power output
YC10 *2	1	AC_IN	I	120 V AC 220-240 V AC	AC power input
Connected to relay PWB	2	AC_OUT	0	120 V AC 120 V AC 220-240 V AC	AC power output

*2: Excluding 120V AC model

2-3-4 Operation panel PWB main

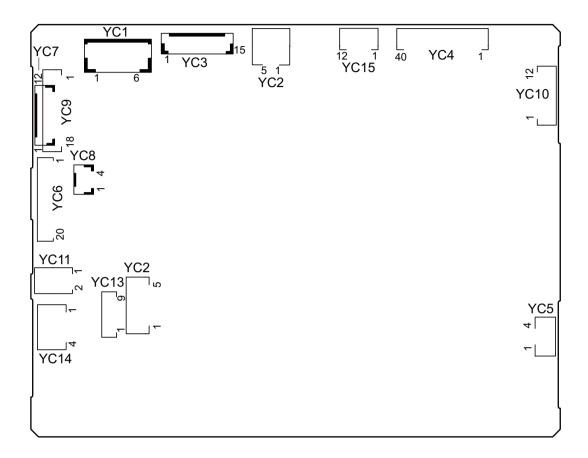


Figure 2-3-4 Operation panel PWB main silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	5V2	Ι	5 V DC	5 V DC power intput from MPWB
Connected to	2	5V2	Ι	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_SW	Ι	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	Ι	0/3.3 V DC	Attention LED control signal
	8	LED_PROCE SSING_N	Ι	0/3.3 V DC	Processing LED control signal
	9	SHUTDOWN	Ι	0/3.3 V DC	24 V down signal
	10	LIGHTOFF_P OWERON	I	0/3.3 V DC	Sleep return signal 1
	11	AUDIO	Ι	Analog	Voice output signal
	12	PANEL_RESE T	Ι	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	СК	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	0	0/3.3 V DC	LCD Control signal
	12	R4	0	0/3.3 V DC	LCD Control signal
	13	R5	0	0/3.3 V DC	LCD Control signal
	14	GND	-	-	Ground
	15	G1	0	0/3.3 V DC	LCD Control signal
	16	G1	0	0/3.3 V DC	LCD Control signal
	17	G2	0	0/3.3 V DC	LCD Control signal
	18	GND	-	-	Ground
	19	G3	0	0/3.3 V DC	LCD Control signal
	20	G4	0	0/3.3 V DC	LCD Control signal
	21	G5	0	0/3.3 V DC	LCD Control signal
	22	GND	-	-	Ground
	23	B0	0	0/3.3 V DC	LCD Control signal
	24	B1	0	0/3.3 V DC	LCD Control signal
	25	B2	0	0/3.3 V DC	LCD Control signal
	26	GND	-	-	Ground
	27	B3	0	0/3.3 V DC	LCD Control signal
	28	B4	0	0/3.3 V DC	LCD Control signal
	29	B5	0	0/3.3 V DC	LCD Control signal
	30	GND	-	-	Ground
	31	H_SYNC	0	0/3.3 V DC(pulse)	Horizontal synchronizing signal
	32	GND	-	-	Ground
	33	V_SYNC	0	0/3.3 V DC(pulse)	Vertical synchronizing signal
	34	GND	-	-	Ground
	35	ENB	0	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 PWB	40	3.3V	0	3.3 V DC	3.3 V DC power output to LCDRPWB
YC9	1	A_LED	0	0/3.3 V DC	Memory LED control signal
Connected to	2	M_LED	0	0/3.3 V DC	Attention LED control signal
operation	3	P_LED	0	0/3.3 V DC	Processing LED control signal
panel PWB left	4	KEY4	Ι	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	Ι	0/3.3 V DC(pulse)	Operation panel key scan return signal 3
	7	KEY2	Ι	0/3.3 V DC(pulse)	Operation panel key scan return signal 2
	8	KEY1	I	0/3.3 V DC(pulse)	Operation panel key scan return signal 1
	9	LED1	0	0/3.3 V DC(pulse)	Operation panel LED display drive signal 1
	10	3.3V0	ο	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
	12	KEY0	Ι	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 contorol signal
Connected to operation	2	LED4	0	0/3.3 V DC(pulse)	Operation panel LED display drive signal 4
panel PWB right	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
YC11	1	VO2	0	Analog	Speaker sound signal (+)
Connected to	2	VO1	0	Analog	Speaker sound signal (-)
the speaker					
YC15	1	GND	_	_	Ground
Connected to	2	SCK	0	0/3.3 V DC(pulse)	Clock signal
LCD relay	3	SDI	0	0/3.3 V DC(pulse)	Serial communication data signal
PWB	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(+)	ο	0/3.3 V DC	LED control signal
	12	LED_C(-)	I	0/3.3 V DC	LED control signal
		_ ``			Ŭ

2-3-5 DP main PWB

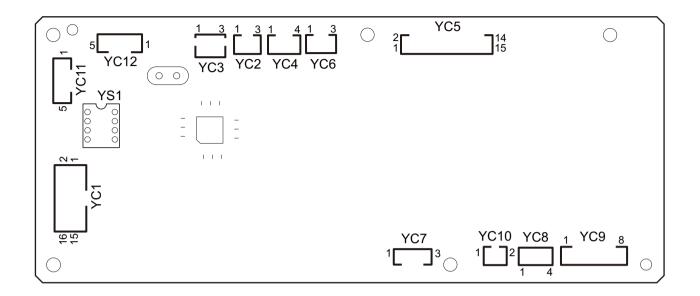


Figure 2-3-5 DP main PWB silk-screen diagram

Connector	Pin	Signal	I/O	Voltage	Description
YC1	1	FG	-	-	Ground
Connected to	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 size length sensor	3	LS_SW	I	0/3.3 V DC	DPOLS: On/Off
YC3	1	ANODE	0	3.3 V DC	3.3 V DC power output to DPOS
Connected to	2	GND	-	-	Ground
DP original sensor	3	SET_SW	I	0/3.3 V DC	DPOS: On/Off
YC4	1	WID1	I	0/3.3 V DC	DPOWS: On/Off
Connected to	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

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	3	FEED SW	I	0/3.3 V DC	DPPFS: On/Off
feed sensor,DP	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	I	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	I	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	2	CNVYAN	0	0/24 V DC(pulse)	DPPFM drive control signal
DP paper	3	CNVY_+A	0	0/24 V DC(pulse)	DPPFM drive control signal
feed motor and DP	4	CNVY_+B	0	0/24 V DC(pulse)	DPPFM drive control signal
switchback	5	JNCBN	0	0/24 V DC(pulse)	DPSBM drive control signal
motor	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
, I		JNC_+B	0	0/24 V DC(pulse)	DPSBM drive control signal

2-4-1 Appendixes

(1) Maintenance kits

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

(2) Repetitive defects gauge

 First occurrence of defect
 40 E mars /4 vovven Dialst/l offers sisteration and lan
 63 mm/2 1/2" Developing roller
 ← 78.5 mm/3 1/16" Heat roller/Press roller
 94 mm/3 11/16" Drum

(3) Firmware environment commands

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

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

Using FRPO commands for reprogramming firmware

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

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

ltem	FRPO	Setting values	Factory setting
Default pattern resolution	B8	0: 300 dpi	0
		1: 600 dpi	
Copy count	C0	Number of copies to print:1-999	1
Page orientation	C1	0: Portrait	0
		1: Landscape	
Default font No. *	C2	Middle two digits of power-up font	0
	C3	Last two digits of power-up font	0
	C5	First two digits of power-up font	0
PCL font switch	C8	0:HP compatibility mode (Characters higher	0
		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)	
Print density	D4	Number from 1 (Light) to 5 (Dark)	3
Total host buffer size	H8	0 to 99 in units of the size defined by FRPO S5	5
Form feed time-out value	H9	Value in units of 5 seconds (0 to 99).	6
Reduce ratio	JO	0: 100 %	0
		5: 70 %	
		6: 81 %	
		7:86 %	
		8: 94 %	
		9: 98 %	

