

SERVICE MANUAL

bizhub 4750/4050

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Revision List

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NOTE
• The main reason for the revision is to correspond to the new firmware (STEP 1.5).

No.	ID	for the revision is to correspond to the Title	Ver.	Descriptions of revision	Date
1	D00012191 56	B.1. NOTATION OF THE CONTENTS	2	The explanation was modified.	2014/05/30
2	D00012191 64	C.1.8 Print functions	2	The explanation was modified.	2014/05/30
3	D00012191 65	C.1.9 Scan Functions	2	The explanation was modified.	2014/05/30
4	D00012175 61	E.1.2 Utility tool	2	The explanation was modified.	2014/05/30
5	D00012176 10	I.1. HOW TO USE THE ADJUSTMENT SECTION	2	The explanation was modified.	2014/05/30
6	D00012176 12	I.2.1.1 Accessibility	2	The new function was added.	2014/06/04
7	D00012176 13	I.2.1.2 One-Touch/User Box Registration	2	The new function was added.	2014/06/04
8	D00012176 14	I.2.1.3 User Settings	2	The new function was added.	2014/06/04
9	D00012176 15	I.2.1.4 Administrator Settings - System Settings	2	The new function was added.	2014/06/04
10	D00012176 19	I.2.1.8 Administrator Settings - Network Settings	2	The new function was added.	2014/06/04
11	D00012176 21	I.2.1.10 Administrator Settings - Printer Settings	2	The new function was added.	2014/06/04
12	D00012176 24	I.2.1.13 Administrator Settings - Security Settings	2	The new function was added.	2014/06/04
13	D00012176 26	I.2.1.15 Administrator Settings - License Management	2	The new function was added.	2014/06/04
14	D00012176 31	I.2.3.1 Accessibility	2	The new function was added.	2014/06/04
15	D00012176 32	I.2.3.2 One-Touch/User Box Registration	2	The new function was added.	2014/06/04
16	D00012176 33	I.2.3.3 User Settings	2	The new function was added.	2014/06/04
17	D00012176 34	I.2.3.4 Administrator Settings - System Settings	2	The new function was added.	2014/06/04
18	D00012176 38	I.2.3.8 Administrator Settings - Network Settings	2	The new function was added.	2014/06/04
19	D00012176 40	I.2.3.10 Administrator Settings - Printer Settings	2	The new function was added.	2014/06/04
20	D00012176 43	I.2.3.13 Administrator Settings - Security Settings	2	The new function was added.	2014/06/04
21	D00012176 45	I.2.3.15 Administrator Settings - License Management	2	The new function was added.	2014/06/04
22	D00012187 70	I.3.1 List of service mode (outline)	6	The new function was added.	2014/05/30
23	D00012187 74	I.3.2.4 System 1	6	The explanation was modified.	2014/05/30
24	D00012187 75	I.3.2.5 System 2	6	The explanation was modified.	2014/05/30
25	D00012187 82	I.3.2.12 Firmware Update	7	The explanation was modified.	2014/05/30
26	D00012778 18	I.3.2.13 Internet ISW Settings	1	The new function was added	2014/05/30
27	D00012187 83	I.4.1 Starting/Exiting	6	The explanation was modified.	2014/05/30
28	D00012780 35	I.4.6.1 Using the telephone line modem	1	The new function was added	2014/06/04
29	D00012188 17	I.4.10.4 Detail Settings - Basic Settings	2	The explanation was modified.	2014/06/04
30	D00012188 27	I.4.11 System 1	5	The explanation was modified.	2014/05/30

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31	D00012778 19	I.4.11.8 Initialize - Server Cache Data	1	The new function was added	2014/05/30
32	D00012188 38	I.4.12.1 Unit Change	8	The explanation was modified.	2014/05/30
33	D00012188 41	I.4.12.4 Network Fax Settings - Internet Fax	5	The explanation was modified.	2014/05/30
34	D00012779 87	1.4.12.7 Eco counter settings	1	The new function was added	2014/05/30
35	D00012188 86	1.4.18.3 System	4	The explanation was modified.	2014/06/04
36	D00012189 18	I.4.21 Loadable Drive Information	2	The explanation was modified.	2014/05/30
37	D00012189 19	I.4.22 Loadable Driver Download	2	The explanation was modified.	2014/05/30
38	D00012778 20	1.4.23 Internet ISW Settings	1	The new function was added	2014/05/30
39	D00012778 21	I.4.23.1 Enable Settings	1	The new function was added	2014/05/30
40	D00012778 22	I.4.23.2 HTTP Server Settings	1	The new function was added	2014/05/30
41	D00012778 23	1.4.23.3 Forwarding Access Setting	1	The new function was added	2014/05/30
42	D00012778 24	I.4.23.4 Download	1	The new function was added	2014/05/30
43	D00012778 25	I.7. Control Panel Calibration	1	The new function was added	2014/05/30
44	D00012776 26	J.3.1 Preparations for firmware rewriting	1	The new function was added	2014/05/30
45	D00012776 27	J.3.2 Preparing the firmware data	1	The new function was added	2014/05/30
46	D00012776 28	J.3.3 Firmware rewriting from the control panel	1	The new function was added	2014/05/30
47	D00012779 85	J.4. CS Remote Care	1	The new function was added	2014/05/30
48	D00012175 31	J.5. How to reinstall the i-Option data	2	The explanation was modified.	2014/05/30
49	D00012083 99	K.1.1 JAM display	2	The explanation was modified.	2014/05/30
50	D00012084 00	K.1.2 List of JAM display	2	The explanation was modified.	2014/05/30
51	D00012084 01	K.1.3 Sensor layout	2	The explanation was modified.	2014/05/30
52	D00012084 12	K.1.4.10 Misfeed at finisher section	2	The explanation was modified.	2014/05/30
53	D00012084 13	K.1.4.11 Misfeed at staple finisher section	2	The explanation was modified.	2014/05/30
54	D00012084 10	K.1.4.9 Misfeed at ADF section	2	The explanation was modified.	2014/05/30
55	D00012088 55	K.3.3 List of the trouble code	2	The explanation was modified.	2014/05/30
56	D00012776 32	K.3.4.22 C180	1	The new function was added	2014/05/30
57	D00012088 90	K.3.4.27 D094	2	The explanation was modified.	2014/05/30
58	D00012088 91	K.3.4.28 D095	2	The explanation was modified.	2014/05/30
59	D00012088 92	K.3.4.29 D096	2	The explanation was modified.	2014/05/30
60	D00012776 47	K.3.4.30 D2B0	1	The item was added.	2014/05/30
61	D00012776 43	K.3.4.31 D3F1	1	The item was added.	2014/05/30
62	D00012776 44	K.3.4.32 D3F2	1	The item was added.	2014/05/30
63	D00012776 45	K.3.4.33 D3F4	1	The item was added.	2014/05/30

No.	ID	Title	Ver.	Descriptions of revision	Date
64	D00012776 46	K.3.4.34 D3F5	1	The item was added.	2014/05/30
65	D00012084 88	K.4.1 Troubleshooting of the abort code	2	The explanation was modified.	2014/05/30
66	D00012776 21	K.4.2 F00#	1	The item was added.	2014/05/30
67	D00012776 22	K.4.3 F81#	1	The item was added.	2014/05/30
68	D00012776 23	K.4.4 F91#	1	The item was added.	2014/05/30
69	D00012084 89	K.4.5 FB0#	2	The explanation was modified.	2014/05/30
70	D00012779 88	K.6.3 Operation panel (touch panel) do not respond	1	The new function was added	2014/05/30

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No.	ID	Title	Ver.	Descriptions of revision	Date
1	-	Issue of the first edition	1.0	-	2013/12/20

A SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the safety and important warning items described below to understand them before doing service work.

1. IMPORTANT NOTICE

- Because of possible hazards to an inexperienced person servicing this product as well as the risk of damage to the product, KONICA MINOLTA, INC. (hereafter called KM) strongly recommends that all servicing be performed only by KM-trained service technicians.
- Changes may have been made to this product to improve its performance after this Service Manual was printed. Accordingly, KM does not warrant, either explicitly or implicitly, that the information contained in this service manual is complete and accurate.
- The user of this service manual must assume all risks of personal injury and/or damage to
 the product while servicing the product for which this service manual is intended. Therefore,
 this service manual must be carefully read before doing service work both in the course of
 technical training and even after that, for performing maintenance and control of the product
 properly.
- Keep this service manual also for future service.

DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

2.1 Description items in this Service Manual

In this Service Manual, each of three expressions "ADANGER", "AWARNING", and "ACAUTION" are defined as follows.

When servicing the product, the relevant works (disassembling, reassembling, adjustment, repair, maintenance, etc.) need to be conducted with utmost care.



DANGER

: Action having a high possibility of suffering

death or serious injury



WARNING

: Action having a possibility of suffering death or serious injury



CAUTION

: Action having a possibility of suffering a slight

wound and property damage

2.2 Description items for safety and important warning items

Symbols used for safety and important warning items are defined as follows:



: Precaution when servicing the product.



General precaution



Electric hazard



High temperature



: Prohibition when servicing the product.



General prohibition



Do not touch with wet hand



Do not disassemble



: Direction when servicing the product.



General instruction



Unplug



Ground/Earth

Illustrations representing the power plug and wall outlet used in the following descriptions are only typical. Their shapes differ depending on the country or region.

3. SAFETY WARNINGS

3.1 MODIFICATIONS NOT AUTHORIZED BY KONICA MINOLTA, INC.

KONICA MINOLTA brand products are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network.

Product design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degradation in performance and safety. Such modifications are therefore strictly prohibited, the points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

3.1.1 Actions requiring special attention

MARNING



 Do not make any modifications to the product unless otherwise instructed by KM.



Do not use any part not specified by KM.





 Do not use any power cord or power plug not specified by KM.





 Use only the protective fuses specified by KM.
 Use of any type of fuse or related part not specified by KM makes safety devices inoperative which may result in a fire from high heat.





Do not disable fuse functions or use a wire, metal clip, solder, or other conductor in place of the fuse.



Fire may result from high heat.



 Do not disable relay functions (for example, inserting a piece of paper between relay contacts to hamper circuit action.)
 Fire may result from high heat.





 Do not disable safety functions (for example, interlocks and safety circuits).

Safety devices become inoperative, resulting in fire from high heat, electric shock, or injury.



3.2 POWER PLUG SELECTION

In some countries or areas, the power plug provided with the product may not fit the wall outlet used in the area. In that case, it is the obligation of the customer engineer (hereafter called the CE) to attach the appropriate power plug or power cord set in order to connect the product to the supply.

3.2.1 Power Cord Set or Power Plug

MARNING

- Use a power supply cord set which meets the following criteria:
 - provided with a plug having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and



- the plug has pin/terminal(s) for grounding, and
- provided with three-conductor cable having enough current capacity, and
- the cord set meets regulatory requirements for the area.

Use of inadequate cord set leads to fire or electric shock.



- Attach power plug which meets the following criteria:
 - having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
- 0
- the plug has pin/terminal(s) for grounding, and
- meets regulatory requirements for the area. Use of inadequate cord set leads to the product connecting to inadequate power supply (voltage, current capacity, grounding), and may result in fire or electric shock.
- The wires in the power supply cord shall be connected to the terminals of the plug in accordance with the following:

Color of	the wire	Terminal of the plug		
Brown Black		Marked with "L", "A" or "W" or colored RED		
Light Blue	White	Marked with "N" or colored BLACK		
Green-an	d-Yellow	Marked with "E", "PE" or " \(\frac{1}{-} \) " or colored GREEN or GREEN-AND-YELLOW		

 Wrong connection may cancel safeguards within the product, and results in fire or electric shock.

3.3 CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

KONICA MINOLTA brand products are extensively tested before shipping, to ensure that all applicable safety standards are met, in order to protect the customer and customer engineer (hereafter called the CE) from the risk of injury. However, in daily use, any electrical equipment may be subject to parts wear and eventual failure. In order to maintain safety and reliability, the CE must perform regular safety checks.

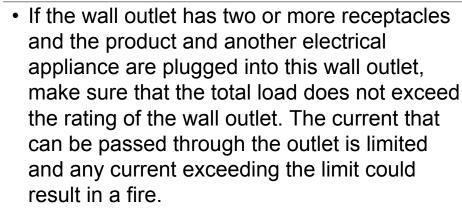
3.3.1 Power Supply

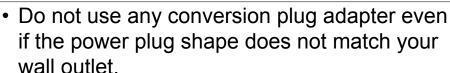
(1) Connection to Power Supply

MARNING

 The power outlet should have a capacity of at least the maximum power consumption and be dedicated only to the product.

The current that can be passed through the outlet is limited and any current exceeding the limit could result in fire.





The shapes of the power plug and the wall outlet are set according to the voltage and allowable current. Use of a conversion plug adapter could result in an abnormal voltage or insufficient current capacity, leading to a fire. It may also result in an electric shock due to a grounding failure.

If the plug shape does not match the wall outlet, request the user to perform power source installation work.





 Make sure the power cord is plugged into the wall outlet securely.



If the power plug is left loose in the wall outlet, contact failure may occur, leading to abnormal heating of the power plug and a risk of fire.



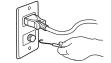
(2) Ground Connection

MARNING

Check whether the product is grounded properly.

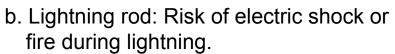


If current leakage occurs in an ungrounded product, you may suffer electric shock while operating the product.



Connect power plug to grounded wall outlet.

- Make sure of correct ground connection.
 If the grounding wire is connected to an inappropriate part, there is a risk of explosion or electric shock. Do not connect the grounding wire to any of the following parts:
 - a. Gas pipe: Gas explosion or fire may result.





- c. Grounding wire for telephone line: Risk of electric shock or fire during lightning.
- d. Water pipe and faucet: These parts do not serve as a ground connection because of a plastic part that is very often installed midway within the water pipe.



(3) Power Plug and Cord

NWARNING

 When using the power cord set (inlet type) that came with this product, make sure the connector is securely inserted in the inlet of the product.



When a securing measure is provided, secure the cord with the fixture properly. If the power cord (inlet type) is not connected to the product securely, a contact problem may lead to increased resistance, overheating, and risk of fire.







 Do not allow the power cord to be stepped on or pinched.

Overheating may occur there, leading to a risk of fire.



• Check whether the power cord is damaged. Check whether the sheath is damaged.



If the power plug, cord, or sheath is damaged, replace with a new power cord (with plug and connector on each end) specified by KM. Using the damaged power cord may result in fire or electric shock.

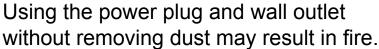


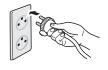


Do not bundle or tie the power cord.
 Overheating may occur there, leading to a risk of fire.



 Check whether dust is collected around the power plug and wall outlet.





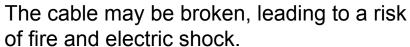


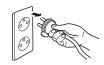
 Do not insert the power plug into the wall outlet with a wet hand.

The risk of electric shock exists.



 When unplugging the power cord, grasp the plug, not the cable.





(4) Wiring

MARNING



 Never use multi-plug adapters to plug multiple power cords in the same outlet.





 When an extension cord is required, use one that meets the rated current, rated voltage, and the relevant safety standards of the country.



Current that can be passed through the extension cable is limited and fire may result from the use of an inappropriate type of an extension cable.



Do not use an extension cable reel with the cable taken up. Fire may result.

3.3.2 Installation Requirements

(1) Prohibited Installation Places

MARNING



 Do not place the product near flammable materials or volatile materials that may catch fire.

A risk of fire exists.





 Do not place the product in a place exposed to water such as rain.

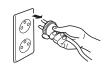
A risk of fire and electric shock exists.

(2) When not Using the Product for a long time

MARNING



 When the product is not to be used for an extended period of time (for holidays, for example), instruct the user to turn OFF the power switch and unplug the power cord from the power outlet.



Dust collected around the power plug and outlet may cause fire.

(3) Ventilation

ACAUTION

The product generates ozone gas during operation.



If the smell of ozone is present in the following cases, ventilate the room.

- a. When the product is used in a poorly ventilated room
- b. When making a lot of copies
- c. When using multiple products at the same time



(4) Stability

! CAUTION



 Be sure to lock the caster stoppers.
 In the case of an earthquake, the product may slide, leading to an injury.

3.3.3 After Service

(1) Inspection before Servicing

№ WARNING

 Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure using the recommended personal safety equipment and using only the prescribed tools.



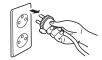
Do not make any adjustment not described in the documentation.

If the prescribed procedure or tool is not used, the product may break and a risk of injury or fire exists.

 Before conducting an inspection, be sure to disconnect the power plugs from the Main Body and Accessories (Options).



When the power plug is inserted into the wall outlet, some units are still powered even if the POWER switch is turned OFF. A risk of electric shock exists.



!CAUTION



The area around the fixing unit is hot.
 You may get burned.



ACAUTION

 Do not leave the machine unattended during transportation, installation, and/or inspection.



If the machine is left unattended, face protrusions toward the wall or take other necessary precautions to prevent a user or other person in the area from stumbling over a protrusion of the machine or being caught by a cable, possibly causing a fall to the floor or other personal injury.

(2) Work Performed with the Product Powered On

MARNING

 Take every care when making adjustments or performing an operation check with the product powered.



If you make adjustments or perform an operation check with the external cover detached, you may touch live or high-voltage parts or you may be caught in moving gears or the timing belt, leading to a risk of injury.





 Take every care when servicing with the external cover detached.

High-voltage exists around the drum unit. A risk of electric shock exists.



 If it is absolutely necessary to service the machine with the door open or external covers removed, always be attentive to the motion of the internal parts.

A normally protected part may cause unexpected hazards.

ACAUTION



 Do not keep gazing at a lamp light during the service procedure with the product powered ON.

Eyestrain may result.

(3) Safety Checkpoints

MARNING



 When a product fault is reported from a user, check parts and repair the fault appropriately with safety in mind.

A damaged product, personal injury, or fire may result.



 Whenever mounting an option on the machine, be attentive to the motion of the other workers performing the task.

Another worker may be injured by a pinch point between the machine and the option.

0

 When mounting an option on the machine, be careful about the clearance between the machine and the option.

You may be injured with your finger or hand pinched between the machine and the option.



 When removing a part that secures a motor, gear, or other moving part, disassembling a unit, or reinstalling any of such parts and units, be careful about moving parts and use care not to drop any part or unit. During the service procedure, give sufficient support for any heavy unit.

You may be injured by a falling part or unit.



 Check the external covers and frame for possible sharp edges, burrs, and damage.
 They can be a cause of injury during use or servicing.



 When accessing a hard-to-view or narrow spot, be careful about sharp edges and burrs on the frame and parts.

They may injure your hands or fingers.



 Do not allow any metal parts such as clips, staples, and screws to fall into the product.
 They can short internal circuits and cause electric shock or spark bursting into flame.





 Check wiring for pinched and any other damage.

Current can leak, leading to a risk of electric shock or fire.



 Check high-voltage cables and sheaths for any damage.

Damage may lead to product failure and/or the risk of fire.





 Do not disassemble or adjust the write unit (PH unit) incorporating a laser.

The laser light can enter your eye, leading to a risk of loss of eyesight.

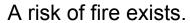


 Do not supply power with the write unit (PH unit) shifted from the specified mounting position.

The laser light can enter your eye, leading to a risk of loss of eyesight.



 After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.





ŶWARNING

 Check the interlock switch and actuator for loosening and check whether the interlock functions properly.



If the interlock does not function, you may receive an electric shock or be injured when you insert your hand in the product (e.g., for clearing paper jam).



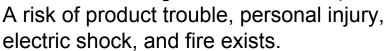
 Make sure the wiring cannot come into contact with sharp edges, burrs, or other pointed parts.

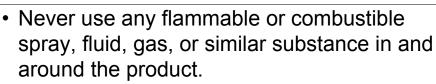


Damage may lead to the risk of electric shock or fire.



· Make sure that all screws, components, wiring, connectors, etc. that were removed for safety check and maintenance have been reinstalled in the original location. (Pay special attention to forgotten connectors, pinched cables, forgotten screws, etc.)







Do not use any flammable or combustible dust spray, in particular, to clean the interior of the product.

Fire or explosion may result.



↑ CAUTION



 Carefully remove all toner remnants and dust from electrical parts and electrode units such as a charging corona unit.

Toner remnants and dust may lead to product failure and/or the risk of fire.

ACAUTION



 Check electrode units such as a charging corona unit for deterioration and signs of leakage.

Damage may lead to product failure and/or the risk of fire.

 When replacing a battery, replace it with a new one as specified.



Dispose of the used battery as instructed on its packaging or by local ordinance. There is a risk of explosion if the battery is replaced with an incorrect type.



(4) Handling of Consumables

MARNING



 For handling of consumables (toner, developer, photoconductor, etc.) and their storage precautions, see MSDS.

(5) Handling of Service Materials





Handle with care according to MSDS.
 Use of solvent may involve explosion, fire, or personal injury.



3.4 FUSE

CAUTION

Double pole / neutral fusing

ATTENTION

Double pôle / fusible sur le neutre.

3.5 Used Batteries Precautions

3.5.1 ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

3.5.2 Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ.

Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

3.5.3 France

ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.

Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

3.5.4 Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

3.5.5 Finland, Sweden

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.

Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.

Kassera använt batteri enligt fabrikantens instruktion.

3.5.6 Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.

Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.

Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

3.6 Laser Safety

3.6.1 Laser Safety

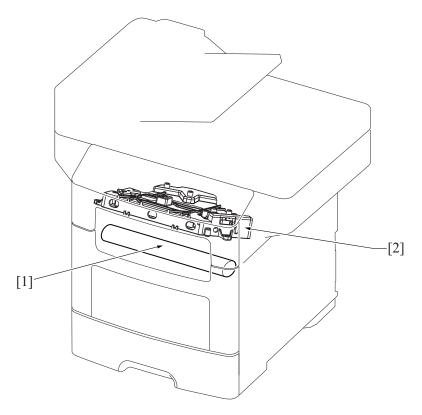
This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

3.6.2 Internal Laser Radiation

- This product employs a Class 3B laser diode that emits an invisible laser beam. The laser diode and the scanning polygon mirror are incorporated in the print head unit.
- The print head unit is NOT A FIELD SERVICEABLE ITEM. Therefore, the print head unit should not be opened under any circumstances.

semiconductor laser				
Maximum power of the laser diode	12 mW			
Maximum average radiation newer (*)	bizhub 4750	19.8 µW		
Maximum average radiation power (*)	bizhub 4050	19.8 µW		
Wavelength	650 to 670 nm			

^{*} at the area of the Photoconductor Drum



[1]	Photoconductor Drum	[2]	Print Head Unit

(1) U.S.A., Canada (CDRH Regulation)

- This machine is certified as a Class 1 Laser product under Radiation Performance Standard according to the Food, Drug and Cosmetic Act of 1990. Compliance is mandatory for Laser products marketed in the United States and is reported to the Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration of the U.S. Department of Health and Human Services (DHHS). This means that the device does not produce hazardous laser radiation.
- The label shown on "A.3.6.3 Laser Safety Label" indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.



Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

semiconductor laser		
Maximum power of the laser diode 12 mW		
Wavelength	650 to 670 nm	

(2) All Areas



Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

semiconductor laser		
Maximum power of the laser diode 12 mW		
Wavelength	650 to 670 nm	

(3) Denmark



Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. Klasse 1 laser produkt der opfylder IEC60825-1 sikkerheds kravene.

halvlederlaser			
Laserdiodens højeste styrke 12 mW			
bølgelængden	650 to 670 nm		

(4) Finland, Sweden

LUOKAN 1 LASERLAITE KLASS 1 LASER APPARAT

⚠VAROITUS!

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

puolijohdelaser		
Laserdiodin suurin teho 12 mW		
aallonpituus	650 to 670 nm	

!VARNING!

Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

halvledarlaser		
Den maximala effekten för laserdioden 12 mW		
våglängden	650 to 670 nm	



Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättomälle lasersäteilylle. Älä katso säteeseen.



Osynlig laserstråining när denna del är öppnad och spärren är urkopplad. Betrakta ej stråien.

(5) Norway

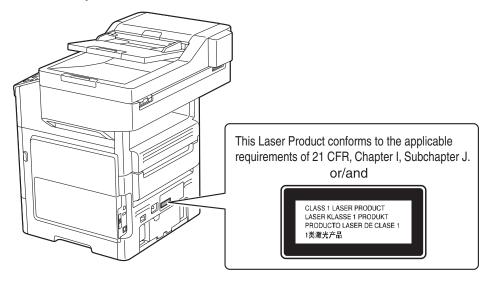


Dersom apparatet brukes på annen måte enn spesifisert i denne bruksanvisning, kan brukeren utsettes for unsynlig laserstrålning, som overskrider grensen for laser klass 1.

halvleder laser		
Maksimal effekt till laserdiode 12 mW		
bølgelengde	650 to 670 nm	

3.6.3 Laser Safety Label

A laser safety label is attached to the outside of the machine as shown below.



3.6.4 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

- Be sure to unplug the power cord whenever performing a service job in the laser beam path (around the PH unit).
- If it is absolutely unavoidable to perform a service job with the power cord plugged in, strictly observe the following precautions:
 - 1. Before starting the service job, take off your watch, ring, and other reflective articles and be sure to wear laser protective goggles.
 - 2. Keep other personnel away from the work site.
 - Do not bring any highly reflective tool into the laser beam path during the service procedure.

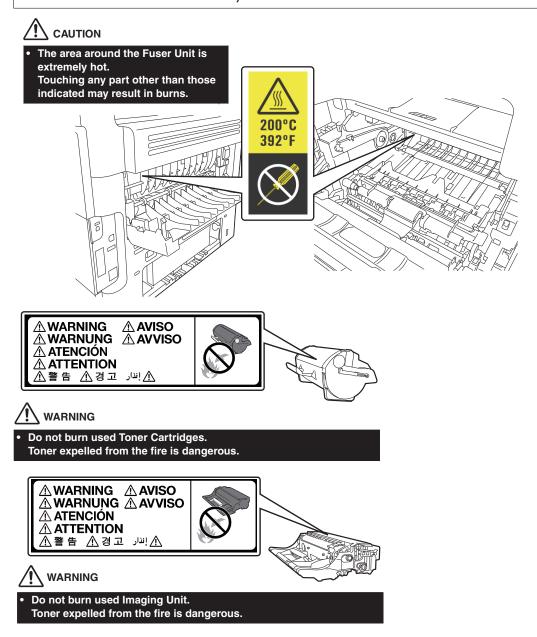
4. WARNING INDICATIONS ON THE MACHINE

Caution labels shown are attached in some areas on/in the machine. When accessing these areas for maintenance, repair, or adjustment, special care should be taken to avoid burns and electric shock.

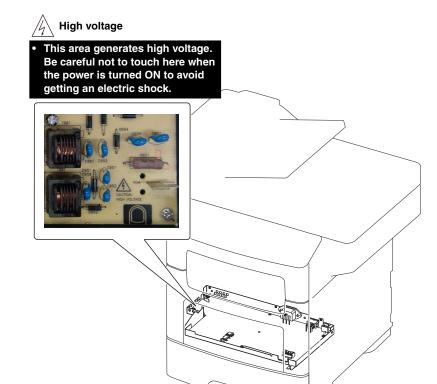
4.1 Warning indications inside the machine



You may be burned or injured if you touch any area that you are advised not to touch by any caution label. Do not remove caution labels. If any caution label has come off or soiled and therefore the caution cannot be read, contact our service office.



4.2 Warning indications on the boards



5. MEASURES TO TAKE IN CASE OF AN ACCIDENT

- 1. If an accident has occurred, the distributor who has been notified first must immediately take emergency measures to provide relief to affected persons and to prevent further damage.
- 2. If a report of a serious accident has been received from a customer, an on-site evaluation must be carried out quickly and KM must be notified.
- 3. To determine the cause of the accident, conditions and materials must be recorded through direct on-site checks, in accordance with instructions issued by KM.
- 4. For reports and measures concerning serious accidents, follow the regulations specified by every distributor.

B NOTATION OF THE CONTENTS

1. NOTATION OF THE CONTENTS

1.1 Product name

In this manual, each of the products is described as follows:

(1) bizhub 4750/4050 Main body, MFP
(2) Microsoft Windows Vista: Windows Vista
Microsoft Windows 7: Windows 7
Microsoft Windows 8: Windows 8
Microsoft Windows 8.1: Windows 8.1

Microsoft Windows Server 2003: Windows Server 2003

Microsoft Windows Server 2008: Windows Server 2008

Microsoft Windows Server 2012: Windows Server 2012

When the description is made in combination of the OS's mentioned above:

Windows 8.1/8/7/Vista/Server 2012/Server 2008 /Server 2003

Windows 8.1/8/7/Vista

Windows Server 2012/Server 2008/Server 2003

1.2 Brand name

The company names and product names mentioned in this manual are the brand name or the registered trademark of each company.

1.3 Feeding direction

- When the long side of the paper is parallel with the feeding direction, it is called short edge feeding. The feeding direction which is perpendicular to the short edge feeding is called the long edge feeding.
- Short edge feeding will be identified with [S (abbreviation for Short edge feeding)] on the paper size. No specific notation is added for the long edge feeding. When the size has only the short edge feeding with no long edge feeding, [S] will not be added to the paper size.

<Sample notation>

Paper size	Feed direction	Notation
A5	Transverse feed	A5
	Longitudinal feed	A5S
A4	Longitudinal feed	A4

C PRODUCT SPECIFICATIONS

1. bizhub 4750/4050

1.1 Type

Туре	Combination Scanner, ADF and Printer desk top type	
Printing system	Semiconductor laser and electrostatic image transfer to plain paper	
Exposure system	1 laser diode and 1 MEMS mirror scanning	
PC drum type	OPC (organic photo conductor)	
Photoconductor cleaning	Blade cleaning system	
Scan resolution	600 x 600 dpi (Original) 600 x 300 dpi (ADF)	
Luminous source	LED	
Original scanning	Flatbed CCD module scanning system	
Print resolution	600 x 600 dpi 1200 x 1200 dpi	
Paper feeding system	Pick roller and separation roller system	
Fuser system	Belt fuser system	
Paper exit system	Face down (Output tray capacity: 250 sheets)	

NOTE

These specifications are subject to change without notice.

1.2 Functions

	bizhub 4750	bizhub 4050		
Types of original	Sheets, books, and three-dimensional obje	Sheets, books, and three-dimensional objects		
Max. original size	A4 or Legal			
Multiple copies	1 to 999			
Image loss	Copy (Leading edge: 4.0 mm, trailing edge	e: 4.0 mm, rear edge: 4.0 mm, front edge: 4.0 mm)		
	Print (Leading edge: 4.2 mm, trailing edge:	: 4.2 mm, rear edge: 4.2 mm, front edge: 4.2 mm)		
Warm-up time	Power on to ready: average 77 seconds or 23 °C/73.4 °F and rated source voltage)	less (Power on to ready, at ambient temperature of		
First copy time	8.5 seconds or less (from ready)	8.5 seconds or less (from ready)		
First print time	6.5 seconds or less	6.5 seconds or less		
Copy speed	 50 sheets/min. (Simplex/Letter), 47 sheets/min. (Simplex/A4), 22 sheets/min. (Duplex/Letter), 20 sheets/min. (Duplex/A4) 	 42 sheets/min. (Simplex/Letter), 40 sheets/min. (Simplex/A4), 20 sheets/min. (Duplex/Letter), 18 sheets/min. (Duplex/A4) 		
Fixed zoom ratios	, , ,	• Enlargement: x2.000, x1.631, x1.545, x1.414, x1.294, x1.224, x1.154 • Reduction: x0.866, x0.816, x0.785, x0.707, x0.647, x0.607, x0.500		
Variable zoom ratios		 Platen: x 0.250 to x4.000 (in x0.001 increments) ADF: x 0.250 to x2.000 (in x0.001 increments) 		
Exit tray capacity	250 sheets (Plain paper)	250 sheets (Plain paper)		
External memory function	 FAT32-formatted memory device Not including security features (Possible Memory capacity of 2GB or less recomm 	USB flash memory compatible with the USB (1.1/2.0) interface		
Memory capacity	Main memory: 2GB (Max.2GB) HDD: 320GB			

NOTE

• These specifications are subject to change without notice.

1.3 Paper

Danar Tyna	Paper weight	Paper source (maximum tray capacity)		
Paper Type	Faper weight	Manual Feed Tray		Duplex unit
Plain paper	60 g/m2 to 90 g/m2 (15-15/16 lb to 23-15/16 lb)	100 sheets	550 sheets	0
Recycled paper	60 g/m2 to 90 g/m2 (15-15/16 lb to 23-15/16 lb)	100 sheets	550 sheets	0
1-sided special paper	60 g/m2 to 90 g/m2 (15-15/16 lb to 23-15/16 lb)	100 sheets	550 sheets	*
Thick 1	91 g/m2 to 120 g/m2 (24-3/16 lb to 31-15/16 lb)	10 sheets	550 sheets	0

Denor Type Denor weight		Paper source (maximum tray capacity)		
Paper Type	Paper weight	Manual Feed Tray	Tray 1	Duplex unit
Thick 1+	121 g/m2 to 157 g/m2 (32-3/16 lb to 41-3/4 lb)	10 sheets	_	0
Thick 2	158 g/m2 to 163 g/m2 (42 lb to 43 lb)	10 sheets	_	0
Coated Paper 1	100 g/m2 to 120 g/m2 (26-5/8 lb to 31-15/16 lb)	_	_	*
Coated Paper 1+	121 g/m2 to 157 g/m2 (32-3/16 lb to 41-3/4 lb)	_	_	*
Coated Paper 2	158 g/m2 (42 lb)	_	_	_*
Postcard	_	100 sheets	_	_*
Letterhead	_	100 sheets	550 sheets	_*
Label	_	30 sheets	550 sheets	_*
Envelope	_	20 sheets	_	_*
Danasia	Width	76.2 to 216 mm (3 to 8.5 inch)	105 to 216 mm (4 to 8.5 inch)	76 to 216 mm (3 to 8.5 inch)
Paper size	Length	127 to 356 mm (5 to 14.0 inch)	148 to 356 mm (5.8 to 14.0 inch)	127 to 356 mm (5 to 14.0 inch)

^{• * 1-}sided special paper, Coated Paper 1, Coated Paper 1+, Coated Paper 2, Postcard, Letterhead, Label and Envelope cannot be fed for duplex printing.

· These specifications are subject to change without notice.

1.4 Materials

	Materials	Parts name	bizhub 4750 (Life value)*1	bizhub 4050 (Life value)*1
		Standard in-box	7,500 prints	7,500 prints
Toner cartridge	TNP44 TNP46	20,000 prints	20,000 prints	
	Imaging unit	IUP20 IUP21	60,000 prints	60,000 prints

^{• *1:} This machine has the field standard yield which indicates the available print numbers estimated by the quantities and usage of the unit in the market standard job mode. Yields for each preventative maintenance unit will differ depending on actual usage.

1.4.1 Conditions for defining the life value for the field standard yield

Item	bizhub 4750	bizhub 4050
Copy / Print condition	4 P/J	3 P/J
Copy / Print mode	Standard resolution, Plain paper, Simplex mode, A4 size	
Average coverage	5%	
Average print volume/month	4,500 prints/month	3,500 prints/month

1.5 Print volume

	bizhub 4750	bizhub 4050
Average	4,500 prints/month	3,500 prints/month
Maximum	150,000 prints/month	150,000 prints/month

1.6 Machine specifications

Item		bizhub 4750	bizhub 4050
	Voltage:	AC 110 to 127 V, 220 to 240 V	
Power requirements	Current:	• 110 to 127 V: 8.2 A or less • 220 to 240 V: 4.2 A or less	
	Frequency:	50 to 60 Hz	
Max power consumption		• 990 W or less (120 V) • 972 W or less (230 V)	974 W or less (110 V) 930 W or less (120 V) 926 W or less (230 V)
Dimensions		• 489 (W) x 479 (D) x 561 (H) mm / 19.3 (W) x 18.9 (D) x 22.1 (H) inch	
Space requirements (without option)		• 595 (W)*1 x 793 (D)*2 x 864 (H)*3 mm / 31.9 (W) x 36.7 (D) x 32.6 (H) inch	
Weight		24 kg (53 lb) or less with consumables	• 24 kg (53 lb) or less with consumables
Operating noise		During standby: 15 dB (A) or less During printing: 54 dB (A) or less During copy: 55 dB (A) or less	During standby: 15 dB (A) or less During printing: 54 dB (A) or less During copy: 55 dB (A) or less

^{• *1:} When the ADF document stopper is drawing out.

- *2: When the ADF unit is opened, and manual feed is opened.
 *3: When the ADF unit is opened.

• These specifications are subject to change without notice.

1.7 Operating environment

Temperature	10 to 30° C / 50 to 86° F (with a fluctuation of 10° C / 18° F or less per hour)
Humidity	15 to 85% (Relative humidity with a fluctuation of 10% or less per hour)

NOTE

• These specifications are subject to change without notice.

1.8 Print functions

	bizhub 4750	bizhub 4050	
First print time (Tray 1, plain paper, A4/Letter)	• 6.5 sec. or less	• 6.5 sec. or less	
Printing speed for multi-print cycle (Tray 1, plain paper)	1-sided: 47 copies/min (A4) 2-sided: 20 copies/min (A4) 1-sided: 50 copies/min (Letter) 2-sided: 22 copies/min (Letter)	1-sided: 40 copies/min (A4) 2-sided: 18 copies/min (A4) 1-sided: 42 copies/min (Letter) 2-sided: 20 copies/min (Letter)	
Print resolution		Standard: 600 dpi in main scanning direction x 600 dpi in sub scanning direction High quality: 1,200 dpi in main scanning direction x 1,200 dpi in sub scanning direction (Half speed)	
Printer language	,	PCL5c/e Emulation, PCL 6 (XL Version 3.0) Emulation, PostScript 3 Emulation (3016), XPS ver.1.0, PPML/GA2.2, PPML/VDX, OpenXPS, PDF Direct Printing (Version 1.7)	
Supported operating systems (server)	Windows server 2003, Windows server 2003 64bit, Windows server 2003 R2, Windows server 2003 R2 64bit Windows server 2008, Windows server 2008 64bit, Windows server 2008 R2 Windows server 2012, Windows Server 2012 R2 Red Hat Enterprise Linux 4/5/6 server SUSE Linux Enterprise Server 9/10/11		
Supported operating systems (client)	Windows Vista, Windows Vista 64bit, Windows 7, Windows 7 64bit, Windows 8, Windows 8 64bit, Windows 8.1, Windows 8.1 64bit Mac OSX 10.3, Mac OSX 10.4, Mac OSX 10.4 Intel edition, Mac OSX 10.5, Mac OSX 10.5 Intel edition, Mac OSX 10.6, Mac OSX 10.7, Mac OSX 10.8, Mac OS X 10.9 Red Hat Enterprise Linux 4/5/6 Desktop SUSE Linux Enterprise Desktop 9/10/11		
Printer driver (PCL6)	Windows Vista, Windows Vista 64bit, Windows 7, Windows 7 64bit, Windows 8, Windows 8 64bit, Windows 8.1, Windows 8.1 64bit Windows Server 2003, Windows Server 2003 64bit, Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 64bit, Windows Server 2008 R2, Windows Server 2012, Windows 2012 R2		
Printer driver (PostScript 3)	Windows Vista, Windows Vista 64bit, Windows 7, Windows 7 64bit, Windows 8, Windows 8 64bit, Windows 8.1, Windows 8.1 64bit Windows Server 2003, Windows Server 2003 64bit, Windows Server 2003 R2, Windows Server 2003 R2 64bit, Windows Server 2008, Windows Server 2008 64bit, Windows Server 2008 R2, Windows Server 2012, Windows 2012 R2 Mac OSX 10.3 PPD+PDE, Mac OSX 10.4 PPD+PDE, Mac OSX 10.4 Intel edition PPD +PDE, Mac OSX 10.5 PPD+PDE, Mac OSX 10.5 Intel edition PPD+PDE, Mac OSX 10.6 PPD+PDE, Mac OSX 10.7 PPD+PDE, Mac OSX 10.8 PPD+PDE, Mac OS X 10.9 PPD +PDE Linux printer driver PPD file		
Printer driver (XPS)	Windows Vista, Windows Vista 64bit, Windows 64bit, Windows 8.1, Windows 8.1 64bit Windows Server 2008, Windows Server 2008, Server 2012, Windows Server 2012 R2	ws 7, Windows 7 64bit, Windows 8, Windows 8 8 64bit, Windows Server 2008 R2, Windows	
Work memory	2GB (Max. 2GB)		
Host interface	Ethernet 10Base-T, 100Base-TX, 1000Base-T,	USB2.0/1.1, USB_Host	
Built-in fonts (PCL)	European 80 fonts		
Built-in fonts (PostScript 3 Emulation)	European 137 fonts (Type1 font)		

1.9 Scan Functions

Scannable range	Same as the copier specification (Max. A4 or Legal)
Scan Speed (ADF scan, resolution 300 dpi, A4 size)	45 pages/min (Mono) 30 pages/min (Color)
Functions	Scan to E-mail, Scan to FTP, Scan to SMB, Scan to WebDAV, Scan to HDD, Scan to USB memory, WSD scan, Network TWAIN (Ethernet TCP/IP)
Scanning resolution	200 dpi, 300 dpi, 400 dpi, 600 dpi

Supported operation system	 Windows Vista/7/8/8.1/Server 2003/Server 2008/Server 2012/Server 2003R2/Server 2008R2/Server 2012R2 Mac OS X (10.3.9/10.4/10.5/10.6/10.7/10.8/10.9)
Drivers	 TWAIN Driver for Vista/7/8/Server 2003/Server 2008/Server 2012/Server 2003R2/Server 2008R2/Server 2012R2 TWAIN Driver for Mac OS X (10.3.9/10.4/10.5/10.6/10.7/10.8/10.9) WIA Driver for Windows Vista/7/8/8.1/Server 2008 WIA Driver for Windows Vista/7/8/8.1/Server 2008/Server 2008R2/ Server 2012/Server 2012 R2 64bit
Output file format	TIFF, PDF, CompactPDF, JPEG, XPS, PDF/A

• These specifications are subject to change without notice.

2. PF-P11/PF-P12

2.1 Type

Name	PF-P11: 250 sheets paper tray PF-P12: 550 sheets paper tray
Туре	Front-loading type
Installation	Desk type
Document alignment	Center

2.2 Media type

Paper size	A4/A5/Executive/Folio/JIS-B5/Legal/Letter/Statement/Oficio Minimum Feed Size:105mm x 148mm Maximum Feed Size:216mm x 356mm
Paper type	 Plain paper: 60 to 90 g/m2 (16 to 24 lb) Recycled paper: 60 to 90 g/m2 (16 to 24 lb) 1-sided special paper: 60 to 90 g/m2 (16 to 24 lb) Special paper: 60 to 90 g/m2 (16 to 24 lb) Colored paper: 60 to 90 g/m2 (16 to 24 lb) Thick paper: 91 to 120 g/m2 (24 to 32 lb) Label
Capacity	PF-P11: 250 sheets PF-P12: 550 sheets

2.3 Machine specifications

Power Requirements	• DC 24 V ± 10% (supplied from the main body)
Dimensions (W) x (D) x (H)	PF-P11: 388.6mm × 382 mm × 77 mm / 15.3 inch × 15.04 inch × 3.03 inch PF-P12: 388.6mm × 382 mm × 109 mm / 15.3 inch × 15.04 inch × 4.29 inch
Weight	Approx. 9.2 kg (20.3 lb)

2.4 Operating environment

Temperature	10° to 30° C/50° to 86° F (with a fluctuation of 10° C /18° F or less per hour)
Humidity	15% to 85% (with a fluctuation of 20% or less per hour)

NOTE

• These specifications are subject to change without notice.

3. FS-P02

3.1 Type

Name	FS-P02
Туре	Inline Stapler

3.2 Paper specifications

Туре	Plain paper
Weight	52g/m2 to 75g/m2
Size	A4, Folio, Legal, Letter, Oficio
Staple capacity	2-sheets (52g/m2) to 20-sheets (75g/m2)

3.3 Machine specifications

Power requirements	DC 24 V ±10 % (supplied from the main body)
Dimensions	• 195.6 mm (H) × 389 mm (W) × 99 mm (D) • 7.7 inch (H) × 15.3 inch (W) × 3.9 inch (D)
Weight	Approx. 5.3kg (11.6lb)
Staple cartridge	1,000 staples

3.4 Operating environment

Temperature	10° to 30° C/50° to 86° F (with a fluctuation of 10° C /18° F or less per hour)
Humidity	15% to 85% (with a fluctuation of 20% or less per hour)

NOTE

• These specifications are subject to change without notice.

4. FK-512

Applicable lines	PSTN, PBX		
Protocol	Group 3 (compliant to ITU-T T.30)		
Trotocol	Konica Minolta non-standard protocol: No Group 4: No TCP/IP, SMTP, POP3 (compliant to ITU-T T.37 and W-NET FAX)		
Communication resolution (G3 fax)	Standard (203 dpi x 98 dpi) Fine (203 dpi x 196 dpi) Super fine (406 dpi x 391dpi) Ultra fine (600 dpi x 600 dpi)		
Communication resolution(Internet fax)	Transmission	 Standard: 200 x 100 dpi Fine: 200 x 200 dpi Super fine: 400 dpi x 400 dpi Ultra fine: 600 dpi x 600 dpi 	
	Reception	200 x 100 dpi, 204 x 196 dpi, 200 x 200 dpi, 408 x 391 dpi, 400 x 400 dpi, 600 x 600 dpi	
Compatibility	ECM/Super G3		
Communication speed	2.4 to 33.6 kbps		
Fax transmission speed	3 seconds/page (at A4, V.34, 33.6) • Resolution: standard mode • Konica Minolta standard original		
Coding method	G3 fax: MH, MR, MMR and JBIC Internet fax (Transmission): TIFF Internet fax (Reception): TIFF-S	F-S (MH), TIFF-F (MR/MMR)	
File type	Monochrome (TIFF)		
Modulation method	V.27 ter, V.29, V.17 and V.34		
Fax memory	256 MB		
Max. scanning size	ADF: 216 x 1000 mm Original glass: Legal		
Max. recording size	Legal The fax message is printed according to the setting of Print Separate Fax Pages, if an original longer than the paper loaded in the machine is received.		
Scanning speed	45 sheets/minute (A4)		
Functions	Abbreviated dial	Max. 2000 stations to be registered	
	Program dial	Max. 400 numbers to be registered	
	Key pad dial	 38 digits maximum (during off-hook dial mode) 60 digits maximum (during on-hook dial mode)	
	Group dial	Max. 100 numbers to be registered. Up to 500 abbreviated dial numbers can be registered for each group.	
	Manual redial	Possible to select from five latest histories.	
	Automatic redial	 Automatically redial when remote stations are busy or return no responses or transmission errors occur at the memory transmission. Note that, this is not performed at a manual (off-hook) transmission. Possible to receive during redial waiting. Another call is possible. 	
	Pulse/tone switching	Capable of switching from pulse to tone by using the [*] key on the [Key pad] or [Tone] key on LCD.	
	PBX mode setting	 Possible to turn ON or OFF the PBX connection and to register the external access code. There is the automatic removal function of external access code to registered abbreviated remote station No. Nothing is automatic addition function. 	
	Off-hook	Manual start is possible with the "Off-Hook" button on the LCD screen.	
	Call progress detection	 DC loop (Depends on country spec) Dial tone (Depends on country spec) Busy tone (Depends on country spec) 	
	Dialing system	To be selected from among PB, 10 pps, and 20 pps	
	Line monitoring sound	ON (A-B): Monitoring sound is sounded for communication phase between A and B. ON (All): Monitoring sound is sounded for communication phase between A and E. OFF: Monitoring sound is not sounded.	
	Off-Hook alarm	Notifies the user if the external telephone is off-hook at the end of fax communication.	

NOTE

These specifications are subject to change without notice.

5. i-Option (LK-106/107/108/111)

• The functions available for i-Option are as follows.

5.1 List of advanced functions

i-Option	Function	Overview
LK-106	Barcode font	Allows you to generate a bar code based on data sent to this machine from the ERP (Enterprise Resource Planning) system, and print it from this machine. You can directly print data without using the printer driver.
LK-107	Unicode font	Allows you to print text information (unicode) of multiple languages sent to this machine from the ERP (Enterprise Resource Planning) system. You can directly print data without using the printer driver.
LK-108	OCR font	OCR fonts can be used on this machine.
LK-111	ThinPrint function	Allows you to enable the ThinPrint function on this machine. ThinPrint is a function which allows you to make a print speedily by compressing the data or controlling the marginal zone when sending a print job from a ThinPrint Engine (.print Engine) to a ThinPrint Client (.print Client). This machine operates as a ThinPrint Client (.print Client).

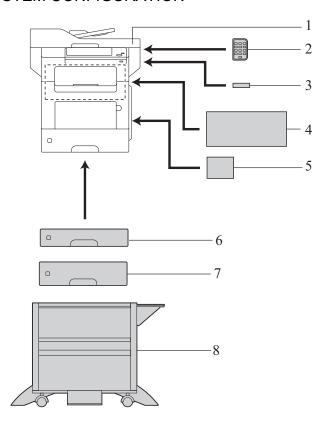
5.2 Activation procedures of i-Option

For details of the activation procedures, refer to the following.

• Activation via Service Mode:1.5.3.3 License Management - Activation

D OVERALL COMPOSITION

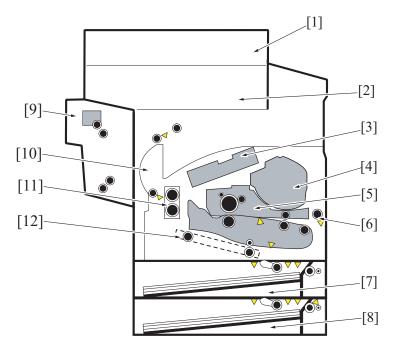
1. SYSTEM CONFIGURATION



[1]	bizhub 4750/bizhub 4050	[2]	Key pad (KP-P01)*
[3]	Authentication unit (AU-201)*	[4]	Finisher (FS-P02)*
[5]	FAX Kit (FK-512)* (required the Mounting kit MK-P03)	[6]	Paper Feed Unit(PF-P11)*
[7]	Paper Feed Unit(PF-P12)*	[8]	Desk (DK-P03)*

^{• *:} Option

2. SECTION CONFIGURATION

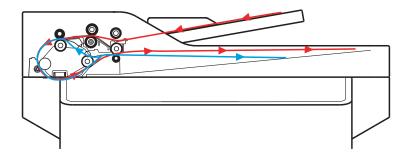


[1]	Auto document feeder	[2]	Scanner section
[3]	Write section	[4]	Toner cartridge
[5]	Imaging unit	[6]	Paper feed section (Manual tray)
[7]	Paper feed section (Tray 1)	[8]	Paper feeder unit (Tray 2)*
[9]	Finisher*	[10]	Paper exit/reverse section
[11]	Fuser section	[12]	Duplex section

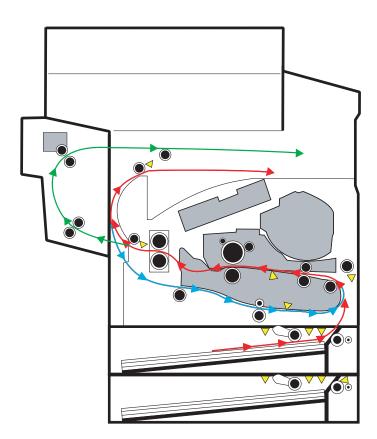
^{*:} Option

3. PAPER PATH

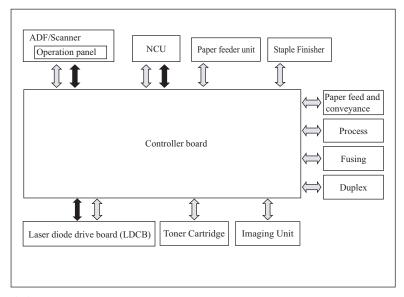
3.1 ADF Section



3.2 Printer Section



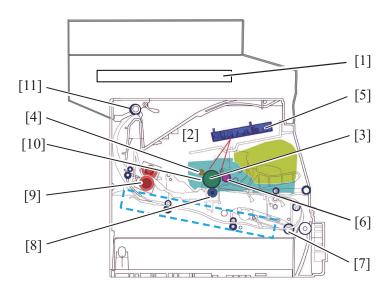
4. CONTROL BLOCK DIAGRAM



Control system line

Image bus line

5. IMAGE CREATION PROCESS



[1]	CCD (Photoelectric conversion)	• Light reflected off the surface of the original is converted to a corresponding electric signal by CCD and the resultant electric signal is sent to the controller board.
[2]	Controller board	The intensity of the laser light is controlled based on the image signal transmitted to CCD.
[3]	PC drum	The image of the original projected onto the surface of the PC drum is changed to a corresponding electrostatic latent image.
[4]	PC drum charging	Apply DC (-) charge to the photo conductor.
[5]	LD exposure	The surface of the PC drum is irradiated with laser light, and an electrostatic latent image is thereby formed.
[6]	Developing	The toner, agitated and negatively charged in the toner chamber, is attracted onto the electrostatic latent image formed on the surface of the PC drum. It is thereby changed to a visible, developed image.
[7]	Paper feed	Paper is supplied from the paper feed tray.
[8]	image transfer	• A DC positive charge is applied to the image transfer roller to transfer the visible image on the surface of the drum onto the paper.
[9]	Fuser	The developed image is permanently fused to the paper by the combination of heat and pressure applied by the fuser roller.
[10]	PC drum cleaning	The residual toner left on the surface of the PC drum is scraped off.
[11]	Paper exit	The paper is fed out onto the exit tray.

E SERVICE TOOL

1. bizhub 4750/4050

1.1 Service material list

Tool name	Shape	Material No.	Remarks
Cleaning pad		000V-18-1	10pcs/1pack
Isopropyl alcohol		000V-19-0	

1.2 Utility tool

1.2.1 IC card information setting tool of AU-201/AU-201H/AU-202H/SCL-010/YSoft card reader

(1) Outline

Before connecting the AU-201/AU-201H/AU-202H/SCL-010/YSoft card reader to the MFP, it is necessary to prepare an IC card
information setting file with the loadable driver. To prepare this file, a tool is used for preparing the IC card information setting file for use
in each card reader

(2) IC card information setting file preparation tool

(a) Tool names

Tools for CE

- For AU-201: Auth Device Tool Advanced for AU-201
- For AU-201H: Auth Device Tool Advanced for AU-201H
- For SCL-010: Auth Device Tool Advanced for SCL-010
- For AU-202H: Auth Device Tool Advanced for AU-202H
- · For the YSoft card reader: Auth Device Tool Advanced for YSoft CRv2

(b) System requirement of tools for CE

OS	Windows Vista Windows 7 Windows 8 Windows 8.1 Support both 32-bit (x86) and 64-bit (x64) editions
Library (Any of these needs to be installed)	Microsoft .Net Framework2.0 SP2 Microsoft .Net Framework3.0 SP2 Microsoft .Net Framework3.5 SP1 Microsoft .Net Framework3.5.1
HDD	10 MB or more free space is required
Display	800 x 600 pixels,16 bit full color

(3) IC card information setting procedures

(a) Preparations for the following (c), (e), (g), (i) or (k) procedures

- Using the PageScope Data Administrator, register the target MFP in advance.
- Set the MFP into a state in which it can communicate over the network.
- Accessing PageScope Web Connection -> [Administrator mode] -> [Security Settings], issue a self-signed certificate from [Device Certificate Setting] and install it.
- Accessing PageScope Web Connection -> [Administrator mode] -> [Network Settings], set use of [SSL/TLS] in [OpenAPI] to "SSL Only".

NOTE

 Only one loadable device driver must be stored in the USB memory, and please do not save any other data in the USB memory

(b) Auth Device Tool Advanced for AU-201 (Setting IC card information in the loadable driver in advance)

- 1. Obtain the loadable driver (ICC_LDR.tar) for use in AU-201 that is compatible with the type of card used.
- 2. Start the Auth Device Tool Advanced for AU-201.
- 3. Select [Import Loadable Driver] from [File] and select the loadable driver.
- 4. Select card type.
- 5. If the card is good for detailed settings, click [Detail Setting/Extra Data Setting].
- 6. Input the necessary extended data. (For details, ask the IC card administrator.)
- 7. Select Loadable Driver in [Export Format] and click [Export].
- 8. Select the loadable driver to be updated and the output location of the loadable driver and click [OK].

9. Copy the output loadable driver (ICC_LDR.tar) to the root directory of the USB memory.

NOTE

- · Please do not save any other data in the USB memory.
- 10. Call the Service Mode to the screen of the MFP.
- 11. Select [Loadable Driver Download].
- 12. Connect the USB memory in which the loadable driver has been saved to the USB port on the side of the control panel.
- 13. Select Loadable driver and touch the [Start].
- 14. Touch the [OK] and install the loadable driver.
- 15. Remove the USB memory.
- 16. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 17 Set the authentication user

(c) Auth Device Tool Advanced for AU-201 (Installing IC card information setting only in the MFP afterward)

- 1. Install the loadable driver for use in AU-201 that is compatible with the type of card used.
- 2. Start the Auth Device Tool Advanced for AU-201.
- 3. Select card type.
- 4. If the card is good for detailed settings, click [Detail Setting/Extra Data Setting].
- 5. Input the necessary extended data. (For details, ask the IC card administrator.)
- 6. Select IC card information setting file in [Export Format] and click [Export].
- 7. Set the encrypted password.
- 8. Save the file (iccConfig.bin).
- 9. Start the PageScope Data Administrator, and select the target MFP.
- 10. In the [Settings for multiple device] tab, click [Batch setting of IC Card Information].
- 11. Using [Browse], select the file saved in step 8.
- 12. Click [Open] and type the encrypted password set in step 7.
- 13. Click [Next] and select the device to be imported.
- 14. Click [Start] and write the file in the MFP.
- 15. Check that "Normal" is shown in [Status].
- 16. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 17. Set the authentication user.

(d) Auth Device Tool Advanced for AU-201H (Setting IC card information in the loadable driver in advance)

- 1. Obtain the loadable driver (ICC_LDR.tar) for use in AU-201H that is compatible with the type of card used.
- 2. Start the Auth Device Tool Advanced for AU-201H.
- 3. Select [Import Loadable Driver] from [File] and select the loadable driver.
- 4. Select card type.
- 5. If the card is good for detailed settings, click [Detail Setting/Extra Data Setting].
- 6. Input the necessary extended data. (For details, ask the IC card administrator.)
- 7. Select Loadable Driver in [Export Format] and click [Export].
- 8. Select the loadable driver to be updated and the output location of the loadable driver and click [OK].
- 9. Copy the output loadable driver (ICC_LDR.tar) to the root directory of the USB memory.

NOTE

- · Please do not save any other data in the USB memory.
- 10. Call the Service Mode to the screen of the MFP.
- 11. Select [Loadable Driver Download].
- 12. Connect the USB memory in which the loadable driver has been saved to the USB port on the side of the control panel.
- 13. Select Loadable driver and touch the [Start].
- 14. Touch the [OK] and install the loadable driver.
- 15. Remove the USB memory.
- 16. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 17. Set the authentication user.

(e) Auth Device Tool Advanced for AU-201H (Installing IC card information setting only in the MFP afterward)

- 1. Install the loadable driver for use in AU-201H that is compatible with the type of card used.
- 2. Start the Auth Device Tool Advanced for AU-201H.
- 3. Select card type.
- 4. If the card is good for detailed settings, click [Detail Setting/Extra Data Setting].
- 5. Input the necessary extended data. (For details, ask the IC card administrator.)
- 6. Select IC card information setting file in [Export Format] and click [Export].
- 7. Set the encrypted password.
- 8. Save the file (iccConfig.bin).
- 9. Start the PageScope Data Administrator, and select the target MFP.
- 10. In the [Settings for multiple device] tab, click [Batch setting of IC Card Information].
- 11. Using [Browse], select the file saved in step 8.
- 12. Click [Open] and type the encrypted password set in step 7.
- 13. Click [Next] and select the device to be imported.
- 14. Click [Start] and write the file in the MFP.
- 15. Check that "Normal" is shown in [Status].
- 16. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 17. Set the authentication user.

(f) Auth Device Tool Advanced for SCL-010 (Setting IC card information in the loadable driver in advance)

1. Obtain the loadable driver (ICC_LDR.tar) for use in SCL-010 that is compatible with the type of card used.

- 2. Start the Auth Device Tool Advanced for SCL-010.
- 3. Select card type.
- 4. Select Loadable Driver in [Export Format] and click [Export].
- 5. Select the loadable driver to be updated and the output location of the loadable driver and click [OK].
- 6. Copy the output loadable driver (ICC_LDR.tar) to the root directory of the USB memory.

- · Please do not save any other data in the USB memory.
- 7. Call the Service Mode to the screen of the MFP.
- 8. Select [System 2] -> [Driver Install] -> [Install].
- 9. Connect the USB memory in which the loadable driver has been saved to the USB port on the side of the control panel.
- 10. Select [Loadable driver] and touch the [Start] to install the loadable driver.
- 11. Remove the USB memory and, accessing [Billing Settings] -> [Management Function Choice] -> [Authentication Device 2], select [Card]
- 12. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 13. Set the authentication user.

(g) Auth Device Tool Advanced for SCL-010 (Installing IC card information setting only in the MFP afterward)

- 1. Install the loadable driver for SCL-010 to the MFP.
- 2. Start the Auth Device Tool Advanced for SCL-010.
- 3. Select card type.
- 4. Select IC card information setting file in [Export Format] and click [Export].
- 5. Set the encrypted password.
- 6. Save the file (iccConfig.bin).
- 7. Start the PageScope Data Administrator, and select the target MFP.
- 8. In the [Settings for multiple device] tab, click [Batch setting of IC Card Information].
- 9. Using [Browse], select the file saved in step 6.
- 10. Click [Open] and type the encrypted password set in step 5.
- 11. Click [Next] and select the device to be imported.
- 12. Click [Start] and write the file in the MFP.
- 13. Check that "Normal" is shown in [Status].
- 14. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 15. Set the authentication user.

(h) Auth Device Tool Advanced for AU-202H (Setting IC card information in the loadable driver in advance)

- 1. Obtain the loadable driver (ICC_LDR.tar) for use in AU-202H that is compatible with the type of card used
- 2. Start the Auth Device Tool Advanced for AU-202H.
- 3. Set the card ID length.
- 4. Select Loadable Driver in [Export Format] and click [Export].
- 5. Select the loadable driver to be updated and the output location of the loadable driver and click [OK].
- 6. Copy the output loadable driver (ICC_LDR.tar) to the root directory of the USB memory.

NOTE

- · Please do not save any other data in the USB memory.
- 7. Call the Service Mode to the screen of the MFP.
- 8. Select [System 2] -> [Driver Install] -> [Install].
- 9. Connect the USB memory in which the loadable driver has been saved to the USB port on the side of the control panel.
- 10. Select [Loadable driver] and touch the [Start] to install the loadable driver.
- 11. Remove the USB memory and, accessing [Billing Settings] -> [Management Function Choice] -> [Authentication Device 2], select [Card].
- 12. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 13. Set the authentication user.

(i) Auth Device Tool Advanced for AU-202H (Installing IC card information setting only in the MFP afterward)

- 1. Install the loadable driver for AU-202H to the MFP.
- 2. Start the Auth Device Tool Advanced for AU-202H.
- 3. Set the card ID length.
- 4. Select IC card information setting file in [Export Format] and click [Export].
- 5. Set the encrypted password.
- 6. Save the file (iccConfig.bin).
- 7. Start the PageScope Data Administrator, and select the target MFP.
- 8. In the [Settings for multiple device] tab, click [Batch setting of IC Card Information].
- 9. Using [Browse], select the file saved in step 6.
- 10. Click [Open] and type the encrypted password set in step 5.
- 11. Click [Next] and select the device to be imported.
- 12. Click [Start] and write the file in the MFP.
- 13. Check that "Normal" is shown in [Status].
- 14. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 15. Set the authentication user.

(j) Auth Device Tool Advanced for YSoft CRv2 (Setting IC card information in the loadable driver in advance)

 If a YSoft card reader is used, when performing authentication, the default setting for the loadable driver makes the card to be informed as an HID Prox card regardless of which type you are using. To change the card type when performing authentication, using Auth Device Tool Advanced for YSoft CRv2 to choose a corresponding card type to be reported to the authentication program from the following list.

Card Reader Name	Readable Card Type	IC Card Information Setting (card type to be reported)
KM USB Reader v2 MultiReader HF	Mifare	TypeA (1) *1
KM USB Reader v2 Legic Advant	LEGIC	TypeA (1) *1
KM USB Reader v2 ASK FSK 125kHz	EM4100, EM4102, RFID 125kHz	EM4100/ EM4102/ RFID 125kHz
KM USB Reader v2 Mot/Ind W26	Indala	Indala
KM USB Reader v2 HID Prox	HID Prox	HID Prox (1) *2
KM USB Reader v2 HID iCLASS	HID ICLASS	HID iCLASS (1) *3

- *1 The content (ID) to be read from the type A card setting differs from which to be read by using AU-201.
- *2 The content (ID) to be read from the HID Prox card setting differs from which to be read by using AU-201H.
- *3 The content (ID) to be read from the HID iCLASS card setting differs from which to be read by using AU-202H.
- 1. Obtaion the loadable driver (ICC LDR.tar) for the YSoft card reader.
- 2. Start the Auth Device Tool Advanced for YSoft CRv2.
- 3. Select card type.
- 4. Select Loadable Driver in [Export Format] and click [Export].
- 5. Select the loadable driver to be updated and the output location of the loadable driver and click [OK].
- 6. Copy the output loadable driver (ICC_LDR.tar) to the root directory of the USB memory.

NOTE

- · Please do not save any other data in the USB memory.
- 7. Call the Service Mode to the screen of the MFP.
- 8. Select [System 2] -> [Driver Install] -> [Install].
- 9. Connect the USB memory in which the loadable driver has been saved to the USB port on the side of the control panel.
- 10. Select [Loadable driver] and touch the [Start] to install the loadable driver.
- 11. Remove the USB memory and, accessing [Billing Settings] -> [Management Function Choice] -> [Authentication Device 2], select [Card]
- 12. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 13. Set the authentication user.

(k) Auth Device Tool Advanced for YSoft CRv2 (Installing IC card information setting only in the MFP afterward) NOTE

 If a YSoft card reader is used, when performing authentication, the default setting for the loadable driver makes the card to be informed as an HID Prox card regardless of which type you are using.

To change the card type when performing authentication, using Auth Device Tool Advanced for YSoft CRv2 to choose a corresponding card type to be reported to the authentication program from the following list.

Card Reader Name	Readable Card Type	IC Card Information Setting (card type to be reported)
KM USB Reader v2 MultiReader HF	Mifare	TypeA (1) *1
KM USB Reader v2 Legic Advant	LEGIC	TypeA (1) *1
KM USB Reader v2 ASK FSK 125kHz	EM4100, EM4102, RFID 125kHz	EM4100/ EM4102/ RFID 125kHz
KM USB Reader v2 Mot/Ind W26	Indala	Indala
KM USB Reader v2 HID Prox	HID Prox	HID Prox (1) *2
KM USB Reader v2 HID iCLASS	HID ICLASS	HID iCLASS (1) *3

- *1 The content (ID) to be read from the type A card setting differs from which to be read by using AU-201.
- *2 The content (ID) to be read from the HID Prox card setting differs from which to be read by using AU-201H.
- *3 The content (ID) to be read from the HID iCLASS card setting differs from which to be read by using AU-202H.
- 1. Install the loadable driver for the YSoft card reader to the MFP.
- 2. Start the Auth Device Tool Advanced for YSoft CRv2.
- Select card type.
- 4. Select IC card information setting file in [Export Format] and click [Export].
- 5. Set the encrypted password.
- 6. Save the file (iccConfig.bin).
- Start the PageScope Data Administrator, and select the target MFP.
- 8. In the [Settings for multiple device] tab, click [Batch setting of IC Card Information].
- 9. Using [Browse], select the file saved in step 6.
- 10. Click [Open] and type the encrypted password set in step 5.
- 11. Click [Next] and select the device to be imported.
- 12. Click [Start] and write the file in the MFP.
- 13. Check that "Normal" is shown in [Status].
- 14. Turn OFF the main power switch and turn it ON again more than 10 seconds after.
- 15. Set the authentication user.

F PERIODICAL MAINTENANCE

1. Inspection guide

The purpose of this inspection guide is to aid you in identifying the intervals, based on page count, at which parts must be inspected (for visible physical damage), cleaned, or replaced.

If any unsafe conditions exist, find out how serious the hazard could be and if you can continue before you correct the hazard.

As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the On/Off switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and the power supply cover Possible safety exposure from any non-KONICA MINOLTA attachments

Use the following table to determine when specified parts should be inspected:

	EVERY SERVICE CALL	EVERY 100K	EVERY 200K	EVERY 400K	NOTES
MEDIA TRAY - ALL		•	•	<u>'</u>	
Media side guides	Inspect	Inspect	Inspect		Check for correct positioning.
Media end guide	Inspect	Inspect	Inspect		Check for correct positioning.
Separation pad	Inspect	Clean	Clean		Damp cloth
Tray lift gear assembly		Inspect	Inspect		
Separator roll assembly	Inspect	Inspect	Replace		Verify page count before replacing.
MEDIA FEEDERS - ALL				<u> </u>	
ACM pick tire	Inspect	Inspect	Replace	Replace	Verify page count before replacing.
MPF pick roller/separator pad	Inspect	Inspect	Replace	Clean	Water or alcohol
Sensor		Clean	Clean	Clean	Brush or blower brush
TRANSFER ROLL			'	<u> </u>	
Transfer roll	Inspect	Inspect	Replace	Replace	
FUSER UNIT			'		
Fuser unit	Inspect	Inspect	Replace	Inspect	
Sensor (fuser exit)		Clean	Clean	Clean	Blower brush
REDRIVE ASSEMBLY		'	'		-
Redrive assembly		Inspect	Replace		
ADF ASSEMBLY	'	•	,	· ·	·
ADF separator roll			Replace		

2. Scheduled maintenance

The control panel displays an "MAINTENANCE KIT LIFE" error when it reaches 200K page counts. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer. Reset the maintenance counter after replacing the maintenance kit.

2.1 Maintenance kit

Part number and kit	Contents
Maintenance Kit	Fuser Redrive assembly ACM pick tire Transfer roll Separator roll assembly MPF pick roll and separator pad

When performing the 200K scheduled maintenance procedure, the following areas should be cleaned of media dust and toner contamination:

- Media trays
- · Imaging unit area
- Transfer roll area
- · Duplex area
- Standard bin

2.2 Resetting the maintenance counter

Always reset the maintenance counter after installing the maintenance kit.

To reset the maintenance counter:

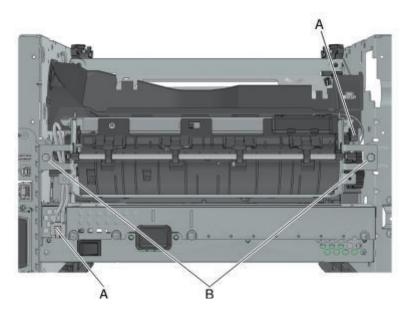
- 1. Call the Service Mode to the screen.
- 2. Performing "New Release" of the "Maintenance kit" in life counter of the Service Mode will reset the life counter of the maintenance kit to zero.

3. Periodical maintenance procedure bizhub 4750/4050

3.1 Fuser

3.1.1 Fuser removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- 2. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Remove the redrive assembly. See F.3.2.1 Redrive assembly removal.
- 4. Disconnect the cable JEXIT1 from the controller board.
- 5. Disconnect the two cables (A).
- 6. Remove the two screws (B) securing the fuser.



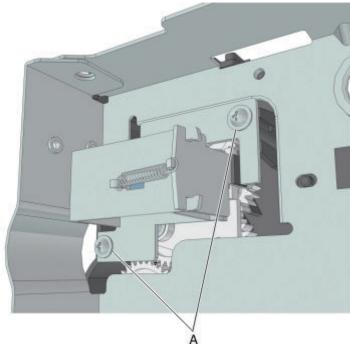
3.2 Redrive assembly

3.2.1 Redrive assembly removal

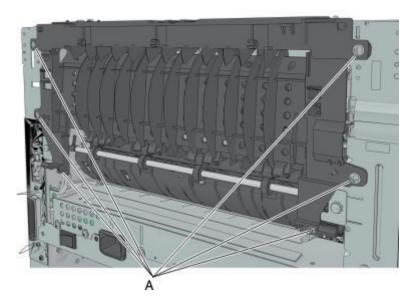
- 1. Remove the right cover. See G.4.1 Right cover removal.
- 2. Remove the left cover. See G.3.1 Left cover removal.
- 3. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 4. Remove the scanner assembly. See G.9.6 Scanner assembly removal.
- 5. Remove the top cover. See G.8.1 Top cover removal.
- 6. Remove the two screws (A), and then disconnect the reverse solenoid.

NOTE

• Do not disconnect the reverse solenoid cable from the controller board.



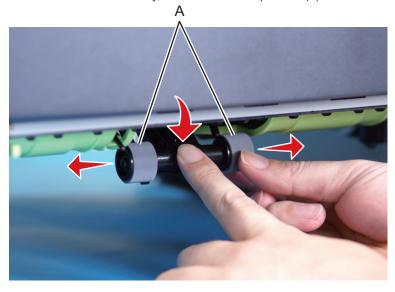
7. Remove the six screws (B) securing the redrive assembly.



3.3 ACM pick tire

3.3.1 ACM pick tire removal

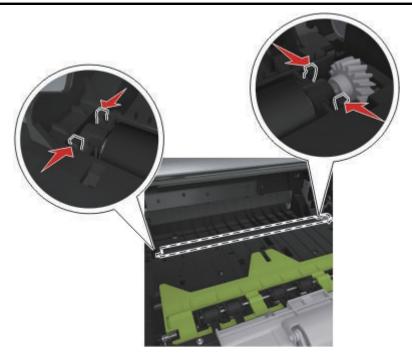
- Remove the paper tray.
 Press down the ACM assembly, and remove the two pick tires (A).



3.4 Transfer roll

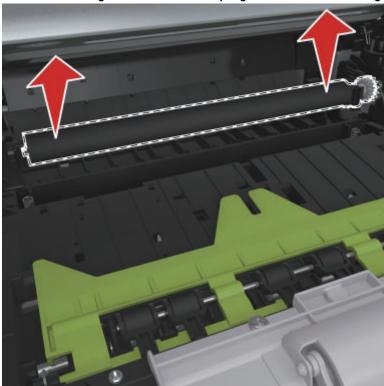
3.4.1 Transfer roll removal

- Potential Damage: Do not touch the transfer roll with bare hands. Oil from the skin can damage it.
 Squeeze the latches at each end of the transfer roll.



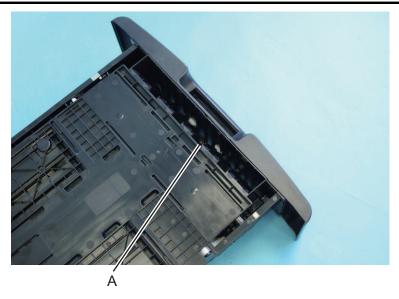
- 2. Lift to remove the transfer roll.

 - ▲WARNING
 Potential Damage: Do not remove the spring under the left latch. Doing so will damage the printer.

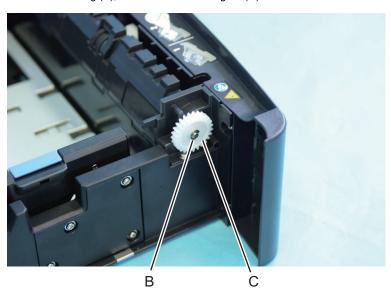


3.5 Separator roll assembly removal

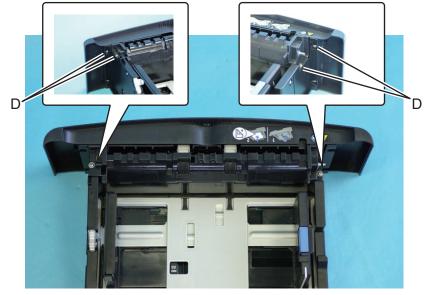
1. Remove the screw (A) from under the tray insert.



2. Remove the E-ring (B), and then remove the gear (C).



3. Remove the four screws (D).



4. Push out the top part of the drawer cover, and then remove the separator roll assembly.



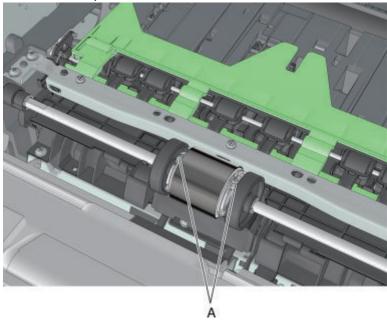
3.6 MPF pick roll and separator pad

3.6.1 MPF pick roller removall

- 1. Remove the MPF pick roller cover. See G.7.2 Rear cover removal.
- 2. Remove the two screws (A).

NOTE

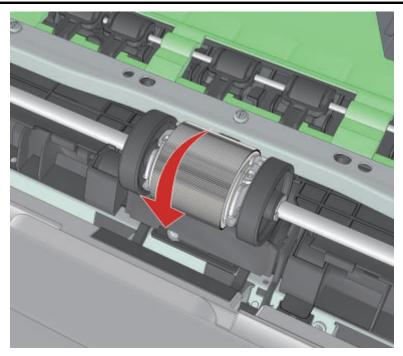
• Use a #1 Phillips screwdriver.



3. Pull the MPF pick roller outward to remove.

WARNING

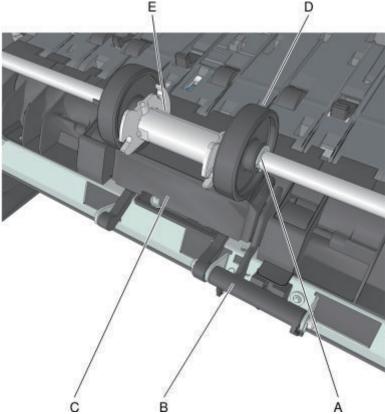
• Potential Damage: Do not touch the pick tire with bare hands, as this can damage the pick roller.



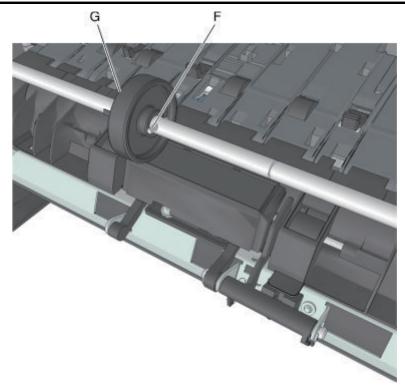
3.6.2 Separator pad removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- Remove the fight cover. See G.4.1 Right cover removal.
 Remove the front access cover. See G.4.1 Right cover removal.
 Remove the MPF pick roller cover. See G.5.11 MPF pick roller cover removal.
 Remove the MPF pick roller. See F.3.6.1 MPF pick roller removall.
 Remove the jam access cover. See G.5.13 Jam access cover removal.

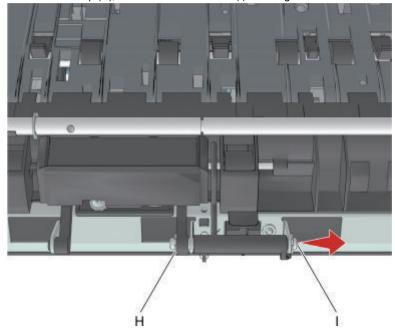
- 6. Remove the E-clip (A).
- 7. While pressing down the MPF sensor flag (B) and separator pad (C), move the restraint roller (D) and MPF pick roller hub (E) to the right.



- 8. Remove the pin (F).
- While pressing down the MPF sensor flag and separator pad, move the restraint roller (G) to the right.



10. Remove the E-clip (H), and then move the shaft (I) to the right.



11. Remove the separator pad and the spring underneath.

G DISASSEMBLING/REASSEMBLING

1. Removal precautions



 SHOCK HAZARD: For personal safety and to prevent damage to the printer, remove the power cord from the electrical outlet before you connect or disconnect any cable, electronic board, or assembly. Disconnect any connections between the printer and the PCs/peripherals.

1.1 Data security notice

This printer contains various types of memory that are capable of storing device and network settings, information from embedded solutions, and user data. The types of memory, along with the types of data stored by each, are described below.

- Volatile memory-This device utilizes standard Random Access Memory (RAM) to temporarily buffer user data during simple print and copy iobs.
- Non-volatile memory-This device may utilize two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, device settings, network information, scanner and bookmark settings, and embedded solutions.
- Hard disk memory-Some devices have a hard disk drive installed. The printer hard disk is designed for device-specific functionality and
 cannot be used for long term storage for data that is not print-related. The hard disk does not provide the capability for users to extract
 information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can
 retain buffered user data from complex print jobs, as well as form data and font data.

To erase volatile memory, turn off the printer.

To erase non-volatile memory, see the menu item under Service Mode pertaining to this.

To erase the printer hard disk, see the menu item under Service Mode pertaining to this.

The following parts are capable of storing memory:

- · controller board
- hard drives

NOTE

· The printer control panel and controller board contain NVRAM.

1.2 Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, use the following instructions in addition to all the usual precautions, such as turning off power before removing logic boards:

- · Keep the ESD-sensitive part in its original shipping container (a special "ESD bag") until you are ready to install the part into the machine.
- · Make the least-possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This discharges any static electricity in your body to the machine.
- Hold the ESD-sensitive part by its edge connector shroud (cover); do not touch its pins. If you are removing a pluggable module, use the
 correct tool
- Do not place the ESD-sensitive part on the machine cover or on a metal table; if you need to put down the ESD-sensitive part for any reason, first put it into its special bag.
- Machine covers and metal tables are electrical grounds. They increase the risk of damage, because they make a discharge path from your body through the ESD-sensitive part. (Large metal objects can be discharge paths without being grounded.)
- Prevent ESD-sensitive parts from being accidentally touched by other personnel. Install machine covers when you are not working on the
 machine, and do not put unprotected ESD-sensitive parts on a table.
- If possible, keep all ESD-sensitive parts in a grounded metal cabinet (case).
- Be extra careful while working with ESD-sensitive parts when cold-weather heating is used, because low humidity increases static electricity.

1.3 Lithium battery



 POTENTIAL INJURY: The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

1.4 Ribbon cable connectors

1.4.1 Zero Insertion Force (ZIF) connectors

Zero Insertion Force (ZIF) connectors are used on the boards in this printer. Before inserting or removing a cable from these connectors, read this entire section. Great care must be taken to avoid damaging the connector or cable when inserting or removing the cable.

∱WARNING

- Potential Damage: Do not insert the cable so that the contacts are facing the locking actuator. The contacts always face away
 from the actuator.
- Potential Damage: Do not insert the cable diagonally into the ZIF socket. This can cause damage to the contacts on the cable.
- · Potential Damage: Avoid using a fingernail, or sharp object to open the locking mechanism. This could damage the cable.
- · Potential Damage: Avoid pressing against the cable when opening the locking mechanism. This can also damage the cable.

These are the types of ZIF connectors used in this printer:

- · Horizontal top contact connector
- Horizontal bottom contact connector
- · Vertical mount contact connector
- · Horizontal sliding connector

Horizontal top contact connector

This FRU contains a horizontal top contact cable connector. Read the instructions before proceeding.

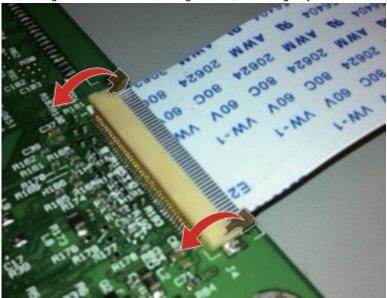
The horizontal top contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

WARNING

• Potential Damage: When opening or closing this type of actuator, gently lift or close the two tabs located on each end of the actuator. The two tabs should be moved simultaneously. Do not close the actuator from the center of the actuator.

(a) Removing a cable from the horizontal top contact connector

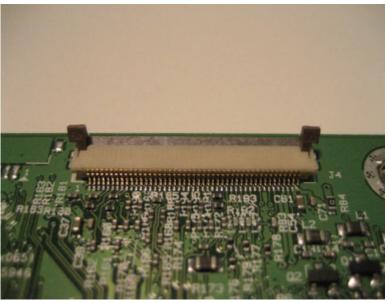
1. Place a finger at each end of the locking actuator, and then gently lift the actuator to the unlocked position.



2. Slide the cable out of the connector.

(b) Inserting a cable into the horizontal top contact connector

1. When installing the cable, check the locking actuator to ensure it is in the unlocked position. The tabs on the ends of the actuator are vertical when the actuator is unlocked.



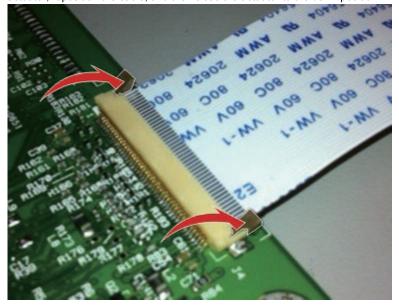
2. Insert the cable with the contacts on the cable facing up. Insert the cable on top of the actuator.

NOTE

Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures
could occur.



3. Rotate the locking actuator to the locked position. The cable should not move while this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



Horizontal bottom contact connector

This FRU contains a horizontal bottom contact cable connector. Read the instructions before proceeding.

The horizontal bottom contact connector uses a flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The

cable is inserted horizontally into the connector. $\underline{\wedge} \mathbf{WARNING}$

Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not
use a fingernail or screwdriver to open the actuator. This could damage the ribbon cable. Do not close the actuator from the
ends of the actuator.

(a) Removing a cable from the horizontal bottom contact connector

1. Place two fingers towards each end of the locking actuator, and then gently lift the actuator to the unlocked position.



2. Slide the cable out of the connector.

(b) Inserting a cable into the horizontal bottom contact connector

1. Check the actuator to verify it is in the open position.



2. Insert the cable into the ZIF connector with the contacts facing downward and away from the locking actuator. The cable needs to be inserted below the actuator.

NOTE

Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures
could occur.



3. Place your finger in the middle of the actuator, and then rotate the locking actuator to the locked position.



Vertical mount contact connector

This FRU contains a vertical mount contact connector. Read the instructions before proceeding.

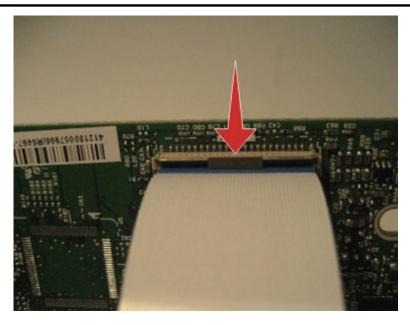
The vertical mount contact connector uses a back flip locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted vertically into the connector.

WARNING

Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not
use a fingernail or screwdriver to open the actuator. This could damage the ribbon cable. Do not close the actuator from the
ends of the actuator.

(a) Removing a cable from the vertical mount contact connector

1. Gently rotate the locking actuator from the center of the actuator to the unlocked position.



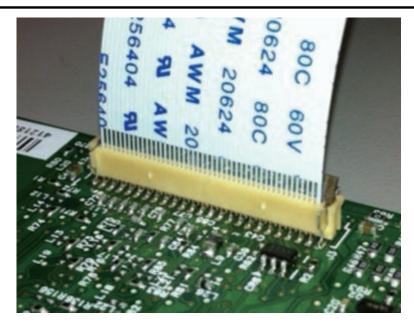
2. Slide the cable out of the connector.

(b) Inserting a cable into the vertical mount contact connector

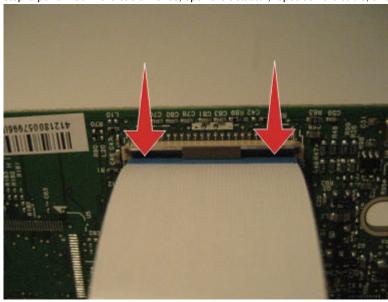
1. When installing the cable, check the locking actuator to verify it is in the open position.



- 2. Insert the cable with the contacts on the cable away from the locking actuator. Insert the cable on top of the actuator. **NOTE**
 - Verify that the cable is installed squarely into the connector. If the cable is not squarely installed, then intermittent failures
 could occur.



3. Rotate the locking actuator to the locked position by pressing down on both ends of the actuator. The cable should not move when this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



Horizontal sliding contact connector

This FRU contains a horizontal sliding contact connector. Read the instructions before proceeding.

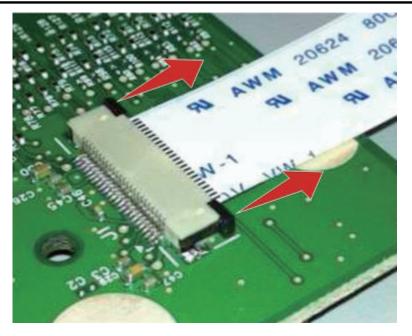
The horizontal sliding contact connector uses a slide locking actuator to lock the ribbon cable into the Zero Insertion Force (ZIF) connector. The cable is inserted horizontally into the connector.

MARNING

Potential Damage: When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the
actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator.
Damage to the cable or connector could occur.

(a) Removing a cable from the horizontal sliding contact connector

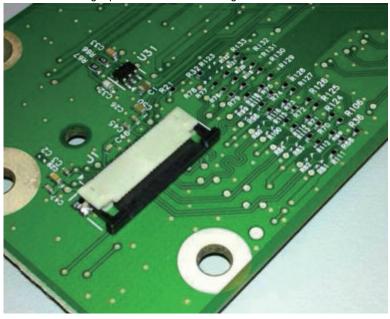
1. Simultaneously slide the two tabs located on the ends of the locking actuator away from the connector.



2. Slide the cable out of the connector.

(b) Inserting a cable into the horizontal sliding contact connector

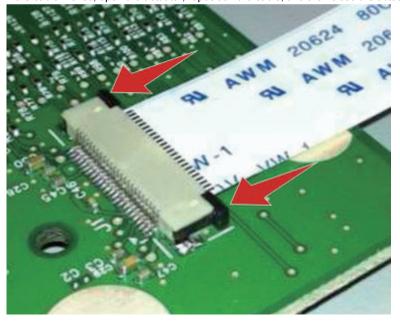
1. When installing the cable, check the locking actuator to verify it is in the open position. If you are opening the connector, pull back on both end tabs using equal force to avoid breaking the connector.



2. Insert the cable with the contacts on the cable facing away from the locking actuator. Insert the cable on top of the actuator.



3. Slide the locking actuator towards the connector, locking the cable into place. The cable should not move when this step is performed. If the cable moves, open the actuator, reposition the cable, and then close the actuator to the down position.



1.4.2 Low Insertion Force (LIF) connector

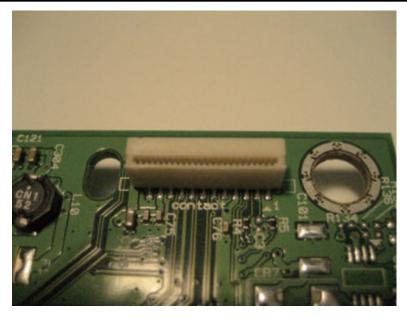
This FRU contains a Low Insertion Force (LIF) connector. Read the instructions before proceeding.

MARNING

 Potential Damage: When installing a cable into an LIF connector, care must be taken to avoid bending the edges of the cables and damaging the contacts on the cables.

(1) Inserting a cable into the LIF connector

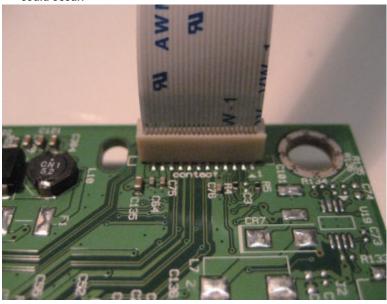
1. Looking at the connector, take note on which side the contacts are located. Many boards will have the word "contacts" stamped on them to indicate which side of the LIF has the contacts. When looking at the board, take note that the contacts from the board to the connector are located on the side of the connector with the contacts.



2. Insert the cable squarely into the connector.

NOTE

• Verify that the cable is installed straight into the connector. If the cable is not installed properly, then intermittent failures could occur.

