KONICA MINOLTA

SERVICE MANUAL

bizhub 42/36

KONICA MINOLTA, INC.

Date: 2013/04/22

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Revision history

No.	ID	Title	Ver.	Descriptions of revision	Date
1		Section Q	-	Add to the section Q (PARTS GUIDE MANUAL 1st edition).	2012/01/17
2	D0000616237	I.10.1 List of billing setting	3	Added the description. “This function is not the key counter function.”	2012/02/29
3	D0000778866	I.10.5 Copy Kit Counter Count	2	Added the description. “This function is not the key counter function.”	2012/02/29
4	D0000778867	I.10.6 Copy Kit Counter	2	Added the description. “This function is not the key counter function.”	2012/02/29
5	D0000616224	I.9.13 Soft Switch	4	Added the description. “This function is not the key counter function.”	2012/07/05
6	D0000617663	I.7.9.7 Emulation	2	Error correction (9) PCL - Font Setting - Point Size (c) Setting range 400 to 999.75 -> 4.00 to 999.75	2012/07/05
7	D0000620992	G.5.1.2 FS-529	4	Add the Alignment motor/F (M3) and Alignment motor/R (M4) to parts name.	2012/07/05
8	D0000874290	G.5.3.13 Alignment motor/F (M3), Alignment motor/R (M4)	1	Added the disassembly procedure of the Alignment motor/F (M3) and Alignment motor/R (M4).	2012/07/05
9	D0001078196	A.1. IMPORTANT NOTICE	3	The company name was changed.	2013/04/17
10	D0001078199	A.3.1 MODIFICATIONS NOT AUTHORIZED BY KONICA MINOLTA, INC.	3	The company name was changed.	2013/04/17
11	D0001078202	A.3.3.1 Power Supply	4	The company name was changed.	2013/04/17
12	D0001078209	A.5. MEASURES TO TAKE IN CASE OF AN ACCIDENT	3	The company name was changed.	2013/04/17
13	D0000613290	B.3. BRAND NAME	3	The company name was changed.	2013/04/17
14	D0000616223	I.9.12 CE Password	3	The company name was changed.	2013/04/17
15	D0000617533	J.2. Firmware upgrading procedure by USB memory device	4	Added the note.	2013/04/18
16	D0000617534	J.3. Firmware upgrading procedure by updater	4	Added the note.	2013/04/18
17	D0000614198	K.3.3 List of the trouble code	3	Added the error code. Added the error code of the decimal number for the Event Log Information.	2013/04/19
18	D0001078078	K.3.4.34 3C00, 3C01	4	Added the topic.	2013/04/19
19	D0001078076	K.3.4.50 C900	3	Added the topic.	2013/04/19
20	D0001077860	K.3.4.51 C901, C902	3	Added the topic.	2013/04/19
21	D0001078077	K.3.4.52 C907	3	Added the topic.	2013/04/19
22	D0001077858	K.3.4.53 FF10, FF20, FF40, FF80	2	Added the topic.	2013/04/19

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.

2. DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

2.1 Description items in this Service Manual

In this Service Manual, each of three expressions "⚠DANGER", "⚠WARNING", and "⚠ CAUTION" 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

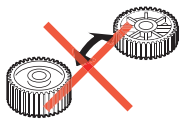
3.1 MODIFICATIONS NOT AUTHORIZED BY KONICA MINOLTA, INC.

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

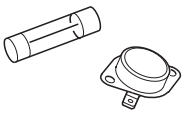
⚠WARNING

- Do not make any modifications to the product unless otherwise instructed by KM.
- Do not use any part not specified by KM.

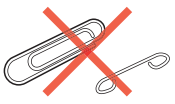


- Do not use any power cord or power plug not specified by KM.

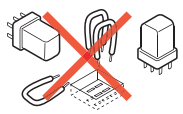
- Use only the protective fuses specified by KM.
  Use of any type of fuse or related part not specified by KM makes safety devices inoperative which may result in a fire from high heat.



- 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.

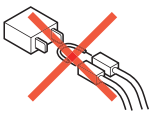


- Do not disable relay functions (for example, inserting a piece of paper between relay contacts to hamper circuit action.)
  Fire may result from high heat.



⚠WARNING

- 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

⚠WARNING

- 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.

⚠WARNING

- 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
  - 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-and-Yellow		Marked with "E", "PE" or " ⏚ " 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

⚠WARNING

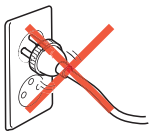
- The power outlet should have a capacity of at least the maximum power consumption and be dedicated only to the product.
  The current that can be passed through the outlet is limited and any current exceeding the limit could result in fire.

- If the wall outlet has two or more receptacles and the product and another electrical appliance are plugged into this wall outlet, make sure that the total load does not exceed the rating of the wall outlet. The current that can be passed through the outlet is limited and any current exceeding the limit could result in a fire.

- Do not use any conversion plug adapter even if the power plug shape does not match your wall outlet.
  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.

⚠WARNING

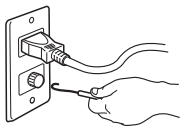
- Make sure the power cord is plugged into the wall outlet securely.
  If the power plug is left loose in the wall outlet, contact failure may occur, leading to abnormal heating of the power plug and a risk of fire.



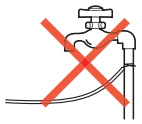
(2) Ground Connection

⚠WARNING

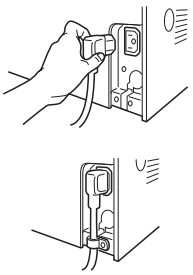
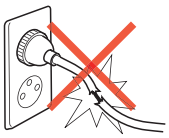
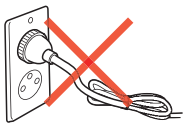
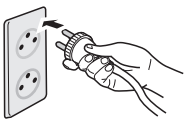
- Check whether the product is grounded properly.
  If current leakage occurs in an ungrounded product, you may suffer electric shock while operating the product.
  Connect power plug to grounded wall outlet.



- 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.
  b. Lightning rod: Risk of electric shock or fire during lightning.
  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.

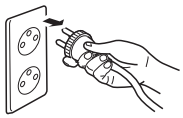


(3) Power Plug and Cord

WARNING	
• 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. Using the power plug and wall outlet without removing dust may result in fire.	
• Do not insert the power plug into the wall outlet with a wet hand. The risk of electric shock exists.	

⚠WARNING

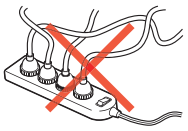
- When unplugging the power cord, grasp the plug, not the cable.
  The cable may be broken, leading to a risk of fire and electric shock.



(4) Wiring

⚠WARNING

- Never use multi-plug adapters to plug multiple power cords in the same outlet.
  If used, the risk of fire exists.



- 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

⚠WARNING

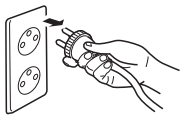
- Do not place the product near flammable materials or volatile materials that may catch fire.
  A risk of fire exists.

- 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

⚠WARNING

- 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

⚠CAUTION

- 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.

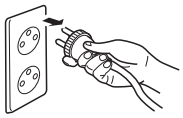
3.3.3 After Service

(1) Inspection before Servicing

⚠ WARNING

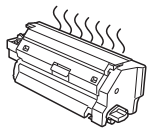
- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure using the recommended personal safety equipment and using only the prescribed tools.
  Do not make any adjustment not described 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.



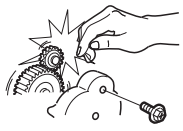
CAUTION

- 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

WARNING

- 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.

⚠CAUTION

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

(3) Safety Checkpoints

⚠WARNING

- 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.

- 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.

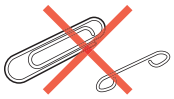
- When removing a part that secures a motor, gear, or other moving part, disassembling a unit, or reinstalling any of such parts and units, be careful about moving parts and use care not to drop any part or unit. During the service procedure, give sufficient support for any heavy unit.
  You may be injured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

⚠WARNING

- 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.



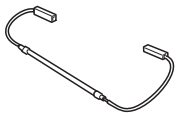
- Check wiring for pinched and any other damage.
  Current can leak, leading to a risk of electric shock or fire.

- 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.

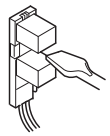
- Do not supply power with the write unit (PH unit) shifted from the specified mounting position.
  The laser light can enter your eye, leading to a risk of loss of eyesight.

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



⚠WARNING

- 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.)
  A risk of product trouble, personal injury, electric shock, and fire exists.

- Never use any flammable or combustible spray, fluid, gas, or similar substance in and around the product.
  Do not use any flammable or combustible dust spray, in particular, to clean the interior of the product.
  Fire or explosion may result.

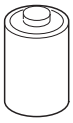
⚠CAUTION

- 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.

⚠CAUTION

- 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

⚠WARNING

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

(5) Handling of Service Materials

⚠ CAUTION

- 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

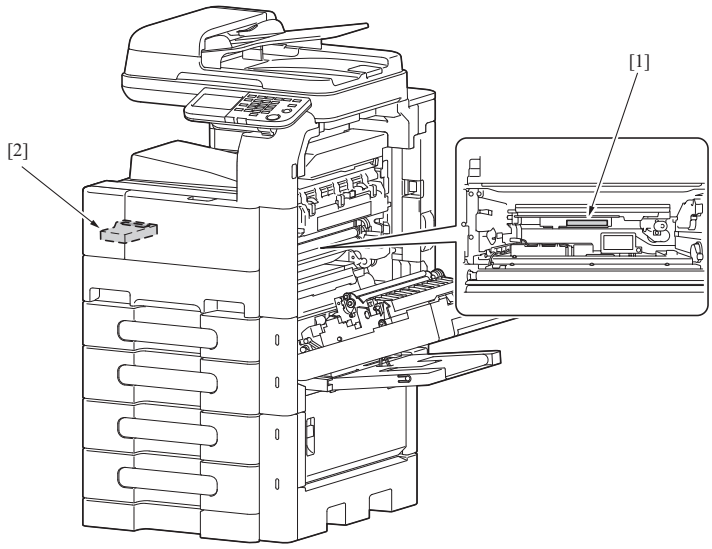
This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

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		7 mW
Maximum average radiation power (*)	bizhub 42/36	17.3μW
Wavelength		770 to 800 nm

*at laser aperture of the Print Head Unit



[1] Laser Aperture of the Print Head Unit	[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.

⚠CAUTION

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	7 mW
Wavelength	770 to 800 nm

(2) All Areas

⚠ CAUTION

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	7 mW
Wavelength	770 to 800 nm

(3) Denmark

⚠ADVARSEL

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	7 mW
bølgelængden	770 to 800 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	7 mW
aallonpituus	770 to 800 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	7 mW
våglängden	770 to 800 nm

⚠VARO!

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

⚠ VARNING!

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

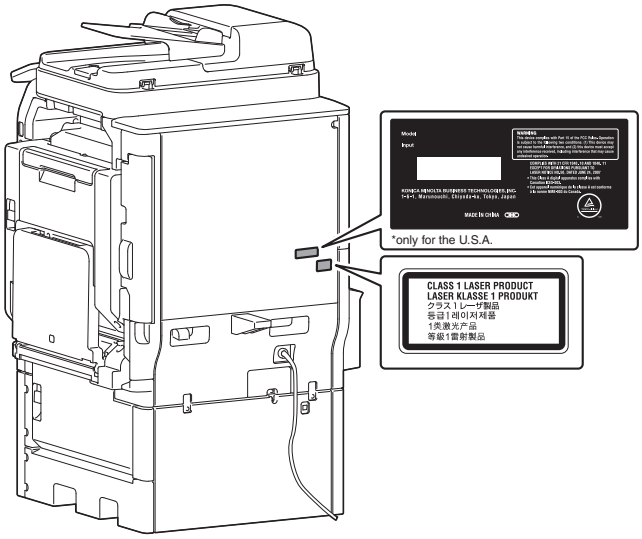
(5) Norway

⚠ ADVERSEL
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	7 mW
bølgelengde	770 to 800 nm

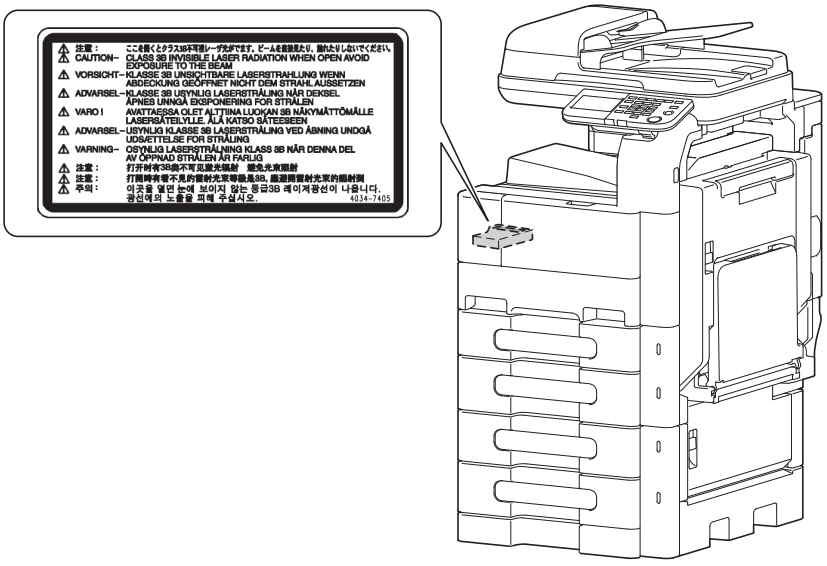
3.6.3 Laser Safety Label

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



3.6.4 Laser Caution Label

A laser caution label is attached to the inside of the machine as shown below.



3.6.5 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

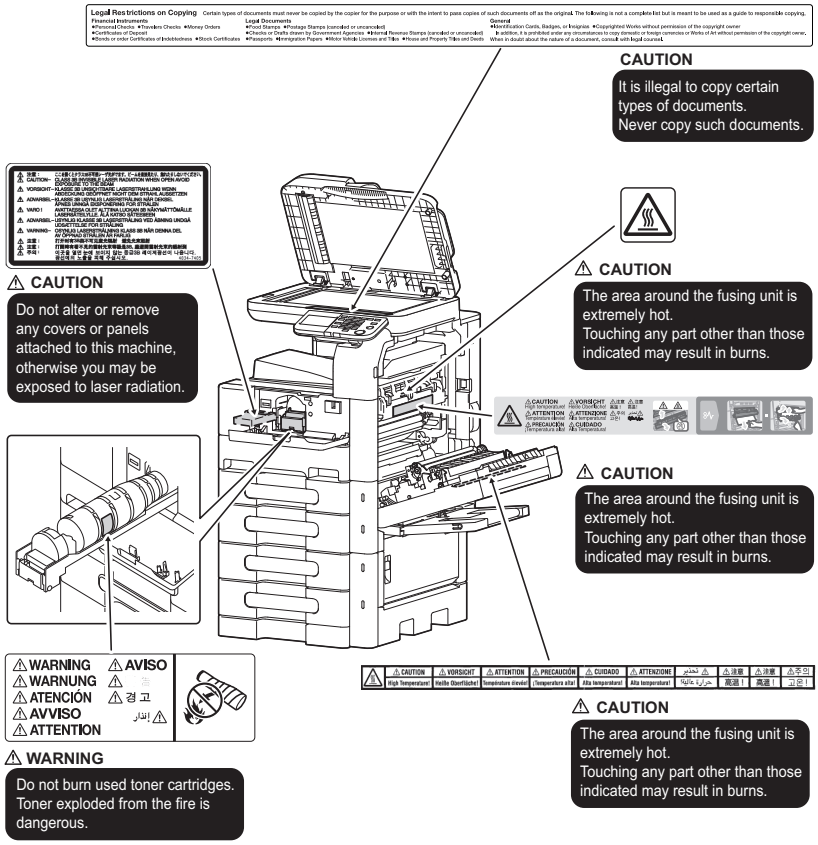
- Be sure to unplug the power cord whenever performing a service job in the laser beam path (around the PH unit).
- If it is absolutely unavoidable to perform a service job with the power cord plugged in, strictly observe the following precautions:
  1. Before starting the service job, take off your watch, ring, and other reflective articles and be sure to wear laser protective goggles.
  2. Keep other personnel away from the work site.
  3. 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

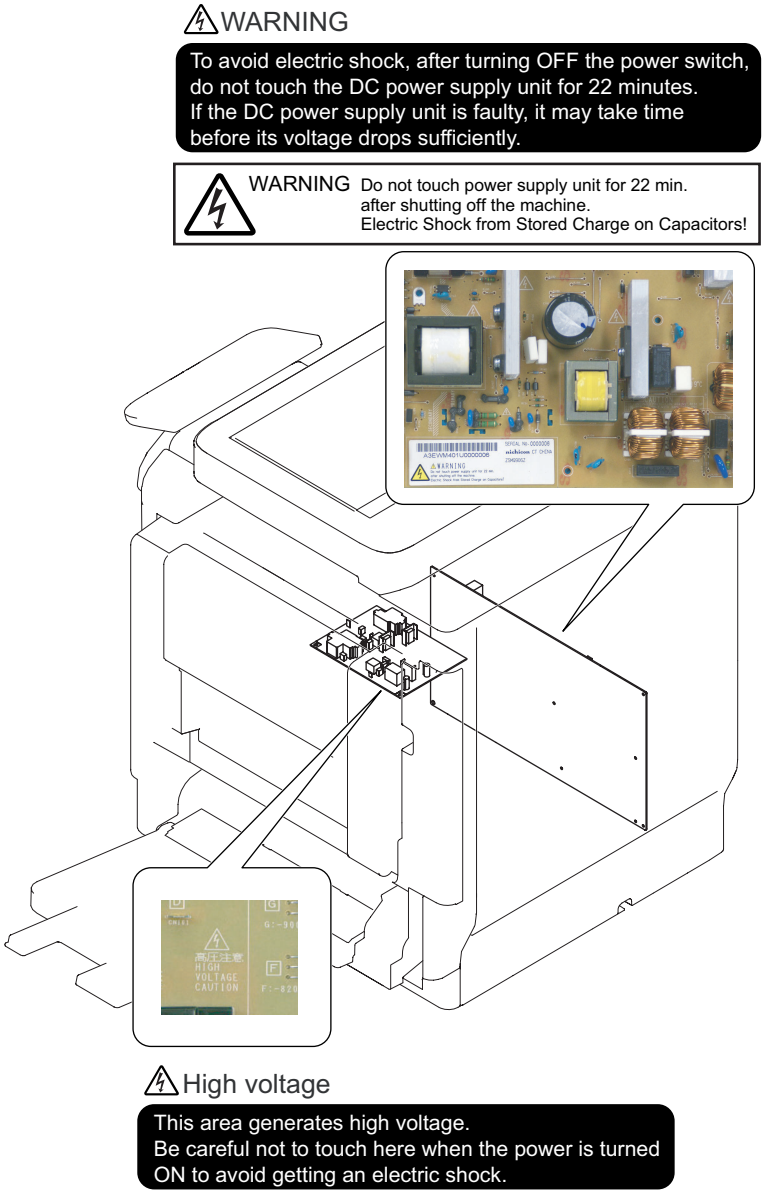
⚠CAUTION
You may be burned or injured if you touch any area that you are advised not to touch by any caution label. Do not remove caution labels. If any caution label has come off or soiled and therefore the caution cannot be read, contact our service office.



4.2 Warning indications on the boards

⚠WARNING

- To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply unit for 22 minutes.
  If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.



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. PRECAUTION ON HANDLING THIS MANUAL

CAUTION

- **Use of this manual should be strictly supervised to avoid disclosure of confidential information.**

2. PRODUCT NAME

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

1	bizhub 42/36: Main body	
2	Microsoft Windows XP: Windows XP	
3	Microsoft Windows Vista: Windows Vista	
4	Microsoft Windows 7: Windows 7	
5	When the description is made in combination of the OS's mentioned above:	Windows XP/Vista/7

3. BRAND NAME

3.1 TRADEMARKS OF OTHER COMPANIES

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

3.2 OWN TRADEMARKS

- KONICA MINOLTA and KONICA MINOLTA logo are the registered trademarks of KONICA MINOLTA, INC.
- bizhub and PageScope are the registered trademarks of KONICA MINOLTA, INC.
- © 2011 KONICA MINOLTA, INC.

4. 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

Feeding direction	Paper size	Notation
Long edge feeding	A4	A4
Short edge feeding	B6	B6S

C PRODUCT SPECIFICATIONS

Note for the Specifications

- These specifications are subject to change without notice.

1. bizhub 42/36

1.1 Type

Type	Desktop/console * scanner/printer
Printing process	Laser electrostatic printing system
PC drum type	OPC drum: KM-1
Scanning density	Main scanning direction: 600 dpi, Sub scanning direction: 600 dpi (Standard), 1200 dpi (Max), 300 dpi (ADF)
Exposure lamp	CCFL Dual
Platen	Stationary (Unit scan)
Original scanning	• Flatbed CCD module scanning system • Sheet through system when the reverse automatic document feeder is used
Reading device	CCD sensor
Registration	Rear left edge
Paper feeding separation system (Tray 1)	Small roller separation system with torque limiter
Paper feeding separation system (Tray 2)	Roller separation system with pick-up mechanism
Paper feeding separation system (Tray 3)	Roller separation system with pick-up mechanism
Exposure system (exposing system)	1 beam LD exposing system
Exposure system (scan system)	Polygon mirror scan system
Exposure density (main scanning direction)	600 dpi
Exposure density (sub scanning direction)	600 dpi
Developing system	Dry 2 components developing method, HMT developing system
Charging system	DC comb electrode scorotron system
Neutralizing system	Pre-charging + Red LED system
Image transfer system	Roller image transfer system
Paper separating system	Neutralization needle bias superimposed voltage, separating claws and combination of curvature system
Fusing system	Roller fusing
Heating system	Halogen lamp

*: Only when the optional paper feed cabinet/desk is installed.

1.2 Functions

Types of original	• Sheets • Books • Three-dimensional objects	
Max. original size	A4 or Legal (8 1/2 x 14)	
Max. original weight	Max. 3 kg	
Multiple copies	1 to 999	
Warm-up time (at ambient temperature of 23° C/73.4° F and rated source voltage)	Period from the time Power Switch was turned on to the time this machine is ready for printing.	Average 45 sec. or less
	Period from the time returned from a sleep state to the time this machine is ready for printing.	Average 35 sec. or less
Image loss	Copy	• Leading edge: 4.0 mm (5/32 inch) • Trailing edge: 4.0 mm (5/32 inch) • Rear edge: 4.0 mm (5/32 inch) • Front edge: 4.0 mm (5/32 inch)
	PC print	• Leading edge: 4.2 mm (3/16 inch) • Trailing edge: 4.2 mm (3/16 inch) • Rear edge: 4.2 mm (3/16 inch) • Front edge: 4.2 mm (3/16 inch)
First copy time (Tray 2 A4 or 8 1/2 x 11, full size, When placing the original on the original glass and reading it)	bizhub 42	8.7 sec. or less
	bizhub 36	8.7 sec. or less
Processing speed	bizhub 42/36	173.0 mm/s
Copying/printing speed for multi-copy/ print cycle (A4 or 8 1/2 x 11)	bizhub 42	• 1-sided: Plain paper 42.5 copies/min (A4) • 1- sided: Thick paper 13 copies/min (A4) • 2-sided: 42 copies/min (A4)

		• 1-sided: Plain paper 41.5 copies/min (8 1/2 x 11) • 1- sided: Thick paper 13 copies/min (8 1/2 x 11) • 2-sided: 41.5 copies/min (8 1/2 x 11)	
	bizhub 36	• 1-sided: Plain paper 36.5 copies/min • 1-sided: Thick paper 12.5 copies/min • 2-sided: 36.5 copies/min	
Fixed zoom ratios	Full size	x1.000	
	Reduction	• x0.500 • x0.607 • x0.647 • x0.707 • x0.785 • x0.816 • x0.866	
	Enlargement	• x1.154 • x1.224 • x1.294 • x1.414 • x1.545 • x1.631 • x2.000	
	Zoom ratios memory	3 memories	
Variable zoom ratios (When placing the original on the original glass and reading it)	x0.250 to x4.000	in 0.001 increments	
Paper size	Tray 2	Metric	• A4 • A5S • B5
		Inch	• 8 1/2 x 11 *1 • 5 1/2 x 8 1/2 • 16K *1
	Tray 3	Metric	• A4 • A5S • B5
		Inch	• 8 1/2 x 11 *1 • 5 1/2 x 8 1/2 • 16K *1
	Tray 1 (Manual bypass tray)	Metric	• A3 *2 • A4 • A5S • A6S • B4 *2 • B5 • B6S
		Inch	• 11 x 17 *2 • 8 1/2 x 14 • 8 1/2 x 11 • 10 1/2 x 7 1/4 • 5 1/2 x 8 1/2 • Foolscap *3
Copy exit tray capacity	Plain paper	250 sheets	
	Thick paper	10 sheets	
	Transparency	1 sheet	
External memory function	Supported external memory devices	• USB flash memory compatible with the USB (1.1/2.0) interface • Formatted to the FAT32 file system • Memory capacity of 8 GB or less recommended (Possible to be non-operational for 8 GB or more) • Not including security features (Possible to turn OFF security features) • A USB flash memory that appears as multiple drives on a computer cannot be used.	

*1: The engine DipSW setting allows to select the paper size that is detected automatically.
*2: Europe only (when the optional large paper size kit is mounted)
*3: One of the following paper sizes can be selected to be set for Foolscap (8 x 13). 8 x 13, 8 1/8 x 13 1/4, 8 1/4 x 13, 8 1/2 x 13, 8 13/20 x 13, 8 1/2 x 13 1/2

1.3 Paper

Type		Paper source (maximum tray capacity)		
		Tray 2	Tray 3	Tray 1 (Manual bypass tray)
Copy paper type	Plain paper (60 to 90 g/m^2 / 16 to 24 lb)	○(500 sheets)	○(500 sheets)	○(150 sheets)
	Translucent paper	-	-	-
	Transparency	-	-	○(20 sheets)
	Thick paper 1 (91 to 150 g/m^2 / 24.25 to 40 lb)	-	-	
	Thick paper 2 (151 to 210 g/m^2 / 40.25 to 55.75 lb)	-	-	
	Postcards	-	-	
	Envelopes	-	-	○(10 sheets)
Copy paper dimensions	Width	• 139.7 to 297 mm • 5 1/2 to 11 3/4 inch	• 139.7 to 297 mm • 5 1/2 to 11 3/4 inch	• 90 to 297 mm • 3 1/2 to 11 3/4 inch
	Length	• 182 to 215.9 mm • 7 1/4 to 8 1/2 inch	• 182 to 215.9 mm • 7 1/4 to 8 1/2 inch	• 139.7 to 356 (432*) mm • 5 1/2 to 14 (17*) inch

*: Europe only (when the optional large paper size kit is mounted)

- Automatic duplex unit : Only the plain paper weighing 60 to 90 g/m^2 (16 to 24 lb) are reliably fed.

NOTE

- **Precautions regarding the use of paper.**
- **Do not use the following types of paper. Not observing these precautions may lead to reduced print quality, a paper jam or a damage to the machine.**
  - **Transparency that have already been fed through the machine (even if they are still blank)**
  - **Paper that has been printed on with a heat-transfer printer or an inkjet printer**
  - **Folded, curled, wrinkled, or torn paper**
  - **Paper that has been left unwrapped for a long period of time**
  - **Damp paper, perforated paper, or paper with punched holes**
  - **Extremely smooth or extremely rough paper, or paper with an uneven surface**
  - **Treated paper such as carbon-backed paper, thermal paper, pressure-sensitive paper, or iron-on transfer paper**
  - **Paper that has been decorated with foil or embossing**
  - **Paper of a non-standard shape (paper that is not rectangular)**
  - **Paper that is bound with glue, staples or paper clips**
  - **Paper with labels attached**
  - **Paper with ribbons, hooks, buttons, etc., attached**

1.4 Materials

Parts name		Number of prints (specification value)	Type name
Toner bottle	bizhub 223/283	17,500 prints	TN217
	bizhub 363/423	25,000 prints	TN414
Developer	bizhub 223	80,000 prints	DV411
	bizhub 283	100,000 prints	
	bizhub 363	110,000 prints	
	bizhub 423	120,000 prints	
Drum unit	bizhub 223	80,000 prints	DR411
	bizhub 283	100,000 prints	
	bizhub 363	110,000 prints	
	bizhub 423	120,000 prints	
Developing unit	bizhub 223	320,000 prints	A1UD R711 XX
	bizhub 283	400,000 prints	
	bizhub 363	440,000 prints	
	bizhub 423	480,000 prints	

1.5 Print volume

- bizhub 42

Europe	Average	7,000 prints/month
	Maximum	60,000 prints/month
Except for Europe	Average	6,000 prints/month
	Maximum	60,000 prints/month

- bizhub 36

Europe	Average	6,000 prints/month

	Maximum	48,000 prints/month
Except for Europe	Average	5,000 prints/month
	Maximum	48,000 prints/month

1.6 Machine specifications

Power requirements	Voltage:	• AC 100 V • 120 V • 127 V • 220-240 V	
	Current:	100 V	15 A
		110 V	15 A
		120 V	12 A
		127 V	12 A
		230 V	7 A
	Frequency:	50/60 Hz ± 3 Hz	
Max power consumption		1,500 W or less	
Dimensions	Standard	• 558 mm *1 (W) x 632 mm *2 (D) x 807 mm (H) • 21.97 inch *1 (W) x 24.88 inch *2 (D) x 31.77 inch (H)	
	PC-211 or DK-511 is installed	• 558 mm *1 (W) x 632 mm *2 (D) x 1,134 mm (H) • 21.97 inch *1 (W) x 24.88 inch *2 (D) x 44.65 inch (H)	
	PC-211 + FS-529 is installed	• 623 mm *1 (W) x 632 mm *2 (D) x 1,134 mm (H) • 24.53 inch *1 (W) x 24.88 inch *2 (D) x 44.65 inch (H)	
Space requirements	Standard	• 911 mm (W) *3 x 632 mm (D) *4 • 35.87 inch (W) *3 x 24.88 inch (D) *4	
	When the full option is installed	• 1,173 mm (W) x 1,187 mm (D) *4 • 46.18 inch (W) x 46.73 inch (D) *4	
Weight	Standard	Approx. 62 kg / 136.5 lb (except for developer and toner bottle)	
	When the full option is installed	Approx. 103 kg / 227 lb (except for developer and toner bottle)	

*1: Width when the manual bypass tray is closed
*2: Including the control panel.
*3: Width when the sub tray of the manual bypass tray is slide out.
*4: When the paper feed tray is slide out.

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%/h)
Levelness	Difference between front and back, right and left should be 1 degree or under.

1.8 Print functions

Type	Built-in printer controller
RAM	1.5 GB (shared with the main body)
HDD	320 GB (shared with the main body)
SSD	2 GB
Interface	Standard • Ethernet (1000Base-T/100Base-TX/10Base-T): RJ-45 x 1 • USB2.0: Type A x 1 • USB2.0: Type B x 1
Frame type	• Ethernet 802.2 • Ethernet 802.3 • Ethernet II • Ethernet SNAP
Supported protocols	• TCP/IP (IPv4/IPv6) • BOOTP • ARP • ICMP • DHCP • DHCPv6 • AutoIP • SLP • SNMP • FTP • LPR/LPD • RAW Socket • SMB over TCP/IP • IPP

	• HTTP • POP • SMTP • LDAP • NTP • SSL • IPX/SPX • AppleTalk • Bonjour • WebDAV • DPWS • S/MIME • IPsec • DNS • DynamicDNS • LLMNR • LLTD • SSDP • SOAP	
Printer language	• PCL6 Emulation (XL3.0) • PCL5e/c • PostScript 3 Emulation (3016) • XPS ver.1.0 • PDF Direct Printing (Version 1.7) • JPEG/TIFF Direct Print • PPML 2.2	
Print resolution	600 dpi in main scanning direction x 600 dpi in sub scanning direction	
Printer fonts	• PCL Latin 80 Fonts • Postscript 3 Emulation Latin 137 Fonts	
Supported computer	• IBM PC/AT compatible machine • Macintosh (PowerPC/Intel processor: Only MacOS X 10.4/10.5/10.6/10.7 for Intel processor)	
Printer driver	PCL KONICAMINOLTA driver (PCL driver)	• Windows XP Home Edition (SP3 or later) • Windows XP Professional (SP3 or later) • Windows Server 2003, Standard Edition (SP2 or later) • Windows Server 2003, Enterprise Edition (SP2 or later) • Windows Server 2003 R2, Standard Edition • Windows Server 2003 R2, Enterprise Edition • Windows XP Professional x64 Edition (SP2 or later) • Windows Server 2003, Standard x64 Edition (SP2 or later) • Windows Server 2003, Enterprise x64 Edition (SP2 or later) • Windows Server 2003 R2, Standard x64 Edition • Windows Server 2003 R2, Enterprise x64 Edition • Windows Vista Business (SP2 or later) * • Windows Vista Enterprise (SP2 or later) * • Windows Vista Home Basic (SP2 or later) * • Windows Vista Home Premium (SP2 or later) * • Windows Vista Ultimate (SP2 or later) * • Windows Server 2008 Standard (SP2 or later) * • Windows Server 2008 Enterprise (SP2 or later) * • Windows Server 2008 R2 Standard • Windows Server 2008 R2 Enterprise • Windows 7 Home Basic • Windows 7 Hone Premium * • Windows 7 Professional * • Windows 7 Enterprise * • Windows 7 Ultimate *

	PostScript KONICAMINOLTA driver (PS driver)	• Windows XP Home Edition (SP3 or later) • Windows XP Professional (SP3 or later) • Windows Server 2003, Standard Edition (SP2 or later) • Windows Server 2003, Enterprise Edition (SP2 or later) • Windows Server 2003 R2, Standard Edition • Windows Server 2003 R2, Enterprise Edition • Windows XP Professional x64 Edition (SP2 or later) • Windows Server 2003, Standard x64 Edition (SP2 or later) • Windows Server 2003, Enterprise x64 Edition (SP2 or later) • Windows Server 2003 R2, Standard x64 Edition • Windows Server 2003 R2, Enterprise x64 Edition • Windows Vista Business (SP2 or later) * • Windows Vista Enterprise (SP2 or later) * • Windows Vista Home Basic (SP2 or later) * • Windows Vista Home Premium (SP2 or later) * • Windows Vista Ultimate (SP2 or later) * • Windows Server 2008 Standard (SP2 or later) * • Windows Server 2008 Enterprise (SP2 or later) * • Windows Server 2008 R2 Standard • Windows Server 2008 R2 Enterprise • Windows 7 Home Basic • Windows 7 Hone Premium * • Windows 7 Professional * • Windows 7 Enterprise * • Windows 7 Ultimate *
	XPS KONICAMINOLTA driver (XPS driver)	• Windows Vista Business (SP2 or later) * • Windows Vista Enterprise (SP2 or later) * • Windows Vista Home Basic (SP2 or later) * • Windows Vista Home Premium (SP2 or later) * • Windows Vista Ultimate (SP2 or later) * • Windows Server 2008 Standard (SP2 or later) * • Windows Server 2008 Enterprise (SP2 or later) * • Windows Server 2008 R2 Standard • Windows Server 2008 R2 Enterprise • Windows 7 Home Basic • Windows 7 Hone Premium * • Windows 7 Professional * • Windows 7 Enterprise * • Windows 7 Ultimate *
	PostScript PPD driver (PS-PPD)	Mac OS X 10.2.8/10.3.9/10.4/10.5/10.6/10.7
	PostScript PPD driver (PPD for CUPS)	• SUSE Linux Enterprise Desktop 11 (CUPS Ver. 1.1.23) • Red Hat Enterprise Linux 5 Desktop (CUPS Ver. 1.2.4)
	Fax driver	• Windows XP Home Edition (SP3 or later) • Windows XP Professional (SP3 or later) • Windows Server 2003, Standard Edition (SP2 or later) • Windows Server 2003, Enterprise Edition (SP2 or later) • Windows Server 2003 R2, Standard Edition • Windows Server 2003 R2, Enterprise Edition • Windows XP Professional x64 Edition (SP2 or later) • Windows Server 2003, Standard x64 Edition (SP2 or later) • Windows Server 2003, Enterprise x64 Edition (SP2 or later) • Windows Server 2003 R2, Standard x64 Edition • Windows Server 2003 R2, Enterprise x64 Edition • Windows Vista Business (SP2 or later) * • Windows Vista Enterprise (SP2 or later) * • Windows Vista Home Basic (SP2 or later) * • Windows Vista Home Premium (SP2 or later) * • Windows Vista Ultimate (SP2 or later) * • Windows Server 2008 Standard (SP2 or later) * • Windows Server 2008 Enterprise (SP2 or later) * • Windows Server 2008 R2 Standard • Windows Server 2008 R2 Enterprise • Windows 7 Home Basic • Windows 7 Hone Premium * • Windows 7 Professional * • Windows 7 Enterprise * • Windows 7 Ultimate *

* 32 bits (x86)/64 bits (x64) environment are supported

1.9 Scan functions

Scannable range	Same as the copier specification (Max. A4 or Legal)
Scan speed (ADF scan, resolution 300 dpi)	• 30 pages/min (A4) • 31 pages/min (8 1/2 x 11 (Letter))

Functions	Scan to E-mail, Scan to FTP, Scan to SMB, Scan to WebDAV, Scan to HDD, Scan to USB memory, WSD scan
Scanning resolution	150 x 150 dpi, 200 x 200 dpi, 300 x 300 dpi, 600 x 600 dpi (Network Twain: 150/300/600/1,200/2,400/4,800 dpi)
Supported operation system	• Windows XP / Vista / 7 / Server 2003 / Server 2008 / Server 2008 R2 • Mac OS (10.3.9 / 10.4 / 10.5 / 10.6 / 10.7)
Drivers	• Network TWAIN Driver (Windows) • Network TWAIN Driver (Mac OS X) • WIA (1.0) Driver (Windows) • WIA (2.0) Driver (Windows)
Output file format	TIFF, PDF, CompactPDF, JPEG, XPS

NOTE

- **These specifications are subject to change without notice.**

2. PC-211

2.1 Type

Name	2 way paper feed cabinet
Type	Front loading type
Installation	Desk type
Document alignment	Center

2.2 Paper

Type	Size		Capacity	
			Tray 4	Tray 5
Plain paper (60 to 90 g/m^2, 16 to 24 lb)	Metric	• A5S • B5 • A4 • 16K	500 sheets	500 sheets
	Inch	• 8 $^1/_2$ x 14 • 8 $^1/_2$ x 11 • 8 $^1/_2$ x 11S • 5 $^1/_2$ x 8 1/2 • Foolscap (8 x 13) *		
Copy paper dimensions	Width		• 139.7 to 297.0 mm • 5.50 to 11.69 inch	
	Length		• 182.0 to 355.6 mm • 7.17 to 14.00 inch	

*: One of the following paper sizes can be selected to be set for Foolscap (8 x 13). 8 x 13, 8 $^1/_4$ x 13, 8 $^1/_2$ x 13, 8 $^1/_2$ x 13 $^1/_2$

2.3 Machine specifications

Power requirements	DC 24 V ± 10 % (supplied from the main body)
	DC 5 V ± 5 %
Max. power consumption	15 W or less
Dimensions	• 640 mm (W) x 696 mm (D) x 372 mm (H) • 25.20 inch (W) x 27.40 inch (D) x 14.65 inch (H)
Weight	29.0 kg (63.93 lb)

2.4 Operating environment

- Conforms to the operating environment of the main body.

2.5 Note for the Specifications

NOTE

- **These specifications are subject to change without notice.**

3. FS-529

3.1 Type

Type	Multi staple finisher built into the main body
Installation	Installed in main body
Document alignment	Center

3.2 Functions

Modes	• Sort • Group • Sort offset • Group offset • Sort staple

3.3 Paper

Size	Type		Capacity	
			Letter, A4, 8 1/2 x 11 or less	Legal, B4, 8 1/2 x 14 or greater
• A6S • A5S • B6S • B5 • A4 • B4 * • A3 * • 5 1/2 x 8 1/2 • 8 1/2 x 11 • 8 1/2 x 14 • 11 x 17 *	Plain paper (60 to 90 g/m2, 16 to 24 lb)		300 sheets (30 copies)	250 sheets (30 copies)
Max.: • 297 mm x 356 (432*) mm • 11.69 inch x 14.00 (17.00*) inch	Special paper	Thick paper 1 (91 to 150 g/m2, 24.25 to 40 lb)	10 sheets	
		Thick paper 2 (151 to 209 g/m2, 40.25 to 55.5 lb)		
		Thick paper 3 (210 to 256 g/m2, 55.75 to 68 lb)		
		Thick paper 4 (257 to 271 g/m2, 68.25 to 72 lb)		
		Transparency		
		Label		
		Envelope		
Min.: • 90 mm x 139.7 mm • 3.54 inch x 5.5 inch		Long size paper	-	

*: Europe only (when the optional large paper size kit is mounted)

3.4 Offset function

Shift amount	30 mm
Types of paper to be used	• Plain paper • Thick paper (91 to 209 g/m2, 24.25 to 55.5 lb)
Size	• B5 • A4 • B4 * • A3 * • 8 1/2 x 11 • 8 1/2 x 14 • 11 x 17 *

*: Europe only (when the optional large paper size kit is mounted)

3.5 Stapling

No. of sheets to be stapled	Letter, A4, 8 1/2 x 11 or less	50 sheets
	Legal, B4, 8 1/2 x 14 or greater	30 sheets
	60 to 90 g/m2 (16 to 24 lb): 48 sheets + 2 sheets (209 g/m2 (55.5 lb))	
Stapling position	• Left Corner • Right Corner • 2 Position (Left) • 2 Position (Right) • 2 Position (Top)	

3.6 Machine specifications

Power requirements	DC 24 V ± 10% (supplied from the main body)

	DC5.1 V ± 5 %
Max. power consumption	56 W or less
Dimensions	• 471 mm (W) x 566 mm (D) x 147 mm (H) • 18.54 inch (W) x 22.28 inch (D) x 5.79 inch (H)
Weight	12.0 kg (26.46 lb)

3.7 Operating environment

- Conforms to the operating environment of the main body.

3.8 Note for the Specifications

NOTE

- **These specifications are subject to change without notice.**

4. FK-509

Applicable lines	PSTN, PBX	
Protocol	Group 3 (compliant to ITU-T T.30) • 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 x 98 dpi) • Fine (203 x 196 dpi) • Super fine (406 x 391dpi)	
Communication resolution (Internet fax)	Transmission	• Standard: 200 x 100 dpi • Fine: 200 x 200 dpi
	Reception	• 204 x 98 dpi, 200 x 100 dpi • 204 x 196 dpi, 200 x 200 dpi • 408 x 391 dpi, 400 x 400 dpi • 204 x 391 dpi, 200 x 400 dpi, 300 x 300 dpi
Compatibility	ECM/Super G3	
Communication speed	2.4 to 33.6 kbps	
Fax transmission speed	3 seconds/page (at A4, V.34, 33.6kbps, JBIG) • Resolution: standard mode • Konica Minolta standard original	
Coding method	• G3 fax: MH, MR, MMR and JBIG • Internet fax (Transmission): TIFF-S (MH) • Internet fax (Reception): TIFF-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: 215.9 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	30 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.

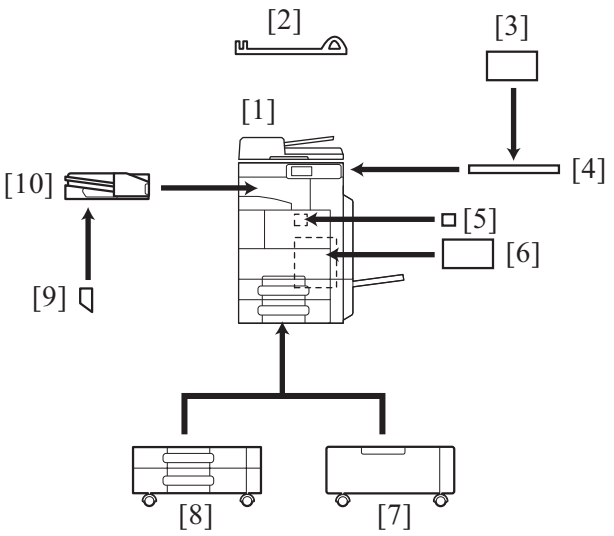
NOTE

- **These specifications are subject to change without notice.**

D OVERALL COMPOSITION

1. SYSTEM CONFIGURATION

1.1 System front view



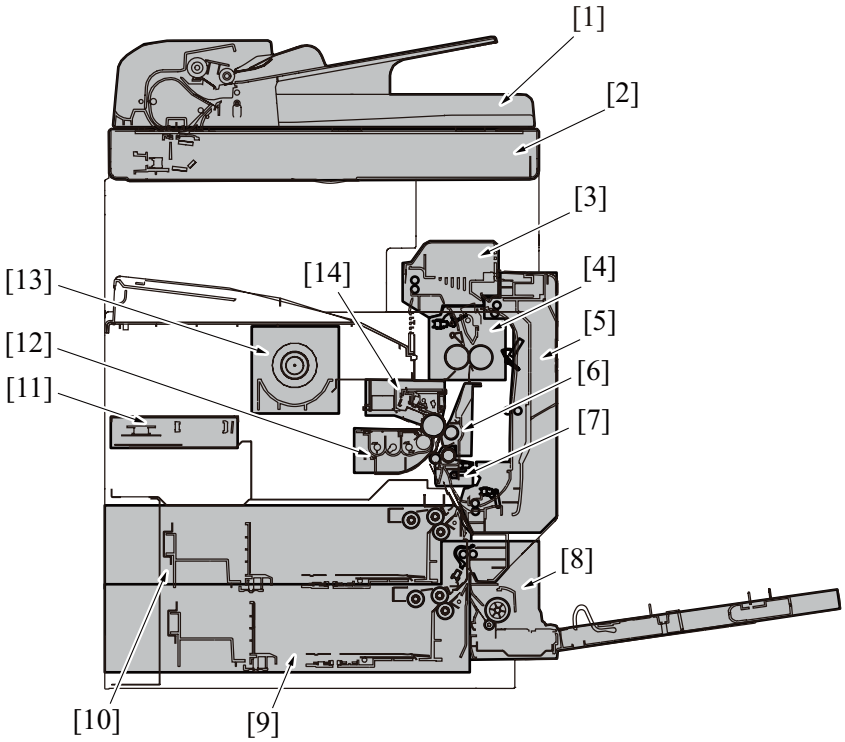
[1]	bizhub 42/36	[2]	Assist handle AH-101
[3]	Authentication unit (IC card type) AU-201	[4]	Working table WT-510
[5]	Large paper size kit LP-101 *1	[6]	Fax kit FK-509
[7]	Desk DK-511 *2	[8]	Paper feed cabinet PC-211
[9]	Mount kit MK-601	[10]	Finisher FS-529

*1: Europe area only.
*2: Except for North America and Europe area.

NOTE

- **Use the desk or the paper feed cabinet when installing on the floor in order to keep the function and quality of the unit.**

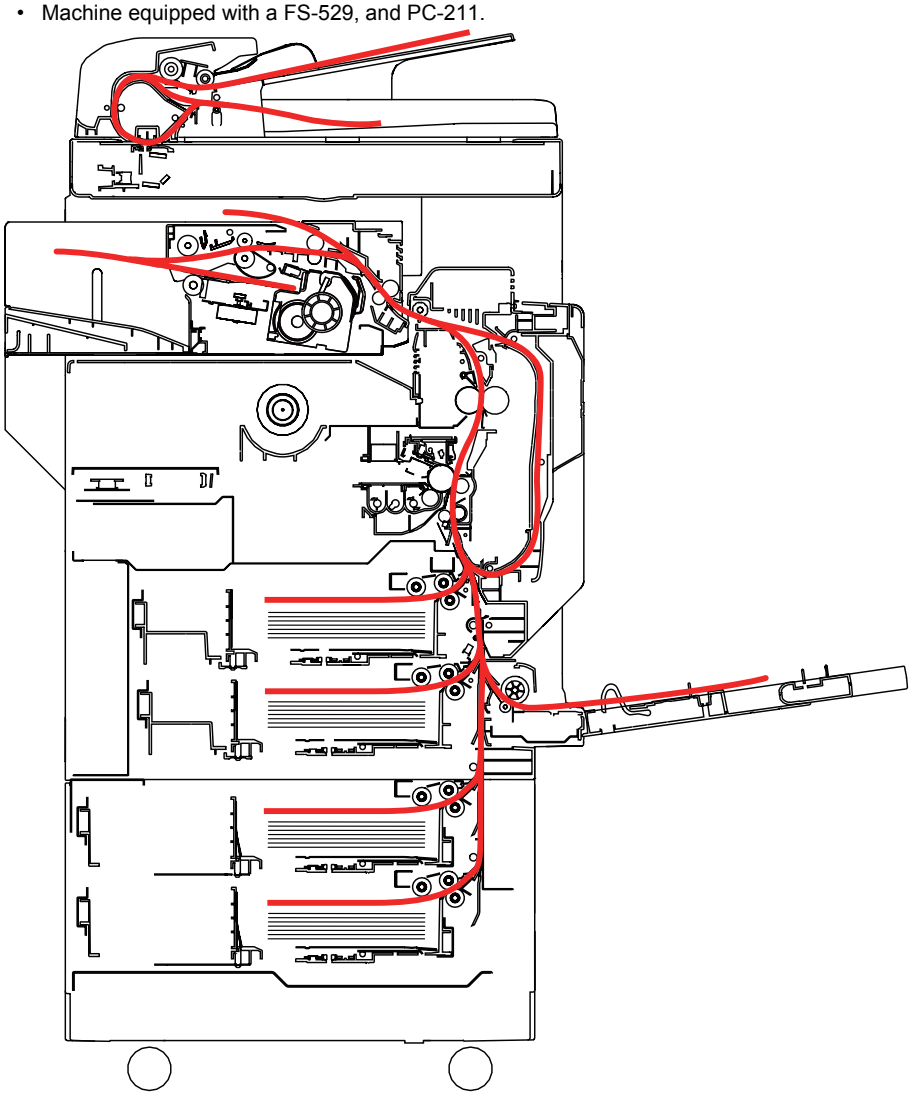
2. SECTION CONFIGURATION



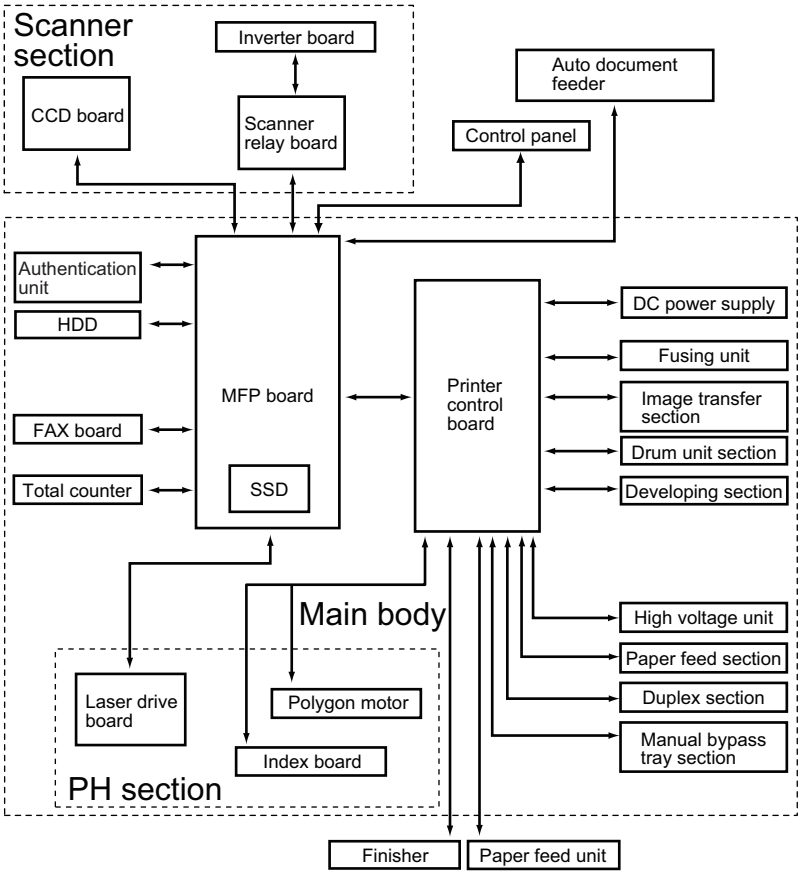
[1]	Automatic document feeder	[2]	Scanner section
[3]	Paper exit/switchback section	[4]	Fusing section
[5]	Duplex section	[6]	Image transfer/separation section
[7]	Registration section	[8]	Manual paper feed section (tray 1)
[9]	Paper feed section (tray 3)	[10]	Paper feed section (tray 2)
[11]	Write section (PH section)	[12]	Developing section
[13]	Toner supply section	[14]	Drum unit section

3. PAPER PATH

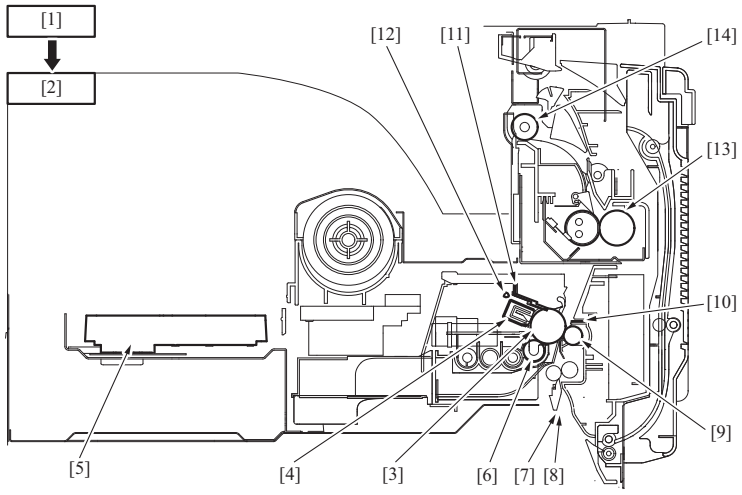
- Machine equipped with a FS-529, and PC-211.



4. CONTROL BLOCK DIAGRAM

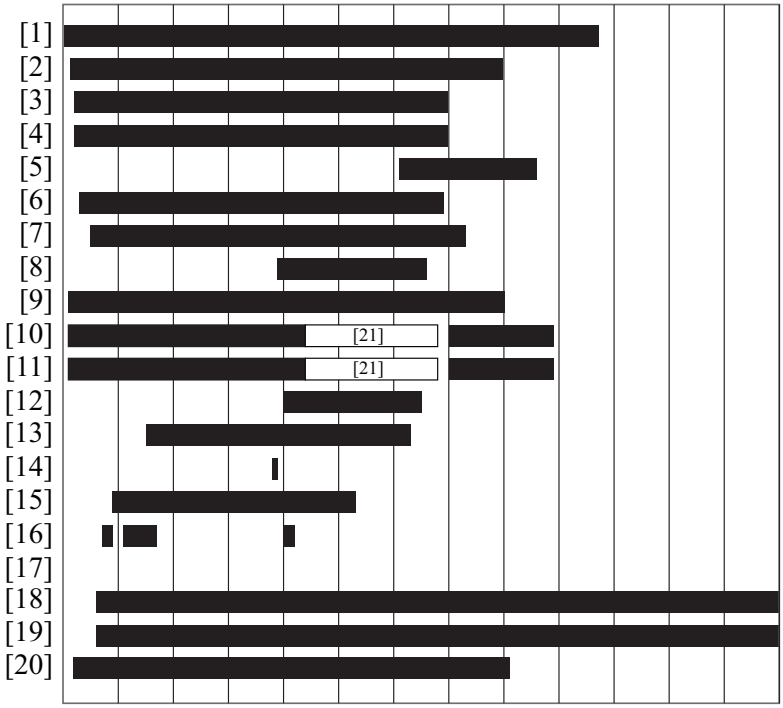


5. IMAGE CREATION PROCESS



[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 MFP board.
[2]	MFP board	The MFP board performs image processing.
[3]	Photo conductor	The image formed by a laser light with which the surface of the photo conductor is irradiated is changed to a corresponding electrostatic latent image.
[4]	Photo conductor charging	Supply DC (-) charge on the photo conductor.
[5]	PH (Laser exposure)	Expose photo conductor to a laser beam to develop electrostatic latent image.
[6]	Developing	The toner, agitated and negatively charged in the developer mixing chamber, is attracted onto the electrostatic latent image formed on the surface of the photo conductor. It is thereby changed to a visible, developed image.
[7]	Paper feed	The paper is supplied from the paper feed cassette.
[8]	Tray 2 paper feed	The paper is supplied from the tray 2.
[9]	Image transfer	A DC positive charge is applied to the image transfer roller to transfer the visible image on the surface of the photo conductor onto the paper.
[10]	Paper separation	The charge neutralizing needle and separation claws remove paper from the surface of the photo conductor.
[11]	Cleaning	The remaining toner left on the surface of the photo conductor is scraped off.
[12]	Erase	The surface of the photo conductor is irradiated with light, which neutralizes any surface potential remaining on the surface of the photo conductor.
[13]	Fusing	The toner is permanently fused to the paper by the combination of heat and pressure applied by the fusing roller.
[14]	Paper exit	The paper is fed out face down onto the exit tray.

6. IMAGE FORMING CONTROL



[1]	Transport motor (M1)	[2]	PC motor (M2)
[3]	Polygon motor (M9)	[4]	LD
[5]	Paper exit sensor (PS29)	[6]	Charge
[7]	Developing bias DC	[8]	Developing bias AC
[9]	Erase lamp (LA2)	[10]	Transfer
[11]	Separation	[12]	Registration clutch (CL1)
[13]	Registration sensor (PS1)	[14]	TOD
[15]	Tray 2 paper feed sensor (PS5) *	[16]	Tray 2 paper feed clutch (CL2)
[17]	Power supply cooling fan motor (FM1)	[18]	Fusing unit cooling fan motor (FM3)
[19]	Cooling fan motor (FM2)	[20]	Toner suction fan motor (FM4)
[21]	Printing		

*: Dedicated to bizhub 42. bizhub 42 has a faster paper feed speed than bizhub 36 and a short distance between sheets of paper. The paper feed sensor is installed for paper feed control purposes.

7 PROCESS SPEED

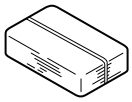
- The process speed is not changed according to the size or type of the paper. Instead, the main body controls the intervals between sheets of paper (paper transport timing).

Product name	Process speed
bizhub 42	173 mm/s
bizhub 36	

E SERVICE TOOL

1. bizhub 42/36

1.1 Service material list

Name	Shape	Material No.	Remarks
Cleaning pad		000V-18-1	10pcs/1pack
Isopropyl alcohol		-	

F PERIODICAL MAINTENANCE

1. Concept of periodical maintenance

- Cleaning/replacement cycle for each maintenance item of main body/options can be evaluated with the total counter or each life counter value of [Service Mode] -> [Print menu] -> [Mgmt.List].

2. Periodical maintenance items

2.1 Main body

2.1.1 bizhub 42

(1) Periodical maintenance 1 (total counter; every 60,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Overall	Paper feed and image conditions	-		●			
2		Appearance	-	●	●			
3	Conveyance section	Registration roller	-	●				
4	Duplex section	Duplex transport roller	-	●				

(2) Periodical maintenance 2 (life counter; every 120,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Processing section	Toner filter (Developing unit)	1				●	
2		Drum unit	1				●	
3		Developer	1				●	

(3) Periodical maintenance 3 (life counter; every 150,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Conveyance section	Paper dust remover	1				●	
2	Transfer section	Transfer roller unit	1				●	
3	Processing section	Ozone filter	1				●	

(4) Periodical maintenance 4 (life counter; every 200,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Paper feed section	Tray1 paper feed roller	1				●	*1
2		Tray1 separation roller assy	1				●	

(5) Periodical maintenance 5 (life counter; every 300,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Paper feed section	Tray 2 pick-up roller	1				●	
2		Tray 2 feed roller	1				●	*1
3		Tray 2 separation roller	1				●	
4		Tray 3 pick-up roller	1				●	
5		Tray 3 feed roller	1				●	*1
6		Tray 3 separation roller	1				●	

(6) Periodical maintenance 6 (life counter; every 450,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Fusing section	Fusing unit	1				●	

(7) Periodical maintenance 7 (life counter; every 480,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Processing section	Developing unit	1				●	
2		Toner filter (Main body)	1				●	

(8) Periodical maintenance 8 (life counter; every 900,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Conveyance section	Registration roller bearing	4				●	
2		Registration roller gear 1	1				●	
3		Registration roller gear 2	1				●	

- *1: Replace those parts at the same time.

2.1.2 bizhub 36

(1) Periodical maintenance 1 (total counter; every 60,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Overall	Paper feed and image conditions	-		●			

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
2		Appearance	-	●	●			
3	Conveyance section	Registration roller	-	●				
4	Duplex section	Duplex transport roller	-	●				

(2) Periodical maintenance 2 (life counter; every 110,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Processing section	Toner filter (Developing unit)	1				●	
2		Drum unit	1				●	
3		Developer	1				●	

(3) Periodical maintenance 3 (life counter; every 150,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Conveyance section	Paper dust remover	1				●	
2	Transfer section	Transfer roller unit	1				●	
3	Processing section	Ozone filter	1				●	

(4) Periodical maintenance 4 (life counter; every 200,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Paper feed section	Tray1 paper feed roller	1				●	*1
2		Tray1 separation roller assy	1				●	

(5) Periodical maintenance 5 (life counter; every 300,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Paper feed section	Tray 2 pick-up roller	1				●	
2		Tray 2 feed roller	1				●	*1
3		Tray 2 separation roller	1				●	
4		Tray 3 pick-up roller	1				●	
5		Tray 3 feed roller	1				●	*1
6		Tray 3 separation roller	1				●	

(6) Periodical maintenance 6 (life counter; every 450,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Fusing section	Fusing unit	1				●	

(7) Periodical maintenance 7 (life counter; every 440,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Processing section	Developing unit	1				●	
2		Toner filter (Main body)	1				●	

(8) Periodical maintenance 8 (life counter; every 900,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Conveyance section	Registration roller bearing	4				●	
2		Registration roller gear 1	1				●	
3		Registration roller gear 2	1				●	

- *1: Replace those parts at the same time.

2.2 Option

2.2.1 PC-211

(1) Periodical maintenance 1 (life counter; every 300,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Overall	Paper feed and image conditions	-		●			
2		Appearance	-	●	●			
3	Paper feed section	Pick-up roller	1				●	
4		Feed roller	1				●	*1
5		Separation roller	1				●	

- *1: Replace those parts at the same time.

2.2.2 FS-529

(1) Periodical maintenance 1 (total counter; every 300,000 counts)

No.	Section	Description/part name	Qt.	Clean	Check	Lubrication	Replace	Descriptions
1	Overall	Paper feed and image conditions	-		●			
2		Appearance	-	●	●			
3	Conveyance section	Roller and rolls	-	●				

3. Periodical replacement parts list

- To ensure that the machine produces good copies and to extend its service life, it is recommended that the maintenance jobs described in this schedule be carried out as instructed.
- Replace with reference to the numeric values displayed on the total counter, the life counter or the messages displayed on the control panel.
- Maintenance conditions are based on the case of A4 or 8 $^{1}/_{2}$ x 11, standard mode and low power mode OFF.

		B/W
*Standard mode	bizhub 42	4 pages per job
	bizhub 36	4 pages per job

3.1 bizhub 42/36

Classification	Parts name		Parts No.	Qt.	Replacing cycle	Descriptions	Ref. page
Tray 1	Tray1 paper feed roller		A00F 6232 XX	1	200,000	*2 *4	F.6.6.1 Replacing the tray1 paper feed roller
	Tray1 separation roller assy		4034 0151 XX	1	200,000		F.6.6.2 Replacing the tray1 separation roller assy
Tray 2	Tray 2 pick-up roller		A00J 5636 XX	1	300,000	*2 *4	F.6.6.3 Replacing the tray 2 feed roller/tray 2 pick-up roller
	Tray 2 feed roller			1	300,000		
	Tray 2 separation roller			1	300,000		F.6.6.4 Replacing the tray 2 separation roller
Tray 3	Tray 3 pick-up roller		A00J 5636 XX	1	300,000	*2 *4	F.6.6.5 Replacing the tray 3 feed roller/tray 3 pick-up roller
	Tray 3 feed roller			1	300,000		
	Tray 3 separation roller			1	300,000		F.6.6.6 Replacing the tray 3 separation roller
Conveyance section	Registration roller bearing		1164 3549 XX	4	900,000		F.6.7.1 Replacing the registration roller bearings/registration roller gear1, 2
	Registration roller gear 1		1164 3508 XX	1	900,000		
	Registration roller gear 2		1164 3515 XX	1	900,000		
	Paper dust remover		4040 0778 XX	1	150,000	*2	F.6.7.2 Replacing the paper dust remover
Fusing section	Fusing unit	100V	A1UD R708 XX	1	450,000	*3	F.6.8.1 Replacing the fusing unit
		120V	A1UD R709 XX				
		200V	A1UD R710 XX				
Transfer section	Transfer roller unit		A1UD R705 XX	1	150,000	*2	F.6.5.1 Replacing the transfer roller unit
Processing section	Drum unit	bizhub 42	-	1	120,000	*3 *5	F.6.2.1 Replacing the drum unit
		bizhub 36	-	1	110,000		
	Developer	bizhub 42	-	1	120,000	*3	F.6.3.3 Replacing the developer
		bizhub 36	-	1	110,000		
	Developing unit	bizhub 42	A1UD R711 XX	1	480,000	*3 *6	F.6.3.2 Replacing the developing unit
		bizhub 36		1	440,000		
	Toner filter (Developing unit)	bizhub 42	A1UD 3707 XX	1	120,000	*3 *5	F.6.3.1 Replacing the toner filter (developing unit)
		bizhub 36		1	110,000		
	Toner filter (Main body)	bizhub 42	A02E 1484 XX	1	480,000	*3 *6	F.6.1.2 Replacing the toner filter (main body)
		bizhub 36		1	440,000		
	Ozone filter		A1UD 1351 XX	1	150,000	*3	F.6.1.1 Replacing the ozone filter
	Toner bottle	bizhub 42/36	-	1	25,000	*1, *7	F.6.4.1 Replacing the toner bottle
		bizhub 42	-	1	24,000	*1, *8	
		bizhub 36	-	1	20.000	*1, *8	

*1: The parts can be replaced either by user or service engineer.
*2: Actual durable cycle (life counter value)
*3: Specification value
*4: Replace those three parts at the same time.
*5: The drum unit and toner filter (Developing unit) should be replaced with new ones at the same time.
*6: The drum unit and toner filter (Main body) should be replaced with new ones at the same time.
*7: North America area
*8: Except for North America area.

3.2 Option

3.2.1 PC-211

Parts name	Parts No.	Qt.	Replacing cycle	Descriptions	Ref. Page
Pick-up roller	A00J 5636 XX	1	300,000	*1 *2	F.7.1.3 Replacing the pick-up roller
Feed roller		1	300,000		F.7.1.2 Replacing the feed roller
Separation roller		1	300,000		F.7.1.1 Replacing the separation roller

- *1: Actual durable cycle (life counter value)
- *2: Replace those parts at the same time.

4. Periodical cleaning parts list

- Clean with reference to the numeric values displayed on the total counter, the life counter or the messages displayed on the control panel.

4.1 bizhub 42/36

Classification	Parts name	Cleaning cycle	Descriptions	Ref. Page
Conveyance section	Registration roller	60,000	*1	F.6.7.3 Cleaning of the registration roller
Duplex section	Duplex transport roller	60,000	*1	F.6.9.1 Cleaning of the duplex transport rollers

- *1: Total counter value

4.2 FS-529

Parts name	Cleaning cycle	Descriptions	Ref. Page
Roller and rolls	300,000	*1	F.8.1.1 Cleaning procedure for each parts

- *1: Total counter value

5. Concept of parts life

5.1 Life value of consumables and parts

- The life counter value of each materials and parts is available from [Service Mode] -> [Print Menu] -> [Mgmt.List].
- Life specification value means an actual life terminated when prints are made under the conditions as defined in the next section, "Conditions for life specifications values."
  The actual life may vary greatly depending on how the machine has been used and other factors.
- "M" refers to the rotation time of each unit.

Item	Description
Fusing unit	Rotation time of the fusing unit is counted, and detected when it reaches to the set life value shown on the right.
Paper dust remover	The drum rotation time (paper dust remover) is counted and the life is detected when the count reaches the set life value shown on the right.
Transfer roller unit	When the number of printed pages *1 reaches the set life value shown on the right, the end of unit life is detected.
Ozone filter	When the number of printed pages *1 reaches the set life value shown on the right, the end of unit life is detected.
Drum unit	Rotation time of the drum unit is counted, and detected when it reaches to the set life value shown on the right.
Developer	The developer use time is counted and the life is detected when the count reaches the set life value shown on the right.
Developing unit	The developing unit rotation time is counted and the life is detected when the count reaches the set life value shown on the right and, at the same time, the developer use time reaches the set life value shown on the right.

- *1: For counting the number of prints, the paper size in the sub-scan direction is added up and the count is incremented by one for the size of 216.0 mm or less and by two for the size of more than 216.0 mm.

5.1.1 bizhub 42

Item	Rotation time excess warning threshold value	Life threshold value	Life stop threshold value
Fusing unit	14,800 M	15,800 M	16,440 M *1
Paper dust remover	3,921 M	-	-
Transfer roller unit	150,000 counts	-	-
Ozone filter	150,000 counts	-	-
Drum unit	3,921 M	4,313 M	4,901 M *1
Developer	3,921 M	4,313 M	4,901 M *1
Developing unit	15,684 M	15,684 M and 4,313 M (developer use time)	15,684 M and 4,901 M (developer use time)

- *1: The initiation of any new print cycle is inhibited when reaching the life stop threshold value.

5.1.2 bizhub 36

Item	Rotation time excess warning threshold value	Life threshold value	Life stop threshold value
Fusing unit	16,130 M	17,200 M	17,920 M *1
Paper dust remover	3,921 M	-	-
Transfer roller unit	150,000 counts	-	-
Ozone filter	150,000 counts	-	-
Drum unit	3,921 M	4,313 M	4,901 M *1
Developer	3,921 M	4,313 M	4,901 M *1
Developing unit	15,684 M	15,684 M and 4,313 M (developer use time)	15,684 M and 4,901 M (developer use time)

- *1: The initiation of any new print cycle is inhibited when reaching the life stop threshold value.

5.2 Conditions for life specifications values

Item			Description
Job type	bizhub 42		Making 4 copies per job
	bizhub 36		Making 4 copies per job
Paper size			A4 or 8 $^{1}/_{2}$ × 11
PV/M	bizhub 42	Average	6,000 (US) / 7,000 (EU)
		Maximum	60,000
	bizhub 36	Average	5,000 (US) / 6,000 (EU)
		Maximum	48,000
Original density			B/W = 6 %
Low power mode			OFF
No. of operating days per month			20 days (Main power switch turned ON and OFF 20 times per month)

6. Periodical maintenance procedure bizhub 42/36

NOTE

- **The alcohol described in the cleaning procedure of maintenance represents the isopropyl alcohol.**

6.1 Housing section

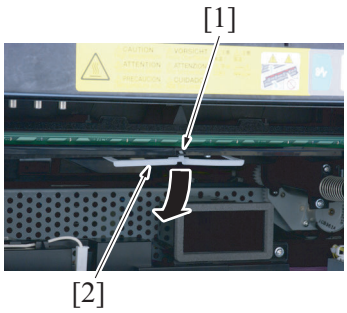
6.1.1 Replacing the ozone filter

(1) Periodically replacing parts/cycle

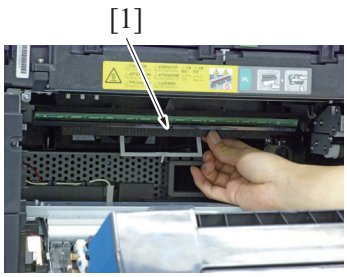
- Ozone filter: Every 150,000 counts

(2) Procedure

1. Remove the imaging unit.
   G.4.3.1 Imaging unit



2. Unhook the tab [1] and lower the stopper [2].



3. Remove the ozone filter [1].

4. To reinstall, reverse the order of removal.
5. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] -> [↓] -> [Ozone Filter]

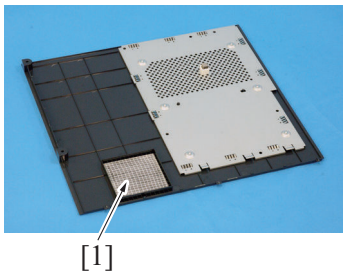
6.1.2 Replacing the toner filter (main body)

(1) Periodically replacing parts/cycle

- Toner filter (main body): Every 480,000 counts (bizhub 42)
- Toner filter (main body): Every 440,000 counts (bizhub 36)

(2) Procedure

1. Remove the rear cover.
   G.4.2.5 Rear cover



2. Peel off the toner filter (Main body) [1].
   NOTE
   - **Replace the developing unit just after the replacement of the toner filter.**

3. To reinstall, reverse the order of removal.

6.2 Photo conductor section

6.2.1 Replacing the drum unit

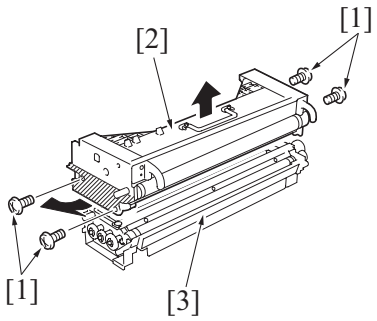
(1) Periodically replacing parts/cycle

- Drum unit: Every 120,000 counts (bizhub 42)

- Drum unit: Every 110,000 counts (bizhub 36)

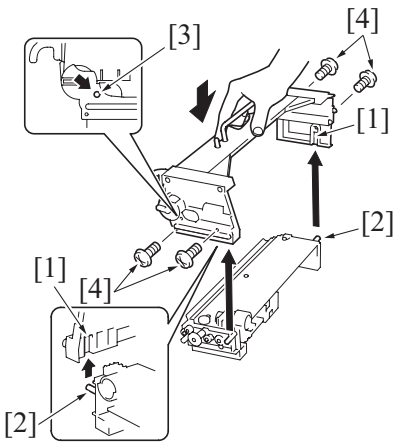
(2) Removal procedure

1. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] -> [Drum unit (K)].
2. Touch [OK].
3. Turn OFF the main power switch.
   NOTE
   - **Be sure to clear the life counter before removing the imaging unit from the main body.**
   - **After the life counter is cleared, be sure to turn OFF the main power switch.**
4. Remove the imaging unit.
   G.4.3.1 Imaging unit



5. Remove four screws (silver) [1].
6. Slightly opening the lower part (the shadowed portion) on both sides of the drum unit, disassemble the drum unit [2] and the developing unit [3].
   NOTE
   - **Do not touch or scratch the photo conductor.**
   - **Cover the drum unit, which has been removed, with a protective cloth or similar tool.**

(3) Reinstall procedure



1. Align the shaft [2] of the developing unit with the inner guide [1] of the drum unit.
2. Slide the drum unit along the guide [1] to check that the positioning pin [3] is properly aligned with the mating hole.
3. Tighten four screws (silver) [4].
4. Install the imaging unit in position.
5. Turn ON the main power switch.
6. Select [Service Mode] -> [Printer Adjustment] -> [Gradation Adjust] and carry out gradation adjust.
   I.9.5.13 Gradation Adjustment

6.3 Developing section

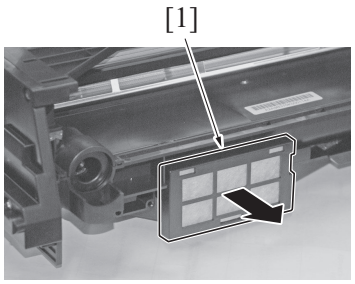
6.3.1 Replacing the toner filter (developing unit)

(1) Periodically replacing parts/cycle

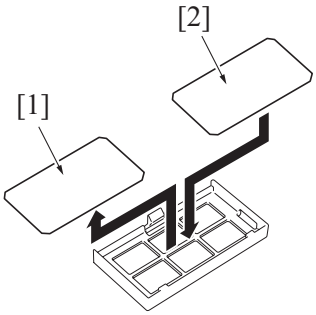
- Toner filter (developing unit): Every 120,000 counts (bizhub 42)
- Toner filter (developing unit): Every 110,000 counts (bizhub 36)

(2) Procedure

1. Remove the imaging unit.
   G.4.3.1 Imaging unit



2. Remove the toner filter cover [1].



3. Remove the toner filter (Developing unit) [1].
4. Attach the new toner filter (Developing unit) [2].
   NOTE
   - **The toner filter may be installed in either direction.**
   - **Replace the drum unit with a new one at the same time.**

5. To reinstall, reverse the order of removal.

6.3.2 Replacing the developing unit

(1) Periodically replacing parts/cycle

- Developing unit: Every 480,000 counts (bizhub 42)
- Developing unit: Every 440,000 counts (bizhub 36)

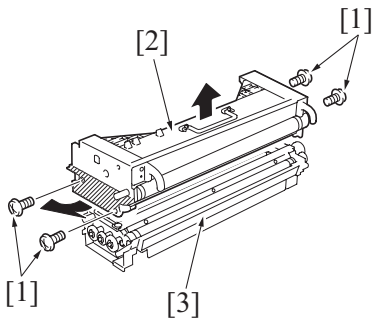
(2) Procedure

1. Select [Administrator Settings] -> [Maintenance Menu] -> [Drum Dry].
2. Press the [Execute] to start [Drum Dry] (which will take about 60 sec.).
3. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] -> [Developing unit (K)]

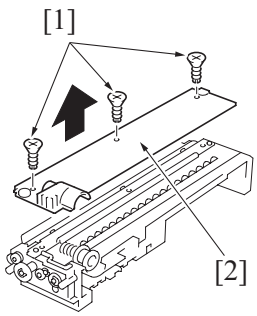
   NOTE
   - **Clearing the [Developing unit (K)] will automatically clear [Developer Replace Count] and [Developer (K)].**

4. Touch [OK].
5. Turn OFF the main power switch.
   NOTE
   - **Be sure to run [Drum Dry] and clear the life counter before removing the imaging unit from the main body.**
   - **After the life counter is cleared, be sure to turn OFF the main power switch.**

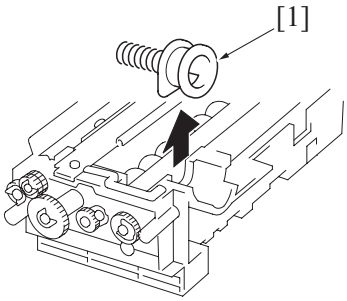
6. Remove the imaging unit.
   G.4.3.1 Imaging unit



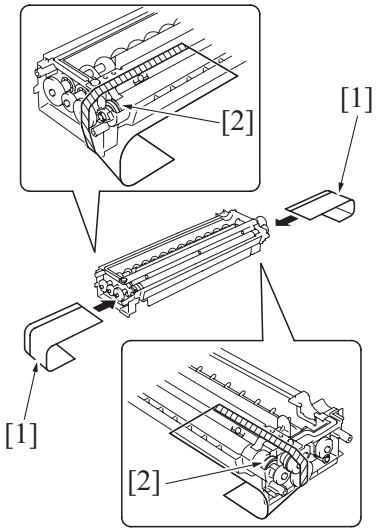
7. Remove four screws (silver) [1].
8. Slightly opening the lower part (the shadowed portion) on both sides of the drum unit, disassemble the drum unit [2] and the developing unit [3].
   NOTE
   - **Do not touch or scratch the photo conductor.**
   - **Cover the drum unit, which has been removed, with a protective cloth or similar tool.**



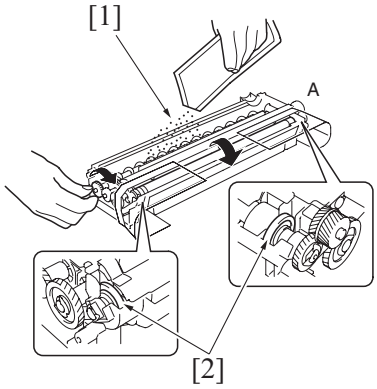
9. Remove three screws [1] of the new developing unit and remove the cover [2].



10. Remove the toner supply port [1].

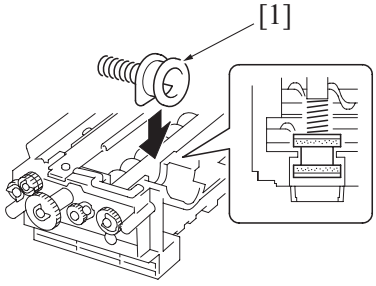


11. Affix the sheets [1] that are furnished with the drum unit.
NOTE
- **Make sure that the collar [2] is completely covered with the sheet.**
- **If the sheets [1] are not available, use paper as a substitute.**

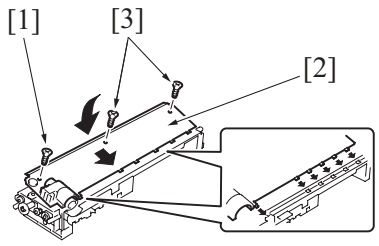


12. While turning the gear in the direction of the arrow, pour the packet of developer evenly into the developer [1] chamber.
NOTE
- **Be sure not to let developer get inside the collar [2].**
- **Turn the magnet roller in the direction of its normal rotation, and not the backward.**
- **Not touching the gear of A side.**

13. Remove the sheets that were attached.

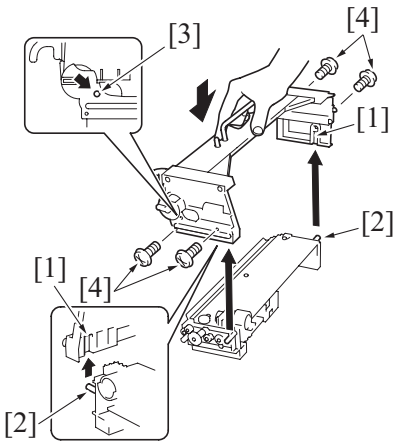


14. Reinstall the toner supply port [1].
NOTE
- **Make sure of the correct mounting position and direction.**



15. Attach the cover [2]. Insert and tighten the screw [1].
NOTE
- **Make sure that the tabs on the cover are properly fitted into respective slits.**
- **Insert and tighten the screw [1] first.**

16. Tighten two screws [3].



17. Align the shaft [2] of the developing unit with the inner guide [1] of the drum unit.
18. Slide the drum unit along the guide [1] to check that the positioning pin [3] is properly aligned with the mating hole.
19. Tighten four screws (silver) [4].

20. Install the imaging unit in position.
21. Turn ON the main power switch.
22. Execute [Service Mode] -> [Printer Adjustment] -> [TCR Sensor Adjustment].
23. Select [Service Mode] -> [Printer Adjustment] -> [Gradation Adjustment] and carry out gradation adjust.
NOTE
- **Be sure to replace the toner filter (on the main body side) at the same time.**

6.3.3 Replacing the developer

(1) Periodically replacing parts/cycle

- Developer: Every 120,000 counts (bizhub 42)
- Developer: Every 110,000 counts (bizhub 36)

(2) Procedure

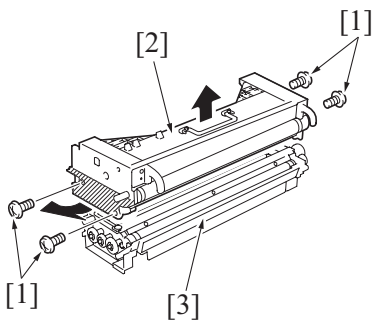
1. Select [Admin Settings] -> [Maintenance Menu] → [Drum Dry].
2. Press the [Execute] to start [Drum Dry] (which will take about 60 sec.).
3. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] -> [Developer (K)].

NOTE
- **Clearing the [Developer (K)] will automatically increase the [Developer Replace Count].**

4. Touch [OK].
5. Turn OFF the main power switch.

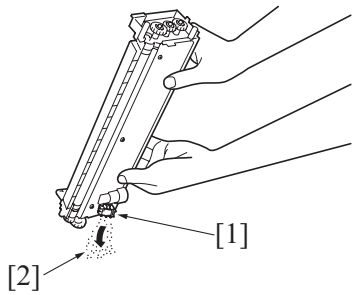
NOTE
- **Be sure to run [Drum Dry] and clear the life counter before removing the imaging unit from the main body.**
- **After the life counter is cleared, be sure to turn OFF the main power switch.**

6. Remove the imaging unit.
G.4.3.1 Imaging unit

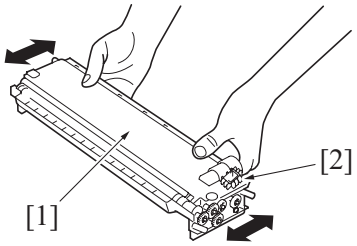


7. Remove four screws (silver) [1].
8. Slightly opening the lower part (the shadowed portion) on both sides of the drum unit, disassemble the drum unit [2] and the developing unit [3].

NOTE
- **Do not touch or scratch the photo conductor.**
- **Cover the drum unit, which has been removed, with a protective cloth or similar tool.**

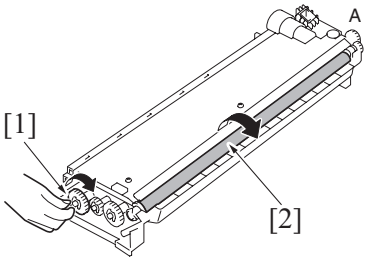


9. Tilt the developing unit as shown in the illustration to remove the developer [2] from the discharge port [1].



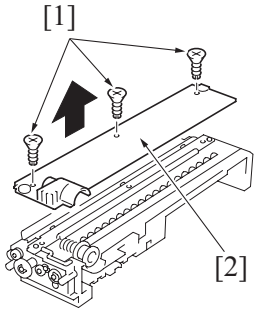
10. While holding the developing unit [1] horizontally with the discharge port [2] side up, shake the unit back and forth.

11. In the same way as step 9. remove the developer from the discharge port.

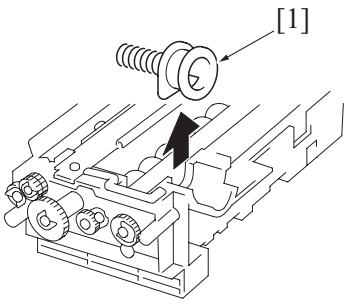


12. Rotating the gear [1] in the direction of the arrow, remove the developer from the surface of the magnet roller [2].
NOTE
- **Turn the magnet roller in the direction of its normal rotation, and not the backward.**
- **Not touching the gear of A side.**

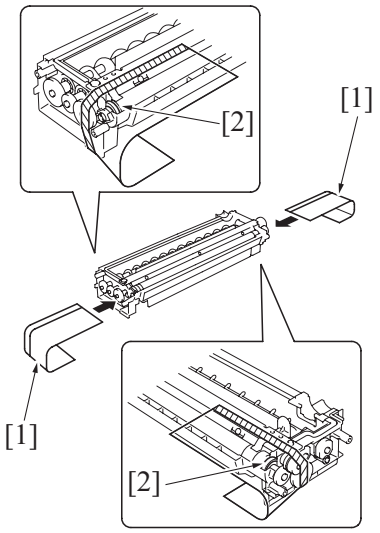
13. Repeat steps 9. to 12. several times until the developer is almost completely removed from the surface of the magnet roller [2].



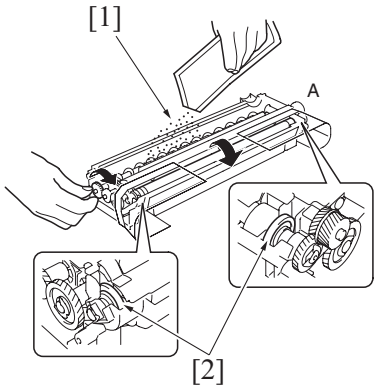
14. Remove three screws [1], and remove the cover [2].



15. Remove the toner supply port [1].

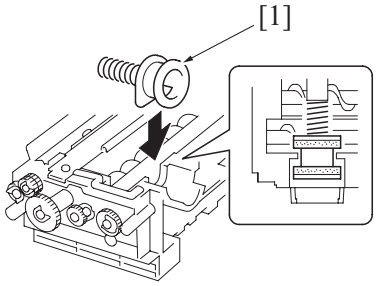


16. Affix the sheets [1] that are furnished with the drum unit.
NOTE
- **Make sure that the collar [2] is completely covered with the sheet.**
- **If the sheets [1] are not available, use paper as a substitute.**

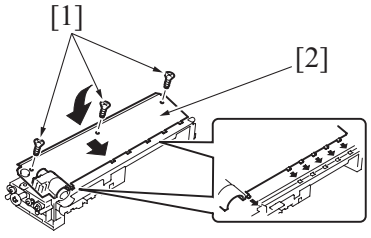


17. While turning the gear in the direction of the arrow, pour the packet of developer evenly into the developer [1] chamber.
NOTE
- **Be sure not to let developer get inside the collar [2].**
- **Turn the magnet roller in the direction of its normal rotation, and not the backward.**
- **Not touching the gear of A side.**

18. Remove the sheets that were attached.

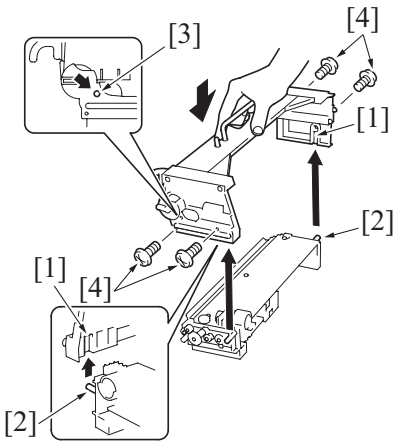


19. Reinstall the toner supply port [1].
NOTE
- **Make sure of the correct mounting position and direction.**



20. Attach the cover [2]. Insert and tighten the screw [1].
NOTE
- **Make sure that the tabs on the cover are properly fitted into respective slits.**
- **Insert and tighten the screw [1] first.**

21. Tighten two screws [3].



22. Align the shaft [2] of the developing unit with the inner guide [1] of the drum unit.
23. Slide the drum unit along the guide [1] to check that the positioning pin [3] is properly aligned with the mating hole.
24. Tighten four screws (silver) [4].

25. Install the imaging unit in position.
26. Turn ON the main power switch.
27. Execute [Service Mode] -> [Printer Adjustment] -> [TCR Sensor Adjustment].
28. Select [Service Mode] -> [Printer Adjustment] → [Gradation Adjustment] and carry out gradation adjust.

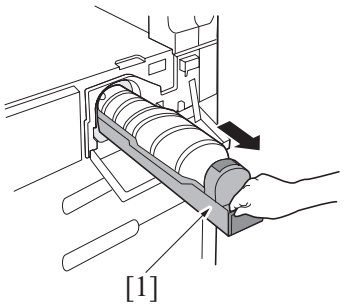
6.4 Toner supply section

6.4.1 Replacing the toner bottle

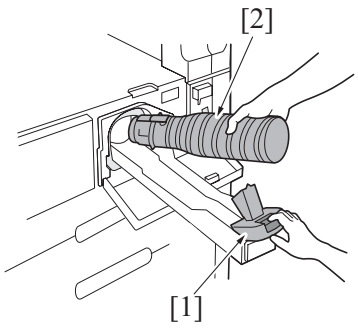
(1) Periodically replacing parts/cycle

- Toner bottle: Every 25,000 counts (bizhub 42/36 <North America area>)
- Toner bottle: Every 24,000 counts (bizhub 42 <Except for North America area>)
- Toner bottle: Every 20,000 counts (bizhub 36 <Except for North America area>)

(2) Removal procedure

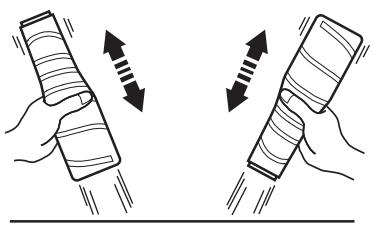


1. Open the front door and slide the toner hopper [1] out of the machine.

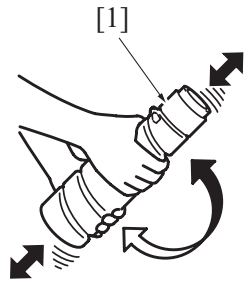


2. Pull the toner holder [1] and remove the toner bottle [2].

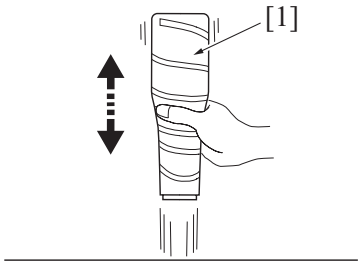
(3) Reinstall procedure



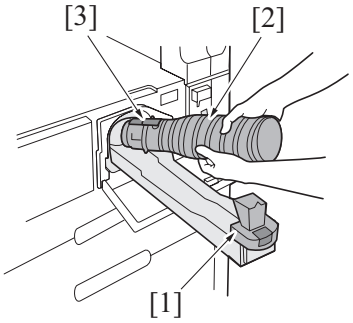
1. From a height of about 10 cm, tap the toner bottle against a table or other hard object about five times. Then turn it upside down and repeat the same procedure.
   NOTE
   - **Toner can be caked in the toner bottle. Be sure to perform this procedure.**



2. Shake the toner bottle [1] well about five times in the vertical direction. Then, turn it over and repeat the same procedure.

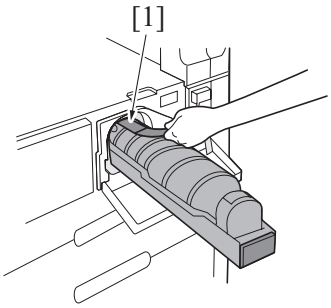


3. To move toner to the toner supply port side in the bottle, drop the toner bottle [1] with the supply port side down onto a table or other hard surface from the height of about 10 cm several times.

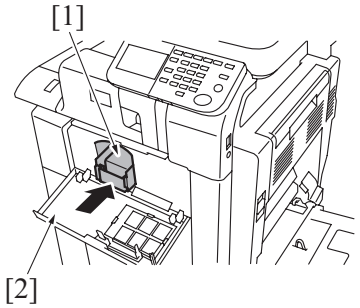


4. Open the toner holder [1] and mount the toner bottle [2].
NOTE
- **Place the toner bottle [2] so that its seal surface faces [3] upward.**

5. Close the toner holder [1].



6. Gently peel off the seal [1] toward you from the bottle.
NOTE
- **Perform this procedure slowly, as toner can burst out when the seal [1] is peeled off.**



7. Slide the toner hopper [1] back into the machine until it clicks into position. Then, close the front door [2].

8. Turn ON the main power switch.

6.5 Transfer section

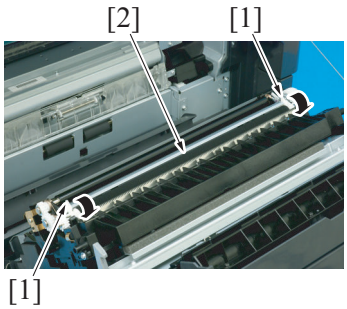
6.5.1 Replacing the transfer roller unit

(1) Periodically replacing parts/cycle

- Transfer roller unit: Every 150,000 counts

(2) Removal procedure

1. Open the right door.



2. Pull down the knobs [1] forward and remove the transfer roller unit [2].
3. To reinstall, reverse the order of removal.
4. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Transfer Roller Unit].

6.6 Paper feed section

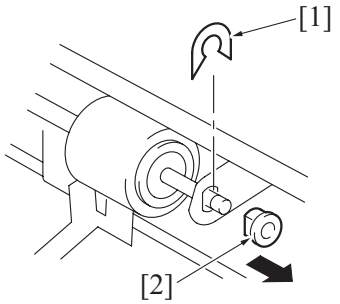
6.6.1 Replacing the tray1 paper feed roller

(1) Periodically replacing parts/cycle

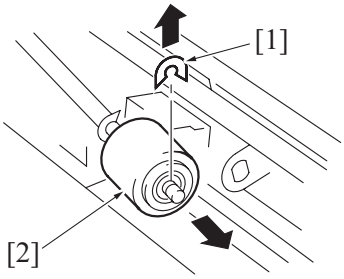
- Ttray1 paper feed roller: Every 200,000 counts

(2) Procedure

1. Remove the Tray1 unit.
   G.4.3.8 Tray 1 (Manual bypass tray) unit
2. Remove the Tray1 separation roller assy.
   F.6.6.2 Replacing the tray1 separation roller assy
3. Remove the Tray1 paper feed clutch.
   G.4.6.4 Tray 1 paper feed clutch (CL5)



4. Snap off the C-clip [1] for the feed roller, and remove the bearing [2].



5. Snap off the C-clip [1], and remove the Tray1 feed roller [2].
6. To reinstall, reverse the order of removal.
7. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed roller (Bypass)].

NOTE

- **Replace the Tray1 feed roller and the Tray1 separation roller assy at the same time.**

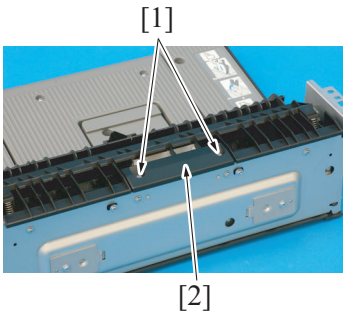
6.6.2 Replacing the tray1 separation roller assy

(1) Periodically replacing parts/cycle

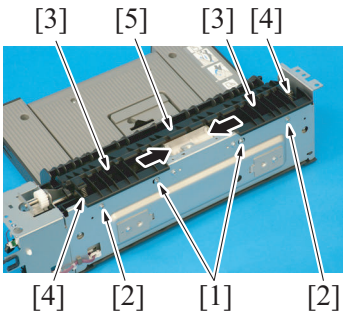
- Tray1 separation roller assy: Every 200,000 counts

(2) Procedure

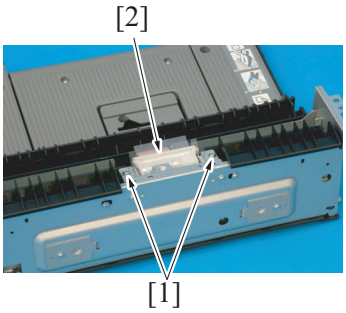
1. Remove the tray1 unit.
   G.4.3.8 Tray 1 (Manual bypass tray) unit



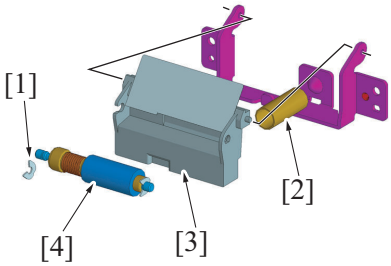
2. Remove two screws [1], and remove the cover [2].



3. Loosen two screws [1].
4. Remove two screws [2] and slide the two guides [3] in the direction of the arrow.
5. Remove two springs [4], and remove the transportation guide [5].



6. Remove two screws [1], and remove tray1 separation roller unit [2].



7. Snap off the C-clip [1], and remove the spring [2] and the guide plate [3]. Remove the tray1 separation roller assy [4].
NOTE
- **Use care not to lose the spring [2] during the removal procedure.**

8. To reinstall, reverse the order of removal.
9. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed Roller (Bypass)].

NOTE
- **Replace the tray1 feed roller and the tray1 separation roller assy at the same time.**

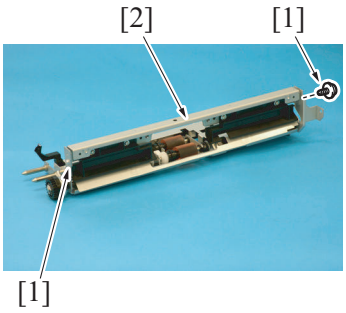
6.6.3 Replacing the tray 2 feed roller/tray 2 pick-up roller

(1) Periodically replacing parts/cycle

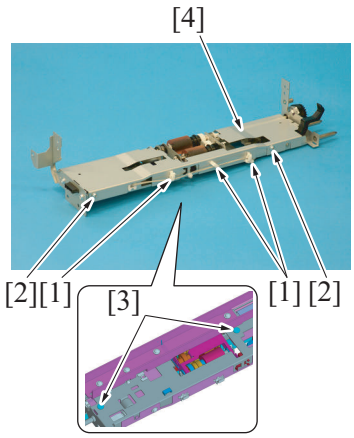
- Tray 2 feed roller: Every 300,000 counts
- Tray 2 pick-up roller: Every 300,000 counts

(2) Procedure

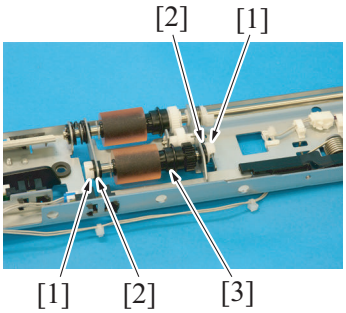
1. Remove the tray 2 paper feed unit.
   G.4.3.2 Tray 2 paper feed unit
2. Remove the tray 2 separation roller unit.
   F.6.6.4 Replacing the tray 2 separation roller



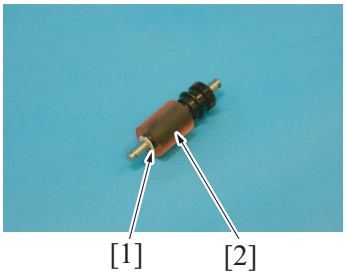
3. Remove two screws [1], and remove the separation roller unit attachment plate [2].



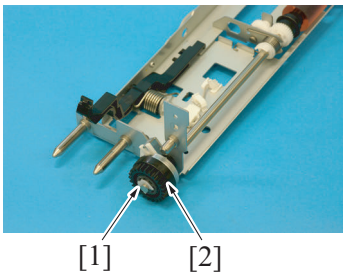
4. Remove the harness from three wire saddles [1].
5. Remove two screws [2] and two shoulder screws [3], remove the tray 2 feed roller cover [4].



6. Remove two C-clips [1] and two bearings [2], remove the tray 2 pick-up roller assy [3].

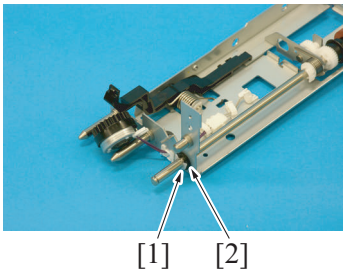


7. Remove the C-ring [1], and remove the tray 2 pick-up roller [2].

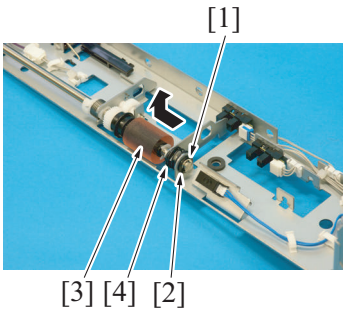


8. Remove the C-ring [1], and remove the tray 2 paper feed clutch [2].

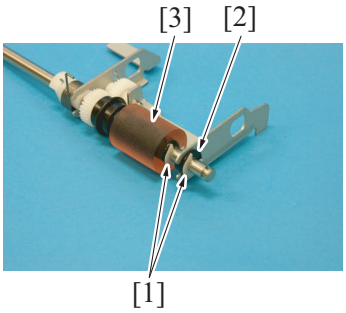
9. Remove the C-ring [1] and bearing [2].



10. Remove the E-ring [1] and bearing [2], and remove the tray 2 feed roller assy [3].
NOTE
- **Use care not to lose the spring [4] during the removal procedure.**



11. Remove two C-rings [1] and bearing [2], and remove the tray 2 feed roller [3].



12. To reinstall, reverse the order of removal.
13. Clear the following life counter using the Service Mode.
- Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed Roller (Tray2)].

NOTE
- **Replace the tray 2 feed roller/tray 2 pick-up roller and the tray 2 separation roller at the same time.**

6.6.4 Replacing the tray 2 separation roller

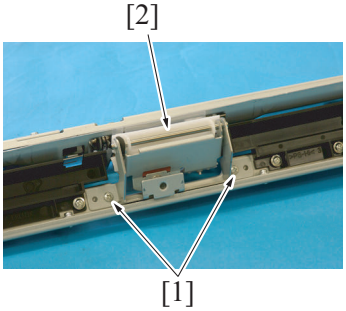
(1) Periodically replacing parts/cycle

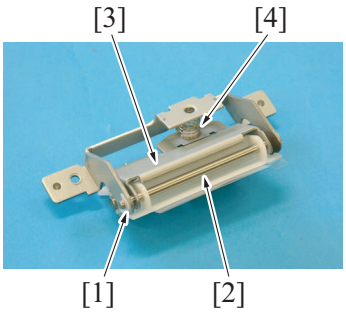
- Tray 2 separation roller: Every 300,000 counts

(2) Procedure

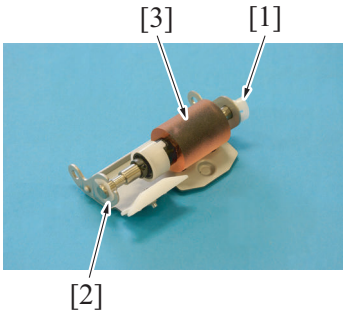
1. Remove the tray 2 paper feed unit.
G.4.3.2 Tray 2 paper feed unit

2. Remove two screws [1], remove the tray 2 separation roller unit [2].

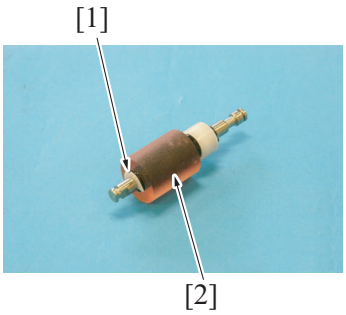




3. Remove the C-ring [1] and shaft [2], and remove the separation roller assy [3].
NOTE
- **Use care not to lose the spring [4] during the removal procedure.**



4. Remove the C-clip [1] and C-ring [2], and remove the tray 2 separation roller assy [3].



5. Remove the C-ring [1], and remove the tray 2 separation roller [2].

6. To reinstall, reverse the order of removal.
7. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed Roller (Tray2)].

NOTE
- **Replace the tray 2 feed roller/tray 2 pick-up roller and the tray 2 separation roller at the same time.**

6.6.5 Replacing the tray 3 feed roller/tray 3 pick-up roller

(1) Periodically replacing parts/cycle

- Tray 3 feed roller: Every 300,000 counts
- Tray 3 pick-up roller: Every 300,000 counts

(2) Procedure

1. Remove the tray 3 paper feed unit.
   G.4.3.3 Tray 3 paper feed unit
2. The remainder of the removal procedure is same as the one for the tray 2 feed roller/tray 2 pick-up roller. See “Replacing the tray 2 feed roller/tray 2 pick-up roller.”
   F.6.6.3 Replacing the tray 2 feed roller/tray 2 pick-up roller
3. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed Roller (Tray3).].

NOTE
- **Replace the tray 3 feed roller/tray 3 pick-up roller and the tray 3 separation roller at the same time.**

6.6.6 Replacing the tray 3 separation roller

(1) Periodically replacing parts/cycle

- Tray 3 separation roller: Every 300,000 counts

(2) Procedure

1. Remove the tray 3 paper feed unit.
   G.4.3.3 Tray 3 paper feed unit
2. The remainder of the removal procedure is same as the one for the tray 2 separation roller. See “Replacing the tray 2 separation roller.”
   F.6.6.4 Replacing the tray 2 separation roller
3. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Feed Roller (Tray3)].

NOTE
- **Replace the tray 3 feed roller/tray 3 pick-up roller and the tray 3 separation roller at the same time.**

6.7 Registration section

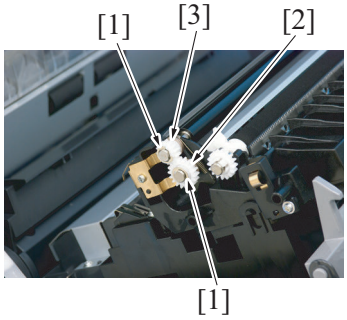
6.7.1 Replacing the registration roller bearings/registration roller gear1, 2

(1) Periodically replacing parts/cycle

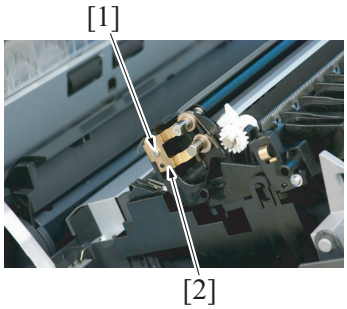
- Registration roller bearings: Every 900,000 counts
- Registration roller gear 1: Every 900,000 counts
- Registration roller gear 2: Every 900,000 counts

(2) Procedure

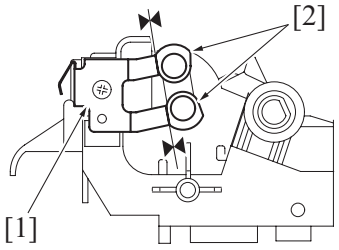
1. Open the right door.



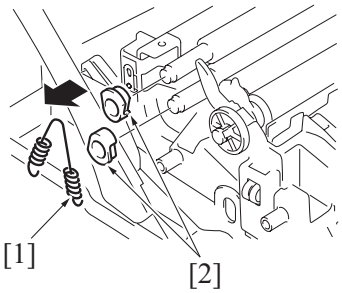
2. Remove two E-rings [1].
3. Remove the registration roller gear 1 [2] and registration roller gear 2 [3].



4. Remove the screw [1], and remove the ground plate [2].

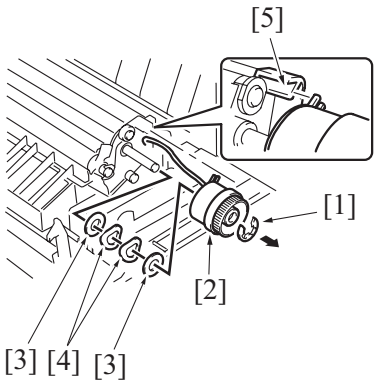


NOTE
- **When reinstalling the ground plate, make sure that the ground plate [1] is in contact with the side faces of the bearings [2].**

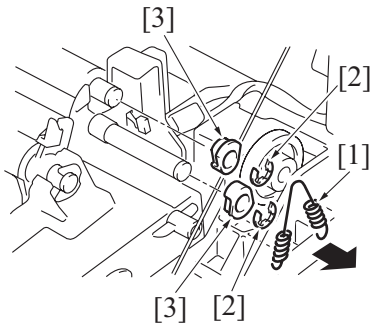


5. Remove the spring [1], and remove two registration roller bearings [2].

NOTE
- **When reinstalling the bearings, make sure that the flanges of the bearings are on the outside.**



6. Remove the E-ring [1], then remove the registration clutch [2].
7. Remove two washers [3] and two wave washers [4].
   NOTE
   - **Be careful not to lose the washers.**
   - **When mounting the clutch, set the convex part of the stopper into the concave part of the registration clutch [5].**



8. Remove the spring [1] and two E-rings [2], remove two registration roller bearings [3].
   NOTE
   - **When reinstalling the bearings, make sure that the flanges of the bearings are on the outside.**

9. To reinstall, reverse the order of removal.

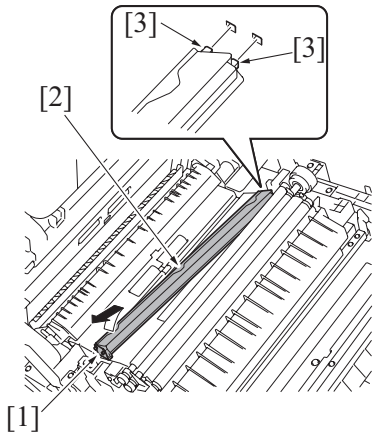
6.7.2 Replacing the paper dust remover

(1) Periodically replacing parts/cycle

- Paper dust remover: Every 150,000 counts

(2) Procedure

1. Open the right door.



2. Unhook the tab [1] and remove the paper dust remover [2].
   NOTE
   - **When reinstalling the paper dust remover, be sure first to fit the two tabs [3] in place.**

3. To reinstall, reverse the order of removal.
4. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Paper Dust Remover].

6.7.3 Cleaning of the registration roller

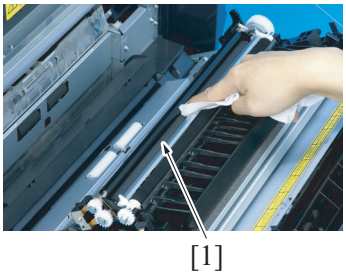
(1) Periodically cleaning parts/cycle

- Registration roller: Every 60,000 counts (upon each call)

(2) Procedure

1. Open the right door.
2. Remove the paper dust remover.
   F.6.7.2 Replacing the paper dust remover

3. Using a cleaning pad with alcohol, wipe the registration roller [1] clean of dirt.



6.8 Fusing section

6.8.1 Replacing the fusing unit

CAUTION

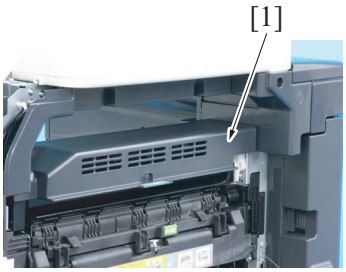
- The area around the fusing unit is hot and you may get burned.
  Turn off the main power switch and wait 20 minutes or more before replacing the fusing unit.

(1) Periodically replacing parts/cycle

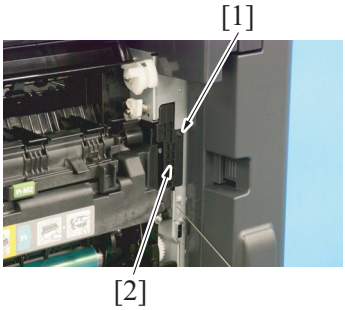
- Fusing unit: Every 450,000 counts

(2) Procedure

1. Open the right door.
2. Remove the USB interface cover.
   G.4.2.8 USB interface cover

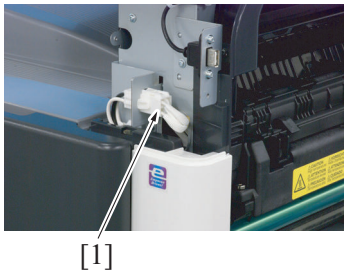


3. Open the paper exit upper guide [1].

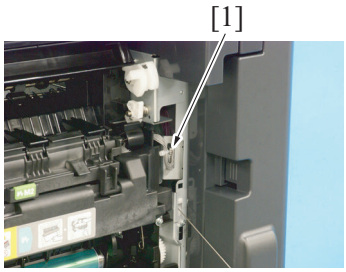


4. Remove the screw [1], and remove the cover [2].

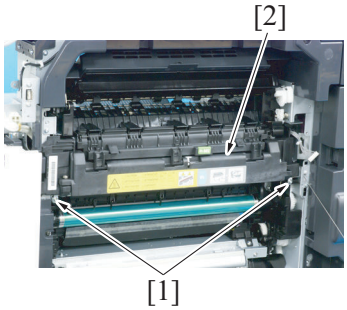
5. Disconnect the connector [1].



6. Disconnect the connector [1].



7. Remove two screws [1], and remove the fusing unit [2].
NOTE
- **Use care not to allow the harness to be scratched by the metal bracket.**



8. To reinstall, reverse the order of removal.
9. Clear the following life counter using the Service Mode.
   - Select [Service Mode] -> [Supplies] -> [Life Counter Clear] and clear the count of [Fusing Unit].

6.9 Duplex section

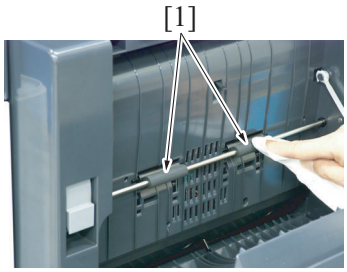
6.9.1 Cleaning of the duplex transport rollers

(1) Periodically cleaning parts/cycle

- Duplex transport rollers: Every 60,000 counts (upon each call)

(2) Procedure

1. Open the duplex unit door.



2. Using a cleaning pad with water or alcohol, wipe the duplex transport rollers [1] clean of dirt.

7. Periodical maintenance procedure PC-211

7.1 Paper feed section

7.1.1 Replacing the separation roller

(1) Periodically replaced parts/cycle

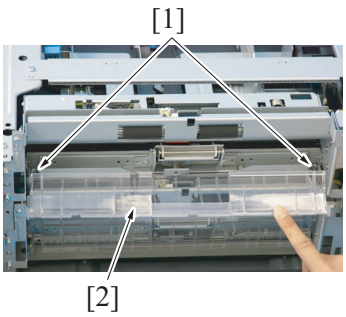
- Separation roller: Every 300,000 counts

NOTE

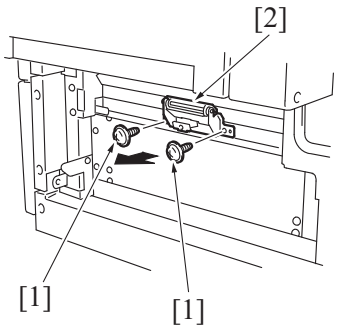
- **Replace the separation roller, feed roller and pick-up roller at the same time.**

(2) Procedure

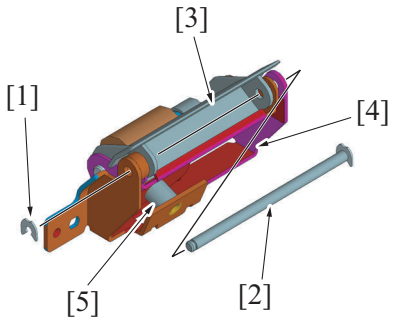
1. Remove the right door.
   G.5.2.1 Right door



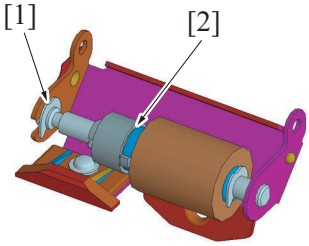
2. Remove two springs [1].
3. Remove the jam clearing cover [2].



4. Remove two screws [1] and remove the paper separation roller mounting bracket assy [2].

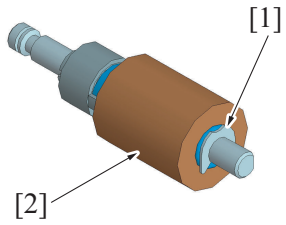


5. Remove the C-ring [1], and remove the shaft [2].
6. Remove the guide [3] and bracket [4].
   NOTE
   - **Be careful not to lose spring [5] at this time.**

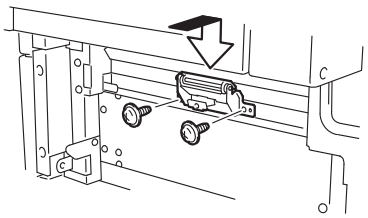


7. Remove the C-ring [1], and remove the separation roller assy [2].

8. Remove the C-ring [1], and remove the separation roller [2].



9. To reinstall, reverse the order of removal.
NOTE
- **Install the separation roller assy while pressing the holder down so that it aligns to the metal bracket of the machine.**
- **Make sure that the separation roller assy is not tilted to the right or left when installed.**



10. Repeat steps 1 to 9 similarly for the 4th drawer.

7.1.2 Replacing the feed roller

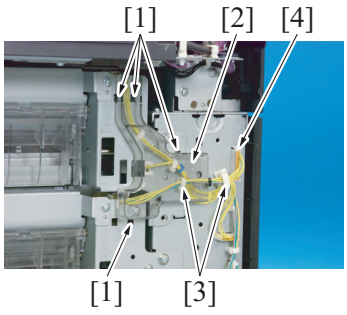
(1) Periodically replaced parts/cycle

- Feed roller: Every 300,000 counts

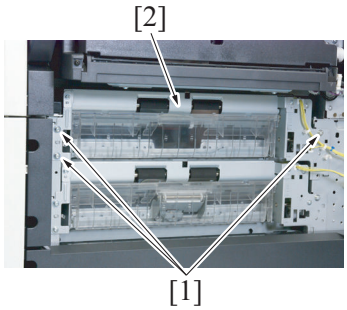
NOTE
- **Replace the separation roller, feed roller and pick-up roller at the same time.**

(2) Procedure

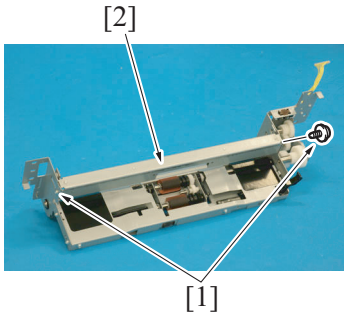
1. Remove the rear right cover. (Remove the right lower cover for 4th row.)
   G.5.2.2 Rear right cover/Lower right cover/Front right cover
2. Remove the tray 4. (Remove the tray 5 from 4th row.)
3. Remove the paper separation roller mounting bracket assy.
   See the procedures 1 to 4 in F.7.1.1 Replacing the separation roller
4. Remove the tray 1 unit right cover.
   See the procedures 1 "G.4.3.8 Tray 1 (Manual bypass tray) unit"



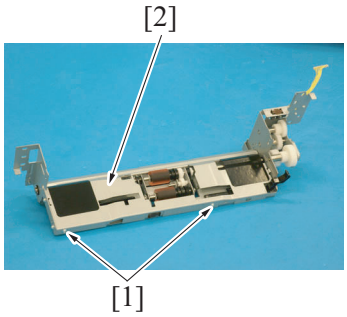
5. Unlock four tabs [1], and remove the harness cover [2].
6. Remove the harness from two wire saddles [3].
7. Disconnect the connector [4].



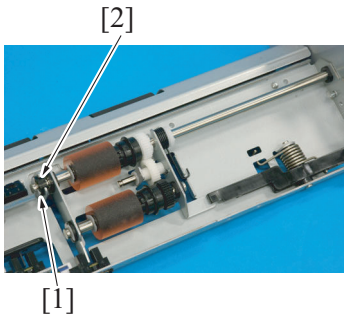
8. Remove three screws [1] and remove the feed unit [2].