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

Item	FRPO	Setting values	Factory setting
Default stacker	R0	1 (inner tray) 3 5	1
Default paper size	R2	0: Size of the default paper cassette (See R4.) 1: Monarch (3-7/8 × 7-1/2 inches) 2: Business (4-1/8 × 9-1/2 inches)	0
		 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	
Default cassette	R4	0: MP tray 1: Cassette 1 2: Cassette 2 3: Cassette 3	1

ltem	FRPO	Setting values	Factory setting
MP tray paper size	R7	Same as the R2 values except: 0	6(U.S.A) or 8(Euro and
			other)
A4/letter equation	S4	0: Off 1: On	1
Host buffer size	S5	0: 10kB (x H8) 1: 100kB (x H8) 2: 1024kB (x H8)	1
RAM disk size	S6	1 to 1024 MB	400
RAM disk mode	S7	0: Off 1: On	0
Wide A4	Т6	0: Off 1: On	0
Line spacing *	U0	Lines per inch (integer value)	6
Line spacing *	U1	Lines per inch (fraction value)	0
Character spacing *	U2	Characters per inch (integer value)	10
Character spacing *	U3	Characters per inch (fraction value)	0
Country code	U6	0: US-ASCII 1: France 2: Germany 3: UK 4: Denmark 5: Sweden 6: Italy 7: Spain 8: Japan 9: US Legal 10: IBM PC-850 (Multilingual) 11: IBM PC-860 (Portuguese) 12: IBM PC-863 (Canadian French) 13: IBM PC-865 (Norwegian) 14: Norway 15: Denmark 2 16: Spain 2 17: Latin America 21: US ASCII (U7 = 50 SET) 77: HP Roman-8 (U7 = 52 SET)	41
Code set at power up in daisy- wheel emulation	U7	0: Same as the default emulation mode (P1) 1: IBM 6: IBM PC-8 50: US ASCII (U6 = 21 SET) 52: HP Roman-8 (U6 = 77 SET)	53

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

Default weight	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	

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

Item	FRPO	Setting values	Factory setting
Paper type for paper cassettes 1	X1	1: Plain	1
		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	

Paper type for paper cassettes 2	X2	1: Plain	1
to 4	X3	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	
PCL paper source	X9	 Performs paper selection depending on media type. 	0
		1: Performs paper selection depending on	
		paper sources.	

Item	FRPO	Setting values	Factory setting	
Automatic continue for 'Press GO'	Y0	0: Off 1: On	0	
Automatic continue timer	Y1	Number from 0 to 99 in increments of 5 sec- onds	6 (30 secons)	
Error message for device error	Y3	0: Not detect 1: Detect	0	
Duplex operation for specified paper type (Prepunched, Preprintedand Let- terhead)	Y4	0: Off 1: On	0	
Default operation for PDF direct printing	Y5	 O: 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. Through the image. 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 Letter, A4 size paper depending on the image size. 	0	
e-MPS error	Y6	0:Does not print the error report and display the error message. 1:Prints the error report. 2:Displays the error message. 3:Prints the error report and displays the error message.	3	

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

(4) Chart of image adjustment procedures

Adjusting	Item	Image	Description	Ma	aintenance mode	Original	Page
order	item	iniage	Description	Item No.	Mode	Original	
1	Adjusting the magnification in the main scanning direction (printing adjustment)		Polygon motor speed adjustment	U053	POLYGON	U053 test pattern	P.1-3-25
2	Adjusting the magnification in the auxiliary scanning direction (printing adjustment)		Drive motor speed adjustment	U053	MAIN	U053 test pattern	P.1-3-25
3	Adjusting the center line of the MP tray (printing adjustment)		Adjusting the LSU print start timing	U034	LSUOUT LEFT (MPT)	U034 test pattern	P.1-3-20
4	Adjusting the center line of the cas- settes (printing adjustment)		Adjusting the LSU print start timing	U034	LSUOUT LEFT (CASSETTE 1) LSUOUT LEFT (CASSETTE 2) LSUOUT LEFT (CASSETTE 3)	U034 test pattern	P.1-3-20
5	Adjusting the leading edge registra- tion of the MP tray (printing adjustment)	*	Registration motor turning on timing (secondary paper feed start timing)	U034	LSUOUT TOP MPT(L) LSUOUT TOP MPT(S)	U034 test pattern	P.1-3-20
6	Adjusting the leading edge registra- tion of the cassette (printing adjustment)	*	Registration motor turning on timing (secondary paper feed start timing)	U034	LSUOUT TOP CASSETTE(L) SUOUT TOP CASSETTE(S)	U034 test pattern	P.1-3-20
7	Adjusting the leading edge margin (printing adjustment)	*	LSU illumination start timing	U402	LESD	U402 test pattern	P.1-3-60
8	Adjusting the trailing edge margin (printing adjustment)	*	LSU illumination end timing	U402	TRAIL	U402 test pattern	P.1-3-60
9	Adjusting the left and right margins (printing adjustment)		LSU illumination start/end timing	U402	A MARGIN C MARGIN	U402 test pattern	P.1-3-60
10	Adjusting magnification of the scanner in the main scanning direc- tion (scanning adjustment)		Data processing	U065 U070	Y SCAN ZOOM Y SCAN ZOOM	Test chart	P.1-3-27 P.1-3-33

Remarks
To make an adjustment for duplex copying, select LSUOUT LEFT (DUPLEX).
Cassette 1: select Center (CASSETTE 1) Cassette 2: select Center (CASSETTE 2) Cassette 3: select Center (CASSETTE 3)
To make an adjustment for duplex copying, select LSUOUT TOP DUPLEX. L: PAPER WIDTH 218mm or more S: PAPER WIDTH less than 218mm
L: PAPER WIDTH 218mm or more S: PAPER WIDTH less than 218mm
U065: For copying an original placed on the platen. U070: For copying originals from the DP.