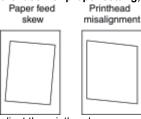


1.5 Printhead unit adjustments

1.5.1 Printhead unit mechanical adjustment

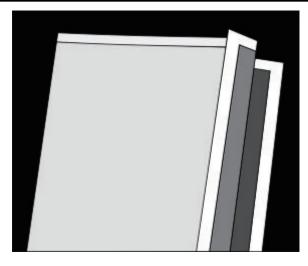
A printhead needs to be correctly positioned after it has been removed. Use a pencil to mark the screw locations of the old printhead on the metal frame. Align the new printhead relative to the location of the old printhead. **NOTE**

Skew is caused by a sheet being fed through the printer while misaligned. The entire image is rotated relative to the sheet edges.
However, a mechanically misaligned printhead causes the horizontal lines to appear skewed, while the vertical lines remain
parallel to the vertical edges. There are no adjustments for skew. Check the pick tires for wear, the paper path for obstructions,
the fuser for proper setting, and the tray paper guides for fit to the media.

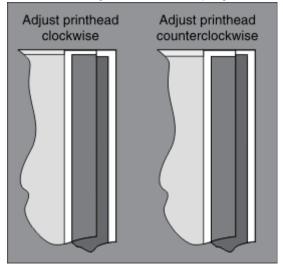


To adjust the printhead:

- Call the Service Mode, and print a Quick test page: [Service Mode] -> [Machine] -> [Printer Adjustment] -> [Right Margin] -> Press the Start key.
- 2. Fold the printed test page on the left side so that a few millimeters of grid lines wrap around the outside of the fold.
- 3. Fold a second vertical fold near the center so that the left side top edge aligns with the right side top edge.



4. If the grid lines of the right flap align below the corresponding lines on the left flap, then adjust the printhead clockwise relative to the printer, and recheck. If the grid lines of the left flap align below the corresponding lines of the right side, then adjust the printhead counterclockwise.



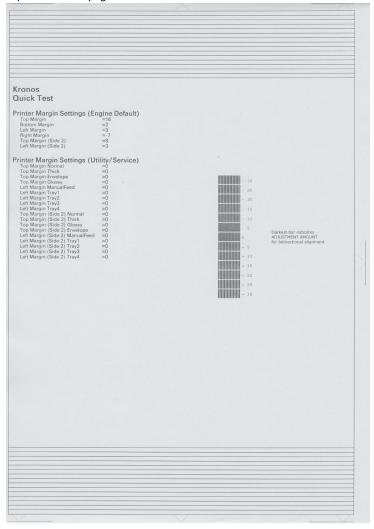
- 5. Print another Quick test page, and check if adjustments are still needed.
- 6. After obtaining a properly adjusted image on the paper, tighten all the screws.
- 7. Align the printhead electronically.

1.5.2 Printhead unit electronic adjustment

NOTE

- · Before aligning the printhead electronically, first align the printhead mechanically.
- Call the Service Mode, and print a Quick test page: [Service Mode] -> [Machine] -> [Printer Adjustment] -> [Right Margin] -> Press the Start key.

Sample Quick Test page. Use the actual sheet.



- From the Printer Adjustment, select the Right margin setting: [Service Mode] -> [Machine]-> [Print Adjustment] -> [Right Margin]
- To determine the Right margin setting:
 - 1. Choose the value of the darkest bar on the right side of the Quick test page.
 - 2. Add that value to the current Right margin setting found on the left side of the Quick test page.

For example, if the current Right margin setting is -2, and the darkest bar is at +3, then the right margin setting will be equal to +1 (-2+3=+1).

- 4. Choose and save the desired Right margin setting.
- Print another Quick test page and check if the darkest bar is at zero. If it is, then check to see if the left, top, and bottom margins are detected. If the darkest bar is not at zero, then repeat steps 3 and 4.
 NOTE
 - The alignment of the left margin positions the black plane to the right or left. The alignment of the right margin does not alter the margins and should only be used to adjust the printhead.

2. Removal procedures

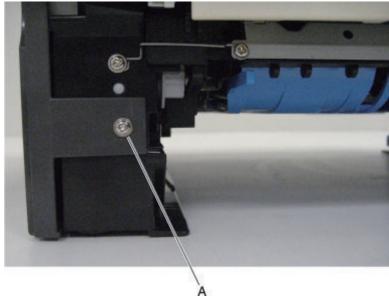
Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing
 the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging unit, and media tray before removing other printer parts. The imaging unit should be carefully set on a clean, smooth, and flat surface. It should also be protected from light while out of the device.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- · When reinstalling a part held with several screws, start all screws before the final tightening.

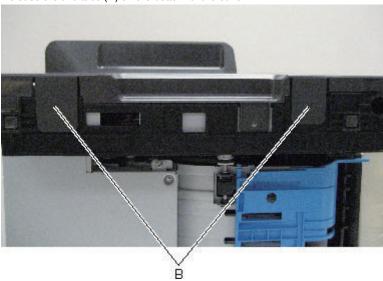
3. Left side removals

3.1 Left cover removal

- 1. Remove the paper tray.
- 2. Remove the screw (A) securing the left cover to the front of the printer frame.



3. Release the two tabs (B) on the bottom of the cover.

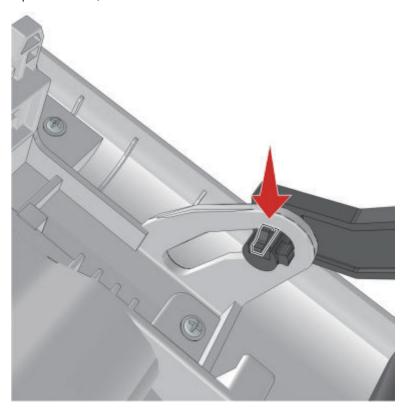


4. Pull the cover forward, and remove it from the printer.

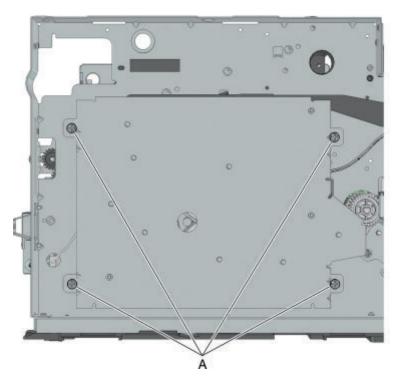


3.2 Main drive gearbox removal

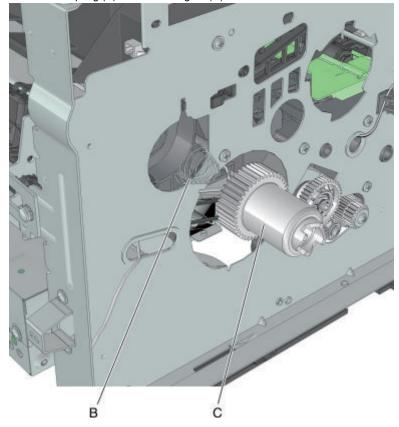
- Remove the left cover. See G.3.1 Left cover removal.
 Squeeze the latch, and then detach the link from the front door.



3. Remove the 4 screws (A), and then remove the main drive gearbox.

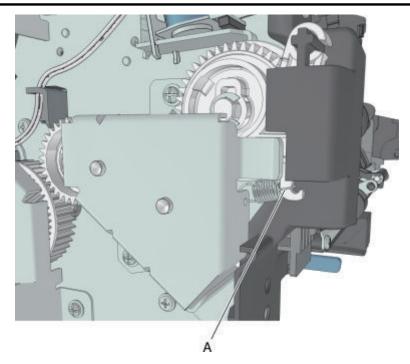


- 4. Disconnect the cable from the main drive gearbox.5. Remove the spring (B) and the fuser gear (C).

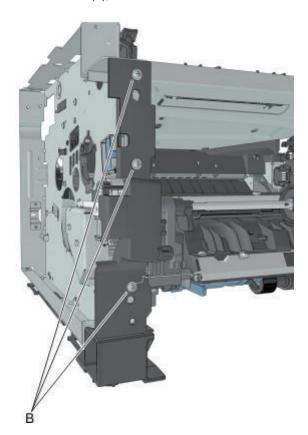


3.3 MPF gearbox removal

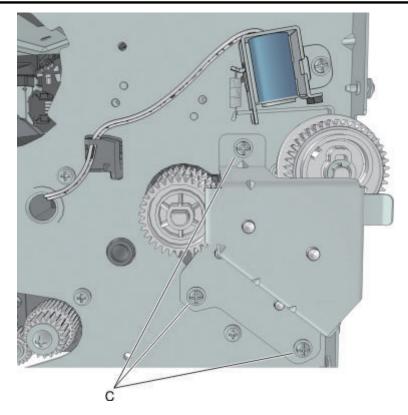
- Remove the left cover. See G.3.1 Left cover removal.
 Remove the main drive gearbox. See G.3.2 Main drive gearbox removal.
 Remove the front access cover. See G.5.14 Front access cover removal.
- 4. Disconnect the spring from the printer (A).



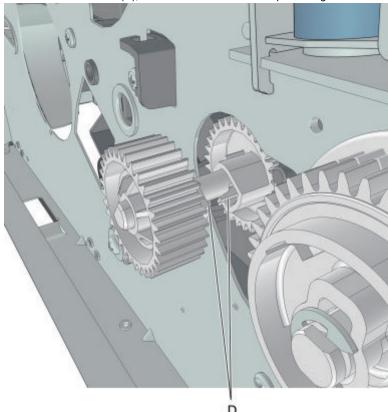
5. Remove the three screws (B), and then remove the front left mount.



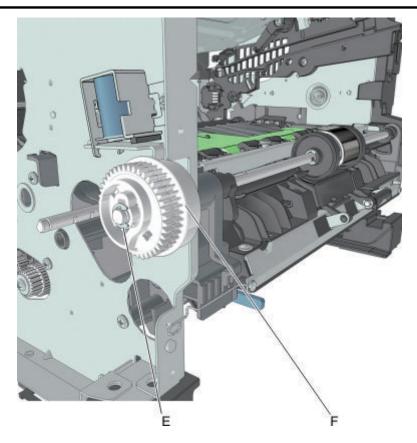
6. Remove the three screws (C), and then remove the MPF gearbox.



7. Release the two latches (D), and then remove the main input drive gears.

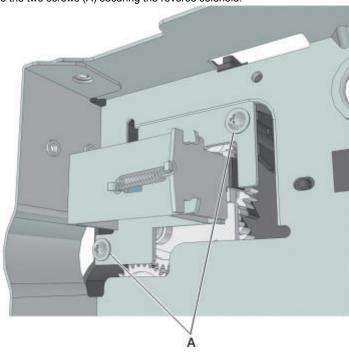


8. Remove the E-clip (E), and then remove the MPF sector gear (F).



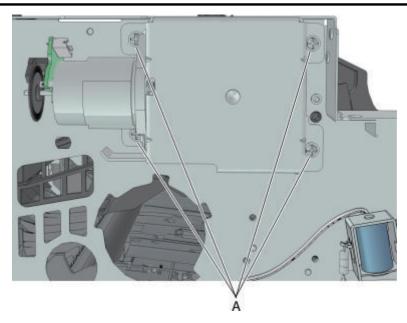
3.4 Reverse solenoid removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- Remove the left cover. See G.3.1 Left cover removal.
- Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
 Remove the scanner assembly. See G.9.6 Scanner assembly removal.
- 5. Remove the top cover. See G.8.1 Top cover removal.
- 6. Remove the cooling fan. See G.4.4 Cooling fan removal.
- 7. Disconnect cable JDSOL1 from the controller board.
- 8. Remove the two screws (A) securing the reverse solenoid.



3.5 Cartridge gearbox removal

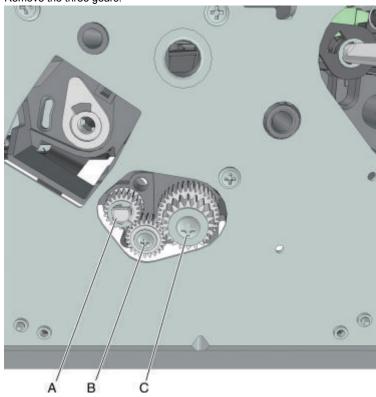
- Remove the left cover. See G.3.1 Left cover removal.
 Remove the four screws (A) securing the cartridge gearbox.



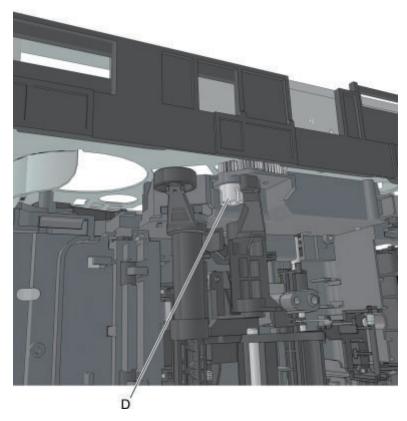
3. Disconnect the cable from the cartridge gearbox.

3.6 Duplex gear assembly removal

- Remove the left cover. See G.3.1 Left cover removal.
- Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- Remove the power supply. See G.6.1 Power supply removal.
- Remove the power supply shield. See G.6.2 Power supply shield removal.
- Remove the duplex. See G.6.3 Duplex removal. Position the printer so that it sits on its right side.
- Remove the E-clip (A).
- Remove the screw (B).
- Remove the screw (C).
- Remove the three gears.



• From behind the three gears, remove the duplex coupling (D).



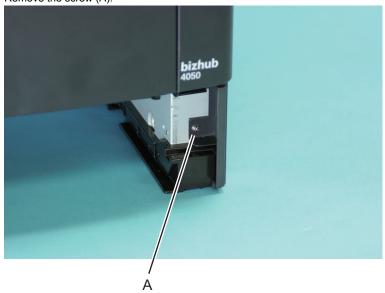
• Remove the duplex link (E) from the duplex.



4. Right side removals

4.1 Right cover removal

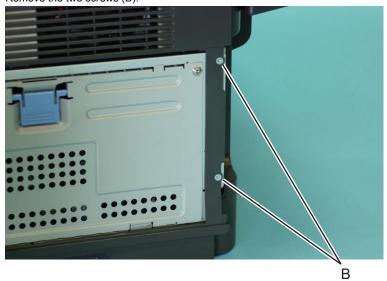
- Remove the paper tray.
 Remove the screw (A).



3. Open the memory access door.



4. Remove the two screws (B)



5. Remove the right cover.

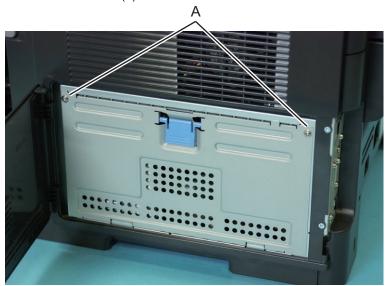


4.2 Memory access cover removal

1. Open the memory access door.



2. Remove the two screws (A).

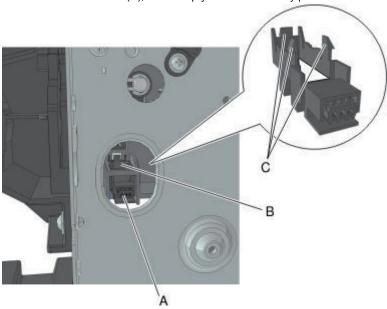


3. Remove the memory access cover.



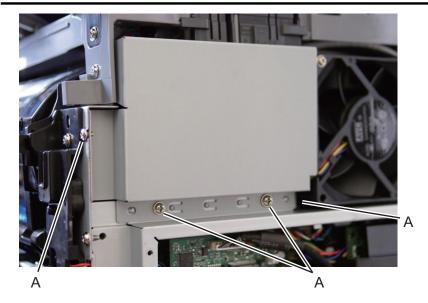
4.3 Tray present sensor removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- 2. Disconnect the cable (A) from the tray present sensor.
- Pry to remove the sensor retainer (B). **NOTE**
 - · The retainer is secured to the sensor by an adhesive.
- 4. Release the three latches (C), and then pry to remove the tray present sensor.

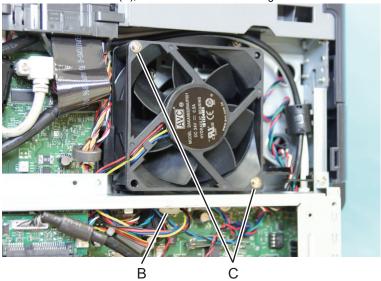


4.4 Cooling fan removal

- 1. Remove the right cover. See G.4.1 Right cover removal
- Remove the memory access cover. See G.4.2 Memory access cover removal
 Remove the four screws (A), and then remove the sheet-metal.

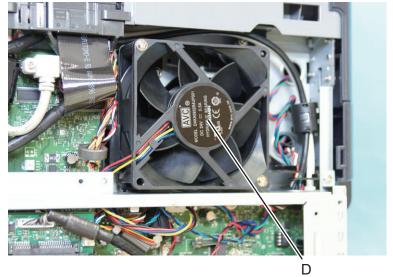


- 4. Disconnect the cable JFAN1 (B) from the controller board.
- 5. Remove the two screws (C), and then remove the cooling fan.



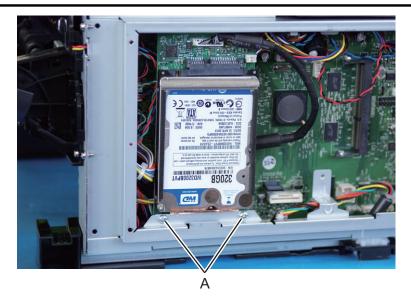
NOTE

• When installing the cooling fan, make sure that the label side (D) is outside.



4.5 Hard disk removal

- 1. Remove the memory access cover. See G.4.2 Memory access cover removal
- 2. Loosen the two screws (A).



3. Disconnect the connector (B), and then remove the hard disk.

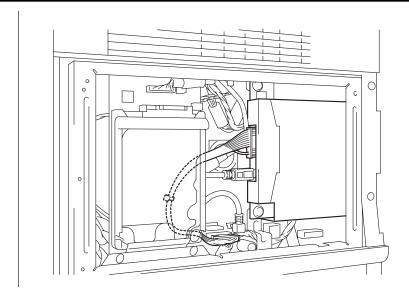


Installation note
• Route the harness while paying attention not to make the HDD cord in contact with the gasket (C).

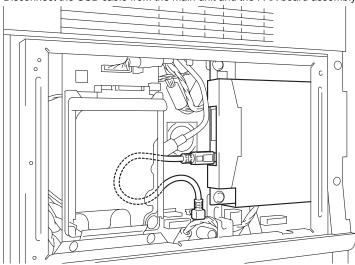


4.6 FAX board assy removal

- Remove the memory access cover. See G.4.2 Memory access cover removal
 Disconnect the harness from the main unit and the FAX board assembly.



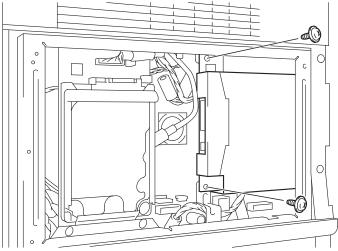
3. Disconnect the USB cable from the main unit and the FAX board assembly.



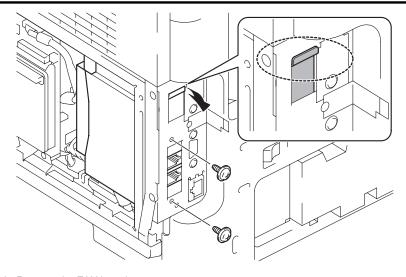
4. Remove the two screws.

Installation note

• When tightening the screws, pay attention to the harness close to the screw holes and take care not to get it caught.



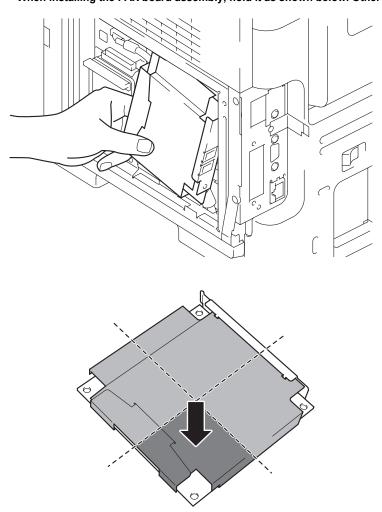
5. Remove the two screws.



6. Remove the FAX board assy.

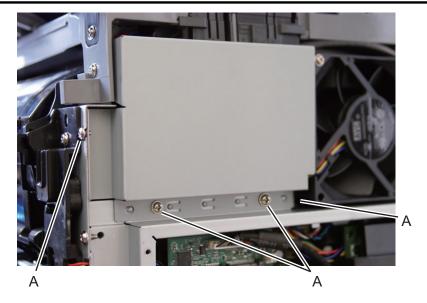
Installation note

• When installing the FAX board assembly, hold it as shown below. Otherwise, the FAX board may be damaged.

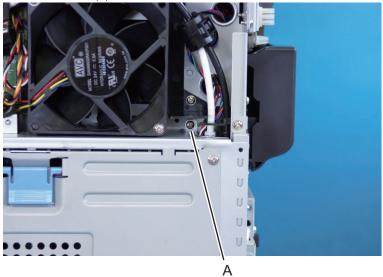


4.7 Controller board shield removal

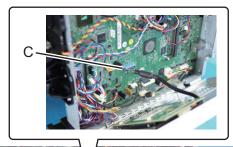
- Remove the right cover. See G.4.1 Right cover removal
 Remove the two screws (A), and then remove the sheet-metal.

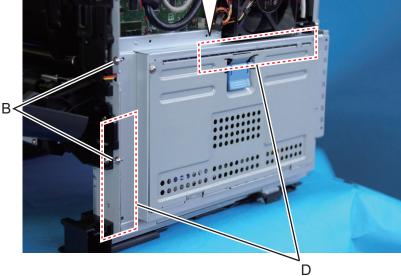


3. Remove the screw (A).



- 4. Remove the two screws (B).
- 5. Disconnect the connector (C), and then remove the controller board shield.
 - ⚠Installation warning
 - When attaching the controller board shield, pay attention not to make the harness get caught at (D) areas.

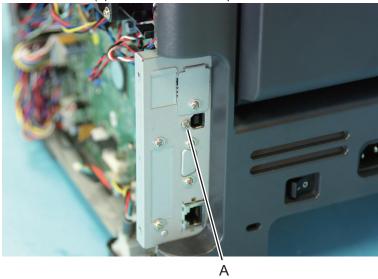




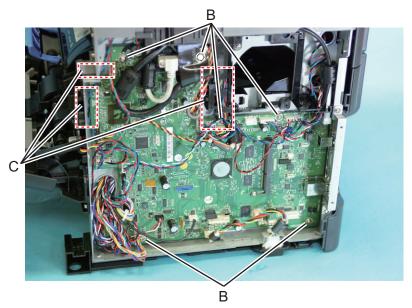
4.8 Controller board removal

- 1. Remove the right cover. See G.4.1 Right cover removal
- Remove the controller board shield. See G.4.7 Controller board shield removal
 Disconnect all cables from the controller board.

- Remove the Hard Disk. See G.4.5 Hard disk removal Remove the screw (A) from the rear side of the printer.



6. Remove the six screws (B) securing the controller board.

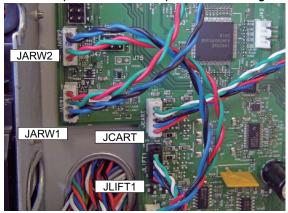


♠Installation warning

- When attaching the sheet-metal, make sure to fix the harness with the wire saddles (C) to prevent it from being caught by the sheet-metal.
- 7. Install the new controller board.
- 8. Connect the controller board to the disconnected connectors and flat cables.

<u>Maintallation warning</u>

- The cables (JCART and JLIFT1) are not interchangeable.
 JCART1 connects to the cartridge motor, while JLIFT goes to the lift motor. Plugging these connectors incorrectly could lead to damage on the imaging unit.
- The cables (JARW1 and JARW2) are not interchangeable.

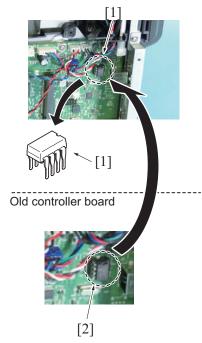


JARW2: Connect the harness routing from the lower portion. JARW1: Connect the harness routing from the upper portion. JCART: Connect the harness routing from the upper portion. JLIFT1: Connect the harness routing from the lower portion.

- 9. Install the controller board shield and hard disk.
- 10. Turn ON the power switch.

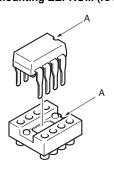
NOTE

- Do not perform any printing operation at this stage.
- 11. Although a service call D093 (wrong hard disk) occurs, press the [Menu] key to enter the service mode as it is.
- 12. [System 2] -> [Software Switch Setting] to change to the following settings then touch [Fix].
 - Switch No.: 007
 - · Bit Assignment: 10011111
 - · HEX Assignment: 9F
- 13. Turn OFF the power switch.
- 14. Remove the new EEPROM [1] from the controller board, and mount the old EEPROM [2] that is located on the old controller board.



NOTE

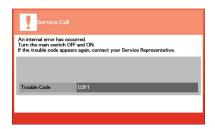
When mounting EEPROM (IC15), make sure the notches ("A") are precisely lined up.



- 15. Turn ON the power switch.
- 16. Counter data starts to be backed up.

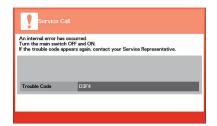
NOTE

- · Do not perform any printing operation at this stage.
- Do not turn OFF the power switch during the backup process.
- <When backup is completed successfully>
- When backup is completed successfully, "Service Call: D3F1" appears on the screen.



NOTE

- When backup is completed successfully, the setting of software switch automatically returns to the initial value of "0." <When backup results in an abnormal end>
- When backup results in an abnormal end, "Service Call: D3F4" appears on the screen.



NOTE

- If an abnormal end recurs after turning OFF/ON the power switch of the machine again, the Controller board or the EEPROM can be damaged.
- 17. Turn OFF the power switch.
- 18. Turn ON the power switch.
- 19. C-4802 code will appear. (C-4802 is normal operation when replacing the controller board.)
- 20. Call the Service Mode to the screen.
- 21. Call the Security Service Mode to the screen.
- 22. Select [Engine Data Backup] -> [Engine Data Reflect Mode].
- 23. Touch [OK].
- 24. When [OK] is displayed, reboot the machine.
- 25. Turn OFF the power switch.
- 26. Turn ON the power switch of the machine and confirm that the machine operates properly.

∱CAUTION

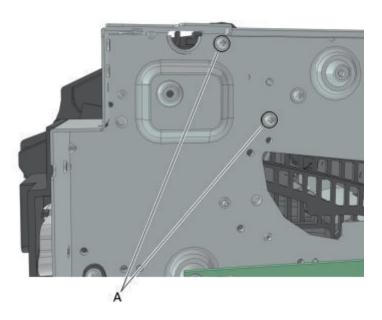
- If the service call: D093 (wrong hard disk) occurs continuously even when the above procedures have been performed, format
 the hard disk in accordance with the following procedures.
- 1. Turn ON the power switch while pressing the power key and start up [Extra Service Mode].
- 2. Touch [HDD Format] to execute HDD format.
- 3. After completing format, turn OFF the power switch of the machine.
- 4. Turn ON the power switch.
- Install the Unicode font (LK-107) and OCR font (LK-108) for i-Option to the HDD. J.5.2 LK-107/LK-108 font data reinstallation procedure
- 27. To reinstall, reverse the order of removal.
- 28. Upgrade the firmware to the latest version.
 - J.1. Checking the current firmware version

Installation note

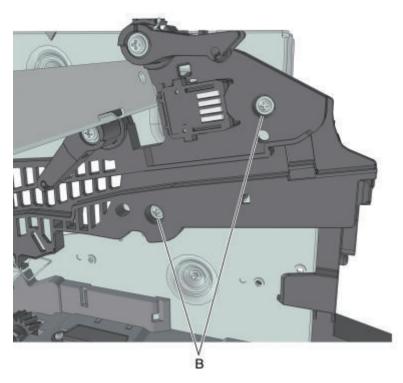
• After the new controller board is installed, perform scanner manual registration, see Scanner manual registration and print head registration, see Print head unit adjustments.

4.9 Toner cartridge smart chip contact removal

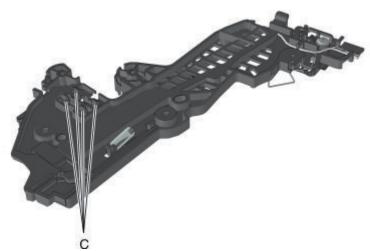
- 1. Remove the right cover. See G.4.1 Right cover removal.
- 2. Remove the controller board shield. See G.4.7 Controller board shield removal.
- 3. Remove the controller board. See G.4.8 Controller board removal.
- 4. Remove the two screws (A).



5. Remove the two screws (B), and then detach the right cartridge guide.

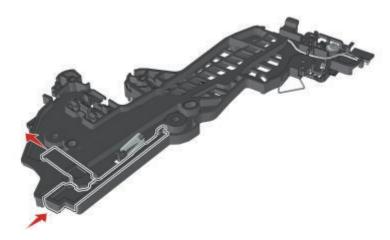


- 6. From behind the right cartridge guide, release the 4 latches (C) to detach the toner cartridge smart chip contact.
 - Pay attention to the original position of the spring and the actuators.



- Installation notes:

 1. Test for proper installation of the spring and the actuators.
- 2. Press the cartridge actuator. The cartridge lock should move up.

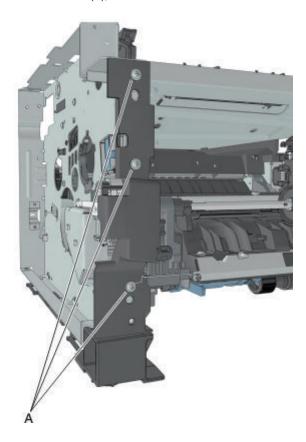


3. Release the cartridge actuator. The cartridge lock should move back to its original position.

5. Front removals

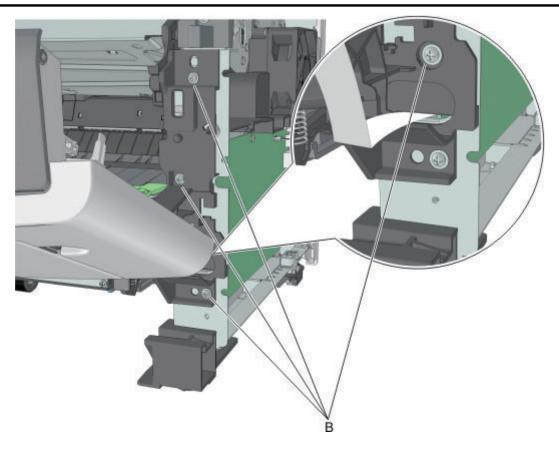
5.1 Left front mount removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the front access cover. See G.5.14 Front access cover removal.
- 3. Remove the three screws (A), and then remove the left front mount.



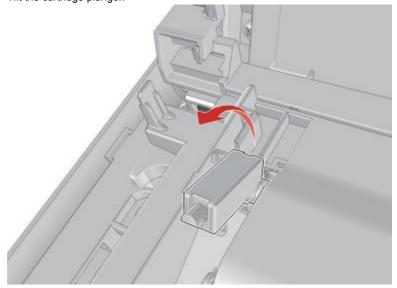
5.2 Right front mount removal

- Remove the right cover. See G.4.1 Right cover removal. Disconnect all control panel cables from the controller board.
- Disconnect the cable JCVR1 from the controller board.
- Remove the four screws (B), and then remove the right front mount.

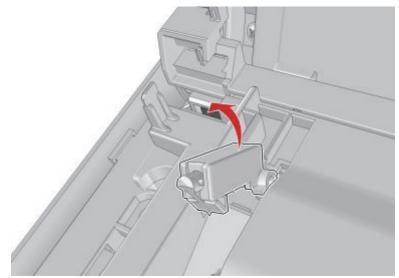


5.3 Cartridge plunger removal

- Open the front door.
 Tilt the cartridge plunger.

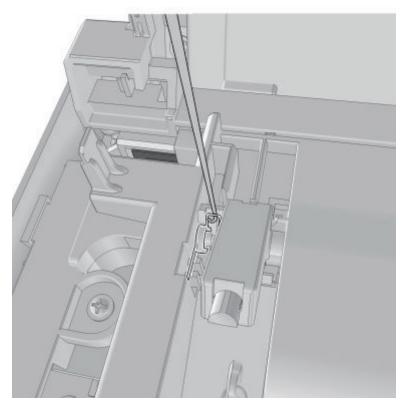


3. Twist and then remove the cartridge plunger.

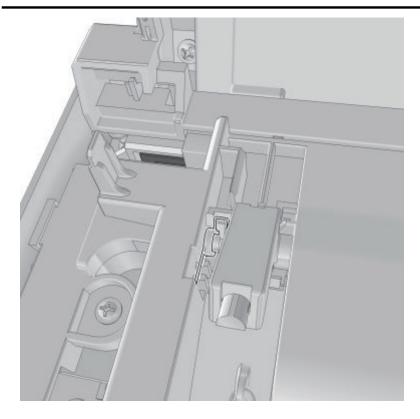


Installation notes:

1. Use a spring hook to hold the spring, and then reinstall the cartridge plunger.

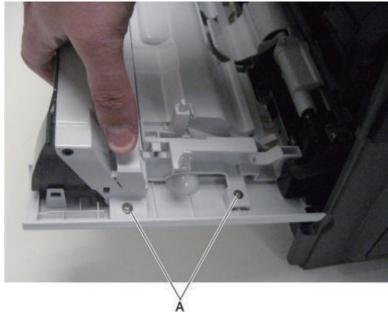


2. Set the spring over the plunger

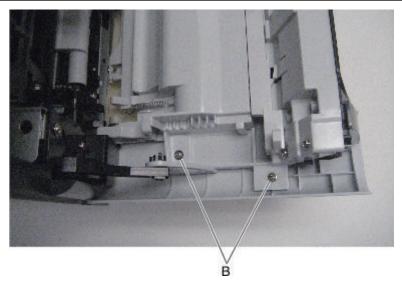


5.4 Name plate cover removal

- Open the front door.
 Remove the two screws (A) securing the right side of the name plate cover.



3. Remove the two screws (B) securing the left side of the name plate cover.

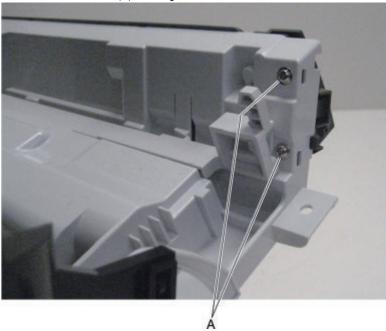


4. Release the tabs on top of the cover, and then remove the name plate cover.

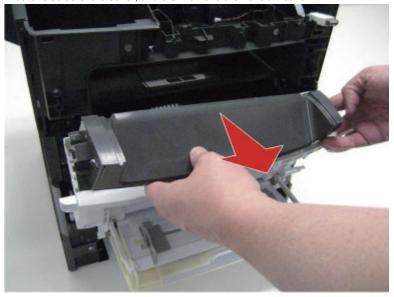


5.5 Front bin cover removal

- Remove the name plate cover. See G.5.4 Name plate cover removal.
 Remove the two screws (A) securing the front bin cover to the front access cover.



3. Lift the left side of the cover, and then remove the front bin cover.

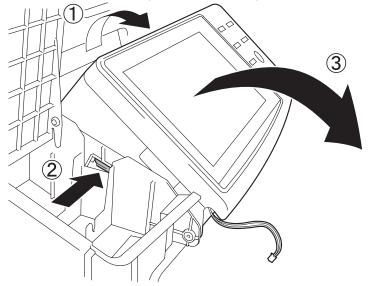


5.6 Control panel assembly removal

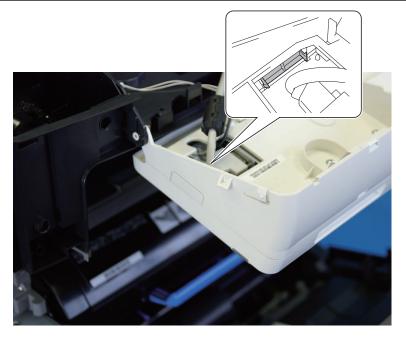
- 1. Remove the scanner front cover. See G.9.3 Scanner front cover removal
- 2. Insert a flat-head screwdriver or other tools into the section shown in the illustration to open the control panel side cover.



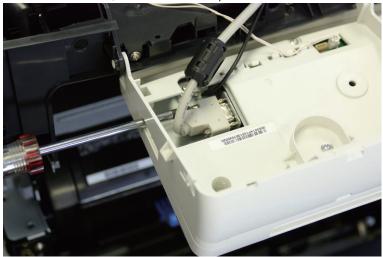
- 3. Raise the control panel.
- 4. Unhook the tab of the control panel to tilt the control panel forward.



5. Unhook the two tabs from the inside to remove the cover shown in the illustration.

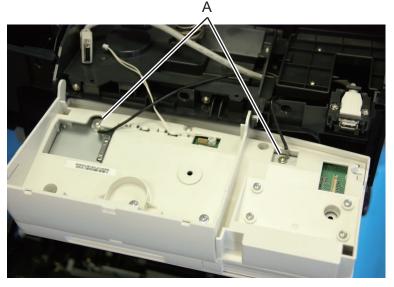


6. Loosen the two screws, and then remove the panel interface cable.



- 7. Remove the two screws (A), and then remove the two ground terminals.8. Remove the control panel from the main body.
- 8.

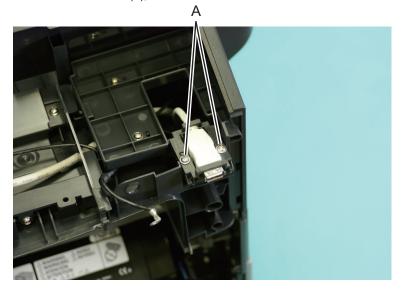
• Tilt the control panel at the angle shown in the illustration to remove the shaft of the control panel.



5.7 USB cable bracket removal

1. Remove the control panel assembly. See G.5.6 Control panel assembly removal

2. Remove the two screws (A), and then remove the USB cable bracket.

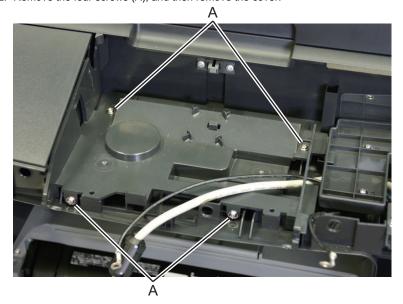


3. Remove the USB cable bracket.

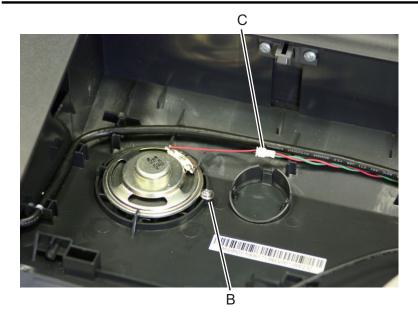


5.8 Speaker removal

- Remove the control panel assembly. See G.5.6 Control panel assembly removal
 Remove the four screws (A), and then remove the cover.



3. Remove the screw (B) and disconnect the connector (C), then remove the speaker.



5.9 Control panel cover removal

1. Flex the frame to the right to release the hinge of the cover.



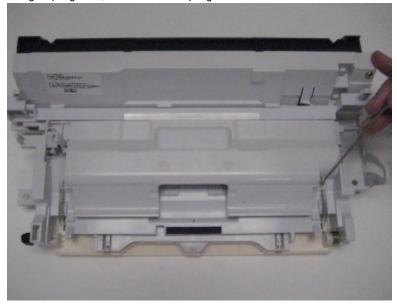
2. Remove the control panel cover.



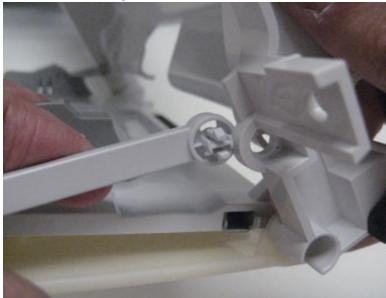
5.10 MPF tray removal

1. Remove the front access cover. See G.5.14 Front access cover removal.

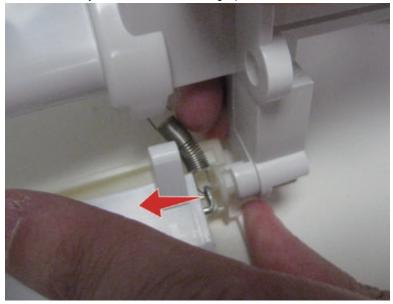
2. Using a spring hook, remove the two springs from the front access cover.



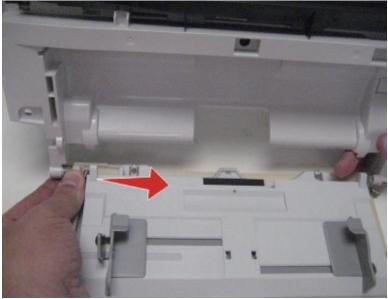
3. Disconnect the left and right MPF links from the front access cover.



4. Push the MPF tray to the left to release the right pivot on the front access cover.



5. Slide the tray to the right, and remove the MPF tray and spring.

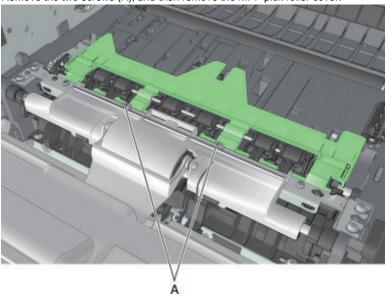


Installation note: Insert the straight end of the spring into the hole on the front access cover before sliding the MPF tray onto the left pivot of the front access cover.



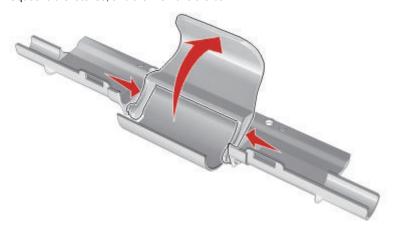
5.11 MPF pick roller cover removal

- Open the front door.
 Remove the two screws (A), and then remove the MPF pick roller cover.



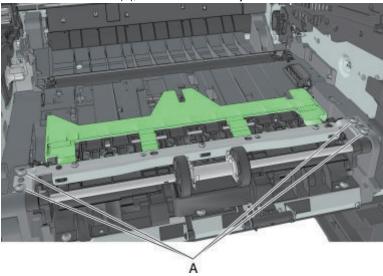
5.12 Bail removal

- 1. Remove the MPF pick roller cover. See G.5.11 MPF pick roller cover removal.
- 2. Rotate the bail.
- 3. Squeeze the latches, and then remove the bail.



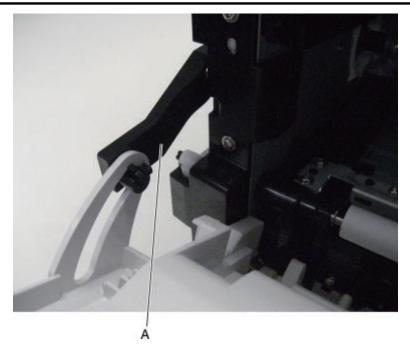
5.13 Jam access cover removal

- 1. Remove the MPF pick roller cover. See G.5.11 MPF pick roller cover removal.
- Remove the MPF pick roller. See F.3.6.1 MPF pick roller removall.
 Remove the four screws (A), and then remove the jam access cover.

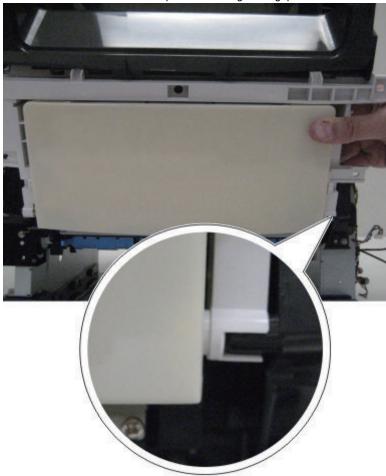


5.14 Front access cover removal

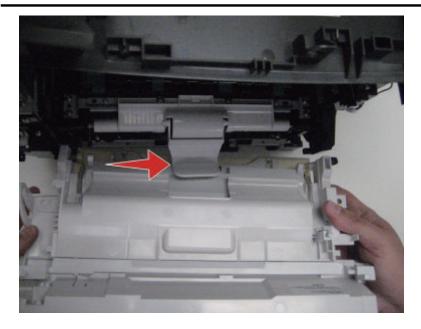
- 1. Remove the name plate cover. See G.5.4 Name plate cover removal.
- 2. Disconnect the cartridge gear linkage (A) from the front access cover.



3. Rotate the front access cover to a position that aligns the gap on the cover with the right hinge.

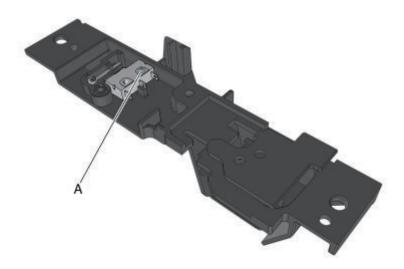


- 4. Release the right hinge off the pivot by lifting up on the right side of the front access cover.5. Slide the front access cover to the right, removing it from the print engine.



5.15 Front door sensor removal

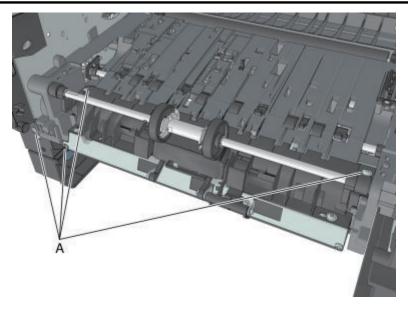
- 1. Remove the front access cover. See G.5.14 Front access cover removal.
- 2. From under the right mount, remove the screw (A).
 - Use a #1 Phillips screwdriver.



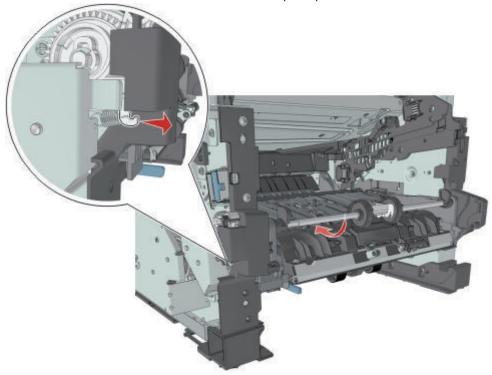
5.16 Front input guide removal

- Remove the right cover. See G.4.1 Right cover removal.
 Remove the MPF pick roller cover. See G.5.11 MPF pick roller cover removal.
 Remove the MPF pick roller. See F.3.6.1 MPF pick roller removall.
- Remove the MFF pick folier. See 1.3.0.1 MFF pick folier ferrioval.
 Remove the jam access cover. See G.5.13 Jam access cover removal.
 Remove the MPF tray. See G.5.10 MPF tray removal.
 Disconnect cable JMPF1 from the controller board.

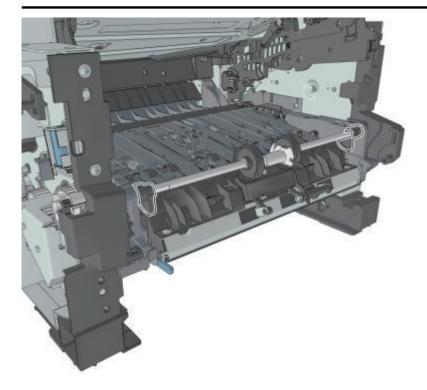
- 7. Remove the four screws (A).



- 8. Push and hold the cam restraint to release the MPF shaft.9. Rotate the MPF shaft inward so that the cams at each end point up.



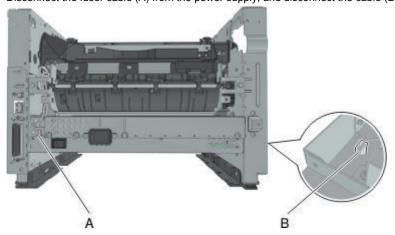
10. Release the front guide from the guides at each end. Installation note: The cams at each end of the MPF shaft must point down.



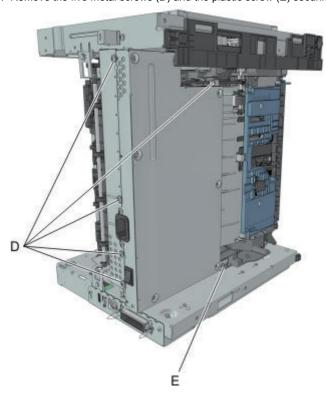
6. Bottom removals

6.1 Power supply removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Disconnect the fuser cable (A) from the power supply, and disconnect the cable (B) from the left side of the printer.



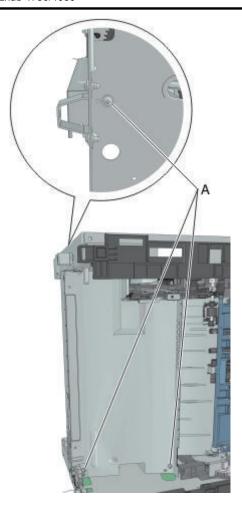
- 4. Position the printer so that it sits on its right side.
- 5. Remove the right tray guide. See G.6.11 Tray guide removal.
- 6. Remove the five metal screws (D) and the plastic screw (E) securing the power supply.



7. Remove the power supply, and then disconnect the cable from the power supply.

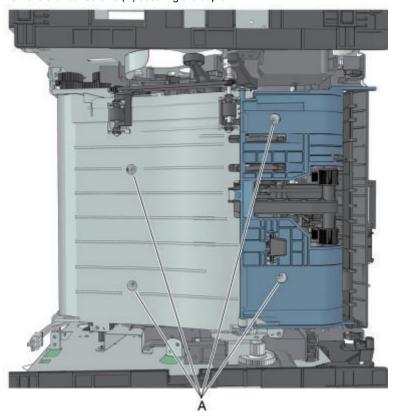
6.2 Power supply shield removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Remove the power supply. See G.6.1 Power supply removal.
- 4. Position the printer so that it sits on its right side.
- 5. Remove the three screws (A), and then remove the power supply shield.



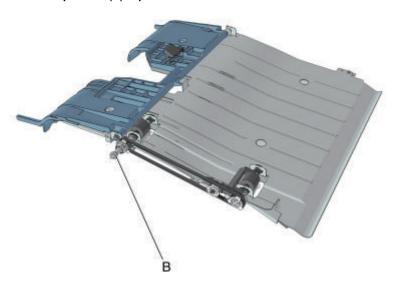
6.3 Duplex removal

- Remove the left cover. See G.3.1 Left cover removal.
 Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Remove the power supply. See G.6.1 Power supply removal.4. Remove the power supply shield. See G.6.2 Power supply shield removal.
- 5. Position the printer so that it sits on its right side.6. Remove the four screws (A) securing the duplex.



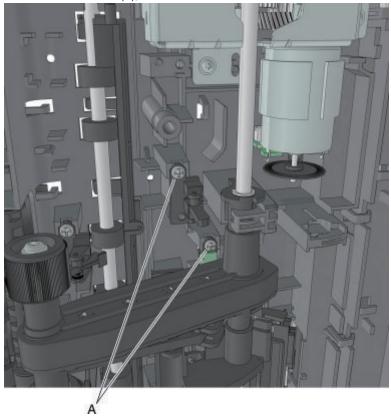
NOTE

• The duplex link (B) is part of the FRU.

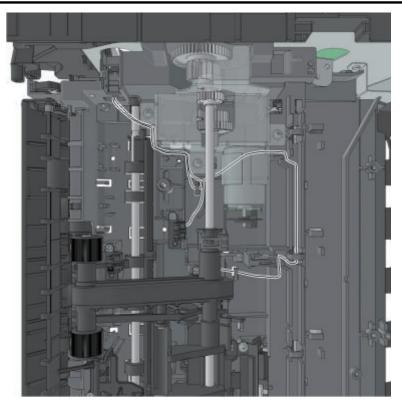


6.4 Duplex sensor and input sensor removal

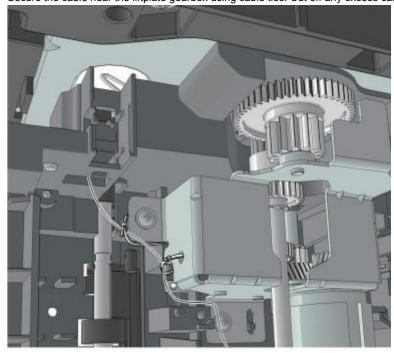
- Remove the left cover. See G.3.1 Left cover removal.
 Remove the right cover. See G.4.1 Right cover removal.
- 3. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- Remove the power supply. See G.6.1 Power supply removal.
- Remove the power supply shield. See G.6.2 Power supply shield removal.
- Remove the duplex. See G.6.3 Duplex removal.
 Disconnect the cable JDUPPI1 from the controller board.
- 8. Remove the two screws (A), and cut the cable near the frame to detach the sensors.



- 9. Remove the other half of the cable from the printer. Installation notes:
- 1. Install the duplex sensor, followed by the input sensor.
- 2. Route the cable using the new path.

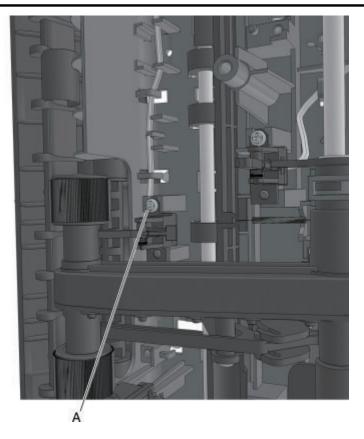


3. Secure the cable near the liftplate gearbox using cable ties. Cut off any excess cable tie.



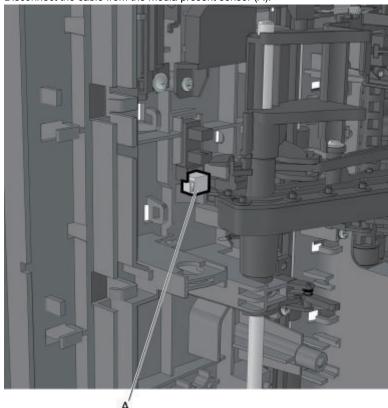
6.5 Index sensor removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the right cover. See G.4.1 Right cover removal.
- Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
 Remove the power supply. See G.6.1 Power supply removal.
- 5. Remove the power supply shield. See G.6.2 Power supply shield removal.6. Remove the duplex. See G.6.3 Duplex removal.
- Disconnect the cable JINDEX1 from the system board.
- Remove the screw (A). 8.
- Route off the cable, and then remove the index sensor.

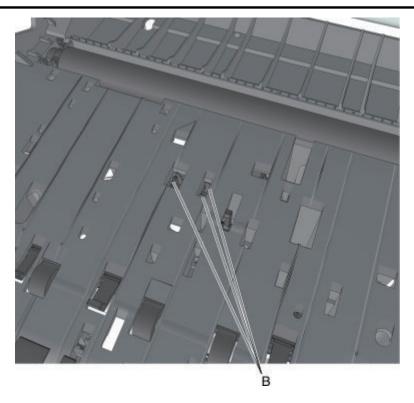


6.6 Media present sensor removal

- Remove the left cover. See G.3.1 Left cover removal.
 Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Remove the power supply. SeeG.6.1 Power supply removal.4. Remove the power supply shield. See G.6.2 Power supply shield removal.
- Remove the duplex. See G.6.3 Duplex removal.
- 6. Position the printer so that it sits on its left side.7. Disconnect the cable from the media present sensor (A)

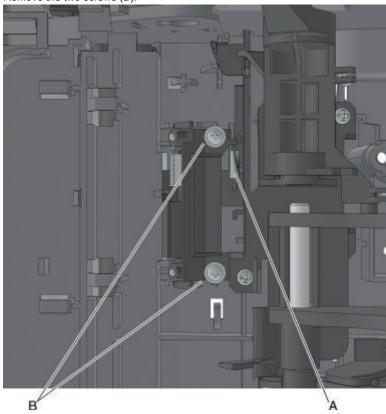


8. From inside the printer, release the three latches (B).



6.7 Toner density sensor removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- Remove the main drive gearbox. See G.3.2 Main drive gearbox removal.
- Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- Remove the power supply. See G.6.1 Power supply removal.
 Remove the power supply shield. See G.6.2 Power supply shield removal.
- 6. Remove the duplex. See G.6.3 Duplex removal.7. Disconnect the spring (A) from the printer.
- Remove the two screws (B)

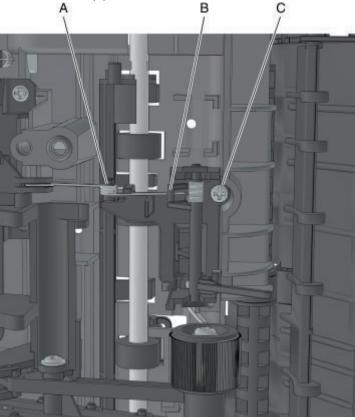


9. Disconnect the cable from the sensor.

6.8 Trailing edge sensor removal

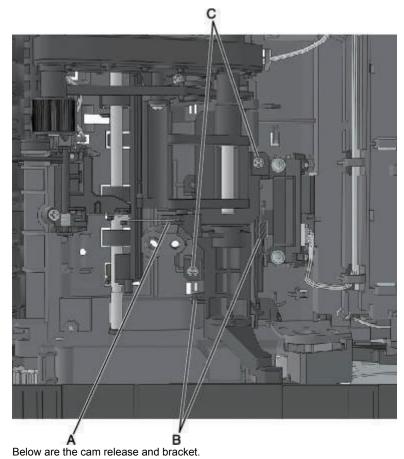
1. Remove the left cover. See G.3.1 Left cover removal.

- 2. Remove the right cover. See G.4.1 Right cover removal.
- 3. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 4. Remove the power supply. See G.6.1 Power supply removal.
- 5. Remove the power supply shield. See G.6.2 Power supply shield removal.
- 6. Remove the duplex. See G.6.3 Duplex removal.
- 7. Position the printer so that it sits on its left side.
- 8. Disconnect the cable JACM1 from the controller board.
- 9. Release the retainer spring (A) from the bracket (B).
- 10. Remove the screw (C).



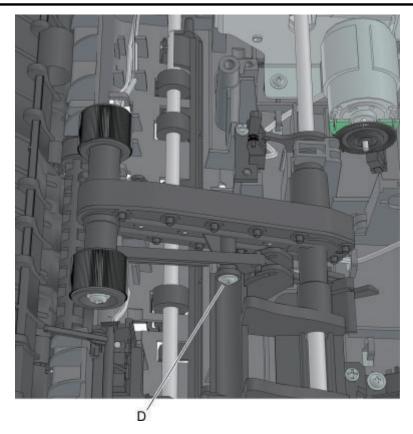
6.9 Media present flag removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- 3. Remove the power supply. See G.6.1 Power supply removal.
- 4. Remove the power supply shield. See G.6.2 Power supply shield removal.
- 5. Remove the duplex. See G.6.3 Duplex removal.
- 6. Remove the retainer spring (A).
- 7. Remove the spring (B).
- 8. Remove the two screws (C).

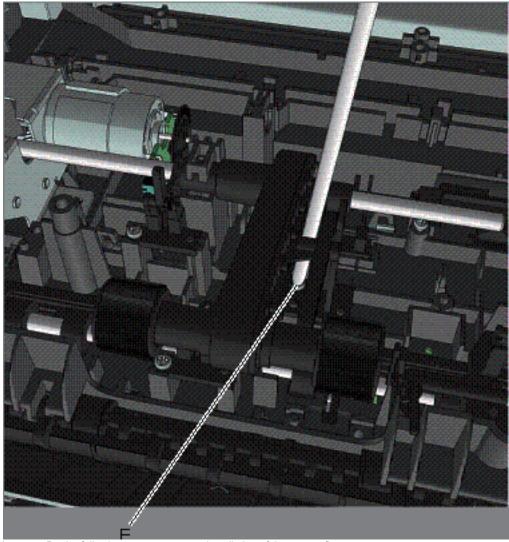




9. Remove the screw (D) securing the ACM lift cam to the ACM housing.

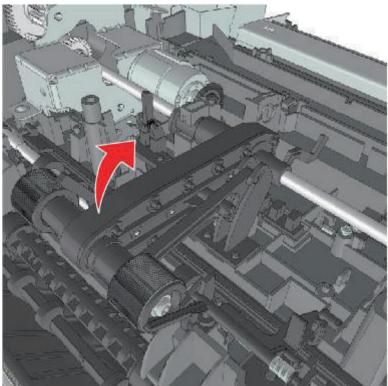


- 10. Remove the ACM lift cam by sliding it off the shaft.11. Remove the screw (E), and then remove the media present sensor flag. NOTE
 - Use a #1 Phillips screwdriver.

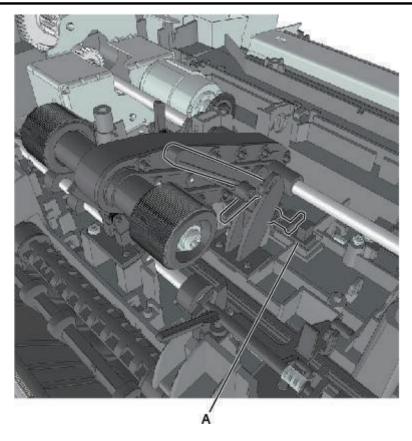


Installation note: Do the following to ensure proper installation of the sensor flag:

1. Lift the ACM.



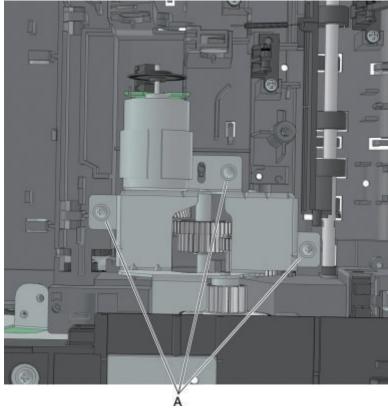
- 2. The protrusion on the ACM must align with the notch on the sensor flag.3. The sensor flag must align with the media present sensor (A).



6.10 Pick/lift motor gearbox removal

- Remove the left cover. See G.3.1 Left cover removal.
 Remove the rear door and cover. See G.7.1 Rear exit door removal and G.7.2 Rear cover removal.
- Remove the real door and cover. See G.7.1 Real exit door removal and G.
 Remove the power supply. See G.6.1 Power supply removal.
 Remove the power supply shield. See G.6.2 Power supply shield removal.
 Remove the duplex. See G.6.3 Duplex removal.
 Remove the ACM assembly. See F.3.3.1 ACM pick tire removal.
 Position the printer so that it sits on its left side.

- Remove the three screws (A).



9. Disconnect the cable from the pick/lift motor gearbox.

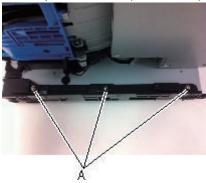
6.11 Tray guide removal

6.11.1 Left guide

Installation note: Before removing the guide, note the position of the ground spring. It will need to be re-installed when the guide is re-installed.



- 1. Remove the rear cover. See G.7.2 Rear cover removal.
- 2. Remove the left cover. See G.3.1 Left cover removal.
- 3. Turn the printer on its side (left side down), then remove the three screws (A) from the left guide.



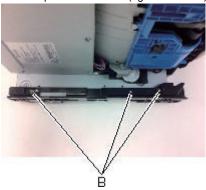
4. Remove the left guide.

Installation note: When re-installing the guide, insert the spring as shown.



6.11.2 Right guide

- 1. Remove the rear cover. See G.7.2 Rear cover removal.
- 2. Remove the right cover. See G.4.1 Right cover removal.
- 3. Remove the controller board shield. See G.4.7 Controller board shield removal.
- 4. Disconnect the option cable (JOPT1) from the controller board.
- 5. Turn the printer on its side (right side down), then remove the three screws (B) from the right guide.



- 6. Remove the guide from the frame.
- 7. Squeeze the latches to release the connector, then push the connector off the guide.



7. Rear side removals

7.1 Rear exit door removal

1. Open the rear door as shown below.

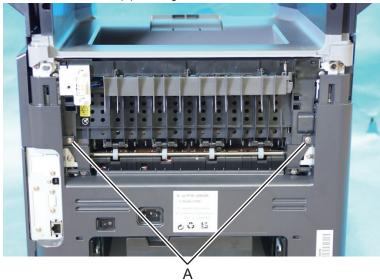


2. Pull the exit door upward to release the hinges, and remove.



7.2 Rear cover removal

- 1. Open the rear exit door.
- 2. Remove the two screws (A) securing the rear cover.

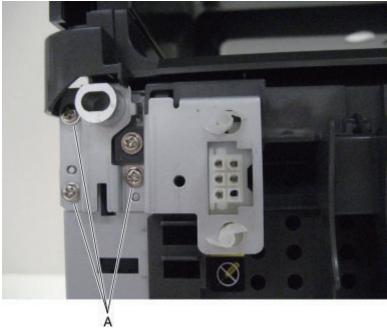


3. Lift the upper portion of the machine to release the cover, and then remove the cover.

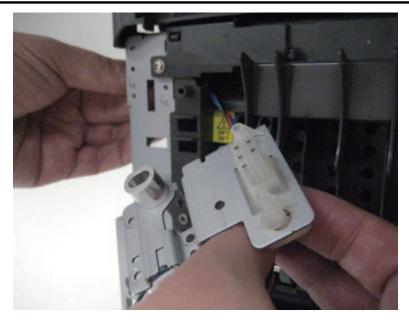


7.3 Stapler cable removal

- Remove the right cover. See G.4.1 Right cover removal.
 Remove the rear cover. See G.7.2 Rear cover removal.
- Remove the controller board shield. See G.4.7 Controller board shield removal. Disconnect the stapler cable (J56) from the controller board.
- Remove the three screws (A) from the mounting bracket.



6. Remove the stapler cable and mounting bracket from the printer frame while feeding the cable through the redrive unit and printer frame.

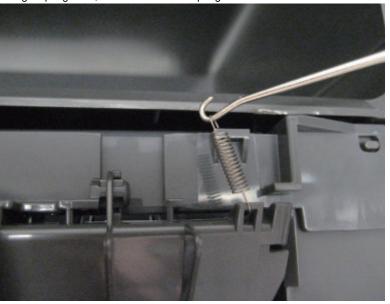


7. Using a pair of pliers, squeeze the nylon mounts to dislodge the stapler connector, and remove the stapler cable.



7.4 Diverter spring removal

- Remove the rear cover. See G.7.2 Rear cover removal.
 Using a spring hook, detach the diverter spring from the diverter and from the redrive.



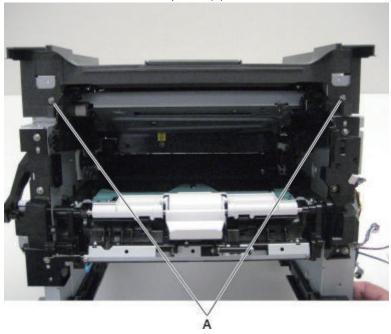
7.5 Diverter cover removal



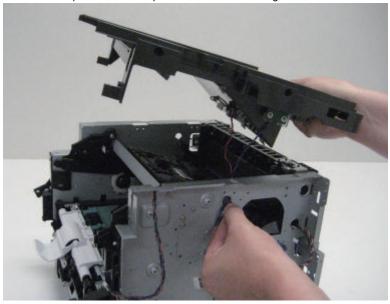
8. Top side removals

8.1 Top cover removal

- 1. Remove the scanner assembly. See G.9.6 Scanner assembly removal.
- 2. Remove the two screws from the top cover (A).



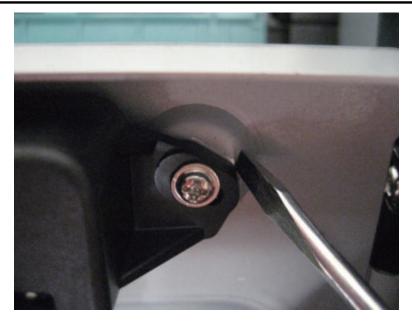
- 3. Remove the fan and fan duct.
- 4. Disconnect the bin full sensor cable (JBINS1) from the controller board.
- 5. Remove the top cover from the printer frame while feeding the bin full sensor cables through the side of the printer frame.



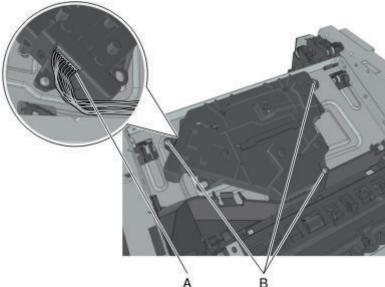
8.2 Printhead unit removal

NOTE

- After re-installing the current printhead unit or installing a new printhead unit, a mechanical and electronic printhead unit adjustment must be performed.
- 1. Remove the top cover. SeeG.8.1 Top cover removal
- 2. Disconnect the cable (J6) from the controller board.
- 3. Disconnect the cable (A) from the printhead unit.
- 4. Before loosening the screws securing the printhead unit, use a sharp pencil or a small, flat-blade screwdriver to mark the location of the printhead unit on the printer frame. This will be helpful in positioning the new printhead unit.



5. Remove the three screws (B) securing the printhead unit.

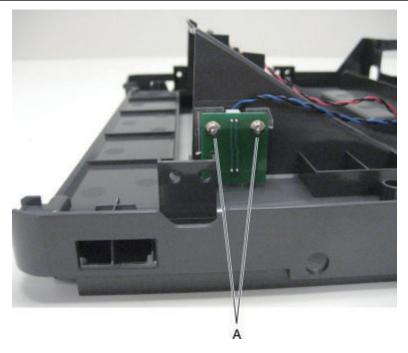


Installation note: Mechanical and electronic printhead unit adjustments are required to complete the installation of the printhead unit. See G.1.5 Printhead unit adjustments.

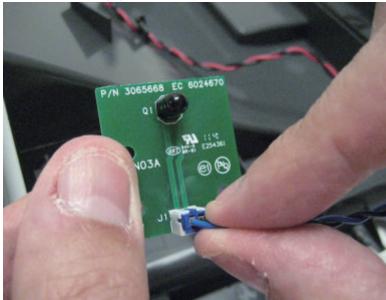
8.3 Bin full sensor/lens removal

NOTE

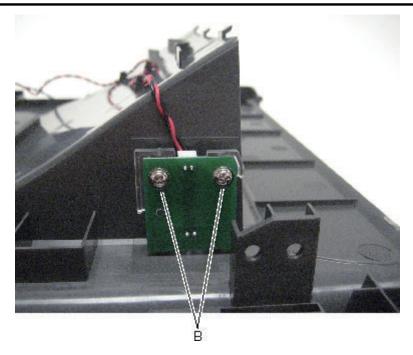
- The lens is a separate FRU.
- 1. Remove the top cover. See G.8.1 Top cover removal.
- 2. Remove the two screws (A) securing the right sensor and right lens to the top cover.



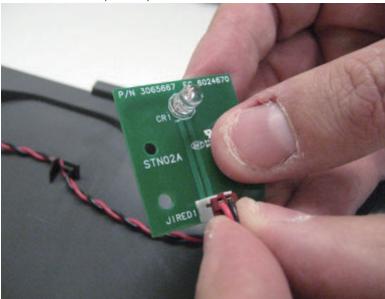
3. Disconnect the cable (J1) from the sensor.



4. Remove the two screws (B) securing the left sensor and left lens to the top cover.

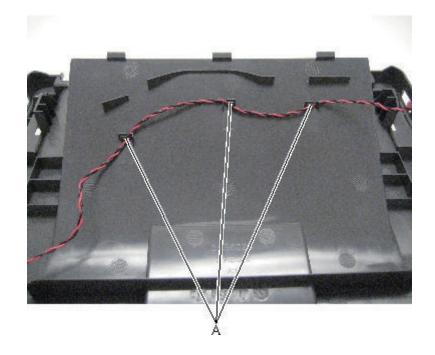


5. Disconnect the cable (J1RED1) from the sensor.



8.4 Bin full sensor cable removal

- Remove the top cover. See G.8.1 Top cover removal.
 Remove the bin full sensor. See G.8.3 Bin full sensor/lens removal.
 Release the cable from the cable holders (A), and remove.



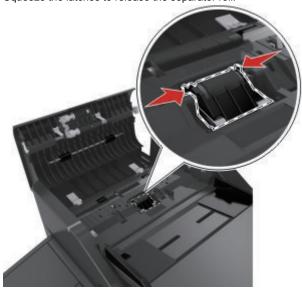
9. ADF/scanner removals

9.1 ADF separator roll removal

1. Open the ADF top cover.



2. Squeeze the latches to release the separator roll.



3. Pull away the separator pad and remove.



9.2 Flatbed cushion removal

1. Open the scanner.



2. Hold the cushion by its handles, then peel it off the scanner.



9.3 Scanner front cover removal

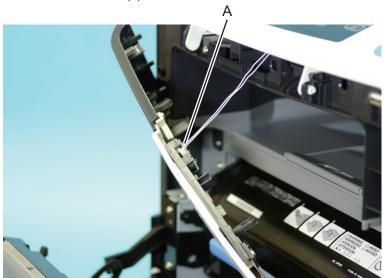
- 1. Open the front door.
- 2. Hold the sections shown in the illustration of the scanner front cover and unhook the two tabs in such a way as to lift the cover while pulling it toward.



3. Hold the sections shown in the illustration of the scanner front cover and unhook the two tabs in such a way as to lower the cover while pulling it toward.



4. Disconnect the connector (A) and then remove the scanner front cover.



9.4 ADF input tray removal

- 1. Firmly grasp the tray with one hand.
- 2. Release the tray by pushing its front edge inwards, and then remove the tray.



9.5 ADF unit removal

1. Open the ADF unit with one hand.

2. Insert a flat-blade screwdriver into the slot, and release the tab fastening the ADF harness cover to the ADF unit.



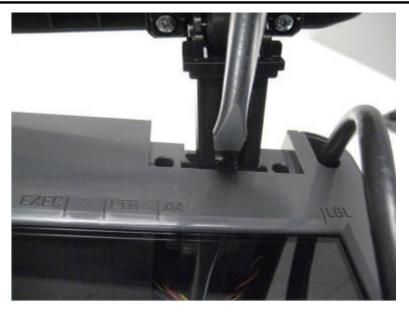
3. Disconnect the blade fastener (A) holding the ground cable to the ADF relay board.



4. Disconnect the ADF cable (B) from the ADF unit.



- 5. Route the cable off the ADF unit.
- 6. Slightly lift the ADF, and use a flat-blade screwdriver to press the tab on the right hinge, releasing it from the flatbed unit.



7. Remove the ADF unit.



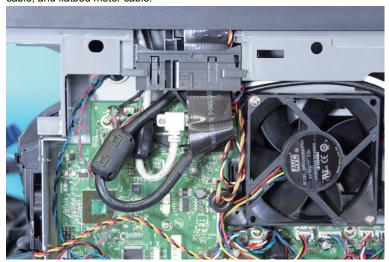
Installation note: After the new ADF is installed, perform scanner manual registration, see I.4.17 ADF Adjustment.

9.6 Scanner assembly removal

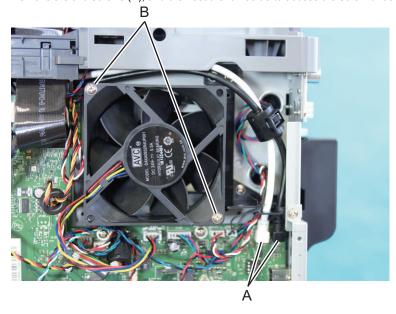
- 1. Remove the rear cover. See G.7.2 Rear cover removal.

- Open the front access cover.
 Remove the left cover. See G.3.1 Left cover removal.
 Remove the right cover. See G.4.1 Right cover removal.

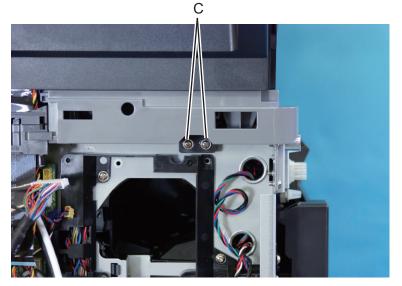
- 5. Remove the controller board shield from the printer frame assembly. See G.4.7 Controller board shield removal.6. Disconnect the following cables from the controller board: ADF ground, ADF cable, CIS cable, control panel cable, paper length sensor cable, and flatbed motor cable.



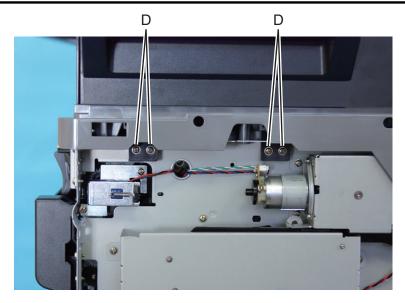
- 7. Disconnect the two cables (A) from the controller board.
- 8. Remove the two screws (B), and then set the fan aside to access the screw underneath.



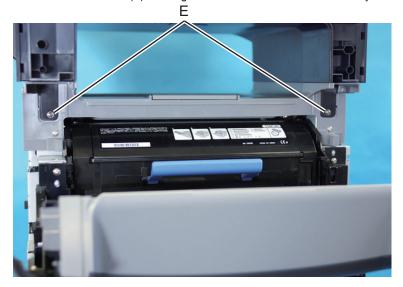
9. Remove the two screws (C) securing the rear right side of the scanner assembly to the printer frame.



10. Remove the four screws (D) securing the rear left side of the scanner assembly to the printer frame.



11. Remove the two screws (E) securing the front side of the scanner assembly to the printer frame.

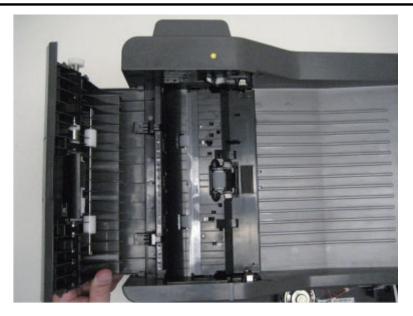


12. Lift the scanner assembly, and remove.

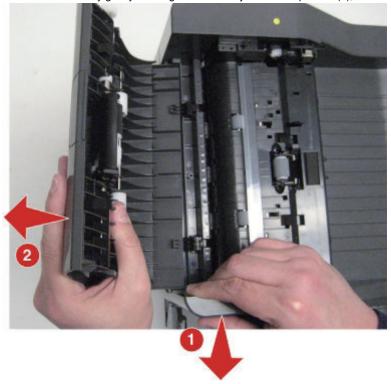


9.7 ADF top cover assembly

- 1. Open the ADF top cover. **NOTE**
 - Pay attention to the original position of the top cover.



2. Release the cover by gently bending the ADF away from the top cover (1), and then lift the top cover (2) and remove.

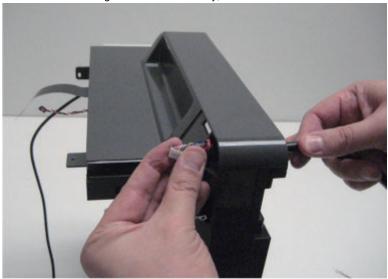


9.8 ADF cable removal

- Remove the ADF unit. See G.9.5 ADF unit removal.
 Using a flat-blade screwdriver, remove the cable cover from the rear of the scanner assembly.

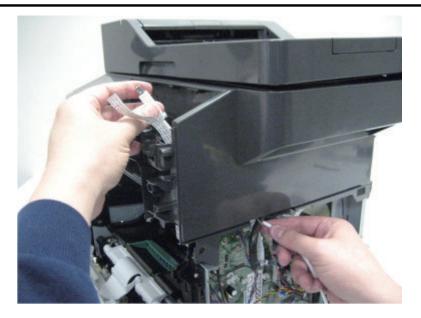


- 3. Remove the scanner assembly from the MFP.
- 4. Route the cable through the flatbed assembly, and remove it from the flatbed assembly.



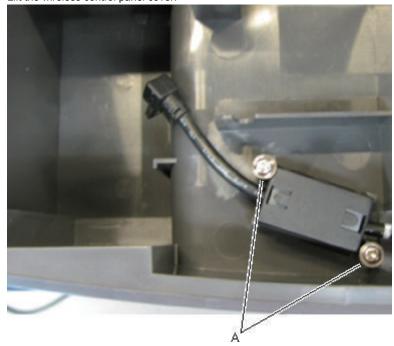
9.9 USB cable removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- 2. Remove the controller board shield. See G.4.7 Controller board shield removal.
- 3. Remove the fan.
- 4. Disconnect the MFP wireless cable from the controller board.
- 5. Remove the scanner front cover. See G.9.3 Scanner front cover removal.
- 6. Remove the control panel assembly. See G.5.6 Control panel assembly removal.
- 7. Remove the Control panel board drip pan.
- 8. Remove the USB cable bracket. See G.5.7 USB cable bracket removal.
- 9. Feed the USB cable through the channel on the left side of the printer.

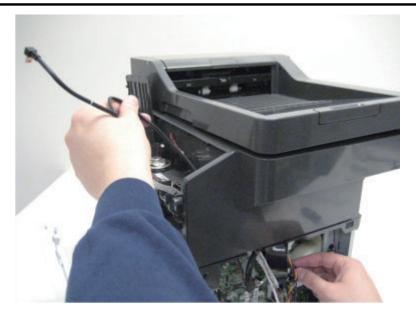


9.10 USB wireless cable removal

- 1. Remove the right cover. See G.4.1 Right cover removal.
- Remove the controller board shield. See G.4.7 Controller board shield removal.
- Remove the fan.
- 4. Disconnect the MFP wireless cable from the controller board.
- 5. Remove the scanner front cover. See G.9.3 Scanner front cover removal.6. Remove the control panel assembly. See G.5.6 Control panel assembly removal.
- 7. Remove the Control panel board drip pan.
- 8. Lift the wireless control panel cover.



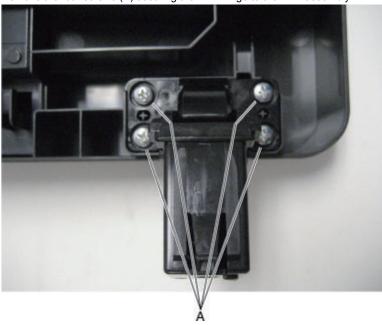
9. Feed the wireless cable through the channel on the left side of the printer.



9.11 ADF hinge removal

NOTE

- The removal shown is for the left ADF hinge. The right ADF hinge is removed in a similar manner.
- 1. Remove the ADF assembly. See G.9.5 ADF unit removal.
- 2. Remove the four screws (A) securing the ADF hinge to the ADF assembly.



9.12 Flatbed assembly removal

- 1. Remove the ADF assembly. See G.9.5 ADF unit removal.
- 2. Remove the scanner assembly from the MFP. See G.9.6 Scanner assembly removal.
- 3. Remove the control panel assembly. See G.5.6 Control panel assembly removal.
- 4. Remove the ADF cable. See G.9.8 ADF cable removal.
- 5. Remove the USB wireless cable. See G.9.10 USB wireless cable removal.
- 6. Remove the control panel USB cable. See G.9.9 USB cable removal.
- 7. Remove the speaker cable. See G.9.14 Speaker cable removal.
- 8. Remove the wireless control panel cover.

Installation note: After the new flatbed is installed, perform scanner manual registration, see I.4.2.2 Scanner Area.

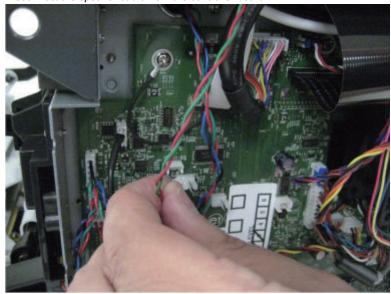
9.13 Control panel ribbon cable removal

- 1. Remove the left cover. See G.3.1 Left cover removal.
- 2. Remove the scanner front cover. See G.9.3 Scanner front cover removal.
- 3. Remove the three screws (A) securing the control panel assembly to the scanner assembly.
- 4. Lift the control panel assembly, disconnect the ribbon cable (JUICC1) from the control panel board and then feed the ribbon cable through the wire channel.

9.14 Speaker cable removal

1. Remove the left cover. See G.3.1 Left cover removal.

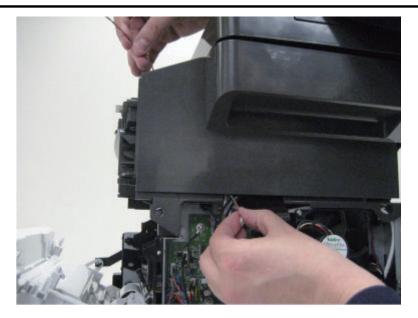
- 2. Remove the controller board shield. See G.4.7 Controller board shield removal.
- 3. Remove the fan.
- Remove the fail.
 Remove the scanner front cover. See G.9.3 Scanner front cover removal.
 Remove the control panel assembly. See G.5.6 Control panel assembly removal.
 Remove the Control panel board drip pan.
 Disconnect the speaker cable from the controller board.



8. Disconnect the speaker cable from the speaker.



9. Feed the speaker cable through the channel on the right side of the printer.

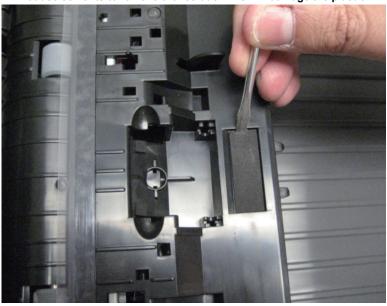


9.15 Restraint pad removal

- 1. Open the ADF top cover.
- 2. Peel the restraint pad off of the ADF top cover. Be sure that any excess adhesive or pieces of pad are removed from the ADF top cover to avoid misfeeds.

<u>∧</u>WARNING

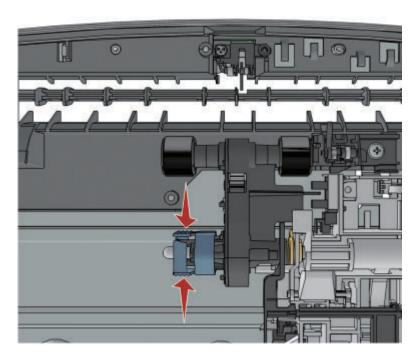
Potential Damage: Be sure that any excess adhesive or pieces of pad are removed from the ADF top cover to avoid misfeeds. Do not use solvents to remove the residue. This will damage the plastic.



10. 250/550-sheet option tray removals

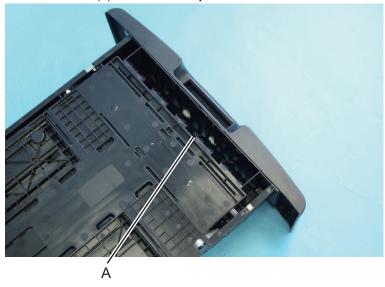
10.1 Pick roller removal

Press the latches, and then remove the pick roller.

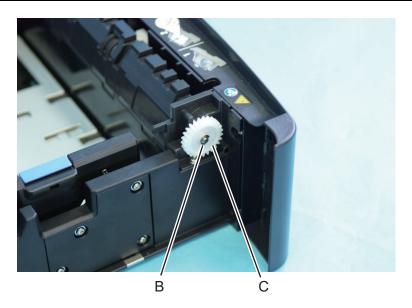


10.2 Separator roll assembly removal

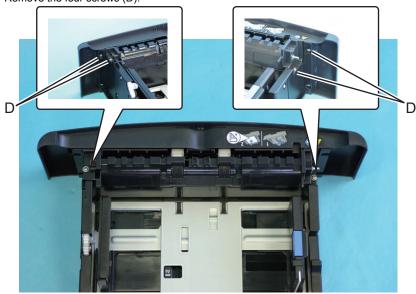
1. Remove the screw (A) from under the tray insert.



2. Remove the E-ring (B), and then remove the gear (C).



3. Remove the four screws (D).

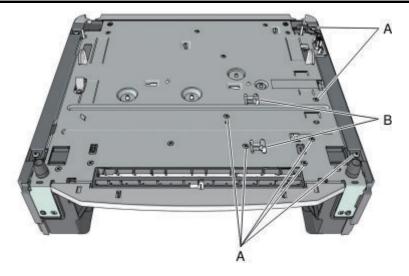


4. Push out the top part of the drawer cover, and then remove the separator roll assembly.

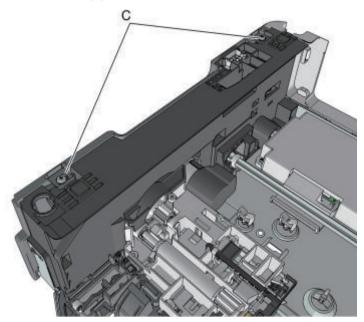


10.3 ACM assembly removal

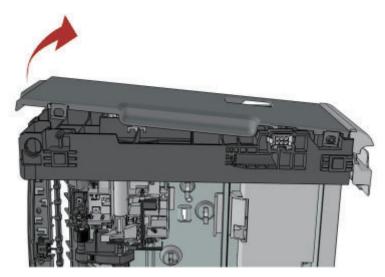
1. Remove the seven screws (A), and release the two latches (B) from the top of the drawer.



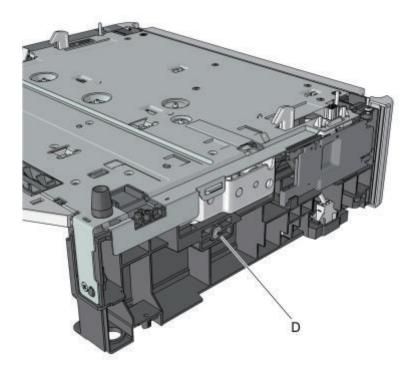
2. Remove the two screws (C), and then release the two latches under the screws.



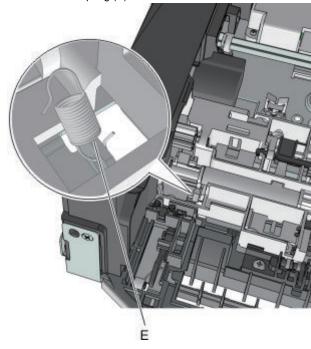
3. Swing the right cover backward to remove.



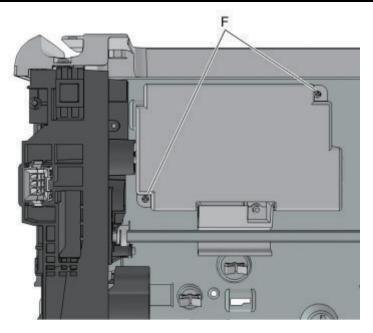
4. Remove the screw (D).



5. Disconnect the spring (E).



6. Remove the two screws (F), and then remove the controller board cover.

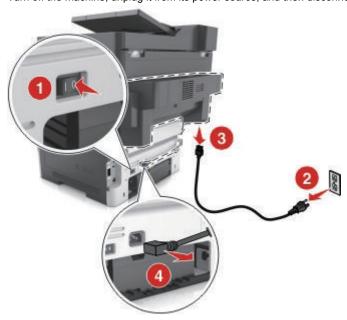


- 7. Disconnect the cable J11 from the controller board.8. Unroute the cable, and then remove the ACM assembly.

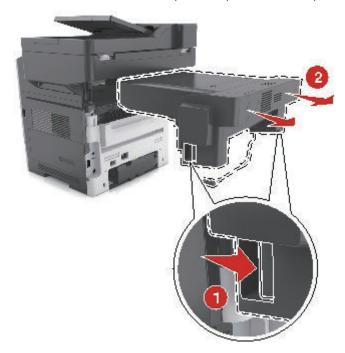
11. Staple finisher option removals

11.1 Staple finisher option removal

1. Turn off the machine, unplug it from its power source, and then disconnect the staple finisher power cable from the printer.



2. Press the latches to release, then pull the staple finisher off the printer.

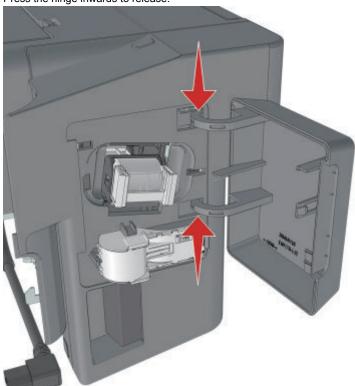


11.2 Stapler cartridge access door removal

1. Open the access door.



2. Press the hinge inwards to release.



3. Pull the door, and remove.

11.3 Staple roll holder removal

1. Open the access door.

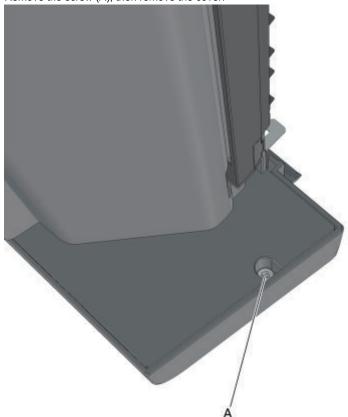


2. Squeeze the handles (1), and pull the stapler roll holder (2) off the cartridge.



11.4 Stapler right cover removal

- 1. Remove the stapler cartridge access door. See Stapler cartridge access door removal.
- 2. Remove the screw (A), then remove the cover.