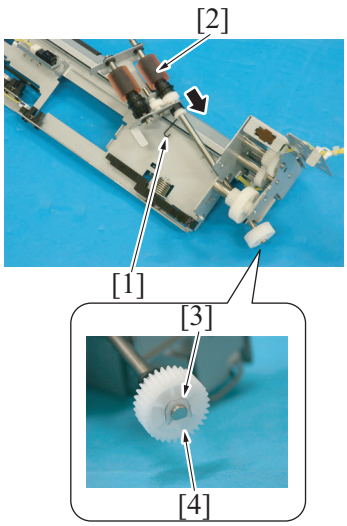
9. Remove two screws [1] and remove the mounting frame [2] for the paper separation roller mounting bracket assy.



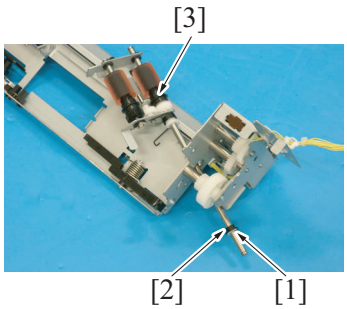
10. Remove two screws [1] and remove the feed roller cover [2].



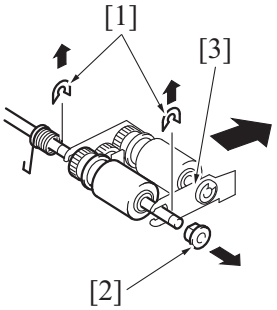
11. Remove the C-ring [1] and remove the bushing [2].



12. Detach the hook [1] of the spring and shift the shaft assy [2] in the direction shown in the illustration.
13. Remove the C-ring [3] and the gear [4].

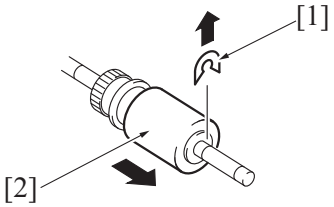


14. Remove the C-ring [1] and the bushing [2], and remove the shaft assy [3].



15. Remove two C-rings [1] and the bushing [2], and remove the pickup roller fixing bracket assy [3].

16. Remove the C-ring [1] and remove the feed roller [2].



17. To reinstall, reverse the order of removal.
18. Repeat steps 1 to 17 similarly for the 4th drawer.

7.1.3 Replacing the pick-up roller

(1) Periperiodically replaced parts/cycle

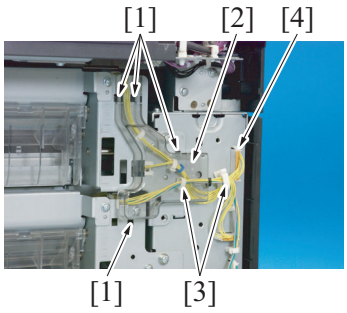
- Pick-up roller: Every 300,000 counts

NOTE

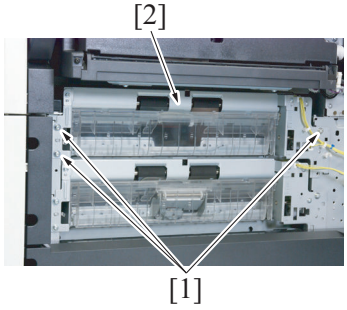
- **Replace the separation roller, feed roller and pick-up roller at the same time.**

(2) Procedure

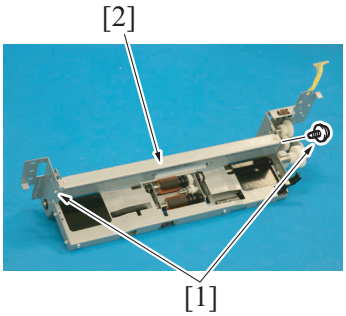
1. Remove the rear right cover. (Remove the right lower cover for 4th row.)
   G.5.2.2 Rear right cover/Lower right cover/Front right cover
2. Remove the tray 4. (Remove the tray 5 from 4th row.)
3. Remove the separation roller mounting bracket assy.
   See the procedures 1 to 4 in F.7.1.1 Replacing the separation roller
4. Remove the tray 1 unit right cover.
   See the procedures 1 "G.4.3.8 Tray 1 (Manual bypass tray) unit"



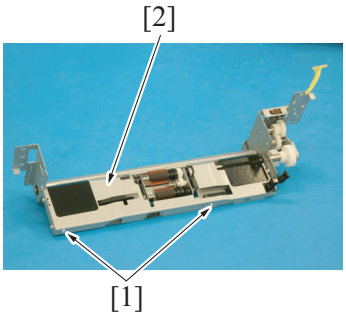
5. Unlock three tabs [1], and remove the harness cover [2].
6. Remove the harness from two wire saddles [3].
7. Disconnect the connector [4].



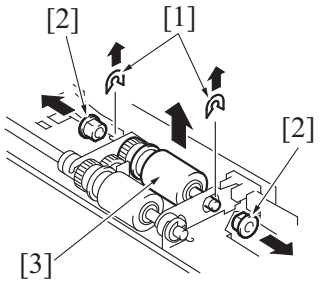
8. Remove three screws [1] and remove the feed unit [2].



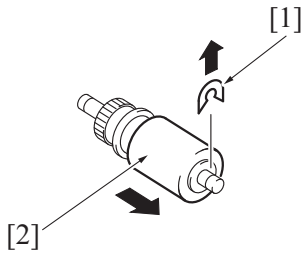
9. Remove two screws [1] and remove the mounting frame [2] for the paper separation roller mounting bracket assy.



10. Remove two screws [1] and remove the feed roller cover [2].



11. Remove two C-rings [1] and two bushings [2], and remove the pick-up roller assy [3].



12. Remove the C-ring [1] and remove the pick-up roller [2].

13. To reinstall, reverse the order of removal.
14. Repeat steps 1 to 13 similarly for the 4th drawer.

8. Periodical maintenance procedure FS-529

NOTE

- **The alcohol described in the cleaning procedure of maintenance represents the isopropyl alcohol.**

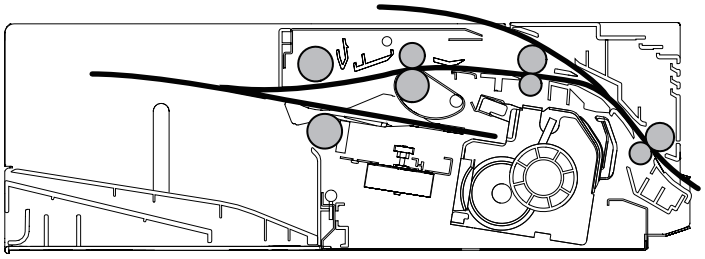
8.1 Paper exit section

8.1.1 Cleaning procedure for each parts

(1) Periodically cleaning parts/cycle

- Each rollers/Each rolls: Every 300,000 counts

(2) Cleaning point



G DISASSEMBLY/REASSEMBLY

1. Disassembly/adjustment prohibited items

1.1 Paint-locked screws

NOTE

- **To prevent loose screws, a screw lock in blue or green series color is applied to the screws.**
- **The screw lock is applied to the screws that may get loose due to the vibrations and loads created by the use of machine or due to the vibrations created during transportation.**
- **If the screw lock coated screws are loosened or removed, be sure to apply a screw lock after the screws are tightened.**

1.2 Red-painted screws

NOTE

- **The screws which are difficult to be adjusted in the field are painted in red in order to prevent them from being removed by mistake.**
- **Do not remove or loosen any of the red-painted screws in the field. It should also be noted that, when two or more screws are used for a single part, only one representative screw may be marked with the red paint.**

1.3 Variable resistors on board

NOTE

- **Do not turn the variable resistors on boards for which no adjusting instructions are given in Adjustment/Setting.**

1.4 Removal of PWBs

WARNING

- To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply unit for 22 minutes.
  If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.

CAUTION

- When removing a circuit board or other electrical component, refer to “Handling of PWBs” and follow the corresponding removal procedures.
- The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.
- Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.

1.5 Warnings for disassembly

⚠WARNING

- 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.
- 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.
- 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.

1.6 Warnings/precautions during setup or transportation

⚠WARNING

- 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.
- 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.

⚠CAUTION

- 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

⚠CAUTION
caught by a cable, possibly causing a fall to the floor or other personal injury.

2. Units from which removing is prohibited

2.1 PH unit

2.1.1 Reason for prohibition

- The laser runs inside the PH unit. Opening the cover may cause dust to enter and interrupt the laser. Do no remove any screw which may disassemble the PH unit.

2.2 Fusing unit

2.2.1 Reason for prohibition

- Inner part of the fusing unit and the position of the fusing belt are adjusted prior to shipping. Do not remove any screw which may disassemble the fusing unit.

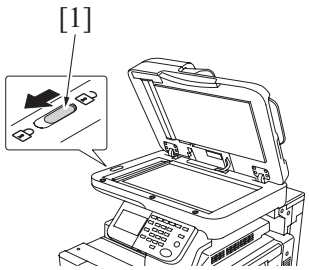
3. Notes when transporting the machine

NOTE

- **Before moving the machine to install it in another location, fix the scanner in place to avoid damaging the machine due to vibrations during transportation.**

3.1 Fixing the scanner

1. Check that the exposure unit is at the home position.



2. Slide the scanner lock lever [1] in the direction shown by the arrow to lock the exposure unit.

4. bizhub 42/36

4.1 Disassembly/reassembly parts list

4.1.1 Exterior parts

No.	Part name	Ref. page
1	Front door	G.4.2.1 Front door
2	Left cover	G.4.2.2 Left cover
3	Exit tray	G.4.2.3 Exit tray
4	Rear right cover	G.4.2.4 Rear right cover
5	Rear cover	G.4.2.5 Rear cover
6	Lower rear cover	G.4.2.6 Lower rear cover
7	Scanner rear cover	G.4.2.7 Scanner rear cover
8	USB interface cover	G.4.2.8 USB interface cover
9	Control panel assy	G.4.2.9 Control panel assy
10	Tray 2	G.4.2.10 Tray 2
11	Tray 3	G.4.2.11 Tray 3
12	Front cover	G.4.2.12 Front cover

4.1.2 Units

No.	Part name	Ref. page
1	Imaging unit	G.4.3.1 Imaging unit
2	Tray 2 paper feed unit	G.4.3.2 Tray 2 paper feed unit
3	Tray 3 paper feed unit	G.4.3.3 Tray 3 paper feed unit
4	PH unit	G.4.3.4 PH unit
5	Toner hopper unit	G.4.3.5 Toner hopper unit
6	Regist unit	G.4.3.6 Regist unit
7	Switchback unit	G.4.3.7 Switchback unit
8	Tray 1 (Manual bypass tray) unit	G.4.3.8 Tray 1 (Manual bypass tray) unit
9	Conveyance unit	G.4.3.9 Conveyance unit
10	Hopper drive unit	G.4.3.10 Hopper drive unit
11	MFP board box	G.4.3.11 MFP board box
12	Main drive unit	G.4.3.12 Main drive unit
13	Hard disk drive	G.4.3.13 Hard disk drive
14	ADF	G.4.3.14 ADF
15	ADF feed roller unit	G.4.3.15 ADF feed roller unit
16	ADF separation pad	G.4.3.16 ADF separation pad
17	Scanner unit	G.4.3.17 Scanner unit

4.1.3 Boards

No.	Part name	Ref. page
1	Printer control board (PRCB)	G.4.4.1 Printer control board (PRCB)
2	DC power supply (DCPU)	G.4.4.2 DC power supply (DCPU)
3	MFP board (MFPB)	G.4.4.3 MFP board (MFPB)
4	High voltage unit (HV1)	G.4.4.4 High Voltage Unit (HV1)
5	SODIMM (DIMM)	G.4.4.5 SODIMM (DIMM)
6	Tray 2 LED board (LEDB2), Tray 3 LED board (LEDB3)	G.4.4.6 Tray 2 LED board (LEDB2), Tray 3 LED board (LEDB3)
7	SSD Board (SSDB)	G.4.4.7 SSD Board (SSDB)

4.1.4 Motors

No.	Part name	Ref. page
1	Duplex transport motor (M7)	G.4.5.1 Duplex transport motor (M7)
2	Transport motor (M1)	G.4.5.2 Transport motor (M1)
3	PC motor (M2)	G.4.5.3 PC motor (M2)
4	Toner bottle motor (M3)	G.4.5.4 Toner bottle motor (M3)
5	Toner supply motor (M8)	G.4.5.5 Toner supply motor (M8)
6	Switchback motor (M6)	G.4.5.6 Switchback motor (M6)
7	Tray 2 lift-up motor (M4)	G.4.5.7 Tray 2 lift-up motor (M4)
8	Tray 3 lift-up motor (M5)	G.4.5.8 Tray 3 lift-up motor (M5)

No.	Part name	Ref. page
9	Power supply cooling fan motor (FM1)	G.4.5.9 Power supply cooling fan motor (FM1)
10	Cooling fan motor (FM2)	G.4.5.10 Cooling fan motor (FM2)
11	Fusing unit cooling fan motor (FM3)	G.4.5.11 Fusing unit cooling fan motor (FM3)
12	Toner suction fan motor (FM4)	G.4.5.12 Toner suction fan motor (FM4)

4.1.5 Clutches

No.	Part name	Ref. page
1	Tray 2 paper feed clutch (CL2)	G.4.6.1 Tray 2 paper feed clutch (CL2)
2	Tray 3 paper feed clutch (CL3)	G.4.6.2 Tray 3 paper feed clutch (CL3)
3	Tray 3 vertical transport clutch (CL4)	G.4.6.3 Tray 3 vertical transport clutch (CL4)
4	Tray 1 paper feed clutch (CL5)	G.4.6.4 Tray 1 paper feed clutch (CL5)
5	Registration clutch (CL1)	G.4.6.5 Registration clutch (CL1)

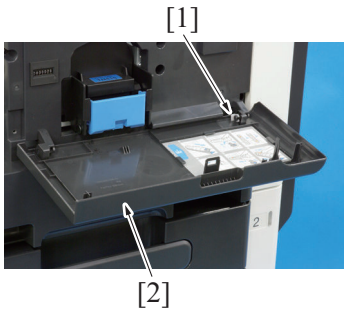
4.1.6 etc.

No.	Part name	Ref. page
1	Tray 1 pick-up solenoid (SD1)	G.4.7.1 Tray 1 pick-up solenoid (SD1)
2	Temperature/humidity sensor (TEM/HUM)	G.4.7.2 Temperature/humidity sensor (TEM/HUM)
3	Main power switch (SW1)	G.4.7.3 Main power switch (SW1)
4	Ozone duct assy	G.4.7.4 Ozone duct assy

4.2 Disassembly/reassembly procedure (Exterior parts)

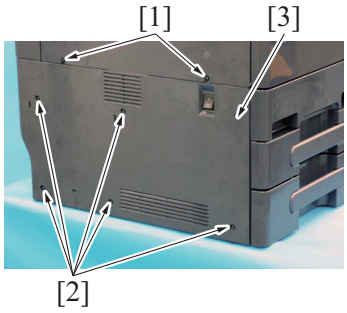
4.2.1 Front door

1. Remove the exit tray.
   G.4.2.3 Exit tray
2. Open the front door.



3. Remove the C-clip [1], and remove the front door [2].
4. To reinstall, reverse the order of removal.

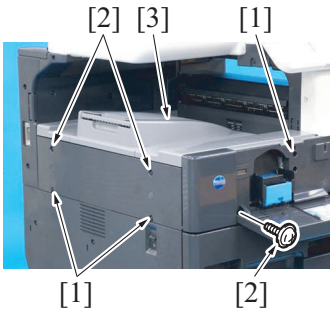
4.2.2 Left cover



1. Remove two screws [1].
2. Remove five screws [2], and remove the left cover [3].
3. To reinstall, reverse the order of removal.

4.2.3 Exit tray

1. Open the front door.

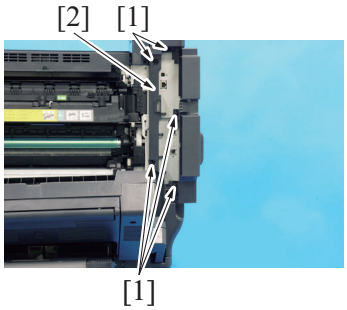


2. Loosen three screws [1].
3. Remove three screws [2], and remove the exit tray [3].

4. To reinstall, reverse the order of removal.

4.2.4 Rear right cover

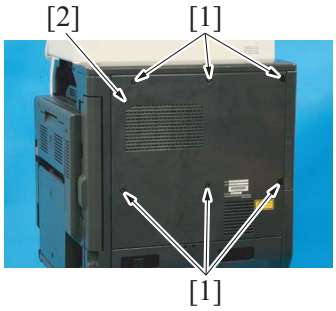
1. Open the right door.
2. Open the rear right cover.



3. Remove five screws [1], and remove the rear right cover [2].

4. To reinstall, reverse the order of removal.

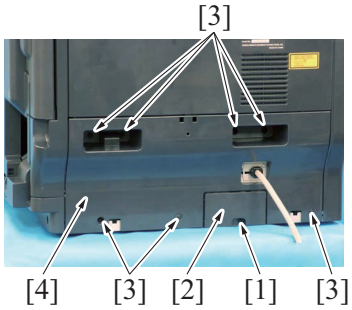
4.2.5 Rear cover



1. Remove six screws [1], and remove the rear cover [2].

2. To reinstall, reverse the order of removal.

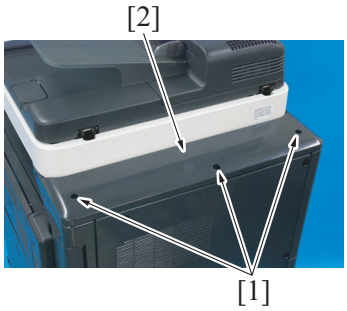
4.2.6 Lower rear cover



1. Remove the screw [1], and remove the connector cover [2].
2. Remove seven screws [3], and remove the lower rear cover [4].

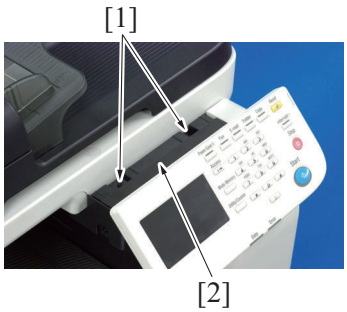
3. To reinstall, reverse the order of removal.

4.2.7 Scanner rear cover



1. Remove three screws [1], and remove the scanner rear cover [2].
2. To reinstall, reverse the order of removal.

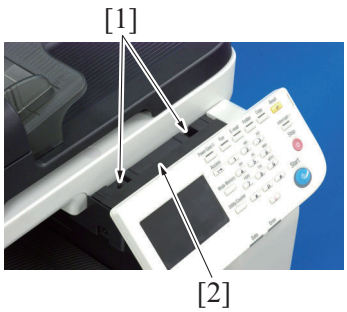
4.2.8 USB interface cover



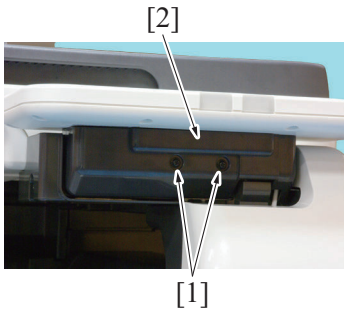
1. Remove two screws [1], and remove the controle panel upper cover [2].

2. Remove three screw [1], and remove the USB interface cover [2].
3. To reinstall, reverse the order of removal.

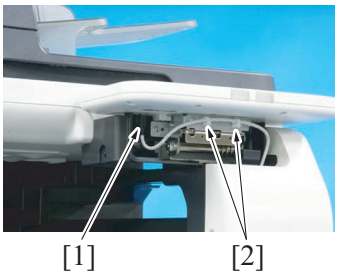
4.2.9 Control panel assy



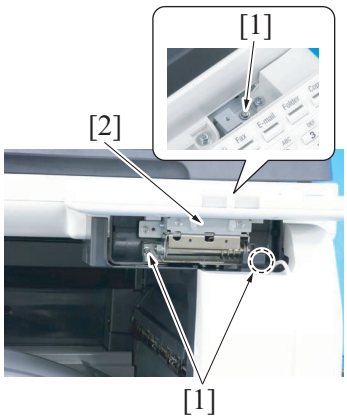
1. Remove two screws [1], and remove the control panel upper cover [2].



2. Remove two screws [1], and remove the control panel lower cover [2].



3. Disconnect the connector [1], and remove the harness from two wire saddles [2].

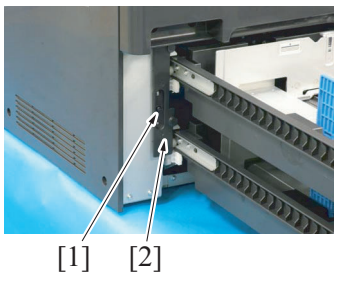


4. Remove three screws [1], and remove the control panel assy [2].

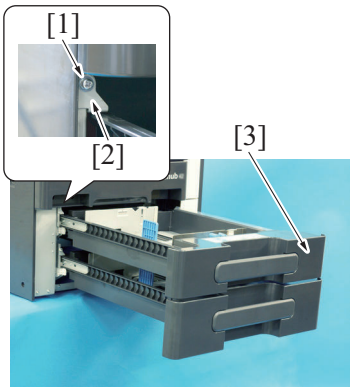
5. To reinstall, reverse the order of removal.

4.2.10 Tray 2

1. Slide out the tray 2 and tray 3.



2. Remove the screw [1], and remove the stopper cover [2].

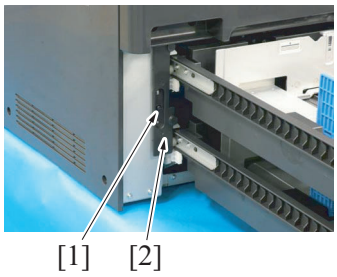


3. Remove the screw [1], and remove the stopper [2].
4. Remove the tray 2 [3].

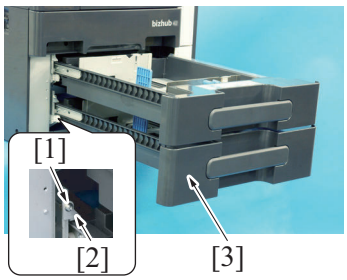
5. To reinstall, reverse the order of removal.

4.2.11 Tray 3

1. Slide out the tray 2 and tray 3.



2. Remove the screw [1], and remove the stopper cover [2].

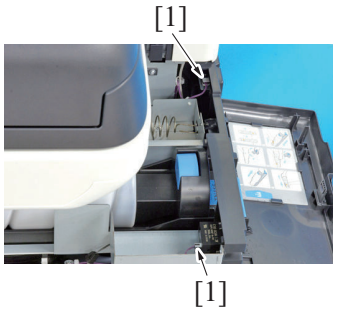


3. Remove the screw [1], and remove the stopper [2].
4. Remove the tray 3 [3].

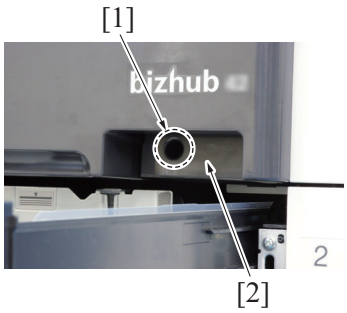
5. To reinstall, reverse the order of removal.

4.2.12 Front cover

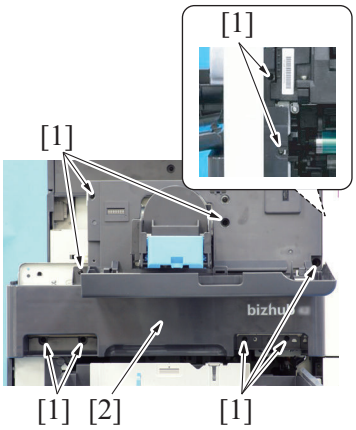
1. Remove the exit tray.
   G.4.2.3 Exit tray
2. Open the front door and right door.
3. Slide out the tray 2.



4. Disconnect two connectors [1].



5. Remove the screw [1], and remove the connector cover [2]
6. Slide out the toner hopper.



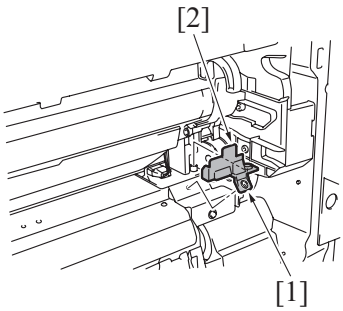
7. Remove ten screws [1], and remove the front cover [2].

8. To reinstall, reverse the order of removal.

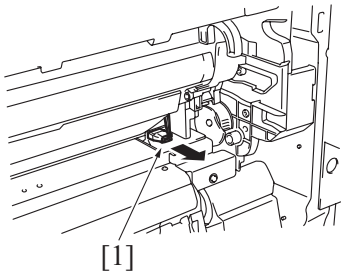
4.3 Disassembly/reassembly procedure (Units)

4.3.1 Imaging unit

1. Open the right door.

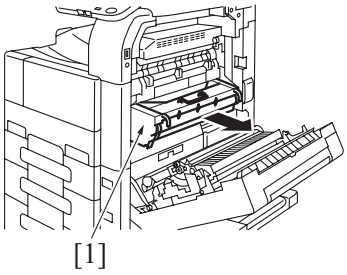


2. Remove the screw [1], and remove the cover [2].



3. Disconnect the connector [1].

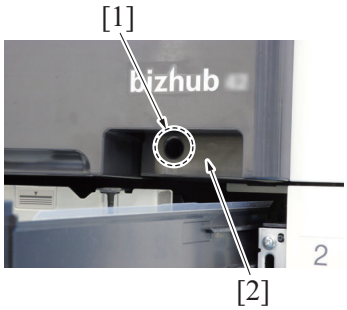
4. Remove the imaging unit [1].



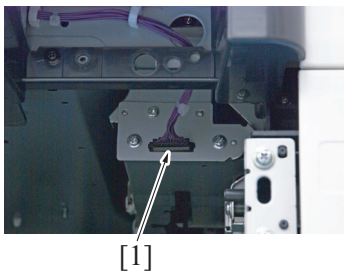
5. To reinstall, reverse the order of removal.

4.3.2 Tray 2 paper feed unit

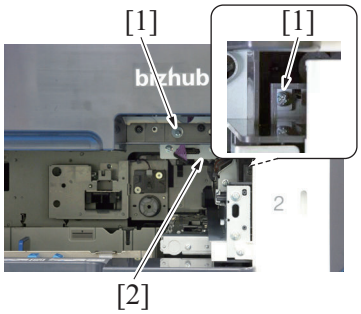
1. Remove the tray 2.
   G.4.2.10 Tray 2



2. Remove the screw [1], and remove the connector cover [2].



3. Disconnect the connector [1].

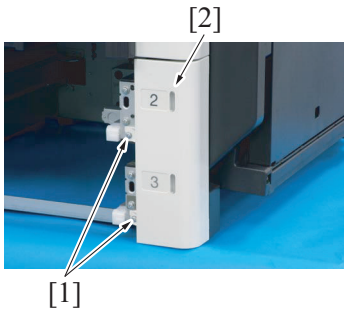


4. Remove two screws [1], and remove the tray 2 paper feed unit [2].

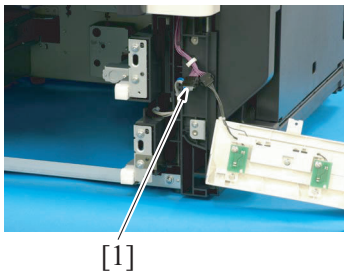
5. To reinstall, reverse the order of removal.

4.3.3 Tray 3 paper feed unit

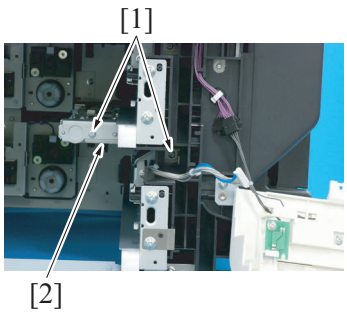
1. Remove the tray 2.
   G.4.2.10 Tray 2
2. Remove the tray 3.
   G.4.2.11 Tray 3



3. Remove two screws [1], and remove the front lower cover [2].



4. Disconnect the connector [1], and remove the harness from harness guide.



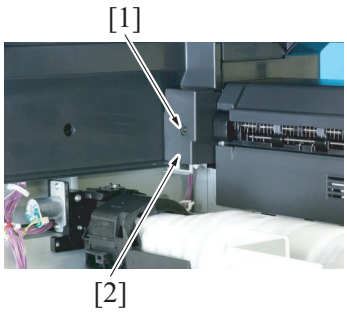
5. Remove two screws [1], and remove the tray 3 paper feed unit [2].

6. To reinstall, reverse the order of removal.

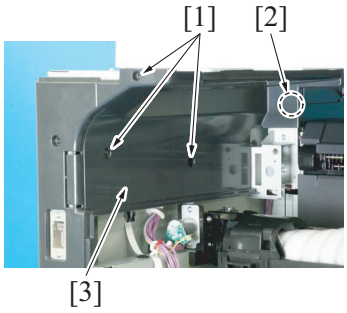
4.3.4 PH unit

CAUTION	
	• Do not replace the printer head unit while the power is ON. Laser beam generated during the above mentioned activity may cause blindness.
	• Do not disassemble or adjust the printer head unit. Laser beam generated during the above mentioned activity may cause blindness.

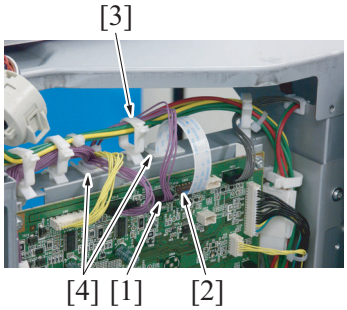
1. Remove the exit tray.
   G.4.2.3 Exit tray
2. Remove the rear cover.
   G.4.2.5 Rear cover
3. Remove the scanner rear cover.
   G.4.2.7 Scanner rear cover



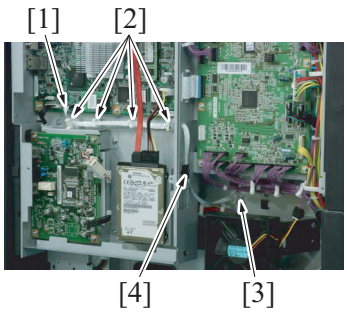
4. Remove the screw [1], and remove the cover [2].



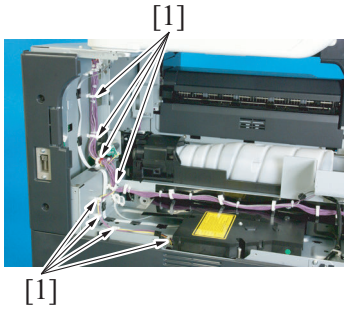
5. Remove three screws [1] and unhook the tab [2], and remove the cover [3].



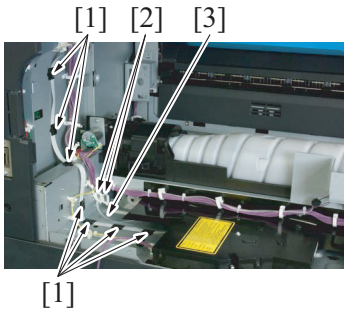
6. Disconnect the connector (CN19) [1] and flat cable (CN20) [2] on the printer control board.
7. Remove the harness and flat cable from the wire saddle [3] and two edge covers [4].



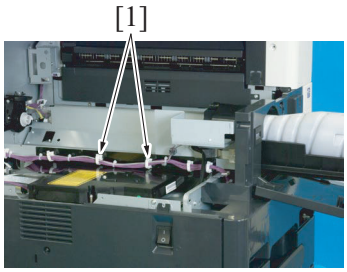
8. Disconnect the flat cable (CN15) [1] from the MFP board.
9. Remove the flat cable from four wire saddles [2], edge cover [3] and cable holder [4].



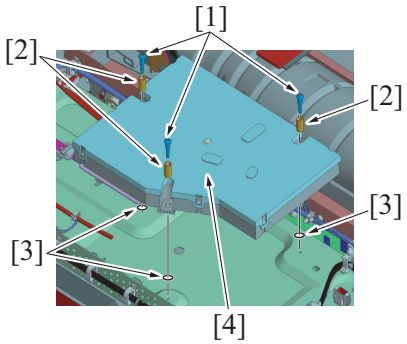
10. Remove the harness from eight wire saddles [1].



11. Remove seven cable holders [1] of the flat cable.
12. Remove the flat cable [3] from two wire saddles [2].



13. Slide out the toner hopper.
14. Remove two wire saddles [1].



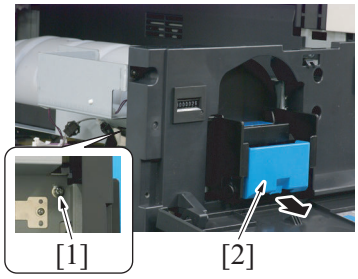
15. Remove three screws [1], three springs [2] and the spacer [3].
NOTE
- **The position, number, and color of the spacers [3] installed in the screw holes vary depending on the machine model. When removing the PH unit, therefore, be sure to remember the position, number, and color of the spacers [3] installed in each of the screw holes. (Depending on the individual PH unit performance difference, the machine may not have the spacers [3])**
- **This machine does not incorporate the system of determining the number and types of spacers installed in the PH unit by the color of the label affixed to the PH unit. The label affixed to the PH unit therefore has no special meaning in this machine.**

16. Remove the PH unit [4].
NOTE
- **When reinstalling the PH unit, be sure to attach the spacer [3] to its original position.**

17. To reinstall, reverse the order of removal.

4.3.5 Toner hopper unit

1. Open the front door.
2. Remove the exit tray.
G.4.2.3 Exit tray

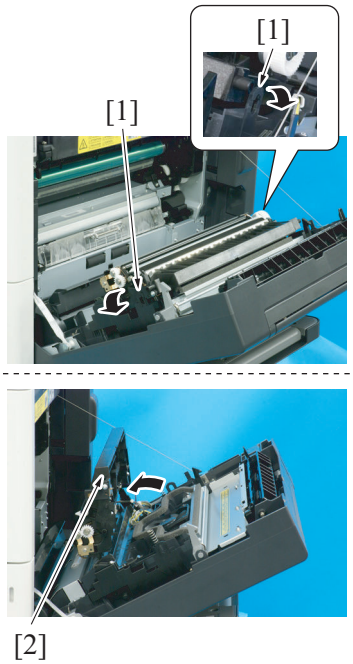


3. Loosen the screw [1].
4. Pull out the toner hopper unit [2].

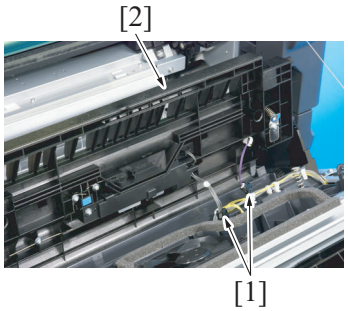
5. To reinstall, reverse the order of removal.

4.3.6 Regist unit

1. Open the right door.



2. Widen two tabs [1] in the direction of the arrow to unlock them. Then, raise the regist unit [2] as illustrated.

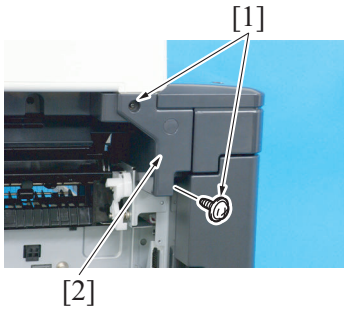


3. Disconnect two connectors [1], and remove the regist unit [2].

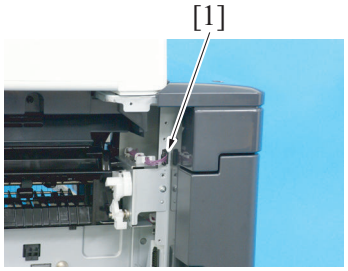
4. To reinstall, reverse the order of removal.

4.3.7 Switchback unit

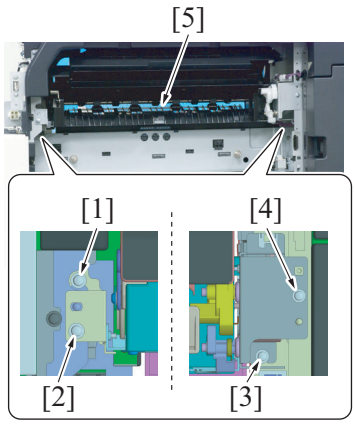
1. Remove the fusing unit.
F.6.8.1 Replacing the fusing unit



2. Remove two screws [1], and remove the connector cover [2].



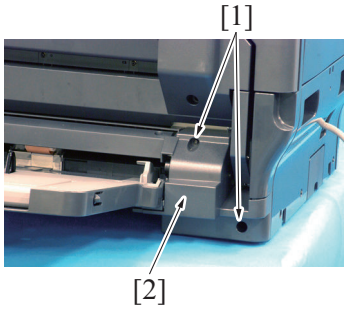
3. Disconnect the connector [1].



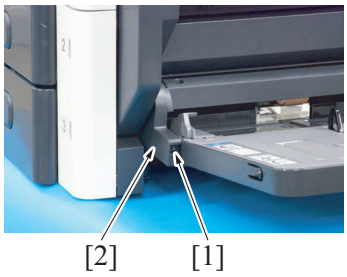
4. Loosen the screw [1] in back.
5. Remove the screw [2] in front.
6. Loosen the screw [3] in the back.
7. Remove the screw [4] in the front.
8. Remove the switchback unit [5].

9. To reinstall, reverse the order of removal.

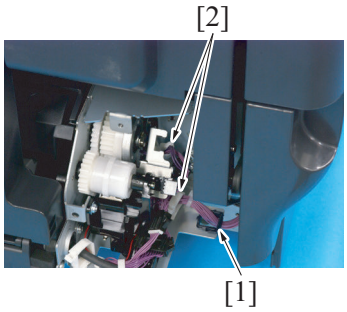
4.3.8 Tray 1 (Manual bypass tray) unit



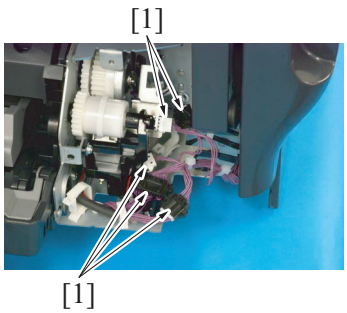
1. Remove two screws [1], and remove the tray 1 unit right cover [2].



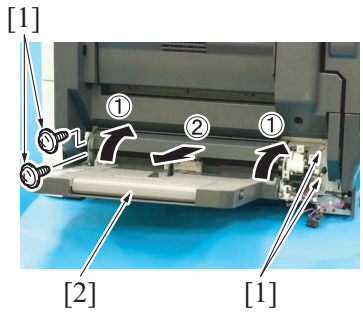
2. Remove the screw [1], and remove the tray 1 unit left cover [2].



3. Remove the harness from the edge cover [1] and two wire saddles [2].



4. Disconnect five connectors [1].
NOTE
- **When connecting the connectors, be careful as two of the five connectors have two pins.**

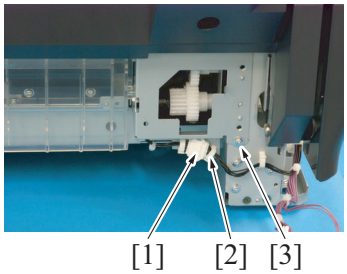


5. Remove four screws [1] and remove the tray 1 unit [2] as illustrated.

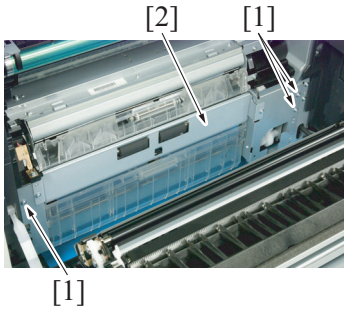
6. To reinstall, reverse the order of removal.

4.3.9 Conveyance unit

1. Remove the tray 1 unit.
   G.4.3.8 Tray 1 (Manual bypass tray) unit



2. Remove the harness from the wire saddle [2], and disconnect the connector [1].
3. Remove three screws [3].

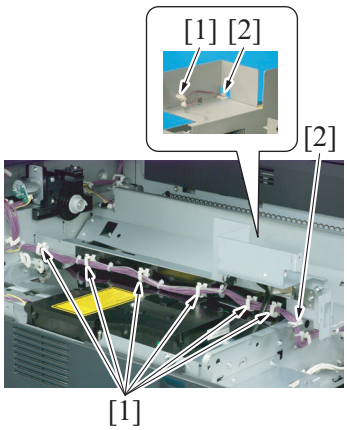


4. Open the right door.
5. Remove three screws [1], and remove the conveyance unit [2].
   NOTE
   - **When removing the conveyance unit, be careful not to damage or deform the guide sheet of the tray 2 paper feed unit.**

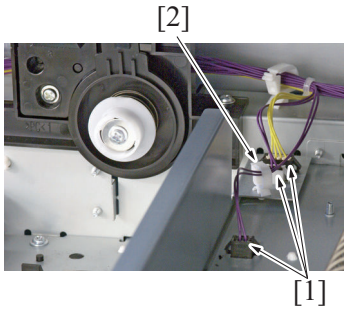
6. To reinstall, reverse the order of removal.

4.3.10 Hopper drive unit

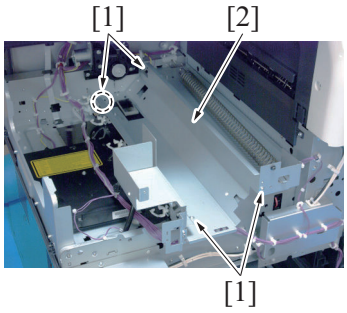
1. Remove the imaging unit.
   G.4.3.1 Imaging unit
2. Remove the toner hopper unit.
   G.4.3.5 Toner hopper unit
3. Remove the front cover.
   G.4.2.12 Front cover



4. Remove the harness from seven wire saddles [1] and two edge covers [2].



5. Disconnect three connectors [1].
6. Remove the harness from the wire saddle [2].

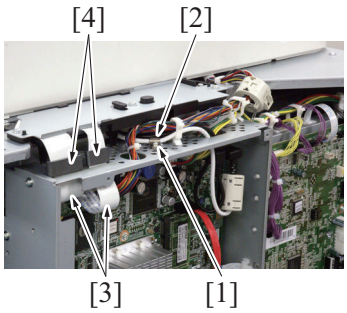


7. Remove four screws [1], and remove the hopper drive unit [2].

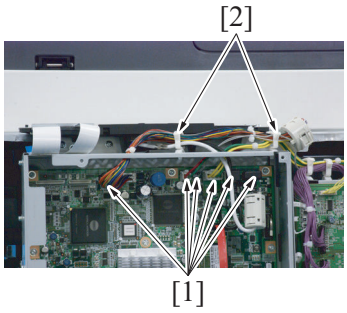
8. To reinstall, reverse the order of removal.

4.3.11 MFP board box

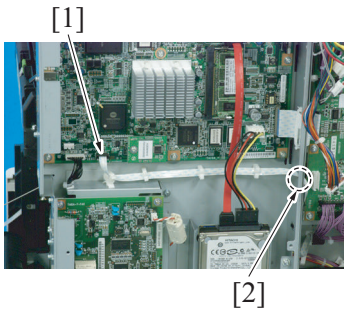
1. Remove the scanner rear cover.
   G.4.2.7 Scanner rear cover
2. Remove the rear right cover.
   G.4.2.4 Rear right cover
3. Remove the rear cover.
   G.4.2.5 Rear cover



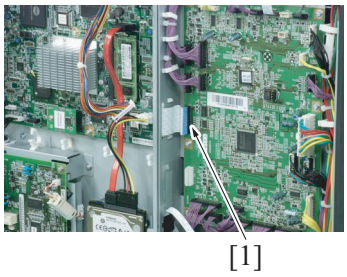
4. Remove the screw [1], and remove the harness band [2].
5. Disconnect two flat cables (CN102/CN103) [3] on the MFP board.
   NOTE
   - **When disconnecting the flat cables, be careful not to lose ferrite cores [4].**



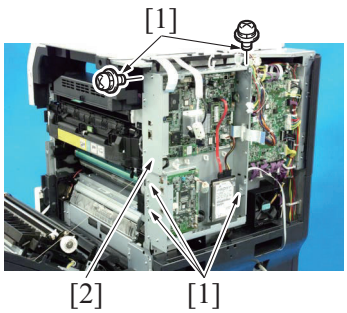
6. Disconnect six connectors (CN8/CN11/CN13/CN24/CN104/CN105) [1] on the MFP board, and remove the harness from two wire saddles [2].



7. Disconnect the flat cable (CN15) [1] on the MFP board, and remove the flat cable from all wire saddles.
8. Remove the flat cable [1] from the hole [2] of the MFP board box.



9. Disconnect the flat cable (CN28) [1] on the printer control board.

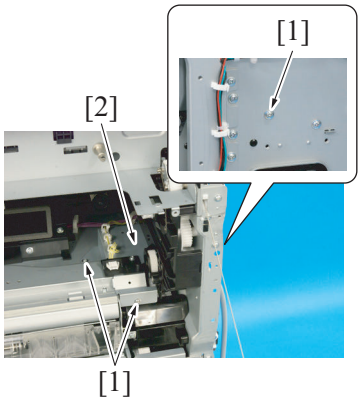


10. Remove five screws [1], and remove the MFP board box [2].

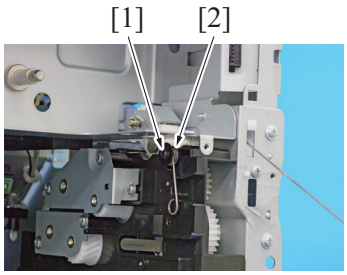
11. To reinstall, reverse the order of removal.

4.3.12 Main drive unit

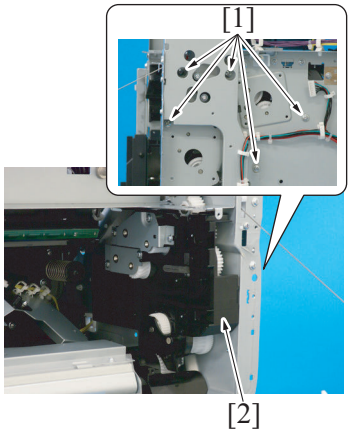
1. Remove the imaging unit.
   G.4.3.1 Imaging unit
2. Remove the fusing unit.
   F.6.8.1 Replacing the fusing unit
3. Remove the MFP board box.
   G.4.3.11 MFP board box
4. Remove the transport motor.
   G.4.5.2 Transport motor (M1)
5. Remove the PC motor.
   G.4.5.3 PC motor (M2)



6. Remove three screws [1], and remove the relay connector attachment plate [2].



7. Remove the screw [1], and remove the spring [2].

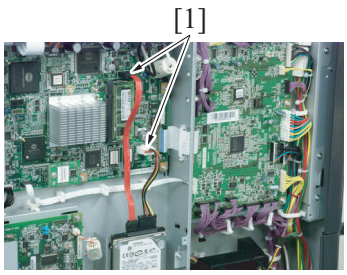


8. Remove five screws [1], and remove the main drive unit [2].

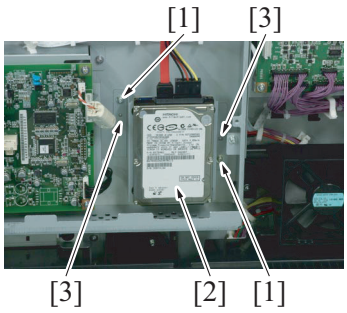
9. To reinstall, reverse the order of removal.

4.3.13 Hard disk drive

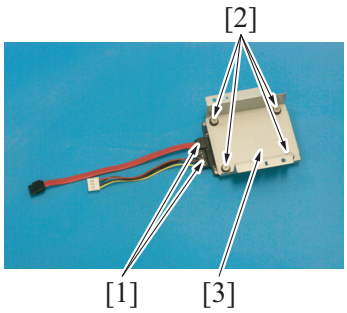
1. Remove the rear cover.
   G.4.2.5 Rear cover



2. Disconnect two connectors [1].



3. Remove two screws [1], and remove the hard disk assy [2].
   NOTE
   - **Align two dowels [3] during reinstallation.**



4. Disconnect two connectors [1].
5. Remove four screws [2], and remove the metal plate [3].

6. To reinstall, reverse the order of removal.

NOTE

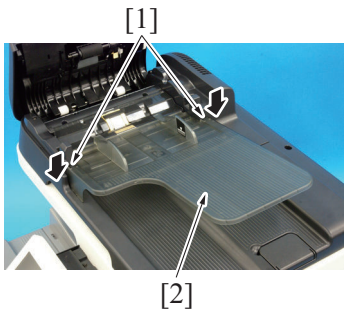
- **When the hard disk is replaced, select [HDD format] - [All] in Admin Settings for logical format.**

4.3.14 ADF

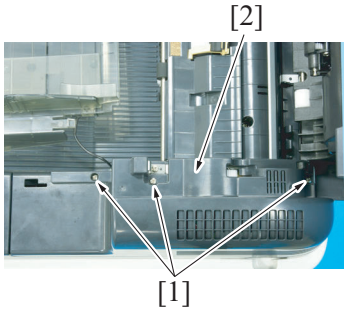
CAUTION

- Turn OFF the main power and then wait 15 seconds or more before disconnecting the connector from the ADF control board.

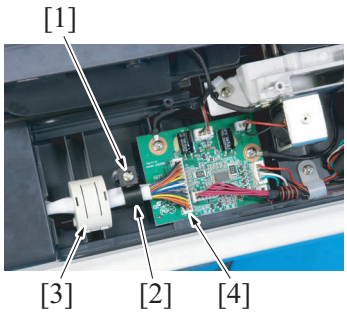
1. Open the ADF feed cover [1].



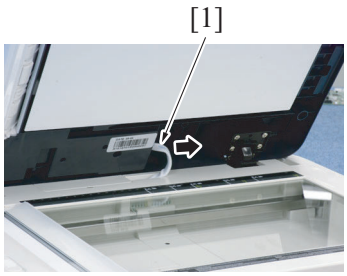
2. Unhook two tabs [1], and remove the ADF document feed tray [2].



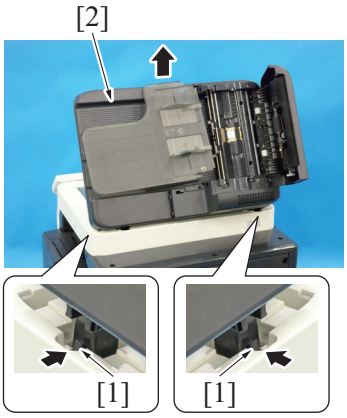
3. Remove three screws [1], and remove the ADF rear cover [2].



4. Remove the screw [1], and remove the clamp [2].
5. Remove the ferrite core [3].
6. Disconnect the connector (J1) [4].



7. Pull the cable [1] out.



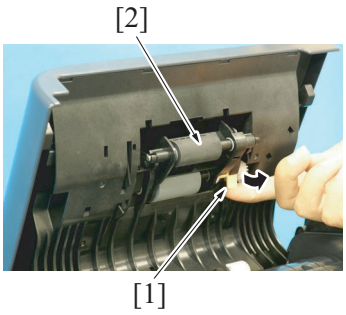
8. While pushing two tabs [1], remove the ADF [2].

9. To reinstall, reverse the order of removal.

4.3.15 ADF feed roller unit

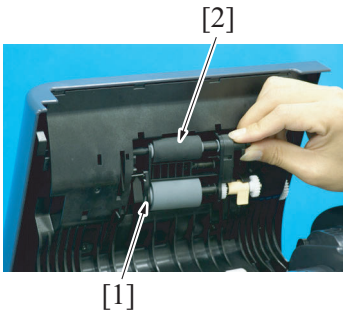
(1) Removal procedure

1. Open the ADF feed cover [1].

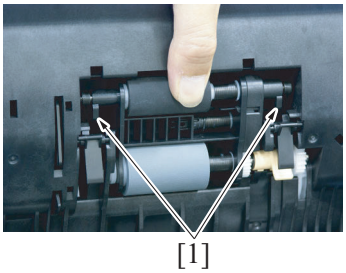


2. Pull the lock lever [1] upward to release the lock and remove the ADF feed roller unit [2].

(2) Reinstall procedure

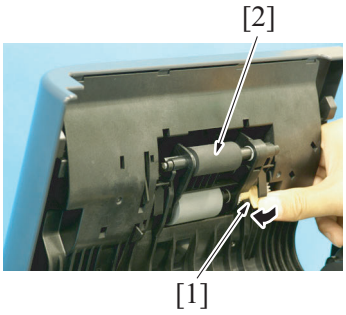


1. To install the ADF feed roller unit [2], attach the bearing side [1] first.



NOTE

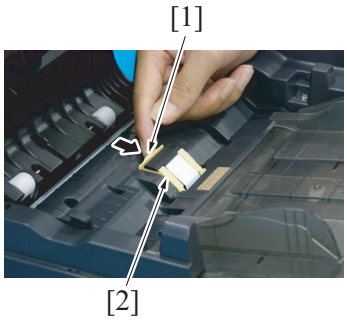
- **Install the ADF feed roller unit, fitting the two levers [1] into the housing.**



2. To fix the ADF feed roller unit [2], press the lock lever [1] until it clicks.

4.3.16 ADF separation pad

1. Open the ADF feed cover [1].

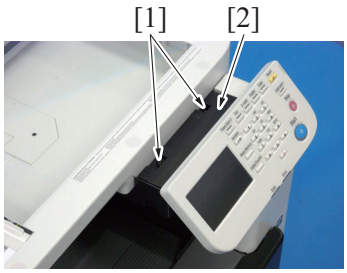


2. Unhook the tab [1], and remove the ADF separator pad/1 [2].

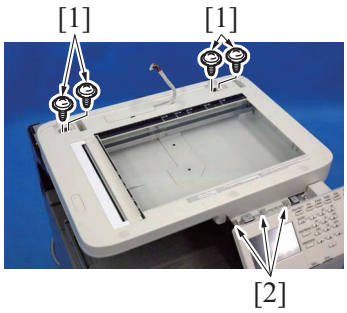
3. To reinstall, reverse the order of removal.

4.3.17 Scanner unit

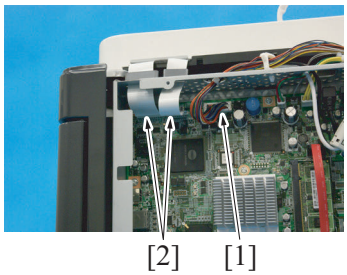
1. Remove the rear cover.
   G.4.2.5 Rear cover
2. Remove the scanner rear cover.
   G.4.2.7 Scanner rear cover
3. Remove the ADF.
   G.4.3.14 ADF



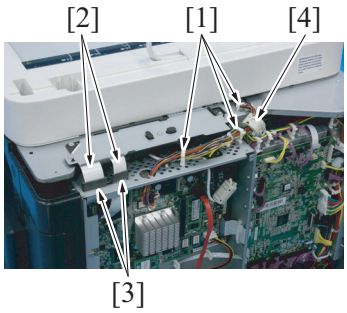
4. Remove two screws [1], and remove the control panel rear cover [2].



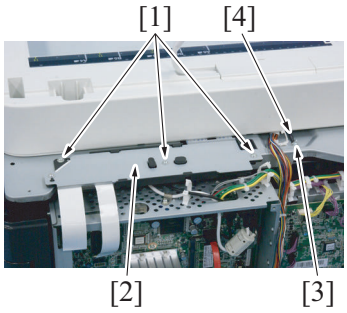
5. Remove four screws (rear side) [1] and three screws (front side) [2].



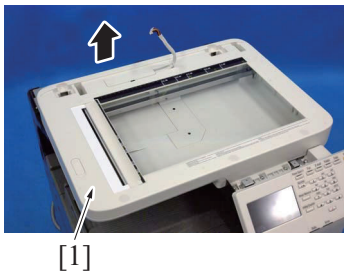
6. Disconnect the connector (CN104) [1] and two flat cables (CN102/CN103) [2] on the MFP board,



7. Remove the harness from three wire saddles [1].
8. Pull two flat cables [2] out of the Metal plate.
   NOTE
   - **When removing the flat cables, be careful not to lose ferrite cores [3].**
9. Remove the ferrite core [4].



10. Remove three screws [1], and remove the metal plate [2].
11. Remove the screw [3], and remove the earth cable [4].



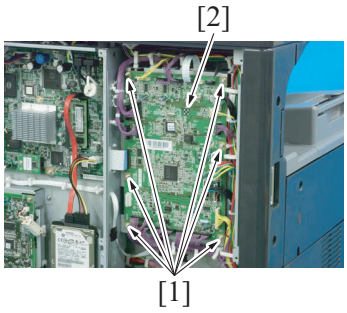
12. Remove the scanner unit [1].

13. To reinstall, reverse the order of removal.

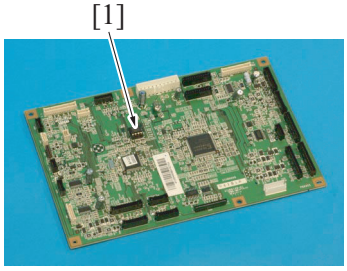
4.4 Disassembly/reassembly procedure (Boards)

4.4.1 Printer control board (PRCB)

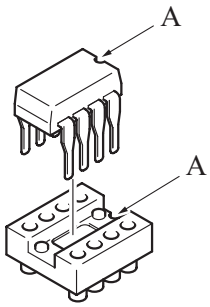
1. Remove the rear cover.
   G.4.2.5 Rear cover



2. Disconnect all connectors and flat cables on the printer control board.
3. Remove six screws [1], and remove printer control board [2].



NOTE
- **When the printer control board (PRCB) has been replaced, be sure to remount EEPROM (IC51) [1].**
  Remove EEPROM (IC51) [1] from the old printer control board and mount it on the new printer control board.



NOTE
- **When mounting EEPROM (IC51), align the notches (indicated by "A" in the illustration).**

4. To reinstall, reverse the order of removal.

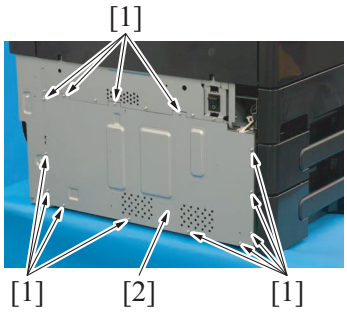
NOTE
- **After replacing the printer control board, be sure to install the latest firmware.**

4.4.2 DC power supply (DCPU)

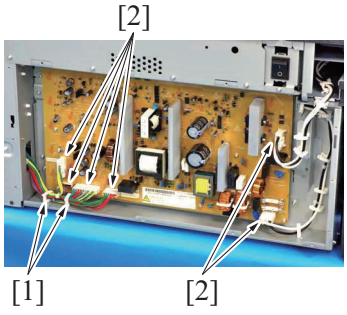
CAUTION

- Remove the DC power supply after 22 minutes or more have passed since the power plug was disconnected.

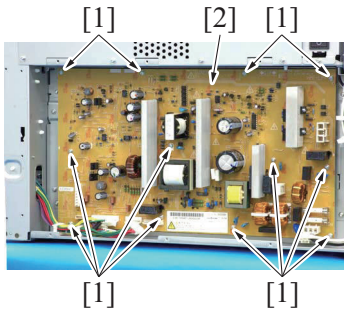
1. Remove the left cover.
G.4.2.2 Left cover



2. Remove 13 screws [1], and remove the DC power supply protective shield [2].



3. Remove the harness from two wire saddles [1].
4. Disconnect six connectors [2] on the DC power supply.



5. Remove 12 screws [1], and remove the DC power supply [2].

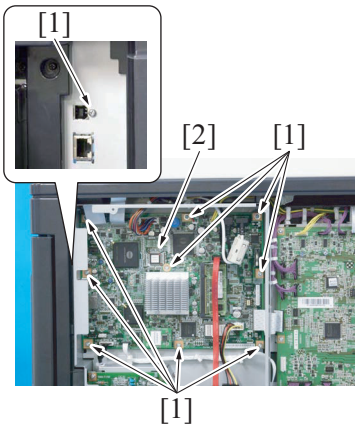
6. To reinstall, reverse the order of removal.

4.4.3 MFP board (MFPB)

NOTE

- **After replacing the MFP board, be sure to install the latest firmware.**
- **If the MFP board has been replaced with a new one, the serial number of the machine must be written in the new MFP board by following the procedure given below.**
- **When replacing the MFP board, in order to make the existing counter data become available in the new board, be sure to back up the counter data following the replacement procedure below.**
- **When the MFP board is replaced, upgrade the firmware to the latest version.**
  J.1. Checking the current firmware version

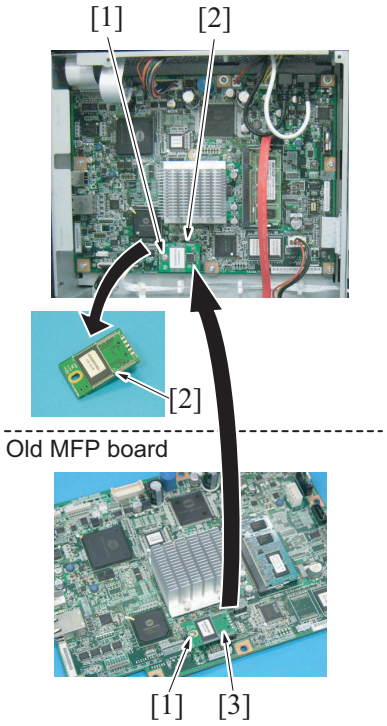
(1) Replacement procedure



1. Remove the rear cover.
   G.4.2.5 Rear cover
2. Disconnect all connectors and flat cables on the MFP board.
3. Remove ten screws [1], and remove the MFP board [2].
   NOTE
   - **If the memory board (DIMM) is not mounted on the new MFP board, be sure to remove the memory board from the old MFP board and mount it on the new MFP board.**

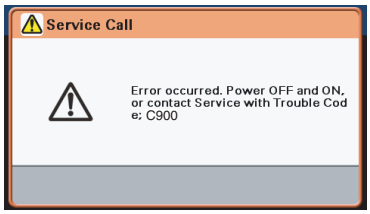
4. Install the new MFP board.
5. Turn ON the power switch.
   NOTE
   - **Do not perform any printing operation at this stage.**

6. Enter the SERVICE MODE.
7. Select [Soft Switch] - [↓] - [Switch 7]. Set [Switch 7] to "159."
8. Turn OFF the power switch.



9. Remove the screw [1], remove the new SSD board [2] from the MFP board, and mount the old SSD [3] board that is located on the old MFP board.

10. Turn ON the power switch.
11. 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: C900" appears on the screen.

NOTE

- **When backup is completed successfully, the setting of Soft Switch 7 automatically returns to the initial value of "0."**

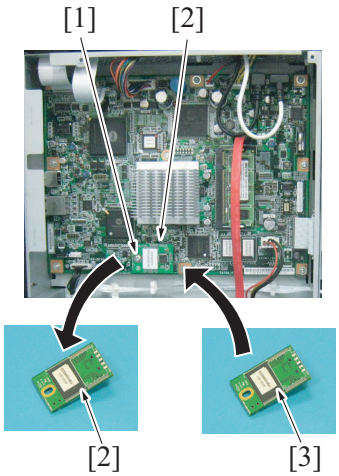
<When backup results in an abnormal end>

- When backup results in an abnormal end, "Service Call: C907" appears on the screen.

NOTE

- **If an abnormal end recurs after turning OFF/ON the power switch of the machine again, the MFP board or the SSD board can be faulty.**

12. Turn OFF the power switch.



13. Remove the screw [1], remove the old SSD board [2], and mount the new SSD board [3].

14. Turn ON the power switch of the machine and confirm that the machine operates properly.

15. Install the firmware to the latest version.

J.1. Checking the current firmware version

(2) Writing the serial number in new MFP board

(a) System requirements

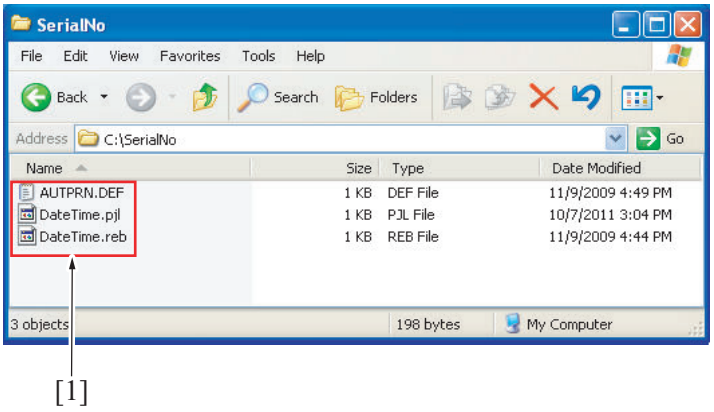
- PC equipped with a USB port
- USB memory device

(b) Supported external memory devices

- FAT32-formatted memory device.
- The memory capacity is less than 8 GB. (the USB memory device that the amount is greater than 8 GB may not operate)
- Without security function added. (security function can be turned off)
- USB flash memory device that is not recognized as multiple drives on the computer.

(c) Editing the serial number writing files

1. Save the serial number writing files in an appropriate location in the PC.

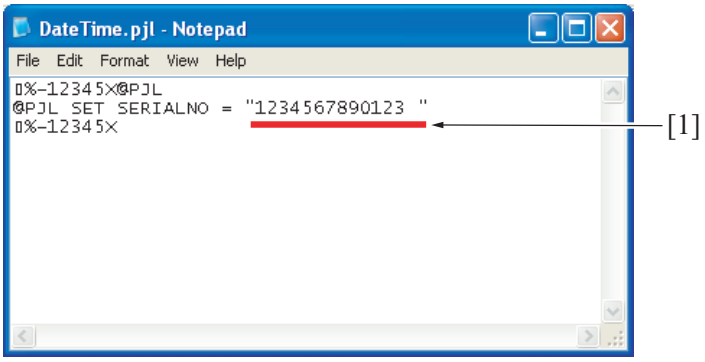


[1]	Serial number writing files

NOTE

- **Check that the following types of files are available:**
  - **AUTPRN.DEF**
  - **DateTime.reb**
  - **DateTime.pjl**

2. Using “Notepad”, open “DateTime.pjl” and type the serial number of the machine to be written in the serial number entry area.

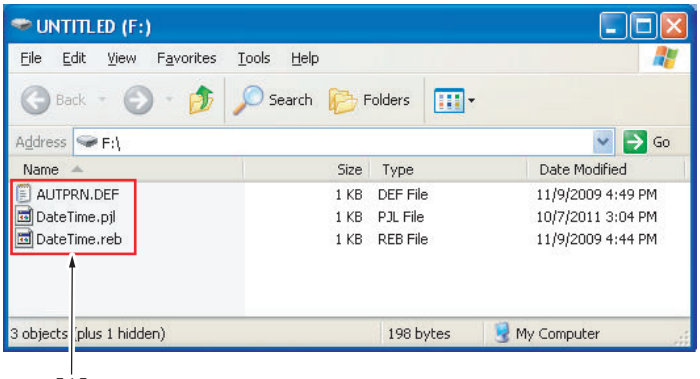


[1]	Serial number entry area (14 characters) Serial number 13 characters (alphanumeric characters) + one-byte space

NOTE

- **The serial number (13 alphanumeric characters) must be followed by one-byte space.**
- **Edit only the serial number entry area.**
- **There is no need to edit AUTPRN.DEF and DateTime.reb.**

3. Click “Save” on “Notepad” and then close DateTime.pjl.
4. Connect the USB memory device to the PC.
5. Copy the serial number writing files (three files) to a location immediately under the USB memory device drive.



[1]	Serial number writing files

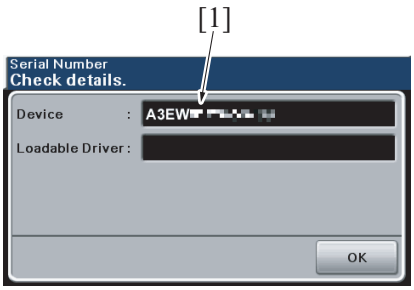
(d) Writing the serial number

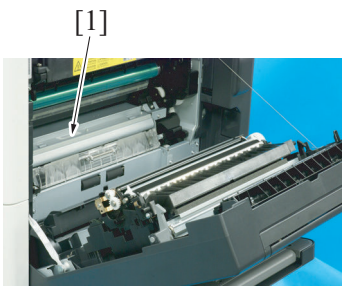
1. Turn ON the power switch of the machine.
2. When the message "Ready to copy" appears on the control panel, connect the USB memory device to the machine.
3. This starts the sequence of writing the serial number.

NOTE

- **Do not remove the USB memory device from the machine while the serial number is being written.**

4. When the serial number is normally written, the machine is automatically restarted.
5. Selecting [Service Mode] -> [Serial Number], let the machine display the serial number.
6. Make sure that the number of [Device] that appears matches with the serial number of the machine.





[1]	serial number

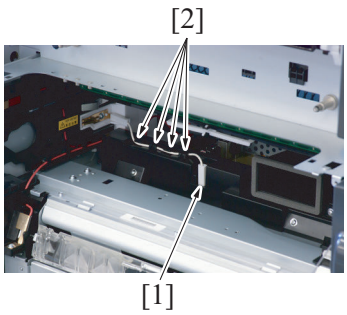
NOTE

- **If a wrong serial number has been written, start the procedure over, starting with G.4.4.3.(2).(c) Editing the serial number writing files.**

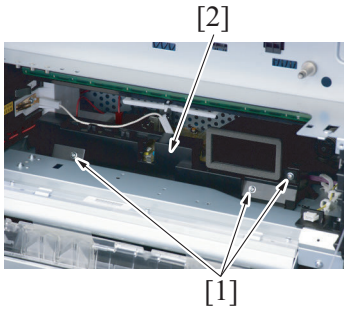
7. Turn OFF the power switch of the machine and then remove the USB memory device from the machine.

4.4.4 High Voltage Unit (HV1)

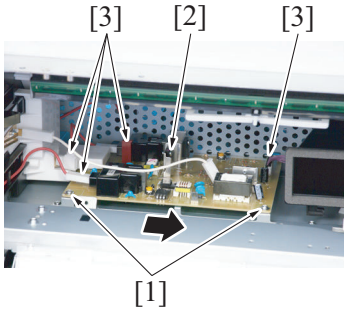
1. Remove the imaging unit.
   G.4.3.1 Imaging unit



2. Disconnect the connector [1], remove the harness from four guides [2].



3. Remove three screws [1], and remove the cover [2].

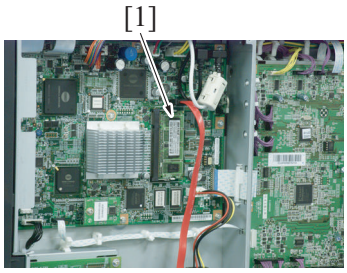


4. Remove two screws [1].
5. Slide the high voltage unit [2] in the direction of the arrow.
6. Disconnect four connectors [3], and remove the high voltage unit [2].
   NOTE
   - **Install the high voltage unit so that the machine terminals come into contact with the counterparts on the high voltage unit.**

7. To reinstall, reverse the order of removal.

4.4.5 SODIMM (DIMM)

1. Remove the rear cover.
   G.4.2.5 Rear cover

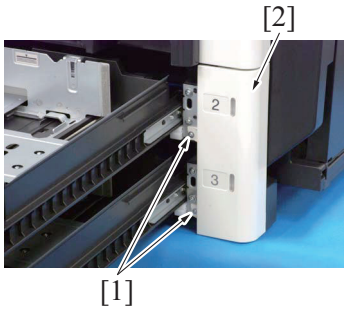


2. Remove the SODIMM [1] on the MFP board.

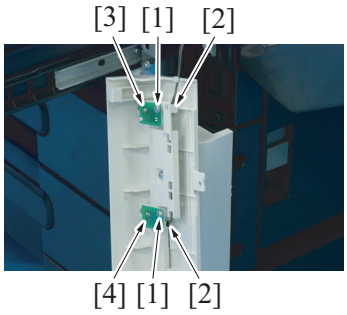
3. To reinstall, reverse the order of removal.

4.4.6 Tray 2 LED board (LEDB2), Tray 3 LED board (LEDB3)

1. Slide out the tray 2 and tray 3.



2. Remove two screws [1] and place the lower front cover [2] with the inside up.

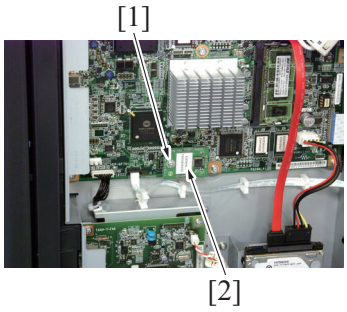


3. Remove the screw [1] each, disconnect the connector [2] each, and remove the paper feed tray 2 LED board [3] and the paper feed tray 3 LED board [4].

4. To reinstall, reverse the order of removal.

4.4.7 SSD Board (SSDB)

1. Remove the rear cover.
   G.4.2.5 Rear cover

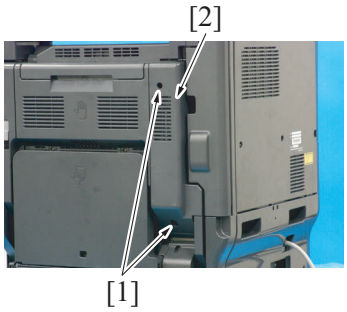


2. Remove the screw [1], and remove the SSD board [2].

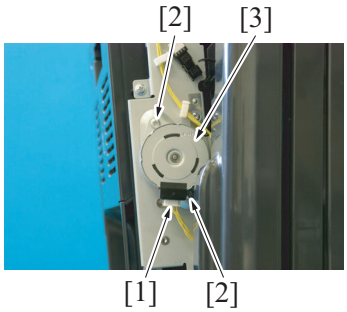
3. To reinstall, reverse the order of removal.

4.5 Disassembly/reassembly procedure (Motors)

4.5.1 Duplex transport motor (M7)



1. Remove two screws [1], and remove the duplex transport cover [2].
2. Open the right door.

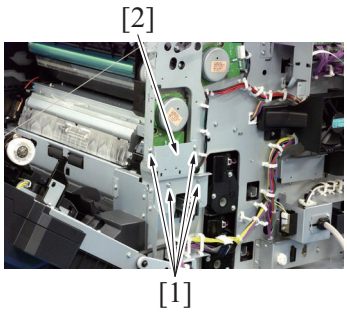


3. Disconnect the connector [1].
4. Remove two screws [2], and remove the duplex transport motor [3].

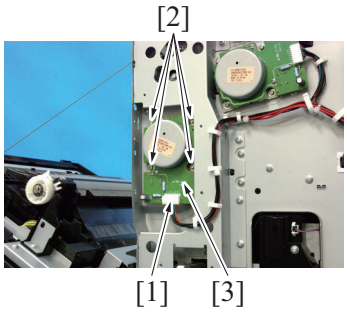
5. To reinstall, reverse the order of removal.

4.5.2 Transport motor (M1)

1. Remove the rear cover.
   G.4.2.5 Rear cover
2. Remove the lower rear cover.
   G.4.2.6 Lower rear cover
3. Remove the rear right cover.
   G.4.2.4 Rear right cover
4. Remove the MFP board box.
   G.4.3.11 MFP board box



5. Remove four screws [1], and remove the sheet metal cover [2].

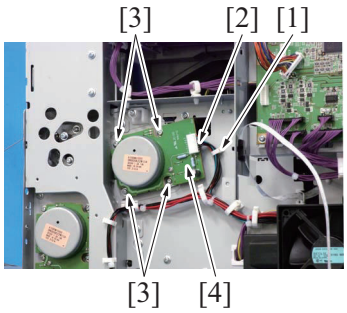


6. Disconnect the connector [1].
7. Remove four screws [2], and remove transport motor [3].

8. To reinstall, reverse the order of removal.

4.5.3 PC motor (M2)

1. Remove the rear cover.
   G.4.2.5 Rear cover
2. Remove the rear right cover.
   G.4.2.4 Rear right cover
3. Remove the MFP board box.
   G.4.3.11 MFP board box

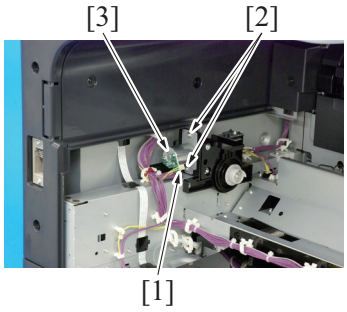


4. Remove the harness from the wire saddle [1], and disconnect the connector [2].
5. Remove four screws [3], and remove the PC motor [4].

6. To reinstall, reverse the order of removal.

4.5.4 Toner bottle motor (M3)

1. Remove the exit tray.
   G.4.2.3 Exit tray

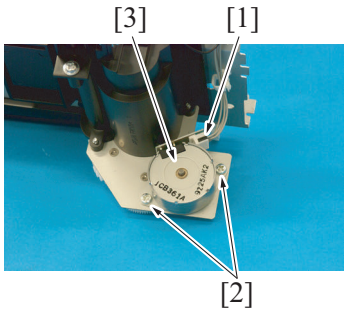


2. Disconnect the connector [1].
3. Remove two screws [2], and remove the toner bottle motor [3].

4. To reinstall, reverse the order of removal.

4.5.5 Toner supply motor (M8)

1. Remove the hopper drive unit.
   G.4.3.10 Hopper drive unit

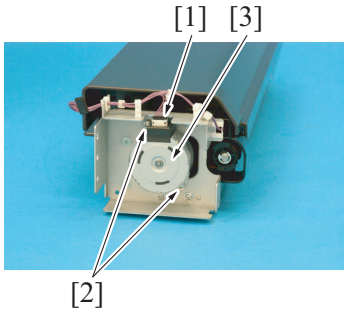


2. Disconnect the connector [1].
3. Remove two screws [2], and remove the toner supply motor [3].

4. To reinstall, reverse the order of removal.

4.5.6 Switchback motor (M6)

1. Remove the fusing unit.
   F.6.8.1 Replacing the fusing unit
2. Remove the switchback unit.
   G.4.3.7 Switchback unit

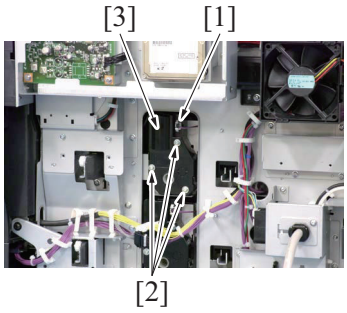


3. Disconnect the connector [1].
4. Remove two screws [2], and remove the switchback motor [3].

5. To reinstall, reverse the order of removal.

4.5.7 Tray 2 lift-up motor (M4)

1. Remove the rear cover.
   G.4.2.5 Rear cover
2. Remove the lower rear cover.
   G.4.2.6 Lower rear cover

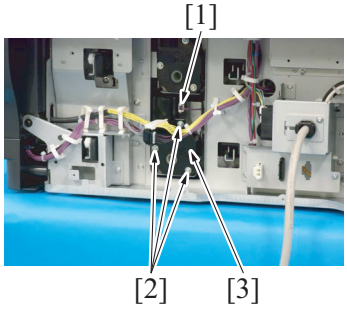


3. Disconnect the connector [1].
4. Remove three screws [2], and remove the tray 2 lift-up motor [3].

5. To reinstall, reverse the order of removal.

4.5.8 Tray 3 lift-up motor (M5)

1. Remove the lower rear cover.
   G.4.2.6 Lower rear cover

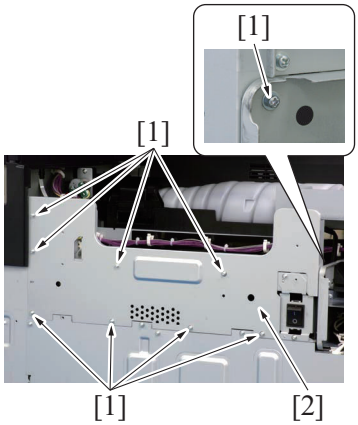


2. Disconnect the connector [1].
3. Remove three screws [2], and remove the tray 3 lift-up motor [3].

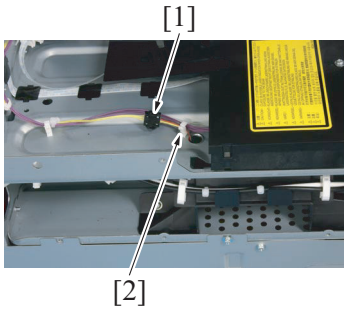
4. To reinstall, reverse the order of removal.

4.5.9 Power supply cooling fan motor (FM1)

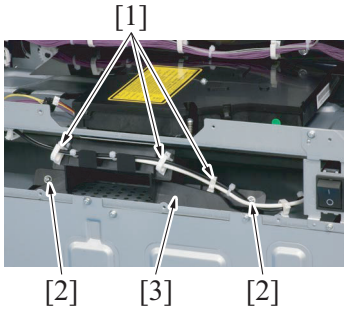
1. Remove the left cover.
   G.4.2.2 Left cover
2. Remove the exit tray.
   G.4.2.3 Exit tray



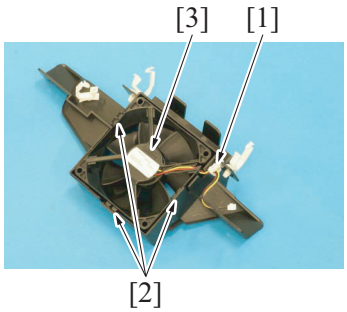
3. Remove nine screws [1], and remove the protective shield [2].



4. Remove the harness from the wire saddle [1] and the connector [2].



5. Remove the harness from three wire saddles [1].
6. Remove two screws [2], and remove the power supply cooling fan motor assy [3].

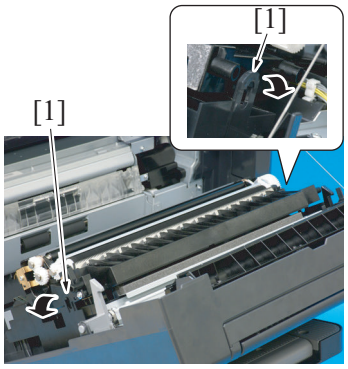


7. Remove the harness from the wire saddle [1].
8. Unhook three tabs [2], and remove the power supply cooling fan motor [3].

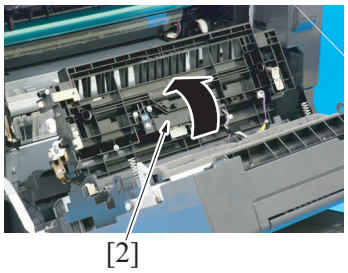
9. To reinstall, reverse the order of removal.

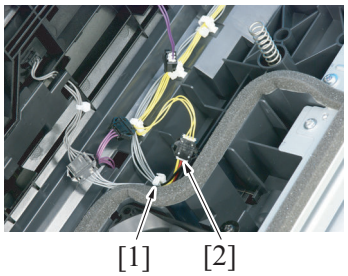
4.5.10 Cooling fan motor (FM2)

1. Open the right door.

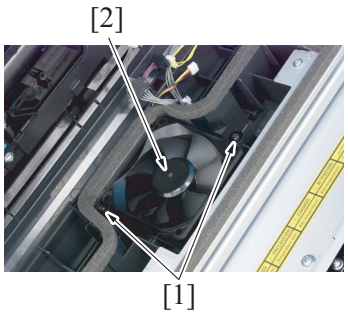


2. Widen two tabs [1] in the direction of the arrow to unlock them. Then, raise the regist unit [2] as illustrated.





3. Remove the harness from the wire saddle [1], and disconnect the connector [2].

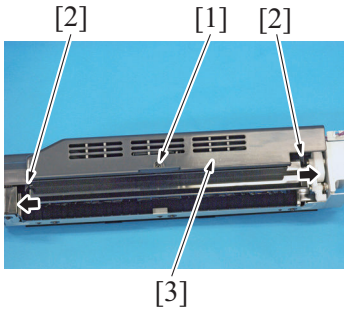


4. Remove two screws [1], and remove the cooling fan motor [2].

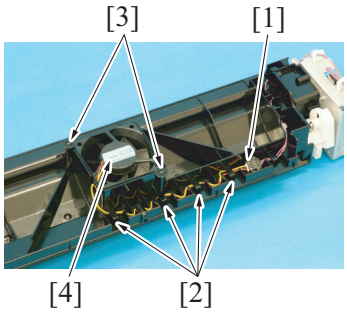
5. To reinstall, reverse the order of removal.

4.5.11 Fusing unit cooling fan motor (FM3)

1. Remove the fusing unit.
   F.6.8.1 Replacing the fusing unit
2. Remove the switchback unit.
   G.4.3.7 Switchback unit



3. Remove the screw [1].
4. Unlock two locks [2], and remove the switchback unit cover [3].

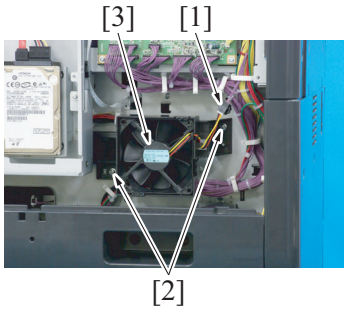


5. Disconnect the connector [1].
6. Remove the harness from four guides [2].
7. Remove two screws [3], and remove fusing unit cooling fan motor [4].

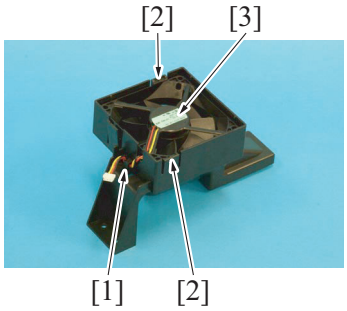
8. To reinstall, reverse the order of removal.

4.5.12 Toner suction fan motor (FM4)

1. Remove the rear cover.
G.4.2.5 Rear cover



2. Disconnect the connector [1].
3. Remove two screws [2], and remove toner suction fan motor [3].



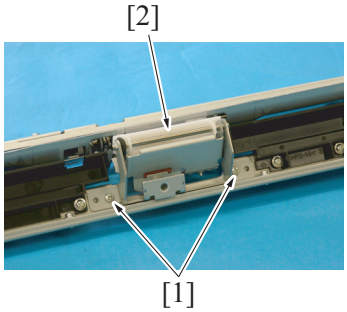
4. Remove the harness from guide [1].
5. Unhook two tabs [2], and remove the toner suction fan motor [3].

6. To reinstall, reverse the order of removal.

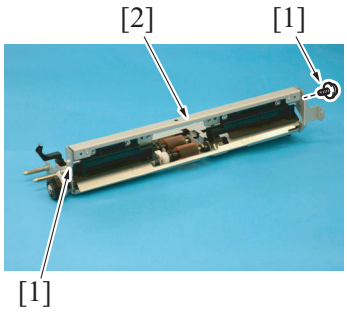
4.6 Disassembly/reassembly procedure (Clutches)

4.6.1 Tray 2 paper feed clutch (CL2)

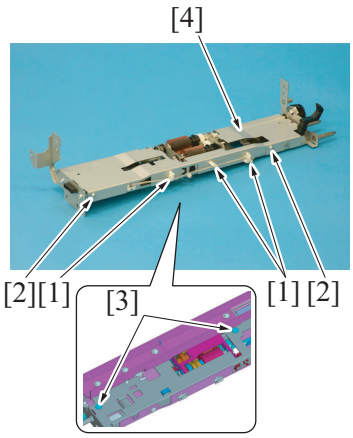
1. Remove the tray 2 paper feed unit.
G.4.3.2 Tray 2 paper feed unit



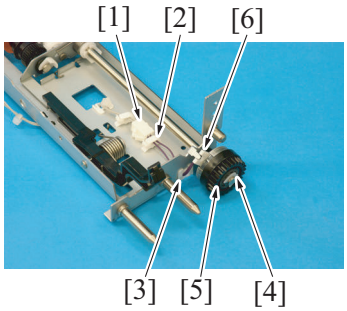
2. Remove two screws [1], and remove the tray 2 separation roller unit [2].



3. Remove two screws [1], and remove the separation roller unit attachment plate [2].



4. Remove the harness from three wire saddles [1].
5. Remove two screws [2] and two shoulder screws [3], and remove the tray 2 paper feed roller cover [4].

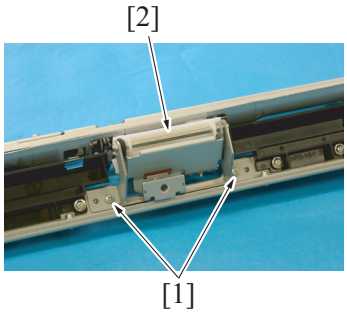


6. Disconnect the connector [1].
7. Remove the harness from the wire saddle [2] and the edge cover [3].
8. Remove the C-ring [4], and remove the tray 2 paper feed clutch [5].
   NOTE
   - **When mounting the paper feed tray 2 paper feed clutch, set the convex part of the stopper into the concave part [6] of the paper feed tray 2 paper feed clutch [5].**

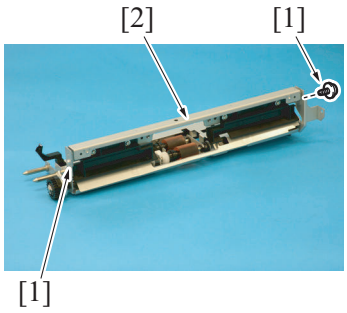
9. To reinstall, reverse the order of removal.

4.6.2 Tray 3 paper feed clutch (CL3)

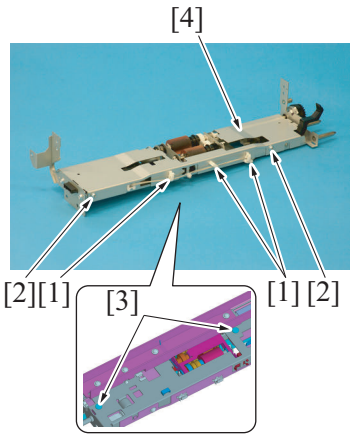
1. Remove the tray 3 paper feed unit.
   G.4.3.3 Tray 3 paper feed unit



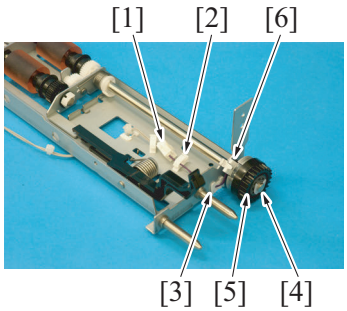
2. Remove two screws [1], and remove the tray 3 separation roller unit [2].



3. Remove two screws [1], and remove the separation roller unit attachment plate [2].



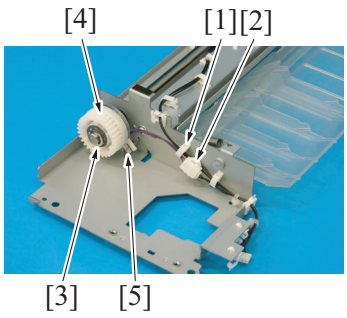
4. Remove the harness from three wire saddles [1].
5. Remove two screws [2] and two shoulder screws [3], and remove the tray 3 paper feed roller cover [4].



6. Disconnect the connector [1].
7. Remove the harness from the wire saddle [2] and the edge cover [3].
8. Remove the C-ring [4], and remove the tray 3 paper feed clutch [5].
   NOTE
   - **When mounting the paper feed tray 3 paper feed clutch, set the convex part of the stopper into the concave part [6] of the paper feed tray 3 paper feed clutch [5].**
9. To reinstall, reverse the order of removal.

4.6.3 Tray 3 vertical transport clutch (CL4)

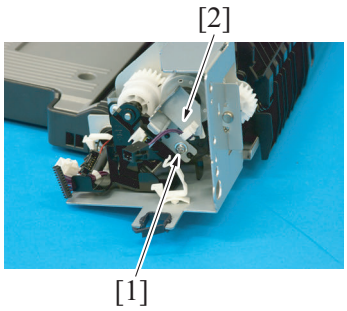
1. Remove the conveyance unit.
   G.4.3.9 Conveyance unit



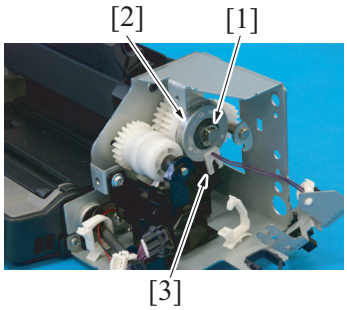
2. Remove the harness from the wire saddle [1], and disconnect the connector [2].
3. Remove the E-ring [3], and remove the tray 3 vertical transport clutch [4].
   NOTE
   - **When mounting the tray 3 vertical transport clutch, set the convex part of the stopper into the concave part [5] of the tray 3 vertical transport clutch [4].**
4. To reinstall, reverse the order of removal.

4.6.4 Tray 1 paper feed clutch (CL5)

1. Remove the tray 1 unit.
   G.4.3.8 Tray 1 (Manual bypass tray) unit



2. Remove the screw [1], and remove the sensor assy [2].

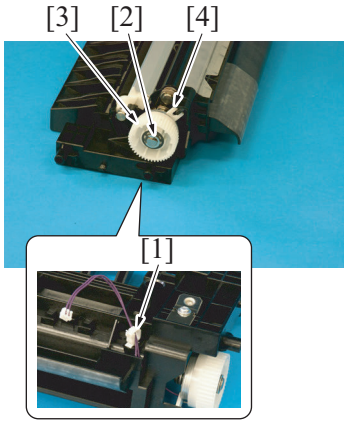


3. Remove the E-ring [1], and remove the tray 1 paper feed clutch [2].
NOTE
- **When mounting the tray 1 paper feed clutch, set the convex part of the stopper into the concave part [3] of the tray 1 paper feed clutch [2].**

4. To reinstall, reverse the order of removal.

4.6.5 Registration clutch (CL1)

1. Open the right door.
2. Remove the regist unit.
G.4.3.6 Regist unit



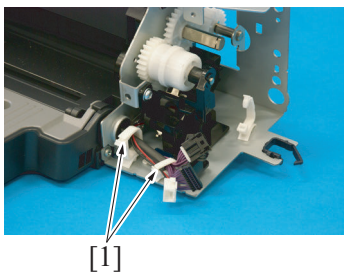
3. Remove the harness from the wire saddle [1].
4. Remove the E-ring [2], and remove the registration clutch [3].
NOTE
- **When mounting the registration clutch, set the convex part of the stopper into the concave part [4] of the registration clutch [3].**

5. To reinstall, reverse the order of removal.

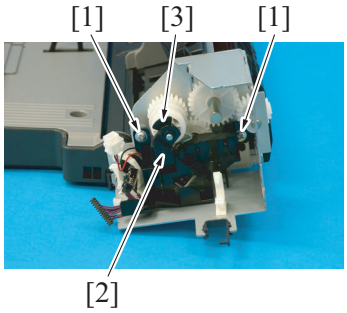
4.7 Disassembly/reassembly procedure (etc.)

4.7.1 Tray 1 pick-up solenoid (SD1)

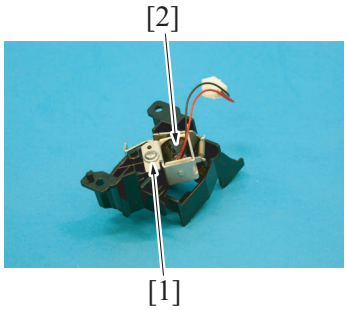
1. Remove the tray 1 paper feed clutch.
G.4.6.4 Tray 1 paper feed clutch (CL5)



2. Remove the harness from two wire saddles [1].



3. Remove two screws [1], and remove the tray 1 pick-up solenoid assy [2].
NOTE
- **Use care not to lose the actuator [3].**

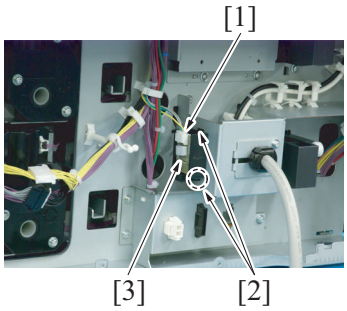


4. Remove the screws [1], and remove the tray 1 pick-up solenoid [2].

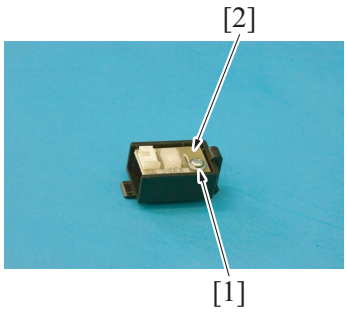
5. To reinstall, reverse the order of removal.

4.7.2 Temperature/humidity sensor (TEM/HUM)

1. Remove the lower rear cover.
G.4.2.6 Lower rear cover



2. Disconnect the connector [1].
3. Unhook two tabs [2], and remove the temperature/humidity sensor assy [3].

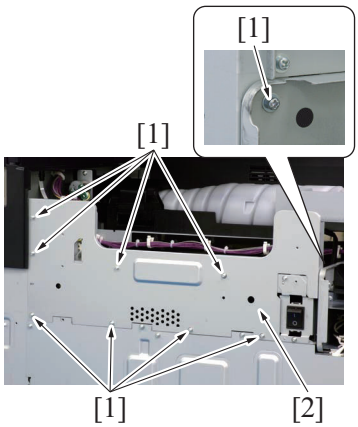


4. Remove the screw [1], and remove the temperature/humidity sensor [2].

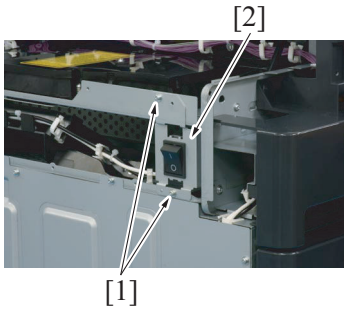
5. To reinstall, reverse the order of removal.

4.7.3 Main power switch (SW1)

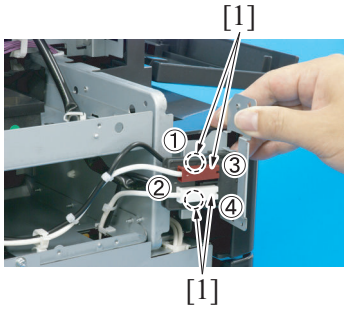
1. Remove the left cover.
G.4.2.2 Left cover
2. Remove the exit tray.
G.4.2.3 Exit tray



3. Remove nine screws [1], and remove the protective shield [2].

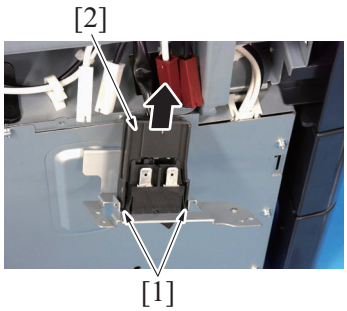


4. Remove two screws [1], and slide out the main power switch assy [2].

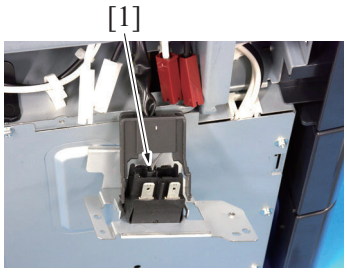


5. Disconnect four connectors [1] from main switch.
NOTE
- **When mounting the main switch connectors, make sure that they are mounted at the right positions as detailed below.**

No.	Color of connectors	Color of harnesses
①	Red	Black
②	White	Black
③	Red	White
④	White	White



6. Unhook two tabs [1], and remove the cover [2].



7. Disconnect the connector [1].

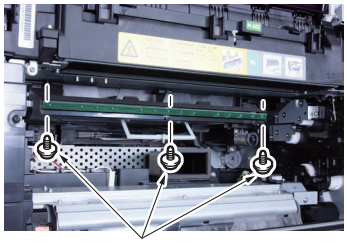
8. To reinstall, reverse the order of removal.

4.7.4 Ozone duct assy

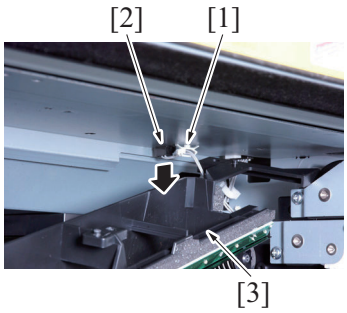
1. Remove the imaging unit.

G.4.3.1 Imaging unit

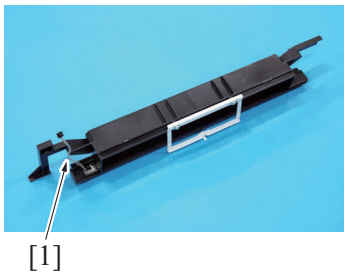
2. Remove the ozone filter.
F.6.1.1 Replacing the ozone filter



3. Remove three screws [1]
NOTE
- **When you touch the toner replenishing port, toner spills. Be careful not to touch the port.**
- **When reinstalling the ozone duct assy, align the three dowels on the ozone duct assy with the holes on the plate.**



4. Remove the harness from the wire saddle [1].
5. Disconnect the connector [2], and remove the ozone duct assy [3].



6. Remove the harness [1] from the ozone duct assy.

7. To reinstall, reverse the order of removal.

5. Option

5.1 Disassembly/reassembly parts list

5.1.1 PC-211

Section	Part name	Ref. page
Exterior parts	Right door	G.5.2.1 Right door
	Rear right cover	G.5.2.2 Rear right cover/Lower right cover/Front right cover
	Lower right cover	
	Front right cover	
	Rear cover	G.5.2.3 Rear cover/Left cover
	Left cover	
Unit	Paper feed cabinet	G.5.2.4 Paper feed cabinet
Boards	PC control board (PCCB)	G.5.2.5 PC control board (PCCB)
	Tray 4 LED board (LEDB4)	G.5.2.6 Tray 4 LED board (LEDB4)/Tray 5 LED board (LEDB5)
	Tray 5 LED board (LEDB5)	
Motors	Tray 4 lift-up motor (M43)	G.5.2.7 Tray 4 lift-up motor (M43)/Tray 5 lift-up motor (M53)
	Tray 5 lift-up motor (M53)	
	Tray 4 vertical transport motor (M42)	G.5.2.8 Tray 4 paper feed motor (M41)/Tray 4 vertical transport motor (M42)/Tray 5 paper feed motor (M51)/ Tray 5 vertical transport motor (M52)
	Tray 4 paper feed motor (M41)	
	Tray 5 vertical transport motor (M52)	
	Tray 5 paper feed motor (M51)	

5.1.2 FS-529

Section	Part name	Ref. page
Exterior parts	Front left cover	G.5.3.1 Front left cover
	Front right cover	G.5.3.2 Front right cover
	Upper cover/1	G.5.3.3 Upper cover/1
	Upper cover/2	G.5.3.4 Upper cover/2
	Rear cover	G.5.3.5 Rear cover
Units	Finisher	G.5.3.6 Finisher
	Conveyance roller unit	G.5.3.7 Conveyance roller unit
	Stapler unit	G.5.3.8 Stapler unit
	Paper exit tray unit	G.5.3.9 Paper exit tray unit
Board	FS control board (FSCB)	G.5.3.10 FS control board (FSCB)
Others	Pick up roller position motor (M1)	G.5.3.11 Pick up roller position motor (M1)
	Tray up/down motor (M2)	G.5.3.12 Tray up/down motor (M2)
	Alignment motor/F (M3), Alignment motor/R (M4)	G.5.3.13 Alignment motor/F (M3), Alignment motor/R (M4)
	Conveyance motor/1 (M5)	G.5.3.14 Conveyance motor/1 (M5)
	Conveyance motor/2 (M6)	G.5.3.15 Conveyance motor/2 (M6)
	Stapler movement motor (M7)	G.5.3.16 Stapler movement motor (M7)
	Fan motor (FM1)	G.5.3.17 Fan motor (FM1)
	Paddle solenoid (SD2)	G.5.3.18 Paddle solenoid (SD2)
	Flapper solenoid (SD4)	G.5.3.19 Flapper solenoid (SD4)
	Belt retract solenoid (SD5)	G.5.3.20 Belt retract solenoid (SD5)
	Harness guide	G.5.3.21 Harness guide

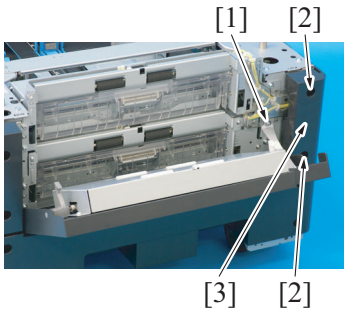
5.1.3 FK-509

Section	Part name	Ref. page
Board	Fax Kit	G.5.4.1 Fax kit (Option)

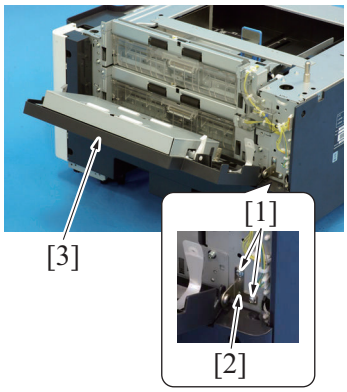
5.2 Disassembly/reassembly procedure (PC-211)

5.2.1 Right door

1. Open the right door.



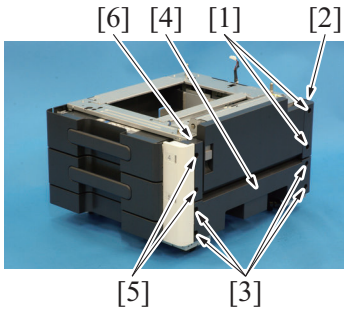
2. Remove the screw [1].
3. Remove two screws [2], and remove the rear right cover [3].



4. Remove two screws [1], remove the sheet metal [2].
5. Remove the right door [3].

6. To reinstall, reverse the order of removal.

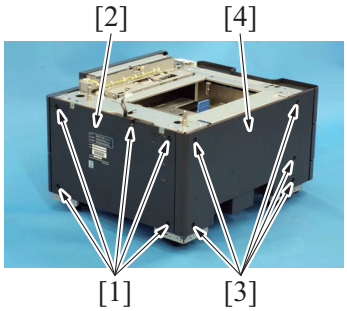
5.2.2 Rear right cover/Lower right cover/Front right cover



1. Remove two screws [1], and remove the rear right cover [2].
2. Remove four screws [3], and remove the lower right cover [4].
3. Remove two screws [5], and remove the front right cover [6].

4. To reinstall, reverse the order of removal.

5.2.3 Rear cover/Left cover

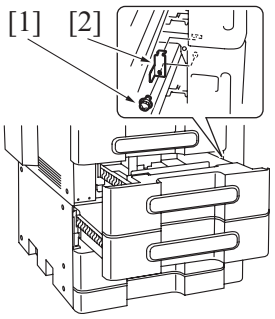


1. Remove five screws [1], and remove the rear cover [2].
2. Remove five screws [3], and remove the left cover [4].

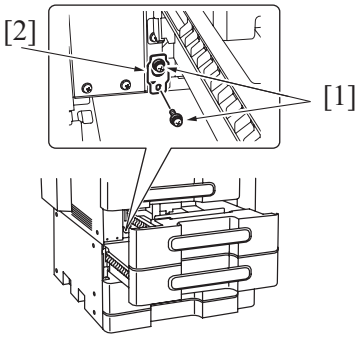
3. To reinstall, reverse the order of removal.

5.2.4 Paper feed cabinet

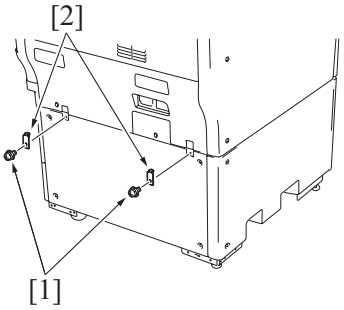
1. Pull out the tray3 and tray4.



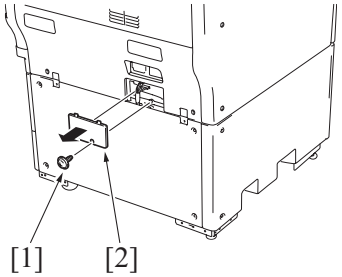
2. Remove the screw [1], and remove the fixing bracket [2].



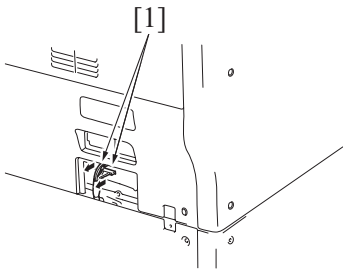
3. Remove two screws [1], and remove the fixing bracket [2].



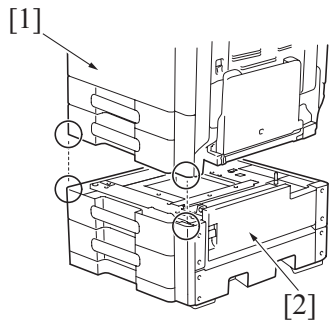
4. Remove two screws [1], and remove two fixing brackets [2].



5. Remove the screw [1], and remove the cover [2].



6. Disconnect two connectors [1].

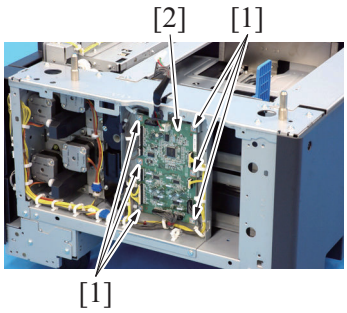


7. Lift the main body [1] and then remove the paper feed cabinet [2].

8. To reinstall, reverse the order of removal.

5.2.5 PC control board (PCCB)

1. Remove the rear cover.
G.5.2.3 Rear cover/Left cover

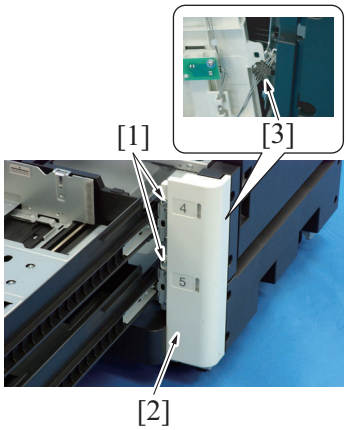


2. Disconnect all connectors of the PC control board.
3. Remove six screws [1], and remove the PC control board [2].

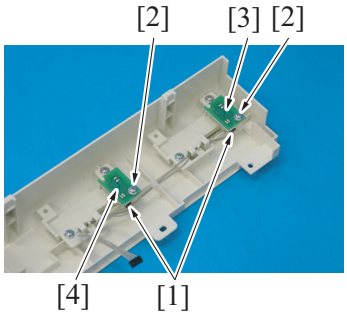
4. Reinstall the above parts following the removal steps in reverse.

5.2.6 Tray 4 LED board (LEDB4)/Tray 5 LED board (LEDB5)

1. Slide out the tray 4 and tray 5.



2. Remove two screws [1], and remove the cover [2].
3. Disconnect the connector [3].

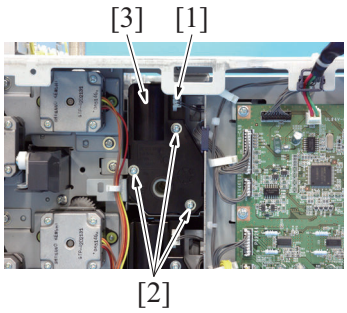


4. Remove the screw [1] each, disconnect the connector [2] each, and remove the tray 4 LED board [3] and the tray 5 LED board [4].

5. To reinstall, reverse the order of removal.

5.2.7 Tray 4 lift-up motor (M43)/Tray 5 lift-up motor (M53)

1. Remove the rear cover.
G.5.2.3 Rear cover/Left cover

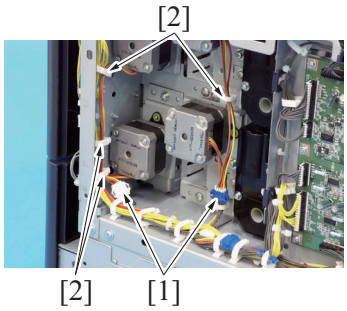


2. Disconnect the connector [1].
3. Remove three screws [2], and remove the tray 4 lift-up motor [3].

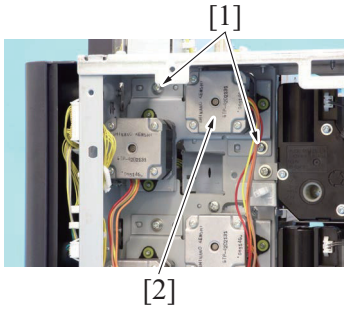
4. Follow the same procedure as the above to remove the tray 5 lift-up motor.
5. Reinstall the above parts following the removal steps in reverse.

5.2.8 Tray 4 paper feed motor (M41)/Tray 4 vertical transport motor (M42)/Tray 5 paper feed motor (M51)/Tray 5 vertical transport motor (M52)

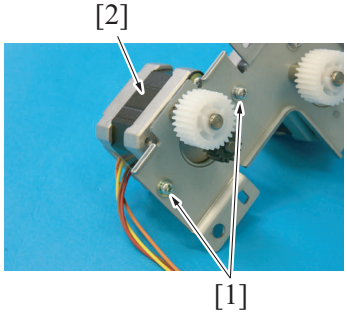
1. Remove the rear cover.
   G.5.2.3 Rear cover/Left cover
2. Slide out the tray 4 and tray 5.



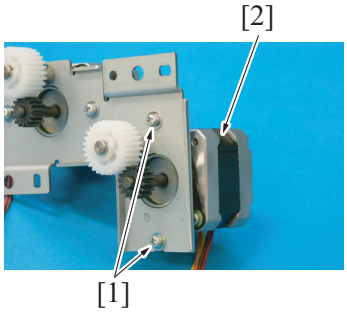
3. Disconnect two connectors [1].
4. Remove the harness from four wire saddles [2].



5. Remove two screws [1], and remove the motor assy [2].



6. Remove two screws [1], and remove the tray 4 paper feed motor [2].

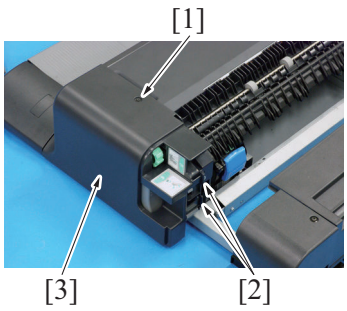


7. Remove two screws [1], and remove the tray 4 vertical transport motor [2].

8. Follow the same procedure as the above to remove the tray 5 paper feed motor/tray 5 vertical transport motor.
9. Reinstall the above parts following the removal steps in reverse.

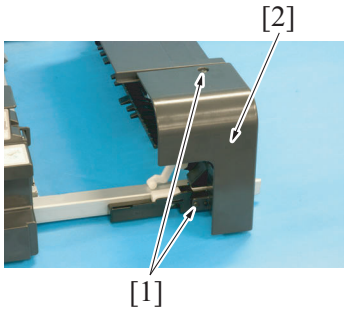
5.3 Disassembly/reassembly procedure (FS-529)

5.3.1 Front left cover



1. Remove the screw [1] and two tabs [2], and remove the front left cover [3].
2. Reinstall the above parts following the removal steps in reverse.

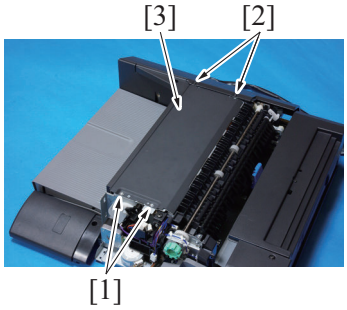
5.3.2 Front right cover



1. Remove two screws [1], and remove the front right cover [2].
2. To reinstall, reverse the order of removal.

5.3.3 Upper cover/1

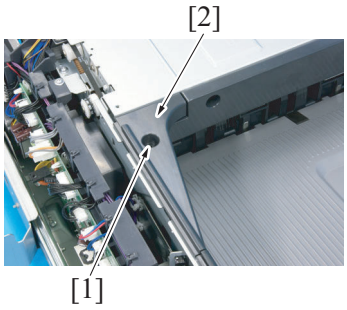
1. Remove the front left cover.
   G.5.3.1 Front left cover



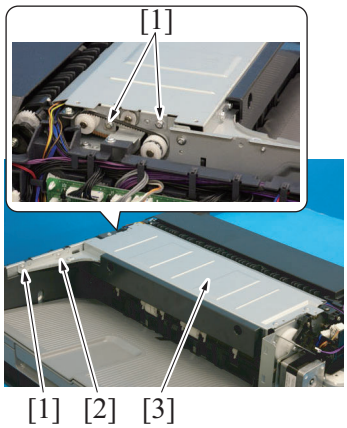
2. Remove two screws [1].
3. Loosen two screws [2], and remove the upper cover/1 [3].
4. Reinstall the above parts following the removal steps in reverse.

5.3.4 Upper cover/2

1. Remove the front left cover.
   G.5.3.1 Front left cover
2. Remove the rear cover.
   G.5.3.5 Rear cover
3. Remove the upper cover/1.
   G.5.3.3 Upper cover/1



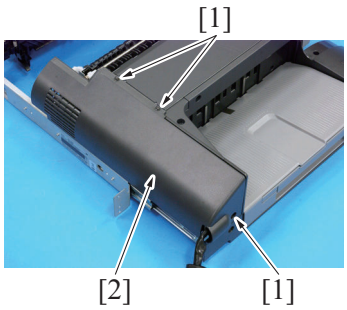
4. Remove the screw [1], and remove the cover [2].



5. Remove three screws [1].
6. When the screw [2] is used, remove the screw [2] and then remove the upper cover/2 [3].

7. Reinstall the above parts following the removal steps in reverse.

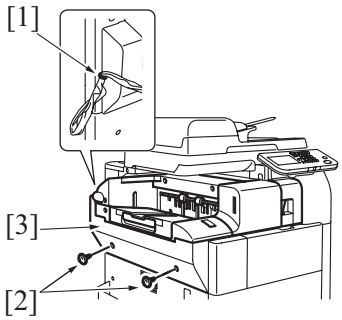
5.3.5 Rear cover



1. Remove three screws [1], and remove the rear cover [2].

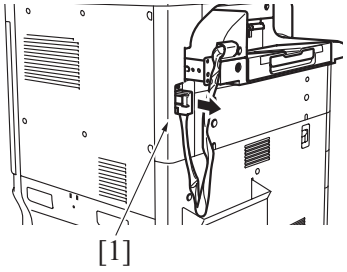
2. Reinstall the above parts following the removal steps in reverse.

5.3.6 Finisher

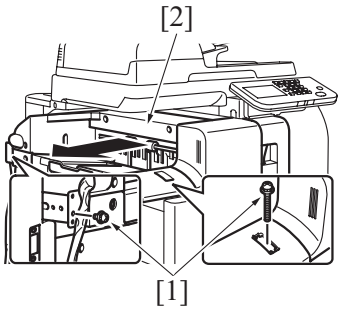


1. Remove the banding band [1] from cover.
2. Remove two screws [2], and remove the cover [3].

3. Remove the relay cord [1].

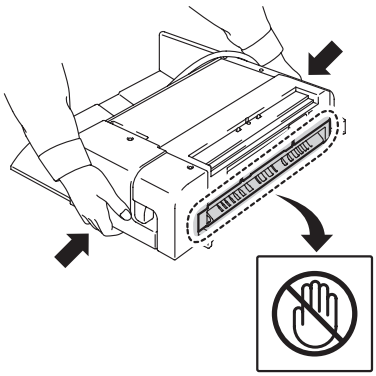


4. Remove two screws [1], and remove the finisher [2].



NOTE

- **When carrying the finisher, be sure to hold onto the specified positions as shown in the left illustration.**

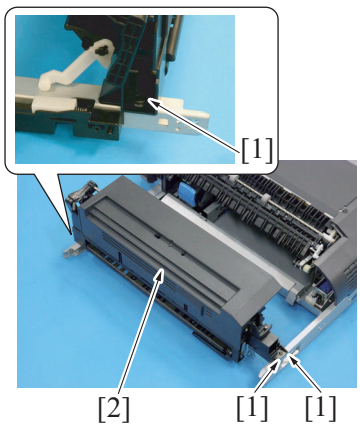


5. Reinstall the above parts following the removal steps in reverse.

5.3.7 Conveyance roller unit

1. Remove the front right cover.
   G.5.3.2 Front right cover

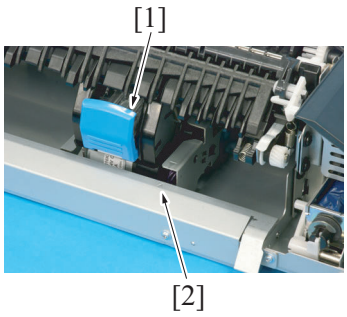
2. Remove three screws [1], and remove the conveyance roller unit [2].



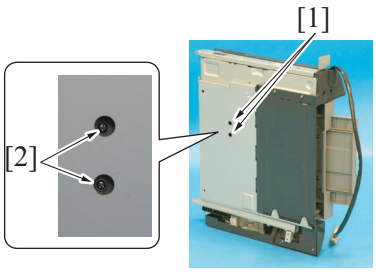
3. Reinstall the above parts following the removal steps in reverse.

5.3.8 Stapler unit

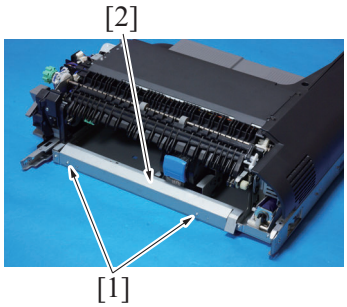
1. Remove the front right cover.
   G.5.3.2 Front right cover
2. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit



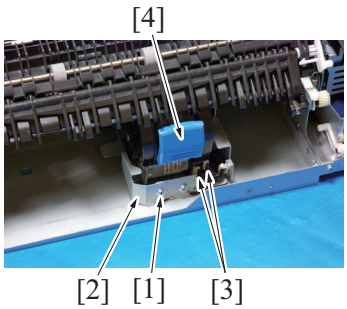
3. Move the stapler unit [1] to the marked position [2].



4. Put the finisher as shown in the illustration and remove two screws [2] from the screw access holes [1] on the bottom plate.