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

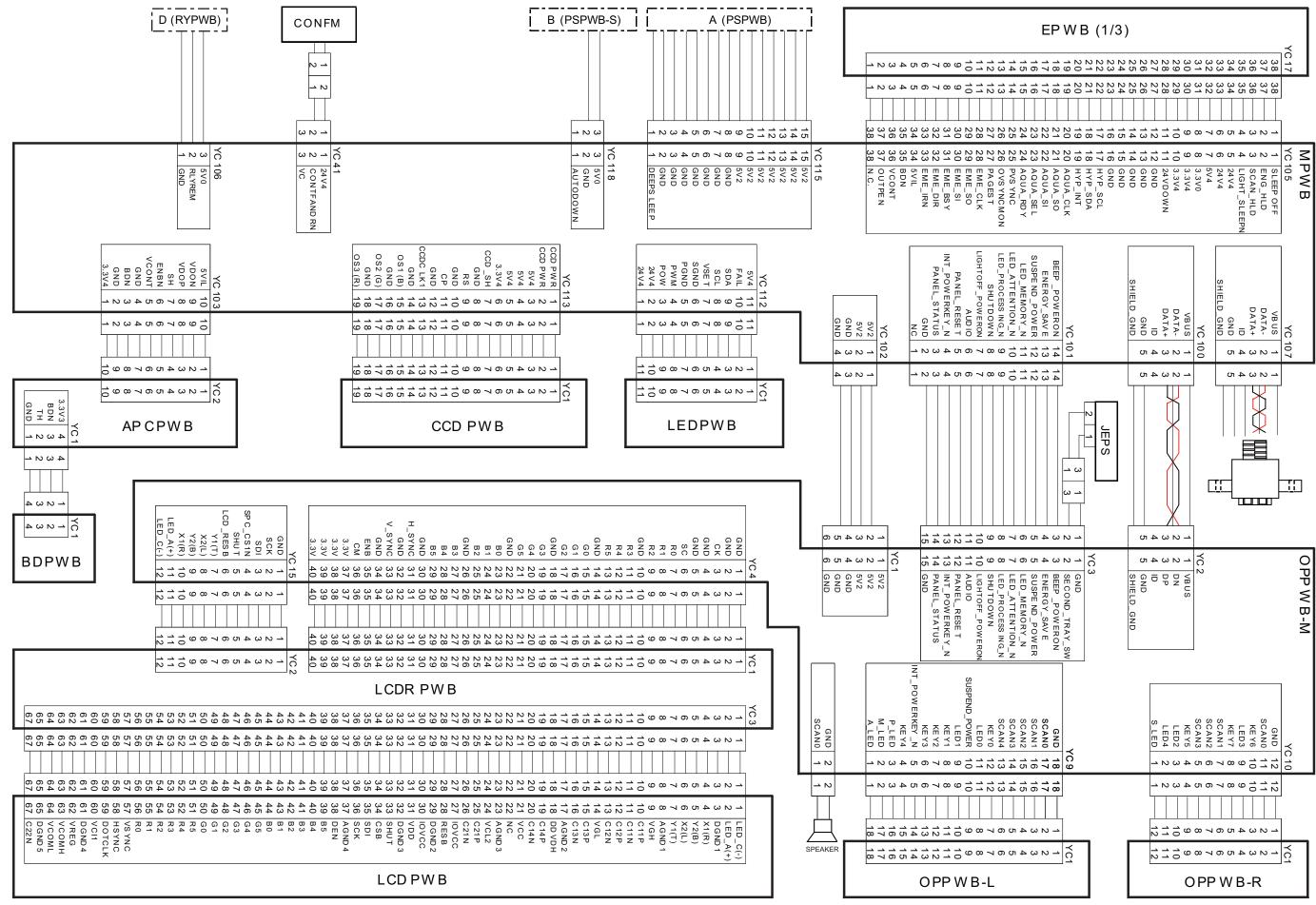
Adjusting the DP magnification (U070)

Adjusting the DP leading edge registration (U071)

Adjusting the DP center line (U072)