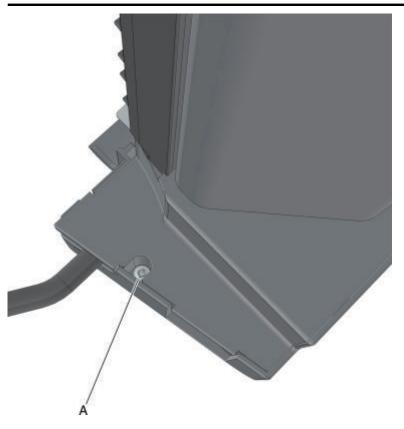


11.5 Stapler left cover removal

NOTE

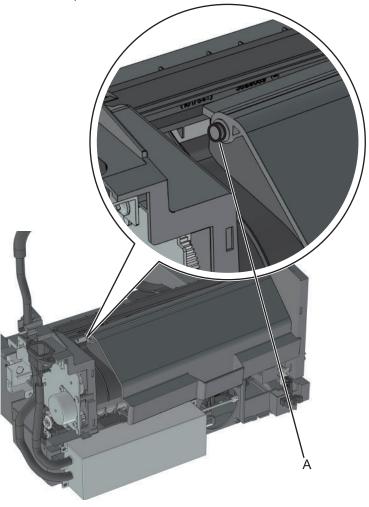
• This is not a FRU.

Remove the screw (A), then remove the cover.



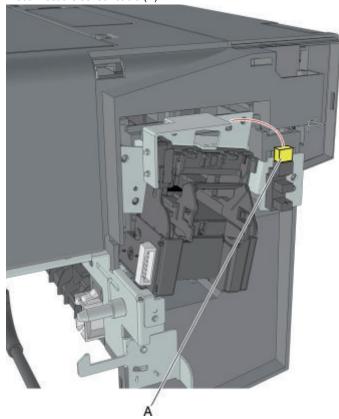
11.6 Stapler rear door removal

- On the bottom of the staple finisher, flex the stapler rear door to release the pin (A).
 Remove the stapler rear door.



11.7 Sensor (stapler access door) removal

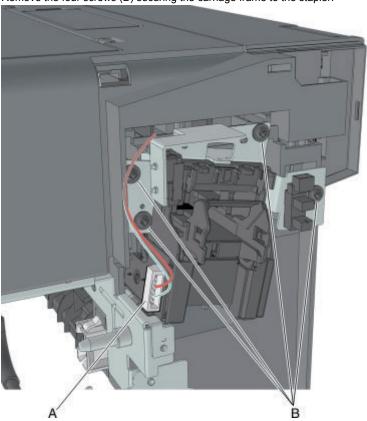
- 1. Remove the stapler right cover. SeeG.11.4 Stapler right cover removal.
- 2. Disconnect the sensor cable (A).



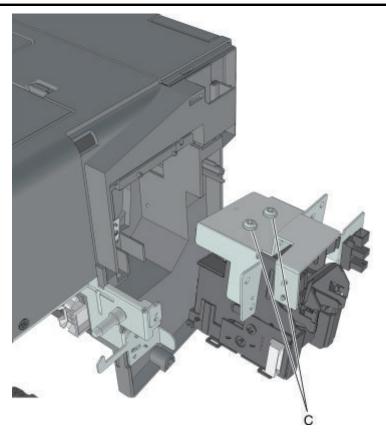
3. Release the latches, and pull the sensor off the frame.

11.8 Stapler carriage assembly removal

- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal.
- 2. Disconnect the cable (A) from the carriage.
- 3. Remove the four screws (B) securing the carriage frame to the stapler.

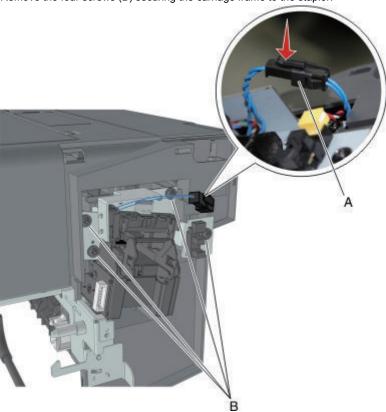


4. Remove the two screws (C), and remove the stapler carriage assembly.

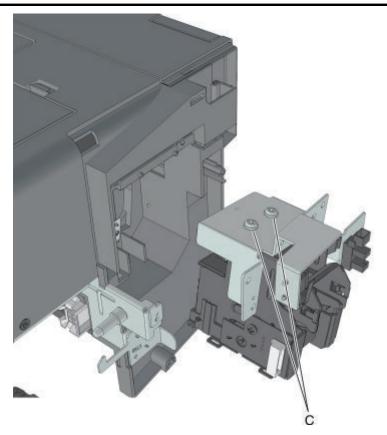


11.9 Stapler door close limit switch removal

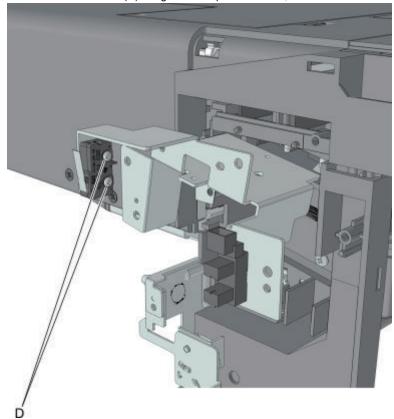
- Remove the stapler right cover. See G.11.4 Stapler right cover removal.
 Push down to release, then disconnect the switch cable (A).
 Remove the four screws (B) securing the carriage frame to the stapler.



4. To access the switch, remove the two screws (C), and set aside the carriage.

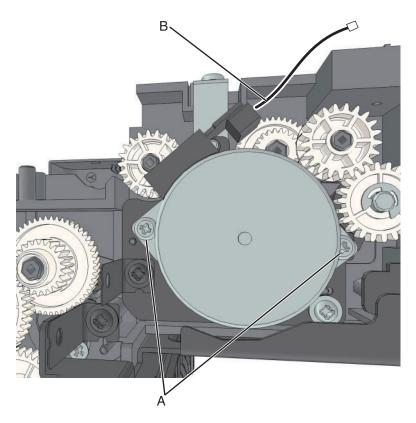


5. Remove the two screws (D) using a #1 Phillips screwdriver, then remove the limit switch.



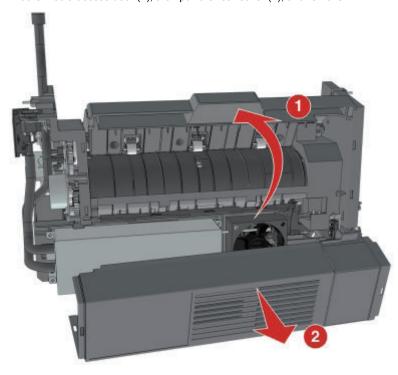
11.10 Stapler paddle motor removal

- Remove the stapler left cover. See G.11.5 Stapler left cover removal.
 Remove the two screws (A) from the paddle motor and disconnect the motor cable (B).
 Remove the motor.



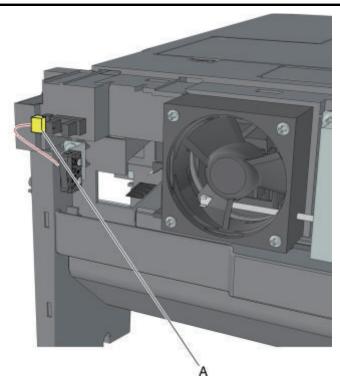
11.11 Stapler rear cover removal

- 1. Remove the left cover. See G.11.5 Stapler left cover removal.
- Remove the right cover. See G.11.4 Stapler right cover removal.
 Lift the media access door (1), then pull the rear cover (2), and remove.



11.12 Sensor (stapler rear cover) removal

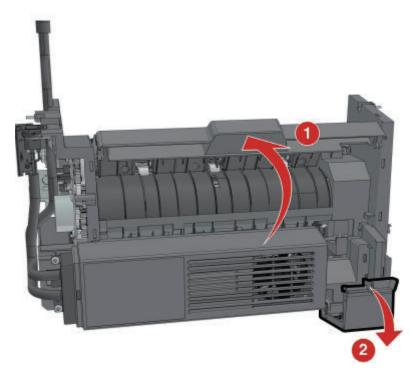
- Remove the stapler right cover. See G.11.4 Stapler right cover removal.
 Remove the stapler left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the stapler rear cover. See G.11.11 Stapler rear cover removal.
- 4. Disconnect the sensor cable (A).



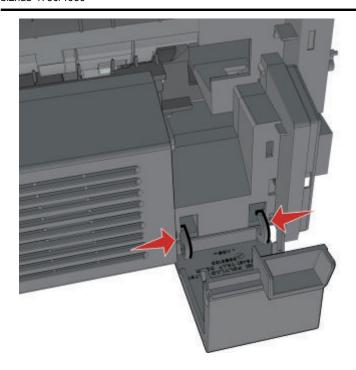
 $\it 5$. Release the latches, and pull the sensor off the stapler.

11.13 Trapped staple access door removal

1. Lift the media access door (1), then open the staple access door (2).

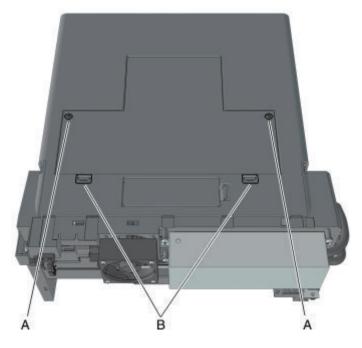


2. Push inwards to release the hinges, then remove the staple access door.



11.14 Stapler service cover removal

- 1. Remove the two screws (A) from the cover.
- 2. Press the latches (B) to release, and pull the service cover off the stapler.

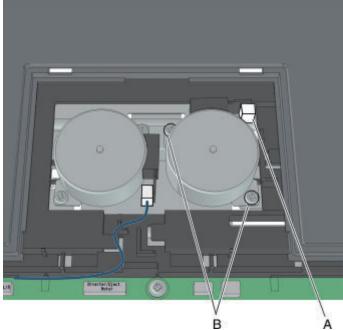


11.15 Stapler controller board removal

- 1. Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 2. Disconnect all the cables from the controller board.
- 3. Remove the five screws (A), then pull the controller board off the stapler.

11.16 Stapler left tamper motor removal

- 1. Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 2. Disconnect the motor cable (A).
- 3. Remove the two screws (B) securing the motor, and remove the tamper motor.



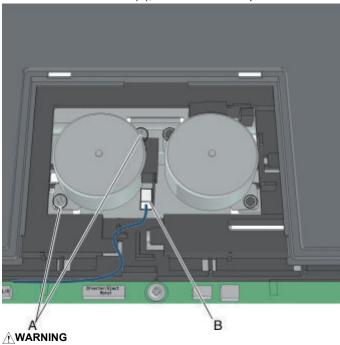
MARNING

· Potential Damage: Be careful not to lose the tamper belt when removing the tamper motor.

Installation note: Make sure to engage the motor gears with the tamper belt.

11.17 Stapler right tamper motor removal

- 1. Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 2. Remove the two screws (A) securing the motor.
- 3. Disconnect the motor cable (B), and remove the tamper motor.

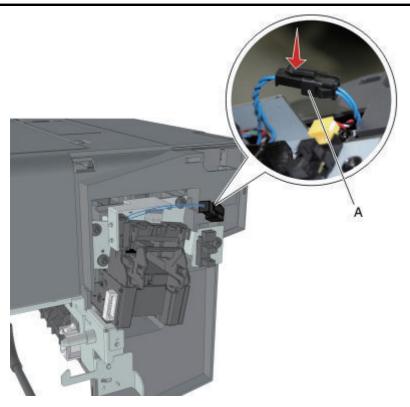


Potential Damage: Be careful not to lose the tamper belt when removing the tamper motor.

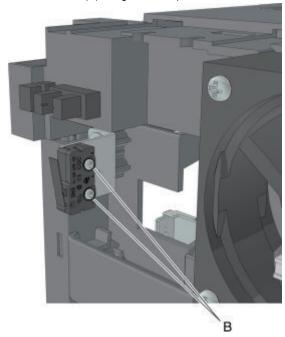
Installation note: Make sure to engage the motor gears with the tamper belt.

11.18 Stapler rear cover close limit switch removal

- 1. Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 2. Disconnect the limit switch cable from the controller PCBA.
- 3. Remove the stapler right cover. See G.11.4 Stapler right cover removal.
- 4. Disconnect the sensor cable (A).

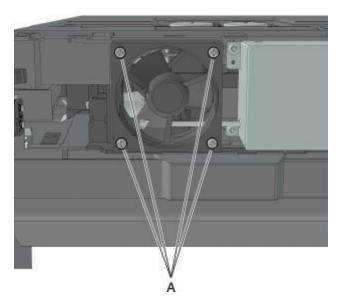


- 5. Remove the stapler left cover. See G.11.5 Stapler left cover removal.
- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal.
 Remove the two screws (B) using a #1 Phillips screwdriver, then remove the limit switch.



11.19 Stapler cooling fan removal

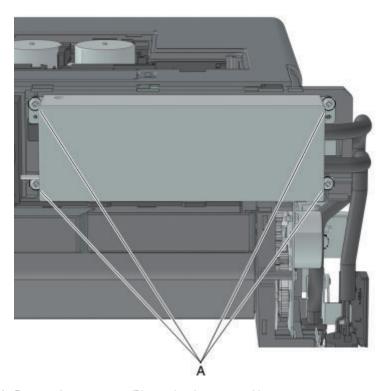
- Remove the stapler right cover. See G.11.4 Stapler right cover removal.
 Remove the stapler left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the stapler rear cover. See G.11.11 Stapler rear cover removal.
- Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 5. Disconnect the cooling fan cable (CN8) from the controller PCBA.
- 6. Remove the four screws (A) from the cooling fan.



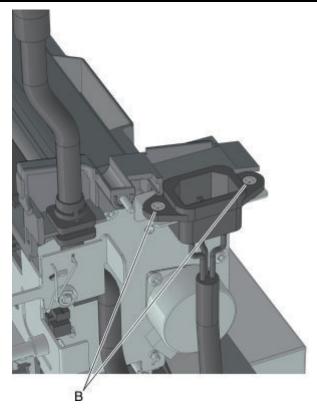
- 7. Route the cable off the stapler, and remove the cooling fan. **NOTE**
 - Pay attention to the original routing of the cable.

11.20 Stapler power supply unit removal

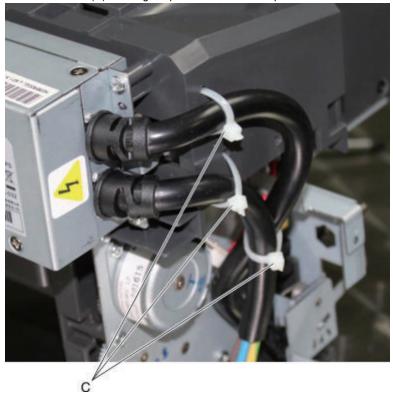
- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal.
- 2. Remove the stapler left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the stapler rear cover. See G.11.11 Stapler rear cover removal.
- 4. Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal.
- 5. Remove the stapler service cover.
- 6. Disconnect the power supply cable (CN5) from the controller PCBA.
- 7. Remove the four screws (A) from the power supply unit.



8. Remove the two screws (B) securing the power cable.



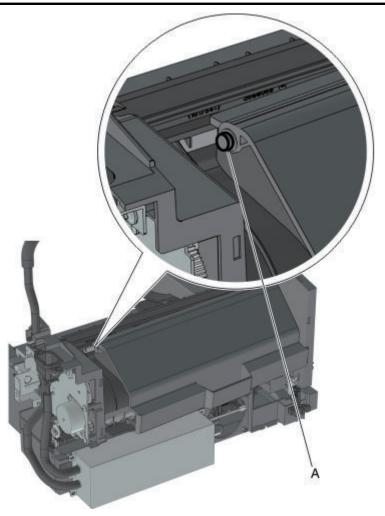
9. Cut the cable ties (C) securing the power cable to the stapler.



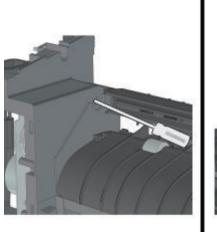
- 10. Route the cable off the stapler, and remove the power supply unit. NOTE
 - Pay attention to the original position of the cable.

11.21 Stapler interface cable removal

- Remove the stapler service cover. See G.11.14 Stapler service cover removal.
 Disconnect the interface cable (CN15) from the controller PCBA.
- 3. Flex the media access door to release the tab (A), then remove.

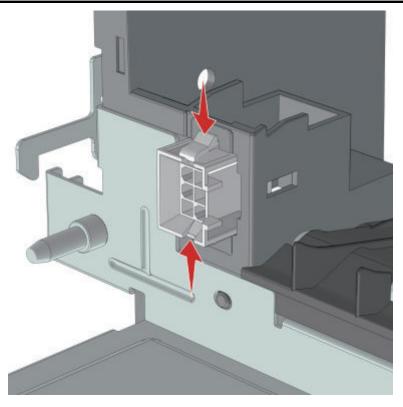


4. Using a flat-blade screwdriver, release the latches, then remove the input cover.





 $\it 5$. Squeeze the latches to release, and dislodge the interface cable from its slot.

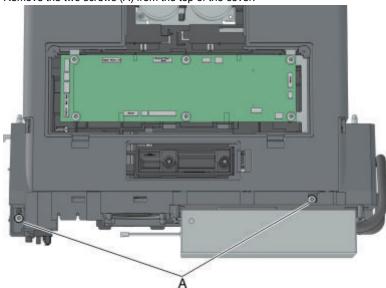


- 6. Route the cable off the stapler, and remove.
 - NOTE
 - Pay attention to the original routing of the cable.

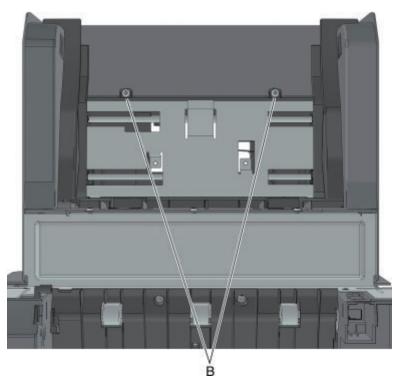
11.22 Stapler top cover removal

- 1. Remove the right cover. See G.11.4 Stapler right cover removal.
- Remove the left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the rear cover. See G.11.11 Stapler rear cover removal.
- Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal.

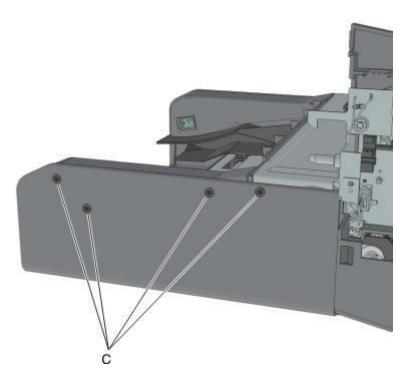
 Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal. 5.
- 6. Remove the two screws (A) from the top of the cover.



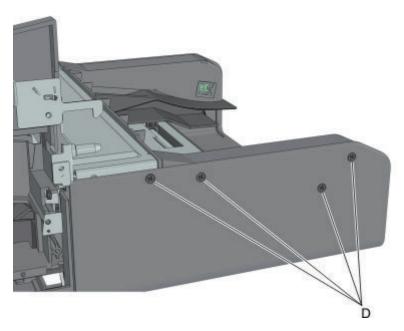
7. Remove the two screws (B) under the cover.



8. Remove the four screws (C) from the left side of the cover.



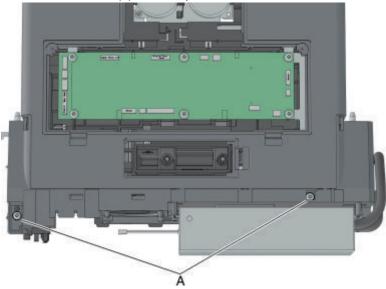
9. Remove the four screws (D) from the right side of the cover.



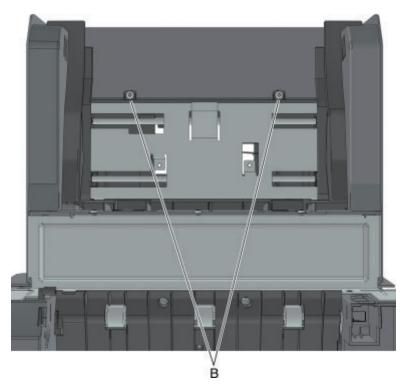
- 10. Lift the cover, then release the cables routed through the top cover.
 - NOTE
 - Pay attention to the original routing of the cables.
- 11. Remove the top cover.

11.23 Sensor (stapler bin full receive) removal

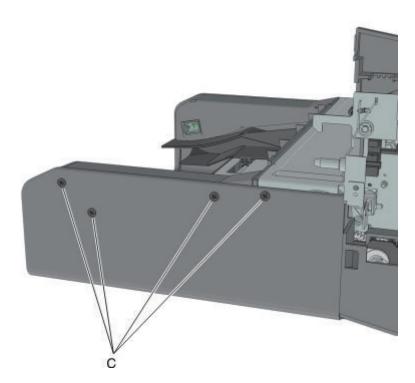
- 1. Remove the right cover. See G.11.4 Stapler right cover removal.
- 2. Remove the left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the rear cover. See G.11.11 Stapler rear cover removal.
- 4. Remove the stapler service cover. See G.11.14 Stapler service cover removal.
- 5. Disconnect the sensor cable (CN12) from the controller PCBA.
- 6. Remove the two screws (A) from the top cover.



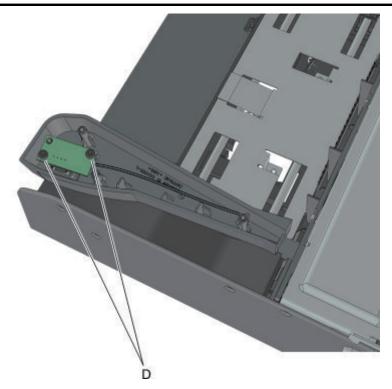
7. Remove the two screws (B) under the cover.



8. Remove the four screws (C) from the right side of the cover.



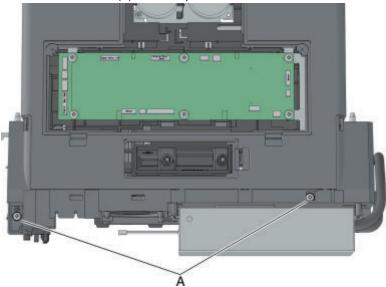
- 9. To access the sensor, release the sensor cover from the right side of the top cover. 10. Remove the two screws (D) securing the sensor.



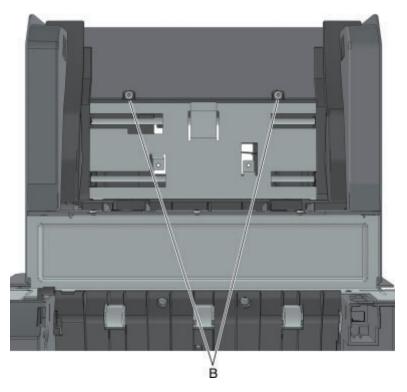
- 11. Route the sensor cable off the stapler, then remove the sensor. \mathbf{NOTE}
 - · Pay attention to the original routing of the cables.

11.24 Sensor (stapler bin full send) removal

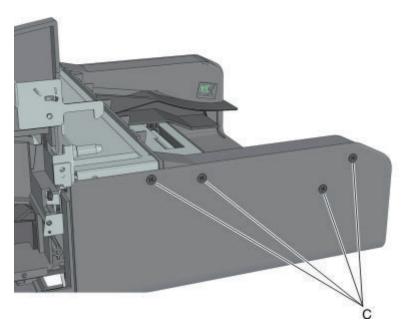
- 1. Remove the right cover. See G.11.4 Stapler right cover removal.
- 2. Remove the left cover. See G.11.5 Stapler left cover removal.
- 3. Remove the rear cover. See G.11.11 Stapler rear cover removal.
- 4. Remove the stapler service cover. G.11.14 Stapler service cover removal.
- 5. Disconnect the sensor cable (CN12) from the controller PCBA.
- 6. Remove the two screws (A) from the top cover.



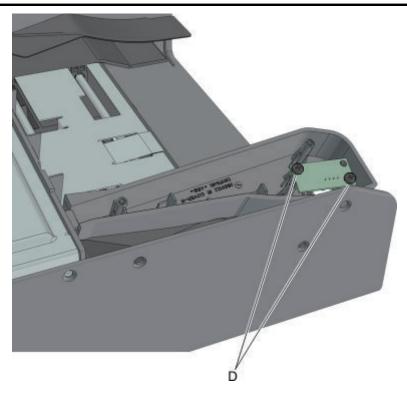
7. Remove the two screws (B) under the cover.



8. Remove the four screws (C) from the right side of the cover.



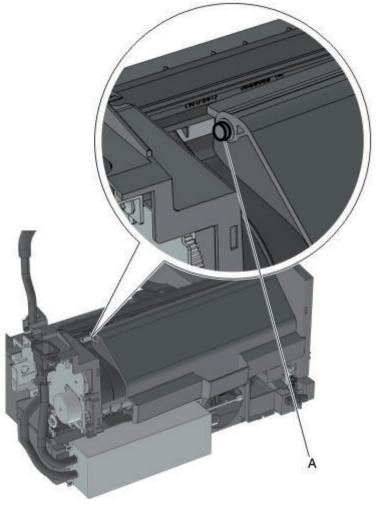
- 9. To access the sensor, release the sensor cover from the right side of the top cover. 10. Remove the two screws (D) securing the sensor.



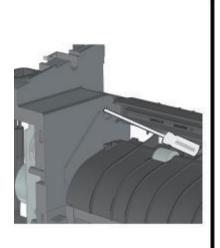
- Route the sensor cable off the stapler, then remove the sensor.
 NOTE
 - Pay attention to the original routing of the cables.

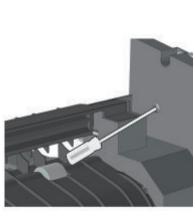
11.25 Sensor (stapler pass through) removal

1. Flex the media access door to release the tab (A), then remove.

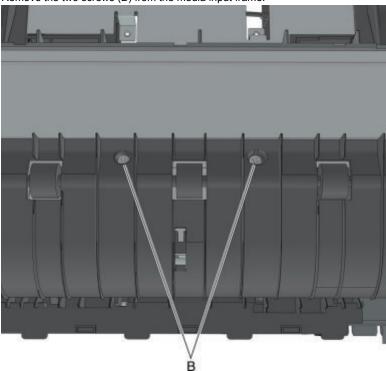


2. Using a flat-blade screwdriver, release the latches, then remove the input cover.

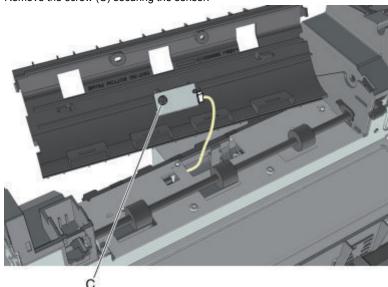




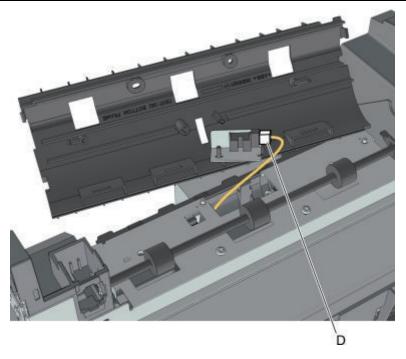
3. Remove the two screws (B) from the media input frame.



4. Remove the screw (C) securing the sensor.



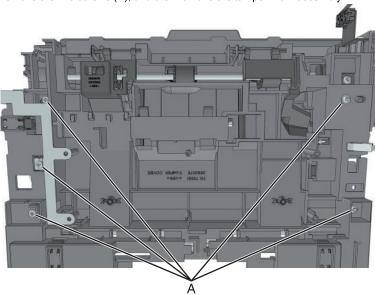
5. Disconnect the cable (D) from the sensor.



6. Release the latches, then remove the sensor.

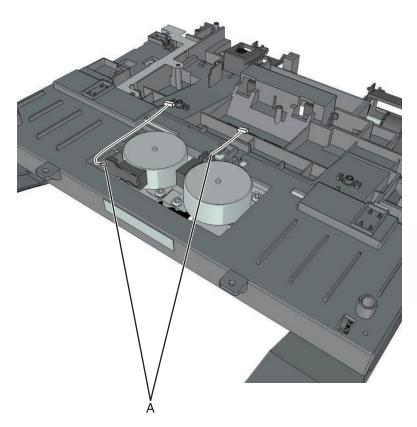
11.26 Tamper main assembly removal

- Remove the stapler right cover. See G.11.4 Stapler right cover removal
 Remove the stapler left cover. See G.11.5 Stapler left cover removal
- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- Remove the stapler service cover. See G.11.14 Stapler service cover removal
- Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
- Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
- 8. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- Remove the five screws (A), and then remove the tamper main assembly

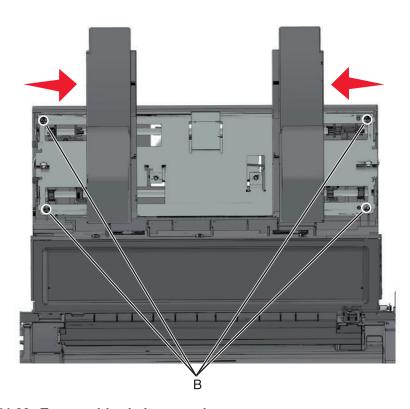


11.27 Tamper sub-assembly removal

- Remove the stapler right cover. See G.11.4 Stapler right cover removal
- Remove the stapler left cover. See G.11.5 Stapler left cover removal
- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- Remove the stapler service cover. See G.11.14 Stapler service cover removal
- 5. Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
- Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
- 8. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- Remove the tamper main assembly. See G.11.26 Tamper main assembly removal
- 10. Disconnect the tamper motor cables (A).



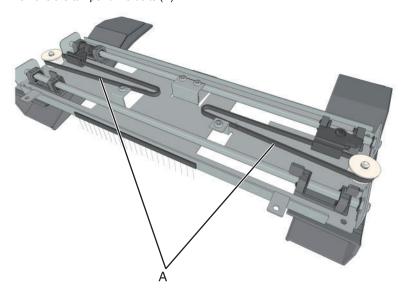
- 11. Move the tampers inward to access the screws (B) at the bottom.
- 12. Remove the four screws (B), and then remove the sub-assembly.



11.28 Tamper drive belt removal

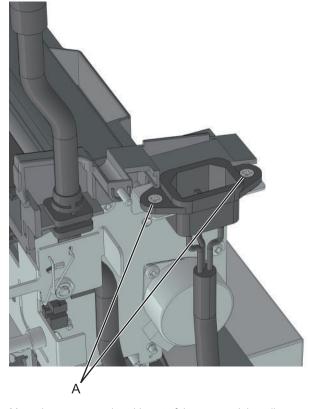
- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal
- Remove the stapler left cover. See G.11.5 Stapler left cover removal
 Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- Remove the stapler service cover. See G.11.14 Stapler service cover removal
- Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
- 7. Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal

- 8. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- 9. Remove the tamper main assembly. See G.11.26 Tamper main assembly removal 10. Remove the tamper sub-assembly. See G.11.27 Tamper sub-assembly removal
- 11. Remove the tamper motors. See G.11.16 Stapler left tamper motor removal and G.11.17 Stapler right tamper motor removal
- 12. Remove the tamper drive belts (A).

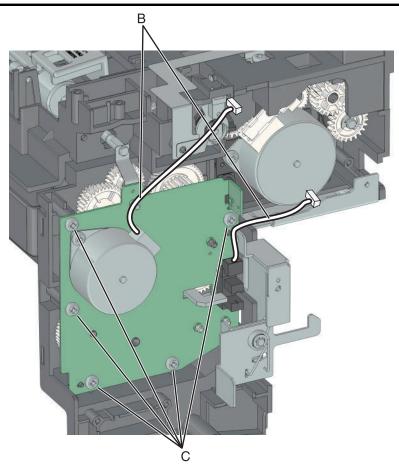


11.29 Diverter gearbox removal

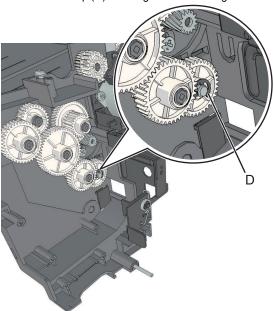
- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal
- Remove the stapler carriage assembly. See G.11.8 Stapler carriage assembly removal Remove the stapler left cover. See G.11.5 Stapler left cover removal
- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- Remove the two screws (A), and cut the cable ties securing the power supply cable.



- 6. Move the power supply cable out of the way, and then disconnect the sensor and motor cables (B).
- 7. Remove the five screws (C) from the diverter motor assembly.



8. Release the E-clip (D) securing the lowermost gear. Pull the gears off their shafts to remove them.

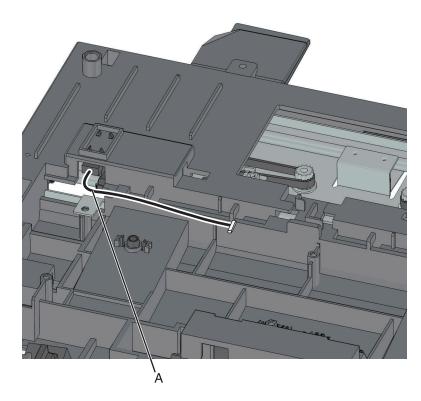


11.30 Stapler accumulator assembly removal

- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal
- Remove the stapler left cover. See G.11.5 Stapler left cover removal
- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
 Remove the stapler rear door. See G.11.6 Stapler rear door removal
- 5. Remove the stapler service cover. See G.11.14 Stapler service cover removal
- 6. Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- 7. Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
 8. Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
- 9. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- 10. Remove the tamper main assembly. See G.11.26 Tamper main assembly removal The accumulator assembly remains.

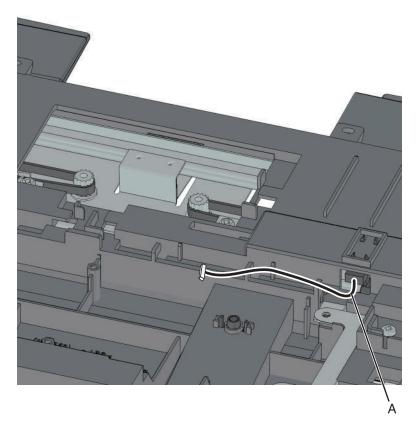
11.31 Sensor (stapler right tamper HP) removal

- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal
- 2. Remove the stapler left cover. See G.11.5 Stapler left cover removal
- 3. Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- 4. Remove the stapler service cover. See G.11.14 Stapler service cover removal
- 5. Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- 6. Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
- 7. Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
- 8. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- 9. Remove the tamper main assembly. See G.11.26 Tamper main assembly removal
- 10. Remove the tamper sub-assembly. See G.11.27 Tamper sub-assembly removal
- 11. Disconnect the sensor cable (A). Release the latches, and then remove the sensor.



11.32 Sensor (stapler left tamper HP) removal

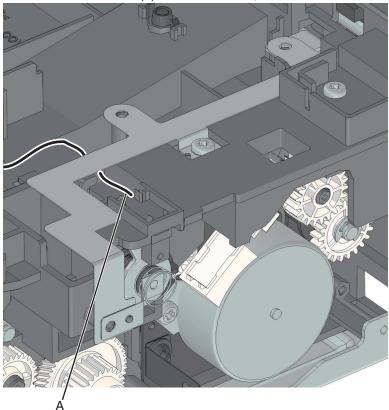
- 1. Remove the stapler right cover. See G.11.4 Stapler right cover removal
- 2. Remove the stapler left cover. See G.11.5 Stapler left cover removal
- 3. Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
- 4. Remove the stapler service cover. See G.11.14 Stapler service cover removal
- 5. Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
- 6. Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
- 7. Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
- 8. Remove the stapler top cover. See G.11.22 Stapler top cover removal
- 9. Remove the tamper main assembly. See G.11.26 Tamper main assembly removal
- 10. Remove the tamper sub-assembly. See G.11.27 Tamper sub-assembly removal
- 11. Disconnect the sensor cable (A). Release the latches, and then remove the sensor.



11.33 Sensor (stapler paddle HP) removal

- Remove the stapler right cover. See G.11.4 Stapler right cover removal
 Remove the stapler left cover. See G.11.5 Stapler left cover removal
 Remove the stapler rear cover. See G.11.11 Stapler rear cover removal

- Remove the stapler rear cover. See G.11.11 Stapler rear cover removal
 Remove the stapler service cover. See G.11.14 Stapler service cover removal
 Remove the stapler controller PCBA. See G.11.15 Stapler controller board removal
 Remove the stapler cooling fan. See G.11.19 Stapler cooling fan removal
 Remove the stapler power supply unit. See G.11.20 Stapler power supply unit removal
 Remove the stapler top cover. See G.11.22 Stapler top cover removal
- Disconnect the sensor cable (A). Release the latches, and then remove the sensor.



H CLEANING/LUBRICATION

1. Lubrication specification

Lubricate only when parts are replaced or as needed, not on a scheduled basis. Use of lubricants other than those specified in this service manual can cause premature failure. Some unauthorized lubricants might chemically attack polycarbonate parts. Use Grease Nyogel 744.

2. Cleaning the printer

Note: You may need to perform this task after every few months.

Warning - Potential Damage: Damage to the printer caused by improper handling is not covered by the printer warranty.

- 1. Make sure that the printer is turned off and unplugged from the electrical outlet.
- 2. Remove paper from the standard bin and multipurpose feeder.

ACAUTION

- SHOCK HAZARD: To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.
- 3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
- 4. Dampen a clean, lint-free cloth with water, and use it to wipe the outside of the printer.

WARNING

- Potential Damage: Do not use household cleaners or detergents to prevent damage to the exterior of the printer.
- 5. Make sure all areas of the printer are dry before sending a new print job.

3. Cleaning the scanner glass

Clean the scanner glass if you encounter print quality problems, such as streaks on copied or scanned images.

1. Slightly dampen a soft, lint-free cloth or paper towel with water.

2. Open the scanner cover.



3. Clean all the areas shown, and then let them dry.



[1]	White underside of the scanner cover	[2]	Scanner glass
[3]	ADF glass	[4]	White underside of the ADF cover

4. Close the scanner cover.

I ADJUSTMENT/SETTING

1. HOW TO USE THE ADJUSTMENT SECTION

· "Adjustment/Setting" contains detailed information on the adjustment items and procedures for this machine.

1.1 Advance checks

- · Before attempting to solve the customer problem, the following advance checks must be made. Check to see if:
- · The power supply voltage meets the specifications.
- · The power supply is properly grounded.
- The machine shares the power supply with any other machine that draws large current intermittently (e.g., elevator and air conditioner that generate electric noise).
- The installation site is environmentally appropriate: high temperature, high humidity, direct sunlight, ventilation, etc.; levelness of the
 installation site.
- · The original has a problem that may cause a defective image.
- · The density is properly selected.
- · The original glass, slit glass, or related part is dirty.
- · Correct paper is being used for printing.
- The units, parts, and supplies used for printing (developer, PC drum, etc.) are properly replenished and replaced when they reach the end of their useful service life.
- · Toner is not running out.



- To unplug the power cord of the machine before starting the service job procedures.
- If it is unavoidably necessary to service the machine with its power turned ON, use utmost care not to be caught in the scanner cables or gears of the exposure unit.
- Special care should be used when handling the fusing unit which can be extremely hot.



- The imaging unit has a strong magnetic field. Keep watches and measuring instruments away from it.
- Take care not to damage the PC drum with a tool or similar device.
- Do not touch IC pins with bare hands.

2. Utility

2.1 List of utility mode

List of utility mode - outline

- Keys displayed on screens are different depending on the setting.
 The function tree is shown to comply with the format displayed on the screen.

2.1.1 Accessibility

	Accessibility		
Key Repeat/Interval	Time to Start		
	Interval		
Message Display Time			
Sound Settings	Sound Settings		
	Operation Confirmation Sound	Input Confirmation Sound	
		Invalid Input Sound	
		Basic Sound	
	Successful Completion Sound	Operation Complete Sound	
		Transmission Complete Sound	
	Completed Preparation Sound		
	Caution Sound	Low Caution Sound (Level 1)	
		Low Caution Sound (Level 2)	
		Low Caution Sound (Level 3)	
		Severe Caution Sound	
Brightness Adjustment	,	•	

2.1.2 One-Touch/User Box Registration

One-Touch/User Box Registration
E-mail
Fax
SMB
Confidential RX User Box
FTP
WebDAV
Internet Fax

2.1.3 User Settings

		User Settings	3			
System Settings	Language Selection	Language Selection Disp	Language Selection Display			
		Panel Keyboard Langua	Panel Keyboard Language Synchronization Setting			
		Panel Keyboard Language	Panel Keyboard Language Selection			
	Measurement Unit Setting					
	Paper Tray	Auto Tray Select	Tray 1			
			Tray 2			
			Tray 3			
			Tray 4			
			Manual Feed			
		Auto Tray Switching	Auto Tray Switching			
		Print Lists	Print Lists			
		Auto Paper Selection Setting	User1			
			User 2			
	Auto Color Level Adjustr	Auto Color Level Adjustment				
	Page Number Print Position					
Custom Display	Scan/Fax Settings	Fax Default Tab	Fax Default Tab			
Settings		Scan to E-mail Default T	Scan to E-mail Default Tab			
		Scan to Folder Default T	Scan to Folder Default Tab			
	Display Fax Activity	TX Display				
		RX Display	RX Display			
Copier Settings	Auto Zoom for Combine	Zoom for Combine				
	Default Copy Settings	Default Copy Settings				

	Separate Scan Output Me	ethod					
Scan/Fax Settings	JPEG Compression Leve	I					
· ·	Black Compression Level						
	Default Fax Settings						
	Default Scan Settings						
	Compact PDF Compressi	ion Level					
	Print Reports	TX Report					
	c reporte	RX Report					
Printer Settings	Paper Setting	Paper Tray	Default Tray				
Timer octango	T aper cetting	T aper may	Manual Feed	Paper Size			
			Wandan Ccu	Custom Size	Width		
				Custom Size			
				Donor Typo	Length		
			T 4	Paper Type			
			Tray 1	Paper Size			
				Paper Type			
			Tray 2	Paper Size			
				Paper Type			
			Tray 3	Paper Size			
				Paper Type			
			Tray 4	Paper Size			
				Paper Type			
		Duplex	•	·			
		Number of Copies					
		Collate					
		Binding Position					
		Auto Tray Switching					
		Tray Mapping	Tray Mapping Mo	de			
		3, 17, 3	Logical Tray 0				
			Logical Tray 1				
			Logical Tray 2				
			Logical Tray 3				
			Logical Tray 4				
			Logical Tray 5				
			-				
			Logical Tray 6				
			Logical Tray 7				
			Logical Tray 8				
		0.1.1.101.11	Logical Tray 9				
		Original Direction					
		Minimal Print					
		TIFF Image Paper Setti	ng				
		Staple					
	Print Reports	Configuration Page					
		Statistics Page					
		Font List	PS Font List				
			PCL Font List				
		HDD Directory List					
		Counter List					
	OOXML Print Settings	OOXML Print Mode					
		Print Sheet/Book					
		Paper					
		Paper Type					
	Layout - Combination	Combine					
	,	Line					
		Column					
		Aggregate order					
		Aggregate direction					
		Layout Settings	Page Spacing - R				

User Settings				
			Margin - Top Margin	
			Margin - Bottom Margin	
			Margin - Left Margin	
			Margin - Right Margin	
			Page magnification	
			Page Zoom - Manual Input	
			Page frame	
Select Default Start Ap	Select Default Start App*			

^{• *:} This option is displayed when [Specified App Start Setting] is enabled in [Administrator Settings].

2.1.4 Administrator Settings - System Settings

	Admi	nistrator Settings - System Se	ettings			
Power Supply/Power Save	Sleep Mode Setting					
Settings	Power Save Key					
	Enter Power Save Mode					
	Power Consumption in Slee	ep Mode				
	Low Power Mode Setting					
	Power Save Settings					
Date & Time Settings	Date Setting					
	Time Setting					
	Time Zone					
Daylight Saving Time						
Weekly Timer Settings	Enable Settings					
	Time Settings	Check Settings				
		Sunday				
		Monday				
		Tuesday				
		Wednesday				
		Thursday				
		Friday				
		Saturday				
	Password for Non-Business Hours					
	Power Save Mode Setting					
Restrict User Access	Restrict Access to Job Delete Other User Jobs					
	Settings Registering and Changing Addr.					
	Restrict Operation Restrict Broadcasting					
Expert Adjustment	Printer Adjustment	Leading Edge Adjustment	Plain Paper			
			Thick Paper			
			Envelope			
		Centering	Tray 1			
			Tray 2			
			Tray 3			
			Tray 4			
			Manual Feed			
		Leading Edge Adjustment (Duplex Side 2)	Plain Paper			
		Centering (Duplex 2nd	Tray 1			
		Side)	Tray 2			
			Tray 3			
			Tray 4			
			Manual Feed			
	Density Adjustment	Thick Paper/1200dpi	Black			
	Monochrome Density Adj.	·				
	List Output	Event Log				
		Halftone 64	Black 64			
		Halftone 128	Black 128			
		Halftone 256	Black 256			
		Gradation	1			

	Admir	nistrator Settings - System S	Settings
	Life	New Release	Maintenance Kit
List/Counter	Management List	Job Settings List	
	Activity Report		
	User Account Counter List F	Page	
	Scan TX Report		
Priority Tray			
Reset Settings	System auto reset	Priority Mode	
		System Auto Reset Time	
	Auto Reset	Сору	
		Scan	
		Fax	
Folder Settings	Document Delete Time Setting	Time Settings	
		Custom Setting	
	Document Hold Setting		
	Scanned Documents Delete	Frequency Setting	
	External Memory Function	Restrict Scan to USB	
	Settings	Print Document	
Registered Key Settings			
PDF/A default Setting			
Page Number Print Positio	n		
Main Menu Default	Copy Program		
Settings	Fax Program		
	Scan to E-mail Program		
	Scan to Folder Program		
Adjust ADF skew			

2.1.5 Administrator Settings - Administrator/Machine Settings

Administrator Settings - Administrator/Machine Settings			
Administrator Registration Name			
	E-mail Address		
	Extension No.		
Input Machine Address	Device Name		
	E-mail Address		

2.1.6 Administrator Settings - Address Registration List

	Administrator Settings - Add	ress Registration List	
Speed Address List	E-mail	Starting Destination No.	
		Number of Destinations	
		Print	
	Fax	Starting Destination No.	
		Number of Destinations	
		Print	
	SMB	Starting Destination No.	
		Number of Destinations	
		Print	
	FTP	Starting Destination No.	
		Number of Destinations	
		Print	
	WebDAV	Starting Destination No.	
		Number of Destinations	
		Print	
	Internet Fax	Starting Destination No.	
		Number of Destinations	
		Print	
Group Address List	Starting Destination No.		
	Number of Destinations		
	Print		

	Administrator Settings - Add	ress Registration List
Program List	E-mail	Starting Destination No.
		Number of Destinations
		Print
	Fax	Starting Destination No.
		Number of Destinations
		Print
	SMB	Starting Destination No.
		Number of Destinations
		Print
	FTP	Starting Destination No.
		Number of Destinations
		Print
	WebDAV	Starting Destination No.
		Number of Destinations
		Print
	Internet Fax	Starting Destination No.
		Number of Destinations
		Print
	Address Book	Starting Destination No.
		Number of Destinations
		Print
	Group	Starting Destination No.
		Number of Destinations
		Print
E-Mail Subject/Text List		

2.1.7 Administrator Settings - User Authentication/Account Track

Administrator Settings - User Authentication/Account Track	
User Name List	
Logout Confirmation Screen Display Setting	
User Account Counter	
Track Account Counter	
Card Authentication	
Scan to Home Settings	

2.1.8 Administrator Settings - Network Settings

	Administrat	or Settings - Network Settings			
TCP/IP Setting	Enable				
	IPv4 Settings	IP Address	IP Address		
		Subnet Mask			
		Default Gateway			
		IP Application Method Auto	DHCP Settings		
		Setting	BOOTP Settings		
			ARP/PING Settings		
			AUTO IP Settings		
	IPv6 Setting	Enable			
		Auto IPv6 Settings			
		Global Address			
		Gateway Address			
		Link-Local Address			
	DNS Host	Dynamic DNS Settings			
	IPsec Setting				
	IP Filtering (Permit Access)				
	IP Filtering (Deny Access)				
	Raw Port Setting	Enable			
		Bidirectional			
HTTP Server Settings	HTTP Server Settings				

	Administrator	Settings - Network Settings		
	IPP Settings			
FTP Settings				
E-mail Settings	E-Mail TX (SMTP)			
SNMP Setting				
Bonjour Setting				
DPWS Settings	DPWS Settings			
Detail Settings	Device Setting	Network Speed		
	SLP Setting	·		
IEEE802.1x Authentication S	Settings			
Internet ISW Setting	HTTP Server Settings	Connect Proxy		
		Proxy Server	Proxy Server Address	
			Proxy Server Port Number	
		Proxy Authentication	Authentication	
			User Name	
			Password	
	Download	•	'	

2.1.9 Administrator Settings - Copier Settings

	Administrator Settings - Copier Settings
Specify Tray When APS OFF	
Default Paper Type setting for Manual Tray	

2.1.10 Administrator Settings - Printer Settings

	Ac	Iministrator Settings - Printer	Settings		
Startup Page Setting					
Auto Continue					
Paper Settings	Paper	Paper Size			
		Custom Size	Width		
			Length		
		Paper Type			
	Measurement Unit Settin	g			
Hold Job Timeout					
Quality Settings	Brightness				
	Contrast				
	Halftone	Image Printing			
		Text Printing			
		Graphics Printing			
	Edge Enhancement	Image Printing	Image Printing		
		Text Printing			
		Graphics Printing			
	Edge Strength				
	Economy Print				
	Gradation Adjustment	Density	Highlight		
			Middle		
			Shadow		
		Print Darkness Adjustment			
Emulation	Default Emulation				
	PS Setting	Wait Timeout			
		Print PS Errors			
		PS Protocol			
	PCL Settings	CR/LF Mapping			
		Line/Page			
		Font Setting	Font Number		
			Pitch Size		
			Point Size		
			Symbol Set		
		Barcode Font Settings	Line Width		

Administrator Settings - Printer Settings			
Space Width			
	XPS/OOXML Setting	Verify XPS/OOXML Digital Signature	
		Print XPS/OOXML Errors	
USB Timeout			

2.1.11 Administrator Settings - Fax Settings

	Administrator Settings - Fax	Settings	
Header Information	Sender		
	Sender Fax No.		
Header/Footer Position	Header Position		
	TTI Print Position and Character Size		
	Print Receiver's Name		
	Footer Position		
Line Parameter Setting	Dialing Method		
-	RX Mode		
	Ring Pattern		
	Number of RX Call Rings		
	Number of Redials		
	Redial Interval		
	Line Monitor		
	Line Monitor Sound Volume (Send)		
	Line Monitor Sound Volume (Seria)		
	` `)	
T.((D)(0)()	Manual RX V.34 OFF		
TX/RX Settings	Duplex Print (RX)		
	Inch Paper Priority Over A4		
	Print Paper Selection		
	Print Paper Size		
	Tray Selection for RX Print		
	Reduction Ratio		
	Print Separate Fax Pages		
	File After Polling TX		
Function Settings	Function ON/OFF Setting	F-Code TX	
		Dest. Check Display Func.	
		Confirm Addr (TX)	
		Confirm Addr (Register)	
		Restrict Fax TX	
		Restrict Fax RX	
		Restrict PC-Fax TX	
		Restrict Internet Fax TX	
		Restrict Internet Fax RX	
	Memory RX Setting	restrict memeri ax rox	
	Closed Network RX	Frakla Cattings	
	Forward TX Setting	Enable Settings	
		Forward Dest.	
		Output Method	
	Remote RX Settings		
	PC-Fax RX Settings	Enable	
		Print	
	TSI User Box Setting	Enable Settings	
		Print After Receive	
		TSI User Box Registration	
	Nighttime RX Settings	Night Fax RX Print	
		Night RX Start Time	
		Night RX End Time	
PBX Connection Settings	•	1	
Report Settings	Activity Report	Output Settings	
- p	Tourity Report	Output Time Setting	
		Output Limit Setting	
		Output Limit Octoring	

	Administrator Settings - Fax S	Settings
		Remark Column Print Setup
	TX Result Report	Output Settings
		TX Result Report Image
	Timer Reservation TX Report	
	Confidential Rx Report	
	PC-Fax TX Error Report	
	Broadcast Result Report	Enable Settings
		Output Settings
	TX Result Report Check	
	I-Fax RX Error Report	
	MDN Message	
	DSN Message	
	Print E-mail Message Body	
Job Settings List		
Confidential RX User Box		
Network Fax Settings	Compression Method	
	Internet Fax Receive Ability	Compression Type
		Resolution
	Internet Fax Extend Settings	MDN Request
		DSN Request
		MDN Response
		MDN/DSN Response Monitoring Time

2.1.12 Administrator Settings - System Connection

Administrator Settings - System Connection		
Call Remote Center		
OpenAPI Settings	Specified App Start Setting	Specified Application Start
		Basic Functions Setting
		Default Startup App Selection

2.1.13 Administrator Settings - Security Settings

	Administrator Settings - Se	curity Settings		
Administrator Password				
Security Details	Password Rules			
	Manual Destination Input	Manual Destination Input		
	Job Log	Accounting Log		
		Counting Log		
		Audit Log		
		Overwrite		
		Erase Job Log		
	Hide Personal Data	Hide Personal Data		
	Hide Activity Log			
	Initialize	Network Settings		
		Restore System		
		Restore All		
Enhanced Security Mode				
HDD Settings	Check HDD Capacity			
	Overwrite All Data	HDD Overwrite Method		
		Execute		
	HDD Format			
	HDD Encryption Setting			
Stamp Settings	Date/Time			
	Page Number			
	Stamp	Stamp		
	Distribution Control Number			

2.1.14 Administrator Settings - Paper Empty Alert Display Setting

Administrator Settings - Paper Empty Alert Display Setting	
ay 1	
ay 2	
ay 3	
ay 4	
anual Feed	

2.1.15 Administrator Settings - License Management

	Administrator Settings - License Management
Get Request Code	
Activation	
List of Enabled Functions	
List Output	

2.1.16 Administrator Settings - OpenAPI Certification Management Setting

	Administrator Settings - OpenAPI Certification Management Setting
Restriction Code Settings	

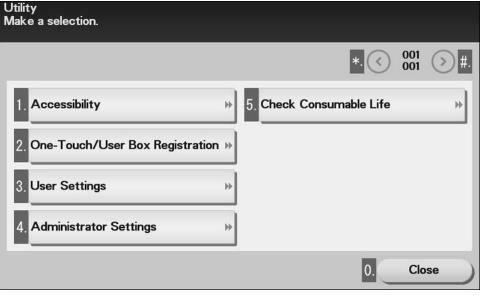
2.1.17 Check Consumable Life

Check Consum	able Life
Print	

2.2 Starting/Exiting

2.2.1 Starting procedure

- 1. Touch [Utility].
- 2. The Utility Mode screen will appear.



2.2.2 Exiting procedure

· Touch [Close].

2.3 Restore Defaults

Restore Defaults - outline

- · Restores various settings to their default values.
- Use when restoring settings to their default values.
 Network Settings: Restores the [Administrator Settings] -> [Network Settings] setting to its default value.
 Restore System: Restores settings applied to [Restore System], to their default values (Refer to the table for details).
 Restore All: Restores all settings, which Network Settings and Restore System apply to, to their default values.
- 7. Touch [Utility] -> [Administrator Settings] -> [Security Settings] -> [Security Details] -> [Initialize].
- 2. Touch the key for desired mode.
- 3. The confirmation message is displayed.
- 4. When you touch [OK], the initialization is started.
- 5. The default setting is restored and the machine reboots itself. Once the initialization is started, it cannot be canceled.

NOTE

While the Enhanced Security Mode is set to "ON," if Network Setting or Restore all is performed, the network related settings
are initialized and the setting of Enhanced Security Mode is changed to "OFF."

2.3.1 Accessibility

				Restore Defaults	3		
	Accessibility		Network Setting	Restore System	Restore all	Initial value	
Key Repeat/Interval	Time to Start		-	Reset	Reset	0.8 sec.	
	Interval		-	Reset	Reset	0.3 sec.	
Message Display Tim	ne		-	Reset	Reset	3 sec.	
Sound Settings	ettings Sound Settings		-	-	-	-	
	Operation Confirmation Sound	Input Confirmation Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
		Invalid Input Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
		Basic Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
	Successful Completion Sound	Operation Complete Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
		Transmission Complete Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
	Completed Preparation	on Sound	-	Reset	Reset	Enable: ON /Volume: Medium	
	Caution Sound	Low Caution Sound (Level 1)	-	Reset	Reset	Enable: ON /Volume: Medium	
		Low Caution Sound (Level 2)	-	Reset	Reset	Enable: ON /Volume: Medium	
	Low Caution Sound (Level 3) Severe Caution Sound		-	Reset	Reset	Enable: ON /Volume: Medium	
			-	Reset	Reset	Enable: ON /Volume: Medium	
Brightness Adjustmer	nt		-	Reset	Reset	0	

2.3.2 One-Touch/User Box Registration

One-Touch/User Box Registration		Restore Defaults				
One-Touch/Oser Box Registration	Network Setting	Restore System	Restore all	Initial value		
E-mail	-	-	-	-		
Fax	-	-	-	-		
SMB	-	-	-	-		
Confidential RX User Box	-	-	-	-		
FTP	-	-	-	-		
WebDAV	-	-	-	-		
Internet Fax	-	-	-	-		

2.3.3 User Settings

				F	Restore Defau	ts	
	User Settings			Network Setting	Restore System	Restore all	Initial value
System	Language	Language Se	election Display	-	Reset	Reset	English
Settings	Settings Selection	Panel Keybo	ard Language Synchronization Setting	-	Reset	Reset	Synchronize
		Panel Keybo	ard Language Selection	-	Reset	Reset	English
	Measuremen	nt Unit Setting		-	Reset	Reset	Inch
	Paper Tray	er Tray Auto Tray Select	Tray 1	-	Reset	Reset	ON
			Tray 2	-	Reset	Reset	ON
			Tray 3	-	Reset	Reset	ON
			Tray 4	-	Reset	Reset	ON
			Manual Feed	-	Reset	Reset	ON
		Auto Tray Sv	Auto Tray Switching		Reset	Reset	OFF
		Print Lists	Print Lists		Reset	Reset	Tray 1
		Auto Paper Selection Setting	User1	-	Reset	Reset	OFF

							Restore Defaul	ts	
		User	Settings			Network Setting	Restore System	Restore all	Initial value
			User2			-	Reset	Reset	OFF
	Auto Color L	evel Adjustme	ent			-	Reset	Reset	2
	Page Numbe	er Print Positio	n			-	Reset	Reset	Left & Right Bind: All the Same Top & Bottom Bind: All the Same
Custom	Scan/Fax	Fax Default	Tab			-	Reset	Reset	Favorites
Display	Settings	Scan to E-m	ail Default Ta	ab		-	Reset	Reset	Favorites
Settings	Scan to Fo		der Default Ta	ab		-	Reset	Reset	Favorites
		TX Display				-	Reset	Reset	OFF
	Activity	RX Display				-	Reset	Reset	OFF
Copier Settings	Auto Zoom fo	or Combine				-	Reset	Reset	Auto Display Zoom Ratio
	Default Copy Settings					-	Reset	Reset	Factory Default
	-	an Output Met	thod			-	Reset	Reset	Page Print
Scan/Fax	JPEG Comp	ression Level				-	Reset	Reset	Standard
Settings	- Black compression Level					-	Reset	Reset	MMR
	Default Fax					-	Reset	Reset	Factory Default
Default Scan S					-	Reset	Reset	Factory Default	
		F Compression	n Level			-	Reset	Reset	High Quality
	Print	TX Report				-	Reset	Reset	Do not print
	Reports	RX Report				-	Reset	Reset	Do not print
Printer	Paper	Paper Tray	ray Default Tray			-	Reset	Reset	Tray 1
Settings	Setting	Ing Manual Feed	Paper Size Custom	Width	-	Reset	Reset	8 ¹ / ₂ × 11	
			Size			Reset	Reset	_	
				Paper Type	Length	-	Reset	Reset	- Plain Paper
			Troy 1	Paper Size		-	Reset	Reset	-
			Tray 1	-		-			8 ¹ / ₂ × 11
			Tray 2	Paper Type		-	Reset	Reset	Plain Paper
				Paper Size		-	Reset	Reset	8 ¹ /2 × 11
				Paper Type		-	Reset	Reset	Plain Paper
			Tray 3	Paper Size		-	Reset	Reset	8 ¹ /2 × 11
				Paper Type		-	Reset	Reset	Plain Paper
			Tray 4	Paper Size		-	Reset	Reset	8 ¹ /2 × 11
				Paper Type		-	Reset	Reset	Plain Paper
		Duplex				-	Reset	Reset	OFF
		Number of C	Copies			-	Reset	Reset	1
		Collate				-	Reset	Reset	OFF
		Binding Pos	ition			-	Reset	Reset	Left Bind
		Auto Tray S	witching			-	Reset	Reset	ON
		Tray	Tray Mapp	ing Mode		-	Reset	Reset	OFF
		Mapping	Logical Tra	ау 0		-	Reset	Reset	Physical Tray 1
		Logical Tray			y 1		Reset	Reset	Physical Tray 1
			Logical Tra	ay 2		-	Reset	Reset	Physical Tray 1
			Logical Tra	ау 3		-	Reset	Reset	Physical Tray 1
			Logical Tra	ay 4		-	Reset	Reset	Physical Tray 1

			F	Restore Defau	Its	
	User	Settings	Network Setting	Restore System	Restore all	Initial value
		Logical Tray 5	-	Reset	Reset	Physical Tray 1
		Logical Tray 6	-	Reset	Reset	Physical Tray 1
		Logical Tray 7	-	Reset	Reset	Physical Tray 1
		Logical Tray 8	-	Reset	Reset	Physical Tray 1
		Logical Tray 9	-	Reset	Reset	Physical Tray 1
	Original Dire	ection	-	Reset	Reset	PORTRAIT
	Minimal Prin	t	-	Reset	Reset	OFF
	TIFF Image	Paper Setting	-	Reset	Reset	Priority Paper Size
	Staple		-	Reset	Reset	OFF
Print	Configuration	n Page	-	Reset	Reset	-
Reports	Statistics Pa	tatistics Page		Reset	Reset	-
	Font List	PS Font List	-	Reset	Reset	-
		PCL Font List	-	Reset	Reset	-
	HDD Directo	pry List	-	Reset	Reset	-
	Counter List		-	Reset	Reset	-
OOXML Print	OOXML Print Mode		-	Reset	Reset	Speed Mode
Settings	Print Sheet/E	Book	-	Reset	Reset	Current Sheet
	Paper		-	Reset	Reset	Auto
	Paper Type		-	Reset	Reset	Auto
Layout -	Combine		-	Reset	Reset	OFF
Combination	Line		-	Reset	Reset	1
	Column		-	Reset	Reset	1
	Aggregate o	rder	-	Reset	Reset	Horizontal
	Aggregate d	irection	-	Reset	Reset	Top Left to Bottom Right
	Layout	Page Spacing - Row Interval	-	Reset	Reset	0
	Settings	Page Spacing - Column Interval	-	Reset	Reset	0
		Margin - Top Margin	-	Reset	Reset	0
		Margin - Bottom Margin	-	Reset	Reset	0
		Margin - Left Margin	-	Reset	Reset	0
		Margin - Right Margin	-	Reset	Reset	0
		Page magnification	-	Reset	Reset	Auto
		Page Zoom - Manual Input	-	Reset	Reset	100
		Page frame	-	Reset	Reset	OFF

2.3.4 Administrator Settings - System Settings

		F	Restore Default	ts	
	Administrator Settings - System Settings	Network Setting	Restore System	Restore all	Initial value
Power Supply/	Sleep Mode Setting	-	Reset	Reset	15 min.
Power Save	Power Save Key	-	Reset	Reset	Power Save
Settings	Enter Power Save Mode	-	Reset	Reset	Immediately
	Power Consumption in Sleep Mode	-	Reset	Reset	Enabled
	Low Power Mode Setting	-	Reset	Reset	10 min.
	Power Save Settings	-	Reset	Reset	Low Power
Date & Time	Date Setting	-	-	-	-
Settings	Time Setting	-	-	-	-
	Time Zone	-	-	-	00:00
Daylight Saving	Time	-	-	-	OFF

				R	Restore Defau	ts	
	Administrat	or Settings - Syst	em Settings	Network Setting	Restore System	Restore all	Initial value
Weekly Timer Settings	Enable Settings	Enable Settings				-	ON (Europe and US) OFF (except for Europe and US)
	Time Settings	Check Settings		-	Reset	Reset	-
		Sunday		-	Reset	Reset	ON 6:00 OFF 20:00
		Monday		-	Reset	Reset	ON 6:00 OFF 20:00
		Tuesday		-	Reset	Reset	ON 6:00 OFF 20:00
		Wednesday		-	Reset	Reset	ON 6:00 OFF 20:00
		Thursday		-	Reset	Reset	ON 6:00 OFF 20:00
		Friday		-	Reset	Reset	ON 6:00 OFF 20:00
		Saturday		-	Reset	Reset	ON 6:00 OFF 20:00
	Password for No	n-Business Hour	S	-	Reset	Reset	OFF
Power Save N		de Setting		-	Reset	Reset	ErP Auto Power OFF (Europe and US) Sleep (except for Europe and US)
Restrict User	Restrict Access	Delete Other Us	-	Reset	Reset	Restrict	
Access	to Job Settings	Registering and	Changing Addr.	-	Reset	Reset	Allow
	Restrict Operation	Restrict Broadca	esting	-	Reset	Reset	OFF
Expert	Printer	Leading Edge	Plain Paper	-	-	-	0.0 mm
Adjustment		Adjustment Adjustment Centering	Thick Paper	-	-	-	0.0 mm
			Envelope	-	-	-	0.0 mm
			Tray 1	-	-	-	0.0 mm
			Tray 2	-	-	-	0.0 mm
			Tray 3	-	-	-	0.0 mm
			Tray 4	_	-	-	0.0 mm
			Manual Feed	_	-	_	0.0 mm
		Leading Edge Adjustment (Duplex Side 2)	Plain Paper	-	-	-	0.0 mm
		Centering	Tray 1	-	-	-	0.0 mm
		(Duplex 2nd	Tray 2	-	-	-	0.0 mm
		Side)	Tray 3	-	-	-	0.0 mm
			Tray 4	-	-	-	0.0 mm
			Manual Feed	_	-	-	0.0 mm
	Density Adjustment	Thick Paper/ 1200dpi	Black	-	Reset	Reset	0
	Monochrome De		ı	-	Reset	Reset	0
	List Output	Event Log		-	Reset	Reset	-
		Halftone 64	Black 64	-	Reset	Reset	-
		Halftone 128	Black 128	-	Reset	Reset	-
		Halftone 256	Black 256	-	Reset	Reset	_
		Gradation		-	Reset	Reset	-
	Life	New Release	Maintenance Kit	-	1/0961	110001	-
List/Counter			I MAII ILOHAHOT IVIL		_	1 -	
List/Counter	Management	Job Settings List		-	-	-	-
List/Counter		-		-	-	-	-

			F	Restore Defau	Its	
	Administra	ator Settings - System Settings	Network Setting	Restore System	Restore all	Initial value
	Scan TX Repo	rt	-	-	-	-
Priority Tray			-	Reset	Reset	Tray 1
Reset Settings	System auto	Priority Mode	-	Reset	Reset	Home
	reset	System Auto Reset Time	-	Reset	Reset	1 min.
	Auto Reset	Сору	-	Reset	Reset	Enable: ON/ Adjust Value: 1 min.
		Scan	-	Reset	Reset	Enable: ON/ Adjust Value: 1 min.
	Fax	-	Reset	Reset	Enable: ON/ Adjust Value: 1 min.	
Folder Settings	Document	Time Settings	-	Reset	Reset	1 day
	Delete Time Setting	Custom Setting	-	Reset	Reset	360 min.
	Document Hold	Setting	-	Reset	Reset	ON
	Scanned Docu	ments Delete Frequency Setting	-	Reset	Reset	Save
	External	Restrict Scan to USB	-	Reset	Reset	OFF
	Memory Function Settings	Print Document	-	Reset	Reset	ON
Registered Key	Settings		-	Reset	Reset	Register Key1: Scan to E-mail Register Key2: Copy Register Key3: Keypad
PDF/A default S	etting		-	Reset	Reset	OFF
Page Number P	rint Position		-	Reset	Reset	Left & Right Bind: All the Same Top & Bottom Bind: All the Same
Main Menu	Copy Program		-	Reset	Reset	OFF
Default Settings	Fax Program		-	Reset	Reset	OFF
Settings	Scan to E-mail		-	Reset	Reset	OFF
	Scan to Folder	Program	-	Reset	Reset	OFF
Adjust ADF skew	N		-	Reset	Reset	Auto

2.3.5 Administrator Settings - Administrator/Machine Settings

Administrator Sottings Adv	ministrator/Machine Settings			Initial value	
Auministrator Settings - Aur	Till istrator/wacrime Settings	Network Setting	Restore System	Restore all	iriiliai value
Administrator Registration	Name	-	Reset	Reset	-
	E-mail Address	-	Reset	Reset	-
	Extension No.	-	Reset	Reset	-
Input Machine Address	Device Name	-	Reset	Reset	-
	E-mail Address	Reset	-	Reset	-

2.3.6 Administrator Settings - Address Registration List

Administrato	r Cottingo Addross Do	egiotration List		Restore Defaults		Initial value
Administrato	Administrator Settings - Address Registration List			Restore System	Restore all	iiiiliai value
Speed Address List	E-mail	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	100

Administrato	or Settings - Address	Registration List		Restore Defaults		Initial value
, tarriin lott atte	, counge , ad coo	-	Network Setting	Restore System	Restore all	Initial Value
		Print	-	-	-	-
	Fax	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	100
		Print	-	-	-	-
	SMB	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	100
		Print	-	-	-	-
	FTP	Starting Destination No.	-	-	-	1
	WebDAV	Number of Destinations	-	-	-	100
		Print	-	-	-	-
		Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	100
		Print	-	-	-	-
	Internet Fax	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	100
		Print	-	-	-	-
	Starting Destination No.		-	-	-	1
	Number of Destina	itions	-	-	-	20
	Print		-	-	-	-
Program List	E-mail	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50
	Fax	Print Starting Destination	-	-	-	1
		No. Number of	-	-	-	50
		Destinations Print	_	-		-
	SMB	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50
		Print	_	_		_
	FTP	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50
		Print	-	-	-	-
	WebDAV	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50
		Print	-	-	-	-
	Internet Fax	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50
		Print	-	-	-	-
	Address Book	Starting Destination No.	-	-	-	1
		Number of Destinations	-	-	-	50

Administrator	Administrator Settings - Address Registration List			Restore Defaults			
Administrator	rator Settings - Address Registration List		Network Setting Restore System Restore all		Restore all	Initial value	
		Print	-	-	-	-	
	Group	Starting Destination No.	-	-	-	1	
		Number of Destinations	-	-	-	50	
		Print	-	-	-	-	
E-Mail Subject/Text Lis	E-Mail Subject/Text List		-	-	-	-	

2.3.7 Administrator Settings - User Authentication/Account Track

Administrator Settings - User Authentication/Account		Restore Defaults				
Track	Network Setting	Restore System	Restore all	Initial value		
User Name List	-	Reset	Reset	OFF		
Logout Confirmation Screen Display Setting	-	Reset	Reset	ON		
User Account Counter	-	Reset	Reset	-		
Track Account Counter	-	Reset	Reset	-		
Card Authentication	-	Reset	Reset	-		
Scan to Home Settings	-	Reset	Reset	OFF		

2.3.8 Administrator Settings - Network Settings

				F	Restore Defau	lts	
	Administrator Settir	ngs - Network Setting	gs	Network Setting	Restore System	Restore all	Initial value
TCP/IP Setting	Enable			Reset	-	Reset	ON
	IPv4 Settings	IP Address		Reset	-	Reset	000.000.000
		Subnet Mask		Reset	-	Reset	000.000.000
		Default Gateway		Reset	-	Reset	000.000.000
		IP Application	DHCP Settings	Reset	-	Reset	ON
		Method Auto	BOOTP Settings	Reset	-	Reset	OFF
		Setting	ARP/PING Settings	Reset	-	Reset	OFF
			AUTO IP Settings	Reset	-	Reset	Enable
	IPv6 Setting	Enable	'	Reset	-	Reset	ON
		Auto IPv6 Settings	3	Reset	-	Reset	Enable
		Global Address			-	Reset	-
		Gateway Address		Reset	-	Reset	-
		Link-Local Addres	S	Reset	-	Reset	-
	DNS Host	Dynamic DNS Set	tings	Reset	-	Reset	Disable
	IPsec Setting			Reset	-	Reset	Disable
	IP Filtering (Permit	Access)		Reset	-	Reset	Disable
	IP Filtering (Deny A	ccess)		Reset	-	Reset	Disable
	Raw Port Setting	Enable		Reset	-	Reset	Yes
		Bidirectional		Reset	-	Reset	OFF
HTTP Server	HTTP Server Settin	gs		Reset	-	Reset	Enable
Settings	IPP Settings			Reset	-	Reset	Enable
FTP Settings				Reset	-	Reset	Enable
E-mail Settings	E-Mail TX (SMTP)			Reset	-	Reset	Enable
SNMP Setting				Reset	-	Reset	Enable
Bonjour Setting				Reset	-	Reset	Enable
DPWS Settings	DPWS Settings			Reset	-	Reset	Enable
Detail Settings	Device Setting	Network Speed		Reset	-	Reset	Auto
	SLP Setting			Reset	-	Reset	Enable
IEEE802.1x Autho	entication Settings			Reset	-	Reset	Disable
Internet ISW	HTTP Server	Connect Proxy		Reset	-	Reset	Disable
Settings	Settings	Proxy Server	Proxy Server Address	Reset	-	Reset	0.0.0.0

					Restore Defaults		
Administrator Settings - Network Settings		Network Setting	Restore System	Restore all	Initial value		
		Proxy Server Port Number	Reset	-	Reset	80	
	Proxy	Authentication	Reset	-	Reset	Disable	
	Authentication	User Name	Reset	-	Reset	-	
		Password	Reset	-	Reset	-	
Dov	wnload		-	-	-	-	

2.3.9 Administrator Settings - Copier Settings

Administrator Settings - Copier Settings			Initial value	
Administrator Settings - Copier Settings	Network Setting	Restore System	Restore all	Illiliai value
Specify Tray When APS OFF	-	Reset	Reset	Tray Before APS ON
Default Paper Type setting for Manual Tray	-	Reset	Reset	Plain Paper

2.3.10 Administrator Settings - Printer Settings

				F	Restore Defau	lts	
	Administra	ator Settings - Prir	nter Settings	Network Setting	Restore System	Restore all	Initial value
Startup Page Se	etting			-	Reset	Reset	OFF
Auto Continue				-	Reset	Reset	OFF
Paper Settings	Paper	Paper Size		-	Reset	Reset	8 ¹ / ₂ × 11
		Custom Size	Width	-	Reset	Reset	-
		Length	-	Reset	Reset	-	
		Paper Type		-	Reset	Reset	Plain Paper
	Measurement L	Jnit Setting		-	Reset	Reset	Inch
Hold Job Timeo	ut			-	Reset	Reset	Disable
Quality	Brightness			-	Reset	Reset	0
Settings	Contrast			-	Reset	Reset	0
	Halftone	Image Printing		-	Reset	Reset	Detail
		Text Printing		-	Reset	Reset	Line Art
Enha		Graphics Printing		-	Reset	Reset	Detail
	Edge	Image Printing		-	Reset	Reset	OFF
	Enhancement	Text Printing		-	Reset	Reset	ON
		Graphics Printin	ng	-	Reset	Reset	ON
	Edge Strength	<u> </u>		-	Reset	Reset	Middle
	Economy Print				Reset	Reset	OFF
	Gradation Density	Density	Highlight	-	Reset	Reset	0
	Adjustment		Middle	-	Reset	Reset	0
			Shadow	-	Reset	Reset	0
	Print Darkness	Adjustment		-	Reset	Reset	0
Emulation	Default Emulati			-	Reset	Reset	Auto
	PS Setting	Wait Timeout		-	Reset	Reset	0
		Print PS Errors		_	Reset	Reset	OFF
		PS Protocol		_	Reset	Reset	Auto
	PCL Settings	CR/LF Mapping	1	_	Reset	Reset	OFF
		Line/Page	,	_	Reset	Reset	60 lines
		Font Setting	Font Number	_	Reset	Reset	0
			Pitch Size	_	Reset	Reset	10.00 pitch
			Point Size	_	Reset	Reset	12.00 points
			Symbol Set	_	Reset	Reset	PC8
		Barcode Font	Line Width	_	Reset	Reset	0
		Settings	Space Width	_	Reset	Reset	0
	XPS/OOXML	Verify XPS/OO	XML Digital Signature		Reset	Reset	OFF
	Setting	Print XPS/OOX			Reset	Reset	Print
USB Timeout		1 mil Xi 3/00X	IVIL LIIOIS	-	Reset	Reset	60 sec.

2.3.11 Administrator Settings - Fax Settings

Administrator Settings	s - Fax Settings		Notwork Cattin	Restore Defaults	Doctors -"	Initial value
	T		Network Setting	Restore System	Restore all	
Header Information	Sender		-	Reset	Reset	-
Header/Footer Position	Sender Fax No. Header Position			Reset Reset	Reset Reset	Outside Body Text
	TTI Print Position and	Character Size	-	Reset	Reset	Normal
	Print Receiver's Name		-	Reset	Reset	ON
	Footer Position		-	Reset	Reset	OFF
Line Parameter	Dialing Method		-	Reset	Reset	-
Setting	RX Mode		-	Reset	Reset	Auto RX
	Ring Pattern		-	Reset	Reset	Normal Ring
	Number of RX Call Rings		-	Reset	Reset	2 (6)
	Number of Redials		-	Reset	Reset	-
	Redial Interval		-	Reset	Reset	-
	Line Monitor		-	Reset	Reset	OFF
	Line Monitor Sound Vo		-	Reset	Reset	3
	Line Monitor Sound Vo	olume (Receive)	-	Reset	Reset	4
	Manual RX V.34 OFF		-	Reset	Reset	Enable
ΓX/RX Settings	Duplex Print (RX)		-	Reset	Reset	OFF
	Inch Paper Priority Over A4		-	Reset	Reset	-
	Print Paper Selection		-	Reset	Reset	Auto Select
	Print Paper Size		-	Reset	Reset	8 ¹ / ₂ × 11/A4
	Tray Selection for RX	Print	-	Reset	Reset	Auto
	Reduction Ratio		-	Reset	Reset	96
	Print Separate Fax Pa	ges	-	Reset	Reset	OFF
	File After Polling TX		-	Reset	Reset	Delete
Function Settings	Function ON/OFF	F-Code TX	-	Reset	Reset	ON
	Setting	Dest. Check Display Func.	-	Reset	Reset	OFF
		Confirm Addr (TX)	-	Reset	Reset	OFF
		Confirm Addr (Register)	-	Reset	Reset	ON
		Restrict Fax TX	-	Reset	Reset	Allow
		Restrict Fax RX	-	Reset	Reset	Allow
		Restrict PC-Fax TX	-	Reset	Reset	Allow
		Restrict Internet Fax TX	-	Reset	Reset	Allow
		Restrict Internet Fax RX	-	Reset	Reset	Allow
	Memory RX Setting		-	Reset	Reset	OFF
	Closed Network RX		-	Reset	Reset	OFF
	Forward TX Setting	Enable Settings	-	Reset	Reset	OFF
		Forward Dest. Output Method	-	Reset Reset	Reset	Forward & Prii
	Remote RX Settings		_	Reset	Reset	OFF
	PC-Fax RX Settings	Enable	_	Reset	Reset	Restrict
	. O rax rox ocurings	Print	_	Reset	Reset	OFF
	TSI User Box Setting	Enable Settings	_	Reset	Reset	OFF
	To oser box setting	Print After Receive	_	Reset	Reset	No
		TSI User Box Registration	-	Reset	Reset	-
	Nighttime RX	Night Fax RX Print	-	Reset	Reset	OFF
	Settings	Night RX Start Time	-	Reset	Reset	00:00
		Night RX End Time	-	Reset	Reset	00:00
PBX Connection Sett	ings		-	Reset	Reset	OFF
Report Settings	Activity Report	Output Settings	-	Reset	Reset	Every 100 comm.

Administrator Catting	ro. Fay Cattings			Restore Defaults		Initial value
Administrator Setting	gs - Fax Settings		Network Setting	Restore System	Restore all	Initial value
		Output Time Setting	-	Reset	Reset	00:00
		Output Limit Setting	-	Reset	Reset	100 Communications
		Remark Column Print Setup	-	Reset	Reset	Normal Printing
	TX Result Report	Output Settings	-	Reset	Reset	If TX Fails
		TX Result Report Image	-	Reset	Reset	OFF
	Timer Reservation TX	Timer Reservation TX Report		Reset	Reset	ON
	Confidential Rx Repor	t	-	Reset	Reset	ON
	PC-Fax TX Error Rep	ort	-	Reset	Reset	OFF
	Broadcast Result Report	Enable Settings	-	Reset	Reset	ON
		Output Settings	-	Reset	Reset	All Destinations
	TX Result Report Che	eck	-	Reset	Reset	OFF
	I-Fax RX Error Report	!	-	Reset	Reset	ON
	MDN Message		-	Reset	Reset	ON
	DSN Message		-	Reset	Reset	OFF
	Print E-mail Message	Body	-	Reset	Reset	ON
Job Settings List			-	Reset	Reset	Do not print
Confidential RX Use	r Box		-	-	-	-
Network Fax	Compression Method		-	Reset	Reset	MMR
Settings	Internet Fax Receive	Compression Type	-	Reset	Reset	MH/MR/MMR
	Ability	Resolution	-	Reset	Reset	Standard/Fine/ Super Fine/Ultra Fine
	Internet Fax Extend	MDN Request	-	Reset	Reset	ON
	Settings	DSN Request	-	Reset	Reset	OFF
		MDN Response	-	Reset	Reset	OFF
		MDN/DSN Response Monitoring Time	-	Reset	Reset	24 hours

2.3.12 Administrator Settings - System Connection

Administ	Administrator Settings - System Connection			Restore Defaults			
Adminis	irator Settings - System	Connection	Network Setting	Restore System	Restore all	Initial value	
Call Remote Center		-	-	-	-		
OpenAPI Settings	Specified App Start Setting	Specified Application Start	-	-	-	Disable	
		Basic Functions Setting	-	-	-	Restrict	
		Default Startup App Selection	-	-	-	-	

2.3.13 Administrator Settings - Security Settings

A dmis	sistrator Cattings C	acurity Cattings		Restore Defaults		Initial value
Aumir	nistrator Settings - S	ecurity Settings	Network Setting	Restore System	Restore all	Initial value
Administrator Pass	Administrator Password			Reset	Reset	12345678
Security Details	Password Rules	3	-	Reset	Reset	OFF
	Manual Destina	tion Input	-	Reset	Reset	Allow
	Job Log	Accounting Log	-	-	-	ON
		Counting Log	-	-	-	ON
		Audit Log	-	-	-	ON
		Overwrite	-	-	-	Restrict
		Erase Job Log	-	-	-	-
	Hide Personal [Hide Personal Data		Reset	Reset	OFF
	Hide Activity Lo	g	-	Reset	Reset	OFF
	Initialize	Network Settings	-	-	-	-
		Restore System	-	-	-	-
		Restore All	-	-	-	-
Enhanced Security	Mode		-	Reset	Reset	OFF

Admin	sistrator Cattings - Courit	v Cottingo		Restore Defaults		Initial value
Admir	Administrator Settings - Security Settings			Restore System	Restore all	Illiliai value
HDD Settings	Check HDD Capacity	,	-	-	-	-
	Overwrite All Data	HDD Overwrite Method	-	Reset	Reset	Mode 1
		Execute	-	-	-	-
	HDD Format		-	-	-	-
	HDD Encryption Setti	HDD Encryption Setting		-	-	OFF
Stamp Settings	Date/Time		-	Reset	Reset	OFF
	Page Number	Page Number		Reset	Reset	OFF
	Stamp	Stamp		Reset	Reset	OFF
	Distribution Control N	lumber	-	Reset	Reset	OFF

2.3.14 Administrator Settings - Paper Empty Alert Display Setting

Administrator Settings - Paper Empty Alert Display			- Initial value		
Setting	Network Setting	Restore System	Restore all	ililiai value	
Tray 1	-	Reset	Reset	ON	
Tray 2	-	Reset	Reset	ON	
Tray 3	-	Reset	Reset	ON	
Tray 4	-	Reset	Reset	ON	
Manual Feed	-	Reset	Reset	OFF	

2.3.15 Administrator Settings - License Management

Administrator Settings - License Management	Restore Defaults			Initial value
	Network Setting	Restore System	Restore all	- Illitiai value
Get Request Code	-	-	-	-
Activation	-	-	-	-
List of Enabled Functions	-	-	-	-
List Output				

2.3.16 Administrator Settings - OpenAPI Certification Management Setting

Administrator Settings - OpenAPI Certification	Restore Defaults			Initial value
Management Setting	Network Setting	Restore System	Restore all	Illitiai value
Restriction Code Settings	-	-	-	-

2.3.17 Check Consumable Life

Check Consumable Life	Restore Defaults			Initial value
	Network Setting	Restore System	Restore all	illiliai value
Print	-	-	-	-

3. LIST OF SERVICE MODE

3.1 List of service mode (outline)



- Firmware Update/Loadable Driver Download is displayed only when the USB memory is connected.
- · Fax Settings is displayed only when the FAX board is connected.