5. Remove two screws [1], and remove the plate [2].

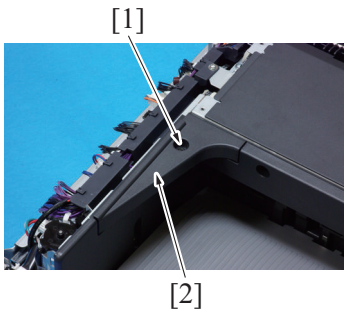


6. Remove the screw [1], and remove the stapler cover plate [2].
7. Disconnect two connectors [3].
8. Remove the stapler unit [4].

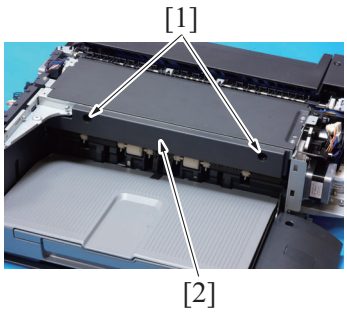
9. Reinstall the above parts following the removal steps in reverse.

5.3.9 Paper exit tray unit

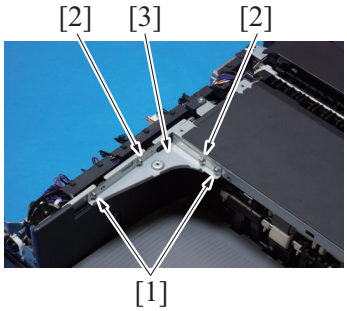
1. Remove the front left cover.
   G.5.3.1 Front left cover
2. Remove the rear cover.
   G.5.3.5 Rear cover



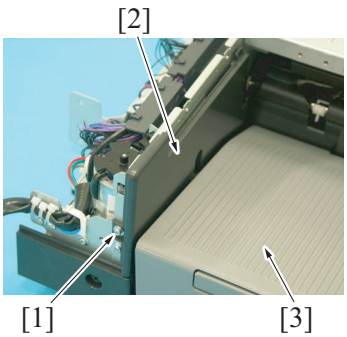
3. Remove the screw [1], and remove the cover [2].



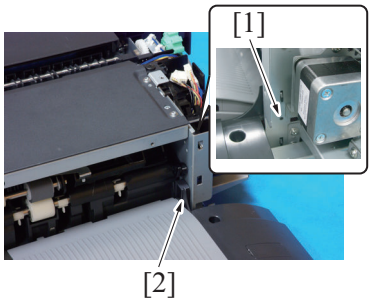
4. Remove two screws [1], and remove the exit roller cover [2].



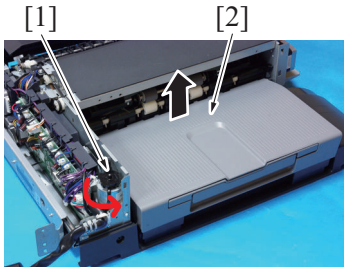
5. Remove two screws [1].
6. When two screws [2] are used, remove two screws [2] and then remove the plate [3].

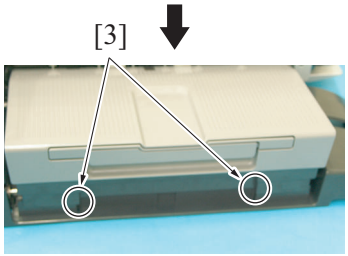


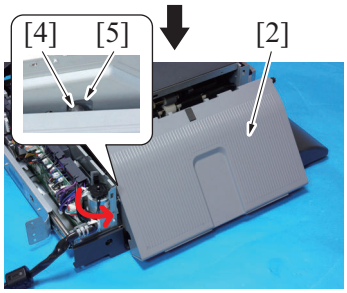
7. Remove the screw [1]. While pressing the paper exit tray [3] down, remove the rear sub cover [2].



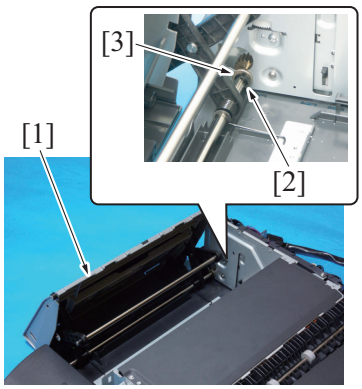
8. Press the dowel [1] and remove the cover rail [2].



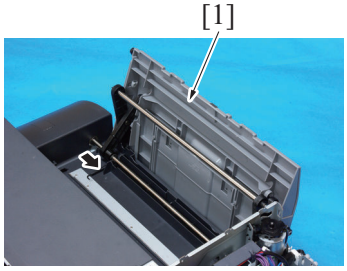




9. Turn the motor [1] in the direction shown by the arrow and raise the exit tray [2].
10. Unhook two shutter tabs [3].
11. Turn the motor [1] further and raise the exit tray [2].
12. Raise the exit tray [2] until its shaft [4] reaches the top of the rail [5].
13. Remove the shaft [4] from rail [5].
14. Turn the motor [1] further and raise the exit tray [2].



15. Raise the exit tray [1] until the spring tension becomes weak as shown in the illustration.
16. Remove the clip [2] and bushing [3].

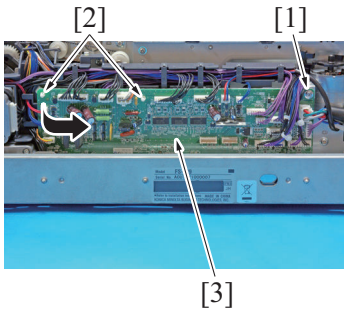


17. Remove the front shaft and remove the exit tray unit [1].

18. Reinstall the above parts following the removal steps in reverse.

5.3.10 FS control board (FSCB)

1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove all connectors from the FS control board.

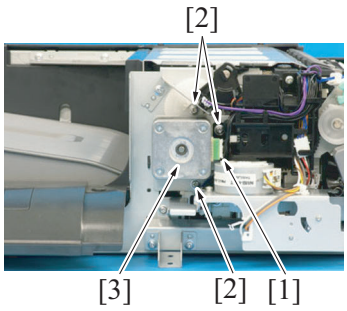


3. Remove the screw [1] and two board supports [2], and remove the FS control board [3].

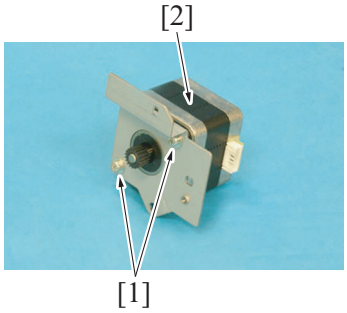
4. Reinstall the above parts following the removal steps in reverse.

5.3.11 Pick up roller position motor (M1)

1. Remove the front left cover.
   G.5.3.1 Front left cover



2. Disconnect the connector [1].
3. Remove three screws [2], and remove the pick up roller position motor assy [3].

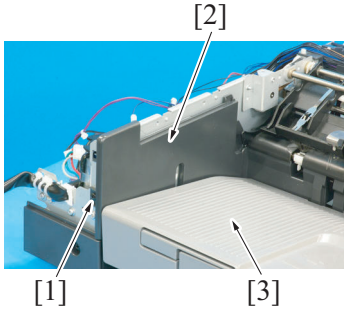


4. Remove two screws [1], and remove the pick up roller position motor [2].

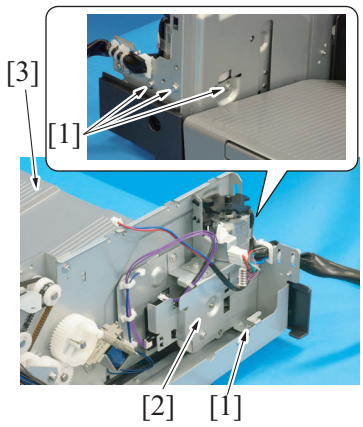
5. Reinstall the above parts following the removal steps in reverse.

5.3.12 Tray up/down motor (M2)

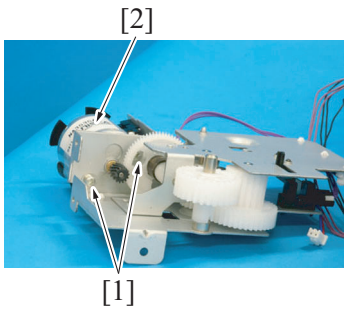
1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the upper cover/1.
   G.5.3.3 Upper cover/1
3. Remove the upper cover/2.
   G.5.3.4 Upper cover/2
4. Remove the FS control board.
   G.5.3.10 FS control board (FSCB)
5. Remove the harness guide.
   G.5.3.21 Harness guide



6. Remove the screw [1]. While pressing the paper exit tray [3] down, remove the rear sub cover [2].



7. Remove four screws [1], and remove the tray up/down motor assy [2].
NOTE
- **When removing the tray up/down motor assy [2], the exit tray [3] bounces. Be sure to press the exit tray [3] down when removing the tray up/down motor assy [2].**

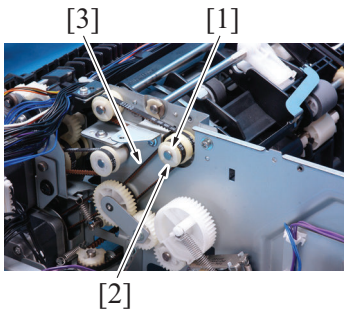


8. Remove two screws [1], and remove the tray up/down motor [2].

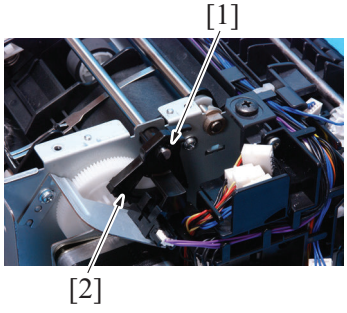
9. Reinstall the above parts following the removal steps in reverse.

5.3.13 Alignment motor/F (M3), Alignment motor/R (M4)

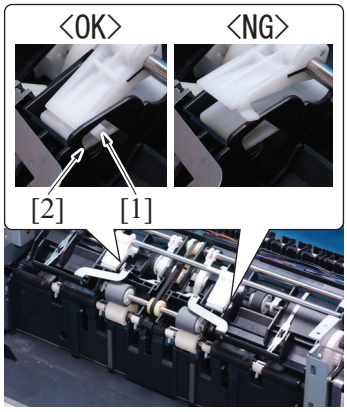
1. Remove the front left cover.
   G.5.3.1 Front left cover
2. Remove the rear cover.
   G.5.3.5 Rear cover
3. Remove the upper cover/1.
   G.5.3.3 Upper cover/1
4. Remove the upper cover/2.
   G.5.3.4 Upper cover/2
5. Remove the paper exit tray unit.
   G.5.3.9 Paper exit tray unit
6. Remove the FS control board.
   G.5.3.10 FS control board (FSCB)
7. Remove the harness guide.
   G.5.3.21 Harness guide



8. Remove the C-ring [1], and remove the flange [2].
9. Remove the belt [3] from the gear.

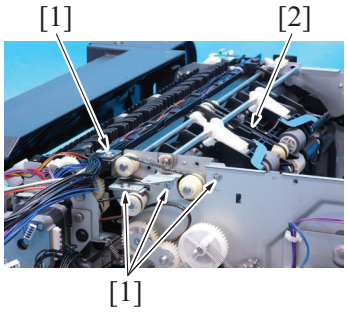


10. Unlock the tab [1], and remove the actuator [2].

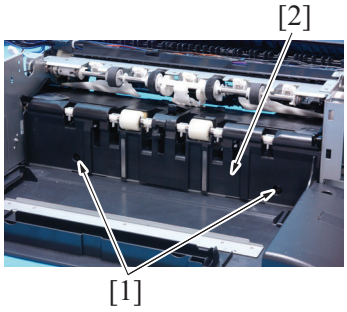


NOTE

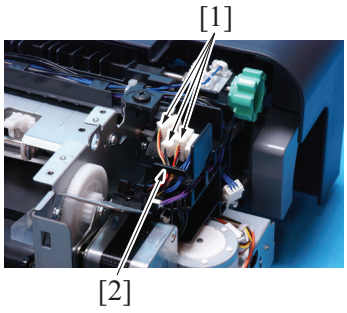
- **When reinstalling the actuator, make sure that two tabs [1] are fitted into the holes [2].**



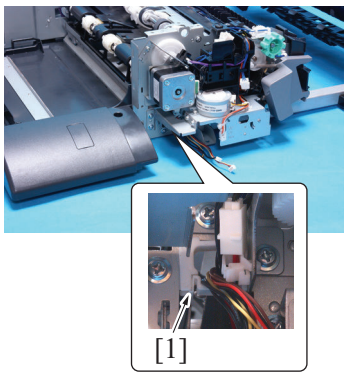
11. Remove four screws [1], and remove the exit roller unit [2].



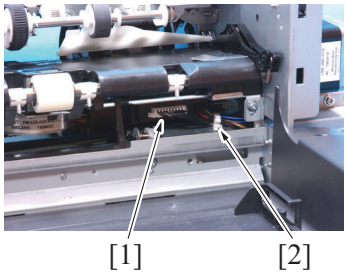
12. Remove two screws [1], and remove the cover [2].



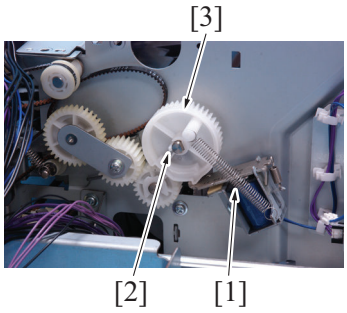
13. Disconnect three connectors [1], and remove the harness from the harness guide [2].



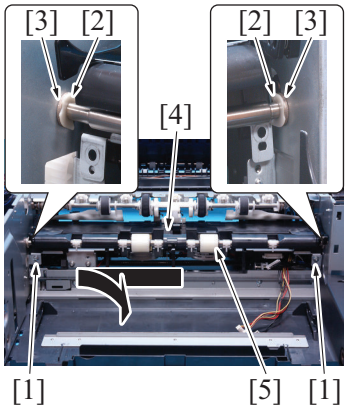
14. Remove the harness from the edge cover [1].



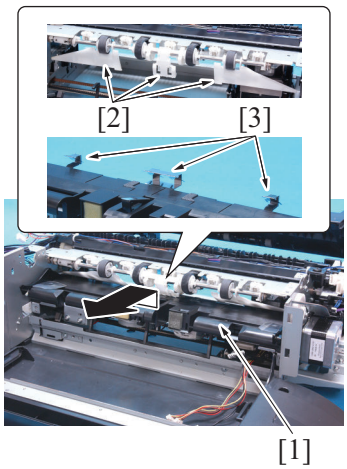
15. Disconnect the connector [1].
16. Remove the harness from the wire saddle [2].



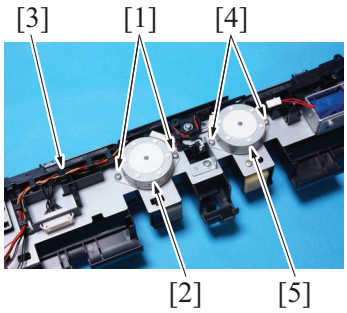
17. Remove the spring [1].
18. Unlock the tab [2], and remove the gear [3].



19. Remove two screws [1].
20. Remove two C-rings [2], and remove two bushings [3] from the plates.
21. Lift up the alignment unit [4], and remove the paddle assy [5].



22. Remove the alignment unit [1].
NOTE
- **When removing the alignment unit, make sure that the paper holder [2] do not get stuck with the paper guide [3].**

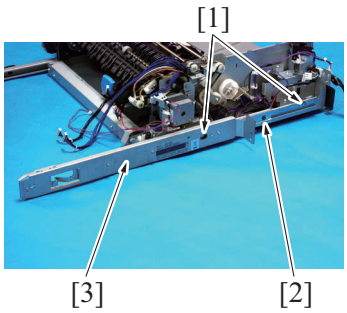


23. Remove two screws [1], and remove the harness from harness guide [3].
24. Remove the alignment motor/F [2].
25. Remove two screws [4], and remove the harness from harness guide [3].
26. Remove the alignment motor/R [5].

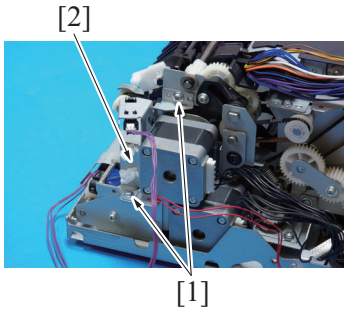
27. Reinstall the above parts following the removal steps in reverse.

5.3.14 Conveyance motor/1 (M5)

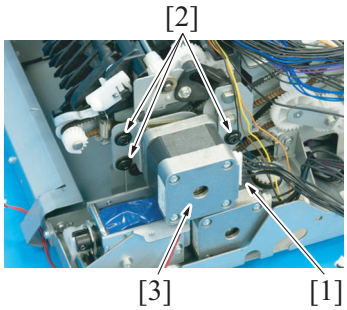
1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit
3. Remove the FS control board.
   G.5.3.10 FS control board (FSCB)
4. Remove the harness guide.
   G.5.3.21 Harness guide



5. Remove two screws [1].
6. When the screw [2] is used, remove the screw [2] and then remove the rear rail [3].



7. Remove two screws [1], and remove the sensor assy [2].

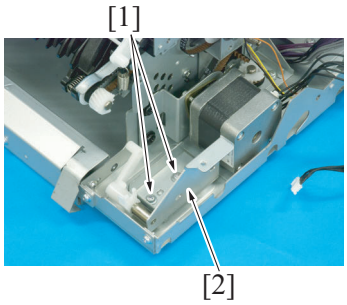


8. Disconnect the connector [1].
9. Remove three screws [2], and remove the conveyance motor/1 [3].

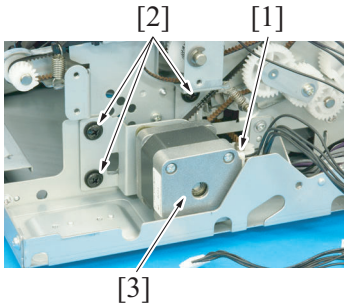
10. Reinstall the above parts following the removal steps in reverse.

5.3.15 Conveyance motor/2 (M6)

1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit
3. Remove the flapper solenoid.
   G.5.3.19 Flapper solenoid (SD4)
4. Remove the conveyance motor/1.
   G.5.3.14 Conveyance motor/1 (M5)



5. Remove two screws [1] and the solenoid mounting plate [2].



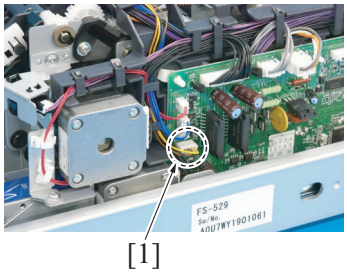
6. Disconnect the connector [1].
7. Remove three screws [2], and remove the conveyance motor/2 [3].

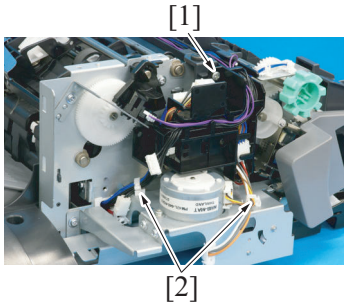
8. Reinstall the above parts following the removal steps in reverse.

5.3.16 Stapler movement motor (M7)

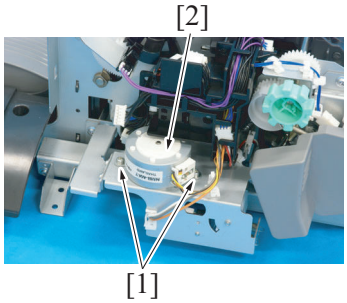
1. Remove the front left cover.
   G.5.3.1 Front left cover
2. Remove the rear cover.
   G.5.3.5 Rear cover
3. Remove the upper cover/1.
   G.5.3.3 Upper cover/1
4. Remove the upper cover/2.
   G.5.3.4 Upper cover/2
5. Remove the pick up roller position motor.
   G.5.3.11 Pick up roller position motor (M1)

6. Disconnect the connector (CN18) [1] of the FS control board.

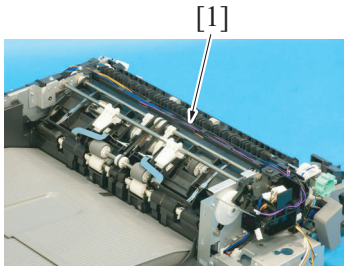




7. Remove the screw [1].
8. Remove the harness from two wire saddles [2].



9. Remove two screws [1], and remove the stapler movement motor [2].

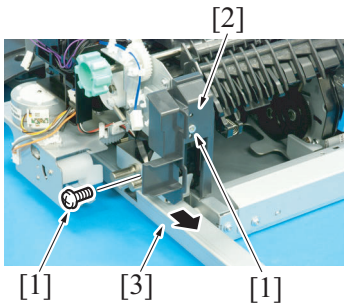


10. Remove the harness from the harness guide [1].

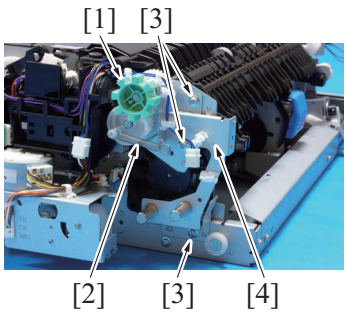
11. Reinstall the above parts following the removal steps in reverse.

5.3.17 Fan motor (FM1)

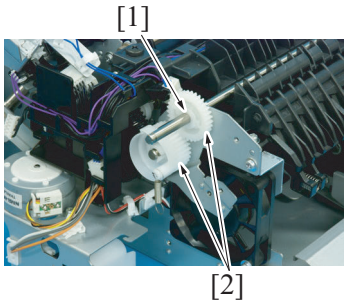
1. Remove the front left cover.
   G.5.3.1 Front left cover
2. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit
3. Remove the belt retract solenoid.
   G.5.3.20 Belt retract solenoid (SD5)



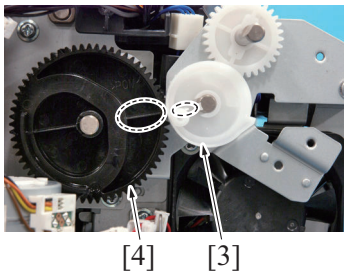
4. Remove two screws [1], and remove the cover [2].
5. Remove the rail [3].



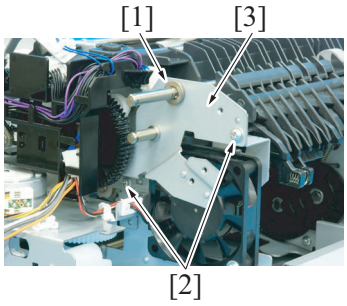
6. Remove the JAM processing dial [1].
7. Remove the spring [2].
8. Remove three screws [3], and remove the plate [4].



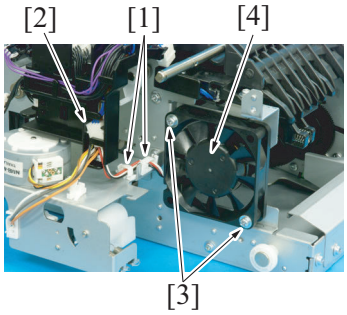
9. Remove the C-ring [1], and remove two gears [2].
NOTE
- **Be careful not to lose the pin.**



NOTE
- **When reinstalling the gears, make sure that the ribs of the gear [3] and the gear [4] are in the same straight line.**



10. Remove the bushing [1].
11. Remove two screws [2], and remove the gear assy [3].

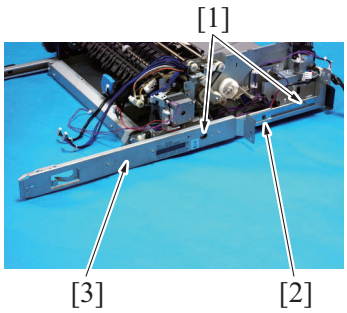


12. Remove the harness from two wire saddles [1].
13. Disconnect the connector [2].
14. Remove two screws [3], and remove the fan motor [4].

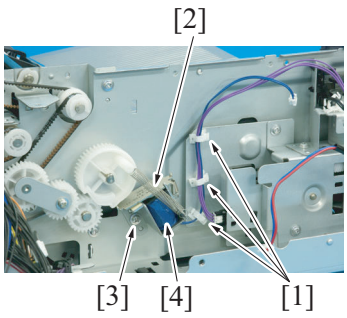
15. Reinstall the above parts following the removal steps in reverse.

5.3.18 Paddle solenoid (SD2)

1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the upper cover/1.
   G.5.3.3 Upper cover/1
3. Remove the upper cover/2.
   G.5.3.4 Upper cover/2
4. Remove the FS control board.
   G.5.3.10 FS control board (FSCB)
5. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit
6. Remove the harness guide.
   G.5.3.21 Harness guide



7. Remove two screws [1].
8. When the screw [2] is used, remove the screw [2] and then remove the rear rail [3].

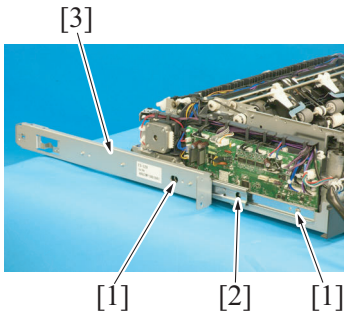


9. Remove the harness from three wire saddles [1].
10. Remove the spring [2] and the screw [3], and remove the paddle solenoid [4].

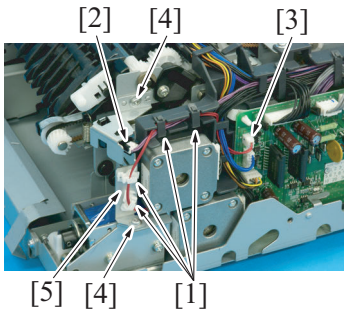
11. Reinstall the above parts following the removal steps in reverse.

5.3.19 Flapper solenoid (SD4)

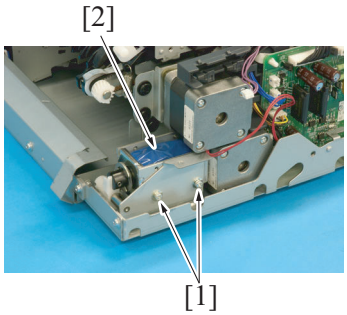
1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the conveyance roller unit.
   G.5.3.7 Conveyance roller unit



3. Remove two screws [1].
4. When the screw [2] is used, remove the screw [2] and then remove the rear rail [3].



5. Remove the harness from four wire saddles [1].
6. Disconnect the connector [2].
7. Disconnect the connector (CN16) [3] of the FS control board.
8. Remove two screws [4], and remove the sensor assy [5].

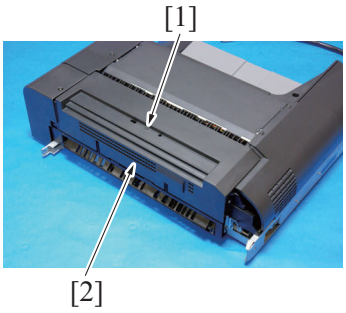


9. Remove two screws [1], and remove the flapper solenoid [2].

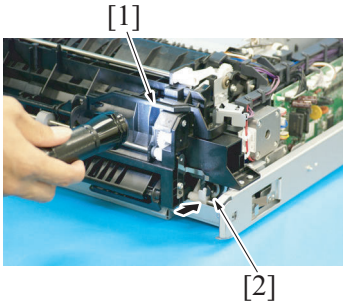
10. Reinstall the above parts following the removal steps in reverse.

(1) Adjustment after installation

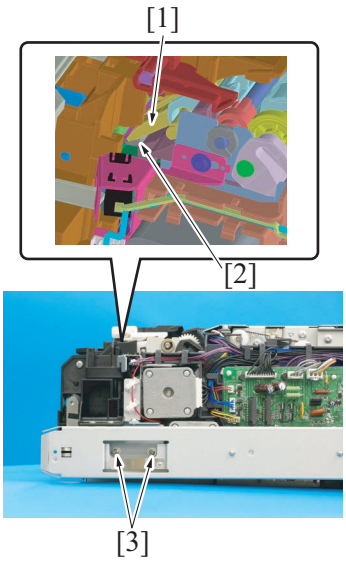
1. Remove the rear cover.
G.5.3.5 Rear cover



2. Remove the screw [1], and remove the cover [2].



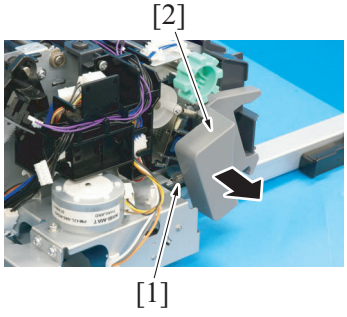
3. Illuminate the inside from the opening [1] shown in the illustration.
4. Push the flapper solenoid [2].



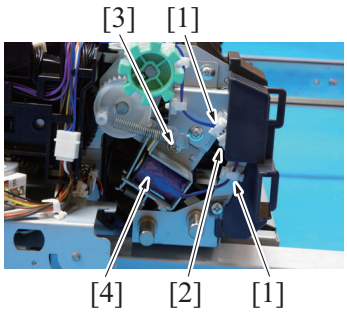
5. Make sure that the flapper [1] and the damper [2] are in contact with each other and then tighten two screws [3].

5.3.20 Belt retract solenoid (SD5)

1. Remove the front left cover.
G.5.3.1 Front left cover



2. Remove the spring [1], and remove the lever [2].

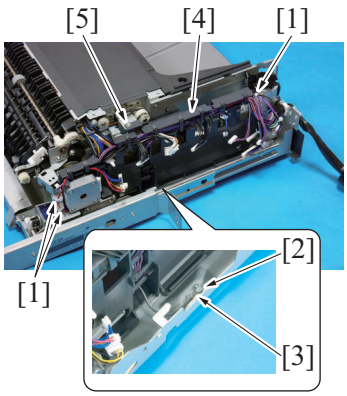


3. Remove the harness from two wire saddles [1].
4. Disconnect the connector [2].
5. Remove the screw [3], and remove the belt retract solenoid [4].

6. Reinstall the above parts following the removal steps in reverse.

5.3.21 Harness guide

1. Remove the rear cover.
   G.5.3.5 Rear cover
2. Remove the FS control board.
   G.5.3.10 FS control board (FSCB)

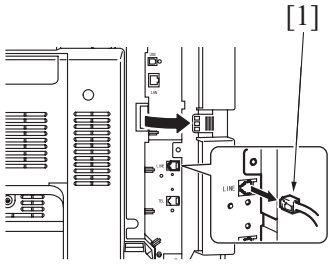


3. Remove the harness from three wire saddles [1].
4. Remove the screw [2], and remove the ground terminal [3].
5. Remove all harness from the harness guide [4].
6. Remove the screw [5], and remove the harness guide [4].

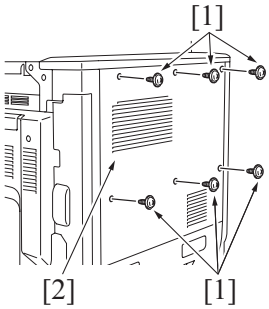
7. Reinstall the above parts following the removal steps in reverse.

5.4 Disassembly/reassembly procedure (FK-509)

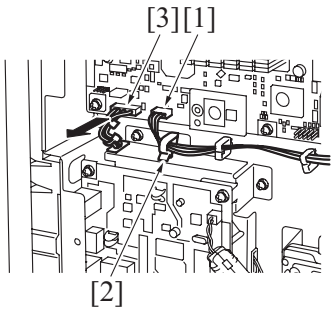
5.4.1 Fax kit (Option)



1. Open the door located on the right side of the main body.
2. Disconnect the modular cable [1].

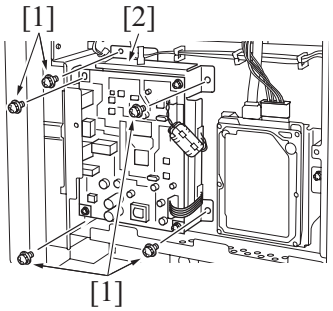


3. Remove six screws [1], and remove the rear cover [2].



4. Disconnect the flat cable [1] from the wire saddle [2].
NOTE
- **When attaching the fax kit, route the flat cable so that it does not touch the frame of the fax kit.**

5. Disconnect the connector [3].



6. Remove five screws [1], and remove the fax kit [2].
NOTE
- **For installation of the Fax Kit, push the fax kit against the main body to remove clearance between the main body plate and the fax kit.**

7. Reinstall the above parts following the removal steps in reverse.

H CLEANING/LUBRICATION

1. bizhub 42/36

1.1 Cleaning parts list

No.	Section	Part name	Ref. page
1	Tray 1	Tray 1 feed roller	H.1.3.1 Tray1 feed roller
2		Tray 1 separation roller	H.1.3.2 Tray1 separation roller
3	Tray 2	Tray 2 feed roller	H.1.3.3 Tray 2 feed roller, tray 2 pick-up roller, tray 2 separation roller
4		Tray 2 pick-up roller	
5		Tray 2 separation roller	
6	Tray 3	Tray 3 feed roller	H.1.3.4 Tray 3 feed roller, tray 3 pick-up roller, tray 3 separation roller
7		Tray 3 pick-up roller	
8		Tray 3 separation roller	
9		Tray 3 vertical transport roller	H.1.3.5 Tray 3 vertical transport roller
10	ADF	ADF feed roller	H.1.3.6 ADF feed roller

1.2 Lubrication parts list

NOTE

- **With this machine, the lubrication is not necessary.**

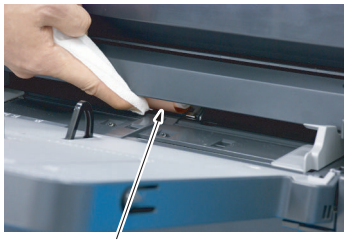
1.3 Cleaning procedure

NOTE

- **The alcohol described in the cleaning procedure represents the ethanol isopropyl alcohol.**

1.3.1 Tray1 feed roller

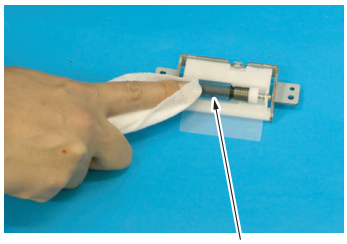
1. Using a cleaning pad dampened with alcohol, wipe the tray1 feed roller [1] clean of dirt.



[1]

1.3.2 Tray1 separation roller

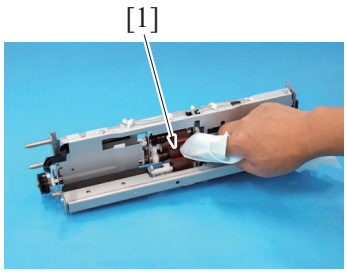
1. Remove the tray1 separation roller unit.
   F.6.6.2 Replacing the tray1 separation roller assy
2. Using a cleaning pad dampened with alcohol, wipe the tray1 separation roller [1] clean of dirt.



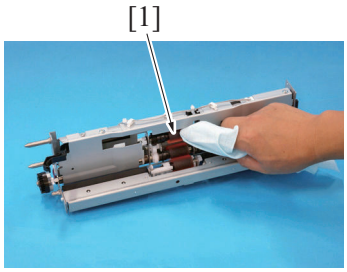
[1]

1.3.3 Tray 2 feed roller, tray 2 pick-up roller, tray 2 separation roller

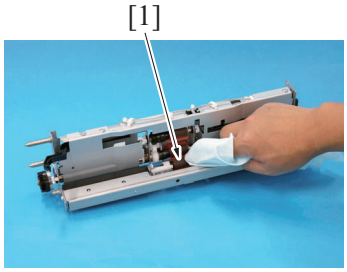
1. Remove the tray 2 paper feed unit.
   G.4.3.2 Tray 2 paper feed unit



2. Using a cleaning pad dampened with alcohol, wipe the tray 2 feed roller [1] clean of dirt.



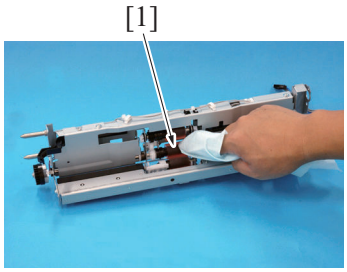
3. Using a cleaning pad dampened with alcohol, wipe the tray 2 pick-up roller [1] clean of dirt.



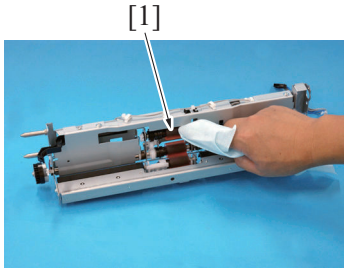
4. Using a cleaning pad dampened with alcohol, wipe the tray 2 separation roller [1] clean of dirt.

1.3.4 Tray 3 feed roller, tray 3 pick-up roller, tray 3 separation roller

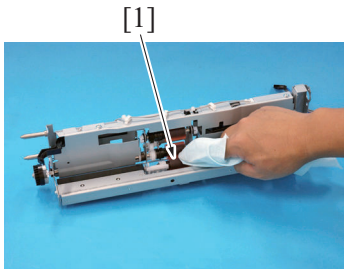
1. Remove the tray 3 paper feed unit.
G.4.3.3 Tray 3 paper feed unit



2. Using a cleaning pad dampened with alcohol, wipe the tray 3 feed roller [1] clean of dirt.



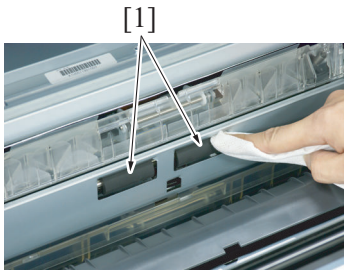
3. Using a cleaning pad dampened with alcohol, wipe the tray 3 pick-up roller [1] clean of dirt.



4. Using a cleaning pad dampened with alcohol, wipe the tray 3 separation roller [1] clean of dirt.

1.3.5 Tray 3 vertical transport roller

1. Open the right door.



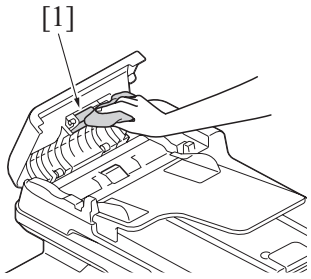
2. Using a cleaning pad dampened with alcohol, wipe the tray 3 vertical transport rollers [1] clean of dirt.

1.3.6 ADF feed roller

NOTE

- **The alcohol described in the cleaning procedure represents the isopropyl alcohol.**

1. Open the ADF feed cover [1].



2. Using a cleaning pad dampened with alcohol, wipe the ADF feed roller [1] clean of dirt.

2. Option

2.1 Cleaning parts list

2.1.1 PC-211

No.	Section	Part name	Ref. page
1	Feed section	Separation roller	H.2.2.1 Separation roller
2		Feed roller	H.2.2.2 Feed roller
3		Pick-up roller	H.2.2.3 Pick-up roller
4	Transport section	Vertical transport roller	H.2.2.4 Vertical transport roller

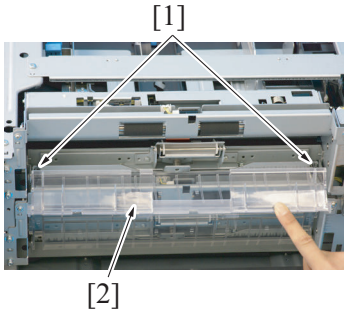
2.2 Cleaning procedure (PC-211)

NOTE

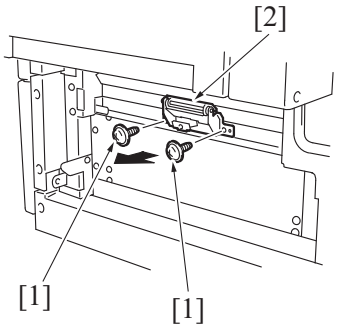
- **The alcohol described in the cleaning procedure of maintenance represents the isopropyl alcohol.**

2.2.1 Separation roller

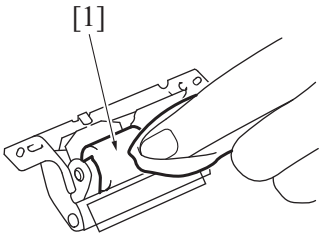
1. Remove the right door.
   G.5.2.1 Right door



2. Remove two springs [1].
3. Remove the jam clearing cover [2].



4. Remove two screws [1] and remove the separation roller mounting bracket assy [2].

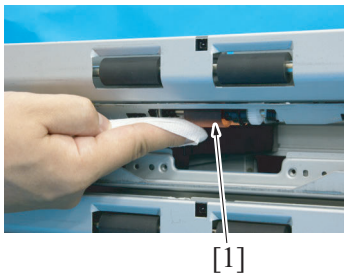


5. Using a cleaning pad dampened with alcohol, wipe the separation roller [1] clean of dirt.

6. Repeat steps 1 to 5 similarly for the 4th drawer.

2.2.2 Feed roller

1. Remove the tray 4. (remove the tray 5 from 4th row.)
2. Remove the separation roller mounting bracket assy.
   See the procedures 1 to 4 in "H.2.2.1 Separation roller"

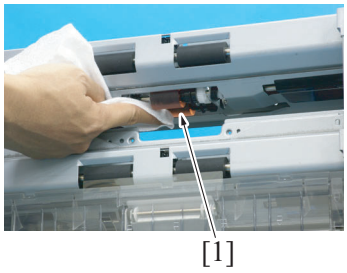


3. Using a cleaning pad dampened with alcohol, wipe the feed roller [1] clean of dirt.

4. Repeat steps 1 to 3 similarly for the 4th drawer.

2.2.3 Pick-up roller

1. Remove the tray 4. (remove the tray 5 from 4th row.)
2. Remove the separation roller mounting bracket assy. See the procedures 1 to 4 in "H.2.2.1 Separation roller"

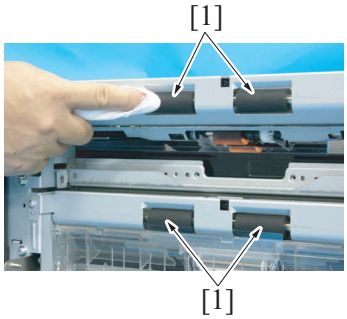


3. Using a cleaning pad dampened with alcohol, wipe the pick-up roller [1] clean of dirt.

4. Repeat steps 1 to 3 similarly for the 4th drawer.

2.2.4 Vertical transport roller

1. Open the right door.



2. Using a cleaning pad dampened with alcohol, wipe the vertical transport roller [1] clean of dirt.

I ADJUSTMENT/SETTING

1. HOW TO USE THE ADJUSTMENT/SETTING SECTION

1.1 Outline

- “Adjustment/Setting” contains detailed information on the adjustment items and procedures for this machine.
- Throughout this “Adjustment/Setting,” the default settings are indicated by “ ”.

1.2 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.
  A.3.3.2 Installation Requirements
- 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.

⚠ CAUTION

- **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 developing 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

NOTE

- **Keys displayed on screens are different depending on the setting.**

*1: It will be displayed only when the optional paper feed cabinet PC-211 is mounted.
*2: It will be displayed only when the optional finisher FS-529 is mounted.
*3: The list is displayed only when logging in as a registered user who is authenticated by an extension server and allowed to change default start applications.
*4:It will be displayed only when the setting is as displayed in service mode.
*5: It will be displayed only when the optional authentication unit AU-201 is mounted.

Utility					Ref. page
Accessibility	Key Repeat/Interval		Time to Start		I.3.1.1 Time to Start
			Key Interval		I.3.1.2 Key Interval
	Sound Settings		Set All		I.3.2.1 Set All
			Operation Confirmation		I.3.2.2 Operation Confirmation
			Successful Completion		I.3.2.3 Successful Completion
			Completion Preparation		I.3.2.4 Completion Preparation
			Caution Sound		I.3.2.5 Caution Sound
	Touch Panel Adjustment				I.3.3 Touch Panel Adjustment
	Message Display Time				I.3.4 Message Display Time
	LCD Brightness				I.3.5 LCD Brightness
Meter Count	Total				I.4.2 Total
	Copy				I.4.3 Copy
	Print				I.4.4 Print
	Scan				I.4.5 Scan
	Fax				I.4.6 Fax
Address Registration	E-mail				I.5.1 E-mail
	SMB				I.5.2 SMB
	Fax				I.5.3 Fax
User Settings	Machine Settings	Language			I.6.1.1 Language
		Measurement Unit Setting			I.6.1.2 Measurement Unit Setting
		Paper Tray Settings	Auto Tray Switch		I.6.1.3.(1) Auto Tray Switch
			Enable ATS/APS		I.6.1.3.(2) Enable ATS/APS
		ACS Level			I.6.1.4 ACS Level
		Scan to E-mail Default Tab			I.6.1.5 Scan to E-mail Default Tab
		Scan to Folder Default Tab			I.6.1.6 Scan to Folder Default Tab
		Fax Default Tab			I.6.1.7 Fax Default Tab
	Copy Settings	Auto Zoom for Combine			I.6.2.1 Auto Zoom for Combine
		Default Copy Settings			I.6.2.2 Default Copy Settings
		Separate Scan Output Method			I.6.2.3 Separate Scan Output Method
	Scan Settings	JPEG Compression Level			I.6.3.1 JPEG Compression Level
		Black Compression Level			I.6.3.2 Black Compression Level
		Default Scan Settings			I.6.3.3 Default Scan Settings
	Print Settings	Paper Settings	Paper Tray Settings	Default Tray	I.6.4.1.(1) Default Tray
				Tray 1	I.6.4.1.(2) Tray 1 - Size Detection Mode I.6.4.1.(3) Tray 1 - Paper Size I.6.4.1.(4) Tray 1 - Custom Size I.6.4.1.(5) Tray 1 - Paper Type
				Tray 2	I.6.4.1.(6) Tray 2 - Paper Size I.6.4.1.(7) Tray 2 - Paper Type
				Tray 3	I.6.4.1.(8) Tray 3 - Paper Size I.6.4.1.(9) Tray 3 - Paper Type
				Tray 4 *1	I.6.4.1.(10) Tray 4 - Paper Size I.6.4.1.(11) Tray 4 - Paper Type
				Tray 5 *1	I.6.4.1.(12) Tray 5 - Paper Size I.6.4.1.(13) Tray 5 - Paper Type
			Duplex		I.6.4.2 Paper Settings - Duplex
			Copies		I.6.4.3 Paper Settings - Copies
			Finishing	Collate	I.6.4.4.(1) Collate
				Binding Position	I.6.4.4.(2) Binding Position

Utility					Ref. page
				Offset/Staple *2	I.6.4.4.(3) Offset/Staple
			Auto Tray Switching		I.6.4.5 Paper Settings - Auto Tray Switching
			Tray Mapping		I.6.4.6 Paper Settings - Tray Mapping
		Print Reports	Configuration Page		I.6.4.7 Print Reports - Configuration Page
			Statistics Page		I.6.4.8 Print Reports - Statistics Page
			Font List	PS	I.6.4.9 Print Reports - Font List - PS
				PCL	I.6.4.10 Print Reports - Font List - PCL
			HDD Directory List		I.6.4.11 Print Reports - HDD Directory List
			Counter List Print		I.6.4.12 Print Reports - Counter List Print
		Binding Direction Adjustment			I.6.4.13 Binding Direction Adjustment
	Fax Settings	Remote RX Enabled			I.6.5.1 Remote RX Enabled
		Remote RX No.			I.6.5.2 Remote RX No.
		Default Fax Settings			I.6.5.3 Default Fax Settings
		Display Fax Activity	Fax TX		I.6.5.4.(1) Fax TX
			Fax RX		I.6.5.4.(2) Fax RX
	Select Default Start App *3				I.6.6 Select Default Start App
Admin Settings	Machine Settings	Sleep Mode Setting *4			I.7.1.1 Sleep Mode Setting
		Sleep Time Setting			I.7.1.2 Sleep Time Setting
		Auto Power OFF Setting			I.7.1.3 Auto Power OFF Setting
		Auto Power OFF Time (Auto Power OFF Setting: when ON)			I.7.1.4 Auto Power OFF Time
		Date & Time Settings	Date		I.7.1.5.(1) Date
			Time		I.7.1.5.(2) Time
			Time Zone		I.7.1.5.(3) Time Zone
		Daylight Saving Time	Enable		I.7.1.6.(1) Enable
			Offset		I.7.1.6.(2) Offset
		List/Counter	Job Settings List		I.7.1.7 List/Counter - Job Settings List
		Report Input Tray			I.7.1.8 Report Input Tray
		Auto Reset Settings	Enable		I.7.1.9.(1) Enable
			Auto Reset		I.7.1.9.(2) Auto Reset
			Priority Mode		I.7.1.9.(3) Priority Mode
		Shift Output Each Job *2			I.7.1.10 Shift Output Each Job
		Sleep after PC RX Print			I.7.1.11 Sleep after PC RX Print
		Low Power Mode Setting			I.7.1.12 Low Power Mode Setting
		LowPowerMode Time Setting			I.7.1.13 LowPowerMode Time Setting
	Administrator Registration	Administrator Registration	Name		I.7.2.1.(1) Name
			Extension No.		I.7.2.1.(2) Extension No.
			E-mail Address		I.7.2.1.(3) E-mail Address
		Machine Settings	Device Name		I.7.2.2.(1) Device Name
			Address		I.7.2.2.(2) Address
	Address Registration	Address Book	Address Book		I.7.3.1 Address Book - Address Book
			Group Address		I.7.3.2 Address Book - Group
			Program Address		I.7.3.3 Address Book - Program
	Authentication Setting	User List Display Setting			I.7.4.1 User List Display Setting
		Logout Confirmation Display			I.7.4.2 Logout Confirmation Display
		Card Authentication *5			I.7.4.3 Card Authentication

Utility					Ref. page
	Ethernet	TCP/IP	Enable		I.7.5.1.(1) Enable
			IP Address		I.7.5.1.(2) IP Address
			Subnet Mask		I.7.5.1.(3) Subnet Mask
			Gateway		I.7.5.1.(4) Gateway
			DHCP		I.7.5.1.(5) DHCP
			BOOTP		I.7.5.1.(6) BOOTP
			ARP/PING		I.7.5.1.(7) ARP/PING
			HTTP		I.7.5.1.(8) HTTP
			FTP		I.7.5.1.(9) FTP
			Telnet		I.7.5.1.(10) Telnet
			Bonjour		I.7.5.1.(11) Bonjour
			Dynamic DNS		I.7.5.1.(12) Dynamic DNS
			IPP		I.7.5.1.(13) IPP
			RAW Port	Enable	I.7.5.1.(14) RAW Port - Enable
				Bidirectional	I.7.5.1.(15) RAW Port - Bidirectional
			SLP		I.7.5.1.(16) SLP
			SMTP		I.7.5.1.(17) SMTP
			SNMP		I.7.5.1.(18) SNMP
			WSD Print		I.7.5.1.(19) WSD Print
			IPsec		I.7.5.1.(20) IPsec
			IP Address Filter	Permit Access	I.7.5.1.(21) IP Address Filter - Permit Access
				Deny Access	I.7.5.1.(22) IP Address Filter - Deny Access
			IPv6	Enable	I.7.5.1.(23) IPv6 - Enable
				Auto Setting	I.7.5.1.(24) IPv6 - Auto Setting
				Link Local	I.7.5.1.(25) IPv6 - Link Local
				Global Address	I.7.5.1.(26) IPv6 - Global Address
				Gateway Address	I.7.5.1.(27) IPv6 - Gateway Address
		Netware			I.7.5.2 Netware
		AppleTalk			I.7.5.3 AppleTalk
		Network Speed			I.7.5.4 Network Speed
		IEEE802.1X			I.7.5.5 IEEE802.1X
		Binary Division			I.7.5.6 Binary Division
		S/MIME Comm. Setting	S/MIME Enabled		I.7.5.7.(1) S/MIME Enabled
			Digital Signature		I.7.5.7.(2) Digital Signature
			Encryption Method		I.7.5.7.(3) Encryption Method
	External Memory Print				I.7.6 External Memory Print
	Job Timeout				I.7.7 Job Timeout
	Copy Settings	Specify Tray When APS OFF			I.7.8.1 Specify Tray When APS OFF
		Paper Priority			I.7.8.2 Paper Priority
	Print Settings	Startup Page Setting			I.7.9.1 Startup Page Setting
		Auto Continue			I.7.9.2 Auto Continue
		Paper	Default Paper	Paper Size	I.7.9.3.(1) Paper Size
				Custom Size	I.7.9.3.(2) Custom Size
				Paper Type	I.7.9.3.(3) Paper Type
			Measurement Unit Setting		I.7.9.4 Paper - Measurement Unit Setting
		Hold Job Timeout			I.7.9.5 Hold Job Timeout
		Quality Settings	Brightness		I.7.9.6.(1) Brightness
			Contrast		I.7.9.6.(2) Contrast
			Halftone	Image Printing	I.7.9.6.(3) Halftone - Image Printing
				Text Printing	I.7.9.6.(4) Halftone - Text Printing
				Graphics Printing	I.7.9.6.(5) Halftone - Graphics Printing

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			Edge Enhancement	Image Printing	I.7.9.6.(6) Edge Enhancement - Image Printing
				Text Printing	I.7.9.6.(7) Edge Enhancement - Text Printing
				Graphics Printing	I.7.9.6.(8) Edge Enhancement - Graphics Printing
			Edge Strength		I.7.9.6.(9) Edge Strength
			Economy Print		I.7.9.6.(10) Economy Print
			Gradation Adjustment	Tone Calibration	I.7.9.6.(11) Gradation Adjustment - Tone Calibration
				Density	I.7.9.6.(12) Gradation Adjustment – Density - Highlight I.7.9.6.(13) Gradation Adjustment – Density - Middle I.7.9.6.(14) Gradation Adjustment – Density - Shadow

Utility					Ref. page
		Emulation	Default Emulation		I.7.9.7.(1) Default Emulation
			PS	Wait Timeout	I.7.9.7.(2) PS - Wait Timeout
				Print PS Errors	I.7.9.7.(3) PS - Print PS Errors
				PS Protocol	I.7.9.7.(4) PS - PS Protocol
			PCL	CR/LF Mapping	I.7.9.7.(5) PCL - CR/LF Mapping
				Line/Page	I.7.9.7.(6) PCL - Line/Page
				Font Setting	I.7.9.7.(7) PCL - Font Setting - Font Number I.7.9.7.(8) PCL - Font Setting - Pitch Size I.7.9.7.(9) PCL - Font Setting - Point Size I.7.9.7.(10) PCL - Font Setting - Symbol Set
			XPS	Digital Signature	I.7.9.7.(11) XPS - Digital Signature
				Print XPS Errors	I.7.9.7.(12) XPS - Print XPS Errors
	Maintenance Menu	Print Menu	Event Log		I.7.10.1.(1) Event Log
			Black 64		I.7.10.1.(2) Black 64
			Black 128		I.7.10.1.(3) Black 128
			Black 256		I.7.10.1.(4) Black 256
			Gradation		I.7.10.1.(5) Gradation
			Activity Report		I.7.10.1.(6) Activity Report
			Scan Send Report Print		I.7.10.1.(7) Scan Send Report Print
			Scan Event Log		I.7.10.1.(8) Scan Event Log
		Printer Adjustment	Leading Edge Adjustment		I.7.10.2.(1) Leading Edge Adjustment
			Leading Edge Adj. Side 2 (Dx)		I.7.10.2.(2) Leading Edge Adj. Side 2 (Dx)
			Leading Edge Adjustment Tray		I.7.10.2.(3) Leading Edge Adjustment Tray
			Side Edge Adjustment		I.7.10.2.(4) Side Edge Adjustment
			Left ADJ Duplex		I.7.10.2.(5) Left ADJ Duplex
			Engine DipSW		I.7.10.2.(6) Engine DipSW
			Feed Zoom		I.7.10.2.(7) Feed Zoom
			Paper Separation Adjustment		I.7.10.2.(8) Paper Separation Adjustment
			Gradation Adjustment	Max. Density Adjustment	I.7.10.2.(9) Gradation Adjustment - Max. Density Adjustment
				Gradation Adjustment	I.7.10.2.(10) Gradation Adjustment - Gradation Adjustment
			Max Image Density Adj		I.7.10.2.(11) Max Image Density Adj
			Replenish Toner		I.7.10.2.(12) Replenish Toner
		Drum Dry			I.7.10.3 Drum Dry
		Finisher Settings	Alignment Plate Position (Back)		I.7.10.4 Finisher Settings
			Alignment Plate Position (Side)		
	Folder Settings	Auto Del Interval			I.7.11.1 Auto Del Interval
		Auto Document Delete Time			I.7.11.2 Auto Document Delete Time
		Document Hold Setting			I.7.11.3 Document Hold Setting
	Security Settings	Administrator Password			I.7.12.1 Administrator Password
		Security Details	Password Rules		I.7.12.2.(1) Password Rules
			Registering and Changing Addr.		I.7.12.2.(2) Registering and Changing Addr.
			Manual Destination Input		I.7.12.2.(3) Manual Destination Input
			Hide Personal Data		I.7.12.2.(4) Hide Personal Data
			Disable Job History Display		I.7.12.2.(5) Disable Job History Display

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			Restrict Scan to USB	I.7.12.2.(6) Restrict Scan to USB
		Enhanced Security Mode		I.7.12.3 Enhanced Security Mode
		HDD Settings	Check HDD Capacity	I.7.12.4.(1) Check HDD Capacity
			Overwrite All Data	I.7.12.4.(2) Overwrite All Data
		SSD Low-level Format		I.7.12.5 SSD Low-level Format
	Restore Defaults	Restore Network		I.7.13 Restore Defaults
		Restore System		
		Restore All		
	HDD Format	User Area (Print)		I.7.14.1 User Area (Print)
		User Area (Scan)		I.7.14.2 User Area (Scan)
		All		I.7.14.3 All
	Paper Empty	Tray 1		I.7.15 Paper Empty
		Tray 2		
		Tray 3		
		Tray 4 *1		
		Tray 5 *1		
	Restriction Code Settings			I.7.16 Restriction Code Settings
	Erase Job Log			I.7.17 Erase Job Log
	Fax Settings	Sender Settings	Sender	I.7.18.1.(1) Sender
			Sender Fax No.	I.7.18.1.(2) Sender Fax No.
		Header/Footer Settings	Header Position	I.7.18.2.(1) Header Position
			Fax TX Header Name	I.7.18.2.(2) Fax TX Header Name
			Footer Position	I.7.18.2.(3) Footer Position
		Comm. Settings	PB/DP	I.7.18.3.(1) PB/DP
			RX Mode	I.7.18.3.(2) RX Mode
			Number of RX Call Rings	I.7.18.3.(3) Number of RX Call Rings
			Redial	I.7.18.3.(4) Redial
			Redial Interval	I.7.18.3.(5) Redial Interval
			Line Monitor	I.7.18.3.(6) Line Monitor
			Line Monitor Volume	I.7.18.3.(7) Line Monitor Volume
			Ring Pattern	I.7.18.3.(8) Ring Pattern
			Manual RX V.34 OFF	I.7.18.3.(9) Manual RX V.34 OFF
		Function Settings	Inch Paper Priority	I.7.18.4.(1) Inch Paper Priority
			Paper Priority	I.7.18.4.(2) Paper Priority
			Print Paper Size	I.7.18.4.(3) Print Paper Size
			Tray Selection for RX Print	I.7.18.4.(4) Tray Selection for RX Print
			Min. Reduction for RX Print	I.7.18.4.(5) Min. Reduction for RX Print
			Print Separate Fax Pages	I.7.18.4.(6) Print Separate Fax Pages
			Duplex Print (RX)	I.7.18.4.(7) Duplex Print (RX)
		Fax Function Settings	F-Code TX	I.7.18.5.(1) F-Code TX
			Dest. Check Display Func.	I.7.18.5.(2) Dest. Check Display Func.
			Confirm Addr (TX)	I.7.18.5.(3) Confirm Addr (TX)
			Confirm Addr (Register)	I.7.18.5.(4) Confirm Addr (Register)
			Restrict Fax TX	I.7.18.5.(5) Restrict Fax TX
			Restrict Fax RX	I.7.18.5.(6) Restrict Fax RX
			Restrict PC-Fax TX	I.7.18.5.(7) Restrict PC-Fax TX
			Restrict Internet Fax TX	I.7.18.5.(8) Restrict Internet Fax TX
			Restrict Internet Fax RX	I.7.18.5.(9) Restrict Internet Fax RX
		Memory RX	Memory RX	I.7.18.6.(1) Memory RX
			Password	I.7.18.6.(2) Password
		Closed Network RX Password	Enable	I.7.18.7.(1) Enable
			Password	I.7.18.7.(2) Password

Utility					Ref. page
		Forward TX Settings	Forward TX Setting		I.7.18.8.(1) Forward TX Setting
			Forwarding Address		I.7.18.8.(2) Forwarding Address
			Forward & Print		I.7.18.8.(3) Forward & Print
		Remote RX Settings	Remote RX Enabled		I.7.18.9.(1) Remote RX Enabled
			Remote RX No.		I.7.18.9.(2) Remote RX No.
		PC-Fax RX Settings	PC-Fax RX Setting		I.7.18.10.(1) PC-Fax RX Setting
			PC-Fax RX Print		I.7.18.10.(2) PC-Fax RX Print
		Nighttime RX Settings	Night Fax RX Print		I.7.18.11.(1) Night Fax RX Print
			Night RX Start Time		I.7.18.11.(2) Night RX Start Time
			Night RX End Time		I.7.18.11.(3) Night RX End Time
		PBX Connection Settings	PBX Function		I.7.18.12.(1) PBX Function
			PBX Number		I.7.18.12.(2) PBX Number
		Fax Report	Activity Report	Output Settings	I.7.18.13.(1) Activity Report - Output Settings
				Output Time Setting	I.7.18.13.(2) Activity Report - Output Time Setting
				Output Limit Setting	I.7.18.13.(3) Activity Report - Output Limit Setting
			TX Result Report		I.7.18.13.(4) TX Result Report
			TX Result Report Image		I.7.18.13.(5) TX Result Report Image
			TX Reserve		I.7.18.13.(6) TX Reserve
			PC-Fax TX Error Report		I.7.18.13.(7) PC-Fax TX Error Report
			Broadcast Report		I.7.18.13.(8) Broadcast Report
			Broadcast Result Report		I.7.18.13.(9) Broadcast Result Report
			TX Result Report Screen		I.7.18.13.(10) TX Result Report Screen
			I-Fax RX Error Report		I.7.18.13.(11) I-Fax RX Error Report
		List Print	Fax Setup Pg		I.7.18.14.(1) Fax Setup Pg
		Fax Target			I.7.18.15 Fax Target
		Fax Factory Default			I.7.18.16 Fax Factory Default
		Fax Image Initialized			I.7.18.17 Fax Image Initialized

- The settings list shown in the above is in accordance with the screen display format.

2.2 Starting/Exiting

2.2.1 Starting procedure

1. Press the Utility/Counter key.
2. The Utility Settings screen will appear.

2.2.2 Exiting procedure

- Touch the [ ] key.

3. UTILITY (ACCESSIBILITY)

3.1 Key Repeat/Interval

3.1.1 Time to Start

(1) Use

- Specify the length of time until a value begins to change after a key is held down.

(2) Default setting

- 0.8 second

(3) Setting range

- 0.1 to 3.0 seconds

3.1.2 Key Interval

(1) Use

- Specify the length of time for the value to change.

(2) Default setting

- 0.3 second

(3) Setting range

- 0.1 to 3.0 seconds

3.2 Sound Settings

3.2.1 Set All

(1) Enable

(a) Use

- To select whether or not to use all the sound settings.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(2) Volume

(a) Use

- To select the volumes for all the sound settings.

(b) Setting item

- Low
- Medium
- High

3.2.2 Operation Confirmation

(1) Input Confirmation Sound

(a) Use

- To select whether or not to produce a sound when a key in the control panel in the touch panel is pressed for an entry.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(2) Invalid Input Sound

(a) Use

- To select whether or not to produce a sound for invalid key operation in the control panel or the touch panel.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(3) Basic Sound

(a) Use

- To select whether or not to produce a sound when the default value item is selected for an option subject to rotational switching.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

3.2.3 Successful Completion

(1) Operation Completion

(a) Use

- To select whether or not to produce a sound when the operation has completed normally.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(2) Transmission Completion

(a) Use

- To select whether or not to produce a sound when a communications-related operation is completed normally.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

3.2.4 Completion Preparation

(1) Use

- To select whether or not to produce a sound when a device is ready.

(2) Default setting

Enable	ON
Volume	Low

(3) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

3.2.5 Caution Sound

(1) Low Caution Sound (Level 1)

(a) Use

- To set whether or not to produce a sound when the replacement time is nearing for supplies or a replaceable part and a message appears in the touch panel.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(2) Low Caution Sound (Level 2)

(a) Use

- To set whether or not to produce a sound for a user error.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(3) Low Caution Sound (Level 3)

(a) Use

- To set whether or not to produce a sound when an error occurs that can be corrected by the user by referring to the message that appears or the User's Guide.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

(4) Severe Caution Sound

(a) Use

- To set whether or not to produce a sound when an error occurs that cannot be corrected by the user or requires action by a service representative.

(b) Default setting

Enable	ON
Volume	Low

(c) Setting item

Enable	"ON" / OFF
Volume	"Low" / Medium / High

3.3 Touch Panel Adjustment

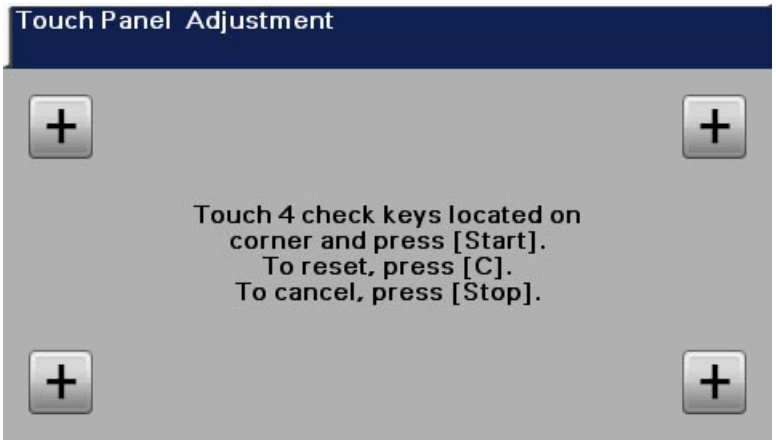
3.3.1 Use

- To adjust the position of the touch panel display.
- Make this adjustment if the touch panel is slow to respond to a pressing action.
- Use during the setup procedure.

3.3.2 Procedure

1. Touch [Accessibility].

2. Touch [Touch Panel Adjustment].
3. Using the tip of a pen or similar object, touch the four keys (+) on the screen in sequence.
   - These crosses may be touched in any order; but be sure to touch the center of each cross.
   - Use care not to damage the screen surface with the tip of the pen.



4. Touching all four crosses will turn the Start key ON in blue.
5. Press the Start key.

3.4 Message Display Time

3.4.1 Use

- Specify the duration of time for displaying warning messages, which appear, for example, when an incorrect operation is performed.

3.4.2 Default setting

- 3 sec.

3.4.3 Setting item

- "3 sec."
- 5 sec.

3.5 LCD Brightness

3.5.1 Use

- Adjust the brightness of the touch panel.

3.5.2 Default setting

- 0

3.5.3 Setting range

- -3 to 3

4. UTILITY (METER COUNT)

4.1 Outline

- To check the number of sheets printed and etc. since counting started.

4.2 Total

Black	The total number of pages printed using copy, PC print or fax.
Black 2-sided	The total number of 2-sided printings printed using 2-sided copy, 2-sided PC printing and 2-sided fax printing.
Black Large	The total number of pages printed using copy, PC print and fax using large size paper.
Paper Counter	The total number of sheets printed using copy, PC print or fax.

4.3 Copy

Black	The total number of pages printed by copy mode and pages listed and printed using Administrator Settings for Utility Settings.
Black 2-sided	The total number of 2-sided printings using the copy mode.
Black Large	The total number of large size pages printed using the copy mode.

4.4 Print

Black	The total number of pages printed by the print command from PC.
Black 2-sided	The total number of sheets printed on both sides by the print command from PC.
Black Large	The total number of large size pages printed by the print command from PC.

4.5 Scan

Color Mode	The total number of pages scanned in color mode.
Color Large	The total number of large size pages scanned in color.
Black	The total number of pages scanned in black.
Black Large	The total number of large size pages scanned in black.

NOTE

- **The values shown in the scan tab do not include the number of pages scanned in copy and fax modes.**

4.6 Fax

Black	The total number of pages printed by fax.
Black 2-sided	The total number of sheets printed on both sides by fax.
Black Large	The total number of large size pages printed by fax.
Fax RX Counter	The total number of pages received by fax (G3).
Fax TX Counter	The total number of pages transmitted by fax (G3).

NOTE

- **When a datum is received by Memory RX, it is counted on the Fax RX Counter. When a datum is printed, it is counted according to the status it is being printed.**

5. UTILITY (ADDRESS REGISTRATION)

5.1 E-mail

5.1.1 Use

- E-mail destinations can be registered. To register a new destination, touch [New].

5.1.2 Setting item

Name	Enter the name to be registered in the address book using up to 72 characters.
E-mail	Enter the E-mail address of the destination using up to 320 characters.
Favorites	Set the addresses which are frequently used.
Index	Select the index tab to register.

5.2 SMB

5.2.1 Use

- SMB destinations can be registered. To register a new destination, touch [New].

5.2.2 Setting item

Name	Enter the name to be registered in the address book using up to 72 characters.	
Connection	Host Name	Enter the host name of the destination computer (up to 255 bytes). *
	File Path	Enter the destination file path for saving data (up to 255 bytes). *
	User ID	Enter the user ID for logging into the destination computer (up to 127 bytes). *
	Password	Enter the password for logging into the destination computer (up to 127 bytes). *
	Browse	Allows you to detect a computer on the network and register a shared folder as a destination.
Favorites	Set the addresses which are frequently used.	
Index	Select the index tab to register.	

*: One letter in half-size character is 1 byte or 3 bytes.

5.3 Fax

5.3.1 Use

- Register fax destinations. To register a new destination, touch [New].

5.3.2 Setting item

Name	Enter the name to be registered in the address book using up to 72 characters.	
Fax number	Enter the fax number for the destination up to 38 digits.	
Favorites	Set the addresses which are frequently used.	
Index	Select the index tab to register.	
Line Settings	ECM OFF	To cancel ECM mode and shorten the time for transmission
	V34 OFF	To set V34 OFF to transmit data
	Check Dest. & Send	To set the function to cross-check fax number set and the fax number of the destination (CSI) to send data only when they match

6. UTILITY (USER SETTINGS)

6.1 Machine Settings

6.1.1 Language

(1) Use

- To select the language on the LCD display.
- To change the language used on the control panel.

(2) Procedure

- Touch [User Settings] -> [Machine Settings] -> [Language] and select the language.

6.1.2 Measurement Unit Setting

(1) Use

- To select the unit displayed on the LCD display.

(2) Default setting

- The default setting varies depending on the marketing area.

(3) Setting item

- Inch
- mm

6.1.3 Paper Tray Settings

(1) Auto Tray Switch

(a) Use

- To set whether to automatically switch to another tray with same size paper when the paper feed tray runs out of paper during printing.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Enable ATS/APS

(a) Use

- To set the tray for automatic selection when APS is being set.
- To set the tray for automatic selection when automatic switching function for feed tray is ON.

(b) Procedure

1. Select the tray on the Enable ATS/APS screen.
2. To set whether or not to set the selected tray for the automatic selection.

6.1.4 ACS Level

(1) Use

- To set the criterion level to discriminate between a colored original and a black-and-white original.
- To change the criterion level to discriminate a partly colored original as a black-and-white original.

(2) Default setting

- 2

(3) Setting range

- 0 (determination as black) to 4 (determination as full color)

6.1.5 Scan to E-mail Default Tab

(1) Use

- To set the default tab of Scan to E-mail screen.

(2) Default setting

- Favorites

(3) Setting item

- "Favorites"
- Direct Input
- Log

6.1.6 Scan to Folder Default Tab

(1) Use

- To set the default tab of Scan to Folder screen.

(2) Default setting

- Favorites

(3) Setting item

- "Favorites"
- Direct Input
- Log

6.1.7 Fax Default Tab

(1) Use

- To set the default tab of fax screen.

(2) Default setting

- Favorites

(3) Setting item

- "Favorites"
- Direct Input
- Others

6.2 Copy Settings

6.2.1 Auto Zoom for Combine

(1) Use

- To set whether the preset zoom ratios are automatically selected when combine is selected in auto paper mode.

(2) Default setting

- Yes

(3) Setting item

- "Yes"
- No

6.2.2 Default Copy Settings

(1) Use

- To set the initial values for the copy function to be displayed when the power in turned on or the Reset key is pressed.

Factory Default	The factory settings are used as the default settings.
Current Setting	The current settings are used as the default settings.

(2) Default setting

- Factory Default

(3) Setting item

- "Factory Default"
- Current Setting

6.2.3 Separate Scan Output Method

(1) Use

- To set the output mode at Separate Scan setting.
- To output all data at once after reading all originals.

Batch Print	Print all at once after reading all data. Copy setting can be changed after the read operation.
Page Print	Print consecutively during the read operation.

(2) Default setting

- Page Print

(3) Setting item

- Batch print
- “Page Print”

6.3 Scan Settings

6.3.1 JPEG Compression Level

(1) Use

- To set the JPEG compression method when scanning with JPEG while in scan mode.

High Quality	Lowers the compression rate and puts priority in quality while scanning.
Standard	Compression rate and quality are normally balanced while scanning.
High Compression	Makes the compression rate higher and puts priority in lowering the data volume while scanning.

(2) Default setting

- Standard

(3) Setting item

- High Quality
- "Standard"
- High Compression

6.3.2 Black Compression Level

(1) Use

- To set the black compression method for scanning in the black mode while in scan mode.

(2) Default setting

- MMR

(3) Setting item

- MH
- "MMR"

6.3.3 Default Scan Settings

(1) Use

- To set the initial values for the scan function to be displayed when the power in turned on or the Reset key is pressed.

Factory Default	The factory settings are used as the default settings.
Current Setting	The current settings are used as the default settings.

(2) Default setting

- Factory Default

(3) Setting item

- "Factory Default"
- Current Setting

6.4 Print Settings

6.4.1 Paper Settings - Paper Tray Settings

(1) Default Tray

(a) Use

- Select the paper tray that is given priority.

(b) Default setting

- Tray 2

(c) Setting item

- Tray 1
- "Tray 2"
- Tray 3
- Tray 4
- Tray 5

NOTE

- **[Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.**

(2) Tray 1 - Size Detection Mode

(a) Use

- Select whether or not to automatically detect the size of paper loaded in the tray 1.

(b) Default setting

- Auto

(c) Setting item

- "Auto"
- Manual

(3) Tray 1 - Paper Size

(a) Use

- Select the size of paper loaded in the tray 1.

(b) Default setting

- The default setting varies depending on the marketing area.

(c) Setting item

- Any, Letter, Letter R, 11 x 17 *, Legal, Executive, A3 *, A4, A5, A6, B4 *, B5 (JIS), B6, Govt Letter, Statement, SP Folio, UK Quarto, 8K *, 16K, 4x6, 10 x 15 cm *, Env C5, Env C6, Env DL, Env Monarch, Env Chou#3, Env Chou#4, B5 (ISO), Env #10, J Postcard, J Postcard-D, Custom Size
- *: It will be displayed only when the optional large paper size kit LP-101 is mounted.

NOTE

- **Paper size displayed differs depending on the marketing area.**

(4) Tray 1 - Custom Size

(a) Use

- Touch [Width] and [Length], and then type in the paper size.
- It is displayed only when the custom paper size is selected.

(b) Default setting

<Inch area>

- Width: 8.50
- Length: 11.0

<Metric area>

- Width: 210 mm
- Length: 297 mm

(c) Setting range

<Inch area>

Width	3.55 to 11.69
Length	5.5 to 14.00 5.5 to 17.00 (When the optional large paper size kit LP-101 is mounted.)

<Metric area>

Width	90 to 297
Length	140 to 356 140 to 432 (When the optional large paper size kit LP-101 is mounted.)

(5) Tray 1 - Paper Type

(a) Use

- Select the type of paper loaded in the selected tray.

(b) Default setting

- Plain Paper

(c) Setting item

- Any, "Plain Paper", Letterhead, Envelope, Thick 1, Thick 2, Postcard, 1 Side Only, Special Paper, Transparency, Colored Paper, Plain Paper (2nd Side)

(6) Tray 2 - Paper Size

(a) Use

- To automatically detect the paper size set on the tray and display it.
- The paper size cannot be changed with this setting.

(7) Tray 2 - Paper Type

(a) Use

- Select the type of paper loaded in the selected tray.

(b) Default setting

- Plain Paper

(c) Setting item

- Any, "Plain Paper", Letterhead, 1 Side Only, Special Paper, Colored Paper

(8) Tray 3 - Paper Size

(a) Use

- To automatically detect the paper size set on the tray and display it.
- The paper size cannot be changed with this setting.

(9) Tray 3 - Paper Type

(a) Use

- Select the type of paper loaded in the selected tray.

(b) Default setting

- Plain Paper

(c) Setting item

- Any, "Plain Paper", Letterhead, 1 Side Only, Special Paper, Colored Paper

(10) Tray 4 - Paper Size

- [Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.

(a) Use

- To automatically detect the paper size set on the tray and display it.
- The paper size cannot be changed with this setting.

(11) Tray 4 - Paper Type

- [Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.

(a) Use

- Select the type of paper loaded in the selected tray.

(b) Default setting

- Plain Paper

(c) Setting item

- Any, "Plain Paper", Letterhead, 1 Side Only, Special Paper, Colored Paper

(12) Tray 5 - Paper Size

- [Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.

(a) Use

- To automatically detect the paper size set on the tray and display it.
- The paper size cannot be changed with this setting.

(13) Tray 5 - Paper Type

- [Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.

(a) Use

- Select the type of paper loaded in the selected tray.

(b) Default setting

- Plain Paper

(c) Setting item

- Any, "Plain Paper", Letterhead, 1 Side Only, Special Paper, Colored Paper

6.4.2 Paper Settings - Duplex

(1) Use

- Select whether pages are printed double-sided.

(2) Default setting

- OFF

(3) Setting item

- ON
- “OFF”

6.4.3 Paper Settings - Copies

(1) Use

- Specify the number of copies to be printed.

(2) Default setting

- 1

(3) Setting range

- “1” to 9999

6.4.4 Paper Settings - Finishing

(1) Collate

(a) Use

- Select whether or not to enable collated (sort) printing.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Binding Position

(a) Use

- Specify the default binding position for 2-sided printing.

(b) Default setting

- Left

(c) Setting item

- “Left”
- Right
- Top

(3) Offset/Staple

(a) Use

- Select offset or staple.
- When selecting staple, specify the staple position.

(b) Default setting

- None

(c) Setting item

- "None"
- Offset
- Top Left
- Top Right
- 2 position

6.4.5 Paper Settings - Auto Tray Switching

(1) Use

- Select whether a paper tray loaded with paper of the same size is selected automatically when a paper tray that was selected manually becomes empty while printing copies.

(2) Default setting

- ON

(3) Setting item

- "ON"

- OFF

6.4.6 Paper Settings - Tray Mapping

(1) Tray Mapping Mode

(a) Use

- Select whether or not the tray mapping function is used.

(b) Default setting

- OFF

(c) Setting item

- ON
- " OFF"

(2) Logical Tray

(a) Use

- Select the tray that is used for printing when a print job is received from another manufacturer's printer driver.

6.4.7 Print Reports - Configuration Page

(1) Use

- Prints information and status of this machine.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [Configuration Page].
3. Select [Print], and touch [OK].

6.4.8 Print Reports - Statistics Page

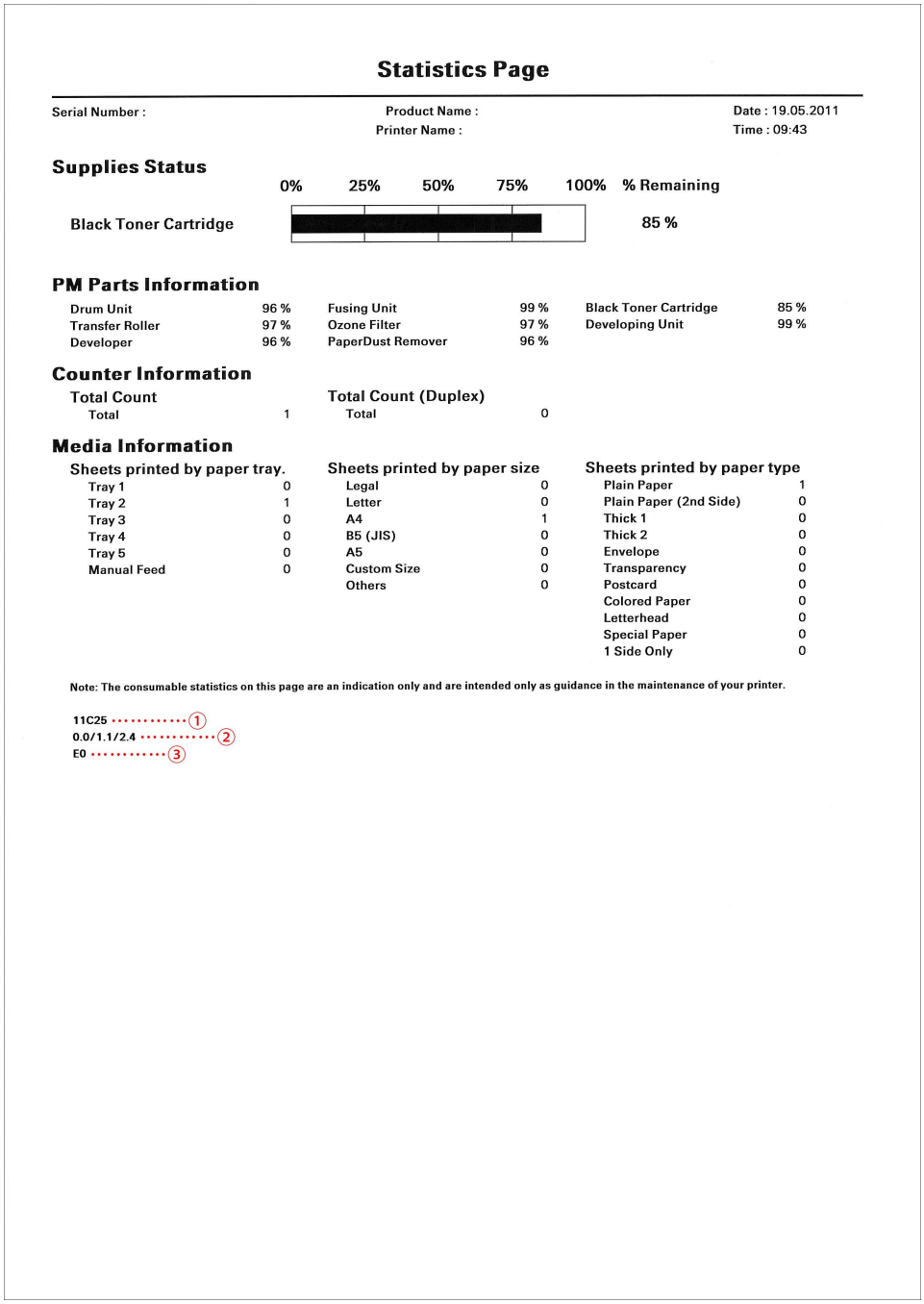
(1) Use

- Prints the statistics page.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [Statistics Page].
3. Select [Print], and touch [OK].

(3) Sample of STATISTICS PAGE



Statistics Page

Serial Number : Product Name : Printer Name : Date : 19.05.2011 Time : 09:43

Supplies Status

	0% 25% 50% 75% 100%	% Remaining
Black Toner Cartridge		85 %

PM Parts Information

Drum Unit	96 %	Fusing Unit	99 %	Black Toner Cartridge	85 %
Transfer Roller	97 %	Ozone Filter	97 %	Developing Unit	99 %
Developer	96 %	PaperDust Remover	96 %		

Counter Information

Total Count		Total Count (Duplex)	
Total	1	Total	0

Media Information

Sheets printed by paper tray.		Sheets printed by paper size		Sheets printed by paper type	
Tray 1	0	Legal	0	Plain Paper	1
Tray 2	1	Letter	0	Plain Paper (2nd Side)	0
Tray 3	0	A4	1	Thick 1	0
Tray 4	0	B5 (JIS)	0	Thick 2	0
Tray 5	0	A5	0	Envelope	0
Manual Feed	0	Custom Size	0	Transparency	0
		Others	0	Postcard	0
				Colored Paper	0
				Letterhead	0
				Special Paper	0
				1 Side Only	0

Note: The consumable statistics on this page are an indication only and are intended only as guidance in the maintenance of your printer.

11C25 ····· ①
0.0/1.1/2.4 ····· ②
E0 ····· ③

(a) Supplies Status

- Display the estimated percent of life remaining in the toner bottle.

NOTE

- **The percent of life remaining in the toner bottle can be used as a guide, but may not exactly reflect the amount that has been used in the toner bottle.**

(b) PM Parts Information

- Display the estimated percent of life remaining in periodic replacement parts and units such as the drum unit, transfer roller, developer, fusing unit, ozone filter, paper dust remover, black toner and developing unit.

(c) Counter Information

- The total number of pages that have been printed is counted and displayed based on the description shown in the following table.

<Counter information list>

Types of count		Contents	Count timing
Total Count	Total	• The total number of pages ejected from the printer. • Increment by one per simplex and by two per duplex.	When a sheet of media is ejected properly.

Total Count (duplex)	Total	• The total number of duplex sheets ejected from the printer. • Increment by one per duplex (and by zero per simplex).	

(d) How to read information on the installation date

- Letters which indicate information on installation date of the machine are shown at the left bottom of the statistics page (① in the sample page)

<Display on the statistics page>

11F25

<Meaning of counter value> (From the left of the numerical values)

No.	Contents	
1	Installation date *1	Year (e.g. The year 2011 is displayed as 11.)
2		Month (e.g. January is displayed as A. February is B. March is C. and December is L.)
3		Day (e.g. The day 25 is displayed as 25.)

- *1: Information on installation date: Date the machine is installed can be manually set. When the installation date is not entered even after 100 sheets have been printed, the date at the time will be set as installation date automatically.
  The installation date can be reset.
  "-2000000" is displayed until it reaches the set date.

(e) How to read coverage information

- The lower left part of the statistics page (② in the sample page) shows numerical values that represent coverage information.

<Display on the statistics page>

0/0/0

<Meaning of counter value> (From the left of the numerical values)

No.	Contents
1	Display the average dot coverage in the last job. (Calculated on an A4/Letter)
2	Display the average dot coverage in the current toner bottle. (Calculated on an A4/Letter)
3	Display the average dot coverage for all prints performed after the printer was installed. (Calculated on an A4/Letter)

NOTE

- **Coverage information can be used as a guide and may not completely reflect the actual amount of toner used.**

(f) How to read total count information

- The lower left part of the statistics page (③ in the sample page) shows numerical values that represent total count information.
  The table below explains total count information that is provided by each numerical data.

<Display on the statistics page>

0

<Meaning of counter value (From the left of the numerical values)>

No.	Contents
1	The number of pages that have been printed is counted on an A4 or Letter basis and displayed in the hexadecimal notation. Printed pages are counted.

6.4.9 Print Reports - Font List - PS

(1) Use

- Prints the PostScript font list.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [Font List] -> [PS].
3. Select [Print], and touch [OK].

6.4.10 Print Reports - Font List - PCL

(1) Use

- Prints the PCL font list.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [Font List] -> [PCL].
3. Select [Print], and touch [OK].

6.4.11 Print Reports - HDD Directory List

(1) Use

- Prints the directory list for the hard disk.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [HDD Directory List].
3. Select [Print], and touch [OK].

6.4.12 Print Reports - Counter List Print

(1) Use

- Prints the list of counters.

(2) Procedure

1. Touch [Utility/Counter] -> [User Settings] -> [Print Settings] -> [Print Reports].
2. Select [Counter List Print].
3. Select [Print], and touch [OK].

6.4.13 Binding Direction Adjustment

(1) Use

- Specify the method for paper arrangement (adjusting the binding position) for 2-sided printing.

(2) Default setting

- Adjust Orientation

(3) Setting item

- "Adjust Orientation"
- Control Adjustments

6.5 Fax Settings

- It will be displayed only when the optional fax kit FK-509 is mounted.

6.5.1 Remote RX Enabled

(1) Use

- To set whether or not the remote reception function is used.
- To command reception from an external telephone.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

NOTE

- **Enter the number for remote reception when "ON" is set.**

6.5.2 Remote RX No.

(1) Use

- Type in the remote reception number for performing remote reception.

(2) Procedure

- Enter the remote reception number (2 digits).

6.5.3 Default Fax Settings

(1) Use

- To set the default settings (settings selected when Reset is pressed) for the fax function.

(2) Default setting

- Factory Default

(3) Setting item

- "Factory Default"
- Current Setting

6.5.4 Display Fax Activity

(1) Fax TX

(a) Use

- To set whether or not to display a message indicating data being sent.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Fax RX

(a) Use

- To set whether or not to display a message indicating data being received.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

6.6 Select Default Start App

6.6.1 Use

- It is displayed when extended server authentication is set and available application is registered.
- It is used to specify the application to be started for each registered user.

7. UTILITY (ADMIN SETTINGS)

Admin Settings - Outline

- The Admin Settings will be available by entering the administrator password (8 digits) set by the Admin Settings. (The administrator password is initially set to [12345678].)

NOTE

- **When the following setting is set to [ON], entering the incorrect administrator password three times will cause access lock. [Admin settings] -> [Security Settings] -> [Enhanced Security Mode]**
- **The access lock is released after the lapse of a predetermined period of time after the power switch is turned OFF and then ON more than 10 seconds later.**

7.1 Machine Settings

7.1.1 Sleep Mode Setting

- It will not be displayed when the [Sleep ON/OFF Choice Setting] is set to [Restrict] by the following setting.
  [Service Mode] -> [System Settings]

(1) Use

- To set whether to enable or disable sleep mode.

(2) Default setting

- ON

(3) Setting item

- "ON"
- OFF

7.1.2 Sleep Time Setting

- It will not be displayed when the [Sleep Mode Setting] is set to [OFF].

(1) Use

- Set a time period before switching to the sleep mode time.

(2) Default setting

- 2 min. (bizhub 42/36: for China)
- 1 Hour (bizhub 42: except for China)
- 45 min. (bizhub 36: except for China)

(3) Setting item

- 1 min., 2 min., 5 min., 6 min., 7 min., 8 min., 9 min., 10 min., 11 min., 12 min., 13 min., 14 min., 15 min., 30 min., 45 min., 1 Hour, 3 Hours.

7.1.3 Auto Power OFF Setting

(1) Use

- Select whether or not to automatically turn the machine off.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.1.4 Auto Power OFF Time

- It will not be displayed when the [Auto Power OFF Setting] is set to [OFF].

(1) Use

- Configure the time to automatically turn this machine off.

(2) Procedure

- Enter the time.

7.1.5 Date & Time Settings

(1) Date

(a) Use

- Specify the current date.

(b) Procedure

- Touch [Date], and enter the date (month, day and year).

(2) Time

(a) Use

- Specify the current time.

(b) Procedure

- Touch [Time], and enter the time-of day.

(3) Time Zone

(a) Use

- For time zone, set the time difference with the world standard time.

(b) Default setting

- 00:00

(c) Setting range

- -12:00 to +13:00

7.1.6 Daylight Saving Time

(1) Enable

(a) Use

- To set whether to apply daylight saving time in the time display on this machine.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Offset

- It will not be displayed only when the [Enable] of [Daylight Saving Time] is set to [OFF].

(a) Use

- To set the time difference in setting the daylight saving time.

(b) Default setting

- 60 min.

(c) Setting range

- 1 min. to 150 min.

7.1.7 List/Counter - Job Settings List

(1) Use

- To output the value set by the setting menu.

(2) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Machine Settings] -> [List/Counter] -> [Job Settings List].
3. Select [Print], and touch [OK].

7.1.8 Report Input Tray

(1) Use

- Select the paper tray loaded with the paper used to print reports automatically (ex. TX Result Report).

(2) Default setting

- Tray 2

(3) Setting item

- Tray 1
- "Tray 2"
- Tray 3
- Tray 4

- Tray 5

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**

7.1.9 Auto Reset Settings

(1) Enable

(a) Use

- Select whether or not to exit the current screen and return to the home screen if the machine is not used over a period of time.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(2) Auto Reset

(a) Use

- Specify the period of time before the auto reset function starts working.

(b) Default setting

- 1 min.

(c) Setting range

- "1 min." to 9 min.

(3) Priority Mode

(a) Use

- Configure a screen to be displayed in the system auto reset mode.

(b) Default setting

- Home

(c) Setting item

- "Home"
- Copy
- E-mail
- Folder
- Fax

7.1.10 Shift Output Each Job

- It will be displayed only when the optional finisher FS-529 is installed.

(1) Use

- Select whether to shift the output paper for each job.

(2) Default setting

- ON

(3) Setting item

- "ON"
- OFF

7.1.11 Sleep after PC RX Print

- It will be displayed only when [Sleep ON/OFF Choice Setting] is set to "Allow."

(1) Use

- To select whether or not to enter sleep mode immediately after completing a job (PC print job or etc.) received during sleep mode.

(2) Default setting

- ON

(3) Setting item

- "ON"
- OFF

7.1.12 Low Power Mode Setting

(1) Use

- To select whether or not to enable low power mode.

(2) Default setting

- ON

(3) Setting item

- "ON"
- OFF

7.1.13 LowPowerMode Time Setting

- It will be not displayed when [Low Power Mode Setting] is set to "OFF."

(1) Use

- To set the time before low power mode is activated.

(2) Default setting

- 15 min.

(3) Setting item

- 1 min.
- 2 min.
- 3 min.
- 4 min.
- 5 min.
- 6 min.
- 7 min.
- 8 min.
- 9 min.
- 10 min.
- 11 min.
- 12 min.
- 13 min.
- 14 min.
- " 15 min."
- 30 min.
- 45 min.
- 1 Hour
- 3 Hours

7.2 Administrator Registration

7.2.1 Administrator Registration

(1) Name

(a) Use

- Register the name of the administrator.

(b) Procedure

- Touch [Name] and enter the name of the administrator.

(2) Extension No.

(a) Use

- Register the extension number.

(b) Procedure

- Touch [Number] and enter the extension number.

(3) E-mail Address

(a) Use

- Register the E-mail address of the administrator.

(b) Procedure

- Touch [Address] and enter the E-mail address.

7.2.2 Machine Settings

(1) Device Name

(a) Use

- Register the device name of this machine.

(b) Procedure

- Touch [Device Name] and enter the device name of this machine.

(2) Address

(a) Use

- Register the E-mail address of this machine.
- The E-mail address is set as the from address for E-mail transmission and Internet Fax by default.

(b) Procedure

- Touch [Address] and enter the E-mail address.

7.3 Address Registration

7.3.1 Address Book - Address Book

(1) Use

- It is used for printing the list of abbreviated destination registered.
- To type of destination available for output are as follows:
  - E-mail
  - FTP
  - WebDAV
  - SMB
  - Fax
  - Internet Fax

(2) Procedure

1. Select the destination type to be output.
2. Touch [Start Number] and enter the registered number to start printing.
3. Touch [Number of Addresses] and specify the number of destinations to be output.
4. Touch [List Output] -> [Print] -> [OK], and output the list of address book.

7.3.2 Address Book - Group

(1) Use

- It is used to print the list of the group destinations registered.

(2) Procedure

1. Touch [Start Number] and enter the registered number to start printing.
2. Touch [Number of Addresses] and specify the number of destinations to be output.
3. Touch [List Output] -> [Print] -> [OK], and output the list of group.

7.3.3 Address Book - Program

(1) Use

- It is used for printing the list of the program destinations registered.
- To type of destination available for output are as follows:
  - E-mail
  - FTP
  - WebDAV
  - SMB
  - Address Book
  - Group Address
  - Fax
  - Internet Fax

(2) Procedure

1. Select the destination type to be output.
2. Touch [Start Number] and enter the registered number to start printing.
3. Touch [Number of Addresses] and specify the number of destinations to be output.
4. Touch [List Output] -> [Print] -> [OK], and output the list of program.

7.4 Authentication Setting

7.4.1 User List Display Setting

(1) Use

- Select this key to specify whether or not to make the key that displays the list of registered users grayed out.
- This item is enabled when the Enhanced Security Mode is disabled.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.4.2 Logout Confirmation Display

(1) Use

- Configure whether to display the logout confirmation screen when you press the Access key to log out.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.4.3 Card Authentication

- It will be displayed only when the optional authentication unit AU-201 is mounted.

(1) Use

- Select this key to configure the relationship between users and IC cards if IC card authentication is enabled.

(2) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Authentication Setting] -> [Card Authentication].
3. Select the user name to be registered and touch [OK]. (Touch [All] to display all users. Touch [Search] to extract target users with search characters.)
4. Touch [Edit].
5. Place the IC card on the optional working table WT-510 and touch [OK].

7.5 Ethernet

NOTE

- **Some items for network environment setting can only be used when PageScope Web Connection is used.**
- **Items which cannot be set on the Control panel should be set with the PageScope Web Connection.**
- **For using the PageScope Web Connection, refer to the User's Guide.**

7.5.1 TCP/IP

(1) Enable

(a) Use

- To set whether to enable or disable TCP/IP settings.

NOTE

- **Selecting [OFF], all the items except [Enable] will not be displayed.**

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(2) IP Address

(a) Use

- To directly specify the IP address, enter the IP address of this machine.

(b) Default setting

- 0.0.0.0

(c) Procedure

- Touch [Address] and enter the IP address.

(3) Subnet Mask

(a) Use

- When directly entering the IP address, configure the subnet mask of the network to be connected.

(b) Default setting

- 0.0.0.0

(c) Procedure

- Touch [Address] and enter the subnet mask.

(4) Gateway

(a) Use

- When directly entering the IP address, configure the default gateway of the network to be connected.

(b) Default setting

- 0.0.0.0

(c) Procedure

- Touch [Address] and enter the default gateway.

(5) DHCP

(a) Use

- If there is a DHCP server on the network, specify whether the IP address and other network information are automatically assigned by the DHCP server.
- If the IP address is manually specified, [DHCP] is automatically set to [OFF].

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(6) BOOTP

(a) Use

- If there is a BOOTP server on the network, specify whether the IP address and other network information are automatically assigned by the BOOTP server.
- If the IP address is manually specified, [BOOTP] is automatically set to [OFF].

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(7) ARP/PING

(a) Use

- Select whether or not the ARP/PING command is used when the IP address is assigned.
- If the IP address is manually specified, [ARP/PING] is automatically set to [OFF].

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(8) HTTP

(a) Use

- Select whether or not to enable HTTP.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(9) FTP

(a) Use

- Select whether or not to enable the FTP server.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(10) Telnet

(a) Use

- Select whether or not to enable telnet transmissions.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(11) Bonjour

(a) Use

- Select whether or not to display the machine as a connected device via Bonjour.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(12) Dynamic DNS

(a) Use

- Set whether or not to automatically register the host name to the DNS server which supports the Dynamic DNS function.

(b) Default setting

- Disable

(c) Setting item

- Enable
- "Disable"

(13) IPP

(a) Use

- Select whether or not to use IPP print.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(14) RAW Port - Enable

(a) Use

- Select whether or not to use RAW port (Port 9100) print.

(b) Default setting

- Yes

(c) Setting item

- "Yes"

- No

(15) RAW Port - Bidirectional

(a) Use

- Select whether or not to enable RAW port bidirectional communication.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(16) SLP

(a) Use

- Select whether or not to enable SLP.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(17) SMTP

(a) Use

- Select whether or not to enable E-mail transmission operations for this machine.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(18) SNMP

(a) Use

- Select whether or not to enable SNMP.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(19) WSD Print

(a) Use

- Select whether or not to enable WSD printing.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(20) IPsec

(a) Use

- Select whether or not to enable IPsec.

(b) Default setting

- Disable

(c) Setting item

- Enable
- "Disable"

(21) IP Address Filter - Permit Access

(a) Use

- Set the access permission by IP address.

(b) Default setting

- Disable

(c) Setting item

- Enable
- "Disable"

(22) IP Address Filter - Deny Access

(a) Use

- Set the access disable by IP address.

(b) Default setting

- Disable

(c) Setting item

- Enable
- "Disable"

(23) IPv6 - Enable

(a) Use

- Select whether or not to enable IPv6.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(24) IPv6 - Auto Setting

(a) Use

- Select whether or not to obtain the IPv6 address automatically.

(b) Default setting

- Enable

(c) Setting item

- "Enable"
- Disable

(25) IPv6 - Link Local

(a) Use

- Displays the link-local address generated from the MAC address.

(26) IPv6 - Global Address

(a) Use

- Displays the global address.

(27) IPv6 - Gateway Address

(a) Use

- Displays the gateway address.

7.5.2 Netware

(1) Use

- Select whether or not to enable NetWare.

(2) Default setting

- Disable

(3) Setting item

- Enable
- "Disable"

7.5.3 AppleTalk

(1) Use

- Select whether or not to enable AppleTalk.

(2) Default setting

- Enable

(3) Setting item

- "Enable"
- Disable

7.5.4 Network Speed

(1) Use

- Select whether or not to enable network speed.

(2) Default setting

- Auto

(3) Setting item

- "Auto"
- 10Mbps Full Duplex
- 10Mbps Half Duplex
- 100Mbps Full Duplex
- 100Mbps Half Duplex
- 1Gbps Full Duplex

7.5.5 IEEE802.1X

(1) Use

- If you use this machine in a wired LAN environment having the IEEE802.1x authentication system, you must configure the supplicant (authentication client) function of this machine.

(2) Default setting

- Disable

(3) Setting item

- Enable
- "Disable"

7.5.6 Binary Division

(1) Use

- Select whether or not transmission data is divided.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.5.7 S/MIME Comm. Setting

(1) S/MIME Enabled

(a) Use

- To set whether to enable S/MINE communication that provides encrypted E-mail transmission.

(b) Default setting

- Disable

(c) Setting item

- Enable

- "Disable"

(2) Digital Signature

(a) Use

- Select whether or not to attach a digital signature in S/MIME communication.

(b) Default setting

- Do not add signature

(c) Setting item

- Always add signature
- "Do not add signature"
- Select when sending

(3) Encryption Method

(a) Use

- To select an encryption method used for S/MIME E-mail text.

(b) Default setting

- 3DES

(c) Setting item

- RC2-40
- RC2-64
- RC2-128
- DES
- "3DES"
- AES-128
- AES-192
- AES-256

7.6 External Memory Print

7.6.1 Use

- Select whether or not to enable the external memory print function.

7.6.2 Default setting

- Enable

7.6.3 Setting item

- "Enable"
- Disable

7.7 Job Timeout

7.7.1 Use

- Specify the amount of time applied to any single job sent from the machine.

7.7.2 Default setting

- 15 min.

7.7.3 Setting range

- 5 min. to 300 min.

7.8 Copy Settings

7.8.1 Specify Tray When APS OFF

(1) Use

- To set the tray to be used when APS is cancelled.
- To set the tray (tray 2) for the default setting when cancelling APS.

(2) Default setting

- Tray Before APS ON

(3) Setting item

- "Tray Before APS ON"
- Default Tray

7.8.2 Paper Priority

(1) Use

- Specify the paper tray that is normally used.

(2) Default setting

- Tray 2

(3) Setting item

- Tray 1
- "Tray 2"
- Tray 3
- Tray 4
- Tray 5

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**

7.9 Print Settings

7.9.1 Startup Page Setting

(1) Use

- Select whether or not to print the start page when the power switch is turned ON.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.9.2 Auto Continue

(1) Use

- Select whether or not to continue printing if the size and type of paper of a print job is different from the one loaded in the specified paper feed tray.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

7.9.3 Paper - Default Paper

(1) Paper Size

(a) Use

- Select the paper size.

(b) Default setting

- The default setting varies depending on the marketing area.

(c) Setting item

- Letter, Letter R, 11 x 17 *, Legal, Executive, A3 *, A4, A5, A6, B4 *, B5 (JIS), B6, Govt Letter, Statement, SP Folio, UK Quarto, 8K *, 16K, 4x6, 10 x 15 cm *, Env C5, Env C6, Env DL, Env Monarch, Env Chou#3, Env Chou#4, B5 (ISO), Env #10, J Postcard, J Postcard-D, Custom Size
- *: It will be displayed only when the optional large paper size kit LP-101 is mounted.

NOTE

- **Paper size displayed differs depending on the marketing area.**

(2) Custom Size

(a) Use

- Specify odd size paper.
- These settings can be specified if [Paper Size] is set to [Custom Size].

Width	Set the width for the custom size.
Length	Set the length for the custom size.

(b) Default setting

<Inch area>

- Width: 8.50

- Length: 11.0

<Metric area>

- Width: 210 mm
- Length: 297 mm

(c) Setting item

<Inch area>

Width	3.55 to 11.69
Length	5.5 to 14.00 5.5 to 17.00 (When the optional large paper size kit LP-101 is mounted.)

<Metric area>

Width	90 to 297
Length	140 to 356 140 to 432 (When the optional large paper size kit LP-101 is mounted.)

(3) Paper Type

(a) Use

- Select the paper type.

(b) Default setting

- Plain Paper

(c) Setting item

- "Plain Paper", Letterhead, Envelope, Thick 1, Thick 2, Postcard, 1 Side Only, Special Paper, Transparency, Colored Paper, Plain Paper (2nd Side)

7.9.4 Paper - Measurement Unit Setting

(1) Use

- Select the measurement units.

(2) Default setting

- The default setting varies depending on the marketing area.

(3) Setting item

- Inch
- mm

7.9.5 Hold Job Timeout

(1) Use

- Specify the length of time until print jobs saved on the hard disk are deleted.

(2) Default setting

- Disable

(3) Setting item

- "Disable"
- 1 Hour
- 4 Hours
- 1 Day
- 1 Week

7.9.6 Quality Settings

(1) Brightness

(a) Use

- Adjust the brightness of the printed image.

(b) Default setting

- 0

(c) Setting range

- -15% to 15%

(2) Contrast

(a) Use

- Adjust the copy density balance.

(b) Default setting

- 0

(c) Setting range

- -15% to 15%

(3) Halftone - Image Printing

(a) Use

- Set the handling method for the halftone on the image.

(b) Default setting

- Detail

(c) Setting item

- Line Art
- "Detail"
- Smooth

(4) Halftone - Text Printing

(a) Use

- Set the handling method for the halftone on the text.

(b) Default setting

- Line Art

(c) Setting item

- "Line Art"
- Detail
- Smooth

(5) Halftone - Graphics Printing

(a) Use

- Set the handling method for the halftone on the graphic.

(b) Default setting

- Detail

(c) Setting item

- Line Art
- "Detail"
- Smooth

(6) Edge Enhancement - Image Printing

(a) Use

- Edges of images are emphasized so that small images are made more visible.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(7) Edge Enhancement - Text Printing

(a) Use

- Edges of characters are emphasized so that small characters are made more visible.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(8) Edge Enhancement - Graphics Printing

(a) Use

- Edges of graphics are emphasized so that small graphics are made more visible.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(9) Edge Strength

(a) Use

- Select the desired amount that edges are emphasized.

(b) Default setting

- Middle

(c) Setting item

- OFF
- Low
- "Middle"
- High

(10) Economy Print

(a) Use

- Select whether to print graphics with a adjusted density by reducing the amount of toner that is used.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(11) Gradation Adjustment - Tone Calibration

(a) Use

- Select whether or not to enable image quality adjustment.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(12) Gradation Adjustment – Density - Highlight

(a) Use

- Adjust the density of highlight.

(b) Default setting

- 0

(c) Setting range

- -3 to 3

(13) Gradation Adjustment – Density - Middle

(a) Use

- Adjust the density of middle.

(b) Default setting

- 0

(c) Setting range

- -3 to 3

(14) Gradation Adjustment – Density - Shadow

(a) Use

- Adjust the density of shadow.

(b) Default setting

- 0

(c) Setting range

- -3 to 3

7.9.7 Emulation

(1) Default Emulation

(a) Use

- Select the machine emulation language.

(b) Default setting

- Auto

(c) Setting item

- "Auto"
- PS
- PCL

(2) PS - Wait Timeout

(a) Use

- Specify the time until an error is determined to be a PostScript error.

(b) Default setting

- 0

(c) Setting range

- "0" to 300 (sec.)

(3) PS - Print PS Errors

(a) Use

- Select whether or not an error page is printed when a PostScript error occurs.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(4) PS - PS Protocol

(a) Use

- Select the protocol for data transmissions with a PostScript data stream.

(b) Default setting

- Auto

(c) Setting item

- "Auto"
- Normal
- Binary

(5) PCL - CR/LF Mapping

(a) Use

- Select the definitions of the CR/LF codes in the PCL language.

(b) Default setting

- CR=CR LF=LF

(c) Setting item

- "CR=CR LF=LF"
- CR=CRLF LF=LF
- CR=CR LF=LFCR
- CR=CRLF LF=LFCR

(6) PCL - Line/Page

(a) Use

- Specify the number of lines per page in the PCL language.

(b) Default setting

- The default setting varies depending on the marketing area.

(c) Setting range

- 5 to 128

(7) PCL - Font Setting - Font Number

(a) Use

- Specify the default font in the PCL language.

(b) Default setting

- 000

(c) Setting range

- "000" to 102

(8) PCL - Font Setting - Pitch Size

(a) Use

- Specify the font size in the PCL language.

(b) Default setting

- 10.00

(c) Setting range

- 0.44 to 99.99

(9) PCL - Font Setting - Point Size

(a) Use

- Specify the font size in the PCL language.

(b) Default setting

- 12.00

(c) Setting range

- 4.00 to 999.75

(10) PCL - Font Setting - Symbol Set

(a) Use

- Specify the symbol set used with the PCL language.

(b) Default setting

- PC8

(c) Setting item

- “PC8”, Desktop, ISO4, ISO6, ISO11, ISO15, ISO17, ISO21, ISO60, ISO69, ISOL1, ISOL2, ISOL5, ISOL6, ISOL9, Legal, Math8, MCText, MSPUBL, PC775, PC850, PC852, PC858, PC8DN, PC8TK, PC1004, Pi Font, PS math, PS Text, Roman 8, WIN30, WIN Balt,

WINL1, WINL2, WINL5, ARABIC8, HPWARA, PC864ARA, HEBREW7, HEBREW8, ISOHEB, PC862HEB, ISOCYR, PC866CYR, WINCYR, PC866UKR, Greek 8, WINGRK, PC851GRK, PC8GRK, ISOGRK

(11) XPS - Digital Signature

(a) Use

- Select whether or not to enable XPS digital signatures.

(b) Default setting

- Disable

(c) Setting item

- Enable
- " Disable"

(12) XPS - Print XPS Errors

(a) Use

- Select whether or not an error report is printed after an XPS error has occurred.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

7.10 Maintenance Menu

7.10.1 Print Menu

(1) Event Log

(a) Use

- Select this key to print event logs such as error history and consumable replacement history.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Event Log].
3. Select [Print], and touch [OK].

(2) Black 64

(a) Use

- Prints the halftone pattern using a 25% density.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Black 64].
3. Select [Print], and touch [OK].

(3) Black 128

(a) Use

- Prints the halftone pattern using a 50% density.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Black 128].
3. Select [Print], and touch [OK].

(4) Black 256

(a) Use

- Prints the halftone pattern using a 100% density.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Black 256].
3. Select [Print], and touch [OK].

(5) Gradation

(a) Use

- Prints the gradation pattern.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Gradation].
3. Select [Print], and touch [OK].

(6) Activity Report

- It will be displayed only when the optional fax kit FK-509 is installed.

(a) Use

- Prints the report where transmission and reception are recorded.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Activity Report].
3. Select [Print], and touch [OK].

(7) Scan Send Report Print

(a) Use

- Prints the report where scan transmission is recorded.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Scan Send Report Print].
3. Select [Print], and touch [OK].

(8) Scan Event Log

(a) Use

- Prints the report where errors that have occurred in scanner are recorded.

(b) Procedure

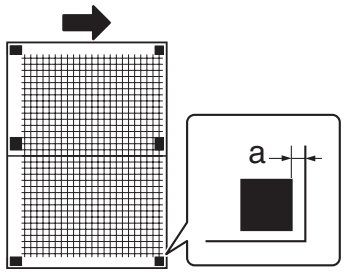
1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Print Menu] -> [Scan Event Log].
3. Select [Print], and touch [OK].

7.10.2 Printer Adjustment

(1) Leading Edge Adjustment

(a) Use

- Adjusts the leading edge margin of media for single-sided printing.
- Adjust the position of the print images caused by paper type features.
- This setting can be made independently for plain paper, Thick 1, Thick 2, Transparency, and envelopes.



a:4.2mm

(b) Setting range

Specifications	4.2 mm ± 0.5 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(c) Procedure

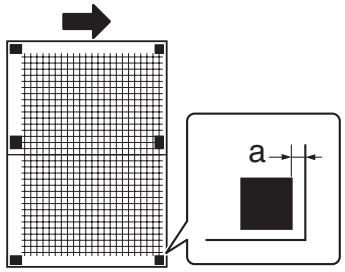
1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Leading Edge Adjustment].
3. Select a paper type to be adjusted.

4. Load the paper into the tray 1 (manual bypass tray).
5. Press the Start key. A test pattern is printed.
6. Check that the distance from the starting print position of the test pattern to the edge of the paper (a) is 4.2 mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to print a test pattern again.
8. If width (a) falls within the specified range, touch [OK].

(2) Leading Edge Adj. Side 2 (Dx)

(a) Use

- Adjusts the leading edge margin of media for 2-sided printing.
- This adjustment is available only for plain paper.



a:4.2mm

(b) Setting range

Specifications	4.2 mm ± 0.5 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(c) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Leading Edge Adj. Side 2 (Dx)] -> [Plain Paper].
3. Load the paper into the tray 1 (manual bypass tray).
4. Press the Start key. A test pattern is printed.
5. Check that the distance from the starting print position of the test pattern to the edge of the paper (a) is 4.2 mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
6. Press the Start key to print a test pattern again.
7. If width (a) falls within the specified range, touch [OK].

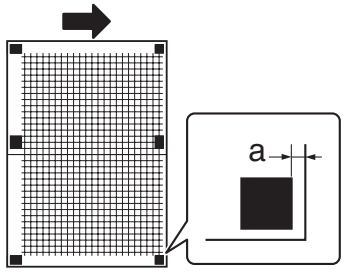
(3) Leading Edge Adjustment Tray

(a) Use

- To change and adjust image printing position at vertical scanning direction by each feed. (to adjust the timing starting from the roller connection up to start of transfer output). It is not applicable in case the job is fed at re-feed.
- To be used when [Printer Area-Leading Edge Adjustment] is not enough for full adjustment (as such case that image printing position gets deviated due to pattern of each feed.)
- Setting is available according to feed of Tray1 (manual bypass tray), Tray2, Tray3 (adjusting values of the tray 4 and tray 5 are the same as tray 3).
- Adjustment is made for plain paper.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**
- **Setting value entered from the tray 3, tray 4, or tray 5 will be applied to the tray 3, tray 4, and tray5 as common value.**



a:4.2mm

(b) Setting range

Specifications	4.2 mm ± 0.5 mm

Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(c) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Leading Edge Adjustment Tray].
3. Select a paper tray to be adjusted.
4. Load the paper into the selected paper tray.
5. Press the Start key. A test pattern is printed.
6. Check that the distance from the starting print position of the test pattern to the edge of the paper (a) is 4.2 mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to print a test pattern again.
8. If width (a) falls within the specified range, touch [OK].

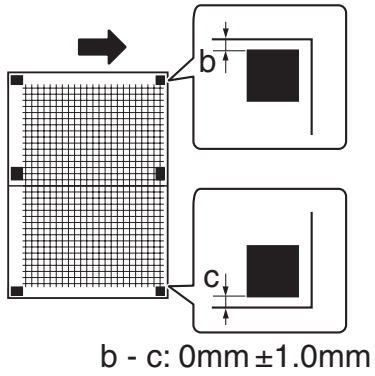
(4) Side Edge Adjustment

(a) Use

- Adjust the side margin of media for single-sided printing.
- Setting is available according to feed of Tray1 (manual bypass tray), 2, 3, 4, and 5.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**



(b) Setting range

Specifications	0 mm ± 1.0 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(c) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Side Edge Adjustment].
3. Select a paper tray to be adjusted.
4. Load the paper into the selected paper tray.
5. Press the Start key. A test pattern is printed.
6. Check that the difference between (b) and (c) (distance between the side edge of paper and the print position) is 0 ± 1.0 mm.
   If the difference between (b) and (c) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to print a test pattern again.
8. If the difference between (b) and (c) falls within the specified range, touch [OK].

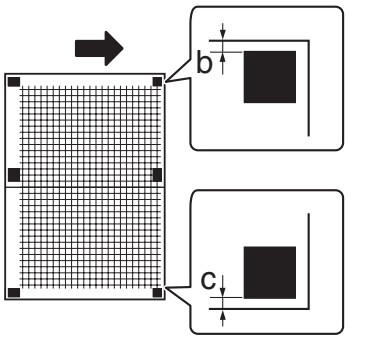
(5) Left ADJ Duplex

(a) Use

- Adjust the side margin of media for double-sided printing.
- Setting is available according to feed of Tray1 (manual bypass tray), 2, 3, 4, and 5.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**



(b) Setting range

Specifications	0 mm ± 1.0 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(c) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Left ADJ Duplex].
3. Select a paper tray to be adjusted.
4. Load the paper into the selected paper tray.
5. Press the Start key. A test pattern is printed.
6. Check that the difference between (b) and (c) (distance between the side edge of paper and the print position) is 0 ± 1.0 mm.
   If the difference between (b) and (c) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to print a test pattern again.
8. If the difference between (b) and (c) falls within the specified range, touch [OK].

(6) Engine DipSW

(a) Use

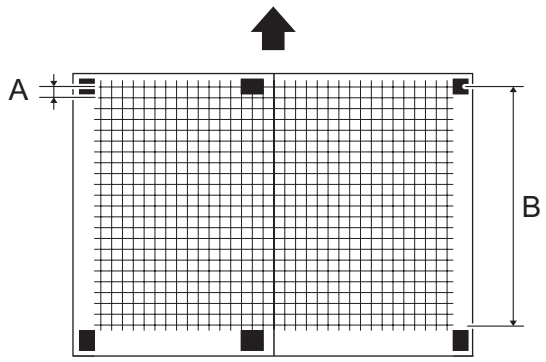
- Use to change engine settings.
- For details, see "I.9.14 Engine DipSW"

(7) Feed Zoom

(a) Use

- To synchronize the paper transport speed with the image writing speed.
- [Feed Zoom] becomes necessary.
- The print image on the copy distorts (stretched, shrunk).
- When the print image on the copy is stretched in the sub scan direction.
- This setting can be made independently for plain paper, Thick 1, Thick 2, and Envelope.

(b) Setting range



- Width A and width B on the test pattern produced should fall within the following ranges.
  NOTE
  - **Width A: equivalent to one grid.**
  - **Width B: equivalent to 22 grids.**

Specifications	A: 8.0 ± 0.2 mm
	B: 177.0 ± 0.7 mm
Setting range	A: -7 to +7 (Step: 1)
	B: -7 to +7 (Step: 1)

(c) Procedure

1. Load the A4 or 8 1/2 × 11 plain paper in the tray 1 (manual bypass tray).
2. Call the Admin Settings to the screen.
3. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Feed Zoom].
4. Touch the key for desired paper type.
5. Press the Start key. A test pattern is printed.
6. Check width A (equivalent to one grid) and width B (equivalent to 22 grids) on the test print.
7. If width of A or B falls outside the specified range, change the setting using the [+] / [-] keys.
   - If width A or B is longer than the specifications, make the setting value smaller than the current one.
   - If width A or B is shorter than the specifications, make the setting value greater than the current one.
8. Press the Start key to let the machine produce a test print again.
9. Check width A and width B on the test print.
10. If width A or B falls outside the specified range, change the setting value and make a check again.
11. If width A or B falls within the specified range, touch [OK].

(8) Paper Separation Adjustment

(a) Use

- By changing the period between the activation of the registration roller and the image transfer output, the paper separation position can be adjusted for the 1st and 2nd sides of paper in duplex print.
- To ensure proper balance between paper separating and image transferring performances by varying the paper separation position applied for duplex printing.

(b) Default setting

- 0

(c) Setting range

- -2 mm to +2 mm (step: 0.1 mm)

(d) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Paper Separation Adjustment].
3. Select [First Side] or [Second Side].
4. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - Priority on paper separation performance: Increase the setting value.
   - Priority on image transfer performance: Decrease the setting value.
5. Make a print and check the produced image.

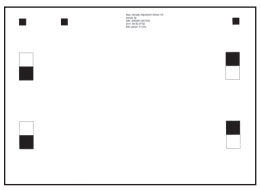
(9) Gradation Adjustment - Max. Density Adjustment

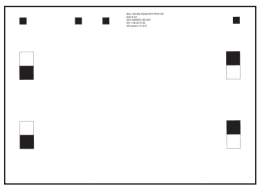
(a) Use

- This function is useful when the required printing result is not obtained, for example, the printing density is too high or too low. Scan the amount of toner adhered on an output Max. density adjustment sheet, and adjust to the optimal density.
- Perform this adjustment before the Gradation Adjustment.
- Use this adjustment when the drum unit, developer or developing unit has been replaced.