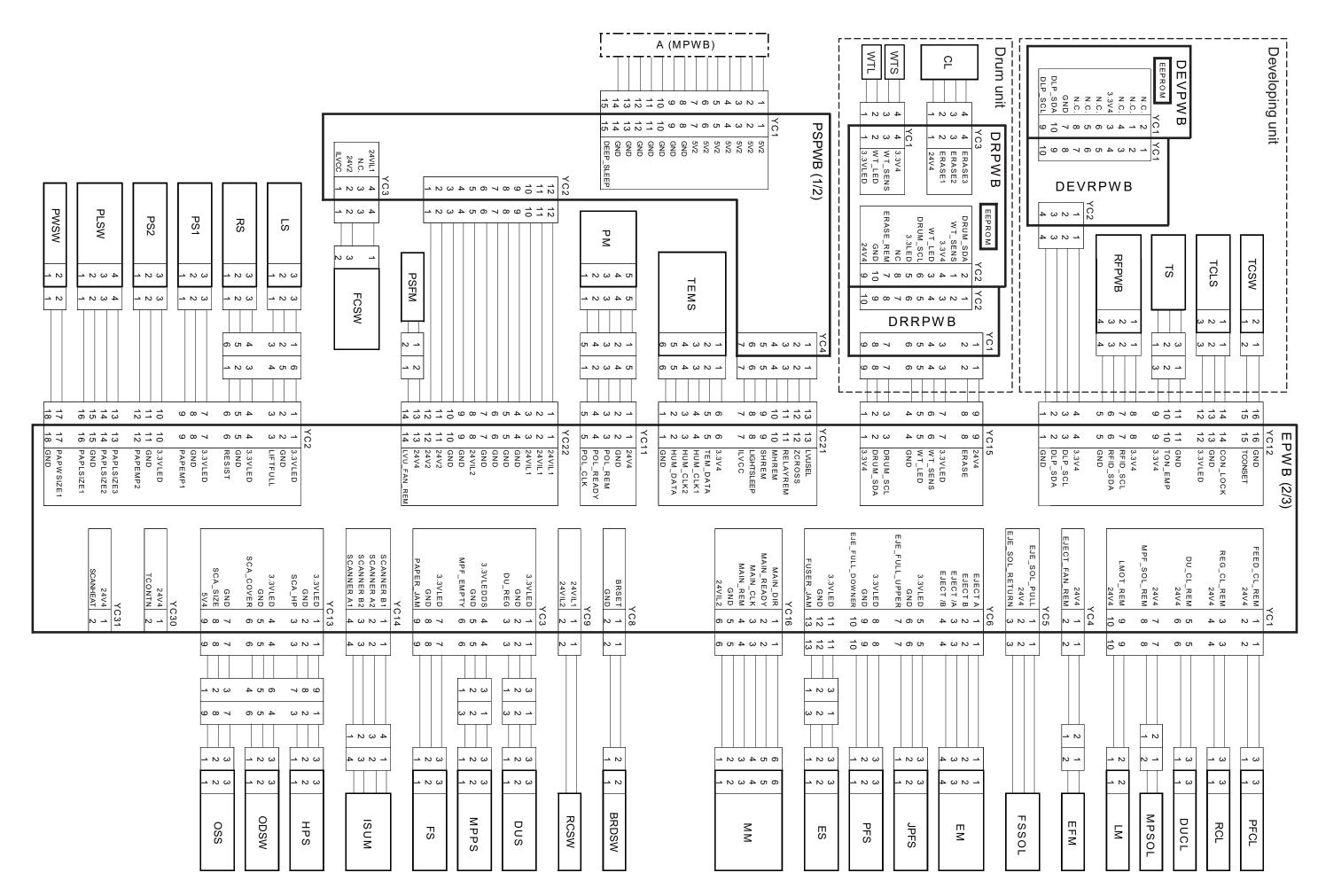
Image quality

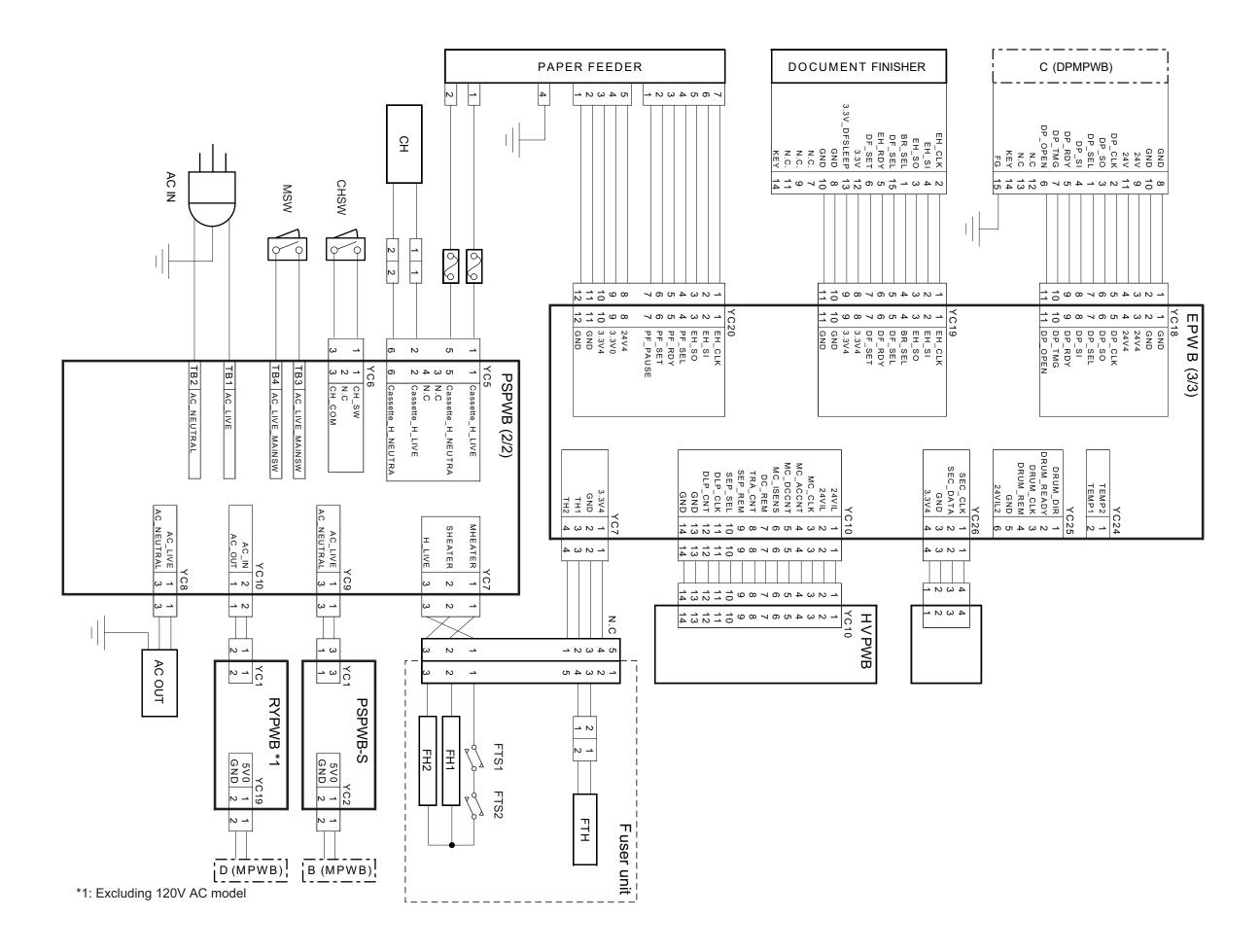
Item	Specifications
100% magnification	Machine: ±0.8%
	Using DP: ±1.5%
Enlargement/reduction	Machine: ±1.0%
	Using DP: ±1.5%
Lateral squareness	Machine: ±1.5 mm/375 mm
	Using DP: ±2.5 mm/375 mm
Leading edge registration	Cassette: +1.0/-1.5 mm
	MP tray: +1.0/-1.5 mm
	Duplex: +1.0/-1.5 mm
Skewed paper feed	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



2-4-13

(5) Wiring diagram





DPPFCL 2 3 3 DPRCL 2 2 2 1 1 1 1	DPLEDPCB GND 1 1 LED REM 2 2 1 DPILSW COM 1 N.O. 2	DPSBS 2 2 2 1 1 1 1 2 2 2 2 2 3 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	DPRS 2 2 2 1 1 1 1 1 2 2 2 2 2 1 3 3 1 2 2 2 2 2 2 3 1 3 1	DPPFS 2 2 2 1	WID1 1 1 GND 2 2 WID2 3 3 WID3 4 4	DPOS 2 2 2 1	
<u>~ α ω 4</u>	- α ω 4 - α ω - × × ×	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4700 1280	ω N → ≺	4 ω α <u>←</u> ≻	ω N → ≺	ν ω 4
YC8 1 FEED_CL 2 +R24V 3 REGIST_CL 4 +R24V	YC6 1 NC 2 GND 3 LED_REM 4 +24V 1 +24V 2 NC 2 NC 3 +R24V	10 ANODE 11 GND 12 HP_SW 13 ANODE 14 GND 15 TMG_SW	4 ANODE 5 GND 6 REGIST_SW 7 ANODE 8 GND 9 DP_OPENSW	YC5 1 ANODE 2 GND 3 FEED SW	YC4 4 WID1 3 GND 2 WID2 1 WID2 1 WID3	YC3 1 ANODE 2 GND 3 SET_SW	4 LS_SW
FLASH ROM I/F RESET V GND 5	SERIAL DEBUGGER T X D S X D S 4 S X C 1 YC11 YC11	GND 11 GND 12 NC(RESERV) 13 +24V 14 +24V 15 +24V 16		+R24V 1 FAN 2 YC1		JNCBN 5 JNCAN 6 JNC_+A 7 JNC_+B	CNVY_+A 3 CNVY_+B 4
			2 0 8 7 6 5 4 3 Ν 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			∞ 7 6 5	4 ω 4
			D-sub				ט – 4 ת 4 ש <u>א</u> ל
			14 KEY 7 DP_TMG 5 DP_RDY 1 DP_SEL 2 DP_CLK 3 DP_SO 4 DP_SI 6 DP_OPEN 12 NC 15 EC			DPSBM	DPPFM
		ſ		-1			

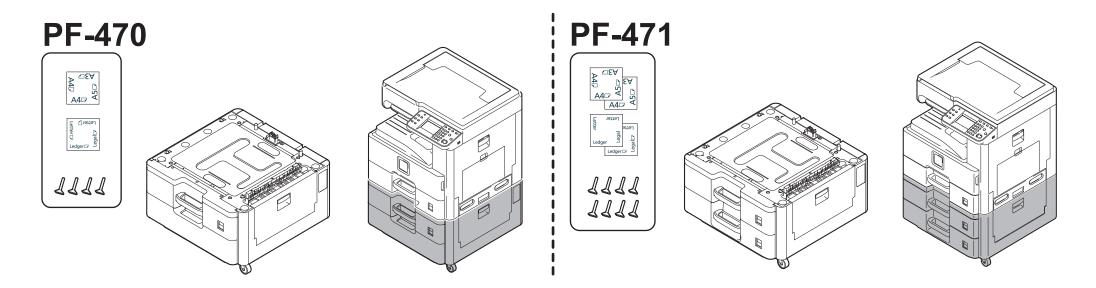
C (EPWB)