NOTE

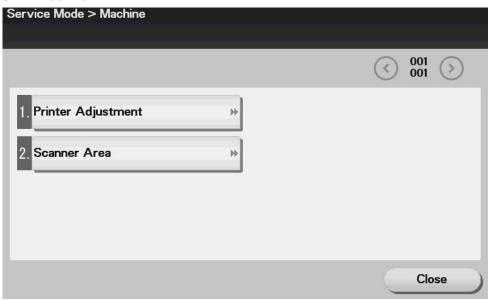
 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

Service Mode | Machine | I.3.2.1 Machine

Firmware Version	I.4.3 Firmware Version
Imaging Process Adjustment	I.4.4 Imaging Process Adjustment
CS Remote Care	I.4.5 CS Remote Care (Outlines)
System 1	I.4.11 System 1
System 2	I.4.12 System 2
Counter	I.4.13 Counter
List Output	I.4.14 List Output
State Confirmation	I.4.15 State Confirmation
Test Mode	I.4.16 Test Mode
ADF Adjustment	I.4.17 ADF Adjustment
Fax Settings	I.4.18 FAX Setting
Firmware Update	I.4.20 Firmware Update
Loadable Driver information	I.4.21 Loadable Drive Information
Loadable Driver Download	I.4.22 Loadable Driver Download
Internet ISW Settings	I.4.23 Internet ISW Settings

3.2 List of service mode (detail)

3.2.1 Machine



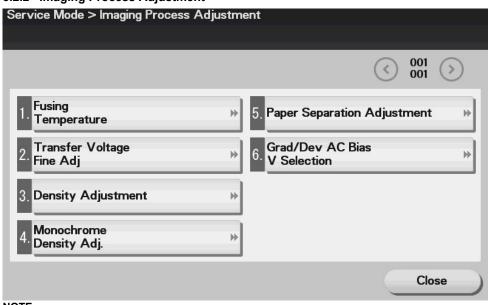
NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

Machine		Ref. Page	
Printer Adjustment Leading Edge	Leading Edge Adjustment	Plain Paper	I.4.2.1.(1) Leading Edge Adjustment -
		Thick Paper	Plain Paper/Thick paper/Envelope
		Envelope	
		Engine Adjustment	I.4.2.1.(2) Leading Edge Adjustment - Engine Adjustment
	Bottom Margin		I.4.2.1.(3) Bottom Margin
	Centering	Tray1	I.4.2.1.(4) Centering - Tray1/Tray2/Tray3/
		Tray2	Tray4/Manual Feed
		Tray3	
		Tray4	
		Manual Feed	
		Engine Adjustment	I.4.2.1.(5) Centering - Engine Adjustment
	Right Margin		I.4.2.1.(6) Right Margin
	Leading Edge Adjustment (Duplex Side 2)	Plain Paper	I.4.2.1.(7) Leading Edge Adjustment (Duplex Side 2) - Plain Paper
		Engine Adjustment	I.4.2.1.(8) Leading Edge Adjustment (Duplex Side 2) - Engine Adjustment
Centering (Duplex 2nd Side)	Tray1	I.4.2.1.(9) Centering (Duplex 2nd side) -	
	Tray2	Tray1/Tray2/Tray3/Tray4/Manual Feed	
		Tray3	

	Tray4	
	Manual Feed	
	Engine Adjustment	I.4.2.1.(10) Centering (Duplex 2nd side) - Engine Adjustment
Scanner Area	Scanner Image Side Edge	I.4.2.2.(1) Scanner Image Side Edge
	Image Position: Leading Edge	I.4.2.2.(2) Image Position: Leading Edge
	Horizontal Adjustment	I.4.2.2.(3) Horizontal Adjustment
	Vertical Adjustment	I.4.2.2.(4) Vertical Adjustment

3.2.2 Imaging Process Adjustment



NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

Imaging Process Adjustment		Ref. Page	
Fusing Temperature			I.4.4.1 Fusing Temperature
Transfer Voltage Fine Adj	Primary transfer adj.		I.4.4.2 Transfer Voltage Fine Adj
Density Adjustment	Thick Paper/1200dpi	Black	I.4.4.3 Thick Paper/1200dpi
	Engine Density Adjustment		I.4.4.4 Engine Density Adjustment
Monochrome Density Adj.			I.4.4.5 Monochrome Density Adj.
Paper Separation Adjustment		I.4.4.6 Paper separation adjustment	
Grad/Dev AC Bias V Selection		I.4.4.7 Grad/Dev AC Bias V Selection	

3.2.3 CS Remote Care

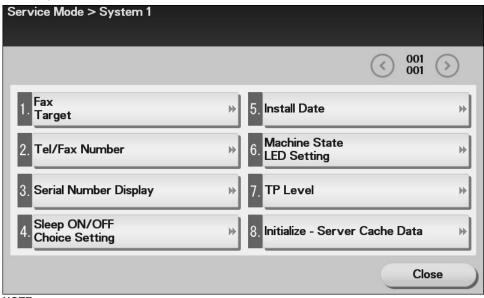


NOTE

	CS Remote	Care			Ref. Page
Maintenance / Default Settings	System Setting			I.4.10.1 Maintenance/Default Settings - System Selection	
	ID Code			I.4.10.2 Maintenance/Default Settings - ID Code	
	Initial Transmission			I.4.10.3 Maintenance/Default Settings - Initial Transmission	
Detail Settings	Basic Settings	Center ID	Center ID		I.4.10.4.(1) Center ID
		Center Phone No.			I.4.10.4.(2) Center Phone No.
		Device Phon	Device Phone No.		I.4.10.4.(3) Device Phone No.
		E-Mail Addre	E-Mail Address		I.4.10.4.(4) E-Mail Address
		Encryption (E	Encryption (E-mail)		I.4.10.4.(5) Encryption (E-mail)
		Encryption (H	HTTP)		I.4.10.4.(6) Encryption (HTTP)
		Heart Beat			I.4.10.4.(7) Heart Beat
	Date & Time Setting	Date Setting			I.4.10.5.(1) Date Setting
		Time Setting			I.4.10.5.(2) Time Setting
		Time Zone			I.4.10.5.(3) Time Zone
	RAM Clear				I.4.10.6 Detail Settings - RAM Clear
	Communication Log Prin	t			I.4.10.7 Detail Settings - Communication Log Print
	Response Timeout				I.4.10.8 Detail Settings - Response Timeout
	Notification Setting	Schedule 1			I.4.10.9 Detail Settings - Notification
		Schedule 2			Setting
		Schedule 3			
		Notification S	election		
Server Settings	Email Settings	Server for	Address		I.4.10.10.(1) Server for RX- Address
		RX	Account		I.4.10.10.(2) Server for RX - Account
			Password		I.4.10.10.(3) Server for RX - Password
			Port No.		I.4.10.10.(4) Server for RX - Port No
		RX Settings	E-Mail Addre	SS	I.4.10.10.(5) RX Settings-E - Mail Address
			Check Auto A	Alive	I.4.10.10.(6) RX Settings - Check Auto Alive
			Timeout		I.4.10.10.(7) RX Settings - Timeout
			Enable APOF)	I.4.10.10.(8) RX Settings - Enable APOI
		TX Settings	Address		I.4.10.10.(9) TX Settings - Address
			Port No.		I.4.10.10.(10) TX Settings - Port No.
			Timeout		I.4.10.10.(11) TX Settings - Timeout
			Tx Auth		I.4.10.10.(12) TX Settings - Tx Auth
			POP Before \$	SMTP 	I.4.10.10.(13) TX Settings – POP Before SMTP
			SMTP	Account	I.4.10.10.(14) TX Settings – SMTP
			Authenticati on	Password	Authentication
				Realm	
	HTTP Settings	HTTP Server	URL Address	i	I.4.10.11.(1) HTTP Settings - HTTP Server Settings
		Settings	Account		
			Password		
		201 0 111	Port No.		14 40 44 (0) HTTP 0 (1)
		SSL Setting Proxy Server			I.4.10.11.(2) HTTP Settings - SSL Settin
	Data Initializa	Data latitation			Server I.4.10.12 Server Settings - Data Initialize
Start Maintonance	Data Initialize				
Start Maintenance	Maintenance Schedule			I.4.7 Calling the maintenance	
Maintananaa Carralata	Start				1.4.7 Colling the maintenance
Maintenance Complete	DinCW 1	ec ==== 100	1		I.4.7 Calling the maintenance
Software Switch Setting	DipSW 1	SC Error [SC] Specify Date [A5]			I.4.10.13 Software Switch Setting
	Parts Life [TP]			1	

I			
	Warning [TT]		
DipSW 2	Toner Rep. [TN]		
	Waste Full [T0]		
Machine State			
Modem Redial Setting 1			
Modem Redial Setting 2			
Resend After Timeout			
Retry Interval			
Retry Count			
Time Zone			
Ring Connect Reception Timer			
Dial call end Connect Reception Timer			
Comm. Method			
DipSW 13	Heart Beat Transmission		
	Specified Transmission		
DipSW 14	Manuscript Jam Warning		
	Paper Jam Warning		
	Jam History		
Paper Jam Threshold.			
Manuscript Jam Threshold			
Attention Display Flag			
Send start-up message request Timer			
Opposite Party Signal answer wait time			
Resend Signal Timer	Resend Signal Timer		
Resend Telegram timer			
EMI Test Mode			

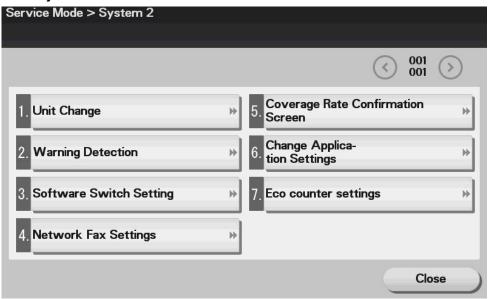
3.2.4 System 1



NOTE

	System 1	Ref. Page
Fax Target		I.4.11.1 Fax Target
Tel/Fax Number	TEL	I.4.11.2 Tel/Fax Number
	Fax	
Serial Number Display		I.4.11.3 Serial Number Display
Sleep ON/OFF Choice Setti	ng	I.4.11.4 Sleep ON/OFF Choice Setting
Install Date		I.4.11.5 Install Date
Machine State LED Setting	Alert State	I.4.11.6 Machine State LED Setting
TP Level		I.4.11.7 TP Level
Initialize - Server Cache Data		I.4.11.8 Initialize - Server Cache Data

3.2.5 System 2



NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

	System 2	2	Ref. Page
Unit Change	Toner Cartridge		I.4.12.1.(1) Toner Cartridge
	Imaging Unit		I.4.12.1.(2) Imaging Unit
Warning Detection	Near Empty / Display Setting	Toner Cartridge	I.4.12.2.(1) Near Empty Display Setting - Toner Cartrige
	Near Empty Choice	Black	I.4.12.2.(2) Near Empty Choice - Black
Software Switch Setting			I.4.12.3 Software Switch Setting
Network Fax Settings	Internet Fax		I.4.12.4 Network Fax Settings - Internet Fax
Coverage Rate Confirmation Screen			I.4.12.5 Coverage Rate Confirmation Screen
Chance Application Settings		I.4.12.6 Change Application Settings	
Eco counter settings		I.4.12.7 Eco counter settings	

3.2.6 Counter

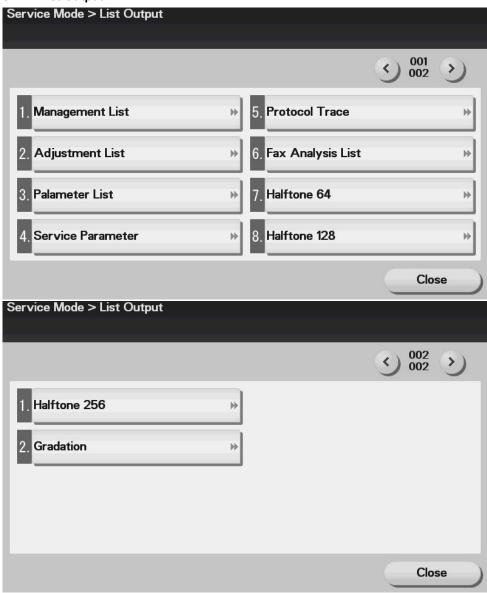


NOTE

Counter		Ref. Page	
Life	New Release	Maintenance Kit Finisher Counter	I.4.13.1 Life - New Release

Non Genuine Toner

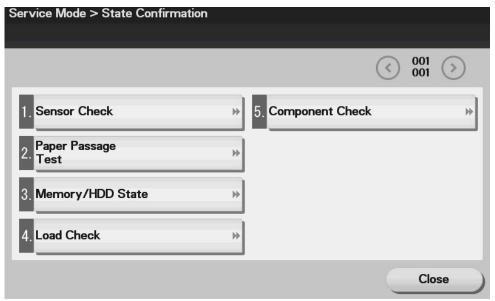
3.2.7 List Output



NOTE

	List Output	Ref. Page
Management List		I.4.14.1 Management List
Adjustment List		I.4.14.2 Adjustments List
Palameter List		I.4.14.3 Parameter List
Service Parameter		I.4.14.4 Service Parameter
Protocol Trace	Last	I.4.14.5 Protocol Trace
	Error	
Fax Analysis List	·	I.4.14.6 Fax Analysis List
Halftone 64	Black 64	I.4.14.7 Halftone 64
Halftone 128	Black 128	I.4.14.8 Halftone 128
Halftone 256	Black 256	I.4.14.9 Halftone 256
Gradation		I.4.14.10 Gradation

3.2.8 State Confirmation



NOTE

State Confirmation		Ref. Page
Sensor Check	1st.	I.4.15.1 Sensor Check
	2nd.	
	3rd.	
	4th.	
	Manual Feed	
	Scanner Sensor Check	
	Duplex	
	Base Sensor	
	Standard Bin	
	Finisher Bin Level	
	Finisher Pass and Media	
	Finisher Cover and Door	
	Finisher Staple Sensors	
	Finisher Compile and Diverter	
Paper Passage Test		I.4.15.2 Paper Passage Test
Memory/HDD State		I.4.15.3 Memory/HDD State
Load Check		I.4.15.4 Load Check
Component Check	ADF Pick	I.4.15.5 Component Check
	ADF feed motor forward	
	ADF feed motor reverse	
	Flatbed scanner motor	
	FB Feed test	
	ADF Feed test Simplex	
	ADF Feed test Duplex	
	Duplex Feed Test	

3.2.9 Test Mode



NOTE

	Test Mod	Ref. Page	
Fax Test Signal Send Test		V34 Main CH	I.4.16.1 Fax Test-Signal Send Test
		V8	
		V17	
		V29	
		V27ter	
		V21	
		РВ	
		DP	
		Special Tone	
		Optional Tone	
		PB Tone (High)	
		PB Tone (Low)	
		Pseudo Ring	
	Signal Receive Test	V17	I.4.16.2 Fax Test-Signal Receive Test
		V29	
		V27ter	
		V21	
		РВ	
		Special Tone	
	NCU Test	CML Relay	I.4.16.3 Fax Test-NCU TEST
		CTL Relay	
		TEL Relay	
		DC-LOOP Detect	
		Speaker	
		Outside Ring Send	
		Audio Responce Send	
	Dial Test	Dial Number	I.4.16.4 Fax Test - Dial Test
		Dialing Method	
		Dial Tone Detection	
		BUSY TONE Detection	

3.2.10 ADF Adjustment

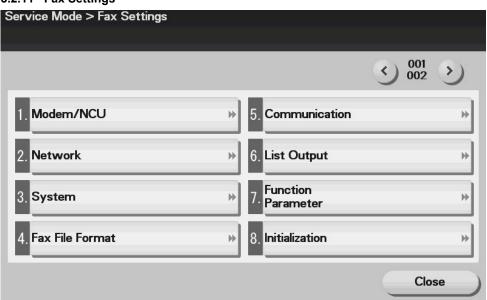


NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

ADF	Ref. Page
Original Stop Position - Sub Scanning Direction 1-Side	I.4.17.1 Original Stop Position - Sub Scanning Direction 1-Side
Original Stop Position - Sub Scanning Direction 2-Side	I.4.17.2 Original Stop Position - Sub Scanning Direction 2-Side
Original Stop Position - Main Scanning Direction 1-Side	I.4.17.3 Original Stop Position - Main Scanning Direction 1-side
Original Stop Position - Main Scanning Direction 2-Side	I.4.17.4 Original Stop Position - Main Scanning Direction 2-side
Feed Zoom	I.4.17.5 Feed Zoom
FD-Mag. Adj.(B)	I.4.17.6 FD-Mag. Adj. (B)
Main Scanning Direction Zoom	I.4.17.7 Main Scanning Direction Zoom
Main Scanning Direction Zoom (B)	I.4.17.8 Main Scanning Direction Zoom(B)

3.2.11 Fax Settings





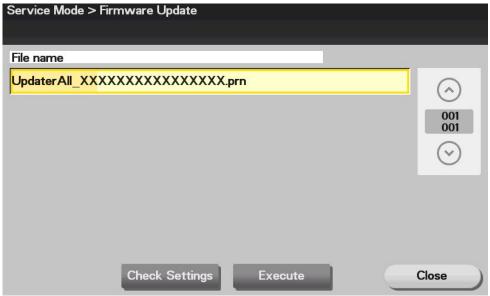
NOTE

	FAX Settin	Ref. Page	
Modem/NCU	V.34 RX Max. Bit Speed		I.4.18.1.(1) V34: RX Max. Bit Speed
		TX Max. Bit Speed	I.4.18.1.(2) V34: TX Max. Bit Speed
		Control CH Speed	I.4.18.1.(3) V34: Control CH Speed
		Max. SYMB Speed	I.4.18.1.(4) V34: Max. SYMB Speed
		V34 Tran.Pt	I.4.18.1.(5) V34: V34 Tran.PT
	V17 Send Max Speed	TX Max. Speed	I.4.18.1.(6) V17 Send Max Speed: TX Max. Speed
		RX Max. Speed	I.4.18.1.(7) V17 Send Max Speed: RX Max. Speed
	TxATT	PIX TxATT	I.4.18.1.(8) TxATT: PIX TxATT
		TONE/Procedure Signal TxATT	I.4.18.1.(9) TxATT: TONE/Procedure Signal TxATT
		CED/ANSam TxATT	I.4.18.1.(10) TxATT: CED/ANSam TxAT
		DTMF TxATT	I.4.18.1.(11) TxATT: DTMF TxATT
	Level	CD/SED ON Level	I.4.18.1.(12) Level: CD/SED ON Level
		DTMF H-L Level Difference	I.4.18.1.(13) Level: DTMF H-L Level Difference
	Cable EQL	·	I.4.18.1.(14) Cable EQL
Network	Receive Signal Detection Mode		I.4.18.2.(1) Network: Receive Signal Detection Mode
	BUSY TONE Detection		I.4.18.2.(2) Network: BUSY TONE Detection
	No. of Times of Busy Tone Detection		I.4.18.2.(3) Network: No. of Times of Busy Tone Detection
	1300Hz Detection		I.4.18.2.(4) Network: 1300 Hz Detection
	Dial Tone Detection		I.4.18.2.(5) Network: Dial Tone Detectio
	DC-LOOP Check		I.4.18.2.(6) Network: DC-LOOP Check
	min.RING OFF Time		I.4.18.2.(7) Network: min. RING OFF Time
	Response Waiting Time		I.4.18.2.(8) Network: Response Waiting Time
	Pause Time		I.4.18.2.(9) Network: Pause Time
	Pseudo-RBT Format		I.4.18.2.(10) Network: Pseudo-RBT Format
	Pseudo-RBT TX Level		I.4.18.2.(11) Network: Pseudo-RBT TX Level
System	Display Setting	Closed area Rx	I.4.18.3.(1) Display Setting: Closed area Rx
		Compulsory Memory RX	I.4.18.3.(2) Display Setting: Compulsory Memory RX

	System Function	Fax Board Watchdog	I.4.18.3.(3) System Function: Fax Board Watchdog
		Fax BOOT Rewrite on ISW	I.4.18.3.(4) System Function: Fax BOOT Rewrite on ISW
		Error Code Display Time	I.4.18.3.(5) System Function: Error Code Display Time
	Communication Setting	Error Page Resending	I.4.18.3.(6) Communication Setting: Error Page Resending
		Number of Redials(Error Page)	I.4.18.3.(7) Communication Setting: Number of Redials (Error Page)
Fax File Format			I.4.18.4 Fax File Format
Communication	Protocol	V8/V34 Protocol	I.4.18.5.(1) Protocol: V8 / V34 Protocol
		V17EP TONE	I.4.18.5.(2) Protocol: V17 EP TONE
		V29EP TONE	I.4.18.5.(3) Protocol: V29 EP TONE
		V17 Selection Mode "-"	I.4.18.5.(4) Protocol: V17 Selection Mode
		ANSam Send Time	I.4.18.5.(5) Protocol: ANSam Send Time
	Int'l Comm. Function	Foreign Communication Function	I.4.18.5.(6) Int'l Comm. Function: Foreign Communication Function
		No. of DIS Waiting Times at Foreign Communication	I.4.18.5.(7) Int'l Comm. Function: No. of DIS Waiting Times at Foreign Communication
		V34 Speed	I.4.18.5.(8) Int'l Comm. Function: V34 Speed
		V17 Speed	I.4.18.5.(9) Int'l Comm. Function: V17 Speed
		V29 Speed	I.4.18.5.(10) Int'l Comm. Function: V29 Speed
	TIMER	T1	I.4.18.5.(11) TIMER: T1
		DCS-TCF DELAY	I.4.18.5.(12) TIMER: DCS-TCF DELAY
		CED-DIS DELAY	I.4.18.5.(13) TIMER: CED-DIS DELAY
		PIX-PMC DELAY	I.4.18.5.(14) TIMER: PIX-PMC DELAY
		EOL-EOL	I.4.18.5.(15) TIMER: EOL-EOL
		CFR-PIXWAIT	I.4.18.5.(16) TIMER: CFR-PIXWAIT
		EOM-PIXWAIT	I.4.18.5.(17) TIMER: EOM-PIXWAIT
		JM WAIT	I.4.18.5.(18) TIMER: JM WAIT
	Others	ECM OFF	I.4.18.5.(19) Others: ECM OFF
		Frame Size at ECM TX	I.4.18.5.(20) Others: Frame Size at ECM TX
		Cording Ability	I.4.18.5.(21) Others: Coding Ability
List Output	Report Addition Informatio	n	I.4.18.6.(1) Report Addition Information
	TX Result Report Image		I.4.18.6.(2) TX Result Report Image
	Protocol Trace Auto Outpu	ıt	I.4.18.6.(3) Protocol Trace Auto Output
Function Parameter			I.4.18.7 Function Parameter
Initialization	Fax Function Parameter		I.4.18.8 Initialization
	Communication Journal Da	ata	
Line Standard Settings	Response Waiting Time		I.4.18.9 Line Standard Setting
	Off-Hook by Default		
	Dial Tone Detection		
	BUSY TONE Detection		
	Error Page Resending		
	Number of Redials(Error Page)		
	Set to V.17 after Receiving Error		
	No. of Times of Busy Tone	Detection	
	Number of Redial		_
	Redial Interval		
	Receive Signal Detection I	Node	_
	Number of RX Call Rings	g.,	_
	Receive Time Interval Sett	ung	_
	Pause Time	(O a a d)	_
	Line Monitor Sound Volum	ie (Sena)	

Line Monitor Sound Volume (Receive)

3.2.12 Firmware Update



NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

Firmware Update	Ref. Page
Check Settings	I.4.20.1 Check Settings
Execute	I.4.20.2 Execute

3.2.13 Internet ISW Settings



NOTE

Internet ISW Settings		Ref. Page	
Enable Settings			I.4.23.1 Enable Settings
HTTP Server Settings	Connect Proxy		I.4.23.2 HTTP Server Settings
	Proxy Server	Proxy Server Address	
		Proxy Server Port Number	
	Proxy Authentication	Authentication	
		User Name	
		Password	
	Connection Time-out		
Forwarding Access Setting	User ID		I.4.23.3 Forwarding Access Setting
	Password		

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	URL	
	FileName	
Download		I.4.23.4 Download

4. SERVICE MODE

4.1 Starting/Exiting

4.1.1 Starting procedure

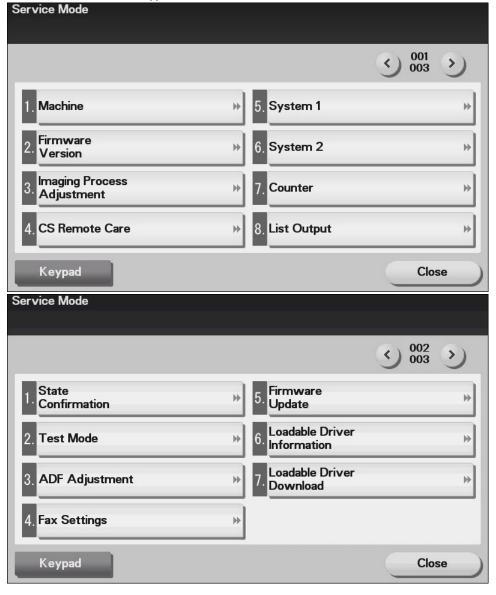
NOTE

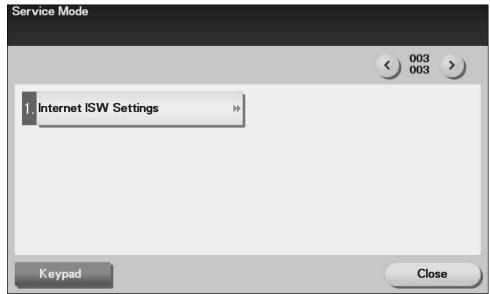
 Ensure appropriate security for Service Mode function setting procedures. They should NEVER be shown to any unauthorized person not involved with service jobs.

(1) Procedure

- 1. Touch Menu.
- 2. Touch [Counter].
- Touch [Keypad].
- 4. Press the following keys in this order.
 - Stop -> 0 -> 5top -> 0 -> 1
- Touch the password input area and, using the keyboard on the screen, type the CE password. (The initial setting for CE password is "92729272.")
- 6. Touch [OK].

- Access attempts to the Service Mode with a CE password is limited to up to 3 times.
 - If the number of invalid access attempts reaches three, your access is locked. Until access lock is released, the Service Mode is not accessible.
 - To release access lock, turning OFF/ON the power switch and rebooting the machine is necessary.
 - (When the machine is rebooted, the invalid access attempts count is cleared.)
- The service code entered is displayed as " * ".
- 7. The Service Mode menu will appear.





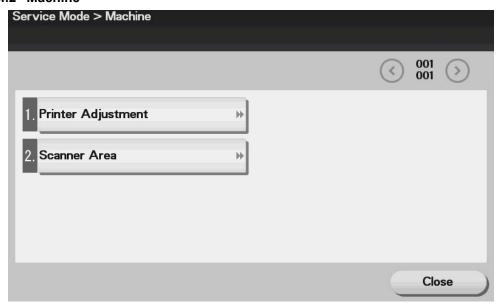
NOTE

- · Be sure to change the CE password from its default value.
- For the procedure to change the CE password, see the "I.5.5 CE Password."
- NEVER forget the CE password.

4.1.2 Exiting procedure

- · Touch [Close] on the Service Mode screen.
- Turn OFF the main power switch. Wait 10 seconds, then turn ON the main power switch again.

4.2 Machine

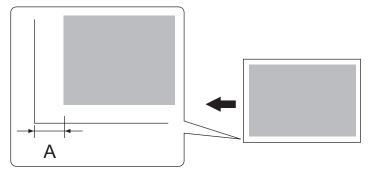


4.2.1 Printer Adjustment

(1) Leading Edge Adjustment - Plain Paper/Thick paper/Envelope

(a) Use

- To vary the print start position in the sub scan direction for each of different paper types. (to adjust the timing where paper is sent out from the first input roller)
- The PH unit has been replaced.
- The paper type has been changed.
- The print image deviates in the sub scan direction.
- A faint image occurs on the leading edge of the image.
- This setting can be made independently for Plain Paper, Thick paper, and Envelopes.



· Adjust so that width A on the one-sided printed page falls within the target range.

Target	4.2 mm ± 2.0 mm
Setting range	-3.0 mm to + 3.0 mm (in 0.2 mm increments)

(c) Procedure

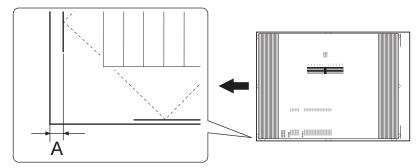
- 1. Check width A on the printed page.
- 2. If width A falls outside the target, follow the adjustment procedures below.
- 3. Call the Service Mode to the screen
- 4. Touch [Printer Adjustment] -> [Leading Edge Adjustment].
- 5. Touch the key of the desired paper type.
- 6. Using the [+]/[-] keys on the screen, change the setting value and then touch [OK]. Increase the setting value, if width A on the printed page is shorter than the target value. (Width A gets longer) Decrease the setting value, if width A on the printed page is longer than the target value. (Width A gets shorter)
- 7. Back to the basic screen
- 8. Produce a printed page again and make sure that the image is not faulty.
- 9. Following the same procedure, adjust for each paper.

(2) Leading Edge Adjustment - Engine Adjustment

(a) Use

- To change and adjust the image writing position in the sub scan direction of the engine. (to adjust the timing where paper is sent out from the first input roller)
- · The PH unit has been replaced.
- The print image deviates in the sub scan direction.
- A faint image occurs on the leading edge of the image.

(b) Setting range



Adjust so that width A on the printing position adjustment report falls within the target range.

Target	0 mm ± 0.7 mm
Setting range	-16 to 16 (in 0.168 mm increments)

(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Leading Edge Adjustment] -> [Engine Adjustment].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Increase the setting value, if width A on the printing position adjustment report is shorter than the target value. Decrease the setting value, if width A on the printing position adjustment report is longer than the target value.
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 6. Produce a printing position adjustment report again and make sure that the image is not faulty.

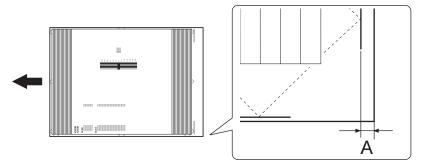
(3) Bottom Margin

(a) Use

- · Adjust the rear margin on the printed paper by adjusting the main motor rotation speed.
- · Expand and contract the image in the sub scan direction while adjusting the paper transferring speed.

· Before this adjustment, adjust the image writing position with Leading Edge Adjustment.

(b) Setting range



· Adjust so that width A on the printing position adjustment report falls within the target range.

Target	0mm ± 1.0 mm
Setting range	-20 to 20 (1Step: Change the motor rotation speed by 0.2 %.)

Ex.) For A4 paper: 297mm x 0.002 = 0.594mm

(c) Procedure

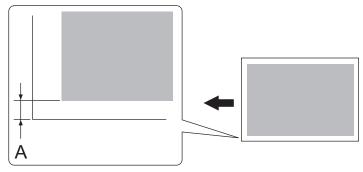
- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Bottom Margin].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Increase the setting value, if width A on the printing position adjustment report is shorter than the target value. (Image gets contract) Decrease the setting value, if width A on the printing position adjustment report is longer than the target value. (Image gets expand)
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 6. Produce a printing position adjustment report again and make sure that the image is not faulty.

(4) Centering - Tray1/Tray2/Tray3/Tray4/Manual Feed

(a) Use

- · To vary the print start position in the main scan direction for each paper source.
- · The PH unit has been replaced.
- · A paper feed unit has been added.
- · The print image deviates in the main scan direction.

(b) Setting range



Adjust so that width A on the one-sided printed page falls within the target range.

Target	4.2 mm ± 2.0 mm
Setting range	-5.0 mm to + 5.0 mm (in 0.2 mm increments)

(c) Procedure

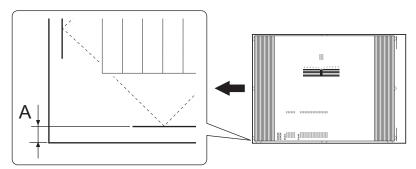
- 1. Check width A on the printed page.
- If width A falls outside the target, follow the adjustment procedures below.
- 3. Call the Service Mode to the screen.
- 4. Touch [Printer Adjustment] -> [Centering].
- 5. Touch the key of the desired tray.
- 6. Using the [+]/[-] keys on the screen, change the setting value and then touch [OK].
- Increase the setting value, if width A on the printed page is shorter than the target value. (Width A gets longer) Decrease the setting value, if width A on the printed page is longer than the target value. (Width A gets shorter)
- 8. Back to the basic screen.
- 9. Produce a printed page again and make sure that the image is not faulty.
- 10. Following the same procedure, adjust for each paper source.

(5) Centering - Engine Adjustment

(a) Use

• To change and adjust the image writing position in the main scan direction of the engine.

- · The PH unit has been replaced.
- · The print image deviates in the main scan direction.



· Adjust so that width A on the printing position adjustment report falls within the target range.

Target	0 mm ± 1.5 mm
Setting range	-25 to 25 (in 0.168 mm increments)

(c) Procedure

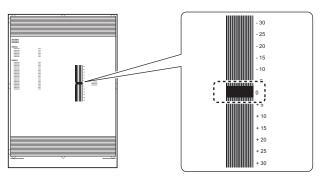
- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Centering] -> [Engine Adjustment].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Increase the setting value, if width A on the printing position adjustment report is shorter than the target value. Decrease the setting value, if width A on the printing position adjustment report is longer than the target value.
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 6. Produce a printing position adjustment report again and make sure that the image is not faulty.

(6) Right Margin

(a) Use

• To adjust the alignment on both sides of the print head.

(b) Setting range



1 9	Adjust so that the "0" area indicated with the black bar on the printing position adjustment report gets thickest.
Setting range	Setting range: -30 to 30 (Step:1)

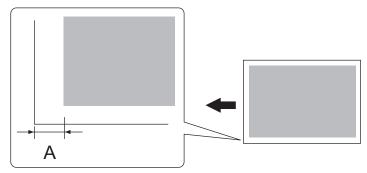
(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Right Margin].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Check that the area indicated with the black bar on the printing position adjustment report got thickest.
- 5. Subtract the value of the thickest bar from "Right Margin" on the printed page.
 Ex.) If "Right Margin" is "7" and the value of the thickest bar is "-5", "Right Margin" changes to "2" calculated by the formula "-7-(-5)=-2".
 * Even though the bar values are aligned by 5 on the printing position adjustment report, it is just a reference. Adjust the values of the bar on wherever the density you want.
- 6. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 7. Output the printed page again and check if the "0" area got thickest.
- 8. If "0" does not indicate the thickest area, repeat the steps from 4 to 7.

(7) Leading Edge Adjustment (Duplex Side 2) - Plain Paper

(a) Use

- This function allows the adjustment of the image write start position in the sub scan direction on the 2nd side of duplex printing.
- This adjustment is made when the image on the 2nd side of paper deviates from the original position in the sub scan direction.



- Adjust so that width A on the 2-sided printed page falls within the target range.
- For measurement, use the image produced on the backside of the width A.

Target	4.2 mm ± 2.0 mm
Setting range	-3.0 mm to +3.0 mm (in 0.2 mm increments)

(c) Procedure

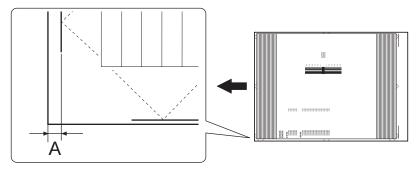
- 1. Check width A on the printed page.
- 2. If width A falls outside the target, follow the adjustment procedures below.
- 3. Call the Service Mode to the screen.
- 4. Touch [Printer Adjustment] -> [Leading Edge Adjustment (Duplex Side 2)] -> [Plain Paper].
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [OK].
- 6. Decrease the setting value if width A on the printed page is shorter than the target value. Increase the setting value, if width A on the printed page is longer than the target value.
- 7. Back to the basic screen.
- 8. Produce a printed page again and make sure that the image is not faulty.

(8) Leading Edge Adjustment (Duplex Side 2) - Engine Adjustment

(a) Use

- To change and adjust the image writing position in the sub scan direction of the engine on the 2nd side of paper when executing duplex printing. (to adjust the timing where paper is sent out from the first input roller)
- · The PH unit has been replaced.
- · This adjustment is made when the image on the 2nd side of paper deviates from the original position in the sub scan direction.
- A faint image occurs on the leading edge of the image.

(b) Setting range



Adjust so that width A on the printing position adjustment report falls within the target range.

7	Target	0 mm ± 1.0 mm
5	Setting range	-16 to 16 (in 0.168 mm increments)

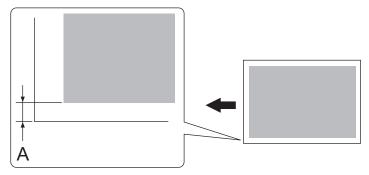
(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Leading Edge Adjustment (Duplex Side 2)] -> [Engine Adjustment].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Increase the setting value if width A on the printing position adjustment report is shorter than the target value. Decrease the setting value, if width A on the printing position adjustment report is longer than the target value.
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 6. Produce a printing position adjustment report again and make sure that the image is not faulty.

(9) Centering (Duplex 2nd side) - Tray1/Tray2/Tray3/Tray4/Manual Feed

(a) Use

- To vary the print start position in the main scan direction for each paper source in the 2-Sided mode.
- · The image on the backside of the 2-sided copy deviates in the main scan direction.



- Adjust so that width A on the 2-sided printed page falls within the target range.
- For measurement, use the image produced on the backside of the width A.

Target	4.2 mm ± 2.0 mm
Setting range	-5.0 mm to +5.0 mm (in 0.2 mm increments)

(c) Procedure

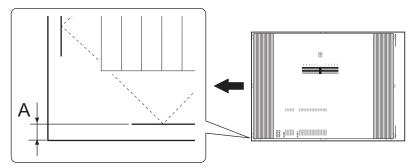
- 1. Check width A on the printed page.
- 2. If width A falls outside the target, follow the adjustment procedures below.
- 3. Call the Service Mode to the screen.
- 4. Touch [Printer Adjustment] -> [Centering (Duplex 2nd side)].
- 5. Touch the key of the desired tray.
- 6. Using the [+]/[-] keys on the screen, change the setting value and then touch [OK].
- Decrease the setting value, if width A on the printed page is shorter than the target value. Increase the setting value, if width A on the printed page is longer than the target value.
- 8 Back to the basic screen
- 9. Produce a printed page again and make sure that the image is not faulty.
- 10. Following the same procedure, adjust for each paper source.

(10) Centering (Duplex 2nd side) - Engine Adjustment

(a) Use

- To change and adjust the image writing position in the sub scan direction of the engine on the 2nd side of paper when executing duplex printing.
- The PH unit has been replaced.
- · The image on the backside of the 2-sided copy deviates in the main scan direction.

(b) Setting range



· Adjust so that width A on the printing position adjustment report falls within the target range.

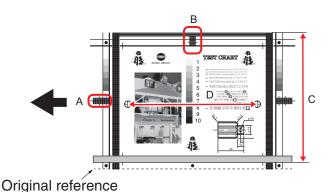
Target	0 mm ± 1.0 mm
Setting range	-25 to 25 (in 0.168 mm increments)

(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Machine] -> [Printer Adjustment] -> [Leading Edge Adjustment (Duplex Side 2)] -> [Engine Adjustment].
- 3. Touch [START] to produce a printing position adjustment report.
- 4. Increase the setting value if width A on the printing position adjustment report is shorter than the target value. Decrease the setting value, if width A on the printing position adjustment report is longer than the target value.
- 5. Using the [+]/[-] keys on the screen, change the setting value and then touch [START].
- 6. Produce a printing position adjustment report again and make sure that the image is not faulty.

4.2.2 Scanner Area

- · Use the following test chart for the adjustment of the scanner section.
- If the test chart is not available, a scale may be used instead.



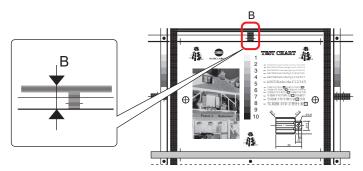
Adjustment item	Ref. page			
A: Image Position: Leading Edge	I.4.2.2.(2) Image Position: Leading Edge			
B: Scanner Image Side Edge	I.4.2.2.(1) Scanner Image Side Edge			
C: Horizontal Adjustment	I.4.2.2.(3) Horizontal Adjustment			
D: Vertical Adjustment	I.4.2.2.(4) Vertical Adjustment			

(1) Scanner Image Side Edge

(a) Use

- To adjust part-to-part variations in accuracy of scanner parts and their mounting accuracy by varying the scan start position in the main scan direction.
- · When the CCD unit is replaced.
- · When the original glass is replaced.

(b) Setting range



- · Measure width B on the test chart and width B on the produced copy and adjust so that the error falls within the target range.
- An adjustment must have been completed correctly of [Engine Adjustment] of [Centering].

Target	Width B: ± 2.0 mm	
Setting range	-5.00 mm to + 5.00 mm (in 0.25 mm increments)	

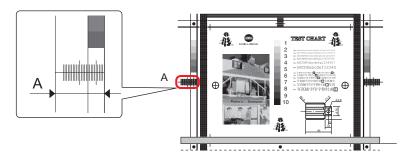
(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Machine] -> [Scanner Area] -> [Scanner Image Side Edge].
- 3. Position the test chart correctly so that the original reference point is aligned with the scale.
- 4. Press the Start key to make a copy.
- 5. Check width B on the produced copy.
- 6. If width B falls outside the target range, vary the setting value using the [+]/[-] keys.
 - If width B on the copy is shorter than width B on the test chart, decrease the setting value.
 - If width B on the copy is longer than width B on the test chart, increase the setting value.
- 7. Return to the basic screen.
- 8. Make a copy again. Make the adjustment until the target range is satisfied.

(2) Image Position: Leading Edge

(a) Use

- · To adjust variations in mounting accuracy of the original width scale by varying the scan start position in the sub scan direction.
- · When the original glass is replaced.
- · When the original width scale is replaced.



- · Measure width A on the test chart and width A on the produced copy and adjust so that the error falls within the target range.
- · An adjustment must have been completed correctly of [Engine Adjustment] of [Leading Edge Adjustment].

Target	Width A: ± 2.5 mm	
Setting range	-5.00 mm +5.00 mm (in 0.25 mm increments)	

(c) Procedure

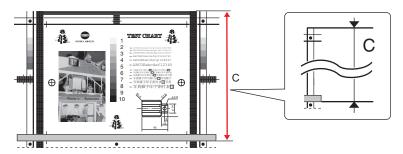
- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Machine] -> [Scanner Area] -> [Image Position: Leading Edge].
- 3. Position the test chart correctly so that the original reference point is aligned with the scale.
- 4. Press the Start key to make a copy.
- 5. Check width A on the produced copy.
- 6. If width A falls outside the target range, vary the setting value using the [+]/[-] keys.
 - If width A on the copy is shorter than width A on the test chart, decrease the setting value.
 - If width A on the copy is longer than width A on the test chart, increase the setting value.
- 7 Return to the basic screen
- 8. Make a copy again. Make the adjustment until the target range is satisfied.

(3) Horizontal Adjustment

(a) Use

- · To adjust the zoom ratio in the main scan direction for the scanner section.
- · The CCD unit has been replaced.

(b) Setting range



• Measure width C on the test chart and width C on the produced copy and adjust so that the error falls within the target range.

Target	Width C: ± 2.0 mm		
Setting range	-2.0% to + 2.0% (in 0.2% increments)		

^{*} Standard size when using a scale: 200.0 mm

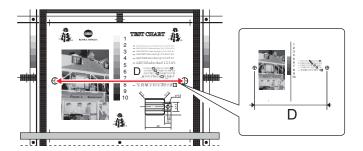
(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Machine] -> [Scanner Area] -> [Horizontal Adjustment].
- 3. Position the test chart correctly so that the original reference point is aligned with the scale.
- 4. Press the Start key to make a test pattern.
- 5. Check width C on the produced copy.
- 6. If width C falls outside the target range, vary the setting value using the [+]/[-] keys.
 - · If width C on the copy is shorter than width C on the test chart, increase the setting value.
 - If width C on the copy is longer than width C on the test chart, decrease the setting value.
- 7. Return to the basic screen.
- 8. Make a copy again. Make the adjustment until the target range is satisfied.

(4) Vertical Adjustment

(a) Use

· To adjust the zoom ratio in the sub scan direction for the scanner section.



- · Measure width D on the test chart and width D on the produced copy and adjust so that the error falls within the target range.
- · An adjustment must have been completed correctly of [Bottom Margin] of [Printer Adjustment].

Target	Width D: ± 2.0 mm
Setting range	-2.0% to 2.0% (in 0.2% increments)

^{*} Standard size when using a scale: 200.0 mm

(c) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Machine] -> [Scanner Area] -> [Vertical Adjustment].
- 3. Position the test chart correctly so that the original reference point is aligned with the scale.
- 4. Press the Start key to make a test pattern.
- 5. Check width D on the produced copy.
- 6. If width D falls outside the target range, vary the setting value using the [+]/[-] keys.
 - If width D on the copy is shorter than width D on the test chart, increase the setting value.
 - If width D on the copy is longer than width D on the test chart, decrease the setting value.
- 7. Return to the basic screen.
- 8. Make a copy again. Make the adjustment until the target range is satisfied.

4.3 Firmware Version

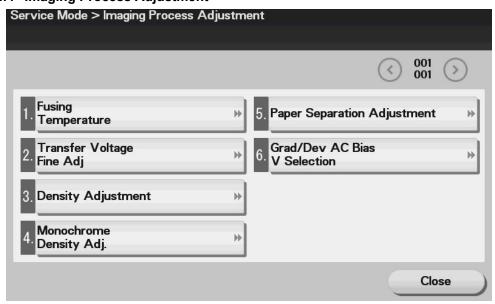
4.3.1 Use

- To check the firmware version.
- · Use when the firmware is upgraded.
- · When the firmware is upgraded or Controller board is replaced.

4.3.2 Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Firmware Version].
- 3. Select the appropriate key to check the firmware version.

4.4 Imaging Process Adjustment



4.4.1 Fusing Temperature

(1) Use

- To set the fusing temperature setting value of the heater.
- · When fusing performance is poor, or wax streak or offset occurs when the type of paper is changed or environmental conditions change.

• Use when the curling of the paper due to the paper type or environmental change occurred, or when the paper jam, as well as stapling error occurred due to the curling of the paper.

(2) Default setting

• 0

(3) Setting item

- "0" (Normal)
- 1 (Lower)
- 2 (Lowest)

4.4.2 Transfer Voltage Fine Adj

(1) Primary transfer adj.

(a) Use

- · Adjust the output value for the image transfer voltage.
- · To use when white spots appeared.

(b) Default setting

• 0

(c) Setting item

- 0 (Low)
- "1" (Middle)
- 2 (High)

4.4.3 Thick Paper/1200dpi

(1) Use

· To adjust the image density when printing on thick paper or printing at 1200 dpi.

(2) Default setting

• 0

(3) Setting range

-5 to +5 (step: 1)

(4) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Imaging Process Adjustment] -> [Density Adjustment] -> [Thick Paper/1200dpi] -> [Black].
- 3. Using the [+]/[-] keys or 10-key pad, vary the setting value.
 - Light color: Increase the setting value.
 - · Dark color: Decrease the setting value.
- 4. Touch [OK] to validate the setting value.

4.4.4 Engine Density Adjustment

(1) Use

· To control the toner adhesion amount by adjusting the voltage of the imaging unit, and finely adjust the image density.

(2) Default setting

• 1

(3) Setting item

- 0 (Light)
- "1" (Normal)
- 2 (Dark)

4.4.5 Monochrome Density Adj.

(1) Use

- · To fine-adjust the density of the printed image for a black print.
- To vary the density of the printed image of a black print.

(2) Default setting

• 0

(3) Setting range

• -2 to +2 (step: 1)

(4) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [Imaging Process Adjustment] -> [Monochrome Density Adj.].
- 3. Using the [+]/[-] keys or 10-key pad, vary the setting value.
 - · Black is light: Increase the setting value.
 - · Black is dark: Decrease the setting value.
- 4. Touch [OK] to validate the setting value.

4.4.6 Paper separation adjustment

(1) Use

- · To be used to adjust the paper transferring interval.
- To increase the setting value when a paper curling occurs or a loading error occurs on the paper feeding tray. However, it makes the paper transferring interval get wider, resulting in a long-time printing of each paper.

(2) Default setting

• 0

(3) Setting range

0 to 255 (Step:1)

(4) Procedure

- 1. Call the Service Mode to the screen.
- Touch these keys in this order: [Imaging Process Adjustment] -> [Paper separation adjustment].
- 3. Using the [+]/[-] keys or 10-key pad, vary the setting value.
 - · Priority on paper separation performance: Increase the setting value.
 - · Priority on image transfer performance: Decrease the setting value.
- 4. Touch [OK] to validate the setting value.
- 5. Make a print and check the produced image.

4.4.7 Grad/Dev AC Bias V Selection

(1) Use

· To change the setting of the development AC voltage.

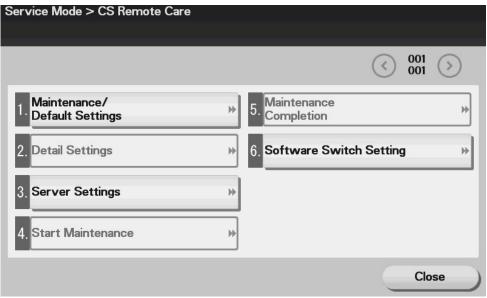
(2) Default setting

Normal

(3) Setting item

- Dark
- "Normal"
- · Light

4.5 CS Remote Care (Outlines)



- CS Remote Care enables the machine and the computer at CS Remote Care center to exchange data through fax line, network or E-mail in order to control the machine.
- CS Remote Care enables the machine to call the computer at the center when trouble occurs. It also enables the computer at the center to contact the machine for the necessary data.
- Data which CS Remote Care handles can be divided into the following groups.
 - Data which show the status of use of the machine such as total count, PM count.
 - Data which show the abnormal situation on the machine such as where and how often errors occur.

- · Data on adjustment
- · Data on setting

4.6 Setting up the CS Remote Care

NOTE

 For resetting up the machine which CS Remote Care has already been set up, clear the RAM for CS Remote Care before resetting.

I.4.10.6 Detail Settings - RAM Clear

4.6.1 Using the telephone line modem

- 1. Register the device ID
 - Register the device ID to the application at CS Remote Care center.

NOTE

- · The initial connection is not available unless the device ID is registered.
- 2. Connecting the modem
 - Turn the power for the modem OFF. Connect the machine and the modem with a modem cable. Connect the modem and the wall jack with a modular cable.

NOTE

- · For connecting the modular cable, see the manual for the modem.
- 3. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Input the seven digits ID of the service person, and touch [ID Code] again.
 - I.4.10.2 Maintenance/Default Settings ID Code
- 4. Clearing the RAM
 - 1. Select [Service Mode] -> [CS Remove Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [RAM Clear].
 - 3. Select Set, and touch [OK].
 - I.4.10.6 Detail Settings RAM Clear
- 5. Selecting the CS Remote Care function
 - Select [Service Mode] -> [CS Remove Care] -> [Maintenance/Default Settings] -> [System Selection], and touch [Modem].
- 6. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Input the seven digits ID of the service person, and touch [ID Code] again.
 - I.4.10.2 Maintenance/Default Settings ID Code
- 7. Setting the date and time for CS Remote Care
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Date & Time Setting].
 - 3. Input the date, time and the time zone using the 10-key pad, and touch [Set].
 - I.4.10.5.(1) Date Setting
- 8. Setting the Center ID
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Machine Setting] -> [Center ID], and input the Center ID (five digits).
 - I.4.10.4.(1) Center ID
- 9. Confirm the Device ID
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Machine Setting] -> [Device ID], and input Device ID (13 digits).

NOTE

- [Device ID] displays the serial number that is entered in [Service Mode] -> [System 1] -> [Serial Number].
- 10. Setting the telephone number of the Center
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Machine Setting] -> [Center Telephone Number].
 - 3. Input the telephone number of the center using the 10-key pad and [P], [T], [W], [-].
 - I.4.10.4.(2) Center Phone No.
- 11. Inputting the device telephone number
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Machine Setting] -> [Device Telephone Number].
 - 3. Input the Device telephone number using the 10-key pad and [P], [T], [W], [-].
 - I.4.10.4.(3) Device Phone No.
- 12. Inputting the AT command for initializing the modem
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [Basic Setting] -> [AT Command].
 - 3. Input AT Command.

NOTE

- Change this command only when it is necessary. (They do not need to be changed in normal condition.)
- For details on AT command, see the manual for the modem.
- I.4.10.4.(8) AT Command
- 13. Setting the DIPSW for CS Remote Care

NOTE

This setting is not normally necessary.

Take this step only when necessary in a specific connecting condition.

- 14. Executing the initial transmission
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Detail Setting].
 - 2. Touch [initial transmission] key on the right bottom of the screen to start initial transmission.
 - 3. When the machine is properly connected with the center, CS Remote Care setting screen will be displayed.

NOTE

- The initial transmission key at the right bottom of the screen will be displayed only when the center ID, the device ID, Telephone number of the center and the device telephone number have been input.
 - However, if an invalid value is input as the device ID, the initial transmission key is not displayed.
- I.4.10.3 Maintenance/Default Settings Initial Transmission

4.6.2 Using the Fax line modem

NOTE

- · Setting will be available only when the optional fax board is installed.
- 1. Register the device ID
 - Register the device ID to the application at CS Remote Care center.

NOTE

- The device ID consists of 13-digit alphanumeric characters that are identical to the serial number.
- The serial number can be checked using [Service Mode] -> [System 1] -> [Serial Number Display].
- · The initial connection is not available unless the device ID is registered.
- Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].
 - I.4.10.2 Maintenance/Default Settings ID Code
- 3. Clearing the RAM
 - 1. Select [Service Mode] -> [CS Remove Care], and touch [Detail Settings].
 - 2. Touch [RAM Clear].
 - 3. Select [Yes], and touch [OK].
 - I.4.10.6 Detail Settings RAM Clear
- 4. Selecting the CS Remote Care function
 - 1. Select [Service Mode] -> [CS Remove Care] -> [Maintenance/Default Settings] -> [System Setting].
 - 2. Select [Fax], and touch [OK].
- 5. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].
 - I.4.10.2 Maintenance/Default Settings ID Code
- 6. Setting the date and time for CS Remote Care
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Date & Time Setting].
 - 3. Select [Date Setting], [Time Setting], and [Time Zone].
 - 4. Enter the date, time of day, and the time zone and then touch [OK].
 - I.4.10.5 Detail Settings Date & Time Setting
- Setting the Center ID
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings], and touch [Basic Settings].
 - 2. Touch [Center ID], select the input area, and enter the center ID (5 digits).
 - I.4.10.4.(1) Center ID
- 8. Setting the telephone number of the Center
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Basic Settings] -> [Center Phone No.].
 - 3. Select the input area and enter and enter the center phone number.
 - I.4.10.4.(2) Center Phone No.
- 9. Inputting the device telephone number
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Basic Settings] -> [Device Phone No.].
 - 3. Select the input area and enter and enter the device phone number.
 - I.4.10.4.(3) Device Phone No.
- 10. Setting the DIPSW for CS Remote Care

NOTE

· This setting is not normally necessary.

Take this step only when necessary in a specific connecting condition.

- 11. Executing the initial transmission
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Initial Transmission].
 - 2. Select [Yes], and touch [OK].

NOTE

[Initial Transmission] can be selected when all of the center ID, device ID, center phone number, and the device phone
number are entered.

The function cannot, however, be selected, if any invalid value is entered for the device ID.

I.4.10.3 Maintenance/Default Settings - Initial Transmission

4.6.3 Using E-mail

- 1. Register the device ID
 - · Messages can be exchanged only between the center with initial connection and the copier.

- The device ID consists of 13-digit alphanumeric characters that are identical to the serial number.
- The serial number can be checked using [Service Mode] -> [System 1] -> [Serial Number Display].
- The initial connection is not available unless the device ID is registered.
- Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.

- 3. Touch [OK].
- I.4.10.2 Maintenance/Default Settings ID Code
- 3. Clearing the RAM
 - 1. Select [Service Mode] -> [CS Remove Care], and touch [Detail Settings].
 - 2. Touch [RAM Clear].
 - 3. Select [Yes], and touch [OK].
 - I.4.10.6 Detail Settings RAM Clear
- 4. Selecting the CS Remote Care function
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings] and touch [System Setting].
 - 2. Select [E-Mail 1] or [E-Mail 2], and touch [OK].
- 5. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].
 - I.4.10.2 Maintenance/Default Settings ID Code
- 6. Setting the date and time for CS Remote Care
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Date & Time Setting].
 - 3. Select [Date Setting], [Time Setting], and [Time Zone].
 - 4. Enter the date, time of day, and the time zone and then touch [OK].
 - I.4.10.5 Detail Settings Date & Time Setting
- 7. Setting the Center ID
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Setting], and touch [Basic Settings].
 - 2. Touch [Center ID], select the input area, and enter the center ID (5 digits).
- I.4.10.4.(1) Center ID
- 8. Encryption setting
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Encryption (E-mail)].
 - 2. Select [Yes], and touch [OK].
 - I.4.10.4.(5) Encryption (E-mail)
- 9. Retransmission interval on e-mail delivery error
 - · When selecting [E-mail 2], set the retransmission interval [Retry Interval] in software SW setting.
 - I.4.10.13 Software Switch Setting
- 10. Setting the Respond Timeout
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Respond Timeout] and enter the response timeout using [+] and [-] keys.

NOTE

· Under normal conditions, there is no need to change the default setting.

- I.4.10.8 Detail Settings Response Timeout
- 11. Setting the E-mail address
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Server Settings], and touch [Email Settings].
 - 2. Touch [Server for RX], and set [Address], [Account], [Password] and [Port No.].
 - 3. Touch [RX Settings], and set [E-Mail Address], [Check Auto Alive], [Timeout] and [Enable APOP].
 - 4. Touch [TX Settings], and set [Address], [Port No.], [Timeout], [Tx Auth] and [POP Before SMTP].
 - 5. Touch [TX Settings] -> [SMTP Authentication], and set [Account], [Password], and [Realm].
- I.4.10.10.(1) Server for RX- Address
- 12. When selecting [E-Mail2]:
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings], and touch [Notification Setting].
 - 2. Touch [Schedule] and set the schedule of periodic transmission.
 - 3. Touch [Notification Selection] and set items that will be reported to the Center.
 - I.4.10.9 Detail Settings Notification Setting
- 13. Receiving the initial connection E-mail message
 - · Sending the initial connection E-mail message from the center to the address of the copier.

NOTE

- When receiving the initial connection E-mail message from the center while CS Remote Care-related screen is being displayed, the current setting information will be deleted, and CS Remote Care setting will be displayed.
- For sending the initial connection E-mail, see the manual for CS Remote Care center.
- Messages can be exchanged only between the center with initial connection and the copier.
- The initial connection from the center will be carried out, and the E-mail address of the center will be stored in the copier.
- When the initial registration is complete, the E-mail address of the center will be displayed by selecting [Service Mode] ->
 [CS Remote Care] -> [Detail Settings] -> [E-Mail Address].

4.6.4 When using a WebDAV server in http communication

NOTE

- When MFP is connected to the Internet via a proxy, the proxy server related settings are necessary in advance.
 - Select [Administrator Settings] -> [Network Settings] -> [WebDAV Client Settings] of PageScope Web Connection and set [Enable]. Then, set [Proxy Server Address].
 - 2. Using [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings] -> [System Setting], select [HTTP1] or [HTTP1].
 - 3. Select [Service Mode] -> [CS Remote Care] -> [Server Settings] -> [HTTP Settings] -> [Proxy Server] and set [ON].

(1) Bilateral communication

- 1. Register the device ID
 - Register the device ID to the application at CS Remote Care center.

- The initial connection is not available unless the device ID is registered.
- 2. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.

- 3. Touch [OK].
- I.4.10.2 Maintenance/Default Settings ID Code
- 3. Clearing the RAM
 - 1. Select [Service Mode] -> [CS Remove Care], and touch [Detail Settings].
 - 2. Touch [RAM Clear].
 - 3. Select [Yes], and touch [OK].
 - I.4.10.6 Detail Settings RAM Clear
- 4. Selecting the CS Remote Care function
 - · Select [Service Mode] -> [CS Remove Care] -> [Maintenance/Default Settings], and touch [System Setting].
 - · Select [HTTP1], and touch [OK].
- 5. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].
 - I.4.10.2 Maintenance/Default Settings ID Code
- 6. Setting the date and time for CS Remote Care
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Date & Time Setting].
 - 3. Select [Date Setting], [Time Setting], and [Time Zone].
 - 4. Enter the date, time of day, and the time zone and then touch [OK].
 - I.4.10.5 Detail Settings Date & Time Setting
- 7. Setting the Center ID
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Center ID], select the input area, and enter the center ID (5 digits).
 - I.4.10.4.(1) Center ID
- 8. Encryption setting
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Encryption (HTTP)].
 - 2. Select [Yes], and touch [OK].
- 9. Heart Beat
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Setting] -> [Basic Setting], and touch [Heart Beat].
 - 2. In [Heart Beat Transmission], select [ON] or [OFF] for Heart Beat Transmission ON/OFF (default setting: ON).
 - 3. Touch [Comm. Interval] and enter a Heart Beat transmission interval (1 to 256 minutes, Default: 30 minutes).
 - 4. In [Specified Transmission], set whether or not to enable Heart Beat transmission at a specified interval. (Default: Yes)
 - 5. Touch [Specified Time] and enter the fixed time at which Heart Beat transmission is performed in the input area.

NOIL

Heart Beat is a feature that uploads a Heart Beat file to the registered web server at a specified interval to report that the
device is operating. Heart Beat files include total counter and status information.

- 10. Setting the http server
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Server Settings].
 - 2. Select [HTTP Settings] -> [HTTP Server Settings], set [URL Address], [Account], [Password], and [Port No.], and close [HTTP Server Settings] using [Close].
 - 3. Touch [SSL Settings] and make SSL settings.
 - I.4.10.11.(2) HTTP Settings SSL Setting
- 11. Setting the DIPSW for CS Remote Care

NOTE

- · This setting is not normally necessary. Take this step only when necessary in a specific connecting condition.
- 12. Executing the initial transmission
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Initial Transmission].
 - 2. Select [Yes], and touch [OK].

NOTE

[Initial Transmission] can be selected when all of the center ID, device ID, center phone number, and the device phone
number are entered.

The function cannot, however, be selected, if any invalid value is entered for the device ID.

(2) Unilateral communication: Device to Center

- 1. Register the device ID
 - Register the device ID to the application at CS Remote Care center.

- · The initial connection is not available unless the device ID is registered.
- 2. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].
 - I.4.10.2 Maintenance/Default Settings ID Code
- 3. Clearing the RAM
 - 1. Select [Service Mode] -> [CS Remove Care], and touch [Detail Setting].
 - 2. Touch [RAM Clear].
 - 3. Select [Yes], and touch [OK].
 - I.4.10.6 Detail Settings RAM Clear
- 4. Selecting the CS Remote Care function
 - 1. Select [Service Mode] -> [CS Remove Care] -> [Maintenance/Default Settings], and touch [System Setting].
 - 2. Select [HTTP2], and touch [OK].
- 5. Inputting the ID code
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
 - 2. Select the input area and enter the 7-digit ID code of service person.
 - 3. Touch [OK].

I.4.10.2 Maintenance/Default Settings - ID Code

- 6. Setting the date and time for CS Remote Care
 - 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail Settings].
 - 2. Touch [Date & Time Setting].
 - 3. Select [Date Setting], [Time Setting], and [Time Zone].
 - 4. Enter the date, time of day, and the time zone and then touch [OK].
 - I.4.10.5 Detail Settings Date & Time Setting
- 7. Setting the Center ID
 - 1. Select [Service Mode] -> [CS Remote Care] -> [[Detail Settings], and touch [Basic Settings].
 - 2. Touch [Center ID], select the input area, and enter the center ID (5 digits).
 - 1.4.10.4.(1) Center IE
- 8. Encryption setting
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Encryption (HTTP)].
 - 2. Select [Yes], and touch [OK].
- 9. Heart Beat
 - 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Heart Beat].
 - 2. In [Heart Beat Transmission], select [ON] or [OFF] for Heart Beat Transmission ON/OFF (default setting: ON).
 - 3. Touch [Comm. Interval] and enter a Heart Beat transmission interval (1 to 256 minutes, Default: 30 minutes).
 - 4. In [Specified Transmission], select [Yes] or [No] for Specified Transmission Yes/No (default setting: Yes).
 - 5. Touch [Specified Time] and enter the fixed time at which Heart Beat transmission is performed in the input area.

NOTE

Heart Beat is a feature that uploads a Heart Beat file to the registered web server at a specified interval to report that the
device is operating. Heart Beat files include total counter and status information.

10. Notification Setting

- 1. Select [Service Mode] -> [CS Remote Care] -> [Detail Settings], and touch [Notification Setting].
- 2. Touch [Schedule] and set the schedule of periodic transmission.
- 3. Touch [Notification Selection] and set items that will be reported to the Center.
- I.4.10.9 Detail Settings Notification Setting

11. Setting the http server

- 1. Select [Service Mode] -> [CS Remote Care], and touch [Server Settings].
- 2. Select [HTTP Settings] -> [HTTP Server Settings], set [URL Address], [Account], [Password], and [Port No.], and close [HTTP Server Settings] using [Close].
- 3. Touch [SSL Settings] and make SSL settings.
- I.4.10.11 Server Settings HTTP Settings
- 12. Setting the DIPSW for CS Remote Care

NOTE

· This setting is not normally necessary. Take this step only when necessary in a specific connecting condition.

13. Executing the initial transmission

- 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Initial Transmission].
- 2. Select [Yes], and touch [OK].

NOTE

• [Initial Transmission] can be selected when all of the center ID, device ID, center phone number, and the device phone number are entered.

The function cannot, however, be selected, if any invalid value is entered for the device ID.

4.7 Calling the maintenance

• When CE starts maintenance, inputting the ID code of CE (seven digits: numbers which CE can identify. They are controlled by the distributor.) will transmit the information to the Center side and tells that the maintenance has started. When the maintenance is finished, touching [Maintenance Complete] key will transmit the information to the center and tells that it is finished.

NOTE

 The MFP sends the maintenance start information to the Center. While the MFP is in maintenance mode, the communication between the MFP and the Center is unavailable.

Therefore, CE must touch [Maintenance Complete] immediately after the completion of maintenance to end maintenance mode.

4.7.1 When starting the maintenance

- 1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [ID Code].
- 2. Select the input area and enter the 7-digit ID code of service person, and touch [OK].
- 3. Touch [Close].
- 4. Touch [Maintenance Schedule] and, using the [+]/[-] keys on the screen, set the scheduled time at which the maintenance service is to be completed.
- 5. Touch [OK].
- 6. Touch [Start Maintenance] -> [Start].
- 7. Select [Yes], and touch [OK].

NOTE

- · The Start key blinks while maintenance mode is being carried out.
- You cannot extend the estimated hours while the maintenance is in progress.
- If you forget to touch [Maintenance Complete] after the completion of the maintenance, the maintenance completion information is automatically sent after the lapse of the selected estimated hours and the normal communication becomes available.

4.7.2 When finishing the maintenance

- 1. Select Service Mode and touch [CS Remote Care].
- 2. Touch [Maintenance Complete].
- 3. Select [Yes], and touch [OK].

4.8 Calling the center from the administrator

- · When the CS Remote Care setup is complete, the administrator can call the CS Remote Care center.
- 1. Select [Administrator Settings], and touch [System Connection].
- 2. Touch [Admin. transmission].
- 3. Select [Yes], and touch [OK].

When the setup is not completed or another transmission is being carried out, the [Admin. transmission] key will not be displayed and the transmission is not available.

NOTE

 For transmitting data of the machine by calling the center on the specified date and time, refer to the manual for CS Remote Care center.

4.9 Checking the transmission log

- The transmission log list will be output to be checked.
- 1. Select [Service Mode] -> [CS Remote Care], and touch [Detail settings].
- 2. Touch [Communication Log Print].
- 3. Load tray 1 or bypass tray with A4 paper.
- 4. Select [Yes] and touch [OK] to thereby output a communication log.

4.10 Detail on settings for CS Remote Care

4.10.1 Maintenance/Default Settings - System Selection

(1) Use

- · To select the system type for remote diagnosis.
- · Use to newly build or change the system.

(2) Setting range

- Fax
- E-Mail1
- E-Mail2
- HTTP1
- HTTP2
- Modem

(3) Procedure

- · Select [FAX], [E-Mail 1], [E-Mail 2], [HTTP 1], or [HTTP 2].
- · Fax is available only when the optional fax kit is being installed.
- · Modem is available only when the optional local interface kit is being installed.

4.10.2 Maintenance/Default Settings - ID Code

(1) Use

- · To register the service ID.
- · Use when registering and changing service ID.

(2) Procedure

- 1. Touch [ID code] and enter the service ID.
 - Touch the input area, enter the 7-digit ID code, and touch [OK]. (0000001 to 9999999)
- 2. Touch [OK] to register the ID.
- 3. When the registration of the ID is completed, [Detail Setting] can be selected.

4.10.3 Maintenance/Default Settings - Initial Transmission

(1) Use

- · To register the machine by performing transmission to the center.
- · Use the function when the machine is to be registered at the center.

(2) Procedure

- · Select [Service Mode] -> [CS Remote Care] -> [Maintenance/Default Settings], and touch [Initial Transmission].
- Select [Yes], and touch [OK].

4.10.4 Detail Settings - Basic Settings

(1) Center ID

(a) Use

· To set the center ID.

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Center ID].
- 2. Touch the input area, enter the center ID (5 digits), and touch [OK].

(2) Center Phone No.

(a) Use

· To set the Center Phone No.

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Center Phone No.].
- 2. Touch the input area, enter the center phone number, and touch [OK].

*When entering the phone number, keys on the screen have following meanings.

[-] Pose	Waits to start transmitting after dialing	
[W] Wait	Detects the dial tone of the other end	
[T] Tone dial	Carry out tone dialing	
[P] Pulse dial	Carry out pulse dialing	
[*],[#]	[#] To be used as necessary	

(3) Device Phone No.

(a) Use

· To set the Device phone No.

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Device Phone No.].
- 2. Touch the input area, enter the device phone number, and touch [OK].

*When entering the phone number, keys on the screen have following meanings.

[-] Pose	Waits to start transmitting after dialing			
[W] Wait	Detects the dial tone of the other end			
[T] Tone dial	Carry out tone dialing			
[P] Pulse dial	Carry out pulse dialing			
[*],[#]	To be used as necessary			

(4) E-Mail Address

(a) Use

· To set the E-Mail Address.

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [E-Mail Address].
- 2. Touch the input area, enter the E-mail address, and touch [OK].

(5) Encryption (E-mail)

(a) Use

• To set whether to encrypt CS Remote Care communication using the E-mail.

(b) Default setting

No

(c) Setting item

- Yes
- "No"

(6) Encryption (HTTP)

(a) Use

· To set whether to encrypt CS Remote Care communication using the http communication

(b) Default setting

Yes

(c) Setting item

- "Yes"
- No

(7) Heart Beat

(a) Use

- · To make Heart Beat related settings.
- Heart Beat is a feature that uploads a Heart Beat file to the registered web server at a specified interval to report that the device is
 operating.

· Heart Beat files include total counter and status information.

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings] -> [Basic Settings], and touch [Heart Beat].
- 2. Touch [Heart Beat Transmission], select [ON] or [OFF] for Heart Beat Transmission ON/OFF (default setting: ON).
- 3. Touch [Comm. Interval] and enter a Heart Beat transmission interval (1 to 256 minutes, Default: 30 minutes).
- 4. In [Specified Transmission], set whether or not to enable Heart Beat transmission at a specified interval. (Default: Yes)
- 5. Touch [Specified Time] and enter the fixed time at which Heart Beat transmission is performed in the input area.

(8) AT Command

(a) Use

- · To set the command to be issued at the time of modem initialization.
- · This setting is available only when [Modem] is selected in [System Setting].

(b) Procedure

• Enter the command and touch [OK] to register.

4.10.5 Detail Settings - Date & Time Setting

(1) Date Setting

(a) Use

· To set the current date for CS Remote Care

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings], and touch [Date & Time Setting].
- 2. Touch the input area, enter the date, and touch [OK]. (Default: date set in the machine)

(2) Time Setting

(a) Use

· To set the current time of day for CS Remote Care

(b) Procedure

- 1. Select [CS Remote Care] -> [Detail Settings], and touch [Time Setting].
- 2. Touch the input area, enter the time of day, and touch [OK]. (Default: time of day set in the machine)

(3) Time Zone

(a) Use

· To set the time zone for CS Remote Care

(b) Default setting

• 0

(c) Setting range

• -12 to +13 hours (step: 1 hour)

4.10.6 Detail Settings - RAM Clear

(1) Use

To clear the following data at the center.

All Detail Settings (FAX/E-mail/http), communication system setting, center registration condition, maintenance condition.

NOTE

 If RAM clear is selected during transmission, RAM clear processing will be implemented at the time the transmission is completed regardless of whether it is done properly or not.

(2) Default setting

Yes

(3) Setting item

- · "Yes"
- No

4.10.7 Detail Settings - Communication Log Print

(1) Use

To print out the communication log.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Select [CS Remote Care] -> [Detail Settings], and touch [Communication Log Print].

- 3. Load tray 1 or bypass tray with A4 paper.
- 4. Select [Print], and touch [OK].

4.10.8 Detail Settings - Response Timeout

(1) Use

- It sets the intervals for resending e-mails when transmission error occurred.
- · It can be set only when [E-Mail] is selected in [System Setting].

(2) Default setting

· 30 minute

(3) Setting range

10 to 1440 minute (step: 10 minute)

4.10.9 Detail Settings - Notification Setting

(1) Use

- · To make the settings of notification to the center that is performed under unilateral communication via E-mail or http.
- · Set the center notification schedule and center notification items.
- This setting is available only when [E-Mail2] or [http2] is selected in [System Setting].

(2) Procedure

<Schedule>

- 1. Select [Schedule 1], [Schedule 2], or [Schedule 3].
- 2. Touch [Enable Trans.], select [ON], and touch [OK].
- 3. Touch [Notification Frequency] and select the notification frequency from among [No], [Daily], [Weekly], and [Monthly].
- 4. If [Daily] is selected for Notification Frequency, select [Notification Setting] -> [Schedule] -> [Day Frequency], and set the day frequency. If [Weekly] is selected for Notification Frequency, select [Notification Setting] -> [Schedule] -> [Week Frequency], [Select Day of the Week], and set the weekly frequency and the day of the week.
 - If [Monthly] is selected for Notification Frequency, select [Notification Setting] -> [Schedule] -> [Month Frequency], [Select Day], and set the monthly frequency and the date.
- 5. Touch [Select Time Zone/Time] and select [Time Zone] or [Time].
- 6. If [Time Zone] has been selected for Select Time Zone/Time, select [Notification Setting] -> [Schedule] -> [Time Zone] and set the time zone for notification

If [Time] has been selected for Select Time Zone/Time, select [Notification Setting] -> [Schedule] -> [Time] and set the time for notification. <Center Notifi. Item>

- · Select the items to be notified to the center.
- · Multiple items of data can be selected and sent at one time.

4.10.10 Server Settings - Email Settings

(1) Server for RX- Address

(a) Use

- · To set the POP3 server address used for the CS Remote Care.
- POP3 server address can be set with IP address or the domain name.

(b) Procedure

<Input IP Address>

IP address version 4 format

[0 to 255].[0 to 255].[0 to 255].[0 to 255]

- <FQDN Input>
- Enter the domain name.

(2) Server for RX - Account

(a) Use

• To set the login name for the POP3 server used for the CS Remote Care.

(b) Procedure

• Up to 63 characters (alphanumeric characters and symbols) can be used.

(c) Default setting

• No

(3) Server for RX - Password

(a) Use

· To set the logon password for the POP3 server used for the CS Remote Care.

(b) Procedure

· Up to 15 characters (alphanumeric characters and symbols) can be used.

(4) Server for RX - Port No

(a) Use

· To set the POP3 port number used for the CS Remote Care.

(b) Default setting

• 110

(c) Setting range

• 1 to 65535 (Step: 1)

(5) RX Settings-E - Mail Address

(a) Use

· To set the E-mail address used for the CS Remote Care.

(b) Procedure

· Up to 129 characters (alphanumeric characters and symbols) can be used.

(c) Default setting

No

(6) RX Settings - Check Auto Alive

(a) Use

· To set whether or not to use mail check and the time interval for the POP server used for the CS Remote Care.

(b) Default setting

ON

(c) Setting item

- "ON"/OFF
- 1 to120 min. (Step: 1 min.)

(7) RX Settings - Timeout

(a) Use

· To set the timeout period for connection during reception.

(b) Default setting

• 60 Sec

(c) Setting range

• 30 to 300 Sec (Step: 30 min.)

(8) RX Settings - Enable APOP

(a) Use

· To set whether or not to authenticate the APOP during reception.

(b) Default setting

• OFF

(c) Setting item

- ON
- "OFF"

(9) TX Settings - Address

(a) Use

- · To set the SMTP sever address for transmission used for the CS Remote Care.
- · SMTP server address can be set by the IP address or the domain name.

(b) Procedure

<Input IP Address>

- IP address version 4 format [0 to 255].[0 to 255].[0 to 255].[0 to 255]
- <FQDN Input>
- · Enter the domain name.

(10) TX Settings - Port No.

(a) Use

· To set the SMTP port number for transmission used for the CS Remote Care.

(b) Default setting

• 25

(c) Setting range

1 to 65535

(11) TX Settings - Timeout

(a) Use

· To set the timeout period for transmission.

(b) Default setting

• 60 Sec

(c) Setting range

• 30 to 300 Sec (Step: 30 Sec)

(12) TX Settings - Tx Auth

(a) Use

- · To set whether or not to authenticate during transmission via SMTP server.
- To use when authenticating during transmission.
 Available authentication mode: SMTP server, E-mail authentication (SMTP)

(b) Default setting

• OFF

(c) Setting item

- · SMTP server
- · E-mail authentication (SMTP)
- "OFF"

NOTE

- If SMTP server is set, set [POP Before SMTP].
- If E-mail authentication (SMTP) is set, set [SMTP Authentication].

(13) TX Settings - POP Before SMTP

(a) Use

- To set POP Before SMTP time.
- · Enabled only when Tx Auth is "SMTP Server".

(b) Default setting

• 0

(c) Setting range

• 0 to 60 Sec (Step: 1 Sec)

(14) TX Settings – SMTP Authentication

(a) Use

- · To set SMTP Authentication
- · Enabled only when Tx Auth is [E-mail authentication (SMTP)].

(b) Procedure

- < Account>
- Enter the user ID for SMTP authentication.
- < Password>
- Enter the password for SMTP authentication.

<Realm>

• Enter the domain name for SMTP authentication.

4.10.11 Server Settings - HTTP Settings

(1) HTTP Settings - HTTP Server Settings

(a) Use

To set a http server at the other end that is used in CS Remote Care.

(b) Procedure

- <URL Address>
- · To set the address of the http server.
- <Account>
- · To set an account that is used to access the http server.
- <Password>
- · To set a password that is used to access the http server.
- <Port No.>
- · To set a port number that is used to access the http server.

(2) HTTP Settings - SSL Setting

(a) Use

· To make SSL settings of the http server that is used in CS Remote Care.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

(3) HTTP Settings - Proxy Server

(a) Use

• To make settings relating to the proxy server of http server to be used for CS Remote Care.

(b) Default setting

• OFF

(c) Setting item

- ON "OFF"

4.10.12 Server Settings - Data Initialize

· To initialize the settings on the server.

(2) Procedure

- 1. Touch [CS Remote Care] -> [Server Settings] -> [Data Initialize].
- 2. Select [Yes] and touch [OK]. This initializes data.

4.10.13 Software Switch Setting

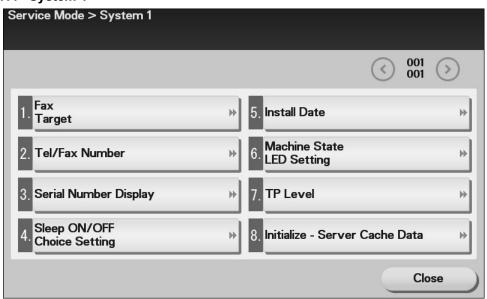
(1) Use

- To change the setting for CS Remote Care.
- · The following items can be set.

Setting item		Default	Setting value	Note
		setting	-	
DipSW 1	SC Error [SC]	ON	ON / OFF	
	Specify Date [A5]	ON	ON / OFF	
	Parts Life [TP]	ON	ON / OFF	
	Warning [TT]	ON	ON / OFF	
DipSW 2	Toner Rep. [TN]	ON	ON / OFF	
	Waste Full [T0]	ON	ON / OFF	
Machine State		3	0 to 3 (Step: 1)	
Modem Redial Setting 1		3 min	1 to 10 min (Step: 1 min)	Redialing intervals
Modem Redial Setting 2		10 times	0 to 99 times (Step:1 time)	Number of times a number is redialed
Resend After Timeout		1time	0 to 1 time (Step: 1 time)	
Retry Interval		6->60	1 to 12 (Step: 1) -> 10 to 1440 (Step: 10)	One step is equivalent to 10 minutes -> one step is equivalent to 1 minute.
Retry Cou	ınt	10 times	0 time to 99 times (Step:1 time)	
Time Zone		00:00h	-12:00h to +13:00h (Step: 01:00h)	
Ring Connect Reception Timer		32 s	1 to 255 s (Step: 1 s)	
Dial call end Connect Reception Timer		64 s	1 to 255 s (Step: 1 s)	
Comm. Method		Two-way communica tion	One-way communication / two-way communication	

DipSW 13	Heart Beat Transmission	ON	ON / OFF	
	Specified Transmission	Yes	Yes / No	
DipSW	Manuscript Jam Warning	ON	ON / OFF	
14	Paper Jam Warning	ON	ON / OFF	
	Jam History	ON	ON / OFF	
Paper Jam Threshold.		5	1 to 15 (Step: 1)	
Manuscript Jam Threshold		5	1 to 15 (Step: 1)	
Attention Display Flag		ON	ON / OFF	
Send start-up message request Timer		32	1 to 255 (Step: 1)	One step is equivalent to 100 ms (0.1 sec.).
Opposite Party Signal answer wait time		30 s	1 to 255 s (Step: 1 s)	
Resend Signal Timer		3	0 to 255 (Step: 1)	In HEX seconds
Resend Telegram timer		3	0 to 255 (Step: 1)	HEX number of times
EMI Test Mode		OFF	ON / OFF	

4.11 System 1



4.11.1 Fax Target

(1) Use

- · To set the region (country) in which the machine is installed
- · Upon setup.

(2) Procedure

- 1. Call the Service Mode to the screen.
- Select the key as follows. [System 1] -> [Fax Target]
- 3. Select the applicable marketing area, and touch [OK].

(3) Setting item

 U.S.A, Canada, Mexico, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, The Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, The U.K., Russia, Argentina, Brazil, South Africa, Australia, New Zealand, China, Hong Kong, Malaysia, Singapore, Korea, Taiwan, Israel, Japan, Saudi Arabia, Turkey, Hungary, Slovakia, Vietnam, The Czech Republic, The Philippines, EU

4.11.2 Tel/Fax Number

(1) Use

- To enter the tel/fax number of the service contact that will appear on the control panel when a malfunction occurs in the machine.
- Upon setup.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Tel/Fax Number] and select [TEL] or [Fax].
- 3. Touch the input area and enter the telephone number/fax number (19 digits).
- 4. Touch [OK].

4.11.3 Serial Number Display

(1) Use

· To display the serial number

(2) Procedure

- 1. Call the Service Mode to the screen.
- Select the key as follows. [System 1] -> [Serial Number Display]

4.11.4 Sleep ON/OFF Choice Setting

(1) Use

To display the option of "OFF" for the sleep mode setting screen available from [Administrator Settings] -> [System Settings] -> [Power Supply/Power Save Settings].

(2) Default setting

Restrict

(3) Setting item

- Allow
- · "Restrict"

4.11.5 Install Date

(1) Use

- · To register the date the main body was installed.
- · Upon setup.

(2) Procedure

- 1. Call the Service Mode to the screen.
- Select the key as follows. [System 1] -> [Install Date].
- 3. If the current date and the date of installation have been entered, the set date of installation is displayed.
- 4. Touch the input area, touch [Delete], enter the new date of installation, and touch [OK]. (If the current date is to be set as the date of installation, directly touch [OK] without touching [Delete].)
- 5. Touch [Register] to set the date of installation.

4.11.6 Machine State LED Setting

(1) Use

To set how to display main body statuses on the machine state LED (state display lamp).

NOTE

• Each of Type1 and Type2 has the following LED display forms.

	Machine State LED Setting			Type2
Warning Status	Attention	Toner supply door open Improper toner cartridge placement	Blinking	Blinking
	Near life Toner Empty		Blinking	Unlit
	Fatal error	Trouble code Jam Door opened Life stop Toner Empty stop	Lit	Lit
	Paper Full			

(2) Default setting

Type 2

(3) Setting item

- Type 1
- "Type 2"

4.11.7 TP Level

(1) Use

· To adjust the selectivity of the touch panel.

(2) Default setting

• 0

(3) Setting range

- -2 to +2 (step: 1*)
- To increase sensitivity of the touch panel, increase the setting value to the positive side.
- To decrease sensitivity of the touch panel, decrease the setting value to the negative side.

NOTE

· When the setting has been changed, turn off the main power switch and turn it on again.

4.11.8 Initialize - Server Cache Data

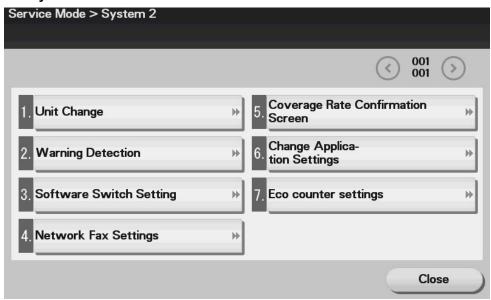
(1) Use

· To clear user information cached from the external authentication server.

(2) Procedure

- 1. Touch [Initialize Server Cache Data]
- 2. Touch [OK] on the confirmation screen to initialize the data.

4.12 System 2



4.12.1 Unit Change

(1) Toner Cartridge

(a) Use

- · To select who is to replace a unit.
- · When the unit life arrives, the warning display is intended for the specific person who is going to replace the unit.
- Upon setup.

(b) Default setting

User

(c) Setting item

- "User"
- Service

(2) Imaging Unit

(a) Use

- · To select who is to replace a unit.
- · When the unit life arrives, the warning display is intended for the specific person who is going to replace the unit.
- · Upon setup.

(b) Default setting

User

(c) Setting item

- "User"
- Service

4.12.2 Warning Detection

(1) Near Empty Display Setting - Toner Cartrige

(a) Use

- · To set whether to give the alert display for a near-empty condition of the toner cartridge.
- · To be used for setup.

(b) Default setting

OFF

(c) Setting item

- ON
- "OFF"

(2) Near Empty Choice - Black

(a) Use

- To change the timing of toner cartridge near empty detection in order to optimize the timing of the toner cartridge replacement depending on individual use (PV).
- For reference purpose, the list below shows the number of pages that can be printed between the near empty detection specified in this setting and the empty detection.

	Toner remaining amount	Reference of p	orintable pages
		High-capacity toner cartridge	Standard in-box toner cartridge
2	12%	2,400 pages	900 pages
1	11%	2,200 pages	825 pages
0	10%	2,000 pages	750 pages
-1	9%	1,800 pages	675 pages
-2	8%	1,600 pages	600 pages

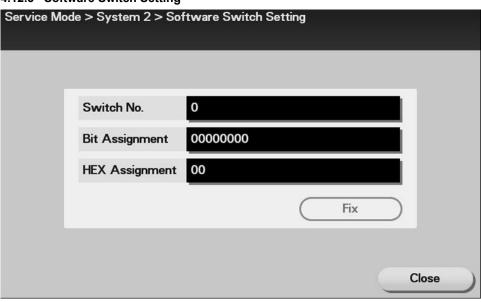
(b) Default setting

• 0

(c) Setting range

-2 to +2 (Step: 1)

4.12.3 Software Switch Setting



(1) Use

• To set the operating characteristic of each function from software switch depending on what types of printing are normally made.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Service Mode] -> [System 2] -> [Software Switch Setting].
- 3. Touch the input area of Switch No. and enter the applicable switch number, then touch [OK].
- 4. Touch the input area of [Bit Assignment], use [<] or [>] to align the cursor, and specify each bit with [0] or [1], then touch [OK].
- 5. To set in hexadecimal, touch the input area of HEX Assignment, use the 10-key pad and [A] to [F] keys, then touch [OK].
- 6. Touch [Fix].

(3) Details of the software switch settings NOTE

· For switches not mentioned in the list below, use them in the default value unless indicated otherwise.

Switch	Function		Set	ting value	Default value	Reference
No.		Bit Assignment	HEX Assignm ent	Details	(Bit/HEX)	
012	OpenAPI certification management system	00000000	00	Not certified. Connection disabled without certification. Deletion of prohibition list disabled.	00000000 / 00	I.5.3.2 OpenAPI Certification Management Setting – Restriction Code Settings
		0000001	01	Certified.		
		00000010	02	Connection enabled without certification.		
		00010000	10	Deletion of prohibition list enabled.		
026	Selection of	00000000	00	Enabled	00000000 / 00	-
	enabling or disabling the encryption PDF function	10000000	80	[PDF Encrypt] key not available in Scan -> [Application] -> [File Type].		
027	Binding position in 2-sided -> 2- sided / Matching binding position between originals and printed pages or copies in mixed original mode	00000000	00	Use the binding position set for the original as the binding position in printed pages or copies. If auto is specified for the binding position with mixed originals, set the short side regardless of the direction of originals or direction of paper loaded.	00000000 / 00	-
		0000001	01	Determine the paper direction based on the print size.		
		00000010	02	Apply the same method as in the originals of the same size.		
081	PKI mode setting	00000000	00	Standard function (PKI not supported).	00000000 / 00	-
		00000010	02	PKI supported.		
104	Early morning reboot function	00000000	00	Do not execute reboot.	00000000 / 00	-
	Teboot function	0000001	01	Execute reboot at 4 o'clock.		
		00000010	02	Execute reboot at 4 o'clock 15 minute.		
		00000100	04	Execute reboot at 4 o'clock 30 minute.		
120	Change data format of	00000000	00	YYMMDDhhmm(conventional specifications).	00000000 / 00	-
	scanned file names	00000001	01	Format compatible with the marketing destination		
145	Operation upon	00000000	00	Stop immediately (misfeed).	00000000 / 00 -	-
	mismatch in size during paper feeding	00000010	02	Stop as necessary (stop after the paper has been discharged).		
157	Set the upper	00000000	00	Do not change the upper limit.	00000000 / 00	-
	limit of time for switching to power save mode to 240 minutes.	00000010	02	Change the upper limit to 240 minutes.		

(4) Software Switch Setting list

• The list of the setting values of Software Switch Setting can be print from [Service Mode] -> [List Output] -> [Management List].

Machine Manage ment List 11/05/2013 15:40 Serial No. A6VF011000019 TC: 00000046 | ODD 259 260 261 262 263 265 266 267 270 273 275 276 277 278 279 281 282 284 285 289 291 292 293 2944 295 297 298 | CONTROL | CONT | The content of the

4.12.4 Network Fax Settings - Internet Fax

(1) Use

- To set whether or not to use network fax function.
- · To use network fax function (Internet fax).
- When network fax function is set to "ON", the following functions in Administrator Settings will be displayed.
 - [Administrator Settings] -> [Address Registration List] -> [Speed Address List] -> [Internet Fax]
 [Administrator Settings] -> [Address Registration List] -> [Program List] -> [Internet Fax]

[Administrator Settings] -> [Fax Settings] -> [Function Settings] -> [Function ON/OFF Setting] -> [Restrict Internet Fax TX]

- [Administrator Settings] -> [Fax Settings] -> [Function Settings] -> [Function ON/OFF Setting] -> [Restrict Internet Fax RX]

 If the network fax function has been set to [OFF], the following settings in Administrator Settings will be set to [Restrict]. Therefore, these
 - settings cannot be switched to [Allow] even when the network fax function is set to [ON] once again.

 [Administrator Settings] -> [Fax Settings] -> [Function Settings] -> [Function ON/OFF Setting] -> [Restrict Internet Fax TX] [Administrator Settings] -> [Fax Settings] -> [Function Settings] -> [Function ON/OFF Setting] -> [Restrict Internet Fax RX]

(2) Default setting

ON

(3) Setting item

- "ON"
- OFF

4.12.5 Coverage Rate Confirmation Screen

(1) Use

· To set whether or not to display a coverage rate on the Counter List.

(2) Default setting

OFF

(3) Setting item

- ON
- "OFF"

4.12.6 Change Application Settings

(1) Use

· To set whether to allow a change of the settings for the specified application start.

(2) Default setting

ON

(3) Setting item

- "ON"
- OFF
- If "ON" is set, [Administrator Settings] -> [System Connection] -> [OpenAPI Settings] -> [Specified App Start Setting] of the administrator settings can be configured.

4.12.7 Eco counter settings

(1) Use

- To set whether to display power consumption and the amount of CO2 emissions for System Device Information Eco Index on the PSWC screen.
- To set an emission coefficient used to calculate the amount of CO2 emission.
 As the CO2 emission coefficient is different depending on the electric power provider with whom the user contracts and the user's MFP use environment, the coefficient needs to be set individually.

(2) Default setting

- · Display power consumption: OFF
- CO2 emission coefficient settings: 0.4166

(3) Procedure

- 1. Explain to users that [Power Consumption] and [CO2 Emission] displayed on MFP are estimated values, and obtain their consent.
- 2. Call the Service Mode to the screen.
- 3. Touch these keys in this order: [System 2] -> [Eco counter settings].
- 4. Select [ON] in [Display power consumption] and touch [OK].
- 5. Depending on the user's use environment, set the CO2 emission coefficient using the [+]/[-] keys on the screen and then touch [OK].

4.13 Counter



· The counter displays the counts of various counters to allow the technical representative to check or set as necessary.

4.13.1 Life - New Release

(1) Use

- When the MaintenanceKit have been replaced with new ones, this setting must be used to perform New Release to thereby reset the life counter.
- To clear the counter of the feeding pages of the finisher.

(2) Procedure

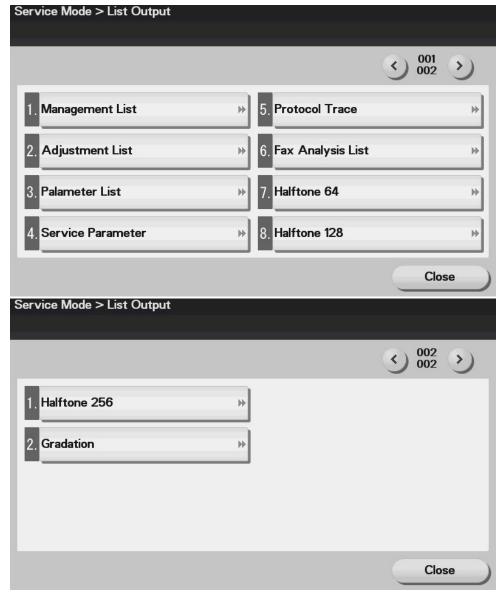
- Select the key as follows. [Counter] -> [Life] -> [New Release].
- 2. Select a unit where New Release is made.
- 3. Select [Yes], and touch [OK].

4.13.2 Non Genuine Toner

(1) Use

- To check the frequency of using non genuine toner and the installation status.
- To display the frequency of replacing the non genuine toner.
- [ON] is set when a non genuine toner has been installed. (Default: OFF)
- To display the frequency of replacing the refill toner.
- [ON] is set when a refill toner has been installed. (Default: OFF)

4.14 List Output



4.14.1 Management List

(1) Use

- To produce an output of a list of setting values, adjustment values, total counter values, and others.
- · At the end of setup or when a malfunction occurs.
- · To produce an output of a list of Software Switch Setting.

(2) Procedure

- Load the A4 or 8 ¹/₂ x 11 plain paper to a paper source.
- Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.2 Adjustments List

(1) Use

- · To output the adjustment list for machine adjustment, process adjustment, etc. in Service Mode.
- · At the end of setup or when a malfunction occurs.

(2) Procedure

- Load the A4 or 8¹/₂ x 11 plain paper to a paper source.
- Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.3 Parameter List

(1) Use

· Output a nonvolatile parameter list.

(2) Procedure

- Load the A4 or 8 ¹/₂ x 11 plain paper to a paper source.
- · Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.4 Service Parameter

(1) Use

· Output a FAX Service Mode set value list.

(2) Procedure

- ullet Load the A4 or 8 $^{1}/_{2}$ x 11 plain paper to a paper source.
- · Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.5 Protocol Trace

(1) Use

Protocol Trace List (Last):

The facsimile protocol of the communication which was executed previously is output.

· Protocol Trace List (Error):

Output the facsimile procedure for the last error communication.

(2) Procedure

- Load the A4 or 8 ¹/₂ x 11 plain paper to a paper source.
- · Touch the [Last] or [Error].
- · Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.6 Fax Analysis List

(1) Use

- Following list is output in the Fax Analysis List.
 - Communication Report RX Result
 - · Communication Report TX Result
 - Machine Management List
 - · Fax Set UP Information List
 - · Protocol Trace List (Error)
 - · Parameter List

(2) Procedure

- Load the A4 or 8 ¹/₂ x 11 plain paper to a paper source.
- · Select [Print], and touch [OK].
- · The time-of-day and date will also be printed.

4.14.7 Halftone 64

(1) Use

- · Print a halftone pattern of density 25%.
- · Used for checking uneven density and pitch noise.

(2) Procedure

- Load the A4 plain paper to a paper source.
- Touch [List Output] -> [Halftone 64] -> [Black 64].
- · Select [Print], and touch [OK].