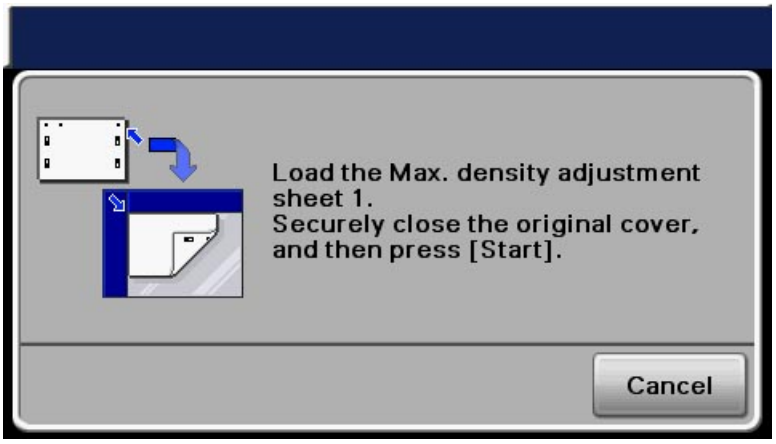
(b) Procedure

1. Load the A4 or 8 1/2 × 11 plain paper in the tray.
2. Call the Admin Settings to the screen.
3. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Gradation Adjustment] -> [Max. Density Adjustment].
4. Select [Print].
5. Touch [OK].
6. Two Max. density adjustment sheets are printed.

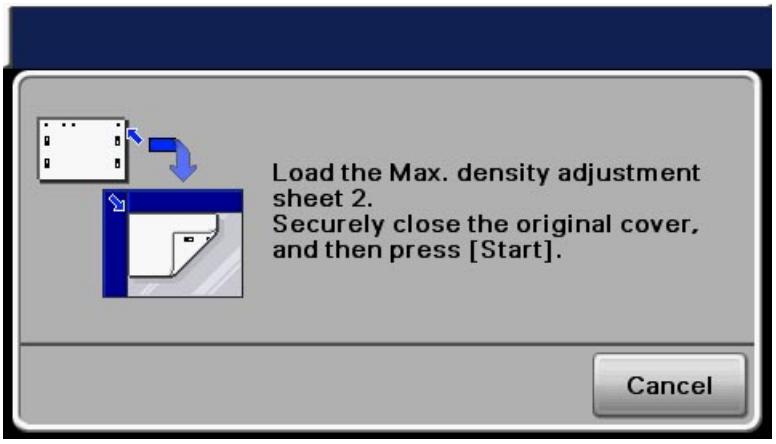




7. Touch [Scan].
8. Place the first printed Max. density adjustment sheet on the touch panel in the orientation displayed in the original glass.



9. Place ten blank paper on the Max. density adjustment sheet and close the ADF.
10. Press the Start key. (The machine will then start scanning the Max. density adjustment sheet.)
11. Place the second printed Max. density adjustment sheet on the touch panel in the orientation displayed in the original glass.



12. Place ten blank paper on the Max. density adjustment sheet and close the ADF.
13. Press the Start key. (The machine will then start scanning the Max. density adjustment sheet.)
14. Print the Max. density adjustment sheets, and check the print image for any image problem.
15. When there is a trouble on the image, conduct troubleshooting for the image.

(10) Gradation Adjustment - Gradation Adjustment

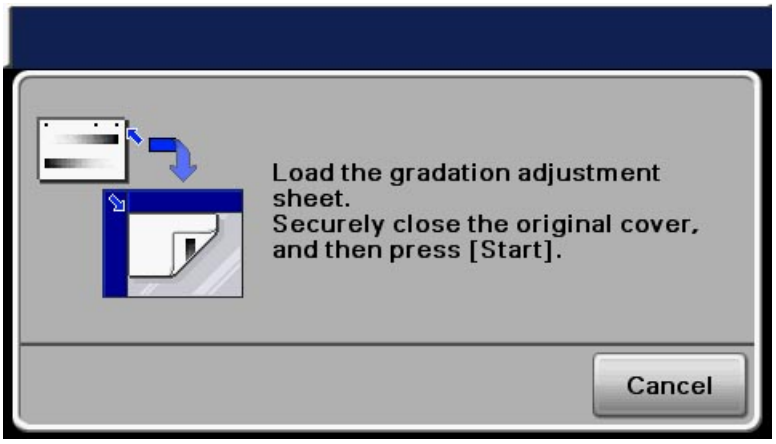
(a) Use

- Adjust irregular gradation levels of print images.
- This function is useful when a print image is not reproduced with consistent density. Scan the density of an output gradation adjustment sheet and adjust to the optimal gradation.
- Use this adjustment when the drum unit, developer or developing unit has been replaced.

(b) Procedure

1. Load the A4 or 8 1/2 × 11 plain paper in the tray.
2. Call the Admin Settings to the screen.
3. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Gradation Adjustment] -> [Gradation Adjustment].
4. Select [Print].
5. Touch [OK].
6. A gradation adjustment sheet is printed.

7. Touch [Scan].
8. Place the printed gradation adjustment sheet on the touch panel in the orientation displayed in the original glass.



9. Place ten blank paper on the gradation adjustment sheet and close the ADF.
10. Press the Start key. (The machine will then start scanning the gradation adjustment sheet.)
11. Print the gradation adjustment sheet, and check the print image for any image problem.
12. When there is a trouble on the image, conduct troubleshooting for the image.

(11) Max Image Density Adj

(a) Use

- After completing Gradation Adjust, supplementarily make a manual fine-adjustment of Vdc and Vg to change the maximum amount of toner adhered to paper so that the gradation and density are adjusted to the target reproduction level.
  (The Vdc and Vg values calculated in their control system are changed while the difference between the two values is kept unchanged.)
- Use this adjustment if the target density is not obtained after performing [Max. Density Adjustment].

(b) Default setting

- 0

(c) Setting range

- -2 to +2 (Step: 1*)
  *: 1 step is the equivalent of 0.02 of difference in density.

(d) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Max Image Density Adj].
3. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - To increase the maximum amount of toner sticking, increase the setting value.
   - To decrease the maximum amount of toner sticking, decrease the setting value.
4. Check the print image for any image problem.

(12) Replenish Toner

(a) Use

- Directly after replacing the toner bottle or after printing a large number of originals with many black areas, the machine cannot sufficiently replenish the toner, and printing density may fall temporarily. In this case, using this function forcibly replenishes the toner.

(b) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Printer Adjustment] -> [Replenish Toner].
3. Select [Print].
4. Touching [OK] will let the machine detect the current toner density and; if the density is lower than a reference value, a toner replenishing sequence and then a developer agitation sequence are run.
5. It stops when toner replenishment is complete.

7.10.3 Drum Dry

(1) Use

- Perform drum dry to prevent condensation around the photo conductor.
- Perform drum dry before replacing the developing unit or the developer.

(2) Procedure

1. Call the Admin Settings to the screen.
2. Touch [Maintenance Menu] -> [Drum Dry].
3. Select [Execute].
4. Touch [OK].

7.10.4 Finisher Settings

(1) Alignment Plate Position (Back) / Alignment Plate Position (Side)

(a) Use

- When FS-529 is installed, use this feature to fine adjust the aligning plate that aligns ejected paper.

(b) Default setting

- 0.0 mm

(c) Setting range

- -10.0 mm to +10.0 mm (1 step: 0.1 mm)

7.11 Folder Settings

7.11.1 Auto Del Interval

(1) Use

- Select the length of time until scanned images saved in the hard disk are automatically deleted at fixed intervals.

(2) Default setting

- Erase Disabled

(3) Setting item

- "Erase Disabled"
- 12 Hours
- 1 Day
- 2 Days
- 3 Days
- 7 Days
- 30 Days

7.11.2 Auto Document Delete Time

(1) Use

- Specify the period between the time when scanned images are saved in the hard disk and the time when they are automatically deleted.

(2) Default setting

- 1 Day

(3) Setting item

- Erase Disabled
- 12 Hours
- "1 Day"
- 2 Days
- 3 Days
- 7 Days
- 30 Days

7.11.3 Document Hold Setting

(1) Use

- Select whether or not to delete documents in the hard disk, when transmitting or printing them.

(2) Default setting

- Disable

(3) Setting item

- Enable
- "Disable"

7.12 Security Settings

7.12.1 Administrator Password

(1) Use

- To set/change the administrator password.

NOTE

- **When the [Password Rules] is set to 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.**

(2) Procedure

1. Touch the upper [Password], enter a new administrator password, and touch [OK].

2. Touch the lower [Password], enter a new administrator password, and touch [OK].

(3) Default setting

- 12345678

7.12.2 Security Details

(1) Password Rules

(a) Use

- To set whether to apply the password rules.
- To apply the password rule to enhance security.
- Passwords to be covered: CE password, Administrator password, User password, Account password, Secured Job password, SNMP password.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Registering and Changing Addr.

(a) Use

- Select whether or not to prohibit editing of the address book.

(b) Default setting

- Allow

(c) Setting item

- "Allow"
- Restrict

(3) Manual Destination Input

(a) Use

- Set whether to permit or prohibit manual input of the address when scanning or sending a fax.

(b) Default setting

- Allow

(c) Setting item

- "Allow"
- Restrict

(4) Hide Personal Data

(a) Use

- Select whether or not to display transmission destinations in the job log.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(5) Disable Job History Display

(a) Use

- Select whether or not to display the communication log.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(6) Restrict Scan to USB

(a) Use

- Select whether or not to prohibit the Scan to USB function.

(b) Default setting

- Allow

(c) Setting item

- "Allow"
- Restrict

7.12.3 Enhanced Security Mode

(1) Use

- To set whether or not to enhance security.
- To use when enhancing the security function at user's option.
- The following settings are necessary for setting the security enhancement [ON].

Administrator Password	Set a password complying with password rules.
User Authentication	Select either [Device] or [External Server] (Active Directory).
Password Rules	Set [ON].
Device Certificate	Register a self-signed certificate in order to perform SSL communications.
HDD	HDD can be recognized and be accessed.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

NOTE

- **Setting the Enhanced Security Mode [ON] will change the setting values for the following functions automatically.**

User List Display Setting	**OFF**
Public User	**Restrict**
Print without Authentication	**Restrict**
SSL/TLS	**Enable**

7.12.4 HDD Settings

(1) Check HDD Capacity

(a) Use

- To display the used space capacity, total space capacity, and the remaining capacity of the hard disk.

(2) Overwrite All Data

(a) Use

- Performing the temporary data overwrite function when the image becomes unnecessary, the function will write meaningless data over all area where images are stored, and destroy the image data itself. The structure of image data will be destroyed so that in case HDD is stolen, the remaining data included in the image data will not leak.
- Select the overwriting method from Mode 1 through 8.

Mode 1	It overwrites 0x00 once.
Mode 2	Overwrites with random numbers -> overwrites with random numbers -> overwrites with 0x00
Mode 3	Overwrites with 0x00 -> overwrites with 0xff -> overwrites with random numbers -> verifies
Mode 4	Overwrites with random numbers -> overwrites with 0x00 -> overwrites with 0xff
Mode 5	Overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff
Mode 6	Overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with random numbers
Mode 7	Overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0xaa
Mode 8	Overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0x00 -> overwrites with 0xff -> overwrites with 0xaa -> verifies

(b) Procedure

1. Touch [Overwrite All Data] -> [Mode], and select one from [Mode 1] to [Mode 8], and press [OK].
2. Touch [Execute] -> [OK].
3. Overwrite and delete processing is performed after this machine has been rebooted.

7.12.5 SSD Low-level Format

(1) Use

- Overwrite and delete data stored in SSD.
- The following data is deleted.
  - Image files
  - Address book (E-mail address and telephone number destination data)
  - S/MIME certificates (Encryption certification)
  - Sent and received fax data

(2) Procedure

1. Touch [SSD Low-level Format] -> [OK].
2. Overwrite and delete processing is performed after this machine has been rebooted.

7.13 Restore Defaults

7.13.1 Use

- Restores various settings to their default values.
- Use when restoring settings to their default values.
  Restore Network: Restores all settings applied to the network to their default values.
  Restore System: Restores all settings applied to the system to their default values.
  Restore All: Restores all settings, which Restore Network and Restore System apply to, to their default values.

7.13.2 Procedure

1. Call the Admin Settings to the screen.
2. Touch [Restore Defaults].
3. Touch the key for desired mode.
4. The confirmation message is displayed.
5. When you touch [OK], the initialization is started.
6. 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 Restore System or Restore All is performed, the system related settings are initialized and the setting of Enhanced Security Mode is changed to "OFF."**

Utility			Restore Defaults			Initial value
			Restore Network	Restore System	Restore All	
Accessibility						
Key Repeat/Interval						
Time to Start			-	Reset	Reset	0.8
Key Interval			-	Reset	Reset	0.3
Sound Settings						
Operation Confirmation						
	Input Confirmation Sound	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Invalid Input Sound	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Basic Sound	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
Successful Completion						
	Operation Completion	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Transmission Completion	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
Completion Preparation						
	Enable		-	Reset	Reset	ON
	Volume		-	Reset	Reset	Low
Caution Sound						
	Low Caution Sound (Level 1)	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Low Caution Sound (Level 2)	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Low Caution Sound (Level 3)	Enable	-	Reset	Reset	ON
		Volume	-	Reset	Reset	Low
	Severe	Enable	-	Reset	Reset	ON

			Caution Sound	Volume	-	Reset	Reset	Low
		Message Display Time			-	Reset	Reset	3 sec.
		LCD Brightness			-	Reset	Reset	0
User Settings								
		Language			-	Reset	Reset	Depending on the marketing area
		Measurement Unit Setting			-	Reset	Reset	Depending on the marketing area
		Paper Tray Settings						
			Auto Tray Switch		-	Reset	Reset	OFF
			Enable ATS/APS	Tray 1	-	Reset	Reset	ON
				Tray 2	-	Reset	Reset	ON
				Tray 3	-	Reset	Reset	ON
				Tray 4	-	Reset	Reset	ON
				Tray 5	-	Reset	Reset	ON
		ACS Level			-	Reset	Reset	2
		Scan to E-mail Default Tab			-	Reset	Reset	Favorite
		Scan to Folder Default Tab			-	Reset	Reset	Favorite
		Fax Default Tab			-	Reset	Reset	Favorite
	Copy Settings							
		Auto Zoom for Combine			-	Reset	Reset	Yes
		Default Copy Settings			-	Reset	Reset	Factory Default
		Separate Scan Output Method			-	Reset	Reset	Page Print
	Scan Settings							
		JPEG Compression Level			-	Reset	Reset	Standard
		Black Compression Level			-	Reset	Reset	MMR
		Default Scan Settings			-	Reset	Reset	Factory Default
	Print Setting							
		Paper Settings						
			Paper Tray Settings	Default Tray		-	Reset	Reset	Tray 2
				Tray1	Paper Size	-	Reset	Reset	Depending on the marketing area
					Custom Size	-	Reset	Reset	Depending on the marketing area
					Paper Type	-	Reset	Reset	Plain Paper
				Tray2	Paper Type	-	Reset	Reset	Plain Paper
				Tray3	Paper Type	-	Reset	Reset	Plain Paper
				Tray4	Paper Type	-	Reset	Reset	Plain Paper
				Tray5	Paper Type	-	Reset	Reset	Plain Paper
			Duplex			-	Reset	Reset	OFF
			Copies			-	Reset	Reset	1
			Finishing	Collate		-	Reset	Reset	OFF
				Binding Position		-	Reset	Reset	Left
				Offset/Staple		-	Reset	Reset	None
			Auto Tray Switching			-	Reset	Reset	ON
			Tray Mapping		Tray Mapping Mode	-	Reset	Reset	OFF
					Logical Tray 0	-	Reset	Reset	Physical Tray 2
					Logical Tray 1	-	Reset	Reset	Physical Tray 1
					Logical Tray 2-9	-	Reset	Reset	Physical Tray 2
		Binding Direction Adjustment				-	Reset	Reset	Adjust Orientation
	Fax Settings							
		Remote RX Enabled				-	Reset	Reset	OFF
		Remote RX No.				-	Reset	Reset	-
		Default Fax Settings				-	Reset	Reset	Factory Default
		Display Fax Activity		Fax TX		-	Reset	Reset	OFF
				Fax RX		-	Reset	Reset	OFF
	Select Default Start App					-	Reset	Reset	Do not start.
Admin Setting								

Machine Settings						
	Sleep Mode Setting		-	Reset	Reset	ON
	Sleep Time Setting		-	Reset	Reset	Depending on the marketing area and the model
	Auto Power OFF Setting		-	Reset	Reset	OFF
	Auto Power OFF Time		-	Reset	Reset	00:00
	Report Input Tray		-	Reset	Reset	Tray 2
	Auto Reset Settings	Enable	-	Reset	Reset	ON
		Auto Reset	-	Reset	Reset	1 min.
		Priority Mode	-	Reset	Reset	Home
	Shift Output Each Job		-	Reset	Reset	ON
Administrator Registration						
	Administrator Registration					
		Name	-	Reset	Reset	-
		Extension No.	-	Reset	Reset	-
		E-mail Address	-	Reset	Reset	-
	Machine Settings					
		Device Name	-	Reset	Reset	-
		Address	Reset	-	Reset	-
Authentication Setting						
	User List Display Setting		-	Reset	Reset	OFF
	Logout Confirmation Display		-	Reset	Reset	OFF
Ethernet						
	TCP/IP					
		Enable	Reset	-	Reset	ON
		IP Address	Reset	-	Reset	0.0.0.0
		Subnet Mask	Reset	-	Reset	0.0.0.0
		Gateway	Reset	-	Reset	0.0.0.0
		DHCP	Reset	-	Reset	ON
		BOOTP	Reset	-	Reset	OFF
		ARP/PING	Reset	-	Reset	OFF
		HTTP	Reset	-	Reset	Enable
		FTP	Reset	-	Reset	Enable
		Telnet	Reset	-	Reset	Enable
		Bonjour	Reset	-	Reset	Enable
		Dynamic DNS	Reset	-	Reset	Disable
		IPP	Reset	-	Reset	Enable
		RAW Port Enable	Reset	-	Reset	Yes
		RAW Port Bidirectional	Reset	-	Reset	OFF
		SLP	Reset	-	Reset	Enable
		SMTP	Reset	-	Reset	Enable
		SNMP	Reset	-	Reset	Enable
		WSD Print	Reset	-	Reset	Enable
		IPSec	Reset	-	Reset	Disable
		IP Address Filter Permit Access	Reset	-	Reset	Disable
		IP Address Filter Deny Access	Reset	-	Reset	Disable
		IPv6 Enable	Reset	-	Reset	ON
		IPv6 Auto Setting	Reset	-	Reset	Enable
		IPv6 Link Local	Reset	-	Reset	-
		IPv6 Global Address	Reset	-	Reset	-
		IPv6 Gateway Address	Reset	-	Reset	-
	Netware		Reset	-	Reset	Disable
	AppleTalk		Reset	-	Reset	Enable
	Network Speed		Reset	-	Reset	Auto
	IEEE802.1X		Reset	-	Reset	Disable
	Binary Division		Reset	-	Reset	OFF
	S/MIME Settings					
		S/MIME Enabled	Reset	-	Reset	Disable
		Digital Signature	Reset	-	Reset	Do not add signature

		Encryption Method			Reset	-	Reset	3DES
External Memory Print					-	Reset	Reset	Enable
Copy Settings								
	Specify Tray When APS OFF				-	Reset	Reset	Tray Before APS ON
	Paper Priority				-	Reset	Reset	Tray 2
Print Setting								
	Startup Page Setting				-	Reset	Reset	OFF
	Auto Continue				-	Reset	Reset	OFF
	Paper							
		Default Paper	Paper Size		-	Reset	Reset	Depending on the marketing area
			Custom Size		-	Reset	Reset	Depending on the marketing area
			Paper Type		-	Reset	Reset	Plain Paper
		Measurement Unit Setting			-	Reset	Reset	Depending on the marketing area
	Hold Job Timeout				-	Reset	Reset	Disable
	Quality Settings							
		Brightness			-	Reset	Reset	0
		Contrast			-	Reset	Reset	0
		Halftone	Image Printing		-	Reset	Reset	Detail
			Text Printing		-	Reset	Reset	Line Art
			Graphics Printing		-	Reset	Reset	Detail
		Edge Enhancement	Image Printing		-	Reset	Reset	OFF
			Text Printing		-	Reset	Reset	ON
			Graphics Printing		-	Reset	Reset	ON
		Edge Strength			-	Reset	Reset	Middle
		Economy Print			-	Reset	Reset	OFF
		Gradation Adjustment	Tone Calibration		-	Reset	Reset	ON
			Density	Highlight	-	Reset	Reset	0
				Middle	-	Reset	Reset	0
				Shadow	-	Reset	Reset	0
	Emulation							
		Default Emulation			-	Reset	Reset	Auto
		PS	Wait Timeout		-	Reset	Reset	0
			Print PS Errors		-	Reset	Reset	OFF
			PS Protocol		-	Reset	Reset	Auto
		PCL	CR/LF Mapping		-	Reset	Reset	CR = CR LF = LF
			Line/Page		-	Reset	Reset	Depending on the marketing area
			Font Setting	Font Number	-	Reset	Reset	0
				Pitch Size	-	Reset	Reset	10
				Point Size	-	Reset	Reset	12
				Symbol Set	-	Reset	Reset	PC8
		XPS	Digital Signature		-	Reset	Reset	Disable
			Print XPS Errors		-	Reset	Reset	ON
Folder Settings								
	Auto Del Interval				-	Reset	Reset	Erase Disabled
	Auto Document Delete Time				-	Reset	Reset	1 Day
	Document Hold Setting				-	Reset	Reset	Disable
Security Settings								
	Security Details							
		Password Rules			-	Reset	Reset	OFF
		Registering and Changing Addr.			-	Reset	Reset	Allow
		Manual Destination Input			-	Reset	Reset	Allow
		Hide Personal Data			-	Reset	Reset	OFF
		Disable Job History Display			-	Reset	Reset	OFF
		Restrict Scan to USB			-	Reset	Reset	Allow
	Enhanced Security Mode				-	Reset	Reset	OFF

Paper Empty				
Tray 1	-	Reset	Reset	OFF
Tray 2	-	Reset	Reset	OFF
Tray 3	-	Reset	Reset	OFF
Tray 4	-	Reset	Reset	OFF
Tray 5	-	Reset	Reset	OFF
Fax Settings				
Sender Settings				
Sender	-	Reset	Reset	-
Sender Fax No.	-	Reset	Reset	-
Header/Footer Settings				
Header Position	-	Reset	Reset	Outside Body Text
Fax TX Header Name	-	Reset	Reset	ON
Footer Position	-	Reset	Reset	RX Ft. OFF
Comm. Settings				
PB/DP	-	Reset	Reset	Depending on the marketing area
RX Mode	-	Reset	Reset	Auto RX
Number of RX Call Rings	-	Reset	Reset	Depending on the marketing area
Redial	-	Reset	Reset	Depending on the marketing area
Redial Interval	-	Reset	Reset	Depending on the marketing area
Line Monitor	-	Reset	Reset	OFF
Line Monitor Volume	-	Reset	Reset	Low
Ring Pattern	-	Reset	Reset	Double
Manual RX V.34 OFF	-	Reset	Reset	No
Function Settings				
Inch Paper Priority	-	Reset	Reset	ON/OFF
Paper Priority	-	Reset	Reset	Auto Select
Print Paper Size	-	Reset	Reset	Letter/A4
Tray Selection for RX Print	-	Reset	Reset	Auto
Min. Reduction for RX Print	-	Reset	Reset	96%
Print Separate Fax Pages	-	Reset	Reset	OFF
Duplex Print (RX)	-	Reset	Reset	OFF
Fax Function Settings				
F-Code TX	-	Reset	Reset	ON
Dest. Check Display Func.	-	Reset	Reset	OFF
Confirm Addr (TX)	-	Reset	Reset	OFF
Confirm Addr (Register)	-	Reset	Reset	ON
Restrict Fax TX	-	Reset	Reset	OFF
Restrict Fax RX	-	Reset	Reset	OFF
Restrict PC-Fax TX	-	Reset	Reset	OFF
Restrict Internet Fax TX	-	Reset	Reset	OFF
Restrict Internet Fax RX	-	Reset	Reset	OFF
Memory RX				
Memory RX	-	Reset	Reset	OFF
Password	-	Reset	Reset	-
Closed Network RX Password				
Enable	-	Reset	Reset	No
Password	-	Reset	Reset	-
Forward TX Settings				
Forward TX Setting	-	Reset	Reset	OFF
Forwarding Address	-	Reset	Reset	-
Forward & Print	-	Reset	Reset	Forward & Print (If TX Fails)]
Remote RX Settings				
Remote RX Enabled	-	Reset	Reset	OFF
Remote RX No.	-	Reset	Reset	-
PC-Fax RX Settings				

	PC-Fax RX Setting		-	Reset	Reset	OFF
	PC-Fax RX Print		-	Reset	Reset	OFF
Nighttime RX Settings						
	Night Fax RX Print		-	Reset	Reset	OFF
	Night RX Start Time		-	Reset	Reset	00:00
	Night RX End Time		-	Reset	Reset	00:00
PBX Connection Settings						
	PBX Function		-	Reset	Reset	OFF
	PBX Number		-	Reset	Reset	-
Fax Report						
	Activity Report	Output Settings	-	Reset	Reset	Every 100 comm.
		Output Time Setting	-	Reset	Reset	00:00
		Output Limit Setting	-	Reset	Reset	Journal 100
	TX Result Report		-	Reset	Reset	If TX Fails
	TX Result Report Image		-	Reset	Reset	OFF
	TX Reserve		-	Reset	Reset	ON
	PC-Fax TX Error Report		-	Reset	Reset	ON
	Broadcast Report		-	Reset	Reset	ON
	Broadcast Result Report		-	Reset	Reset	All Dest.
	TX Result Report Screen		-	Reset	Reset	OFF
	I-Fax RX Error Report		-	Reset	Reset	ON
Fax Target			-	Reset	Reset	U.S.A

7.14 HDD Format

7.14.1 User Area (Print)

(1) Use

- Format the area where print jobs are stored.
- After this is pressed, the machine is automatically restarted.

7.14.2 User Area (Scan)

(1) Use

- Format the area where scanned jobs are stored.
- After this is pressed, the machine is automatically restarted.

7.14.3 All

(1) Use

- Format all the hard disk area.
- After this is pressed, the machine is automatically restarted.

7.15 Paper Empty

7.15.1 Use

- Select whether or not to display a warning message when paper runs out in a tray.

7.15.2 Setting item

Tray 1	ON	"OFF"
Tray 2	ON	"OFF"
Tray 3	ON	"OFF"
Tray 4	ON	"OFF"
Tray 5	ON	"OFF"

NOTE

- **[Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.**

7.16 Restriction Code Settings

7.16.1 Use

- Disable registering of the applications, which work with OpenAPI and which we do not recommend, in the machine.

7.16.2 Procedure

- Displays the inhibited codes of the OpenAPI connection applications.
- Touch [New] to register new restriction codes of applications that work with OpenAPI.

7.17 Erase Job Log

7.17.1 Use

- Manually erase job logs.

7.17.2 Procedure

- Click [OK] to erase the following types of log file.
  Accounting log, Counting log, Audit log

7.18 Fax Settings

- It will be displayed only when the optional fax kit FK-509 is mounted.

7.18.1 Sender Settings

(1) Sender

(a) Use

- Register the sender name that is to be printed on documents received by the recipient as sender information.

(b) Procedure

- Touch [Sender] and enter the name of the sender (up to 30 characters) on the onscreen keyboard.

(2) Sender Fax No.

(a) Use

- Register the fax ID that is to be printed on documents received by the recipient as sender information.

(b) Procedure

- Touch [Number], and enter Sender Fax No. (up to 20 characters) using the 10-key pad and [+], [Space] displayed on the screen.

7.18.2 Header/Footer Settings

(1) Header Position

(a) Use

- Specify the position of the sender information to be added on a fax document sent from this machine. The added sender information is printed as a part of the image on the document received by the recipient.

Inside Body Text	The sender information is added so that it is overlaid on part of the original image before the fax is being sent.
Outside Body Text	The sender information is added to the outside of the original image area before the fax is being sent.
OFF	The sender information is not added.(Not displayed for North American or Hong Kong models.)

NOTE

- **When transmitting the internet fax, transmission data are added to inside the image regardless of the setting [Inside Body Text]/[Outside Body Text].**

(b) Default setting

- Outside Body Text

(c) Setting item

- Inside Body Text
- "Outside Body Text"
- OFF

(2) Fax TX Header Name

(a) Use

- Specify the items to be added as the sender information.

ON	The sender name, destination fax number (To: xxxxx), transmission start date and time, transmission number, and the number of pages are added as sender information.
OFF	The sender name, fax ID of this machine, transmission start date and time, transmission number, and the number of pages are added as sender information.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(3) Footer Position

(a) Use

- Specify the position of the reception information (reception time and reception number) to be printed on a document received by this machine. If you select [RX Ft. OFF], the reception information will not be printed.

Inside Body Text	The reception information is printed so that it is overlaid on part of the original image.
Outside Body Text	The reception information is printed on the outside of the original image area.
RX Ft. OFF	The reception information is not printed.

(b) Default setting

- RX Ft. OFF

(c) Setting item

- Inside Body Text
- Outside Body Text
- "RX Ft. OFF"

7.18.3 Comm. Settings

(1) PB/DP

(a) Use

- Select one of the dialing methods.

(b) Default setting

- The default setting is different depending on the country.

(c) Setting item

- PB
- 10pps
- 20pps

NOTE

- **The displays are different depending on the country.**

(2) RX Mode

(a) Use

- Select a receive mode.

Auto RX	Automatically receives faxes.
Manual RX	If you expect frequent phone calls, for example if an external telephone is connected to this machine, set this mode to Manual RX.
DRPD	If the receiver rings with the pattern selected from the four ring patterns available, the incoming call is automatically received as a fax.

(b) Default setting

- Auto RX

(c) Setting item

- "Auto RX"
- Manual RX
- DRPD

NOTE

- **If "DRPD" is selected, select the ring pattern for faxing with [Ring Pattern].**

(3) Number of RX Call Rings

(a) Use

- Set the number of incoming call rings.

(b) Default setting

- The default setting is different depending on the country.

(c) Setting range

- 1 to 15

NOTE

- **The setting range varies depending on the country.**

(4) Redial

(a) Use

- Set the number of redials (for busy, no-answer, and so on).

(b) Default setting

- The default setting is different depending on the country.

(c) Setting range

- 0 to 10

NOTE

- **The setting range varies depending on the country.**

(5) Redial Interval

(a) Use

- Set redial intervals.

(b) Default setting

- The default setting is different depending on the country.

(c) Setting range

- 2 to 15

NOTE

- **The setting range varies depending on the country.**

(6) Line Monitor

(a) Use

- Select whether the line monitoring tone is produced during communication.

OFF	No line monitoring tone is produced.
Until Connection Complete	The line monitoring tone is produced until the connection with the destination has been completed after dialing.
Until Transmission Complete	The line monitoring tone is produced until the fax transmission has been completed after dialing.

(b) Default setting

- OFF

(c) Setting item

- "OFF"
- Until Connection Complete
- Until Transmission Complete

(7) Line Monitor Volume

(a) Use

- Select the volume of the line monitoring tone.

(b) Default setting

- Low

(c) Setting item

- "Low"
- Medium
- High

(8) Ring Pattern

(a) Use

- Select the ring pattern for faxing when [RX Mode] is set to "DRPD."

(b) Default setting

- Double

(c) Setting item

- Normal Ring
- "Double"
- Triple 1
- Triple 2

(9) Manual RX V.34 OFF

(a) Use

- Select whether or not V.34 is automatically turned off during manual reception.

(b) Default setting

- No

(c) Setting item

- Yes
- "No"

7.18.4 Function Settings

(1) Inch Paper Priority

(a) Use

- To set weather to use the inch paper priority when receiving fax.

(b) Default setting

- The default setting is different depending on the country.

(c) Setting item

- ON
- OFF

(2) Paper Priority

(a) Use

- To set the priority for paper feed tray when receiving fax.

Auto Select	Print paper is automatically selected.
Fixed Size	Paper of the specified size is used for printing.
Size Priority	Paper of the size specified as the preferred size is used for printing. If no preferred size is specified, paper of the closest size is used for printing.

(b) Default setting

- Auto Select

(c) Setting item

- "Auto Select"
- Fixed Size
- Size Priority

(3) Print Paper Size

(a) Use

- Specify paper size for printing received documents. The initial setting varies depending on the setting for [Inch Paper Priority].
- To enable the setting for the print paper size, set [Tray Selection for RX Print] to "Auto."

(b) Default setting

- The default setting is different depending on the country.

(c) Setting item

- Letter
- Legal
- Oficio
- A4

(4) Tray Selection for RX Print

(a) Use

- If you want to fix the paper tray used to print received faxes, select the paper tray.

(b) Default setting

- Auto

(c) Setting item

- "Auto"
- Tray 1
- Tray 2
- Tray 3

- Tray 4
- Tray 5

NOTE

- **[Tray 4] and [Tray 5] will be displayed only when the optional paper feed cabinet PC-211 is mounted.**

(5) Min. Reduction for RX Print

(a) Use

- Specify the reduction ratio for received document to Full Size or a value between 87 and 96%.
- If the reduction rate for RX print is set to [100%], the items below are set as follows:

Paper Priority	Auto Select
Tray Selection for RX Print	Auto
Print Separate Fax Pages	OFF

(b) Default setting

- 96

(c) Setting range

- 87 to 96, 100%

(6) Print Separate Fax Pages

- It will not be displayed when the setting below is as follows:
  "ON" is selected in [Utility Settings] -> [Admin Settings] -> [Fax Settings] -> [Function Settings] -> [Duplex Print (RX)].

(a) Use

- To set whether to divide the original into pages when it is longer than the standard size.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(7) Duplex Print (RX)

- It will not be displayed when the setting below is as follows:
  "ON" is selected in [Utility Settings] -> [Admin Settings] -> [Fax Settings] -> [Function Settings] -> [Print Separate Fax Pages].

(a) Use

- To set whether to carry out the duplex print for the received original when receiving fax.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

7.18.5 Fax Function Settings

(1) F-Code TX

(a) Use

- Specify whether to use F-Code TX.
- F-Code TX provides two methods: confidential transmission and relay transmission.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(2) Dest. Check Display Func.

(a) Use

- Specify whether to display the list of the specified destinations when sending a fax.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(3) Confirm Addr (TX)

(a) Use

- To set whether to use Confirm Address.
- When specifying a fax destination with direct input, a screen appears prompting you to enter the fax number again for confirmation. Entering the fax number twice prevents one from entering incorrect destinations.
- When Confirm Address (TX) is enabled, you cannot specify a destination using [Off-Hook]. You cannot specify the fax address using [Log] either.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(4) Confirm Addr (Register)

(a) Use

- To set whether to use Confirm Address.
- When the user specify a fax destination when the user registers a program, configures the fax forwarding settings, or registers a one-touch destination, the user must enter the destination twice for confirmation. By entering twice, you can prevent the destination from being incorrectly entered.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(5) Restrict Fax TX

(a) Use

- Select whether to restrict fax transmissions.
- If "ON" is selected, the fax transmission function is unavailable in the fax screen.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(6) Restrict Fax RX

(a) Use

- Select whether to restrict fax receptions.
- If "ON" is selected, the fax reception function is unavailable in the fax screen.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(7) Restrict PC-Fax TX

(a) Use

- Select whether to restrict PC-Fax transmissions.
- If "ON" is selected, the PC-Fax transmission function is unavailable.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(8) Restrict Internet Fax TX

(a) Use

- Select whether to restrict Internet Fax transmissions.
- If "ON" is selected, the Internet Fax transmission function is unavailable in the fax screen.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(9) Restrict Internet Fax RX

(a) Use

- Select whether to restrict Internet Fax receptions.
- If "ON" is selected, the Internet Fax reception function is unavailable in the fax screen.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

7.18.6 Memory RX

(1) Memory RX

(a) Use

- Specify whether to use Memory RX Setting function.
- If "ON" is selected, received fax data is stored in the memory and is not automatically printed.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

NOTE

- **It will not be specified when [Forward TX Settings], [PC-Fax RX Settings] or [Nighttime RX Settings] is set to "ON."**

(2) Password

(a) Use

- Specify the password to be entered from the ten key pad when outputting the data stored in the memory.

(b) Procedure

- Touch [Number], enter the password (up to 8 digits) for printing.

7.18.7 Closed Network RX Password

(1) Enable

(a) Use

- Specify whether to use the Closed Network RX function.
- Closed Network RX is only available when the receiver has password transmission function.

(b) Default setting

- No

(c) Setting item

- Yes
- "No"

(2) Password

(a) Use

- Specify a password that is used for Closed Network RX.

(b) Procedure

- Touch [Number], enter the password (up to 4 digits) to be used.

7.18.8 Forward TX Settings

(1) Forward TX Setting

(a) Use

- Specify whether to use the Forward TX function.
- To forward the received text to the receiver which has been specified.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

NOTE

- **It will not be specified when [Memory RX], [PC-Fax RX Settings] or [Nighttime RX Settings] is set to "ON."**

(2) Forwarding Address

(a) Use

- Specify a fax number of the forwarding address.

(b) Procedure

- Enter a fax number of the forwarding address using up to 38 digits. It is also possible to select it from the address book.

(3) Forward & Print

(a) Use

- Specify the output settings in the fax forwarding.

Forward & Print	Received document are forwarded and printed on this machine.
Forward & Print (If TX Fails)	Received documents are forwarded and, if forwarding fails, are printed on the machine.

(b) Default setting

- Forward & Print (If TX Fails)

(c) Setting item

- Forward & Print
- "Forward & Print (If TX Fails)"

7.18.9 Remote RX Settings

(1) Remote RX Enabled

(a) Use

- Select whether or not the remote reception function is used.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) Remote RX No.

(a) Use

- Type in the remote reception number for performing remote reception.

(b) Procedure

- Type in the remote reception number (2 digits) for performing remote reception.

7.18.10 PC-Fax RX Settings

(1) PC-Fax RX Setting

(a) Use

- Specify whether to use the PC-Fax RX function.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

NOTE

- **It will not be specified when [Memory RX], [Forward TX Settings] or [Nighttime RX Settings] is set to "ON."**

(2) PC-Fax RX Print

(a) Use

- Specify whether to print a fax after receiving.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

7.18.11 Nighttime RX Settings

(1) Night Fax RX Print

(a) Use

- Specify whether to use the Nighttime RX function.
- If "ON" is selected, printing of documents received during the night hours are forbidden. All documents received during the night hours are printed after the period.
- Documents received during the night hours will be printed all at once when the specified night hours are over.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

NOTE

- **It will not be specified when [Memory RX], [Forward TX Settings] or [PC-Fax RX Settings] is set to "ON."**

(2) Night RX Start Time

(a) Use

- Specify the start time for the night.

(b) Procedure

1. Touch [Time].
2. Touch [Delete] or press the clear key.
3. Enter the time to start night hour reception.

(3) Night RX End Time

(a) Use

- Specify the end time for the night.

(b) Procedure

1. Touch [Time].
2. Touch [Delete] or press the clear key.
3. Enter the time to finish night hour reception.

7.18.12 PBX Connection Settings

(1) PBX Function

(a) Use

- Select whether or not a PBX line is connected.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(2) PBX Number

(a) Use

- Specify an access code for an outside line. An access code refers to a number used to connect to an outside line, such as a number beginning with a zero ("0").
- Outside line numbers specified here are dialed, after which fax numbers registered with the address book or program are dialed.

(b) Procedure

- Touch [Number], enter the access code (0 to 9999) to be used.

7.18.13 Fax Report

(1) Activity Report - Output Settings

(a) Use

- Specify the output timing of the activity report.

Every 100 comm.	Outputs the report for every 100 communication jobs.
Every Day	Outputs the report every day at a certain time.
100/Daily	Outputs the latest 100 communication jobs every day at a certain time.
No	Is not output.

(b) Default setting

- Every 100 comm.

(c) Setting item

- "Every 100 comm."
- Every Day
- 100/Daily
- No

(2) Activity Report - Output Time Setting

(a) Use

- Specify the time when to output the report.
- Allows you to specify this item if [Every Day] or [100/ Daily] is selected for [Output Settings].

(b) Procedure

1. Touch [Time].
2. Touch [Delete] or press the clear key.
3. Enter the output time.

(3) Activity Report - Output Limit Setting

(a) Use

- Select your output preference for activity report.
- Allows you to specify this item if [Every Day] or [100/ Daily] is selected for [Output Settings].

Journal 100	Outputs the information for the 100 most recent communication jobs.
Within 24 Hours	Outputs the information for a maximum 100 communication jobs within the past 24 hours.

(b) Default setting

- Journal 100

(c) Setting item

- "Journal 100"
- Within 24 Hours

(4) TX Result Report

(a) Use

- Configure the output settings for TX result report. Select output conditions.

(b) Default setting

- If TX Fails

(c) Setting item

- Always
- "If TX Fails"
- No

(5) TX Result Report Image

(a) Use

- Specify whether or not an image of the first page of the document is outputted in the TX results report.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(6) TX Reserve

(a) Use

- Specify whether to output the TX reserve report.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(7) PC-Fax TX Error Report

(a) Use

- Specify whether to output the PC-Fax TX error report.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(8) Broadcast Report

(a) Use

- Specify whether to output the broadcast report.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

(9) Broadcast Result Report

(a) Use

- Select the format to output the broadcast result report.
- With "Mode Once" selected, a broadcast result report is output only when a transmission still fails after a redial attempt. No report is output when transmission is completed successfully.

(b) Default setting

- All Dest.

(c) Setting item

- "All Dest."
- Mode Once

(10) TX Result Report Screen

(a) Use

- Specify whether to display the TX result report screen.

(b) Default setting

- OFF

(c) Setting item

- ON
- "OFF"

(11) I-Fax RX Error Report

(a) Use

- Specify whether or not to output a reception error report when reception of an Internet Fax fails.

(b) Default setting

- ON

(c) Setting item

- "ON"
- OFF

7.18.14 List Print

(1) Fax Setup Pg

(a) Use

- Specify whether or not to outputs a list of settings related to faxes.

(b) Default setting

- Print

(c) Setting item

- "Print"
- Cancel

7.18.15 Fax Target

(1) Use

- Select the country where this machine is installed.
- Use during the setup procedure.

(2) Default setting

- U.S.A.

(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, Europe

7.18.16 Fax Factory Default

(1) Use

- Select whether or not to reset the fax related settings to factory default.
- Registered addresses are not restored to the default setting.

(2) Default setting

- No

(3) Setting item

- Yes
- "No"

7.18.17 Fax Image Initialized

(1) Use

- Select whether or not to initialize fax image data stored in the machine's memory.
- After the completion of initialization, the machine is rebooted.
- Registered addresses are not deleted.

(2) Default setting

- No

(3) Setting item

- Yes
- "No"

8. ADJUSTMENT ITEM LIST

8.1 Replace paper feed roller

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace paper feed roller	[Service Mode] / [Supplies] / [Life Counter Clear] / [Feed Roller (Tray X)]	1

8.2 Replace separation roller assy (tray 1) or separation roller (tray 2 to 5)

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace separation roller assy/ separation roller	[Service Mode] / [Supplies] / [Life Counter Clear] / [Feed Roller (Tray X)]	1

8.3 Replace pick-up roller

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace pick-up roller	[Service Mode] / [Supplies] / [Life Counter Clear] / [Feed Roller (Tray X)]	1

8.4 Replace developing unit

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace developing unit	[Admin Settings] / [Maintenance Menu] / [Drum Dry]	1
	[Service Mode] / [Supplies] / [Life Counter Clear] / [Developing Unit (K)]	2
	[Service Mode] / [Printer Adjustment] / [TCR Sensor Adjustment]	3
	[Service Mode] / [Printer Adjustment] / [Gradation Adjustment]	4

8.5 Replace drum unit

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace drum unit	[Service Mode] / [Supplies] / [Life Counter Clear] / [Drum Unit (K)]	1
	[Service Mode] / [Printer Adjustment] / [Gradation Adjustment]	2

8.6 Replace developer

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace developer	[Admin Settings] / [Maintenance Menu] / [Drum Dry]	1
	[Service Mode] / [Supplies] / [Life Counter Clear] / [Developer(K)]	2
	[Service Mode] / [Printer Adjustment] / [TCR Sensor Adjustment]	3
	[Service Mode] / [Printer Adjustment] / [Gradation Adjustment]	4

8.7 Replace transfer roller unit

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace transfer roller unit	[Service Mode] / [Supplies] / [Life Counter Clear] / [Transfer Roller Unit]	1

8.8 Replace fusing unit

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace fusing unit	[Service Mode] / [Supplies] / [Life Counter Clear] / [Fusing Unit]	1

8.9 Replace ozone filter

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace ozone filter	[Service Mode] / [Supplies] / [Life Counter Clear] / [Ozone Filter]	1

8.10 Replace paper dust remover

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace paper dust remover	[Service Mode] / [Supplies] / [Life Counter Clear] / [Paper Dust Remover]	1

8.11 Replace PH unit

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace PH unit	[Service Mode] / [Printer Adjustment] / [Leading Edge Adjustment], [Lead Edge Adj Side 2 (Dx)]	1
	[Service Mode] / [Printer Adjustment] / [Side Edge Adjustment], [Left ADJ Duplex]	2

8.12 Replace printer control board

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace printer control board	Remounting of EEPROM (Printer control board)	1
	F/W installing	2

8.13 Replace MFP board

Replacement part/Service job	Adjustment/setting items	Setting sequence
Replace MFP board	Remounting of SSD board.	1
	F/W installing	2
	[Service Mode] / [Printer Adjustment] / [Gradation Adjustment]	3

8.14 Execute F/W update

Replacement part/Service job	Adjustment/setting items	Setting sequence
Execute F/W update	[Service Mode] / [Firmware Version]	1

8.15 Add fax board

Replacement part/Service job	Adjustment/setting items	Setting sequence
Add fax board	F/W installing	1

9. SERVICE MODE

9.1 List of service mode

* The function tree is shown to comply with the format displayed on the screen.
- *1: It will be displayed only when the optional paper feed cabinet PC-211 is mounted.
- *2: It will be displayed only when the optional finisher FS-529 is mounted.
- *3: It will be displayed only when the USB memory device is connected to the main unit.
- *4: It will be displayed only when the optional fax kit FK-509 is mounted.
- *5: It will be displayed only when the service call error is occurred.

Service Mode			Ref. page
Serial Number			I.9.3 Serial Number
Firmware Version	Controller F/W		I.9.4 Firmware Version
	Engine F/W		
	Boot F/W		
	Panel F/W		
	Fax F/W		
	Scanner F/W		
	Loadable Driver		
	Finisher F/W *2		
Printer Adjustment	Leading Edge Adjustment	Plain Paper	I.9.5.1 Leading Edge Adjustment
		Thick 1	
		Thick 2	
		Envelope	
		Transparency	
	Lead Edge Adj Side 2 (Dx)	Plain Paper	I.9.5.2 Lead Edge Adj Side 2 (Dx)
	Leading Edge Adjustment Tray	Tray1	I.9.5.3 Leading Edge Adjustment Tray
		Tray2	
		Tray3	
		Tray4 *1	
		Tray5 *1	
	Side Edge Adjustment	Tray1	I.9.5.4 Side Edge Adjustment
		Tray2	
		Tray3	
		Tray4 *1	
		Tray5 *1	
	Left ADJ Duplex	Tray1	I.9.5.5 Left ADJ Duplex
		Tray2	
		Tray3	
		Tray4 *1	
		Tray5 *1	
	Image Transfer Current	Simplex Pass	I.9.5.6 Image Transfer Current
		Manual Duplex	
	Fuser Temp Control	Plain Paper	I.9.5.7 Fuser Temp Control
		Thick1/Envelope	
		Thick2	
		Transparency	
	Printer Reg Loop Adj.	Tray1	I.9.5.8 Printer Reg Loop Adj.
		Tray2	
		Tray3/4/5	
		Duplex	
	Manual Bypass Tray Width Adj		I.9.5.9 Manual Bypass Tray Width Adj
	Cooling Fan Stop Delay		I.9.5.10 Cooling Fan Stop Delay
	Fusing Productivity Choice		I.9.5.11 Fusing Productivity Choice
	Print Interval Extension		I.9.5.12 Print Interval Extension
	Gradation Adjustment	Gradation Adjustment	I.9.5.13 Gradation Adjustment
		MAX.Density Adjustment	
	Max Image Density Adj		I.9.5.14 Max Image Density Adj
	TCR Level Setting		I.9.5.15 TCR Level Setting
	TCR Sensor Adjustment		I.9.5.16 TCR Sensor Adjustment
	Image Background Adj		I.9.5.17 Image Background Adj
	Feed Zoom	Plain paper	I.9.5.18 Feed Zoom

Service Mode			Ref. page
		Thick1	
		Thick2	
		Envelope	
	Paper Separation Adjustment	First Side	I.9.5.19 Paper Separation Adjustment
		Second Side	
	Paper Separation Voltage Adj	Plain Paper	I.9.5.20 Paper Separation Voltage Adj
		Thick	
		Envelope	
		Transparency	
	Replenish Toner		I.9.5.21 Replenish Toner
Scanner Adjustment	FB Leading Edge		I.9.6.1 FB Leading Edge
	FB Side Edge		I.9.6.2 FB Side Edge
	ADF(F) Leading Edge		I.9.6.3 ADF(F) Leading Edge
	ADF(F) Side Edge		I.9.6.4 ADF(F) Side Edge
	ADF(B) Leading Edge		I.9.6.5 ADF(B) Leading Edge
	ADF(B) Side Edge		I.9.6.6 ADF(B) Side Edge
	FB CD Multiplier		I.9.6.7 FB CD Multiplier
	FB FD Multiplier		I.9.6.8 FB FD Multiplier
	ADF(F) CD Multiplier		I.9.6.9 ADF(F) CD Multiplier
	ADF(F) FD Multiplier		I.9.6.10 ADF(F) FD Multiplier
	ADF(B) CD Multiplier		I.9.6.11 ADF(B) CD Multiplier
	ADF(B) FD Multiplier		I.9.6.12 ADF(B) FD Multiplier
	Tilt(F)		I.9.6.13 Tilt(F)
	Tilt(B)		I.9.6.14 Tilt(B)
Print Menu	Mgmt. List		I.9.7.1 Mgmt. List
	Event Log		I.9.7.2 Event Log
	Adjust Information		I.9.7.3 Adjust Information
	Element Page		I.9.7.4 Element Page
	Black 64		I.9.7.5 Black 64
	Black 128		I.9.7.6 Black 128
	Black 256		I.9.7.7 Black 256
	Gradation		I.9.7.8 Gradation
	Scanner Adjustment		I.9.7.9 Scanner Adjustment
	Scan Event Log		I.9.7.10 Scan Event Log
	Lattice Pattern		I.9.7.11 Lattice Pattern
	Communication Log Print		I.9.7.12 Communication Log Print
Supplies	Life Counter Clear	Drum Unit (K)	I.9.8.1 Life Counter Clear - Drum Unit (K)
		Transfer Roller Unit	I.9.8.2 Life Counter Clear - Transfer Roller Unit
		Fusing Unit	I.9.8.3 Life Counter Clear - Fusing Unit
		Developing Unit (K)	I.9.8.4 Life Counter Clear - Developing Unit (K)
		Developer Replace Count	I.9.8.5 Life Counter Clear - Developer Replace Count
		Developer(K)	I.9.8.6 Life Counter Clear - Developer(K)
		Ozone Filter	I.9.8.7 Life Counter Clear - Ozone Filter
		Paper Dust Remover	I.9.8.8 Life Counter Clear - Paper Dust Remover
		Feed Roller (Bypass)	I.9.8.9 Life Counter Clear - Feed Roller (Bypass)
		Feed Roller (Tray2)	I.9.8.10 Life Counter Clear - Feed Roller (Tray 2)
		Feed Roller (Tray3)	I.9.8.11 Life Counter Clear - Feed Roller (Tray 3)
		Feed Roller (Tray4) *1	I.9.8.12 Life Counter Clear - Feed Roller (Tray 4)
		Feed Roller (Tray5) *1	I.9.8.13 Life Counter Clear - Feed Roller (Tray 5)
		Finisher Counter *2	I.9.8.14 Life Counter Clear - Finisher Counter
Firmware Update *3			I.9.9 Firmware Update
CS Remote Care			I.9.10.1 Outline
Clear Admin Password			I.9.11 Clear Admin Password
CE Password			I.9.12 CE Password
Soft Switch			I.9.13 Soft Switch
Engine DipSW			I.9.14 Engine DipSW
Function	Comp. Check		I.9.15.1 Comp. Check
	Sensor Check		I.9.15.2 Sensor Check/Scanner Sensor Check

Service Mode		Ref. page
	Scanner Sensor Check	
	Finisher Check	I.9.15.3 Finisher Check
Enable Warning	Toner Low	I.9.16.1 Toner Low
Toner Change		I.9.17 Toner Change
Loadable Driver Information		I.9.18 Loadable Driver Information
Loadable Driver Download *3		I.9.19 Loadable Driver Download
System Settings	Installation Date	I.9.20.1 Installation Date
	Sleep ON/OFF Choice Setting	I.9.20.2 Sleep ON/OFF Choice Setting
	Foolscap Size Setting	I.9.20.3 Foolscap Size Setting
	Machine State LED Setting	I.9.20.4 Machine State LED Setting
	Auto Drum Dry	I.9.20.5 Auto Drum Dry
	Fluorescent Flicker Control	I.9.20.6 Fluor Flicker Control
	Marketing area	I.9.20.7 Marketing area
Finisher Settings *2		I.9.21.1 Alignment Plate Position (Back) / Alignment Plate Position (Side)
Service Fax Settings *4	Restrict Fax TX	I.9.22.1 Restrict Fax TX
	Restrict Fax RX	I.9.22.2 Restrict Fax RX
	Restrict PC-Fax TX	I.9.22.3 Restrict PC-Fax TX
	TX Speed	I.9.22.4 TX Speed
	RX Speed	I.9.22.5 RX Speed
	ECM RX OFF	I.9.22.6 ECM RX OFF
	Redial V34 Dis.	I.9.22.7 Redial V34 Dis.
	RX V34 OFF	I.9.22.8 RX V34 OFF
	V17 Mod. Permit.	I.9.22.9 V17 Mod. Permit.
	Retry Start Pg	I.9.22.10 Retry Start Pg
	DT Detect	I.9.22.11 DT Detect
	BT Detect	I.9.22.12 BT Detect
	Cable Equalize	I.9.22.13 Cable Equalize
	Echo Measure	I.9.22.14 Echo Measure
	CFR to Phase C	I.9.22.15 CFR to Phase C
	TX Level	I.9.22.16 TX Level
	Connect. Timeout	I.9.22.17 Connect. Timeout
	CED Level	I.9.22.18 CED Level
	eRTN %	I.9.22.19 eRTN %
	V34 Symbol Rate	I.9.22.20 V34 Symbol Rate
	Data Format	I.9.22.21 Data Format
	V34 Tran.Pt	I.9.22.22 V34 Tran.Pt
	Fax Target	I.9.22.23 Fax Target
	Fax Factory Default	I.9.22.24 Fax Factory Default
	Fax Image Initialized	I.9.22.25 Fax Image Initialized
	Fax Maint.	I.9.22.26 Fax Maint.
	DTMF Test	I.9.22.27 DTMF Test
	Modem Test	I.9.22.28 Modem Test
	FAX Diagnostics Code	I.9.22.29 Fax Diagnostics Code
	Data Dmp. List	I.9.22.30 Data Dmp. List
	Fax EventLog	I.9.22.31 Fax EventLog
	Restrict Internet Fax TX	I.9.22.32 Restrict Internet Fax TX
	Restrict Internet Fax RX	I.9.22.33 Restrict Internet Fax RX
Trouble Reset *5		I.9.23 Trouble Reset
Life Stop Setting		I.9.24 Life Stop Setting

9.2 Starting/Exiting

9.2.1 Starting procedure

NOTE

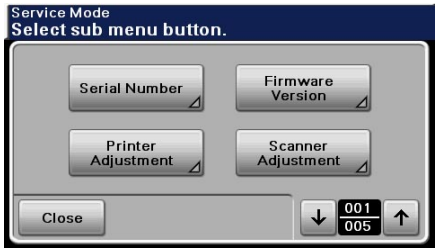
- **Ensure appropriate security for Service Mode function setting procedures. They should NEVER be shown to any unauthorized person not involved with service jobs.**

(1) Procedure

1. Press the Utility/Counter key.

2. Touch [Meter Count] on meter count display.
3. Press the following keys in this order.; Stop -> 0 -> 0 -> Stop -> 0 -> 1
4. Touch [Password], and enter the CE password using the display keyboard or the 10-key pad.
   NOTE
   - **The initial setting for CE password is "92729272."**
   - **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 "*."**

5. Touch [OK].
6. 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 [CE Password].**
  I.9.12 CE Password

(2) Exiting procedure

- Touch [Close].

9.3 Serial Number

9.3.1 Use

- Displays the serial number of the machine.
- When a loadable driver is installed to the machine, the serial number of the loadable driver will be displayed.
- Use when maintaining and managing the machine.

9.3.2 Procedure

1. Call the Service Mode to the display.
2. Touch [Serial Number].
3. The serial number of the machine and the loadable driver are displayed.

9.4 Firmware Version

9.4.1 Use

- Displays the firmware version number of the machine.
- To use when the firmware is updated.
- Use when maintaining and managing the machine.
  Controller F/W: Firmware for the controller software
  Engine F/W: Firmware for the printer engine software
  Boot F/W: Firmware for the boot program
  Panel F/W: Firmware for the control panel display
  Fax F/W: Firmware for the fax control software
  Scanner F/W: Firmware for the scanner control software
  Loadable Driver: Loadable driver software
  Finisher F/W: Firmware for the optional finisher

9.4.2 Procedure

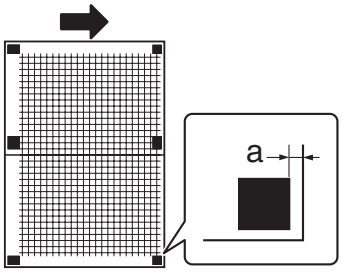
1. Call the Service Mode to the display.
2. Touch [Firmware Version].
3. Touch the key for desired firmware.
4. Version number of firmware is displayed.

9.5 Printer Adjustment

9.5.1 Leading Edge Adjustment

(1) Use

- Adjusts the leading edge margin of media for single-sided printing.
- Adjust the position of the print images caused by paper type features.
- This setting can be made independently for plain paper, Thick 1, Thick 2, Transparency, and envelopes.



a:4.2mm

(2) Setting range

Specification	4.2 mm ± 0.5 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

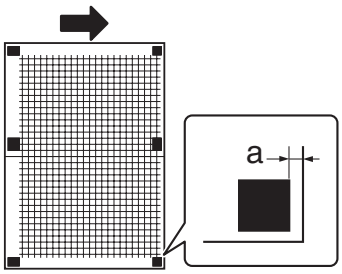
(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Leading Edge Adjustment].
3. Touch the key for desired paper type.
4. Place a paper on the tray 1.
5. Press the Start key to make a test pattern.
6. Check to make sure that the width (a) between the edge of the paper to the test pattern printed is 4.2mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to make a test pattern.
8. If width (a) falls within the specified range, touch [OK].

9.5.2 Lead Edge Adj Side 2 (Dx)

(1) Use

- Adjusts the leading edge margin of media for 2-sided printing.
- This adjustment is available only for plain paper.



a:4.2mm

(2) Setting range

Specification	4.2 mm ± 0.5 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Lead Edge Adj Side 2 (Dx)].
3. Place a paper on the tray 1.
4. Press the Start key to make a test pattern.
5. Check to make sure that the width (a) between the edge of the paper to the test pattern printed is 4.2mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
6. Press the Start key to make a test pattern.
7. If width (a) falls within the specified range, touch [OK].

9.5.3 Leading Edge Adjustment Tray

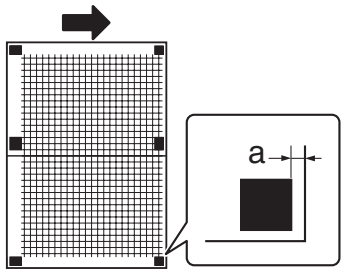
(1) Use

- To change and adjust image printing position at vertical scanning direction by each feed. (to adjust the timing starting from the roller connection up to start of transfer output). It is not applicable in case the job is fed at re-feed.

- To be used when [Leading Edge Adjustment] is not enough for full adjustment (as such case that image printing position gets deviated due to pattern of each feed.)
- Setting is available according to feed of Tray1 (manual bypass tray), Tray2, Tray3 (adjusting values of the tray 4 and tray 5 are the same as tray 3).
- Adjustment is made for plain paper.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**
- **Setting value entered from the tray 3, tray 4, or tray 5 will be applied to the tray 3, tray 4, and tray5 as common value.**



a:4.2mm

(2) Setting range

Specificatiojn	4.2 mm ± 0.5 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Leading Edge Adjustment Tray].
3. Touch the key for desired paper tray.
4. Set plain paper to the targeted tray
5. Press the Start key to make a test pattern.
6. Check to make sure that the width (a) between the edge of the paper to the test pattern printed is 4.2mm.
   If width (a) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
7. Press the Start key to make a test pattern.
8. If width (a) falls within the specified range, touch [OK].

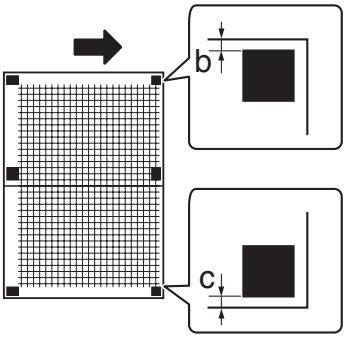
9.5.4 Side Edge Adjustment

(1) Use

- Adjust the side margin of media for single-sided printing.
- Setting is available according to feed of Tray1 (manual bypass tray), 2, 3, 4, and 5.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**



b - c: 0mm ±1.0mm

(2) Setting range

Specificatiojn	0 mm ± 1.0 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Side Edge Adjustment].
3. Touch the key for desired paper tray.
4. Press the Start key to make a test pattern.
5. Check that the difference between (b) and (c) (distance between the side edge of paper and the print position) is 0 ± 1.0 mm.
   If the difference between (b) and (c) falls outside the specified range,

using the [+]/[-] key on the screen, enter a correction amount.
6. Press the Start key to make a test pattern.
7. If the difference between (b) and (c) falls within the specified range, touch [OK].

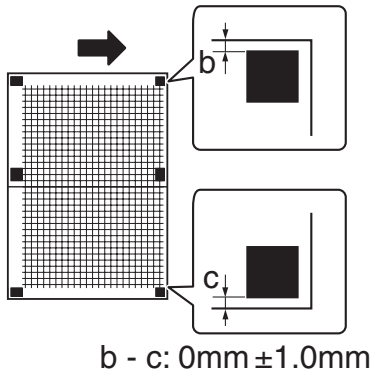
9.5.5 Left ADJ Duplex

(1) Use

- Adjust the side margin of media for double-sided printing.
- Setting is available according to feed of Tray1 (manual bypass tray), 2, 3, 4, and 5.

NOTE

- **[Tray 4] and [Tray 5] is available only when the optional paper feed cabinet PC-211 is mounted.**



(2) Setting range

Specification	0 mm ± 1.0 mm
Setting range	-3.0 mm to 3.0 mm (1 step: 0.2 mm)

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Left ADJ Duplex].
3. Touch the key for desired paper tray.
4. Press the Start key to make a test pattern.
5. Check that the difference between (b) and (c) (distance between the side edge of paper and the print position) is 0 ± 1.0 mm.
   If the difference between (b) and (c) falls outside the specified range,
   using the [+]/[-] key on the screen, enter a correction amount.
6. Press the Start key to make a test pattern.
7. If the difference between (b) and (c) falls within the specified range, touch [OK].

9.5.6 Image Transfer Current

(1) Use

- Adjust the image transfer output (ATVC) on the 1st page and the 2nd page for each paper type.
- To use when the transfer failure at the trailing edge occurs.
- Pressing the [Auto] key down activates the image transfer amperage upper and lower limit control. In this case, the machine uses the voltage determined by the auto transfer voltage control and the image transfer output fine adjustment value does not take effect.

(2) Default setting

- Auto

(3) Setting range

- -8 to +7 (step: 1*)
  * 1 step is equivalent to 100 V.

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Image Transfer Current].
3. Select the side of the image (Simples Pass or manual Duplex), on which the transfer failure occurs.
   NOTE
   - **For Thick 1, Thick 2, Envelopes and Transparency, only 1st side can be selected.**
4. Select the paper type with the transfer failure.
5. Using the [+]/[-] key on the screen, enter a correction amount.
   To increase the ATVC value (in the direction of a foggier image), increase the setting value.
   To decrease the ATVC value (in the direction of a less foggy image), decrease the setting value.
6. Touch [OK] to validate the adjustment value.
7. Check the print image for any image problem.
   * Press [Auto] to automatically control the image transfer output without using the 2nd image transfer output fine adjustment value.

9.5.7 Fuser Temp Control

(1) Use

- To adjust individually the temperature of the heating roller for each type of paper, thereby coping with varying fusing performance under changing environmental conditions.
- 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 or folding position error occurred due to the curling of the paper.
  - Plain Paper: -20 ° C to +10 ° C (Step: 5 ° C)
  - Thick 1/Envelope: -20 ° C to +10 ° C (Step: 5 ° C)
  - Thick 2: -10 ° C to +0 ° C (Step: 5 ° C)
  - Transparency: -10 ° C to +0 ° C (Step: 5 ° C)

(2) Setting item

- If fusing performance is poor, increase the setting.
- If wax streaks occur, decrease the setting.
- If offset is poor, decrease the setting.
- If curling of the paper occurs, decrease the setting.

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Fuser Temp Control].
3. Touch the key for desired paper type.
4. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].

9.5.8 Printer Reg Loop Adj.

(1) Use

- To adjust the length of the loop formed in paper before the registration rollers.
- Tray 1: To set the correction value of the paper loop length of tray 1.
- Tray 2: To set the correction value of the paper loop length of tray 2.
- Tray 3/4/5: To set the correction value of the paper loop length of tray 3 to tray 5.
- Duplex: To set the correction value of the paper loop length for duplex printing.

(2) Setting item

The adjustable range is different depending on paper source.

	Tray 1 (Bypass)	Tray 2	Tray 3 to 5	Duplex
173mm/sec	-5 to +5	-3 to +3	-5 to +5	-5 to +5

(3) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Printer Reg Loop Adj.].
3. Touch the key for desired paper tray.
4. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - To decrease the loop amount: Increase the setting value
   - To increase the loop amount: Decrease the setting value

9.5.9 Manual Bypass Tray Width Adj

(1) Use

- To set the maximum width and the minimum width for the tray 1 paper width detection resistor of the tray 1 guide.
- Use when the tray 1 paper width detection resistor of the tray 1 guide has been changed.
- Use when a false paper size is displayed when the tray 1 is used.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Manual Bypass Tray Width Adj].
3. Touch [Max. Width].
4. Load the tray 1 with paper having a width of 297 mm.
5. Press the Start key and check that the results are [OK].
6. Touch [Min. Width.].
7. Load the tray 1 with paper having a width of 100 mm.
8. Press the Start key and check that the results are [OK].
   * Make the adjustment again if the results are [NG].

9.5.10 Cooling Fan Stop Delay

(1) Use

- To set the period of time before the cooling fan motor stops.
- At the completion of a print job/image stabilization or at jam/malfunction, the fan motor rotating at full speed comes to a stop. The period of time before the fan motor stops can be delayed so that ozone left around the PC drum can be discharged.

(2) Default setting

- 0 (min.)

NOTE

- **When this setting is set to 0 (min.), the fan motor runs for 20 seconds before it stops.**

(3) Setting range

- 0 (= 20 seconds) to 15 minutes (Step: 1 minutes)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Cooling Fan Stop Delay].
3. Using the [+]/[-] key on the screen, enter a time, and touch [OK].

9.5.11 Fusing Productivity Choice

(1) Use

- To set whether to enable or disable the paper-to-paper distance control.
- Change the default setting if you give a higher priority to fusing productivity than fusing characteristics provided by the paper-to-paper distance control when printing on thick paper.

(2) Default setting

- Fusing Priority

(3) Setting item

- " Fusing Priority"
- " Fusing Priority"

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Fusing Productivity Choice].
3. Select the desired setting, and touch [OK].

9.5.12 Print Interval Extension

(1) Use

- To set whether to enable or disable the curl prevention control that prevents paper curl problem.
- Use this setting when plain paper curl problem occurs.

Disable	Disables the curl prevention control.
Enable1	Enables the curl prevention control only under low temperature high humidity or high temperature high humidity conditions.
Enable2	Always enables the curl prevention control.

(2) Default setting

- Disable

(3) Setting item

- “Disable”
- Enable1
- Enable2

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Print Interval Extension].
3. Select the desired setting, and touch [OK].

9.5.13 Gradation Adjustment

(1) Use

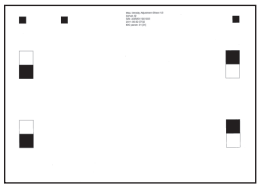
- To make an automatic adjustment of gradation based on the test pattern produced and the readings taken by the scanner.
- Use this adjustment when reproduction of gradations and density has deteriorated.
- The drum unit, developer or developing unit has been replaced.

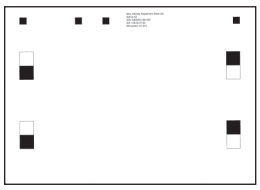
Max. Density Adjustment	The density of solid image can change depending on the variations in developing, light intensity of the exposure lamp, and PC drum sensitivity as well as the changes in the amount of electrostatic charge of toner due to the ambient environment and duration of machine use. To prevent the change, the amount of toner adhered to paper is read by the scanner and in accordance with the result, Vdc is adjusted. Perform this adjustment before the Gradation Adjustment.
Gradation Adjustment	The gradations are corrected.

(2) Procedure

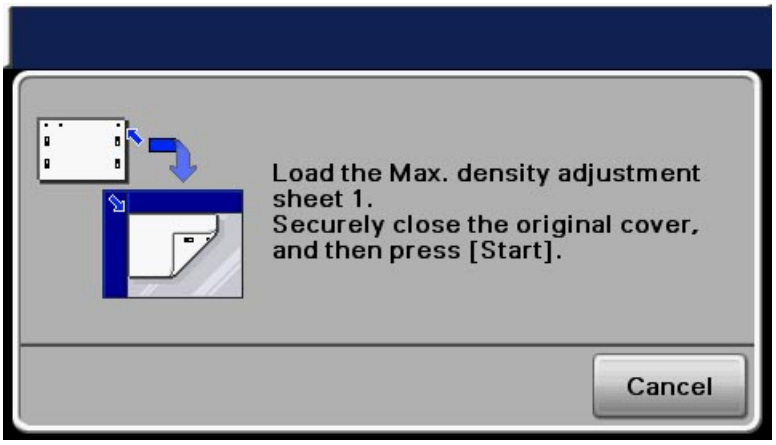
(a) Max. Density Adjustment

1. Load plain paper of A4/8 1/2 x 11 into the paper feed tray.
2. Call the Service Mode to the display.
3. Touch [Printer Adjustment] -> [Gradation Adjustment].
4. Touch [Max. Density Adjustment].
5. Touch [Print] -> [OK].
6. Two Max. density adjustment sheets are printed.

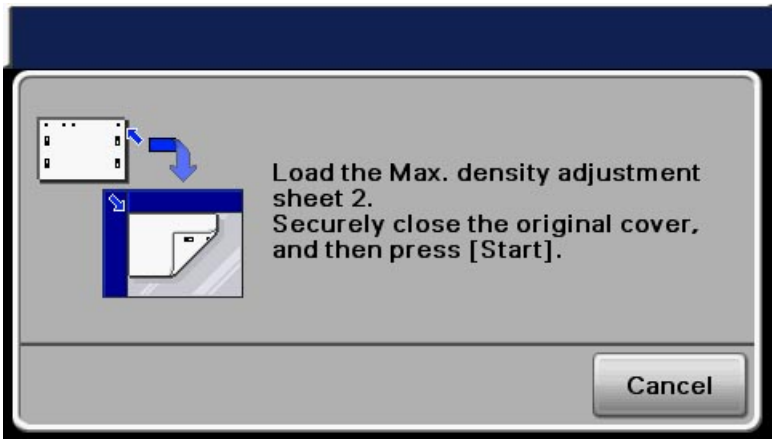




7. Touch [Scan].
8. Place the first printed Max. density adjustment sheet on the touch panel in the orientation displayed in the original glass.



9. Place 10 or more sheets of blank paper on top of the Max. density adjustment sheet to prevent it from becoming transparent. Close the ADF.
10. Press the Start key. (The machine will then start scanning the Max. density adjustment sheet.)
11. Place the second printed Max. density adjustment sheet on the touch panel in the orientation displayed in the original glass.



12. Place ten blank paper on the Max. density adjustment sheet and close the ADF.
13. Press the Start key. (The machine will then start scanning the Max. density adjustment sheet.)
14. Print the Max. density adjustment sheets, and check the print image for any image problem.
15. When there is a trouble on the image, conduct troubleshooting for the image.

(b) Gradation Adjustment

1. Load plain paper of A4/8 1/2 x 11 into the paper feed tray.

2. Call the Service Mode to the display.
3. Touch [Printer Adjustment] -> [Gradation Adjustment].
4. Touch [Gradation Adjustment].
5. Touch [Print] -> [OK].
6. A gradation adjustment sheet is printed.

7. Touch [Scan].
8. Place the printed gradation adjustment sheet on the touch panel in the orientation displayed in the original glass.

9. Place ten blank paper on the gradation adjustment sheet and close the ADF.
10. Press the Start key. (The machine will then start scanning the gradation adjustment sheet.)
11. Print the gradation adjustment sheet, and check the print image for any image problem.
12. When there is a trouble on the image, conduct troubleshooting for the image.

9.5.14 Max Image Density Adj

(1) Use

- After completing Gradation Adjust, supplementarily make a manual fine-adjustment of Vdc and Vg to change the maximum amount of toner adhered to paper so that the gradation and density are adjusted to the target reproduction level.
  (The Vdc and Vg values calculated in their control system are changed while the difference between the two values is kept unchanged.)
- Use this adjustment if the target density is not obtained after performing [Max. Density Adjustment].

(2) Default setting

- 0

(3) Setting range

- -8 to +8 (Step: 1*)
  *: 1 step is the equivalent of 0.02 of difference in density.

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Max Image Density Adj].
3. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - To increase the maximum amount of toner sticking, increase the setting value.
   - To decrease the maximum amount of toner sticking, decrease the setting value.
4. Check the print image for any image problem.

9.5.15 TCR Level Setting

(1) Use

- To adjust the T/C control level when an abnormal image density occurs as a result of a change in the amount of charge of toner and carrier due to an environmental change.
- Use when T/C changes due to changes in environmental conditions of the user site.

(2) Default setting

- 0

(3) Setting range

- -3 to +3 (1 step in positive (+) direction: 0.5 % increase, 1 step in negative (-) direction: 0.5 % decrease,)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [TCR Level Setting].
3. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - To increase T/C, increase the setting value.
   - To decrease T/C, decrease the setting value.

NOTE

- **More than one sheet of paper need to be printed before TC ratio changes after adjustment is complete.**

9.5.16 TCR Sensor Adjustment

(1) Use

- To automatically adjust the TCR sensor.
  To obtain the output value of the TCR sensor and determine a standard value for the TC ratio determination control so that the toner supply control can be optimized.
- Use this adjustment at the set-up.
- Use this adjustment when the developer or the developing unit is replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [TCR Sensor Adjustment].
3. Touch [Execute] -> [OK].

9.5.17 Image Background Adj

(1) Use

- To supplementarily make a manual fine-adjustment of Vg after performing [Gradation Adjust].
  (While both the Vdc and Vg values are changed with [Max Image Density Adj], only the Vg value is changed with this setting.)
- Use when a foggy background occurs due to a printer problem.

(2) Default setting

- 0

(3) Setting range

- -5 to +5 (step: 1*)
  * 1 step is equivalent to 10 V.

(4) Procedure

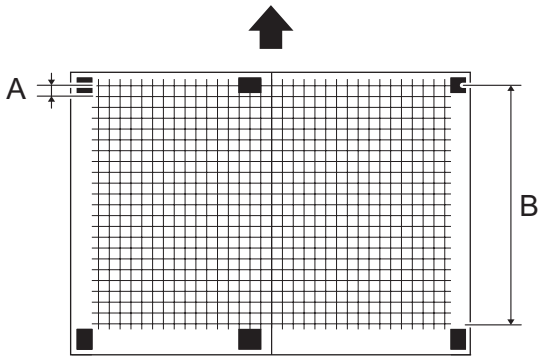
1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Image Background Adj].
3. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
4. Check the print image for any image problem.

9.5.18 Feed Zoom

(1) Use

- To synchronize the paper transport speed with the image writing speed.
- [Feed Zoom] becomes necessary.
- The print image on the copy distorts (stretched, shrunk).
- When the print image on the copy is stretched in the sub scan direction.
- This setting can be made independently for Plain Paper, Thick 1, Thick 2 and Envelope.

(2) Setting range



- Width A and width B on the test pattern produced should fall within the following ranges.
  Width A: equivalent to one grid
  Width B: equivalent to 22 grids

Specification	Width A: 8.0 ± 0.2 mm
	Width B: 177.0 ± 0.7 mm
Setting range	Width A: -7 to +7 (Step: 1)
	Width B: -7 to +7 (Step: 1)

(3) Procedure

1. Load tray 1 (manual bypass tray) with A4 or 8 1/2 x 11 plain paper.
2. Call the Service Mode to the display.
3. Touch [Printer Adjustment] -> [Feed Zoom].
4. Touch the key for desired paper type.
5. Press the Start key to make a test pattern.
6. Check width A (equivalent to one grid) and width B (equivalent to 22 grids) on the test pattern.
7. If width of A or B falls outside the specified range, change the setting using the [+]/[-] keys.
   - If width A or B is longer than the specifications, make the setting value smaller than the current one.
   - If width A or B is shorter than the specifications, make the setting value greater than the current one.
8. Press the Start key to make a test pattern again.
9. Check width A and width B on the test pattern.
10. If width A or B falls outside the specified range, change the setting value and make a check again.
11. If width A or B falls within the specified range, touch [OK].

9.5.19 Paper Separation Adjustment

(1) Use

- By changing the period between the activation of the registration roller and the image transfer output, the paper separation position can be adjusted for the 1st and 2nd sides of paper in duplex print.
- To ensure proper balance between paper separating and image transferring performances by varying the paper separation position applied for duplex printing.

(2) Default setting

- 0

(3) Setting range

- -2 mm to +2 mm (step: 0.1 mm)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Paper Separation Adjustment].
3. Select [First Side] or [Second Side].
4. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - Priority on paper separation performance: Increase the setting value.
   - Priority on image transfer performance: Decrease the setting value.
5. Make a print and check the produced image.

9.5.20 Paper Separation Voltage Adj

(1) Use

- To fine-adjust the paper separation voltage determined by the separation output determination control for each type of paper. (However, you cannot fine-adjust the paper separation voltage for the 2nd side of paper.)
- Use this adjustment when image failure such as voids on solid black image occurs under low temperature and low humidity conditions.

(2) Default setting

- 0

(3) Setting range

- -5 to +5 (step: 1 *)
  *: 1 step is equivalent to 100 V.

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Paper Separation Voltage Adj].
3. Select the paper type.
4. Using the [+]/[-] key on the screen, enter a correction amount, and touch [OK].
   - Priority to separating ability: Increase the setting value.
   - Priority to transferring ability: Decrease the setting value.

   NOTE
   - **If the paper separation voltage that is calculated based on the fine-adjusted value is not between the lower limit and the upper limit, the lower limit value or the upper limit value is used as the paper separation voltage.**
5. Make a print and check the produced image.

9.5.21 Replenish Toner

(1) Use

- To adjust the set T/C level by replenishing an auxiliary supply of toner when a low ID occurs due to a lowered T/C ratio after large numbers of prints have been made of originals having a high image density.
- When there is a drop in T/C ratio.
- Use this function at the set-up.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Printer Adjustment] -> [Replenish Toner].
3. Touch [Execute].
4. Touching [OK] will let the machine detect the current toner density and; if the density is lower than a reference value, a toner replenishing sequence and then a developer agitation sequence are run.
5. It stops when toner replenishment is complete.

9.6 Scanner Adjustment

9.6.1 FB Leading Edge

(1) Use

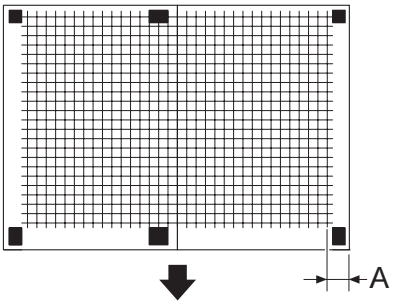
- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the flatbed scanning in the sub-scanning direction.
- When the scanner unit has been replaced.

NOTE

- **After the [FB FD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 0±1.0 mm or less



(3) Default setting

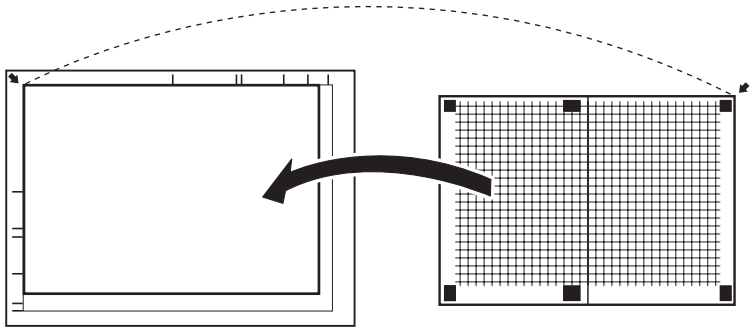
- “0”

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" to +5.00 (+5.0 mm) (Step: 0.25 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Place the test pattern on the original glass.



5. Make a test copy.

   NOTE

   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. Check that the width of A in the original and its copy of the test pattern are shifted.
   If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [FB Leading Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
   If width A of the copy image is exceeds one on the test pattern, increase the setting.
   If width A of the copy image is less than one on the test pattern, decrease the setting.
10. Make a test copy again and check it.

9.6.2 FB Side Edge

(1) Use

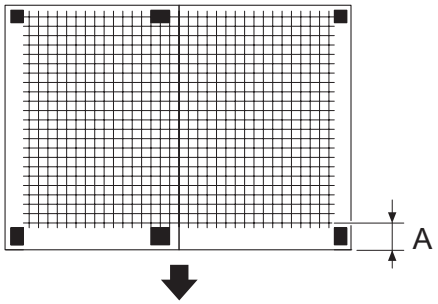
- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the flatbed scanning in the main-scanning direction.
- When the scanner unit has been replaced.

NOTE

- **After the [FB CD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 0±1.0 mm or less



(3) Default setting

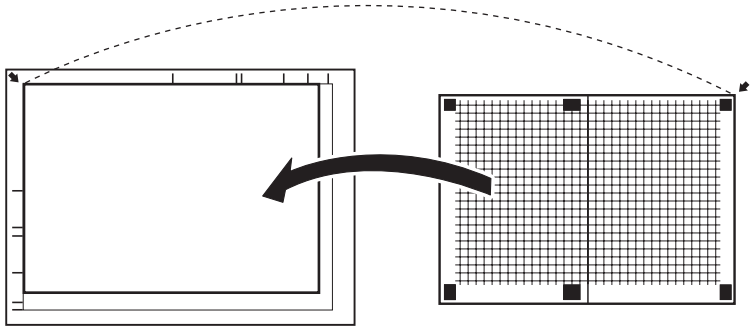
- “0”

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" ~to +5.00 (+5.0 mm) (Step: 0.25 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Place the test pattern on the original glass.



5. Make a test copy.
   NOTE
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. Check that the width of A in the original and its copy of the test pattern are shifted.
   If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [FB Leading Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
   If width A of the copy image is exceeds one on the test pattern, decrease the setting.
   If width A of the copy image is less than one on the test pattern, increase the setting.

10. Make a test copy again and check it.

9.6.3 ADF(F) Leading Edge

(1) Use

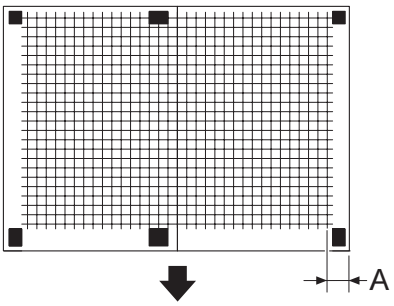
- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the ADF scanning (front side) in the sub-scanning direction.
- When the scanner unit or the ADF has been replaced.

NOTE

- **After the [ADF(F) FD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value:0±1.5 mm or less



(3) Default setting

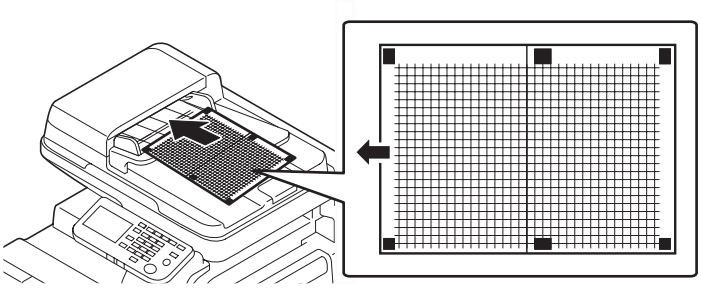
- "0"

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" to +5.00 (+5.0 mm) (Step: 0.5 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
NOTE
- **Set the test pattern with the printed side up on the ADF.**
- **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. Check that the width of A in the original and its copy of the test pattern are shifted.
If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(F) Leading Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
If width A of the copy image is exceeds one on the test pattern, increase the setting.
If width A of the copy image is less than one on the test pattern, decrease the setting.
10. Make a test copy again and check it.

9.6.4 ADF(F) Side Edge

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the ADF scanning (front side) in the main-scanning direction.

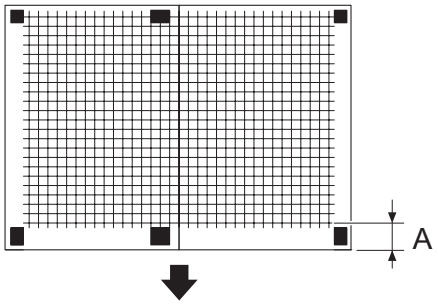
- When the scanner unit or the ADF has been replaced.

NOTE

- **After the [ADF(F) CD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 0±1.0 mm or less



(3) Default Setting

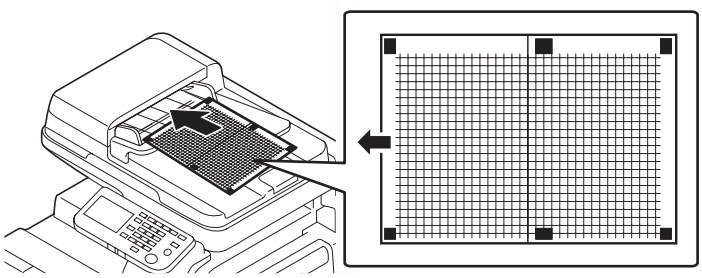
- “0”

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" to +5.00 (+5.0 mm) (Step: 0.5 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side up on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. Check that the width of A in the original and its copy of the test pattern are shifted.
   If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(F) Side Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
   If width A of the copy image is exceeds one on the test pattern, increase the setting.
   If width A of the copy image is less than one on the test pattern, decrease the setting.
10. Make a test copy again and check it.

9.6.5 ADF(B) Leading Edge

(1) Use

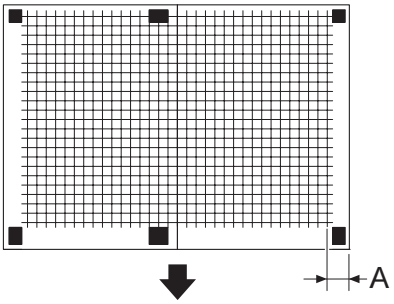
- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the ADF scanning (back side) in the sub-scanning direction.
- When the scanner unit or the ADF has been replaced.

NOTE

- **After the [ADF(B) FD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 0±1.5 mm or less



(3) Default setting

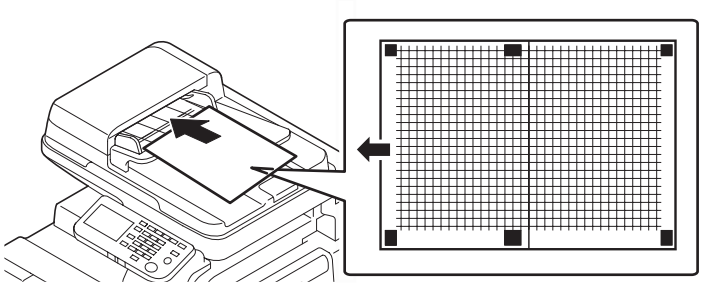
- “0”

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" to +5.00 (+5.0 mm) (Step: 0.5 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side down on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. Check that the width of A in the original and its copy of the test pattern are shifted.
   If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(B) Leading Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
   If width A of the copy image is exceeds one on the test pattern, increase the setting.
   If width A of the copy image is less than one on the test pattern, decrease the setting.
10. Make a test copy again and check it.

9.6.6 ADF(B) Side Edge

(1) Use

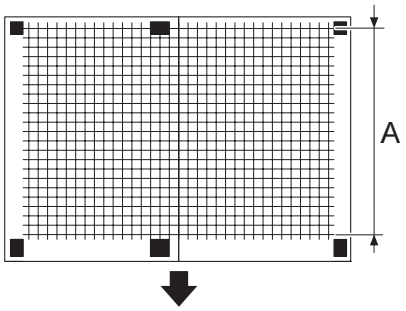
- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning start position at the ADF scanning (back side) in the main-scanning direction.
- When the scanner unit or the ADF has been replaced.

NOTE

- **After the [ADF(B) CD Multiplier] adjustments have been performed.**

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 0±2.0 mm or less



(3) Default setting

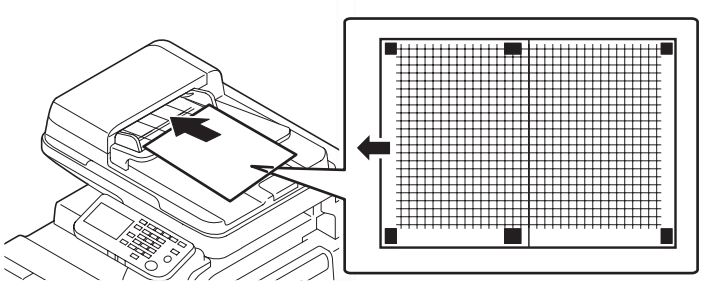
- "0"

(4) Setting range

- -5.00 (-5.0 mm) to "0 (0 mm)" to +5.00 (+5.0 mm) (Step: 0.5 mm)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side down on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. Check that the width of A in the original and its copy of the test pattern are shifted.
   If the width of A is out of specification, adjust it according to the following procedure.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(B) Side Edge].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
   If width A of the copy image is exceeds one on the test pattern, increase the setting.
   If width A of the copy image is less than one on the test pattern, decrease the setting.
10. Make a test copy again and check it.

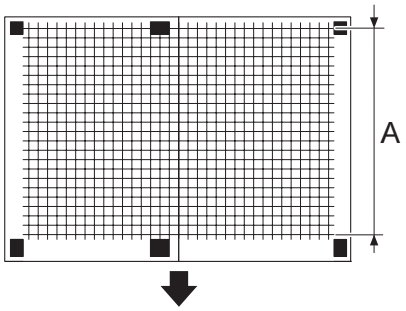
9.6.7 FB CD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio in the main scanning direction.
- When the scanner unit has been replaced.

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.3% (Zoom ratio = Full Size:100%)



(3) Default setting

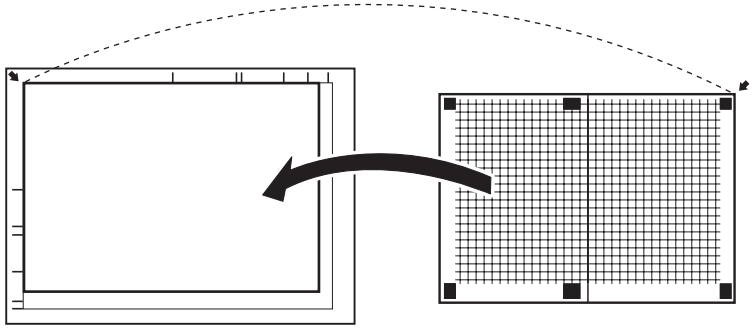
- “0 %”

(4) Setting range

- -2.0% to "0%" to +2.0%

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Place the test pattern on the original glass.



5. Make a test copy.
   NOTE
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 1 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [FB CD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

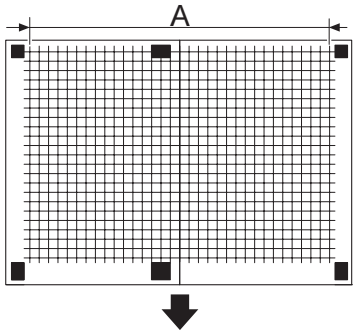
9.6.8 FB FD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio in the sub scanning direction.
- When the scanner unit has been replaced.

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.5% (Zoom ratio = Full Size:100%)



(3) Default setting

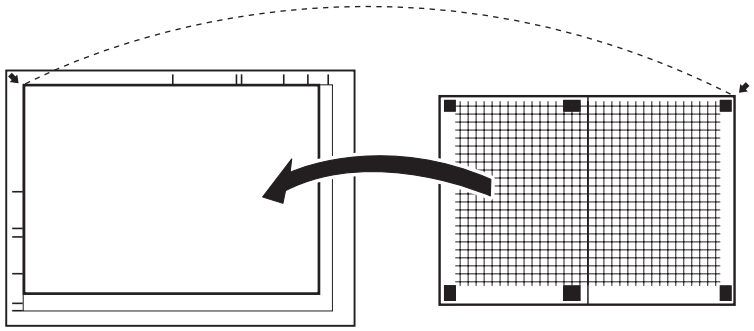
- "0 %"

(4) Setting range

- -2.0% to "0%" to +2.0% (Step: 0.2%)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Place the test pattern on the original glass.



5. Make a test copy.
   NOTE
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 1 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [FB FD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

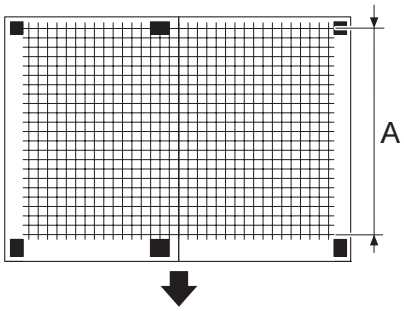
9.6.9 ADF(F) CD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio at the ADF scanning (front side) in the main scanning direction.
- When the scanner unit or the ADF has been replaced.

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.5% (Zoom ratio = Full Size:100%)



(3) Default setting

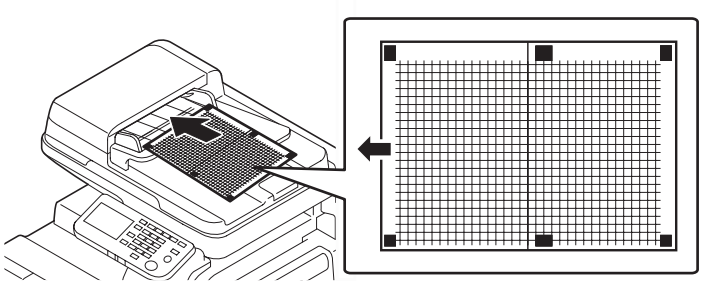
- “0 %”

(4) Setting range

- -2.0% to "0%" to +2.0% (Step: 0.4%)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side up on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 2 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(F) CD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

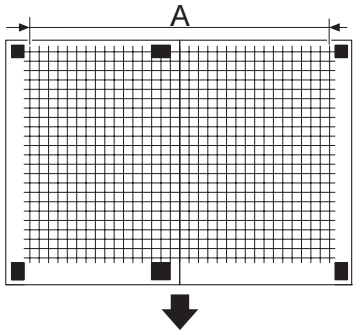
9.6.10 ADF(F) FD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio at the ADF scanning (front side) in the sub scanning direction.
- When the scanner unit or the ADF has been replaced.

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.7% (Zoom ratio = Full Size:100%)



(3) Default setting

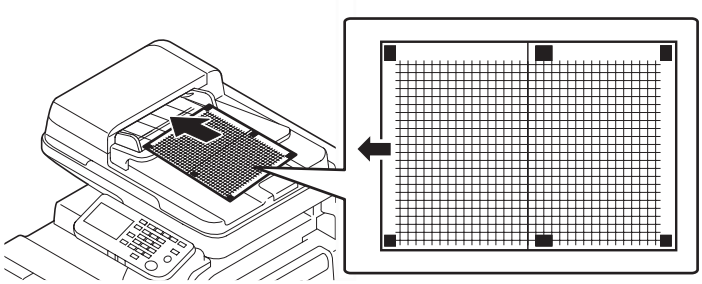
- "0 %"

(4) Setting range

- -2.0% to "0%" to +2.0% (Step: 0.4%)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side up on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 2 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(F) FD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

9.6.11 ADF(B) CD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio at the ADF scanning (back side) in the main scanning direction.
- When the scanner unit or the ADF has been replaced.

(2) Specification

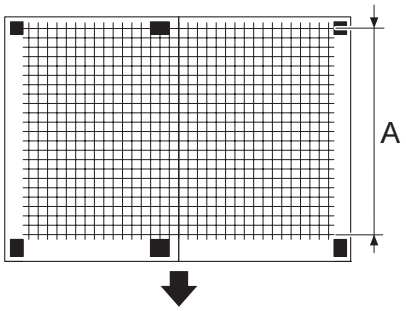
- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.5% (Zoom ratio = Full Size:100%)

(3) Default setting

- "0 %"

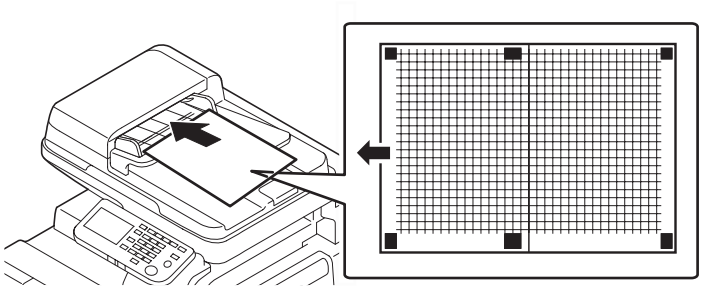
(4) Setting range

- -2.0% to "0%" to +2.0% (Step: 0.4%)



(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side down on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**

6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 1 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(B) CD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

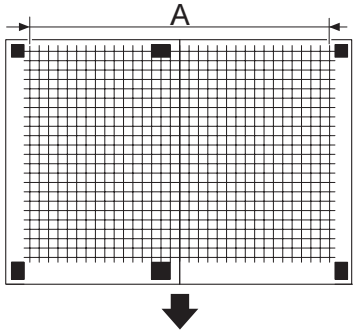
9.6.12 ADF(B) FD Multiplier

(1) Use

- To adjust for variations in the accuracy of scanner parts and their mounting accuracy by varying the scanning zoom ratio at the ADF scanning (back side) in the sub scanning direction.
- When the scanner unit or the ADF has been replaced.

(2) Specification

- Make adjustments so that the difference in the width of A between the test pattern and the copy of the test pattern is within the following specification.
- Specification value: 100 ± 0.7% (Zoom ratio = Full Size:100%)



(3) Default setting

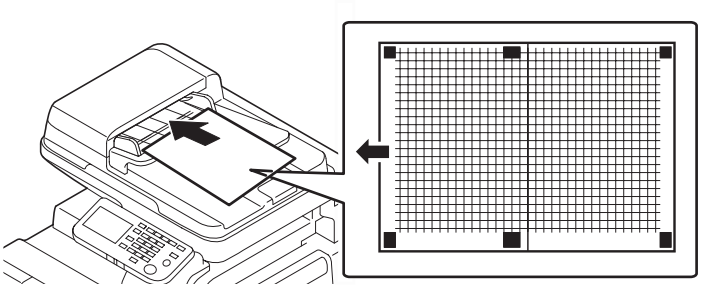
- “0 %”

(4) Setting range

- -2.0% to "0%" to +2.0% (Step: 0.4%)

(5) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Lattice Pattern].
3. Touch [Print].
4. Set the test pattern on the ADF.



5. Make a test copy.
   NOTE
   - **Set the test pattern with the printed side down on the ADF.**
   - **Use A4 or Letter paper loaded into tray 2 to make the test copy.**
6. If the difference between the length A on the test pattern and that on the test copy is greater than ± 2 mm, perform the adjustment steps below.
7. Call the Service Mode to the display.
8. Touch [Scanner Adjustment] -> [ADF(B) FD Multiplier].
9. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].
10. Make a test copy again and check it.

9.6.13 Tilt(F)

(1) Use

- Adjusts the amount of loop produced before the ADF registration roller for the front side of the original fed from the ADF.
- When original jam or skew occurs, use this function for the front side of the original fed from the ADF.

(2) Default setting

- “0”

(3) Setting range

- -5.0 (-5.0 mm) to "0 (0 mm)" to +5.0 (+5.0 mm) (Step: 0.5 mm)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Scanner Adjustment] -> [Tilt(F)].
3. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].

9.6.14 Tilt(B)

(1) Use

- Adjusts the amount of loop produced before the ADF registration roller for the back side of the original fed from the ADF.
- When original jam or skew occurs, use this function for the back side of the original fed from the ADF.

(2) Default setting

- “0”

(3) Setting range

- -5.0 (-5.0 mm) to "0 (0 mm)" to +5.0 (+5.0 mm) (Step: 0.5 mm)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Scanner Adjustment] -> [Tilt(B)].
3. Using the [+]/[-] key on the screen or the ten-key pad, enter a setting value and touch [OK].

9.7 Print Menu

9.7.1 Mgmt. List

(1) Use

- Prints the management information of the machine.
- To check the maintenance information. The items which can be checked are as follows.
  - Device Caution Information: Caution information, Process caution information
  - Count (total): Counter value for black printing
  - Coverage (total): Coverage rate for black printing
  - Replace count (total): Number of times black toner, fusing unit, transfer roller, drum unit, developer, developing unit, ozone filter, and paper dust remover have been replaced.
  - Life Counter: Life information of the tray 1 to tray 5, drum unit rotation time, developing unit rotation time, Fusing unit rotation time, developer use time, paper dust remover, finisher feed count, ozone filter, and transfer roller unit.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Mgmt. List].
3. Select [Print], and touch [OK].

(3) Process Caution Information

(a) List of the process caution information

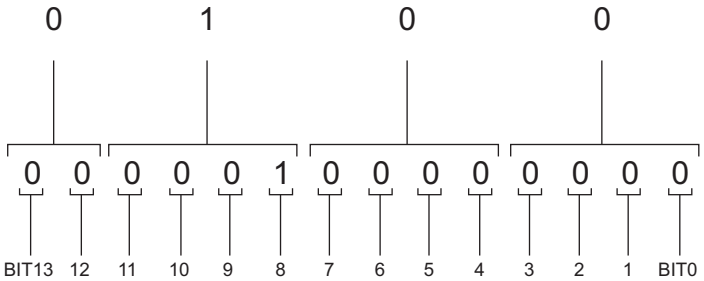
BIT	Item	Status	
0	—	—	
1	—	—	
2	—	—	
3	-	-	
4	—	—	
5	-	-	
6	-	-	
7	-	-	
8	Transfer ATVC failure	1	• An abnormal average value is detected during an adjustment of the image transfer ATVC value.
		0	• Right door or front cover open/close, power switch OFF/ON, and normal image stabilization are complete besides the ones listed above.
9	—	—	
10	—	—	
11	-	-	
12	-	-	
13	—	—	

(b) How to read process caution information

- Convert the numerical value of the hexadecimal number printed on "PROCESS CAUTION INFORMATION in [MAINTENANCE INFO] into the binary number, it compares with the allocation of each BIT, and the caution status is confirmed.

ex. When process caution information is displayed as 0x0100.

1. Convert four end digits "0100" of 0x0100 into the binary number (14 digits).
2. The BIT number is allocated in converted value "000000010000000." (BIT0 to BIT13 is sequentially allocated from the first digit.)



3. In this case, BIT No. "8" corresponds to "1". From the "PROCESS CAUTION INFORMATION", Transfer ATVC failure can be detected.

(c) Conversion method from hexadecimal number to binary number

1. The hexadecimal number (four digits) is converted in each digit based on the following table.

Hexadecimal number	Binary number	Hexadecimal number	Binary number	Hexadecimal number	Binary number	Hexadecimal number	Binary number
0	0000	4	0100	8	1000	C	1100
1	0001	5	0101	9	1001	D	1101

2	0010	6	0110	A	1010	E	1110
3	0011	7	0111	B	1011	F	1111

2. Match the converted numerical value of four digits, then two head digits are excluded and it is assumed the binary number of 14 digits.

9.7.2 Event Log

(1) Use

- To print the error log information.
- To check the jams/troubles which occurred, and the history of replacing the consumables. The items which can be checked are as follows.
  - Paper Jam Error: The number of times jam have occurred and its history
  - Engine Fatal Error: The history of the troubles which required service call
  - Trouble Counter: Trouble counting for each section
  - Black Toner: The history of replacing the toner bottle
  - Fusing Unit: The history of replacing the fusing unit
  - Transfer Roller: The history of replacing the transfer roller
  - Drum Unit: The history of replacing the drum unit
  - Developing Unit: The history of replacing the developing unit
  - Developer: The history of replacing the developer
  - Ozone Filter: The history of replacing the ozone filter
  - Paper Dust Remover: The history of replacing the paper dust remover

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Event Log].
3. Select [Print], and touch [OK].

9.7.3 Adjust Information

(1) Use

- To print the engine adjustment information.
- To check the adjustment values set by the Utility menu and Service Mode. The items which can be checked are as follows.
  Printer Reg Loop Adj./ TCR Level Setting/Paper Separation Adjustment/Machine State LED Setting/Auto Drum Dry/Paper Separation Voltage Adj/Cooling Fan Stop Delay/Leading Edge Adjustment/Side Edge Adjustment/Left ADJ Duplex/Fuser Temp Control/Image Transfer Current/Leading Edge Adjustment Tray/Feed Zoom/Finisher Settings/Engine DipSW
- The scanner and ADF related adjustment values can be checked from [Scanner Adjustment].
  I.9.7.9 Scanner Adjustment

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Adjust Information].
3. Select [Print], and touch [OK].

9.7.4 Element Page

(1) Use

- To print the engine element data information.
- To check the element data.
- See the attached chart listed below for details.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Element Page].
3. Select [Print], and touch [OK].

(3) Engine element data information

Element data name	Description
Inside Humidity	• Displays the inside humidity (in 1% increments).
Absolute Humidity	• Displays the absolute humidity (in 1% increments).
INSIDE TEMPERATURE	• Displays the inside temperature (in 1 ºC increments).
PH TEMPRATURE	• Displays the PH temperature (in 1 ºC increments).
Sensor Information 1	• Displays the input port status of the sensors and switches in hexadecimal numbers.
Sensor Information 2	
Sensor Information 3	
Sensor Information 4	
Sensor Information 5	
Sensor Information 6	
Sensor Information 7	

Element data name	Description
Sensor Information 8	
Sensor Information 9	
Fusing Temperature (Main)	• Displays the latest temperature on the middle of the heating roller (in 1 ºC increments).
Fusing Temperature (Sub)	• Displays the latest temperature at the edges of the heating roller (in 1 ºC increments).
TCR-K	• Shows the T/C ratio (in 0.01 % increments). • Standard value: 4 to 8 %
Toner Empty (K)	• Shows the level of the remaining toner in the toner bottle.
Drum Thermistor	• Shows the temperature of the drum unit (in 1°C increments).
Vg-K	• Shows the grid voltage value of toner when an image is produced. • Standard values: around 500 V (200 V to 900 V)
Vdc-K	• Shows the developing bias value of toner when an image is produced. • Standard values: around 400 V (100 V to 750 V)
Transfer Output Value	• Shows the latest ATVC level (which varies according to the paper type, environment or durability). • 300 V to 3800 V (ATVC)

9.7.5 Black 64

(1) Use

- Prints the halftone pattern with 25% level..
- To check the unevenness of the density and the pitch.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Black 64].
4. Select [Print], and touch [OK].

9.7.6 Black 128

(1) Use

- Prints the halftone pattern with 50% level.
- To check the unevenness of the density and the pitch.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Black 128].
4. Select [Print], and touch [OK].

9.7.7 Black 256

(1) Use

- Prints the halftone pattern with 100% level.
- To check the unevenness of the density and the pitch.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Black 256].
4. Select [Print], and touch [OK].

9.7.8 Gradation

(1) Use

- Prints the gradation pattern.
- To check the gradation reproductively.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Gradation].
4. Select [Print], and touch [OK].

9.7.9 Scanner Adjustment

(1) Use

- Prints the list of the scanner and ADF related setting values.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Scanner Adjustment].
4. Select [Print], and touch [OK].

9.7.10 Scan Event Log

(1) Use

- Prints the data of the number of times jam has occurred during scanning and the jam history.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Scan Event Log].
4. Select [Print], and touch [OK].

9.7.11 Lattice Pattern

(1) Use

- To produce a lattice pattern that is used for various adjustments.

(2) Procedure

1. Set the A4 or Letter paper on the tray.
2. Call the Service Mode to the display.
3. Touch [Print Menu] -> [Lattice Pattern].
4. Select [Print], and touch [OK].

9.7.12 Communication Log Print

(1) Use

- To produce a communication log that records the communication status and results with the CS Remote Care center.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Print Menu] -> [Communication Log Print].
3. Select [Print], and touch [OK].

9.8 Supplies

9.8.1 Life Counter Clear - Drum Unit (K)

(1) Use

- Resets the drum unit counter.
- To use when the drum unit has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Drum Unit (K)].
3. Touch [OK].

9.8.2 Life Counter Clear - Transfer Roller Unit

(1) Use

- Resets the transfer roller unit counter.
- To use when the transfer roller unit has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Transfer Roller Unit].
3. Touch [OK].

9.8.3 Life Counter Clear - Fusing Unit

(1) Use

- Resets the fusing unit counter.
- To use when the drum unit has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Fusing Unit].
3. Touch [OK].

9.8.4 Life Counter Clear - Developing Unit (K)

(1) Use

- Resets the developing unit counter.
- To use when the developing unit has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Developing Unit (K)].
3. Touch [OK].

9.8.5 Life Counter Clear - Developer Replace Count

(1) Use

- Display the developer replace counter.
- Replacing the developing unit and clearing the life counter for the Developing Unit (K) automatically clears the value. (It cannot manually be cleared.)

9.8.6 Life Counter Clear - Developer(K)

(1) Use

- Resets the developer counter.
- To use when the developer has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Developer(K)].
3. Touch [OK].

9.8.7 Life Counter Clear - Ozone Filter

(1) Use

- Resets the ozone filter counter.
- To use when the ozone filter has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Ozone Filter].
3. Touch [OK].

9.8.8 Life Counter Clear - Paper Dust Remover

(1) Use

- Resets the paper dust remover counter.
- To use when the paper dust remover has been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Paper Dust Remover].
3. Touch [OK].

9.8.9 Life Counter Clear - Feed Roller (Bypass)

(1) Use

- Resets the feed counter from the tray 1.
- To use when the tray 1 feed roller and tray 1 separation roller have been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Feed Roller (Bypass)].
3. Touch [OK].

9.8.10 Life Counter Clear - Feed Roller (Tray 2)

(1) Use

- Resets the feed counter from the tray 2.
- To use when the tray 2 pick-up roller, tray 2 feed roller and tray 2 separation roller have been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Feed Roller (Tray2)].
3. Touch [OK].

9.8.11 Life Counter Clear - Feed Roller (Tray 3)

(1) Use

- Resets the feed counter from the tray 3.
- To use when the tray 3 pick-up roller, tray 3 feed roller and tray 3 separation roller have been replaced.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Feed Roller (Tray 3)].
3. Touch [OK].

9.8.12 Life Counter Clear - Feed Roller (Tray 4)

(1) Use

- Resets the feed counter from the tray 4.
- To use when the tray 4 pick-up roller, tray 4 feed roller and tray 4 separation roller have been replaced.

NOTE

- **It will be displayed only when the optional paper feed cabinet PC-211 is mounted.**

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Feed Roller (Tray 4)].
3. Touch [OK].

9.8.13 Life Counter Clear - Feed Roller (Tray 5)

(1) Use

- Resets the feed counter from the tray 5.
- To use when the tray 5 pick-up roller, tray 5 feed roller and tray 5 separation roller have been replaced.

NOTE

- **It will be displayed only when the optional paper feed cabinet PC-211 is mounted.**

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Feed Roller (Tray 5)].
3. Touch [OK].

9.8.14 Life Counter Clear - Finisher Counter

(1) Use

- Reset the paper exit counter for FS-529.
- Used for the maintenance on FS-529.

NOTE

- **It will be displayed only when the optional finisher FS-529 is mounted.**

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Supplies] -> [Life Counter Clear] -> [Finisher Counter].
3. Touch [OK].

9.9 Firmware Update

9.9.1 Details

(1) Use

- To display the firmware information stored in the USB memory device.
- The following information is displayed:
  - Model name (bizhub 42/36) of firmware data
  - Version information of firmware data

(2) Procedure

1. Set the USB memory device.
2. Call the Service Mode to the display.
3. Touch [Firmware Update].
4. Select the firmware to be updated and touch [Details].

NOTE

- **An error message appears if the selected data is not of the appropriate data format.**

9.9.2 Execute

(1) Use

- To upgrade firmware using the USB memory device.
- Use for upgrading firmware.

(2) Procedure

- For details, see "J.2. Firmware upgrading procedure by USB memory device".

9.10 CS Remote Care

9.10.1 Outline

- CS Remote Care enables the machine and the computer at CS Remote Care center to exchange data through network 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

9.10.2 Setting up the CS Remote Care

NOTE

- **The following describes how to set up the CS Remote Care from the Service Mode on the control panel. Besides setting on the operation panel on the machine, setting is also available by PageScope Web Connection. For setting by PageScope Web Connection, access to the address below for authentication by CE password.**
  http(s)://<IP address of this machine>/csrc_index.html
- **For resetting up the machine which CS Remote Care has already been set up, clear the RAM for CS Remote Care before resetting.**
  I.9.10.12 RAM Clear

	Two-way communication	One-way communication
Step	Procedure	
0	Register the device ID to the application at CS Remote Care center. The initial connection is not available unless the device ID is registered.	
1	Clearing the RAM for CS Remote Care 1. Select [Service Mode] -> [CS Remote Care] -> [RAM Clear]. 2. Select [Yes], and touch [OK]. I.9.10.12 RAM Clear	
2	Setting the date and time for CS Remote Care 1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Clock]. 2. Select [Date], [Time] or [Time Zone], and touch [OK]. 3. Input the date, time or time zone, and touch [OK]. I.9.10.10 CSRC Clock	
3	Setting the communication method 1. Select [Service Mode] -> [CS Remote Care] -> [Basic Setting] -> [Comm. Method]. 2. Select [Duplex], and touch [OK].	Setting the communication method 1. Select [Service Mode] -> [CS Remote Care] -> [Basic Setting] -> [Comm. Method]. 2. Select [Simplex], and touch [OK].
4	Inputting the ID code 1. Select [Service Mode] -> [CS Remote Care] -> [Service Engr ID]. 2. Input the seven digits ID of the service engineer, and touch [OK]. I.9.10.3 Service Engr ID	
5	Setting the Center ID 1. Select [Service Mode] -> [CS Remote Care] -> [Basic Setting] -> [Center ID]. 2. Input the five digits ID of the CS Remote Care center, and touch [OK]. I.9.10.8 Basic Settings	
6	Encryption setting 1. Select [Service Mode] -> [CS Remote Care] -> [Basic Setting] -> [Encryption]. 2. Select [Yes] or [No] according to the necessity of encryption, and touch [OK].	
7	Heart Beat *1 1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Settings] -> [Heartbeat Settings]. 2. In [Enable Heartbeat], set whether or not to enable Heart Beat communication. (Default: Yes) 3. Select [Interval] and enter a Heart Beat transmission interval (1 to 256 minutes, Default: 30 minutes). 4. In [Enable Fixed Time], set whether or not to enable Heartbeat transmission at a fixed interval. (Default: Yes) 5. Select [Fixed Time] and enter a Heartbeat transmission interval (1 to 256 minutes, Default: 30 minutes).	
8	Proceed to step 10.	Periodic transmission setting 1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Settings] -> [Periodic Trans.]. 2. In [Enable Trans.], set whether or not to enable periodic transmission. (Default: On) 3. Select [Interval], [Time], [Day of the Week] or [Date] and set the schedule of periodic transmission. I.9.10.11 CSRC Settings
9		Report setting 1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Settings] -> [Report Settings]. 2. Select the report item and set items that will be reported to the Center. I.9.10.11 CSRC Settings

	Two-way communication	One-way communication
Step	Procedure	
10	Setting the http server 1. Select [Service Mode] -> [CS Remote Care] -> [Basic Setting] -> [Web Server] 2. Input the server name of the CS Remote Care center, and touch [OK]. 3. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings], and make the settings of communication with the server according to the network environment. I.9.10.9 WebDAV Settings	
11	Enables/disables some special warning and report functions 1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Settings] -> [Switches Settings], and set whether or not to enable each function. I.9.10.11 CSRC Settings	
12	Executing the initial transmission 1. Select [Service Mode] -> [CS Remote Care] -> [Subscribe]. 2. Select [Yes], and touch [OK] to start initial transmission.	

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

9.10.3 Service Engr ID

(1) Use

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

(2) Procedure

- Enter a 7-digit code using the software keyboard. (0000001 to 9999999)

9.10.4 Subscribe

- Not displayed when the machine is registered in the CS Remote Care center.

(1) Use

- Sent the information to the CS Remote Care center to register the machine.

(2) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Subscribe].
2. Press the Menu/Select key to start initial transmission.

9.10.5 Maintenance Start.

(1) Use

- Starts the maintenance using the CS Remote Care.
- Not displayed in the following cases.
  - The machine is not registered in the center.
  - The Service Engineer ID is not registered.
  - The maintenance is already provided.

(2) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance Start.].
2. Select [Yes], and touch [OK] to start the maintenance.

9.10.6 Maintenance End.

(1) Use

- Ends the maintenance provided by the CS Remote Care.
- Not displayed in the following cases.
  - The machine is not registered in the center.
  - The Service Engineer ID is not registered.
  - The maintenance is not provided.

(2) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Maintenance End.].
2. Select [Yes], and touch [OK] to finish the maintenance.

9.10.7 Manual Trans.

(1) Use

- Use when enabling the manual transmission for the CS Remote Care.
- Not displayed in the following cases.
  - The machine is not registered in the center.
  - The maintenance is already provided.

(2) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Manual Trans.].
2. Select [Yes], and touch [OK] to start manual transmission.

9.10.8 Basic Settings

(1) Center ID

(a) Use

- Registers and checks the Center ID for the CS Remote Care.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Basic Settings] -> [Center ID].
2. Touch [Center ID].
3. Enter the ID number using the software keyboard.

(2) WEB Server

(a) Use

- Registers and checks the Web Server which is used for communication with the CS Remote Care.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Basic Settings] -> [WEB Server].
2. Touch [WEB Server].
3. Enter the server address or domain name using the software keyboard.

(3) Encryption

(a) Use

- Sets whether or not to enable encryption for communication with the CS Remote Care.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Basic Settings] -> [Encryption].
2. Select [Yes] or [No], and touch [OK].

(4) Comm. Method

(a) Use

- Sets the communication method for the CS Remote Care.
  - Simplex: One-way communication
  - Duplex: Two-way communication

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [Basic Settings] -> [Comm. Method].
2. Select [Simplex] or [Duplex], and touch [OK].

9.10.9 WebDAV Settings

(1) Enable Proxy

(a) Use

- Sets whether or not to use the proxy server for communication with the CS Remote Care

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Enable Proxy].
2. Select [Yes] or [No], and touch [OK].

(2) Proxy Address

(a) Use

- Sets the proxy server address.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Proxy Address].
2. Touch [Proxy Address].
3. Enter the server address or domain name using the software keyboard.

(3) Proxy Port

(a) Use

- Sets the proxy server port number.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Proxy Port].
2. Touch [Number].

3. Enter the port number using the software keyboard.

(4) Proxy User Name

(a) Use

- Sets the user name of the proxy server.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Proxy User Name].
2. Touch [Proxy User Name].
3. Enter the user name using the software keyboard.

(5) Proxy Password

(a) Use

- Sets the proxy server password.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Proxy Password].
2. Touch [Proxy Password].
3. Enter the password using the software keyboard.

(6) Enable SSL

(a) Use

- Sets whether or not to enable SSL for communication with the CS Remote Care.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [Enable SSL].
2. Select [Yes] or [No], and touch [OK].

(7) WebDAV Auth.

(a) Use

- Sets whether or not to use the WebDAV server authentication for communication with the CS Remote Care.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [WebDAV Auth.].
2. Select [Yes] or [No], and touch [OK].

(8) WebDAV User Name

(a) Use

- Sets the user name used to access the WebDAV server.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [WebDAV User Name].
2. Touch [WebDAV User Name].
3. Enter the user name using the software keyboard.

(9) WebDAV Password

(a) Use

- Sets the password used to access the WebDAV server.

(b) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [WebDAV Settings] -> [WebDAV Password].
2. Touch [WebDAV Password].
3. Enter the password using the software keyboard.

9.10.10 CSRC Clock

(1) Use

- Sets the time for the time stamp used in the reports provided by the CS Remote Care.
- Not displayed in the following cases.
  The machine is registered in the center but the maintenance is not provided.

(2) Procedure

1. Select [Service Mode] -> [CS Remote Care] -> [CSRC Clock].
2. Select [Date], [Time] or [Time Zone].
3. Input the date, time or time zone, and touch [OK].

9.10.11 CSRC Settings

- Not displayed in the following cases.
  - The machine is not registered in the center.
  - The Service Engineer ID is not registered.
  - The maintenance is not provided.

(1) Heartbeat Settings

(a) Use

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

(2) Switches Settings

(a) Use

- To change the CS Remote Care settings.
- The items which can be set are as follows.

Retry Settings	Retry Count • Retransmission times on http communication error
	Retry Interval • Retransmission interval on http communication error
SC Error [SC]	
Specify Date [A5]	
Parts Life [TP]	
Warning [TT]	
Toner Rep. [TN]	
Waste Full [T0]	
Paper Jam Threshold.	
Originals Jam Threshold	
Manuscript Jam Threshold	
Paper Jam Warning	
Manuscript Jam Warning	
Jam History	

(3) Periodic Trans.