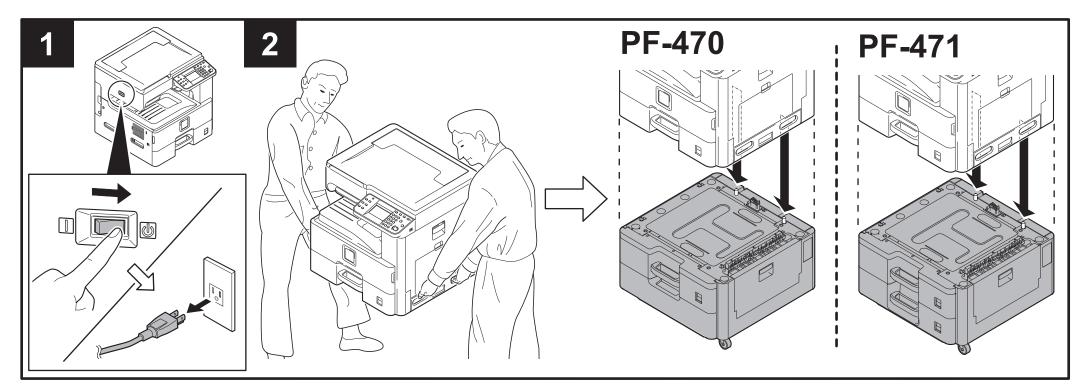


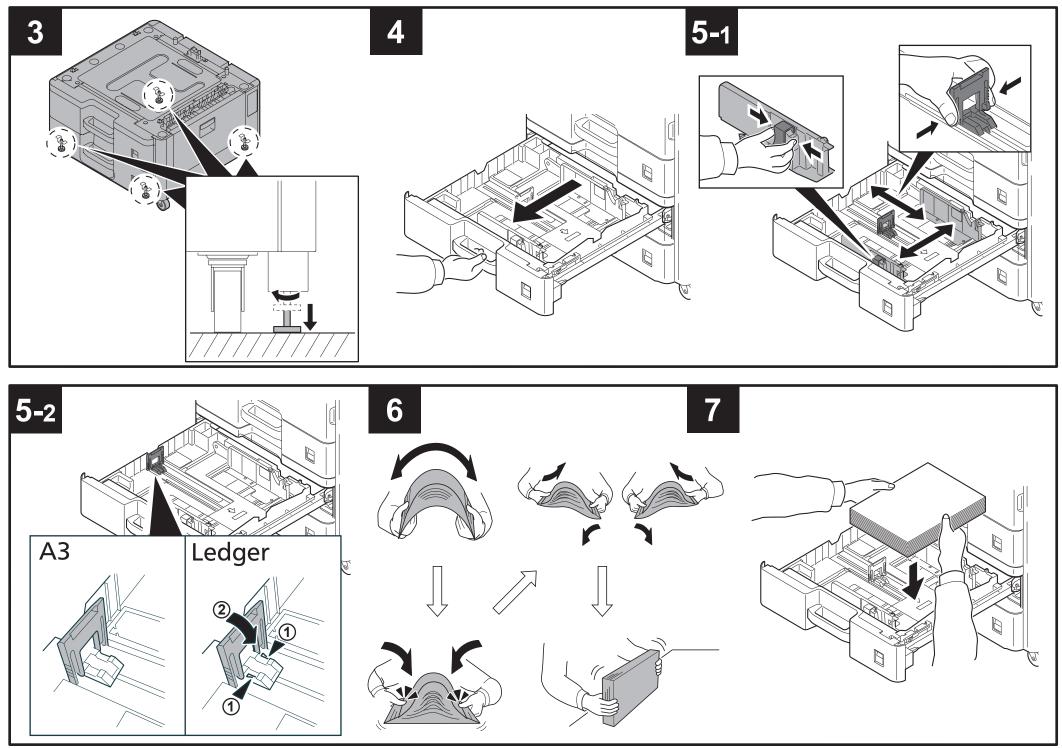
2MW/2MX

PF-470/471 (Paper feeder) Installation Guide

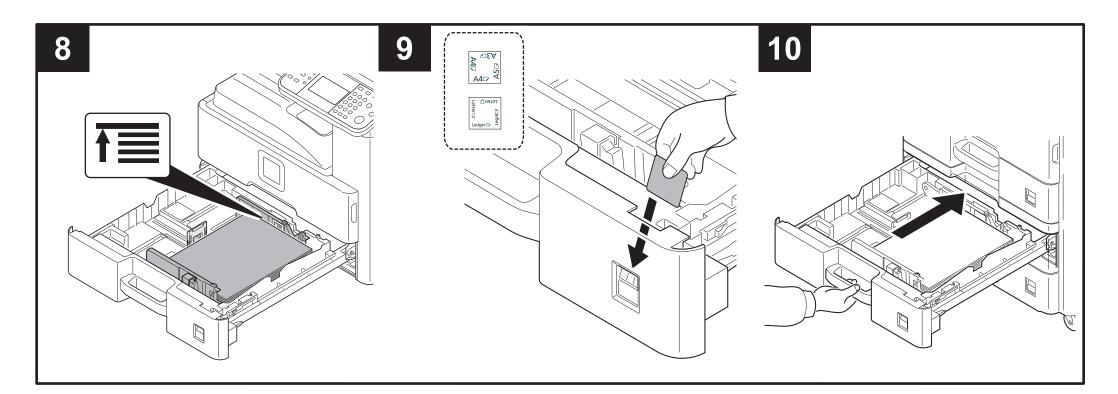
PF-470/471 PAPER FEEDER











ENG

Fix Paper Width Guide

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

FR

Fixation du guide de largeur du papier

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

Suivez les étapes ci-dessous en fonction des besoins.

ES

Fijar la guía de anchura del papel

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

DE

Papierbreitenführung befestigen

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

(Π) Fissare la guida di larghezza carta

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

CN

固定纸张宽度导板 您可以使用附带的定位销固定纸张宽度导板。 必要时执行如下步骤。

TW

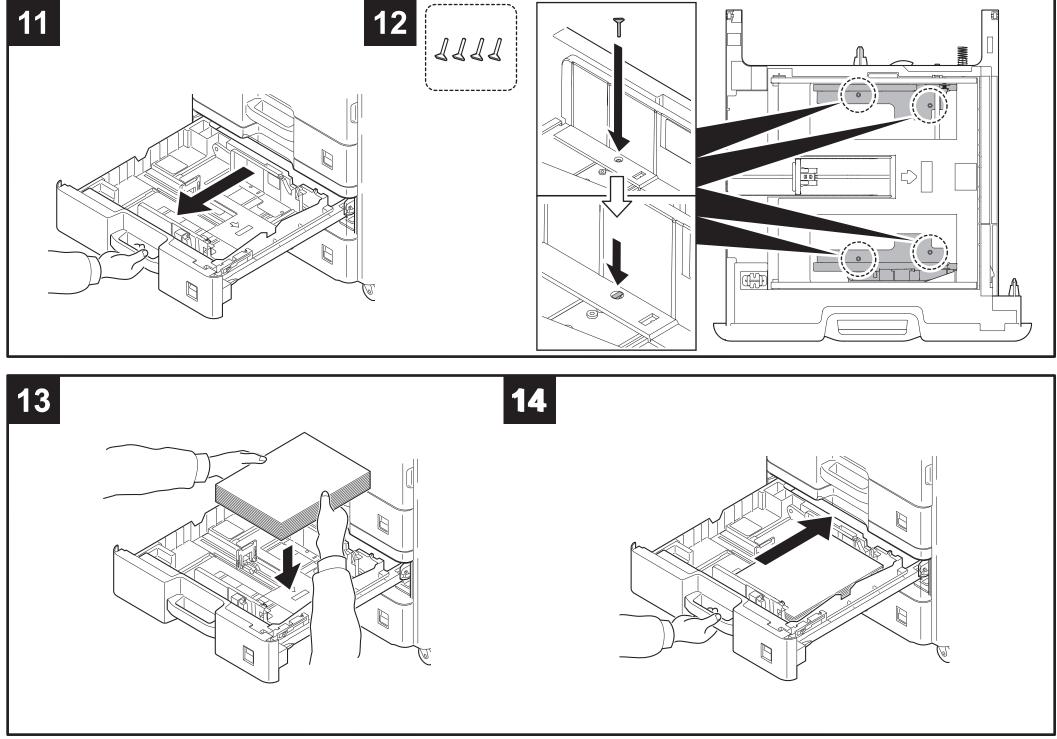
一**固定紙張寬度導板** 您可以使用隨附的定位卡榫固定紙張寬度導板。 如有必要,請執行以下步驟。