4.14.8 Halftone 128

(1) Use

- · Print a halftone pattern of density 50%.
- · Used for checking uneven density and pitch noise.

(2) Procedure

- · Load the A4 plain paper to a paper source.
- Touch [List Output] -> [Halftone 128] -> [Black 128].
- · Select [Print], and touch [OK].

4.14.9 Halftone 256

(1) Use

- · Print a halftone pattern of density 100%.
- · Used for checking uneven density and pitch noise.

(2) Procedure

- · Load the A4 plain paper to a paper source.
- Touch [List Output] -> [Halftone 256] -> [Black 256].
- · Select [Print], and touch [OK].

4.14.10 Gradation

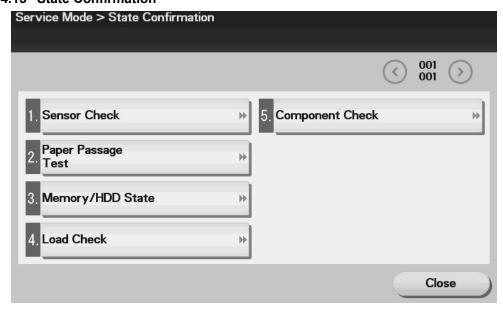
(1) Use

- · Print a gradation pattern.
- · Used for checking gradation reproducibility.

(2) Procedure

- · Load the A4 plain paper to a paper source.
- Touch [List Output] -> [Gradation].
- · Select [Print], and touch [OK].

4.15 State Confirmation



4.15.1 Sensor Check

(1) Use

- · To display the states of the input ports of sensors and switches when the machine remains stationary.
- · Used for troubleshooting when a malfunction or a misfeed occurs.

(2) Procedure

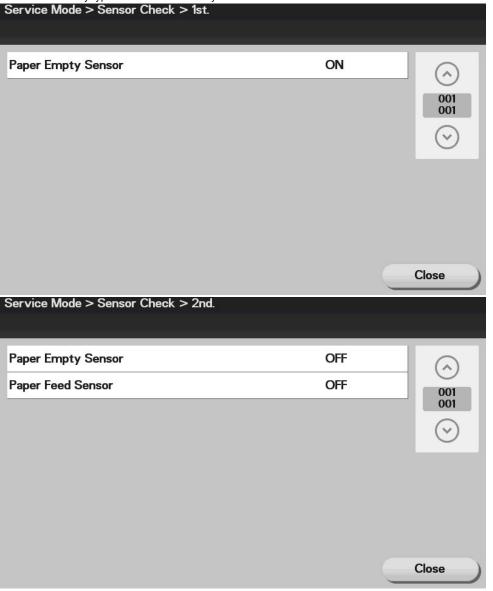
- The operation of each of the switches and sensors can be checked on a real-time basis.
- It can be checked as long as the 5-V power line remains intact even when a door is open.

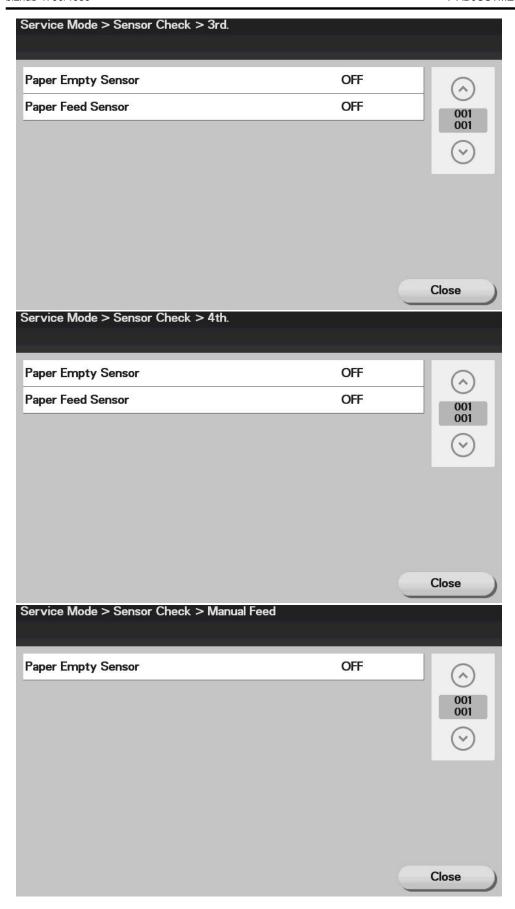
(a) Electrical components check procedure through input data check

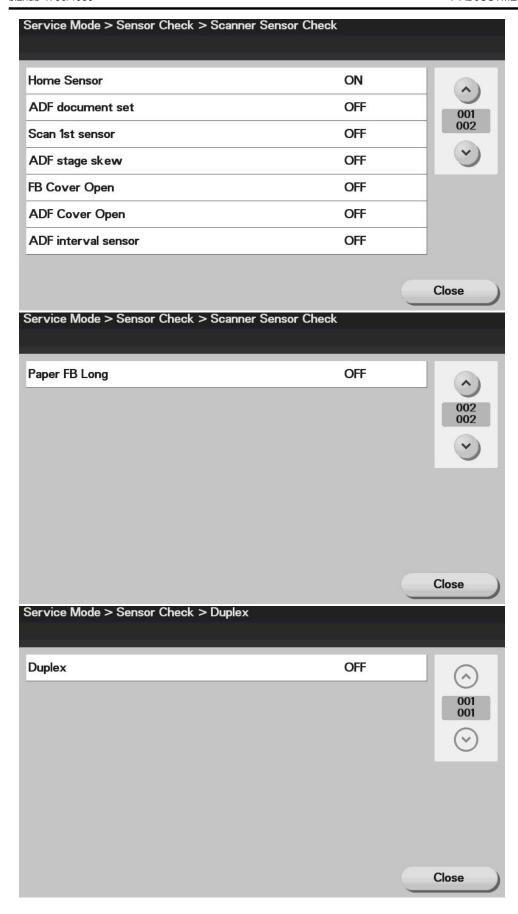
- When a paper misfeed occurs in the paper feed section of the machine, the tray 2 paper feed sensor is considered to be responsible for it.
- 1. Remove the sheet of paper misfed.
- 2. From the sensor check list that follows, check the panel display of the tray 2 paper feed sensor. For the 2nd paper feed sensor, you check the data of "Paper feed" of "2nd."
- 3. Call the Service Mode to the screen.
- 4. Touch [State Confirmation] -> [Sensor Check] -> [2nd].
- 5. Check that the data for "Paper Feed Sensor" is "OFF" (sensor blocked).
- 6. Move the actuator to unblock the paper feed sensor.
- 7. Check that the data for "Paper Feed Sensor" changes from "OFF" to "ON" on the screen.
- 8. If the input data is "OFF," change the sensor.

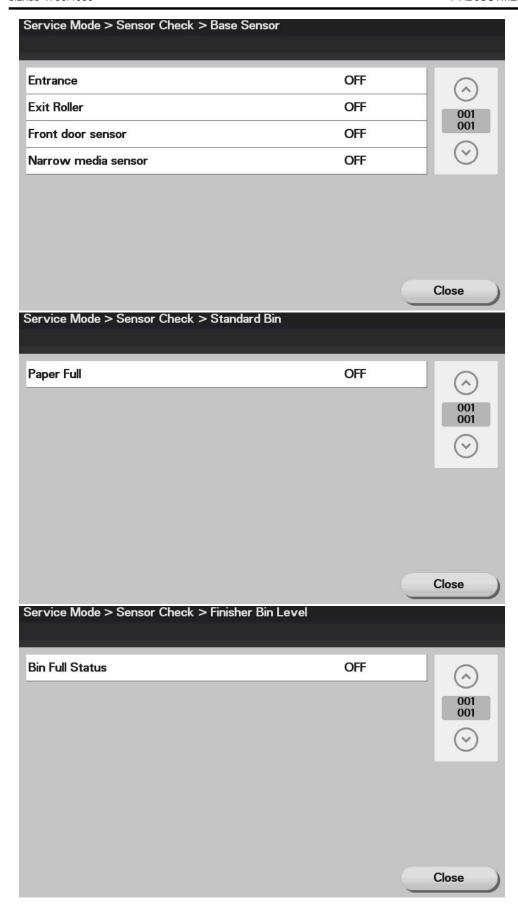
(3) Sensor check screens

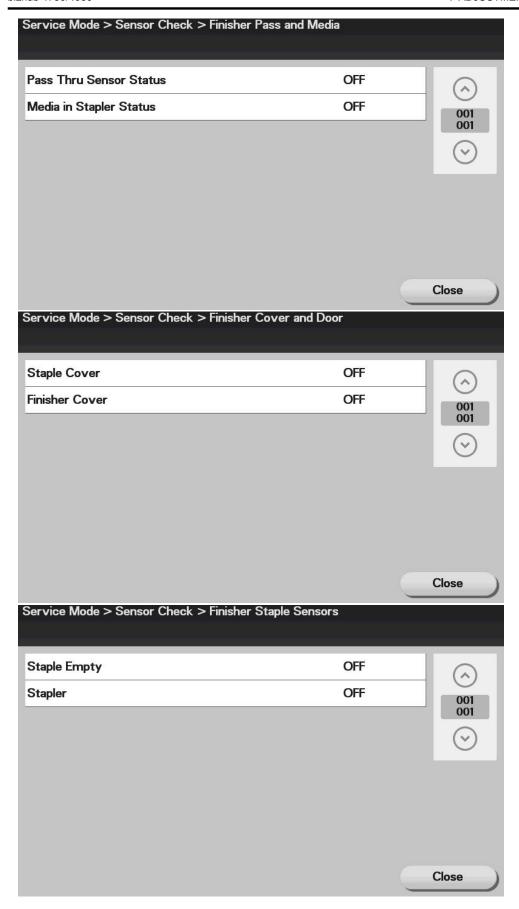
· These are only typical screens which may be different from what are shown on each individual machine.

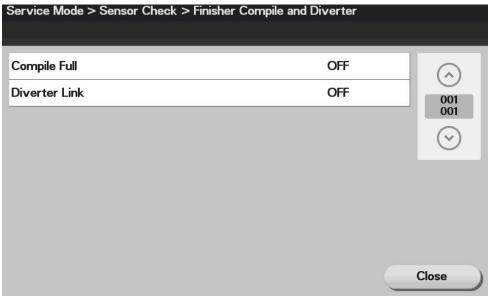












Symbol	Panel display Part/signal name		Operation charac	Operation characteristics/panel display		
Cymbol	T differ diopidy	r arvolghar hamo	ON	OFF		
	1st.					
PS12	Paper Empty Sensor	Media present sensor	Paper present	Paper not present		
	2nd.					
PS33	Paper Empty Sensor	Media present sensor	Paper present	Paper not present		
PS31	Paper Feed Sensor	Pass through sensor	Paper present	Paper not present		
	3rd.					
PS33	Paper Empty Sensor	Media present sensor	Paper present	Paper not present		
PS31	Paper Feed Sensor	Pass through sensor	Paper present	Paper not present		
	4th.					
PS33	Paper Empty Sensor	Media present sensor	Paper present	Paper not present		
PS31	Paper Feed Sensor	Pass through sensor	Paper present	Paper not present		
	Manual Feed					
PS1	Paper Empty Sensor	MPF sensor	Paper present	Paper not present		
	Scanner Sensor Check		·	•		
PS15	Home Sensor	Imaging carriage home Sensor	At home	Not at home		
PS16	ADF document set	ADF document sensor	Original loaded	Original not loaded		
PS17	Scan 1st sensor	1st scan sensor	At home	Not at home		
PS18	ADF stage skew	ADF skew sensor	Original loaded	Original not loaded		
PS19	FB Cover Open	FB cover sensor	Open	Close		
PS20	ADF Cover Open	ADF cover sensor	Open	Close		
PS21	ADF interval sensor	ADF interval sensor	Original loaded	Original not loaded		
	Duplex		1			
PS5	Duplex	Duplex sensor	Paper present	Paper not present		
	Base Sensor			•		
PS8	Entrance	Input sensor	Paper present	Paper not present		
PS9	Exit Roller	Exit sensor	Paper present	Paper not present		
PS10	Front door sensor	Front door sensor	Open	Close		
PS11	Narrow media sensor	Narrow Media Sensor	Paper present	Paper not present		
	Standard Bin		<u> </u>			
PS7	Paper Full	Bin full sensor	Full	Not full		
	Finisher Bin Level					
PS47	Bin Full Status	Stapler bin full sensor	Full	Not full		
	Finisher Pass and Media					
PS43	Pass Thru Sensor Status	Pass Thru Sensor Status Stapler pass through sensor Paper present		Paper not present		
PS48	Media in Stapler Status	Stapler media sensor	Paper present	Paper not present		
	Finisher Cover and Door			<u> </u>		
PS41			Close			
PS42	Finisher Cover	Stapler rear door sensor	Open	Close		
	Finisher Staple Sensors		<u>'</u>	1		

Cumbal	Danal dianlay	Dort/gignal name	Operation characteristics/panel display	
Symbol	Panel display	Part/signal name	ON	OFF
PS52	Staple Empty	Stapler empty sensor	Not empty	Empty
PS51	Stapler	Stapler home sensor	At home	Not at home
	Finisher Compile and Driver			
PS49	Compile Full	Stapler stack height sensor	Full	Not full
PS50	Diverter Link	Stapler diverter sensor	Paper feeding path of the finisher	Normal paper feeding path

4.15.2 Paper Passage Test

(1) Use

- · To test the printing operation in paper passage test.
- Use to check the printing operation in paper passage test from each paper source.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch these keys in this order: [State Confirmation] -> [Paper Passage Test].
- 3. Select the paper feed tray to be tested.
- 4. Press the Start key to start the paper passage test.
- 5. Pressing the Stop key will stop operation.

4.15.3 Memory/HDD State

(1) Use

· To display the condition and amount of the memory, disk and SSD.

4.15.4 Load Check

· Not used.

4.15.5 Component Check

(1) Use

- · To perform an operation check for each electric component.
- · The following electric components can be checked.

Key name	The electrical parts name	The electrical parts sign
ADF pick	ADF pick motor	M5
ADF feed motor forward	ADF feed motor	M6
ADF feed motor reverse	ADF feed motor	M6
Flatbed scanner motor	Flatbed motor M4	
FB feed test	Flatbed motor	M4
ADF feed test Simplex	ADF feed motor	M6
ADF feed test Duplex	ADF feed motor M6	
Duplex feed test	Main motor	M1

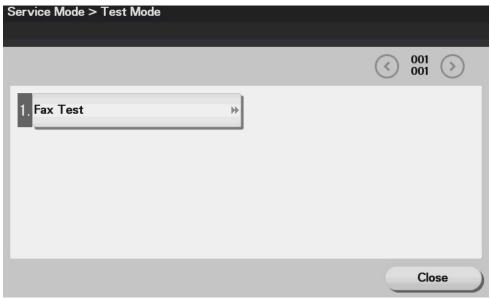
(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [State Confirmation] -> [Component Check].
- 3. Touch the key corresponding to the electric component to be checked for operation.
- 4. Touch [OK]. This causes the corresponding component to start operating.
- 5. Some components may be stopped in mid-operation. Press [Stop] to stop the operation.

NOTE

- No check results are displayed for the [ADF feed motor forward] and [ADF feed motor reverse]. Press [Stop] to stop the
 operation as required.
- To check the ADF feed test Simplex and the ADF feed test Duplex, place an original on the ADF input tray.

4.16 Test Mode



· A fax communication test is conducted in the test mode.

4.16.1 Fax Test-Signal Send Test

• It will be displayed only when the optional fax kit FK-512 is mounted.

(1) Use

· Image information signals, control signals and DTMF can be individually output.

(2) Procedure

- 1. Touch [Service Mode] -> [Test Mode] -> [FAX Test], in that order.
- 2. Select the parameter you would like to test.
- 3. Press the Start key.

(In order to move to another test, select the next test item after pressing the Stop key.)

NOTICE

- · Signal is output from pressing the Start key to pressing the Stop key.
- [Administrator Settings] -> [Fax Settings] -> [Line Parameter Setting] -> [Line Monitor] should be set to [Until Connection Complete] or [Until Transmission Complete].

(a) V34 Main CH: Default setting

• 33600

(b) V34 Main CH: Setting range

• 2400 to "33600" (step: 2400)

(c) V8: Default setting

• CM

(d) V8: Setting item

• "CM"

(e) V17: Default setting

• 14400bps

(f) V17: Setting item

- "14400bps"
- 12000bps
- 9600bps
- 7200bps

(g) V29: Default setting

• 9600bps

(h) V29: Setting item

- "9600bps"
- 7200bps

(i) V27ter: Default setting

• 4800bps

(j) V27ter: Setting item

- "4800bps"
- 2400bps

(k) V21

· No parameters

(I) PB: Setting item

• "0" to 9, *, #, A, B, C, D

(m) DP: Setting range

• "0" to 9

(n) Special Tone: Default setting

• 1100Hz

(o) Special Tone: Setting item

- "1100Hz"
- 1300Hz
- 1650Hz
- 2100Hz

(p) Optional Tone: Default setting

200Hz

(q) Optional Tone: Setting range

• "200" to 4000Hz (step: 100Hz)

(r) PB Tone (High): Default setting

• 1209Hz

(s) PB Tone (High): Setting item

- "1209Hz"
- 1336Hz
- 1477Hz
- 1633Hz

(t) PB Tone (Low): Default setting

• 697Hz

(u) PB Tone (Low): Setting item

- "697Hz"
- 770Hz
- 852Hz
- 941Hz

(v) Pseudo Ring

No parameters

4.16.2 Fax Test-Signal Receive Test

• It will be displayed only when the optional fax kit FK-512 is mounted.

(1) Use

- Check a signaling tone by connecting the machine to the line to output a test signal of the fax board.
- Signal sounds are monitored by the monitor speaker.

(2) Procedure

- 1. Touch [Service Mode] -> [Test Mode] -> [FAX Test] -> [Signal Receive Test], in that order.
- 2. Select the parameter you would like to test.
- 3. Press the Start key.

(In order to move to another test, select the next test item after pressing the Stop key.)

NOTICE

- Signal is output from pressing the Start key to pressing the Stop key.
- [Administrator Settings] -> [Fax Settings] -> [Line Parameter Setting] -> [Line Monitor] should be set to [Until Connection Complete] or [Until Transmission Complete].

· The status of testing or results of tests are shown in the title line as follows

RCV	Waiting signals	
OK/NG	tesults of signal reception	

(a) V17: Default setting

14400bps

(b) V17: Setting item

- "14400bps"
- 12000bps
- 9600bps
- 7200bps

(c) V29: Default setting

· 9600bps

(d) V29: Setting item

- "9600bps"
- 7200bps

(e) V27ter: Default setting

• 4800bps

(f) V27ter: Setting item

- "4800bps"
- 2400bps

(g) V21

· No parameters

(h) PB: Setting item

• 0 to 9, *, #, A, B, C, D

(i) Special Tone: Default setting

• 1100Hz

(j) Special Tone: Setting item

- "1100Hz"
- 1300Hz
- 2100Hz

4.16.3 Fax Test-NCU TEST

It will be displayed only when the optional fax kit FK-512 is mounted.

(1) Use

· To check the operation of NCU.

(2) Procedure

- 1. Touch [Service Mode] -> [Test Mode] -> [FAX Test] -> [NCU Test], in that order.
- 2. Select a test item.
- 3. Press the Start key.

(In order to move to another test, select the next test item after pressing the Stop key.)

NOTE

- When CML / CTL / TEL relay test is selected and the Start key is pressed, ON is displayed in the parameter and relay is turned to ON. When the Stop key is pressed, relay is turned OFF.
- When the DC-LOOP detection test is selected and Start key is pressed, DT=0001 is shown in the title row in case of detecting the DC-LOOP. If not detected, DT=0000 is displayed.

Contents of test	Device to be tested
CML Relay	IC201, IC202
CTL Relay	RL201
TEL Relay	RL501 *
DC-LOOP Detect	
Speaker	
Outside Ring Send	
Audio Response Send	

· * RL501 mounts only the Japanese.

4.16.4 Fax Test - Dial Test

· It will be displayed only when the optional fax kit FK-512 is mounted.

(1) Use

· To conduct a dial test for fax communication

(2) Procedure

- 1. Touch [Service Mode] -> [Test Mode] -> [FAX Test] -> [Dial Test], in that order.
- 2. Set each of [Dialing Method], [Dial Tone Detection], and [BUSY TONE Detection].
- 3. Touch [Dial Number] and select [On-Hook] or [Off-Hook].
- 4. Enter the dial number from the keyboard on the screen and press the start key.

(a) Dialing Method: Setting item

- PB
- 10pps

(b) Dial Tone Detection: Setting item

- "ON"
- OFF

(c) BUSY TONE Detection: Setting item

- "ON"
- OFF

4.17 ADF Adjustment



4.17.1 Original Stop Position - Sub Scanning Direction 1-Side

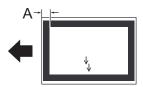
(1) Use

- To adjust part-to-part variations in manufacturing and mounting accuracy of scanner parts by varying the start-of-scan position in the subscanning direction during ADF scan (front side)
- When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

NOTE

Make this adjustment after [Feed Zoom] has been adjusted.
 I.4.17.5 Feed Zoom

(2) Procedure



· Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.

- Reference value: 0±3.0 mm
- · Default setting: 0
- Setting range: -5.00mm to +5.00mm (in 0.5 mm increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side downward.
- Use A4-size paper loaded in tray 1 to make the copy.
- 2. Measure width A on the chart and that on the copy. If the difference between the two falls outside the standard value, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Sub Scanning Direction 1-Side].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
 - If width A on the copy of the chart is greater than width A on the chart, decrease the setting value.
 - If width A on the copy of the chart is smaller than width A on the chart, increase the setting value.
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.2 Original Stop Position - Sub Scanning Direction 2-Side

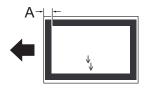
(1) Use

- To adjust part-to-part variations in manufacturing and mounting accuracy of scanner parts by varying the start-of-scan position in the subscanning direction during ADF scan (back side)
- When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

NOTE

Make this adjustment after [FD-Mag. Adj. (B)] has been adjusted.
 I.4.17.6 FD-Mag. Adj. (B)

(2) Procedure



- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±3.0 mm
- · Default setting: 0
- Setting range: -5.00mm to +5.00mm (in 0.5 mm increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side upward.
- Use A4-size paper loaded in tray 1 to make the copy.
- 2. Measure width A on the chart and that on the copy. If the difference between the two falls outside the standard value, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Original Stop Position Sub Scanning Direction 1-Side].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
 - If width A on the copy of the chart is greater than width A on the chart, decrease the setting value.
 - · If width A on the copy of the chart is smaller than width A on the chart, increase the setting value.
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.3 Original Stop Position - Main Scanning Direction 1-side

(1) Use

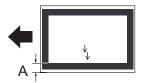
- To adjust part-to-part variations in manufacturing and mounting accuracy of scanner parts by varying the start-of-scan position in the main scanning direction during ADF scan (front side).
- · When scanner unit and ADF has been replaced.
- When the Controller board is replaced.

NOTE

· Make this adjustment after "Feed Zoom" has been adjusted.

I.4.17.5 Feed Zoom

(2) Procedure



- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- · Reference value: 0±2.0 mm
- · Default setting: 0
- Setting range: -5.00mm to +5.00mm (in 0.5 mm increments)
- 1. Make a copy of the test pattern.

NOTE

- · Load the chart in the ADF with the blank side downward.
- Use A4-size paper loaded in tray 1 to make the copy.
- 2. Measure width A on the chart and that on the copy. If the difference between the two falls outside the standard value, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Main Scanning Direction 1-side].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
 - If width A on the copy of the chart is greater than width A on the chart, decrease the setting value.
 - · If width A on the copy of the chart is smaller than width A on the chart, increase the setting value.
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.4 Original Stop Position - Main Scanning Direction 2-side

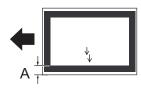
(1) Use

- To adjust part-to-part variations in manufacturing and mounting accuracy of scanner parts by varying the start-of-scan position in the main scanning direction during ADF scan (back side).
- · When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

NOTE

 Make this adjustment after [FD-Mag. Adj. (B)] has been adjusted. I.4.17.6 FD-Mag. Adj. (B)

(2) Procedure



- Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±3.0 mm
- Default setting: 0
- Setting range: -5.00mm to +5.00mm (in 0.5 mm increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side upward.
- · Use A4-size paper loaded in tray 1 to make the copy.
- 2. Measure width A on the original test pattern and that on the copy. If the difference between the two falls outside the specified range, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Main Scanning Direction 2-side].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
 - If width A on the copy of the chart is greater than width A on the chart, decrease the setting value.
 - If width A on the copy of the chart is smaller than width A on the chart, increase the setting value.
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

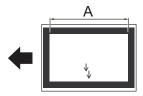
4.17.5 Feed Zoom

(1) Use

- To adjust the scanning zoom ratio in the front side paper feeding direction through the ADF (sub-scanning direction).
- · When scanner unit and ADF has been replaced.

· When the Controller board is replaced.

(2) Procedure



- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±3.0 mm (Allowable error of scale in case of full-size copy: within 0+/-1.2%)
- Default setting: 0.00%
- Setting range: -2.00% to +2.00% (in 0.40% increments)
- 1. Make a copy of the chart in full size.

NOTE

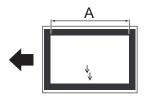
- · Load the chart in the ADF with the blank side downward.
- · Use A4-size paper loaded in tray 1 to make the copy.
- 2. If the width A on the chart and that on the copy is greater than ±3.0 mm, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Feed Zoom].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.6 FD-Mag. Adj. (B)

(1) Use

- · To adjust the scanning zoom ratio in the back side paper feeding direction through the ADF (sub-scanning direction).
- · When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

(2) Procedure



- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±3.0 mm (Allowable error of scale in case of full-size copy: within 0+/-1.2%)
- · Default setting: 0.00%
- Setting range: -2.00% to +2.00% (in 0.40% increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side upward.
- · Use A4-size paper loaded in tray 1 to make the copy.
- 2. If the width A on the chart and that on the copy is greater than ±3.0 mm, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [FD-Mag. Adj. (B)].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.7 Main Scanning Direction Zoom

(1) Use

- To adjust the scanning zoom ratio in the front side main scanning direction through the ADF.
- · When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

(2) Procedure



- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±1.8 mm (Allowable error of scale in case of full-size copy: within 0+/-1.2%)
- · Default setting: 0.00%
- Setting range: -2.00% to +2.00% (in 0.40% increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side downward.
- Use A4-size paper loaded in tray 1 to make the copy.
- 2. If the width A on the chart and that on the copy is greater than ±1.8 mm, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- Touch [ADF Adjustment] -> [Main Scanning Direction Zoom].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK]
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.17.8 Main Scanning Direction Zoom(B)

(1) Use

- · To adjust the scanning zoom ratio in the back side main scanning direction through the ADF.
- · When scanner unit and ADF has been replaced.
- · When the Controller board is replaced.

(2) Procedure

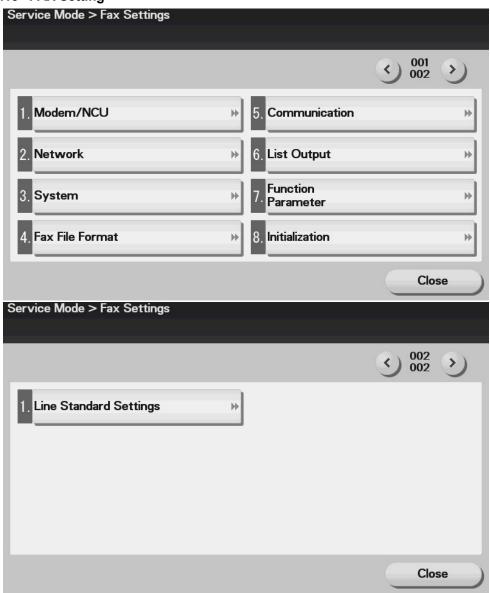


- · Adjust so that the difference between width A on the chart and that on the copy of the chart falls within the standard value.
- Reference value: 0±1.8 mm (Allowable error of scale in case of full-size copy: within 0+/-1.2%)
- · Default setting: 0.00%
- Setting range: -2.00% to +2.00% (in 0.40% increments)
- 1. Make a copy of the chart in full size.

NOTE

- · Load the chart in the ADF with the blank side upward.
- Use A4-size paper loaded in tray 1 to make the copy.
- 2. If the width A on the chart and that on the copy is greater than ±1.8 mm, perform the following steps to make an adjustment.
- 3. Call the Service Mode to the screen.
- 4. Touch [ADF Adjustment] -> [Main Scanning Direction Zoom(B)].
- 5. Using the [+]/[-] keys, vary the setting value and then touch [OK].
- 6. Make another copy to make sure that the specifications are met. Repeat the adjustment procedure until the specifications are met.
- 7. Touch [OK].
- 8. Turn OFF the main power switch, wait for 10 sec., then turn the switch ON.

4.18 FAX Setting



4.18.1 Modem/NCU

(1) V34: RX Max. Bit Speed

(a) Use

• To set the max. bit speed for reception in V.34.

(b) Default setting

• 33600 bps

(c) Setting item

- 2400 bps
- 4800 bps
- 7200 bps
- 9600 bps
- 12000 bps14400 bps
- 16800 bps
- 19200 bps
- 21600 bps24000 bps
- 26400 bps
- 26400 bps
 28800 bps
- 31200 bps
- "33600 bps"

(2) V34: TX Max. Bit Speed

(a) Use

· To set the max. bit speed for transmission in V.34.

(b) Default setting

• 33600 bps

(c) Setting item

- 2400 bps
- 4800 bps
- 7200 bps
- 9600 bps
- 12000bps
- 14400 bps
- 16800 bps
- 10000 bps
- 19200 bps
- · 21600 bps
- 24000 bps
- · 26400 bps
- 28800 bps
- 31200 bps
- "33600 bps"

(3) V34: Control CH Speed

(a) Use

- · A bit speed of the control channel.
- The negotiation of 2400/1200 is performed in the V.34 start-up procedure.

(b) Default setting

1200 bps

(c) Setting item

- "1200 bps"
- 2400 bps

(4) V34: Max. SYMB Speed

(a) Use

- Maximum modulation speed (baud rate) of V.34
 - 3429 SYMB: 3429 33.6 k to 4.8 k
 - 3200 SYMB: 3200 31.2 k to 2.4 k
 - 3000 SYMB: 3000 28.8 k to 2.4 k
 - 2800 SYMB: 2800
 - · 2400 SYMB: 2400
- · The modulation speed of both sending and receiving change by change of setting.
- The upper limit value of V.34 maximum bit speed is determined.
- Normally you do not need to change the value. In case that a V.34 error frequently occurs, you can attempt to set up 3000 SYMB and decrease the symbol rate, for instance.

(b) Default setting

3429 SYMB

(c) Setting item

- 2400 SYMB
- 2800 SYMB
- 3000 SYMB
- 3200 SYMB
- "3429 SYMB"

(5) V34: V34 Tran.PT

(a) Use

• To set the number of training points at V34.

(b) Default setting

Auto

(c) Setting item

- "Auto"
- 16 pts

4 pts

(6) V17 Send Max Speed: TX Max. Speed

(a) Use

To set the max. speed for transmission.

(b) Default setting

V17-14400bps

(c) Setting item

- "V17-14400bps"
- · V17-12000bps
- V17-9600bps
- V17-9000bps
 V17-7200bps
- V29-9600bps
- V29-7200bps
- V27-4800bps
- V27-2400bps

(7) V17 Send Max Speed: RX Max. Speed

(a) Use

• To set the max. speed for reception.

(b) Default setting

· V17-14400bps

(c) Setting item

- "V17-14400bps"
- V29-9600bps
- V27-4800bps

(8) TxATT: PIX TxATT

(a) Use

- · To set the output level of PIX TxATT.
- · Directly sets modem. There are no external attenuator.

(b) Procedure

· The setting value are different depending on the country.

(9) TxATT: TONE/Procedure Signal TxATT

(a) Use

- To set the output level of TONE/Procedure Signal TxATT.
- Directly sets modem. There are no external attenuator.

(b) Procedure

· The setting value are different depending on the country.

(10) TxATT: CED/ANSam TxATT

(a) Use

- To set the output level of CED/ANSam TxATT.
- Directly sets modem. There are no external attenuator.

(b) Procedure

· The setting value are different depending on the country.

(11) TxATT: DTMF TxATT

(a) Use

- · To set the output level of DTMF TxATT.
- Directly sets modem. There are no external attenuator.

(b) Procedure

· The setting value are different depending on the country.

(12) Level: CD/SED ON Level

(a) Use

· To set reception signal sensitivity level.

· SED is not used.

(b) Default setting

• -48 dBm

(c) Setting item

- "-48 dBm"
- -43 dBm
- -38 dBm
- -33 dBm

(13) Level: DTMF H-L Level Difference

(a) Use

• To set DTMF H-L level difference.

(b) Default setting

• 3.0 dB

(c) Setting item

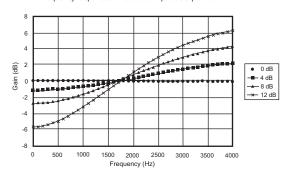
- 1.0 dBm
- 1.5 dBm
- 2.0 dBm
- 2.5 dBm
- 3.0 dB
- 3.5 dBm
- "4.0 dBm"

(14) Cable EQL

(a) Use

• Frequency response of the cable attenuation equalizer.

Frequency response of the cable amplitude equalizer



(b) Default setting

• 0 km

(c) Setting item

- "0 km"
- 1.8 km
- 3.6 km
- 7.2 km

4.18.2 Network

(1) Network: Receive Signal Detection Mode

(a) Use

- To set whether to detect the receive signal by the number of times or by time.
- Sets to "Time" when ringer can not be detected by the number.

(b) Default setting

· No. of Times

(c) Setting item

- · "No. of Times"
- Time

(2) Network: BUSY TONE Detection

(a) Use

· To set whether to use the Busy Tone detection or not.

(b) Default setting

ON

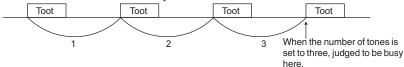
(c) Setting item

- "ON"
- OFF

(3) Network: No. of Times of Busy Tone Detection

(a) Use

· To set the number of times of Busy Tone detection.



(b) Default setting

• 2

(c) Setting range

• "0" to 15 count (step: 1 count)

(4) Network: 1300 Hz Detection

(a) Use

- · To set whether to use the 1300 Hz detection or not.
- Set this function to "ON" if the facsimile network (F-net) is to be used.

(b) Default setting

• OFF

(c) Setting item

- ON
- "OFF"

(5) Network: Dial Tone Detection

(a) Use

· To set whether to use the Dial Tone detection or not.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

(6) Network: DC-LOOP Check

(a) Use

- · Checks the DC loop current before dialing.
- When the current is zero, an error occurs. (T.80)
- · You can change the setting to be compliant to standards in other countries. In Japan, set this parameter to OFF.

(b) Default setting

OFF

(c) Setting item

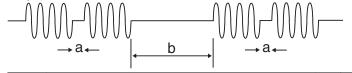
- ON
- "OFF"

(7) Network: min. RING OFF Time

(a) Use

· Minimum time to recognize ringer interval.





a To avoid judging "a" as a ring-off time. b Ring-off time

(b) Default setting

• 200 ms

(c) Setting range

• "0" to 1000 ms (step: 100 ms)

(8) Network: Response Waiting Time

(a) Use

· To set the response waiting time.

(b) Default setting

• 55 sec.

(c) Setting range

• 35 to 115 sec (step: 5 s)

(9) Network: Pause Time

(a) Use

• The pause time for one pause key (pause between digits)

(b) Default setting

1 sec.

(c) Setting range

• "1" to 7 sec (step: 1 s)

(10) Network: Pseudo-RBT Format

(a) Use

• To set the pseudo-ring back tone format to be returned to the calling side

(b) Setting item

- JP
- US
- GB
- GE

NoneNOTE

• The setting value are different depending on the country.

(11) Network: Pseudo-RBT TX Level

(a) Use

· To set the pseudo-ring back tone level

(b) Default setting

• -10 dBm

(c) Setting range

• -15 to "-10 dBm" (Step: 1 dBm)

4.18.3 System

(1) Display Setting: Closed area Rx

(a) Use

· To set whether or not to use the menu display for closed reception by using F-code for junk fax messages.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

(2) Display Setting: Compulsory Memory RX

(a) Use

· To set whether to use the compulsory memory reception function or not.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

NOTE

• When turned "ON", the function permits selection of ON or OFF setting for the compulsory memory reception function that allows a document when received not to be printed automatically and, instead, to be printed through manual operation.

(3) System Function: Fax Board Watchdog

(a) Use

· To set whether to enable watchdog by the fax board CPU or not.

ON	Reset when hung up.
OFF	Keeps being hung up.

(b) Default setting

ON

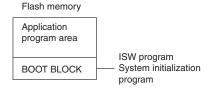
(c) Setting item

- "ON"
- OFF

(4) System Function: Fax BOOT Rewrite on ISW

(a) Use

• Required when a BOOT BLOCK program is upgraded or a hardware is changed.



(b) Default setting

OFF

(c) Setting item

- ON
- "OFF"

(5) System Function: Error Code Display Time

(a) Use

· To set the communication error code display time.

(b) Default setting

• 20 s

(c) Setting item

- 10 to 250 s (step: 10 s)
- HOLD

(6) Communication Setting: Error Page Resending

(a) Use

· To set whether to retransmit, after a communication error occurs, the document starting with the error page or all pages.

Error Page	Retransmit the document starting with the error page

All Page	Retransmit the document all pages

(b) Default setting

Error Page

(c) Setting item

- "Error Page"
- · All Page

(7) Communication Setting: Number of Redials (Error Page)

(a) Use

- To set the number of redials for the error page.
- · Counted as a busy redial when the error page redial is busy.

(b) Default setting

The setting value are different depending on the country.

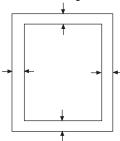
(c) Setting range

• 0 to 7 (step: 1)

(8) Frame Erasure HP

(a) Use

- · To set the frame erasure size during reading.
- · The four edges of the original are erased by the same width.



· Erases the outer lines to prevent black lines from appearing. Effective in the book transmission.

(b) Default setting

• 10 mm

(c) Setting item

- 5 mm
- "10 mm"
- 15 mm

4.18.4 Fax File Format

The following data can be initialized.

- · All of the scan/fax documents stored in the box are erased.
- All of the boxes produced automatically by the F code are erased.
 Supplement: For the formats of the Fax Function Parameter and the Communication Journal, see I.4.18.8 Initialization

(1) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [FAX].
- 3. Touch [Fax File Format].
- 4. Select [Start] and touch [OK].
- 5. The Fax File Format is executed.

4.18.5 Communication

(1) Protocol: V8 / V34 Protocol

(a) Use

To set whether to use the V.8/V.34 protocol or not.

(b) Default setting

OFF

(c) Setting item

ON

• "OFF"

(2) Protocol: V17 EP TONE

(a) Use

• Whether the EP tone (Echo Protect: 2100Hz) is added to the top of the training signal.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

(3) Protocol: V29 EP TONE

(a) Use

• Whether the EP tone (Echo Protect: 2100Hz) is added to the top of the training signal.

(b) Default setting

• OFF

(c) Setting item

- ON
- "OFF"

(4) Protocol: V17 Selection Mode '-'

(a) Use

• V.34 is not used when a dash (-) is added at the top of dial number.

(b) Default setting

• OFF

(c) Setting item

- ON
- "OFF"

(5) Protocol: ANSam Send Time

(a) Use

• To set the transmission time for the V.8 protocol signal ANSam.

(b) Default setting

• 4.0 sec

(c) Setting item

- 1.0 sec
- 1.5 sec
- 2.0 sec
- 2.5 sec
- 3.0 sec
- 3.5 sec"4.0 sec"
- "4.0 sec"4.5 sec
- 5.0 sec
- 5.5 sec

(6) Int'l Comm. Function: Foreign Communication Function

(a) Use

• To set whether or not to use the mode that employs the number of DIS waiting times.

(b) Default setting

ON

(c) Setting item

- "ON"
- OFF

(7) Int'l Comm. Function: No. of DIS Waiting Times at Foreign Communication

(a) Use

· To set the number of DIS waiting times.

(b) Default setting

• 1

(c) Setting item

- "1
- 2

(8) Int'l Comm. Function: V34 Speed

(a) Use

• To set the V.34 international communication mode speed.

(b) Default setting

• 28800 bps

(c) Setting item

- 16800
- 19200
- 21600
- 24000
- 26400
- "28800" • 31200
- 33600

(9) Int'l Comm. Function: V17 Speed

(a) Use

• To set the V.17 international communication mode speed.

(b) Default setting

• 7200 bps

(c) Setting item

- "7200"
- 9600
- 12000
- 14400

(10) Int'l Comm. Function: V29 Speed

(a) Use

• To set the V.29 international communication mode speed.

(b) Default setting

• 4800 bps

(c) Setting item

- 2400
- "4800"
- 7200
- 9600

(11) TIMER: T1

(a) Use

T1 timer (T.30 standard)	Calling	Designate by the response waiting timer
	Called	Starts after DIS is output. The waiting time until DCS is received.
Response waiting timer (55sec)	Calling	Starts after dialing. Until CED is received.

(b) Default setting

• 35 ms

(c) Setting range

• 30 to 90 ms (step: 1 ms)

(12) TIMER: DCS-TCF DELAY

(a) Use

· To set the delay time between DCS and TCF.



PMC: Post Message Command

(b) Default setting

• 80 ms

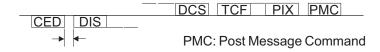
(c) Setting item

- 50 ms 60 ms
- 70 ms
- "80 ms"
- 90 ms
- 100 ms
- 110 ms
- 120 ms
- 130 ms • 140 ms
- 150 ms

(13) TIMER: CED-DIS DELAY

(a) Use

• To set the delay time between CED and DIS.



(b) Default setting

• 80 ms

(c) Setting item

- 50 ms
- 60 ms
- 70 ms
- "80 ms"
- 90 ms
- 100 ms
- 110 ms 120 ms
- 130 ms
- 140 ms
- 150 ms

(14) TIMER: PIX-PMC DELAY

(a) Use

• To set the delay time between PIX and PMC.



PMC: Post Message Command

(b) Default setting

• 80 ms

(c) Setting item

- 50 ms
- 60 ms
- 70 ms
- "80 ms"
- 90 ms
- 100 ms
- 110 ms
- 120 ms
- 130 ms
- 140 ms
- 150 ms

(15) TIMER: EOL-EOL

(a) Use

• To set the transmission time between EOLs.



(b) Default setting

• 13.0 sec.

(c) Setting range

• 4.0 to 25.5 sec (step: 0.5 sec)

(16) TIMER: CFR-PIXWAIT

(a) Use

- · Sets the waiting time from CFR is sent to the image signals are received.
- Radio fax on boats occasionally requires more than 6 sec.

(b) Default setting

• 6.0 sec

(c) Setting range

• "6.0" to 25.5 sec (step: 0.5 sec)

(17) TIMER: EOM-PIXWAIT

(a) Use

- · Waiting time to receive PIX before sending DIS when EOM is used.
- · Some fax machines sends PIX without returning to Phase B in spite of EDM.

(b) Default setting

• 5.5 sec

(c) Setting range

• "5.5" to 25.5 sec (step: 0.5 sec)

(18) TIMER: JM WAIT

(a) Use

· Time to continue outputting CM until receiving JM.

(b) Default setting

• 9.0 sec

(c) Setting range

• 6.0 to 25.5 sec (step: 0.5 sec)

(19) Others: ECM OFF

(a) Use

• To set whether to turn OFF the reception ECM (error correction mode)

(b) Default setting

• ON

(c) Setting item

- "ON"
- OFF

(20) Others: Frame Size at ECM TX

(a) Use

· To set the frame size at ECM transmission.

(b) Default setting

256

(c) Setting item

- 64
- "256"

(21) Others: Coding Ability

(a) Use

- · To set the coding ability.
- Effective to both sending and reception.

(b) Default setting

MH/MR/MMR/JBIG

(c) Setting item

- MH
- MH/MR
- MH/MR/MMR
- "MH/MR/MMR/JBIG"

4.18.6 List Output

(1) Report Addition Information

(a) Use

• To set whether or not to add the diagnosis code or dial number to the communication journal.

Diagnosis Code	The diagnosis code is printed on the communication journal.
Dial Number	The dial number is printed on the communication journal.

(b) Default setting

• OFF

(c) Setting item

- · Diagnosis Code
- Dial Number
- "OFF"

(2) TX Result Report Image

(a) Use

- · To set whether or not to add image to the transmission result report.
- Even if set to "ON" images are not attached at the time of the quick memory transmission and the manual transmission.

(b) Default setting

• OFF

(c) Setting item

- ON
- "OFF"

(3) Protocol Trace Auto Output

(a) Use

· To set the timing for the protocol trace auto output.

(b) Default setting

OFF

(c) Setting item

- Always
- Error
- "OFF"

4.18.7 Function Parameter

(1) Use

· Function parameters can be set through addressing.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Fax Setting].
- 3. Touch [Function Parameter].
- 4. Select the address input area and enter the address.
 - * A Cursor is movable if [<] or [>] is pushed.
- 5. Select the [data] input area and enter numerals in binary.
- 6. When the address and the value are correct, touch [Fix].

(3) Address parameter list

NOTE

- · When changing a value in this address parameter list, be sure to comply with the phone line standards of other countries.
- Depending on values that have been changed, compliance with the phone line standards of other countries may not be obtained.
 - FAX setting (Address parameter list: for line 1)

4.18.8 Initialization

(1) Use

• The following data can be initialized. Select data you want to initialize and touch the [Yes].

Fax Function Parameter	The function set condition is initialized into the Factory Default condition.
Communication Journal Data	All of the Communication Journal is erased.

NOTICE

 For the formats of the Abbreviated Registration Data, the Program Registration Data, The Group Registration Data, and the F-code Box Data, see I.4.18.4 Fax File Format.

(2) Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Fax Setting].
- 3. Touch [Initialization].
- Select data you want to initialize.
- 5. Select [ON], touch [OK].
- 6. The data selected is initialized.

4.18.9 Line Standard Setting

(1) Use

- · The screen that consolidates various types of setting parameters for improved work efficiency
- For details of each type of setting parameter, see the following table.

Response Waiting Time	I.4.18.2.(8) Network: Response Waiting Time
Off-Hook by Default	To set to always off state.
Dial Tone Detection	I.4.18.2.(5) Network: Dial Tone Detection
BUSY TONE Detection	I.4.18.2.(2) Network: BUSY TONE Detection
Error Page Resending	I.4.18.3.(6) Communication Setting: Error Page Resending
Number of Redials (Error Page)	I.4.18.3.(7) Communication Setting: Number of Redials (Error Page)
Set to V.17 after Receiving Error	Set when V.17 has to be used for sending fax in a poor line condition.
No. of Times of Busy Tone Detection	I.4.18.2.(3) Network: No. of Times of Busy Tone Detection
Number of Redials	To set the number of redials. (Default setting: The default setting is different depending on the country.)
Redial Interval	To set the interval for redialing. (Default setting: 3 min.)
Receive Signal Detection Mode	I.4.18.2.(1) Network: Receive Signal Detection Mode
Number of RX Call Rings	To set the number of times to receive call rings. (Default setting: 2.)
Receive Time Interval Setting	To set the time of receive interval. (Default setting: 6 sec.)
Pause Time	I.4.18.2.(9) Network: Pause Time

Line Monitor Sound Volume (Send)	To set the volume of the speaker for the sent signal sound. (Default setting: 3)
Line Monitor Sound Volume (Receive)	To sets the volume for the speaker of this machine when outputting the communication sound created on destination side (including exchange equipments or terminals). (Default setting: 4)

4.19 FAX setting (Address parameter list)

4.19.1 0b00##

		Bit			Default			CSRC		
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
0b0000	Redial interval	7		Utility	0x03	0x03	0x03	X0	00	
		6		Mode (0-3)						
		5		(0 0)						
		4								
		3	Redial interval (min, HEX, 0 - 15)							
		2								
		1								
01.0004	N 1	0		1.1000	0.00	0.04	0.00	\	0.4	
0b0001	No. of busy redials	7	-	Utility Mode	0x03	0x01	0x03	X0	01	
	rediaio	6		(0-2)						
		5 4								
			No of husey radials (No LIEV 0, 45)							
		3	No. of busy redials (No, HEX, 0 - 15)							
		1								
		0								
0b0002	No. of error	7		Utility	0x03	0x01	0x03	X0	02	
000002	redials	6		Mode	0.000	0.01	0,000	Λ0	02	
		5		Special						
		4	-	Setting (0-2)						
		3	No. of error redials (No, HEX, 0 - 15)	(0 2)						
		2								
		1								
		0								
0b0003	Reserved area	7		-	-	-	-	-	03 - 0F	
-0b000f		6								
		5								
		4								
		3								
		2								
		1								
		0								
	Inter-station		HEX (unit: second)(00 - ffh)(00	-	0x03	0x03	0x03	X0	10	
	timer	6	means 03)							
		5								
		4	-							
		3								
		2								
		1								
050011	Decembed area	0		_					11 65	
0b0011 -0b006	Reserved area	7 6	-	-	-	-	-	-	11 - 6F	
f		5								
		4	1							
		-								
		3								

4.19.2 0e000#

		Bit				Default		CSRC		
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Paramete	
0e0000	Error line processing/	7	RTP transmission	-	0x01	0x01	0x01	X1	00	
	judgment	6	Error line recirculation							
		5 4	Addition of error sign							
		3	Addition of error sign							
		2	Judgment of No. of sequential error							
		_	lines							
		1	Error line rate judgment							
0.0004		0	Judgment of No. of error lines		0.40	0.40	0.40) // /	0.1	
0e0001	No. of error lines-very good	7	No. of very good judgment lines (HEX) No. of error	-	0x10	0x10	0x10	X1	01	
	, , ,	5	linesVeryGoodErrorNum, MCF is							
		4	transmitted.							
		3	-							
		2								
		1	-							
		0								
0e0002	No. of error	7	No. of good judgment error lines	-	0x40	0x40	0x40	X1	02	
	lines-good	6	(HEX)							
		5	VeryGoodErrorNum <no. error="" is<="" linesgooderrornum,="" of="" rtp="" td=""><td></td><td></td><td></td><td></td><td></td><td></td></no.>							
		4	transmitted							
		3								
		2								
		1								
		0								
0e0003	No. of error	7	No. of bad judgment error lines	-	0x80	0x80	0x80	X1	03	
	lines-bad	6	(HEX) GoodErrorNum <no. error="" lines<="" of="" td=""><td></td><td></td><td></td><td></td><td></td><td></td></no.>							
		5	BadErrorNum, RTN is transmitted.							
		4	No. of error lines>BadErrorNum, it is considered to be error line over.							
		3	- Considered to be entor line over.							
		1								
		0								
0e0004	Rate of error	7	Rate of very good judgment error	_	0x05	0x05	0x05	X1	04	
000004	lines-very good	6	lines (HEX, %)		0,000	0x05	0.005	XI	04	
		5	Rate of error							
		4	linesVeryGoodErrorPercent, MCF is transmitted.							
		3								
		2								
		1								
		0								
0e0005	Rate of error	7	Rate of good judgment error lines	-	0x0a	0x0a	0x0a	X1	05	
	lines-good	6	(HEX, %) VeryGoodErrorPercent <rate error<="" of="" td=""><td></td><td></td><td></td><td></td><td></td><td></td></rate>							
		5	linesGoodErrorPercent, RTP is							
		4	transmitted.							
		3	Rate of error lines>GoodErrorPercent, RTN is							
		2	transmitted.							
		1								
0-0000	No. of	0	No of had independent of the		0:-00	0::00	0:-00	V/4	22	
0e0006	No. of continuous	7	No. of bad judgment sequential error lines (HEX) Normal	-	0x03	0x03	0x03	X1	06	
	error lines-bad	6 5	No. of sequential error							
		4	linesErrorContNormal, MCF is							
		3	transmitted. No. of sequential error							
		2	lines>ErrorContNormal, RTN is							
			transmitted.							

		Bit				Default		CSRC		
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
		0	_							
0e0007	No. of	7	No. of bad judgment sequential error	_	0x06	0x06	0x06	X1	07	
000007	continuous	6	lines (HEX) Fine	_	0,00	0,00	0,000	Α1	07	
	error lines-bad	5	No. of sequential error							
		4	linesErrorContNormal, MCF is transmitted.							
		3	No. of sequential error							
		2	lines>ErrorContNormal, RTN is transmitted.							
		1	tansmitted.							
		0								
0e0008	No. of	7	No. of bad judgment sequential error	-	0x09	0x09	0x09	X1	08	
	continuous error lines-bad	6	lines (HEX) 300dpi No. of sequential error							
	0.10100 200	5	linesErrorContNormal, MCF is							
		4	transmitted. No. of sequential error							
		3	lines>ErrorContNormal, RTN is							
		1	transmitted.							
		0	-							
0e0009	No. of	7	No. of bad judgment sequential error	_	0x0c	0x0c	0x0c	X1	09	
060008	continuous	6	lines (HEX) Super fine	_	UXUC	UXUC	UAUC	_ ^1	09	
	error lines-bad	5	No. of sequential error							
		4	linesErrorContNormal, MCF is transmitted.							
		3	No. of sequential error							
		2	lines>ErrorContNormal, RTN is transmitted.							
		1	tansmitted.							
		0								
0e000a	EP tone	7		Utility	0x06	0x06	0x06	X1	0A	
	addition	6		Mode Special						
		5	_	Setting						
		4	_	(0,2)						
		3	1/47							
		2	V.17	1						
		0	V.29							
0e000b	CED detection-	7	V.29	_	0x00	0x00	0x00	X1	0B	
OCOOOD	transmission	6	-		0,00	OXOG	OXOO			
	frequency	5	-							
		4	-							
		3								
		2								
		1	CED detection							
			0: Detect 1: Not detect							
		0	CED transmission frequency 0: 2100Hz							
0e000c	TSI/CSI/CIG	7	TSI transmission	-	0xe0	0xe0	0xe0	X1	0C	
	parameter		0: No 1: Always							
		6	CSI transmission							
			0: No 1: Always							
		5	CIG transmission 0: No 1: Always							
		4	-	ł						
		3	1							
		2	1							

		Bit				Default		CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		0	Character ID is put on CSI.						
0e000d	G3ModeError	7	Ph-C8 min. limit timer at Non-ECM 0: No 1: Yes	Utility Mode Special	0x00	0x00	0x44	X1	0D
		6	Selection of "-"at dial top 0: OFF 1: ON	Setting (6)					
		5	RTN reception 0: step down 1: Line disconnect.						
		4	Remote reception ID received 1: No limit						
		3	DIS retransmission interval in manual reception 0: 4.5 sec. 1: 3.0 sec.						
		2	DCN transmission at T200						
	1 DIS length at reception limite 4byte 0: No limit 1: Limit	0: No limit							
		0	DCN transmitted at stop of ph.C						
0e000e	Step up/down 7	7	Strict TCF check 0: Normal 1: Strict check	-	0x00	0x00	0x00	X1	0E
		6							
		5							
		4							
		3							
		2							
		1							
		0	The PC/BC of the PostMsg is checked while in the ECM reception. 0: Yes 1: No						
0e000f	Delay timer	7	DCS - TCF delay timer Unit: (10 ms,	Utility	0x08	0x08	0x08	X1	0F
	between DCS- TCF	6	HEX)	Mode Special					
	101	5		Special Setting					
		4							
		3							
		2							
		1							
		0							

4.19.3 0e001#

	Items	Bit	Contents			Default		CSRC	
Address		Items No		Setting	Japan	North America	Europe	Command	Parameter
0e0010	Delay timer	7	PIX - PMC delay timer Unit: (10 ms,	Utility	0x08	0x08	0x08	X1	10
	between PIX- PMC	6	HEX)	Mode Special Setting					
	PIVIC	5							
		4		3					
		3							
		2							
		1							
		0							
0e0011	Delay timer	7	CED - DIS delay timer (Unit: 10 ms,	Utility	0x08	0x08	0x08	X1	11
	between CED- DIS	6	HEX)	Mode Special					
	5		Setting						

	,,	Bit		0		Default	Т	CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		2							
		1							
		0							
0e0012	T1 timer for	7	T1 timer for transmission (Unit: 1sec,	Utility	0x23	0x23	0x23	X1	12
	calling	6	HEX)	Mode Special					
		5		Setting					
		3							
		2							
		1							
		0							
0e0013	T1 timer for called	7	T1 timer for reception (Unit: 1 sec,	Utility Mode	0x23	0x23	0x23	X1	13
	called	6	HEX)	Special					
		5 4		Setting					
		3							
		2							
		1							
		0							
0e0014	ph.C reception limited time	7 6	Max. reception time per page (Unit: min, HEX) 1 to 255 min.	-	0x0f	0x0f	0x0f	X1	14
		5	,						
		4							
		3							
		2							
		1							
0-0045	Time as both as a	0	FOL FOLDINGS (Units 100 mg	1 14:1:4	0,,00	0,,00	000	X1	15
0e0015	Timer between EOLs	7 6	EOL - EOL timer (Unit: 100 ms, HEX)	Utility Mode	0x82	0x82	0x82	X1	15
		5		Special Setting					
		4		Setting					
		3							
		2							
		0							
0e0016	Timer between	7	Timer between frames (Unit: 1 sec,	_	0x23	0x23	0x23	X1	16
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	frames	6	HEX)		30	30	320	'	.5
		5							
		4							
		3							
		1							
		0							
0e0017	ANSam signal	7	ANSam signal transmission time	Utility	0x28	0x28	0x28	X1	17
	transmission time	6	(Unit: 100 ms, HEX)	Mode Special					
		5		Setting					
		3							
		2							
		1							
		0							
0e0018	Ci signal transmission	7 6	Ci signal transmission time (Unit: 100 ms, HEX)	-	0x05	0x05	0x05	X1	18
	time	5							

		Bit				Default		CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		3							
		2							
		1							
		0							
0e0019	High-speed signal	7	High-speed signal transmission waiting delay timer	-	0x37	0x37	0x37	X1	19
	transmission waiting delay timer	6	(Unit: 10 ms, HEX) (Between CFR-						
		5	PIX/MPS-PIX/CTR-PIX)						
		4	-						
		3	-						
		2							
		1							
0.001	1.01	0			0.01	0.01	0.01	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	4.
0e001a	ph.C top dummy data	7	ph.C top dummy data transmission time	-	0x04	0x04	0x04	X1	1A
	transmitting	6	(Unit: 100 ms, HEX) (Dummy data						
time	5	for non-ECM /Preamble at ECM)							
		4							
		3							
		2							
		1							
0-0045	DTO Occuptor	0			004	0::04	0::04	V/4	40
0e001b	RTC Counter	7		-	0x01	0x01	0x01	X1	1B
		6							
		5							
		4							
		3	The FOL counter indeed to be DTO						
		2	The EOL counter judged to be RTC 000: EOL*2 001: EOL*3 010: EOL*4						
		0	011: EOL*5 100: EOL*6						
0-001-	Closed area				0,,00	0,,00	000	V4	10
0e001c	communication	7		-	0x00	0x00	0x00	X1	1C
		6 5	-						
			-						
		3	-						
		2	Polling TX						
		1	Polling RX						
		0	1 Julia IV						
0e001d -	Machine	7	ASCII [20] When ID is less than 20	Utility	ALL 0x20	ALL 0x20	ALL 0x20	X1	1D – 1F
0e001d -	password [20]	6	digits, justify to the left and insert	Mode	, 0,20	, 122 0,20	, 0,20		
		5	space at the top. (No NULL						
		4	terminators)						
		3	1						
		2	1						
		1	-						
		0	1						
									L

4.19.4 0e002#

Address Items	ms Bit	Contents	Setting	Default			CSRC		
				Japan	North America	Europe	Command	Parameter	
0e0020 - Machine		7	ASCII [20] When ID is less than 20	Utility	ALL 0x20	ALL 0x20	ALL 0x20	X1	20 – 2F
0e002f	password [20]	6	digits, justify to the left and insert	Mode					
		5	space at the top. (No NULL terminators)						
		4							
		3							
		2							

A -1 -1		ltoma Bit	Comtonto		Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		1							
		0							

4.19.5 0e003#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0030	Machine	7	ASCII [20] When ID is less than 20	Utility	ALL 0x20	ALL 0x20	ALL 0x20	X1	30
	password [20]	6	digits, justify to the left and insert space at the top. (No NULL	Mode					
		5	terminators)						
		4	·						
		3							
		2							
		1							
		0							
0e0031 -	CSRC	7	ASCII [20] When ID is less than 20	-	ALL 0x20	ALL 0x20	ALL 0x20	X1	31 – 3F
0e003f	password [20]	6	digits, justify to the left and insert space at the top. (No NULL						
		5	terminators)						
		4							
		3							
		2							
		1							
		0							

4.19.6 0e004#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0040 -	CSRC	7	ASCII [20] When ID is less than 20	-	ALL 0x20	ALL 0x20	ALL 0x20	X1	40 - 44
0e0044	password [20]	6	digits, justify to the left and insert space at the top. (No NULL						
		5	terminators)						
		4	,						
		3							
		2							
		1							
		0							
0e0045	Watch dog	7		Utility	0x01	0x01	0x01	X1	45
		6		Mode Special					
		5		Setting					
		4		(0)					
		3							
		2							
		1							
		0	Watch dog 0: OFF 1: ON						
0e0046	T2 timer after	7	T2 timer value after CFR x100ms	Utility	0x3c	0x3c	0x3c	X1	46
	CFR	6	(HEX)	Mode Special					
		5		Setting					
		4							
		3							
		2							
		1							
		0							
0e0047	T2 timer after	7	T2 timer after EOM x100ms (HEX)	Utility	0x37	0x37	0x37	X1	47
	EOM	6		Mode					
		5		Special Setting					

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		3							
		1							
		0							
0e0048	JIM waiting	7	JM waiting timer value x100ms	Utility	0x5a	0x5a	0x5a	X1	48
	timer	6	(HEX)	Mode					
		5		Special Setting					
		4							
		3							
		2							
		1							
	5	0				0.00			
0e0049	Destination	7	0: US 1: Canada 2: Japan 3: Australia 4: New Zealand 5: Europe	Service Mode	0x02	0x00	0x05	X1	49
		6 5	6: Germany 7: UK 8: France 9:						
		4	Switzerland 10: Netherlands 11: Belgium 12: Austria 13: Norway 14:						
		3	Sweden 15: Finland 16: Ireland 17:						
		2	Denmark 18: Italy 19: Spain 20:						
		1	Portugal 21: Poland 22: South Africa 23: Taiwan 24: Saudi Arabia 25:						
		0	China 26: Malaysia 27: Singapore						
			28: Korea 29: Hong Kong 30: General purpose (OT) 31: Argentina 32: Brazil 33: Vietnam 34: Philippines 35: Russia						
0e004a	Function when	7		-	0x01	0x01	0x01	X1	4A
	DIS signal is created	6							
	Created	5							
		4							
		3							
		2	61 11 11 11 1						
		1	Change-over of the silent interval between ANSam and DIS (For revision T.30) 0: Silent interval of 450 ms 1: 75 ms						
		0	V8 capability, if available, of DIS to transmit with V.21 0: V8bitON 1: V8bitOFF						
0e004b	Signal check at the time of F	7		-	0x00	0x00	0x00	X1	4B
	code	6	1						
	communication	5							
		3							
		2							
		1							
		0	Check of PWD and SID received signal in F code communication 0: Signal checked 1: PWD and SID not distinguished						
0e004c	No. of CI signal	7	CI signal repetitive transmission	-	0x03	0x03	0x03	X1	4C
	transmission in	6	frequency when no ANSam received						
	manual transmission	5	after CI transmission (times, HEX)						
		4							
		3							
		2							
		1							
		0							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e004d	Tone detection	7	PB OFF time integration	-	0x55	0x55	0x55	X1	4D
	time (PB)	6	0 to 15 (x10ms) (50ms if 0)						
		5							
		4							
		3	PB ON time integration						
		2	0 to 15 (x10ms) (50ms if 0)						
		1							
		0							
0e004e	Time for	7	Waiting event from modem/	-	0x00	0x00	0x00	X1	4E
	modem response waiting timeout	6	(x10sec, HEX) (0 counted as 90 sec.)						
		5							
		4							
		3							
		2							
		1							
		0							
0e004f	Continuous	7	Sequential CRP reception frequency	-	0x00	0x00	0x00	X1	4F
	CRP reception frequency	6	resulting in error (x1 time, HEX) (0 counted as 3 times)						
	resulting in an	5							
	error	4							
		3							
		2							
		1							
		0							

4.19.7 0e005#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0050	1300Hz line	7	1300Hz tone detection time for no-	-	0x17	0x17	0x17	X1	50
	seizure parameter	6	ringing reception (x100ms, HEX)						
	detection time	5							
		4							
		3							
		2							
		1							
		0							
0e0051	1300-Hz toner	7		-	0x85	0x85	0x85	X1	51
	detection frequency	6							
	pattern	5							
		4							
		3							
		2							
		1	1300-Hz toner detection frequency						
		0	pattern 00: 1300Hz±30Hz 01: 1300Hz±10Hz						
0e0052	German specifications	7	Customized mode (error line-related FP overwriting canceled for EU destination)	-	0x00	0x00	0x0f	X1	53
		6							
		5							
		4							
		3	ERR transmission (DTS sequence)						
		2	DCN reception error ignored						
		1	Line disconnected within 6 sec. after CD OFF in ph.C						

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		0	Line disconnected upon reception of DIS to DTC						
0e0053	Retransmission	7	DIS re-transmission interval in	-	0x1e	0x1e	0x1e	X1	53
	intervals of DIS	6	automatic reception (x0.1 sec.)						
	(Auto reception)	5							
	. coop	4							
		3							
		2							
		1							
		0							
0e0054	TTI for	7		-	0x03	0x03	0x03	X1	54
	transmission	6							
		5							
		4							
		3							
		2							
		1	TTI in transmission TTI added						
		0	00: OFF 01: (OFF) 10: INSIDE 11: OUTSIDE						
0e0055	Image	7		-	0x00	0x00	0x00	X1	55
	reduction parameter	6							
	parameter	5							
		4							
		3							
		2							
		1							
		0	Reduction parameter in main scanning direction 0: Thick line kept 1: Thick line not kept						
0e0056	Main body	7	Timer for waiting a transmission	-	0x08	0x08	0x08	X1	56
	polling	6	command (+FDT) from the main						
	transmission command wait	5	body during turnaround of polling transmission (x100ms, HEX) (0 is						
	timer	4	defaulted to 8 sec.)						
		3							
		2							
		1							
		0							
0e0058 -	Reserved area	7		-	ALL 0x00	ALL 0x00	ALL 0x00	X1	58 -
		6							
		5							
		4							
		3							
		2							
		1							
		0							

4.19.8 0e009#

		Bit	it Contents S	Cotting	Default			CSRC	
Address			Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0090	Transmission	7	Tone signal/FSK transmission ATT	Utility	0xaa	0xaa	0xaa	XB	00
	ATT	6	(HEX) every 1 dBm (0 to -15dBm)	Mode Special					
		5		Setting					
		4		J					
		3	High-speed signal transmission ATT						
		2	(HEX) every 1 dBm (0 to -15dBm)						
		1							

		Bit		0		Default	T	CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0091	CED	7		Utility	0x0a	0x0a	0x0a	XB	01
060091	transmission	6	-	Mode	UXUA	UXUA	UXUa	ΛΒ	01
	ATT	5	_	Special					
			-	Setting					
		4	055(4)(0.4)	(0-3)					
		3	CED/ANS transmission ATT (HEX) every 1 dBm (0 to -15dBm)						
		2	every rubin (o to roubin)						
		1							
		0							
0e0092	CD/SED ON level	7	-	Utility Mode	0x03	0x03	0x03	XB	02
	levei	6	-	Special					
		5		Setting					
		4		(0,1)					
		3							
		2							
		1	CD/SED ON level [dBm]						
		0	00: -33 01: -38 10: -43 11: -48						
0e0093	Cable	7		Utility	0x00	0x00	0x00	XB	03
	equalizer	6		Mode					
		5	Cable EQL transmission/reception	Special Setting					
		4	selection 00: OFF 01: Transmission only	(4,5)					
			10: Reception only 11: Both transmission and reception						
		3	-						
		2							
		1	Cable EQL parameter selection 00: 1.8km						
		0	01: 3.6km 10: 7.2km 11: NTT4						
0e0094	Number of V34	7		Utility	0x00	0x00	0x00	XB	04
	Point	6	-	Mode					
		5	_	Special					
		4	_	Setting (4,5)					
		3	-	(4,5)					
		2	-						
		1	V34 Point						
		0	00: Auto 01: 16Point 10: 24Point						
0e0095	TEL/FAX switching	7	Time from vocal response to RBT transmission (CNG detection waiting time 2) 0: 4 sec. 1: 2 sec.	Utility Mode Special Setting (4,5)	0x00	0x00	0x00	ХВ	05
		6	Time from reception to voice response transmission (CNG detection waiting time 1) 0: 2 sec. 1: 4 sec.						
		5	TEL/FAX switching mode 0: Disabled 1: Enabled						
		4	External telephone no ringing setting 0: Disabled 1: Enabled (disconnected)						

Address	Items	Bit	Contents	Sotting		Default		CS	KU
Address	items	No	Contents	Setting	Japan	North America	Europe	Command	Paramete
		3	TEL/FAX switching ON response						
			details 0: Voice response + RBT						
			transmission						
		_	1: RBT transmission only						
		2							
		1							
	5. 5 .	0	2276					\(\sigma\)	
0e0096	Ring Back Tone	7	RBT format 000: None	Utility Mode	0x2a	0x4a	0x68	XB	06
	parameter	6	001: Japan	Special					
		5	010: US	Setting					
			011: UK 100: Germany	(0-3,5-7)					
			101 to 111: Others						
		4	CED transmitted upon TEL/FAX switching						
		3	RBT transmission level (HEX)						
		2	0 to -15 dBm						
		1							
		0							
0e0097	International	7	DIS waiting frequency	Utility	0x40	0x40	0x40	XB	07
	com mode		0: Always 1 time	Mode	-				
	operation		1: Twice in overseas communication	Special Setting					
		6	Overseas communication 0: No	(6,7)					
			1: Yes	(, ,					
		5							
		4							
		3							
		2							
		1							
		0							
0e0098	Starting speed	7		Utility	0x02	0x02	0x02	XB	08
	in international mode (V29	6		Mode Special					
	modem)	5		Setting					
		4	9600bps/V.29	(0,1,3,4)					
		3	7200bps/V.29						
		2							
		1	4800bps/V.27ter						
		0	2400bps/V.27ter						
0e0099	Starting speed in international	7	14400bps/V.17	Utility Mode	0x10	0x10	0x10	XB	09
	mode (V17 or	6	12000bps/V.17	Special					
	V33 modem)	5 4	9600bps/V.17 7200bps/V.17	Setting					
		3	7200bps/V.17	(4-7)					
		2	1						
		1	1						
		0							
0e009a	Starting speed	7	33600bps/V.34	Utility	0x20	0x20	0x20	XB	0A
	in international	6	31200bps/V.34	Mode	3,20	3,,20	3,120		
	mode (V34)	5	28800bps/V.34	Special					
		4	26400bps/V.34	Setting					
		3	24000bps/V.34						
		2	21600bps/V.34						
		1	19200bps/V.34						
		0	16800bps/V.34]					
0e009b	CD OFF timer	7	CD OFF timer (Unit: 100 ms, HEX)	-	0x14	0x14	0x14	ХВ	0B
000000									

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		3							
		2							
		1							
		0							
0e009c	CD ON integration time	7	CD ON integration time (Unit: 100 ms. HEX)	-	0x06	0x06	0x06	XB	0C
	integration time	6	ins. rick)						
		5							
		4							
		3							
		2							
		0							
0e009d	Symbol rate maximum	7	V34 controlled ch data rate 0: 1200	Utility Mode	0x05	0x05	0x05	XB	0D
	allowable value		1: 2400	Special Setting					
		6		(0-3,7)					
		5							
		4	May allowable symbol aroad	_					
		2	Max. allowable symbol speed 0000: 2400						
		1	0001: Reserved						
		0	0010: 2800 0011: 3000						
		U	0101: 3000 0100: 3200 0101: 3429						
0e009e	V34 primary	7	Number of fallback frame errors	-	0x03	0x03	0x03	XB	0E
	channel fallback	6	(Hex)						
	Ialiback	5							
		4							
		3							
		2							
		1							
		0							
0e009f	Reserved area	7		-	0x00	0x00	0x00	X0	0F
		6							
		5							
		4							
		3							
		2	1						
		1							
		0							

4.19.9 0e00a#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00a0	V34 off Rx-V34	7	Timer value after V34 reception error	-	0x0a	0x0a	0x0a	ХВ	10
	off time after	6	used to reset V34 off reception (min,						
	error	5	HEX) (Valid only when transmission side						
		4	cannot be specified)						
		3							
		2							
		1							
		0							
0e00a1	V34 off Rx-V17	7	No. of continuous success of V17	-	0x0a	0x0a	0x0a	XB	11
	OK Rx times to	6	receptions used to reset V34 off						
	reset V34 off Rx	5	reception after V34 reception error (times, HEX)						

		Bit				Default	Т	CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4	(Valid only when transmission side can be specified with Caller ID)						
		3	- Can be specified with Caller 1D)						
		2	-						
		1							
000000	(Inhibit of) \/24	7	V34off function for manual reception		0,400	0x02	0x02	XB	12
0e00a2	(Inhibit of) V34 off Rx-Function ON/OFF	/	0: Enable 1: Disable	-	0x00	0x02	UXU2	XB	12
		6							
		5							
		4	-						
		3							
		2	V.34 OFF reset mode = No. of						
		'	successful consecutive V.17 reception times (ID specified) 0: Enabled 1: Disabled						
		0	V.34 OFF reset mode = time (ID cannot be specified) 0: Enabled 1: Disabled						
0e00a3	JBIG	7		-	0x01	0x01	0x01	ХВ	13
	parameter	6	1						
		5							
		4							
		3							
		2							
		1	Use of following FP JBIG option LO size at reduction 0: No, 1: Yes						
		0	JBIG optional L0 capacity 0: No, 1: Yes						
0e00a4 -	JBIG LO size	7	JBIG optional LO size used for	-	0x00	0x00	0x00	XB	14 - 17
0e00a7		6	reduction (HEX) (setting range: 0x01to0xffffffff)		0x00 0x00	0x00 0x00	0x00 0x00		
		5	[0] = HH, [1] = HL, [2] = LH, [3] = LL		0x80	0x80	0x80		
		4							
		2							
		1							
		0							
0e00a8	(Inhibit of)	7		_	0x00	0x00	0x00	XB	8
000000	JBIG off Rx-	6	_		0,100	0,100	o x o o	,	
	Function ON/ OFF	5							
		4							
		3							
		1	JBIG off function at A3 high- definition reception (DIS re- transmission) 0: OFF, 1: ON						
		0	JBIG off function after JBIG reception error 0: Enable 1: Disable						
0e00a9	JBIG off Rx-	7	Timer value after JBIG reception	-	0x0a	0x0a	0x0a	XB	9
	JBIG off time after error	6	error to reset JBIG off reception (min, HEX)(10 min. if 0)						
	aitei eiitii	5	(111111, 11LA)(10 111111. II 0)						
		4							
		3							
		2							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		1							
0.00	DDV 1: 11	0	DDV 1: 14		0.04	0.00	0.00	\/D	4.0
0e00aa	PBX dial tone detection	7	PBX dial tone detection frequency upper limit (unit: 10 Hz, HEX)	-	0x31	0x00	0x00	XB	1A
	frequency	6	- apper mine (arms: 10 112, 112.x)						
	upper limits	5							
		3							
		2							
		1							
		0							
0e00ab	PBX dial tone	7	PBX dial tone detection time or max.	_	0x32	0x00	0x00	XB	1B
ueuuab	detection time	6	ON time value (unit: 20 ms, HEX)	-	0x32	UXUU	UXUU	\ \AB	IB
		5							
		4							
		3							
		2							
		1							
		0							
0e00ac	PBX dial tone	7	PBX dial tone ON time min. value	_	0x00	0x00	0x00	XB	1C
000000	ON time min.	6	(unit: 20ms, HEX)	_	0,000	0,00	0,000	, AB	10
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00ad	PBX dial tone	7	PBX dial tone OFF time max. value	-	0x00	0x00	0x00	XB	1D
	OFF time max.	6	(unit: 20 ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00ae	PBX dial tone	7	PBX dial tone OFF time min. value	-	0x00	0x00	0x00	XB	1E
	OFF time min. value	6	(unit: 20 ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00af	PBX dial tone	7	PBX dial tone waiting time or pre-	-	0x03	0x03	0x03	XB	1F
	waiting time	6	pause time (unit: 1 sec, HEX)						
		5							
		4	1						
		3	1						
		2							
		1							
		0							

4.19.10 0e00b#

						Default	CSRC		
Address	Items	Bit No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00b0	PBX dial tone instantaneous	7	Instantaneous shutdown time (unit: 20 ms, HEX) or tone detection frequency (times, HEX)	-	0x00	0x00	0x00	XB	20

		Bit				Default		CSRC		
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
	break detection	6								
	time	5								
		4								
		3								
		2								
		1								
		0								
0e00b1	1st dial tone	7		-	0x03	0x0b	0x12	XB	21	
	detection frequency pattern	6	Tone type 0: Single 1: Dual							
		5	Reserve							
		4	1st dial tone detection frequency							
		3	pattern							
		2								
		1								
		0								
0e00b2	1st dial tone	7	1st dial tone detection time or ON	-	0x32	0x32	0x1a	XB	22	
	detection time	6	time max. value (unit: 20 ms, HEX)							
		5								
		4								
		3								
		2								
		1								
		0								
0e00b3	1st dial tone ON time min. value	7 6	1st dial tone ON time min. value (unit: 20 ms, HEX)	-	0x00	0x00	0x00	XB	23	
		5								
		4								
		3								
		2	-							
		1								
0.001.4	4 1 11 11	0	4 - 5 - 1		0.00	0.00	0.00	\/D	0.4	
0e00b4	1st dial tone OFF time max.	7	1st dial tone OFF time max. value (unit: 20 ms, HEX)	-	0x00	0x00	0x00	XB	24	
	value	5								
		4								
		3								
		2								
		1								
		0								
0e00b5	1st dial tone OFF time min.	7	1st dial tone OFF time min. value (unit: 20 ms, HEX)	-	0x00	0x00	0x00	ХВ	25	
	value	5	,							
		4								
		3								
		2								
		1								
		0								
0e00b6	1st dial tone	7	1st dial tone waiting time or pre-	-	0x03	0x03	0x04	XB	27	
	waiting time	6	pause time (unit: 1 sec, HEX)							
		5	-							
		4								
		3								
		2								
		1								
	1	0	1	1						

		Bit	_	_		Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00b7	1st dial tone	7	Instantaneous shutdown detection	-	0x00	0x00	0x05	XB	28
	instantaneous break detection	6	time (unit: 20 ms, HEX) or tone detection frequency (times, HEX)						
	time	5	, action in equation (amos, 112) ty						
		4	-						
		3							
		2							
		0							
0e00b8	2nd dial tone	7	2nd dial tone detection frequency	_	0x31	0x00	0x00	XB	28
060000	detection	6	upper limit (unit: 10 Hz, HEX)	_	0.31	0,000	0,00	\ \rangle \rangle \ \rangle \rangle \ \rangle \rangle \ \rangle	20
	frequency	5							
	upper limits	4							
		3							
		2							
		1							
		0							
0e00b9	2nd dial tone	7	2nd dial tone detection time or ON	-	0x08	0x00	0x00	XB	29
	detection time	6	time max. value (unit: 20 ms, HEX)						
		5							
		4							
		3							
		2							
		1	-						
0 - 001	On all all all to an	0	On dividing the second of the		000	000	000	VD	0.0
0e00ba	2nd dial tone ON time min.	7	2nd dial tone ON time min. value (20 ms, HEX)	-	0x02	0x00	0x00	XB	2A
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00bb	2nd dial tone	7	2nd dial tone OFF time max. value		0x0a	0x00	0x00	ХВ	2B
	OFF time max.	6	(unit: 20 ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
0.001	0 1 11 11	0	0 1 11 11 055 11		0.04	0.00	0.00	\/D	
0e00bc	2nd dial tone OFF time min.	7 6	2nd dial tone OFF time min. value (20 ms, HEX)	-	0x04	0x00	0x00	XB	2C
	value	5	,						
		4							
		3							
		2							
		1	-						
		0							
0e00bd	2nd dial tone	7	2nd dial tone waiting time or pre-	-	0x03	0x03	0x03	XB	2D
	waiting time	6	pause time (unit: 1 sec, HEX)						
		5							
		4							
		3	1						
		2							
		1							
		0							

		Bit				Default		CS	RC									
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter									
0e00be	2nd dial tone	7	Instantaneous shutdown detection	-	0x03	0x00	0x00	XB	2E									
	instantaneous break detection	6	time (unit: 20 ms, HEX) or tone detection frequency (times, HEX)															
	time	5	detection frequency (times, filex)															
		4																
		3																
		2																
						1				_	-	<u> </u>						
		0																
0e00bf	3rd dial tone	7	Brd dial tone detection frequency	-	0x00	0x00	0x00	XB	2F									
	detection frequency	6	upper limit (unit: 10 Hz, HEX)															
	upper limits	5																
		4																
		3																
		2																
		1																
		0																

4.19.11 0e00c#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Paramete
0e00c0	Busy tone	7		-	0x03	0x14	0x00	XB	30
	detection frequency pattern	6	Tone type 0: Single 1: Dual						
		5	Reserve						
		4	Busy tone detection frequency						
		3	pattern						
		2							
		1							
		0							
0e00c1	Busy tone ON	7	Busy tone ON time max. value (unit:	-	0x1e	0x1e	0x00	XB	31
	time max.	6	20 ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00c2	Busy tone ON time min. value	7	Busy tone ON time min. value (unit: 20 ms, HEX)	-	0x14	0x14	0x00	XB	32
	time min. value	6	201115, FIEA)						
		5	-						
		4							
		3							
		2							
		1							
0e00c3	Busy tone OFF	7	Busy tone OFF time max. value	_	0x1e	0x1e	0x00	XB	33
060003	time max.	6	(unit: 20 ms, HEX)	-	UXTE	UXTE	UXUU	\ \AB	33
	value	5							
		4							
		3							
		2	-						
		1	-						
		0	-						
0e00c4	Busy tone OFF	7	Busy tone OFF time min. value (unit:	-	0x14	0x14	0x00	XB	34
	time min. value	6	20 ms, HEX)		J		0/100	/.5	•

A -1 1		Bit		0		Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		5							
		3							
		2							
		1							
0-00-5	Dinasa	0	Custom made		0,,00	0,,00	000	VD	25
0e00c5	Ringer detection pattern	7	Custom mode 0: OFF(to comply with bits 3-0) 1: ON(to comply with bits 5-4)	-	0x00	0x00	0x00	XB	35
		6 5	Custom mode ringer detection						
		4	pattern 00: Single 01: Double 10: Triple						
		3	Ringer detection pattern						
		2	0000: Normal 0001: DRPD_Single						
		0	0010: DRPD_Double 0011: DRPD_Triple1						
		O .	0100: DRPD_Triple2 0101: DRPD_NZDA1 0110: DRPD_NZDA2 0111: DRPD_NZDA3 1000: DRPD_NZDA4						
0e00c6	Ringer detection	7	Ringer detection frequency upper limit (unit: 1 Hz, HEX)	-	0x46	0x46	0x46	XB	36
	frequency	6							
	upper limits	5 4							
		3							
		2							
		1							
		0							
0e00c7	Ringer	7	Ringer detection frequency lower	-	0x0c	0x0c	0x0c	XB	37
	detection frequency	6	limit (unit: 1 Hz, HEX)						
	lower limits	5							
		3							
		2							
		1							
		0							
0e00c8	Ringer ON time	7	Ringer ON time max. value (unit: 20	-	0x00	0x00	0x00	XB	38
	max. value	6	ms, HEX)						
		5 4							
		3							
		2							
		1							
		0							
0e00c9	Ringer ON time	7	Ringer ON time min. value (unit: 20	-	0x0a	0x0a	0x08	XB	39
	min. value	6	ms, HEX)						
		5							
		3							
		2							
		1							
		0							
0e00ca	Ringer OFF time max.	7	Ringer OFF time max. value (unit: 100 ms, HEX)	-	0x3c	0x3c	0x46	XB	3A
	value	5							

		Dit				Default		CSRC		
Address	Items	Bit No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
		4	-							
		3								
		2								
		1								
0-00-6	Diamen OFF	0	Diagram OFF times main value (venite	I IA:I:A.	000	000	000	VD	20	
0e00cb	Ringer OFF time max.	7	Ringer OFF time min. value (unit: 100 ms, HEX)	Utility Mode	0x02	0x00	0x00	XB	3B	
	value	5	,	Special						
		4		Setting						
		3								
		2								
		1								
		0								
0e00cb	Ringer OFF	7	Ringer OFF time minimum value	_	0x02	0x00	0x00	XB	3B	
	time min. value	6	(unit: 100 ms, HEX)							
		5	-							
		4	-							
		3								
		2								
		1								
		0								
0e00cc	DRPD ringer	7	DRPD ringer ON time maximum	-	0x05	0x05	0x05	XB	3C	
	ON time max.	6	value adjustment (unit: 20 ms, HEX)							
	value adjustment	5								
		4								
		3								
		2								
		1								
		0								
0e00cd	DRPD ringer	7	DRPD ringer ON time minimum	-	0x05	0x05	0x05	XB	3D	
	ON time min. value	6	value adjustment (unit: 20 ms, HEX)							
	adjustment	5								
		4								
		3	-							
		2	-							
		1								
0-00	DDDD vin von	0	DDDD via can OFF time a very view very		005	005	005	VD	٥٦	
0e00ce	DRPD ringer OFF time max.	7	DRPD ringer OFF time maximum value adjustment (unit: 20 ms, HEX)	-	0x05	0x05	0x05	XB	3E	
	value	5								
	adjustment	4								
		3								
		2								
		1	-							
		0								
0e00cf	DRPD ringer	7	DRPD ringer OFF time minimum	-	0x05	0x05	0x05	XB	3F	
	OFF time min.	6	value adjustment (unit: 20 ms, HEX)							
	value adjustment	5								
	aujustineilt	4								
		3								
		2								
		1								
	1	0	1							

4.19.12 0e00d#

		Bit				Default			SRC
Address	Items	No	Contents	Setting	Japan	North Ameri ca	Europ e	Comman d	Paramete
De00d0	DRPD maximum OFF time max. value adjustment	7 6 5	DRPD ringer maximum OFF time maximum value adjustment (unit: 100 ms, HEX)	-	0x05	0x05	0x05	ХВ	40
		4							
		3							
		2							
		1							
De00d1	DRPD maximum	7	DRPD ringer maximum OFF time		0x05	0x05	0x05	XB	41
00001	OFF time min.	6	minimum value adjustment (unit:		0,00	OXOO	OXOO		71
	value adjustment	5	100 ms, HEX)						
		4							
		3							
		2							
		0							
De00d2	DRPD Single Ring	7	DRPD Single Ring	-	0x50	0x50	0x50	XB	42
	STOPdetermination	6	STOPdetermination time (1unit:						
	time	5	100 ms, HEX)						
		4							
		3							
		2							
		0							
0e00d3	DRPD Double Ring	7	DRPD Double Ring	-	0x50	0x50	0x50	XB	43
	STOPdetermination	6	STOPdetermination time (unit:						
	time	5	100 ms, HEX)						
		4							
		2							
		1							
		0							
0e00d4	DRPD Triple1 Ring	7	DRPD Triple1 Ring	-	0x50	0x50	0x50	XB	44
	STOPdetermination time	6	STOPdetermination time (unit: 100 ms, HEX)						
	une	5	100 1115, 11127)						
		4							
		3							
		1							
		0							
0e00d5	DRPD Triple2 Ring	7	DRPD Triple2 Ring	-	0x50	0x50	0x50	XB	45
	STOPdetermination time	6	STOPdetermination time (unit: 100 ms, HEX)						
		5	-						
		3							
		2	-						
		1							
		0	-						
De00d6	DRPD NZ-DA1	7	DRPD NZ-DA1 Ring	-	0x3c	0x3c	0x3c	ХВ	46
	Ring STOPdetermination	6	STOPdetermination time (unit: 100 ms, HEX)						
	time	5							
		4							
		2	-						

						Default		(CSRC
Address	Items	Bit No	Contents	Setting	Japan	North Ameri ca	Europ e	Comman d	Parameter
		1							
0e00d7	DRPD NZ-DA2	7	DRPD NZ-DA2 Ring	_	0x3c	0x3c	0x3c	XB	47
000007	Ring STOP	6	STOPdetermination time (unit:	-	UXSC	UXSC	UXSC	\ \AB	47
	determination time	5	100 ms, HEX)						
		4							
		3							
		2							
		1							
0e00d8	DRPD NZ-DA3	7	DRPD NZ-DA3 Ring STOP	_	0x32	0x32	0x32	XB	48
veuud	Ring STOP	6	determination time (unit: 100 ms,	-	UX3Z	0.0.52	0.0.0.2	\ \AB	40
	determination time	5	HEX)						
		4							
		3							
		2							
		1							
0e00d9	DRPD NZ-DA4	7	DRPD NZ-DA4 Ring STOP	_	0x32	0x32	0x32	XB	49
oeooda	Ring	6	determination time (unit: 100 ms,	-	UX3Z	0.0.52	0.0.0.2	\ \AB	49
	STOPdetermination time	5	HEX)						
	ume	4							
		3							
		2							
		1							
0e00da	Custom 1st ringer	7	Custom 1st ringer ON time	-	0x00	0x00	0x00	XB	4A
ueuua	ON time specified	6	specified value (unit: 100 ms,	-	UXUU	UXUU	UXUU	\ \AB	44
	value	5	HEX)						
		4							
		3							
		2	•						
		1							
0e00db	Custom 1st ringer	7	Custom 1st ringer OFF time	_	0x00	0x00	0x00	XB	4B
Oeooob	OFF time specified	6	specified value (unit: 100 ms,	-	UXUU	UXUU	UXUU	\ \AB	40
	value	5	HEX)						
		4							
		3							
		2	•						
		1							
0e00dc	Custom 2nd ringer	7	Custom 2nd ringer ON time	_	0x00	0x00	0x00	XB	4C
Jedua	ON time specified	6	specified value (unit: 100 ms,	_	0,000	0,00	0,00	70	70
	value	5	HEX)						
		4							
		3							
		2							
		1							
0e00dd	Custom 2nd ringer	7	Custom 2nd ringer OFF time	_	0x00	0x00	0x00	XB	4D
J00000	OFF time specified	6	specified value (unit: 100 ms,		3,00	5,00	0,00		70
	value	5	HEX)						
		4							
		3							

						Default		(CSRC
Address	Items	Bit No	Contents	Setting	Japan	North Ameri ca	Europ e	Comman d	Parameter
		1 0							
0e00de	Custom 3rd ringer ON time specified value	7 6 5 4 3 2 1	Custom 3rd ringer ON time specified value (unit: 100 ms, HEX)	-	0x00	0x00	0x00	ХВ	4E
0e00df	Custom 3rd ringer OFF time specified value	7 6 5 4 3 2 1	Custom 3rd ringer OFF time specified value (unit: 100 ms, HEX)	-	0x00	0x00	0x00	ХВ	4F

4.19.13 0e00e#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00e0	Custom ring	7	Custom ring OFF determination	-	0x00	0x00	0x00	XB	50
	OFF determination	6	time (unit: 100 ms, HEX)						
	time	5							
		4							
		3							
		2							
		1							
		0							
0e00e1	PB dial signal	7	PB dial signal transmission time	-	0x15	0x19	0x15	XB	51
	transmission time	6	(unit: 5 ms, HEX)						
	ume	5							
		4							
		3							
		2							
		1							
		0							
0e00e2	PB dial inter	7	PB dial inter digit pause time (unit: 5 ms, HEX)	-	0x11	0x15	0x11	ХВ	52
	digit pause	6	IIIS, FIEA)						
		5	1						
		4							
		3							
		1							
		0							
0e00e3	10pps pulse dial	7	10pps pulse dial break rate (%,	_	0x44	0x3d	0x3d	XB	53
060063	break rate	6	HEX)	_	0,44	UXSU	UXSU	, AD	33
		5							
		4							
		3							
		2							
		1	-						