(a) Use

- Set the schedule of periodic transmission to the center.
- Select the notification interval from [Daily], [Weekly], or [Monthly].
  - When selecting [Daily] for the notification interval, set the [Time].
  - When selecting [Weekly] for the notification interval, set the [Time] and [Day of the Week].
  - When selecting [Monthly], set the [Time] and [Date].

(4) Fixed Date Trans.

(a) Use

- Set the schedule of fixed date transmission to the center.
- Set the transmission date and transmission time in [Fixed Date] and [Fixed Time] respectively.

(5) Report Settings

(a) Use

- Select the items of report data that will be sent to the center.
- The items of report data which can be set are as follows.
  - Sales Count/Error Count/Service Count/Life Count/System Data/History Data/Adjustment Data/Coverage Data

9.10.12 RAM Clear

(1) Use

- To reset the every setting data for CS Remote Care to the default settings.
- To be used for setting CS Remote Care.

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.**

9.10.13 CS Remote Care Operation under Enhanced Security Mode

CS Remote Care can be used even when "ON" is selected in [Administrator Settings] -> [Security Settings] -> [Enhanced Security Mode]. However, to keep the enhanced security level, the following restrictions are accompanied.

- Only SSL communication is available.
- Error occurs if the Center tries to send the following commands.
  - Command of reading and updating account track information

- Machine settings update command

9.11 Clear Admin Password

9.11.1 Clear Admin Password

(1) Use

- To initialize the administrator password (Default value: 12345678).
- Use this function when the administrator forget the administrator password.

NOTE

- **If the administrator password is initialized, after the initialization, immediately ask the administrator for a new administrator password and change the default value to the new password.**

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Clear Admin Password].
3. Touch [OK] on the confirmation screen to initialize the administrator password.

9.12 CE Password

9.12.1 CE Password

(1) Use

- To set and change the CE password.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [CE Password].
3. Touch [Password] of the upper section, and enter the 8-digit new CE password using the screen key board or the 10-key pad.
4. Touch [Password] of the lower section, and reenter the 8-digit new CE password using the screen key board or the 10-key pad.

NOTE

- **If Password Rules of Security Settings available from Admin Settings is set to "ON," the machine does not accept any new password that contains only the same character, consists of less than 8 digits, or that is the same as the previous password.**
- **In the CE password change display, enter the same CE password to the entry areas (upper and lower).**
- **For the CE Password, set a value other than the default.**
- **Quitting the Service Mode after the new password has been set will validate the setting of the new password.**
- **NEVER forget the CE password. When forgetting the CE password, call responsible person of KM.**

9.13 Soft Switch

9.13.1 Soft Switch

(1) Use

- To customize each function depending on the usage and situation using the softswitches (switches 7 and 11).

Soft Switch	Setting	Function	Description
Switch 7	159	Counter backup	Uses this switch when replacing the MFP board. G.4.4.3 MFP board (MFPB)
Switch 11	2	Copy kit counter function	Uses this switch to display [Copy Kit Counter Count] and [Copy Kit Counter] in [Billing Setting]. This function is not the key counter function.
	8	DT error detection under PBX environment	After off-hook, regardless whether the PBX setting is set to ON or OFF, if PDT (Ported Dial Tone) or DT (Dial Tone) is detected, dial tone detection (error detection) is not performed after outputting the external line connection number.
	10	* The two functions described above are enabled.	

NOTE

- **Using the other switches (1-6, 8-10, 12) except for those described above is prohibited. (Do not change the setting of the other switches.)**

9.14 Engine DipSW

9.14.1 Engine DipSW

(1) Use

- Set each switch for the printer engine.
- DipSW which can be set on this machine is shown below.

Switch No.	Function name	Ref. page
1	Not used	
2	Not used	
3 to 6	Not used	
7	Set the target for toner density when adjusting [Max Image Density Adj].	I.9.14.1.(3).(a) Set the target for toner density when adjusting [Max Image Density Adj]
8		
9 to 22	Not used	

Switch No.	Function name	Ref. page
23	Automatically detected size setting for tray 2	I.9.14.1.(3).(b) Automatically detected size setting for Tray 2/Tray 3
24	Automatically detected size setting for tray 3	
25 to 28	Not used	

(2) Procedure

1. Touch [Engine DipSW].
2. Select the No. with the corresponding key for the function to be set, and press [ON].
3. Touch [OK].

(3) Details of the function

(a) Set the target for toner density when adjusting [Max Image Density Adj]

- Change the target for the toner density when adjusting [Max Image Density Adj] to adjust the density.
- Use switches No.7 and No.8 on the Engine DipSW for setting.
- Combination of the target density of the toner and the switch numbers are shown below.

Toner density Switch No.	4.5 g (Default)	4.2 g	4.0 g	3.8 g
7	OFF	ON	OFF	ON
8	OFF	OFF	ON	ON

1. Touch [Service Mode] -> [Engine DipSW].
2. Refer to the combination chart and select the No. for the corresponding switch, and press [ON].
3. Touch [OK].
4. Touch [Service Mode] -> [Printer Adjustment] -> [Max Image Density Adj].
   NOTE
   - **Conducting setting shown above and touching [Max Image Density Adj] validates the setting.**
5. Finish service mode and turn the power switch OFF and ON again.

(b) Automatically detected size setting for Tray 2/Tray 3

- To set the paper size automatically detected in tray 2 or tray 3.
- Engine DipSW switch No. 23 and 24 are used for this setting.

Switch No.	Tray	Setting	Automatically detected size
23	Tray2	ON	16K
		OFF	Letter
24	Tray3	ON	16K
		OFF	Letter

9.15 Function

9.15.1 Comp. Check

(1) Use

- Checks the operation of each electrical component.
- The electrical components which can be checked are as follows.

Name	Electric parts name	Symbol
Check FB Motor	Scanner motor	M101
Check ADF Motor	Transport motor	M100
Check Pickup CL	Pick-up clutch	CL100
Check Scan CL	Registration clutch	CL101
Check Bring Paper SL	Pick-up solenoid	SD100
Check Duplex SL	Release solenoid	SD101
Check Lamp	Exposure lamp	LA1

NOTE
- **ADF motor check does not operate in the event of jam or when a cover is open.**

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Function] -> [Comp. Check].
3. Touch the key for electrical component of which operation is checked.
4. Touch [OK].
   The corresponding component starts to operate.
5. If the component is the one which can be stopped during its operation, you can press [Stop] to stop the operation.

9.15.2 Sensor Check/Scanner 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.

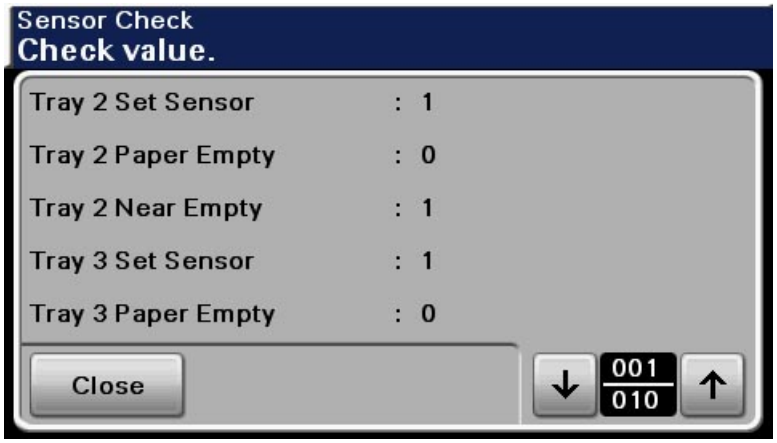
(a) Electrical components check procedure through input data check

- When a paper misfeed occurs in the paper feed section of the machine, the registration 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 registration sensor. For the registration sensor, you check the data of "Sensor in Front of Roller."
3. Call the Service Mode to the screen.
4. Select [Function] -> [Sensor Check] and then select the screen that contains " Sensor in Front of Roller."
5. Check that the data for "Sensor in Front of Roller" is "0" (sensor blocked).
6. Move the actuator to unblock the registration sensor.
7. Check that the data for "Sensor in Front of Roller" changes from "0" to "1" on the screen.
8. If the input data is "0," check the connection between the sensor and connector, and change the sensor.

(3) Sensor check display

- These are only typical screens which may be different from what are shown on each individual machine.



(a) Sensor check list

Panel display	Part name	Symbol	Operation characteristics/panel display	
			1	0
Tray 2 Set Sensor	Tray 2 set sensor	PS6	In position	Out of position
Tray 2 Paper Empty	Tray 2 paper empty sensor	PS4	Paper not present	Paper present
Tray 2 Near Empty	Tray 2 paper near empty sensor	PS7	Near empty	Not near empty
Tray 3 Set Sensor	Tray 3 set sensor	PS13	In position	Out of position
Tray 3 Paper Empty	Tray 3 paper empty sensor	PS11	Paper not present	Paper present
Tray 3 Near Empty	Tray 3 paper near empty sensor	PS14	Near empty	Not near empty
Tray 3 Vertical Transport	Tray 3 vertical transport sensor	PS18	Paper not present	Paper present
Tray 4 Set Sensor	Tray 4 set sensor	PS41	In position	Out of position
Tray 4 Paper Empty	Tray 4 paper empty sensor	PS44	Paper not present	Paper present
Tray 4 Near Empty	Tray 4 paper near empty sensor	PS42	Near empty	Not near empty
Tray 4 Vertical Transport	Tray 4 vertical transport sensor	PS45	Paper not present	Paper present
Tray 5 Set Sensor	Tray 5 set sensor	PS51	In position	Out of position
Tray 5 Paper Empty	Tray 5 paper empty sensor	PS54	Paper not present	Paper present
Tray 5 Near Empty	Tray 5 paper near empty sensor	PS52	Near empty	Not near empty
Tray 5 Vertical Transport	Tray 5 vertical transport sensor	PS55	Paper present	Paper not present
Bypass Paper Empty	Tray 1 paper empty sensor	PS25	Paper not present	Paper present
Sensor in Front of Roller	Registration sensor	PS1	Paper present	Paper not present

Panel display	Part name	Symbol	Operation characteristics/panel display	
			1	0
Paper Exit	Paper exit sensor	PS29	Paper present	Paper not present
Lift-Up Position Sensor	Tray 1 lift-up position sensor	PS20	At raised position	Not at raised position
Tray 2 Paper Feed Sensor	Tray 2 paper feed sensor (bizhub 42 only)	PS5	Paper present	Paper not present
Tray 3 Paper Feed Sensor	Tray 3 paper feed sensor (bizhub 42 only)	PS12	Paper present	Paper not present
ADU Sensor 1	Duplex transport sensor /1	PS27	Paper present	Paper not present
ADU Sensor 2	Duplex transport sensor /2	PS28	Paper present	Paper not present
Toner Bottle Home Sensor	Toner bottle home sensor	PS2	At home	Not at home
Tray 3 Lift-Up Upper	Tray 3 upper limit sensor	PS10	Raised Position	Not raised
Tray 4 Lift-Up Upper	Tray 4 upper limit sensor	PS43	Raised Position	Not raised
Tray 5 Lift-Up Upper	Tray 5 upper limit sensor	PS53	Raised Position	Not raised
Multi FD Size 1	Tray 1 paper FD size sensor /1	PS22	Paper present	Paper not present
Multi FD Size 2	Tray 1 paper FD size sensor /2	PS23	Paper present	Paper not present
Multi FD Size 3	Tray 1 paper FD size sensor /3	PS24	Paper present	Paper not present
Bypass Paper Detection	Tray 1 paper sensor	PS21	Paper present	Paper not present
Tray 2 Lift-Up Upper	Tray 2 upper limit sensor	PS3	Raised Position	Not raised
Paper Passage 1	Paper passage sensor/1	PS1	Paper present	Paper not present
Paper Passage 2	Paper passage sensor/2	PS10	Paper present	Paper not present
Belt Position	Belt position sensor	PS13	At home	Not at home
FD Stopper Detection	Leading edge stopper home sensor	PS14	ON	OFF
Align HP Sensor (Front)	Alignment plate home sensor/F	PS8	At home	Not at home
Alignment HP Sensor (Rear)	Alignment plate home sensor/R	PS9	At home	Not at home
Batch Exit Tray Sensor	Paper empty sensor	PS7	Paper present	Paper not present
Pickup Roller Position	Pick up roller position sensor	PS12	No electricity restrictions	Electricity restrictions
Stapler Home	-	-	At home	Not at home
Self Prime	-	-	Staple	No staple
Staple Empty	-	-	No staple	Staple
Staple Slide HP	Stapler home sensor	PS11	At home	Not at home
Surface Detect Sensor 1	Paper surface detect sensor/1	PS2	Blocked	Unblocked
Surface Detect Sensor 2	Paper surface detect sensor/2	PS3	Blocked	Unblocked
Tray Lower Limit Sensor	Tray lower limit sensor	PS6	At lower limit position	Not at lower limit position
Tray Up/Down Operation	Tray up/down operation sensor	PS4	Blocked	Unblocked
Front Cover Switch	Front door switch	SW1	Closed	Open
Fan Lock Detection	Fan motor	FM1	Lock	Other than lock

(b) Scanner sensor check list

Panel display	Part name	Symbol	Operation characteristics/panel display	
			1	0
FB Home Sensor	Scanner home sensor	REYB102	At home	Out of home
ADF Pickup Sensor	Pick-up sensor	PS101	Paper present	Paper not present
ADF Doc Sensor	Document sensor	PS102	Paper present	Paper not present
ADF Deskew Sensor	Registration sensor	REYB100	Paper present	Paper not present

Panel display	Part name	Symbol	Operation characteristics/panel display	
			1	0
ADF Paper Out Sensor	Before read sensor	REYB101	Paper present	Paper not present
ADF Cover Sensor	ADF door sensor	PS100	Open	Close
ADF Paper Gap Sensor	Paper interval sensor	PS103	Paper present	Paper not present

9.15.3 Finisher Check

(1) Use

- Use this adjustment to check finisher's operation.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Function] -> [Finisher Check].
3. Select the item to check the operation.
4. Touch [Execute] to start finisher operation.
5. Touch [Stop] to stop ongoing finisher operation.

(3) Items

- Stapler Movement
- Alignment Plate F/R Movement
- Tray Up/Down Operation
- FD Stopper Operation
- Exit Roller Retraction
- Paper Roller Retraction
- Conveyance Drive
- Paper Surface Detect Solenoid
- Padding Belt Up/Down
- Paddle 1 Rotate Solenoid Drive

9.16 Enable Warning

9.16.1 Toner Low

(1) Use

- Specifies whether or not a warning appears when the toner is about to run out.

(2) Default setting

- “OFF”

(3) Setting item

- ON
- "OFF"

9.17 Toner Change

9.17.1 Use

- To select who is to replace a toner bottle.
- When the toner life arrives, the warning display is intended for the specific person who is going to replace the toner bottle.
- Upon setup.

9.17.2 Default setting

- User

9.17.3 Setting item

- “User”
- Service

9.18 Loadable Driver Information

9.18.1 Use

- Display the information about the loadable driver that installed in the machine.
- To delete the loadable driver that installed in the machine.
  - Status : Present state of the loadable driver

Installed	The loadable driver is installed in the machine, and the corresponding IC card reader is operable.
Not Installed	The loadable driver is not installed in the machine.

  - Product Name : Product name of the IC card reader

- Serial Number : Serial number of the IC card reader
- Version : Firmware version of the IC card reader
- Manufacturer : Manufacturer of the IC card reader

9.18.2 Procedure

1. Call the Service Mode to the display.
2. Touch [Loadable Driver Information].
3. Loadable driver information will be displayed.
4. To delete the loadable driver, touch [Delete].
5. Select [Yes] and touch [OK] on the confirmation screen to delete the loadable driver.
6. Turn OFF and ON the power switch, and reboot the machine.

9.19 Loadable Driver Download

9.19.1 Use

- To download the loadable driver to the machine.
- For downloading, use a USB memory device.

9.19.2 Procedure

(1) System requirements

- PC equipped with a USB port
- USB memory device

9.19.3 Saving the loadable driver data into the USB memory device

1. Save the loadable driver 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
4. Copy the loadable driver (***.bin) in the firmware folder created in step 3.

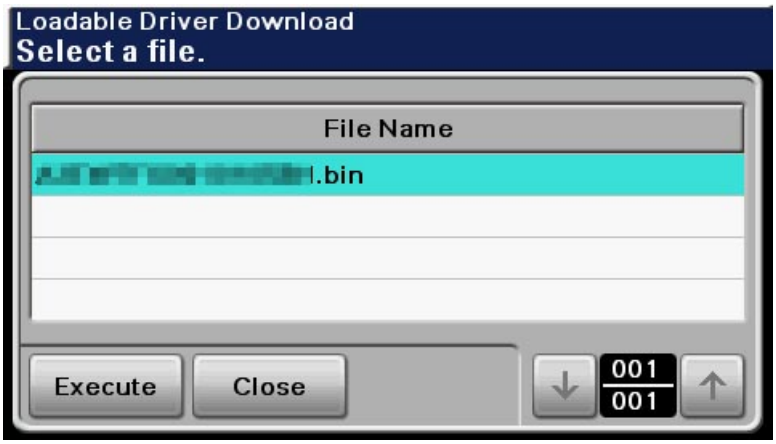
NOTE

- **Be sure to save the loadable driver date in "drive:/firmware/***.exe."**

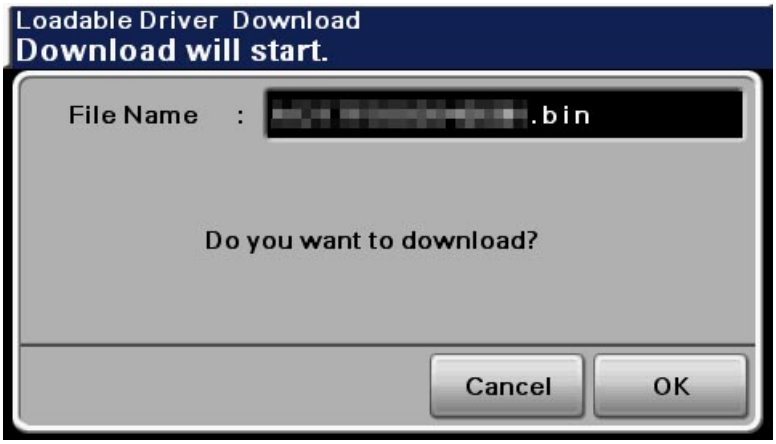
9.19.4 How to download loadable driver data

1. Turn the power switch ON.
2. Connect the USB memory device to the printer.
3. Call the Service Mode to the display.
4. Display [005/006] screen of the Service Mode.

5. Touch [Loadable Driver Download].
6. The loadable driver data list in the USB memory device will be displayed.

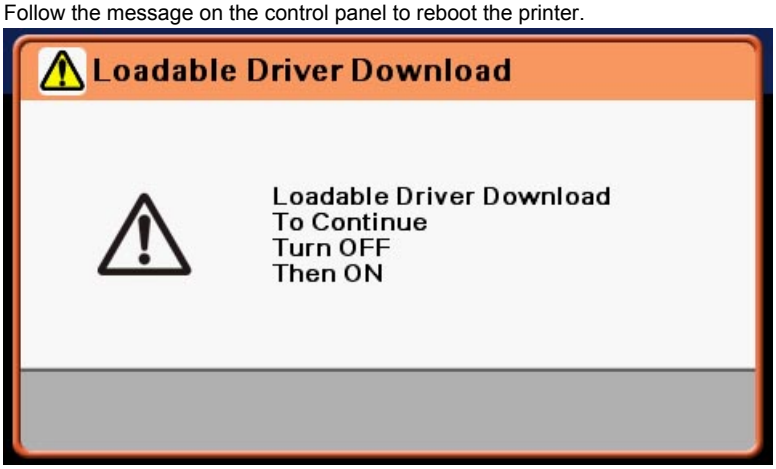


7. Select the loadable driver data to be downloaded, and touch [Execute].
8. Touch [OK].



9. The loadable driver downloading procedure starts.
NOTE
- **NEVER disconnect the USB memory device from the printer during the loadable driver downloading procedure.**

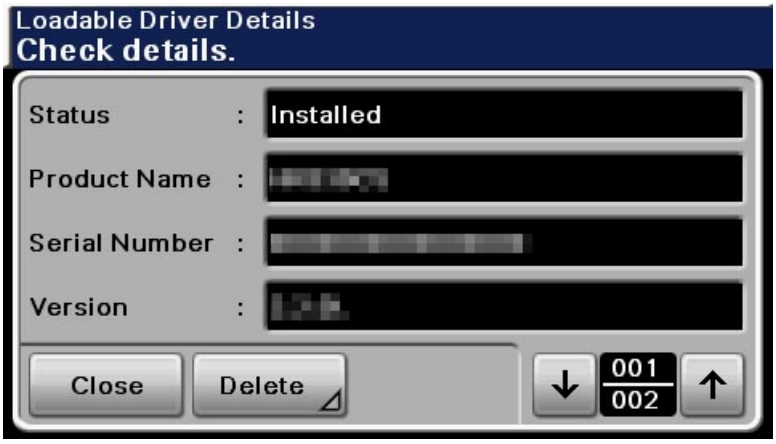
10. Follow the message on the control panel to reboot the printer.



9.19.5 Deleting procedure

1. Turn the power switch ON.
2. Call the Service Mode to the display.
3. Display [004/005] screen of the Service Mode.

4. Touch [Loadable Driver Information].
5. Touch [Delete].



6. Select [Yes] on the confirmation screen and touch [OK].
7. Follow the message on the control panel to reboot the printer.

9.20 System Settings

9.20.1 Installation Date

(1) Use

- To register the date the main unit was installed.
- The preset installation date can be reset.
- If an installation date is not specified in this setting, the time when the installed machine has printed 100 sheets automatically takes effect as the installation date.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [System Settings] -> [Installation Date].
3. The screen shows the current date and the preset installation date if it is specified.
4. Touch [Installation Date], and enter a new installation date. (To enter the current date as the installation date, this step is unnecessary.)
5. Touch [Register] to set the installation date.

9.20.2 Sleep ON/OFF Choice Setting

(1) Use

- To display [Sleep Mode Setting] which can be displayed by touching [Utility] -> [Admin Settings].
- Used when displaying [Sleep Mode Setting].

(2) Default setting

- Restrict

(3) Setting item

- Allow
- “Restrict”

9.20.3 Foolscap Size Setting

(1) Use

- To set the size for foolscap paper.
- Upon setup.
- Select the size from among the six types.

(2) Default setting

- Foolscap

(3) Setting item

- Govt Legal, Folio, 8 1/2 x 13 1/2, “Foolscap” , 8 1/8x13 1/4, 220mm x 330mm

9.20.4 Machine State LED Setting

(1) Use

- To set how to display main body statuses on the machine state LED (state display lamp, paper empty lamp).

Display item	Type 1	Type 2	Sleep mode
Amount of paper remaining is 100 % to near empty	Unlit	Unlit	Unlit
Near empty	Blinking	Unlit	Unlit
Empty	Lit	Lit	Unlit
Paper tray operation	Unlit	Unlit	Unlit

Display item	Type 1	Type 2	Sleep mode
• Being lifted up • Cover/door open • Cover/door close			

(2) Setting item

- Type 1: LED blinking at paper near empty status
- Type 2: LED unlitting at paper near empty status

9.20.5 Auto Drum Dry

(1) Use

- To set whether to enable or disable auto drum dry that makes the PC motor rotate for a specified period of time when the machine is turned ON after it has not been used for long hours.
- Use this function if the problem of uneven density occurs with the machine that has not been used for long hours.

(2) Default setting

- OFF

(3) Setting item

- ON
- “OFF”

9.20.6 Fluor Flicker Control

(1) Use

- Sets the heater lamp lighting control so that it implements the flicker standards.
- To use when flickering from fluorescent light occurs.
- Yes: Control flickering
- No: Not control flickering

(2) Default setting

- No

(3) Setting item

- Yes
- “No”

9.20.7 Marketing area

(1) Use

- To make the various settings (language, paper size, fixed zoom ratios, etc.) according to the applicable marketing area.
- Use this during setup procedures.

(2) Default setting

- The default setting varies depending on the marketing area.

(3) Setting item

- Japan
- US
- Europe

9.21 Finisher Settings

9.21.1 Alignment Plate Position (Back) / Alignment Plate Position (Side)

(1) Use

- When FS-529 is installed, use this feature to fine adjust the aligning plate that aligns ejected paper.

(2) Default setting

- 0.0 mm

(3) Setting range

- -10.0 mm to +10.0 mm (1 step: 0.1 mm)

(4) Procedure

1. Call the Service Mode to the screen.
2. Touch [Finisher Settings].
3. Select the [Alignment Plate Position (Back)] or [Alignment Plate Position (Side)].
4. Set and adjust a value with the [+]/[-] key.
5. Touch [OK].
6. Touch [Close] on the Service Mode screen.

7. Turn OFF the power switch, wait for 10 sec., then turn the switch ON.

9.22 Service Fax Settings

9.22.1 Restrict Fax TX

(1) Use

- Set whether to enable or disable G3 Fax transmission.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.22.2 Restrict Fax RX

(1) Use

- Set whether to enable or disable G3 Fax reception.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.22.3 Restrict PC-Fax TX

(1) Use

- Set whether to enable or disable PC-Fax transmission.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.22.4 TX Speed

(1) Use

- Set the transmission starting speed.

(2) Default setting

- 33600bps

(3) Setting item

- 2400bps, 4800bps, 7200bps, 9600bps, 12000bps, 14400bps, 16800bps, 19200bps, 21600bps, 24000bps, 26400bps, 28800bps, 31200bps, "33600bps"

9.22.5 RX Speed

(1) Use

- Set the max. reception speed.

(2) Default setting

- 33600bps

(3) Setting item

- 2400bps, 4800bps, 7200bps, 9600bps, 12000bps, 14400bps, 16800bps, 19200bps, 21600bps, 24000bps, 26400bps, 28800bps, 31200bps, "33600bps"

9.22.6 ECM RX OFF

(1) Use

- Set whether or not to cancel reception ECM (error correction mode).

Yes	Ignores all errors that occur during communication.
No	If an error occurs during communication, retransmits the frame, in which the error occurred.

NOTE
- **If "Yes" is selected, select Yes for RX V34 OFF and MR or MH for the coding system.**

(2) Default setting
- No

(3) Setting item
- Yes
- "No"

9.22.7 Redial V34 Dis.
(1) Use
- Set whether to enable or disable V.34 communication when redialing after a communication error.

(2) Default setting
- ON

(3) Setting item
- "ON"
- OFF

9.22.8 RX V34 OFF
(1) Use
- Set V34 OFF during reception.

(2) Default setting
- No

(3) Setting item
- Yes
- "No"

9.22.9 V17 Mod. Permit.
(1) Use
- Set whether to enable or disable the V.17 modulation/demodulation mode.

(2) Default setting
- ON

(3) Setting item
- "ON"
- OFF

9.22.10 Retry Start Pg
(1) Use
- Set whether, during redial, to start with the first page or the page in which an error occurs during the transmission.

(2) Default setting
- Error Page

(3) Setting item
- 1st Page
- "Error Page"

9.22.11 DT Detect
(1) Use
- Set whether or not to detect the dial tone before dialing.
- No transmission is executed if the dial tone is not detected.

(2) Default setting
- ON

(3) Setting item
- "ON"
- OFF

9.22.12 BT Detect

(1) Use

- Set whether or not to detect the busy tone.

(2) Default setting

- ON

(3) Setting item

- "ON"
- OFF

9.22.13 Cable Equalize

(1) Use

- Set the cable equalizer setting value.
- Adjust this when communication fails.

(2) Default setting

- 0Km

(3) Setting item

- "0Km"
- 1.8Km
- 3.6Km
- 7.2Km

9.22.14 Echo Measure

(1) Use

- Set whether or not to take the echo measure.
- Adjust this when communication fails.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.22.15 CFR to Phase C

(1) Use

- Set the wait time between CFR and phase C.
- Adjust this when communication fails.

(2) Default setting

- 400

(3) Setting range

- 10 to 1000 ms (Step: 10)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [CFR to Phase C].
3. Use [+]/[-] key on the screen to set the wait time and touch [OK].

9.22.16 TX Level

(1) Use

- Set the transmission level.
- Adjust this when communication fails.

(2) Default setting

- -10

(3) Setting range

- -15 to -4db (Step: 1)

(4) Procedure

1. Call the Service Mode to the display.

2. Touch [Service Fax Settings] -> [TX Level].
3. Use [+]/[-] key or 10-key pad on the screen to set the transmission level and touch [OK].

9.22.17 Connect. Timeout

(1) Use

- Set the T0 timer (call connection wait time).
- Adjust this when communication fails.

(2) Default setting

- 55

(3) Setting range

- 30 to 120 s (Step: 1)

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Connect. Timeout].
3. Use [+]/[-] key or 10-key pad on the screen to set the call connection wait time and touch [OK].

9.22.18 CED Level

(1) Use

- Set the answer tone output level.

(2) Default setting

- -43db

(3) Setting item

- -35db, -36db, -37db, -38db, -39db, -40db, -41db, -42db, "-43db", -44db, -45db

9.22.19 eRTN %

(1) Use

- Set the RTN transmission reference.

(2) Default setting

- 10

(3) Setting item

- 1, 2, 3, 4, 5, “10”, 15, 20

9.22.20 V34 Symbol Rate

(1) Use

- Set the V34 symbol rate.

(2) Default setting

- 3429

(3) Setting item

- 2400
- 2800
- 3000
- 3200
- "3429"

9.22.21 Data Format

(1) Use

- Set the coding system for communication.

(2) Default setting

- JBIG

(3) Setting item

- MH
- MR
- MMR
- "JBIG"

9.22.22 V34 Tran.Pt

(1) Use

- Set the number of training points for V.34 communication.

(2) Default setting

- Auto

(3) Setting item

- "Auto"
- 16 pts
- 4 pts

9.22.23 Fax Target

(1) Use

- Set the region (country) in which the machine is installed.
- Use this during setup procedures.

(2) Default setting

- U.S.A

(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, Europe

9.22.24 Fax Factory Default

(1) Use

- Initialize the fax settings (not including the address book).

(2) Default setting

- No

(3) Setting item

- Yes
- "No"

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Fax Factory Default].
3. Select [Yes], and touch [OK].
4. Initialization is started.
5. The settings are initialized.

9.22.25 Fax Image Initialized

(1) Use

- Delete all data (jobs) saved in the fax transmission/reception area for initialization. (The address book is not included.)

(2) Default setting

- No

(3) Setting item

- Yes
- "No"

(4) Procedure

1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Fax Image Initialized].
3. Select [Yes], and touch [OK].
4. Initialization is started.
5. All saved data (jobs) are deleted and the machine is automatically restarted.

9.22.26 Fax Maint.

(1) Use

- Check a signaling tone by connecting the machine to the line to output a test signal of the fax board.
- The signaling tone can be checked with a monitor speaker.

NOTE
- **"Until Connection Complete" or "Until Transmission Complete" must be selected for [Admin Settings] -> [Fax Settings] -> [Comm. Settings] -> [Line Monitor].**

(2) Default setting
- G3 Maint Off-Hook

(3) Setting item
- "G3 Maint Off-Hook", G3 Maint CED, G3 Maint CNG, G3 Maint Ansam, G3 Maint Ringtone, G3 Maint DTMF, G3 Maint Modem, G3 Maint Stop

(4) Procedure
1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Fax Maint.].
3. Select the signal to be checked and touch [OK].
4. Check the signaling tone.
5. Touch [Fax Maint.].
6. Select [G3 Maint Stop] and touch [OK] to stop the signaling tone.
7. Following the same steps, check other signaling tones.

9.22.27 DTMF Test
(1) Use
- Select the type of signal transmission at the start of the DTMF test.

(2) Default setting
- 0

(3) Setting item
- "0", 1, 2, 3, 4, 5, 6, 7, 8, 9, *, #

9.22.28 Modem Test
(1) Use
- Select the type of signal transmission at the start of the modem test.

(2) Default setting
- V.34 (33600bps)

(3) Setting item
- "V.34 (33600bps)", V.34 (28800bps), V.17 (14400bps), V.17 (12000bps), V.17 (9600bps), V.17 (7200bps), V.29 (9600bps), V.29 (7200bps), V.27 (4800bps), V.27 (2400bps), V.21 (300bps)

9.22.29 Fax Diagnostics Code
(1) Use
- Set the fax diagnostics code.
- Use to describe the error code in the communication management journal.

(2) Default setting
- OFF

(3) Setting item
- ON
- "OFF"

9.22.30 Data Dmp. List
(1) Use
- Print the data dump list (protocol report) of G3 fax.

(2) Procedure
1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Data Dmp. List].
3. Select [Print], and touch [OK].
4. The data dump list is printed.

9.22.31 Fax EventLog
(1) Use
- Print the event log list of G3 fax.

(2) Procedure

1. Call the Service Mode to the display.
2. Touch [Service Fax Settings] -> [Fax EventLog].
3. Select [Print], and touch [OK].
4. The event log list is printed.

9.22.32 Restrict Internet Fax TX

(1) Use

- Set whether or not to prohibit transmission of internet fax.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.22.33 Restrict Internet Fax RX

(1) Use

- Set whether or not to prohibit reception of internet fax.

(2) Default setting

- OFF

(3) Setting item

- ON
- "OFF"

9.23 Trouble Reset

9.23.1 Use

- If the error occurs and the status would not be cleared by turning power switch OFF and ON again, clear the status of the machine.

9.23.2 Procedure

- For details, refer to “Trouble resetting procedure”.

9.24 Life Stop Setting

9.24.1 Use

- To select whether or not to stop a print cycle when the drum unit, developing unit, developer or fusing unit reaches its service life.

9.24.2 Default setting

- ON

9.24.3 Setting item

- “ON”
- OFF

10. BILLING SETTING

10.1 List of billing setting

- The function tree is shown to comply with the format displayed on the screen.

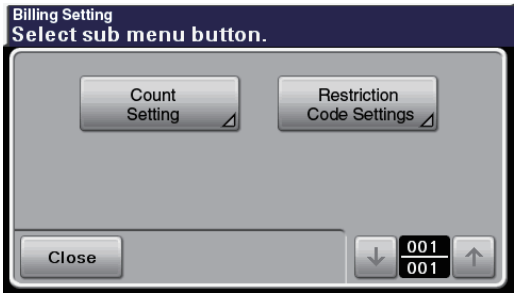
Service Mode			Ref. page
Billing Setting	Count Setting	Count Mode	I.10.3.1 Count Mode
		Large Paper size Mode	I.10.3.2 Large Paper size Mode
	Restriction Code Settings		I.10.4 Restriction Code Settings
	Copy Kit Counter Count *		I.10.5 Copy Kit Counter Count
	Copy Kit Counter *	Current Count Value	I.10.6.1 Current Count Value
		Alarm Setting	I.10.6.2 Alarm Setting
		Max. Allowance Set	I.10.6.3 Max. Allowance Set

- *: This function is not the key counter function. It will be displayed depending on "I.9.13 Soft Switch" setting.

10.2 Starting/Exiting

10.2.1 Starting procedure

1. Call the Service Mode to the display.
2. Press the following keys in this order.; Stop -> 2 -> 2 -> 2 -> 0 -> 0
3. Billing Setting display will appear.



10.2.2 Exiting procedure

- Touch the [Close].

10.3 Count Setting

10.3.1 Count Mode

(1) Use

- To set the counting method for the total counter and size counter.
- Use to change the counting method for the counters.

(2) Procedure

- The default setting is depend on the marketing area.
  - Mode 1: 1 count per 1 copy cycle (Default: Japan)
  - Mode 2: Large size is double counts (Default: US, Europe, Asian pacific and other areas)

10.3.2 Large Paper size Mode

(1) Use

- To set the size regarded as the large size (2 counts.)

(2) Procedure

- The default setting is depend on the marketing area.
  - Large Paper size Mode 0: Not counted - Never regard any size as the large size (Default: Japan)
  - Large Paper size Mode 1: Regard A3/11 x 17 or more size as the large size. In this machine, it is virtually no different than [Large Paper size Mode 0]. (Default: US)
  - Large Paper size Mode 2: Regard 81/2 x 14 or more size as the large size. When it exceeds 215.9 mm in the main scan direction and 355.6 mm in the sub scan direction (exceeds 337.8 mm at fax scan) (Default: Europe, Asian pacific)
  - Large Paper size Mode 3: Regard Foolscap or more size as the large size. When it exceeds 203 mm in the main scan direction and 330 mm in the sub scan direction (exceeds 313.5 mm at fax scan)

10.4 Restriction Code Settings

- 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.

10.5 Copy Kit Counter Count

- This function is not the key counter function.

- It will be displayed depending on "I.9.13 Soft Switch" setting.

10.5.1 Use

- To switch the mode of copy kit counter.

10.5.2 Default setting

- "Mode 1"

10.5.3 Setting item

- Mode 1: The copy kit counter does not count up the number of prints from the current value.
- Mode 2: The copy kit counter counts up the number of prints from the current value. The settings configured in [Alarm Setting] and [Max. Allowance Set] take effect.

10.6 Copy Kit Counter

- This function is not the key counter function.
- It will be displayed depending on "I.9.13 Soft Switch" setting.

10.6.1 Current Count Value

(1) Use

- To display or clear the current count value.

(2) Procedure

- Touch [Clear] to clear the count value.

10.6.2 Alarm Setting

(1) Use

- To set the count value at which an alarm is sounded.

(2) Procedure

- Setting range: 0 to 9999999
- Set the value using the [+]/[-] key or the 10-key pad.

10.6.3 Max. Allowance Set

(1) Use

- To set the maximum count value.

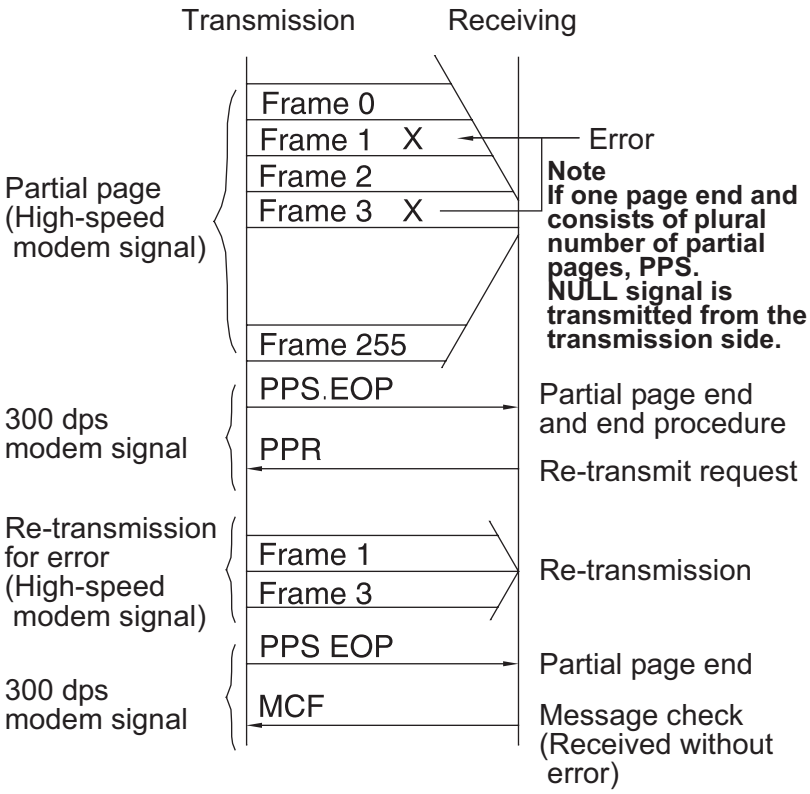
(2) Procedure

- Setting range: 0 to 9999999
- Set the value using the [+]/[-] key or the 10-key pad.

11. FAX PROTOCOLS

11.1 G3 ECM (G3 Error Correction Mode)

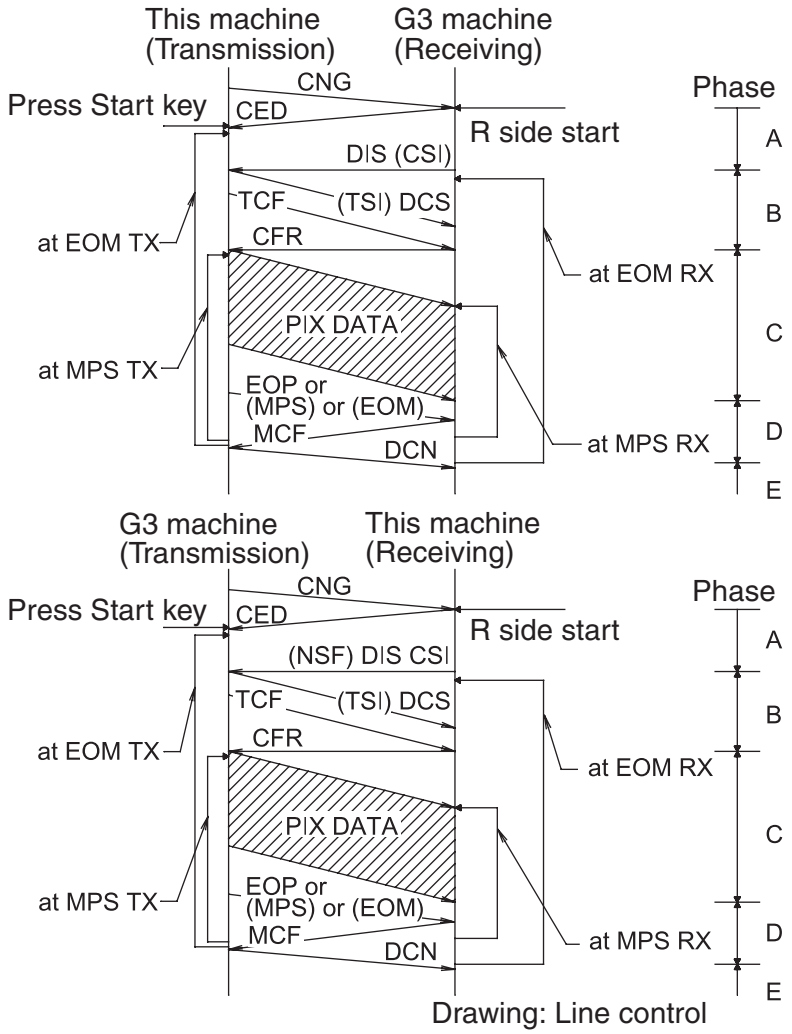
- G3 ECM is the error correction system newly recommended by consultative committee of international telephone & telegraph of 1988.
- By G3 ECM, documents are divided into blocks (called partial page) for transmission. If any error takes place in any frame (one partial page consists of 256 frames at 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:



11.2 Line control

11.2.1 Procedure of G3 mode communication

- Basic communications diagram of G3 mode.



Drawing: Line control

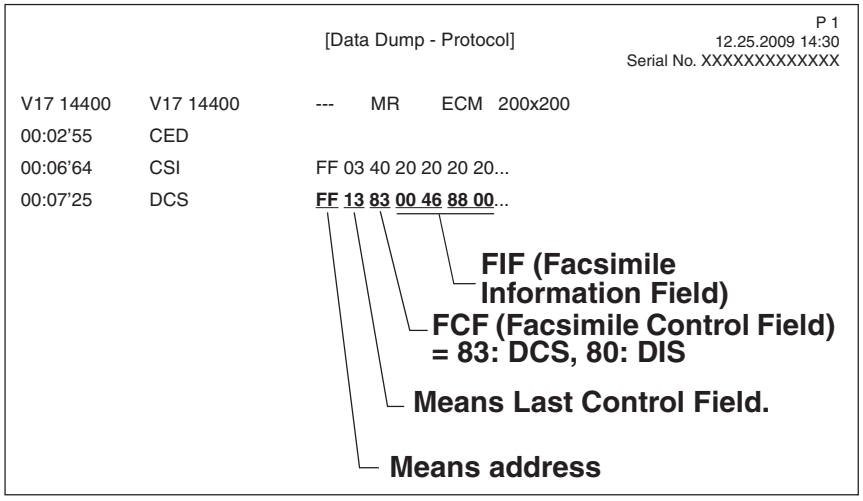
11.3 Table of reference code

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.

11.4 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							
	0				0				4				6			
Data bit	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0
Bit No.	8	7	6	5	4	3	2	1	16	15	14	13	12	11	10	9
Note										↑			↑	↑		

HEX	2															
	8				8				0				0			
Data bit	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Bit No.	24	23	22	21	20	19	18	17	32	31	30	29	28	27	26	25
Note					↑	↑										

Note:
Bit No.11= 1, Bit No.12=0 7200 bps
Bit No.15= 1 R8 x 7.7 Lines/mm (Fine Mode)
Bit No.19= 0, Bit No.20=1 Unlimited Paper Length

- Hex-binary conversion list

Hex	Binary				Hex	Binary				Hex	Binary				Hex	Binary			
0	0	0	0	0	4	0	1	0	0	8	1	0	0	0	C	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	A	1	0	1	0	E	1	1	1	0
3	0	0	1	1	7	0	1	1	1	B	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		Invalid
7	Flame size	"0" = 256 octets preferred "1"= 64 octets preferred	Invalid
8	Set to "0"		
9	"0"= Invalid "1"= Ready to transmit a facsimile document (polling)		Set to "0"
10	"0"= Invalid "1"= Receiver fax operation		

11	Data signalling rate	Bit No. 14	13	12	11	Data signalling rate	Bit No. 14	13	12	11	Data signalling rate
12		0	0	0	0	V.27 ter fall-back mode	0	0	0	0	2400 bit/s, rec. V.27ter
		0	0	0	1	Rec. V.29	0	0	0	1	9600 bit/s, rec. V.29

Bit No.	Designation	DIS/DTC					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
13		0	1	0	1	Not used	0	1	0	1	Reserved
		0	1	1	0	Reserved	0	1	1	0	Invalid
		0	1	1	1	Reserved	0	1	1	1	Reserved
		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
14		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
		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/or 200 x 200 pels/25.4 mm										
16	"0"= Invalid "1"= Two-dimensional coding capability						"0"= Invalid "1"= Two-dimensional coding				

17	Recording width capabilities	Bit No.		Data signaling rate	Bit No.		Data signaling rate
18		18	17		18	17	
		0	0	Scan line length 215 mm ± 1%	0	0	Scan line length 215 mm ± 1%
		0	1	Scan line length 215 mm ± 1% and scan line length 255 mm ± 1%	0	1	Scan line length 255 mm ± 1%
		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	Invalid	1	1	Invalid

19	Recording length capability	Bit No.		Recording length capability	Bit No.		Recording length capability
20		20	19		20	19	
		0	0	A4 (297 mm)	0	0	A4 (297 mm)
		0	1	A4 (297 mm) and B4 (364 mm)	0	1	B4 (364 mm)
		1	0	Unlimited	1	0	Unlimited
		1	1	Invalid	1	1	Invalid

21 22	Minimum scan line time capability at the receive	Bit No.			Minimum scan line time	Bit No.			Minimum scan line time
23		23	22	21		23	22	21	
		0	0	0	20 ms at 3.85 1/mm: T 7.7 = T 3.85	0	0	0	20 ms
		0	0	1	5 ms at 3.85 1/mm: T 7.7 = T 3.85	0	0	1	5 ms
		0	1	0	10 ms at 3.85 1/mm: T 7.7 = T 3.85	0	1	0	10 ms
		0	1	1	20 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85	1	0	0	40 ms
		1	0	0	40 ms at 3.85 1/mm: T 7.7 = T 3.85	1	1	1	0 ms
		1	0	1	40 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85				
		1	1	0	10 ms at 3.85 1/mm: T 7.7 = 1/2 T 3.85				
		1	1	1	0 ms 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
29	Set to "0"	

Bit No.	Designation	DIS/DTC	DCS
30	Set to “0”		
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”		
40	Extend field	“0”= Without “1”= With	
41	“0”= Invalid “1”= R8 x 15.4 lines/mm		
42	“0”= Invalid “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 resolution 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 capability		“0”= Invalid “1”= Sub addressing transmission
50	“0”= Invalid “1”= Password/ Sender identification capability (DIS)/ Password transmission (DTC)		“0”= Invalid “1”= Sender identification transmission
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	Set to “0”		
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”		“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	“0”= Invalid “1”= Custom illuminant		
75	“0”= Invalid “1”= Custom gamut range		
76	“0”= Invalid “1”= North American letter (215.9 mm × 279.4 mm) capability		“0”= Invalid “1”= North American letter (215.9 mm × 279.4 mm)
77	“0”= Invalid “1”= North American Legal (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 sequential encoding, basic capability		“0”= Invalid “1”= Single layer sequential encoding, basic
79	“0”= Invalid “1”= Single layer sequential encoding, optional L0 capability		“0”= Invalid “1”= Single layer sequential encoding, optional L0
80	Extend field	“0”= Without “1”= With	
81	“0”= Invalid “1”= HKM key management capability		“0”= Invalid “1”= HKM key management selected
82	“0”= Invalid “1”= RSA key management capability		“0”= Invalid “1”= RSA key management selected
83	“0”= Invalid “1”= Override mode capability		“0”= Invalid “1”= Override mode selected
84	“0”= Invalid “1”= HFX40 code capability		“0”= Invalid “1”= HFX40 code selected
85	“0”= Invalid “1”= Alternative code number 2 capability		“0”= Invalid “1”= Alternative code number 2 selected
86	“0”= Invalid “1”= Alternative code number 3 capability		“0”= Invalid “1”= Alternative code number 3 selected
87	“0”= Invalid “1”= HFX40-1 hashing capability		“0”= Invalid “1”= HFX40-1 hashing selected
88	Extend field	“0”= Without “1”= With	
89	“0”= Invalid “1”= Alternative hashing system number 2 capability		“0”= Invalid “1”= Alternative hashing system number 2 selected
90	“0”= Invalid “1”= Alternative hashing system number 3 capability		“0”= Invalid “1”= Alternative hashing system number 3 selected
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	

12. MECHANICAL ADJUSTMENT bizhub 42/36

12.1 Paper feed section

12.1.1 Skew adjustment of the tray 2/3

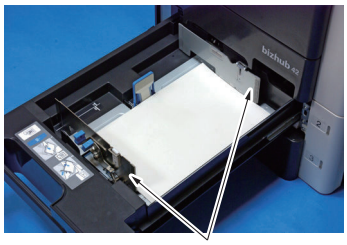
(1) Purpose

This adjustment must be made in the following case:

- To reduce paper skew that is within the specifications and that cannot be corrected by [Service Mode] -> [Printer Adjustment] -> [Printer Reg Loop Adj.] in the intended tray.

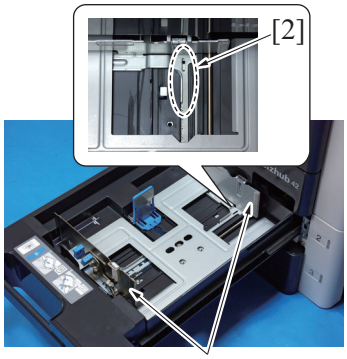
(2) Purpose

1. Pull out the tray where this adjustment is made.



[1]

2. Load the tray with the paper.
3. Move the set of the paper guides [1] until no gap is produced between the both ends of paper and the paper guides.



[2]

[1]

4. Remove the paper from the tray.
5. Insert the screw (M3 X 8 mm: V121 0308 04) into the hole [2] and tighten it to fasten the paper guides [1] to the tray.

12.1.2 Centering adjustment of the tray 2/3

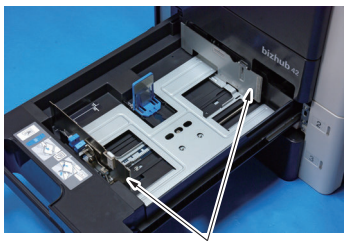
(1) Purpose

This adjustment must be made in the following case:

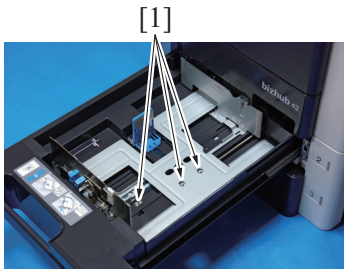
- When an image printed on a copy is displaced from the correct position with the use of the tray 2/3.

(2) Purpose

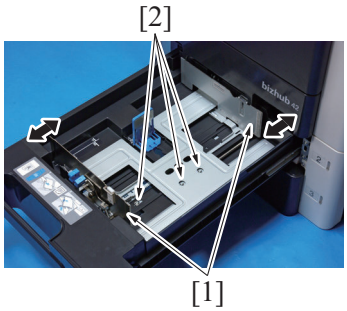
1. Make a test print and check the amount of misalignment.
2. Pull out the tray where this adjustment is made.
3. Stretch the paper guides [1] to the maximum size position.



[1]



4. Loosen three screws [1].



5. Move the paper guides [1] complete according to the amount of the mis-centering you checked in step 1 and adjust the center position of it.
6. Tighten three screws [2].
7. Make another test print and check the amount of misalignment.

12.2 Tray 1 (Manual bypass tray) section

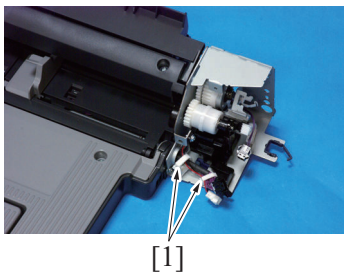
12.2.1 Adjustment of the tray 1 paper size unit

(1) Purpose

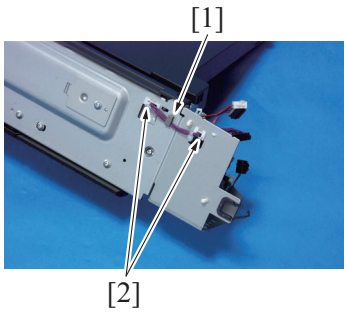
This adjustment must be made in the following case:
- The tray 1 paper size unit has been removed.

(2) Remove procedure

1. Remove the tray 1 (manual bypass tray) unit.
G.4.3.8 Tray 1 (Manual bypass tray) unit

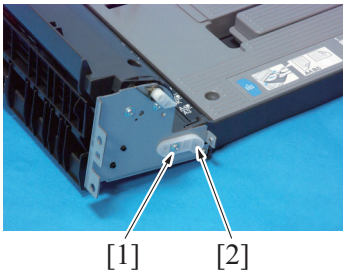


2. Remove the harness from two wire saddles [1].

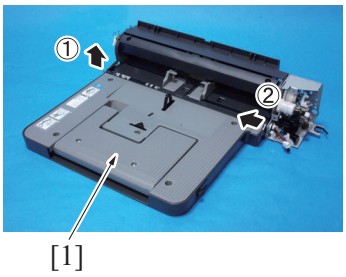


3. Remove the harness holder [1].
4. Remove the harness from two edge covers [2].

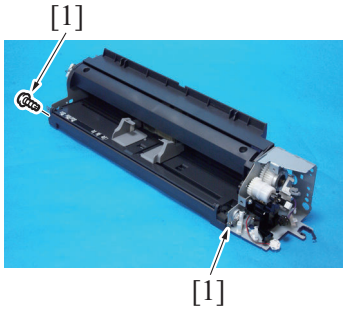
5. Remove the screw [1], and remove the fixing bracket [2].



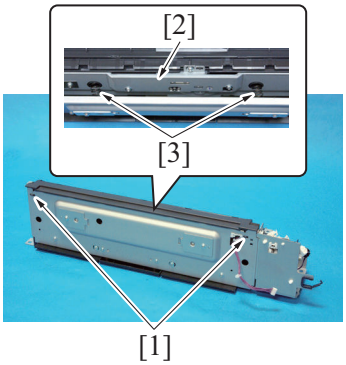
6. Remove the tray 1 assy [1] in the order shown in the illustration.



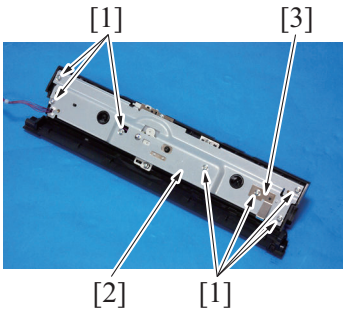
7. Remove two screws [1].

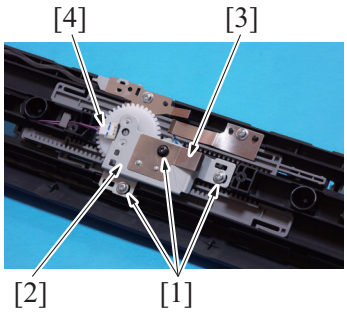


8. Unlock two tabs [1], and remove the tray 1 guide plate [2].
NOTE
- **When you unlock the tabs [1], the spring [3] may pop out. Unlock the tabs [1] while pressing the tray 1 guide plate [2] down.**

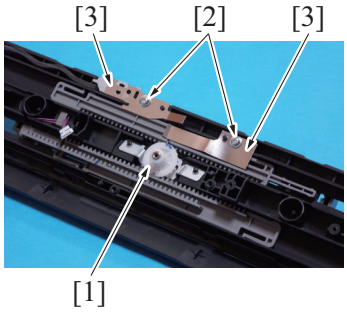


9. Remove seven screws [1], and remove the plate [2] and flat spring [3].

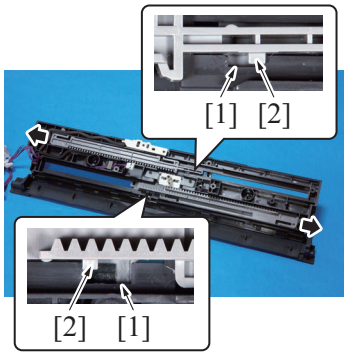




10. Remove three screws [1], and remove the tray 1 paper CD size sensor assy [2] and flat spring [3].
11. Disconnect the connector [4].

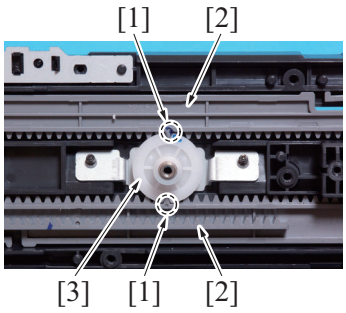


12. Remove the gear [1].
13. Remove two screws [2], and remove two tray 1 guide rack gear regulating plates [3].

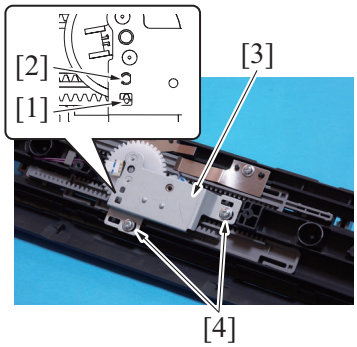


14. Move the tray 1 guide rack gears to each end.
15. Move the projection [2] of each tray 1 guide rack gear into the notch [1] of the tray 1 guide plate. Remove the tray 1 guide rack gears.

(3) Adjustment procedure



1. Align the match mark [1] on the tray1 guide rack gear with the groove on the rim of the gear [3] at two places and install two tray1 guide rack gears [2].



2. When installing the tray1 paper CD size sensor assy [3], make sure that the part [1] (pointed by the arrow) on the tray1 guide rack gear and the gear's hole [2] on the tray1 paper CD size sensor assy are placed in a straight line.
3. Secure the tray1 paper CD size sensor assy [3] with two screws [4].

4. After the tray1 paper size unit base has been mounted, check that the lever of the tray1 paper size unit moves smoothly in a manner operatively connected to the tray1 guide.

5. [Service Mode] -> [Printer Adjustment] -> [Manual Bypass Tray Width Adj]

13. MECHANICAL ADJUSTMENT PC-211

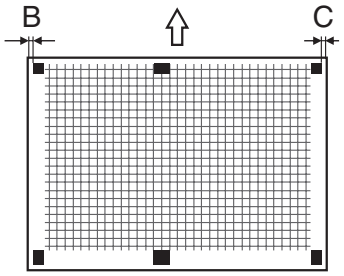
13.1 Paper reference position

13.1.1 Purpose

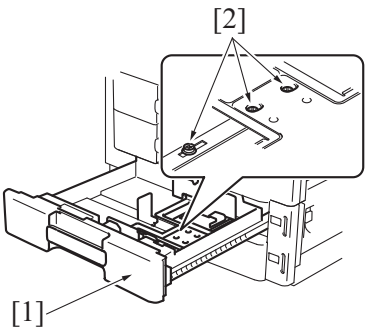
Make this adjustment after any of the following procedures has been performed.

- When the PH unit has been replaced.
- When the image on the print is offset in the main scan direction.
- When adjustment in the following screen does not resolve a problem.
  [Service Mode] -> [Printer Adjustment] -> [Side Edge Adjustment]

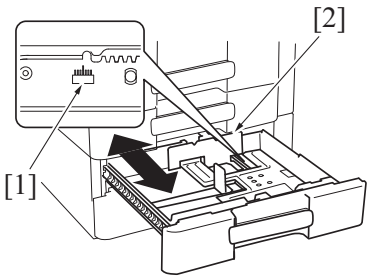
13.1.2 Procedure



1. Measure the widths B and C in the pattern of the printed test output and check the difference is within the specified range.
   Specification: width B- width C 0±1.0 mm



2. Slide out the drawer [1] and unload paper from it.
3. Loosen three screws [2] at the center of the paper lifting plate.



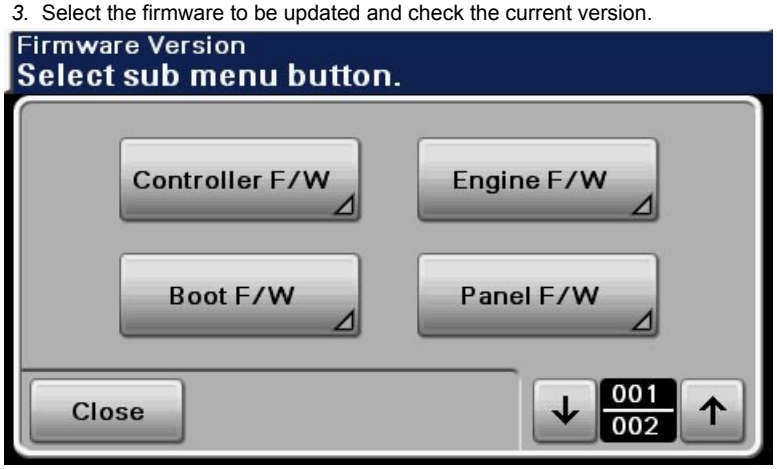
4. Watching the graduations [1] provided in the drawer, move the edge guide [2] in the rear.
   - If the difference is greater than the specified value, move the edge guide to the front.
   - If the difference is smaller than the specified value, move the edge guide to the rear.

5. Perform another test print and check the reference deviation.

J REWRITING OF FIRMWARE

1. Checking the current firmware version

1. Call the Service Mode to the display.
2. 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

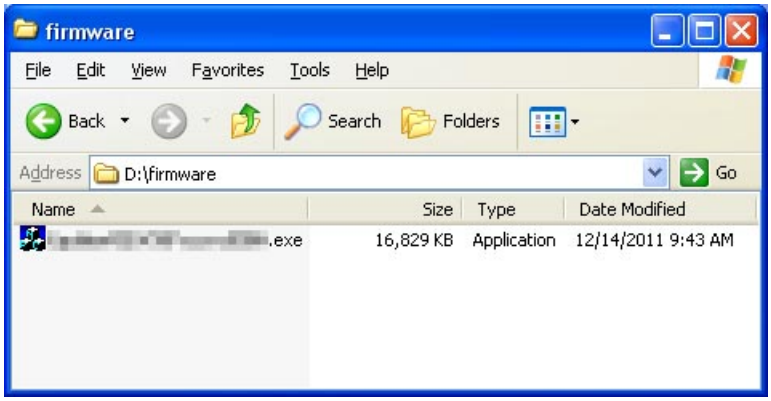
- PC equipped with a USB port
- USB memory device

2.1.2 Supported external memory devices

- FAT32-formatted memory device.
- The memory capacity is less than 8 GB. (the USB memory device that the amount is greater than 8 GB may not operate)
- Without security function added. (security function can be turned off)
- USB flash memory device that is not recognized as multiple drives on the computer.

2.1.3 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 (***.exe) in the firmware folder created in step 3.

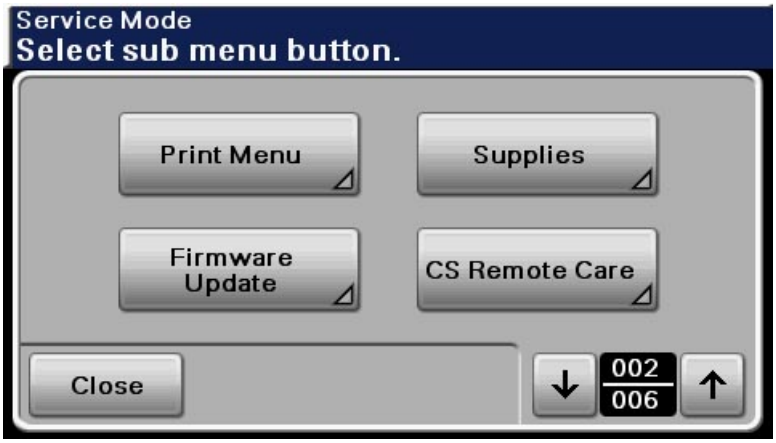


NOTE

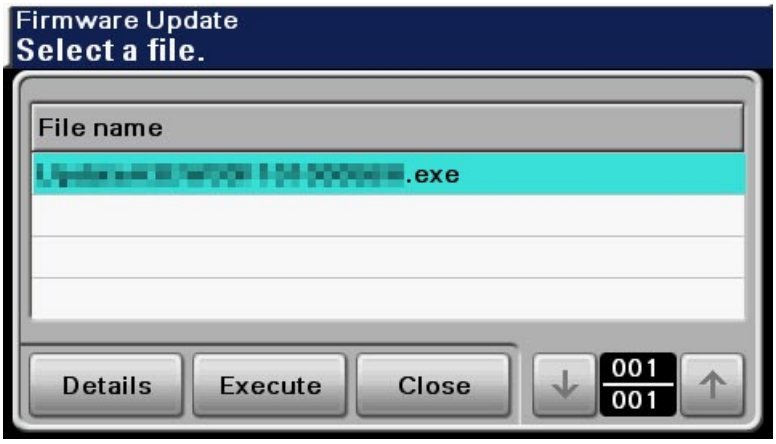
- **Be sure to save the firmware data in "drive:/firmware/***.exe."**
- **The machine can display up to 20 files of firmware data during upgrading.**

2.2 How to write firmware data

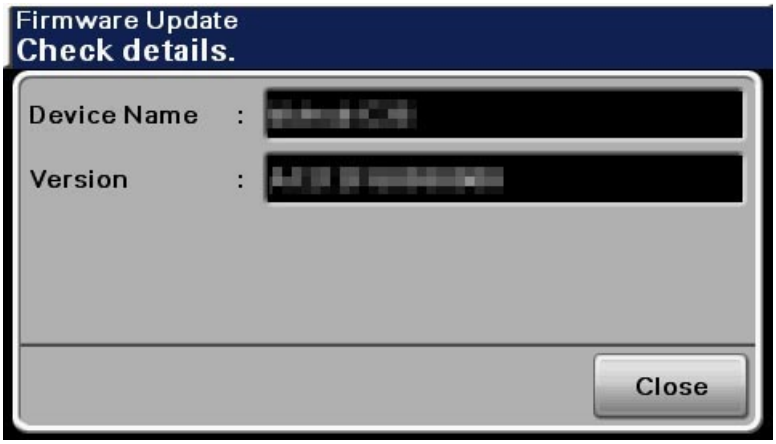
1. Turn the power switch ON.
2. Connect the USB memory device to the machine.
3. Call the Service Mode to the screen.
4. Touch [Firmware Update].



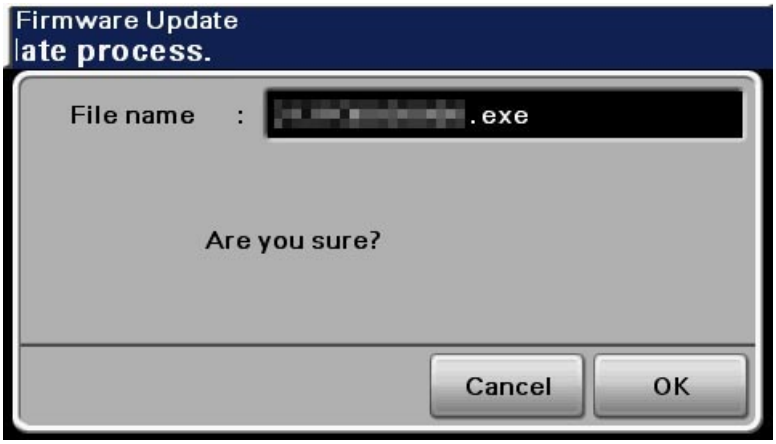
5. A list of firmware data in the USB memory device will be displayed.


Firmware Update
Select a file.
File name
.exe
Details
Execute
Close
001
001

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
   - **NEVER disconnect the USB memory device from the machine during the firmware upgrading procedure.**
   - **The start key and the error lamp on the operation panel light up the orange color during the firmware upgrading.**

10. The machine is automatically restarted as soon as the firmware is upgraded correctly.

3. Firmware upgrading procedure by updater

3.1 Updating method

- To update the firmware, perform "Firmware Updater."

3.1.1 System requirements

CPU	• More than the recommended environment by operating system (PC / AT compatible machine)
OS	• Microsoft Windows XP Home Edition/Professional, Windows 2000, Windows Vista Home Basic/ Home Premium/Business/Enterprise/Ultimate
Available hard disk space	• Sufficient disk free space is required
Memory	• More than the recommended memory capacity by operating system • Sufficient memory resources for operating system and application are required
Interface	• 10Base-T/100Base-TX/1000Base-T Ethernet • USB 2.0 compliant

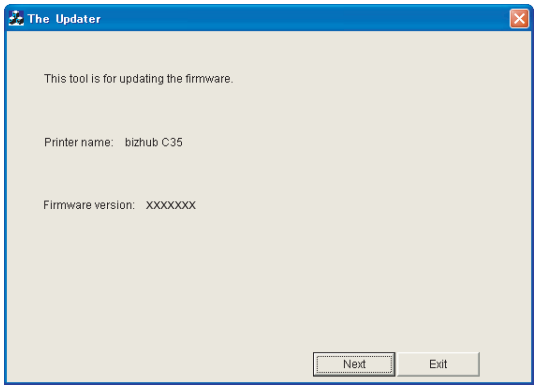
3.1.2 Connection for Windows

(1) Starting the firmware updater

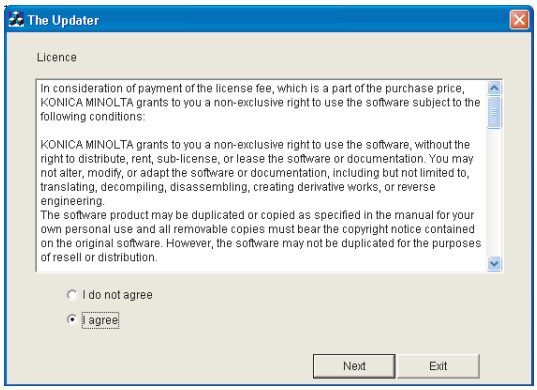
NOTE

- **Before starting the firmware updater, turn on the machine, and make sure that it is correctly connected.**

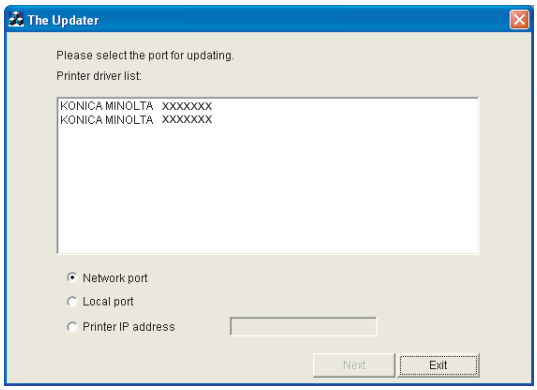
1. Download the firmware updater.
2. Double-click "xxxxxxxxxxxx.exe."
3. The printer name and firmware version are displayed. Click the [Next].



4. The license agreement is displayed. Select "I agree", and then click the [Next].



5. The list of printer drivers is displayed. Select the appropriate connection for the environment where the machine is being used.

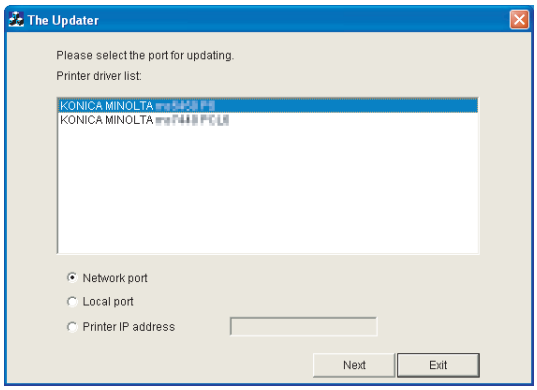


- For a network connection: Select "Network port."
  J.3.1.2.(2) For a network connection
- For a local connection: Select "Local port."
  J.3.1.2.(3) For a local connection
- When specifying the IP address of the printer: Select "Printer IP address."
  J.3.1.2.(4) When specifying the IP address of the printer

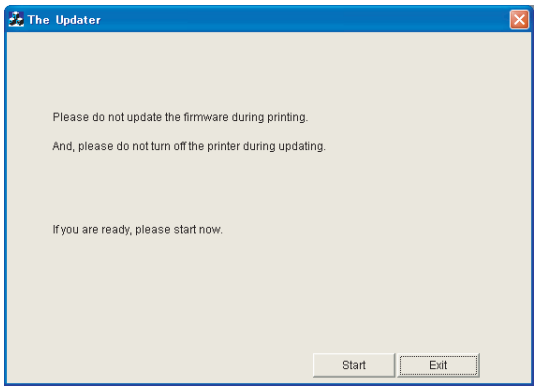
NOTE
- **If you select "Network port" or "Local port", make sure that the printer driver has been installed.**
- **If you select "Printer IP address", the firmware can be updated even if a printer driver is not already installed.**

(2) For a network connection

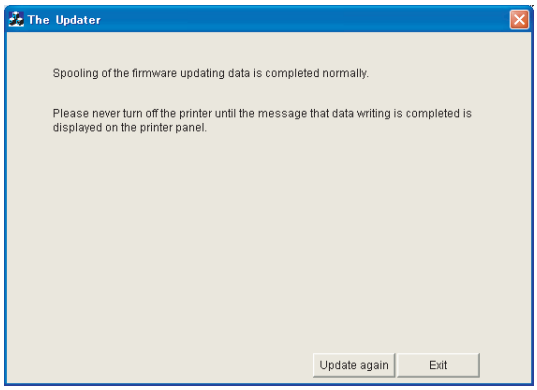
1. When "Network port" is selected, printer drivers connected via the network port appears.
2. Select the printer driver, and then click the [Next].



3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.
   NOTE
   - **Do not turn off the machine while its firmware is being updated.**
   - **The start key and the error lamp on the operation panel light up the orange color during the firmware upgrading.**



4. The result of the firmware transfer is displayed. Click the [Exit].



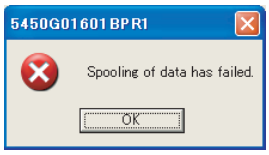
5. If the firmware was successfully updated, the machine will automatically restart.

(a) If spooling of the data fails

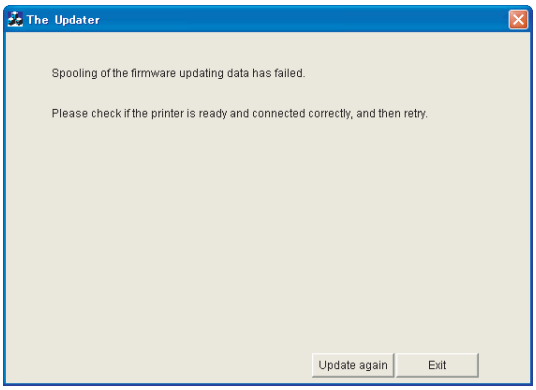
NOTE

- **If spooling fails, the firmware data may remain in the inside of the printer. Delete this data, and then try again.**

1. If spooling of the data fails, the following message appears.
2. Click [OK].

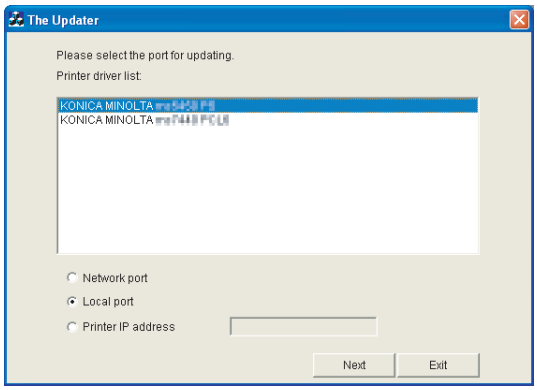


3. Check that the machine is ready and that the cable is correctly connected.
4. After confirmation, click the [Update again].

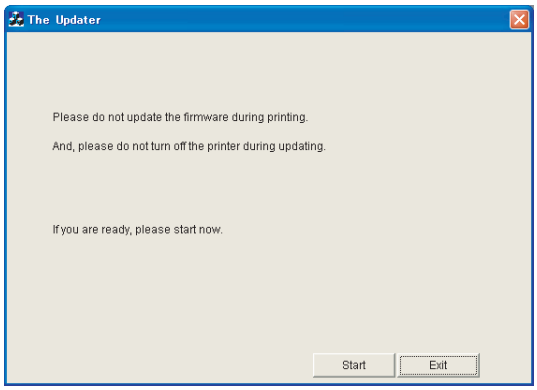


(3) For a local connection

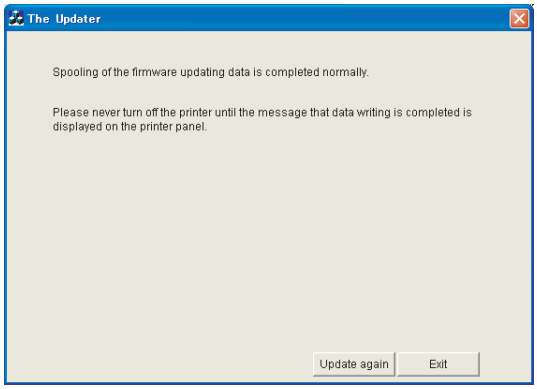
1. When "Local port" is selected, printer drivers connected via the local port appears.
2. Select the printer driver, and then click the [Next].



3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.
NOTE
- **Do not turn off the machine while its firmware is being updated.**
- **The start key and the error lamp on the operation panel light up the orange color during the firmware upgrading.**



4. The result of the firmware transfer is displayed. Click the [Exit].



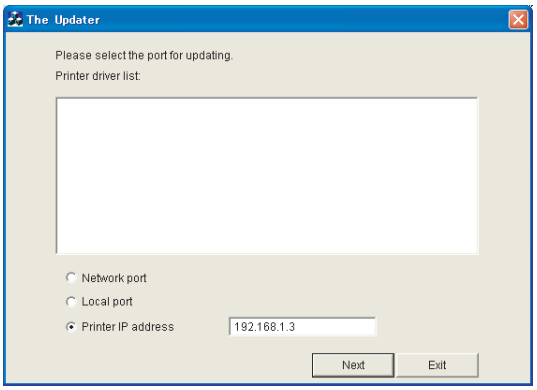
5. If the firmware was successfully updated, the machine will automatically restart.

(a) If spooling of the data fails

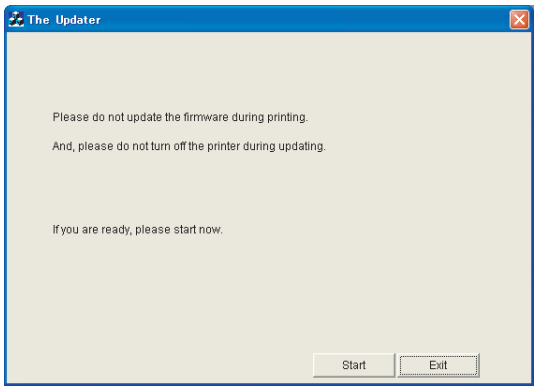
- For details, see "J.3.1.2.(2) For a network connection"

(4) When specifying the IP address of the printer

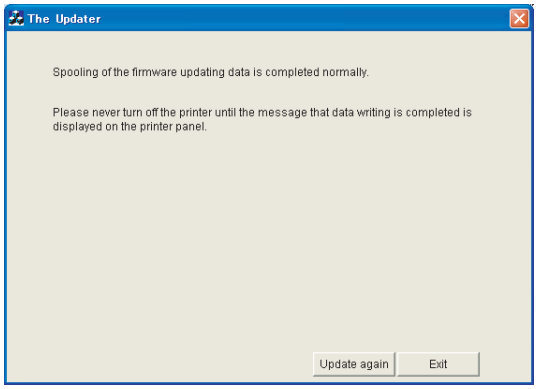
1. When "Printer IP address" is selected, the "Printer IP address" box becomes available.
2. Type in the IP address, and then click the [Next].



3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.
NOTE
- **Do not turn off the machine while its firmware is being updated.**
- **The start key and the error lamp on the operation panel light up the orange color during the firmware upgrading.**



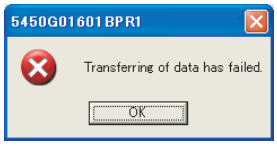
4. The result of the firmware transfer is displayed. Click the [Exit].



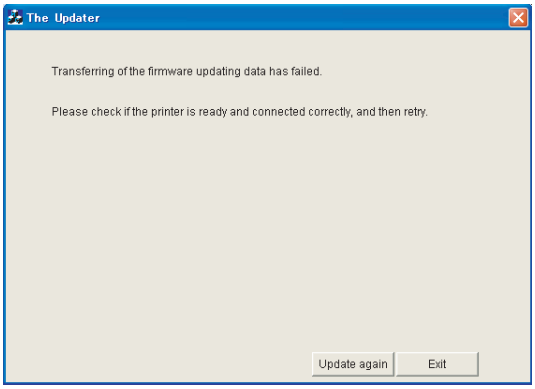
5. If the firmware was successfully updated, the machine will automatically restart.

(a) If transferring of the data fails

1. If transferring of the data fails, the following message appears.
2. Click [OK].



3. Check that the machine is ready and that the cable is correctly connected.
4. After confirmation, click the [Update again].



3.2 Checking the version after the firmware update

1. Call the Service Mode to the screen.
2. Touch [Firmware Version].
3. Select the firmware to be updated and check the current version.

K TROUBLESHOOTING

1. JAM DISPLAY

1.1 JAM DISPLAY

- When the paper jam occurred, the message is displayed on the control panel.

1.2 List of the JAM display

JAM type	JAM location	JAM processing location	Action
ADF section	• ADF paper feed section • ADF transport section • ADF paper exit section	• ADF feed cover	K.1.5.1 Misfeed at ADF section
Tray 1	• Tray 1 (manual bypass tray) paper feed section	• Tray 1 (Manual bypass tray) • Right door	K.1.5.2 Misfeed at tray 1 paper feed section
Tray 2	• Tray 2 paper feed section	• Tray 2 • Right door	K.1.5.3 Misfeed at tray 2 paper feed section
Tray 3	• Tray 3 paper feed section	• Tray 3 • Right door	K.1.5.4 Misfeed at tray 3 paper feed section
Tray 4 *1	• Tray 4 paper feed section • Vertical transport section	• Tray 4 • Tray 4 right door	K.1.5.5 Misfeed at tray 4 paper feed section
Tray 5 *1	• Tray 5 paper feed section • Vertical transport section	• Tray 5 • Tray 5 right door	K.1.5.6 Misfeed at tray 5 paper feed section
Transport section	• Vertical transport section	• Right door • Tray 4 right door *1 • Tray 5 right door *1	K.1.5.7 Misfeed at vertical transport section
Transfer section	• Transfer section	• Right door	K.1.5.10 Misfeed at image transfer section
Fusing/paper exit section	• Fusing/paper exit section	• Right door • Fuser unit cover • Duplex door	K.1.5.11 Misfeed at fusing/paper exit section
Duplex section	• Duplex pre-registration section	• Duplex door • Right door	K.1.5.12 Misfeed at duplex pre-registration section
	• Duplex paper transport section		K.1.5.13 Misfeed at duplex transport section
Finisher section *2	• FS transport section	• Finisher front cover	K.1.5.14 Misfeed at FS transport section 1
Controller JAM Service Call: F001	• Controller JAM	-	K.1.5.18 Controller JAM

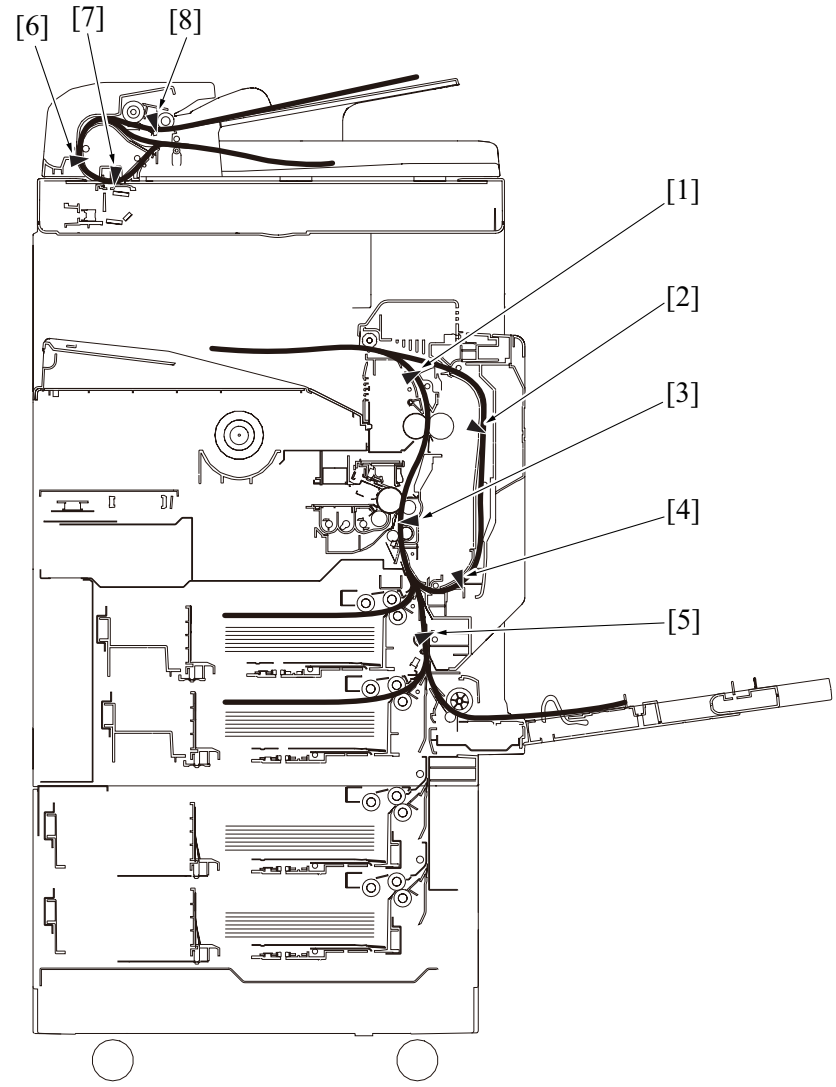
- *1: Only when the optional paper feeder unit PC-211 is installed.
- *2: Only when the optional finisher FS-529 is installed.

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.

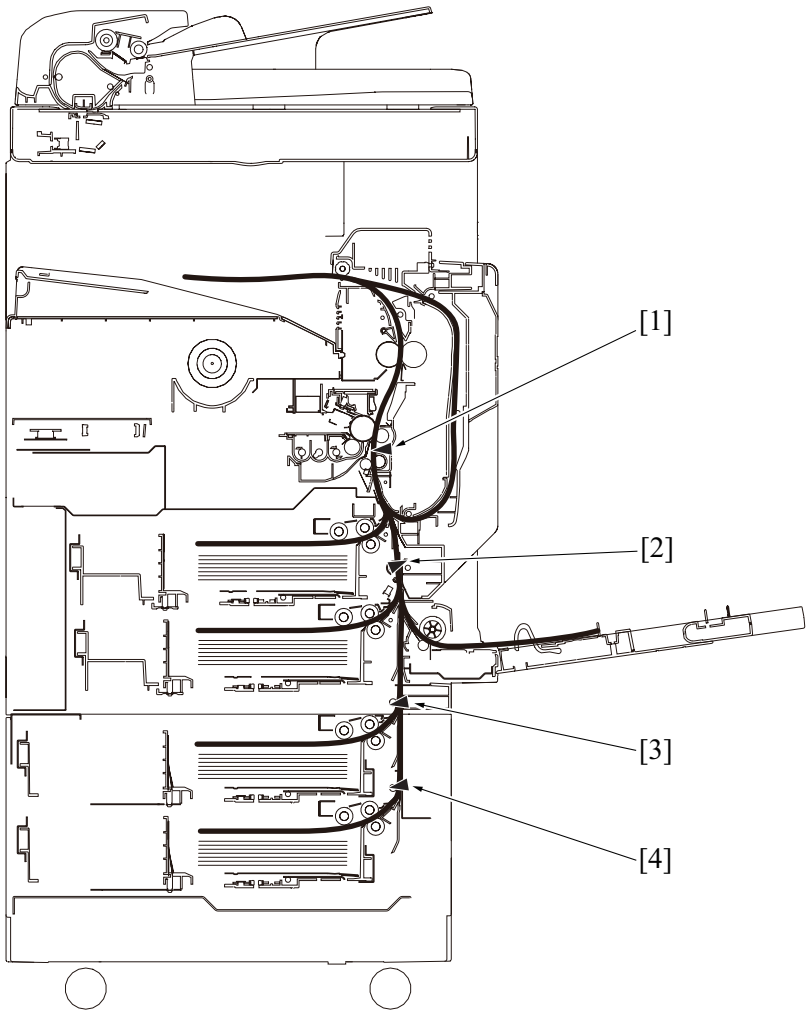
1.3 Sensor layout

1.3.1 bizhub 36/42



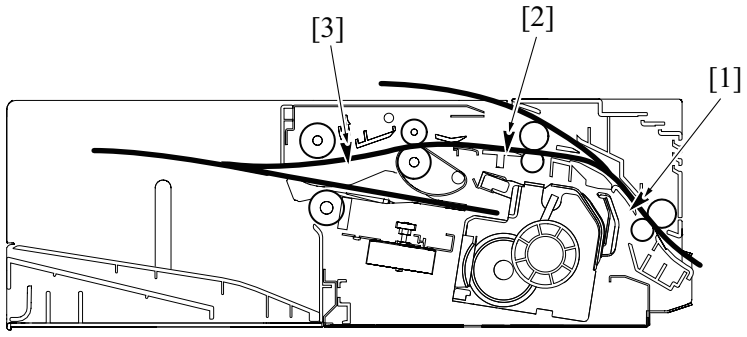
[1]	Paper exit sensor (PS29)	[2]	Duplex transport sensor /1 (PS27)
[3]	Registration sensor (PS1)	[4]	Duplex transport sensor /2 (PS28)
[5]	Tray 3 vertical transport sensor (PS18)	[6]	Registration sensor (REYB100)
[7]	Before read sensor (REYB101)	[8]	Paper interval sensor (PS103)

1.3.2 PC-211



[1]	Registration sensor (PS1)	[2]	Tray 3 vertical transport sensor (PS18)
[3]	Tray 4 vertical transport sensor (PS45)	[4]	Tray 5 vertical transport sensor (PS55)

1.3.3 FS-529



[1]	Paper passage sensor/1 (PS1)	[2]	Paper passage sensor/2 (PS10)
[3]	Paper empty sensor (PS7)		

1.4 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.

Check item	Action
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.

1.5 JAM clearing procedure

1.5.1 Misfeed at ADF section

(1) Contents

JAM type	Misfeed at ADF section
Detection timing	The original does not block the paper interval sensor (PS103) even after the lapse of a given period of time after the original feed is started.
	The original does not block the registration sensor (REYB100) even after the lapse of a given period of time after the original blocks the paper interval sensor (PS103).
	The duration between the original's blocking and unblocking of the paper interval sensor (PS103) is shorter than a given period of time.
	When the preceding page of the original blocks and then unblocks the registration sensor (REYB1009), the subsequent page of the original does not block the paper interval sensor (PS103).
	The original does not block the registration sensor (REYB100) even after the lapse of a given period of time after the original is fed again.
	The original does not block the before read sensor (REYB101) even after the lapse of a given period of time after the original blocked the registration sensor (REYB100).
	The original blocks the before read sensor (REYB101) longer than a given period of time.
	When the power switch is turned ON, the registration sensor (REYB100), before read sensor (REYB101), or paper interval sensor (PS103) is blocked.
Misfeed processing location	• ADF feed cover
Relevant parts	• Registration sensor (REYB100) • Before read sensor (REYB101) • Paper interval sensor (PS103) • ADF control board (ADFCB) • MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	Check the connectors on the ADFCB for proper connection and correct as necessary.	-	-
3	Change MFPB.	-	-
4	Change ADF.	-	-

- Link to the wiring diagram (PDF format)

1.5.2 Misfeed at tray 1 paper feed section

(1) Contents

JAM type	Misfeed at tray 1 paper feed section
Detection timing	The leading edge of the paper does not unblocked or turn ON the tray 3 vertical transport sensor (PS18) even after the lapse of a given period of time after the tray 1 (manual bypass tray) starts to feed paper.
	For paper fed from the tray 1 (manual bypass tray), the image write start signal permit continues to be disabled for a predetermined period of time after the timing of the image write start signal output.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at tray 1 paper feed section.
Misfeed processing location	• Right door • Tray 1 (manual bypass tray)
Relevant parts	• Transport motor (M1) • Tray 1 paper feed clutch (CL5) • Tray 1 pick-up solenoid (SD1) • Printer control board (PRCB) • Tray 3 vertical transport sensor (PS18)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
3	CL5 operation check	PRCB CN9-2 (ON)	I-15
4	SD1 operation check	PRCB CN9-4 (ON)	I-15
5	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.3 Misfeed at tray 2 paper feed section

(1) Contents

JAM type	Misfeed at tray 2 feed section
Detection timing	The leading edge of the paper does not unblocked the registration sensor (PS1) even after the lapse of a given period of time after the tray 2 starts to feed paper.
	At the start of paper feed retry, the registration sensor (PS1) has already detected paper passage.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at tray 2 feed section.
Misfeed processing location	• Right door • Tray 2
Relevant parts	• Transport motor (M1) • Tray 2 paper feed clutch (CL2) • Printer control board (PRCB) • Registration sensor (PS1)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	CL2 operation check	PRCB CN13-2 (ON)	C-15
4	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
5	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.4 Misfeed at tray 3 paper feed section

(1) Contents

JAM type	Misfeed at tray 3 feed section
Detection timing	The leading edge of the paper does not unblocked or turn ON the tray 3 vertical transport sensor (PS18) even after the lapse of a given period of time after the tray 2 starts to feed paper.
	For paper fed from the tray 3, the image write start signal permit continues to be disabled for a predetermined period of time after the timing of the image write start signal output.
	Tray 3 vertical transport sensor (PS18) is unblocked or turned ON when the power switch is turned ON, a door is opened / closed, or jam/trouble reset is done.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at tray 3 feed section.
Misfeed processing location	• Right door • Tray 3
Relevant parts	• Transport motor (M1) • Tray 3 paper feed clutch (CL3) • Tray 3 vertical transport clutch (CL4) • Printer control board (PRCB) • Tray 3 vertical transport sensor (PS18)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
3	CL3 operation check	PRCB CN14-2 (ON)	D-15
4	CL4 operation check	PRCB CN23-13 (ON)	J-10
5	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10

Step	Action	Control signal	Location of electrical component
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.5 Misfeed at tray 4 paper feed section

(1) Contents

JAM type	Tray 4 feed section misfeed
Detection timing	The leading edge of the paper does not block the tray 4 vertical transport sensor (PS45) even after the set period of time has elapsed after the tray 4 starts to feed paper.
	For paper fed from the tray 4, image write start signal permit continues to be disabled for a predetermined period of time after the timing of image write start signal output.
	The tray 4 vertical transport sensor (PS45) is turned ON when the power switch is turned ON, a door is opened / closed, or jam/trouble reset is done.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at tray 4 feed section.
Misfeed processing location	• Tray 4 right door • Tray 4
Relevant parts	• Tray 4 vertical transport sensor (PS45) • Tray 3 vertical transport sensor (PS18) • Registration sensor (PS1) • PC control board (PCCB) • Printer control board (PRCB) • Tray 4 vertical transport motor (M42) • Tray 4 paper feed motor (M41)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS45 I/O check, sensor check	PCCB CN6-11 (ON)	PC-211 H-3
4	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
5	M41 operation check	PCCB CN5-1 to 4	PC-211 G-3
6	M42 operation check	PCCB CN5-5 to 8	PC-211 G-3
7	PCCB ICP1, ICP3 conduction check	-	-
8	Change PCCB	-	-
9	Change PRCB	-	-

- Link to the wiring diagram of bizhub 42/36 (PDF format)
- Link to the wiring diagram of PC-211 (PDF format)

1.5.6 Misfeed at tray 5 paper feed section

(1) Contents

JAM type	Tray 5 feed section misfeed
Detection timing	The leading edge of the paper does not block the tray 5 vertical transport sensor (PS55) even after the set period of time has elapsed after the tray 5 starts to feed paper.
	For paper fed from the tray 5, image write start signal permit continues to be disabled for a predetermined period of time after the timing of image write start signal output.
	The tray 5 vertical transport sensor (PS55) is turned ON when the power switch is turned ON, a door is opened / closed, or jam/trouble reset is done.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at tray 5 feed section.
Misfeed processing location	• Tray 5 right door • Tray 5
Relevant parts	• Tray 5 vertical transport sensor (PS55) • Tray 4 vertical transport sensor (PS45) • Tray 3 vertical transport sensor (PS18) • Registration sensor (PS1) • PC Control board (PCCB) • Printer control board (PRCB) • Tray 5 paper feed motor (M51) • Tray 5 vertical transport motor (M52)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-

Step	Action	Control signal	Location of electrical component
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS55 I/O check, sensor check	PCCB CN11-2 (ON)	PC-211 H-10
4	PS45 I/O check, sensor check	PCCB CN6-11 (ON)	PC-211 H-3
5	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
6	M51 operation check	PCCB CN9-1 to 4	PC-211 F-10
7	M52 operation check	PCCB CN9-6 to 9	PC-211 F-10
8	PCCB ICP1, ICP2 conduction check	-	-
9	Change PCCB	-	-
10	Change PRCB	-	-

- Link to the wiring diagram of bizhub 42/36 (PDF format)
- Link to the wiring diagram of PC-211 (PDF format)

1.5.7 Misfeed at vertical transport section

(1) Contents

JAM type	Misfeed at vertical transport section
Detection timing	The registration sensor (PS1) is not unblocked even after the lapse of a given period of time after the tray 3, tray 4 or tray 5 starts to feed paper.
	The tray 3 vertical transport sensor (PS18) is not unblocked or turned OFF even after the lapse of a given period of time after the paper has been blocked or turn ON the PS18.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at vertical transport section.
Misfeed processing location	• Right door
Relevant parts	• Transport motor (M1) • Tray 3 vertical transport clutch (CL4) • Registration clutch (CL1) • Printer control board (PRCB) • Registration sensor (PS1) • Tray 3 vertical transport sensor (PS18)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
4	CL4 operation check	PRCB CN23-13 (ON)	J-10
5	CL1 operation check	PRCB CN23-11 (ON)	J-10
6	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
7	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.8 Misfeed at tray 4 vertical transport section

(1) Contents

JAM type	Misfeed at tray 4 vertical transport section
Detection timing	The tray 4 vertical transport sensor (PS45) is not unblocked even after the lapse of a given period of time after PS45 has been blocked by a paper.
	The tray 3 vertical transport sensor (PS18) is not blocked or turned ON even after the lapse of a given period of time after the tray 4 or tray 5 starts to feed paper.
Misfeed processing location	• Tray 4 right door
Relevant parts	• Tray 4 vertical transport sensor (PS45) • Tray 3 vertical transport sensor (PS18) • Tray 4 paper feed motor (M41) • PC control board (PCCB) • Printer control board (PRCB) • Tray 4 vertical transport motor (M42) • Registration sensor (PS1)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-

Step	Action	Control signal	Location of electrical component
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS45 I/O check, sensor check	PCCB CN6-11 (ON)	PC-211 H-3
4	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
5	M41 operation check	PCCB CN5-1 to 4	PC-211 G-3
6	M42 operation check	PCCB CN5-5 to 8	PC-211 G-3
7	PCCB ICP1, ICP3 conduction check	-	-
8	Change PCCB	-	-
9	Change PRCB	-	-

- Link to the wiring diagram of bizhub 42/36 (PDF format)
- Link to the wiring diagram of PC-211 (PDF format)

1.5.9 Misfeed at tray 5 vertical transport section

(1) Contents

JAM type	Misfeed at tray 5 vertical transport section
Detection timing	The tray 5 vertical transport sensor (PS55) is not unblocked even after the lapse of a given period of time after PS55 has been blocked by a paper.
	The tray 4 vertical transport sensor (PS45) is not blocked even after the lapse of a given period of time after the tray 5 starts to feed paper.
Misfeed processing location	• Tray 5 right door
Relevant parts	• Tray 5 vertical transport sensor (PS55) • Tray 4 vertical transport sensor (PS45) • Tray 3 vertical transport sensor (PS18) • Registration sensor (PS1) • PC control board (PCCB) • Printer control board (PRCB) • Tray 5 paper feed motor (M51) • Tray 5 vertical transport motor (M52)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS55 I/O check, sensor check	PCCB CN11-2 (ON)	PC-211 H-10
4	PS45 I/O check, sensor check	PCCB CN6-11 (ON)	PC-211 H-3
5	PS18 I/O check, sensor check	PRCB CN23-16 (ON)	J-10
6	M51 operation check	PCCB CN9-1 to 4	PC-211 F-10
7	M52 operation check	PCCB CN9-6 to 9	PC-211 F-10
8	PCCB ICP1, ICP2 conduction check	-	-
9	Change PCCB	-	-
10	Change PRCB	-	-

- Link to the wiring diagram of bizhub 42/36 (PDF format)
- Link to the wiring diagram of PC-211 (PDF format)

1.5.10 Misfeed at image transfer section

(1) Contents

JAM type	Misfeed at image transfer section
Detection timing	A sheet of paper does not block the registration sensor (PS1) after a predetermined period of time has elapsed since the sheet unblocks PS1.
	The leading edge of paper does not block the paper exit sensor (PS29) since the paper feeding is started.
	The registration sensor (PS1) is unblocked when the power switch is turned ON, a door is opened / closed, or jam/ trouble reset is done.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at image transfer section.
Misfeed processing location	• Right door
Relevant parts	• Transport motor (M1) • Registration clutch (CL1) • Paper exit sensor (PS29) • Printer control board (PRCB) • Registration sensor (PS1)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	PS29 I/O check, sensor check	-	-
4	CL1 operation check	PRCB CN23-11 (ON)	J-10
5	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.11 Misfeed at fusing/paper exit section

(1) Contents

JAM type	Misfeed at fusing/paper exit section
Detection timing	The duplex transport sensor /1 (PS27) is not blocked even after the lapse of a given period of time after the switchback operation is started.
	The paper exit sensor (PS29) is not unblocked even after the lapse of a given period of time after the paper has blocked PS29.
	The paper exit sensor (PS29) is unblocked before the lapse of a given period of time after the paper has blocked the PS29.
	The paper exit sensor (PS29) is blocked when the power switch is turned ON, a door is opened / closed, or jam/trouble reset is done.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at paper exit section.
Misfeed processing location	• Right door • Duplex door • Fuser unit cover
Relevant parts	• Transport motor (M1) • Switchback motor (M6) • Printer control board (PRCB) • Paper exit sensor (PS29) • Duplex transport sensor /1 (PS27)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS29 I/O check, sensor check	-	-
3	PS27 I/O check, sensor check	PRCB CN5-10 (ON)	H-10
4	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
5	M6 operation check	PRCB CN18-4 to 7	G-10
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.12 Misfeed at duplex pre-registration section

(1) Contents

JAM type	Misfeed at duplex pre-registration section
Detection timing	The registration sensor (PS1) is not unblocked even after the lapse of a given period of time after a duplex paper feed sequence has been started.
	For the second-side feed of paper in the duplex mode, the image write start signal permit continues to be disabled for a predetermined period of time after the timing of the image write start signal output.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at duplex pre-registration section.
Misfeed processing location	• Right door
Relevant parts	• Transport motor (M1) • Switchback motor (M6) • Duplex transport motor (M7) • Printer control board (PRCB) • Registration sensor (PS1)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-

Step	Action	Control signal	Location of electrical component
2	PS1 I/O check, sensor check	PRCB CN23-9 (ON)	J-10
3	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
4	M6 operation check	PRCB CN18-4 to 7	G-10
5	M7 operation check	PRCB CN5-4 to 7	H-10
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.13 Misfeed at duplex transport section

(1) Contents

JAM type	Misfeed at duplex transport section
Detection timing	The paper does not unblock the duplex transport sensor /1 (PS27) even after lapse of a given period of time after the paper has blocked the PS27.
	The paper does not unblock the duplex transport sensor /2 (PS28) even after lapse of a given period of time after the paper has blocked the duplex transport sensor /1 (PS27).
	The paper does not unblock the duplex transport sensor /2 (PS28) even after lapse of a given period of time after the paper has blocked the PS28.
	In case the duplex transport sensor /1 (PS27) or the duplex transport sensor /2 (PS28) is blocked after power switch is turned ON, door is opened /closed or jam/trouble reset is done, it is regarded as paper jam at duplex transport section.
	In case paper position is detected as locating properly after power switch is turned ON, door is opened / closed or jam/ trouble reset is done, it is regarded as paper jam at duplex transport section.
Misfeed processing location	• Duplex door
Relevant parts	• Switchback motor (M6) • Duplex transport motor (M7) • Printer control board (PRCB) • Duplex transport sensor /1 (PS27) • Duplex transport sensor /2 (PS28)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS27 I/O check, sensor check	PRCB CN5-10 (ON)	H-10
3	PS28 I/O check, sensor check	PRCB CN5-13 (ON)	H-10
4	M6 operation check	PRCB CN18-4 to 7	G-10
5	M7 operation check	PRCB CN5-4 to 7	H-10
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

1.5.14 Misfeed at FS transport section 1

(1) Contents

JAM type	Misfeed at FS transport section
Detection timing	The paper passage sensor/1 (PS1) is not turned ON even after the set period of time has elapsed after the copier's paper exit sensor (PS29) is turned ON by the paper.
	The paper passage sensor/1 (PS1) is not turned OFF even after the set period of time has elapsed after it is turned ON by the paper.
Misfeed processing location	• Finisher front cover
Relevant parts	• Paper exit sensor (PS29) • Paper passage sensor/1 (PS1) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS29 I/O check, sensor check	-	-
3	PS1 I/O check, sensor check	FSCB CN3-3 (ON)	FS-529 B-3
4	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

1.5.15 Misfeed at FS transport section 2

(1) Contents

JAM type	Misfeed at FS transport section
Detection timing	The paper passage sensor/2 (PS10) is not turned ON even after the set period of time has elapsed after the paper passage sensor/1 (PS1) is turned ON by the paper.
	The paper passage sensor/2 (PS10) is not turned OFF even after the set period of time has elapsed after the paper passage sensor/2 (PS10) is turned ON by the paper.
Misfeed processing location	• Finisher front cover
Relevant parts	• Paper passage sensor/1 (PS1) • Paper passage sensor/2 (PS10) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS1 I/O check, sensor check	FSCB CN3-3 (ON)	FS-529 B-3
3	PS10 I/O check, sensor check	FSCB CN7-3 (ON)	FS-529 B-5
4	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

1.5.16 Misfeed at FS transport section 3

(1) Contents

JAM type	Misfeed at FS transport section
Detection timing	• The paper empty sensor (PS7) is not turned ON even after the set period of time has elapsed after the paper passage sensor/2 (PS10) is turned ON by the paper.
	• The paper empty sensor (PS7) is not turned OFF even after the set period of time has elapsed after the paper empty sensor (PS7) is turned ON by the paper.
Misfeed processing location	• Finisher front cover
Relevant parts	• Paper passage sensor/2 (PS10) • Paper empty sensor (PS7) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	PS10 I/O check, sensor check	FSCB CN7-3 (ON)	FS-529 B-4 to 5
3	PS7 I/O check, sensor check	FSCB CN6-3 (ON)	FS-529 B-1 to 2
4	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

1.5.17 Misfeed at FS staple section

(1) Contents

JAM type	Misfeed at FS staple section
Detection timing	Though the stapler sensor is not turned ON after the stapler motor starts rotating forward, the stapler sensor is turned ON after the stapler motor starts rotating backward.
Misfeed processing location	• Finisher front cover
Relevant parts	• Stapler unit • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical component
1	Initial check items	-	-
2	Change stapler unit	-	-
3	Change FSCB	-	-

1.5.18 Controller JAM

(1) Contents

JAM type	Controller JAM

Detection timing	Forced stop command was sent from the controller to the printer engine due to the error in paper size, media, etc.
	Media error has occurred in both sides printing.
Misfeed processing location	-
Relevant parts	-

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] -> [Print Menu] -> [Mgmt. 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	
Transfer ATVC failure	• An abnormal average value is detected during an adjustment of the image transfer ATVC value.

2.3 Solution

2.3.1 Transfer ATVC failure

(1) Contents

Malfunction type	Transfer ATVC failure
Description timing	An abnormal average value is detected during an adjustment of the image transfer ATVC value.
Relevant parts	• High voltage unit (HV) • Printer control board (PRCB) • 2nd image transfer assy

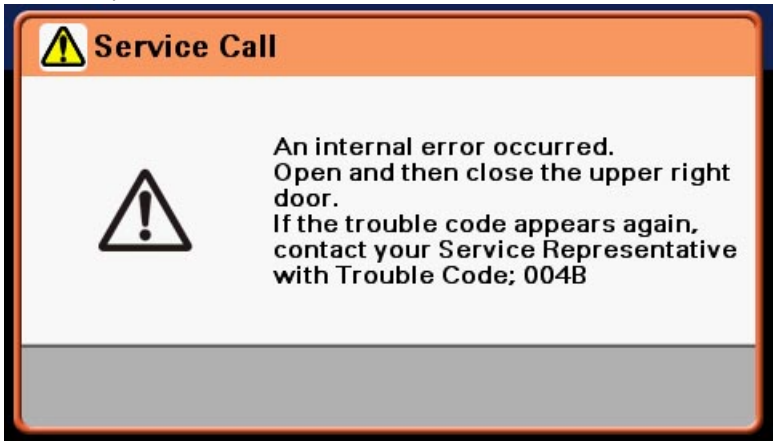
(2) Procedure

1. Check that the spring does not come off during the pressure operation of the transfer roller and correct if necessary.
2. Check the contact at the joint of the transfer roller unit and HV. Clean the joint or correct if necessary.
3. Change HV1.
4. Change PRCB.

3. TROUBLE CODE

3.1 Display procedure

- The machine's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code on the control panel.



3.2 Trouble resetting procedure

- Different malfunction resetting procedures apply depending on the rank of the trouble code.

* List of malfunction resetting procedures

Rank	Resetting procedures
A	Trouble reset: Refer to the Trouble resetting procedure by Trouble Reset key.
B	Opening/closing the right door + Turning power switch OFF/ON
C	Turning power switch OFF/ON

3.2.1 Trouble resetting procedure by Trouble Reset key

(1) Use

- If the all troubles occur and the status would not be cleared by turning power switch OFF and ON again, or opening and closing the right door, clear the status of the machine.

(2) Procedure

1. Call the service mode to the screen.
   NOTE
   - **Shifting to the service mode is available even when the service call is occurred.**
2. Change the screen using [↑] / [↓] and select [Trouble Reset].
   NOTE
   - **The trouble reset key will be displayed in the service mode only when the service call is occurred.**
3. Touch [OK] on the check screen.
4. According to the description on the screen, turn OFF the power switch, and turn it ON again more than 10 seconds after and check to make sure the machine operates normally.