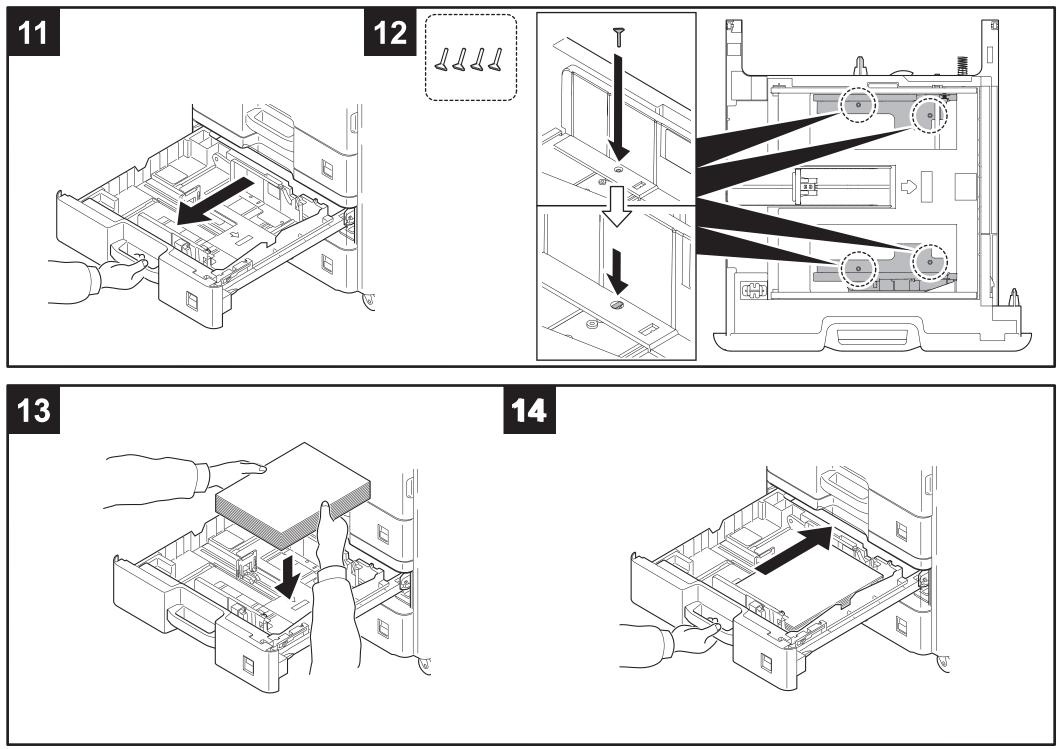
KO

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。

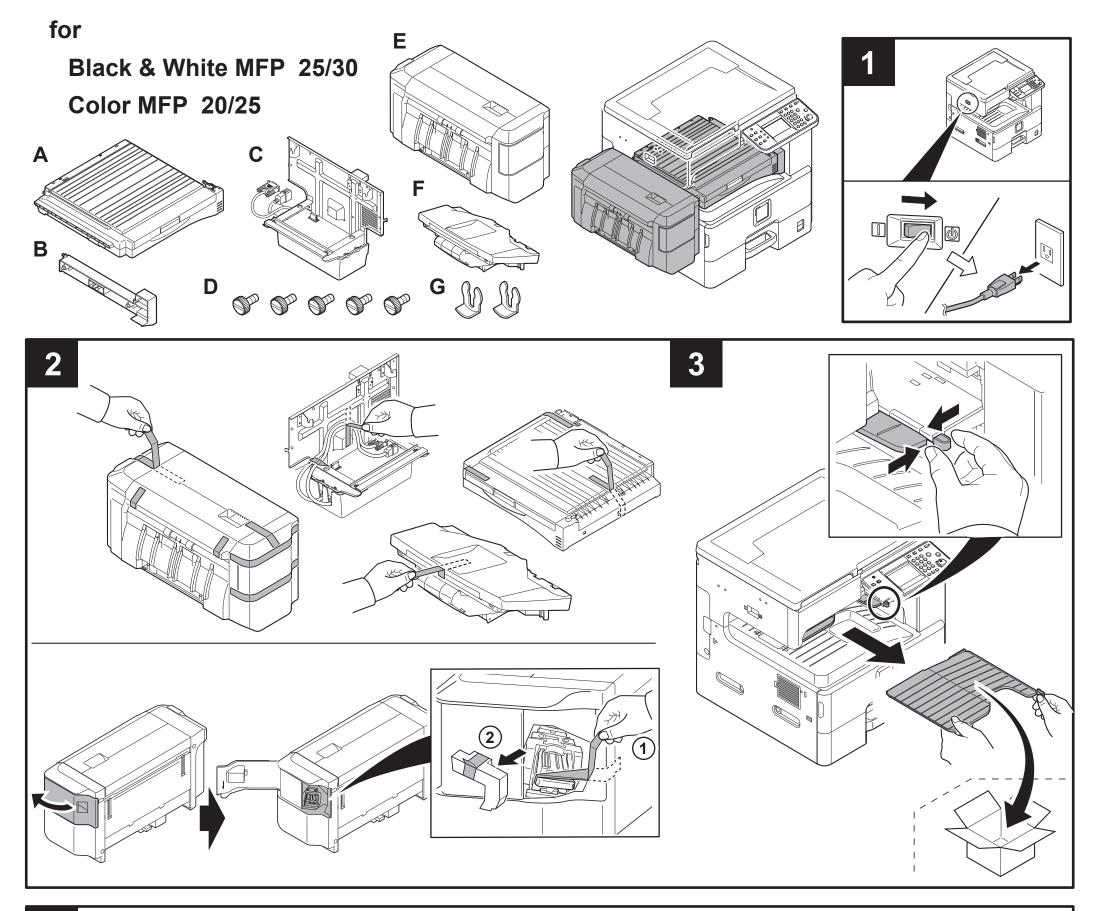


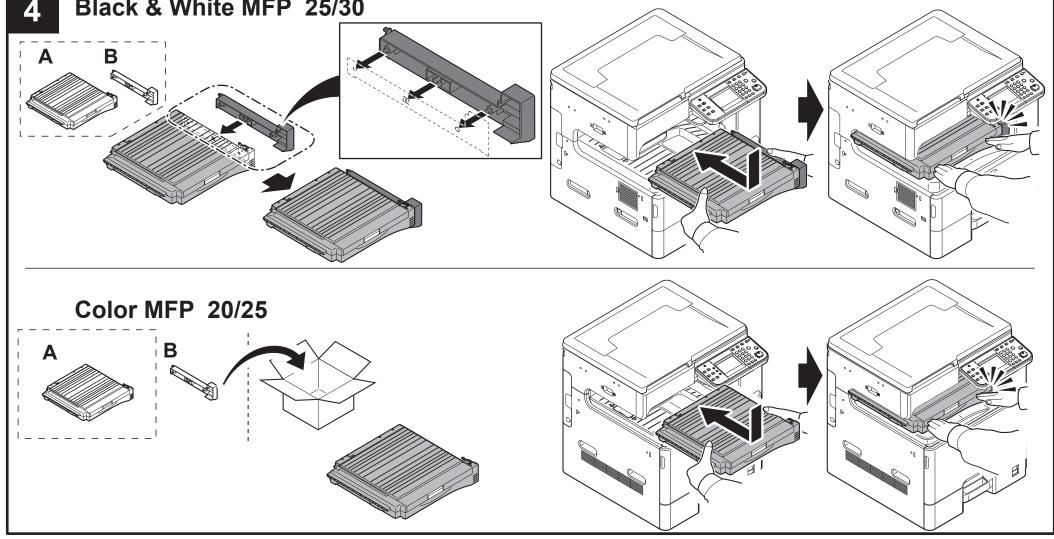


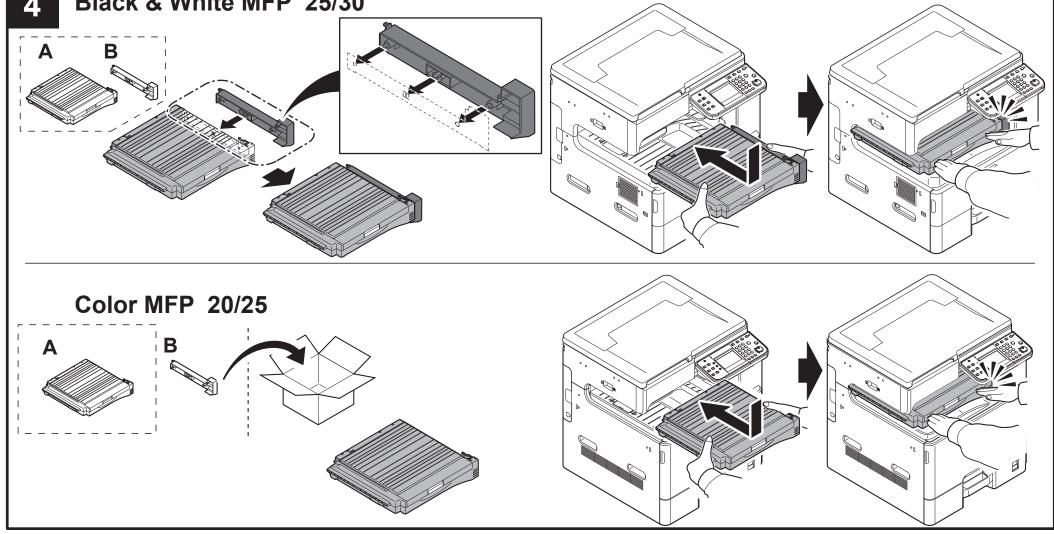


DF-470/AK-470 (Document finisher) Installation Guide

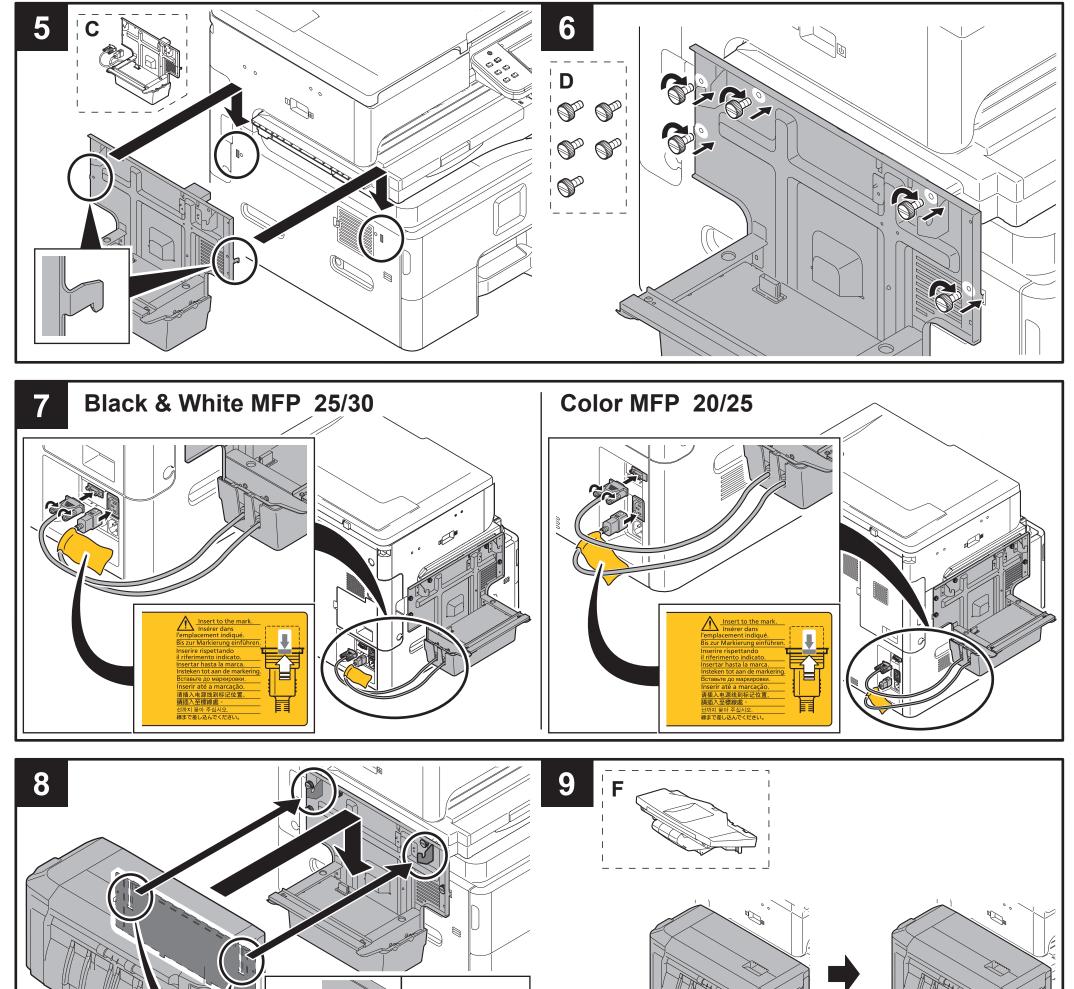
DF-470 DOCUMENT FINISHER, AK-470 ATTACHMENT KIT

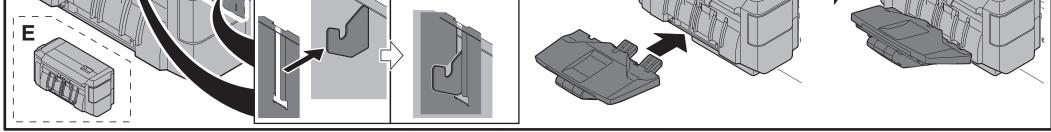


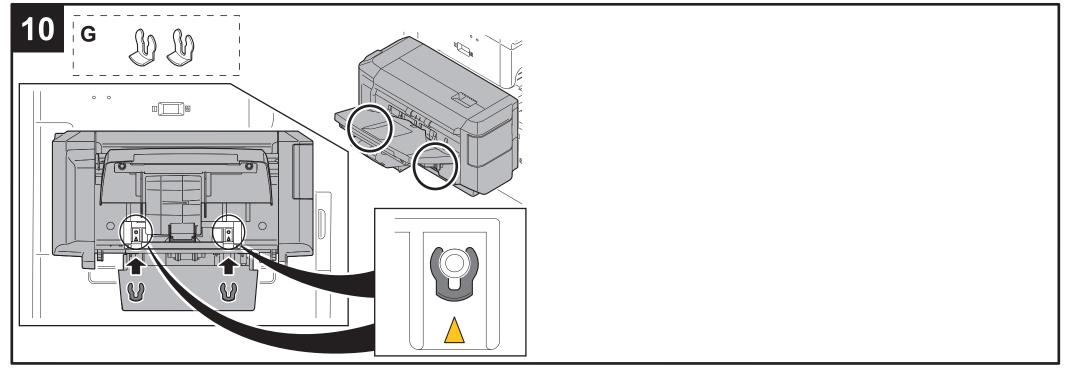








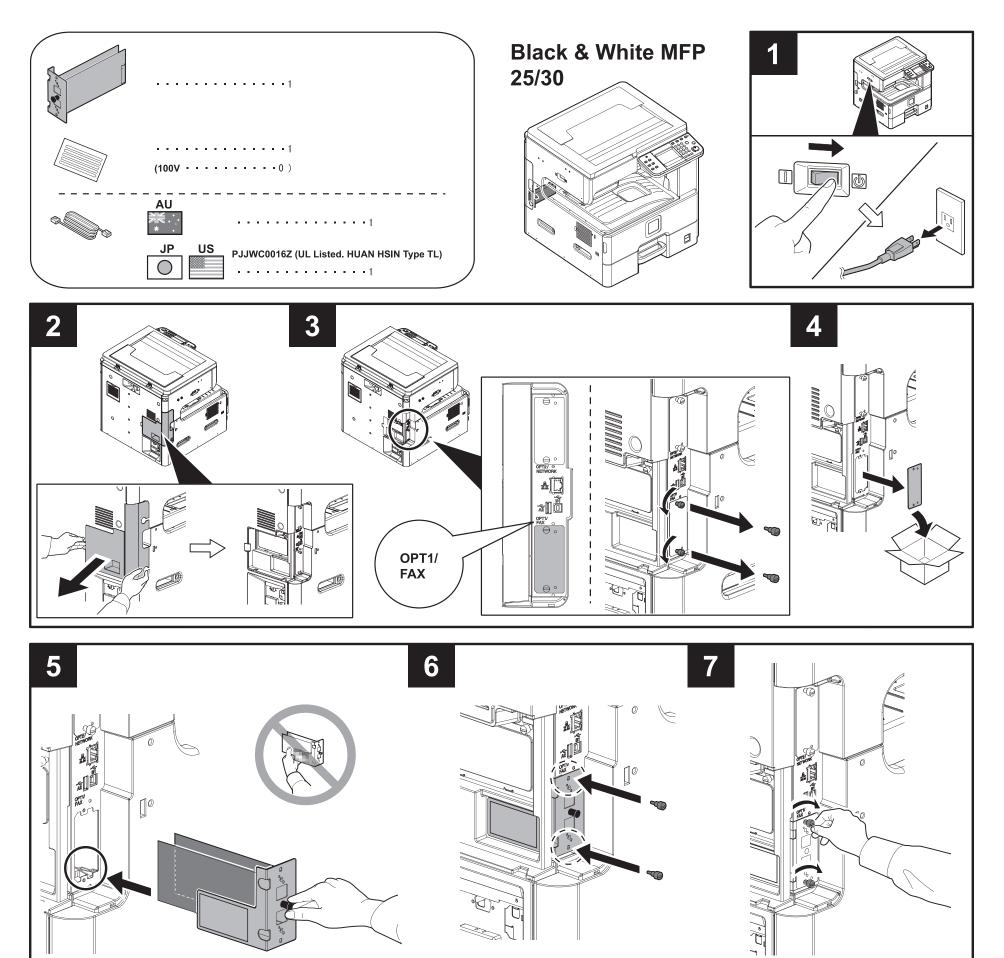


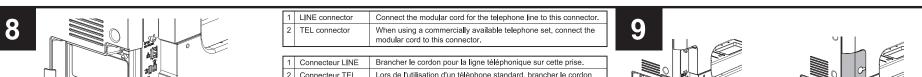


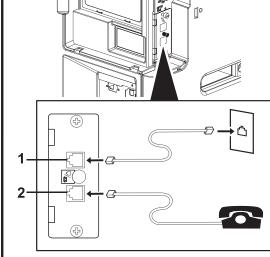


FAX System(U) Installation Guide

FAX System(U)







Connecteur I EL Lors de l'utilisation d'un telephone standard, brancher le cordor téléphonique à cette prise.	1