		Bit	_			Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		0							
0e00e4	10pps pulse dial break time	7	10pps pulse dial break time	-	0x1f	0x1c	0x1c	XB	54
	break time	6	-						
		5	-						
		4							
		3							
		2							
		1							
		0							
0e00e5	10pps pulse dial	7	10pps pulse dial inter digit pause	-	0x68	0x68	0x5e	XB	55
	inter digit pause	6	(unit: 10 ms, HEX)						
		5							
		4							
		3							
		2							
		1							
		0							
0e00e6	20pps pulse dial	7	20pps pulse dial make time	-	0x07	0x09	0x09	XB	56
	make time	6							
		5							
		4							
		3							
		2							
		1							
		0							
0e00e7	20pps pulse dial	7	20pps pulse dial break time	-	0x10	0x0E	0x0E	XB	57
	break time	6							
		5							
		4							
		3							
		2							
		1							
0e00e8	20pps pulse dial	7	20pps pulse dial inter digit pause	-	0x59	0x40	0x5c	XB	58
	inter digit pause	6	(unit: 10 ms, HEX)						
		5							
		4							
		3							
		2							
		1							
		0							
0e00e9	PB signal	7	PB signal transmission level (unit: 1	Utility	0x0a	0x0a	0x06	XB	59
	transmission	6	dBm, HEX)	Mode					
	level	5	1	Special					
		4	1	Setting					
		3							
		2	1						
		1	1						
		0							
0e00ea	PB signal level	7	PB level difference (HL) (unit: 0.5	Utility	0x04	0x04	0x04	XB	5A
	difference (HL)	6	dBm, HEX)	Mode					
		5	1	Special					
		4		Setting					
		3	1						
		2	1						
		1							
		0	1						
				L					

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00eb	DcLoop	7	DCLOOP integration time at CML	-	0x50	0x50	0x50	XB	5B
	integration time when CML is set	6	relay OFF (unit: 5 ms, HEX) (Lower limit 20 ms)						
	to OFF	5							
		4							
		3							
		2							
		1							
0.00	5.1	0	DOLOGD: 4		0.40	0.40	0.40	VD	
0e00ec	DcLoop integration time	7	DCLOOP integration time at CML relay ON (unit: 5 ms, HEX) (Lower	-	0x10	0x10	0x10	XB	5C
	when CML is set	6 5	limit 20 ms)						
	to ON								
		3							
		2							
		1							
		0							
0e00ed	Pause time	7		Utility	0x01	0x01	0x01	XB	5D
ocooca	T dase time	6		Mode	OXO I	OXO I	OXO I	7.5	OB
		5		Special					
		4		Setting (0-2)					
		3		(0 2)					
		2	Pause time (unit: sec, HEX)						
		1							
		0							
0e00ee	DCLOOP check	7	DC-LOOP check	Utility	0x00	0x00	0x00	XB	5E
	mode		0: No	Mode					
		6	1: Always	Special Setting					
		5		(6,7)					
		4							
		3							
		2							
		1							
		0							
0e00ef	DCLOOP	7	DCLOOP waiting time (unit: 100	_	0x00	0x00	0x00	XB	5F
	waiting time	6	ms, HEX)						
		5							
		4							
		3							
		2							
		1							
		0							

4.19.14 0e00f#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e00df	DCLOOP	7	DCLOOP instantaneous shutdown	-	0x00	0x00	0x00	XB	60
	instantaneous shutdown allowed time (ph.A)	6	allowable time (unit: 10 ms, HEX) (at the time of calling, CML ON to end of						
		E 5'							
		4							
		3							
		2							
		1							
		0							
0e00f1	DCLOOP	7	DCLOOP instantaneous shutdown	-	0x00	0x00	0x00	XB	61
	instantaneous	6	allowable time (unit: 10ms, HEX)						

		Dit				Default		CS	RC
Address	Items	Bit No	Contents	Setting	Japan	North America	Europe	Command	Parameter
	shutdown	5	(after completion of dialing and after CML ON at the time of reception)						
	allowed time (ph.B)	4	CML ON at the time of reception)						
	(I')	3							
		2							
		1							
		0							
0e00f2	Dial mode RING DET	7		Utility	0x12	0x10	0x10	XB	62
	mode	6		Mode (0,1)					
		5	RING detection mode 01: No. of times	Utility					
		4	10: Time	Mode Special					
		3	Pulse format	Setting					
		2	00: General 01: SW 10: NO	(4,5)					
		1	Dialing method						
		0	00: PB 01: 10pps 10: 20pps 11: 16pps						
0e00f3	1st/2nd DT	7		-	0x00	0x00	0x00	XB	63
	detection	6							
	parameter	5							
		4							
		3	At 2nd DT detection DP dialing only						
		2							
		1							
		0	1st DT2 type						
0e00f4	Tone detection	7		Utility	0x11	0x01	0x01	XB	64
		6		Mode Special					
		5	1300Hz 0: No 1: Yes	Setting (4,5)					
		4	Busy Tone						
			0: No						
			1: Yes						
			Busy Tone detection is fixed to ON during TEL/FAX selection.						
		3	PBX DT 0: No 1: Yes						
		2	3rd DT 0: No						
			1: Yes						
		1	2nd DT 0: No						
			1: Yes						
		0	1st DT 0: No 1: Yes						
0e00f5	No. of busy	7	Busy tone detection frequency (HEX)	Utility	0x02	0x00	0x00	XB	65
	tone detection	6		Mode Special					
		5		Setting					
		4							
		3							
		2							
		1							
0-0050	No of Divis	0	Discondistration (1.1000	0.00	0.00	0.00	\	20
0e00f6	No. of RING detection	7	Ring detection frequency (times, HEX)	Utility Mode	0x02	0x02	0x02	XB	66
	3010011011	6	· · · · · · · ·	.,,,,,,,					
		5							
		4							
		3							
		2						1	

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		0							
0e00f7	RING detection	7	Ring detection time (sec, HEX)	Utility	0x06	0x06	0x06	XB	67
	time	6	,	Mode					-
		5		Special Setting					
		4		Coung					
		3							
		2							
		1							
		0							
0e00f8	Time to wait for a response	7	Time waiting response from remote station after calling (unit: sec, HEX)	Utility Mode	0x37	0x37	0x37	XB	68
	from a remote	6 5	- Station and saming (arms 556, 11271)	Special					
	station	4		Setting					
		3							
		2							
		1							
		0							
0e00f9	Answering	7	Answering machine CNG detection	Utility	0x64	0x64	0x64	XB	69
	machine function	6	time (unit: 10sec, HEX) (1 - 7)	Mode Special					
	Turiction	5	(unit. 10sec, HEA) (1 - 7)	Setting					
		4	Answer mode 0: OFF 1: ON	(4)					
		3	Answering machine DCLOOP						
		2	detection time (unit: 5sec, HEX) (1 -						
		1	15)						
		0							
0e00fa - 0e00fb	Remote reception	7	ASCII [2]	Utility Mode	0x2a 0x20	0x2a 0x20	0x2a 0x20	XB	6A - 6B
Oeooib	password	6		IVIOGE	0,20	0.00	0.00		
		5							
		3							
		2							
		1							
		0							
0e00fc	RBT	7	Ring Back Tone signal transmission	-	0x14	0x14	0x14	XB	6C
	transmission	6	time (unit: 1000 ms, HEX)						
	time	5							
		4							
		3							
		2							
		0							
0e00fd	CAR signal ON	7	CAR ON time max. value (unit: 20	_	0x28	0x00	0x00	XB	6D
ocoola	time max.	6	ms, HEX)	_	0,20	0,00	0,000	, Ab	OD
	value	5							
		4							
		3							
		2							
		1							
		0							
0e00fe	CAR signal ON	7	CAR ON time min. value (unit: 20	-	0x0a	0x00	0x00	XB	6E
	time min. value	6	ms, HEX)						
		5							
		4							
		3							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		2							
		1							
		0							
0e00ff	CAR signal	7	CAR OFF time max. value (unit: 20	-	0x28	0x00	0x00	XB	6F
	OFF time max. value	6	ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
		0							

4.19.15 0e010#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0100	CAR signal	7	CAR OFF time min. value (unit: 20	-	0x0a	0x00	0x00	XB	70
	OFF time min. value	6	ms, HEX)						
	value	5							
		4							
		3							
		2							
		1							
		0							
0e0101	CAR signal	7	CAR (information receiving terminal	-	0x01	0x00	0x00	XB	71
	detection frequency	6	start signal) detection frequency (times, HEX)						
	li equelley	5	(umos, riezv)						
		4							
		3							
		2							
		1							
		0							
0e0102	Caller ID signal waiting time	7	ID waiting time after Caller ID/DIAL IN primary response (unit 1000 ms,	-	0x05	0x00	0x00	XB	72
	waiting time	6	HEX)						
		5	,						
		4	-						
		3							
		2							
		1							
0e0103	Remote	7	Password signal (DTMF) detection	_	0x14	0x14	0x14	XB	73
000100	reception	6	waiting time (unit: 100 ms, HEX)		OX11	OX11	OXII	7.5	''
	password entry	5							
	waiting time	4							
		3							
		2							
		1							
		0							
0e0104	Normal/number display automatic line	7	Automatic judgment function 0: OFF 1: ON	-	0x83	0x00	0x00	ХВ	74
	determination	6	-						
	function	5							
		4	_						
		3	V23 signal detection waiting time						
		2	when judged (x1 sec, HEX)						
		1	1						

		Bit				Default		CS	RC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
		0								
0e0105	Monitor speaker	7	PB tone monitoring at the time of off-hook	Utility Mode	0x03	0x03	0x03	ХВ	75	
	(Transmission	6	Monitor speaker in communication	(0-6)						
	signal sound)	5	00: OFF 11: ON							
		4	Speaker volume (HEX)(0-1F)							
		3								
			2							
		1								
		0								
0e0106 -	Numeric ID	7	ASCII [20] When ID is less than 20	Utility	ALL 0x20	ALL 0x20	ALL 0x20	XB	76 – 7F	
0e010f	[20]	6	digits, justify to the left and insert space at the top (no NULL	Mode						
		5	terminator).							
		4	,							
		3								
		2								
		1								
		0								

4.19.16 0e011#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parametei
0e0110 -	Numeric ID	7	ASCII [20] When ID is less than 20	Utility	ALL 0x20	ALL 0x20	ALL 0x20	XB	80 - 89
0e0119	[20]	6	digits, justify to the left and insert space at the top (no NULL	Mode					
		5	terminator).						
		4	,						
		3							
		2							
		1							
		0							
0e011a	PBX	7		Utility	0x0f	0x0f	0x0f	XB	8A
	connection mode	6		Mode (0-3)					
	Inode	5		(0-3)					
		4							
		3	PBX call						
		2	0000 - 1001: keypad 1011: Reserved 1100: Reserved 1101: Reserved						
		1	1110: Reserved 1111: PBX						
		0	unconnected						
0e011b	Protocol	7		Utility	0x00	0x00	0x00	XB	8B
	monitor	6		Mode (5)					
		5	TEL/FAX switching RBT monitor sound 0: OFF 1: ON						
		4	Inhibit the speaker to sound when off-hook key is pressed 1: Inhibit 0: Not inhibit						
		3							
		2							
		1							
		0							
0e011c	Reception	7		Utility	0x3f	0x3f	0x3f	XB	8C
	function (disable)	6		Mode (0-4)					
	(disable)	5	Name display 0: Not inhibit 1: Inhibit	(0-4)					

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4	Compulsory Memory RX 0: Not inhibit 1: Inhibit						
		3	No. of caller / name display (number display / (display of subscribers for trace-back system)) 0: Not inhibit 1: Inhibit						
		2	Closed-area communication 0: Not inhibit 1: Inhibit						
		1	Remote RX 0: Not inhibit 1: Inhibit						
		0	Dial In 0: Not inhibit 1: Inhibit						
0e011d	PBX outside	7	1st digit	Utility	0xff	0xff	0xff	XB	8D
	line access code 1 (BCD)	6		Mode					
	(202)	5							
		4							
		3	2nd digit						
		2							
		0							
0e011e	PBX outside	7	3rd digit	Utility	0xff	0xff	0xff	XB	8E
	line access	6	ora algit	Mode	5 7	5 7	•/	/.5	
	code 2 (BCD)	5	_						
		4							
		3	4th digit						
		2							
		1							
		0							
0e011f	Limit of long size reception	7		-	0x00	0x00	0x00	XB	8F
	size reception	6	-						
		5	1						
		3	-						
		2	-						
		1							
		0	Limit of long size reception 0: Limit 1: Unlimited						

4.19.17 0e012#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
0e0120	Max. size of	7	When the resolution for reception is	-	0x64	0x64	0x64	XB	90
	long original received	6	400 dpi or less, the size of a long original received that is regarded as						
	(In the case of	5	an error						
	400 dpi or less)	4	The maximum size is a decimal						
		3	value x 10 mm. 0 is regarded as						
		2	1000 mm.)						
		1							
		0							
0e0121	Max. size of	7	When the resolution for reception is	-	0x64	0x64	0x64	XB	91
	long original received	6	600 dpi, the size of a long original received that is regarded as an error						
	(In the case of	5	leceived that is regarded as an entit						
	600 dpi or less)	4							

		Bit				Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
			3							
		1	value x 10 mm. 0 is regarded as 1000 mm.)							
		0								
0e0122	Voice response	7		-	0x0e	0x0e	0x0e	XB	92	
	output level adjustment	6	Voice response volume (HEX) 0000: min - 1111: max							
	adjustificiti	5								
		4								
		3								
		2								
		1								
		0								
0e0123	Monitor speaker (Received signal sound)	7	Speaker volume (HEX) (0-1F)	Utility Mode (0-4)	0x14	0x14	0x14	XB	93	
		6								
		5								
		4								
		3								
		2								
		1								
0-0404	December	0			A11 0:00	ALL 0:-00	ALL 0: 00	VD	04.05	
0e0124 - 0e012f	Reserved area	7		-	ALL 0x00	ALL 0x00	ALL 0x00	XB	94 - 9F	
000121		6								
		5								
		4								
		2	-							
		1								
		0								
		U								

4.19.18 0f000#

		Items Bit			Default			CSRC	
Address	Items		Contents	Setting	Japan	North America	Europe	Command	Parametei
r	Reception	7	400dpi	-	0xaa	0xaa	0xaa	X2	00
	main scan line resolution	6	300dpi						
	ability [0]	5	200dpi						
	, , , , , ,	4							
		3	16pels/mm						
		2							
		1	8pels/mm						
		0							
0f0001	Reception main scan line resolution ability [0]	7		-	0x01	0x01	0x01	X2	01
		6							
		5							
		4							
		3							
		2	(1200dpi)						
		1	(800dpi)						
		0	600dpi						
0f0002	Reception sub	7	400dpi	-	0xbb	0xbb	0xbb	X2	02
	scanning resolution	6	300dpi						
	ability [0]	5	200dpi						
		4	100dpi						
		3	15.4 l/mm						
		2							
		1	7.7 l/mm						

A -1 1	,,	Bit	Contents	0		Default		CS	KC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parametei
		0	3.85 l/mm						
0f0003	Reception sub scanning resolution	7		-	0x01	0x01	0x01	X2	03
		6							
	ability [1]	5							
		4							
		3	(4000 1 3)						
		2	(1200dpi)						
		1	(800dpi)						
0f0004	Reception	7	600dpi	_	0x1f	0x1f	0x1f	X2	04
010004	coding method	6		-	UXII	UXII	UXII	\ \^2	04
	ability	5	(JPEG)						
		4	JBIG						
		3	MMR						
		2	MR						
		1	MH						
		0	THRU						
0f0005	Received	7		_	0x02	0x02	0x02	X2	05
2.0000	document	6	-		3702	3,02	3702	^_	
	width ability	5	(Legal)						
		4	(Letter)						
		3	A3						
		2	B4						
		1	A4						
		0	(A5)						
0f0006	Received document length ability	7		-	0x42	0x42	0x42	X2	06
		6	Unlimited						
		5	(Legal)						
		4	(Letter)						
		3	,						
		2	B4						
		1	A4						
		0	(A5)						
0f0007	Reception	7		-	0x1b	0x1b	0x1b	X2	07
	speed ability [0]	6							
		5							
		4	V.29-96						
		3	V.29-72						
		2							
		1	V.27-48						
		0	V.27-24						
0f0008	Reception	7	V.17-144	-	0xfc	0xfc	0xfc	X2	08
	speed ability [1]	6	V.17-120						
	[,,]	5	V.17-96						
		4	V.17-72						
		3	V.33-144						
		2	V.33-120						
		1	(TCM-96)						
		0	(TCM-72)						
0f0009	Reception	7	V.34-192	-	0xff	0xff	0xff	X2	09
	speed ability [2]	6	V.34-168						
		5	V.34-144	1					
		4	V.34-120	_					
		3	V.34-96						
		2	V.34-72						
		1	V.34-48						

		Bit				Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
		0	V.34-24							
0f000a	Reception speed ability	7	-	-	0x3f	0x3f	0x3f	X2	0A	
	[3]	6	1424.000							
		5	V.34-336							
		4	V.34-312							
		3	V.34-288							
		2	V.34-264							
		1	V.34-240							
OfOOOL	Danation	0	V.34-216		005	005	005	V0	OD.	
0f000b	Reception MSLT ability	7	T3.85 or 200 x 100dpi (0-40) ms unit	-	0x05	0x05	0x05	X2	0B	
	WOE! domey	6								
		5	-							
		3	_							
		2	_							
		_	_							
		0	_							
0f000c	Reception	7	T7.7 or 200 x 200dpi (0-40) ms unit	_	0x05	0x05	0x05	X2	0C	
010000	MSLT ability	6	17.7 or 200 x 200dpi (0-40) ms unit	-	UXUS	UXUS	UXUS	\ \A2	00	
		5	-							
		4	-							
		3	_							
		2	-							
		1	-							
		0	-							
0f000d	Reception	7	T11.55 or 300 x 300dpi (0-40) ms	_	0x05	0x05	0x05	X2	0D	
010000	MSLT ability	6	unit	_	0.000	0.000	0.000	\ \Z	OD	
		5								
		4	-							
		3								
		2	<u></u>							
		1	-							
		0	-							
0f000e	Reception	7	T15.4 or 400 x 400dpi or 600 x	_	0x05	0x05	0x05	X2	0E	
	MSLT ability	6	600dpi (0-40) ms unit							
		5	-							
		4	-							
		3	-							
		2	-							
		1	-							
		0								
0f000f	Reception	7		-	0x01	0x01	0x01	X2	0F	
	ECM ability	6	1							
		5	1							
		4	1							
		3	1							
		2	1							
		1	1							
		0	ECM reception capability							
			0: OFF							
			1: ON							

4.19.19 0f001#

		Bit				Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter	
0f0010	Reception	7		-	0x39	0x39	0x39	X2	10	
protocol ab	protocol ability	6								
		5	FAX-CSRC							
		4	V8/V34							
		3	DIAG							
		2								
		1								
		0	G3S							
0f0011	Reception option frame ability	7		-	0x07	0x07	0x07	X2	11	
		6								
		5								
		4	(BFT)							
		3	(BTM)							
		2	PWD							
		1	(SEP)							
		0	SUB							
0f0012 -	Reserved area	7		-	ALL 0x00	ALL 0x00	ALL 0x00	X2	12 - 1F	
0f001f		6								
		5								
		4								
		3								
		2								
		1								
		0								

4.19.20 10000#

		Bit			Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parametei
100000	Transmission	7	400dpi	-	0x22	0x22	0x22	X2	40
	main scan line resolution	6	300dpi						
	instruction [0]	5	200dpi						
	[1]	4							
		3	16pels/mm						
		2							
		1	8pels/mm						
		0							
100001	Transmission main scan line resolution instruction [1]	7		-	0x01	0x01	0x01	X2	41
		6							
		5							
		4							
		3							
		2	(1200dpi)						
		1	(800dpi)						
		0	600dpi						
100002	Transmission	7	400dpi	-	0x11	0x11	0x11	X2	42
	sub scanning resolution	6	300dpi						
	instruction [0]	5	200dpi						
		4	100dpi						
		3	15.4 l/mm						
		2							
		1	7.7 l/mm						
		0	3.85 l/mm						
100003	Transmission	7		-	0x01	0x01	0x01	X2	43
	sub scanning	6							

۸	14	Bit	0	C-44!		Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Paramete
	resolution	5							
	instruction [1]	4							
		3							
		2	(1200dpi)						
		1	(800dpi)						
400004	T	0	600dpi		0.46	045	045	V0	4.4
100004	Transmission coding method	7 6		-	0x1f	0x1f	0x1f	X2	44
	instruction	5	(JPEG)	_					
		4	JBIG	-					
		3	MMR	_					
		2	MR						
		1	MH						
		0	THRU						
100005	Transmission	7		-	0x02	0x02	0x02	X2	45
	document width	6							
	instruction	5	(Legal)						
		4	(Letter)						
		3	A3						
		2	B4						
		1	A4						
		0	(A5)						
100006	Transmission document	7	Linkarita	-	0x42	0x42	0x42	X2	46
length	length	6	Unlimited						
	instruction	5 4	(Legal) (Letter)	_					
		3	(Letter)	_					
		2	B4	_					
	_	1	A4				0x1b	X2	
		0	(A5)						
100007	Transmission	7		-	0x1b	0x1b			47
	speed	6							
	instruction [0]	5							
		4	V.29-96						
		3	V.29-72						
		2							
		1	V.27-48						
		0	V.27-24						_
100008	Transmission speed	7	V.17-144	-	0xf0	0xf0	0xf0	X2	48
	instruction [1]	6 5	V.17-120 V.17-96	-					
		4	V.17-96	_					
		3	V.33-144	-					
		2	V.33-120						
		1	(TCM-96)						
		0	(TCM-72)	_					
100009	Transmission	7	V.34-192	-	0xff	0xff	0xff	X2	49
	speed	6	V.34-168	1					
	instruction [2]	5	V.34-144						
		4	V.34-120						
		3	V.34-96						
		2	V.34-72						
		1	V.34-48						
		0	V.34-24						
10000a	Transmission	7		-	0x3f	0x3f	0x3f	X2	4A
	speed instruction [3]	6							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		5	V.34-336						
		4	V.34-312						
		3	V.34-288						
		2	V.34-264						
		1	V.34-240						
		0	V.34-216						
10000b	Transmission MSLT	7	T3.85 or 200 x 100dpi (0-40) ms unit	-	0x05	0x05	0x05	X2	4B
	instruction	6							
		5							
		4							
		3							
		2							
		1							
		0							
10000c	Transmission	7	T7.7 or 200 x 200dpi (0-40) ms unit	-	0x05	0x05	0x05	X2	4C
	MSLT instruction	6							
	Instruction	5							
		4							
		3							
		2							
		1							
		0							
10000d	Transmission	7	T11.55 or 300 x 300dpi (0-40) ms	-	0x05	0x05	0x05	X2	4D
	MSLT	6	unit						
	instruction	5							
		4							
		3							
		2							
		1							
		0							
10000e	Transmission	7	T15.4 or 400 x 400dpi or 600 x	-	0x05	0x05	0x05	X2	4E
	MSLT	6	600dpi (0-40) ms unit						
	instruction	5	-						
		4	-						
		3	-						
		2	-						
		1							
		0	-						
10000f	Transmission	7		_	0x01	0x01	0x01	X2	4F
	ECM	6	-						
	instruction	5	-						
		4	-						
		3	-						
		2	-						
		1	ECM transmission frame size						
		'	0: 256						
			1: 64						
		0	ECM transmission instruction						
			0: OFF						
			1: ON						

4.19.21 10001#

		Bit	Outliet		Default			CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
100010	Transmission	7		-	0x11	0x11	0x11	X2	50
	protocol instruction	6							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		5	FAX-CSRC						
		4	V8/V34						
		3	DIAG						
		2							
		1							
		0	G3S						
100011	Transmission	7		-	0x00	0x00	0x00	X2	51
	option frame instruction	6							
	mondon	5							
		4	(BFT)						
		3	(BTM)						
		2	PWD						
		1	(SEP)						
		0	SUB						
100012 -	Reserved area	7		-	ALL 0x00	ALL 0x00	ALL 0x00	X2	52 - 5F
10001f		6							
		5							
		4							
		3							
		2							
		1							
		0							

4.19.22 12000#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
120000	TTI/RTI setting	7		Utility	0x03	0x03	0x03	X2	80
		6	SW for prohibiting the printing of the TTI address 0: Printing of the address allowed 1: Printing of the address not allowed	Mode (0,1,4)					
		5	RTI addition						
		4	00:OFF 01: (OFF) 10: INSIDE 11: OUTSIDE						
		3	TTI denominator display 0: Total 1: Individual						
		2 Inhibition of TTI setting INSIDE display 0: No 1: Yes	0: No						
		1							
		0							
120001	Report setting	7		Utility	6c	6c	6c	X2	81
	1	6	Addition of image 0: No, 1: Yes	Mode (2 - 5) Utility					
		5	Automatic output of reserved report 0: No, 1: Yes	Mode Special					
		4	TX result report	Setting					
		3	00: Not output 01: Output only at errors 10: Always output 11: (Normal output)	(6)					
		2	1 /						
	-	1							
		0							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
120002	Report setting 2	7	The FAX CSRC communication log is printed on the Activity Report 0: No, 1: Yes	Utility Mode (0 - 2)	0x04	0x04	0x04	X2	82
		6		Utility Mode					
		5	ALL COLOR	Special					
		4	Abbreviation List 0: numerical order 1: sorted order	Setting (0,1)					
		3	Automatic daily output of journal 0: No 1: Yes						
		2	Automatic output of journal 100 communication 0: No 1: Yes						
		1	Automatic output or error trace list 0: No 1: Yes						
		0	Automatic output of trace list 0: No 1: Yes	_					
120003	Output time of	7	Designation of 24 hours ASCII four-	_	0x30	0x30	0x30	X2	83
	daily automatic	6	digit		30	30	3/1.00		
	output of journal (hour:	5							
	grade of 10)	4							
		3							
		2							
		1							
		0							
120004	Output time of	7	Designation of 24 hours ASCII four-	-	0x39	0x39	0x39	X2	84
	daily automatic output of	6 5	digit						
	journal (hour:		5						
	grade of 1)								
		2							
		-							
		0							
120005	Output time of	7	Designation of 24 hours ASCII four-	_	0x30	0x30	0x30	X2	85
120000	daily automatic	6	digit		OXOU	OXOO	UX00	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
	output of	5							
	journal (minute: grade of 10)	4							
	,	3							
		2							
		1							
120006	Output time of	0 7	Designation of 24 hours ASCII four-	-	0x30	0x30	0x30	X2	86
	daily automatic output of	6	digit						
	journal (minute:	5							
	grade of 1)	4							
		3							
		2							
		1	1						
100007	Output a string	0	Cotting of dollar difference - for dollar	1 14:02-	000	000	0::00	V0	07
120007	Output setting	7	Setting of daily difference for daily mode set for automatic output 0: Daily difference not limited 1: Daily difference limited	Utility Mode (3 - 5) Utility	0x00	0x00	0x00	X2	87
		6		Mode Special Setting (0)					

		D:4				Default		CS	RC
Address	Items	Bit No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		5	Transmission result report selection screen 0: Not displayed 1: Displayed						
		4	Broadcast result report output method 0: All destinations 1: 1Each destination						
		3							
		2	Output order of journal transmission result reservation report 0: From old one 1: From new one						
		1							
		0							
120008	Invisible mode	7		-	0	0	0	X2	88
		6							
		5							
		4							
		3	D: L (DOEAY TY (DOL: N.)						
		2	Display of PCFAX TX [PC] in Note of report 0: No 1: Yes						
		1							
		0	Details of remote station display during program direct registered calls and abbreviated dialing 0: Display of registered name 1: Display of number						
120009	Reserved area	7 6		-	0x00	0x00	0x00	X2	89
		5							
		4							
		3							
		2							
		1							
		0							
12000b	F code report	7		Utility Mode (0 -	0x0f	0x0f	0x0f	X2	8B
	setting	6	-	3)					
		5 4		,					
		3	Relay request report output 0: No 1: Yes						
		2	Relay TX result report output 0: No 1: Yes						
		1	Bulletin polling transmission report output 0: No 1: Yes						
		0	Confidential reception report output 0: No 1: Yes						
12000c	Internet Fax	7		Utility	0x61	0x61	0x61	X2	8C
	report Setting	6	Network Fax RX Error Report (0: OFF, 1: ON)	Mode					
		5	Internet Broadcast Fax Result Report (0: OFF, 1: ON)						
		4							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		3	E-Mail Message Body printing (0: ON, 1: OFF)						
		2	TX Error Report printing (0: ON, 1: OFF)						
		1	MDN Message printing (0: ON, 1: OFF)						
		0	DSN Message printing (0: ON, 1: OFF)						
12000d	FAX report	7		Utility	0x00	0x00	0x00	X2	8D
	setting	6		Mode					
		5							
		4							
		3							
		2		_					
		1	PC-Fax Error report output 0: No, 1: Yes						
		0	Relay print 0: No, 1: Yes						
12000e -	Reserved area	7		-	0x00	0x00	0x00	X2	8E - 9F
12000f		6							
		5							
		4							
		3							
		2							
		0							
1		U							

4.19.23 13000#, 13001#, 13002#, 13003#, 13004#, 13005#, 13006#

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
130000 -	Reserved area	7		-	-	-	-	XE	00 - 68
130068		6							
		5							
		4							
		3							
		2							
		1							
100000		0						\	
130069	Upper limit for signal	7	(-dBm) Switched according to destination of FAX	Utility Mode	0x0a	0x0a	0x08	XE	69
trans	transmission	6		Special Setting					
	level setting	5 4							
		3							
		2							
		1							
		0							
13006a	Lower limit for	7	(No. of times) Switched according to	Utility	0x00	0x00	0x00	XE	6A
	call termination	6	destination of FAX	Mode					
	frequency setting range	5							
		4							
		3							
		2							
		1							
		0							
13006b	Upper limit for call termination	7	(No. of times) Switched according to destination of FAX	Utility Mode	0x0f	0x0f	0x0f	XE	6B
	frequency	6	- Countaion of LAX	Mode					
	setting range	5							

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		3							
		2							
		1							
		0							
13006c	Dial method setting	7		-	0x00	0x22	0x11	XE	6C
	Setting	6							
		5							
		3							
		2							
		1	Dial method setting (Switched						
		0	according to destination of FAX)						
		O	00: PB, 10pps, 20pps 01: PB 10: PB, 10pps 11: PB, 10pps, 16pps						
13006d	Upper limit for	7	(No. of times) Switched according to	Utility	0x07	0x01	0x07	XE	6D
	redial frequency	6	destination of FAX	Mode Utility					
	setting range	5		Mode					
		4		Special					
		3		Setting					
		2							
		1							
40000-	I la a a a line it fan	0	(Minutes) Quitales de seculius de	L IATEA .	0::04	0::04	0::04	VE	٥٦
13006e	Upper limit for redial interval	7 6	(Minutes) Switched according to destination of FAX	Utility Mode	0x01	0x01	0x01	XE	6E
	setting range	5	-						
		4							
		3	1						
		2	-						
		1	1						
		0							
13006f	Lower limit for	7	(Minutes) Switched according to	Utility	0x0f	0x0f	0x0f	XE	6F
	redial interval	6	destination of FAX	Mode					
	setting range	5							
		4							
		3							
		2							
		1							
		0							

4.19.24 13007#, 13008#, 13009#, 1300a#, 1300b#

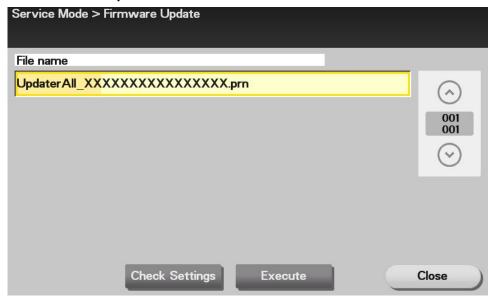
		Bit				Default		CSRC	
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
130070 -	Reserved area	7		-	0x7f	0x00	0x00	XE	70 - 71
130071		6							
		5							
		4							
		3							
		2							
		1							
		0							
130072	Setting of lower	7	(-dBm) Switched according to	-	0x0e	0x0f	0x09	XE	72
	limit for DTMF transmission	6	destination of FAX						
	level setting	5							
	range								

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		4							
		3							
		2							
		1							
1000=0	0	0	15 10 11 1					\ <u></u>	
130073	Setting of upper limit for	7	(-dBm) Switched according to destination of FAX	-	0x0a	0x0a	0x05	XE	73
	DTMF	6	- destination of 1700						
	transmission	5							
	level setting range	4							
	lange	3							
		2							
		1							
400074	0 111	0	(17) 0 11 1 11 11		0.04	0.04	0.04	\/F	-,
130074	Setting of lower limit for DTMF	7	(dB) Switched according to destination of FAX	-	0x01	0x01	0x01	XE	74
	H-L level	6	- decimation of 1750						
	difference	5	-						
	setting range	4	-						
		3	-						
		2							
		1	-						
		0							
130075	Setting of upper limit for	7	(dB) Switched according to destination of FAX	-	0x04	0x04	0x04	XE	75
	DTMF H-L	6	destination of 1 AX						
	level difference	5							
	setting range	4	-						
		3							
		2							
		1							
		0							
130076	For transmission	7		-	0x00	0x00	0x00	XE	76
	transmission	6							
		5							
		4							
		3							
		2	Restrict Plural Fax Destination 0: OFF 1: ON						
		1	Destination Check Display Function 0: OFF 1: ON						
		0	Screen display during transmission 0: OFF 1: ON						
130077	Lower limit	7	(-dBm) Switched according to	-	0x0f	0x0f	0x0f	XE	77
	setting of the	6	destination of FAX						
	signal send-out level setting	5							
	range	4	1						
		3	1						
		2	1						
		1	1						
		0	1						
130078 -	Reserved area/	7		-	-	-	-	XE	78 - 86
130086	Boundary area	6	1						
		5	1						
		4							
		3	1						
		2	1						
		1	1						
	[_ '	J	1	1		1	I	

	_	Bit		_		Default		CSRC				
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter			
400007	DDDD sin s	0			000	000	000	VE	07			
130087	DRPD ring pattern	7		-	0x00	0x00	0x00	XE	87			
		5										
		4										
		3										
		2										
		1										
		0	DRPD ring pattern display 0:OFF 1:ON									
130088	Single/Double/	7	(No. of times)	-	0x00	0x00	0x00	XE	88			
	Triple	6										
	Setting of lower limit for call	5										
	termination	4										
	frequency setting range	3										
	3 - 3-	2										
		0	_									
130089	Single/Double/	7	(No. of times)	_	0x00	0x00	0x00	XE	89			
	Triple	6			3,00	3,00	3,00					
	Setting of upper limit for	5										
	call termination	4										
	frequency setting range	3										
	Setting range	2										
		1										
13008a	NZ_DA4	7	(No. of times)	_	0x00	0x00	0x00	XE	8A			
13000a	Setting of lower	6	(No. of times)	-	0,000	0,000	0.000	\ \L	04			
	limit for call	5										
	termination frequency	4										
	setting range	3										
		2										
		1										
100001		0			2.22							
13008b	NZ_DA4 Setting of	7	(No. of times)	-	0x00	0x00	0x00	XE	8B			
	upper limit for	5										
	call termination frequency	4										
	setting range	3	-									
		2										
		1										
10000		0			0.05	0.05	0.0-		00 ==			
13008c – 1300b8	Reserved area	7		-	0x00	0x00	0x00	XE	8C - B8			
-		5	-									
		4										
		3										
		2										
		1										
1300b9 – 1300bb	Boundary area	7	-	-	-	-	-	XE	B9 - BB			
		5										
		4										
		3										
		2										

		Bit				Default		CS	RC
Address	Items	No	Contents	Setting	Japan	North America	Europe	Command	Parameter
		1							
		0							
1300bc	Setting of	7	(second)	-	0x00	0x00	0x00	XE	ВС
	upper limit for call time	6 5							
	frequency								
	setting range	4							
		3							
		2							
		1							
		0							
1300bd	Setting of lower	7	(second)	-	0x2d	0x2d	0x2d	XE	BD
	limit for call time frequency	6							
	setting range	5							
		4							
		3							
		2							
		1							
		0							

4.20 Firmware Update



4.20.1 Check Settings

(1) Use

- To update firmware using the USB memory device
- The following items are displayed
- · Firmware data model name
- · Firmware data version information

(2) Procedure

- 1. Set the USB memory device.
- 2. Call the Service Mode to the screen.
- 3. Touch [Firmware Update] -> [Check Settings].

NOTO

· An error message appears if the data does not have a correct data format.

4.20.2 Execute

(1) Use

- · To update firmware using the USB memory device
- Use for updating the firmware.

(2) Procedure

· For details, see "J.2. Firmware upgrading procedure by USB memory device."

4.21 Loadable Drive Information

4.21.1 Use

- · To display information relating to loadable drivers downloaded in the machine
- · To delete a loadable driver downloaded in the machine
 - · Condition: Loadable driver condition

Yet to be installed	The loadable driver is yet to be installed in the machine.
Installed	The loadable driver has been installed in the machine with the corresponding IC card reader ready for operation.

- · Product name: IC card reader product name
- Serial number: Serial number of the IC card reader
- · Version: Version of firmware of the IC card reader
- Manufacturer name: Name of the manufacturer of the IC card reader

4.21.2 Procedure

- 1. Call the Service Mode to the screen.
- 2. Touch [Loadable Drive Information].
- 3. The loadable driver information appears.
- 4. To delete the loadable driver, touch [Delete].
- 5. On the screen that confirms deletion of the loadable driver, select [Yes] and touch [OK].
- 6. Turn OFF and ON the power switch to restart the machine.

4.22 Loadable Driver Download

4.22.1 Use

- · Download the loadable driver data in the machine.
- · Use a USB memory for the downloading.

4.22.2 Required systems

- · PC having a USB port
- USB memory device

4.22.3 Writing data to USB memory device

- 1. Save the loadable driver data in an appropriate location of the PC.
- 2. Connect the USB memory device to the PC.
- 3. Create a [firmware] folder in an area immediately under the drive of the USB memory device.
- 4. Copy the loadable driver data (***.tar) in the firmware folder created in step 3.

NOTE

• Make sure that the loadable driver data is saved in drive:/firmware/***.tar.

4.22.4 Procedure

- 1. Turn ON the main power switch and connect the USB memory device to the USB port of the machine.
- 2. Call the Service Mode to the screen.
- 3. Touch [Loadable Driver Download].
- 4. The loadable driver data in the USB memory device is displayed in a list.
- 5. Select the loadable driver data to be downloaded and touch [Execute].
- 6. Touch [OK] to start downloading the loadable driver.

- · NEVER disconnect the USB memory device from the machine while the loadable driver is being downloaded.
- 7. Following the messages shown on the control panel, restart the machine.

4.23 Internet ISW Settings



- · By using this setting, the firmware or update file stored in the server can be downloaded over internet for upgrading.
- · For details for upgrading the firmware, refer to "REWRITING OF FIRMWARE."

4.23.1 Enable Settings

(1) Use

- To set whether or not to enable each setting for Internet ISW.
- To use when upgrading the firmware by Internet ISW.

(2) Default setting

Disable

(3) Setting item

- Enable
- · "Disable"

4.23.2 HTTP Server Settings

(1) Connect Proxy

(a) Use

• Set whether or not to use the proxy server.

(b) Default setting

Disable

(c) Setting range

- Enable
- "Disable"

(2) Proxy Server - Proxy Server Address

(a) Use

· To set an address for the proxy server.

(3) Proxy Server - Proxy Server Port Number

(a) Use

· To set a port number used to access the proxy server.

(4) Proxy Authentication - Authentication

(a) Use

• To set whether or not to perform authentication when accessing the proxy server.

(5) Proxy Authentication - User Name

(a) Use

• To register a user name used to perform authentication for the proxy server.

(6) Proxy Authentication - Password

(a) Use

· To register a password used to perform authentication for the proxy server.

(7) Connection Time-out

(a) Use

To set the time for the timeout for accessing the server.

(b) Default setting

• 60 sec

(c) Setting range

• 30 to 300 sec

4.23.3 Forwarding Access Setting

(1) User ID

(a) Use

To register the user ID for accessing the program server where firmware is to be stored.

(b) Procedure

- 1. Select [User ID].
- 2. Enter the user ID (up to 64 one-byte characters) on the on-screen keyboard.

(2) Password

(a) Use

· To register the password for accessing the program server where firmware is to be stored.

(b) Procedure

- 1. Select [Password].
- 2. Enter the password (up to 64 characters) on the on-screen keyboard.

(3) URL

(a) Use

• To register the address and directory of the program server where the firmware is to be stored in URL.

(b) Procedure

- 1. Select [URL].
- 2. Enter the URL (up to 256 one-byte characters) on the on-screen keyboard.

NOTE

Enter the URL which format suits the protocol to be used.
 When connecting to http "http:// (Host name or IP address)/directory name" or "https:// (Host name or IP address)/directory name".

(4) FileName

(a) Use

· To register the file name of the firmware data to be downloaded.

(b) Procedure

- 1. Select [FileName].
- 2. Enter the file name (up to 63 one-byte characters) on the on-screen keyboard.

4.23.4 Download

(1) Use

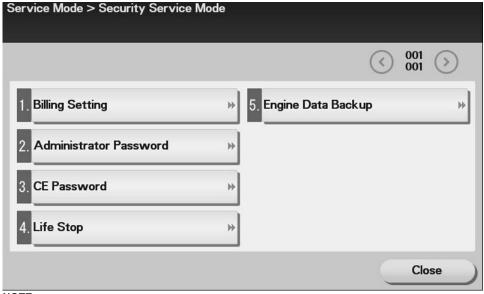
- · Access the program server according to the Internet ISW setting, and download and update the firmware.
- · To use when updating the firmware via network.
- · The firmware is downloaded and updated successively. During the firmware download and update, MFP cannot be used.

(2) Procedure

- 1. Select [Download].
- 2. Touch [OK] to start downloading the firmware.
- 3. The message to show the status will be displayed on the screen while connecting and transferring data.
- 4. When the firmware is normally upgraded, the main body will automatically be restarted to complete the Internet ISW.

5. Security Service Mode

5.1 List of Security Service Mode



NOTE

 After exiting Service Mode, you must turn OFF the main power switch. Turning ON the main power switch again makes the changes to the Service Mode setting take effect.

	Security Service	Mode	Ref. Page					
Billing Setting	Counter Setting	Large Size Counter Mode	I.5.3.1 Counter Setting					
		Total Counter Mode						
	OpenAPI Certification Management Setting	Restriction Code Settings	I.5.3.2 OpenAPI Certification Management Setting – Restriction Code Settings					
	License Management	Activation	I.5.3.3 License Management - Activation					
		Deactivation	I.5.3.4 License Management - Deactivation					
		Repair	I.5.3.5 License Management - Repair					
		Initialize	I.5.3.6 License Management - Initialize					
		Get Request Code	I.5.3.7 License Management - Get Request Code					
		List	I.5.3.8 License Management - List					
		List of Enabled Functions	I.5.3.9 License Management - List of Enabled Functions					
	Management Function	Management Function Choice	I.5.3.11 Management Function - Management Function Choice					
		Message	I.5.3.12 Management Function - Message					
Administrator Pass	word		I.5.4 Administrator Password					
CE Password			I.5.5 CE Password					
Life Stop			I.5.6 Life Stop					
Engine Data Backup	Engine Data Save Mode		I.5.7 Engine Data Backup					

5.2 Starting/Exiting

Starting procedure

- 1. Call the Service Mode to the screen.
- 2. Display the 10-key pad, and press the following keys in this order. Stop -> 2 -> 2 -> 0 -> 0
- 3. The Billing Setting screen appears.

Exiting procedure

- 1. Touch [Close].
- 2. Turn OFF the main power switch. Wait 10 seconds, then turn ON the main power switch again.

5.3 Billing Setting

5.3.1 Counter Setting

(1) Use

- To set the counting method for the total counter, size counter and banner paper counter.
- To set the size regarded as the large size (2 counts.)
- Use to change the counting method for the counters.

(2) Default setting (Large Size Counter)

Not counted

(3) Setting item

A3/11 × 17	When it exceeds 279 mm in the main scan direction and 420 mm in the sub scan direction (399 mm or more in the sub scan direction during fax scan), it is regarded as the large size. * Not counted in this machine
A3/B4/11 × 17/8 1/2 × 14	When it exceeds 215.9 mm in the main scan direction and 355.6 mm in the sub scan direction (337.8 mm or more in the sub scan direction during fax scan), it is regarded as the large size.
A3/11 × 17/B4/8 1/2 × 14/Foolscap	When it exceeds 203 mm in the main scan direction and 330 mm in the sub scan direction (313.5mm or more in the sub scan direction during fax scan) it is regarded as the large size

- · "No Count "
- A3/11 × 17
- A3/B4/11 × 17/8 1/2 × 14
- A3/11 × 17/B4/8 1/2 × 14/Foolscap

NOTE

When the Size Counter setting is set to "Not counted", the machine operate with following conditions regardless of the each
control panel settings.

Total Counter: Mode1

Banner Paper Count Mode: Mode1

(4) Default setting (Total Counter)

Mode 1

(5) Setting item (Total Counter)

- Mode 1: 1 count per 1 copy cycle
- · Mode 2: Large size is double counts

(6) Count-up table

Print mode		1-S	ided	2-Sided						
Size		ther than specified	Specifie	ed sizes	Sizes ot those s	her than pecified	Specified sizes			
Mode	M	ode	Мо	ode	Мс	de	Mode			
Туре	1	2	1	2	1	2	1	2		
Total	1	1	1	2	2	2	2	4		
Size	0	0	1	1	0	0	2	2		
2-sided Total	0	0	0	0	1	1	1	1		

- · 0: No count
- 1: 1 count
- 2: 2 counts
- 3: 3 counts
- 4: 4 counts

5.3.2 OpenAPI Certification Management Setting - Restriction Code Settings

(1) Use

 These are communication settings for the application which is developed by the third vendor. Do not set or change these settings without vendor's instructions.

5.3.3 License Management - Activation

(1) Functions

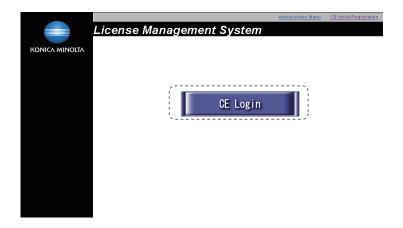
To activate i-Option functions.

(2) Use

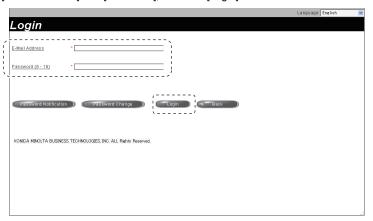
- · To activate i-Option functions with CE.
- · The functions can be activated by selecting the desired function and enter the appropriate license code and function code.
- Administrators also can carry out the procedure No.14 or later step to activate i-Option functions through Administrator Settings.

(3) Procedure

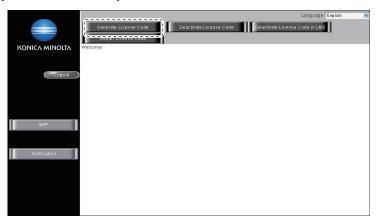
- · You need to access License Management System (LMS) to implement each function setting.
- Before accessing the LMS, CE are required to register the E-mail address and the password in the LMS. To register, click [CE Initial Registration] that is located in the upper right of CE Login screen.
- 1. Prepare "token certification."
- Access the following URL using the PC connected to the Internet. https://lms.konicaminolta.com/license/KM/support.aspx
- 3. Click [CE Login].



4. Enter [E-Mail Address] and [Password], and click [Login].



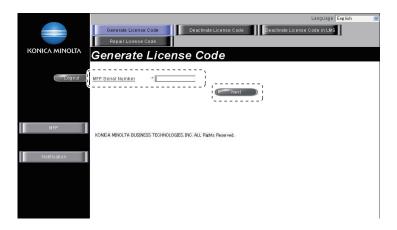
5. Click [Generate License Code].



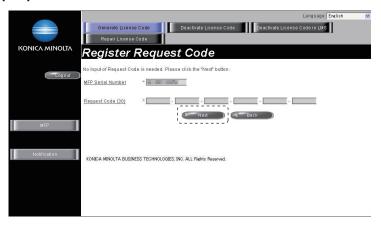
6. Enter the serial number of the target MFP, and click [Next].

NOTE

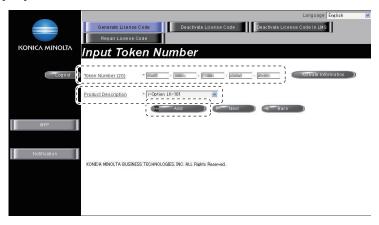
• Make sure to enter alphabet letters of the serial number in all capital letters.



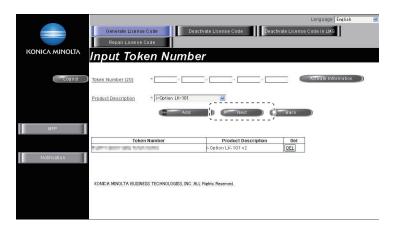
7. Click [Next].



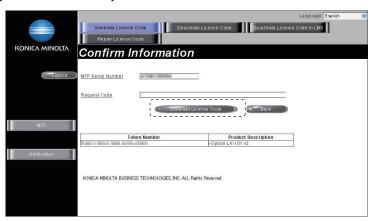
- 8. Enter the token number written in the token certification, and select the product description.
- 9. Click [Add].



10. Confirm the registered items, and click [Next].



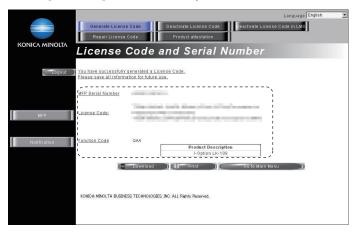
11. Click [Generate license Code].



- 12. LMS issues license code and function code.
- 13. Write down the serial number, license code and function code.

NOTE

• Do not use [Download]. In this machine, you cannot enable the advanced functions using a USB memory device.



- 14. Select [Service Mode] -> [Billing Setting] -> [License Management] -> [Activation].
- 15. Select the input area for the function code and license code, and enter the function code and the license code confirmed at Step13.
 NOTE
 - · Do not use [Download]. In this machine, you cannot enable the advanced functions using a USB memory device.
- 16. Touch [Apply].

5.3.4 License Management - Deactivation

- (1) Functions
 - To deactivate i-Option functions.

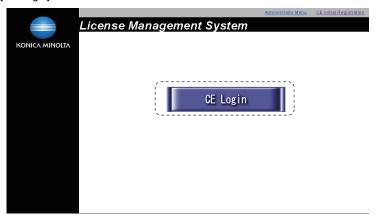
(2) Use

- To deactivate i-Option functions due to registration error, expiration of lease term, change to other MFP or etc.
- The functions can be deactivated by selecting the desired function and enter the appropriate deactivation code.

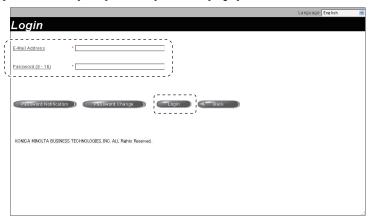
(3) Procedure

NOTE

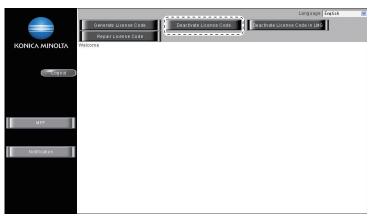
- · You need to access License Management System (LMS) to implement each function setting.
- Before accessing the LMS, CE are required to register the E-mail address and the password in the LMS. To register, click [CE Initial Registration] that is located in the upper right of CE Login screen.
- 1. Check the serial number of the target MFP.
- Access the following URL using the PC connected to the Internet. https://lms.konicaminolta.com/license/KM/support.aspx
- 3. Click [CE Login].



4. Enter [E-Mail Address] and [Password], and click [Login].



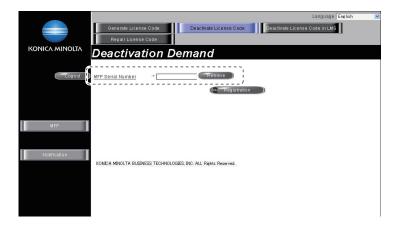
5. Click [Deactivate License Code].



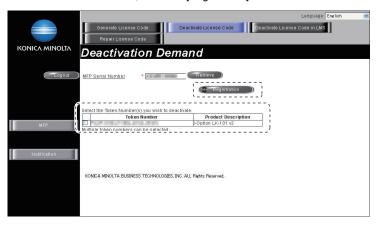
6. Enter the serial number of the target MFP, and click [Retrieve].

NOTE

• Make sure to enter alphabet letters of the serial number in all capital letters.

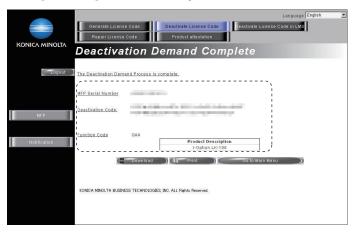


7. Select the token to be deactivated, and click [Registration].



- 8. LMS issues deactivation code and function code.
- Write down the serial number, deactivation code and function code.

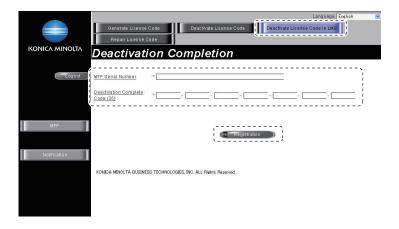
• Do not use [Download]. In this machine, you cannot enable the advanced functions using a USB memory device.



- 10. Select [Service Mode] -> [Billing Setting] -> [License Management] -> [Deactivation].
- 11. Select the input area for the function code and license code, and enter the function code and the deactivation code confirmed at Step9. NOTE
 - Do not use [Download]. In this machine, you cannot enable the advanced functions using a USB memory device.
- 13. Write down or print out the serial number and deactivation complete code.
- 14. Follow the message appearing on the screen and turn OFF and ON the main power switch.
- 15. Access to the LMS and login again.
 - For detail of the login method, refer to step 2 to step4.
- 16. Click [Deactivate License Code in LMS].
- 17. Enter the serial number and the deactivation complete code confirmed at step13.

NOTE

· Make sure to enter alphabet letters of the serial number in all capital letters.



18. "Deactivation Complete" message will be displayed.

The license become invalid at both MFP and LMS, and deactivated token number can be used for another MFP.



5.3.5 License Management - Repair

(1) Functions

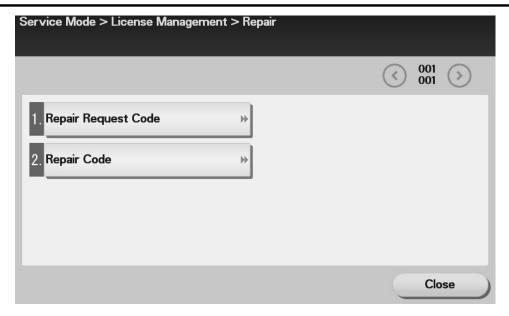
· To repair license management information.

(2) Use

- · To be used when license management information is lost due to replacement of MFP board or any other trouble.
- · License management information can be repaired by acquiring repair code with repair request code, and entering the repair code.

(3) Procedure

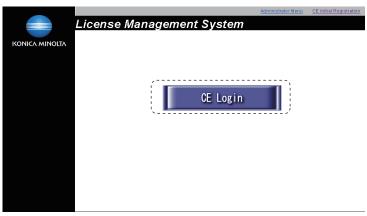
- You need to access License Management System (LMS) to implement each function setting.
- Before accessing the LMS, CE are required to register the E-mail address and the password in the LMS. To register, click [CE Initial Registration] that is located in the upper right of CE Login screen.
- When the message "License management error occurred." is displayed, carry out the repair operation with the following steps.
- 1. Select [Security Service Mode] -> [Billing Setting] -> [License Management] -> [Select [Repair] -> [Repair Request Code].



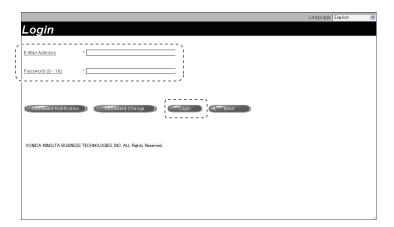
2. Write down the serial number, repair request code and request code.



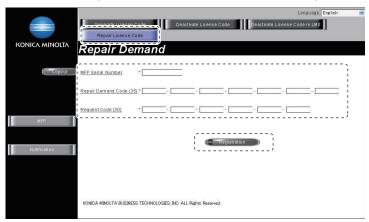
- Access the following URL using the PC connected to the Internet. https://lms.konicaminolta.com/license/KM/support.aspx
- 4. Click [CE Login].



5. Enter [E-Mail Address] and [Password], and click [Login].



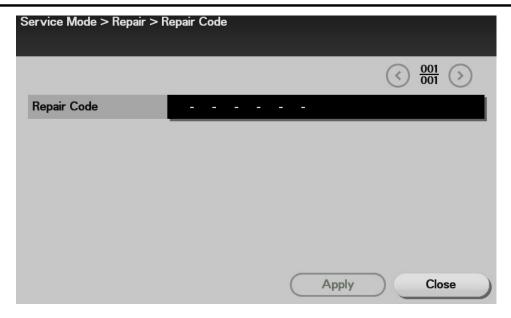
- 6. Click [Repair License Code].
- Enter the serial number, repair request code and request code confirmed at step3, and click [Registration].
 NOTE
 - · Make sure to enter alphabet letters of the serial number in all capital letters.



- 8. LMS issues repair permission code.
- 9. Write down the serial number and repair permission code.



10. Select [Security Service Mode] -> [Billing Setting] -> [License Management] -> [Repair] -> [Repair Code].



11. Select the input area, enter the repair code confirmed at step 9 from the keyboard on the screen, and touch [OK].



- 12. Touch [Apply].
- 13. Follow the massage appearing on the screen and turn OFF and ON the main power switch.

5.3.6 License Management - Initialize

(1) Functions

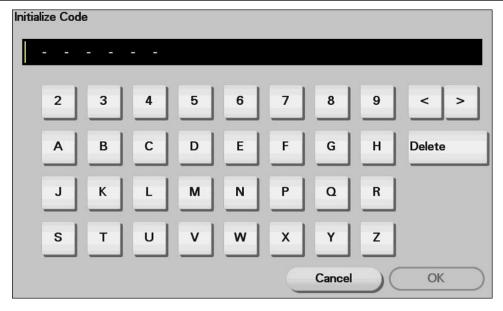
To initialize license management information.

(2) Use

- To be used when license management information cannot be repaired.
- License management information should be initialized when the machine fails to generate request code or repair request code due to any
 trouble and the information cannot be repaired.

(3) Procedure

- · You need to access License Management System (LMS) to implement each function setting.
- · When license management information cannot be repaired, initialize the information with the following procedure.
- 1. Contact the license management section of sales company to report the information necessary to issue the initialize code.
- 2. The license management section of sales company supplies the initialize code.
- 3. Call the Billing Setting to the screen.
- 4. Select [License Management] -> [Initialize].
- 5. Select the input area, enter the initialization code issued by the call center from the keyboard on the screen, and touch [OK].



- 6. Touch [Apply].
- 7. After completing the initialization, turn OFF and ON the main power switch.

5.3.7 License Management - Get Request Code

· When the license management error is occurred, it will not be displayed until the repair code is input.

(1) Functions

· To display request code and serial number.

(2) Use

· To check the request code and serial number.

5.3.8 License Management - List

(1) Functions

• To display deactivation complete code and serial number.

(2) Use

· To display and print deactivation complete code and serial number.

5.3.9 License Management - List of Enabled Functions

(1) Functions/Use

· To display activated functions.

5.3.10 License Management - List Output

(1) Use

• To print the request code, deactivation complete code and repair permission code.

5.3.11 Management Function - Management Function Choice

(1) Use

- To set whether or not to install an authentication device or vendor.
- · To set the PKI mode.

(2) Setting item

- Unset
- Vendor 2
- Card 3

NOTE

- [Vendor 2] is hidden when configuring the following settings.
 - Device authentication, external authentication, account authentication, intermediate authentication, PKI card authentication
- [Card 3] is displayed only when the switch number "81" selected by setting [Service Mode] -> [System 2] -> [Software Switch Setting] is specified to "02" at HEX assignment.

5.3.12 Management Function - Message

(1) Use

· To set a message to be displayed when the fee has not been paid or the card has not been inserted.

(2) Setting item

- Type1 (coin vendor)
- Type2 (card vendor)
- Type3 (common)

5.4 Administrator Password

5.4.1 Use

- To set and change the administrator password.
- Use this function when the administrator forget the administrator password because a new password can be set without entering the current administrator password with this.
- The administrator password needs to be 8 one-byte alphameric characters and symbols.

5.4.2 Default setting

12345678

5.4.3 Procedure

- · Touch the input area and enter the password.
 - 1. Password: Enter the new administrator password.
 - 2. Password Confirmation: Enter the new administrator password again.

NOTE

When the following setting leads to the Password Rules [ON], the password with the same letters, the password which is same as
the previous one and the password of less than eight digits cannot be changed.
[Administrator Settings] -> [Security Settings] -> [Security Details]

5.5 CE Password

5.5.1 Use

- · To set and change the CE password.
- · The CE password needs to be 8 one-byte alphameric characters and symbols.

5.5.2 Default setting

• 92729272

5.5.3 Procedure

- · Touch the input area and enter the password.
 - 1. Current Password: Enter the currently using CE password.
 - 2. Password: Enter the new CE password.
 - 3. Password Confirmation: Enter the new CE password again.

NOTE

- Regardless of the setting of [Password Rules] to ON or OFF in [Utility] -> [Administrator Settings] -> [Security Details], no change of the password is accepted, if a new password is a string of a single character or consists of the same characters as those of the old one.
- Regardless of the setting of [Password Rules] to ON or OFF in [Utility] -> [Administrator Settings] -> [Security Details], no password that consists of any digits other than 8 is accepted.
- · Exiting the service mode after the change of the passwords validates the new password.
- · NEVER forget the CE password. When forgetting the CE password, call responsible person of KM.

5.6 Life Stop

5.6.1 Use

· To select whether or not to stop a print cycle when the maintenance kit reach its service life.

5.6.2 Default setting

• OFF

5.6.3 Setting item

- ON
- "OFF"

5.7 Engine Data Backup

5.7.1 Use

- Used to save or restore settings when the controller board is replaced.
- · The backup data is stored in the HDD.

5.7.2 Procedure

(1) Engine Data Save Mode (backup)

- · This is not displayed when the trouble code 4801 "Machine unit board failure" occurs.
- 1. Touch [Service Mode] -> [Enhanced Security] -> [Engine Data Backup].
- 2. Touch [Engine Data Save Mode], and touch [OK].

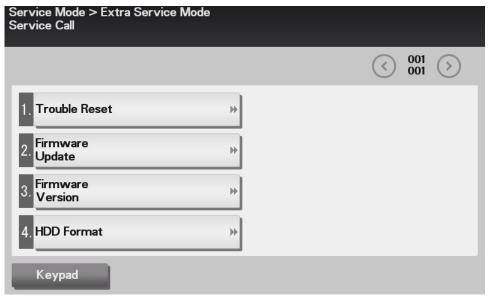
3. Check that the result "OK" appears, and touch [Close].

(2) Engine Data Reflect Mode (restore)

- This function is available only when the data backed up in [Engine Data Save Mode] is stored in the HDD and the trouble code 4802 "Main unit backup data miscompare" occurs.
- Touch [Service Mode] -> [Enhanced Security] -> [Engine Data Backup].
 Touch [Engine Data Reflect Mode], and touch [OK].
- 3. Check that the result "OK" appears, and touch [Close].
- 4. Turn OFF the main power switch and turn it ON again more than 10 seconds after.

6. Extra Service Mode

6.1 List of Extra Service Mode



To be used if the machine cannot start up normally due to troubles or replacement of the board.

Extra Service Mode	Explanation/Ref. Page
Trouble Reset	K.3.2.1 Trouble resetting procedure by Trouble Reset key
Firmware Update	I.4.20 Firmware Update
Firmware Version	1.4.3 Firmware Version
HDD Format	 Format the HDD. To be used when the Controller board (CTLB) is replaced. To be used when troubles related to the hard disk occur.

6.2 Starting/Exiting

6.2.1 Starting procedure

- ${\it 1.}\,$ Turn main power switch ON while pressing the Power key.
- 2. Touch the password input area and using the keyboard on the screen, type the CE password. (The initial setting for CE password is "92729272.")
- 3. Touch [OK].
- 4. The Extra Service Mode menu will appear.

6.2.2 Exiting procedure

• Turn OFF the main power switch.

7. Control Panel Calibration

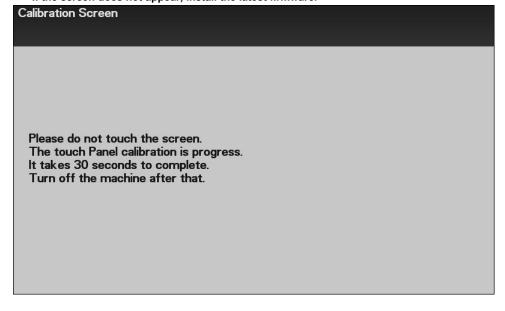
7.1 Use

• To perform calibration when the responsibility of the control panel (touch screen) getting worse.

7.2 Procedure

- 1. Turn main power switch ON while pressing the Power key.
- Turn main power switch ON while pressing the Fower key.
 Press the following keys with the CE password input screen being displayed.
 Stop -> Register Key 1 -> Stop -> Register Key 1 -> Stop -> Start
 When the following screen appears, turn OFF the main power switch after 30 seconds.

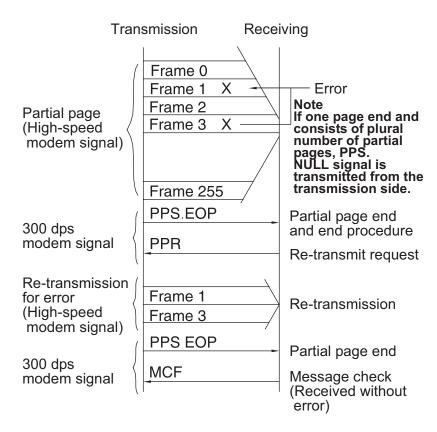
- · Do not touch the screen (touch panel) during calibration.
- · If the screen does not appear, install the latest firmware.



8. FAX PROTOCOLS

8.1 G3 ECM (G3 Error Correction Mode)

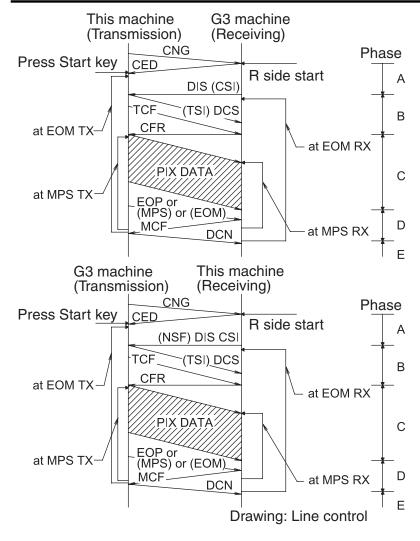
- · G3 ECM is the error correction system newly recommended by consultative committee of international telephone & telegraph of 1988.
- By G3 ECM, documents are divided into blocks (called partial page) for transmission. If any error takes place in any frame (one partial page consists of 256 frames at a maximum) on a partial page, the receiving party generates the retransmit request with erroneous frame numbers.
- · Here is an example where frame 1 and frame 3 are subjected to error:



8.2 Line control

8.2.1 Procedure of G3 mode communication

· Basic communications diagram of G3 mode.



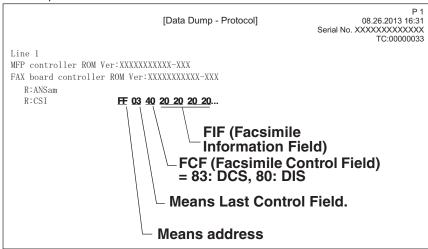
8.3 Table of reference code

Code	Function
CED	Called Terminal Identification.
CFR	Confirmation to Receive. 1850 Hz or 1650 Hz 3 sec.
CIG	Calling Station Identification.
CNG	Calling Tone.
CRP	Command Repeat.
CSI	Called Subscriber Identification.
DCN	Disconnect.
DCS	Digital Command Signal.
DIS	Digital Identification Signal.
DTC	Digital Transmit Command.
EOM	End of Message. 1,100 Hz.
EOP	End of Procedure.
FTT	Failure to Train.
MCF	Message Confirmation. 1,650 Hz or 1,850 Hz.
MPS	Multi-Page Signal.
NSC	Non-Standard Facilities Command.
NSF	Non-Standard Facilities.
NSS	Non-Standard Facilities Set-up.
PIN	Procedural Interrupt Negative.
PIP	Procedural Interrupt Positive.
PRI-EOM	Procedure Interrupt-End of Message (EOM).
PRI-MPS	Procedure Interrupt-Multi Page Signal (MPS).
PRI-EOP	Procedure Interrupt-End of Procedure (EOP).
RTN	Retrain Negative.
RTP	Retrain Positive.

Code	Function								
TCF	Training Check.								
TSI	Transmitting Station Identification.								

8.4 How to analyze the T30 protocol monitor

- DCS or DIS
- · HEX data as printed on page.
- Example: V.17 communication



FIF (Facsimile Information Field)

HEX										1														2	2							
TILA	0					0			4	4			6	6			8	8			8	3			(0			(
Data bit	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Bit No.	8 7 6 5 4 3 2 1 16 15 14 13 12 11 10								9	24	23	22	21	20	19	18	17	32	31	30	29	28	27	26	25							
Note	↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑																															

· Hex-binary conversion list

Hex		Bin	ary		Hex		Bin	ary		Hex Binary			Hex	Binary					
0	0	0	0	0	4	0	1	0	0	8	1	0	0	0	С	1	1	0	0
1	0	0	0	1	5	0	1	0	1	9	1	0	0	1	D	1	1	0	1
2	0	0	1	0	6	0	1	1	0	Α	1	0	1	0	Е	1	1	1	0
3	0	0	1	1	7	0	1	1	1	В	1	0	1	1	F	1	1	1	1

· DIS (DTC) / DCS bit allocation table of FIF (Facsimile Information Field)

Bit No.	Designation					DIS/DTC					DCS		
1	"0"= Invalid "1"= Store-and-forward switching Internet fax simple mode												
2	Set to "0"												
3	"0"= Invalid "1"= Real-time Internet fax												
4	Set to "0"												
5	Set to "0"												
6	"0"= Invalid "1"= V.8 capabilities												
7	Flame size	"0" = 2 "1"= 6					Inval	id					
8	Set to "0"												
9	"0"= Invalid "1"= Ready to transmit a fa	csimile	docu	ment	(polli	ng)	Set to "0"						
10	0 "0"= Invalid "1"= Receiver fax operation												
11	Bit No.								No.		Data signalling rate		
' '	Detection allies and	14 13 12 11 Data signallin			Data signalling rate	14	13	13 12		Data signalling rate			
40	Data signalling rate	o 0 0 V.27 ter fall-back mode				V.27 ter fall-back mode	0	0	0	0	2400 bit/s, rec. V.27ter		
12	12		0	0	1	Rec. V.29	0	0	0	1	9600 bit/s, rec. V.29		

Bit No.	Designation	DIS/DTC DCS					DCS				
		0	0	1	0	Rec. V.27 ter	0	0	1	0	4800 bit/s, rec. V.27ter
		0	0	1	1	Rec. V.27 ter and V.29	0	0	1	1	7200 bit/s, rec. V.29
		0	1	0	0	Not used	0	1	0	0	Invalid
		0	1	0	1	Not used	0	1	0	1	Reserved
		0	1	1	0	Reserved	0	1	1	0	Invalid
4.0		0	1	1	1	Reserved	0	1	1	1	Reserved
13		1	0	0	0	Not used	1	0	0	0	14,400 bit/s, rec. V.17
		1	0	0	1	Not used	1	0	0	1	9,600 bit/s, rec. V.17
		1	0	1	0	Reserved	1	0	1	0	12,000 bit/s, rec. V.17
		1	0	1	1	Rec. V.27 ter, V.29, V33 and V.17	1	0	1	1	7,200 bit/s, rec. V.17
		1	1	0	0	Not used	1	1	0	0	Reserved
14		1	1	0	1	Not used	1	1	0	1	Reserved
		1	1	1	0	Reserved	1	1	1	0	Reserved
		1	1	1	1	Reserved	1	1	1	1	Reserved
15	"0"= Invalid				•			•	•		
	"1"= R8 x 7.7 lines/mm and	l/or 20	0 x 20	0 pels	s/25.4	mm					
16	"0"= Invalid		abilit.				-	Invali		olona	al coding
47	"1"= Two-dimensional codi				1		1 =			isiona	l
17		Bit No.		17	Data signaling rate		Bit No. 17			7	Data signaling rate
		0 0		Scan line length 215 mm ± 1%		0 0			Scan line length 215 mm ± 1%		
40	Recording width capabilities	0 1		1	Scan line length 215 mm ± 1% and scan line length 255 mm ± 1%		0			1	Scan line length 255 mm ± 1%
18		1 0		Scan line length 215 mm ± 1% and scan line length 255 mm ± 1% and scan line length 303 mm ± 1%		1 0)	Scan line length 303 mm ± 1%		
		1		1	Inva		1	ı		1	Invalid
19		Bit No.		Recording length capability		Bit No.			Recording length capability		
	Recording length capability	20 19		19	Recording length capability		20 19		9	Recording length capability	
		0		0	,	297 mm)	C)	1)	A4 (297 mm)
20		0		1	,	297 mm) and B4 (364 mm)	C)		1	B4 (364 mm)
		1		0	Unlir	nited		1	()	Unlimited
		1		1	Inva	lid	1	1		1	Invalid
21	Minimum scan line time capability at the receive	Bit No.				Bit No.					
22					Minimum scan line time						Minimum scan line time
		23	22	21			23	2	22	21	
		0	0	0	3.85		0		0	0	20 ms
		0	0	1		at 3.85 1/mm: T 7.7 = T 3.85	0		0	1	5 ms
		0	1	0	10 m 3.85	ns at 3.85 1/mm: T 7.7 = T	0		1	0	10 ms
23		0	1	1	20 m 3.85	ns at 3.85 1/mm: T 7.7 = 1/2 T	1		0	0	40 ms
		1	0	0	40 m 3.85	ns at 3.85 1/mm: T 7.7 = T	1		1	1	0 ms
		1	0	1	40 m 3.85	ns at 3.85 1/mm: T 7.7 = 1/2 T					
		1	1	0		ns at 3.85 1/mm: T 7.7 = 1/2 T					
		1	1	1		at 3.85 1/mm: T 7.7 = T 3.85					
24	Extension field	"0"= Without "1"= With									
25	Reserved										
26	"0"= Invalid "1"= Un-compressed mode										
27	"0"= Invalid "1"= ECM										
28	Set to "0" Frame size 0: 256 octets Frame size 1: 64 octets										
	Set to "0"										

Bit No.	Designation	DIS/DTC	DCS				
30	Set to "0"	<u>I</u>	<u> </u>				
31	"0"= Invalid "1"= T.6 coding capability		"0"= Invalid "1"= T.6 coding enabled				
32	Extend field	"0"= Without "1"= With					
33	"0"= Invalid "1"= Field not valid capability						
34	"0"= Invalid "1"= Multiple selective polling capability Set to "0"						
35	"0"= Invalid "1"= Polling sub address transmission (DTC) by Polled Sub Address (DIS)/PSA Set to "0"						
36	"0"= Invalid "1"= T.43 coding						
37	"0"= Invalid "1"= Plane interleave						
38	Set to "0"						
39	Set to "0"	"0"= Without					
40	Extend field "1"= With						
41	"1"= R8 x 15.4 lines/mm "0"= Invalid						
42	"1"= 300 x 300 pels/25.4 mm						
43	"0"= Invalid "1"= R16 x 15.4 lines/mm and/or 400 x 400 pels/25.4 mm						
44	"0"= Invalid "1"= Inch based resolution preferred Resolution type selection "0"= metric based resolution "1"= inch based resolution						
45	"0"= Invalid "1"= Metric based resolutio	n preferred	Do not care				
46	Minimum scan line time capability for higher resolutions. "0": T 15.4 = T 7.7 "1": T 15.4 = 1/2 T 7.7		Do not care				
47	"0"= Invalid "1"= Selective polling (DIS)	/ Selective polling transmission (DTC)	Set to "0"				
48	Extend field	"0"= Without "1"= With					
49	"0"= Invalid "1"= Sub addressing capab	ility	"0"= Invalid "1"= Sub addressing transmission				
50	"0"= Invalid						
51	"0"= Invalid "1"= Ready to transmit a data file (polling) Set to "0"						
52	Set to "0"						
53	"0"= Invalid "1"= Binary File Transfer (BFT)						
54	"0"= Invalid "1"= Document Transfer Mode (DTM)						
55	"0"= Invalid "1"= EDIFACT Transfer (EDI)						
56	Extend field "0"= Without "1"= With						
57	"0"= Invalid "1"= Basic Transfer Mode (BTM)						
58							
59	"0"= Invalid "1"= Ready to transmit a character or mixed mode document (polling) Set to "0"						
60	"0"= Invalid "1"= Character mode						
61	Set to "0"						
62	"0"= Invalid "1"= Mixed mode						
63	Set to "0"						

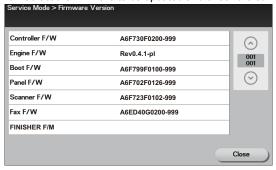
Bit No.	Designation	DIS/DTC	DCS				
64	Extend field	"0"= Without "1"= With	,				
65	"0"= Invalid "1"= Processable mode 26						
66	"0"= Invalid "1"= Digital network capability						
67	Duplex and half duplex capabilities	"0"= Half duplex operation only "1"= Duplex and half duplex operation	"0"= Half duplex operation only "1"= Duplex operation				
68	"0"= Invalid "1"= JPEG coding						
69	"0"= Invalid "1"= Full color mode						
70	Set to "0" = Invalid "1" = Preferred huffman tables						
71	"0"= Invalid "1"= 12 bit/pixel/element						
72	Extend field	"0"= Without "1"= With					
73	"0"= Invalid "1"= No sampling (1:1:1)						
74	"O"= Invalid						
75	"0"= Invalid "1"= Custom gamut range						
76	"0"= Invalid	(215.9 mm × 279.4 mm) capability	"0"= Invalid "1"= North American letter (215.9 mm × 279.4 mm)				
77	"0"= Invalid	(215.9 mm × 355.6 mm) capability	"0"= Invalid "1"= North American Legal (215.9 mm × 355.6 mm)				
78	"0"= Invalid "1"= Single layer sequentia	"0"= Invalid "1"= Single layer sequential encoding, basic					
79	"0"= Invalid	I encoding, optional L0 capability	"0"= Invalid "1"= Single layer sequential encoding, optional L0				
80	Extend field	"0"= Without "1"= With					
81	"0"= Invalid						
82	"0"= Invalid "1"= RSA key managemen	t capability	"0"= Invalid "1"= RSA key management selected				
83	"0"= Invalid "1"= Override mode capab		"0"= Invalid "1"= Override mode selected				
84	"0"= Invalid "1"= HFX40 code capability	1	"0"= Invalid "1"= HFX40 code selected				
85	"0"= Invalid "1"= Alternative code numb	per 2 capability	"0"= Invalid "1"= Alternative code number 2 selected				
86	"0"= Invalid "1"= Alternative code numb		"0"= Invalid "1"= Alternative code number 3 selected				
87	"0"= Invalid "1"= HFX40-1 hashing cap	ability	"0"= Invalid "1"= HFX40-1 hashing selected				
88	Extend field "0"= Without "1"= With						
89	"0"= Invalid						
90	"0"= loyalid						
91	Reserved						
92	"0"= Invalid "1"= T.44 (Mixed raster content) mode						
93	"0"= Invalid "1"= T.44 (Mixed raster content) mode						
94	"0"= Invalid "1"= T.44 (Mixed raster content) mode						
95	"0"= Invalid "1"= Page length maximum strip size for T.44 (Mixed raster content)						
96	Extend field "0"= Without "1"= With						

Bit No.	Designation	DIS/DTC	DCS			
97	"0"= Invalid "1"= Color/mono-color multi-value 300 pixels x 300 pixels or 400 pixels x 400 pixels / 25.4 mm					
98	"0"= Invalid "1"= R4 x 3.85 lines/mm and/or 100 pixels x 100 pixels / 25.4 mm for color/mono-color multi-value					
99	"0"= Invalid "1"= Single phase C BFT negotiation capability					
100	Set to "0"					
101	Set to "0"					
102	Set to "0"					
103	Set to "0"					
104	Extend field	"0"= Without "1"= With				

J REWRITING OF FIRMWARE

1. Checking the current firmware version

- Call the Service Mode to the screen.
 Touch [Firmware Version].
- 3. Select the firmware to be updated and check the current version.



2. Firmware upgrading procedure by USB memory device

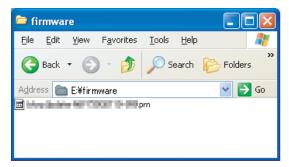
2.1 Preparations for firmware upgrading

2.1.1 System requirements

- PC equipped with a USB port
- USB memory device

2.1.2 Saving the firmware data into the USB memory device

- 1. Save the firmware data in appropriate space in the PC.
- 2. Connect the USB memory device to the PC.
- 3. Create a "firmware" folder immediately under the drive of the USB memory device.
 4. Copy the firmware data (***.prn) in the firmware folder created in step 3.



NOTE

- Be sure to save the firmware data in "drive:/firmware/***.prn."
- The printer can display up to 20 files of firmware data during upgrading.

2.1.3 How to write firmware data

- 1. Turn the power switch ON.
- Connect the USB memory device to the printer.
- 3. Call the Service Mode to the screen.
- Touch [Firmware Update].



5. A list of firmware data in the USB memory device will be displayed.



NOTE

• Before upgrading firmware, use [Details] to check that the firmware data is correct.



- 6. Touch [Close].7. Select the specific firmware data to be upgraded and press [Execute].
- 8. Touch [OK].



9. The firmware upgrading procedure starts.

NOTE

- Do not turn off the printer while its firmware is being updated.
- NEVER disconnect the USB memory device from the printer during the firmware upgrading procedure.
- 10. The printer is automatically restarted as soon as the firmware is upgraded correctly.

Internet ISW

3.1 Preparations for firmware rewriting

3.1.1 Outline

"Internet ISW" is the system which makes the main body receive the firmware from the program server through a network and rewrites (ISW) the firmware.

Two methods are included in the "Internet ISW" as shown below.

To execute ISW by operating the control panel of the main body.
 With the "Internet ISW" using the control panel of the main body, the ISW can be executed at the user's without programs.

3.1.2 Service environment

The following conditions are necessary for using the Internet ISW function.

• The main body is connected to such a network environment that the firmware can be downloaded on the internet using the http protocol.

The "Internet ISW" will not operate under the following conditions.

- · Main power switch is set to OFF
- · When the following setting is set to "ON":

[Administrator Settings] -> [Security Settings] -> [Enhanced Security Mode]

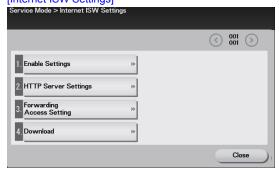
- · Machine is operating, or there are jobs present (including appointed jobs).
- · Machine is in idle with suspended job
- Paper jam has occurred
- · Image file is in the memory
- · Model or the circuit board of the program does not match

3.1.3 Preparations for firmware rewriting

For using the Internet ISW, the network parameter, program server address as well as firewall address need to be set to the main body.
 1.4.23 Internet ISW Settings

(1) Internet ISW Set

- 1. Call the Service Mode to the screen.
- 2. Perform the following setting. [Internet ISW Settings]



3. Select [ON] in [Enable Settings], and touch [END].

NOTE

- Settings such as server setting, etc. will be available by selecting "ON" on this setting.
- When the following setting is set to "ON", "ON" cannot be selected on this setting.
 [Administrator Settings] -> [Security Setting] -> [Enhanced Security Mode]

(2) Protocol setting

· It performs the setting concerning the protocol (http) for connecting to the Internet ISW.

(a) Connecting by http

- 1. Perform the following setting.
 - [Service Mode] -> [Internet ISW]
- 2. Data input setting
 - Touch [HTTP Server Settings] -> [Connect Proxy], and select [Enable].
- 3. Connection Time-Out
 - · Select [Connection Time-Out], and set the time for the connection time out between 30 and 300 seconds.

NOTE

• To connect MFP to the Internet via a proxy, in addition to the configuration in [Forwarding Access Setting], the proxy server settings are necessary.

The settings of the proxy used in Internet ISW communications is configured in [Administrator Settings] -> [Network Settings] -> [HTTP Server Settings].

(3) Forwarding Access Setting

- To make the access setting for the program server which stores the firmware data.
 - Perform the following setting.
 - [Service Mode] -> [Internet ISW Settings]
 - 2. Touch [Forwarding Access Setting].



- Select [User ID], and enter the user ID which is necessary for connecting to the program server on the on-screen keyboard, and touch [END].
- Select [Password], and enter the password which is necessary for connecting to the program server on the on-screen keyboard, and touch [END].
- Select [URL], and enter the directory which stores the program server address and the firmware on the on-screen keyboard by URL method, and touch [END].

NOTE

· Enter the URL which matches to the protocol to be used.

When connecting to	http://(host name or IP address)/directory name or https://(host name or IP address)/directory
http	name

- 6. Select [File Name], and enter the file name of the firmware data to be downloaded on the on-screen keyboard, and touch [END].
- 7. Touch [Close] to finish setting.

3.2 Preparing the firmware data

3.2.1 Outline

• It is necessary to upload the firmware data (***.prn) on the program server for rewriting the firmware via Internet ISW.

3.2.2 Procedure

1. Upload the firmware data (***.prn) to the target directory of the Internet ISW server.

3.3 Firmware rewriting from the control panel

3.3.1 Firmware rewriting from the control panel

NOTE

- When performing the Internet ISW, ask the administrator for permission beforehand.
- DO NOT turn OFF the main power switch while downloading.

(1) Conducting rewriting on the control panel

 Perform the following setting. [Service Mode] -> [Internet ISW Settings] -> [Download]

2. Touch [OK].



3. MFP accesses the server and starts downloading the firmware data.

(2) During firmware updating

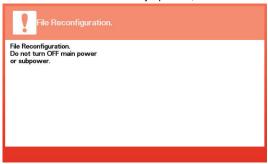
1. The message to indicate the status will be displayed on the screen while downloading or updating the firmware.



(3) Completed or failed

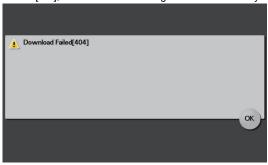
(a) Firmware updated normally

1. When the Firmware is normally updated, the main unit will restart automatically after the following screen is displayed.



(b) Failing to update the firmware due to the network trouble

- 1. When updating failed to complete due to the trouble on connecting to the network, a message and an error code (HTTP status) will be displayed.
- 2. Touch [OK], then check the settings for the network by error codes, and try updating again.



(c) Failing to update the firmware after downloading has started

- 1. When it failed right after updating has started, restart the main body, and shift to the standby screen to retry downloading.
- 2. Touch [OK], and restart the Internet ISW.

NOTE

- · Return to the standby screen without fail after turning the main power switch OFF/ON if the firmware is not updated.
- · Firmware can be updated with the USB memory.

4. CS Remote Care

4.1 Firmware rewriting from the CS Remote Care

- For detailed error information relating to CS Remote Care, refer to "I.4.5 CS Remote Care (Outlines)"
 For the firmware update procedure using CS Remote Care, refer to CS Remote Care Center Manual.

5. How to reinstall the i-Option data

5.1 Available function for i-Option

i-Option	Function	Data location	How to recover when replacing or formatting HDD.
LK-106	Barcode font	In the Standard firmware	n/a
LK-107	Unicode font	In the Standard HDD	LK-107/LK-108 font data installation procedure
LK-108	OCR font	In the Standard HDD	
LK-111	Enhancing external linkage (supported by ThinPrint)	In the Standard firmware	n/a

5.2 LK-107/LK-108 font data reinstallation procedure

Installing procedure of the font data

5.2.1 When the font data is ***.pdf format file

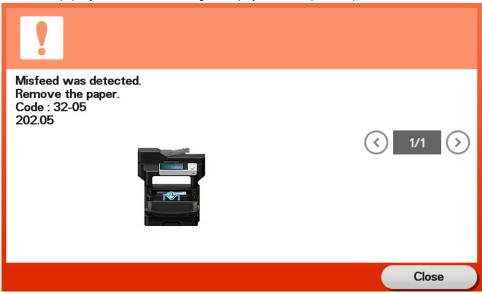
- 1. Prepare an USB memory.
- 2. Copy the font data to the root directory of the USB memory.
 - · OCR font: download_OCRA-1.pdf
 - Unicode font: download_Andale-1.pdf
- 3. Turn ON the main power switch, and connect the USB memory to the USB port on the side of the control panel.
- 4. The message "Print a document from External Memory" will be displayed on the control panel, and select it.5. The font data in the USB memory will be displayed, and select these data to print out.
- 6. The message "Document Printing Failed" will be displayed, and touch [OK].
- 7. Print out a PCL font list, and confirm that the font data are registered as following names.
 - LK-107: ANMDJ_WTC_v8.02.TTF, ANMDK_WTC_v8.02.TTF, ANMDS_WTC_v8.02.TTF, ANMDT_WTC_v8.02.TTF
 - LK-108: OCRA00.TTF

K TROUBLESHOOTING

1. JAM DISPLAY

1.1 JAM display

• When a paper jam occurs, this message is displayed on the operation panel.



1.2 List of JAM display

• Open the cover, clear the sheet of paper misfed, and close the cover.

JAM type	JAM code
Misfeed at manual bypass feed section	10-01
Misfeed at tray 1 feed section	11-01
Misfeed at tray 2 feed section*	12-01
Misfeed at tray 3 feed section*	13-01
Misfeed at tray 4 feed section*	14-01
Misfeed at image transfer section	30-01
	30-03
Misfeed at exit section	32-05
Misfeed at ADF section	66-02
	66-05
	66-33
Misfeed at finisher section	72-21
Misfeed at staple finisher section	72-81
Misfeed at duplex pre-registration section	92-00

^{• *:} Only when the optional paper feeder unit is installed.

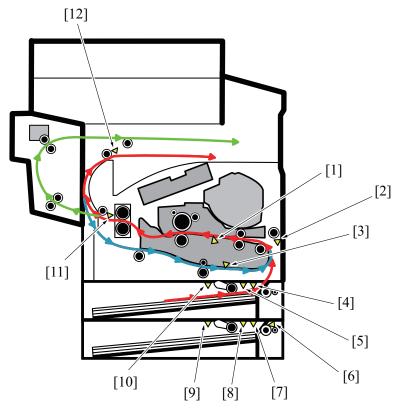
1.2.1 JAM display resetting procedure

- Open the corresponding door, clear the sheet of paper misfed, and close the door.
- Turn OFF the power switch and then ON.

1.3 Sensor layout

1.3.1 Main Unit

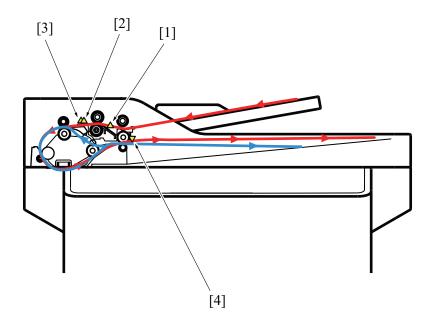
• When the optional paper feeder unit and finisher are installed.



[1]	Input sensor (PS8)	[2]	MPF sensor (PS1)
[3]	Duplex sensor (PS5)	[4]	Index sensor (PS4)
[5]	Trailing edge sensor (PS6)	[6]	Pick/lift motor (PS31)*
[7]	Separator/pass through motor (PS32)*	[8]	Trailing edge sensor (PS34)*
[9]	Media present sensor (PS33)*	[10]	Media present sensor (PS12)
[11]	Exit sensor (PS9)	[12]	Bin full sensor (PS7)

^{• *:} Only when the optional paper feeder unit is installed.