3.3 List of the trouble code

Code (Hexadecimal)	Code (Decimal)	Item	Rank	Ref. page
Indication on the Control Panel	Description of Event Log information			
0001	1	Transport motor's turning at abnormal timing	B	K.3.4.1 0001, 3000
0004	4	Toner bottle motor's turning at abnormal timing	B	K.3.4.2 0004
0018	24	PC motor's failure to turn	B	K.3.4.3 0018, 0019
0019	25	PC motor's turning at abnormal timing	B	K.3.4.3 0018, 0019
004A	74	Cooling fan motor's failure to turn	B	K.3.4.4 004A
004B	75	Toner suction fan motor's turning at abnormal timing	B	K.3.4.5 004B
004E	78	Power supply cooling fan motor's failure to turn	B	K.3.4.6 004E
0100	256	AC signal abnormality	C	K.3.4.7 0100
0300	768	Polygon motor rotation trouble	B	K.3.4.8 0300
0310	784	Laser malfunction	B	K.3.4.9 0310
0500	1280	Fusing heaters trouble (center)	A	K.3.4.10 0500, 0501

Code (Hexadecimal) Indication on the Control Panel	Code (Decimal) Description of Event Log information	Item	Rank	Ref. page
0501	1281	Fusing heaters trouble (edge)	A	K.3.4.10 0500, 0501
0510	1296	Fusing abnormally low temperature detection (center)	A	K.3.4.11 0510, 0511
0511	1297	Fusing abnormally low temperature detection (edge)	A	K.3.4.11 0510, 0511
0520	1312	Fusing abnormally high temperature detection (center)	A	K.3.4.12 0520, 0521
0521	1313	Fusing abnormally high temperature detection (edge)	A	K.3.4.12 0520, 0521
0900	2304	Tray 4 lift-up failure (PC-211)	B	K.3.4.13 0900, 0950
0910	2320	Tray 3 feeder up/down abnormality	B	K.3.4.14 0910
0920	2336	Tray 2 feeder up/down abnormality	B	K.3.4.15 0920
0950	2384	Tray 5 lift-up failure (PC-211)	B	K.3.4.13 0900, 0950
0960	2400	Tray 1 feeder up/down abnormality	B	K.3.4.16 0960
0B05	2821	Malfunctioning of belt up/down movement (FS-529)	B	K.3.4.17 0B05
0B20	2848	Stapler movement drive malfunction (FS-529)	B	K.3.4.18 0B20
0B30	2864	Alignment plate R drive malfunction (FS-529)	B	K.3.4.19 0B30
0B32	2866	Alignment plate F drive malfunction (FS-529)	B	K.3.4.20 0B32
0B33	2867	Leading edge stopper motor drive malfunction (FS-529)	B	K.3.4.21 0B33
0B48	2888	Exit roller pressure/ retraction malfunction (FS-529)	B	K.3.4.22 0B48
0B50	2896	Staple drive malfunction (FS-529)	B	K.3.4.23 0B50
0BA0	2976	Elevate drive malfunction (FS-529)	B	K.3.4.24 0BA0
0BE1	3041	Fan motor drive malfunction (FS-529)	B	K.3.4.25 0BE1
0F36	3894	Abnormally low toner density detected TCR sensor	B	K.3.4.26 0F36, 0F37
0F37	3895	Abnormally high toner density detected TCR sensor	B	K.3.4.26 0F36, 0F37
0F3D	3901	TCR sensor adjustment failure	B	K.3.4.27 0F3D, 0F43
0F43	3907	TCR sensor failure	B	K.3.4.27 0F3D, 0F43
10A5	4261	Marketing area error	C	K.3.4.28 10A5
133B	4923	FNS communication error (FS-529)	C	K.3.4.29 133B
1340	4928	FPGA configuration error	C	K.3.4.30 1340
13D0	5072	Main backup media access error	C	K.3.4.31 13D0
13F0	5104	Engine control malfunction	C	K.3.4.32 13F0
1402	5122	FS NVRAM memory error (FS-529)	C	K.3.4.33 1402
3000	12288	Transport motor's failure to turn	B	K.3.4.1 0001, 3000
3C00	15360	Trouble related to security	C	K.3.4.34 3C00, 3C01
3C10	15376			
3FFB	16379	Finisher ROM error (FS-529)	C	K.3.4.35 3FFB
6751	26449	Gain adjustment error	-	K.3.4.36 6751, 6790, 6792, 6793, 9401
6790	26512	Offset adjustment error	-	
6791	26513	Register setting error	-	K.3.4.37 6791
6792	26514	White reference plate search error	-	K.3.4.36 6751, 6790, 6792, 6793, 9401
6793	26515	Scanner communication error	-	
9401	37889	Lamp illumination check error	-	
B116	45334	Communication error with the fax board	-	K.3.4.38 B116
C023	49187	FlashROM error	-	K.3.4.39 C023
C026	49190	Controller ROM error (Access error))	-	K.3.4.40 C026, C027
C027	49191	Controller ROM error (Data error)	-	
C050	49232	HDD access error	-	K.3.4.41 C050
C051	49233	HDD full error	-	K.3.4.42 C051
C060	49248	Firmware update error	-	K.3.4.43 C060
C072	49266	Counter not installed	-	K.3.4.44 C072

Code (Hexadecimal) Indication on the Control Panel	Code (Decimal) Description of Event Log information	Item	Rank	Ref. page
C073	49267	Finisher not connected	-	K.3.4.45 C073
C074	49268	Engine ROM error	-	K.3.4.46 C074
C075	49269	Large Paper Size Kit error	-	K.3.4.47 C075
C076	49270	Copy Kit Counter error	-	K.3.4.48 C076
C080	49280	Memory error	-	K.3.4.49 C080
C900	51456	Successful completion of counter backup	-	K.3.4.50 C900
C901	51457	Counter writing error	-	K.3.4.51 C901, C902
C902	51458		-	
C907	51463	Abnormal end of counter backup	-	K.3.4.52 C907
FF10	65296	Board image processing error (ASIC)	-	K.3.4.53 FF10, FF20, FF40, FF80
FF20	65312		-	
FF40	65344		-	
FF80	65408		-	
FFFF	65535	Interface communication error	-	K.3.4.54 FFFF

3.4 Solution

3.4.1 0001, 3000

(1) Contents

Trouble type	Transport motor's turning at abnormal timing
Trouble code	0001
Rank	B
Detection timing	The motor lock signal remains LOW for a predetermined continuous period of time while the motor remains stationary.
Trouble isolation	-
Relevant electrical parts	• Transport motor (M1) • Printer control board (PRCB)

Trouble type	Transport motor's failure to turn
Trouble code	3000
Rank	B
Detection timing	The motor lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary.
Trouble isolation	-
Relevant electrical parts	• Transport motor (M1) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M1-PRCB CN3 for proper connection and correct as necessary.	-	-
2	Check M1 for proper drive coupling and correct as necessary.	-	-
3	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
4	Change M1	-	-
5	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.2 0004

(1) Contents

Trouble type	Toner bottle motor's turning at abnormal timing
Trouble code	0004
Rank	B
Detection timing	• The toner bottle home sensor (PS2) is not blocked or unblocked even after the set period of time has elapsed after the toner bottle motor (M3) starts rotating.
Trouble isolation	-

Relevant electrical parts	• Toner bottle motor (M3) • Toner bottle home sensor (PS2) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M3-PRCB CN8 for proper connection and correct as necessary.	-	-
2	Check the connector between PS2-PRCB CN15 for proper connection and correct as necessary.	-	-
3	Check the M3 connector for proper drive coupling and correct as necessary.	-	-
4	PS2 I/O check, sensor check	FSCB CN15-10 (ON)	F-10
5	M3 operation check	PRCB CN8-5 to 6	F-15
6	Change M3	-	-
7	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.3 0018, 0019

(1) Contents

Trouble type	PC motor's failure to turn
Trouble code	0018
Rank	B
Detection timing	The motor lock signal remains HIGH for a predetermined continuous period of time while the motor is turning.
Trouble isolation	-
Relevant electrical parts	• PC motor (M2) • Printer control board (PRCB)

Trouble type	PC motor's turning at abnormal timing
Trouble code	0019
Rank	B
Detection timing	The motor lock signal remains LOW for a predetermined continuous period of time while the motor remains stationary.
Trouble isolation	-
Relevant electrical parts	• PC motor (M2) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M2-PRCB CN4 for proper connection and correct as necessary.	-	-
2	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
3	M2 operation check	PRCB CN4-4 (REM) PRCB CN4-7 (LOCK)	L-10
4	Change M2	-	-
5	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.4 004A

(1) Contents

Trouble type	Cooling fan motor's failure to turn
Trouble code	004A
Rank	B
Detection timing	The fan lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary.
Trouble isolation	-
Relevant electrical parts	• Cooling fan motor (FM2) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between FM2-relay CN44-relay CN46-PRCB CN5 for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	FM2 operation check	PRCB CN5-2 (REM) PRCB CN5-3 (LOCK)	G-10
4	Change FM2	-	-
5	PRCB ICP6 conduction check	-	-
6	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.5 004B

(1) Contents

Trouble type	Toner suction fan motor's turning at abnormal timing
Trouble code	004B
Rank	B
Detection timing	The motor lock signal remains HIGH for a predetermined continuous period of time while the motor is turning.
Trouble isolation	-
Relevant electrical parts	• Toner suction fan motor (FM4) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between FM4-relay CN43-PRCB CN6 for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	FM4 operation check	PRCB CN6-14 (REM) PRCB CN6-15 (LOCK)	I-15
4	Change FM4	-	-
5	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.6 004E

(1) Contents

Trouble type	Power supply cooling fan motor's failure to turn
Trouble code	004E
Rank	B
Detection timing	The fan lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary.
Trouble isolation	-
Relevant electrical parts	• Power supply cooling fan motor (FM1) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between FM1-relay CN95-PRCB CN3 for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	FM1 operation check	PRCB CN8-8 (REM) PRCB CN8-9 (LOCK)	F-15
4	Change FM1	-	-
5	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.7 0100

(1) Contents

Trouble type	AC signal abnormality

Trouble code	0100
Rank	C
Detection timing	Zero cross signal is not detected for a given period of interval when AC frequency is measured with the power switch ON or when fusing heater is turned ON/OFF.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the fusing unit for correct installation (whether it is secured in position).	-	-
2	Check the fusing unit CN30-PRCB CN16, fusing unit-relay CN4AC-DCPU CN2 for proper connection and correct or change as necessary.	-	-
3	Change fusing unit	-	-
4	Change PRCB	-	-
5	Change DCPU	-	-

- Link to the wiring diagram (PDF format)

3.4.8 0300

(1) Contents

Trouble type	Polygon motor rotation trouble
Trouble code	0300
Rank	B
Detection timing	• The polygon motor (M9) fails to turn stably even after the lapse of a given period of time after activating the polygon motor. • Motor lock signal detects HIGH for a given period time consecutively during the polygon motor (M9) is rotating.
Trouble isolation	-
Relevant electrical parts	• PH unit • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between PH unit-PRCB CN19, CN20 for proper connection and correct as necessary.	-	-
2	Change PH unit	-	-
3	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.9 0310

(1) Contents

Trouble type	Laser malfunction
Trouble code	0310
Rank	B
Detection timing	• SOS signal is not detected even after the lapse of a given period of time after starting the laser output. • SOS signal is not detected for a given period of time during printing.
Trouble isolation	-
Relevant electrical parts	• PH unit • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between PH unit-PRCB CN19, CN20 for proper connection and correct as necessary.	-	-
2	Change PH unit	-	-
3	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.10 0500, 0501

(1) Contents

Trouble type	Fusing heaters trouble (center)
Trouble code	0500
Rank	A
Detection timing	• Detected temperature of the heating roller thermistor (TH2; center) does not go up a given range of temperature even after a lapse of given period of time at warm up. • The warm-up is not completed even after the set period of time has elapsed after the warm-up is started.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

Trouble type	Fusing heaters trouble (edge)
Trouble code	0501
Rank	A
Detection timing	• Detected temperature of the heating roller thermistor (TH2; edge) does not go up a given range of temperature even after a lapse of given period of time at warm up. • The warm-up is not completed even after the set period of time has elapsed after the warm-up is started.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the fusing unit for correct installation (whether it is secured in position).	-	-
2	Check the open/close operation of the right door.	-	-
3	Check the fusing unit CN30-PRCB CN16, fusing unit-relay CN4AC-DCPU CN2 for proper connection and correct or change as necessary.	-	-
4	Change fusing unit	-	-
5	Change PRCB	-	-
6	Change DCPU	-	-

- Link to the wiring diagram (PDF format)

3.4.11 0510, 0511

(1) Contents

Trouble type	Fusing abnormally low temperature detection (center)
Trouble code	0510
Rank	A
Detection timing	Detected temperature of the heating roller thermistor (TH2; center) goes below a given temperature for a given period of time consecutively after warm up is completed.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

Trouble type	Fusing abnormally low temperature detection (edge)
Trouble code	0511
Rank	A
Detection timing	Detected temperature of the heating roller thermistor (TH2; edge) goes below a given temperature for a given period of time consecutively after warm up is completed.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the fusing unit for correct installation (whether it is secured in position).	-	-
2	Check the open/close operation of the right door.	-	-

Step	Action	Control signal	Location of electrical components
3	Check the fusing unit CN30-PRCB CN16, fusing unit-relay CN4AC-DCPU CN2 for proper connection and correct or change as necessary.	-	-
4	Change fusing unit	-	-
5	Change PRCB	-	-
6	Change DCPU	-	-

- Link to the wiring diagram (PDF format)

3.4.12 0520, 0521

(1) Contents

Trouble type	Fusing abnormally high temperature detection (center)
Trouble code	0520
Rank	A
Detection timing	Detected temperature of the heating roller thermistor (TH2; center) goes beyond a given temperature for a given period of time consecutively.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

Trouble type	Fusing abnormally high temperature detection (edge)
Trouble code	0521
Rank	A
Detection timing	Detected temperature of the heating roller thermistor (TH2; edge) goes beyond a given temperature for a given period of time consecutively.
Trouble isolation	-
Relevant electrical parts	• Fusing unit • DC power supply (DCPU) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the fusing unit for correct installation (whether it is secured in position).	-	-
2	Check the open/close operation of the right door.	-	-
3	Check the fusing unit CN30-PRCB CN16, fusing unit-relay CN4AC-DCPU CN2 for proper connection and correct or change as necessary.	-	-
4	Change fusing unit	-	-
5	Change PRCB	-	-
6	Change DCPU	-	-

- Link to the wiring diagram (PDF format)

3.4.13 0900, 0950

(1) Contents

Trouble type	Tray 4 lift-up failure (PC-211)
Trouble code	0900
Rank	B
Detection timing	• The tray 4 upper limit sensor (PS43) is not blocked even after the set period of time has elapsed after the paper lift-up operation for the drawer began.
Trouble isolation	• Tray 4
Relevant electrical parts	• Tray 4 lift-up motor (M43) • Tray 4 upper limit sensor (PS43) • PC control board (PCCB) • Printer control board (PRCB)

Trouble type	Tray 5 lift-up failure (PC-211)
Trouble code	0950
Rank	B
Detection timing	• The tray 5 upper limit sensor (PS53) is not blocked even after the set period of time has elapsed after the paper lift-up operation for the drawer began.
Trouble isolation	• Tray 5
Relevant electrical parts	• Tray 5 lift-up motor (M53) • Tray 5 upper limit sensor (PS53)

	• PC control board (PCCB) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M43-PCCB CN4 for proper connection and correct as necessary.	-	-
2	Check the connector between M53-PCCB CN8 for proper connection and correct as necessary.	-	-
3	Check the connector between PS43-relay CN18-PCCB CN6 for proper connection and correct as necessary.	-	-
4	Check the connector between PS53-relay CN18-PCCB CN10 for proper connection and correct as necessary.	-	-
5	Check the connector of each motor for proper drive coupling, and correct as necessary.	-	-
6	PS43 I/O check, sensor check	PCCB CN6-3 (ON)	PC-211 G-3
7	PS53 I/O check, sensor check	PCCB CN10-3 (ON)	PC-211 G-10
8	M43 operation check	PCCB CN4-4 (ON)	PC-211 F-3
9	M53 operation check	PCCB CN8-12 (ON)	PC-211 E-10
10	Change PCCB	-	-
11	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.14 0910

(1) Contents

Trouble type	Tray 3 feeder up/down abnormality
Trouble code	0910
Rank	B
Detection timing	The paper feed tray 3 upper limit sensor (PS10) is not blocked even after the lapse of a given period of time after the lifting motion has been started.
Trouble isolation	• Tray 3
Relevant electrical parts	• Tray 3 lift-up motor (M5) • Tray 3 upper limit sensor (PS10) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M5-PRCB CN11 for proper connection and correct as necessary.	-	-
2	Check the connector of M5 for proper drive coupling and correct as necessary.	-	-
3	Check the connector between PS10-relay CN6-PRCB CN14 for proper connection and correct as necessary.	-	-
4	PS10 I/O check, sensor check	PRCB CN14-5 (ON)	E-15
5	M5 operation check	PRCB CN11-18 to 19	L-7
6	Change M5	-	-
7	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.15 0920

(1) Contents

Trouble type	Tray 2 feeder up/down abnormality
Trouble code	0920
Rank	B
Detection timing	The paper feed tray 2 upper limit sensor (PS3) is not blocked even after the lapse of a given period of time after the lifting motion has been started.
Trouble isolation	• Tray 2
Relevant electrical parts	• Tray 2 lift-up motor (M4) • Tray 2 upper limit sensor (PS3) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M4-PRCB CN12 for proper connection and correct as necessary.	-	-
2	Check the connector of M4 for proper drive coupling and correct as necessary.	-	-
3	Check the connector between PS3-relay CN1-PRCB CN13 for proper connection and correct as necessary.	-	-
4	PS3 I/O check, sensor check	PRCB CN13-5 (ON)	D-15
5	M4 operation check	PRCB CN12-18 to 19	J-7
6	Change M4	-	-
7	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.16 0960

(1) Contents

Trouble type	Tray 1 up/down abnormality
Trouble code	0960
Rank	B
Detection timing	• Paper does not unblock the tray 1 lift-up position sensor (PS20) even after the transport motor (M1) rotates for a given period of time after the position is switched from stand by position at lift-up plate to the feed position. • The tray 1 lift-up position sensor (PS20) is not blocked even after the transport motor (M1) rotates for a given period of time after the position is switched from stand by position at lift-up plate to the feed position.
Trouble isolation	• Tray 1 (manual bypass tray)
Relevant electrical parts	• Transport motor (M1) • Tray 1 pick-up solenoid (SD1) • Tray 1 lift-up position sensor (PS20) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M1-PRCB CN3 for proper connection and correct as necessary.	-	-
2	Check the connector of M1 for proper drive coupling and correct as necessary.	-	-
3	Check the connector between PS20-PRCB CN9 for proper connection and correct as necessary.	-	-
4	Check the connector between SD1-relay CN99-relay CN15-PRCB CN9 for proper connection and correct as necessary.	-	-
5	PS20 I/O check, sensor check	PRCB CN9-7 (ON)	I-15
6	SD1 operation check	PRCB CN9-4 (ON)	I-15
7	M1 operation check	PRCB CN3-4 (REM) PRCB CN3-7 (LOCK)	K-10
8	Change M1	-	-
9	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.17 0B05

(1) Contents

Trouble type	Malfunctioning of belt up/down movement (FS-529)
Trouble code	0B05
Rank	B
Detection timing	• The belt position sensor (PS13) is not turned OFF after the set period of time has elapsed after the belt retract solenoid (SD5) is turned ON. • The belt position sensor (PS13) is not turned ON after the set period of time has elapsed after the conveyance motor/1 (M5) is turned ON.
Trouble isolation	• Staple
Relevant electrical parts	• Conveyance motor/1 (M5) • Belt retract solenoid (SD5) • Belt position sensor (PS13) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M5-FSCB CN17 for proper connection and correct as necessary.	-	-
2	Check the connector between SD5-FSCB CN19 for proper connection and correct as necessary.	-	-
3	Check the connector between PS13-FSCB CN7 for proper connection and correct as necessary.	-	-
4	Check the connector of M5 for proper drive coupling, and correct as necessary.	-	-
5	PS13 I/O check, sensor check	FSCB CN7-12 (ON)	FS-529 B-5 to 6
6	M5 operation check	FSCB CN17-3 to 6	FS-529 G-6
7	Change M5	-	-
8	SD5 operation check	FSCB CN19-5 (ON)	FS-529 G-4
9	Change SD5	-	-
10	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.18 0B20

(1) Contents

Trouble type	Stapler movement drive malfunction (FS-529)
Trouble code	0B20
Rank	B
Detection timing	During the home position search, the stapler home sensor (PS11) is not turned ON or OFF even after the set period of time has elapsed after the stapler movement motor (M7) is turned ON.
Trouble isolation	• Staple
Relevant electrical parts	• Stapler movement motor (M7) • Stapler home sensor (PS11) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M7-FSCB CN18 for proper connection and correct as necessary.	-	-
2	Check the connector between PS11-FSCB CN7 for proper connection and correct as necessary.	-	-
3	Check the connector of M7 for proper drive coupling, and correct as necessary.	-	-
4	PS11 I/O check, sensor check	FSCB CN7-6 (ON)	FS-529 B-5
5	M7 operation check	FSCB CN18-1 to 4	FS-529 G-5
6	Change M7	-	-
7	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.19 0B30

(1) Contents

Trouble type	Alignment plate R drive malfunction (FS-529)
Trouble code	0B30
Rank	B
Detection timing	The alignment plate home sensor/R (PS9) is turned neither ON nor OFF even after the set period of time has elapsed after the alignment motor/R (M4) is turned ON.
Trouble isolation	-
Relevant electrical parts	• Alignment motor/R (M4) • Alignment plate home sensor/R (PS9) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M4-FSCB CN14 for proper connection and correct as necessary.	-	-
2	Check the connector between PS9-FSCB CN6 for proper connection and correct as necessary.	-	-

Step	Action	Control signal	Location of electrical components
3	Check the connector of M4 for proper drive coupling, and correct as necessary.	-	-
4	PS9 I/O check, sensor check	FSCB CN6-9 (ON)	FS-529 B-1
5	M4 operation check	FSCB CN14-5 to 8	FS-529 G-3
6	Change M4	-	-
7	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.20 0B32

(1) Contents

Trouble type	Alignment plate F drive malfunction (FS-529)
Trouble code	0B32
Rank	B
Detection timing	The alignment plate home sensor/F (PS8) is turned neither ON nor OFF even after the set period of time has elapsed after the alignment motor/F (M3) is turned ON.
Trouble isolation	-
Relevant electrical parts	• Alignment motor/F (M3) • Alignment plate home sensor/F (PS8) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M3-FSCB CN14 for proper connection and correct as necessary.	-	-
2	Check the connector between PS8-FSCB CN6 for proper connection and correct as necessary.	-	-
3	Check the connector of M3 for proper drive coupling, and correct as necessary.	-	-
4	PS8 I/O check, sensor check	FSCB CN6-6 (ON)	FS-529 B-1
5	M3 operation check	FSCB CN14-1 to 4	FS-529 G-2
6	Change M3	-	-
7	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.21 0B33

(1) Contents

Trouble type	Leading edge stopper motor drive malfunction (FS-529)
Trouble code	0B33
Rank	B
Detection timing	The leading edge stopper home sensor (PS14) is not turned OFF after the set period of time has elapsed after the stapler motor (M8) is turned ON.
Trouble isolation	• Staple
Relevant electrical parts	• Stapler unit • Leading edge stopper home sensor (PS14) • FS control board (FSCB)

(2) Procedure

When FS-529 is installed

Step	Action	Control signal	Location of electrical components
1	Check the connector between stapler unit -FSCB CN20 for proper connection and correct as necessary.	-	-
2	Check the connector between PS14-FSCB CN8 for proper connection and correct as necessary.	-	-
3	Check the connector of stapler unit for proper drive coupling, and correct as necessary.	-	-
4	PS14 I/O check, sensor check	FSCB CN8-3 (ON)	FS-529 B-6
5	Change stapler unit	-	-
6	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.22 0B48

(1) Contents

Trouble type	Exit roller pressure/ retraction malfunction (FS-529)
Trouble code	0B48
Rank	B
Detection timing	The pick up roller position sensor (PS12) is turned neither ON nor OFF even after the set period of time has elapsed after the pick up roller position motor (M1) is turned ON.
Trouble isolation	-
Relevant electrical parts	• Pick up roller position motor (M1) • Pick up roller position sensor (PS12) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M9-FSCB CN11 for proper connection and correct as necessary.	-	-
2	Check the connector between PS12-FSCB CN7 for proper connection and correct as necessary.	-	-
3	Check the connector of M1 for proper drive coupling, and correct as necessary.	-	-
4	PS12 I/O check, sensor check	FSCB CN7-9 (ON)	FS-529 B-5
5	M1 operation check	FSCB CN11-3 to 6	FS-529 G-1
6	Change M1	-	-
7	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.23 0B50

(1) Contents

Trouble type	Staple drive malfunction (FS-529)
Trouble code	0B50
Rank	B
Detection timing	• During the initial operation, the stapler home sensor (PS11) is not turned ON even after the set period of time has elapsed after the stapler movement motor (M7) is turned ON. • The stapler home sensor (PS11) is not turned ON after the set period of time has elapsed after the stapler motor (M8) is turned ON.
Trouble isolation	• Staple
Relevant electrical parts	• Stapler unit • FS control board (FSCB) • Stapler home sensor (PS11) • Stapler movement motor (M7)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between PS11-FSCB CN7 for proper connection and correct as necessary.	-	-
2	Check the connector between M7-FSCB CN18 for proper connection and correct as necessary.	-	-
3	Check the connector between stapler unit-FSCB CN20 for proper connection and correct as necessary.	-	-
4	PS11 I/O check, sensor check	FSCB CN7-6 (ON)	FS-529 B-5
5	M7 operation check	FSCB CN18-1 to 4	FS-529 G-5
6	Change M7	-	-
7	Change stapler unit	-	-
8	Change FSCB	-	-

3.4.24 0BA0

(1) Contents

Trouble type	Elevate drive malfunction (FS-529)
Trouble code	0BA0
Rank	B
Detection timing	• When the exit tray is moving up: When the tray up/down motor (M2) starts rotating with the output of the tray lower limit sensor (PS6) being ON, PS6 is not turned OFF even after the set period of time has elapsed.

	• The paper surface detect sensor/1 (PS2) or the paper surface detect sensor/2 (PS3) is not turned ON even after the set period of time has elapsed after the tray up/down motor (M2) starts rotating. • When the exit tray is moving down: The tray lower limit sensor (PS6) is not turned ON even after the set period of time has elapsed after the tray up/down motor (M2) starts rotating.
Trouble isolation	-
Relevant electrical parts	• Tray up/down motor (M2) • Tray lower limit sensor (PS6) • Paper surface detect sensor/1 (PS2) • Paper surface detect sensor/2 (PS3) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between M2-FSCB CN12 for proper connection and correct as necessary.	-	-
2	Check the connector between PS6-FSCB CN5 for proper connection and correct as necessary.	-	-
3	Check the connector between PS2-FSCB CN4 for proper connection and correct as necessary.	-	-
4	Check the connector between PS3-FSCB CN4 for proper connection and correct as necessary.	-	-
5	Check the connector of M2 for proper drive coupling, and correct as necessary.	-	-
6	PS6 I/O check, sensor check	FSCB CN5-9 (ON)	FS-529 B-2
7	PS2 I/O check, sensor check	FSCB CN4-3 (ON)	FS-529 B-3
8	PS3 I/O check, sensor check	FSCB CN4-6 (ON)	FS-529 B-2
9	M2 operation check	FSCB CN12-1 to 2	FS-529 G-2
10	Change M2	-	-
11	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.25 0BE1

(1) Contents

Trouble type	Fan motor drive malfunction (FS-529)
Trouble code	0BE1
Rank	B
Detection timing	While the motor is rotating, the fan lock signal remains L for the set period of time.
Trouble isolation	-
Relevant electrical parts	• Fan motor (FM1) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector between FM1-FSCB CN19 for proper connection and correct as necessary.	-	-
2	Check the connector of FM1 for proper drive coupling, and correct as necessary.	-	-
3	FM1 operation check	FSCB CN19-2 (LOCK)	FS-529 G-4
4	Change FM1	-	-
5	Change FSCB	-	-

- Link to the wiring diagram (PDF format)

3.4.26 0F36, 0F37

(1) Contents

Trouble type	Abnormally low toner density detected TCR sensor
Trouble code	0F36
Rank	B
Detection timing	When sampling data is determined in TC ratio calculation control, TCR sensor output is lower than a predetermined value for a predetermined number of times in a row even though there is toner in the sub hopper.
Trouble isolation	-
Relevant electrical parts	• Developing unit • Toner bottle

	• Toner near empty switch (RS1) • Toner bottle motor (M3) • Toner supply motor (M8) • TCR sensor board (TCRSB) • Printer control board (PRCB)

Trouble type	Abnormally high toner density detected TCR sensor
Trouble code	0F37
Rank	B
Detection timing	TC ratio in the developing unit, which is determined by toner replenishing amount control mechanism, is a predetermined value or more for a given number of times consecutively.
Trouble isolation	-
Relevant electrical parts	• Developing unit • Toner bottle • Toner near empty switch (RS1) • Toner bottle motor (M3) • Toner supply motor (M8) • TCR sensor board (TCRSB) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Make sure that the following counter is cleared at the developer replacing. [Service Mode] -> [Supplies] -> [Life Counter Clear] -> [Developer (K)]	-	-
2	Perform image troubleshooting procedure if image density is low.	-	-
3	Reinstall developing unit	-	-
4	Reinstall toner bottle	-	-
5	Check the contact of developing unit for proper connection and correct as necessary.	-	-
6	Check the connector between TCRSB CN29-relay CN28-PRCB CN24 for proper connection and correct as necessary.	-	-
7	Check the connector between M3-PRCB CN8 for proper connection and correct as necessary.	-	-
8	Check the connector between M8-relay CN13-PRCB CN8 for proper connection and correct as necessary.	-	-
9	M3 operation check	PRCB CN8-5 to 6	F-15
10	M8 operation check	PRCB CN8-1 to 4	F-15
11	Change developing unit	-	-
12	Change TCRSB	-	-
13	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.27 0F3D, 0F43

(1) Contents

Trouble type	TCR sensor adjustment failure
Trouble code	0F3D
Rank	B
Detection timing	TCR sensor automatic adjustment does not function properly, failing to adjust to an appropriate value.
Trouble isolation	-
Relevant electrical parts	• Developing unit • Toner bottle • Toner near empty switch (RS1) • Toner bottle motor (M3) • Toner supply motor (M8) • TCR sensor board (TCRSB) • Printer control board (PRCB)

Trouble type	TCR sensor failure
Trouble code	0F43
Rank	B
Detection timing	Alarm signals for a TCR sensor are detected. This detection is used for detecting disconnection of TCR sensor board (TCRSB) connector.
Trouble isolation	-

Relevant electrical parts	• Developing unit • Toner bottle • Toner near empty switch (RS1) • Toner bottle motor (M3) • Toner supply motor (M8) • TCR sensor board (TCRSB) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reinstall developing unit	-	-
2	Reinstall toner bottle	-	-
3	Check the contact of developing unit for proper connection and correct as necessary.	-	-
4	Check the connector between TCRSB CN29-relay CN28-PRCB CN24 for proper connection and correct as necessary.	-	-
5	Check the connector between M3-PRCB CN8 for proper connection and correct as necessary.	-	-
6	Check the connector between M8-relay CN13-PRCB CN8 for proper connection and correct as necessary.	-	-
7	M3 operation check	PRCB CN8-5 to 6	F-15
8	M8 operation check	PRCB CN8-1 to 4	F-15
9	Change developing unit	-	-
10	Change TCRSB	-	-
11	Change PRCB	-	-

- Link to the wiring diagram (PDF format)

3.4.28 10A5

(1) Contents

Trouble type	Marketing area error
Trouble code	10A5
Rank	C
Detection timing	• Marketing area error is detected when reading the backup media of the machine is finished. • Hardware signal is not fixed when the Boot started.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Disconnect and then connect the power cord. Turn OFF the power switch, wait for 10 sec. or more, and turn ON the power switch.	-	-
2	Rewrite the firmware.	-	-
3	Change PRCB	-	-

3.4.29 133B

(1) Contents

Trouble type	FNS communication error (FS-529)
Trouble code	133B
Rank	C
Detection timing	When the FS control board (FSCB) is receiving data, a communication error is detected.
Trouble isolation	-
Relevant electrical parts	• FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Disconnect and then connect the power cord. Turn OFF the power switch, wait for 10 sec. or more, and turn ON the power switch.	-	-
2	Rewrite the firmware.	-	-
3	JSCB F1 conduction check	-	-

Step	Action	Control signal	Location of electrical components
4	JSCB F2 conduction check	-	-
5	Change FSCB	-	-

3.4.30 1340

(1) Contents

Trouble type	FPGA configuration error
Trouble code	1340
Rank	C
Detection timing	When a configuration check is performed on the extended IC chip (FPGA) located on the printer control board (PRCB), error is detected.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the machine.	-	-
2	Rewrite the firmware.	-	-
3	Change PRCB	-	-

3.4.31 13D0

(1) Contents

Trouble type	Main backup media access error
Trouble code	13D0
Rank	C
Detection timing	• When an error is detected at the data reading process. • The machine writes and reads data, and judges that the data has error. Then the machine performs the same process and judges again that the data has error. • When counter values are read, error is detected. • The machine detects that it does not have EEPROM.
Trouble isolation	-
Relevant electrical parts	• EEPROM (IC51 on the printer control board) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the machine.	-	-
2	Check the EEPROM on the PRCB for proper connection and correct as necessary.	-	-
3	Change PRCB	-	-
4	Change EEPROM	-	-

3.4.32 13F0

(1) Contents

Trouble type	Engine control malfunction
Trouble code	13F0
Rank	C
Detection timing	Engine control malfunction is detected with port monitor control.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connectors on the PRCB for proper connection and correct or change as necessary.	-	-
2	Rewrite the firmware.	-	-
3	Change PRCB	-	-

3.4.33 1402

(1) Contents

Trouble type	FS NVRAM memory error (FS-529)
Trouble code	1402
Rank	C
Detection timing	When the power switch is turned ON, malfunctioning of the non-volatile memory on the FS control board (FSCB) is detected.
Trouble isolation	-
Relevant electrical parts	• FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Disconnect and then connect the power cord. Turn OFF the power switch, wait for 10 sec. or more, and turn ON the power switch.	-	-
2	Rewrite the firmware.	-	-
3	Change FSCB	-	-

3.4.34 3C00, 3C01

(1) Contents

Trouble type	Trouble related to security
Trouble code	3C00, 3C01
Rank	-
Detection timing	-
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Contact the responsible people of KONICA MINOLTA when not returning in power switch OFF/ON.	—	—

• Link to the wiring diagram (PDF format)

3.4.35 3FFB

(1) Contents

Trouble type	Finisher ROM error
Trouble code	3FFB
Rank	C
Detection timing	Data of flash ROM of the finishing options is determined to be faulty when the power switch is turned ON.
Trouble isolation	-
Relevant electrical parts	• FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Disconnect and then connect the power cord. Turn OFF the main power switch, wait for 10 sec. or more, and turn ON the power switch.	-	-
2	Rewrite firmware.	-	-
3	Change FSCB	-	-

3.4.36 6751, 6790, 6792, 6793, 9401

(1) Contents

Trouble type	Gain adjustment error
Trouble code	6751
Rank	-
Detection timing	Reading the white pixel output of each color from the data provided by the shading plate, the machine makes the gain adjustment for each color so that the maximum value of each color becomes within the specified range. However, after the machine attempts the adjustment three times in total (including two retries), the value is out of the specified range.

Trouble isolation	-
Relevant electrical parts	• Scanner unit • MFP board (MFPB)

Trouble type	Offset adjustment error
Trouble code	6790
Rank	-
Detection timing	Reading the black pixel output of each color from the data provided by the shading plate, the machine makes the offset adjustment for each color so that the average value of each color becomes within the specified range. However, after the machine attempts the offset adjustment three times in total (including two retries), the value is out of the specified range.
Trouble isolation	-
Relevant electrical parts	• Scanner unit • MFP board (MFPB)

Trouble type	White reference plate search error
Trouble code	6792
Rank	-
Detection timing	During an initialization, the black edge and the white edge read by the shading plate cannot be detected.
Trouble isolation	-
Relevant electrical parts	• Scanner unit • MFP board (MFPB)

Trouble type	Scanner communication error
Trouble code	6793
Rank	-
Detection timing	An undefined communication error occurs between the controller and the scanner.
Trouble isolation	-
Relevant electrical parts	• Scanner unit • MFP board (MFPB)

Trouble type	Lamp illumination check error
Trouble code	9401
Rank	-
Detection timing	In the lamp stabilization check process during the lamp warm-up, light quantity does not become steady within a given period of time.
Trouble isolation	-
Relevant electrical parts	• Scanner unit • MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Clean the original glass.	-	-
3	Check the connector CN102, CN103 on MFPB for proper connection and correct as necessary.	-	-
4	Change scanner unit.	-	-
5	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.37 6791

(1) Contents

Trouble type	Register setting error
Trouble code	6791
Rank	-
Detection timing	After the default values of AFE gain and offset are set, the machine reads the gain and offset values again. Inconsistency between the values that are set and read is found.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Check the connector CN102, CN103 on MFPB for proper connection and correct as necessary.	-	-

Step	Action	Control signal	Location of electrical components
3	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.38 B116

(1) Contents

Trouble type	Communication error with the fax board
Trouble code	B116
Rank	-
Detection timing	An undefined communication error occurs between the controller and the fax board.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB) • Fax board (FAXB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connector CN106 on MFPB for proper connection and correct as necessary.	-	-
2	Change FAXB.	-	-
3	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.39 C023

(1) Contents

Trouble type	FlashROM error
Trouble code	C023
Rank	-
Detection timing	A SSD board (SSDB) failure occurs.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB) • SSD board (SSDB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Check the SSD board (SSDB) for proper connection and correct as necessary.	-	-
3	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.40 C026, C027

(1) Contents

Trouble type	Controller ROM error (Access error)
Trouble code	C026
Rank	-
Detection timing	Flash ROM access error is detected during the main unit starting.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

Trouble type	Controller ROM error (Data error)
Trouble code	C027
Rank	-
Detection timing	• Final check sum error is detected during the main unit starting. • When the main unit is started, a malfunction is detected in state confirmation process of the loadable driver.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-

Step	Action	Control signal	Location of electrical components
2	Check the MFPB connector for proper connection and correct as necessary.	-	-
3	If this error message is displayed after update of firmware, conduct the firmware update procedures again.	-	-
4	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.41 C050

(1) Contents

Trouble type	HDD access error
Trouble code	C050
Rank	-
Detection timing	When correct access to the hard disk kit (HDD) is failed during access.
Trouble isolation	-
Relevant electrical parts	• Hard disk kit (HDD) • MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Check the connector between HDD-MFPB CN7, CN5 for proper connection and correct as necessary.	-	-
3	Change HDD.	-	-
4	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.42 C051

(1) Contents

Trouble type	HDD full error
Trouble code	C051
Rank	-
Detection timing	Range for user space is full during access to the hard disk kit.
Trouble isolation	-
Relevant electrical parts	• Hard disk kit (HDD) • MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Delete the job hold in [PS/PCL PRINT] - [PROOF/PRINT MENU] to increase the available range for user space.		
3	Check the connector between HDD-MFPB CN7, CN5 for proper connection and correct as necessary.	-	-
4	Format HDD with [Admin Settings] -> [HDD Format].	-	-
5	Change HDD.	-	-

- Link to the wiring diagram (PDF format)

3.4.43 C060

(1) Contents

Trouble type	Firmware update error
Trouble code	C060
Rank	-
Detection timing	Firmware update fails to complete correctly during update.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-

Step	Action	Control signal	Location of electrical components
2	Check the cable that has been used for update of the firmware for proper connection and correct as necessary.		
3	Check the firmware update file and if the file is not the correct one, update the firmware again.	-	-
4	Check the firmware update procedure and if the procedure is not correct, update the firmware again.	-	-
5	Update the firmware again.	-	-
6	Check the MFPB connector for proper connection and correct as necessary.	-	-
7	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.44 C072

(1) Contents

Trouble type	Counter not installed
Trouble code	C072
Rank	-
Detection timing	The total counter (CNT) is not installed.
Trouble isolation	-
Relevant electrical parts	• Total counter (CNT) • Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Check the connector between CNT-PRCB CN15 for proper connection and correct as necessary.	-	-
3	Change PRCB.	-	-

- Link to the wiring diagram (PDF format)

3.4.45 C073

(1) Contents

Trouble type	Finisher not connected
Trouble code	C073
Rank	-
Detection timing	Connection status error for the finisher FS-529 is occurred.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB) • FS control board (FSCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the connection status of the finisher FS-529, and modify as necessary.	-	-
2	Change FSCB.	-	-
3	Change PRCB.	-	-

- Link to the wiring diagram (PDF format)

3.4.46 C074

(1) Contents

Trouble type	Engine ROM error
Trouble code	C074
Rank	-
Detection timing	ROM on the printer control board has error.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Rewrite firmware.	-	-
2	Change PRCB.	-	-

3.4.47 C075

(1) Contents

Trouble type	Large Paper Size Kit error
Trouble code	C075
Rank	-
Detection timing	The installed large paper size kit is not compatible with the marketing area for which the MFP board is destined.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Install the large paper size kit appropriate for the marketing area.	-	-
2	Change MFPB.	-	-

3.4.48 C076

(1) Contents

Trouble type	Copy Kit Counter error
Trouble code	C076
Rank	-
Detection timing	The current count value of the copy kit counter reaches the setting configured in [Max. Allowance Set].
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Increase the setting configured in [Max. Allowance Set] and turn the power switch OFF and ON. I.10.6 Copy Kit Counter	-	-
2	If the copy kit counter is not used, change the copy kit counter count setting to mode 1 and then turn the power switch OFF and ON. I.10.5 Copy Kit Counter Count		
3	Change MFPB.	-	-

3.4.49 C080

(1) Contents

Trouble type	Memory error
Trouble code	C080
Rank	-
Detection timing	The failure of the RAM on the MFP board occurs.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Change MFPB.	-	-

- Link to the wiring diagram (PDF format)

3.4.50 C900

(1) Contents

Trouble type	Successful completion of counter backup
Trouble code	C900

Rank	-
Detection timing	The counter backup process is completed successfully.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB) • SSD board (SSDB)

(2) Procedure

- This code is displayed when the counter backup process is completed successfully. When this code is displayed, turn OFF/ON the power switch and then perform the given steps.
  G.4.4.3 MFP board (MFPB)
- Link to the wiring diagram (PDF format)

3.4.51 C901, C902

(1) Contents

Trouble type	Counter writing error
Trouble code	C901, C902
Rank	-
Detection timing	The error occurred when the counter was written or other reasons.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB) • SSD board (SSDB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the MFPB connector for proper connection and correct as necessary	—	—
2	Check the SSDB connector for proper connection and correct as necessary	—	—
3	Change MFPB.	—	—
4	After taking the above actions, if results in the same trouble code again, the SSD is broken.	—	—

- Link to the wiring diagram (PDF format)

3.4.52 C907

(1) Contents

Trouble type	Abnormal end of counter backup
Trouble code	C907
Rank	-
Detection timing	The counter backup process results in an abnormal end due to a write error or other reasons.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB) • SSD board (SSDB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Check the MFPB connector for proper connection and correct as necessary	—	—
2	Check the SSDB connector for proper connection and correct as necessary	—	—
3	Change MFPB.	—	—
4	After taking the above actions, if the counter backup process results in the same trouble code again, the SSD can be broken. In this case, the counter backup is unavailable.	—	—

- Link to the wiring diagram (PDF format)

3.4.53 FF10, FF20, FF40, FF80

(1) Contents

Trouble type	Board image processing error (ASIC)
Trouble code	FF10,FF20,FF40,FF80
Rank	-

Detection timing	An image processing error is detected in the board.
Trouble isolation	-
Relevant electrical parts	• MFP board (MFPB)

(2) Procedure

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical components)
1	Reboot the main body.	-	-
2	Change MFPB.	-	-

• Link to the wiring diagram (PDF format)

3.4.54 FFFF

(1) Contents

Trouble type	Interface communication error
Trouble code	FFFF
Rank	-
Detection timing	Correct communication is failed when receiving/sending the command between PRCB and MFPB.
Trouble isolation	-
Relevant electrical parts	• Printer control board (PRCB) • MFP board (MFPB)

(2) Procedure

Step	Action	Control signal	Location of electrical components
1	Reboot the main unit.	-	-
2	Check the MFPB connector for proper connection and correct as necessary.	-	-
3	Check the PRCB connector for proper connection and correct as necessary.	-	-
4	Change connecting cable between MFPB and PRCB.	-	-
5	Change PRCB.	-	-
6	Change MFPB.	-	-

• Link to the wiring diagram (PDF format)

4. TROUBLES THAT DO NOT DISPLAY THE TROUBLE CODE

4.1 Machine is not energized at all (DCPU operation check)

4.1.1 Contents

Trouble type	Machine is not energized at all
Trouble code	-
Rank	-
Detection timing	-
Trouble isolation	-
Relevant electrical parts	• Main power switch (SW1) • Printer control board (PRCB) • DC power supply (DCPU)

4.1.2 Procedure

Step	Check item	Location of electrical components	Result	Action
1	Is a power voltage supplied across CN1-1, 3 on DCPU?	C-2	NO	Check the WIRING from the wall outlet to SW1 CN1.
2	Are the fuses on DCPU conducting?	-	NO	Change DCPU.
3	Is DC24 V being output from CN5-7, 8 on DCPU?	K-2	NO	Change DCPU.
4	Is DC5 V being input to CN4-5, 6 to 7 on DCPU?	E-2	NO	Change DCPU.
5	Is DC5 V being input to CN2-3 on PRCB? (LED on PRCB does not blink.)	J-5	NO	Change DCPU.
			YES	Change PRCB.

- Link to the wiring diagram (PDF format)

4.2 Fusing heaters do not operate

4.2.1 Contents

Trouble type	Fusing heaters do not operate
Trouble code	-
Rank	-
Detection timing	-
Trouble isolation	-
Relevant electrical parts	• Main power switch (SW1) • Right door switch (SW2) • DC power supply (DCPU) • Fusing unit

4.2.2 Procedure

Step	Check item	Location of electrical components	Result	Action
1	Is the power source voltage applied across CN16-1, 6 on DCPU? During this time, the right door should be closed.	D-12	NO	Check wiring from power outlet to SW1 to DCPU to CN5 to SW2 to PRCB CN16.
2	Is the power source voltage applied across CN30-4 and 9?	D-11	YES	Change fusing unit.
			NO	Change DCPU.

- Link to the wiring diagram (PDF format)

4.3 Power is not supplied to option

4.3.1 PC-211

(1) Procedure

Step	Check item	Location of electrical components	Result	Action
1	Is DC24 V being applied to CN84-1?	C-10	NO	Malfunction in cabinet.
2	Is DC24 V being output from CN6-3 on DCPU?	F-2	NO	Check wiring from DCPU to CN6 to cabinet.
3	Is the fuse on DCPU conducting?	-	YES	Change DCPU.
			NO	Malfunction in cabinet.

- Link to the wiring diagram (PDF format)

4.3.2 FS-529

(1) Procedure

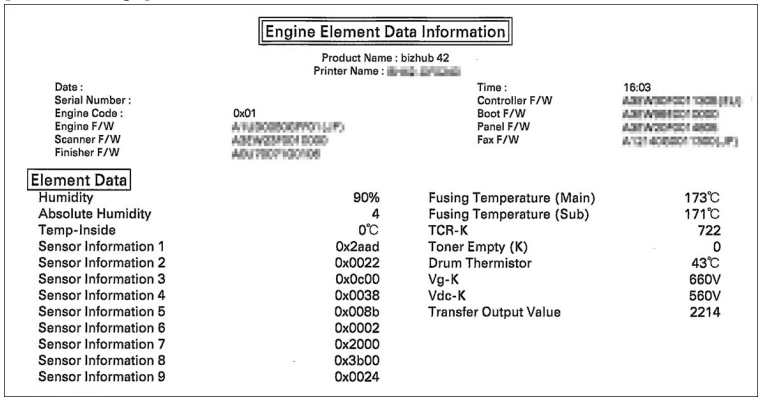
Step	Check item	Location of electrical components	Result	Action
1	Are DC24 V being applied to CN83L-1?	A-10	NO	Malfunction in finisher.
2	Are DC24 V being applied to CN6-2 on DCPU?	F-2	NO	Check wiring from DCPU to finisher.
3	Is the fuse on DCPU conducting?	-	YES	Change DCPU.
			NO	Malfunction in finisher.

- Link to the wiring diagram (PDF format)

5. IMAGE QUALITY PROBLEM

5.1 How to read element data

- Find the cause for the error by using the value on the element data information which is output by touching Service Mode -> [Print Menu] -> [Element Page].



Engine Element Data Information

Product Name : bizhub 42
Printer Name : [redacted]

Date :
Serial Number :
Engine Code : 0x01
Engine F/W [redacted]
Scanner F/W [redacted]
Finisher F/W [redacted]

Time : 16:03
Controller F/W [redacted]
Boot F/W [redacted]
Panel F/W [redacted]
Fax F/W [redacted]

Element Data

Humidity	90%	Fusing Temperature (Main)	173℃
Absolute Humidity	4	Fusing Temperature (Sub)	171℃
Temp-Inside	0℃	TCR-K	722
Sensor Information 1	0x2aad	Toner Empty (K)	0
Sensor Information 2	0x0022	Drum Thermistor	43℃
Sensor Information 3	0x0c00	Vg-K	660V
Sensor Information 4	0x0038	Vdc-K	560V
Sensor Information 5	0x008b	Transfer Output Value	2214
Sensor Information 6	0x0002		
Sensor Information 7	0x2000		
Sensor Information 8	0x3b00		
Sensor Information 9	0x0024		

Fusing temperature (Main) Fusing temperature (Sub)	• Shows the temperature of the each part of the fusing unit (in 1 °C increments). • Relevant components: Fusing unit
TCR-K	• Shows the T/C ratio (in 0.01 % increments). • Standard value: 5 to 7 % • Relevant components: TCR sensor
Toner Empty (K)	• Shows the remaining status of the toner bottle. 0: Normal status 1: Near empty 3: Empty stop • Relevant components: Toner bottle
Drum Thermistor	• Shows the temperature of the drum unit (in 1 °C increments). • Relevant components: Drum unit
Vg-K	• Shows the grid voltage value of toner when an image is produced. • Standard values: around 500 V (200 V to 900 V) • Relevant components: Developing unit, drum unit, high voltage unit (HV1)
Vdc-K	• Shows the developing bias value of toner when an image is produced. • Standard values: around 400 V (100 V to 750 V) • Relevant components: Developing unit, drum unit, high voltage unit (HV1)
Transfer Output Value	• Shows the latest ATVC level (which varies according to the paper type, environment or durability). • 300 V to 3800 V (ATVC) • Relevant components: High voltage unit (HV1), transfer roller unit

5.2 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.”

5.2.1 Initial check items

(1) Initial check items 1

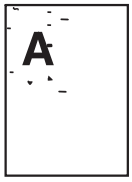
- Determine if the failure is attributable to a basic cause or causes.

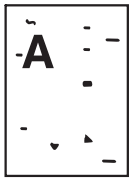
Section	Step	Check Item	Result	Action
Paper	1	Recommended paper is used.	NO	Instruct user.
	2	Paper is damp.	YES	Replace paper. Instruct user on proper paper storage.
Original	3	Original not flat.	YES	Repair original.
	4	Faint original (light pencil, etc.)	YES	Instruct user.
	5	Highly transparent original (OHP film, etc.)	YES	Instruct user.
	6	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
PM parts	7	PM parts relating to image formation have reached the end of cleaning/replacement cycles.	YES	Clean or replace the PM part whose life value has been reached.
Adjustment items	8	There are settings that can be readjusted to remedy the image failure.	YES	Readjust.

(2) Initial check items 2

- Determine if the failure is attributable to the Scanner system or the Printer system.

Check Item	Result	Cause
Make copies at different zoom ratios.	Full size	Scanner system

<table>
<tr><th>Check Item</th><th>Result</th><th>Cause</th></tr>
<tr><td rowspan="2"> </td><td>
Reduction
  </td><td></td></tr>
<tr><td>Full size

Reduction
  </td><td>Printer system</td></tr>
</table>

5.3 Solution (Scanner system)

Solution

NOTE

- **Samples shown in procedures are the ones printed by A4 or when scanned the A4S original.**

5.3.1 Scanner system: Blank copy or black copy

(1) Typical faulty images

[1] [2]

[1]	Blank copy	[2]	Black copy

(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Cable connecting scanner and printer	Connector CN102, CN103 on MFPB are connected properly with no pins bent.	NO	• Reconnect.

Step	Section	Check item	Result	Action
2	MFP board (MFPB)	The problem is eliminated after the I/F connection cable has been changed.	NO	• Change MFP board (MFPB). • Change scanner unit.

5.3.2 Scanner system: Low image density or rough image

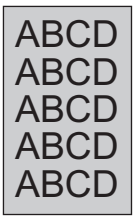
(1) Typical faulty images

(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	• Change scanner unit. • Change MFPB.

5.3.3 Scanner System: Foggy background

(1) Typical faulty images



(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	• Repair original.
2	ADF	Original pad is dirty.	YES	• Clean.
3		ADF does not lie flat.	YES	• Change 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	Copy [Density]	The problem is eliminated when the density setting is changed.	NO	• Change the setting of [Max Image Density Adj] in the service mode.
6	-	The problem has been eliminated through the checks of steps up to 5.	NO	• Change scanner unit. • Change MFPB.

5.3.4 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	• Repair original.
2	ADF	Original pad is dirty.	YES	• Clean original pad.
3	Original glass	Original glass is dirty.	YES	• Wipe the surface clean with a soft cloth.
4	[Service Mode] -> [Scanner Adjustment] -> [FB Leading Edge]	The adjustment value for [FB Leading Edge] falls within the specified range.	NO	• Readjust.
5	-	The problem has been eliminated through the checks of steps up to 4.	NO	• Change scanner unit.

5.3.5 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	• Repair original.
2	ADF	Original pad is dirty.	YES	• Clean original pad.
3	Original glass	Original glass is dirty.	YES	• Wipe the surface clean with a soft cloth.
4	[Service Mode] -> [Scanner Adjustment] -> [FB Side Edge]	The adjustment value for [FB Side Edge] falls within the specified range.	NO	• Readjust.
5	-	The problem has been eliminated through the checks of steps up to 4.	NO	• Change scanner unit.

5.3.6 Scanner system: Black spots

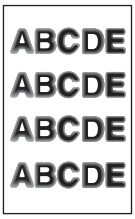
(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	• Repair original.
2	ADF	Original pad is dirty.	YES	• Clean original pad.
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	• Change scanner unit. • Change MFPB.

5.3.7 Scanner system: Blurred image, blotchy image

(1) Typical faulty images

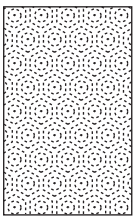


(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original does not lie flat.	YES	• Repair original.
2	ADF	ADF does not lie flat.	YES	• Change ADF if it is deformed or hinges are broken.
3	Original glass	Original glass is dirty.	YES	• Wipe the surface clean with a soft cloth. • Check original loading position.
4	-	The problem has been eliminated through the checks of steps up to 3.	NO	• Change scanner unit.

5.3.8 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	Copy [Original Type]	Moire distortions recur even after the [Original Type] has been changed.	YES	• Select [Text] or [Photo].
3	Copy [Zoom]	The problem has been eliminated through the checks of steps up to 2.	NO	• Change [Zoom].

5.3.9 Scanner system: Skewed image

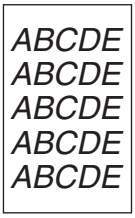
(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is skew.	YES	• Reposition original.
2	-	The problem has been eliminated through the checks of step up to 1.	NO	• Change scanner unit.

5.3.10 Scanner system: Distorted image

(1) Typical faulty images



(2) Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Installation	Machine is installed on a level surface.	NO	• Reinstall machine.
2	-	The problem has been eliminated through the checks of step up to 1.	NO	• Change scanner unit.

5.4 Solution (Printer system)

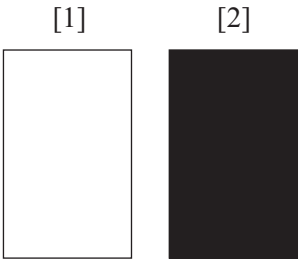
Solution

NOTE

- **Typical faulty image samples shown in the following are all printed with A4 setting.**

5.4.1 Printer system: Blank copy or black copy

(1) Typical faulty images



[1] Blank copy	[2] Black copy

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Imaging unit (blank copy)	There is foreign matter or dirt on the gear or belt that convey a drive to the developing section.	NO	• If there is foreign matter, remove a foreign matter and clean gear or belt.
2		The gear or belt that convey a drive to the developing section is damaged or scratched.	NO	• Replace gear, belt or unit that convey a drive to the developing section.
3		Image transfer current contact terminal is dirty or deformed.	YES	• If it is deformed, correct a terminal and clean it.
4		Developing bias contact terminal is dirty or deformed.	YES	• If it is deformed, correct a terminal and clean it.
5	Imaging unit (black copy)	Comb electrode is dirty.	YES	• Clean comb electrode.
		Grid mesh is dirty.	YES	• Clean grid mesh.
6	PWBs	Connectors are securely connected with no bent pins on the printer control board or PH Unit.	NO	• If there is a bent of pin, correct a pin and reconnect the connector surely.
7	-	The problem has been eliminated after performing step 6.	NO	• Change drum unit. • Change PH unit. • Change High voltage unit (HV1). • Change printer control board (PRCB).

5.4.2 Printer system: Low image density or rough image

(1) Typical faulty images

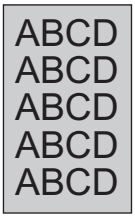
(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	[Admin Settings] -> [Maintenance Menu] -> [Printer Adjustment] -> [Max Image Density Adj]	Confirm the following setting is set to [-] side; [Admin Settings] -> [Maintenance Menu] -> [Printer Adjustment] -> [Max Image Density Adj].	YES	• Change the setting of the [Max Image Density Adj] to the optimum value.
2	Imaging unit	The drum unit, developing unit, or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3		Image transfer current contact terminal is dirty or deformed.	YES	• If it is deformed, correct a terminal and clean it.

Step	Section	Check Item	Result	Action
4		Developing bias contact terminal is dirty or deformed.	YES	• If it is deformed, correct a terminal and clean it.
5	[Print Menu] -> [Element Page] (Service Mode)	Check a value detected by the TCR sensor. (specified rang: 5 to 7 %)	NO	• Go to next step.
6	Level history data check results	A value detected by the TCR sensor is low.	YES	• Go to step 8.
7		A value detected by the TCR sensor falling within specified range (5 to 7 %).	YES	• Go to step 7.
8	PH unit	The glass surface of laser aperture is dirty.	YES	• Clean the glass surface of laser aperture.
9	[Printer Adjustment] -> [Replenish Toner] (Service Mode)	Toner is properly supplied when TCR toner supply is run.	NO	• Go to next step.
10	[Printer Adjustment] -> [Gradation Adjustment] (Service Mode)	Execute the Maximum Density Adjustment. “Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	• Go to step 11.
11	[Printer Adjustment] -> [Max Image Density Adj] (Service Mode)	Select [Service Mode] -> [Printer Adjustment] -> [Max Image Density Adj]. The image problem can be corrected by selecting an Max Image Density Adj setting toward the + end.	YES	• Change the setting of the [Max Image Density Adj] to the optimum value.
12	-	The problem has been eliminated after performing step 11.	NO	• Change drum unit. • Change PH unit. • Change high voltage unit (HV1). • Change printer control board (PRCB).

5.4.3 Printer system: Foggy background

(1) Typical faulty images



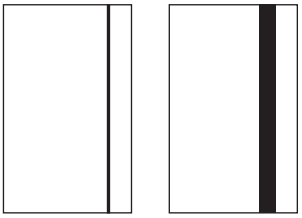
(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Installation position of the machine	Sunlight or any other extraneous light enters the machine.	YES	• Protect the copier from extraneous light. • Change the installation direction to avoid extraneous light. • Change the installation position to avoid extraneous light.
2	Imaging Unit	The drum unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3		Comb electrode is dirty.	YES	• Clean comb electrode.
4		Grid mesh is dirty.	YES	• Clean grid mesh.
5	Erase lamp	Erase lamp is dirty.	YES	• Clean erase lamp.
6		Is the erase lamp connected correctly? Is there a damage or disconnection on the erase lamp?	NO	• Reconnect. • Change ozone duct assy.
7	[Printer Adjustment] -> [Gradation Adjustment] (Service Mode)	Select [Service Mode] -> [Printer Adjustment] -> [Gradation Adjustment]. The image problem can be corrected by executing the gradation adjustment.	YES	• Execute [Gradation Adjustment].
8	[Printer Adjustment] -> [Image Background Adj] (Service Mode)	Select [Service Mode] -> [Printer Adjustment] -> [Image Background Adj]. The image problem can be corrected by selecting an Image Background Adj setting toward the + end.	YES	• Change the setting of the [Image Background Adj] to the optimum value.

Step	Section	Check Item	Result	Action
9	-	The problem has been eliminated after performing step 8.	NO	• Change drum unit. • Change developing unit. • Change PH unit. • Change high voltage unit (HV1). • Change printer control board (PRCB).

5.4.4 Printer system: Black streaks or bands in sub scan direction

(1) Typical faulty images

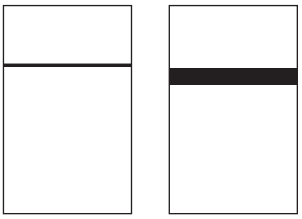


(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper path	Toner is on the paper path.	YES	• Clean the paper path.
2	Imaging unit	The drum unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3		Drum is scratched.	YES	• Change drum unit.
4		IU is dirty.	YES	• Clean IU and its installing part.
5	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
6	-	The problem has been eliminated after performing step 5.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.5 Printer system: Black streaks or bands in main scan direction

(1) Typical faulty images



(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper path	Toner is on the paper path.	YES	• Clean the paper path.
2	Imaging unit	The drum unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3		Drum is scratched.	YES	• Change drum unit.
4		IU is dirty.	YES	• Clean IU and its installing part.
5	Transfer roller unit	Transfer roller is dirty or scratched.	YES	• Change transfer roller unit.
6	Paper path	There is foreign matter on paper path.	YES	• Remove foreign matter.

Step	Section	Check Item	Result	Action
7		There is foreign matter or dirt on the image transfer paper separator fingers. The image transfer paper separator fingers are damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean image transfer paper separator fingers • Change image transfer paper separator fingers.
8	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
9	-	The problem has been eliminated after performing step 8.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.6 Printer system: Black spots

(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper path	Toner is on the paper path.	YES	• Clean the paper path.
2	Imaging unit	Drum is scratched.	YES	• Change drum unit.
3		IU is dirty.	YES	• Clean IU and its installing part.
4	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
5	Imaging unit	Comb electrode is dirty.	YES	• Clean comb electrode.
6		Grid mesh is dirty.	YES	• Clean grid mesh.
7	Erase lamp	Erase lamp is dirty.	YES	• Clean erase lamp.
8		Is the erase lamp connected correctly? Is there a damage or disconnection on the erase lamp?	NO	• Reconnect. • Change ozone duct assy.
9	-	The problem has been eliminated after performing step 8.	NO	• Change drum unit. • Change developing unit. • Change high voltage unit (HV1). • Change printer control board (PRCB).

5.4.7 Printer system: White streaks or bands in sub scan direction

(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Transfer roller unit	Transfer roller is dented or scratched.	YES	• Change transfer roller unit.
2	-	The drum unit, developing unit, paper dust remover or the transfer roller unit is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3	Imaging unit	Drum is scratched.	YES	• Change drum unit.
4		IU is dirty.	YES	• Clean IU and its installing part.
5	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
6	PH unit	The glass surface of laser aperture is dirty.	YES	• Clean the glass surface of laser aperture.
7	-	The problem has been eliminated after performing step 6.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.8 Printer system: White streaks or bands in main scan direction

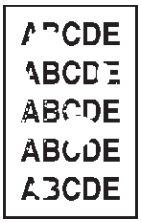
(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	-	The drum unit, developing unit, paper dust remover or the transfer roller unit is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
2	Imaging unit	Drum is scratched.	YES	• Change drum unit.
3		IU is dirty.	YES	• Clean IU and its installing part.
4	Transfer roller unit	Transfer roller is dirty or scratched.	YES	• Change transfer roller unit.
5	Paper path	There is foreign matter on paper path.	YES	• Remove foreign matter.
6		There is foreign matter or dirt on the image transfer paper separator fingers. The image transfer paper separator fingers are damaged or scratched.	YES	• Clean image transfer paper separator fingers. • Change image transfer paper separator fingers.
7	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
8	PH unit	The glass surface of laser aperture is dirty.	YES	• Clean the glass surface of laser aperture.
9	-	The problem has been eliminated after performing step 8.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.9 Printer system: Void areas

(1) Typical faulty images

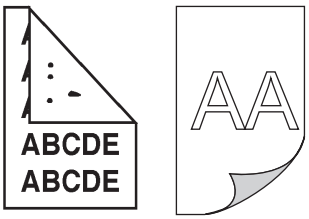


(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	-	The developing unit, paper dust remover or the transfer roller unit is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
2	Imaging unit	Drum is scratched.	YES	• Change drum unit.
3		IU is dirty.	YES	• Clean IU and its installing part.
4	Transfer roller unit	Transfer roller is dented or scratched.	NO	• Change transfer roller unit.
5	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.
6	-	The problem has been eliminated after performing step 5.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.10 Printer system: Smears on back of paper

(1) Typical faulty images



(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper path	Toner is on the paper path.	YES	• Clean the paper path.
2	-	The drum unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3	Transfer roller unit	Transfer roller is dirty.	YES	• Change transfer roller unit.
4	Fusing unit	There is foreign matter or dirt on the surface of the fusing roller. The surface of the fusing roller is scratched.	YES	• If there is foreign matter, remove a foreign matter and clean the surface of the fusing roller. • Change fusing unit.

5.4.11 Printer system: Uneven image density

(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Imaging unit	The drum unit, developing unit, or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
2	Transfer roller unit	The transfer roller unit is used to the extent that its life value has been exceeded.	YES	• Change transfer roller unit.
3		Transfer roller is dirty or deformed.	YES	
4	-	The problem has been eliminated after performing step 3.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

5.4.12 Printer system: Gradation reproduction failure

(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	[Admin Settings] -> [Maintenance Menu] -> [Printer Adjustment] -> [Max Image Density Adj]	Confirm the following setting is set to [-] or [+] side; [Admin Settings] -> [Maintenance Menu] -> [Printer Adjustment] -> [Max Image Density Adj].	YES	• Change the setting of the [Max Image Density Adj] to the optimum value.
2	-	The developing unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
3	[Print Menu] -> [Element Page] (Service Mode)	Check a value detected by the TCR sensor. (specified rang: 5 to 7 %)	NO	• Go to next step.
4	Level history data check results	A value detected by the TCR sensor is low.	YES	• Go to step 6.
5		A value detected by the TCR senso is high or falling within specified range (5 to 7 %).	YES	• Go to step 7.
6	[Printer Adjustment] -> [Replenish Toner] (Service Mode)	Toner is properly supplied when TCR toner supply is run.	NO	• Go to next step.
7	[Printer Adjustment] -> [Gradation Adjustment] (Service Mode)	Execute the Maximum Density Adjustment. “Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	• Go to next step.
8	Transfer roller unit	Transfer roller is dirty or deformed.	YES	• Change transfer roller unit.
9	-	The problem has been eliminated after performing step 8.	NO	• Change drum unit. • Change developing unit.

Step	Section	Check Item	Result	Action
				• Change printer control board (PRCB).

5.4.13 Printer system: Uneven pitch

(1) Typical faulty images

(2) Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Imaging unit	The developing unit or the developer is used to the extent that its life value has been exceeded.	YES	• Replace the unit whose life value has been reached.
2		There is foreign matter or dirt on the gear or belt that convey a drive to the developing section. The gear or belt that conveys a drive to the developing section is damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean gear or belt. • Replace gear, belt or unit that convey a drive to the developing section.
3		There is foreign matter or dirt on the gear or belt that convey a drive to the IU section. The gear or belt that conveys a drive to the IU section is damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean gear or belt. • Replace gear, belt or unit that convey a drive to the IU section.
4	Transport section	There is foreign matter or dirt on the gear or belt that convey a drive to the registration roller. The gear or belt that conveys a drive to the registration roller is damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean gear or belt. • Replace gear, belt or unit that convey a drive to the registration roller.
5	Fusing Section	There is foreign matter or dirt on the gear or belt that convey a drive to the fusing unit. The gear or belt that conveys a drive to the fusing unit is damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean gear or belt. • Replace gear, belt or unit that convey a drive to the fusing unit.
6	Imaging unit	There is foreign matter or dirt on the Ds collar. The Ds collar is worn, decentered or binding. The Ds collar is damaged or scratched.	YES	• If there is foreign matter, remove a foreign matter and clean Ds collar. • Change developing unit.
7	PH unit	PH unit is securely installed.	NO	• Reinstall PH unit correctly.
8	-	The problem has been eliminated after performing step 7.	NO	• Change drum unit. • Change developing unit. • Change printer control board (PRCB).

6. IC PROTECTOR

6.1 Outline

- To increase product safety, this MFP has an IC protector (ICP) installed in each board. ICP is a component that protects IC. If the amount of the current supplied to the electrical parts such as motor exceeds the set level, ICP trips to protect IC from over current.
  The following list contains ICP installed in each board, related devices, and symptoms that occur when ICP trips.

6.2 IC protector list

6.2.1 bizhub 42/36

(1) Printer control board

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
ICP6	FM2	Cooling fan motor	Cooling fan motor's failure to turn	004A

6.2.2 PC-211

(1) PC Control board

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
ICP1	M41 M51	Tray 4 paper feed motor Tray 5 paper feed motor	Paper feed drive malfunction, paper feed JAM	-
ICP2	M52	Tray 5 vertical transport motor	Paper feed drive malfunction, paper feed JAM	-
ICP3	M42	Tray 4 vertical transport motor	Paper feed drive malfunction, paper feed JAM	-
ICP5	-	DC to DC converter for 5V power supply	Unable to be detected	-
ICP6	M43 M53	Tray 4 lift-up motor Tray 5 lift-up motor	Lift up mechanism failure	0900 0950

6.2.3 FS-529

(1) FS control board

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
R1	-	24V to 5V DC to DC converter	Not functioning	-
CP1	-	24V to 3.3V DC to DC converter	Not functioning	-
	PS1	Paper passage sensor/1		-
	PS2	Paper surface detect sensor/1		-
	PS3	Paper surface detect sensor/2		-
	PS4	Tray up/down operation sensor		-
	PS6	Tray lower limit sensor		-
	PS7	Paper empty sensor		-
	PS8	Alignment plate home sensor/F		-
	PS9	Alignment plate home sensor/R		-
	PS10	Paper passage sensor/2		-
	PS11	Stapler home sensor		-
	PS12	Pick up roller position sensor		-
	PS13	Belt position sensor		-
	PS14	Leading edge stopper home sensor		-
	-	Staple home position sensor		-
	-	Staple self prime sensor		-
	-	Staple empty sensor		-
CP2	PS1	Paper passage sensor/1	Not functioning	-
	PS2	Paper surface detect sensor/1		-
	PS3	Paper surface detect sensor/2		-
	PS4	Tray up/down operation sensor		-
	PS6	Tray lower limit sensor		-
	PS7	Paper empty sensor		-
	PS8	Alignment plate home sensor/F		-
	PS9	Alignment plate home sensor/R		-
	PS10	Paper passage sensor/2		-
	PS11	Stapler home sensor		-

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
	PS12	Pick up roller position sensor		-
	PS13	Belt position sensor		-
	PS14	Leading edge stopper home sensor		-
CP3	M1	Pick up roller position motor	Exit roller pressure/ retraction malfunction	0B48
CP10	M1	Pick up roller position motor	Exit roller pressure/ retraction malfunction	0B48
CP4	M3	Alignment motor/F	Alignment plate F drive malfunction	0B32
CP5	M2	Tray up/down motor	Elevate drive malfunction	0BA0
CP6	M4	Alignment motor/R	Alignment plate R drive malfunction	0B30
CP7	SD3	Alignment stopper solenoid	Leading edge stopper motor drive malfunction	0B33
CP12	SD2	Paddle solenoid	Paper exit failure, JAM	-
CP15	SD1	Paper surface detect solenoid	Elevate drive malfunction	0BA0
F2	SW1	Front door switch	“There is an open component.” appears.	-
CP8	M5	Conveyance motor/1	Conveyance JAM	-
CP9	M6	Conveyance motor/2	Conveyance JAM	-
CP17	M7	Stapler movement motor	Stapler movement drive malfunction	0B20
CP19	SD5	Belt retract solenoid	Belt movement malfunction	0B05
	FM1	Fan motor	Fan motor drive malfunction	0BE1
CP20	SD4	Flapper solenoid	JAM upon duplex printing	-
F1	M8	Stapler motor	Staple drive malfunction	0B50

7. FAX TROUBLE

7.1 Fax-related error codes

- Error codes are displayed on the Communication Report when “Fax Diagnostics Code”, which can be reached by way of “Service Mode” -> “Service Fax Settings”, is set to “ON”.

7.2 Action to be taken when a communication error occurs

Output the following report and check detailed information including the error status and conditions causing the error.

- Communication Report (Set “Fax Diagnostics Code” to “ON”)
  “Admin Settings” -> “Maintenance Menu” -> “Print Menu” -> “Activity Report”
- Data Dump - Protocol (immediately after the symptom occurs)
  “Service Mode” -> “Service Fax Settings” -> “Data Dmp. List”
- Data Dump - Event log (immediately after the symptom occurs)
  “Service Mode” -> “Service Fax Settings” -> “Fax Event Log”
- Fax Set UP Information List
  “Admin Settings” -> “Fax Settings” -> “List Print” -> “Fax Setup Pg”
- Set Value List (for those relating to printing and other settings not concerned with communication)
  “Admin Settings” -> “Machine Settings” -> “List/Counter” -> “Job Settings List”

7.3 Error code list

7.3.1 Definition of system error codes (fax diagnostics codes)

- Each code number is defined by an 8-digit hexadecimal numeral.
- The hexadecimal numerals containing "x" vary depending on the setting/condition during transmission/reception.

Code	Category	Contents of error	Remarks
00xxxx00	Common	Normal (communication complete successfully)	
00xxxx01	Common	STOP (job canceled by the user)	
002xxx02	G3 reception	RX no handshake	
0xxxxx03	Common	Accounting counter error	
002xxx14	G3 reception	Memory full during RX	Local Mechanical error
002xxx1A	G3 reception	Data length error RX	Local Mechanical error
001xxx1B	G3 reception	Manual TX next page information error	Local Mechanical error
002xxx1C	G3 reception	RX pages over	Local Mechanical error
00xxxx21	Common	Connection fail	Dial failure
00xxxx22	Common	Dial fail (except Busy, No answer)	Dial failure
00xxxx23	Common	Redial all failed	Dial failure
00xxxx24	Common	Busy	Dial failure
00xxxx25	Common	No answer	Dial failure
00xxxx31	Common	TX T1 time out	Communication error at Phase-B
00xxxx32	Common	V8 negotiation fail	Communication error at Phase-B
00xxxx34	Common	Polling TX file not found	Communication error at Phase-B
00xxxx35	Common	F-code CNF RX SUB error	Communication error at Phase-B
00xxxx36	Common	F-code CNF RX SID error	Communication error at Phase-B
00xxxx37	Common	F-code BBS TX SEP error	Communication error at Phase-B
00xxxx39	Common	F-code PWD RX SID error	Communication error at Phase-B
00xxxx3B	Common	F-code BBS TX disable	Communication error at Phase-B
00xxxx3D	Common	F-code other error	Communication error at Phase-B
00xxxx3E	Common	F-code BBS TX file not found	Communication error at Phase-B
00xxxx40	Common	Retry out	Communication error at Phase-B
00xxxx41	Common	Too many FTT	Communication error at Phase-B
00xxxx43	Common	T2 time out	Communication error at Phase-B
00xxxx45	Common	Command reception error	Communication error at Phase-B
00xxxx46	Common	Response RX error	Communication error at Phase-B
00xxxx47	Common	Invalid command/response RX	Communication error at Phase-B
00xxxx48	Common	Receiver no RX capability	Communication error at Phase-B
00xxxx49	Common	T1 time out after EOM	Communication error at Phase-B
00xxxx4A	Common	Invalid CSI error	Communication error at Phase-B
00xxxx4B	Common	RX reject	Communication error at Phase-B
00xxxx4C	Common	F-code SUB receive error	Communication error at Phase-B
00xxxx4D	Common	F-code SID receive error	Communication error at Phase-B
00xxxx4E	Common	F-code SEP receive error	Communication error at Phase-B
00xxxx4F	Common	F-code PWD receive error	Communication error at Phase-B
00xxxx51	Common	Image data codec error	Communication error at Phase-C
00xxxx52	Common	Phase-C time out	Communication error at Phase-C

Code	Category	Contents of error	Remarks
00xxxx60	Common	Retry out	Communication error at Phase-D
00xxxx65	Common	RNR time out	Communication error at Phase-D
00xxxx66	Common	RTN/PIN received, disconnected by EOR/ERR	Communication error at Phase-D
00xxxx67	Common	Invalid command/response RX	Communication error at Phase-D
00xxxx69	Common	Response RX error	Communication error at Phase-D
00xxxx6A	Common	Disconnected by EOR	Communication error at Phase-D
00xxxx80	Common	Modem hang-up	Other general Communication error
00xxxx82	Common	V34 T1 timeout, control channel error	Other general Communication error
00xxxx83	Common	V34 T1 timeout, primary channel error	Other general Communication error
00xxxx84	Common	Data not sent until guard timer expire	Other general Communication error
01xxxxA0	Common	The power switch is turned OFF during transmission/reception	
01xxxxB0	Common	Fax memory full (during scanning, reception, PC-Fax transmission, or PWSC downloading)	
01xxxxB1	G3 transmission	A transmission error occurs and the machine is in queue for retry	
01xxxxD3	PC-Fax transmission	Illegal PJL received	
01xxxxD5	PC-Fax transmission	Log-in error	
01xxxxD8	PC-Fax transmission	Broadcast transmission over (101 cases or more)	
01xxxxD9	PC-Fax transmission	TX pages over (1000 pages or more)	
01xxxxDB	PC-Fax transmission	PC-Fax transmission prohibition error	
01xxxxF0	Forwarding	Transfer error (the destination is invalid, or resolution that cannot be transferred is received)	

7.3.2 Definition of 3rd to 6th digits

Code	Meaning	Category
1xxx	TX	Transmission
2xxx	RX	Reception
x1xx	MH	Coding method
x2xx	MR	Coding method
x3xx	MMR	Coding method
x4xx	JBIG	Coding method
x5xx	JPEG	Coding method
xx1x	V27ter non ECM	Communication modem mode
xx2x	V29 non ECM	Communication modem mode
xx3x	V17 non ECM	Communication modem mode
xx4x	V33 non ECM	Communication modem mode
xx5x	V34	Communication modem mode
xx9x	V27ter ECM	Communication modem mode
xxAx	V29 ECM	Communication modem mode
xxBx	V17 ECM	Communication modem mode
xxCx	V33 ECM	Communication modem mode
xxx1	2400	Communication modem speed
xxx2	4800	Communication modem speed
xxx3	7200	Communication modem speed
xxx4	9600	Communication modem speed
xxx5	12000	Communication modem speed
xxx6	14400	Communication modem speed
xxx7	16800	Communication modem speed
xxx8	19200	Communication modem speed
xxx9	21600	Communication modem speed
xxxA	24000	Communication modem speed
xxxB	26400	Communication modem speed
xxxC	28800	Communication modem speed
xxxD	31200	Communication modem speed

Code	Meaning	Category
xxxE	33600	Communication modem speed

7.4 Details of error codes

- The following describe detailed conditions in which each of the error codes is outputted.

7.4.1 00xxxx00

(1) Contents of error

Normal (communication complete successfully)

(2) How error occurs

The fax transmission or reception is complete successfully. This is not an error.

(3) Action

None

7.4.2 00xxxx01

(1) Contents of error

STOP (job canceled by the user)

(2) How error occurs

The user cancels a job being scanned, transmitted, or printed.

(3) Action

None

7.4.3 002xxx02

(1) Contents of error

RX no handshake

(2) How error occurs

Handshake is not reached during reception.

(3) Action

Wrong number on the transmitting side: None
Other than wrong number: Check the line connection status and ask the transmitter to retransmit the fax.

(4) Remarks

The journal does not contain this error code.

7.4.4 0xxxxx03

(1) Contents of error

Accounting counter error

(2) How error occurs

Under the billing control environment, the ticket of the user in question is not enough before transmission of the page, or the procedure to acquire information on the ticket balance from the billing server has failed.

(3) Action

Charge the ticket of the user in question, or check for connection to the billing server.

(4) Remarks

No auto redial is performed for this error.

7.4.5 002xxx14

(1) Contents of error

Memory full during RX

(2) How error occurs

Fax memory space is not available during fax reception (20 Kbytes).

(3) Action

Increase the fax memory space to 20 Kbytes or more before starting reception.

7.4.6 002xxx1A

(1) Contents of error

Data length error RX

(2) How error occurs

The number of lines of the received image exceeds the maximum reception length (1000 mm).

(3) Action

Ask the transmitter to transmit the page with a length of 1000 mm or less.

7.4.7 001xxx1B

(1) Contents of error

Manual TX next page information error

(2) How error occurs

The image transmitted next is not properly acquired in manual transmission.

(3) Action

Let the machine read the page to be transmitted next correctly in manual transmission.

7.4.8 002xxx1C

(1) Contents of error

RX pages over

(2) How error occurs

The maximum number of pages to be received (999) is exceeded. (Note: 999 pages can be received.)

(3) Action

Make sure that the number of pages to be transmitted from the remote machine during one session is 999 pages or less.

7.4.9 00xxxx21

(1) Contents of error

Connection fail

(2) How error occurs

Line is yet to be connected or no dial tone is heard ("DT Detect" is set to "ON") during dialing in fax transmission.

(3) Action

The line may not be connected. Check the line connection status.
Or, if PSTN is set for the PSTN/PBX setting with the machine connected to a private branch exchange, change the setting to PBX.

7.4.10 00xxxx22

(1) Contents of error

Dial fail (except Busy, No answer)

(2) How error occurs

Transmission is started while the line is being used.

(3) Action

Retransmit (when auto redial is not available).

7.4.11 00xxxx23

(1) Contents of error

Redial all failed

(2) How error occurs

All the auto redials failed in transmission.

(3) Action

Eliminate the cause of the transmission failure.

7.4.12 00xxxx24

(1) Contents of error

Busy

(2) How error occurs

The receiver end is busy after dialing in fax transmission.

(3) Action

Wait until the receiver is free and retransmit the fax (when auto redial is not available).

7.4.13 00xxxx25

(1) Contents of error

No answer

(2) How error occurs

The receiver does not answer.

(3) Action

Retransmit (when auto redial is not available).

7.4.14 00xxxx31

(1) Contents of error

TX T1 time out

(2) How error occurs

(When DTS is enabled) A timeout after reception of PIP for MPS transmission.

(3) Action

Retransmit (when auto redial is not available).

7.4.15 00xxxx32

(1) Contents of error

V8 negotiation fail

(2) How error occurs

Incompatible performance with the remote machine in V34 reception.

(3) Action

Set "RX V34 OFF" to "Yes".

7.4.16 00xxxx34

(1) Contents of error

Polling TX file not found

(2) How error occurs

The document to be transmitted in polling transmission is not stored.

(3) Action

Store the document to be transmitted in advance before the polling transmission.

7.4.17 00xxxx35

(1) Contents of error

F-code CNF RX SUB error

(2) How error occurs

There is a mismatch of the SUB code (confidential box number) in confidential reception.

(3) Action

Set the correct SUB code (confidential box number) when the transmitter performs the confidential transmission.

7.4.18 00xxxx36

(1) Contents of error

F-code CNF RX SID error

(2) How error occurs

There is a mismatch of the SID code (password) in confidential reception.

(3) Action

Set the correct SID code (password) when the transmitter performs the confidential transmission.

7.4.19 00xxxx37

(1) Contents of error

F-code BBS TX SEP error

(2) How error occurs

There is a mismatch of the SEP code (bulletin board number) in polling transmission (bulletin).

(3) Action

Set the correct SEP code (bulletin board number) in the polling transmission (bulletin).

7.4.20 00xxxx39

(1) Contents of error

F-code PWD RX SID error

(2) How error occurs

There is a mismatch of the SID code (password) in closed network reception.

(3) Action

Set the correct SID code (password) when the transmitter performs the password transmission.

7.4.21 00xxxx3B

(1) Contents of error

F-code BBS TX disable

(2) How error occurs

An SEP code is received when "F-Code TX" is set to "OFF".

(3) Action

Set "F-Code TX" to "ON".

7.4.22 00xxxx3D

(1) Contents of error

F-code other error

(2) How error occurs

This error occurs for many reasons. Only a most typical cause is given.
E.g.: The confidential box is full (no more jobs can be stored in the confidential box).

(3) Action

E.g.: Delete or print any one job out of those in the confidential box specified with an SUB code by the transmitter.

7.4.23 00xxxx3E

(1) Contents of error

F-code BBS TX file not found

(2) How error occurs

The document to be transmitted in polling transmission (bulletin) is not stored.

(3) Action

Store the document to be transmitted in advance before the polling transmission (bulletin).

7.4.24 00xxxx40

(1) Contents of error

Retry out

(2) How error occurs

No response is received to the DCS signal transmitted three times in fax transmission.

(3) Action

Retransmit (when auto redial is not available).

7.4.25 00xxxx41

(1) Contents of error

Too many FTT

(2) How error occurs

Training fails (possible cause: noise in telephone line)

(3) Action

Retransmit the fax (when auto redial is not available).

7.4.26 00xxxx43

(1) Contents of error

T2 time out

(2) How error occurs

No response is received from the remote machine during phase-B, resulting in T2 timeout.

(3) Action

Ask the transmitter to retransmit the fax.

7.4.27 00xxxx45

(1) Contents of error

Command reception error

(2) How error occurs

Faulty FSK signal (possible cause: noise in telephone line)

(3) Action

Retransmit (when auto redial is not available).

7.4.28 00xxxx46

(1) Contents of error

Response RX error

(2) How error occurs

Faulty FSK signal (possible cause: noise in telephone line)

(3) Action

Retransmit (when auto redial is not available).

7.4.29 00xxxx47

(1) Contents of error

Invalid command/response RX

(2) How error occurs

Faulty FSK signal (possible cause: noise in telephone line)

(3) Action

Retransmit (when auto redial is not available).

7.4.30 00xxxx48

(1) Contents of error

Receiver no RX capability

(2) How error occurs

The remote machine is not ready.

(3) Action

Retransmit as soon as the remote machine is ready (when auto redial is not available).

7.4.31 00xxxx49

(1) Contents of error

T1 time out after EOM

(2) How error occurs

T1 timeout occurs after EOM.

(3) Action

Retransmit (when auto redial is not available).

7.4.32 00xxxx4A

(1) Contents of error

Invalid CSI error

(2) How error occurs

A mismatch is found in a comparison made between the dialed number and the CSI signal received from the remote machine in remote machine check transmission.

(3) Action

The remote machine should register its correct own number. Or, the transmission may be done to a wrong machine, so retransmit (when auto redial is not available).

7.4.33 00xxxx4B

(1) Contents of error

RX reject

(2) How error occurs

The line is disconnected by anonymous call rejection of the caller ID display.

(3) Action

Remove the telephone number of the remote machine from the call rejection numbers.

7.4.34 00xxxx4C

(1) Contents of error

F-code SUB receive error

(2) How error occurs

No SUB code is received when reception of one is expected.

(3) Action

Ask the transmitter to transmit the SUB code when reception of one is expected (by, for example, correctly specifying the F-code).

7.4.35 00xxxx4D

(1) Contents of error

F-code SID receive error

(2) How error occurs

No SID code is received when reception of one is expected.

(3) Action

Ask the transmitter to transmit the SID code when reception of one is expected (by, for example, correctly specifying the F-code).

7.4.36 00xxxx4E

(1) Contents of error

F-code SEP receive error

(2) How error occurs

No SEP code is received when reception of one is expected.

(3) Action

Ask the transmitter to transmit the SEP code when reception of one is expected (by, for example, correctly specifying the F-code).

7.4.37 00xxxx4F

(1) Contents of error

F-code PWD receive error

(2) How error occurs

No PWD code is received when reception of one is expected.

(3) Action

Ask the transmitter to transmit the PWD code when reception of one is expected (by, for example, correctly specifying the F-code).

7.4.38 00xxxx51

(1) Contents of error

Image data codec error

(2) How error occurs

An ECM codec error occurs.

(3) Action

During transmission: Cancel the transmission job and retransmit the fax.
During reception: Ask the transmitter to retransmit the fax.

7.4.39 00xxxx52

(1) Contents of error

Phase-C time out

(2) How error occurs

An EOL timeout (during NonECM) or frame timeout (during ECM) occurs while data is being received.

(3) Action

Ask the transmitter to retransmit the fax.

7.4.40 00xxxx60

(1) Contents of error

Retry out

(2) How error occurs

No response is received from the remote machine during phase-D (CTC, EOP, EOR, MPS, PPS-EOP, PPS-MPS, PPS-NULL, and RR retry error).

(3) Action

The line is probably disconnected. Retransmit (when auto redial is not available).

7.4.41 00xxxx65

(1) Contents of error

RNR time out

(2) How error occurs

Timeout error when the remote machine keeps sending RNR repeatedly during transmission.

(3) Action

(If the resolution is high) Reduce the resolution and retransmit.

7.4.42 00xxxx66

(1) Contents of error

RTN/PIN received, disconnected by EOR/ERR

(2) How error occurs

RTN/PIN is received and the line is disconnected during transmission. (The error tends to occur when there is a lot of noise in the telephone line.)
Or, after transmission of PPS-NULL, ERR is received and the line is disconnected.

(3) Action

Retransmit (when auto redial is not available).

7.4.43 00xxxx67

(1) Contents of error

Invalid command/response RX

(2) How error occurs

An invalid command/response is received.

(3) Action

Retransmit (when auto redial is not available).

7.4.44 00xxxx69

(1) Contents of error

Response RX error

(2) How error occurs

A response reception error occurs during transmission.

(3) Action

Retransmit (when auto redial is not available).

7.4.45 00xxxx6A

(1) Contents of error

Disconnected by EOR

(2) How error occurs

An EOR is detected during reception and the line is disconnected.

(3) Action

Ask the transmitter to retransmit the fax.

7.4.46 00xxxx80

(1) Contents of error

Modem hang-up

(2) How error occurs

Modem hang-up occurs for some reason.

(3) Action

Investigation into the individual case is necessary.

7.4.47 00xxxx82

(1) Contents of error

V34 T1 timeout, control channel error

(2) How error occurs

A T1 timeout error occurs in the V34 control channel.

(3) Action

Investigation into the individual case is necessary.

7.4.48 00xxxx83

(1) Contents of error

V34 T1 timeout, primary channel error

(2) How error occurs

A T1 timeout error occurs in the V34 primary channel.

(3) Action

Investigation into the individual case is necessary.

7.4.49 00xxxx84

(1) Contents of error

Data not sent until guard timer expire

(2) How error occurs

Data is not transmitted before the guard timer expire (fail-safe error).

(3) Action

Increase the communication speed, reduce the resolution, or shorten the communication time.

7.4.50 01xxxxA0

(1) Contents of error

The power switch is turned OFF during transmission/reception.

(2) How error occurs

During fax transmission: The power switch is turned OFF during transmission.
During fax reception: The power switch is turned OFF during reception.

(3) Action

None

7.4.51 01xxxxB0

(1) Contents of error

Fax memory full (during scanning, reception, PC-Fax transmission, or PWSC downloading)

(2) How error occurs

An SSD memory full event occurs during any of the operations mentioned above.

(3) Action

Delete the fax job being executed or one stored earlier in, for example, the compulsory memory RX user box.

7.4.52 01xxxxB1

(1) Contents of error

A transmission error occurs and the machine is in queue for retry

(2) How error occurs

G3 fax transmission fails with the number of retries set to one or more in the G3 fax transmission.

(3) Action

Identify the cause of the transmission error and take necessary action against the transmission error.

7.4.53 01xxxxD3

(1) Contents of error

Illegal PJL received

(2) How error occurs

An illegal PJL is received from the PC-Fax driver (the illegal PJL being a want of a necessary PJL command or PJL command parameter not supported).

(3) Action

Not using the PC-Fax driver not supported by this machine.

7.4.54 01xxxxD5

(1) Contents of error

Log-in error

(2) How error occurs

This machine received an illegal user, or an illegal password of an authorized user from the PC-Fax driver.

(3) Action

Perform the PC-Fax transmission using the authorized password of an authorized user from the PC-Fax driver.

7.4.55 01xxxxD8

(1) Contents of error

Broadcast transmission over (101 cases or more)

(2) How error occurs

101 or more cases of the PJL command [PCFAXNUM#] are received from the PC-Fax driver.

(3) Action

Keep within 100 cases for PC-Fax broadcast transmission and transmit the excessive jobs separately.

7.4.56 01xxxxD9

(1) Contents of error

TX pages over (1000 pages or more)

(2) How error occurs

The number of image pages transmitted from the PC-Fax driver to this machine exceeds 999.

(3) Action

None

7.4.57 01xxxxDB

(1) Contents of error

PC-Fax transmission prohibition error

(2) How error occurs

PJL is received from the PC with "Restrict PC-Fax TX" set to "ON" or "Restrict Fax TX" set to "ON".

(3) Action

Set "Restrict PC-Fax TX" to "OFF" and "Restrict Fax TX" to "OFF".

7.4.58 01xxxxF0

(1) Contents of error

Transfer error (the destination is invalid, or resolution that cannot be transferred is received)

(2) How error occurs

This error occurs if the forwarding address of "Forward TX Settings" is invalid.
It also occurs if an attempt is made to perform G3 fax transfer after data with a resolution of 300 x 300 dpi is received through I-fax reception.

(3) Action

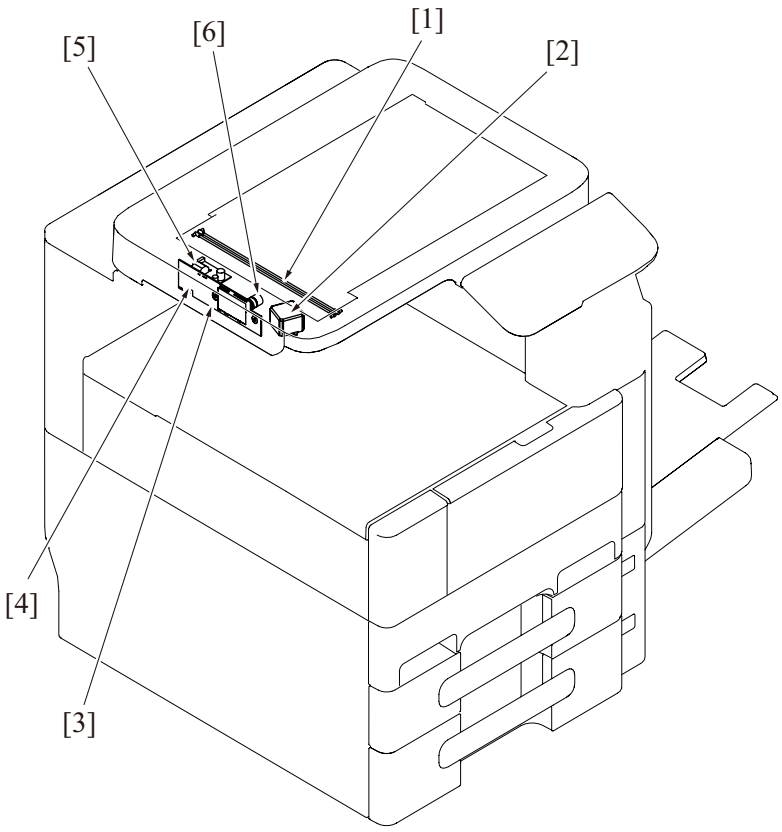
Set the transfer destination before the fax reception.
No special action, because 300 x 300 dpi data cannot be transferred.

L PARTS/CONNECTOR LAYOUT DRAWING

1. PARTS LAYOUT DRAWING

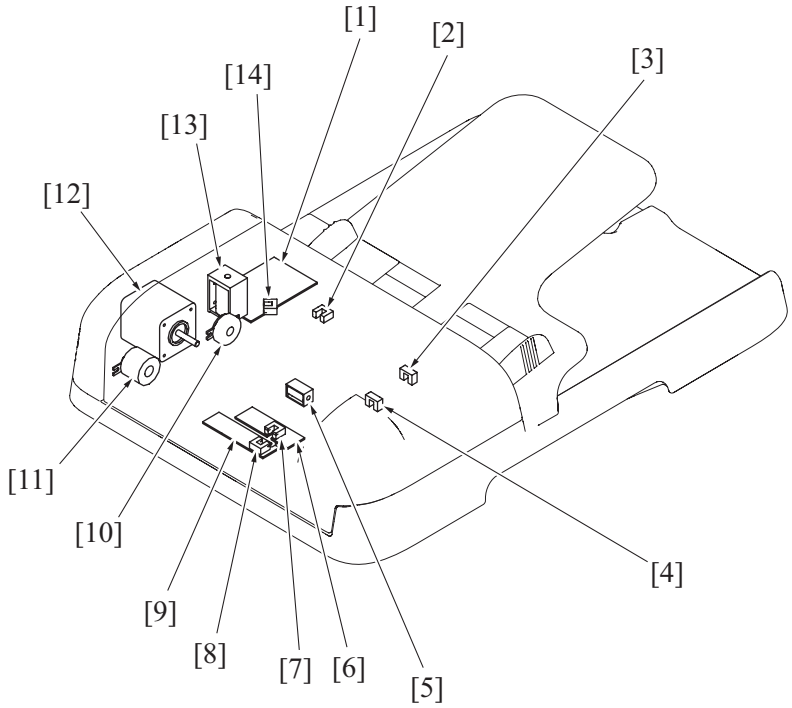
1.1 bizhub 42/36

1.1.1 Scanner section



[1]	Exposure lamp (LA1)	[2]	Scanner motor (M101)
[3]	Relay board/3 (REYB102)	[4]	Scanner home sensor (on REYB102)
[5]	Inverter board (INVB)	[6]	Lens

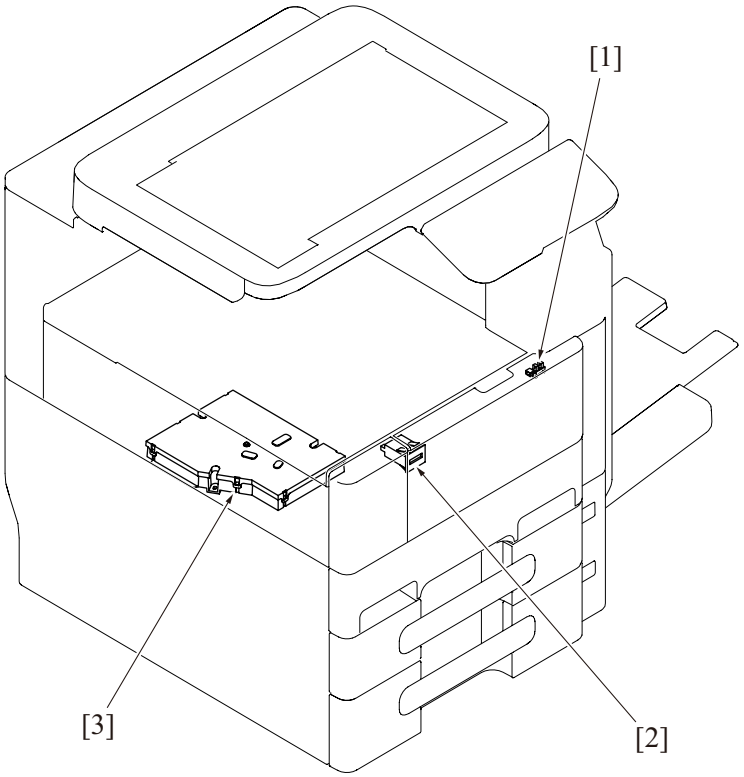
1.1.2 ADF section



[1]	ADF control board (ADFCB)	[2]	Pick-up sensor (PS101)
[3]	Document sensor (PS102)	[4]	Paper interval sensor (PS103)
[5]	Pick-up solenoid (SD100)	[6]	Relay board/2 (REYB101)
[7]	Before read sensor (on REYB101)	[8]	Relay board/1 (REYB100)
[9]	Registration sensor (on REYB100)	[10]	Pick-up clutch (CL100)
[11]	Registration clutch (CL101)	[12]	Transport motor (M100)
[13]	Release solenoid (SD101)	[14]	ADF door sensor (PS100)

1.1.3 Front side

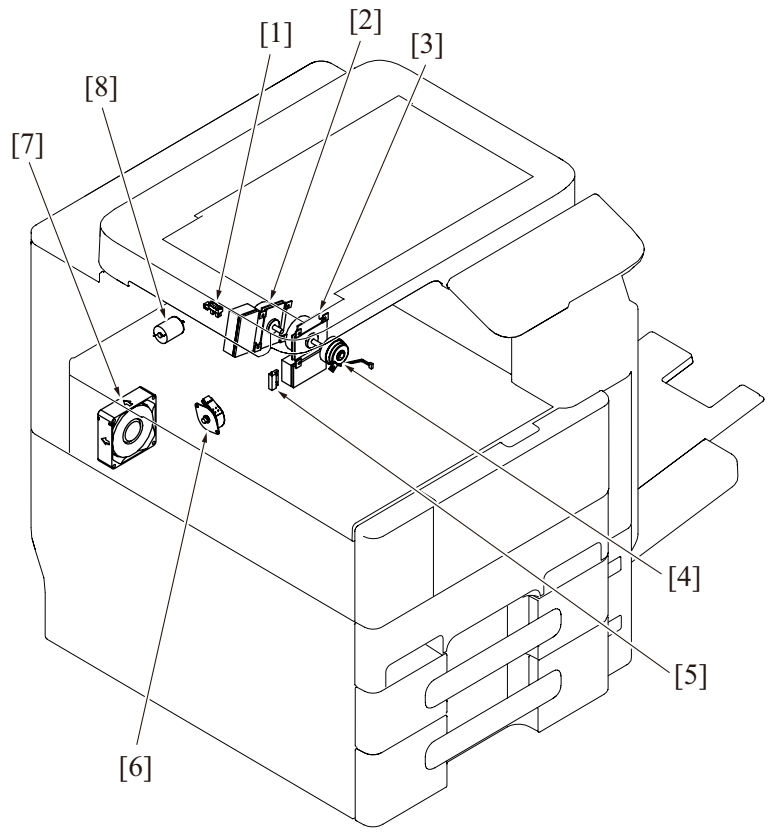
(1) Board/switch/sensor/others



[1]	Front door sensor (PS30)	[2]	Total counter (CNT)
[3]	PH unit		

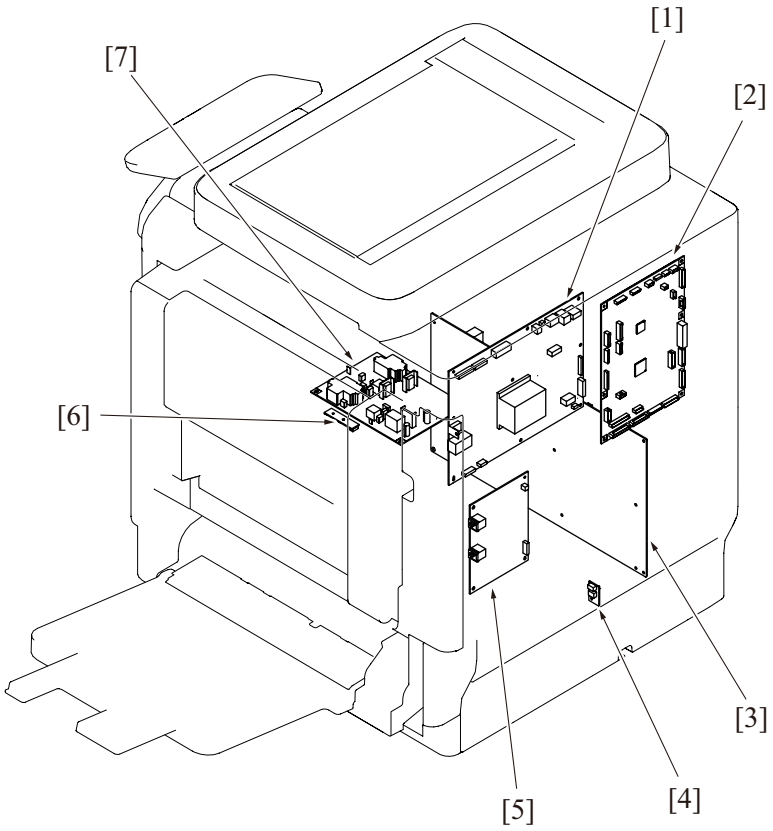
1.1.4 Back side

(1) Load/sensor/switch



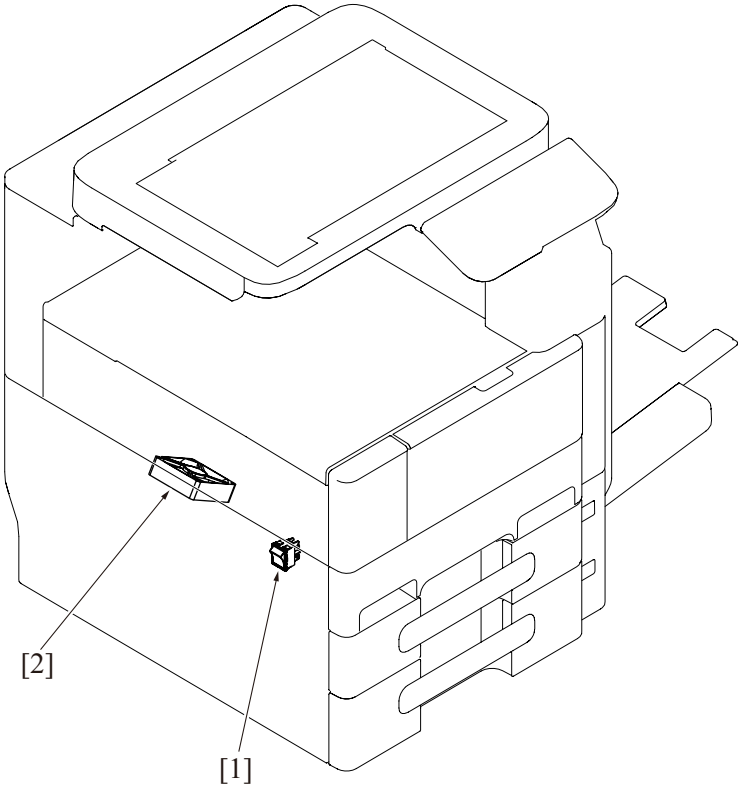
[1]	Toner bottle home sensor (PS2)	[2]	PC motor (M2)
[3]	Transport motor (M1)	[4]	Registration clutch (CL1)
[5]	Toner near empty switch (RS1)	[6]	Toner supply motor (M8)
[7]	Toner suction fan motor (FM4)	[8]	Toner bottle motor (M3)

(2) Board



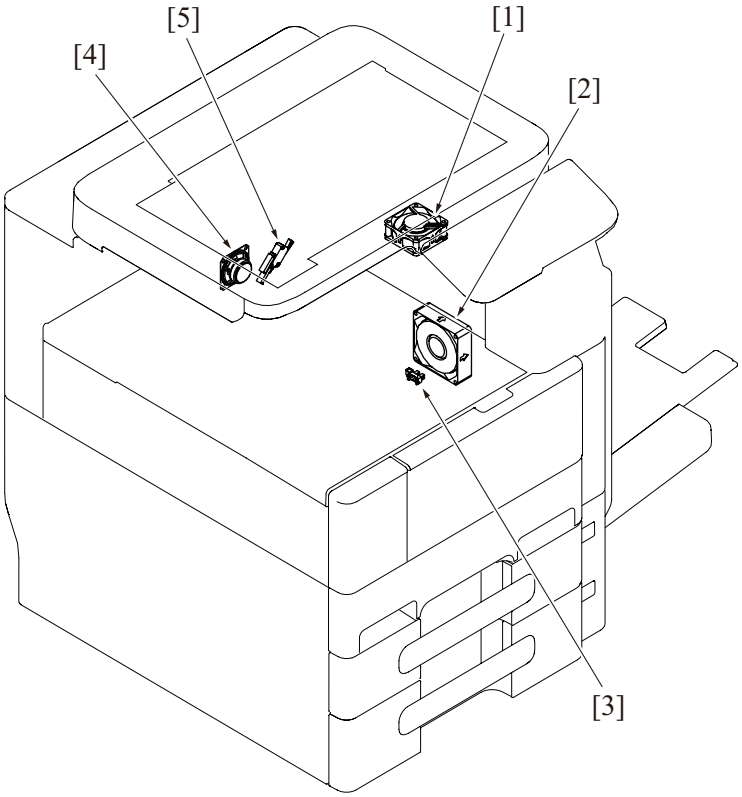
[1]	MFP board (MFPB)	[2]	Printer control board (PRCB)
[3]	DC power supply (DCPU)	[4]	Temperature/humidity sensor (TEM/HUM)
[5]	FAX Board (FAXB)	[6]	TCR sensor board (TCRSB)
[7]	High Voltage Unit (HV1)		

1.1.5 Left side



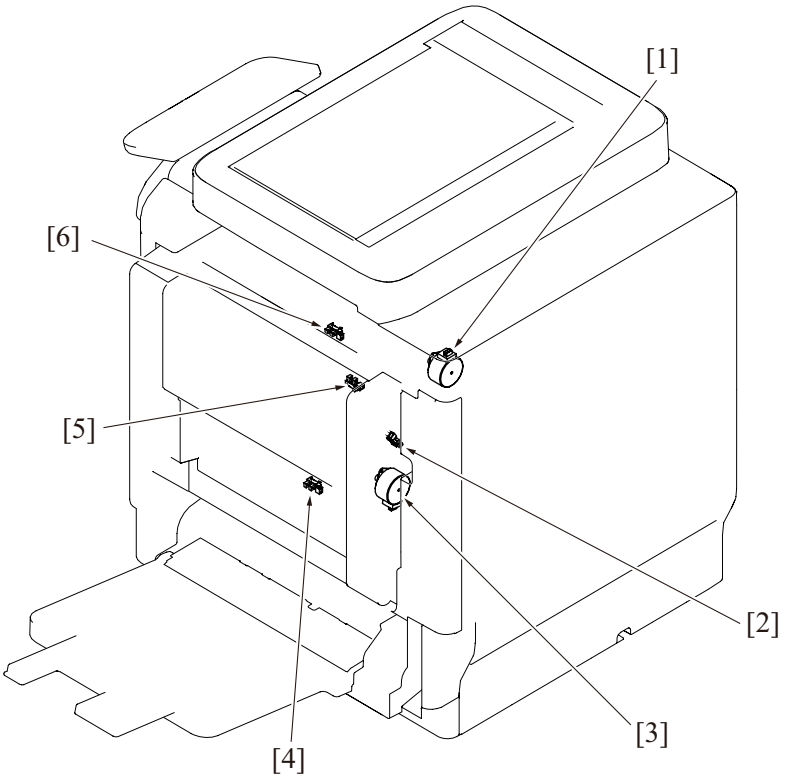
[1]	Main power switch (SW1)	[2]	Power supply cooling fan motor (FM1)

1.1.6 Right side



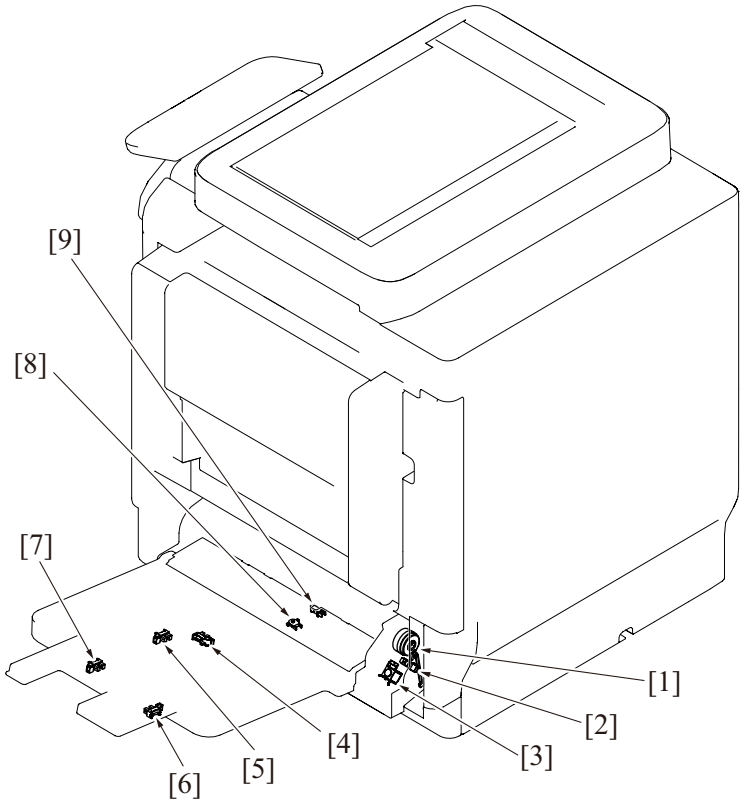
[1]	Fusing unit cooling fan motor (FM3)	[2]	Cooling fan motor (FM2)
[3]	Registration sensor (PS1)	[4]	Fax speaker (SP1)
[5]	Right door switch (SW2)		

1.1.7 Duplex/Switchback/Fusing section



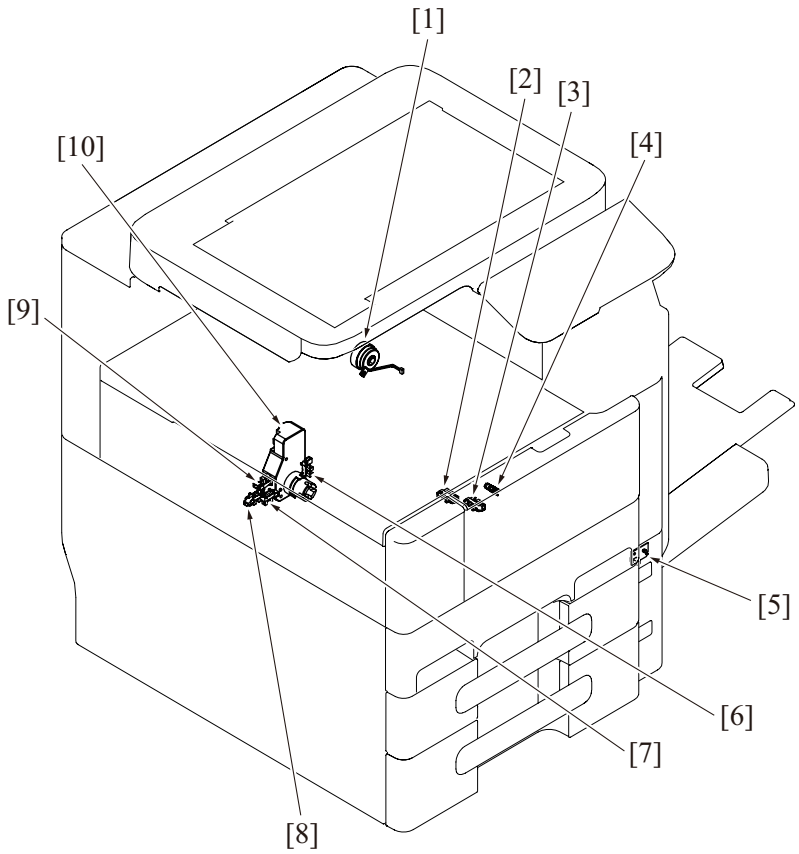
[1]	Switchback motor (M6)	[2]	Duplex transport sensor/1 (PS27)
[3]	Duplex transport motor (M7)	[4]	Duplex transport sensor/2 (PS28)
[5]	Duplex unit door sensor (PS26)	[6]	Paper exit sensor (PS29)

1.1.8 Tray 1(Manual bypass tray)



[1]	Tray 1 paper feed clutch (CL5)	[2]	Tray 1 lift-up position sensor (PS20)
[3]	Tray 1 pick-up solenoid (SD1)	[4]	Tray 1 paper empty sensor (PS25)
[5]	Tray 1 paper FD size sensor/1 (PS22)	[6]	Tray 1 paper FD size sensor/3 (PS24)
[7]	Tray 1 paper FD size sensor/2 (PS23)	[8]	Tray 1 paper CD size sensor (PS19)
[9]	Tray 1 paper sensor (PS21)		

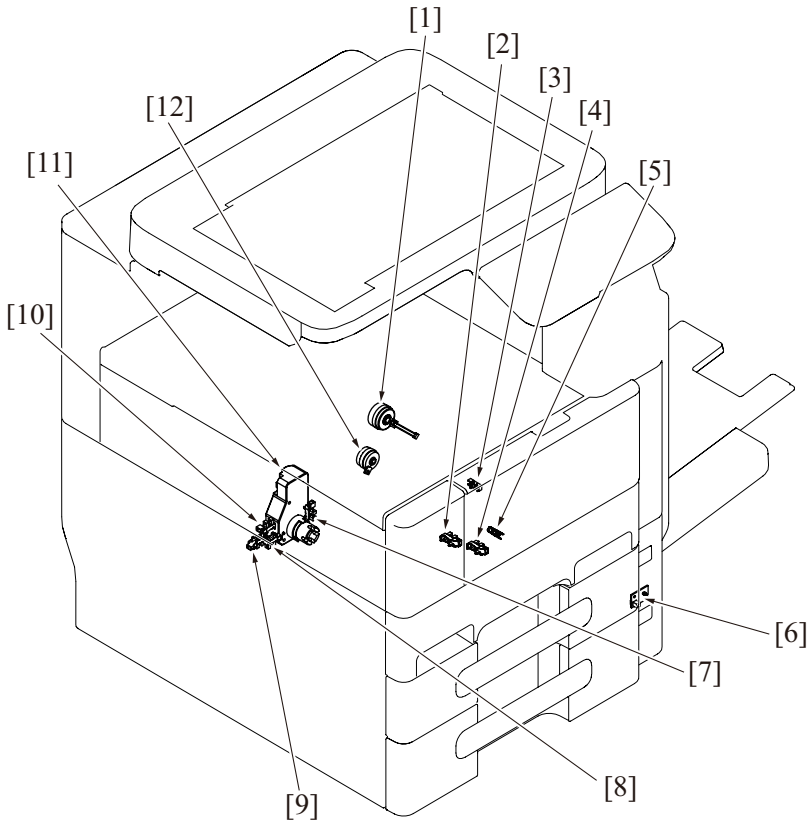
1.1.9 Tray 2



[1]	Tray 2 paper feed clutch (CL2)	[2]	Tray 2 upper limit sensor (PS3)
[3]	Tray 2 paper empty sensor (PS4)	[4]	Tray 2 paper feed sensor (PS5) *
[5]	Tray 2 LED board (LEDB2)	[6]	Tray 2 paper near empty sensor (PS7)
[7]	Tray 2 paper CD size sensor/2 (PS9)	[8]	Tray 2 paper CD size sensor/1 (PS8)
[9]	Tray 2 set sensor (PS6)	[10]	Tray 2 lift-up motor (M4)

*: Mounted on bizhub 42 only

1.1.10 Tray 3

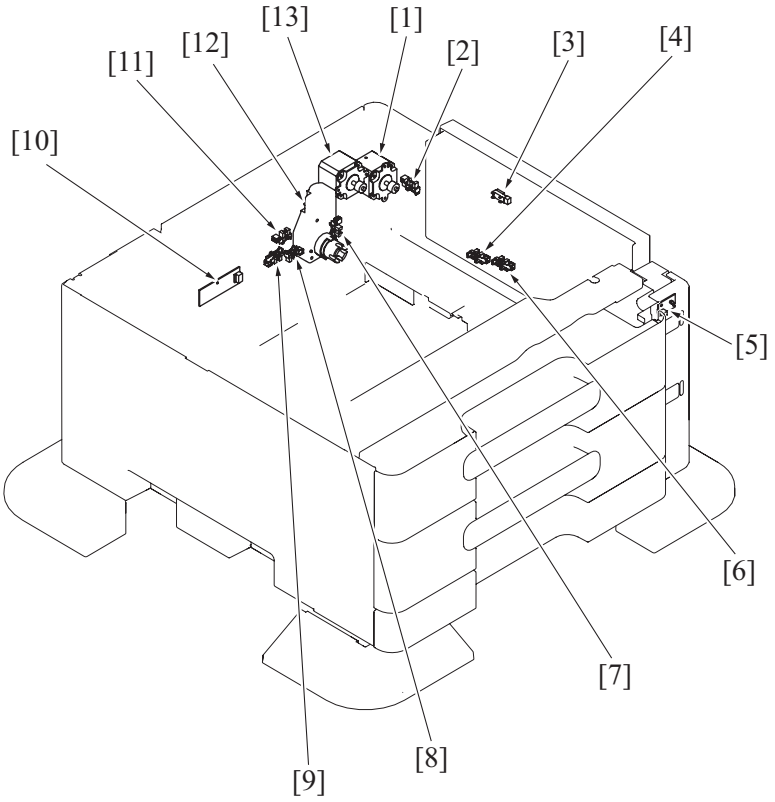


[1]	Tray 3 vertical transport clutch (CL4)	[2]	Tray 3 upper limit sensor (PS10)
[3]	Tray 3 vertical transport sensor (PS18) *1	[4]	Tray 3 paper empty sensor (PS11)
[5]	Tray 3 paper feed sensor (PS12) *2	[6]	Tray 3 LED board (LEDB3)
[7]	Tray 3 paper near empty sensor (PS14)	[8]	Tray 3 paper CD size sensor/2 (PS16)
[9]	Tray 3 paper CD size sensor/1 (PS15)	[10]	Tray 3 set sensor (PS13)
[11]	Tray 3 lift-up motor (M5)	[12]	Tray 3 paper feed clutch (CL3)

*1: Reflector type for bizhub 42
*2: Mounted on bizhub 42 only

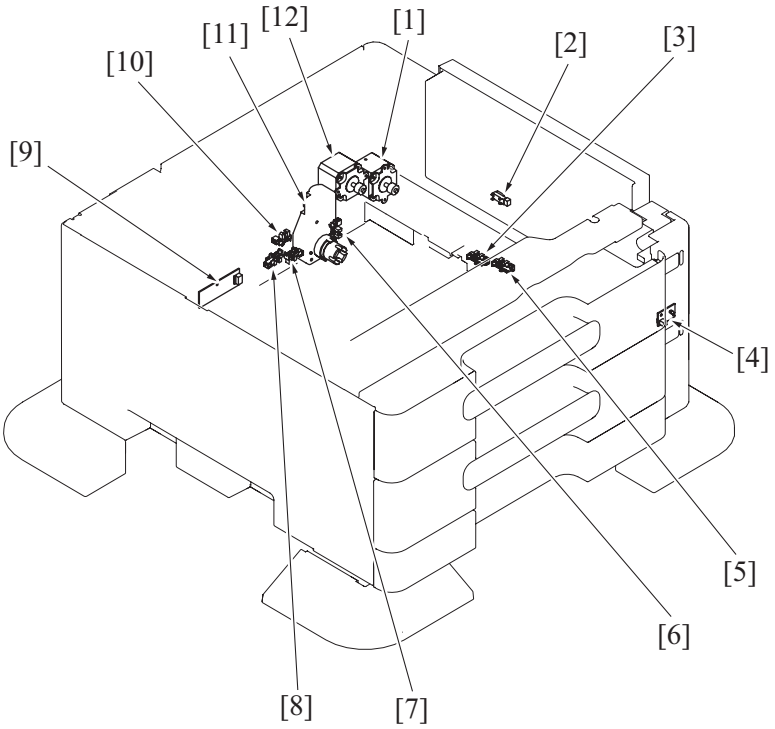
1.2 PC-211 (Option)

1.2.1 Tray 4



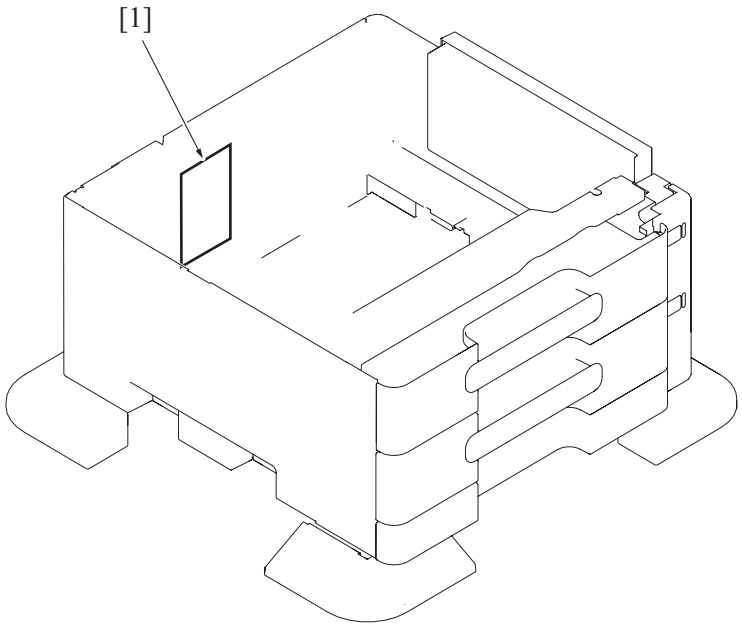
[1]	Tray 4 vertical transport motor (M42)	[2]	Right lower door sensor (PS31)
[3]	Tray 4 vertical transport sensor (PS45)	[4]	Tray 4 upper limit sensor (PS43)
[5]	Tray 4 LED board (LEDB4)	[6]	Tray 4 paper empty sensor (PS44)
[7]	Tray 4 paper near empty sensor (PS42)	[8]	Tray 4 paper CD size sensor/2 (PS47)
[9]	Tray 4 paper CD size sensor/1 (PS46)	[10]	Tray 4 paper FD sensor board (PSDTB4)
[11]	Tray 4 set sensor (PS41)	[12]	Tray 4 lift-up motor (M43)
[13]	Tray 4 paper feed motor (M41)		

1.2.2 Tray 5



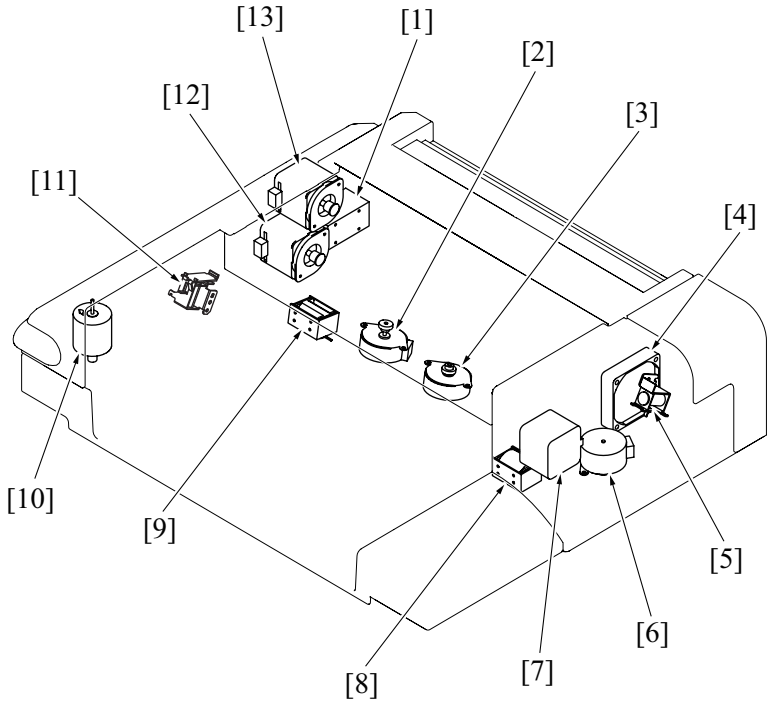
[1]	Tray 5 vertical transport motor (M52)	[2]	Tray 5 vertical transport sensor (PS55)
[3]	Tray 5 upper limit sensor (PS53)	[4]	Tray 5 LED board (LEDB5)
[5]	Tray 5 paper empty sensor (PS54)	[6]	Tray 5 paper near empty sensor (PS52)
[7]	Tray 5 paper CD size sensor/2 (PS57)	[8]	Tray 5 paper CD size sensor/1 (PS56)
[9]	Tray 5 paper FD sensor board (PSDTB5)	[10]	Tray 5 set sensor (PS51)
[11]	Tray 5 lift-up motor (M53)	[12]	Tray 5 paper feed motor (M51)

1.2.3 Board/switch/others



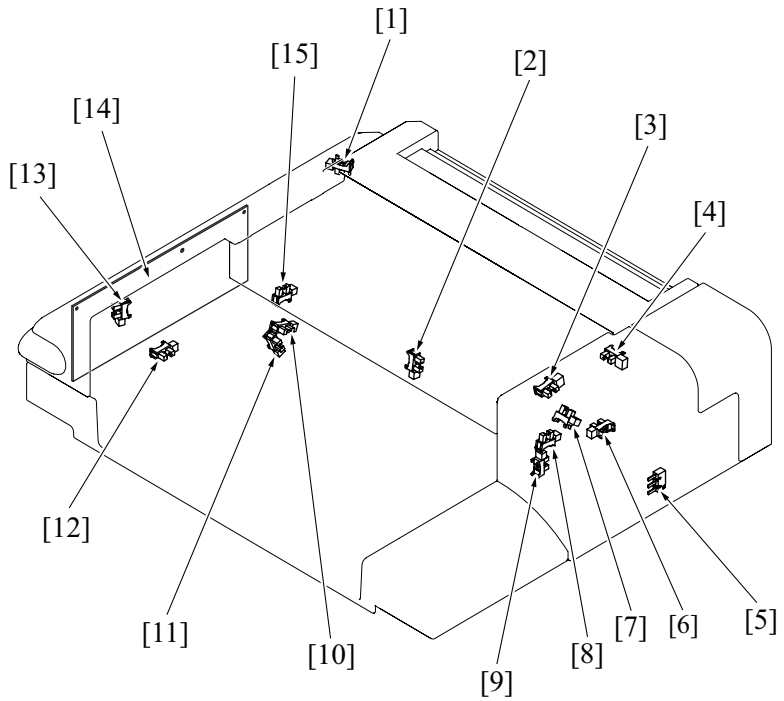
[1]	PC control board (PCCB)		

1.3 FS-529 (Option)



[1]	Flapper solenoid (SD4)	[2]	Alignment motor/R (M4)
[3]	Alignment motor/F (M3)	[4]	Fan motor (FM1)
[5]	Belt retract solenoid (SD5)	[6]	Stapler movement motor (M7)

[7]	Pick up roller position motor (M1)	[8]	Paper surface detect solenoid (SD1)
[9]	Alignment stopper solenoid (SD3)	[10]	Tray up/down motor (M2)
[11]	Paddle solenoid (SD2)	[12]	Conveyance motor/2 (M6)
[13]	Conveyance motor/1 (M5)		