--	---

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.

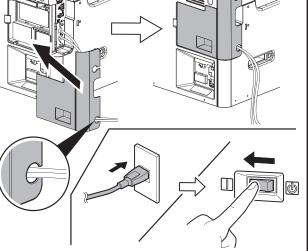
- 1
 Leitungsanschluss-buchse
 Verbinden Sie diesen Anschluss mit der Telefondose.

 2
 Telefonanschlussbuchse
 Hier kann ein Telefon angeschlossen werden.
- 1
 Connettore LINEA
 Collegare a questo connettore il cavo modulare della linea telefonica.

 2
 Connettore TEL
 Se si desidera collegare al sistema un normale telefono, collegarlo a questo connettore.
- 1
 LINHA conector
 Conecte o cabo modular para a linha 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。

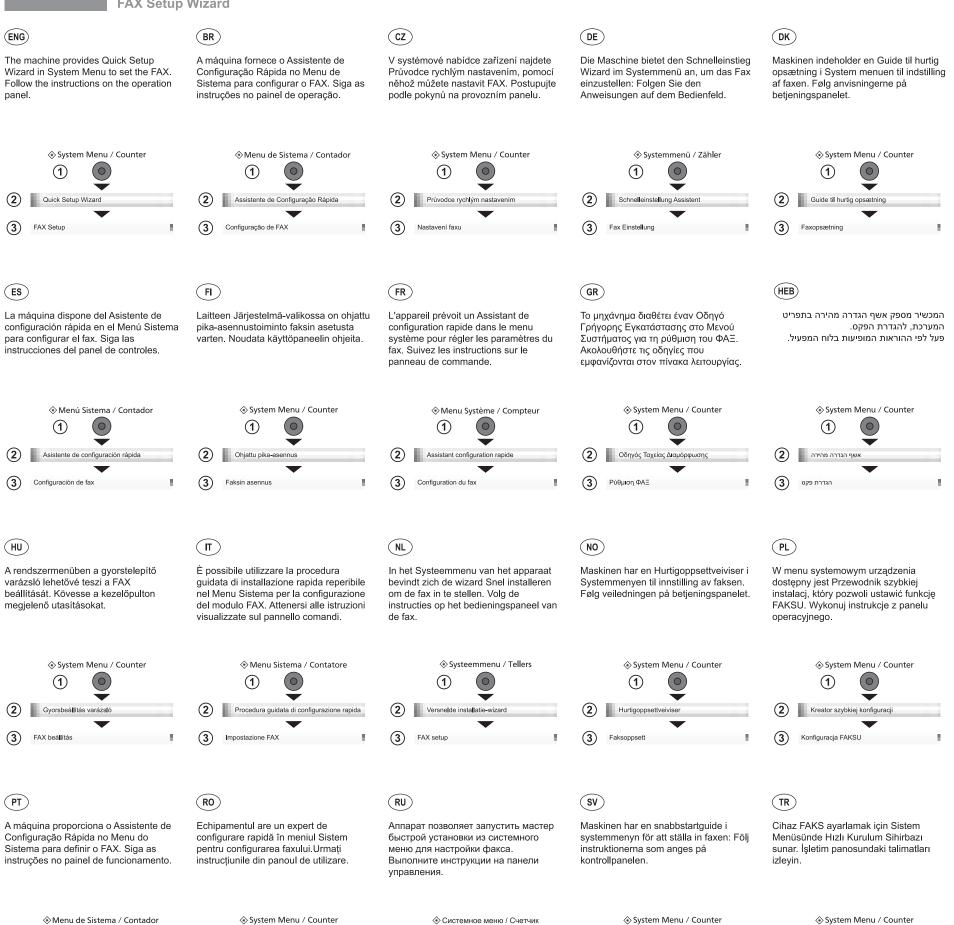
 2
 TEL接続コネクター
 市販の電話機を併用する場合は、ここに接続してください。



2010.9 305JR56710

10

FAX Setup Wizard





1

2 Expert configurare rapidă

Configurare fax

(3)





System Menu / Counter 1 2 Hızlı Ayar Sihirbazı 3 FAKS Ayarlama

ARA	CN	TW	KO	JP
يوفر الجهاز معالج الإعداد السريع في قائمة النظام لإعداد الفاكس. اتبع التعليمات الموجودة على لوحة التشغيل.	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。	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。	기기의 시스템 메뉴에서 팩스를 설정할 수 있도록 빠른 설정 마법사를 제공합니다.조작 패널에 표시된 지침을 따르십시오.	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。
♦ System Menu / Counter	 ◆系统菜单/计数 ① 	 ◆系統選單/計數器 ① 	◈시스템메뉴/카운터 (1)	 システムメニュー / カウンター
معلاج الإعداد السريع	2 快速设置向导	2 快速設定精靈	관 빠른 설정 마법사	2 簡単セットアップウィザード
اعداد الفاتص (3)	3 传真设置	▲ ④ 傳真設定	• • •<	 3 ファクスのセットアップ

2010.9 305JR56710

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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