1.3.2 ADF



[1]	ADF document sensor (PS16)	[2]	ADF skew sensor (PS18)

[3]	ADF interval sensor (PS21)	[4]	ADF feed sensor (PS23)

1.4 Solution

1.4.1 Initial check items

• When a paper misfeed occurs, first perform the following initial check items.

Check item	Action
Does paper meet product specifications?	Replace paper.
Is the paper curled, wavy, or damp?	Replace paper.
	Instruct user on proper paper storage.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean the paper path or replace the part on the paper path if necessary.
Are rolls/rollers dirty, deformed, or worn?	Clean the defective roll/roller.
	Replace the defective roll/roller.
Are the paper size and the detected paper size by the edge guide are matching?	Adjust the edge guide to match the paper size.
Are the actuators operating correctly?	Correct the defective actuator. Replace the defective actuator.

1.4.2 Misfeed at manual bypass feed section

(1) Contents

JAM type	Misfeed at manual bypass feed section		
JAM code	10-01		
Sub-code	(250.xx)		
Detection timing	250.00	Input sensor did not detect sheet picked from MPF.	
	250.06	No other sheets should be in the path.	
	250.40	Input sensor did not detect sheet picked from MPF.	
	250.10	No other sheets should be in the path.	
	250.13	Input sensor did not detect sheet picked from MPF.	
		Sheet also last page of stapled job.	
	250.14	Input sensor did not detect sheet picked from MPF.	
		Other sheets should have been flushed.	
	250.17	Input sensor did not detect sheet picked from MPF.	
		No other sheets should be in the path.	
	250.18	Input sensor did not detect sheet picked from MPF.	
		Other sheets could be in the path.	
Relevant parts	Input sense	or .	
	MPF solen	oid	

Step	Action	Yes	No
1	Check the springs, links, and tray guides on the MPF assembly for damage.	Go to step 2.	Replace the MPF assembly.
	Are they free of damage?		
	Make sure the MPF sensor cable is properly connected to the controller board.	Go to step 3.	Replace the front input guide.
2	Enter the Service Mode and perform a sensor check: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Manual Feed].		
	Does the sensor state on the operation panel display change when it is toggled?		
3	Make sure the MPF pick roller and separator pad are free of debris. Check both for wear or damage.	Go to step 4.	Replace the MPF pick roller and separator pad.
	Are they free of damage?		
4	Remove the left cover. Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Manual Feed], and touch Start key.	Go to step 5.	Replace the MPF solenoid.
	 Check the MPF solenoid for proper operation. 		

Step	Action	Yes	No
	Does it function properly?		
5	 Make sure the MPF gearbox is free of debris. Check the gears and spring of the MPF gearbox for wear or damage. Are they free of damage?	Go to step 6.	Replace the MPF gearbox.
6	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.3 Misfeed at tray 1 feed section

(1) Contents

Misfeed at tray 1 feed section		
11-01		
(241.xx)		
241.41	Main motor stall in tray 1.	
241.42	Main motor Pick/lift motor under-speed in tray 1.	
241.43	Main motor stalled on the last pick attempt in tray 1.	
241.44	Motor 2 (Separator/pass through) motor stalled.	
241.45 Motor 2 (Separator/pass through) motor PWM overflow error (underspeed). Motor underspeed PWM and motor underspeed, typical accordion jam).		
241.46 Motor 2 (Separator/pass through) motor ramp (end ramp - did not reach s jam).		
241.47 Motor 3 motor stalled.		
241.40	Motor 3 motor PWM overflow error (underspeed).	
Motor underspeed (max PWM and motor underspeed, typical accordion jam).		
241.49	Motor 3 motor ramp (end ramp - did not reach speed, typical pack feed paper jam).	
Separator/	pass through motor	
Index sens	sor	
Pick/lift motor		
	11-01 (241.xx) 241.41 241.42 241.43 241.44 241.45 241.46 241.47 241.48 241.49 • Separator/ • Index sense	

Step	Action	Yes	No
4	Restart the printer.	Replace the index sensor.	Go to step 2.
1	Does it fail to complete the POST sequence and display a 241.xx error?		
2	Check the pick tires.	Go to step 3.	Replace the pick tires.
	Are they free of wear or damage?		
3	Check the separator roll assembly.	Go to step 4.	Replace the separator roll assemble
	Is it free of wear or damage?		
4	Check the tray guides.	Go to step 5.	Replace the tray insert.
	Are they free of wear or damage?		
5	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 1], and touch Start key.	Go to step 7.	Go to step 6.
	Cancel the test after five pages.		
	Does the printer successfully feed the five pages into the output bin?		
	Observe the location of the jammed paper.	Go to step 7.	Replace the trailing edge sensor.
6	Are the first page fed to the output bin, the second page jammed in the rear door, and the third page jammed in the input tray?		
	Perform a tray 1 pick/lift motor gearbox service check.	Go to step 8.	The problem is solved.
7	Does the error remain?		
8	Check the ACM assembly.	Go to step 9.	Replace the ACM assembly.

Step	Action	Yes	No
	Is it free of wear or damage?		
9	Check the MPF gearbox.	Go to step 10.	Replace the MPF gearbox.
	Is it free of wear or damage?		
10	Check the main drive gearbox Is it free of wear or damage?	Go to step 11.	Replace the main drive gearbox.
11	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.4 Misfeed at tray 2 feed section

(1) Contents

JAM type	Misfeed at tr	ay 2 feed section
JAM code	12-01	•••••••
Sub-code	(242.xx)	
Detection timing	242.01	Paper over tray 2 Pass through sensor on warmup.
g	242.02	Input sensor detected late feed during a pick retry from tray 2.
	242.03	Tray 2 Pass through sensor never became covered when feeding a sheet from an option below.
	242.06	Failed to feed from tray. Paper present sensing supported and indicates media still in tray.
	242.07	Option tray 2 Pass through sensor never became uncovered when feeding a sheet from an option below.
	242.09	Tray 2 Pick/lift motor lost encoder.
	242.11	Autocomp Pick/lift motor - Encoder Never Detected in tray 2.
	242.12	Motor ramp up error in tray 2.
	242.13	Page to be stapled failed to feed from tray.
	242.14	Sheets flushed from paper path either due to feed error or cartridge error.
	242.15	One or more trays located above the source tray 2 has been pulled.
	242.16	The engine timed out waiting for the tray 2 to report ready before the 1st pick attempt.
	242.17	Page was not properly picked from tray 2. Have not exhausted all pick retry attempts as there are sheets committed to the paper path from below.
	242.19	Tray 2 fail to feed error. Detected while trying to pick a sheet, and that leading edge was not detected by the pass through sensor.
	242.20	Took too long to ramp up dc feed motor in tray 2.
	242.21	Pick motor stall in tray 2.
	242.22	Tray 2 Pick/lift motor underspeed.
	242.24	DC Feed autocompensator stalled on the last pick attempt in tray 2.
	242.32	Tray not ready.
	242.33	Pick received but detected a tray pulled.
	242.41	Motor 1 (Pick/lift) Elevator motor stalled.
	242.42	Motor 1 (Pick/lift) Elevator motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	242.43	Motor 1 (Pick/lift) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
	242.44	Motor 2 (Separator/pass through) motor stalled.
	242.45	Motor 2 (Separator/pass through) motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	242.46	Motor 2 (Separator/pass through) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
	242.47	Motor 3 motor stalled.
	242.48	Motor 3 motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	242.49	Motor 3 motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
Relevant parts	Separator	/pass through motor
	Pick/lift me	otor
	Pass through	ugh sensor

Step	Action	Yes	No
1	Restart the printer. Does it fail to complete the POST sequence and display a 242.01 error?	Replace the option tray.	Go to step 2.

Step	Action	Yes	No
2	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 2], and touch Start key. Cancel the test after five pages. Does the printer successfully feed the five pages into the output bin?	The problem is solved.	Go to step 3.
3	Does the printer display a 242.06 error?	Replace the ACM assembly.	Go to step 4.
4	Check the pick roller assembly. Is it free of wear or damage?	Go to step 5.	Replace the pick roller assembly.
5	Check the separator roll assembly. Is it free of wear or damage?	Go to step 6.	Replace the separator roll assembly.
6	Check the tray guides, lift plate, and lift plate gears. Are they free of wear or damage?	Go to step 7.	Replace the tray insert.
7	Check the ACM assembly. Is it free of wear or damage?	Go to step 8.	Replace the ACM assembly.
8	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 2], and touch Start key. Does the pick/lift motor gearbox pass the test?	Go to step 9.	Replace the option tray.
9	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.5 Misfeed at tray 3 feed section

(1) Contents

JAM type	Misfeed at t	ray 3 feed section		
JAM code	13-01			
Sub-code	(243.xx)			
Detection timing	243.01	Paper over tray 3 Pass through sensor on warmup.		
	243.02	Input sensor detected late feed during a pick retry from tray 3.		
	243.03	Tray 3 Pass through sensor never became covered when feeding a sheet from an option below.		
	243.06	Failed to feed from tray. Paper present sensing supported and indicates media still in tray.		
	243.07	Option tray 3 Pass through sensor never became uncovered when feeding a sheet from an option below.		
	243.09	Tray 3 Pick/lift motor lost encoder.		
	243.11	Autocomp Pick/lift motor - Encoder Never Detected in tray 3.		
	243.12	Motor ramp up error in tray 3.		
	243.13	Page to be stapled failed to feed from tray.		
	243.14	43.14 Sheets flushed from paper path either due to feed error or cartridge error.		
	243.15 One or more trays located above the source tray 3 has been pulled.			
	243.16	The engine timed out waiting for the tray 3 to report ready before the 1st pick attempt.		
	243.17	Page was not properly picked from tray 3. Have not exhausted all pick retry attempts as there are sheets committed to the paper path from below.		
	243.19	Tray 3 fail to feed error. Detected while trying to pick a sheet, and that leading edge was not detected by Pass through sensor.		
	243.20	Took too long to ramp up dc feed motor in tray 3.		
	243.21	Pick motor stall in tray 3.		
	243.22	Tray 3 Pick/lift motor underspeed.		
	243.24	DC Feed autocompensator stalled on the last pick attempt in tray 3.		
	243.32	Tray not ready.		
	243.33	Pick received but detected a tray pulled.		
	243.41	Motor 1 (Pick/lift) Elevator motor stalled.		
	243.42	Motor 1 (Pick/lift) Elevator motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).		
	243.43	Motor 1 (Pick/lift) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).		

	243.44	Motor 2 (Separator/pass through) motor stalled.
	243.45	Motor 2 (Separator/pass through) motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	243.46	Motor 2 (Separator/pass through) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
	243.47 Motor 3 motor stalled.	
	243.48	Motor 3 motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	243.49	Motor 3 motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
Relevant parts	Pass throu	ugh sensor
	Separator	/pass through motor
	Pick/lift mo	otor

(2) Procedure

Step	Action	Yes	No	
1	Restart the printer. Does it fail to complete the POST sequence and display a 242.01 error?	Replace the option tray.	Go to step 2.	
2	 Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 3], and touch Start key. Cancel the test after five pages. Does the printer successfully feed the five pages into the output bin?	The problem is solved.	Go to step 3.	
3	Does the printer display a 242.06 error?	Replace the ACM assembly.	Go to step 4.	
4	Check the pick roller assembly. Is it free of wear or damage?	Go to step 5.	Replace the pick roller assembly.	
5	Check the separator roll assembly. Is it free of wear or damage?	Go to step 6.	Replace the separator roll assembly.	
6	Check the tray guides, lift plate, and lift plate gears. Are they free of wear or damage?	Go to step 7.	Replace the tray insert.	
7	Check the ACM assembly. Is it free of wear or damage?	Go to step 8.	Replace the ACM assembly.	
8	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 3], and touch Start key. Does the pick/lift motor gearbox pass the test?	Go to step 9.	Replace the option tray.	
9	Does the error remain?	Contact the next level of support.	The problem is solved.	

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.6 Misfeed at tray 4 feed section

(1) Contents

JAM type	Misfeed at tray 4 feed section		
JAM code	14-01		
Sub-code	(244.xx)		
Detection timing	244.01 Paper over tray 4 Pass through sensor on warmup.		
	244.02	Input sensor detected late feed during a pick retry from tray 4.	
	244.03 Tray 4 Pass through sensor never became covered when feeding a sheet from		
	244.06	Failed to feed from tray. Paper present sensing supported and indicates media still in tray.	
Option tray 4 Pass through sensor never became uncovered when feeding a sh below.		Option tray 4 Pass through sensor never became uncovered when feeding a sheet from an option below.	
244.09 Tray 4 Pick/lift motor lost encoder.		Tray 4 Pick/lift motor lost encoder.	
244.11 Autocomp Pick/lift motor - Encoder Never Detected in tray 4.		Autocomp Pick/lift motor - Encoder Never Detected in tray 4.	
	244.12 Motor ramp up error in tray 4.		

	244.13	Page to be stapled failed to feed from tray.
	244.14	Sheets flushed from paper path either due to feed error or cartridge error.
	244.15	One or more trays located above the source tray 4 has been pulled.
	244.16	The engine timed out waiting for the tray 4 to report ready before the 1st pick attempt.
	244.17	Page was not properly picked from tray 4. Have not exhausted all pick retry attempts as there are sheets committed to the paper path from below.
	244.19	Tray 4 fail to feed error. Detected while trying to pick a sheet, and that leading edge was not detected by Pass through sensor.
	244.20	Took too long to ramp up dc feed motor in tray 4.
	244.21	Pick motor stall in tray 4.
	244.22	Tray 3 Pick/lift motor underspeed.
	244.24	DC Feed autocompensator stalled on the last pick attempt in tray 4.
	244.32	Tray not ready.
	244.33	Pick received but detected a tray pulled.
	244.41	Motor 1 (Pick/lift) Elevator motor stalled.
	244.42	Motor 1 (Pick/lift) Elevator motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	244.43	Motor 1 (Pick/lift) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
	244.44	Motor 2 (Separator/pass through) motor stalled.
	244.45	Motor 2 (Separator/pass through) motor PWM overflow error (underspeed). Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	244.46	Motor 2 (Separator/pass through) motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
	244.47	Motor 3 motor stalled.
	244.48	Motor 3 motor PWM overflow error (underspeed).
		Motor underspeed (max PWM and motor underspeed, typical accordion jam).
	244.49	Motor 3 motor ramp (end ramp - did not reach speed, typical pack feed paper jam).
Relevant parts	Pass throu	
	Pick/lift mo	
	Separator/pass through motor	

Step	Action	Yes	No
	Restart the printer.	Replace the option tray.	Go to step 2.
1	Does it fail to complete the POST sequence and display a 242.01 error?		
2	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 4], and touch Start key. Cancel the test after five pages.	The problem is solved.	Go to step 3.
	Does the printer successfully feed the five pages into the output bin?		
3	Does the printer display a 242.06 error?	Replace the ACM assembly.	Go to step 4.
4	Check the pick roller assembly.	Go to step 5.	Replace the pick roller assembly.
	Is it free of wear or damage?		
5	Check the separator roll assembly.	Go to step 6.	Replace the separator roll assembly.
	Is it free of wear or damage?		
6	Check the tray guides, lift plate, and lift plate gears.	Go to step 7.	Replace the tray insert.
	Are they free of wear or damage?		
7	Check the ACM assembly.	Go to step 8.	Replace the ACM assembly.
	Is it free of wear or damage?		
8	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 4], and touch Start key.	Go to step 9.	Replace the option tray.
	Does the pick/lift motor gearbox pass the test?		

S	Step	Action	Yes	No
	9	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.7 Misfeed at image transfer section

(1) Contents

JAM type	Misfeed at in	nage transfer section
JAM code	30-01, 30-03	
Sub-code	(200.xx), (20	1.xx)
Detection timing	200.01	Input sensor covered during warm-up sequence.
	200.02	Input sensor covered too quickly.
	200.03	Media did not reach Input sensor from MPF.
	200.05	Input sensor covered too long.
	200.07	Input sensor failed to become uncovered from sheet ahead.
	200.08	Page arrive at input senor at unexpected time.
	200.09	Printhead did not receive proper motor feedback to start laser servo.
	200.10	Printhead motor not locked when media reaches the Input sensor.
	200.11	Printhead motor fell out of lock after page reaches the Input sensor.
	200.12	Printhead was not ready for media.
	200.13	Media at Input sensor is not the next media to be imaged.
	200.14	Media reached the Input sensor before EP was ready.
	200.15	Image data did not start on time.
	200.16	Fuser motor stalled.
	200.19	Page that was successfully picked from option tray never reached the Input sensor.
	200.21	No response from paper port driver while waiting for the source to deactivate the Input Source Ready flag to indicate it has initiated picking.
	200.23	Laser servo never started due to potential conflict with the transfer servo.
	200.24	Measured gap at Input sensor too small to meet video delivery requirements (Not enough time since prior image finished to start new image).
	200.29	Printhead drive control out of range due to an external event beyond what the control is designed to handle.
	200.30	Invalid Printhead NVRAM.
	200.31	Paper, in the middle of a job, at Input sensor before interrupt occurred.
	200.32	Detected cover switch bounce.
	200.33	Input sensor covered too quickly.
	200.38	Interpage servo gap smaller than expected for galvo offset target evaluation.
	200.42	Rogue sheet at ACM sensor while flushing the paper path prior to declaring Tray 1 source empty.
	200.44	Page from Tray 1 did not reach the Input sensor (or the manual feed sensor, if present) after multiple pick attempts. Page did make it out of the tray at least as far as the ACM sensor.
	200.45	During warm up flush, sheet detected too long over Input sensor.
	201.xx	-
Relevant parts	Input sensor	

(2) Procedure (Sub-code: 200.01)

Step	Action	Yes	No
1	Check the Input sensor area for jammed media fragments. Is the paper path free of partially fed or jammed	Go to step 2.	Clear the paper path of any media fragments.
	media?		
2	Check the jam access cover if it is blocking the Input sensor.	Replace the jam access cover.	Go to step 3.
	Is it blocking the Input sensor?		
3	Check the Input sensor cable for proper connection.	Go to step 4.	Reseat the cable.
	Is it properly connected?		
4	Enter the Service Mode and perform a sensor check: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Base Sensor].	Go to step 5.	Replace the input sensor.

Step	Action	Yes	No
	Does the sensor state on the operation panel display change when it is toggled?		
5	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(3) Procedure (Sub-code: 200.02, 200.03, 200.05, 200.07, 200.08, 200.19, 200.21, 200.31, 200.32, 200.38, 200.42, 200.44, 200.45)

Check the paper source. Is the paper from the MPF? Check the MPF pick roller and damage and contamination. Are they free of damage and contamination. Remove the left cover. Enter the Service Mode and passage test: Select [Service Mode] -> [State [Paper Passage Test] -> [Massage Tes		Yes	No
Is the paper from the MPF? Check the MPF pick roller and damage and contamination. Are they free of damage and content cover. Remove the left cover. Enter the Service Mode and passage test: Select [Service Mode] -> [State [Paper Passage Test] -> [Mastart key. Check if the MPF solenoid maged test. Does it move when doing the feed test. Does it move when doing the feed test. Are they free of wear or damage. Are they free of wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if it sensor. Is it blocking the Input sensor? Check the Input sensor cable for the Service Mode and persent sensor. Is it properly connected? Enter the Service Mode and persent sensor. Enter the Service Mode and persent sensor.		Go to step 2.	Go to step 5.
damage and contamination. Are they free of damage and contamination. Check the MPF solenoid for proven the left cover. Enter the Service Mode and passage test: Select [Service Mode] -> [State [Paper Passage Test] -> [Mastart key. Check if the MPF solenoid maged test. Does it move when doing the feath test. Does it move when doing the feath for wear or damage. Are they free of wear or damage. Are they free of wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if it sensor. Is it blocking the Input sensor? Check the Input sensor cable for the Service Mode and peselect [Service Mode] -> [State Select [Service Mode		·	
Check the MPF solenoid for pro Remove the left cover. Enter the Service Mode and passage test: Select [Service Mode] -> [State [Paper Passage Test] -> [Mastart key. Check if the MPF solenoid maged test. Does it move when doing the feed test. Does it move when doing the feed test. Are they free of damage. Are they free of wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if it sensor. Is it blocking the Input sensor? Check the Input sensor cable for the Service Mode and peselect [Service Mode] -> [State Select [Service Mode] -> [State Select [Service Mode]]	separator pad for	Go to step 3.	Replace the MPF pick roller and separator pad.
Remove the left cover. Enter the Service Mode and passage test: Select [Service Mode] -> [Sta [Paper Passage Test] -> [Ma Start key. Check if the MPF solenoid maged test. Does it move when doing the feathest. Does it move when doing the feathest. Are they free of damage. Are they free of wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if it sensor. Is it blocking the Input sensor? Check the Input sensor cable for the Service Mode and persent sensor. Is it properly connected? Enter the Service Mode and persent sensor.	ontamination?		
Enter the Service Mode and passage test: Select [Service Mode] -> [Stat [Paper Passage Test] -> [Mastart key.	oper operation:	Go to step 4.	Replace the MPF solenoid.
passage test: Select [Service Mode] -> [Sta [Paper Passage Test] -> [Ma Start key. • Check if the MPF solenoid m feed test. Does it move when doing the fe Make sure the MPF gearbox sp installed and free of damage. 4 for wear or damage. Are they free of wear or damag Check the Input sensor area fo fragments. 5 Is the paper path free of partial media? Check the media present sensor sensor flag for: • Proper operation • Wear or damage Do they properly operate, and a damage? Check the jam access cover if i sensor. Is it blocking the Input sensor? Check the Input sensor cable for 8 Is it properly connected? Enter the Service Mode and pe Select [Service Mode] -> [State			
feed test. Does it move when doing the feed test. Make sure the MPF gearbox sprinstalled and free of damage. Of for wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partiall media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and adamage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for select [Service Mode and person select [Service Mode] -> [States]	ate Confirmation] ->		
Make sure the MPF gearbox spinstalled and free of damage. Of for wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and adamage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for select [Service Mode and person select [Service Mode] -> [State select [Service Mode]]	noves when doing the		
installed and free of damage. Of for wear or damage. Are they free of wear or damage. Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for select [Service Mode] -> [State			
Check the Input sensor area for fragments. Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for sensor cable for sensor. Is it properly connected? Enter the Service Mode and per Select [Service Mode] -> [State		Go to step 5.	Replace the MPF gearbox.
fragments. Is the paper path free of partial media? Check the media present sense sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for sensor cable for sensor cable for sensor. Is it properly connected? Enter the Service Mode and per Select [Service Mode] -> [State	je?		
Is the paper path free of partial media? Check the media present sensor sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for sensor cable for sensor. Is it properly connected? Enter the Service Mode and per Select [Service Mode] -> [State	r jammed media	Go to step 6.	Clear the paper path of any media fragments.
sensor flag for: Proper operation Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for Is it properly connected? Enter the Service Mode and per Select [Service Mode] -> [State	ly fed or jammed		
6 • Wear or damage Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for the sen	or and media present	Go to step 7.	Replace either the media present sensor or media present sensor flag,
Do they properly operate, and a damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for the Service Mode and person select [Service Mode] -> [State]			or both.
damage? Check the jam access cover if is sensor. Is it blocking the Input sensor? Check the Input sensor cable for the sensor cable			
7 sensor. Is it blocking the Input sensor? Check the Input sensor cable for the sensor cabl	are they free of wear or		
8 Is it properly connected? Enter the Service Mode and pe Select [Service Mode] -> [State	it is blocking the Input	Replace the jam access cover.	Go to step 8.
8 Is it properly connected? Enter the Service Mode and pe Select [Service Mode] -> [State			
Enter the Service Mode and pe Select [Service Mode] -> [State	or proper connection.	Go to step 9.	Reseat the cable.
9 [Sensor Check] -> [Base Sensor	e Confirmation] ->	Go to step 10.	Replace the Input sensor.
Does the sensor state on the or change when it is toggled?	peration panel display		
10 Does the error remain?		Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(4) Procedure (Sub-code: 200.09, 200.10, 200.11, 200.12, 200.13, 200.14, 200.15, 200.23, 200.24, 200.29, 200.30)

	•		
Step	Action	Yes	No
	Check the LSU cables for proper connection.	Go to step 2.	Reseat the cables.
1			
	Are they properly connected?		
	Inspect the LSU cables and connectors.	Go to step 3.	Replace the LSU.
2			
	Are they free of damage?		

Step	Action	Yes	No
3	Check the Input sensor cable for proper connection. Is it properly connected?	Go to step 4.	Reseat the cable.
4	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 1], and touch Start key. Does it pass the test?	Go to step 5.	Replace the LSU.
5	Enter the Service Mode and perform a sensor check: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Base Sensor]. Does the sensor state on the operation panel display change when it is toggled?	Go to step 6.	Replace the Input sensor.
6	Check the controller board for any damage. Is it free of damage?	Go to step 7.	Replace the controller board.
7	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(5) Procedure (Sub-code: 200.16)

Step	Action	Yes	No
	Remove the main drive gearbox.	Go to step 2.	Reseat the cable.
1	Check the main drive gearbox cable for proper connection.		
	Is it properly connected?		
	Remove the main drive gearbox.	Go to step 3.	Replace the main drive gearbox.
2	Check the gears of main drive gearbox for wear or damage.		
	Are they free of wear or damage?		
	Check the main drive motor for proper operation:	Go to step 4.	Replace the main drive gearbox.
	Remove the main drive gearbox. Note: Do not disconnect the main drive gearbox cable.		
3	Enter the Service Mode and perform a paper passage test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> any input source, and touch Start key.		
	Check if the main drive motor rotates when doing the feed test.		
	Does it rotate when doing the feed test?		
4	Check the fuser gear for damage or toner contamination.	Replace the controller board.	Replace the fuser.
	Is it free of damage and contamination?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.8 Misfeed at exit section

(1) Contents

JAM type	Misfeed at e	Misfeed at exit section		
JAM code	32-05	32-05		
Sub-code	(202.xx)			
Detection timing 202.01 Exit sensor is covered during warm up.		Exit sensor is covered during warm up.		
	202.03	Media did not reach the Exit sensor.		
202.05 Exit sensor covered too long by the current sheet. 202.07 Exit sensor covered too long by the previous sheet.		Exit sensor covered too long by the current sheet.		
		Exit sensor covered too long by the previous sheet.		
	202.13	Restart attempted after an internal jam without cover open. Close event. Likely that the jam was not actually cleared.		
	202.14	Expected banner sheet (assumed wide) not detected by Narrow Media Sensor, possible accordion jam, unsupported narrow banner media, or missing signal.		

	202.16	Page at fuser nip before fuser started ramping toward desired. Indicates code may be receiving more hall interrupts than intended.
	202.17	Page at fuser nip before fuser reached acceptable operating temperature. Page arrived at fuser earlier than expected, so it was probably staged.
	202.22	Cartridge Motor - Motor Underspeed Error. Motor made it to closed loop steady state, but then detected speed was below threshold.
	202.28	Exit sensor bounce issue.
202.32 The sheet is too long to be duplexed.		The sheet is too long to be duplexed. The blow through is enabled.
	202.36	Long paper or shingled multi feed stopped before sending to duplex.
	202.43	During warm up flush, media that passed the Input sensor failed to reach the Exit sensor.
	202.45	During warm up flush, sheet detected too long over Exit sensor.
Relevant parts	Exit senso	r
Input sensor		or

(2) Procedure (202.01, 202.03, 202.05, 202.07, 202.13, 202.14, 202.16, 202.17, 202.22, 202.28, 202.43, 202.45)

Step	Action	Yes	No
1	Check the Input sensor area for jammed media fragments.	Go to step 2.	Clear the paper path of any media fragments.
	Is the paper path free of partially fed or jammed media?		
2	Check the fuser exit sensor cable JEXIT1 for proper connection.	Go to step 3.	Reseat the cable.
	Is it properly connected?		
3	Enter the Service Mode and perform a sensor check: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Base Sensor], and check for Exit Roller.	Go to step 4.	Replace the fuser.
	Does the sensor state on the operation panel display change when it is toggled?		
4	Check the fuser gears and rollers for damage.	Go to step 5.	Replace the fuser.
	Are they free of damage?		
5	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(3) Procedure (202.32, 202.36)

Step	Action	Yes	No
	Remove the rear cover.	Go to step 2.	Replace the redrive assembly.
1	Check the redrive rollers for wear or damage.		
	Are they free of wear or damage?		
	Remove the left cover.	Go to step 3.	Replace the reverse solenoid.
2	Enter the Service Mode and navigate to: [Service Mode] -> [State Confirmation] -> [Component Check] -> [Duplex Feed Test]		
	Check the reverse solenoid for proper operation.		
	Does it function properly?		
	Remove the input tray.	Go to step 4.	Replace the duplex gear assembly
3	From under the printer, check the duplex gear assembly and duplex link for wear and damage.		
	Are they free of wear and damage?		
4	From under the printer, check the duplex, belt, and roller for wear and damage.	Go to step 5.	Replace the duplex.
	Are they free of wear and damage?		
5	Enter the Service Mode and navigate to: [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Duplex]	Go to step 6.	Replace the duplex sensor.
5	Lower the jam access cover, and toggle the duplex sensor.		

Step	Action	Yes	No
	Does the sensor state on the operation panel change when it is toggled?		
6	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.9 Misfeed at ADF section

(1) Contents

JAM type	Misfeed at ADF section		
JAM code	66-02, 66-05, 66-33		
Sub-code	-		
Detection timing	66-02	Paper Missing - Posted when paper is removed from input tray after job is initiated.	
	66-33	ADF Static Jam - ADF interval sensor active at power ON.	
	66-02	ADF Pickup Jam - LE of paper does not reach ADF interval sensor in time.	
	66-05	ADF Long Page - TE never clears ADF interval sensor (but 1st scan sensor and Exit Sensor are both active).	
	66-33	ADF Static Jam - 1st scan sensor active at power ON.	
	66-02	ADF Feed Jam - LE of paper does not reach 1st scan sensor in time.	
	66-02	1st scan sensor Jam - TE never clears 1st scan sensor.	
	66-33	ADF Backfeed - Page(s) in the exit area accidentally gets pulled into the reverse path.	
	66-05	ADF Backside Feed Jam - LE does not reach the multipurpose ADF interval sensor in time when page routed through reverse area.	
	66-05	ADF Backside Jam - TE does not reach the multipurpose ADF interval sensor in time when page routed through reverse area.	
	-	ADF Cover Open Jam - Posted when ADF top cover is opened during ADF job.	
Relevant parts	ADF interva	sensor	

(2) Procedure (ADF paper jam service check)

Step	Action	Yesl	No
	Retry the job.	Go to step 2.	The problem is solved.
1	Does the error remain?		
2	Check the paper path for media fragments and debris.	Go to step 3.	Remove all obstructions along the paper path and retry the job.
۷	Retry the job. Does the error remain? Check the paper path for media fragments and debris. Is the paper path free from obstructions? Is paper failing to feed into the ADF? Check the leading edge of the paper to ensure the paper is not curled or bent in a way that would keep it from contacting the paper present sensor actuator. Also, check to see if the paper is moist or heavy. Is the paper damaged or out of specification? Perform the ADF pick motor and ADF feed motor tests. Are the motors working properly? Perform the ADF paper present and scan sensor tests. Are the sensors working properly? Perform the ADF interval sensor tests. Are the sensors properly functioning? Is there dirt in the sensors or is the paper present actuator stuck?		If the error persists, then go to step 3.
3	Is paper failing to feed into the ADF?	Service check of ADF	Go to step 4.
4	Check the leading edge of the paper to ensure the paper is not curled or bent in a way that would keep it from contacting the paper present sensor actuator.	Retry the job using different media. If the error persists, then go to step 5.	Go to step 5.
7	Also, check to see if the paper is moist or heavy. Is the paper damaged or out of specification?		
5	Perform the ADF pick motor and ADF feed motor tests. Are the motors working properly?	Go to step 6.	Go to step 10.
6	Perform the ADF paper present and scan sensor tests. Are the sensors working properly?	Go to step 7.	Go to step 8.
7	Perform the ADF interval sensor tests. Are the sensors properly functioning?	Go to step 9.	Go to step 8.
8	Is there dirt in the sensors or is the paper present actuator stuck?	Clean the sensors and remove debris from the actuators. Adjust the sensor actuators so they can move freely.	Go to step 9.
		If the error persists, then go to step 9.	
9	Are the sensor actuators on the ADF mechanism cover damaged?	Replace the ADF.	Go to step 10.
10	Is the ADF connector properly connected to JADF1 on the controller board?	Go to step 11.	Properly connect the cable to the controller board.
11	Inspect the connections on the ADF relay board in the ADF.	Go to step 12.	Secure all the connections.

Step	Action	Yesl	No
	Are all the connections properly connected?		
12	Check the ADF cable for continuity. Is there continuity?	Go to step 13.	Replace the ADF cable.
13	Check for signals or voltages from JADF1 on the controller board. Pin 14 and 16 should measure +24VDC. Pins 15 and 22 should measure +3.3VDC.	Replace the ADF unit.	Replace the controller board.
	Are there signals or voltages present?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(3) Procedure (ADF cover open service check)

Step	Action	Yes	No
1	Is the ADF cover properly closed?	Go to step 3.	Go to step 2.
2	Close the ADF cover. Does the problem go away?	Issue resolved.	Go to step 3.
3	Perform the ADF cover open sensor test. Does the sensor work properly?	Go to step 4	Go to step 8.
4	On the bottom of the ADF cover, inspect the ADF cover closed sensor actuator.	Go to step 6.	Go to step 5.
	Does it move freely?		
5	Fix the actuator so it moves freely.	Issue resolved.	Go to step 6.
	Does this fix the problem?		
6	Remove the ADF rear cover and inspect the ADF cover closed sensor for dirt and debris.	Go to step 7.	Go to step 8.
	Is there dirt and debris present?		
7	Clean the dirt and debris from the sensor.	The problem is solved.	Go to step 8.
	Does this fix the issue?		
8	Inspect the connections on the ADF relay board in the ADF.	Go to step 9.	Secure all the connections.
	Are all the connections properly connected?		
9	Check the ADF cable for continuity.	Go to step 10.	Replace the ADF cable.
	Is there continuity?		
10	Check for signals or voltages from JADF1 on the controller board. Pin 14 and 16 should measure +24VDC. Pins 15 and 22 should measure +3.3VDC.	Replace the ADF.	Replace the controller board.
	Are there signals or voltages present?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.10 Misfeed at finisher section

(1) Contents

JAM type	Misfeed at fir	Misfeed at finisher section		
JAM code	72-21	72-21		
Sub-code	(451.xx), (45	1.xx), (452.xx), (453.xx), (454.xx), (456.xx), (457.xx)		
Detection timing	451.01	Media remains detected by the Stapler pass through sensor after power on.		
	451.03	The media fed did not reach the Stapler pass through sensor.		
	451.05	While feeding, the media remains detected by the Stapler pass through sensor.		
451.09 Page In Output is never received from the staple finisher.		Page In Output is never received from the staple finisher.		
	451.10	Invalid Page ID returned by the staple finisher.		
	451.41	Staple finisher main motor stalled.		
	451.42	Staple finisher main motor did not reach the required speed.		
	451.43	Staple finisher took too long to ramp up the stapler main motor.		
452.73 Staple finisher left tamper failed to leave its home position.		Staple finisher left tamper failed to leave its home position.		
	452.74 Staple finisher left tamper failed to reach its home position.			
	453.75	Staple finisher right tamper failed to leave its home position.		

	453.76	Staple finisher right tamper failed to reach its home position.	
	454.41	Staple finisher paddle motor stalled.	
	454.42	Staple finisher paddle motor did not reach the required speed.	
	454.43	Staple finisher took too long to ramp up the stapler paddle motor.	
	454.53 Staple finisher paddle motor went over the normal speed.		
	454.77 Staple finisher paddle failed to leave its home position.		
	454.78	Staple finisher paddle failed to reach its home position.	
	456.03	Failure to staple - media did not reach the stapler throat.	
	456.07	Paper jam - media remains detected in the stapler throat.	
	456.83 Homing failure occurred on the stapler unit.		
	456.84 Staple unit jam while stapling - media remains detected by the Stapler home sensor.		
	456.85	Staple unit jam while stapling - the staple unit is unable to return to home position.	
	456.86	Failure to staple - stapler cartridge is detected as empty.	
	457.87	Stapler failed to prime the staple wire after a stapling operation.	
	457.88	Stapler failed to prime the staple wire after a homing operation.	
	457.89	Stapler failed to prime after a stapling operation.	
	457.90	Stapler failed to prime before a stapling operation.	
Relevant parts	Stapler pass through sensor		
	Stapler ma	ain motor	
	Stapler pa	ddle motor	
	Stapler home sensor		

(2) Procedure (Finisher jam service check)

Step	Action	Yes	No
	Open the rear door and check the flag of the Stapler pass through sensor.	Go to step 2.	The problem is solved.
	If damaged, then replace the sensor.		
1	Remove the left cover, reseat the sensor connector on the controller board, and then reboot the machine.		
	Does the error remain?		
2	Check the Stapler pass through sensor for proper operation. Enter the Service Mode and navigate to: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Pass and Media], and check for Pass Thru Sensor Status.	Go to step 3.	Replace the Stapler pass through sensor.
	Does the status shown on the operation panel change each time the sensor is toggled?		
3	Open the stapler service cover, reseat all connectors on the controller board, and then reboot the machine.	Replace the controller board. If the error persists, then go to step 4.	The problem is solved.
	Does the error remain?		
4	Check the paper path of the stapler for obstructions.	Go to step 5.	Remove all obstructions along the paper path.
	Is it free of obstructions?		
5	Check the paper path for damage.	If the error remains, then contact the next level of support.	Replace the staple finisher option.
	Is the paper path free of damage?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(3) Procedure (Stapler left tamper jam service check)

Step	Action	Yes	No	
1	Remove the stapler top cover. Reseat the connector of the sensor (stapler left tamper HP). Then reseat also the sensor connector on the controller board. Does the error remain?	Go to step 2.	The problem is solved.	
2	Swap the sensor (stapler left tamper HP) and sensor (stapler right tamper HP). Does the same error occur?	Go to step 3.	Replace the sensor (stapler right tamper HP).	

Step	Action	Yes	No
3	Reseat the connectors of the right and left tamper motors. Then reseat also the motor connectors on the controller board.	Go to step 4.	The problem is solved.
	Does the error remain?		
4	Swap the stapler left and right tamper motors.	Go to step 5.	If a 453.xx error occurs, then replace the motor.
	Does the same error occur?		
	Check the stapler interface cable. If damaged, then replace the cable.	Go to step 6.	The problem is solved.
5	Reseat the interface cable on the controller board, and then reboot the machine.		
	Does the error remain?		
	Remove the tamper sub-assembly. Check the tamper drive belts:	Go to step 7.	Replace the tamper drive belts.
	Inspect the belts for wear or damage.		
6	Inspect the belt tension spring and make sure it is properly installed and aligned.		
	Are the components functional and free of damage?		
	Check the following:	Go to step 8.	Replace the tamper sub-assembly.
7	Manually move the left and right tamper arms and check if they can move freely.		Reboot the machine. If the error remains, then go to step 9.
/	Check the tamper home position flags for damage.		
	Are the components functional and free of damage?		
8	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(4) Procedure (Ejector jam service check)

Step	Action	Yes	No
1	Open the stapler service cover, and then reseat the sensor (stapler paddle HP) connector on the controller board. Reboot the machine.	Go to step 2.	The problem is solved.
	Does the error remain?		
2	Swap the sensor (stapler paddle HP) and sensor (stapler right tamper HP). Reboot the machine.	Go to step 3.	If a 453.xx error occurs, then replace the motor.
	Does the same error occur?		
3	Reseat the paddle motor connector on the controller board. Then reseat also the connector on the paddle motor. Reboot the machine.	Replace the motor. If the error persists, then go to step 4.	The problem is solved.
	Does the error remain?		
	Check the stapler interface cable. If damaged, then replace the cable.	Go to step 5.	The problem is solved.
4	Reseat the interface cable on the controller board, and then reboot the machine.		
	Does the error remain?		
	Check the tamper main assembly:	Go to step 6.	Replace the tamper main assembly.
	Check the paddle mechanism for damage.		
5	Check for worn-out and lost parts. Make sure all parts within the assembly are properly installed.		
	Are the components functional and free of damage?		
6	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		
		1	1

• Link to the wiring diagram (N.1. bizhub 4750/4050)

(5) Procedure (Stapler carriage jam service check)

Step	Action	Yes	No
1	Open the stapler service cover. Reseat the sensor (stapler throat) cable. Then reseat also the other end of the cable on the controller board, and then reboot the machine. Does the error remain?	Replace the stapler accumulator assembly. Reboot the machine. If the error persists, then go to step 2.	The problem is solved.
2	Open the stapler right cover. Reseat the stapler carriage assembly cables. Then reseat also the other end of the cables on the controller board, and then reboot the machine. Does the error remain?	Go to step 3.	The problem is solved.
3	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine. Does the error remain?	Go to step 4.	The problem is solved.
4	Reseat all connectors on the controller board, and then reboot the machine. Does the error remain?	Replace the stapler controller board.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(6) Procedure (Stapler priming jam service check)

Step	Action	Yes	No
1	Open the stapler right cover. Reseat the stapler carriage assembly cables. Then reseat also the other end of the cables on the controller board, and then reboot the machine.	Go to step 2.	The problem is solved.
	Does the error remain?		
2	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine.	Go to step 3.	The problem is solved.
	Does the error remain?		
3	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.11 Misfeed at staple finisher section

(1) Contents

JAM type	Staple finishe	er section er section	
JAM code	72-81		
Sub-code	(451.xx), (452.xx), (453.xx), (454.xx), (456.xx), (457.xx)		
Detection timing	451.01	Media remains detected by the Stapler pass through sensor after power on.	
	451.03	The media fed did not reach the Stapler pass through sensor.	
	451.05	While feeding, the media remains detected by the Stapler pass through sensor.	
	451.09 Page In Output is never received from the staple finisher.		
	451.10	1.10 Invalid Page ID returned by the staple finisher.	
	451.41	Staple finisher main motor stalled.	
	451.42	Staple finisher main motor did not reach the required speed.	
	451.43	Staple finisher took too long to ramp up the stapler main motor.	
	452.73	Staple finisher left tamper failed to leave its home position.	
	452.74	Staple finisher left tamper failed to reach its home position.	
	453.75	Staple finisher right tamper failed to leave its home position.	
	453.76	Staple finisher right tamper failed to reach its home position.	

	454.41	Staple finisher paddle motor stalled.
	454.42	Staple finisher paddle motor did not reach the required speed.
	454.43	Staple finisher took too long to ramp up the stapler paddle motor.
	454.53	Staple finisher paddle motor went over the normal speed.
	454.77	Staple finisher paddle failed to leave its home position.
	454.78	Staple finisher paddle failed to reach its home position.
	456.03	Failure to staple - media did not reach the stapler throat.
	456.07	Paper jam - media remains detected in the stapler throat.
456.83 Homing failure occurred on the stapler unit.		Homing failure occurred on the stapler unit.
	456.84 Staple unit jam while stapling - media remains detected by the Stapler home sensor.	
	456.85 Staple unit jam while stapling - the staple unit is unable to return to home position.	
	456.86	Failure to staple - stapler cartridge is detected as empty.
	457.87	Stapler failed to prime the staple wire after a stapling operation.
	457.88	Stapler failed to prime the staple wire after a homing operation.
	457.89	Stapler failed to prime after a stapling operation.
457.90 Stapler failed to prime before a stapling operation.		Stapler failed to prime before a stapling operation.
Relevant parts	Stapler pass through sensor	
	Staple finis	sher main motor
	Stapler home sensor	

(2) Procedure (Finisher jam service check)

Step	Action	Yes	No
1	Open the rear door and check the flag of the Stapler pass through sensor. If damaged, then replace the sensor. Remove the left cover, reseat the sensor connector on the controller board, and then reboot the machine. Does the error remain?	Go to step 2.	The problem is solved.
2	Check the Stapler pass through sensor for proper operation. Enter the Service Mode and navigate to: Select [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Pass and Media], and check for Pass Thru Sensor Status. Does the status shown on the operation panel change each time the sensor is toggled?	Go to step 3.	Replace the sensor.
3	Open the stapler service cover, reseat all connectors on the controller board, and then reboot the machine. Does the error remain?	Replace the controller board. If the error persists, then go to step 4.	The problem is solved.
4	Check the paper path of the stapler for obstructions. Is it free of obstructions?	Go to step 5.	Remove all obstructions along the paper path.
5	Check the paper path for damage. Is the paper path free of damage?	If the error remains, then contact the next level of support.	Replace the staple finisher option.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(3) Procedure (Stapler left tamper jam service check)

Step	Action	Yes	No
1	Remove the stapler top cover. Reseat the connector of the sensor (stapler left tamper HP). Then reseat also the sensor connector on the controller board. Does the error remain?	Go to step 2.	The problem is solved.
	Swap the sensor (stapler left tamper HP) and sensor	Go to step 3.	Replace the sensor (stapler right
2	(stapler right tamper HP).		tamper HP).
	Does the same error occur?		
3	Reseat the connectors of the right and left tamper motors. Then reseat also the motor connectors on the controller board.	Go to step 4.	The problem is solved.
	Does the error remain?		

Step	Action	Yes	No
4	Swap the stapler left and right tamper motors.	Go to step 5.	If a 453.xx error occurs, then replace the motor.
	Does the same error occur?		
5	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine.	Go to step 6.	The problem is solved.
	Does the error remain?		
	Remove the tamper sub?assembly. Check the tamper drive belts:	Go to step 7.	Replace the tamper drive belts.
	Inspect the belts for wear or damage.		
6	Inspect the belt tension spring and make sure it is properly installed and aligned.		
	Are the components functional and free of damage?		
	Check the following:	Go to step 8.	Replace the tamper sub?assembly.
7	Manually move the left and right tamper arms and check if they can move freely.		Reboot the machine. If the error remains, then go to step 9.
1	Check the tamper home position flags for damage.		
	Are the components functional and free of damage?		
8	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(4) Procedure (Ejector jam service check)

Step	Action	Yes	No
1	Open the stapler service cover, and then reseat the sensor (stapler paddle HP) connector on the controller board. Reboot the machine.	Go to step 2.	The problem is solved.
	Does the error remain?		
2	Swap the sensor (stapler paddle HP) and sensor (stapler right tamper HP). Reboot the machine.	Go to step 3.	If a 453.xx error occurs, then replace the motor.
	Does the same error occur?		
3	Reseat the paddle motor connector on the controller board. Then reseat also the connector on the paddle motor. Reboot the machine.	Replace the motor. If the error persists, then go to step 4.	The problem is solved.
	Does the error remain?		
4	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine.	Go to step 5.	The problem is solved.
	Does the error remain?		
	Check the tamper main assembly:	Go to step 6.	Replace the tamper main assembly.
	Check the paddle mechanism for damage.		
5	Check for worn-out and lost parts. Make sure all parts within the assembly are properly installed.		
	Are the components functional and free of damage?		
6	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(5) Procedure (Stapler carriage jam service check)

Step	Action	Yes	No
1	Open the stapler service cover. Reseat the sensor (stapler throat) cable. Then reseat also the other end	Replace the stapler accumulator assembly.	The problem is solved.

Step	Action	Yes	No
	of the cable on the controller board, and then reboot the machine.	Reboot the machine. If the error persists, then go to step 2.	
	Does the error remain?		
2	Open the stapler right cover. Reseat the stapler carriage assembly cables. Then reseat also the other end of the cables on the controller board, and then reboot the machine.	Go to step 3.	The problem is solved.
	Does the error remain?		
3	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine.	Go to step 4.	The problem is solved.
	Does the error remain?		
4	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

(6) Procedure (Stapler priming jam service check)

Step	Action	Yes	No
1	Open the stapler right cover. Reseat the stapler carriage assembly cables. Then reseat also the other end of the cables on the controller board, and then reboot the machine.	Go to step 2.	The problem is solved.
	Does the error remain?		
2	Check the stapler interface cable. If damaged, then replace the cable. Reseat the interface cable on the controller board, and then reboot the machine.	Go to step 3.	The problem is solved.
	Does the error remain?		
3	Reseat all connectors on the controller board, and then reboot the machine.	Replace the stapler controller board.	The problem is solved.
	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

1.4.12 Misfeed at duplex pre-registration section

(1) Contents

` '			
JAM type	Misfeed at duplex pre-registration section		
JAM code	92-00		
Sub-code	(230.xx)		
Detection timing	230.01	Sheet covering Duplex sensor during warm up.	
	230.02	Paper jam around internal duplex.	
230.03 Internal duplex sensor never made by leading edge of page.		Internal duplex sensor never made by leading edge of page.	
	230.04	230.04 Page in duplexer ahead of current reversing page never staged.	
	230.05	230.05 Duplex sensor never broke on the trailing edge of the sheet.	
	230.07	230.07 Duplex sensor never broke from sheet ahead of page.	
	230.09	Page in duplexer never picked.	
	230.10 Narrow page reversing into duplexer.		
	230.28	Bouncy Duplex sensor never made.	
Relevant parts	Duplex sens	or	

Step	Action	Yes	No
1	Remove the rear cover. Check the re-drive rollers for wear or damage.	Go to step 2.	Replace the re-drive assembly.
	Are they free of wear or damage?		

Step	Action	Yes	No
2	Remove the left cover. Enter the Service Mode and navigate to: [Service Mode] -> [State Confirmation] -> [Component Check] -> [Duplex Feed Test] Check the reverse solenoid for proper operation.	Go to step 3.	Replace the reverse solenoid.
	Does it function properly?		
3	Remove the input tray. From under the printer, check the duplex gear assembly and duplex link for wear and damage.	Go to step 4.	Replace the duplex gear assembly.
	Are they free of wear and damage?		
4	From under the printer, check the duplex, belt, and roller for wear and damage.	Go to step 5.	Replace the duplex.
	Are they free of wear and damage?		
5	Enter the Service Mode and navigate to: [Service Mode] -> [State Confirmation] -> [Sensor Check] -> [Duplex] Lower the jam access cover, and toggle the Duplex sensor.	Go to step 6.	Replace the Duplex sensor.
	Does the sensor state on the operation panel change when it is toggled?		
6	Does the error remain?	Contact the next level of support.	The problem is solved.

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

2. PROCESS CAUTION INFROMATION

2.1 Display procedure

- The machine's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the process caution information in the report that is output by [Service Mode] -> [List Output] -> [Management List].
- When receiving the process caution information, user can continue printing. However, as the information indicates that some error has
 occurred in the image stabilization process, the error must be addressed rapidly.

2.2 List

• If an image stabilization fault occurs, the process caution information is provided.

Item		
LD error No response is provided from the temperature/ humidity sensor.		
IDC Sensor error	Toner density sensor output values are out of the specified range.	
K IU error The amount of toner of test pattern is lower than the lower limit value of the effective range.		
CCD clamp gain error It is detected that the CCD clamp gain adjustment value is faulty.		

2.3 Solution

2.3.1 LD error

(1) Contents

	Relevant parts
• PH unit	
Controller board (CTLB)	

(2) Procedure

Step	Action	
1	Replace the PH unit.	
2	Replace CTLB.	

2.3.2 IDC sensor error

(1) Contents

Relevant parts
Toner density sensor (PS17)
Controller board (CTLB)
Power supply unit (PU)

(2) Procedure

Step	Action	
1	Reinstall or reconnect the toner density sensor (PS17) connector, if it is installed or connected improperly.	
2	Clean the PS17 if it is dirty.	
3	Check the PU connector for proper connection and correct as necessary.	
4	Replace PS17.	
5	Replace CTLB.	

2.3.3 K IU error

(1) Contents

	Relevant parts
Imaging unit	
Toner density sensor (PS17)	
Controller board (CTLB)	
Power supply unit (PU)	

Step	Action	
1	Select [Service Mode] -> [Imaging Process Adjustment] -> [Engine Density Adjustment] and, readjust.	
2	Check the drive transmission portion of the imaging unit and correct as necessary.	
3	Clean PS17 window if dirty.	
4	Clean the contact of the imaging unit connector if dirty.	
5	Check the PU connector for proper connection and correct as necessary.	
6	Replace the imaging unit.	

Step	Action
7	Replace PU.
8	Replace CTLB.

2.3.4 CCD clamp gain error

(1) Contents

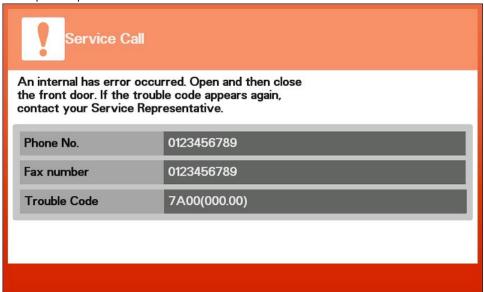
Relevant parts
Scanner unit
Controller board (CTLB)

Step	Action	
1	Correct the harness connection between the scanner unit and CTLB J101 if faulty.	
2	Check for possible extraneous light and correct as necessary.	
3	Clean the lens, mirrors, CCD surface, and shading sheet if dirty.	
4	Correct reflective mirror of the scanner if faulty, or change scanner mirror.	
5	Replace the scanner unit.	
6	Replace CTLB.	

3. TROUBLE CODE

3.1 Trouble code (Service Call)

• The machine's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code on the operation panel.



3.2 Trouble resetting procedure

- · Different malfunction resetting procedures apply depending on the rank of the trouble code.
- * List of malfunction resetting procedures

=ier er mannen reterming presentation		
Trouble code rank	Resetting procedures	
Rank A	Trouble reset: Refer to the Trouble resetting procedure by Trouble Reset key.	
Rank B	Opening/closing the front door Trouble reset	
Rank C	Turning main power switch OFF/ON Trouble reset	

3.2.1 Trouble resetting procedure by Trouble Reset key

(1) Use

- If the all troubles occur and the status could not be cleared by turning main power switch OFF and ON again, or opening and closing the front door, clear the status of the machine.
- To be used when the status could not be cleared by turning main power switch OFF and ON again, or opening and closing the front door in case of a trouble.

(2) Procedure

- 1. Turn OFF the main power switch.
- 2. Turn the main power switch ON while pressing the Power key.
- 3. Touch [Trouble Reset].
- 4. Touch [OK] on the check screen.
- 5. According to the description on the screen, turn off the main power switch, and turn it on again more than 10 seconds after and check if the machine starts correctly.

3.2.2 Trouble resetting procedure by remote operation

(1) Use

- · Trouble can be cleared by remote operation using the applications or CS Remote Care system.
- · The combinations of the applications to be used and the ranks of trouble to be cleared are shown below.

Trouble code rank	Rank A	Rank B	Rank C
Application			
PageScope Web Connection	Cannot be cleared	Can be cleared	Can be cleared
OpenAPI (PageScope Enterprise Suite)	Cannot be cleared	Can be cleared	Can be cleared
CS Remote Care (Excluding communications by fax modem)	Can be cleared	Can be cleared	Can be cleared

(2) Procedure

(a) PageScope Web Connection

- 1. Access the PageScope Web Connection of the MFP where trouble occurs.
- 2. The screen for logging into Administrator Mode appears.

- Check the following message appears; "An error has occurred. Do you want to clear the error?" Click [Trouble Reset].
- 4. Click [Trouble Reset] again in the confirmation screen.
- 5. Check that the MFP starts normally.

(b) OpenAPI (PageScope Enterprise Suite)

- 1. Access PageScope Enterprise Suite.
- 2. Select [Device List] -> [Device List] -> [Device List] -> [Device].
- 3. For rank B trouble, click [Trouble Reset]. For rank C trouble, click [Reset].
- 4. For rank B trouble, click the [Execute] button.
 - For rank C trouble, click the [Execute] button in [Device Reset].
- 5. Check that the MFP starts normally.

(c) CS Remote Care

• Refer to the CS Remote Care Center manual.

3.3 List of the trouble code

Code	Item	Rank
0202	Tray 1 feeder up/down abnormality	В
0204	Tray 2 feeder up/down abnormality	В
0206	Tray 3 lift-up failure	В
0208	Tray 4 lift-up failure	В
1109	Stapler motor's drive malfunction <when fs-p02="" installed="" is=""></when>	В
2201	Toner cartridge motor rotation failure	В
2350	Cooling fan error	В
2564	Black TCR sensor failure	В
2A94	Toner empty censor error	В
3423	Fuser warm-up trouble	Α
4091	Engine communication error	С
4501	Laser malfunction	В
4901	FW/OS integrity verification error	С
5102	Main motor failure to turn	В
5501	AC signal abnormality	С
5601	Engine control malfunction	С
6751	CCD clamp/gain adjustment failure	С
6790	AFE offset adjustment error	С
6791	AFE register setting error	С
6792	White reference plate search error	С
6793	Scanner communication error	С
7A00	Failed to arrive home	С
9401	Exposure lamp lighting failure detected	С
B001	FAX board error 1	С
B002	FAX board error 2	С
B003	FAX board error 3	С
B051	FAX board mount failure line 1	С
B110	Instance generation error or observer registration error	С
B111	Configuration space initialization NG	С
B112	Semaphore acquisition, release error	С
B113	Sequence error among main body tasks	С
B114	Message queue control error	С
B115	Main body - sequence error among FAX boards	С
B116	Communication fault between controller and FAX board	С
B117	ACK waiting timeout error	С
B118	Receiving undefined frame	С
B119	DMA transfer error	С
B120	Soft error	С
B122	Device error (GA LOCAL SRAM)	С
B123	Device error (DRAM)	С
B125	Device error (GA)	С
B126	Timeout error due to non-response from codec control during suspension process	С
B127	Timeout error due to non-response from communication control during suspension process	С

B129 Timeout error due to non-response from LINE control during suspension process B130 Driver soft error B131 Reception frame length error from main C B132 Reception frame length error from main C B133 Acception frame length error from main C B134 DPRAM IF sequence error C B135 DPRAM CTL/STS register error C B136 Acception frame length error C B137 DPRAM RESET reception C B137 DPRAM RESET reception C B141 IF error with job control C B141 IF error with driver B142 Undefined command reception C B143 Command frame length error C B144 Command parameter length error C B145 Undefined parameter B146 Command frame length error C B145 Undefined parameter B146 Command/response sequence error C B150 External class instance acquisition error C B151 Job start error (starting job parameter error/child job generation error) C B152 Doc access error (report but access error) C B153 Response walt irrecult from external task C B164 Internal que table control error (create/enque/deque) C B165 Internal que table control error (create/enque/deque) C B166 Response walt irrecult from external task C B167 Deployment error of sending image information C B168 Sendiplore acquisition error C B169 Access error to quick memory data B160 Deserver registration error C B161 Timeout error C B162 Deserver registration error C B163 Message que control error (create/enque/deque) C B164 Semaphore acquisition release error C B165 Deployment error of sending image information C B167 Deployment error of unick memory data B170 Interface error B171 Interface error B172 Timeout error in error in error (reate/enque/deque) C B173 Interface error B174 Semaphore acquisition release error C B175 Conserver registration error C B177 Error return from TIII rasterizer C B177 Error return from TIII rasterizer C B178 Error return from TI	k
Process B130	
B131 Reception frame length error from main C	
B132 Reception frame header error from main C	
B133	
B134 DPRAM I/F sequence error	
B135	
B135	
B137 DPRAM RESET reception C B140 MSG I/F error with job control C B141 I/F error with driver C B142 Undefined command reception C B143 Command frame length error C B144 Command parameter length error C B145 Undefined parameter C B146 Command/response sequence error C B150 External class instance acquisition error C B151 Job start error (starting job parameter error/child job generation error) C B152 Doc access error (report buf access error) C B153 Response wait timeout from external task C B154 Internal que table control error (create/enque/deque) C B160 Instance generation error C B161 Timeout error C B162 Interface error C B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error <td></td>	
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B154 Internal que table control error (create/enque/deque) C B160 Instance generation error C B161 Timeout error C B162 Interface error C B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C </td <td></td>	
B160 Instance generation error C B161 Timeout error C B162 Interface error C B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B161 Timeout error C B162 Interface error C B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B162 Interface error C B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B163 Message que control error C B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C Error return from TTI rasterizer C	
B164 Semaphore acquisition release error C B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B165 Observer registration error C B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B166 Reception resource check error C B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B167 Deployment error of sending image information C B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B168 Serialization error of receiving image C B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B169 Access error to quick memory data C B170 Internal que table control error (create/enque/deque) C B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B170 Internal que table control error (create/enque/deque) B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer	
B171 Instance generation error C B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B172 Timeout error C B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B173 Interface error C B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B174 Semaphore acquisition release error C B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B175 Observer registration error C B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B176 Unable to secure TTI domain C B177 Error return from TTI rasterizer C	
B177 Error return from TTI rasterizer C	
B178 Receiving job generation error C	
B179 Sequence control error C	
B180 Access error to quick sending memory data C	
B181 BlockBuff acquisition error C	
B182 Sending block image error (Req, restore) C	
B183 Receiving block image error (Req, restore) C	
B184 Storage error of receiving image information C	
B185 Receiving data size logic error (Receiving data are not multiples of dotline) C	
B186 ImageBuf acquisition (alloc) error C	
B187 Error return from compressor C	
B188 BandBuf control error (newInstance/get/free) C B190 USB IF error (OS notifies an error during configuration setting after recovery from the C	
sleep or attach.) B191 USB IF error (EndPoint1: Bulk Out (command, transmitted image data)) (error retry 1 C	
min. timeout) B192 USB IF error (EndPoint2: Bulk In (response, received image data)) (error retry 5 sec. C	
timeout) B193 USB IF error (EndPoint3: Interrupt In (fax board status)) (error retry 1 min. timeout) C	

Code	Item	Rank
B194	USB IF error (EndPoint4: Bulk Out (main body status)) (error retry 3 sec. timeout)	С
B195	USB IF error (Attach not detected for 1 min. after recovery from sleep)	С
B196	USB IF error (Detach not detected for 1 min. after recovery from sleep)	С
C151	ROM contents error upon startup (MSC)	С
C180	Dynamic link error during starting (LDR)	С
D004	Hard disk access error (connection failure)	С
D091	Hard disk full error	С
D092	No hard disk (found during a disk check)	С
D093	Wrong hard disk (found during a disk check)	С
D094	Hard disk check disk error	С
D095	Hard disk recovered (requiring reboot)	С
D096	Hard disk access fault	С
D2B0	ASAHI (ASIC) initialization failure or connection error	С
D3F1	Successful completion of counter backup	С
D3F2	Write error of the counter area (NVRAM)	С
D3F4	Copy write error of the counter area	С
D3F5	Write error of the counter area (EEPROM)	С
D501	FLASH error	С
E301	Referring incorrect memory	С
E302	Incorrect command	С
E303	Finished due to error inside Qt library	С
E304	Finished due to error outside Qt library	С
E305	Program forced to stop	С
F###	Trouble code (F###) is referred to as abort code. For details of abort code, refer to "K.4. ABORT CODE".	С

3.4 Solution

3.4.1 0202

(1) Contents

Trouble type	Tray 1 feeder	Fray 1 feeder up/down abnormality		
Trouble code	0202	202		
Sub-code	(146.xx)	146.xx)		
Rank	В			
Detection timing	146.00	146.00 Pick/lift motor: Encoder Never Detected in tray 1.		
Trouble isolation	-			
Relevant electrical parts	Pick/lift motor gearbox			
	Controller board (CTLB)			

(2) Procedure

Step	Action	Control signal	Location of electrical components	
1	Remove Tray 1.	-	-	
2	Check the lift plate and gears for proper operation by moving the metal plate. Replace the tray 1 if any abnormality is found.			
	Check the pick/lift motor gearbox for the following:			
	Gear tooth breakage			
3	Freedom of rotation	-	-	
	Replace the pick/lift motor gearbox if any abnormality is found.			
4	Check the cable JLIFT1 on the CTLB. Replace the pick/lift motor gearbox if any abnormality is found.	-	-	
5	Replace the printer.	-	-	

3.4.2 0204

(1) 0204 - 321.xx

(a) Contents

Trouble type Tray 2 feeder up/down abnormality	
Trouble code	0204

Sub-code	(321.xx)			
Rank	В	В		
Detection timing	321.51	321.51 ACM motor no first encoder		
	321.52	321.52 ACM motor stop error		
	321.53 ACM PWM underflow (motor overspeed)			
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Tray present sensor (PS35)			
	ACM assembly			

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the cable J11 on PFCB. Reseat the cable if any abnormality is found.	-	-
2	Remove the option tray insert and bypass PS35.	-	-
3	Enter the Service Mode and conduct a Paper Passage Test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 2], and press the Start key.	-	-
4	Check the ACM for proper operation. Replace the ACM assembly if any abnormality is found.	-	-
5	Check the ACM gear for any wear or damage. Replace the ACM assembly if any abnormality is found.	-	-

(2) 0204 - 322.xx

(a) Contents

Trouble type	Tray 2 feed	Tray 2 feeder up/down abnormality		
Trouble code	0204	0204		
Sub-code	(322.xx)	(322.xx)		
Rank	В	В		
Detection timing 322.54 Separator/Pass-through motor no first encoder		Separator/Pass-through motor no first encoder		
	322.55	Separator/Pass-through motor stop error		
	322.56	Separator/Pass-through motor PWM underflow (motor overspeed)		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Separato	Separator roll assembly		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Remove the option tray insert.	-	-
	Check the separator roll assembly gear under the tray base for the following:		
2	Gear tooth breakage		
2	Freedom of rotation	-	-
	Replace the tray 2 if any abnormality is found.		
3	Check the cable J10 on the PFCB. Replace the tray 2 if any abnormality is found.	-	-
4	Check the separator roll assembly for wear or damage. Replace the separator roll assembly if any abnormality is found.	-	-

(3) 0204 - 324.xx

(a) Contents

Trouble type	Tray 2 feeds	Tray 2 feeder up/down abnormality		
Trouble code	0204	204		
Sub-code	(324.xx)	(324.xx)		
Rank	В	В		
Detection timing	324.57	ACM motor no first encoder		
	324.58	ACM motor stop error		

	324.59	ACM motor PWM underflow (motor overspeed)		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Tray prese	Tray present sensor (PS35)		
	ACM assembly			

Step	Action	Control signal	Location of electrical components
1	Check the cable J11 on the PFCB. Reseat the cable if any abnormality is found.	-	-
2	Remove the option tray insert and bypass PS35.	-	-
3	Enter the Service Mode and conduct a Paper Passage Test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 2], and press the Start key.	-	-
4	Check the ACM for proper operation. Replace the ACM assembly if any abnormality is found.	-	-
5	Check the ACM gear for any wear or damage. Replace the ACM assembly if any abnormality is found.	-	-

(4) 0204 - 325.xx

(a) Contents

Trouble type	Tray 2 feeds	Tray 2 feeder up/down abnormality		
Trouble code	0204			
Sub-code	(325.xx)			
Rank	В			
Detection timing	325.60	Hardware error - Board ID unknown		
	325.61	Hardware error - Option type unknown		
	325.62	Hardware error - Product ID unknown		
	325.63	Hardware error - Sensors are not plugged on the board		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Controller board (CTLB)			

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check all connections to PFCB. Reseat the cables if any abnormality is found.	-	-
2	Check printer's firmware level. Rewrite the firmware if any abnormality is found.	-	-
3	Replace the tray 2.	-	-
4	Replace CTLB.	-	-

3.4.3 0206

(1) 0206 - 331.xx

Trouble type	Tray 3 lift-up	Tray 3 lift-up failure		
Trouble code	0206	0206		
Sub-code	(331.xx)			
Rank	В	В		
Detection timing	331.51	ACM motor no first encoder		
	331.52	ACM motor stop error		
	331.53	ACM motor PWM underflow (motor overspeed)		
Trouble isolation	-	-		
Relevant electrical parts	ACM mot	ACM motor		
	• PF contro	PF control board (PFCB)		

Step	Action	Control signal	Location of electrical components
1	Remove the option tray insert.	-	-
2	Check the lift plate and gears for proper operation by moving the metal plate. Replace the tray 3 if any abnormality is found.	-	-
3	Check the ACM motor for the following: Gear tooth breakage Freedom of rotation Replace the tray 3 if any abnormality is found.	-	-
4	Check the cable J11 on PFCB. Replace the tray 3 if any abnormality is found.	-	-

(2) 0206 - 332.xx

(a) Contents

Trouble type	Tray 3 lift-up	Tray 3 lift-up failure		
Trouble code	0206	0206		
Sub-code	(332.xx)			
Rank	В	В		
Detection timing	332.54	Separator/Pass-through motor - Motor no first encoder		
	332.55	Separator/Pass-through motor - Motor stop error		
	332.56	Separator/Pass-through motor - PWM underflow (motor overspeed)		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Separator	Separator roll assembly		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Remove the option tray insert.	-	-
	Check the separator roll assembly gear under the tray base for the following:		
,	Gear tooth breakage		
	Freedom of rotation	-	-
	Replace the tray 3 if any abnormality is found.		
3	Check the cable J10 on PFCB. Replace the tray 3 if any abnormality is found.	-	-
4	Check the separator roll assembly for wear or damage. Replace the separator roll assembly if any abnormality is found.	-	-

(3) 0206 - 334.xx

(a) Contents

Trouble type	Tray 3 lift-up	Tray 3 lift-up failure		
Trouble code	0206			
Sub-code	(334.xx)			
Rank	В			
Detection timing	334.57	ACM motor no first encoder		
	334.58	ACM motor stop error		
	334.59	ACM PWM underflow (motor overspeed)		
Trouble isolation	-	-		
Relevant electrical parts	• PF contro	PF control board (PFCB)		
	Tray pres	Tray present sensor (PS35)		
	ACM asset	ACM assembly		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the cable J11 on PFCB. Reseat the cable if any abnormality is found.	-	-
2	Remove the option tray insert and bypass PS35.	-	-

Step	Action	Control signal	Location of electrical components
3	Enter the Service Mode and conduct a Paper Passage Test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 3], and press the Start key.	-	-
4	Check the ACM for proper operation. Replace the ACM assembly if any abnormality is found.	-	-
5	Check the ACM gear for any wear or damage. Replace the ACM assembly if any abnormality is found.	-	-

(4) 0206 - 335.xx

(a) Contents

Trouble type	Tray 3 lift-up	Tray 3 lift-up failure		
Trouble code	0206			
Sub-code	(335.xx)			
Rank	В			
Detection timing 335.60 Hardware error - Board ID unknown		Hardware error - Board ID unknown		
	335.61	Hardware error - Option type unknown		
	335.62	Hardware error - Product ID unknown		
	335.63 Hardware error - Sensors are not plugged on the board			
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Controller board (CTLB)			

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check all connections to the PFCB. Reseat the cables if any abnormality is found.	-	-
2	Check printer's firmware level. Rewrite the firmware if any abnormality is found.	-	-
3	Replace the tray 3.	-	-
4	Replace the CTLB.	-	-

3.4.4 0208

(1) 0208 - 341.xx

(a) Contents

Trouble type	Tray 4 lift-up	Tray 4 lift-up failure			
Trouble code	0208				
Sub-code	(341.xx)	(341.xx)			
Rank	В				
Detection timing	341.51	ACM motor no first encoder			
	341.52	ACM motor stop error			
	341.53	ACM motor PWM underflow (motor overspeed)			
Trouble isolation	-				
Relevant electrical parts	ACM motor				
	PF contro	PF control board (PFCB)			

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Remove the option tray insert.	-	-
2	Check the lift plate and gears for proper operation by moving the metal plate. Replace the tray 4 if any abnormality is found.	-	-
3	Check the ACM motor for the following: • Gear tooth breakage • Freedom of rotation	-	-
	Replace the tray 4 if any abnormality is found.		

Step	Action	Control signal	Location of electrical components
4	Check the cable J11 on PFCB. Replace the tray 4 if any abnormality is found.	-	-

(2) 0208 - 342.xx

(a) Contents

Trouble type	Tray 4 lift-up	Tray 4 lift-up failure		
Trouble code	0208			
Sub-code	(342.xx)	(342.xx)		
Rank	В			
Detection timing	342.54	Separator/pass-through motor no first encoder		
	342.55	Separator/pass-through motor stop error		
	342.56	Separator/pass-through motor PWM underflow (motor overspeed)		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Separator	roll assembly		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Remove the option tray insert.	-	-
	Check the separator roll assembly gear under the tray base for the following:		
,	Gear tooth breakage		
2	Freedom of rotation	-	-
	Replace the tray if any abnormality is found.		
3	Check the cable J10 on PFCB.	-	-
4	Check the separator roll assembly for wear or damage. Replace the separator roll assembly if any abnormality is found.	-	-

(3) 0208 - 344.xx

(a) Contents

Trouble type	Tray 4 lift-up	Fray 4 lift-up failure		
Trouble code	0208			
Sub-code	(344.xx)			
Rank	В	В		
Detection timing	344.57	ACM motor no first encoder		
	344.58	ACM motor stop error		
	344.59	ACM motor PWM underflow (motor overspeed)		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Tray pres	Tray present sensor (PS35)		
	ACM asset	embly		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the cable J11 on the PFCB. Reseat the cable if any abnormality is found.	-	-
2	Remove the option tray insert and bypass PS35.	-	-
3	Enter the Service Mode and conduct a Paper Passage Test: Select [Service Mode] -> [State Confirmation] -> [Paper Passage Test] -> [Tray 4], and press the Start key.	-	-
4	Check the ACM for proper operation. Replace the ACM assembly if any abnormality is found.	-	-
5	Check the ACM gear for any wear or damage. Replace the ACM assembly if any abnormality is found.	-	-

(4) 0208 - 345.xx

(a) Contents

Trouble type	Tray 4 lift-up	Tray 4 lift-up failure		
Trouble code	0208			
Sub-code	(345.xx)	(345.xx)		
Rank	В	В		
Detection timing	345.60	Hardware error - Board ID unknown		
	345.61	Hardware error - Option type unknown		
	345.62	Hardware error - Product ID unknown		
	345.63	Hardware error - Sensors are not plugged on the board		
Trouble isolation	-			
Relevant electrical parts	PF control board (PFCB)			
	Controller	Controller board (CTLB)		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check all connections to PFCB. Reseat the cables if any abnormality is found.	-	-
2	Check printer's firmware level. Rewrite the firmware if any abnormality is found.	-	-
3	Replace the tray 4.	-	-
4	Replace CTLB.	-	-

3.4.5 1109

(1) Contents

· ·				
Trouble type	Stapler moto	Stapler motor's drive malfunction <when fs-p02="" installed="" is=""></when>		
Trouble code	1109			
Sub-code	(381.xx)			
Rank	В			
Detection timing	381.51	No encoder feedback detected from the staple finisher ejector motor.		
	381.52	Motor stop error - the ejector motor kept on running some time after the motor was commanded to stop.		
	381.54	No encoder feedback detected from the staple finisher interface/main motor.		
	381.55	Motor stop error - the interface/main motor kept on running some time after the motor was commanded to stop.		
	381.56	31.56 The staple finisher interface/main motor went over the normal speed.		
Trouble isolation	-			
Relevant electrical parts	Stapler control board (SCB)			

(2) Procedure

Step	Action	Control signal	Location of electrical components
	Open the stapler service cover and check the ejector motor cable connection on SCB. Reseat the ejector motor connector if any abnormality is found.	-	-
2	Replace the staple finisher option.	-	-

3.4.6 2201

Trouble type	Toner cartric	Toner cartridge motor rotation failure		
Trouble code	2201			
Sub-code	(155.xx)			
Rank	В			
Detection timing	155.00	No encoder received from auger motor.		
Trouble isolation	-	-		
Relevant electrical parts	Cartridge	Cartridge gearbox		
	Controller	board (CTLB)		

Step	Action	Control signal	Location of electrical components
1	Check the gear on the toner cartridge for wear or damage. Replace the toner cartridge if any abnormality is found.	-	-
2	Remove, and then reinstall the toner cartridge. Make sure that it is properly seated.	-	-
3	Run a print test. If the above actions do not solve the problem, replace the toner cartridge.	-	-
4	Check the gears on the cartridge gearbox for proper rotation and for wear or damage. Replace the cartridge gearbox if any abnormality is found.	-	-
5	Check the cartridge gearbox cable for proper connection to the CTLB. Reseat the cable if any abnormality is found.	-	-
6	Check the cartridge gearbox cable for damage.	-	-
7	Replace the cartridge gearbox.	-	-

3.4.7 2350

(1) Contents

Trouble type	Cooling fan error			
Trouble code	2350			
Sub-code	(171.xx)			
Rank	В			
Detection timing	171.03 Cooling fan error.			
	171.04	Cooling fan error.		
	171.05	Cooling fan error.		
	171.06	Cooling fan error.		
	171.07	Cooling fan error.		
Trouble isolation	-			
Relevant electrical parts	Controller board (CTLB)			
	Cooling fa	Cooling fan (FM1)		

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Make sure that the cable JFAN1 is properly connected to the CTLB.	-	-
2	Check if the cooling fan is rotating properly. Replace FM1 if any abnormality is found.	-	-
	Measure the voltage across JFAN1.		
3	1. Turn off the printer, and disconnect JFAN1 from the CTLB.		
3	2. Turn on the printer, and measure the voltage across JFAN1.	-	-
	3. Voltage is set to approximately 24 V.		
4	Replace the CTLB if any abnormality is found in the measured voltage.	-	-
5	Check if FM1 is running. Replace F1 if it is not running.	-	-

3.4.8 2564

Trouble type	Black TCR s	Black TCR sensor failure		
Trouble code	2564			
Sub-code	(132.xx)			
Rank	В	В		
Detection timing	132.01	TDS baseline too low.		
	132.02	TDS baseline too high.		
	132.03	TDS baseline excessive range.		
 132.16 TDS calibration at maximum. 132.17 TDS calibration too low. 132.18 TDS calibration too close to baseline. 		TDS calibration at maximum.		
		TDS calibration too low.		
		TDS calibration too close to baseline.		

	132.32	PC drum measurement too high.
132.33		PC drum measurement too different from calibration.
132.34 PC drum measurement too close to baseline.		PC drum measurement too close to baseline.
Trouble isolation	-	
Relevant electrical parts	Toner density sensor (PS13)	
	Controller board (CTLB)	

Step	Action	Control signal	Location of electrical components
1	Remove the transfer roll, and then check for loose toner blocking PS13. Clean the sensor if any abnormality is found.	-	-
2	Check PS13 for proper operation. Reinstall the actuator if any abnormality is found.	-	-
3	If it still cannot move freely, then replace PS13.	-	-
4	Check the cable JTDS for proper connection. Reseat the cable if any abnormality is found.	-	-
5	Check the cable JTDS for damage and pinch points. Replace PS13 if any abnormality is found.	-	-
6	Replace the CTLB.	-	-

3.4.9 2A94

(1) Contents

Trouble type	Toner empty	Toner empty censor error		
Trouble code	2A94			
Sub-code	(133.xx)			
Rank	В			
Detection timing	133.05 Toner level sensor reading above maximum expected value.			
	133.06	Toner level sensor reading below minimum expected value.		
133.08 Excessive the toner level sensor noise.		Excessive the toner level sensor noise.		
Trouble isolation	-	-		
Relevant electrical parts	Toner level sensor (PS14)			
	Power sup	Power supply unit (PU)		
	Controller	board (CTLB)		

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check for loose toner blocking PS14. Clean the CTLS if any abnormality is found.	-	-
2	Check the cable PCN3 for proper connection to PU. Reseat the cables if any abnormality is found.	-	-
3	Check PS14 cable for proper connection to the CTLB. Reseat the cables if any abnormality is found.	-	-
4	Check the cable PCN3 and PS14 cable for damage.	-	-
5	Replace CTLB.	-	-
6	Replace the printer.	-	-

3.4.10 3423

Trouble type	Fuser warm-up trouble			
Trouble code	3423	3423		
Sub-code	(121.xx)	(121.xx)		
Rank	Α			
Detection timing	121.07	Fuser has been on for more than allowed after a gap blowout, and the temperature is still too cold.		
	121.08	Fuser was under temp when page was in fuser.		
121.20 Fuser undertemp during steady state		Fuser undertemp during steady state control. Can occur in printing or standby modes.		
	121.22	Fuser did not warm enough to start line voltage detection.		
	121.23	Fuser took too long to heat to line detection temp.		
	121.24	Fuser never reached detection temperature.		

	121.25	After line voltage detection, control did not roll over to steady state control in time.		
	121.26	Failed to reach temperature during warm up.		
	121.28	Failed to reach EP warm up temperature in time.		
	121.29	Fuser failed to reach pre-heat temperature for motor start during warm up.		
	121.30	Fuser failed to reach printing temperature by the time a page reached the fuser.		
	121.31	Fuser is too hot. Global overtemp check.		
121.32 Open fuser main thermistor.		Open fuser main thermistor.		
121.33 Open fuser edge thermistor.		Open fuser edge thermistor.		
	121.34 Open fuser backup roll thermistor.			
	121.35	Attempting to reboot after receiving a 121.34.		
	121.36	Fuser did not heat to allow compression jog.		
	121.37 Fuser heated faster than allowed during line voltage detection.			
Trouble isolation	-			
Relevant electrical parts	Controller	er board (CTLB)		
	• Power su	Power supply unit (PU)		

Step	Action	Control signal	Location of electrical components
1	Check the fuser cables JTHERM1 and JEXIT for proper connection to the CTLB. Reseat the cables if any abnormality is found.	-	-
2	Check the cable PCN5 for proper connection to power supply. Reseat the cables if any abnormality is found.	-	-
3	Check the cables JTHERM1, JEXIT and PCN5 for damage. Replace the fuser unit if any abnormality is found.	-	-
	Check for resistance on the fuser cable.		
	1. Turn off the printer.		
	2. Remove the rear door and cover.		
4	3. Disconnect the fuser cable connected to PCN5 of PU.	-	-
	4. Check for approximate correct resistance on the fuser cable: $220V/43\Omega$, $110V/10\Omega$, $100V/8\Omega$		

3.4.11 4091

(1) Contents

Trouble type	Engine com	Engine communication error		
Trouble code	4091			
Sub-code	(940.xx)			
Rank	С			
Detection timing	940.xx Controller communication failure - the zero crossing signal used for fuser control in the low voltage (LV) power supply has failed, or the wrong low voltage power supply has been installed.			
Trouble isolation	-			
Relevant electrical parts	Power supply unit (PU)			
	Controller	r board (CTLB)		

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the power cord for continuity. If necessary replace.	-	-
	Make sure the nominal voltage source is within specification.		
2	Low-voltage models: 100 to 127 V AC	-	-
	High-voltage models: 220 to 240 V AC		
3	Check if power supply cable is properly connected to the CTLB. Reseat the cables if any abnormality is found.	-	-
	Measure the resistance between terminals A and D of the power supply socket.		
4	1. Turn off the printer.	- -	-
	2. Remove the power cord.		

Step	Action	Control signal	Location of electrical components
	3. Measure the resistance between terminals A and D of PU socket.		
	4. Is the resistance approximately 30 ohms?		
5	Replace the PU if any abnormality is found in the measured resistance.	-	-
6	Replace the CTLB.	-	-

3.4.12 4501

(1) Contents

Trouble type	Laser malfu	Laser malfunction		
Trouble code	4501			
Sub-code	(111.xx)			
Rank	В			
Detection timing	111.00	Pel clock check failed.		
	111.01	Downlevel ASIC detected.		
	111.31	Printhead never delivered HSYNCs.		
	111.32	Printhead lost HSYNCs.		
	111.40	Wrong printhead installed.		
	111.50	Open-loop printhead error, open-loop sweep state.		
	111.51	Open-loop printhead error, open-loop sweep state.		
	111.52	Open-loop printhead error, check prelim amp state.		
	111.53	Open-loop printhead error, enable amp Kp state.		
	111.54	Closed-loop printhead error, amp Kp failed to converge.		
	111.55	Closed-loop printhead error while waiting for amp Kp to converge.		
	111.56	Closed-loop printhead error, amp Ki failed to converge.		
	111.57	Closed-loop printhead error while waiting for amp Ki to converge.		
	111.58	Closed-loop printhead error, load scan regs state.		
	111.59	Closed-loop printhead error, forward and reverse capture times differ by too much.		
	111.60	Closed-loop printhead sweep error, check sweep accuracy state.		
	111.61	Printhead drive control out of range due to an external event beyond what the control is designed to handle.		
	111.62	Closed-loop printhead error, off-resonant PI effort state.		
	111.63	Timed out on reboot sweep.		
	111.64	Attempted to exceed open loop drive limits.		
	111.65	Attempted to exceed open loop drive limits.		
	111.66	Failed alignment of printhead.		
	111.67	Failed alignment of printhead.		
	111.68 Too many fake HSYNCs while aligning printhead.			
	111.69	Too many fake HSYNCs while aligning printhead.		
Trouble isolation	-			
Relevant electrical parts	evant electrical parts • Printhead (PH)			
	Controller	board (CTLB)		

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check PH cables JLSU1 and J6 for proper connection. Reseat the cables if any abnormality is found.	-	-
2	Inspect PH cables and connectors.	-	-
3	Replace CTLB.	-	-
4	Replace PH.	-	-

3.4.13 4901

Trouble type	FW/OS integrity verification error	
Trouble code	4901	
Rank	С	
Detection timing	NG results from verification of the hash value of the controller FW.	
	Faulty, damaged, or illegally written ROM data.	

Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Rewrite the firmware.	-	-
3	Check CTLB for proper connection and correct as necessary.	-	-
4	Replace CTLB.	-	-

3.4.14 5102

(1) Contents

Trouble type	Main motor	Main motor failure to turn		
Trouble code	5102			
Sub-code	(140.xx)			
Rank	В			
Detection timing	140.10	Main motor halls not detected.		
	140.20	Main motor took too long to stop.		
	140.30	Main motor unable to lock (before motor ID).		
	140.40	Main motor overspeed detected.		
	140.60	Main motor unable to lock (after motor ID).		
	140.70	Main motor out of lock detected.		
	140.80	Transport motor excessive PWM or overtemp.		
Trouble isolation	-			
Relevant electrical parts	Main drive gearbox			
	Main motor (M1)			
	Controller board (CTLB)			

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Remove the main drive gearbox and check for any debris.	-	-
2	Remove the debris if any abnormality is found.	-	-
3	Check the gears of main drive gearbox for wear or damage. Replace the main drive gearbox if any abnormality is found.	-	-
	Check M1 for proper operation.		
	Remove the main drive gearbox.		
	Note: Do not disconnect the main drive gearbox cable.		
4	2. Enter the Service Mode and conduct a Paper Passage Test: Select [Service Mode] -> [State Confirmation Test] -> [Paper Passage Test], and select any of the feed sections.	-	-
	3. Check if M1 rotates when doing the feed test.		
5	Replace the CTLB.	-	-
6	Replace the main drive gearbox.	-	-

3.4.15 5501

Trouble type	AC signal abnormality			
Trouble code	5501	5501		
Sub-code	(126.xx)	(126.xx)		
Rank	С			
Detection timing	126.01 Line frequency outside operating range of device.			
	126.02	No line frequency detected.		
Trouble isolation	-			
Relevant electrical parts	Power supply unit (PU)			

Step	Action	Control signal	Location of electrical components
1	Check the power cord for continuity. Replace if necessary.	-	-
	Make sure the nominal voltage source is within specification.		
2	Low-voltage models: 100 to 127 V AC	-	-
	High-voltage models: 220 to 240 V AC		
3	Check if the power supply cable is properly connected to the CTLB. Reseat the cables if any abnormality is found.	-	-
	Measure the resistance between terminals A and D of the power supply socket.		
	1. Turn off the printer.		
4	2. Remove the power cord.	-	-
	3. Measure the resistance between terminals A and D of the power supply socket.		
	4. Is the resistance approximately 30 ohms?		
5	Replace the PU if any abnormality is found in the measured resistance.	-	-

3.4.16 5601

(1) 5601 - 912.xx

(a) Contents

Trouble type	Engine contr	Engine control malfunction	
Trouble code	5601		
Sub-code	(912.xx)		
Rank	С	С	
Detection timing	912.xx	Unrecoverable Engine firmware error.	
Trouble isolation	-		
Relevant electrical parts	Controller board (CTLB)		

(b) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connectors on CTLB for proper connection and correct or change as necessary.	-	-
2	Rewrite the firmware.	-	-
3	Replace CTLB.	-	-

(2) 5601 – 93x.xx

Trouble type	Engine cont	Engine control malfunction		
Trouble code	5601	5601		
Sub-code	(980.xx)			
	(981.xx)			
	(982.xx)			
	(983.xx)			
	(984.xx)			
	(938.xx)			
	(others)	(others)		
Rank	С			
Detection timing	980.xx Engine experiencing unreliable communication with the specified device.			
	981.xx Engine protocol violation detected by the specified device.			
	982.xx	Communications error detected by the specified device.		
	983.xx Invalid command received by the specified device.			
	984.xx Invalid command parameter received by the specified device.			
	938.xx -			
Trouble isolation	-			
Relevant electrical parts	Controller board (CTLB)			

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Rewrite the firmware.	-	-
3	Replace CTLB.	-	-
4	If the above actions do not solve the problem, contact KM.	-	-

3.4.17 6751

(1) Contents

Trouble type	CCD clamp/gain adjustment failure
Trouble code	6751
Rank	С
Detection timing	During the CCD gain adjustment, a condition in which the peak value of the output data is equal to, or less than, 64 occurs three consecutive times during retries.
Trouble isolation	Scanner
Relevant electrical parts	Scanner unit
	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between scanner unit-CTLB J101 for proper connection and correct as necessary.	-	-
2	Check for possible extraneous light and correct as necessary.	-	-
3	Clean the lens, mirrors, CCD surface, and shading sheet if dirty.	-	-
4	Correct reflective mirror of the scanner if faulty, or change scanner mirror.	-	-
5	Replace scanner unit	-	-
6	Replace CTLB	-	-

3.4.18 679#

including retries. Trouble isolation Relevant electrical parts • Scanner • Scanner unit • Controller board (CTLB) Trouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble isolation Scanner Relevant electrical parts • Scanner communication error Trouble type Scanner communication error Trouble code 6793	(1) Contents	
Rank C Detection timing During the offset adjustment, the offset value does not fall within the predetermined range a total of three timincluding retries. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble type Scanner communication error	Trouble type	AFE offset adjustment error
Detection timing During the offset adjustment, the offset value does not fall within the predetermined range a total of three timincluding retries. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB)	Trouble code	6790
including retries. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble isolation Scanner Relevant electrical parts • Scanner communication error Trouble type Scanner communication error Trouble code 6793	Rank	C
Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type AFE register setting error Trouble code AFB register setting error Trouble code Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Detection timing	During the offset adjustment, the offset value does not fall within the predetermined range a total of three times including retries.
rouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type Touble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble isolation	Scanner
Trouble type AFE register setting error Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble type Scanner communication error Trouble code 6793	Relevant electrical parts	Scanner unit
Trouble code 6791 Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793		Controller board (CTLB)
Rank C Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble type	AFE register setting error
Detection timing There is a mismatch between the set default values of the AFE gain/offset and the gain/offset values read thereafter. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble code	6791
thereafter. Trouble isolation Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Rank	С
Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Detection timing	
Controller board (CTLB) Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble isolation	Scanner
Trouble type White reference plate search error Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Relevant electrical parts	Scanner unit
Trouble code 6792 Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793		Controller board (CTLB)
Rank C Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble type	White reference plate search error
Detection timing The black/white edge on the shading plate cannot be detected during initialization. Trouble isolation Relevant electrical parts Scanner unit Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble code	6792
Trouble isolation Scanner Relevant electrical parts • Scanner unit • Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Rank	С
Relevant electrical parts	Detection timing	The black/white edge on the shading plate cannot be detected during initialization.
Controller board (CTLB) Trouble type Scanner communication error Trouble code 6793	Trouble isolation	Scanner
Trouble type Scanner communication error Trouble code 6793	Relevant electrical parts	Scanner unit
Trouble code 6793		Controller board (CTLB)
	Trouble type	Scanner communication error
	Trouble code	6793
Rank C	Rank	С

Detection timing	A communication error of some sort occurs between the controller and the scanner.
Trouble isolation	Scanner
Relevant electrical parts	Scanner unit
	Controller board (CTLB)

Step	Action	Control signal	Location of electrical components
1	Check the connector between scanner unit- CTLB J101 for proper connection and correct as necessary.	-	-
2	Check for possible extraneous light and correct as necessary.	-	-
3	Clean the lens, mirrors, CCD surface, and shading sheet if dirty.	-	-
4	Correct reflective mirror of the scanner if faulty, or change scanner mirror.	-	-
5	Replace scanner unit	-	-
6	Replace CTLB	-	-

3.4.19 7A00

(1) Contents

Trouble type	Failed to arrive home
Trouble code	7A00
Rank	С
Detection timing	Error of the imaging carriage home sensor.
	Error of the carriage motor.
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)
	Imaging carriage home sensor (PS15)
	Flatbed motor (M4)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Check CTLB for proper connection and correct as necessary.	-	-
3	Check PS15 and M4 for proper connection and correct as necessary.	-	-
4	Replace Flatbed unit.	-	-
5	Replace ADF unit.	-	-
6	Replace CTLB.	-	-

3.4.20 9401

(1) Contents

Trouble type	Exposure lamp lighting failure detected
Trouble code	9401
Rank	С
Detection timing	The intensity of the lamp is not stabilized within a predetermined period of time during the lamp stabilization check process in a lamp warm-up cycle.
Trouble isolation	Scanner
Relevant electrical parts	Controller board (CTLB)
	Scanner unit

(2) Procedure

Step	Action	Control signal	Location of electrical components
1 Check the connector between scanner unit-CTLB J101 for proper connection and correct as necessary.		-	-
2	Check for possible extraneous light and correct as necessary.	-	-
3	Clean the lens, mirrors, CCD surface, and shading sheet if dirty.	-	-

Step	Action	Control signal	Location of electrical components
4	Correct reflective mirror of the scanner if faulty, or change scanner mirror.	-	-
5	Replace scanner unit	-	-
6	Replace CTLB	-	-

3.4.21 C151

(1) Contents

Trouble type	ROM contents error upon startup (MSC)
Trouble code	C151
Rank	С
Detection timing	A fault is detected in a sequence of ROM contents check of the CTLB during starting.
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
Check the firmware version.		-	-
3	Rewrite the firmware.	-	-
4	Replace CTLB.	-	-

3.4.22 C180

(1) Contents

Trouble type	Dynamic link error during starting (LDR)
Trouble code	C180
Rank	С
Detection timing	A dynamic link error occurs in the program on the controller board if a loadable driver is not installed when the power switch is turned ON.
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components	
1	Turn OFF/ON the main power switch.	-	-	
2	Check to install the appropriate loadable driver for an authentication unit which is installed to the MFP. When the appropriate loadable driver is not installed, reinstall the appropriate loadable driver.		-	
3	Replace CTLB	-	-	
4	If the above actions do not solve the problem, contact KM.	-	-	

3.4.23 D004

(1) Contents

Trouble type	Hard disk access error (connection failure)
Trouble code	D004
Rank	С
Detection timing	Unable to communicate between the hard disk and Controller board (CTLB).
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)
	Hard disk (HDD)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between HDD-CTLB JHDD1 for proper connection and correct as necessary.	-	-
2	Reinstall HDD.	-	-
3	Replace HDD.	-	-

Step	Action	Control signal	Location of electrical components
4	Replace CTLB.	-	-

3.4.24 D091

(1) Contents

Trouble type	Hard disk full error
Trouble code	D091
Rank	С
Detection timing	The area made available as a user area is full during access to the hard disk.
Trouble isolation	-
Relevant electrical parts	Hard disk (HDD)
	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Delete jobs saved using [Document Print/ Delete] to thereby increase the portion of the user area available for use.	-	-
2	Check the HDD connector CTLB JHDD1 for proper connection and correct any faulty connection as necessary.	-	-
3	Using [Administrator Settings] -> [Security Settings] -> [HDD Settings] -> [HDD Format], format the HDD.	-	-
4	Replace HDD.	-	-
5	Replace CTLB.	-	-

3.4.25 D092

(1) Contents

Trouble type	No hard disk (found during a disk check)
Trouble code	D092
Rank	С
Detection timing	The hard disk is not mounted.
Trouble isolation	-
Relevant electrical parts	Hard disk (HDD)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Install and format HDD.	-	-

3.4.26 D093

(1) Contents

Trouble type	Wrong hard disk (found during a disk check)	
Trouble code D093		
Rank	С	
Detection timing	A hard disk intended for another model is mounted.	
	The hard disk capacity is short.	
Trouble isolation	-	
Relevant electrical parts	Controller board (CTLB)	
	Hard disk (HDD)	

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Replace HDD.	-	-
2	Format HDD.	-	-

3.4.27 D094

Trouble type	Hard disk check disk error
Trouble code	D094

Rank	С
Detection timing	When the main power switch ON, the hard disk fails to be checked.
Trouble isolation	-
Relevant electrical parts	Hard disk (HDD)

Step	Action	Control signal	Location of electrical components
1	Replace HDD.	-	-
2	Format HDD.	-	-

3.4.28 D095

(1) Contents

Trouble type	Hard disk recovered (requiring reboot)
Trouble code	D095
Rank	С
Detection timing	When the main power switch ON, the hard disk fails to be recovered.
Trouble isolation	-
Relevant electrical parts	Hard disk (HDD)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Replace HDD.	-	-
3	Format HDD.	-	-

3.4.29 D096

(1) Contents

Trouble type	Hard disk access fault
Trouble code	D096
Rank C	
Detection timing	When the main power switch ON, the hard disk fails to be access.
Trouble isolation	-
Relevant electrical parts	Hard disk (HDD)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Replace HDD.	-	-
2	Format HDD.	-	-

3.4.30 D2B0

(1) Contents

Trouble type	ASAHI (ASIC) initialization failure or connection error
Trouble code D2B0	
Rank	С
Detection timing	An initialization failure or connection error of ASAHI (ASIC) occurred.
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Replace CTLB.	-	-

3.4.31 D3F1

Trouble type Successful completion of counter backup	
Trouble code	D3F1

Rank	С	
Detection timing	ne counter backup process is completed successfully.	
Trouble isolation	-	
Relevant electrical parts	-	

Step	Action	Control signal	Location of electrical components
1	This code is displayed when the counter backup process is completed successfully. When this code is displayed, turn OFF/ON the main power switch and then perform the given steps. G.4.8 Controller board removal	-	-

3.4.32 D3F2

(1) Contents

Trouble type	Write error of the counter area (NVRAM)	
Trouble code D3F2		
Rank	ank C	
Detection timing An error occurs in the counter area when writing to the BootFlash.		
Trouble isolation	-	
Relevant electrical parts	Controller board (CTLB)	

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Check the CTLB for its mounting condition and correct any faulty condition.	-	-
3	Replace CTLB	-	-

3.4.33 D3F4

(1) Contents

Trouble type	Copy write error of the counter area
Trouble code	D3F4
Rank	С
Detection timing	An error occurs in the counter area when restoring from the EEPROM to the BootFlash.
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Turn OFF/ON the main power switch.	-	-
2	Check the CTLB connector for proper connection and correct as necessary.	-	-
3	Replace CTLB.	-	-
4	If the same trouble code persists after the abovementioned procedures, replace the EEPROM with the one has been installed on the new board.	-	-

3.4.34 D3F5

(1) Contents

` '	
Trouble type Write error of the counter area (EEPROM)	
Trouble code D3F5	
Rank	С
Detection timing An error occurs in the counter area when writing to the EEPROM.	
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
Olcp	Action	Control signal	Location of cicclinear components

	1 Turn OFF/ON the main power switch.		-	-
2		Check the CTLB for its mounting condition and correct any faulty condition.	-	-
	3	Replace CTLB	-	-
	4	If the same trouble code persists after the abovementioned procedures, replace the EEPROM with the one has been installed on the new board.	-	-

3.4.35 D501

(1) Contents

Trouble type	FLASH error
Trouble code	D501
Rank	С
Detection timing	-
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

(2) Procedure

ſ	Step	Action	Control signal	Location of electrical components
Γ	1	Turn OFF/ON the main power switch.	-	-
	2	If the above actions do not solve the problem, replace CTLB.	-	-

3.4.36 E30#

(1) Contents

y.

(2) Procedure

Ste	tep	Action	Control signal	Location of electrical components
1	1	Turn OFF/ON the main power switch.	-	-
2	'	If the above actions do not solve the problem, contact KM.	-	-

4. ABORT CODE

4.1 Troubleshooting of the abort code

- The machine displays an abort code (F###) on the operation panel as it becomes unable to process tasks properly through its software control.
- When the system program is aborted, check the electrical component, unit, option, and connection relating to the specific type of the abort condition.

4.1.1 Contents

Trouble type	Abort code
Trouble code	F004 to FB10
Rank	С
Detection timing	-
Trouble isolation	-
Relevant electrical parts	Controller board (CTLB)

4.1.2 Procedure

• When an abort code occurs, take a check and action in the following procedure.

Step	Section	Check Item	Resu It	Action
1	Main power switch	Turn OFF and ON the main power switch, and check if the Abort code appears again.	NO	When not reappearing, continuous use is carried out, and it is checked whether an abort code occurs.
2	Connector connection	Check the connector for proper connection on CTLB and correct as necessary.	NO	It will correct, if connector connection has abnormalities.
3	Firmware	Update the firmware to the latest version, and check if the Abort code appears again.	NO	After conducting firmware updating, check the firmware version No. and confirm that the firmware has been normally updated.
4	Controller board	Replace CTLB		

4.2 F00#

Code	Item		Component	Rank
F004		An exceptional instance occurred due to the unexpected parameter in the system F/W.	Controller board (CTLB)	С

4.3 F81#

Code	Item	Component	Rank
F815	SIO sending portPIC/PIC terminal	Controller board (CTLB)	С

4.4 F91#

Code	Item	Component	Rank
F915	SIO receiving portPIC/PIC terminal	Controller board (CTLB)	С

4.5 FB0#

Code	Item	Component	Rank
FB00	Asahi ASIC error (IMAGE) Memory error: scanner memory error (SCANNER LSI)	Controller board (CTLB)	С
FB01	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO1 error		
FB02	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO2 error		
FB03	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO3 error		
FB04	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO4 error		
FB05	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO5 error		
FB06	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO6 error		
FB07	Asahi ASIC error (IMAGE) Memory error: ASAHI FIFO7 error		

Code	Item	Component	Rank
FB08	Asahi ASIC error (IMAGE) Memory error: ASAHI register setting error		
FB09	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3C70)		
FB0A	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3C80)		
FB0B	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3CA0)		
FB0C	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3CB0)		
FB0D	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3CE0)		
FB0E	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3CF0)		
FB0F	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3C60)		

4.6 FB1#

Code	Item	Component	Rank
FB10	Asahi ASIC error (IMAGE) TUKUBA error: TUKUBA initialization error (C3C50)	Controller board (CTLB)	С

5. FAX TROUBLE CODE

5.1 The error in the transmission/reception system

- The error in the Txx/Rxx system may be caused under the effect of line noise, etc. even in usual operating condition.
- If the error arises often, output the activity report, fax setting list, protocol trace list, parameter list, address book list, group address list and program list and obtain detailed information on the error status, conditions which may cause the error, etc. from the user and contact KM.

5.2 B0##

Code No.	Category	Contents of error	How to correct
B001	FAX board error	FAX board error 1 (FAX ROM check sum error)	installation.
B002		FAX board error 2 (DPRAM check error)	If the trouble is not yet corrected, hardware of the FAX board may be defective. Replace the FAX board in such a case.
B003		FAX board error 3 (FAX initialization NG)	be delective. Replace the FAX board in such a case.
B051		FAX board installation error (Line 1).	Pull out and insert the connector of FAX board to check its installation.

5.3 B11#

Code No.	Category	Contents of error	How to correct
B110	FAX driver error	Instance generation error or observer registration error	Turn OFF/ON the main power switch.
B111		Configuration space initialization NG	
B112		Semaphore acquisition, release error	
B113		Sequence error among main body tasks	
B114		Message queue control error	
B115		Main body - sequence error among FAX boards	Pull out and insert the connector of FAX board to check its installation.
B116		Communication fault between controller and FAX board	
B117		ACK waiting timeout error	
B118	1	Receiving undefined frame	
B119		DMA transfer error	

5.4 B12#

Code No.	Category	Contents of error	How to correct
B120	JC	Soft error (FAX board side)	Turn OFF/ON the main power switch.
B122		Device error (GA LOCAL SRAM)	Turn OFF/ON the main power switch.
B123	1	Device error (DRAM)	• If the trouble is not yet corrected, hardware of the FAX board may
B125	1	Device error (GA)	be defective. Replace the FAX board in such a case.
B126		Timeout error due to nonresponse from codec control during suspension process	Turn OFF/ON the main power switch.
B127		Timeout error due to nonresponse from communication control during suspension process	
B128		Timeout error due to nonresponse from LINE control during suspension process	
B129		Timeout error due to non-responsefrom file system/file driver during suspension process	

5.5 B13#

Code No.	Category	Contents of error	How to correct
B130	Driver error	Driver soft error	Turn OFF/ON the main power switch.
B131	(FAX board	Reception frame length error from main	
B132	side)	Reception frame header error from main	
B133		232C I/F sequence error	
B134		DPRAM I/F sequence error	
B135		DPRAM CTL/STS register error	
B136		ACK waiting timeout	
B137		DPRAM RESET reception	

5.6 B14#

Code No.	Category	Contents of error	How to correct
B140	Soft error (FAX board side)	MSG I/F error with job control	Turn OFF/ON the main power switch.
B141	Soft error	I/F error with driver	
B142	I/F error with	Undefined command reception	
B143	main	Command frame length error	
B144		Command parameter length error	
B145		Undefined parameter	
B146		Command/response sequence error	

5.7 B15#

Code No.	Category	Contents of error	How to correct
B150	Line control	External class instance acquisition error	Turn OFF/ON the main power switch.
B151		Job start error (starting job parameter error/child job generation error)	
B152		Doc access error (report buf access error)	
B153		Response wait timeout from external task	
B154		Internal que table control error (create/ enque/deque)	

5.8 B16#

Code No.	Category	Contents of error	How to correct
B160	1 destination	Instance generation error	Turn OFF/ON the main power switch.
B161	control	Timeout error	
B162		Interface error	
B163		Message que control error	
B164		Semaphore acquisition release error	
B165		Observer registration error	
B166		Reception resource check error	
B167		Deployment error of sending image information	
B168		Serialization error of receiving image	
B169	1	Access error to quick memory data	

5.9 B17#

Code No.	Category	Contents of error	How to correct
B170	Page control	Internal que table control error (create/ enque/deque)	Turn OFF/ON the main power switch.
B171		Instance generation error	
B172		Timeout error	
B173		Interface error	
B174		Semaphore acquisition release error	
B175		Observer registration error	
B176		Unable to secure TTI domain	
B177		Error return from TTI rasterizer	
B178		Receiving job generation error	

5.10 B18#

Code No.	Category	Contents of error	How to correct
B180	Page control	Access error to quick sending memory data	Turn OFF/ON the main power switch.
B181		BlockBuff acquisition error	
B182		Sending block image error (Req, restore)	
B183		Receiving block image error (Req, store)	
B184		Storage error of receiving image information	

Code No.	Category	Contents of error	How to correct
B185		Receiving data size logic error (Receiving data are not multiples of dotline)	
B186		ImageBuf acquisition (alloc) error	
B187		Error return from compressor	
B188		BandBuf control error (newInstance/get/free)	

5.11 B19#

Code No.	Category	Contents of error	How to correct
B190	USB	USB IF error (OS notifies an error during configuration setting after recovery from the sleep or attach.)	Turn OFF the main power switch, then check the connection of USB, turn ON the main power switch.
B191		USB IF error (EndPoint1: Bulk Out (command, transmitted image data)) (error retry 1 min. timeout)	
B192		USB IF error (EndPoint2: Bulk In (response, received image data)) (error retry 5 sec. timeout)	
B193		USB IF error (EndPoint3: Interrupt In (fax board status)) (error retry 1 min. timeout)	
B194		USB IF error (EndPoint4: Bulk Out (main body status)) (error retry 3 sec. timeout)	
B195		USB IF error (Attach not detected for 1 min. after recovery from sleep)	
B196		USB IF error (Detach not detected for 1 min. after recovery from sleep)	

5.12 T0#

Code No.	Category	Contents of error	How to correct
T00	Sending	No response obtained from the machine on the other end of the line. (35 second)	Check that the address number is correct.
T01		T1 over after the mode has been changed (35 seconds)	-
T02		DCN reception in DIS waiting	The remote station may not receive the data due to paper shortage, full memory, etc.
T03		Unexpected command reception in DIS waiting	-
T04	Not used		
T05	Sending	FIF not matching with the remote station (remote station without the function).	-
T06	1	DCN reception in CFR/FTT waiting	-
T07	Not used		
T08	Sending	Training failure at 2400 bps	The line may be in trouble. Check the line noise.
T09	1	No response to DCS	The line may be disabled because the user on the remote station disconnected it.

5.13 T1#

Code No.	Category	Contents of error	How to correct
T10	Not used		
T11	Sending	DCN reception while waiting for post message responses	The remote station may not receive the data due to paper shortage, full memory, etc.
T12		Unexpected command reception while waiting for post message responses	-
T13		No response while waiting for post message responses	The remote station may not receive the data due to paper shortage, full memory, etc.
T14	Not used		
T15	Not used		
T16	Not used		
T17	Not used		
T18	Sending	No reception ability in a remote station	The remote station may not receive the data due to paper shortage, full memory, etc.

Code No.	Category	Contents of error	How to correct
T19	Not used		

5.14 T2#

Code No.	Category	Contents of error	How to correct
T20	Not used		
T21	Not used		
T22	Not used		
T23	Not used		
T24	Not used		
T25	Not used		
T26	Not used		
T27	Not used		
T28	ECM sending	Timeout by RR/RNR (60 seconds)	-
T29	Not used		

5.15 T3#

Code No.	Category	Contents of error	How to correct	
T30	Not used			
T31	Not used			
T32	ECM sending	Fall back over by CTC	The line may be in trouble. Check the line noise.	
T33	Not used	Not used		
T34	Not used			
T35	ECM	No responses to RR	-	
T36	transmission	DCN reception to RR	-	
T37	Not used			
T38	F code polling TX	SID is received when SEP is received	-	
T39	Not used			

5.16 T4#

Code No.	Category	Contents of error	How to correct	
T40	Calling	Software error at calling	-	
T41	Not used			
T42	Sending	RTN/PIN reception	-	
T43		Three continuous CRP signal reception	-	
T44		Time error between frames at transmission	-	
T45	Not used			
T46	Not used	Not used		
T47	Not used			
T48	Check Destination	Line disconnected due to no match as a result of CSI check.	Telephone number may not be set on the remote station. Check the CSI signal of the remote station in the protocol trace list.	
T49	Not used			

5.17 T5#

Code No.	Category	Contents of error	How to correct
T50	FAX-CSRC	Host terminal ID inconsistency	-
T51	Sending	The FAX board does not respond during transmission	The line may be in trouble. Check the line noise.
T52	Not used		
T53	Not used		
T54	Not used		
T55	Not used		
T56	Not used		
T57	Not used		
T58	Polling reception	Calling by polling reception, but a remote station does not have polling transmission documents	Polling original may not be set on the remote station.

Code No.	Category	Contents of error	How to correct
T59	Not used		

5.18 T6#

Code No.	Category	Contents of error	How to correct
T60	Polling transmission	Received the polling transmission request (DTC), but there are no polling transmission documents	Polling original may not be set on your machine. Polling TX is enabled only when the polling transmission original is registered.
T61	F-code polling transmission	Unsatisfactory conditions for receive polling TX request.	Bulletin board original may not be set. Bulletin board TX is enabled only when the bulletin board transmission original is registered.
T62	F-code polling transmission	Box number specified by SEP is not valid.	Bulletin board box number from the remote station may be incorrect.
T63	Not used		
T64	Not used		
T65	Not used		
T66	Not used		
T67	Not used		
T68	Not used		
T69	Not used		

5.19 T7#

Code No.	Category	Contents of error	How to correct	
T70	Not used			
T71	Not used	Not used		
T72	Not used			
T73	Transmission	Modem response waiting T.0 (60 seconds)	-	
T74	V34	No changes in the V34 modem status	-	
T75		V34 signal sending error	-	
T76		CS2 is not turned to ON	-	
T77	Not used			
T78	Transmission	Codec control soft ware error	-	
T79		Job control soft error at transmission	-	

5.20 T8#

Code No.	Category	Contents of error	How to correct
T80	Call control	LOOP current detection NG when CML is turned ON at calling	The line may not be connected. Check the line connection status.
T81		Dial Tone detection NG when CML is turned ON at calling	
T82		Answer tone (CED/DIS) waiting timeout after dialing at calling	-
T83	1	Busy tone detection at calling	-
T84	1	Line control dial error	-
T85		Short disconnection was detected after LOOP current detection at calling	-
T86	1	Dial tone continues after dialing	-
T87	Not used		
T88	Not used		
T89	Control unit	When the control unit is connected, a communication error is caused due to capacity shortage and communication is finished.	-

5.21 T9#

Code No.	Category	Contents of error	How to correct	
T90	Not used	Not used		
T91	Not used			
T92	Not used			
T93	Not used			
T94	Not used			

Code No.	Category	Contents of error	How to correct
T95	Call control	When called, short disconnection of LOOP current was detected during a call	-
T96	Not used		
T97	Transfer	Transmission request was received with no FAX board installed. *	-
T98		Transmission request of images that cannot be transmitted were received. (Color images) *	-
Т99	Call control	Remote stations number is deleted while waiting for abbreviated or one-touch redialing (redial / transmission / polling reception) *	-

^{• *:} The corresponding error code is not displayed on the operation panel even if the error occurs.

5.22 R0#

Code No.	Category	Contents of error	How to correct
R00	Reception	DCS was not received within 35 seconds (T1 over)	The dialed telephone number may be incorrect.
R01		T1 timeout after EOM sending	-
R02		DCN reception in DCS waiting	The line may be disabled because the user on the remote station disconnected it.
R03		Unexpected command reception in DCS waiting	-
R04		FIF error of DCS	-
R05	Not used		
R06	Not used		
R07	Reception	Image information does not come in image information waiting	The line may be disabled because the user on the remote station disconnected it.
R08		CD OFF while receiving image information	
R09	1	DCN reception in post message waiting	

5.23 R1#

Code No.	Category	Contents of error	How to correct
R10	Reception	Unexpected command reception in post message waiting	-
R11		Command was not received which waiting for post message	The line may be disabled because the user on the remote station disconnected it.
R12		Timeout during EOL-EOL	-
R13	Not used		
R14	Not used		
R15	Not used		
R16	Not used		
R17	Not used		
R18	Reception	Resource check error (line disconnected due to ongoing communication)	Space in the hard disk may become short. Unnecessary data should be deleted to secure the space in the hard disk.
R19	Not used		

5.24 R2#

Code No.	Category	Contents of error	How to correct
R20	Reception	Line disconnection by receive reject function	Call was received from a user who is in the register of addresses to be rejected.
R21	CUG reception	No match of password in the closed network RX setting	Check the password.
R22		No password received in the closed network RX setting	Check the setting of closed network RX.
R23	Not used		
R24	ECM	RR-RNR repeats for 2 minutes	-
R25	reception	Command was not received while waiting for responses to RNR	-
R26		Unexpected command was received while waiting for responses to RNR	-

Code No.	Category	Contents of error	How to correct
R27		DCN reception while waiting for responses to RNR	-
R28		The counter is abnormal of the post messages received (PC/BC).	-
R29		Timeout (35 seconds) between frames occurred	-

5.25 R3#

Code No.	Category	Contents of error	How to correct
R30	Not used		
R31	Not used		
R32	Reception	Line disconnected because there is no appropriate confidential user box while automatic user box generation is inhibited.	Confidential box No. received from the remote station may be incorrect.
R33		DIS reception to DTC (German specifications only)	-
R34	F code confidential reception	PWD was received when SUB was received.	-
R35	Not used		
R36	Not used		
R37	V34	CS2 is not turned to ON.	-
R38	1	No change in V34 modem and status	-
R39	Not used	-	•

5.26 R4#

Code No.	Category	Contents of error	How to correct	
R40	When called	Soft error when called	-	
R41	Not used			
R42	Not used			
R43	Not used	Not used		
R44	Not used			
R45	Reception	Phase C timeout (NonECM reception only)	-	
R46	Not used			
R47	Not used			
R48	Not used			
R49	Reception	DCN reception while waiting for image information	The line may be disabled because the user on the remote station disconnected it.	

5.27 R5#

Code No.	Category	Contents of error	How to correct
R50	Reception	No. of error lines exceeds.	The line may be in trouble.
			Check the line noise.
R51		The FAX board does not respond during	The line may be in trouble.
		reception	Check the line noise.
R52	Not used		
R53	Not used		
R54	Not used		
R55	Not used		
R56	Not used		
R57	Not used		
R58	Not used		
R59	Not used		

5.28 R6#

Code No.	Category	Contents of error	How to correct
R60	Reception	Reception image error (RTN/PIN	The line may be in trouble.
		sending)	Check the line noise.

Code No.	Category	Contents of error	How to correct
R61	Not used		
R62	Not used		
R63	Reception	Three continuous CRP signal reception	-
R64	Not used		
R65	Not used		
R66	SEP polling	SEP polling transmission request was received without SEP polling transmission ability	-
R67	SUB reception	SUB was directed without SUB reception ability	-
R68	Not used		
R69	ECM reception	Communications are cut when EOR is received.	The line may be in trouble. Check the line noise.

5.29 R7#

Code No.	Category	Contents of error	How to correct
R70	ECM reception	Decode error occurred in ECM	-
R71	Reception	RTC detection error (No. of EOL is smaller than FP.)	-
R72		Long original larger than the allowable value is received.	Longer original than specified is received from the remote station.
R73		Modem response waiting T.0 (60 seconds)	-
R74		Reception byte size error	-
R75	V34	V34 signal sending error	-
R76		Unexpected command was received in V34 mode phase C reception	-
R77	Reception	Codec control middle ware error	-
R78	1	Codec control software error	-
R79	1	Job control soft error during reception	-

5.30 R8#

Code No.	Category	Contents of error	How to correct
R80	FAX-CSRC	Serial number received from the host not correct.	Check the status of the Machine registration on host side.
R81		Disconnection of writing instruction from host during machine is running.	Wait for a while and try transmitting again.
R82		Disconnection of FAX-CSRC instruction when FAX-CSRC is not allowed.	Check the status of the Machine registration on host side.
R83		Host command error.	-
R84		NVRAM writing error.	-
R85	-	R-ISW request received when a machine is running in case of either reserved job exists, image exists in memory, or jam happened.	-
R86	Not used		
R87	Not used		
R88	Not used		
R89	Not used		

5.31 R9#

Code No.	Category	Contents of error	How to correct
R90	Not used		
R91	Not used		
R92	Turnaround	When the turnaround function is not provided, the line is disconnected if a turnaround order (DTC) is received.	-
R93	F-code reception	Unsatisfactory conditions for confidential RX request	Check the Confidential password.
R94		Unsatisfactory conditions for relay request	Check the Relay password.

Code No.	Category	Contents of error	How to correct
R95		Unsatisfactory conditions for forwarding request	-
R96		Confidential box number specified by SUB is not valid.	Confidential box No. received from the remote station may be incorrect.
R97		Unsatisfactory conditions for PC-FAX RX request (Function, PW unmatching)	-
R98	Not used		
R99	Others	Reception command was received from the whole control side before reception signals were detected.	-

6. OTHER TROUBLE

6.1 Machine is not energized at all (PU operation check)

Rel	evant parts			
Controller board (CTLB)				
Power supply unit (PU)				

Step	Action	Yes	No
1	Is the machine plugged in?	Go to step 3.	Go to step 2.
2	Plug the machine in.	The problem is solved.	Go to step 3.
	Did this fix the problem?		
_	Check the power cord for continuity.	Go to step 4.	Replace the power cord.
3	Is there continuity?		
	Check the AC line voltage to the machine. The voltage should be within the following limits:	Go to step 5.	Connect the different outlet.
4	• for 110 V machines - 100 to 127 V AC		
7	• for 220 V machines - 200 to 240 V AC		
	Is the voltage within the limits?		
	Check the voltages of JPS1 on the Controller board (CTLB).	Replace CTLB.	Replace PU.
5	• +5 V at pins 17 and 19		
3	• +24 V at pins 11, 13, and 15		
	Are the voltages correct?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

6.2 Operation panel indicators do not light

Relevant parts
Operation panel (OP)
Controller board (CTLB)

Step	Action	Yes	No
1	Check the connections on OP and CTLB for proper connections.	Go to step 3.	Go to step 2.
	Are they properly connected?		
	Properly connect the connectors.	The problem is solved.	Go to step 3.
2	Did this fix the problem?		
	Replace OP.	Replace CTLB.	The problem is solved.
3	Does the error remain?		

[•] Link to the wiring diagram (N.1. bizhub 4750/4050)

6.3 Operation panel (touch panel) do not respond

	Relevant parts				
Operation panel (OP)					
Step	Step Check item				
1	1 To perform calibration of the operation panel.				
2	2 If the above actions do not solve the problem, replace the operation panel.				

7. IMAGE QUALITY PROBLEM

7.1 How to identify problematic part

- This chapter is divided into two parts: "Initial check items" and "Troubleshooting procedure by a particular image quality problem."
- When an image quality problem occurs, first go through the "Initial check items" and, if the cause is yet to be identified, go to "Troubleshooting procedure by a particular image quality problem."

7.1.1 Initial check items

(1) Initial check items 1

- · Let the machine produce a test print and determine whether the image problem is attributable to the scanner or printer system.
- · Evaluation procedure

Action	Result	Cause	Next step
From [Service Mode], select [List Output] -> [Gradation], and produce a test print. Is image problem evident?	YES		K.7.2.11 Printer: white lines and white bands in sub scan direction
	NO		K.7.2.1 Scanner system: white lines, white bands, black lines and black bands in sub scan direction

7.2 Solution

7.2.1 Scanner system: white lines, white bands, black lines and black bands in sub scan direction

1. Typical faulty images

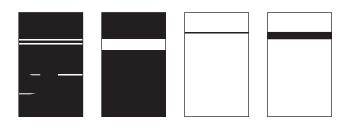


2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
4	Service Mode -> Machine -> Scanner Area -> Scanner Image Side Edge	The adjustment value for [Service Mode] -> [Machine] -> [Scanner Area] -> [Scanner Image Side Edge] falls within the specified range.	NO	Readjust.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace the scanner unit.

7.2.2 Scanner system: white lines, white bands, black lines and black bands in main scan direction

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.

Step	Section	Check item	Result	Action
4		The adjustment value for [Service Mode] -> [Machine] -> [Scanner Area] -> [Image Position: Leading Edge] falls within the specified range.	NO	Readjust.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace the scanner unit.

7.2.3 Scanner system: black spots

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace the scanner unit. Replace CTLB.

7.2.4 Scanner system: fog

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3		ADF does not lie flat.	YES	Replace ADF if it is deformed or hinges are broken.
4	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
5	Basic screen Density	The problem is eliminated when the image is produced in the manual exposure setting.	NO	Try another exposure level in manual.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Replace the scanner unit. Replace CTLB.

7.2.5 Scanner system: blurred image, blotchy image

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original does not lie flat.	YES	Change original.
2	ADF	ADF does not lie flat.	YES	Replace ADF if it is deformed or hinges are broken.
3	Original glass	Original glass tilts.	YES	Position original glass correctly. Check original loading position.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace the scanner unit.

7.2.6 Scanner system: moire

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Moire distortions recur even after the orientation of original has been changed.	NO	Change the original orientation.
2	Basic screen Original Type	Moire distortions recur even after the original mode has been changed.	YES	Select Text mode or Photo mode.
3	Basic screen Zoom	The problem has been eliminated through the checks of steps up to 2.	NO	Change the zoom ratio.

7.2.7 Scanner system: skewed image

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is skew.	YES	Reposition original.
2	Original glass	Original glass is in positive contact with the flat spring without being tilt.	NO	Reinstall the glass. Check the original loading position.

Step	Section	Check item	Result	Action
3		The problem has been eliminated through the checks of steps up to 2.	NO	Replace the scanner unit.

7.2.8 Scanner system: distorted image

1. Typical faulty images

ABCDE ABCDE ABCDE ABCDE ABCDE

2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Installation	Machine is installed on a level surface.	NO	Reinstall.
2		The problem has been eliminated through the checks of steps up to 1.	NO	Replace the scanner unit.

7.2.9 Scanner system: low image density, rough image

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original glass	Original Glass is dirty.	YES	Wipe the surface clean with a soft cloth.
2		The problem has been eliminated through the checks of steps up to 1.	NO	Replace the scanner unit. Replace CTLB.

7.2.10 Scanner system: blank copy, black copy

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Cable connecting scanner and printer	Connector J101 on CTLB are connected properly with no pins bent.	NO	Reconnect.
2	Controller board (CTLB)	The problem is eliminated after the I/F connection cable has been changed.	NO	Replace CTLB.

Step	Section	Check item	Result	Action
				Replace the scanner unit.

7.2.11 Printer: white lines and white bands in sub scan direction

1. Typical faulty images

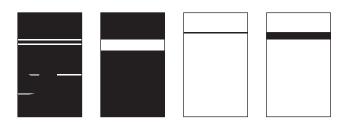


2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A white line or black line in sub scan direction is sharp.	YES	Clean the electrostatic charger wire.
3	Imaging unit	The surface of the PC drum is scratched.	YES	Replace the imaging unit.
4		Dirty on the outside.	YES	Clean.
5		Contact terminals make good connection between each imaging unit and machine.	NO	Clean contact terminals.
6		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Replace the transfer roller. Replace the PH unit.

7.2.12 Printer: white lines and white bands in main scan direction

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A white line or black line in main scan direction is sharp.	NO	Clean the electrostatic charger wire.
2	Imaging unit	The surface of the PC drum is scratched.	YES	Replace the imaging unit.
3		Dirty on the outside.	YES	Clean.
4		Contact terminals make good connection between each imaging unit and machine.	NO	Clean contact terminals.
5		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
6		The problem has been eliminated through the checks of steps up to 6.	NO	Replace the transfer roller. Replace the PH unit.

7.2.13 Printer: uneven density in sub scan direction

1. Typical faulty images

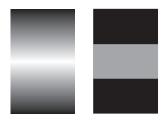


2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Replace the imaging unit.
2		Dirty on the outside.	YES	Clean.
3	Transfer roller	Image transfer roller is installed properly.	NO	Reinstall.
4		Image transfer roller is dirty or scratched.	YES	Replace the transfer roller.
5		The problem has been eliminated through the	NO	Replace the PH unit.
		checks of steps up to 4.		Replace the controller board.
				Replace the power supply unit.

7.2.14 Printer: uneven density in main scan direction

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Replace the imaging unit.
2		Dirty on the outside.	YES	Clean.
3	Transfer roller	Check that the spring does not come off during the pressure operation of the transfer roller.	NO	Correct. Replace the transfer roller.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace the PH unit. Replace the power supply unit.

7.2.15 Printer: low image density

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Toner density sensor	The surface of the toner density sensor is dirty.	YES	Clean.

Step	Section	Check item	Result	Action
2	Transfer roller	Check that the spring does not come off during	NO	Correct.
	the pressure operation of the transfer roller.			Replace the transfer roller.
3		The problem has been eliminated through the	NO	Replace the imaging unit.
		checks of steps up to 4.		Replace the toner density sensor.
				Replace the controller board.
				Replace the PH unit.
				Replace the power supply unit.

7.2.16 Printer: gradation reproduction failure

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Photo/density	Original type and screen pattern are selected properly.	NO	Change screen pattern.
2		The problem has been eliminated through the checks of steps up to 3.	NO	 Replace the imaging unit. Replace the controller board. Replace the PH unit. Replace the power supply unit.

7.2.17 Printer: foggy background

1. Typical faulty images

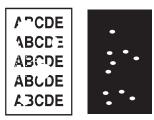


2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Toner density sensor	The surface of the toner density sensor is dirty.	YES	Clean.
2	Imaging unit	Dirty on the outside.	YES	Clean.
3	Controller board (CTLB)	Check the connection of connectors, between CTLB and PH unit, and correct if necessary.	NO	Change controller board.
4		The problem has been eliminated through the checks of steps up to 4.	NO	Replace the imaging unit. Replace the PH unit. Replace the power supply unit.

7.2.18 Printer: void areas, white spots

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image Check	There are void areas at the front side or high density section.	YES	K.7.2.15 Printer: low image density
2		There is void area at the rear side section.	YES	Make the following adjustment: [Service Mode] -> [Imaging Process Adjustment] -> [Transfer Voltage Fine Adj].
3	Imaging unit	The surface of the PC drum is scratched.	YES	Replace the imaging unit.
4	Toner cartridge	Foreign matter or caked toner in the toner cartridge.	YES	Remove foreign matter.
5	Installation environment	Is the atmospheric pressure at the installation site low?	YES	Transfer roller There is any stain, damage, deformation or abrasion on the transfer roller. YES Replace the transfer roller.

7.2.19 Printer: black spots

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
2		The surface of the PC drum is scratched.	YES	Replace the imaging unit.
3		Dirty on the outside.	YES	Clean.

7.2.20 Printer: blurred image

1. Typical faulty images



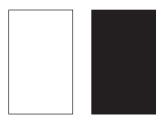
2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	Dirty on the outside.	YES	Clean.

Step	Section	Check item	Result	Action
2			NO	Replace the imaging unit.
				Replace the PH unit.

7.2.21 Printer: blank copy, black copy

1. Typical faulty images



2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	PH unit	A blank copy occurs.	YES	Check PH unit connector for proper connection.
2	Imaging unit	Coupling of imaging unit drive mechanism is installed properly.	NO	Check and correct drive transmitting coupling.
				Replace the imaging unit.
3		The PC drum charge corona voltage contact or PC drum ground contact of the imaging unit is connected properly.	NO	Check, clean, or correct the contact.
4	Power supply unit	Connector is connected properly.	NO	Reconnect.
5		The problem has been eliminated through the	NO	Replace the power supply unit.
		check of step 4.		Replace the controller board.
				Replace the PH unit.

7.2.22 Printer: uneven image

1. Typical faulty images



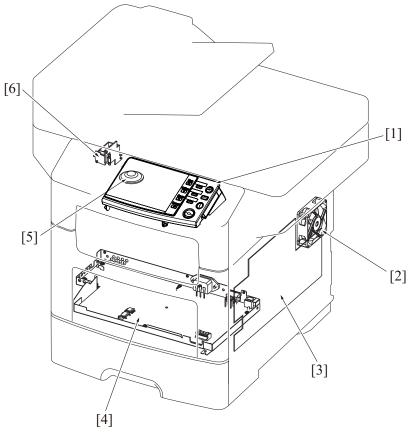
2. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Toner cartridge	The toner cartridge is surely installed.	NO	Re-install it.
2	PH unit	The PH unit is surely installed.	NO	Re-install it.
3	Toner cartridge	There is any stain or breakage on the drive section of the toner cartridge.	YES	Clean/replace the toner cartridge.
4	Imaging unit	There is any stain, damage or abrasion on the PC drum.	YES	Replace the imaging unit.
5	Transfer roller	There is any stain, damage, deformation or abrasion on the transfer roller.	YES	Replace the transfer roller.
6	Fuser unit	There is any stain, damage, deformation or abrasion on the roller and drive section of the fuser unit.	YES	Replace the fuser unit.
7		The problem has been eliminated through the check of step 6.	NO	Replace the PH unit.

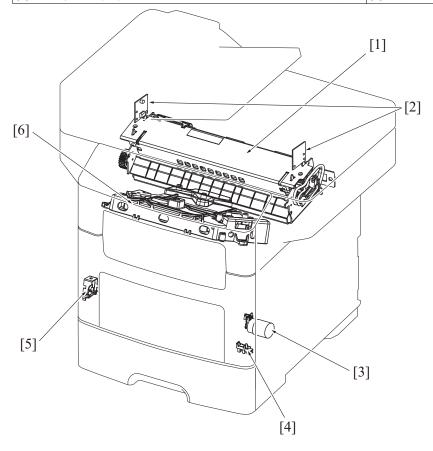
L PARTS/CONNECTOR LAYOUT DRAWING

1. PARTS LAYOUT DRAWING

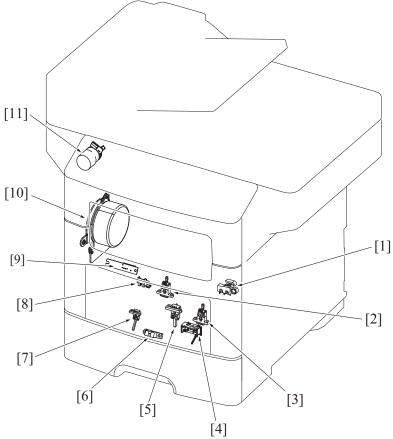
1.1 bizhub 4750/4050



[1]	Operation panel	[2]	Cooling fan (FM1)
[3]	Controller board (CTLB)	[4]	Power supply unit (PU)
[5]	Speaker (SP)	[6]	Reverse solenoid (SD2)

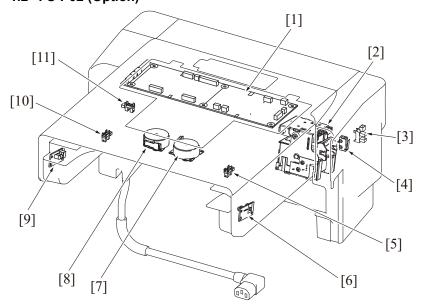


[1]	Fuser assembly	[2]	Bin full sensor (PS7)
[3]	Pick/ lift motor (M2)	[4]	Tray present sensor (PS3)
[5]	MPF solenoid (SD1)	[6]	Printhead (PH)



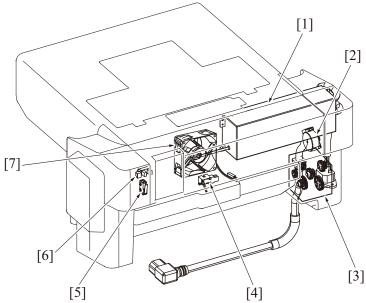
[1]	Front door sensor (PS10)	[2]	Input sensor (PS8)
[3]	Narrow Media Sensor (PS11)	[4]	Trailing edge sensor (PS6)
[5]	Duplex sensor (PS5)	[6]	MPF sensor (PS1)
[7]	Index sensor (PS4)	[8]	Paper present sensor (PS12)
[9]	Toner destiny sensor (PS13)	[10]	Main motor (M1)
[11]	Toner cartridge motor (M3)	-	-

1.2 FS-P02 (Option)



[1]	Stapler controller board (SCB)	[2]	Stapler carriage (SC)
[3]	Stapler access door sensor (PS41)	[4]	Stapler door close limit switch (S42)
[5]	Stapler right tamper home position sensor (PS45)	[6]	Stapler bin full sensor (PS47)

[7]	Stapler right tamper motor (M42)	[8]	Stapler left tamper motor (M41)
[9]	Stapler bin full sensor (PS47)	[10]	Stapler left tamper home position sensor (PS44)
[11]	Stapler paddle home position sensor (PS46)	-	-



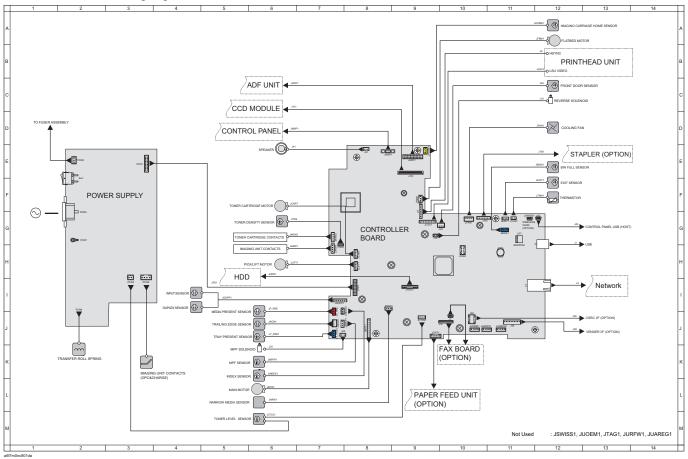
[1]	Stapler power supply unit (SPU)	[2]	Stapler paddle motor (M43)
[3]	Stapler diverter gearbox	[4]	Stapler pass through sensor (PS43)
[5]	Stapler rear door close limit switch (S41)	[6]	Stapler rear door sensor (PS42)
[7]	Stapler cooling fan (FM41)	-	-

N WIRING DIAGRAM

1. bizhub 4750/4050

1.1 Bizhub 4750/4050

bizhub 4750/4050 Overall wiring diagram



- bizhub 4750/4050 Wiring diagram (77m0nc801da.pdf 1279 KB)

O THEORY OF OPERATION bizhub 4750/4050

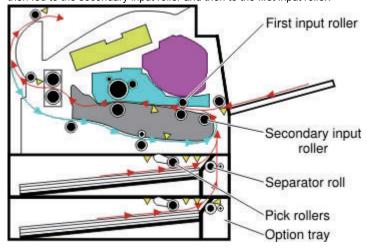
1. Paper path information

1.1 Input tray

Component functions for feeding from the tray:

- · Tray present sensor Detects if the tray is inserted
- · Media present sensor Detects whether the media level is empty or low.
- Pick/Lift motor Supplies the mechanical power requirements of the lift plate and the pick rollers.

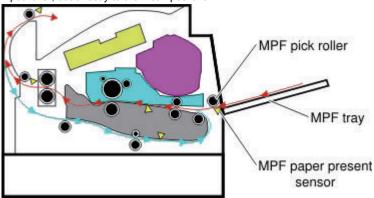
When feeding media, the front part of the lift plate is raised, pressing the media to the pick rollers. The pick rollers rotate to feed the media to the separator rolls. The separator rolls rotate in a direction opposite to the pick rollers. This ensures that sheets are fed one at a time. The media is then fed to the secondary input roller and then to the first input roller.



1.2 Multipurpose feeder (MPF)

The driving force from the main drive motor is transmitted through the MPF gearbox. When the MPF solenoid activates, it allows the MPF sector gear linked to the MPF gearbox to rotate. The MPF pick roll shaft is connected to the MPF sector gear.

The MPF can be accessed by opening the MPF tray on the front door. In an MPF paper feed, the MPF paper present sensor detects the media. The instant the MPF pick roll shaft rotates, the cams on each end of the shaft disengage the MPF tray. Each side of the tray is connected to the front access cover by springs. When disengaged from the shaft, the springs pull the tray causing the media to come into contact with the MPF pick roller. At the same time the pick roller rotates, pushing the media to the separator pad. The media does not pass through the secondary input roller, but directly to the first input roller.

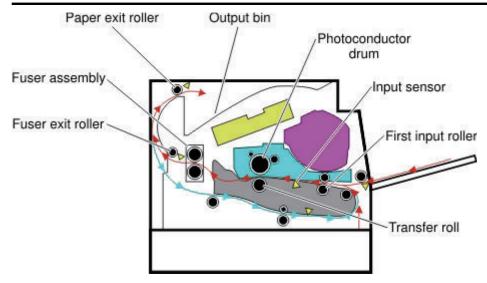


1.3 Simplex printing

Situated along the first input roller, is the deskew shutter. It subjects the media to a deskewing force based on the media width. The direction of the force is transverse to the feed direction. The leading edge of the media then passes though the input sensor.

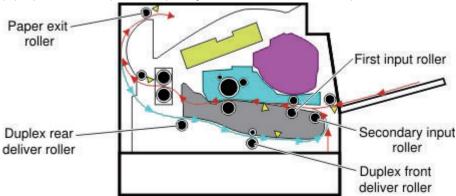
After the edge of the media is aligned, the first input roller feeds the media to the transfer roll for toner transfer. At this point, the toner image is already on the photoconductor drum surface. As the media passes between the photoconductor drum and transfer roll, the toner image is transferred to the media.

The media with the embedded toner image goes through the fuser assembly to permanently bond the toner to the media. When it passes between the heat belt and pressure roll of the fuser assembly, the combination of heat and pressure fuses the toner image to the media. The fuser exit roller feeds the media to the paper exit roller and then to the output bin.



1.4 Duplex printing

After the first side of the media has been printed on and is partially fed out to the output bin, the reverse solenoid activates. This causes the exit roller to reverse its rotation and feed the media, with its trailing edge first, back into the redrive assembly and then to the duplex paper path. The duplex front and rear deliver rollers move the media through the duplex paper path, the diverter, the first input roller, and back to the primary paper path. The same process for printing on the first side of the media repeats, this time for the second side of the media.



2. Media handling components

2.1 Main drive gearbox

The gearbox supplies all mechanical power requirements of the printer. Its motor, through several gears, transfers power to following paths: photoconductor drum, transfer roll, fuser, paper exit, input, duplex, and MPF.

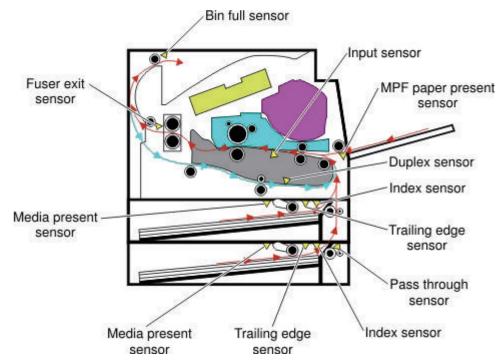
Aside from providing rotational motion to rollers and feeders, the gearbox must also ensure that the print image is not distorted during the whole process. It must also provide easy and effective means to cut or break the transfer of motion when taking the cartridge unit out of the machine, or when clearing jammed sheets through its linkage system.

2.2 Autocompensator mechanism (ACM)

The fundamental function of the ACM is to pick and feed a single sheet of media and accurately deliver it to the downstream paper path. The pick arm is counterbalanced to provide a priming force throughout the entire range of paper levels in the tray. When media is picked, a subsequent sheet is not picked until the previous sheet's trailing edge is detected by the trailing edge sensor. Once the trailing edge of the media is detected, and the minimum interpage gap is satisfied, the next sheet will be picked.

3. Key components

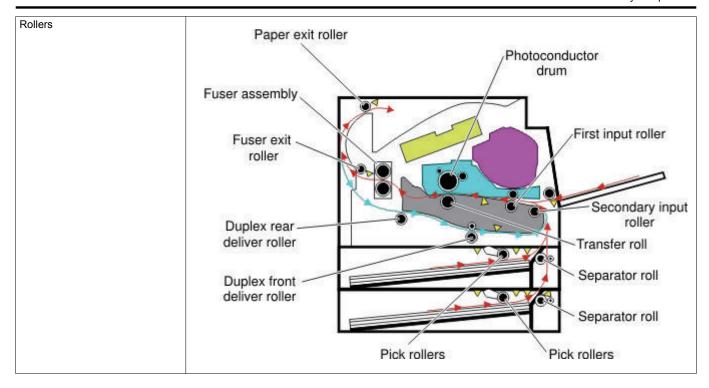
3.1 Sensors



Sensor	Function
Trailing edge sensor	Detects the media's trailing edge as it passes the pick tires. Among other capabilities, this sensor can be used to determine the paper size sensor and the media stack height.
MPF sensor	Detects the presence of media in the MPF tray.
Media present sensor	Detects the presence of media in the tray.
Tray present sensor	Detects the presence of the tray in the printer.
Bin full sensor	Detects whether the standard bin is full by moving the actuator up and down.
Toner density sensor	Detects a pre-placed toner patch and image on the photoconductor (drum) and outputs pulses when the central line of the patch image aligns with the central line of the detector. The sensor outputs pulses at the timing the patch image passes the sensor. Therefore, observing changes of intervals at which pulses are output leads to toner density detection.
Pass through sensor (option tray)	Detects when the media from the option tray passes. This will trigger the pick roller to pick the next media.
Capacitive Toner Level Sensor (CTLS)	Detects the amount of toner in the imaging unit. If the toner level is low, the cartridge auger motor is triggered to add toner from the toner cartridge to the imaging unit.
Front door sensor	Is a safety switch to cut off a 24 V DC power supply from the LVPS board assembly to the HVPS board assembly, printer system board assembly and to the main drive motor assembly, while the printer front door assembly is open.

3.2 Other key components

Key component	Function		
Cooling fan	Discharges air from the printer to prevent excessive temperature increase.		
Power supply	The power supply has two main sections: the HVPS and LVPS. The HVPS board assembly generates AC power and feeds it to the developer roll, the transfer roll assembly and the charge roll assembly. The LVPS board assembly generates low voltages: 5 V DC for logic circuits, 5 V DC for laser diodes and 24 V DC for cooling fans.		
Controller board	Controls the printing operation based on the communication with the RIP controller and optional peripherals. It also controls the fuser, toner dispensing, sensor switch feedback, drive motors, clutches and solenoids.		



4. Electrophotographic process (EP process)

4.1 Printhead

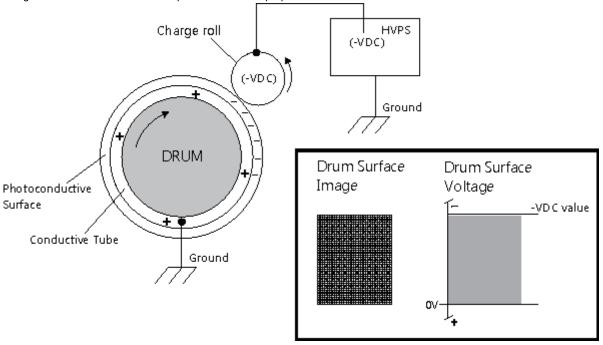
The printhead scans the photo conductor drum surface with a laser beam. It consists of the following components:

- · Laser diode (LD) board assembly
- Oscillator
- · Start of scan board assembly

When a laser beam is scanned across the photoconductor drum surface from one end to the other while turning on and off the beam, one line of latent image is created. If the scanning by the laser beam is repeated while rotating the drum, a two-dimensional image is created. The resolution in the scanning direction (from right to left) is determined by the rotational speed of the printhead motor, depending on how quickly the laser is adjusted. The resolution in the process direction (from top to bottom) is determined by the rotational speed of the printhead motor. The higher the scanning speed becomes, the sooner the scanning of the next row can be started.

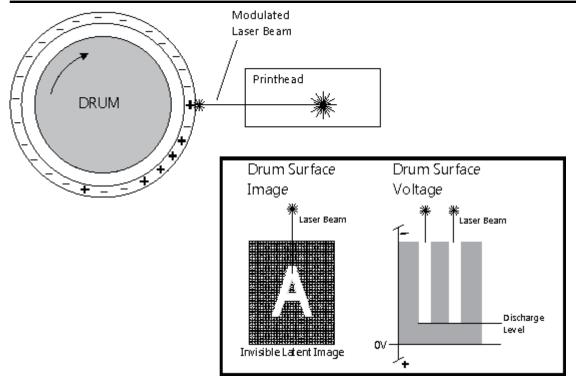
4.2 Step 1: Charge

During the charge step, voltage is sent from the HVPS to the charge roll beside the photoconductor. The charge roll applies a uniform negative charge over the entire surface of the photoconductor to prepare it for the laser beam.



4.3 Step 2: Expose

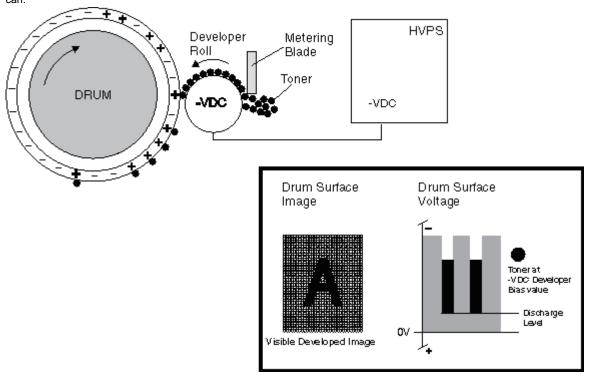
The laser fires a focused beam of light at the surface of the photoconductor and writes an invisible image, called a latent image. The laser beam only discharges the surface where the beam hits the photoconductor. This creates a difference in charge potential between the exposed area and the rest of the photoconductor surface.



4.4 Step 3: Develop

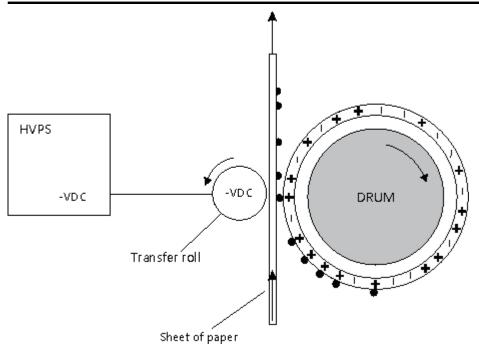
Once the laser exposes the photoconductor, the HVPS sends charge to the developer roll. Because of the charge difference between the toner on the developer roller and the electrostatic image created by the laser, the toner is attracted to areas of the photoconductor surface exposed by the laser.

This process would be similar to using glue to write on a can and then rolling it over glitter. The glitter sticks to the glue but not to the rest of the can.



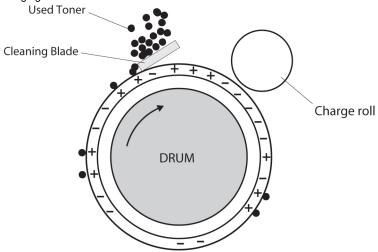
4.5 Step 4: Transfer

As the paper travels between the transfer roll and the photoconductor, the transfer roll applies a positive charge to the back of the media. This positive charge attracts the negatively charged toner image from the photoconductor to the top surface of the media.



4.6 Step 5: Clean

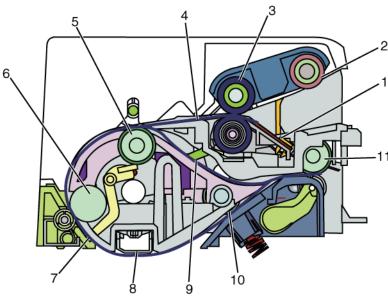
The cleaning blade removes any toner that remains on the photoconductor after the transfer process. The toner removed is collected inside the imaging unit.



5. ADF theory

5.1 ADF theory of operation

ADF cross section



[1]	Document sensor	[2]	Pickup roller
[3]	Separator roller	[4]	Stage and interval sensors
[5]	Paperfeed 1 roller	[6]	Paperfeed 2 roller
[7]	Feed sensor	[8]	Scan area
[9]	Duplex sensor	[10]	Eject 2 roll
[11]	Exit roller	-	-

The duplex ADF enables the user to create duplex scans automatically, eliminating the need to stop the scanning process to flip the media being duplicated over. The ADF uses DC motors with encoder wheels, and a series of sensors to determine the media's position in the paper path during the scan process. The following steps are performed in creating a duplex scan on the duplex ADF:

NOTE

- · The scanner control unit, on the controller board receives a command to create a scan, fax, or copy.
- 1. The scanner control unit, on the controller board receives a command to create a scan, fax, or copy.
- 2. A signal is sent to the ADF to poll the document sensor (1) to check if the media to be scanned is in the correct position. The media must be placed in the ADF input tray so it actuates the document sensor. If the ADF document sensor isn't actuated, a flatbed scan is run by default.
- 3. If the media has actuated the document sensor, then an ADF scan is executed. At this point the pickup roller (2) on the pick arm assembly drops and advances the paper into the ADF. To minimize the possibility of multiple sheets being fed, a counter rotating separator roll (3) is used. After passing through pick assembly, the media actuates the stage and interval sensors (4). Actuating these sensors determines that this will be the first side of the document to be scanned.
- 4. In addition the stage sensors are used to determine and correct document skew if it is present. If the stage sensors are actuated at different times, then the paper is slowly fed to the paper feed 1 roller. The feed motor encoder wheel count tracks the paper location in the paper path
- 5. When the paper reaches the paper feed 1 roller (5), the stationary state of the paper feed 1 roller acts as a registration roll, causing the paper to de-skew.
- 6. When the encoder count reaches a certain count, the paper feed 1 roller advances the now deskewed paper to the paper feed 2 roller (6) and the feed sensor (7). If the paper does not actuate the feed sensor before a certain encoder count is attained, a paper jam error is generated.
- 7. When the feed sensor is actuated the paper advances to the scan area (8). While the paper is advancing to the scan area, the DC motor encoder generates a count which is stored in an onboard counter. These counts along with the feed sensor ensure that the media is travelling at the correct speed through the scan area. The speed the document travels through the ADF scan area is dependent on the image DPI specified by the user.
- 8. After a predetermined number of counts, the media reaches the scan area and the image acquisition process is initiated. While the image acquisition process is executing, the feed sensor is being polled to determine if the trailing edge of the media has reached the sensor.
- 9. Once the trailing edge of the scan media has reached the feed sensor, that sensor goes to the off position. After the feed sensor is switched off, the image acquisition process continues for a predetermined length of time.
- 10. When the image acquisition process is completed, the trailing edge of the media continues to the reverse point. If the scan job is simplex, then the media continues to the exit roller (11) and exits the ADF.
- 11. If the scan job is a duplex scan job, then the feed motor is reversed with a swing gear when the trailing edge of the media reaches the reverse point. A swing gear moves the diverter gate to the down position.
- 12. The reversed exit roll (11) pulls the paper back into the ADF. The eject 2 roller then moves the media to the duplex sensor. When the duplex sensor (9) is actuated, the exit roll stops. Also, the duplex sensor indicates that this is the second side of the media to be scanned.
- 13. After actuating the duplex sensor, the eject 2 roll moves the media to the paper feed 1 roll, and the feed sensor. Like the first pass of the media, the image acquisition process is repeated for the second side of the media.
- 14. When the trailing edge of the media reaches the reverse point the second time, the swing gear again moves the diverter gate to the down position and the exit roll reverses. The paper goes back into the ADF unit for a third time. The paper passes through the paper path, but no imaging occurs. This pass is to turn the paper over to the original side up. On the third pass of the media trailing edge over the reverse point, the eject two roller does not reverse and the paper passes out of the ADF.

Q PARTS GUIDE MANUAL (1st Edition)

INFORMATION FOR PARTS GUIDE MANUAL

To find correct Parts No., refer to the "HOW TO MAKE THE BEST USE OF THIS MANUAL" in the following page. NOTICE

• This parts guide manual is 1st edition and will not be updated. Please ask your parts administrator about the newest parts information.

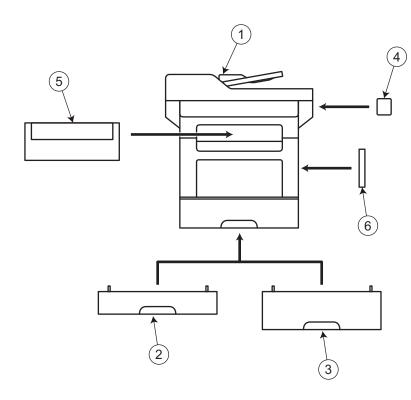
HOW TO MAKE THE BEST USE OF THIS MANUAL

- 1. When you order, please check the proper figures beforehand that are on Our Parts Guide Manual, and order with the appropriate figures.
- 2. For screws, Nuts, Washers, retaining rings and Pins which are used in this model, one letter is shown on the Standard parts column of Parts list and exploded diagrams.
- 3. In order to maintain safety of the product, some specific parts composed of this product are set up as "essential safety parts".
- 4. The assigned parts number for the "essential safety parts" is indicated as "SP00-****". When replacing these parts, follow precautions for disassembling and installing which are listed in the Service Manual. Do not use any parts that are not set up as
- 5. means that there are exclusive parts for each destination. Please check the appropriate destination when you order.
- 6. Revision Mark

Marked as ▲ on the illustration shows that the revision has been made.

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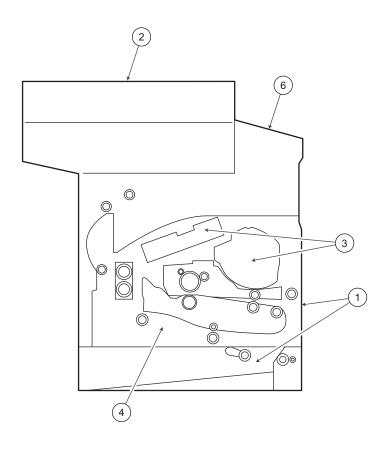
SYSTEM OUTLINE



No.	Description	Model
1	Printer B/W	bizhub 4050/bizhub 4750
2	Paper Feeder	PF-P11
3	Paper Feeder	PF-P12
4	Other Option	KP-P01
5	Finisher/Sorter	FS-P02
6	Mount Kit	MK-P03

1. Printer B/W (bizhub 4050/bizhub 4750)

DIAGRAMS OF MAIN PARTS SECTION

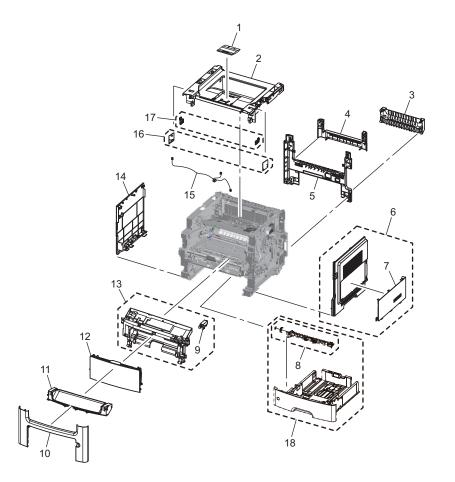


[1]	EXTERNAL PARTS/CASSETTE SECTION	[2]	ADF SECTION
[3]	PH/FUSING SECTION	[4]	MAIN POWER SUPPLY SECTION
[5]	REVERSAL/MAIN DRIVE SECTION	[6]	OPERATION PANEL SECTION
[7]	ACCESSORY PARTS	[8]	MAINTENANCE KIT

P 1

1.1 EXTERNAL PARTS/CASSETTE SECTION

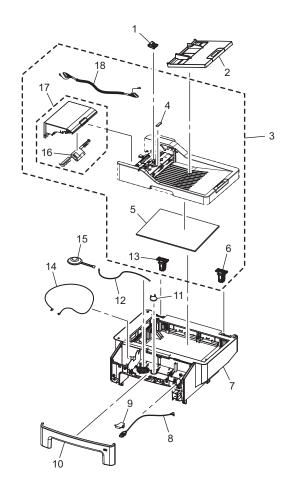
1.1.1 P1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A6F7PP0000	Tray			С	1
1	2	A6F7PP0100	Cover/Upper			С	1
1	3	A6F7PP0200	Cover			С	1
1	4	A6F7PP0300	Cover			С	1
1	5	A6F7PP0400	Cover/Rear			С	1
1	6	A6F7PP0500	Cover/Right Assy			С	1
1	7	A6F7PP0600	Cover			D	1
1	8	A63NPP1C00	Separation Roller Assy			В	1
1	9	A63NPP1H00	Holder			С	1
1	10	A6F7PP0700	Cover/Front		{bizhub 4750}	С	1
1	10	A6VFPP0000	Cover/Front		{bizhub 4050}	С	1
1	11	A6F7PP0800	Cover			С	1
1	12	A63NPP0100	Tray			С	1
1	13	A63NPP0800	Front Guide Assy			D	1
1	14	A6F7PP0900	Cover/Left			С	1
1	15	A6F7PP0A00	Harness			D	1
1	16	A6F7PP0B00	Sensor Kit	Bin full sensor (PS7)		1	1
1	17	A6F7PP0C00	Lens			D	1
1	18	A63NPP0000	Cassette Assy/550 Sheet			С	1

1.2 ADF SECTION

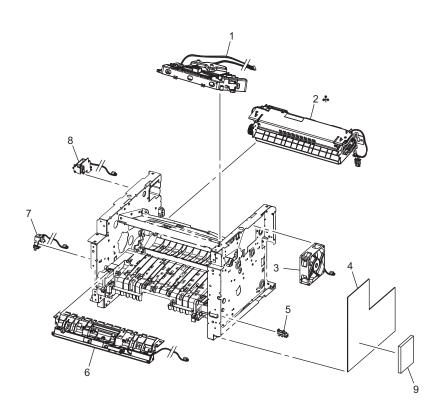
1.2.1 P2



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
2	1	A6WDPP1500	Separator Roller			В	1
2	2	A6WDPP1A00	Tray			С	1
2	3	A6WDPP1B01	ADF Unit			С	1
2	4	A6WDPP1600	Separating Pad			С	1
2	5	A6WDPP0000	Pad			С	1
2	6	A6WDPP0100	Hinge/Right			С	1
2	7	A6F7PP0E01	Scanner Unit			С	1
2	8	A6WDPP0W00	USB Cable			D	1
2	9	A6WDPP0Y00	Mounting Plate			D	1
2	10	A6F7PP0F00	Cover/Front			С	1
2	11	A6F7PP0G00	Lens			D	1
2	12	A6WDPP1400	Harness/Speaker			D	1
2	13	A6WDPP1900	Hinge/Left			С	1
2	14	A6WPPP0B00	Harness			D	1
2	15	A6WDPP1300	Speaker	Speaker (SP)		D	1
2	16	A6WDPP0800	Pick-up Roller Assy			В	1
2	17	A6WDPP1C00	Top Cover Assy			С	1
2	18	A6WDPP1800	Harness			D	1

1.3 PH/FUSING SECTION

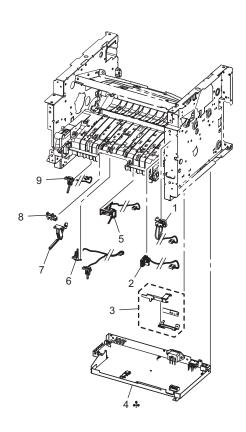
1.3.1 P3



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
3	1	A63NPP0G00	Print Head Assy	Printhead (PH)		I	1
3	2	A63NPP0N00	Fusing Unit 110V	Fuser assembly	B,G2,H	В	1
3	2	A63NPP0M00	Fusing Unit 220V	Fuser assembly	C,D1,D3,E,F2,G1,I, K	В	1
3	3	A6WDPP0400	Fun motor	Cooling fan (FM1)		С	1
3	4	A6F7PP0K00	PWB assembly	Controller board (CTLB)		I	1
3	5	A63NPP0W00	Sensor	Tray present sensor (PS3)		I	1
3	6	A63NPP0E00	Guide Assy			D	1
3	7	A63NPP0D00	Solenoid Kit	MPF solenoid (SD1)		С	1
3	8	A63NPP0C00	Solenoid	Reverse solenoid (SD2)		С	1
3	9	A6F7PP0W00	HDD			I	1

1.4 MAIN POWER SUPPLY SECTION

1.4.1 P4

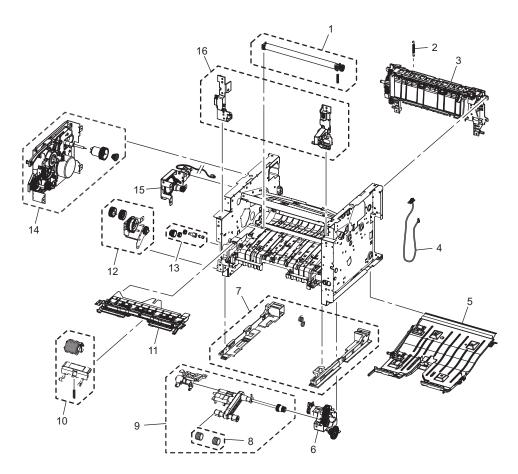


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
4	1	A63NPP0P00	Sensor	Front door sensor (PS10)		I	1
4	2	A63PPP0B00	Contact/Cartridge			С	1
4	3	A63NPP0Q00	Sensor			I	1
4	4	A6F7PP0M00	Power supply Assy (100-120V)	Power supply unit (PU)	B,G2,H	I	1
4	4	A6F7PP0N00	Power supply Assy (220-240V)	Power supply unit (PU)	C,D1,D3,E,F2,G1,I, K	I	1
4	5	A63NPP0R00	Sensor	Trailing edge sensor (PS6)		I	1
4	6	A63NPP0T00	Sensor	Duplex sensor (PS5) Input sensor (PS8)		I	1
4	7	A6WDPP0R00	Actuator			С	1
4	8	A63NPP0W00	Sensor	Paper present sensor (PS12)		I	1
4	9	A63NPP0S00	Sensor	Index sensor (PS4)		I	1

P 5

1.5 REVERSAL/MAIN DRIVE SECTION

1.5.1 P5

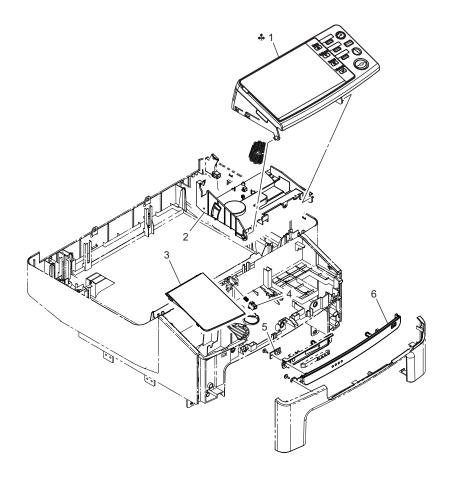


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
5	1	A63NPP0Y00	Transfer Roller			В	1
5	2	A6F7PP0P00	Tension Spring			С	1
5	3	A6F7PP0Q00	Reverse Assy			В	1
5	4	A6F7PP0R00	Harness			D	1
5	5	A63NPP1500	Duplex Assy			С	1
5	6	A63NPP1800	ACM Drive Assy			С	1
5	7	A6F7PP0S00	Guide Kit			D	1
5	8	A63NPP1000	Pick tire Set(2 pcs/set)			В	1
5	9	A63NPP1600	ACM Assy			С	1
5	10	A63NPP1100	Paper Feed/Separation Pad Kit			В	1
5	11	A63NPP1200	Guide Assy			D	1
5	12	A63NPP1300	MPF Drive Assy			С	1
5	13	A63NPP1400	Duplex Gear Assy			С	1
5	14	A63NPP1700	Main Drive Assy			С	1
5	15	A63NPP1900	Cartridge Gear Assy			С	1
5	16	A63NPP1N00	Holder Kit			С	1

P 6

1.6 OPERATION PANEL SECTION

1.6.1 P6

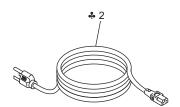


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
6	1	A6F7M70102	Panel assembly	Operation panel	B,G2,H	I	1
6	1	A6F7M70202	Panel assembly	Operation panel	C,D1,D3,E,F2,G1,I, K	I	1
6	2	A6F7PP0X00	Mounting Part			D	1
6	3	A6F7PP0Y00	Cover			С	1
6	4	A6F7PP1100	Lock Part			D	1
6	5	A3GNH00500	PWB Assembly (MCMB)			С	1
6	6	A6F7PP1000	Cover			С	1

1.7 ACCESSORY PARTS

1.7.1 P7



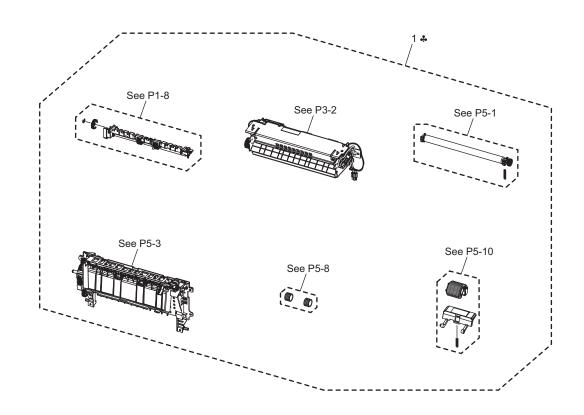


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
7	1	A5C1947100	Label			С	1
7	2	A63NPP1P00	Power Cord		B,G2	D	1
7	2	A63NPP1T00	Power Cord		C (United Kingdom)	D	1
7	2	A63NPP1U00	Power Cord		C (Italy)	D	1
7	2	A63NPP1V00	Power Cord		I (Israel)	D	1
7	2	A63NPP1W00	Power Cord		G1	D	1
7	2	A63NPP1X00	Power Cord		D3	D	1
7	2	A63NPP1Y00	Power Cord		C (Switzerland)	D	1
7	2	A63NPP2000	Power Cord		I (South Africa)	D	1
7	2	A63NPP2100	Power Cord		C (Denmark)	D	1
7	2	A63NPP1S00	Power Cord		Н	D	1
7	2	A63NPP2200	Power Cord		K	D	1
7	2	A63NPP2300	Power Cord		C (Europe and others)	D	1
7	2	A63NPP2Q00	Power Cord		B,G2	D	1

1.8 MAINTENANCE KIT

1.8.1 P8

P 8



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
8	1	A6F7PP0T00	Maintenance kit (120V)		B,G2,H	S	1
8	1	A6F7PP0U00	Maintenance kit (220-240V)		C,D1,D3,E,F2,G1,I, K	S	1

1.9 MAINTENANCE LIST

• The items with no Page/Key numbers are not handled as spare parts.

No.	Section	PM Parts Description	1	enance Cycle K=1,000) Replace	Parts No.	Destinations	Page/Key	Note
1	REVERSAL/	ACM pick tire	1	200K	A63NPP1000		P5-8	
2	MAIN DRIVE SEC-	MPF pick roller/separator pad	1	200K	A63NPP1100		P5-10	
3		Reverse Assy	1	200K	A6F7PP0Q00		P5-3	
4		Transfer roll	1	200K	A63NPP0Y00		P5-1	
5	EXTERNAL PARTS/CAS-	Separator roll assembly	1	200K	A63NPP1C00		P1-8	
6	PH/FUSING	Fuser assembly	1	200K	A63NPPN00	Aera 110-127V	P3-2	
7	SECTION	Fuser assembly	1	200K	A63NPP0M00	Aera 220-240V	P3-2	
8	ADF	ADF separator roller	1	200k	A6WDPP1500		P2-1	
9	Toner Cartridge	Toner Cartridge (TNP40)	1	20K	-			Return Program Cartridge
10		Toner Cartridge (TNP42)	1	20K	-			Standard Cartridge
11	Imaging Unit	Imaging Unit (IUP18)	1	60K	-			Return Program Cartridge
12		Imaging Unit (IUP19)	1	60K	-			Standard Cartridge

1.10 DESTINATION

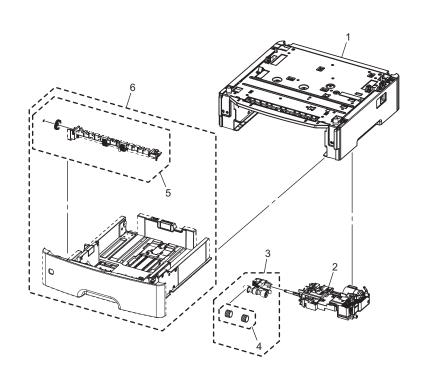
	nation lo.		Destinations	V	Hz	Model No.
^	A1	JAPAN				
Α	A2	JAPAN				
В		USA, CANADA			60	A6F7011/A6VF011
	С	EUROPEAN	N TYPE	220- 240	50/60	A6F7021/A6VF021
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A6F7041/A6VF041
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A6F7041/A6VF041
	E	PHILIPPINE	ES .	220- 240	50/60	A6F7041/A6VF041
	F1	SAUDI ARA	BIA			
F	F2	SAUDI ARABIA		220- 240	50/60	A6F7041/A6VF041
G	G1	C.S AMERI	CA	220- 240	50/60	A6F7041/A6VF041
	G2	C.S AMERI	CA	120	60	A6F7011/A6VF011
	H	TAIWAN		110	60	A6F7011/A6VF011
I		JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO		220- 240	50/60	A6F7011/A6VF041
	J	CHINA				
	K	KOREA		220- 240	50/60	A6F7041/A6VF041

2. Paper Feeder (PF-P11)

2.1 PAPER FEEDER UNIT

2.1.1 P1

P 1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A63NPP2C00	Frame Unit/250 Sheet			D	1
1	2	A63NPP1E00	ACM Assy			С	1
1	3	A63NPP1D01	Pick-up Roller Assy			С	1
1	4	A63NPP1000	Pick tire Set(2 pcs/set)			В	1
1	5	A63NPP1C00	Separation Roller Assy			В	1
1	6	A63NPP1B00	Cassette Assy/250 Sheet			С	1

	ination lo.		Destinations	V	Hz	Model No.
	A1	JAPAN		100	50/60	A63Y0Y1
Α	A2	JAPAN				
	B USA, CANADA		120	60	A63Y0Y1	
С		EUROPEAN	N TYPE	220- 240	50/60	A63Y0Y1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A63Y0Y1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A63Y0Y1
	E	PHILIPPINE	ES .	220- 240	50/60	A63Y0Y1
	F1	SAUDI ARA	ABIA			
F	F2	SAUDI ARA	NBIA	220- 240	50/60	A63Y0Y1
G	G1	C.S AMERI	CA	220- 240	50/60	A63Y0Y1
	G2	C.S AMERI	CA	120	60	A63Y0Y1

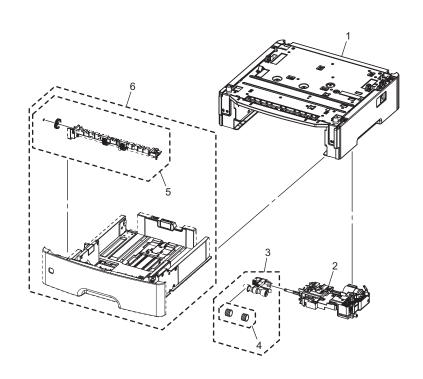
Destination No.	Destinations	V	Hz	Model No.
Н	TAIWAN	110	60	A63Y0Y1
1	JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO	220- 240	50/60	A63Y0Y1
J	CHINA	220- 240	50/60	A63Y0Y1
К	KOREA	220- 240	50/60	A63Y0Y1

3. Paper Feeder (PF-P12)

3.1 CASSETTE UNIT

3.1.1 P1

P 1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A63NPP2D00	Frame Unit/550 Sheet			D	1
1	2	A63NPP1E00	ACM Assy			С	1
1	3	A63NPP1D01	Pick-up Roller Assy			С	1
1	4	A63NPP1000	Pick tire Set(2 pcs/set)			В	1
1	5	A63NPP1C00	Separation Roller Assy			В	1
1	6	A63NPP1A00	Cassette Assy/550 Sheet			С	1

	ination No.		Destinations	V	Hz	Model No.
	A1	JAPAN		100	50/60	A6440Y1
Α	A2	JAPAN				
	В	USA, CANA	NDA	120	60	A6440Y1
	С	EUROPEAN	N TYPE	220- 240	50/60	A6440Y1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A6440Y1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A6440Y1
	E	PHILIPPINE	ES .	220- 240	50/60	A6440Y1
	F1	SAUDI ARA	ABIA			
F	F2	SAUDI ARA	NBIA	220- 240	50/60	A6440Y1
G	G1	C.S AMERI	CA	220- 240	50/60	A6440Y1
	G2	C.S AMERI	CA	120	60	A6440Y1

Destination No.	Destinations	V	Hz	Model No.
Н	TAIWAN	110	60	A6440Y1
I	JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO	220- 240	50/60	A6440Y1
J	CHINA	220- 240	50/60	A6440Y1
К	KOREA	220- 240	50/60	A6440Y1

4. Other Option (KP-P01)

4.1 KP-P01

4.1.1 P1

P 1





Pag	je l	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
	1	1	A6XYM70000	Panel assembly			С	1
	1	2	A6XY965000	Reinforce Plate			D	1

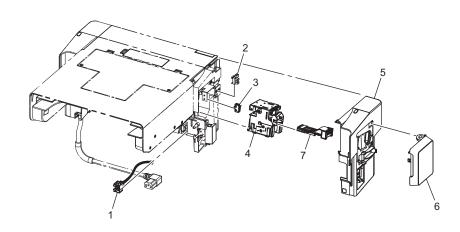
	nation lo.	Destinations		V	Hz	Model No.
^	A1	JAPAN		100	50/60	A6XYWY1
Α	A2	JAPAN				
	В	USA, CANA	DA	120	60	A6XYWY1
(С	EUROPEAN TYPE		220- 240	50/60	A6XYWY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A6XYWY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A6XYWY1
ı	E	PHILIPPINES		220- 240	50/60	A6XYWY1
	F1	SAUDI ARA	BIA			
F	F2	SAUDI ARA	SAUDI ARABIA			A6XYWY1
G	G1	C.S AMERIO	C.S AMERICA			A6XYWY1
	G2	C.S AMERIC	CA	120	60	A6XYWY1
ı	H	TAIWAN		110	60	A6XYWY1
	I	JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO		220- 240	50/60	A6XYWY1

Destination No.	Destinations	V	Hz	Model No.
J	CHINA	220- 240	50/60	A6XYWY1
К	KOREA	220- 240	50/60	A6XYWY1

5. Finisher/Sorter (FS-P02)

5.1 STAPLER SECTION

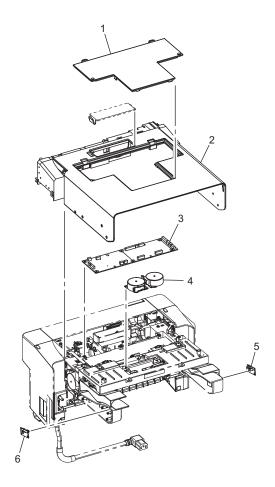
5.1.1 P1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A6VHPP0000	Harness			D	1
1	2	A63NPP0W00	Sensor	Stapler access door sensor (PS41)		I	1
1	3	A6VHPP0100	Switch	Stapler door close limit switch (S42)		С	1
1	4	A6VHPP0200	Stapler Unit	Stapler carriage (SC)		С	1
1	5	A6VHPP0300	Cover/Right			С	1
1	6	A6VHPP0400	Door/Stapler			С	1
1	7	A6VHPP0500	Staple holder			С	1

5.2 ELECRICAL COMPONENTS

5.2.1 P2

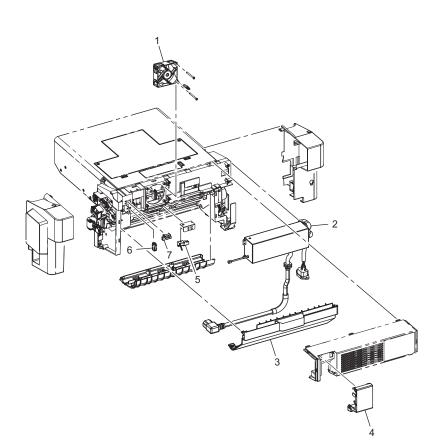


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
2	1	A6VHPP0600	Cover			С	1
2	2	A6VHPP0700	Cover/Upper			С	1
2	3	A6VHPP0800	PWB assembly	Stapler controller board (SCB)		I	1
2	4	A6VHPP0900	Motor	Stapler left tamper motor (M41) Stapler right tamper motor (M42)		С	1
2	5	A6VHPP0A00	PWB assembly	Stapler bin full sensor (PS47)		С	1
2	6	A6VHPP0B00	PWB assembly	Stapler bin full sensor (PS47)		С	1

P 3

5.3 MAIN POWER SUPPLY SECTION

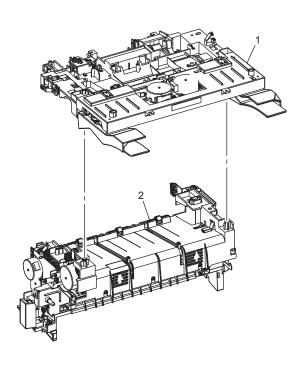
5.3.1 P3



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
3	1	A6VHPP0C00	Fun motor	Stapler cooling fan (FM41)		С	1
3	2	A6VHPP0D00	Power Supply Unit	Stapler power supply unit (SPU)		I	1
3	2	A6VHPP0E00	Power Supply Unit	Stapler power supply unit (SPU)		I	1
3	3	A6VHPP0F00	Cover			С	1
3	4	A6VHPP0G00	Cover			С	1
3	5	A6VHPP0H00	Sensor	Stapler pass through sensor (PS43)		I	1
3	6	A6VHPP0K00	Switch	Stapler rear door close limit switch (S41)		С	1
3	7	A63NPP0W00	Sensor	Stapler rear door sensor (PS42)		I	1

5.4 TRANSPORT SECTION

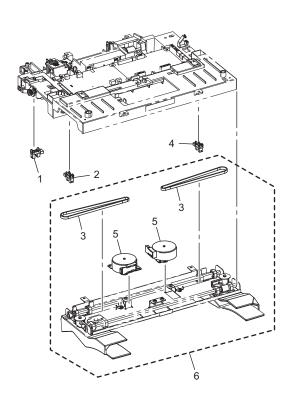
5.4.1 P4



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
4	1	A6VHPP0M00	Alignment Unit			С	1
4	2	A6VHPP0N00	Transport Unit			С	1

5.5 ALIGNMENT UNIT

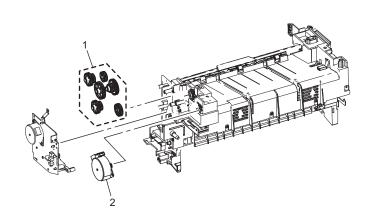
5.5.1 P5



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
5	1	A6VHPP0P00	Sensor	Stapler paddle home position sensor (PS46)		I	1
5	2	A6VHPP0P00	Sensor	Stapler left tamper home position sensor (PS44)		I	1
5	3	A6VHPP0R00	Belt Set (2 pcs/set)			С	1
5	4	A6VHPP0P00	Sensor	Stapler right tamper home position sensor (PS45)		I	1
5	5	A6VHPP0900	Motor	Stapler left tamper motor (M41) Stapler right tamper motor (M42)		С	2
5	6	A6VHPP0Q00	Tray Unit			С	1

5.6 DRIVE SECTION5.6.1 P6

P 6



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
6	1	A6VHPP0S00	Gear Kit			С	1
6	2	A6VHPP0T00	Motor			С	1

	nation lo.		Destinations	V	Hz	Model No.
	A1	JAPAN		100	50/60	A6VHWY1
Α	A2	JAPAN				
I	В	USA, CANADA		120	60	A6VHWY1
(С	EUROPEAN TYPE		220- 240	50/60	A6VHWY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A6VHWY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A6VHWY1
ı	E	PHILIPPINES		220- 240	50/60	A6VHWY1
	F1	SAUDI ARA	SAUDI ARABIA			
F	F2	SAUDI ARA	BIA	220- 240	50/60	A6VHWY1
G	G1	C.S AMERI	CA	220- 240	50/60	A6VHWY1
	G2	C.S AMERI	CA	120	60	A6VHWY1
I	H	TAIWAN		110	60	A6VHWY1
	I	JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO		220- 240	50/60	A6VHWY1
J		CHINA		220- 240	50/60	A6VHWY1

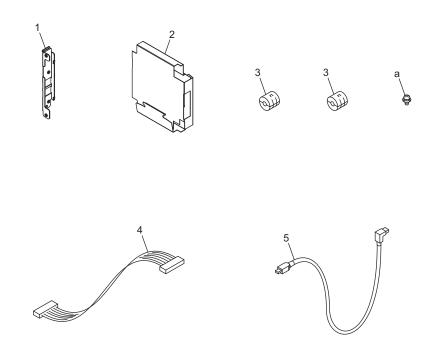
Destination No.	Destinations	V	Hz	Model No.
K	KOREA	220- 240	50/60	A6VHWY1

6. Mount Kit (MK-P03)

6.1 MK-P03

6.1.1 P1

P 1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A6VG130000	Mounting Plate			D	1
1	2	A6VG130100	Cover			D	1
1	3	A121M70600	Ferrite core			D	2
1	4	A6VGN10100	Relay harness			D	1
1	5	A6VGN10000	Relay harness			D	1
1	а	V116030503	Screw			V	

Destination No.		Destinations		V	Hz	Model No.
Α	A1	JAPAN		100	50/60	A6VGWY1
	A2	JAPAN				
В		USA, CANADA		120	60	A6VGWY1
С		EUROPEAN	N TYPE	220- 240	50/60	A6VGWY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220- 240	50/60	A6VGWY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220- 240	50/60	A6VGWY1
E		PHILIPPINE	S .	220- 240	50/60	A6VGWY1
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA		220- 240	50/60	A6VGWY1
G	G1	C.S AMERICA		220- 240	50/60	A6VGWY1
	G2	C.S AMERICA		120	60	A6VGWY1

Destination No.	Destinations	V	Hz	Model No.
Н	TAIWAN	110	60	A6VGWY1
I	JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO	220- 240	50/60	A6VGWY1
J	CHINA	220- 240	50/60	A6VGWY1
К	KOREA	220- 240	50/60	A6VGWY1



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