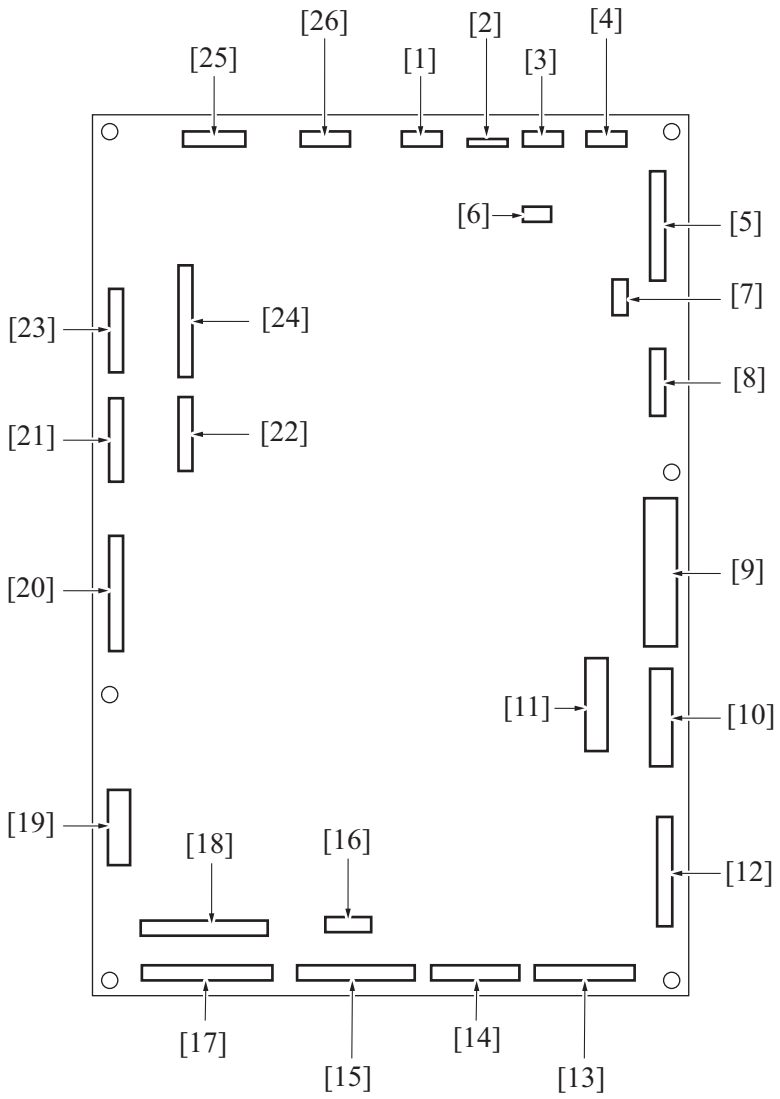
[1]	Paper passage sensor/1 (PS1)	[2]	Paper empty sensor (PS7)
[3]	Leading edge stopper home sensor (PS14)	[4]	Paper passage sensor/2 (PS10)
[5]	Front door switch (SW1)	[6]	Belt position sensor (PS13)
[7]	Pick up roller position sensor (PS12)	[8]	Alignment plate home sensor/F (PS8)
[9]	Stapler home sensor (PS11)	[10]	Paper surface detect sensor/1 (PS2)
[11]	Paper surface detect sensor/2 (PS3)	[12]	Tray lower limit sensor (PS6)
[13]	Tray up/down operation sensor (PS4)	[14]	FS control board (FSCB)
[15]	Alignment plate home sensor/R (PS9)		

2. CONNECTOR LAYOUT DRAWING

2.1 BOARD CONNECTOR LAYOUT DRAWING

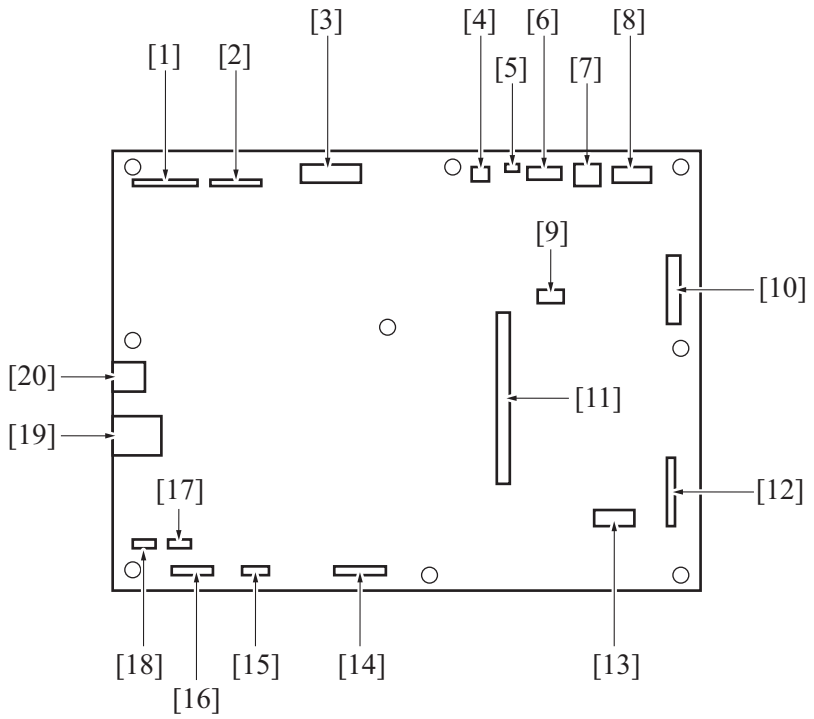
2.1.1 bizhub 42/36

(1) Printer control board (PRCB)



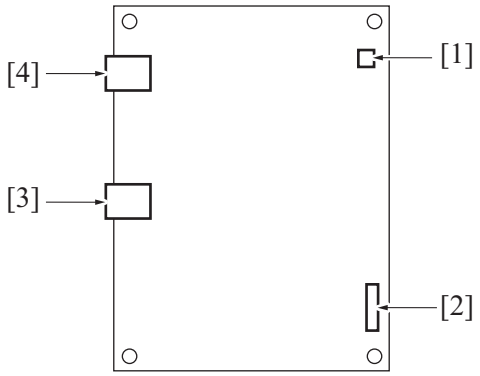
No.	CN No.	Pin	No.	CN No.	Pin
[1]	CN19	5 pin	[2]	CN20	9 pin
[3]	CN21	4 pin	[4]	CN22	6 pin
[5]	CN23	17 pin	[6]	CN25	3 pin
[7]	CN24	5 pin	[8]	CN1	9 pin
[9]	CN2	10 pin	[10]	CN4	12 pin
[11]	CN3	11 pin	[12]	CN5	16 pin
[13]	CN6	15 pin	[14]	CN7	12 pin
[15]	CN10	18 pin	[16]	CN9	7 pin
[17]	CN12	20 pin	[18]	CN11	19 pin
[19]	CN17	8 pin	[20]	CN28	26 pin
[21]	CN13	11 pin	[22]	CN16	9 pin
[23]	CN14	12 pin	[24]	CN15	16 pin
[25]	CN8	9 pin	[26]	CN18	7 pin

(2) MFP board (MFPB)



No.	CN No.	Pin	No.	CN No.	Pin
[1]	CN102	24 pin	[2]	CN103	18 pin
[3]	CN104	26 pin	[4]	CN105	2 pin
[5]	CN24	2 pin	[6]	CN11	4 pin
[7]	CN8	-	[8]	CN13	-
[9]	CN5	7 pin	[10]	CN21	-
[11]	DIMM	-	[12]	CN16	26 pin
[13]	CN7	4 pin	[14]	CN9	10 pin
[15]	CN15	6 pin	[16]	CN106	8 pin
[17]	CN1 (NC)	-	[18]	CN4 (NC)	-
[19]	CN14	-	[20]	CN10	-

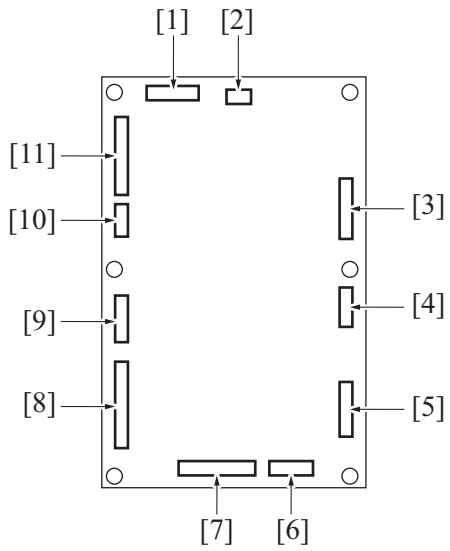
2.1.2 FAX board (FAXB)



No.	CN No.	Pin	No.	CN No.	Pin
[1]	CN9	2 pin	[2]	CN8	8 pin
[3]	CN4	4 pin	[4]	CN3	4 pin

2.1.3 PC control board (PCCB)

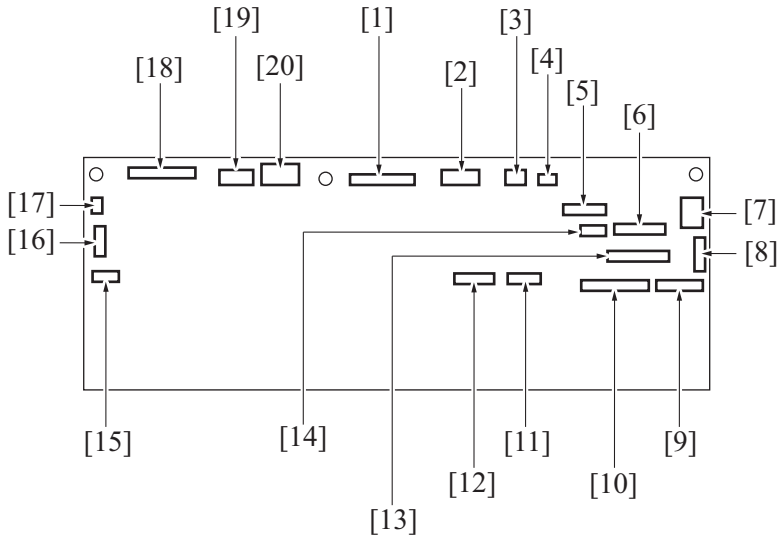
(1) PC-211



No.	CN No.	Pin	No.	CN No.	Pin
[1]	CN1	9 pin	[2]	CN2	2 pin
[3]	CN10	10 pin	[4]	CN11	6 pin
[5]	CN9	9 pin	[6]	CN7	7 pin
[7]	CN8	13 pin	[8]	CN6	15 pin
[9]	CN5	8 pin	[10]	CN4	5 pin
[11]	CN3	14 pin			

2.1.4 FS control board (FSCB)

(1) FS-529

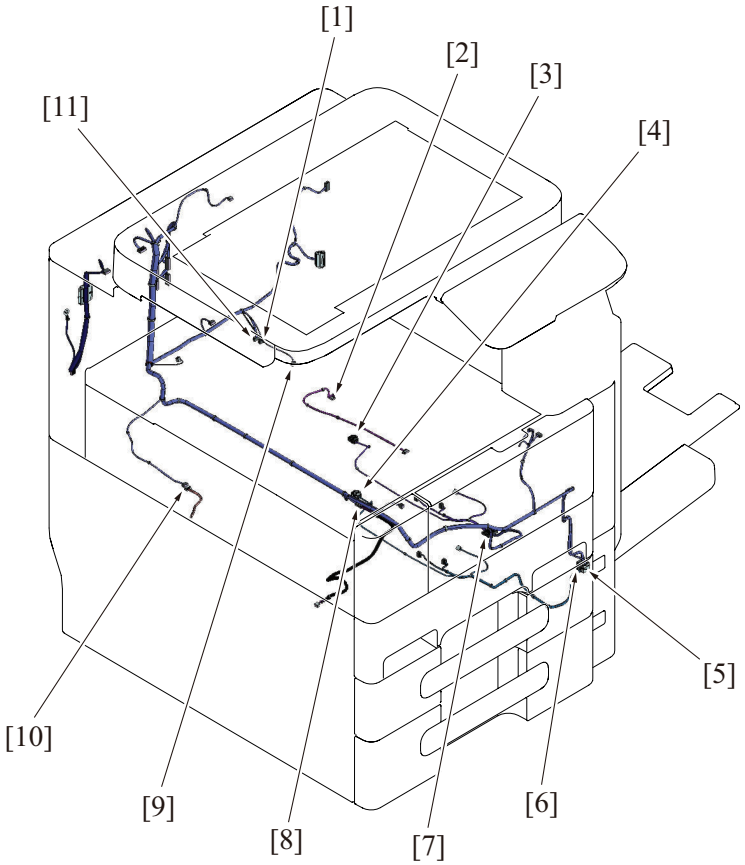


No.	CN No.	Pin	No.	CN No.	Pin
[1]	CN14	11 pin	[2]	CN11	6 pin
[3]	CN12	2 pin	[4]	CN13	2 pin
[5]	CN4	7 pin	[6]	CN8	9 pin
[7]	CN1	3 pin	[8]	CN2	6 pin
[9]	CN5	9 pin	[10]	CN7	12 pin
[11]	CN9	7 pin	[12]	CN10	8 pin
[13]	CN6	10 pin	[14]	CN3	3 pin
[15]	CN18	4 pin	[16]	CN19	5 pin

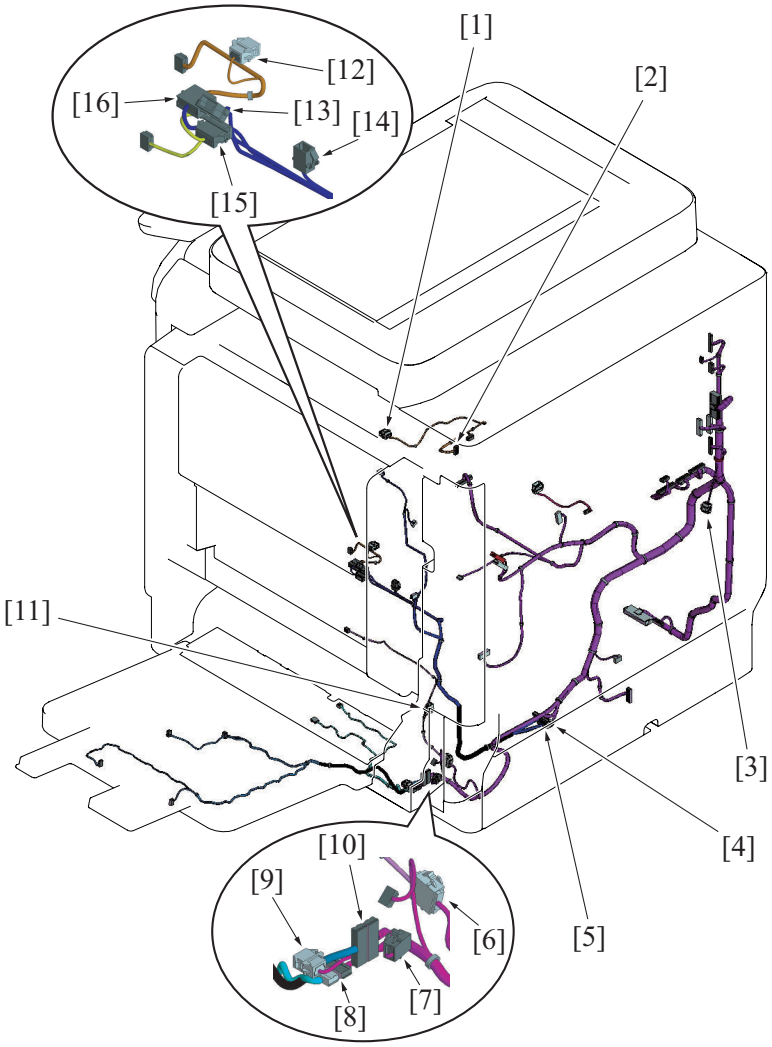
No.	CN No.	Pin	No.	CN No.	Pin
[17]	CN16	2 pin	[18]	CN17	12 pin
[19]	CN20	4 pin	[20]	CN15	3 pin

2.2 RELAY CONNECTOR LAYOUT DRAWING

2.2.1 bizhub 42/36



No.	CN No.	Pin	Location	No.	CN No.	Pin	Location
[1]	CN38	2 pin	F-10 to 11	[2]	CN28	4 pin	L-14
[3]	CN2	2 pin	C-15	[4]	CN7	2 pin	D-15
[5]	CN39	4 pin	F-11	[6]	CN6	11 pin	E-14
[7]	CN1	11 pin	D-14	[8]	CN101	2 pin	E-6
[9]	CN35	2 pin	E-11	[10]	CN95	3 pin	F-15
[11]	CN13	4 pin	F-14				

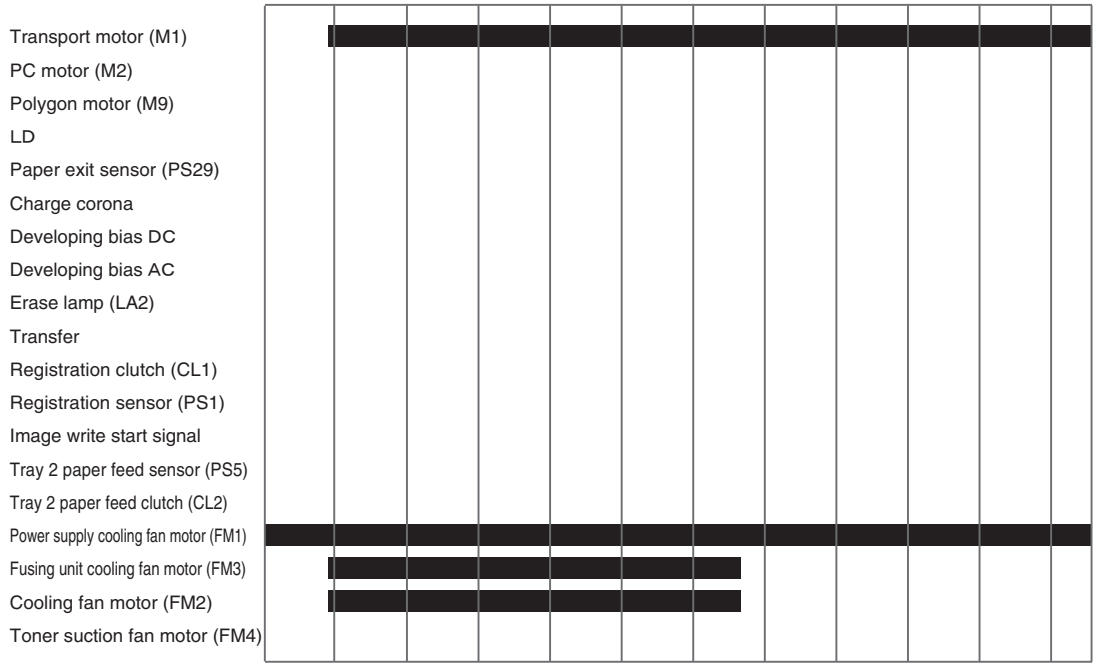


No.	CN No.	Pin	Location	No.	CN No.	Pin	Location
[1]	CN42	3 pin	G-10	[2]	CN86	7 pin	G-11
[3]	CN43	3 pin	I-15	[4]	CN46	16 pin	H to I-12
[5]	CN54	7 pin	I to J-11	[6]	CN57	5 pin	J-11
[7]	CN14	2 pin	I-15	[8]	CN22	6 pin	K-14
[9]	CN15	2 pin	I-15	[10]	CN17	12 pin	J-14
[11]	CN58	2 pin	J-10	[12]	CN53	2 pin	I-10
[13]	CN44	3 pin	G-10	[14]	CN56	2 pin	J-10
[15]	CN88	4 pin	H-11	[16]	CN59	5 pin	I to J-11

M TIMING CHART

1. bizhub 42/36

1.1 Timing chart when the main power switch is turned ON



1.2 Timing chart when the Start key is pressed

1.2.1 Operating conditions

Paper size	A4 or 8 $^{1}/_{2}$ x 11
Paper source	Tray2

1.2.2 Timing chart

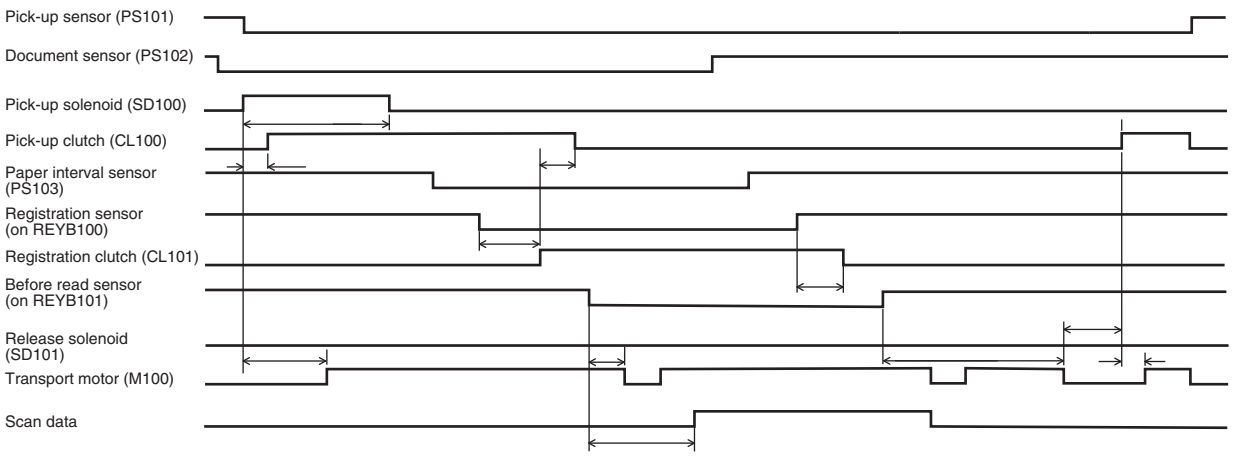
2. ADF

2.1 ADF

2.1.1 Operating conditions

- Black and white, A4 or 8 $^{1}/_{2}$ x 11

2.1.2 Timing chart



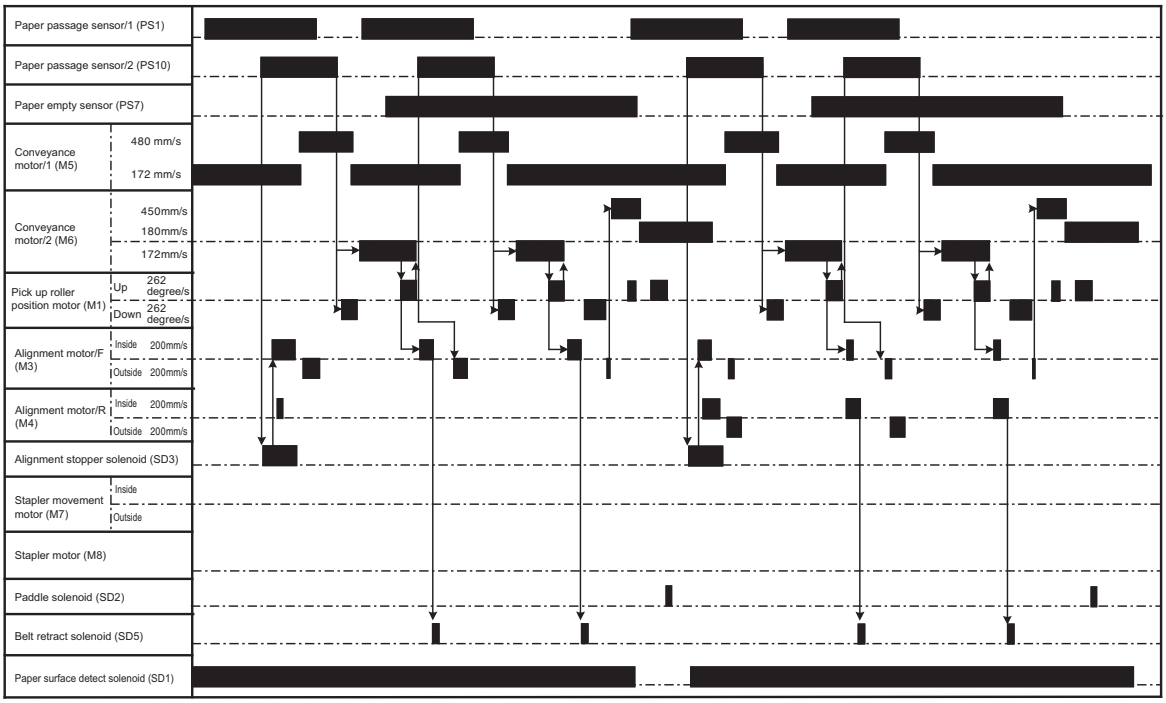
3. FS-529

3.1 Shift mode

3.1.1 Operating conditions

Paper size	A4 or 8 $^{1}/_{2}$ x 11
Offset mode	Sort (shift)
Sheet of original	2 originals
Type of original	1-side

3.1.2 Timing chart

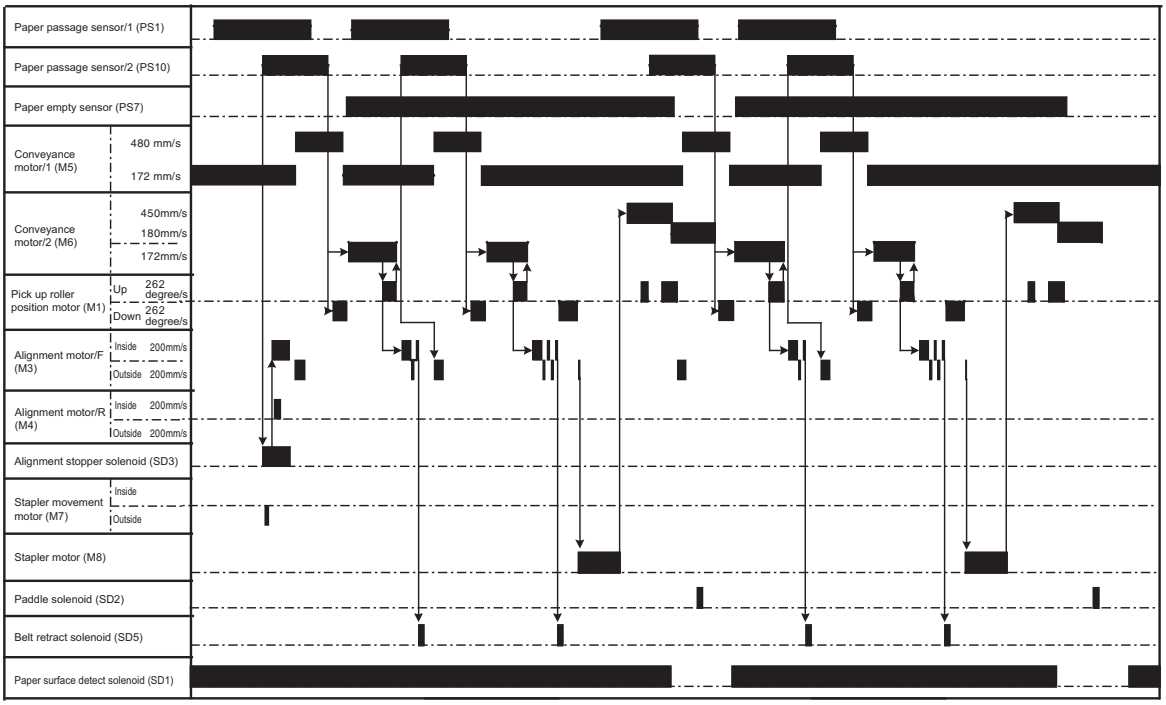


3.2 1 flat stitching staple mode

3.2.1 Operating conditions

Paper size	A4 or 8 $^{1}/_{2}$ x 11
Sheet of original	2 originals
Type of original	1-side

3.2.2 Timing chart

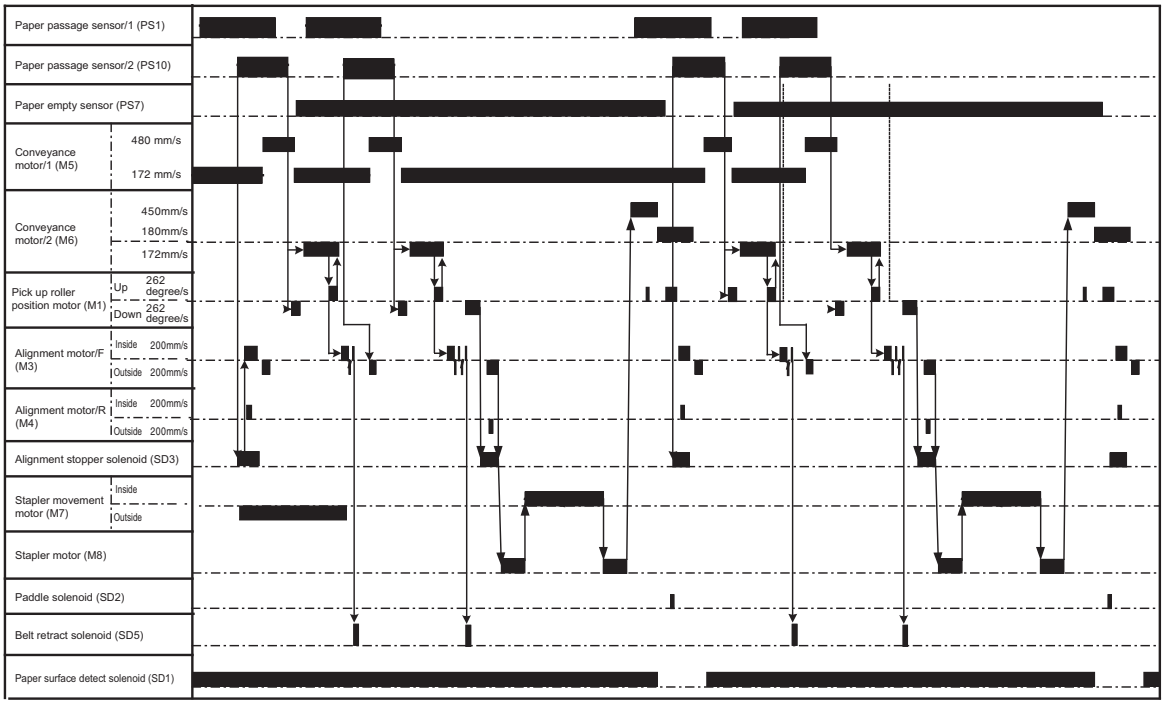


3.3 2 flat stitching staples mode

3.3.1 Operating conditions

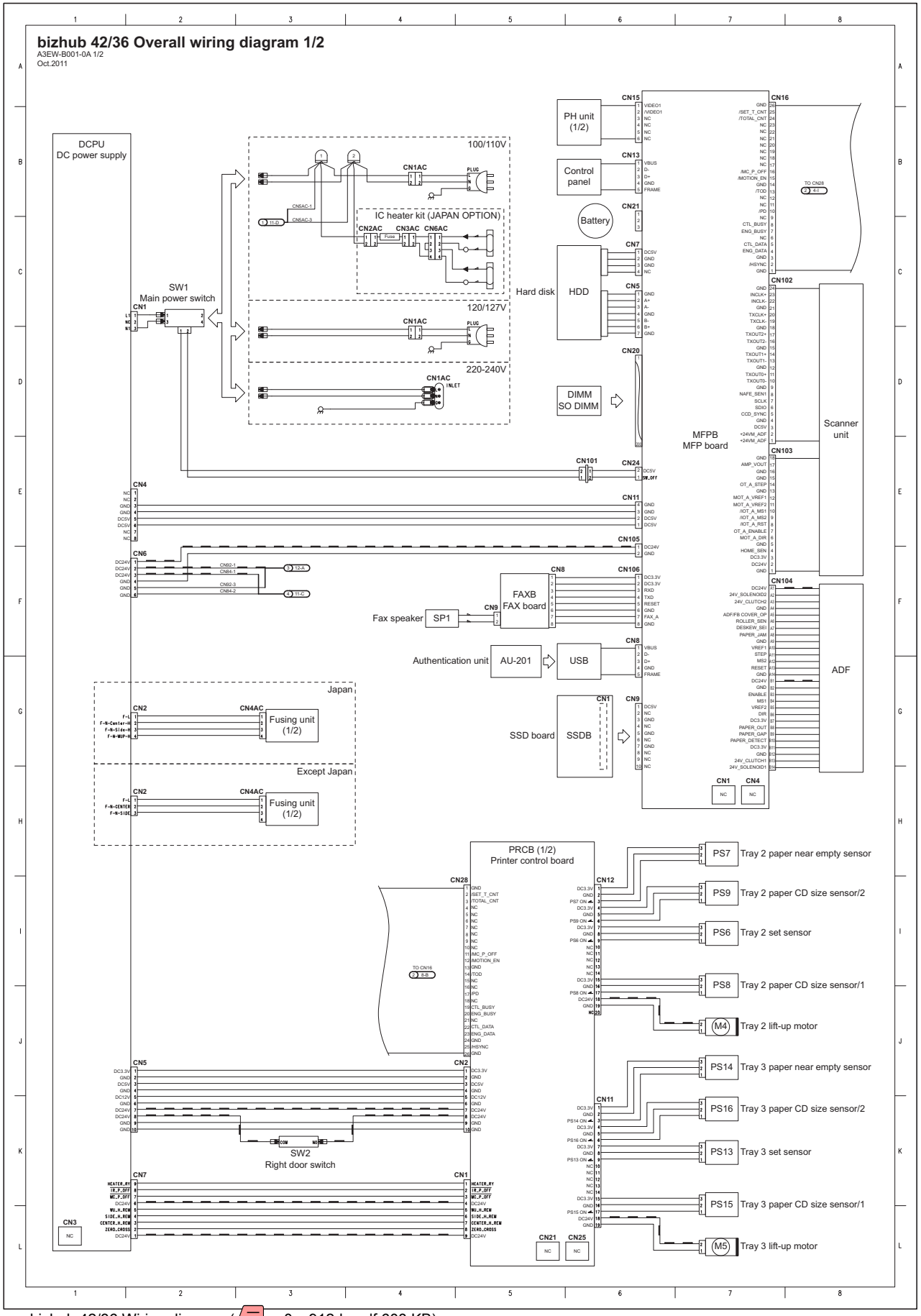
Paper size	A4 or 8 $^{1}/_{2}$ x 11
Sheet of original	2 originals
Type of original	1-side

3.3.2 Timing chart



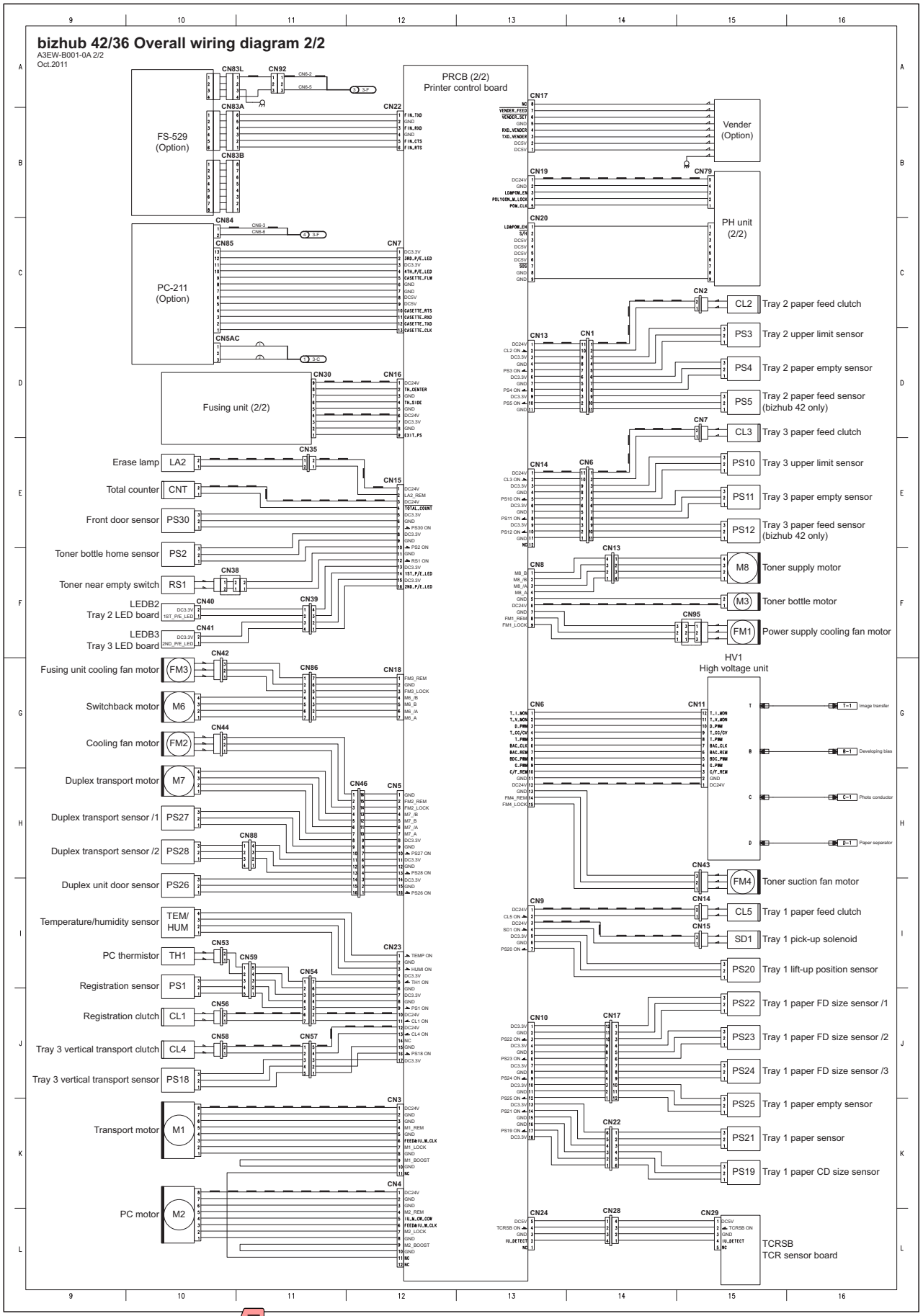
N WIRING DIAGRAM

1. bizhub 42/36 (1/2)



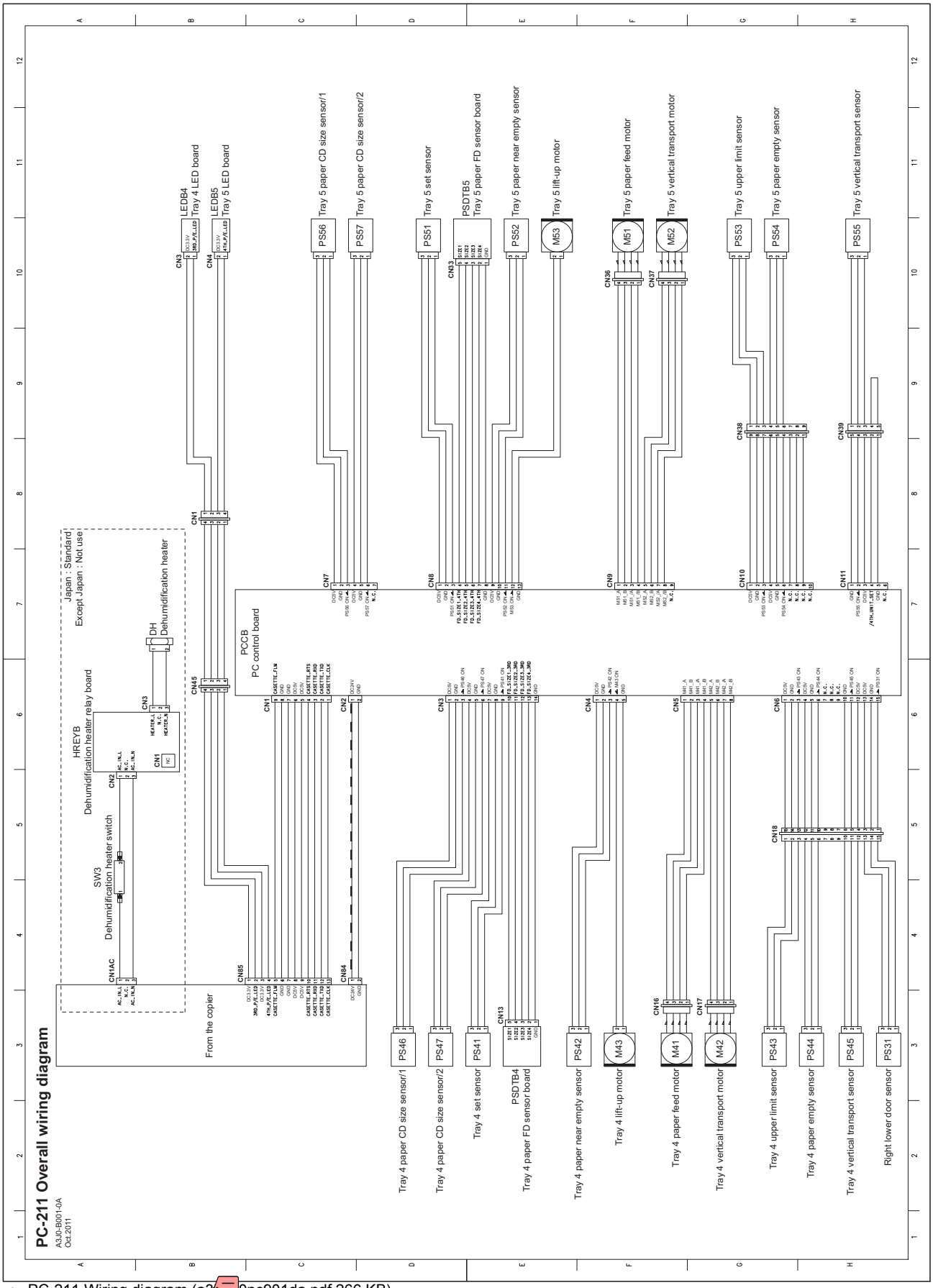
- bizhub 42/36 Wiring diagram (wm0nc912da.pdf 608 KB)

2. bizhub 42/36 (2/2)



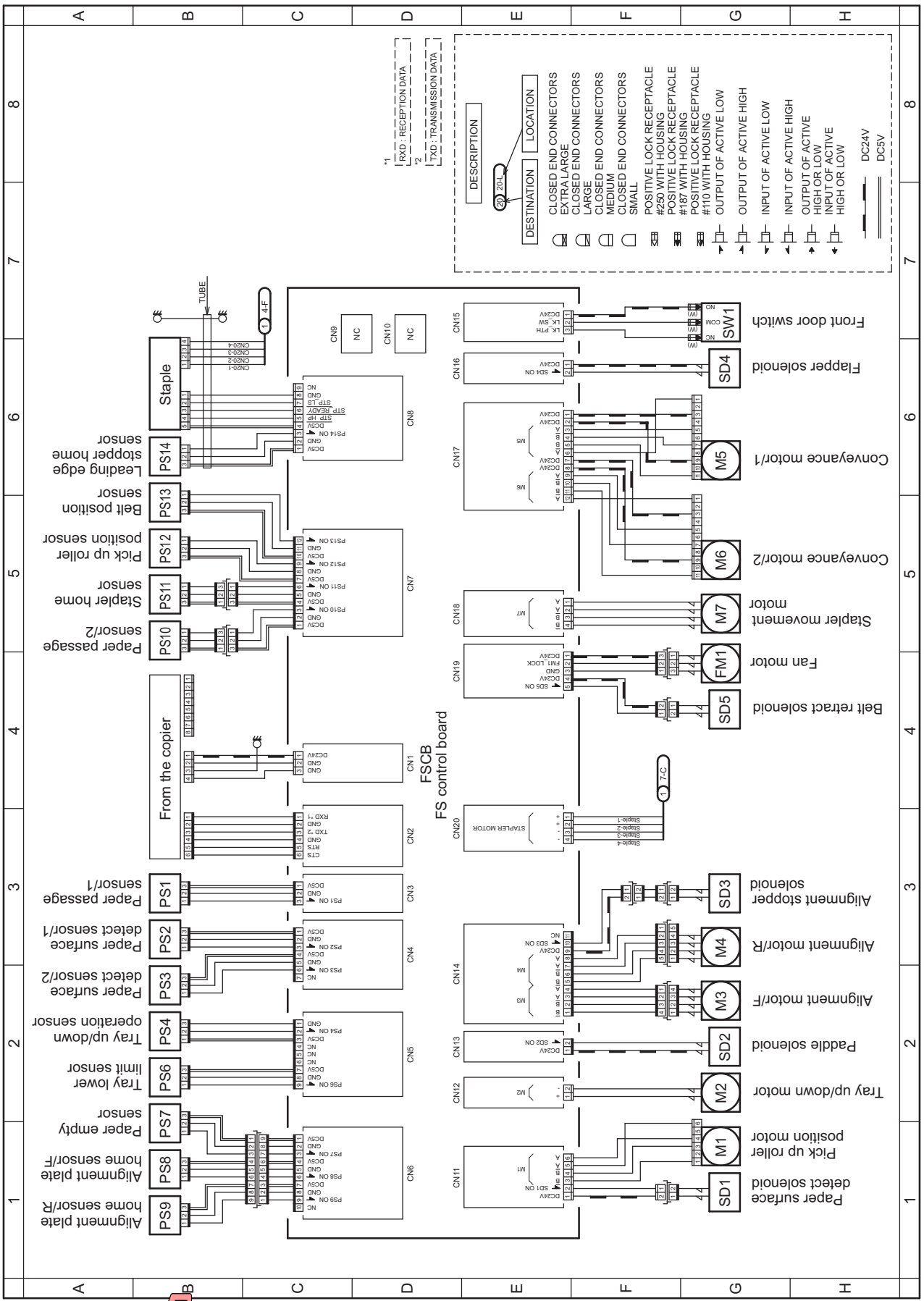
- bizhub 42/36 Wiring diagram (wm0nc922da.pdf 490 KB)

3. Paper feed cabinet PC-211



- PC-211 Wiring diagram (a3[illegible]0nc901da.pdf 266 KB)

4. Finisher FS-529



A0U7-B001-0A
Jul.2009

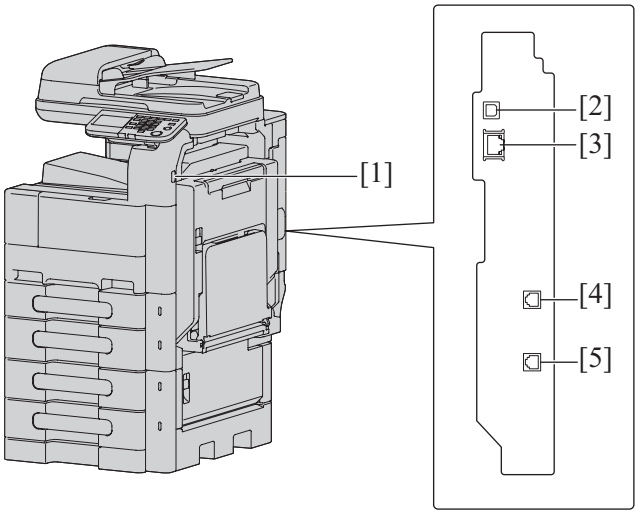
- FS-529 Wiring diagram (a0u7b0nc801da.pdf 1.2 MB)

O THEORY OF OPERATION bizhub 42/36

1. INTERFACE SECTION

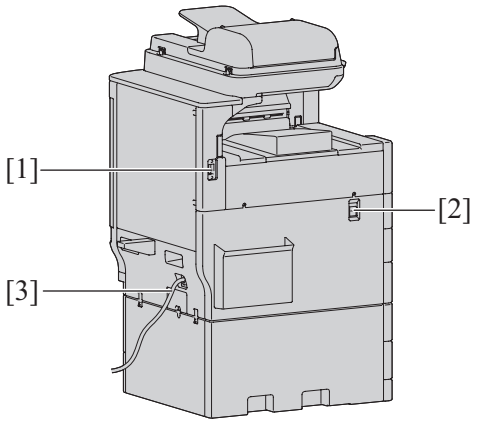
1.1 Configuration

1.1.1 Front side



[1]	USB port (Type A) USB2.0	[2]	USB port (Type B) USB2.0
[3]	Network connector (10Base-T/100Base-TX/1000Base-T)	[4]	Telephone jack (LINE)
[5]	Jack for connecting a telephone (TEL)		

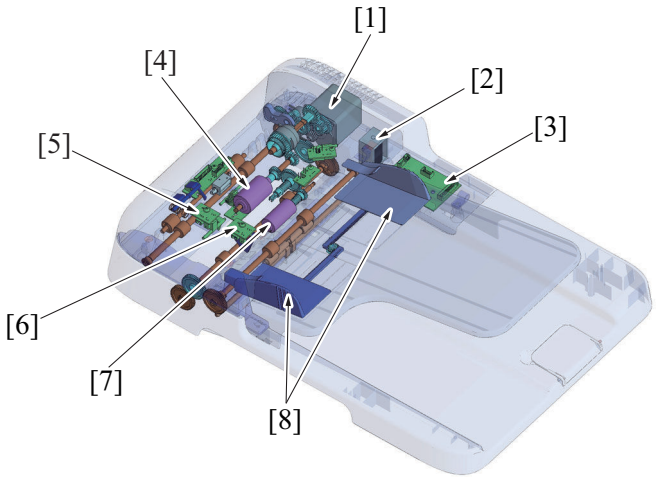
1.1.2 Rear side



[1]	Optional connection connector (For FS-529)	[2]	Power switch
[3]	Power code		

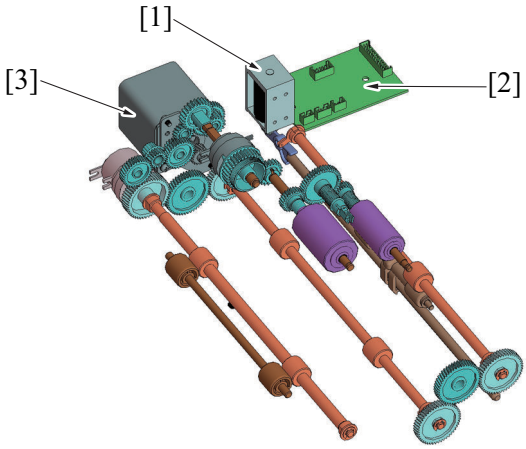
2. AUTOMATIC DOCUMENT FEEDER SECTION

2.1 Configuration



[1]	Transport motor (M100)	[2]	Release solenoid (SD101)
[3]	ADF control board (ADFCB)	[4]	Feed roller
[5]	Paper interval sensor (PS103)	[6]	Document sensor (PS102)
[7]	Pick-up roller	[8]	Document guide

2.2 Drive

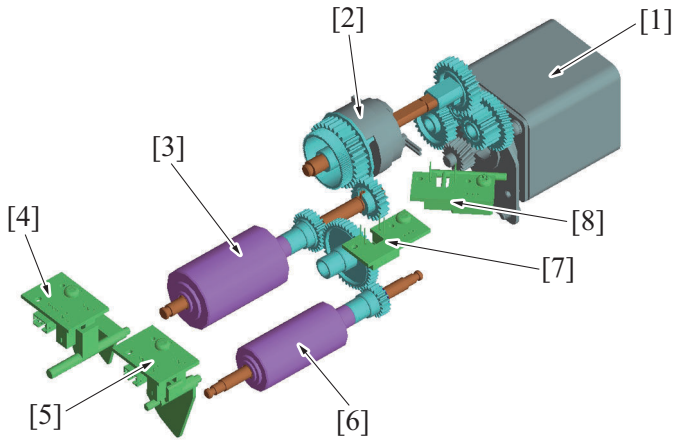


[1]	Release solenoid (SD101)	[2]	ADF control board (ADFCB)
[3]	Transport motor (M100)		

2.3 Operation

2.3.1 Document feed mechanism

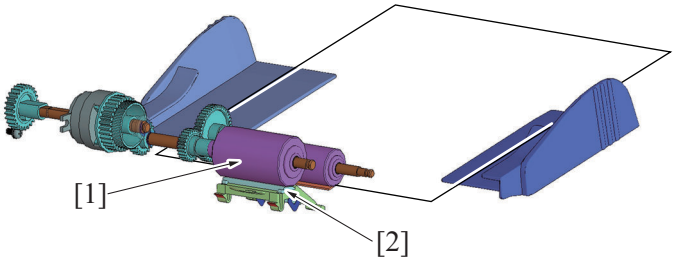
- The document sensor detects an original loaded in position.
- When the start key is pressed, the transport motor is driven and the pick-up roller is moved down via the pick-up clutch.
- The pick-up roller and feed roller turn to take up and feed the original properly.
- The pick-up roller transports the original up to the feed roller.
- The transport motor drives the pick-up roller and feed roller through a gear train and the pick-up clutch.



[1]	Transport motor (M100)	[2]	Pick-up clutch (CL100)
[3]	Feed roller	[4]	Paper interval sensor (PS103)
[5]	Document sensor (PS102)	[6]	Pick-up roller
[7]	Pick-up sensor (PS101)	[8]	ADF door sensor (PS100)

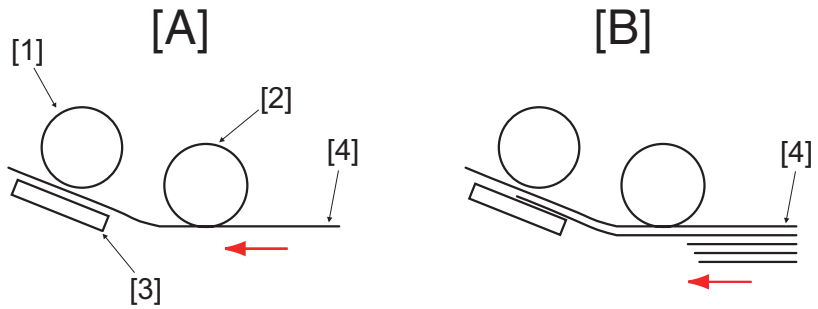
2.3.2 Document separation mechanism

- Double feeding of paper is prevented using a coefficient of friction between the feed roller and separator pad.



[1]	Feed roller	[2]	Separator pad

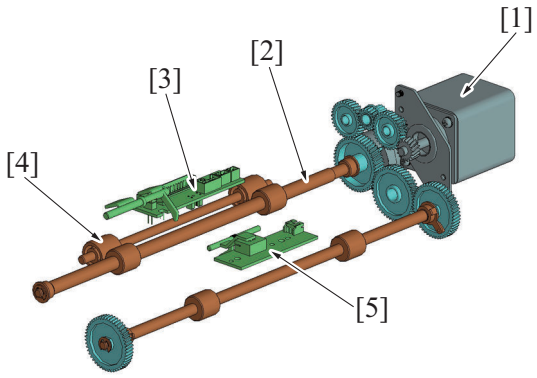
Single sheet feeding of original	• The coefficient of friction on the front side of the paper fed between the feed roller and separator pad is equal to that on the backside of the paper. This allows the feed roller to feed the paper.
Multiple sheet feeding of original	• The coefficient of friction between the paper and separator pad is greater than that between sheets of paper. This allows only the first sheet of paper to be fed by the feed roller.



[A]	Single sheet feeding of original	[B]	Multiple sheet feeding of original
[1]	Feed roller	[2]	Pick-up roller
[3]	Separator pad	[4]	Original

2.3.3 Document transport mechanism

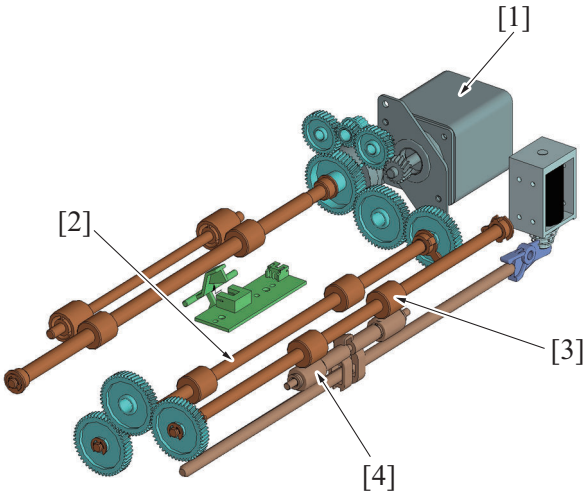
- The registration roller turns to feed the original that has been taken up onto the document scanning position of the main body.
- The transport motor drives the registration roller through a gear train.
- When the original reaches the document scanning position, the registration sensor mounted on the relay board/1 is blocked, which causes the main body to determine that there is an original.



[1]	Transport motor (M100)	[2]	Registration roller
[3]	Relay board/1 (REYB100)	[4]	Registration roll
[5]	Relay board/2 (REYB101)		

2.3.4 Document exit mechanism

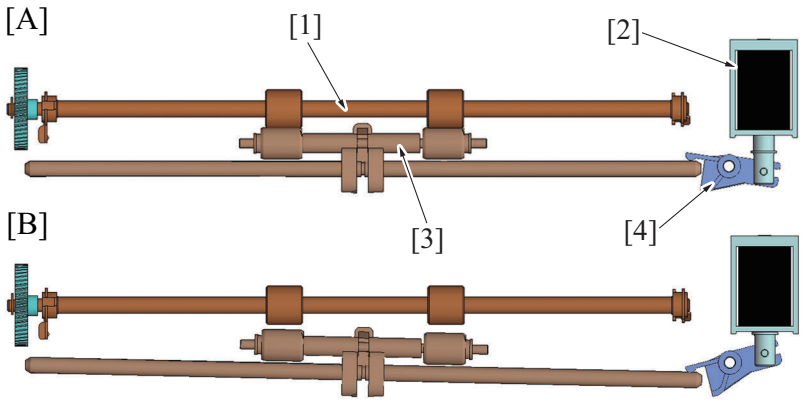
- The original fed off by the transport roller is fed out into the document exit tray by the exit switch back roller.
- The transport motor turns the exit switch back roller through a gear train.



[1]	Transport motor (M100)	[2]	Transport roller
[3]	Exit switch back roller	[4]	Exit roll

2.3.5 Switching mechanism for turnover/paper exit

- Rotation of the exit switch back roller turns over the original transported from the transport section or feeds it out into the document exit tray.
- The exit switch back roller is driven by the transport motor.
- During the turnover operation, the exit rolls are pressed against, or retracted from, the exit switch back roller to prevent the leading and trailing edges of the original from being pinched between the roller and rolls.
- Pressure and retraction operations are performed by energizing or deenergizing the release solenoid.
- When the release solenoid is energized, the arm is moved vertically to move the exit rolls away from the exit switch back roller.



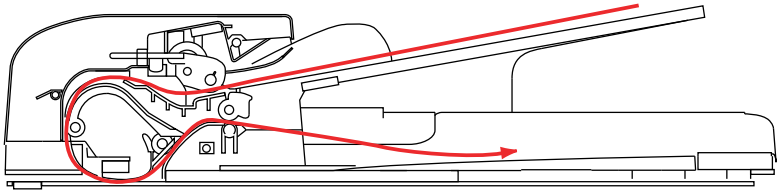
[A]	When the release solenoid is deenergized	[B]	When the release solenoid is energized
[1]	Exit switch back roller	[2]	Release solenoid (SD101)

[3] Exit roll	[4] Arm

2.4 Paper path

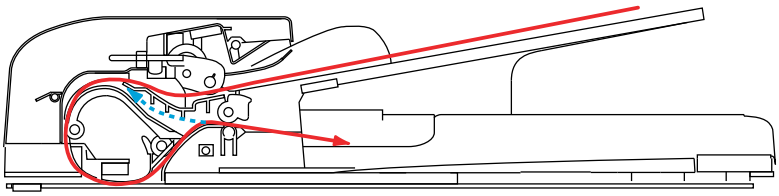
2.4.1 1-sided mode

- When the start key is pressed, drive from the transport motor is transmitted to the feed roller by the pick-up clutch, so that the feed roller is rotated. This starts the feeding of the original.
- The registration roller corrects any skew in the original that has been taken up and fed in before the original is transported onto the document reading position.
- When the image of the original is read, the exit switch back roller feeds the original into the document exit tray.

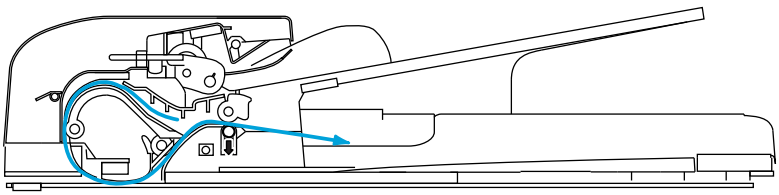


2.4.2 2-sided mode

- The first side of the original will be read.
- The exit switch back roller turns backward to feed the original back into the automatic document feeder.

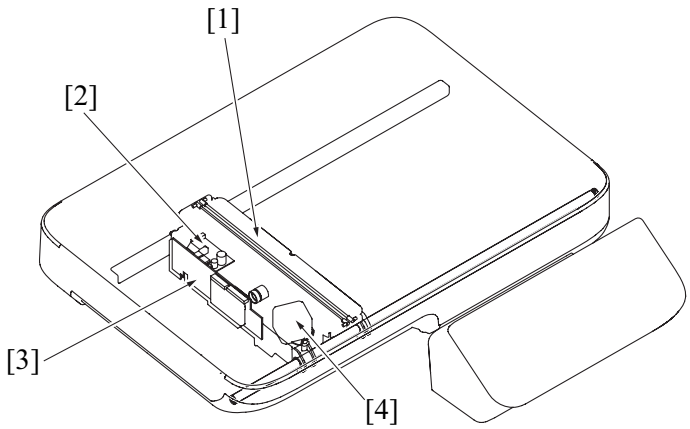


- The original that has been taken up again from the exit tray undergoes skew correction by the registration roller before being transported up to the document reading position.
- As soon as the original reaches the document scanning position, a read sequence of the second side of the original will be started.
- When the image of the original is read, the exit switch back roller feeds the original into the document exit tray. At this time, the exit rolls are moved away from the exit roller to prevent the leading and trailing edges of the original from being pinched between the roller and rolls.
- In order to keep the proper order of the original, the original fed out into the document exit tray is taken up again and fed out through the registration roller and exit switch back roller back into the document exit tray.



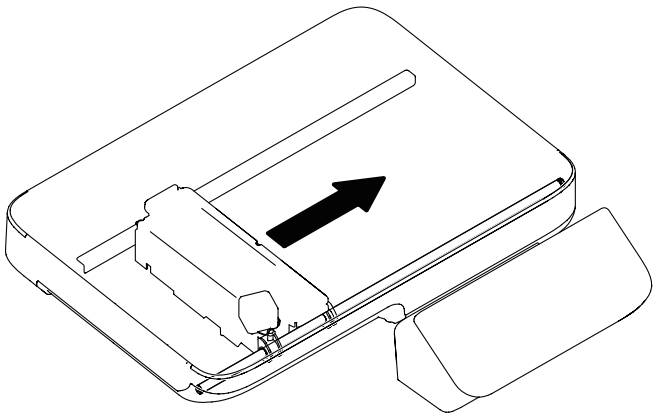
3. SCANNER SECTION

3.1 Configuration



[1]	Exposure lamp (LA1)	[2]	Inverter board (INVB)
[3]	Relay board/3 (REYB102)	[4]	Scanner motor (M101)

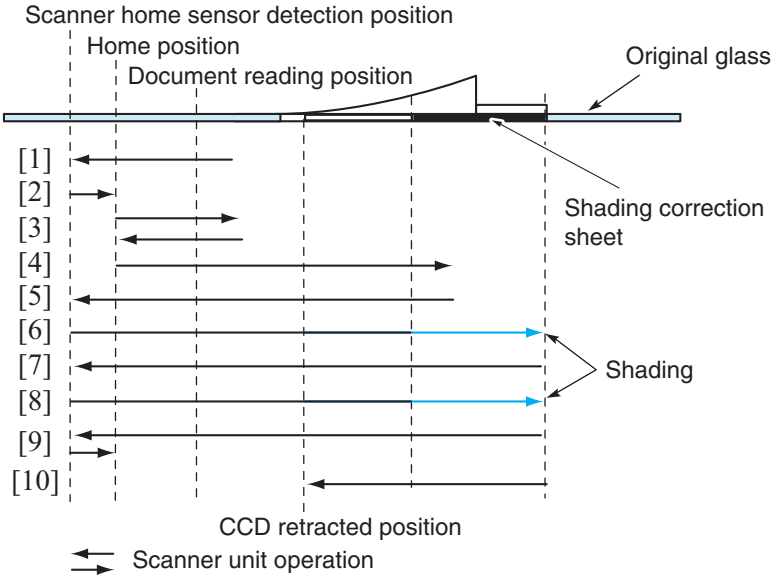
3.2 Drive



3.3 Operation

3.3.1 When the power is ON

1. To identify the position of the scanner unit, the scanner unit is moved until the scanner home sensor is activated.
2. When the scanner home sensor is activated, the scanner motor is turned backward to move the scanner unit to its home position. (This position is defined as the home position.)
3. The scanner unit is moved over a predetermined length to check that it is not locked by the scanner home sensor.
4. The scanner unit is moved to the position of the shading correction sheet and the shading correction position is detected.
5. The scanner unit is moved until the scanner home sensor is activated. At this time, the distance (motor pulses) between the shading correction position and the scanner home sensor is measured and each of reading positions is calculated with reference to the scanner home sensor.
6. The scanner unit is moved to the shading position and a shading correction (CCD gain/offset adjustment) is made.
7. The scanner unit is moved until the scanner home sensor is activated.
8. The scanner unit is moved to the shading position and a shading correction (reading the shading correction sheet data) is made.
9. If the ADF is lowered, the scanner unit is moved until the scanner home sensor is activated and then brought back to the home position for standby.
10. If the ADF is raised, the scanner unit is moved to the CCD retracted position for standby.

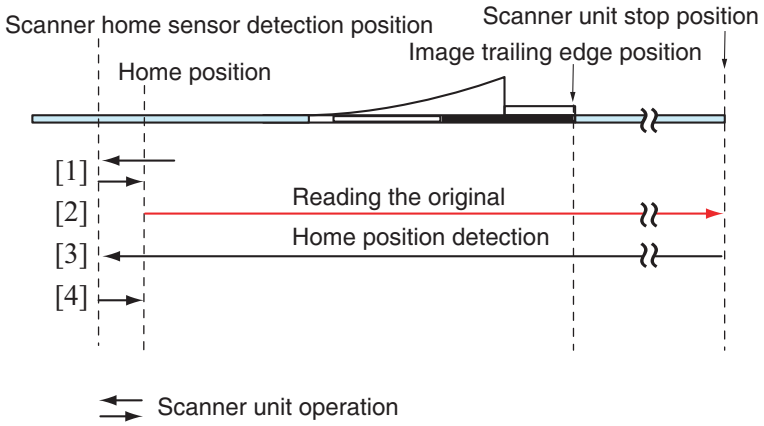


3.3.2 Control when the Start key is pressed

(1) Original scanning mode

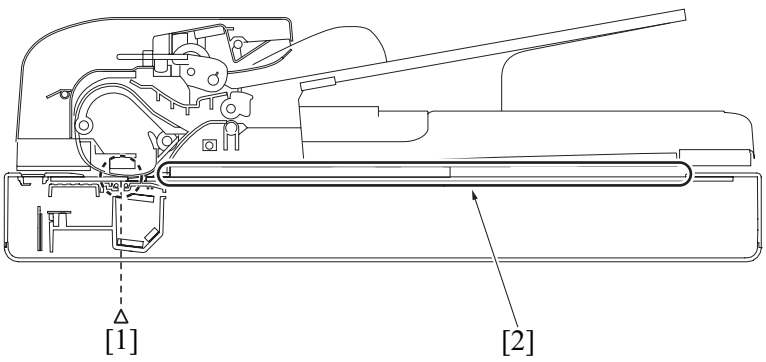
(a) Original cover mode

1. The scanner unit is moved to the scanner home sensor detection position and then to the home position.
2. The scanner unit is moved in the document reading direction. When reaching the document reading starting position, the scanner unit starts reading the original.
3. After completing reading, the scanner unit is moved to the scanner home sensor detection position.
4. The scanner unit returns to the home position for standby.



(b) ADF mode

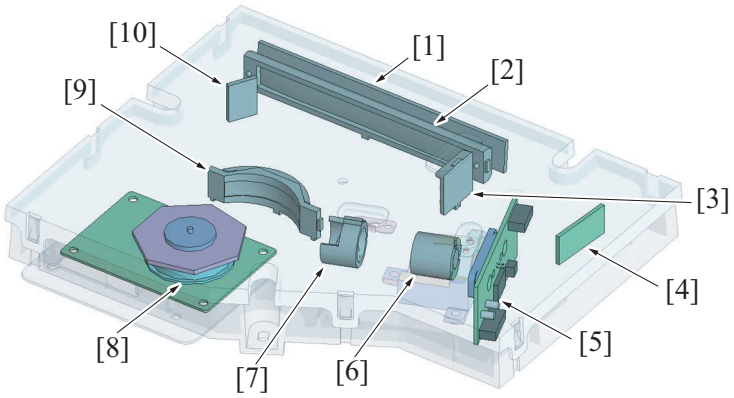
- The scanner unit moves to, and stops at, the ADF document reading position. The scanner unit reads the original fed onto the original glass section by the automatic document feeder. (By moving the originals part the reading position, images of the original are read.)



[1]	ADF Document reading position	[2]	Original cover reading position

4. WRITE SECTION (PH SECTION)

4.1 Configuration

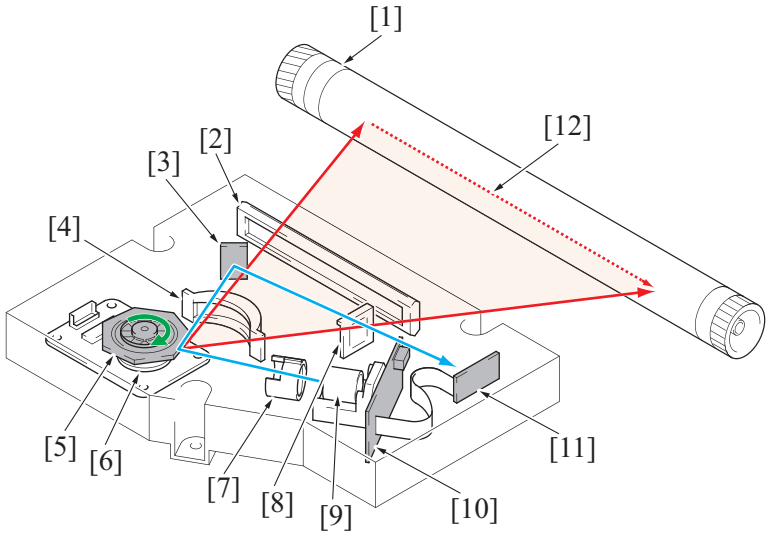


[1]	Laser aperture	[2]	G2 lens
[3]	Index lens	[4]	Index board (INDEXB)
[5]	Laser drive board (LASDB)	[6]	Collimator lens
[7]	Cylindrical lens	[8]	Polygon motor (M9)
[9]	G1 lens	[10]	Index mirror

4.2 Operation

4.2.1 Laser exposure process

1. The laser light emitted from the semiconductor laser on the laser drive board is dependent upon the polygon mirror via the both the collimator and cylindrical lens.
2. The polygon mirror has seven faces, all of which are turned at high speeds by the polygon motor.
3. The light reflected off the polygon mirror illuminates the surface of the photo conductor via the G1 lens and G2 lens.
4. The light reflected off the polygon mirror scans the surface of the photo conductor as the polygon mirror rotates.



[1]	Photo conductor	[2]	G2 lens
[3]	Index mirror	[4]	G1 lens
[5]	Polygon mirror	[6]	Polygon motor (M9)
[7]	Cylindrical lens	[8]	Index lens
[9]	Collimator lens	[10]	Laser drive board (LASDB)
[11]	Index board (INDEXB)	[12]	Laser light scanning the surface of the photo conductor (main scanning)

4.2.2 Laser emission timing

- The index sensor has a function of keeping the same laser light emission timing per every one line in the main scanning direction.
- The signal is detected after a predetermined period of time has elapsed once the print cycle has been started in which the MFP board outputs a laser ON signal.
- The laser ON signal triggers the firing of each laser light which illuminates the index board via the polygon mirror, G1 lens, and index mirror. This generates an index signal.

- The index signal controls the laser light emission timing for each line in the main scanning direction.

4.2.3 Advance polygon rotation

- To shorten the first print time, the polygon motor is energized before a print command is issued.
- This timing starts when a original is loaded or a key on the control panel is pressed.
- If no print command is received during the advance energization, the motor is then deenergized.

4.2.4 Laser emission stop

Emission of the laser beam is stopped if any of the following conditions is encountered during printing:

- At the end of a print job or a print job is interrupted by a paper empty condition or similar event.
- The front door or any other door is opened.
- A misfeed occurs.
- A malfunction occurs.

4.2.5 Laser emission area

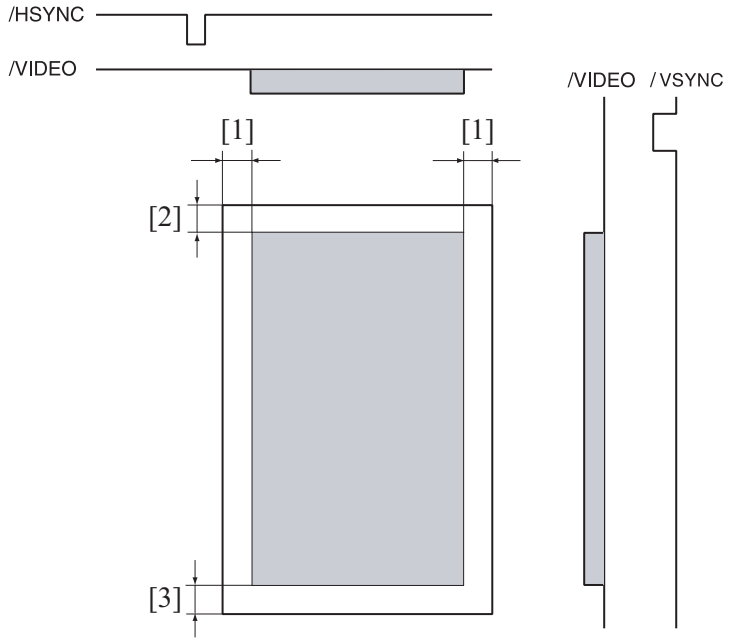
(1) Main scanning direction

- The print start position in the main scanning direction is determined by the main scanning print start signal (HSYNC) that is output from the MFP board and the width of the paper.
- The laser emission area is determined by the paper size.
  The area on either edge of the paper is, however, a void image area.

(2) Sub scanning direction

- The print start position in the sub scanning direction is determined by the image write start signal (VSYNC) that is output from the MFP board and the length of the paper.
- The laser emission area is determined by the paper size.
  The area on either edge of the paper is, however, a void image area.

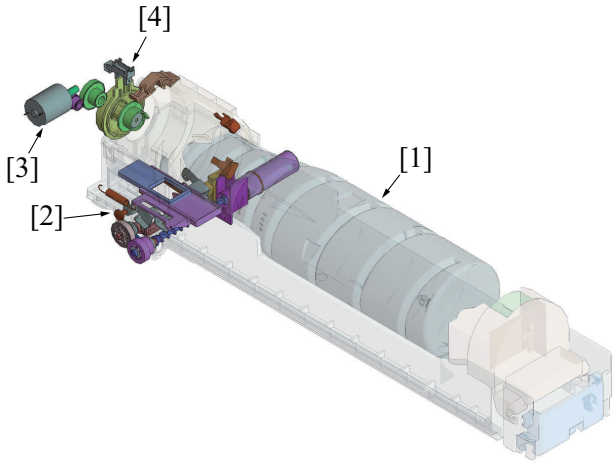
Mode	Void image area	
	Main scanning direction	Sub scanning direction
Copy	4.0 mm/0.156 inches from the edge of the paper	4.0 mm/0.156 inches from the leading edge of the paper
	4.0 mm/0.156 inches from the edge of the paper	4.0 mm/0.156 inches from the trailing edge of the paper
PC print	4.2 mm/0.165 inches from the edge of the paper	4.2 mm/0.165 inches from the leading edge of the paper
	4.2 mm/0.165 inches from the edge of the paper	4.2 mm/0.165 inches from the trailing edge of the paper



[1]	Void image area along the edge of the paper	[2]	Void image area along the leading edge of the paper
[3]	Void image area along the trailing edge of the paper		

5. TONER SUPPLY SECTION

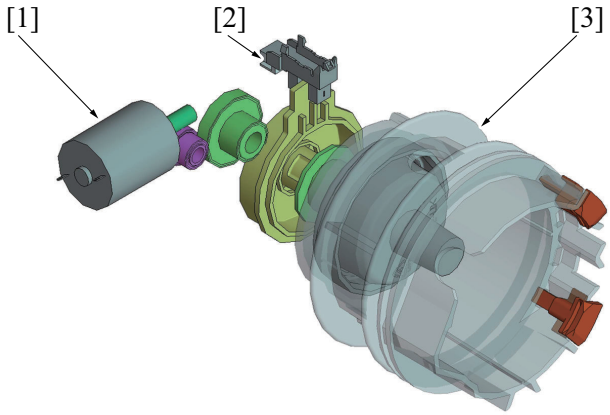
5.1 Configuration



[1]	Toner bottle	[2]	Toner hopper
[3]	Toner bottle motor (M3)	[4]	Toner bottle home sensor (PS2)

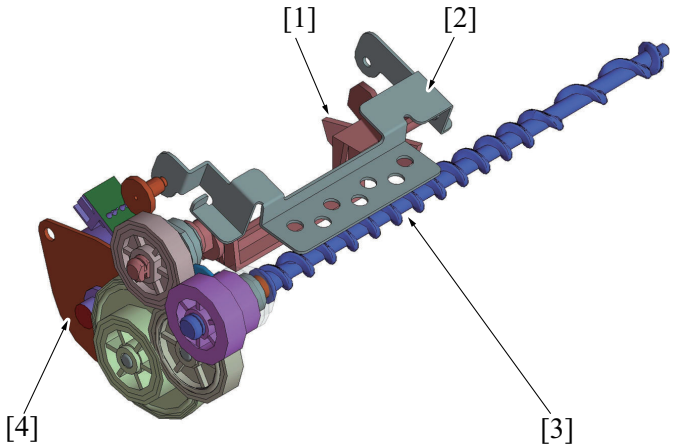
5.2 Drive

5.2.1 Toner bottle drive



[1]	Toner bottle motor (M3)	[2]	Toner bottle home sensor (PS2)
[3]	Toner bottle holder		

5.2.2 Toner hopper drive

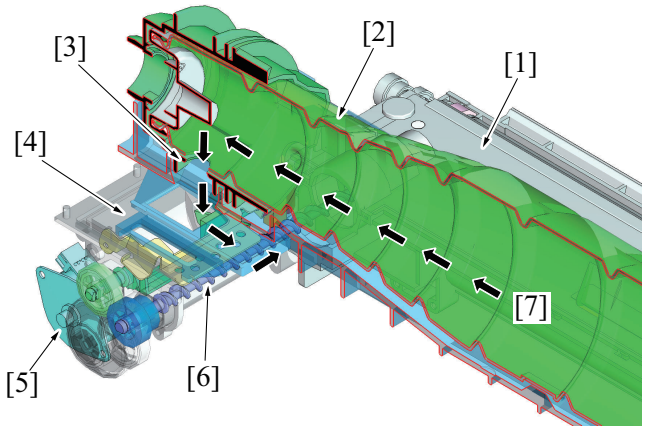


[1]	Toner agitating blade/1	[2]	Toner agitating blade/2
[3]	Toner conveying screw	[4]	Toner supply motor (M8)

5.3 Operation

5.3.1 Toner flow

- The TCR sensor mounted in the developing unit detects the T/C ratio in the developing unit. Toner is supplied from the toner bottle to the toner hopper. From the toner hopper it is supplied to the developing unit, according to the T/C ratio detected by the TCR sensor and the amount of toner consumed.



[1]	Developing unit	[2]	Toner bottle (cross-sectional view)
[3]	Toner replenishing port	[4]	Toner hopper
[5]	Toner supply motor (M8)	[6]	Toner conveying screw
[7]	Toner flow		

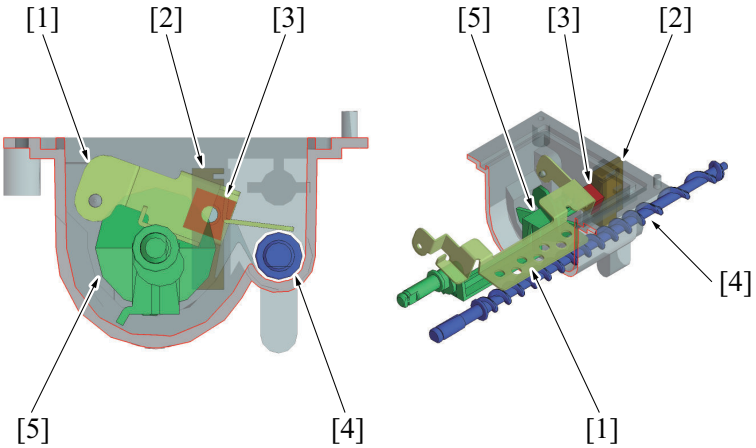
5.3.2 Toner replenishing mechanism

(1) Toner supply from toner bottle to toner hopper

- The toner bottle motor provides the drive for replenishing toner from the toner bottle to the toner hopper.
- Energization of the toner bottle motor results in the toner bottle being rotated. The toner bottle is provided with a toner replenishing port. Load the toner bottle in the main body with the toner replenishing port facing up. During rotation of the toner bottle through one complete turn, toner is supplied to the toner hopper timed when the toner replenishing port faces downward.
- The toner bottle home sensor detects the toner bottle at its home position (with the toner replenishing port facing up).

(2) Toner supply from toner hopper to developing section

- The toner supply motor provides the drive for replenishing toner from the toner hopper to the developing section.
- Energization of the toner supply motor results in toner agitating blade/1 and toner conveying screw being rotated.
- Rotation of toner agitating blade/1 results in the toner in the toner hopper being agitated. It also moves toner agitating blade/2 up and down, so that toner in the toner hopper is fed onto the toner conveying screw.
- Toner agitating blade/2 is mounted with a magnet. The toner near empty switch mounted on the outside of the toner hopper detects vertical movements of toner agitating blade/2 during a toner near empty condition.
- Rotation of the toner conveying screw results in the toner in the toner hopper being conveyed onto the developing unit.



[1]	Toner agitating blade/2	[2]	Toner near empty switch (RS1)
[3]	Magnet	[4]	Toner conveying screw
[5]	Toner agitating blade/1		

5.3.3 Toner replenishing control

- The toner replenishing control is performed through two different control modes: toner replenishing control to the toner hopper and toner replenishing control to the developing unit.

(1) Toner replenishing control to toner hopper

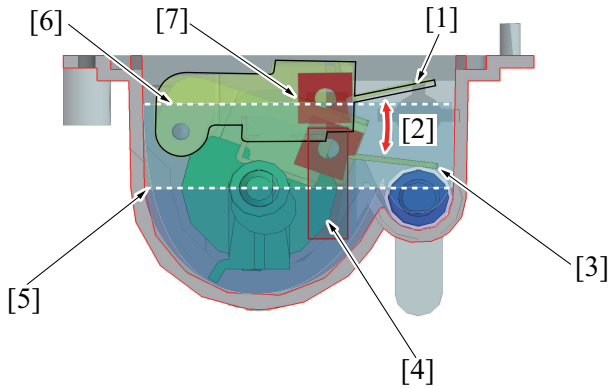
- Only while the toner bottle motor is being energized, the toner near empty switch is used to monitor the amount of toner still available for use in the toner hopper.

(a) Operation

1. Energization of the toner bottle motor is checked. if it is found that the toner bottle motor is energized, detection control is started.
2. Outputs from the toner near empty switch are monitored.
   When the magnet on the toner agitating blade/2 lowers down to the position of the toner near empty switch during energization of the toner bottle motor, the main body determines that “toner in the toner hopper is decreasing.”
3. Having made the decision that the “toner in the toner hopper is decreasing,” the main body rotates the toner bottle one complete turn to supply toner to the toner hopper.
4. After the toner has been supplied to the toner hopper, the operation returns to step 1 and the output from the toner near empty switch is monitored. If the main body determines a second time that the “toner in the toner hopper is decreasing,” the toner bottle is rotated one complete turn and toner is additionally supplied to the toner hopper. This operation is referred to as “continuous toner replenishing sequence.” In the “toner near empty condition detection control,” the number of “continuous toner replenishing sequences” is monitored and the toner near empty condition is determined based on the number of sequences.
5. The above steps of operation are repeated to control the amount of toner in the toner hopper.

NOTE

- **If the front door is opened while toner is being supplied to the toner hopper, the toner bottle motor is deenergized and the toner replenishing sequence is canceled.**



[1]	Toner agitating blade/2 (when the toner is full)	[2]	Toner agitating blade/2 makes a vertical movement.
[3]	Toner agitating blade/2 (when the toner decreases)	[4]	Toner near empty switch (RS1)
[5]	Toner level (small amount of toner left)	[6]	Toner level (toner remaining)
[7]	Magnet		

(2) Toner replenishing control to developing unit

- The amount of toner supplied is determined based on the result of detection made by the TCR sensor.

(a) Detection process

- Only while the developing unit is energized (PC motor is energized), the T/C ratio in the developing unit is monitored with the TCR sensor.

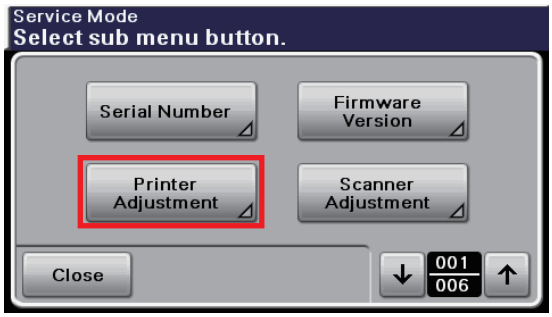
1. Energization of the PC motor is checked and, if it is found that the PC motor is being energized, the detection process is started.
2. The output from the TCR sensor is monitored for a predetermined period of time and the amount of toner to be supplied is calculated.
3. The toner supply motor is energized for the calculated “amount of toner to be supplied (toner supply time)” and toner is supplied from the toner hopper to the developing unit.

5.3.4 T/C ratio recovery control

- When images that would consume a large amount of toner (images having a high image density) are printed continuously, the T/C ratio in the developing unit may be reduced. In such cases, toner is forcibly supplied.
- If the T/C ratio is decreased during a print cycle, that print cycle is interrupted and toner is forcibly supplied.
- No print cycle can be run during the toner supply sequence.
- The toner supply sequence is terminated as soon as a predetermined value of T/C ratio is recovered.
  (Maximum 145 sec.: toner supply 116 sec. + developing unit agitation 29 sec.)

5.3.5 Manual Toner Add control

- A function of the Service Mode (Manual Toner Add) may also be used to supply toner forcibly.
  “Service Mode / Printer Adjustment / Replenish Toner”
- No print cycle can be run during the toner supply sequence.
- The toner supply sequence is terminated as soon as a predetermined value of T/C ratio is recovered.
  (Maximum 145 sec.: toner supply 116 sec. + developing unit agitation 29 sec.)



5.3.6 Toner level detection control

(1) Toner near empty detection control

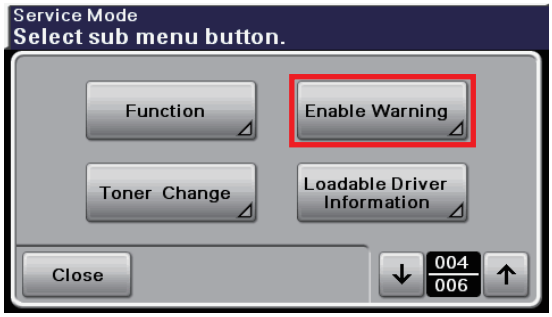
- A toner near empty condition is detected based on the number of “continuous toner replenishing sequences” (the number of times the toner bottle is continuously rotated) in which toner is supplied from the toner bottle to the toner hopper.
- The main body determines that there is a toner near empty condition when the number of “continuous toner replenishing sequences” for the toner hopper reaches a predetermined number.

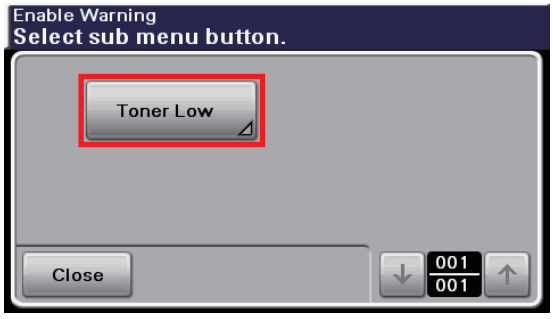
(a) Warning display function

- The warning screen to be displayed when a toner near-empty is detected can be enabled or disabled in the “Enable Warning / Toner Low” in the Service Mode.
- When the warning screen display is set to “ON,” the message notifying the user that the toner bottle needs replacing is displayed. (Toner is low)
  Printing can be continued even after the message is displayed.
- When the warning screen display is set to “OFF,” the message notifying the user that the toner bottle needs replacing is not displayed. Printing can be continued without having the message displayed.
- Approximately 600 printed pages can be produced in the standard job mode during the period that begins when a toner near empty condition is detected and ends when a toner empty condition is detected.

NOTE

- **The number of printed pages represents a value that is calculated based the amount of toner consumed when the machine is used in the standard job mode. It varies depending on how the machine is used by the user.**
- **For details of the standard job mode, see “F.5.1 Life value of consumables and parts”.**





(2) Toner empty detection control

- The main body determines that there is a toner empty condition when any of the following conditions is detected.

(a) Toner empty condition detected through monitoring the cumulative amount of toner supplied

- The cumulative amount of toner supplied after the toner near empty condition has been detected is monitored and, when a predetermined value is detected, the main body determines that there is a toner empty condition.

(b) Toner empty condition detected based on detection of a malfunction of an abnormally low toner density detected by TCR sensor

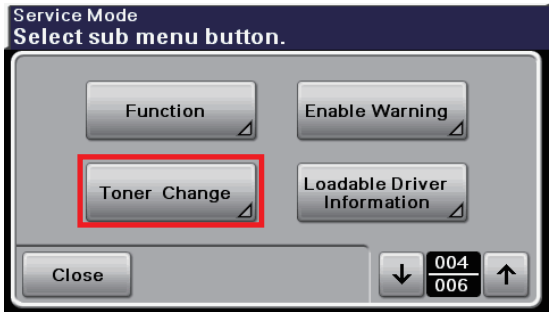
- When a malfunction of "0F36 Abnormally low toner density detected TCR sensor" is detected after the toner near empty condition has been found, the main body determines that there isn't a malfunction, but a toner empty condition.

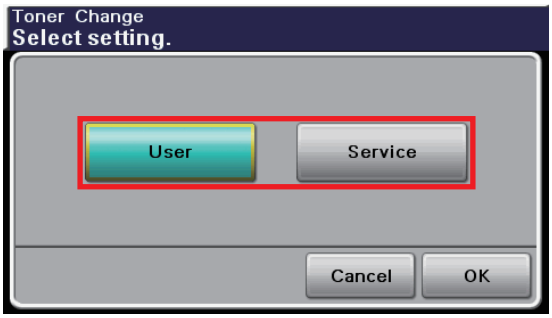
(c) Toner empty condition detected based on a reduced T/C ratio

- If the T/C ratio remains below a predetermined threshold value after the completion of a T/C ratio recovery control, the main body determines that there is a toner empty condition.

(3) Unit change function

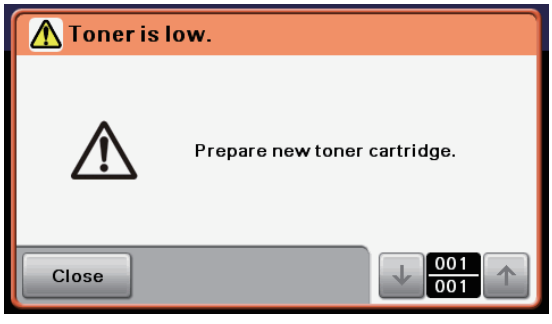
- The warning screen to be displayed when a toner empty is detected can be enabled or disabled in the "Toner Change" in the Service Mode.
- When the warning screen display is set to "User," the message that prompts the user to replace the toner bottle with a new one is displayed. ("Replace toner by following the instruction and close front door.")
- When the warning screen display is set to "Service," the message that prompts the user to call the service representative is displayed. ("There is no toner. Contact your service representative.")



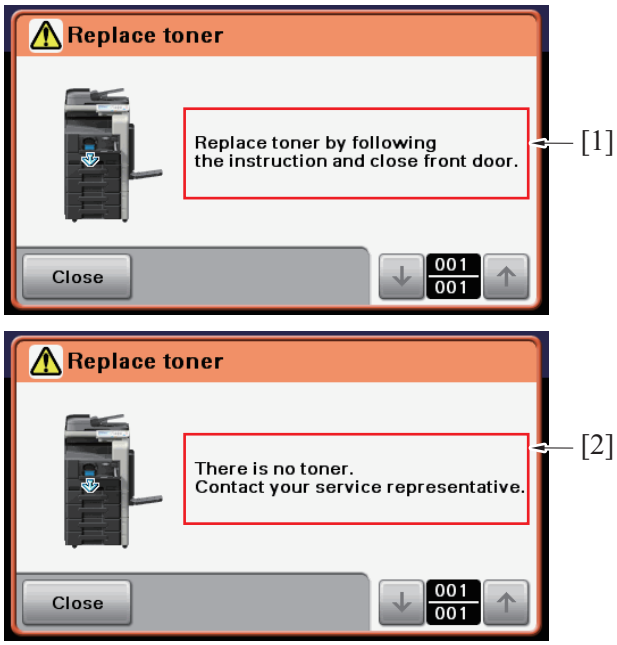


(4) Toner level display

(a) Toner near empty display (typical)



(b) Toner empty display (typical)



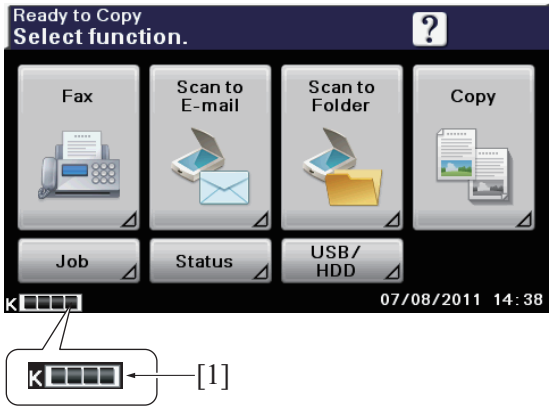
[1]	Replaced by user	[2]	Replaced by service engineer

(5) Resetting the toner near empty and toner empty conditions

- Either the “toner replenishing control to toner hopper” or “toner replenishing control to developing unit” is performed (both may be performed in some cases) if the toner bottle is replaced with a new one after a toner near empty condition and a toner empty condition have been detected.
- The toner near empty/empty display is reset when the control is normally terminated.
- Initiation of a new print cycle is prohibited during execution of the “toner replenishing control to toner hopper” and “toner replenishing control to developing unit” after the toner bottle has been replaced with a new one.
- See the relevant pages for more details of the “toner replenishing control to toner hopper” and “toner replenishing control to developing unit.”

(a) Precaution when replacing a toner bottle

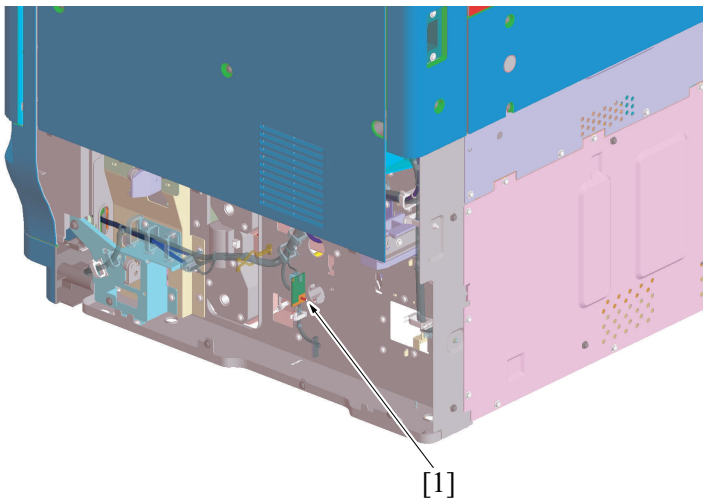
- The toner bottle is not provided with any mechanism that detects the amount of toner still available for use in the bottle. Therefore, make sure that the toner near empty or toner empty message is displayed before replacing the new toner bottle. Do not replace with the new toner bottle until the toner near empty or toner empty message is displayed.
- The toner amount data (level gauge) of the control panel determines that “Toner bottle is replaced with new one” after toner empty status changes to the normal status, and the “Toner amount data” is reset to zero.
  Therefore, in cases where the toner bottle is replaced with a new one before the toner near empty or toner empty message is displayed, the “Toner amount data” fails to be cleared, which creates the conflicting indicators of “Toner amount data displayed” on the control panel and the “Toner current level” in the toner bottle.
- Toner amount data displayed on the control panel may highlight the phenomenon of toner still remaining in the toner bottle even though the toner empty indicator is activated.



[1]	Toner amount data (level gauge)

5.3.7 Main body interior temperature measurement system

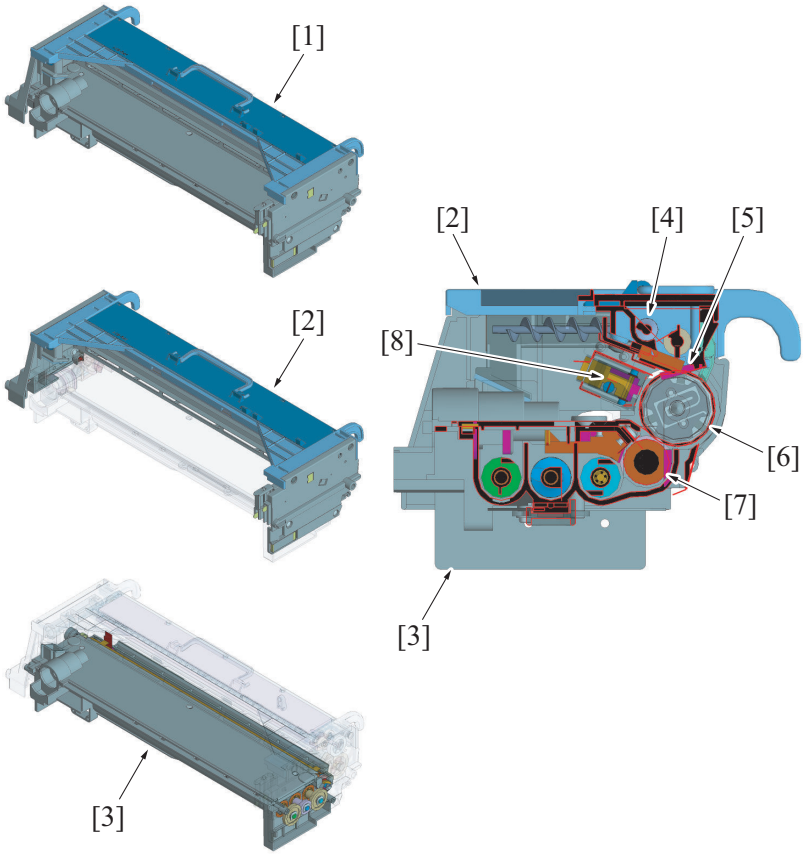
- The temperature/humidity sensor is located on the back panel of the main body. It is used to measure the temperature and humidity inside the main body.
- The measured data is used as “environmental information” for various other types of control.



[1]	Temperature/humidity sensor (TEM/HUM)

6. IMAGING UNIT SECTION (IU SECTION)

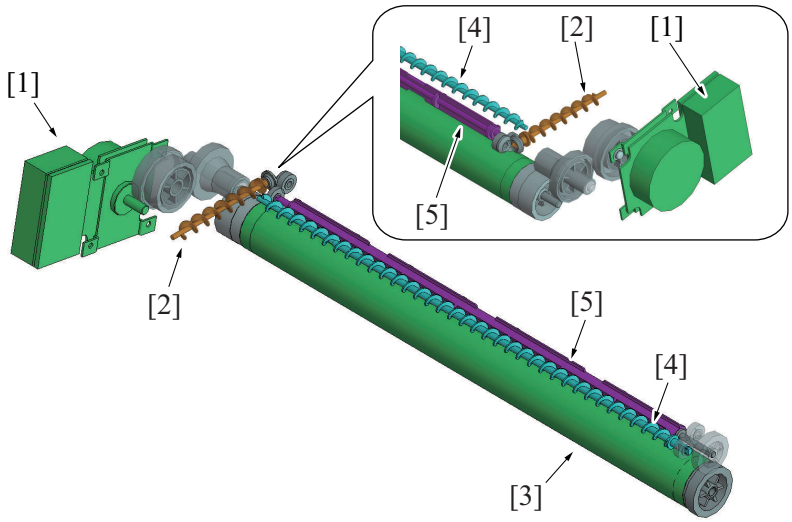
6.1 Configuration



[1]	Imaging unit (IU)	[2]	Drum unit
[3]	Developing unit	[4]	Recycling section
[5]	Cleaning section	[6]	Photo conductor section
[7]	Developing section	[8]	Charging section

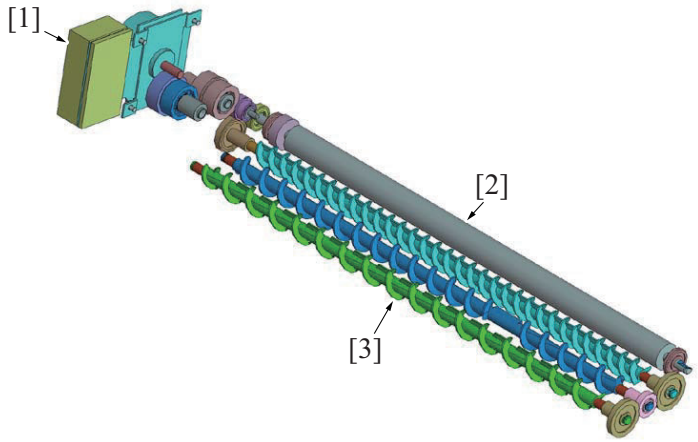
6.2 Drive

6.2.1 Drum unit



[1]	PC motor (M2)	[2]	Toner collecting screw/2
[3]	Photo conductor	[4]	Toner collecting screw/1
[5]	Toner agitating roller		

6.2.2 Developing unit



[1]	PC motor (M2)	[2]	Developing roller
[3]	Toner conveying screw/3		

6.3 Operation

6.3.1 Outline

- The imaging unit (IU) of this machine can be physically divided into the drum unit and developing unit. It is further divided into the charging, photo conductor, developing, cleaning, and recycling sections.
- The developing unit is replaced once for every four times that the drum unit and developer are replaced.

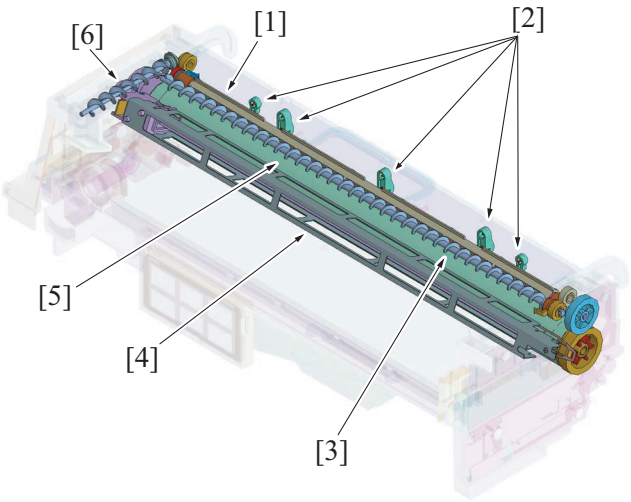
Model	Life		
	Drum unit	Developer	Developing unit
bizhub 42	120,000 counts	120,000 counts	480,000 counts
bizhub 36	110,000 counts	110,000 counts	440,000 counts

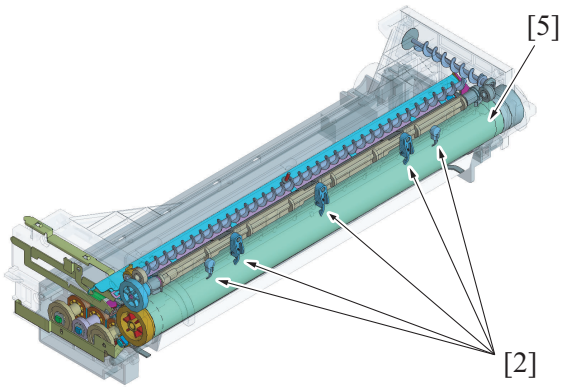
6.3.2 Imaging unit detection

- The imaging unit of the main body consists of the drum unit and the developing unit that are treated as one imaging unit.
- A signal from the TCR sensor is used to determine whether or not the imaging unit is installed in the main body.
- If there is a signal, the main body determines that the imaging unit is installed.
- If there are no signals, the main body determines that the imaging unit is not installed.

7. DRUM UNIT SECTION

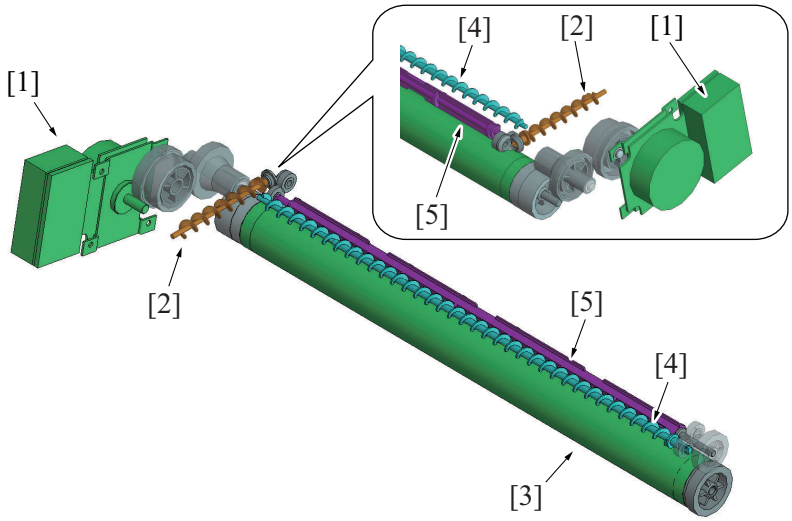
7.1 Configuration





[1]	Toner agitating roller	[2]	Separation claw
[3]	Toner collecting screw/1	[4]	Charge corona
[5]	Photo conductor	[6]	Toner collecting screw/2

7.2 Drive



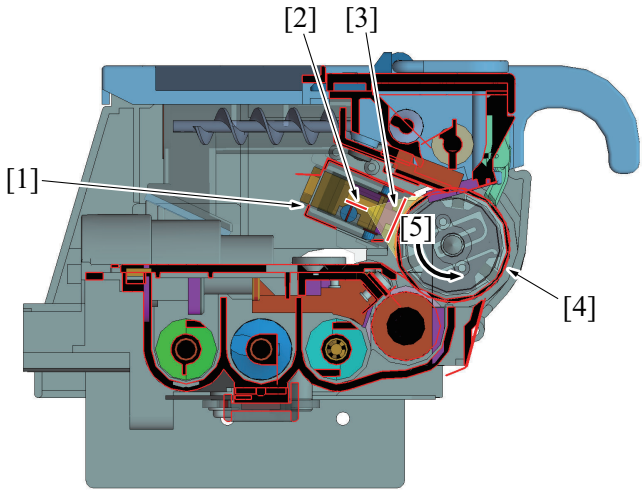
[1]	PC motor (M2)	[2]	Toner collecting screw/2
[3]	Photo conductor	[4]	Toner collecting screw/1
[5]	Toner agitating roller		

- The PC motor provides the drive for the photo conductor which is rotated via the drive gear.
- Toner collecting screw/1 and toner agitating roller are also driven by the PC motor via the photo conductor.
- Toner collecting screw/2 is also driven by the PC motor via the photo conductor and toner agitating roller.

7.3 Operation

7.3.1 Charge corona control

- The comb electrode deposits a charge evenly across the surface of the photo conductor through a grid mesh.
- The corona unit has a comb electrode that discharges only toward the grid mesh. This results in the amount of ozone produced being smaller than with the wire electrode.

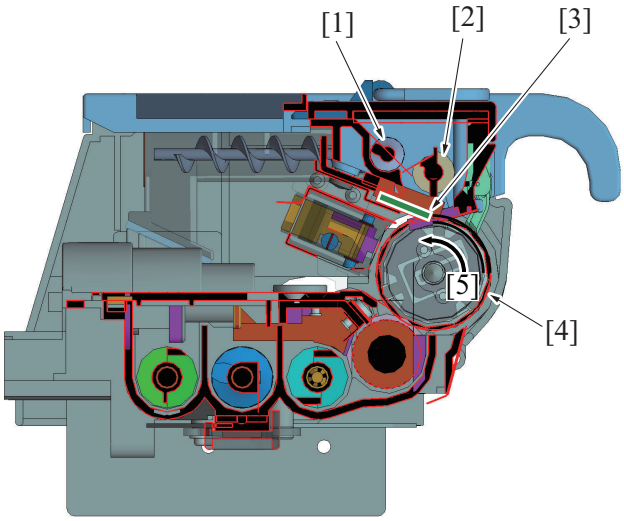


[1]	Charge corona	[2]	Comb electrode
[3]	Grid mesh	[4]	Photo conductor
[5]	Direction of rotation of photo conductor		

7.3.2 Photo conductor cleaning mechanism

(1) Cleaning using cleaning blade

- Part of the toner that is left on the surface of the photo conductor is scraped off by the cleaning blade.
- The cleaning blade is not provided with any cleaning blade retraction mechanism. It is pressed up against the surface of the photo conductor at all times.



[1]	Toner collecting screw/1	[2]	Toner agitating roller
[3]	Cleaning blade	[4]	Photo conductor
[5]	Direction of rotation of photo conductor		

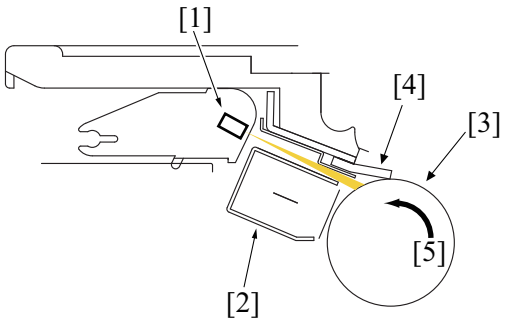
(2) Photo conductor backward rotation control

- When the gap between the photo conductor and cleaning blade is clogged up with foreign matter (paper dust, toner, etc.), the cleaning blade becomes unable to clean the surface of the photo conductor properly, resulting in a faulty image (the cleaning blade fails to remove toner completely).
- To prevent the cleaning blade from failing to remove toner completely, the photo conductor is rotated backward at predetermined time intervals. Turning the photo conductor backward will let the foreign matter surface on the surface of the photo conductor. The photo conductor is thereafter turned forward, so that the foreign matter can be removed by the cleaning blade.

- Each time the cumulative time counter of the photo conductor exceeds a predetermined time (equivalent to 100 printed pages of A4 paper), the PC motor is rotated backward and forward, so that foreign matter (paper dust, toner, etc.) clogged in the gap between the cleaning blade and the surface of the photo conductor can be removed.

7.3.3 Erase mechanism

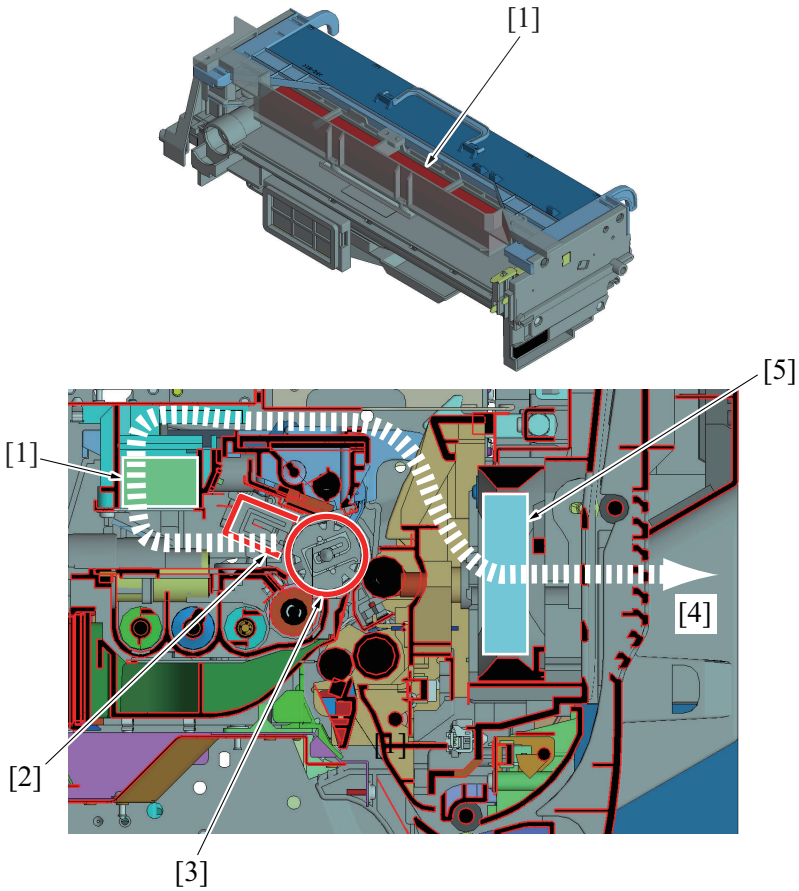
- Part of the toner that is left on the surface of the photo conductor is scraped off by the cleaning blade. At this time, a voltage is applied to the cleaning blade to charge the surface of the photo conductor, thereby making the surface potential uniform. The surface of the photo conductor is thereafter irradiated with the light from the erase lamp, which neutralizes any surface potential left on the surface of the photo conductor.
- The erase lamp is mounted on the main body frame.



[1]	Erase lamp (LA2)	[2]	Charge corona
[3]	Photo conductor	[4]	Cleaning blade
[5]	Direction of rotation of photo conductor		

7.3.4 Ozone suction function

- The comb electrode generates ozone as it discharges.
- When the photo conductor is exposed to a predetermined amount of ozone for a predetermined period of time, the sensitivity of the surface of the photo conductor becomes no longer uniform, resulting in uneven sensitivity. Uneven sensitivity on the surface of the photo conductor results in white bands or other print image defects.
- To prevent the photo conductor from developing the uneven sensitivity problem, the ozone filter is mounted on the main body frame. The ozone filter removes ozone from the air drawn by the cooling fan motor.



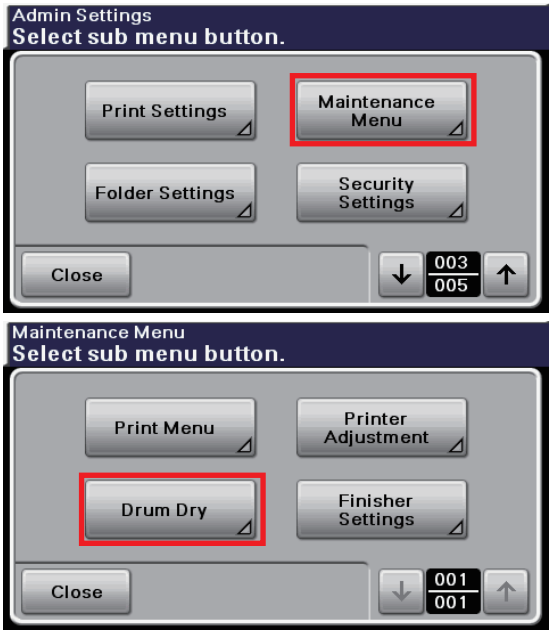
[1]	Ozone filter	[2]	Charge corona
[3]	Photo conductor	[4]	Air flow
[5]	Cooling fan motor (FM2)		

7.3.5 Drum dry control

- The photo conductor is rotated idly without the system performing any image forming processes (drum charge, exposure, erase, etc.).
- The drum dry sequence is automatically executed (for about 1 min.), if a predetermined condition is met during the predrive after the power has been turned ON and when the main body is reset from the low power mode or sleep mode.

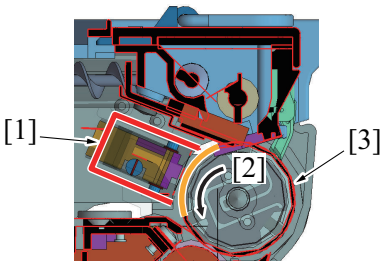
(1) Manual drum dry control

- The manual drum dry sequence is run by pressing the start key in “Utility Settings / Admin Settings / Maintenance Menu / Drum Dry.” During the sequence, the photo conductor is rotated for about 1 min.
- During the execution of the drum dry sequence, no print cycle can be run, but a print job can be registered.
- The drum dry sequence may be terminated in mid operation by pressing the stop key.
- The manual drum dry sequence must be executed before the developing unit is replaced with a new one or the developer is changed.
- For the procedures and other details, see “I.7.10.3 Drum Dry”.



(2) Auto drum dry control

- Ozone stagnant in the charging section may change properties of the photo conductor, which results in a reduced initial surface potential and an increased potential after exposure. As a result, there may be uneven densities between areas which face the charge corona and those that do not.
- To eliminate such a phenomenon, an auto drum dry sequence is executed if the power is turned ON or the main body is reset from the sleep mode after the period of time during which the PC motor remains deenergized exceeds a predetermined period of time (six hours).

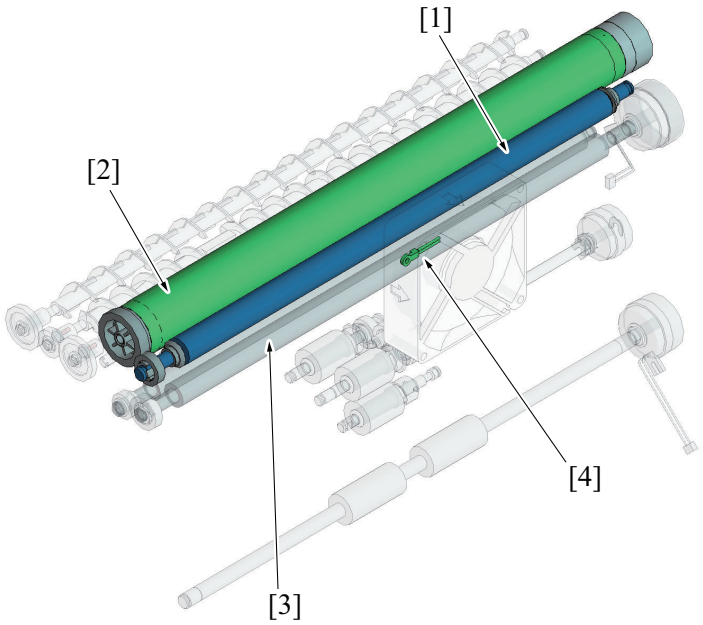


[1]	Charge corona	[2]	Direction of rotation of photo conductor
[3]	Photo conductor		

- The setting for the auto drum dry function may be changed using “Service Mode / System Settings / Auto Drum Dry” (the default setting is “OFF”).

7.3.6 Measure the temperature of the area around the photo conductor mechanism

- The PC thermistor located immediately below the image transfer roller functions to measure the temperature of the area around the photo conductor inside the main body.
- The measured data is used for various controls.

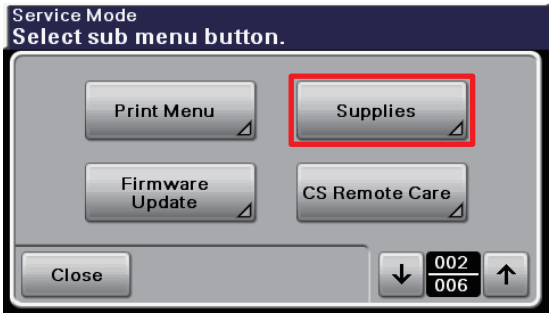


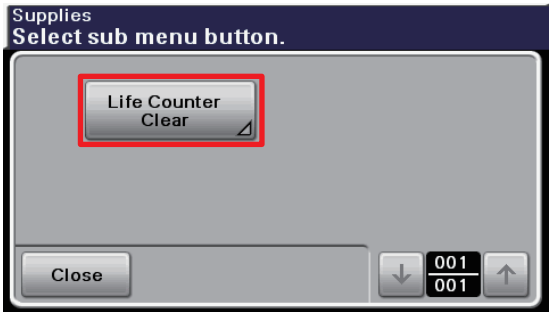
[1]	Image transfer roller	[2]	Photo conductor
[3]	Registration roller	[4]	PC thermistor (TH1)

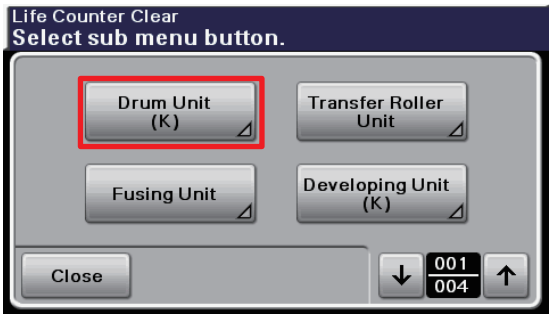
7.3.7 Drum unit detection

- The developing mechanism of the main body consists of the drum unit and the developing unit that are treated as one imaging unit.
- A signal from the TCR sensor is used to determine whether or not the imaging unit is installed in the main body.
- If there is a signal, the main body determines that the imaging unit is installed.
- If there are no signals, the main body determines that the imaging unit is not installed.
- No new article detection functions are provided. If the drum unit is replaced with a new one, therefore, the drum unit rotation time counter must be reset using “Service Mode / Supplies / Life Counter Clear / Drum Unit (K).”

(1) Drum unit rotation time counter







7.3.8 Drum unit life detection

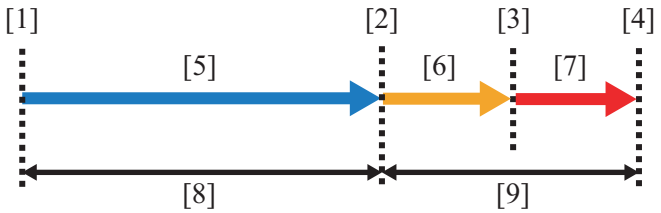
- The life counter of the drum unit controls detection of life of the drum unit.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Drum unit rotation time	M *

*: M represents a code that denotes the drum unit rotation time.

(1) Drum unit rotation time counter life determination

- If the counter value of drum unit rotation time reaches the threshold, the machine determines that the drum unit has reached a new state.

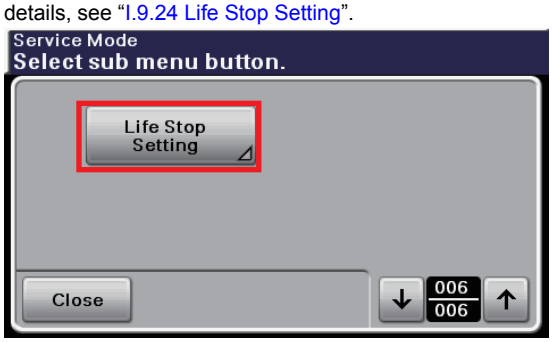


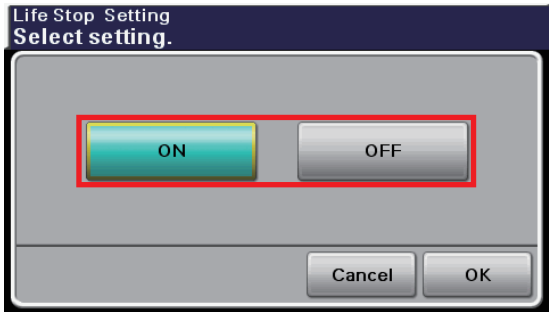
[1]	Drum unit (new article)	[2]	Life threshold value
[3]	Alarm threshold value	[4]	Life stop threshold value
[5]	Normal display	[6]	Maintenance icon display (Replacement alarm display: Drum unit rotation time excess)
[7]	Replacement alarm display	[8]	Image guaranteed range
[9]	Outside image guaranteed range		

(a) Drum unit rotation time counter life criteria

State	Display	Criteria
Normal	Normal (print enabled: within image guaranteed range)	Less than the drum unit rotation time threshold
Drum unit rotation time excess (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the drum unit rotation time threshold and less than the replacement alarm threshold
Replacement alarm	Replacement alarm display (print enabled: outside image guaranteed range)	Equal to or more than the drum unit rotation time replacement alarm threshold and less than the life stop threshold
Life stop *	Life stop display (print prohibited)	Equal to or more than the drum unit rotation time life stop threshold

*: Life stop may be disabled using “Service Mode / Life Stop Setting”; however, print image quality is not guaranteed in this case. For more details, see “I.9.24 Life Stop Setting”.

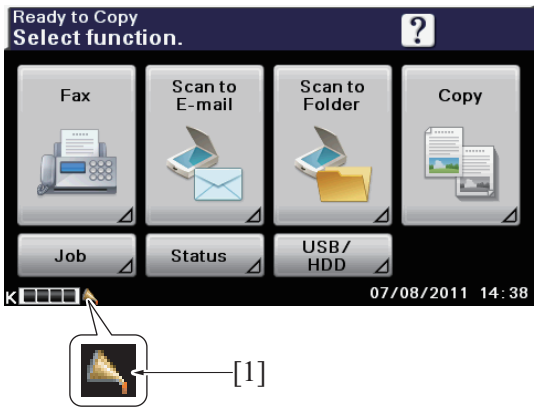




(2) Drum unit life display

- The maintenance icon is displayed when the value of the drum unit rotation time counter reaches the drum unit rotation time threshold (print enabled, outside image guaranteed range).
- The replacement alarm is displayed when the value of the drum unit rotation time counter reaches the replacement alarm threshold (print enabled, outside image guaranteed range).
- The life stop screen is displayed when the value of the drum unit rotation time counter reaches the life stop threshold (print prohibited).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

(b) Replacement alarm display (typical)

(c) Life stop display (typical)

7.3.9 Life value of drum unit

NOTE

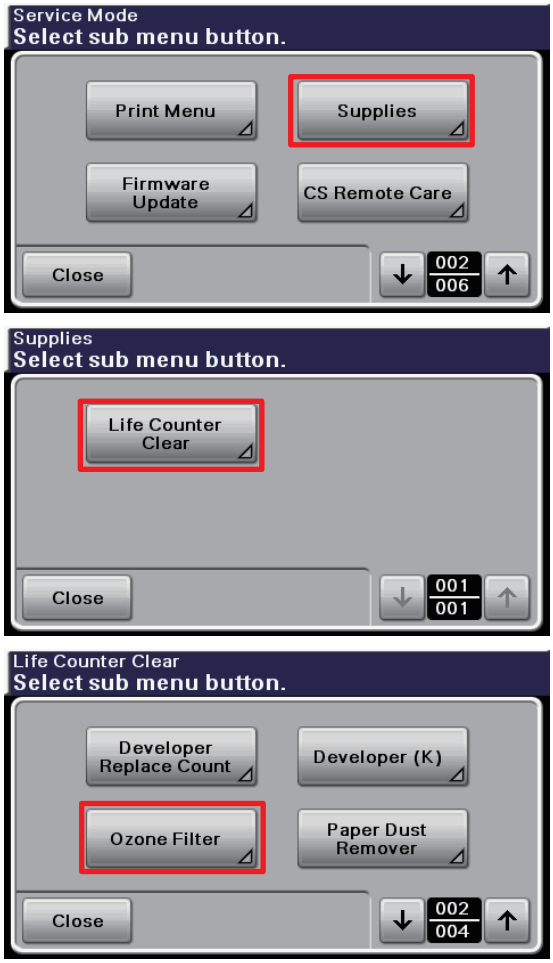
- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value	Replacement alarm	Life stop
bizhub 42	3,921 M	4,313 M	4,901 M
bizhub 36			

7.3.10 Ozone filter new article detection

- No new article detection functions are provided. If the ozone filter is replaced with a new one, the ozone filter use time counter must be reset using "Service Mode / Supplies / Life Counter Clear / Ozone Filter."

(1) Ozone filter use time counter



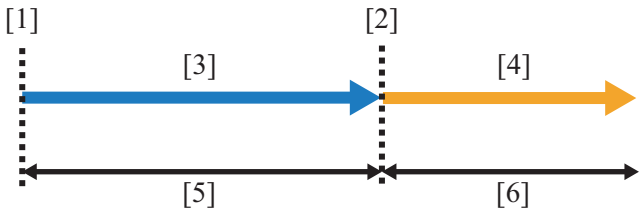
7.3.11 Ozone filter life detection

- The life counter of the ozone filter controls detection of life.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Number of printed pages produced using the currently installed ozone filter	Count

(1) Ozone filter counter life determination

- If the number of printed pages produced using the currently installed ozone filter reaches the threshold, the machine determines that the ozone filter has reached a new state.



[1]	Ozone filter (new article)	[2]	Life threshold value
[3]	Normal display	[4]	Maintenance icon display (number of printed pages produced using the currently installed ozone filter is exceeded)
[5]	Image guaranteed range	[6]	Outside image guaranteed range

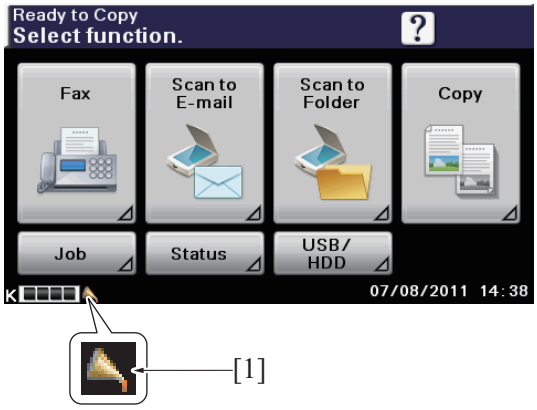
(a) Criteria counter that is based on the count number of printed pages produced using the currently installed ozone filter

State	Display	Criteria
Normal	Normal (print enabled: within image guaranteed range)	Less than the threshold value of the number of printed pages produced using the currently installed ozone filter
Number of printed pages produced using the currently installed ozone filter is exceeded (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the threshold value of the number of printed pages produced using the currently installed ozone filter

(2) Ozone filter life display

- The maintenance icon is displayed when the number of printed pages produced using the currently installed ozone filter counter, reaches the life threshold (print enabled, outside image guaranteed range).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

7.3.12 Life value of ozone filter

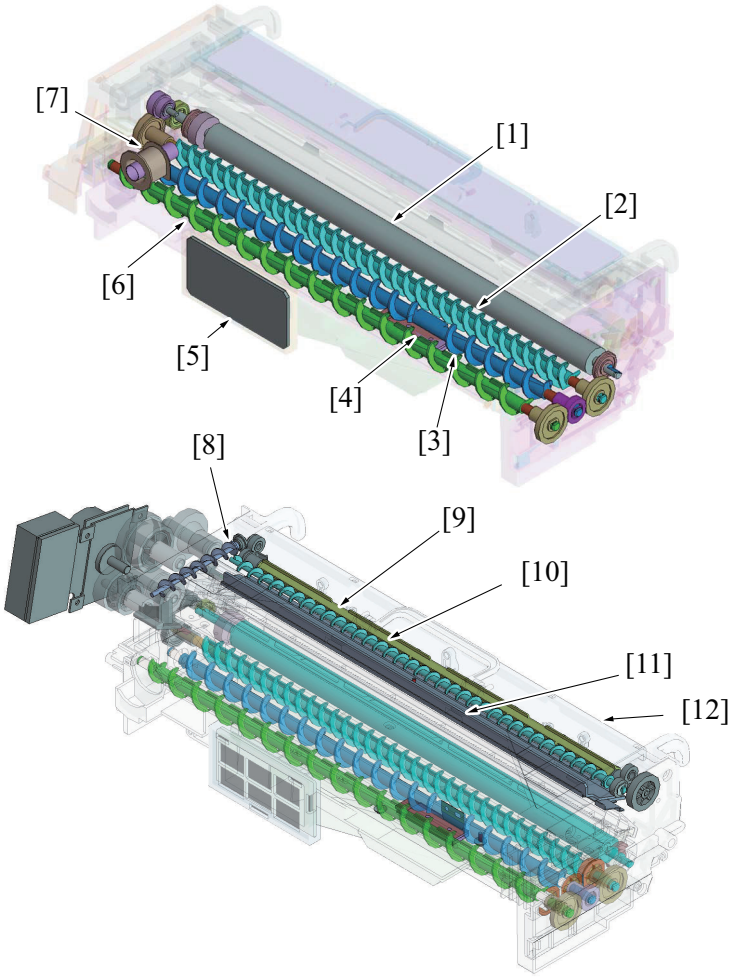
NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value
bizhub 42/36	150,000 counts

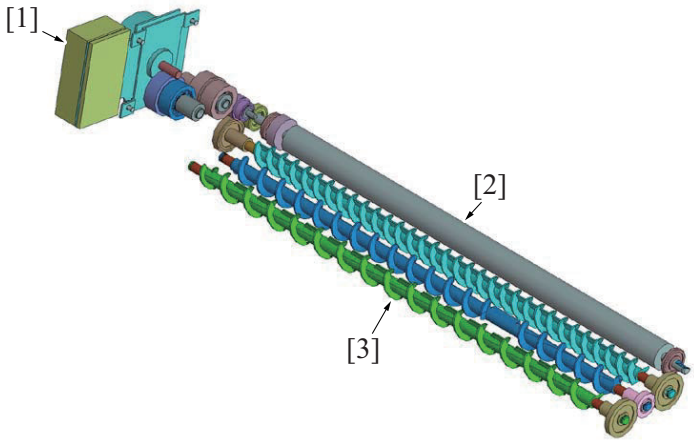
8. DEVELOPING SECTION

8.1 Configuration



[1]	Developing roller	[2]	Toner conveying screw/1
[3]	Toner conveying screw/2	[4]	TCR sensor board (TCRSB)
[5]	Toner filter (Developing unit side)	[6]	Toner conveying screw/3
[7]	Toner replenishing port	[8]	Toner collecting screw/2
[9]	Toner agitating roller	[10]	Toner collecting screw/1
[11]	Cleaning blade	[12]	Drum unit

8.2 Drive



[1]	PC motor (M2)	[2]	Developing roller
[3]	Toner conveying screw/3		

- The developing roller is driven by the PC motor via the drive gear.

- The toner conveying screw/3 is driven by the PC motor via the developing roller.

8.3 Operation

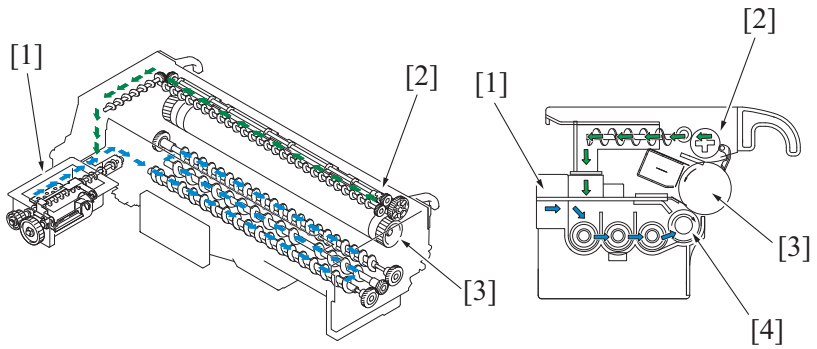
8.3.1 Toner flow

(1) Fresh toner

- Toner fed off from the toner hopper of the toner supply section is agitated and mixed with the developer by the three toner conveying screws and conveyed onto the developing roller.

(2) Recycled toner

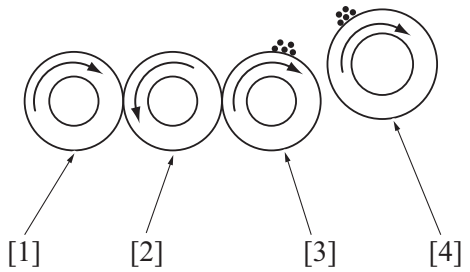
- The residual toner on the surface of the photo conductor after the image transfer is collected by the photo conductor cleaning mechanism of the imaging unit and is recycled back to the developing unit for reuse.
- The cleaning blade pressed up against the surface of the photo conductor scrapes residual toner off the surface. The toner is then conveyed by toner collecting screws 1/2 to the developer mixing chamber. Because the toner is thus recovered back to the developer mixing chamber, there is no waste toner box mounted in the main body.



[1]	Path of fresh toner supplied from toner supply section	[2]	Path of recycled toner recovered from surface of photo conductor
[3]	Photo conductor	[4]	Developing roller

8.3.2 Developing roller

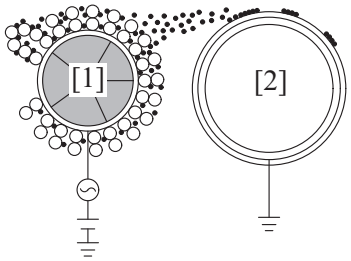
- The developer (carrier and toner) in the developer mixing chamber is conveyed onto the point of development by the toner conveying screws and the developing roller.
- The developing roller consists of an outer sleeve roller and an inner magnet roller.



[1]	Toner conveying screw/3	[2]	Toner conveying screw/2
[3]	Toner conveying screw/1	[4]	Developing roller

8.3.3 HMT (High grade Micro Toning) development

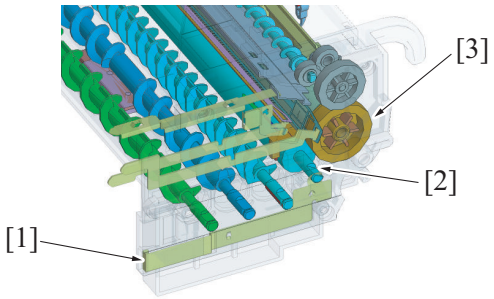
- With the HMT method, the magnetic developer brush does not rub against the surface of the photo conductor (the images). Accordingly, sharper line images can be reproduced, involving no uneven image density at the trailing edge or thin lines and achieving even finer reproduction of the solid image areas.



[1]	Developing roller	[2]	Photo conductor

8.3.4 Developing bias

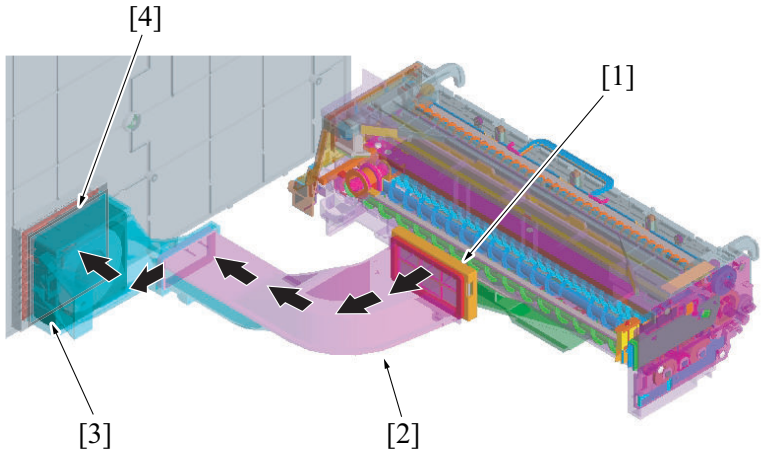
- The developing bias voltage (Vdc) is applied to the developing roller so that an adequate amount of toner is attracted onto the surface of the photo conductor.
- In addition to the negative DC component, AC voltage is applied during development to help toner to be attracted more easily to the surface of the photo conductor.



[1]	Developing bias terminal	[2]	Developing roller
[3]	Photo conductor		

8.3.5 Developer scattering preventive mechanism

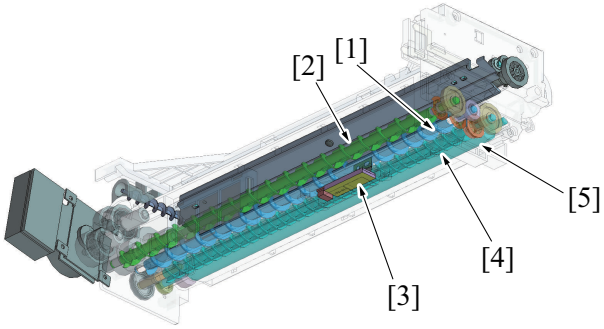
- To prevent the image and machine interior from being dirtied, the toner suction fan motor draws air so that toner particles rising up in the developing unit can be trapped.
- A suction duct is provided for the IU (developing unit). As air is drawn by the toner suction fan motor, toner particles rising up during development are removed from the air that passes through the suction duct.
- The toner suction fan motor rotates when the PC motor is energized.
- The toner filter on the developing unit side and that on the main body rear side trap toner particles from the air drawn by the toner suction fan motor.



[1]	Toner filter (developing unit side)	[2]	Toner suction duct
[3]	Toner suction fan motor (FM4)	[4]	Toner filter (main body rear side)

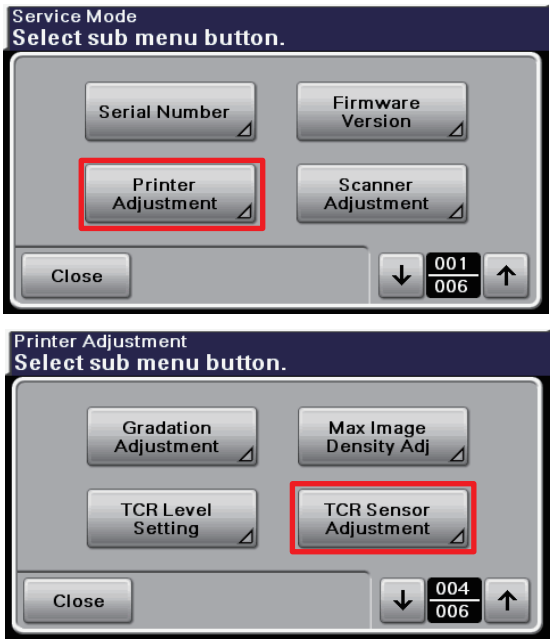
8.3.6 TCR sensor control

- The TCR sensor is located on the underside of the developing unit. The sensor is a noncontact magnetic type that measures permeability (bulk density) of the toner and carrier to thereby detect the toner-to-carrier ratio (T/C).
- Adjustment of the TCR sensor is made when the developing unit or developer is changed.



[1]	Toner conveying screw/2	[2]	Toner conveying screw/3
[3]	TCR sensor board (TCRSB)	[4]	Toner conveying screw/1
[5]	Developing roller		

(1) TCR sensor adjustment



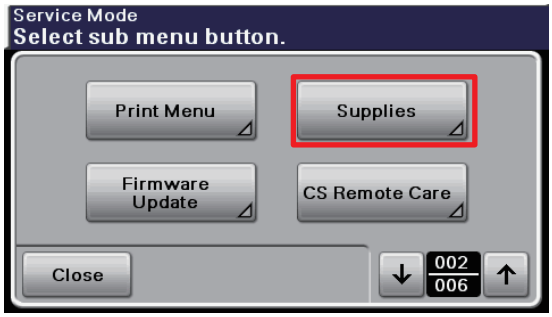
8.3.7 Developing unit detection

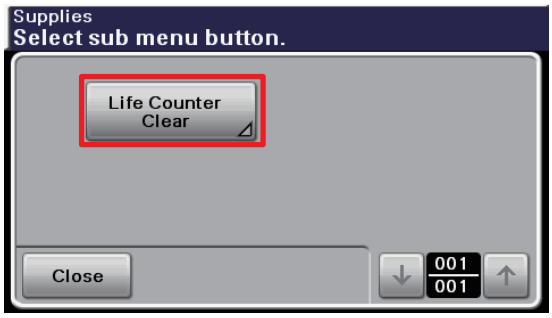
- The developing mechanism of the main body consists of the drum unit and the developing unit that are treated as one imaging unit.
- A signal from the TCR sensor is used to determine whether or not the imaging unit is installed in the main body.
- If there is a signal, the main body determines that the imaging unit is installed.
- If there are no signals, the main body determines that the imaging unit is not installed.
- No new article detection functions are provided. If the developing unit is replaced with a new one, therefore, the developing unit rotation time counter must be reset using “Service Mode / Supplies / Life Counter Clear / Developing Unit (K).” (Resetting the developing unit rotation time counter will also reset the developer replace counter and developer use time counter.)

NOTE

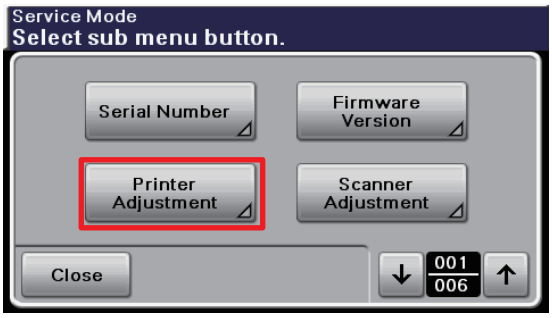
- **The following functions must be executed when the developing unit is replaced with a new one:**
  1. **Before the developing unit is replaced with a new one, a manual drum dry sequence must be executed using “Admin Settings / Maintenance Menu / Drum Dry.”**
  2. **Before the developing unit is replaced with a new one, reset developing unit rotation time counter using “Service Mode / Supplies / Life Counter Clear / Developing Unit (K).”**
  3. **After the developing unit is replaced with a new one, adjust the TCR level using “Service Mode / Printer Adjustment / TCR Sensor Adjustment.”**
- **For the procedures and other details, see “F.6.3.2 Replacing the developing unit”.**

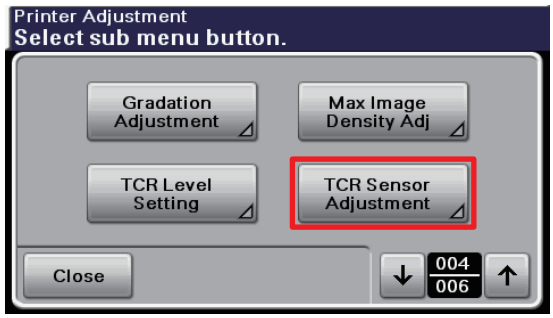
(1) Developing unit rotation time counter





(2) TCR sensor adjustment





(3) Manual drum dry

8.3.8 Developing unit life detection

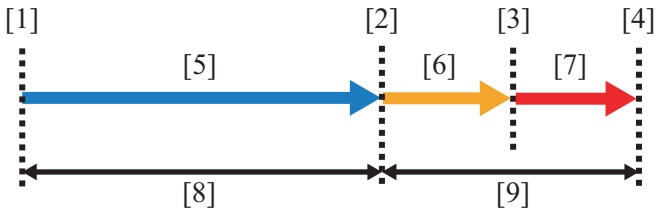
- The life counters of the developing unit and developer are used to control detection of the life of the developing unit.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Developing unit rotation time	M *
Developer use time	M *

*: M is a code that denotes the developing unit rotation time and developer use time.

(1) Developing unit counter life determination

- The developing unit rotation time counter and the developer use time counter have their own threshold values. If the developing unit rotation time counter value and the developer use time counter value reach their respective threshold values, the main body determines that the developing unit has reached a new state.



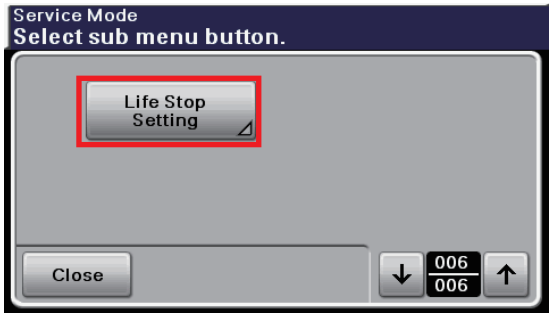
[1]	Developing unit (new article)	[2]	Life threshold value
[3]	Alarm threshold value	[4]	Life stop threshold value
[5]	Normal display	[6]	Maintenance icon display
[7]	Replacement alarm display	[8]	Image guaranteed range
[9]	Outside image guaranteed range		

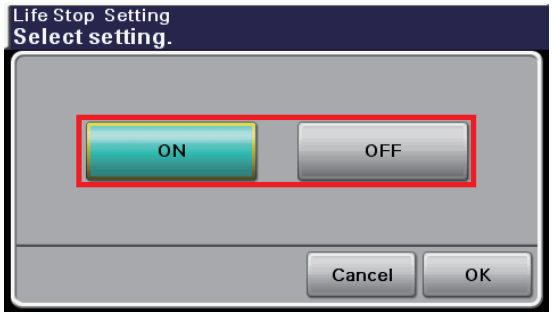
(a) Developing unit rotation time counter life criteria

State	Display	Criteria
Normal	Normal (print enabled: within image guaranteed range)	Less than the developing unit life threshold
Developing unit rotation time excess (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the developing unit life threshold; and equal to or more than the developer use time threshold and less than the developer replacement alarm threshold
Replacement alarm	Replacement alarm display (print enabled: outside image guaranteed range)	Equal to or more than the developing unit life threshold; and equal to or more than the developer replacement alarm threshold and less than the developer life stop threshold

State	Display	Criteria
Life stop *	Life stop display (print prohibited)	Equal to or more than the developing unit life threshold; and equal to or more than the developer life stop threshold

*: Life stop may be disabled using “Service Mode / Life Stop Setting”; however, print image quality is not guaranteed in this case. For more details, see “I.9.24 Life Stop Setting”.

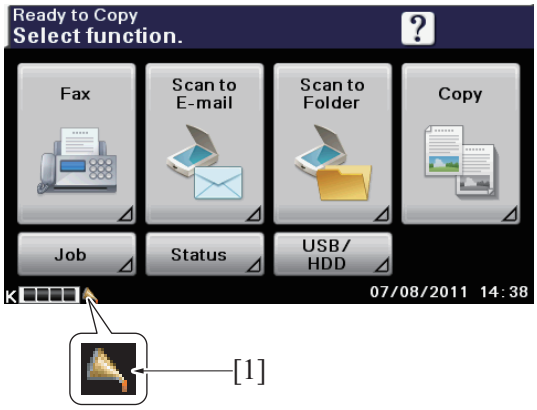




(2) Developing unit life display

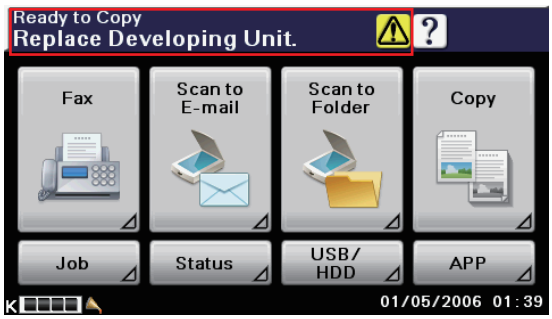
- The maintenance icon is displayed when both the values of the developing unit rotation time counter and the developer use time counter reach the life thresholds (print enabled, outside image guaranteed range).
- The life stop screen is displayed when both the values of the developing unit rotation time counter and the developer use time counter reach the life stop thresholds (print prohibited).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

(b) Replacement alarm display (typical)



(c) Life stop display (typical)

8.3.9 Life value of developing unit

NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Counter	Life threshold value	Replacement alarm	Life stop
bizhub 42/36	Developing unit rotation time	15,684M	15,684M	15,684M
	Developer use time	3,921M	4,313M	4,901M

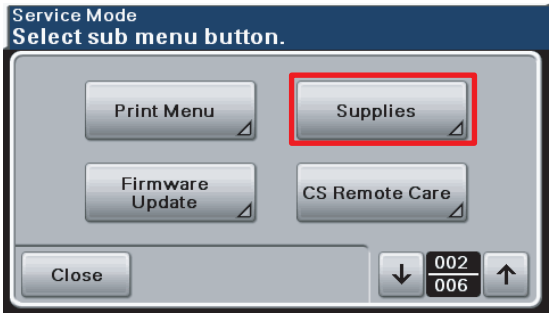
8.3.10 Developer new article detection

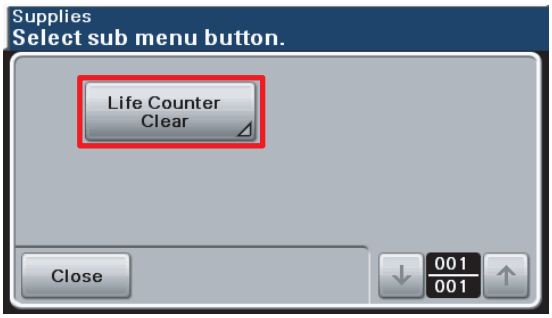
- No new article detection functions are provided. If the developer is replaced with a new one, therefore, the developer unit rotation time counter must be reset using "Service Mode / Supplies / Life Counter Clear / Developer (K)." (When "Developer Use Time" is reset, "Developer Replace Counter" is incremented by one.)

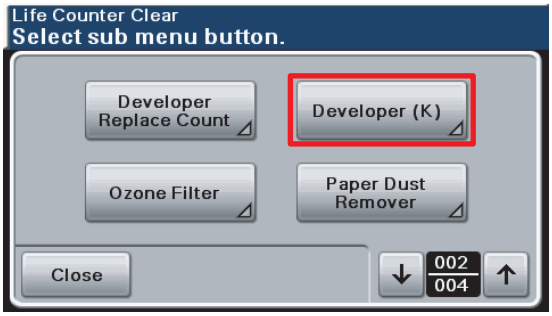
NOTE

- **The following functions must be executed when the developer is replaced with a new one:**
  1. **Before the developer is replaced with a new one, a manual drum dry sequence must be executed using "Admin Settings / Maintenance Menu / Drum Dry."**
  2. **Before the developer is replaced with a new one, reset developer use time counter using "Service Mode / Supplies / Life Counter Clear / Developer (K)."**
  3. **After the developer is replaced with a new one, adjust the TCR level using "Service Mode / Printer Adjustment / TCR Sensor Adjustment."**
- **For the procedures and other details, see "F.6.3.3 Replacing the developer".**

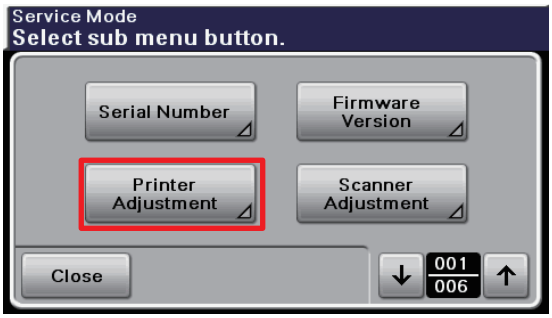
(1) Developer use time counter

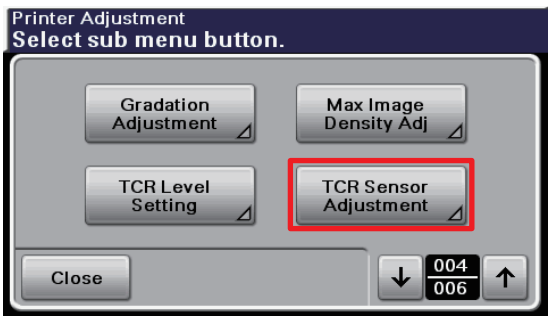






(2) TCR sensor adjustment





(3) Manual drum dry

8.3.11 Developer life detection

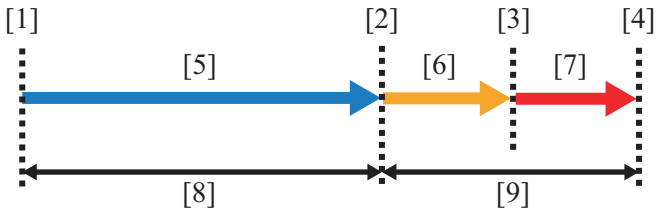
- The life counter of the developer controls detection of life of the developer.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Developer use time	M *

*: M represents a code that denotes the developer use time.

(1) Developer use time counter life determination

- If the counter value of developer use time reaches the threshold, the machine determines that the developer has reached a new state.

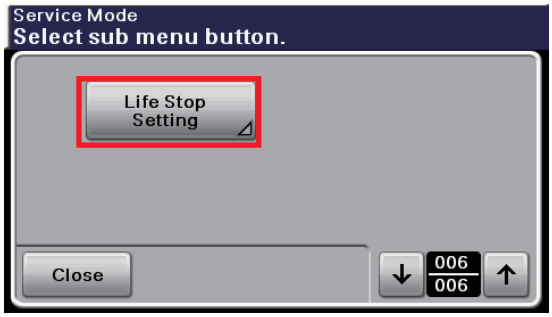


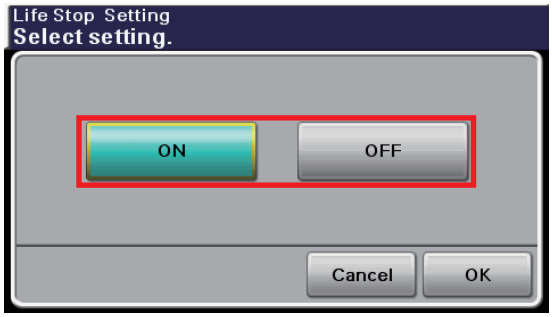
[1]	Developer (new article)	[2]	Life threshold value
[3]	Alarm threshold value	[4]	Life stop threshold value
[5]	Normal display	[6]	Maintenance icon display (Replacement alarm display: Developer use time excess)
[7]	Replacement alarm display	[8]	Image guaranteed range
[9]	Outside image guaranteed range		

(a) Developer use time counter life criteria

State	Display	Criteria
Normal	Normal (print enabled: within image guaranteed range)	Less than the developer use time threshold
Developer use time excess (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the developer use time threshold and less than the replacement alarm threshold
Replacement alarm	Replacement alarm display (print enabled: outside image guaranteed range)	Equal to or more than the developer use time replacement alarm threshold and less than the life stop threshold
Life stop *	Life stop display (print prohibited)	Equal to or more than the developer use time life stop threshold

*: Life stop may be disabled using “Service Mode / Life Stop Setting”; however, print image quality is not guaranteed in this case. For more details, see “I.9.24 Life Stop Setting”.

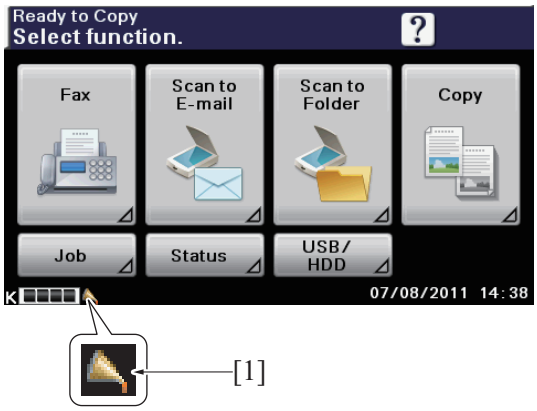




(2) Developer life display

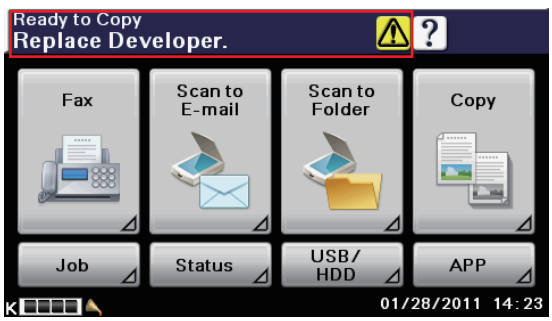
- The life reaching screen is displayed when the value of the developer use time counter reaches the life threshold (print enabled, outside image guaranteed range).
- The maintenance icon is displayed when the value of the developer use time counter reaches the developer use time threshold (print enabled, outside image guaranteed range).
- The life stop screen is displayed when the value of the developer use time counter reaches the life stop threshold (print prohibited).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

(b) Replacement alarm display (typical)



(c) Life stop display (typical)

8.3.12 Life value of developer

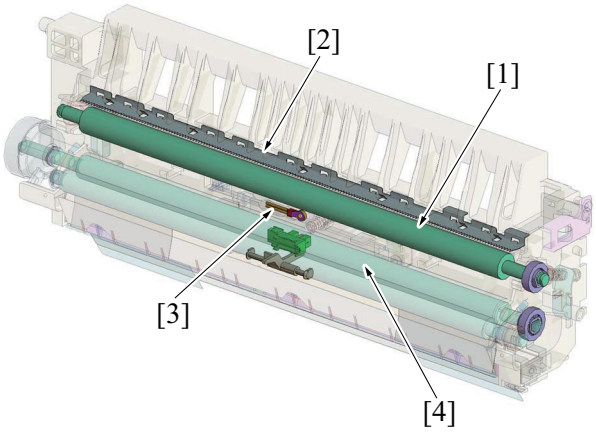
NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value	Replacement alarm	Life stop
bizhub 42/36	3,921M	4,313M	4,901M

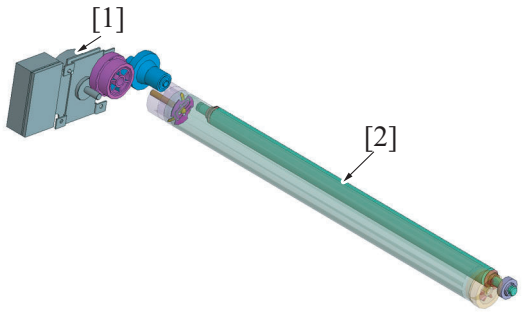
9. IMAGE TRANSFER/SEPARATION SECTION

9.1 Configuration



[1]	Image transfer roller	[2]	Charge neutralizing needle
[3]	PC thermistor (TH1)	[4]	Registration roller

9.2 Drive



[1]	PC motor (M2)	[2]	Image transfer roller

9.3 Operation

9.3.1 Image transfer roller control

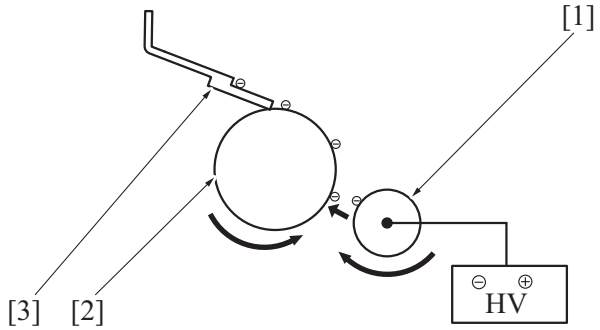
- To transfer the toner image formed on the photo conductor onto the paper, the image transfer voltage supplied from the high voltage unit is applied to the image transfer roller.
- Resistance of the image transfer roller changes with an environmental change, durability, and other factors. To maintain an optimum output voltage, fixed current is passed through the image transfer roller and the voltage being output at that time is detected. An appropriate image transfer voltage is determined based on the measured voltage and other information such as “type of paper used,” “temperature and humidity,” and “1-sided/2-sided.”

(1) Execution timing

- The image transfer roller control is executed when a print job is received under any of the following conditions:
  “Power switch is turned ON”
  “The threshold value of a change in machine interior temperature is exceeded.”

9.3.2 Image transfer roller cleaning

- In order to remove the remaining toner on the image transfer roller, -/+ (DC) charge is applied alternately to transfer the remaining toner on the image transfer roller to the photo conductor.
- The cleaning blade then scrapes off the toner on the surface of the photo conductor.



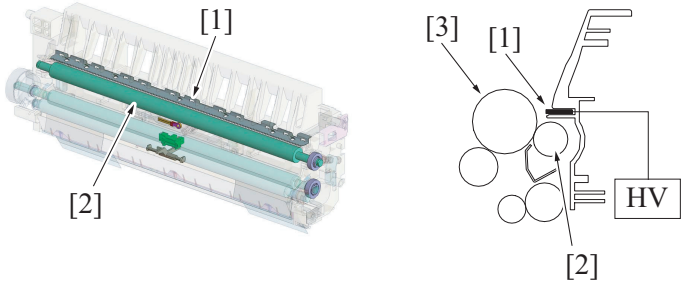
[1]	Image transfer roller	[2]	Photo conductor
[3]	Cleaning blade		

9.3.3 Image transfer current upper/lower limit control

- The image transfer voltage is determined through the image transfer roller control depends on the environmental conditions. A manual fine-adjusting function is also available to achieve an even more optimum image transfer voltage for each type of paper. If, however, a user uses two types of paper, one having resistance that greatly differs from that of the other, the image transfer voltage is optimized so as to suit either one of the two types of paper. In this case, an optimum transfer result is not obtained with the other type of paper.
- In image transfer current upper/lower limit control, the current that flows through the image transfer section during the print cycle is measured and the output voltage is automatically controlled so that current that falls within an appropriate range flows. The main body can therefore respond to widely ranging types of paper available in the market without having to make fine-adjustments of the image transfer voltage. “Auto” can be set for each type of paper using “Service Mode / Printer Adjustment / Image Transfer Current.”
- No manually adjusted values are valid during this control.

9.3.4 Charge neutralization and separation of paper

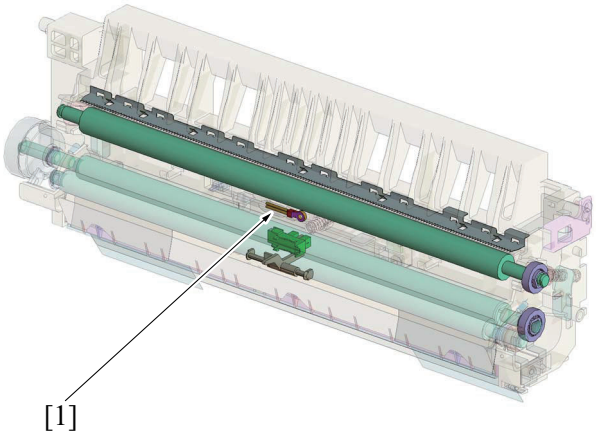
- To neutralize any residual potential on the paper which has undergone the image transfer process, there is a charge neutralizing needle mounted on the guide plate after the image transfer roller. Based on the “type of paper,” “temperature and humidity,” and “paper information,” to separate it properly, the charge neutralizing needle applies an optimum separation output bias voltage to the paper.



[1]	Charge neutralizing needle	[2]	Image transfer roller
[3]	Photo conductor	-	-

9.3.5 Measure the temperature of the area around the photo conductor mechanism

- The PC thermistor located immediately below the image transfer roller functions to measure the temperature of the area around the photo conductor inside the main body.
- The measured data is used for various controls.

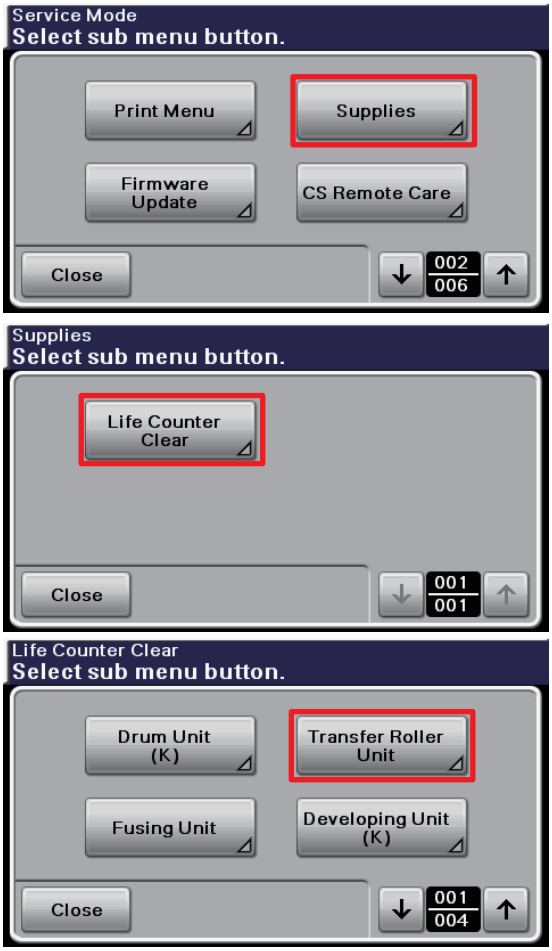


[1]	PC thermistor (TH1)

9.3.6 Image transfer roller new article detection

- No new article detection functions are provided. If the Image transfer roller unit is replaced with a new one, the transfer roller unit counter must be reset using “Service Mode / Supplies / Life Counter Clear / Transfer Roller Unit.”

(1) Image transfer roller unit life counter



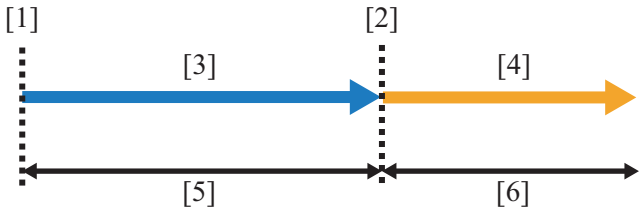
9.3.7 Image transfer roller life detection

- The life counter of the image transfer roller controls detection of life of the image transfer roller.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Number of printed pages produced using the currently installed Image transfer roller	sheet

(1) Image transfer roller counter life determination

- If the counter value of image transfer roller reaches the threshold, the machine determines that the image transfer roller has reached a new state.



[1]	Image transfer roller (new article)	[2]	Life threshold value
[3]	Normal display	[4]	Maintenance icon display (number of printed pages produced using the currently installed image transfer roller is exceeded)
[5]	Image guaranteed range	[6]	Outside image guaranteed range

(a) Transfer roller counter life criteria

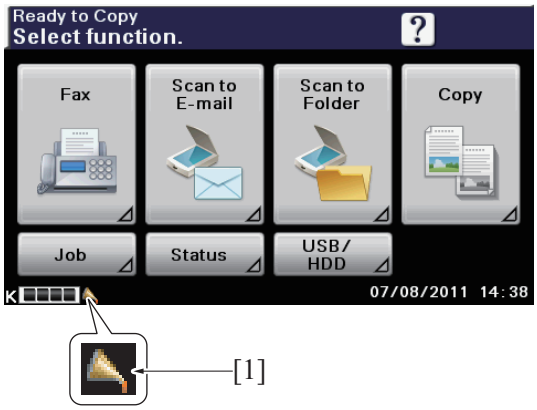
State	Display	Criteria
Normal	Normal (print enabled)	Less than the threshold value of the number of printed pages produced using the currently installed image transfer roller

State	Display	Criteria
Number of printed pages produced using the currently installed image transfer roller is exceeded (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the threshold value of the number of printed pages produced using the currently installed image transfer roller

(2) Transfer roller life display

- The maintenance icon is displayed when the number of printed pages produced using the currently installed Image transfer roller counter reaches the life threshold (print enabled, outside image guaranteed range).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

9.3.8 Life value of image transfer roller

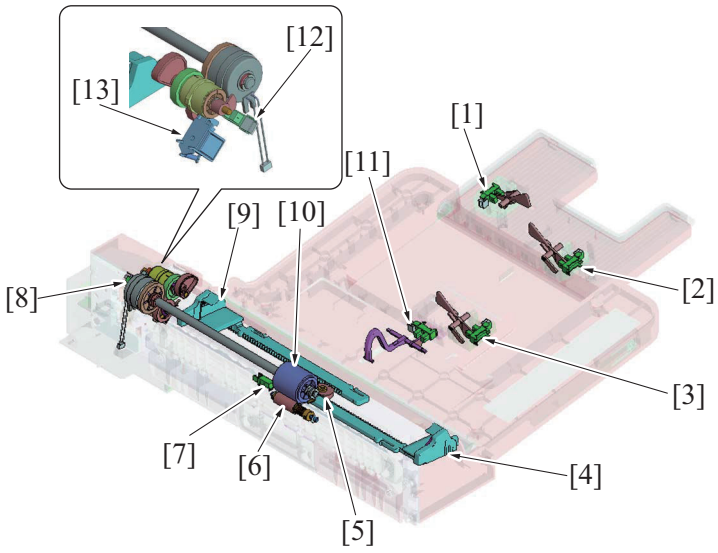
NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value
bizhub 42/36	150,000 counts

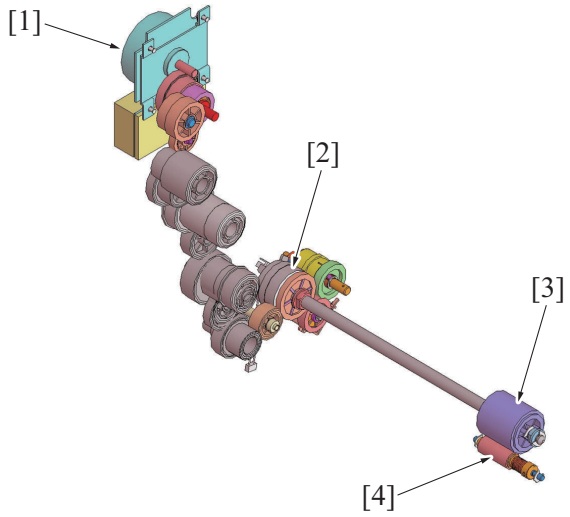
10. MANUAL PAPER FEED SECTION (TRAY 1)

10.1 Configuration



[1]	Tray 1 paper FD size sensor /3 (PS24)	[2]	Tray 1 paper FD size sensor /2 (PS23)
[3]	Tray 1 paper FD size sensor /1 (PS22)	[4]	Paper side guide plate (front)
[5]	Tray 1 paper CD size sensor (PS19)	[6]	Tray 1 separation roller
[7]	Tray 1 paper sensor (PS21)	[8]	Tray 1 paper feed clutch (CL5)
[9]	Paper side guide plate (rear)	[10]	Tray 1 paper feed roller
[11]	Tray 1 paper empty sensor (PS25)	[12]	Tray 1 lift-up position sensor (PS20)
[13]	Tray 1 pick-up solenoid (SD1)		

10.2 Drive



[1]	Transport motor (M1)	[2]	Tray 1 paper feed clutch (CL5)
[3]	Tray 1 paper feed roller	[4]	Tray 1 separation roller

10.3 Operation

10.3.1 Up/down control

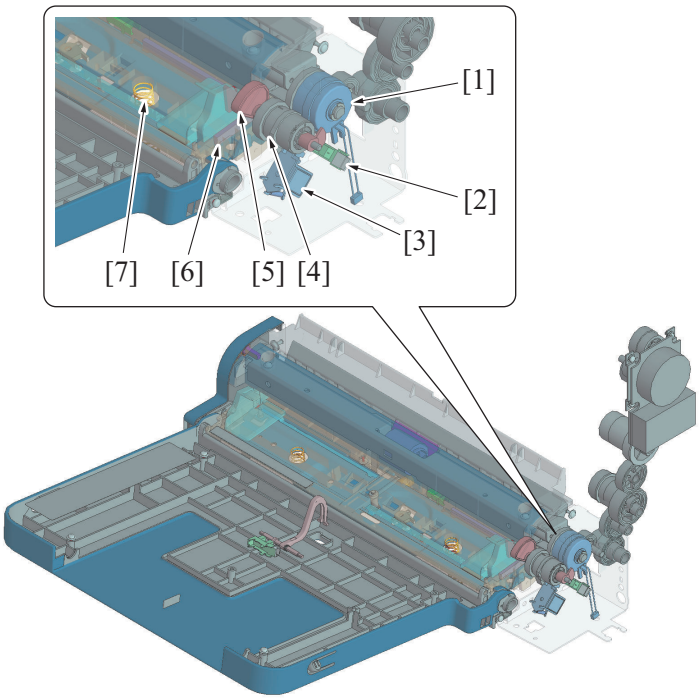
- The paper lift-up plate is moved up and down by the transport motor.

(1) Up operation

- The tray 1 pick-up solenoid is energized for a predetermined period of time during rotation of the transport motor. This unlocks the paper lift-up plate clutch (mechanical) and the driving force of the transport motor is transmitted to the paper lift-up cam.
- As the paper lift-up cam rotates, the paper lift-up plate which has so far been pushed down by the paper lift-up cam is raised to the paper feed position by the spring.

(2) Down operation

- The tray 1 pick-up solenoid is energized for a predetermined period of time during rotation of the transport motor. This rotates the paper lift-up cam, so that the cam pushes the paper lift-up plate down into its standby position.



[1]	Tray 1 paper feed clutch (CL5)	[2]	Tray 1 lift-up position sensor (PS20)
[3]	Tray 1 pick-up solenoid (SD1)	[4]	Paper lift-up plate clutch (mechanical)
[5]	Paper lift-up cam	[6]	Paper lift-up plate
[7]	Spring		

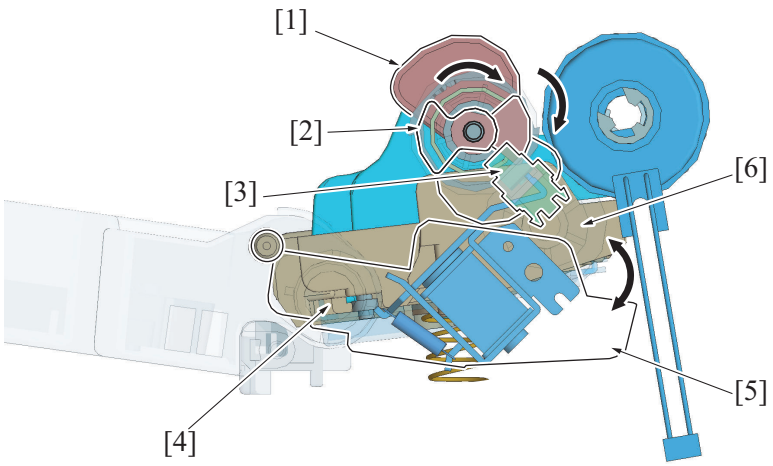
(3) Operation timing

(a) Move to paper feed position (up)

- At the start of a tray 1 paper feed sequence, the paper lift-up plate is raised to the paper feed position.
- After the lapse of a predetermined period of time, the tray 1 pick-up solenoid is deenergized. The paper lift-up plate is stopped at the paper feed position.
- The tray 1 lift-up position detection plate mounted coaxially with the paper lift-up cam rotates in synch with the paper lift-up cam. When the paper lift-up plate is raised, the tray 1 lift-up position sensor which had previously been unblocked by the tray 1 lift-up position detection plate is now blocked. The machine then determines that the paper lift-up plate is raised to the paper feed position.
- If the tray 1 lift-up position sensor remains blocked even after the tray 1 pick-up solenoid has been deenergized, the machine determines that the paper lift-up plate is at the paper feed position.
- As the paper level lowers during paper feed, the spring pushes up the paper lift-up plate, so that the paper stack is pushed up to the optimum paper feed position.

(b) Move to standby position (down)

- The paper lift-up plate is lowered if there is no print job that uses tray 1 and the paper exit sensor detects a sheet of paper fed from tray 1.
- The paper lift-up plate is lowered if the above conditions are met even during execution of another job.
- If a tray 1 paper empty condition is detected at the paper feed position, the paper lift-up plate is lowered to the standby position.
- If a paper misfeed occurs, the paper lift-up plate is stopped at the paper feed position. When the transport motor rotates stably after the misfeed is cleared, the paper lift-up plate is lowered to the standby position.
- After the lapse of a predetermined period of time, the tray 1 pick-up solenoid is deenergized. The paper lift-up plate is stopped at the standby position. As the paper lift-up plate lowers, the tray 1 lift-up position sensor is unblocked. The main body determines that the paper lift-up plate is at the standby position based on the fact that the tray 1 lift-up position sensor is unblocked, even after the tray 1 pick-up solenoid has been deenergized.

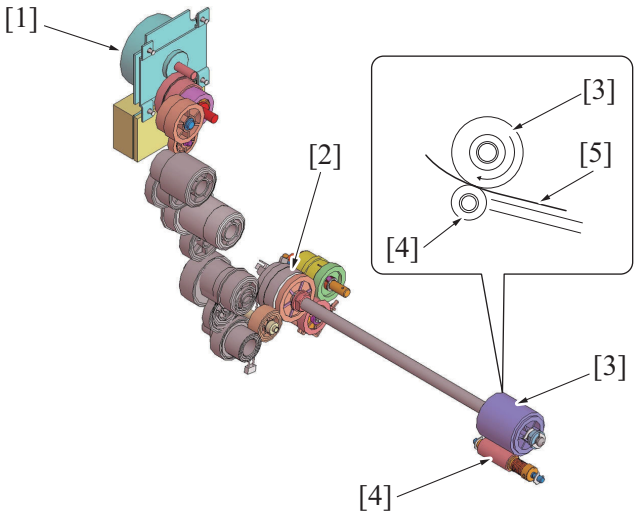


[1]	Paper lift-up cam	[2]	Tray 1 lift-up position detection plate
[3]	Tray 1 lift-up position sensor (PS20)	[4]	Paper lift-up plate
[5]	Standby position	[6]	Paper feed position

10.3.2 Paper feed control

(1) Pick-up control

- Paper feed operations of tray 1 are driven by the transport motor.
- The tray 1 pick-up solenoid is energized by a print start signal and the paper is raised to the paper feed position.
- After the paper is raised to the paper feed position, the tray 1 paper feed clutch is energized.
- When the tray 1 paper feed clutch is energized, the drive from the transport motor is transmitted to the paper feed roller, so that the paper can be fed in.
- The paper feed roller feeds the paper onto the tray 3 vertical transport roller.
- When the last sheet of paper for the print job fed from the tray 1 is transported onto the tray 3 vertical transport roller, the tray 1 paper feed clutch is deenergized to stop the paper feed roller from rotating.
- If the tray 3 vertical transport sensor does not detect paper even after the lapse of a predetermined period of time, the machine determines that there is a paper misfeed at the tray 1. The paper feed sequence is repeated a second time if a paper misfeed is detected. If the tray 3 vertical transport sensor is still unable to detect paper, the machine determines that there is a paper misfeed at the tray 1 (paper feed retry control).
- The tray 1 pick-up solenoid is energized and the paper is lowered to the standby position.



[1]	Transport motor (M1)	[2]	Tray 1 paper feed clutch (CL5)
[3]	Tray 1 paper feed roller	[4]	Tray 1 separation roller
[5]	Paper		

(2) Separation control

- The separation roller is pressed up against and driven by the paper feed roller. A torque limiter is mounted on the shaft of the separation roller.
- The acting pressure of the paper feed roller/separation roller/torque limiter serves as the limit torque for preventing double feed.

- When there is zero or only one sheet of paper between the separation roller and paper feed roller, the limit torque is exceeded and the separation roller follows the rotation of the paper feed roller.
- If there are two or more sheets of paper between the separation roller and paper feed roller, the limit torque is greater than the friction force of the paper, so that the separation roller stops rotating.
- Because of the stationary separation roller, the lower sheet of paper in contact with the separation roller is not fed in, so that the first sheet of paper is properly separated from the second sheet of paper.

(3) Paper misfeed display

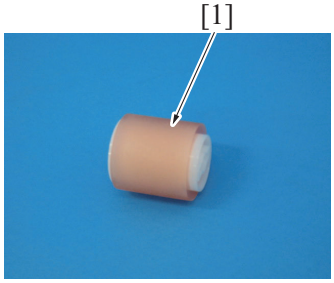
(a) Typical

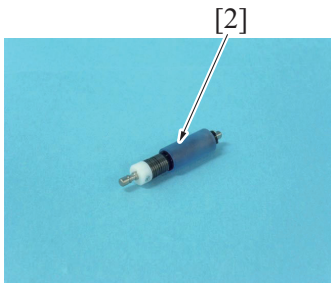
(4) Periodically replaced parts

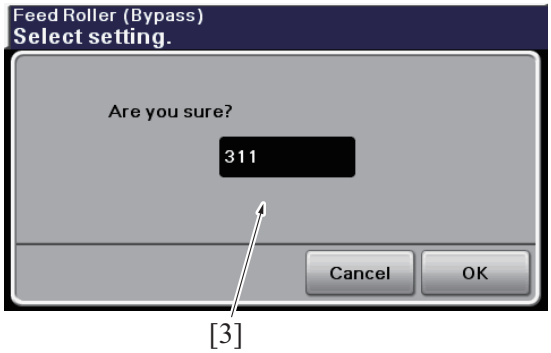
- The paper feed roller and separation roller are both periodically replaced parts. These two rollers must be replaced with new ones at the same time.
- Neither the paper feed roller nor separation roller are provided with a new article detection mechanism. When the two rollers are replaced with new ones, the paper feed roller (bypass) counter must be reset to zero using “Counter / Supplies / Life Counter Clear / Feed Roller (Bypass).”
- The number of times tray 1 has been subjected to paper feed operations can be checked with the paper feed roller (bypass) counter of the Service Mode.

Periodical replacement cycle	Paper feed operations 200,000 times

- For details of the applicable replacement procedures for the paper feed roller and separation roller and the Service Mode, see “F.6.6.1 Replacing the tray1 paper feed roller” and “F.6.6.2 Replacing the tray1 separation roller assy”.







[1]	Tray 1 paper feed roller	[2]	Tray 1 separation roller

[3]	Service Mode/Counter clear screen

10.3.3 Paper size detection control

- The size of the paper loaded in the paper feed section (tray 1) is detected by the combination of ON or OFF positions of the three tray 1 paper FD size sensors and the tray 1 paper CD size sensor.
- Moving the paper guide rotates the size detection gear and the tray 1 paper CD size sensor's detector located on the same axis of rotation as the size detection gear. With the rotation of the tray 1 paper CD size sensor's detector, a value is detected and used to calculate the paper width.

Metric area

Paper size detected	Tray 1 paper FD size sensor /1	Tray 1 paper FD size sensor /2	Tray 1 paper FD size sensor /3	Tray 1 paper CD size sensor
				Unit: mm
A6S	OFF	OFF	OFF	80 to less than 115
B6S				115 to 144 inclusive
B5				242 to 268 inclusive
A5S	ON	OFF	OFF	133 to 164 inclusive
Letter (8 1/2 × 11)				255 to less than 288
A4				288 to 330 inclusive
Foolscap (8 × 13) *1	ON	ON	OFF	188 to 235 inclusive
Legal (8 1/2 × 14)	ON	ON	ON	201 to 231 inclusive
B4 *2				242 to less than 268
Ledger (11 × 17) *2				268 to less than 288
A3 *2				288 to 301 inclusive

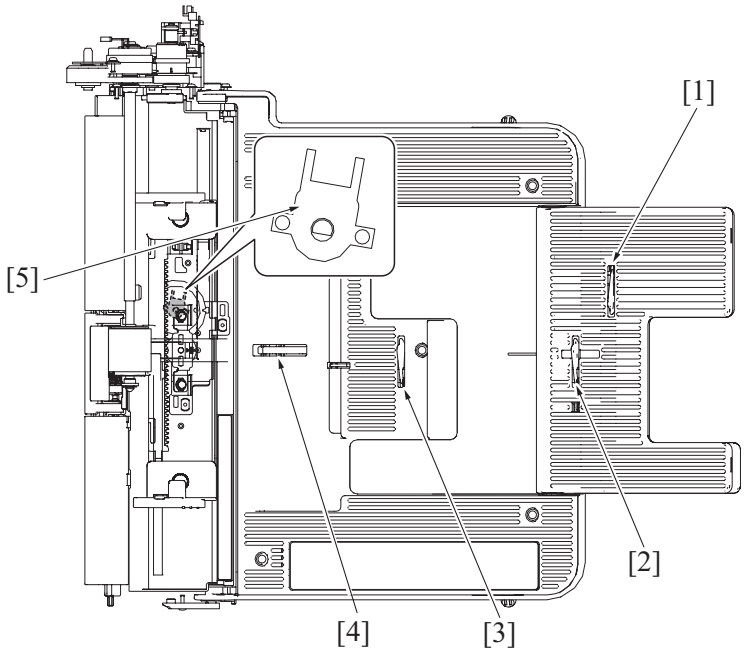
*1: One of the following paper sizes can be selected to be set for Foolscap (8 × 13). 8 × 13, 8 1/8 × 13 1/4, 8 1/4 × 13, 8 1/2 × 13, 8 13/20 × 13, 8 1/2 × 13 1/2

*2: Europe only (when the optional large paper size kit is mounted)

Inch area

Paper size detected	Tray 1 paper FD size sensor /1	Tray 1 paper FD size sensor /2	Tray 1 paper FD size sensor /3	Tray 1 paper CD size sensor
				Unit: mm
A6S	OFF	OFF	OFF	80 to less than 115
B6S				115 to 144 inclusive
Invoice (5 1/2 × 8 1/2)				201 to 231 inclusive
Executive (7 1/4 × 10 1/2)				242 to 282 inclusive
Invoice S (5 1/2 × 8 1/2 S)	ON	OFF	OFF	125 to 155 inclusive
Executive S (7 1/4 × 10 1/2 S)				169 to less than 201
Letter S (8 1/2 × 11 S)				201 to 231 inclusive
Letter (8 1/2 × 11)				255 to less than 288
A4				288 to 330 inclusive
Foolscap (8 × 13)*	ON	ON	OFF	188 to 235 inclusive
Legal (8 1/2 × 14)	ON	ON	ON	201 to 231 inclusive

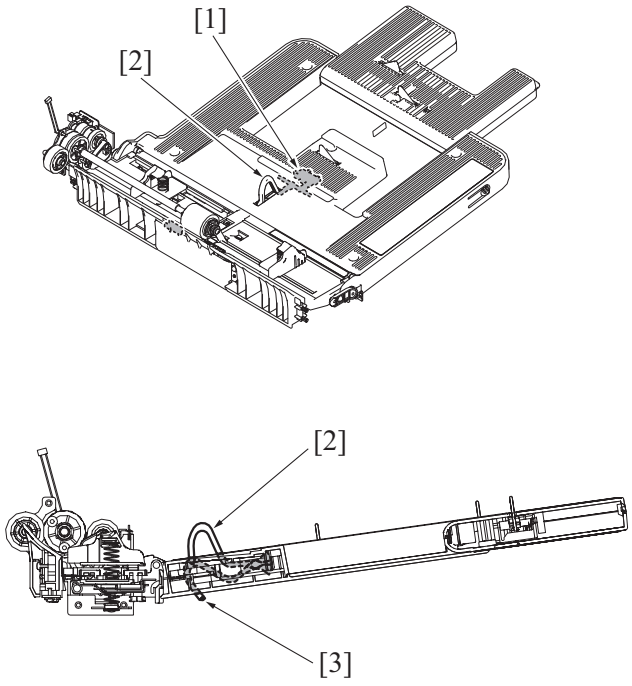
*: One of the following paper sizes can be selected to be set for Foolscap (8 × 13). 8 × 13, 8 1/8 × 13 1/4, 8 1/4 × 13, 8 1/2 × 13, 8 13/20 × 13, 8 1/2 × 13 1/2



[1]	Tray 1 paper FD size sensor /3 (PS24)	[2]	Tray 1 paper FD size sensor /2 (PS23)
[3]	Tray 1 paper FD size sensor /1 (PS22)	[4]	Tray 1 paper empty sensor (PS25)
[5]	Tray 1 paper CD size sensor (PS19)		

10.3.4 Paper empty detection

- The tray 1 paper empty sensor detects a paper empty condition in tray 1.



[1]	Tray 1 paper empty sensor (PS25)	[2]	Actuator (Paper empty)

[3]	Actuator (Paper remaining)

10.3.5 Remaining paper detection control

(1) Paper near-empty control

- The tray 1 is not mounted with any near-empty detection mechanism.

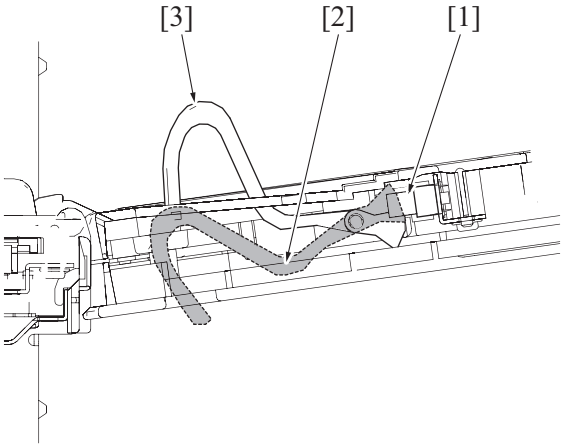
(2) Paper empty control

(a) Paper conditions

- Tray 1 is provided with the tray 1 paper empty sensor (interrupter-type photosensor) and the tray 1 paper sensor (reflector-type photosensor).
- The following three types of paper conditions are detected according to the combination of the states of the tray 1 paper empty sensor and tray 1 paper sensor:
  “Paper remaining”
  “Paper not loaded in place”
  “Paper empty”

(b) Tray 1 paper empty sensor

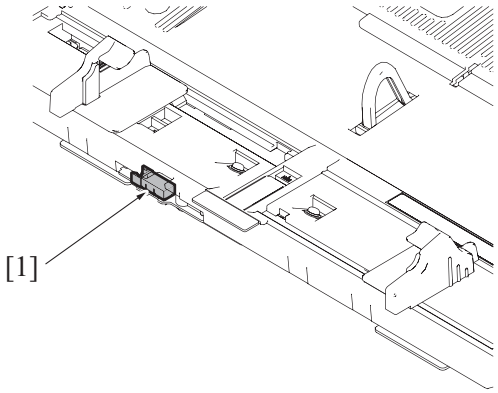
- When the paper is loaded in tray 1, the paper empty detection actuator is pressed and lowered by the paper. The paper empty detection actuator is lowered to block the tray 1 paper empty sensor.
- When there is no paper in tray 1, the paper empty detection actuator is raised. The paper empty detection actuator is raised to unblock the tray 1 paper empty sensor.



[1]	Tray 1 paper empty sensor (PS25)	[2]	Actuator (Paper remaining)
[3]	Actuator (Paper empty)		

(c) Tray 1 paper sensor

- When paper is loaded in tray 1, the tray 1 paper sensor detects whether or not there is paper.
  If the paper lift-up plate is located at the paper feed position (upper position), the detection result is not incorporated under any of the following conditions because of the limited detection range of the tray 1 paper sensor.
  “At the start of paper feed from the tray 1”
  “The power switch is turned ON”
  “The machine exits the sleep mode”



[1]	Tray 1 paper sensor (PS21)

(d) Paper condition determination conditions

Paper conditions	Tray 1 paper empty sensor (PS25)	Tray 1 paper sensor (PS21)
Paper remaining	Blocked (Paper remaining)	Paper remaining
Paper not loaded in place	Blocked (Paper remaining)	No paper
Paper empty	Unblocked (No paper)	Paper remaining
		No paper

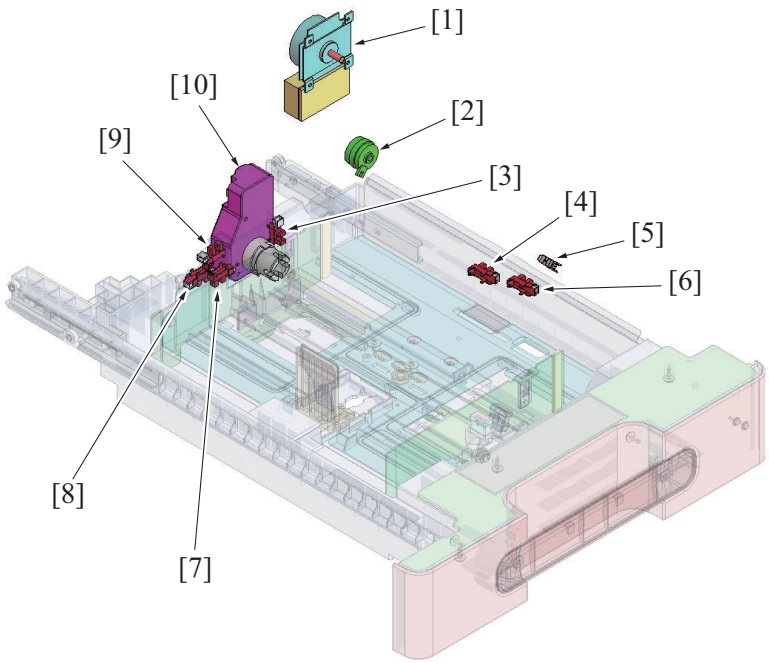
(3) Paper empty and paper set failure displays

11. PAPER FEED SECTION (TRAY 2/TRAY 3)

11.1 Configuration

11.1.1 Tray 2

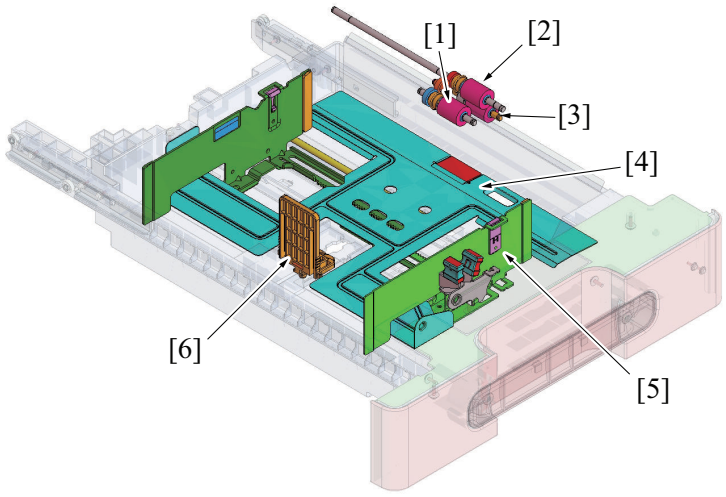
(1) Electrical parts configuration



[1]	Transport motor (M1)	[2]	Tray 2 paper feed clutch (CL2)
[3]	Tray 2 paper near empty sensor (PS7)	[4]	Tray 2 upper limit sensor (PS3)
[5]	Tray 2 paper feed sensor (PS5) *	[6]	Tray 2 paper empty sensor (PS4)
[7]	Tray 2 paper CD size sensor/2 (PS9)	[8]	Tray 2 paper CD size sensor/1 (PS8)
[9]	Tray 2 set sensor (PS6)	[10]	Tray 2 lift-up motor (M4)

*: Dedicated to bizhub 42. bizhub 42 has a faster paper feed speed than the bizhub 36 and a short distance between sheets of paper. The paper feed sensor is installed for paper feed control purposes.

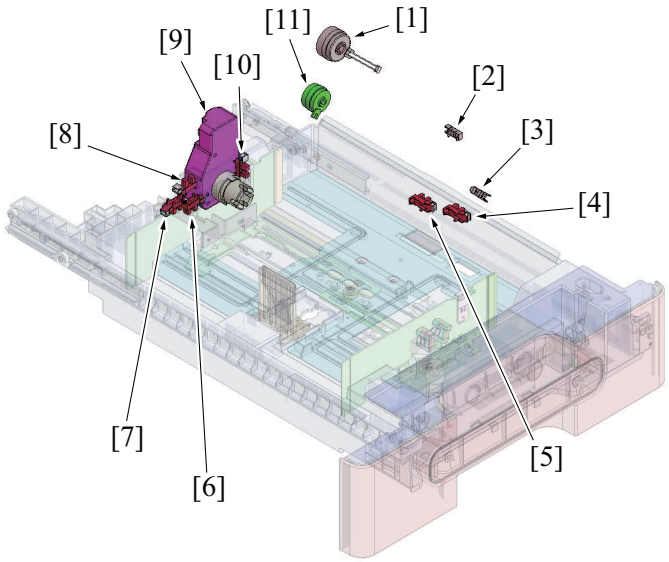
(2) Mechanical parts configuration



[1]	Tray 2 pick-up roller	[2]	Tray 2 paper feed roller
[3]	Tray 2 separation roller	[4]	Tray 2 paper lift-up plate
[5]	Paper guide (CD)	[6]	Paper guide (FD)

11.1.2 Tray 3

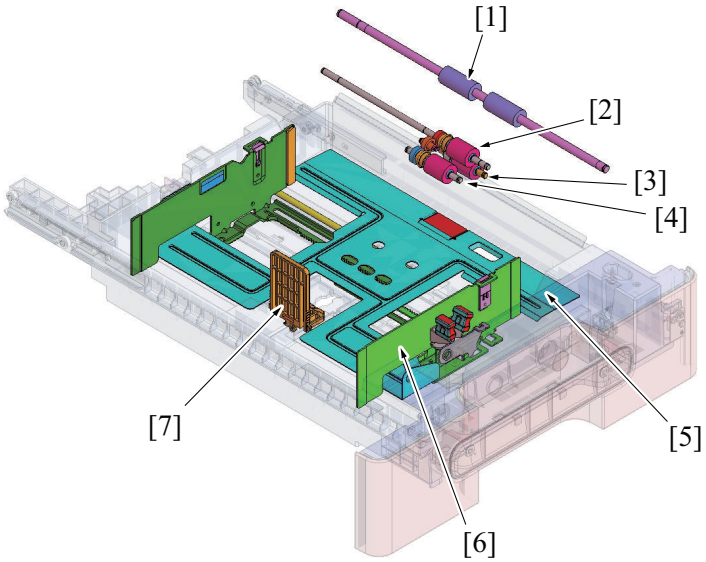
(1) Electrical parts configuration



[1]	Tray 3 vertical transport clutch (CL4)	[2]	Tray 3 vertical transport sensor (PS18) *1
[3]	Tray 3 paper feed sensor (PS12) *2	[4]	Tray 3 paper empty sensor (PS11)
[5]	Tray 3 upper limit sensor (PS10)	[6]	Tray 3 paper CD size sensor/2 (PS16)
[7]	Tray 3 paper CD size sensor/1 (PS15)	[8]	Tray 3 set sensor (PS13)
[9]	Tray 3 lift-up motor (M5)	[10]	Tray 3 paper near empty sensor (PS14)
[11]	Tray 3 paper feed clutch (CL3)		

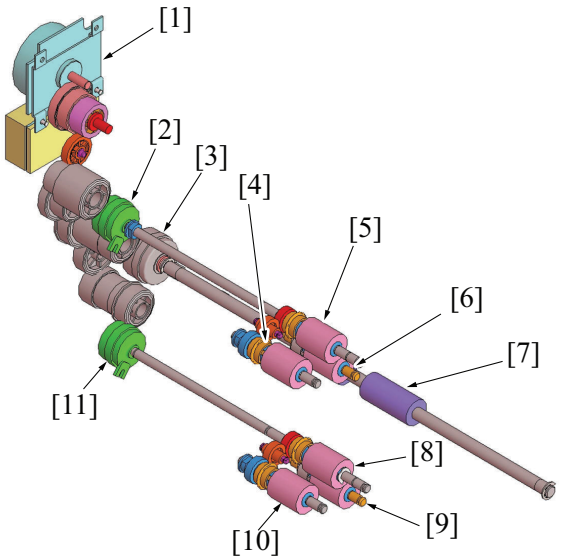
*1: The type of the sensor differs between bizhub 36 and bizhub 42. bizhub 42 incorporates a reflector type and, as a result, is not provided with any actuator for detecting paper feed.
*2: Dedicated to bizhub 42.

(2) Mechanical parts configuration



[1]	Tray 3 vertical transport roller	[2]	Tray 3 paper feed roller
[3]	Tray 3 separation roller	[4]	Tray 3 pick-up roller
[5]	Tray 3 paper lift-up plate	[6]	Paper guide (CD)
[7]	Paper guide (FD)		

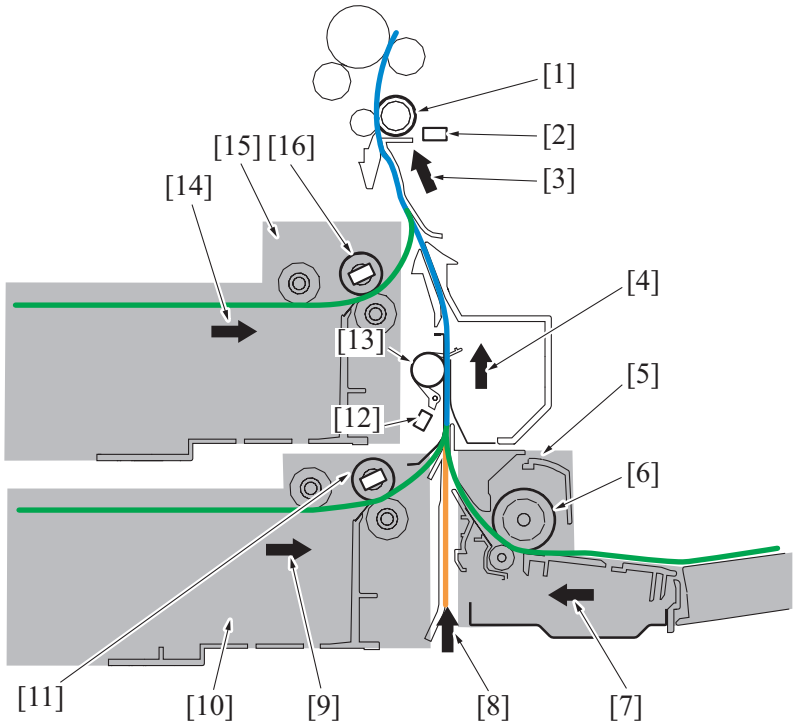
11.2 Drive



[1]	Transport motor (M1)	[2]	Tray 2 paper feed clutch (CL2)
[3]	Tray 3 vertical transport clutch (CL4)	[4]	Tray 2 pick-up roller
[5]	Tray 2 paper feed roller	[6]	Tray 2 separation roller
[7]	Tray 3 vertical transport roller	[8]	Tray 3 paper feed roller
[9]	Tray 3 separation roller	[10]	Tray 3 pick-up roller
[11]	Tray 3 paper feed clutch (CL3)		

- The drive parts are arranged in the same way in tray 2 and tray 3. If the description that follows is not identified with tray 2 or tray 3, it is applicable to both tray 2 and tray 3 in terms of mechanism and control.
- The transport motor drive the tray 2 and tray 3 paper feed roller section.
- The drive section of each paper feed tray has a clutch that controls rotation of the paper feed roller section.

11.2.1 Layout of sensors and rollers



[1]	Registration roller	[2]	Registration sensor (PS1)
[3]	Paper transport to image transfer section	[4]	Paper transport in vertical transport section
[5]	Tray 1	[6]	Tray 1 paper feed roller
[7]	Paper transport from tray 1	[8]	Paper transport from optional paper feed cabinet
[9]	Paper transport from tray 3	[10]	Tray 3

[11]	Tray 3 paper feed roller/Tray 3 paper feed sensor (PS12) *1	[12]	Tray 3 vertical transport sensor (PS18) *2
[13]	Tray 3 vertical transport roller	[14]	Paper transport from tray 2
[15]	Tray 2	[16]	Tray 2 paper feed roller/Tray 2 paper feed sensor (PS5) *1

*1: Dedicated to bizhub 42.
*2: The type of the sensor and the position at which the sensor is disposed differs between the bizhub 36 and the bizhub 42. (The illustration shows, as an example, the location of the sensor in the bizhub 42.)
The bizhub 42 incorporates a reflector type and, as a result, is not provided with any actuator for detecting paper feed.

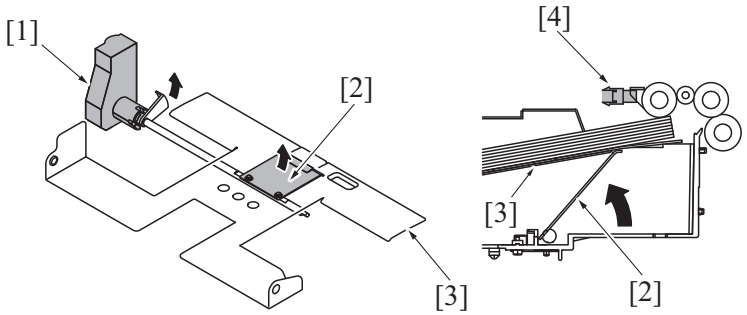
11.3 Operation

11.3.1 Up/down control

- Tray 2 and tray 3 are controlled with the same control procedure.

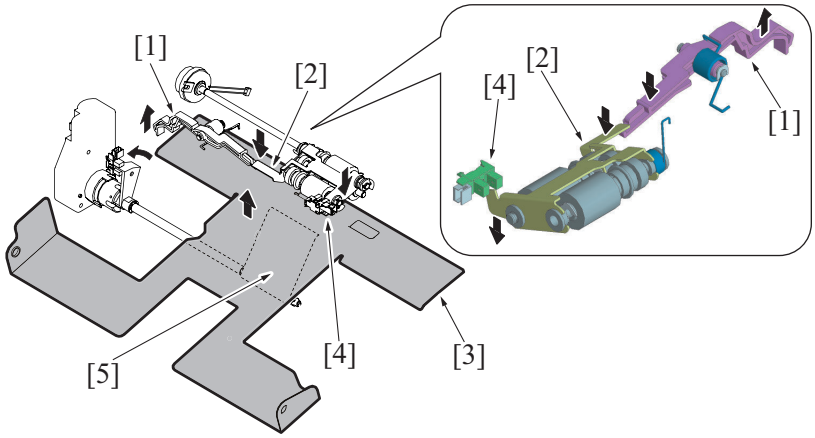
(1) Up operation

- The paper lift-up plate B is located under the paper lift-up plate A.
- The lift-up plate drive shaft of the lift-up motor is connected to the paper lift-up plate B.
- When the drive shaft of the lift-up motor rotates, the paper lift-up plate B raises the paper lift-up plate A.



[1]	Lift-up motor (M4/M5)	[2]	Paper lift-up plate B
[3]	Paper lift-up plate A	[4]	Upper limit sensor (PS3/PS10)

(a) Upper position

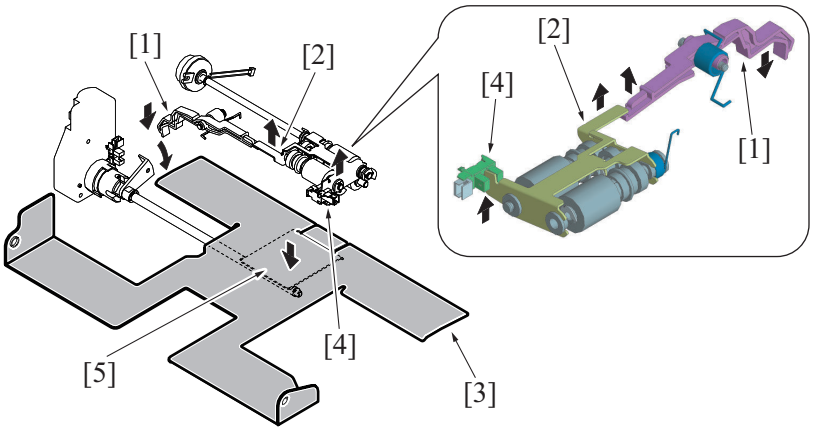


[1]	Actuator of upper limit sensor (Close paper feed tray)	[2]	Light blocking plate of upper limit sensor (Lower position: Unblocked)
[3]	Paper lift-up plate A (Upper position)	[4]	Upper limit sensor (PS3/PS10) (Unblocked)
[5]	Paper lift-up plate B (Upper position)		

(2) Down operation

- When the paper feed tray is slid out of the machine, the coupling of the lift-up motor and the lift-up plate drive shaft are disconnected from each other.
- When the driving force of the lift-up motor is released from the lift-up plate drive shaft, the paper lift-up plate starts lowering by its own weight.

(a) Down position

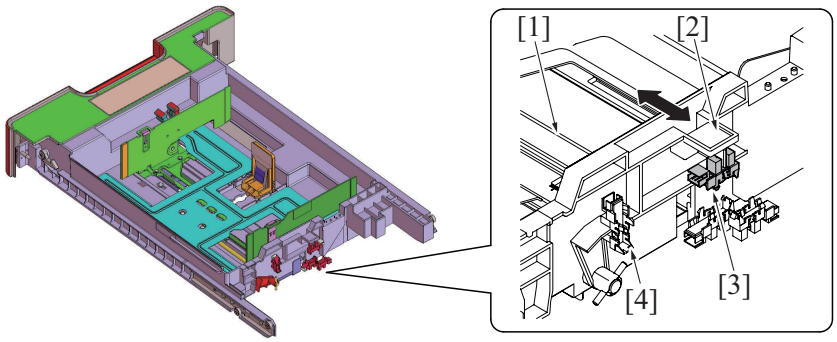


[1]	Actuator of upper limit sensor (Open paper feed tray)	[2]	Light blocking plate of upper limit sensor (Upper position: Blocked)
[3]	Paper lift-up plate A (Lower position)	[4]	Upper limit sensor (PS3/PS10) (Blocked)
[5]	Paper lift-up plate B (Lower position)		

(3) Operation timing

(a) When the paper feed tray is slid in

- When the paper feed tray is slid into the machine, the tray set sensor is blocked. The machine then determines that the paper feed tray is slid into position.
- When the paper feed tray is slid in, the front side of the upper limit sensor actuator is placed in the lower position and the upper limit sensor light blocking plate is also placed in the lower position, so that the upper limit sensor is unblocked.
- Determining that the upper limit sensor is unblocked, the machine lets the lift-up motor rotate to start the up operation of the paper lift-up plate.
- When the paper stack is raised to a predetermined height after the up operation of the paper lift-up plate has been started, the upper limit sensor is blocked.
- Determining that the upper limit sensor is blocked, the machine stops the lift-up motor to complete the up operation of the paper lift-up plate.
- Control is provided to make sure that only one paper feed tray performs the up operation at one time.
- If the paper feed tray is slid out during the up operation of the paper lift-up plate and accordingly the tray set sensor is unblocked, the up operation of the paper lift-up plate is terminated.



[1]	Paper feed tray	[2]	Light blocking plate of tray set sensor
[3]	Tray set sensor (PS6/PS13)	[4]	Paper near empty sensor (PS7/PS14)

(b) During a print cycle

- When the amount of paper decreases as the machine keeps printing, the pick-up roller will gradually come down to unblock the upper limit sensor. The lift-up motor will rotate again to lift up the paper lift-up plate.
- When the upper limit sensor is blocked, the lift-up motor will stop to complete the up operation of the paper lift-up plate.
- The sequence of these operations is repeated to keep constant pressure (paper take-up pressure) between the pick-up roller and the paper stack regardless of the amount of paper still available for use.

11.3.2 Paper feed control

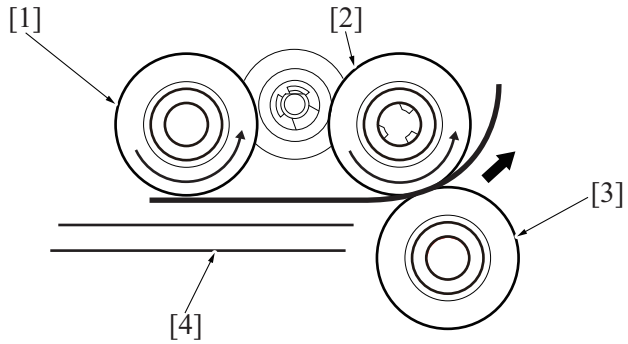
- Tray 2 and tray 3 are controlled in the same control procedure.

(1) Pick-up control

- The paper feed clutch is energized after the lapse of a predetermined period of time after the print start signal.
- The driving force of the transport motor is transmitted to the pick-up roller and paper feed roller when the paper feed clutch is energized. These rollers rotate to pick up and feed a sheet of paper into the machine.

(2) Separation control

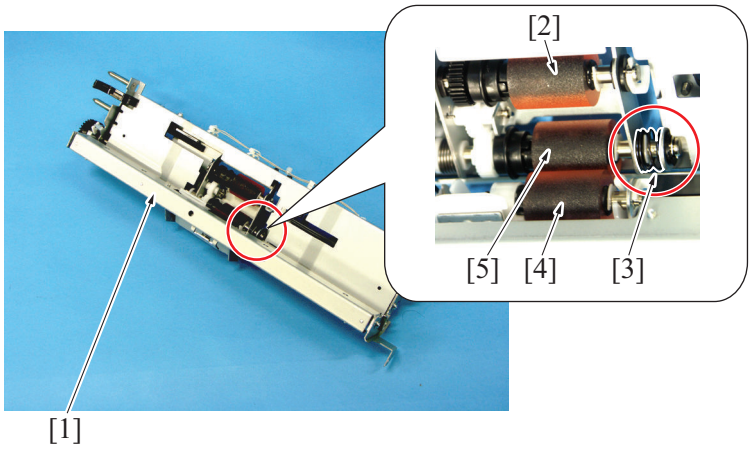
- The separation roller is pressed up against, and driven by, the paper feed roller. A torque limiter is mounted on the shaft of the separation roller.
- The acting pressure of the paper feed roller/separation roller/torque limiter serves as the limit torque for preventing double feed.
- When there is no sheet of paper or only one sheet of paper between the separation roller and paper feed roller, the limit torque is exceeded and the separation roller follows the rotation of the paper feed roller.
- If there are two or more sheets of paper between the separation roller and paper feed roller, the limit torque is greater than the friction force of the paper, so that the separation roller stops rotating.
- Because of the stationary separation roller, the lower sheet of paper in contact with the separation roller is not fed in, so that the first sheet of paper is properly separated from the second sheet of paper.



[1]	Pick-up roller	[2]	Paper feed roller
[3]	Separation roller	[4]	Paper

(3) Paper feed roller section noise reduction mechanism

- During a paper separation sequence, the paper feed roller may vibrate and produce a large operating noise. To reduce the operating noise, the rotation shaft of the paper feed roller is mounted with a paper feed roller spring.



[1]	Paper feed unit	[2]	Pick-up roller
[3]	Paper feed roller spring	[4]	Separation roller
[5]	Paper feed roller		

(4) Paper feed retry control

- If the specified sensor is unable to detect the paper even after the lapse of a predetermined period of time after the start of the paper feed sequence, the machine determines that there is a paper misfeed. The paper feed retry sequence is performed if a paper misfeed is detected in a print job. A paper misfeed results if the specified sensor is still unable to detect the paper even after the paper feed retry sequence.

Paper port	Sensor name
Tray 1	Tray 3 vertical transport sensor (PS18)
Tray 2	Registration sensor (PS1)
Tray 3	Tray 3 vertical transport sensor (PS18)
Tray 4 (Option: PC-211)	Tray 4 vertical transport sensor (PS45)
Tray 5 (Option: PC-211)	Tray 5 vertical transport sensor (PS55)

(5) Paper feed speed reduction control

(a) bizhub 42 (Tray 2/Tray 3)

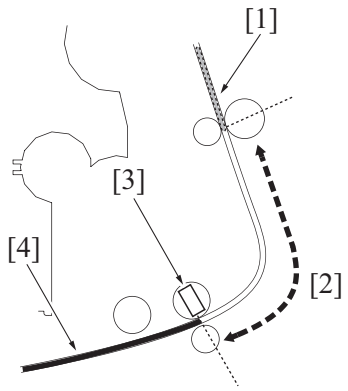
- If there is a small paper-to-paper distance relative to the preceding sheet of paper when the current sheet of paper reaches the paper feed sensor during a multi-print cycle, the paper feed clutch is temporarily deenergized to thereby slow the paper feed timing of the current sheet of paper. An appropriate paper-to-paper distance can thereby be ensured.

(b) bizhub 42 (Tray 1)

- If there is a small paper-to-paper distance relative to the preceding sheet of paper when the current sheet of paper reaches the tray 3 vertical transport sensor during a multi-print cycle, the paper feed clutch is temporarily deenergized to thereby slow the paper feed timing of the current sheet of paper. An appropriate paper-to-paper distance can thereby be ensured.

(c) bizhub 36 (Tray 3/ Tray 1)

- If there is a small paper-to-paper distance relative to the preceding sheet of paper when the current sheet of paper reaches the tray 3 vertical transport sensor during a multi-print cycle, the paper feed clutch is temporarily deenergized to thereby slow the paper feed timing of the current sheet of paper. An appropriate paper-to-paper distance can thereby be ensured.
- The paper feed speed reduction control is not performed for continuous paper feeding from tray 2, because, in this case, the paper does not move past the tray 3 vertical transport sensor. (The paper feed sensor is mounted only on the bizhub 42.)



[1]	Preceding sheet	[2]	Paper-to-paper distance
[3]	Paper feed sensor (PS5/PS12)	[4]	Sheet of paper being controlled

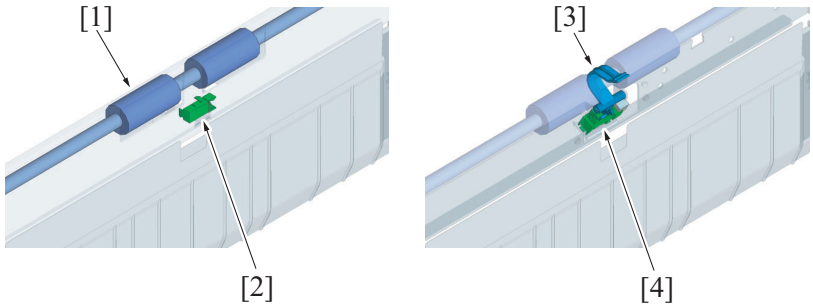
(6) Paper feed control

(a) Tray 2

- The tray 2 paper feed roller feeds the paper onto the registration roller.
- The tray 2 paper feed sensor (located downstream of the tray 2 paper feed roller) detects paper fed from the tray 2 paper feed roller. If the paper feed timing of the paper fed from the tray 2 paper feed roller is earlier than a predetermined value, the tray 2 paper feed clutch is deenergized to correct the paper feed timing. For more details, see "O.11.3.2.(5) Paper feed speed reduction control." (The paper feed sensor is mounted on the bizhub 42 only.)
- When the paper fed from the tray 2 paper feed roller moves past the registration roller and reaches a predetermined position, the tray 2 paper feed clutch is deenergized to disconnect the driving force of the transport motor. The tray 2 pick-up roller and tray 2 paper feed roller follow the movement of the paper, continuing rotation. The tray 2 pick-up roller and tray 2 paper feed roller stop rotating as soon as the paper moves past them.
- If the registration sensor is unable to detect the paper even after the lapse of a predetermined period of time, the main body determines that there is a paper misfeed. The paper feed sequence is repeated a second time, if a paper misfeed is detected (paper feed retry control). If the registration sensor is still unable to detect the paper, the main body determines that there is a paper misfeed at tray 2 and displays the message of "Misfeed Detected" on the control panel.
- For details of paper misfeed detection conditions, see "TROUBLESHOOTING / JAM DISPLAY / List of the JAM display".

(b) Tray 3

- The tray 3 paper feed roller feeds the paper onto the tray 3 vertical transport roller.
- The tray 3 paper feed sensor (located downstream of the tray 3 paper feed roller) detects paper fed from the tray 3 paper feed roller. If the paper feed timing of the paper fed from the tray 3 paper feed roller is earlier than a predetermined value, the tray 3 paper feed clutch is deenergized to correct the paper feed timing. For more details, see "O.11.3.2.(5) Paper feed speed reduction control." (The paper feed sensor is mounted on the bizhub 42 only.)
- When the tray 3 vertical transport sensor detects the leading edge of the paper fed from the tray 3 paper feed roller, the tray 3 paper feed clutch is deenergized to disconnect the driving force of the transport motor. The tray 3 pick-up roller and tray 3 paper feed roller follow the movement of the paper, continuing rotating. The tray 3 pick-up roller and tray 3 paper feed roller stop rotating as soon as the paper moves past them.
- Different models of bizhub use different types of the tray 3 vertical transport sensor.
  bizhub 42 incorporates a reflector type. As the paper moves past the sensor, the sensor receives a sensor light reflected off the paper. The main body thereby determines that a sheet of paper has moved past the sensor.
  bizhub 36 incorporates an interrupter type. When the paper moves past the sensor, the leading edge of the paper pushes the actuator. This blocks or unblocks the sensor light, so that the main body determines that a sheet of paper has moved past the sensor.
  bizhub 42 uses the reflector type, because it transports paper at higher speeds than the bizhub 36.



[1]	Tray 3 vertical transport roller	[2]	Tray 3 vertical transport sensor (PS18) (For bizhub 42)
[3]	Actuator of tray 3 vertical transport sensor (For bizhub 36)	[4]	Tray 3 vertical transport sensor (PS18) (For bizhub 36)

- If the tray 3 vertical transport sensor is unable to detect the leading edge of paper even after the lapse of a predetermined period of time, the main body determines that there is a paper misfeed. The paper feed sequence is repeated a second time, if a paper misfeed is detected (paper feed retry control). If the tray 3 vertical transport sensor is still unable to detect the paper, the main body determines that there is a paper misfeed at tray 3.
- For details of paper misfeed detection conditions, see "TROUBLESHOOTING / JAM DISPLAY / List of the JAM display".

(7) Paper misfeed display

(a) Tray 2/Tray 3 (typical)

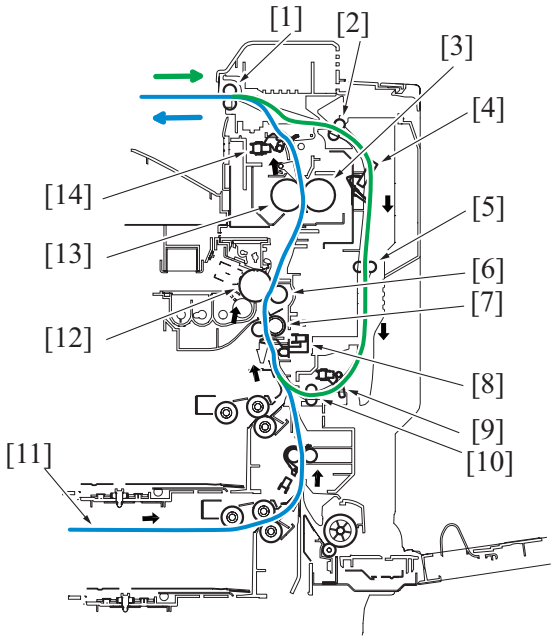
(8) Downstream exit control during multi-print cycle

- The following terms are used for convenience' sake throughout this chapter.
  Upstream: Refers to the source side of paper supply relative to the paper feeding direction
  Downstream: Refers to the destination side of paper transport relative to the paper feeding direction
- If a paper misfeed occurs at the paper feed section which is upstream in paper transport, the print cycle is not brought to an immediate stop; rather, the machine allows a sheet of paper, for which the print cycle is to be completed at a downstream side, to continue undergoing the current print cycle and feeds the printed page out after completion of the current print cycle.

(a) Types of paper misfeed governed by downstream exit control

- Misfeed at tray 1 (Manual bypass tray)
- Misfeed at tray 2
- Misfeed at tray 3
- Misfeed at tray 4 (PC-211)
- Misfeed at tray 5 (PC-211)
- Misfeed at vertical transport section

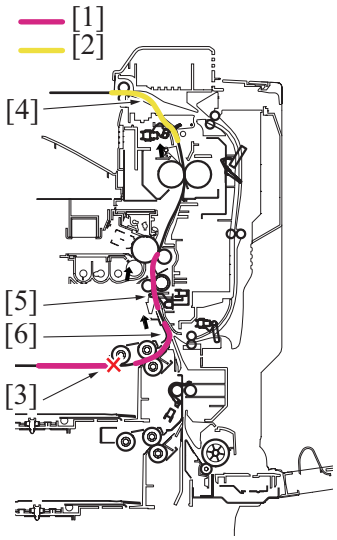
(b) Paper pass (In the case of the tray 3)



[1]	Paper exit/switchback roller	[2]	Duplex transport roller/1
[3]	Pressure roller	[4]	Duplex transport sensor/1 (PS27)
[5]	Duplex transport roller/2	[6]	Image transfer roller
[7]	Registration roller	[8]	Registration sensor (PS1)
[9]	Duplex transport sensor/2 (PS28)	[10]	Duplex transport roller/3
[11]	Transport paper from paper feed section (tray 3)	[12]	Photo conductor
[13]	Heating roller	[14]	Paper exit sensor (PS29)

(c) 1-sided printing

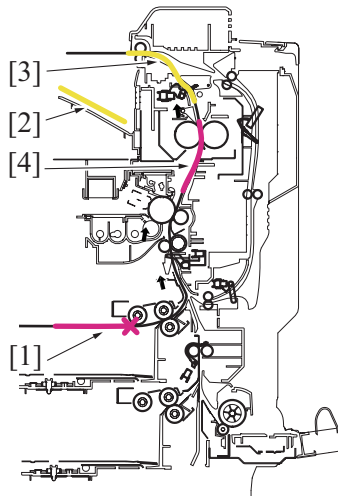
Operation 1



- In consecutive 1-sided printing, the 4th sheet causes a jamming at the paper feed tray section. [3]
- The 1st sheet after an image transfer is remained at the fusing section and the paper exit section. [4]
- The 2nd sheet before an image transfer is remained at the vertical conveyance section and the registration section. [5]
- The 3rd sheet before an image transfer is remained at the paper feed section and the registration section. [6]

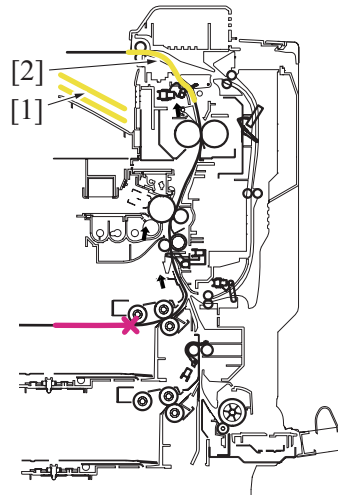
[1]	Sheet before a 1-sided image transfer
[2]	Sheet after a 1-sided image transfer
[3]	4th sheet: Jamming
[4]	1st sheet
[5]	2nd sheet
[6]	3rd sheet

Operation 2



- Stop the feeding and conveying operation of the 4th sheet. [1]
- Exit the 1st sheet. [2]
- Transfer/fuse images on the 2nd sheet. [3]
- Convey the 3rd sheet to transfer images. [4]

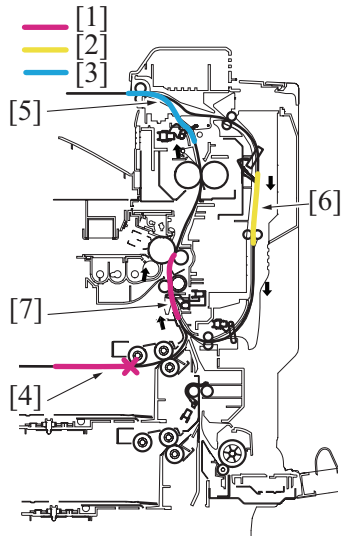
Operation 3



- Exit the 2nd sheet. [1]
- Fuse the 3rd sheet to exit paper. [2]

(d) 2-sided printing

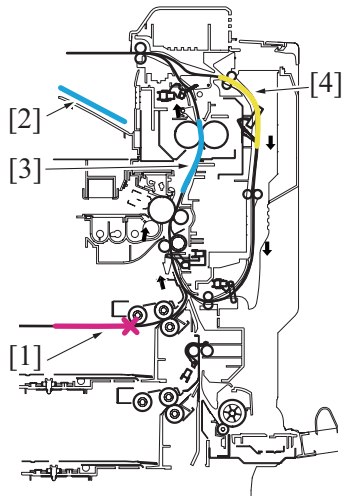
Operation 1



- In consecutive 2-sided printing, the 4th sheet causes a jamming at the paper feed tray section. [4]
- The 1st sheet after a 2-sided image transfer is remained at the paper exit section. [5]
- The 2nd sheet after a 1-sided image fusing is remained at the duplex section. [6]
- The 3rd sheet before an image transfer is remained at the vertical conveyance section and the registration section. [7]

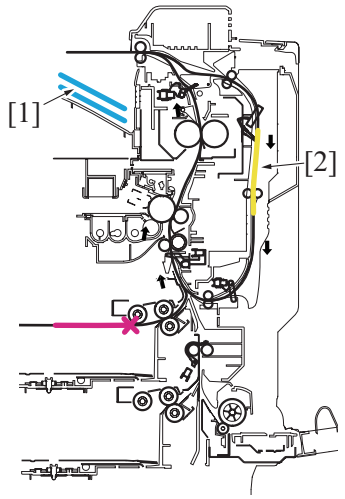
[1]	Sheet before a 1-sided image transfer
[2]	Sheet after a 1-sided image transfer
[3]	Sheet after a 2-sided image transfer
[4]	4th sheet: Jamming
[5]	1st sheet
[6]	2nd sheet
[7]	3rd sheet

Operation 2



- Stop the feeding and conveying operation of the 4th sheet. [1]
- Exit the 1st sheet. [2]
- Transfer/fuse 2-sided images on the 2nd sheet. [3]
- Transfer/fuse 1-sided images on the 3rd sheet to convey it to the duplex section. [4]

Operation 3



- Exit the 2nd sheet. [1]
- Stop the 3rd sheet at the duplex section. [2]

Operation 4

- The 3rd sheet of paper left in the duplex section should be removed by opening the duplex section cover.

NOTE

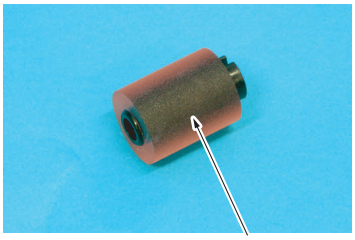
- **3rd sheets are conveyed to the duplex section which allowed removing a jamming easily. 2-sided images are not printed on a sheet conveyed to the duplex section.**

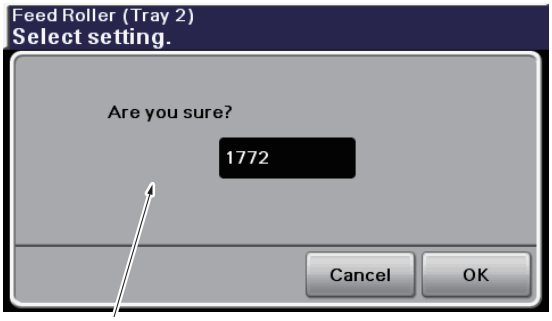
(9) Periodically replaced parts

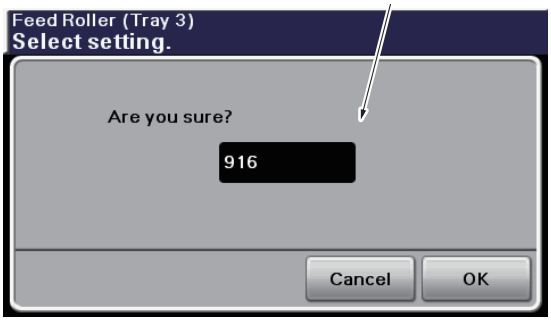
- The pick-up roller, paper feed roller, and separation roller are periodically replaced parts. These three rollers must be replaced with new ones at the same time.
- Neither the pick-up roller, paper feed roller, nor separation roller are provided with a new article detection mechanism. When the three rollers are replaced with new ones, the paper feed roller (tray 2) or paper feed roller (tray 3) counter must be reset to zero using “Service Mode / Supplies / Life Counter Clear / Feed Roller (Tray 2 / Tray 3).”
- The number of times tray 2 / tray 3 have been subjected to paper feed operations can be checked with the paper feed roller counter of the Service Mode.

Periodical replacement cycle	Paper feed operations 300,000 times

- For details of the applicable replacement procedures for the pick-up roller, paper feed roller, and separation roller and the Service Mode, see “F.6.6.3 Replacing the tray 2 feed roller/tray 2 pick-up roller”, “F.6.6.5 Replacing the tray 3 feed roller/tray 3 pick-up roller”, “F.6.6.4 Replacing the tray 2 separation roller” and “F.6.6.6 Replacing the tray 3 separation roller”.







[1]	Paper feed roller/Pick-up roller/Separation roller	[2]	Service Mode/Counter clear screen (Tray 2)
[3]	Service Mode/Counter clear screen (Tray 3)		

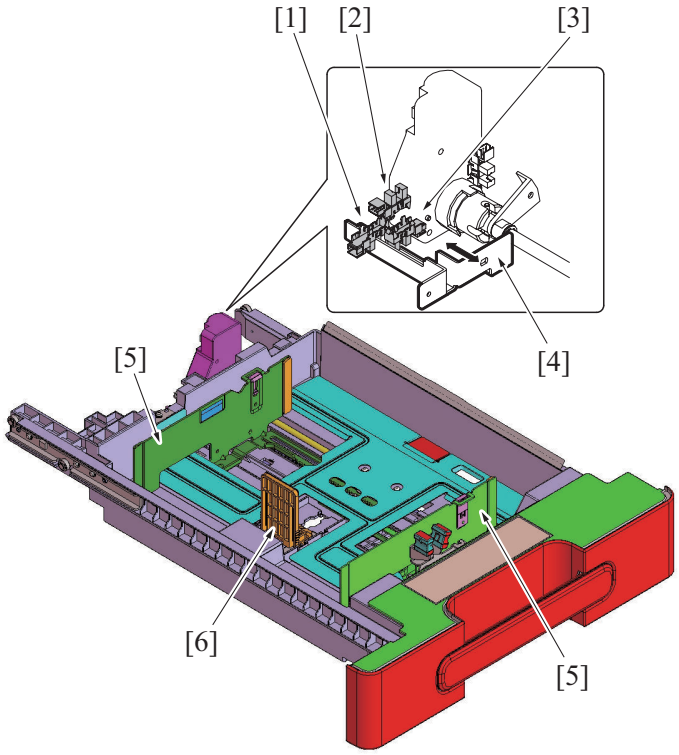
11.3.3 Paper size detection control

(1) Main scanning direction

- The size in the main scanning direction is detected based on the combination of paper CD size sensor/1 and paper CD size sensor/2 being unblocked or blocked.
- The paper CD size sensor/1 and paper CD size sensor/2 are unblocked or blocked by the paper width detection plate provided in the paper width guide plate.

(2) Sub scanning direction

- Tray 2/ Tray 3 is not provided with any paper length detecting mechanism for the sub-scanning direction.



[1]	Paper CD size sensor/1 (PS8/PS15)	[2]	Tray set sensor (PS6/PS13)
[3]	Paper CD size sensor/2 (PS9/PS16)	[4]	Detection plate
[5]	Paper guide (CD)	[6]	Paper guide (FD)

(3) Paper size determination

- The width of the main scanning will decide a paper size.

Paper size	Paper CD size sensor/1	Paper CD size sensor/2
A4	Unblocked	Blocked
B5	Blocked	Unblocked
A5S	Unblocked	Unblocked
Letter (8 $^{1}/_{2}$ × 11) or 16K*	Blocked	Blocked

*: The engine DipSW setting allows to select the paper size that is detected automatically. (I.9.14 Engine DipSW)

Sensor states

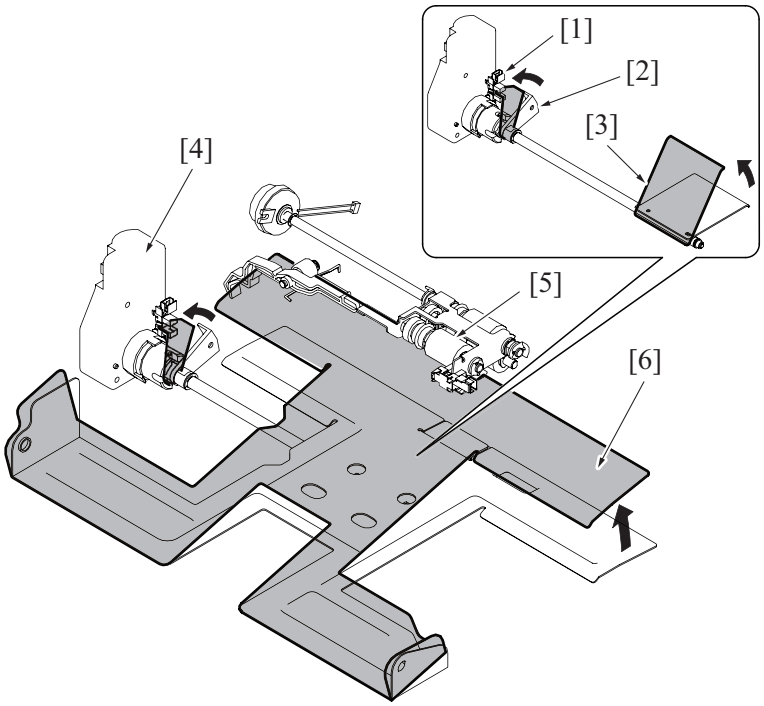
Sensor	Physical state	
	HIGH signal	LOW signal
Tray 2 paper CD size sensor/1, 2	Blocked	Unblocked
Tray 3 paper CD size sensor/1, 2		

11.3.4 Paper level detection control

- The paper level detection control is performed under any of the following conditions:
  “Tray 2 or 3 is closed in position”
  “The up/down control of the paper lift-up plate is completed”

(1) Paper near-empty detection

- The paper near empty sensor detects a paper near-empty condition of the paper feed tray.
- As paper is consumed, the position of the near empty detection actuator provided at the lift-up plate drive shaft of the lift-up motor is raised.
- When the near empty detection actuator is raised to a position at which the paper near empty sensor is blocked, the machine detects a near-empty condition.
- A near-empty condition is detected when the amount of paper still available for use becomes about 50 ± 30 sheets (about 50 sheets in terms of paper weighing 80 g/m^2).

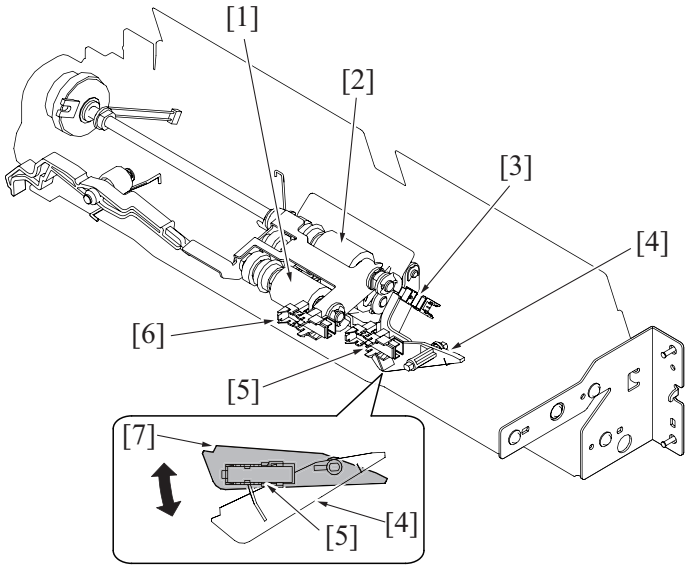


[1]	Paper near empty sensor (PS7/PS14)	[2]	Actuator
[3]	Paper lift-up plate B (upper position)	[4]	Lift-up motor (M4/M5)
[5]	Pick-up roller	[6]	Paper lift-up plate A (upper position)

(2) Paper empty detection

- The tray 2 and tray 3 use the same control system to detect a paper empty condition.
- A paper empty condition is detected by the tray set sensor, upper limit sensor, and paper empty sensor.
- Based on the combination of detection signals from each of the sensors, a paper empty condition is detected.

Sensor	Paper empty
Paper empty sensor	Unblocked
Tray set sensor	Blocked
Upper limit sensor	Unblocked



[1]	Pick-up roller	[2]	Paper feed roller
[3]	Paper feed sensor (PS5/PS12) (bizhub 42 only)	[4]	Paper empty detection plate (Lower position: paper empty)

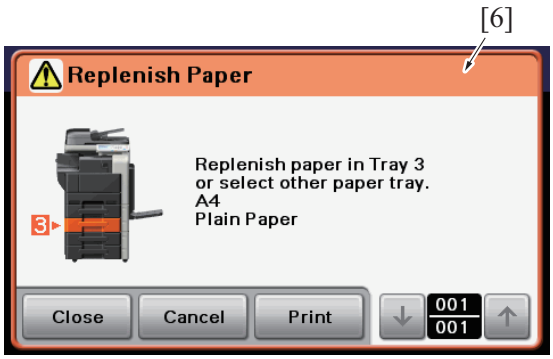
[5]	Paper empty sensor (PS4/PS11)	[6]	Upper limit sensor (PS3/PS10)
[7]	Paper empty detection plate (Upper position: paper remaining)		

(3) Paper level display

- The amount of paper is indicated by the LED on the right side of each paper feed tray and by the screen of the control panel. (The control panel display is given only for a paper empty condition.)
- The following shows how the paper level is displayed.

Paper feed tray condition	Empty	Near empty	Other statuses (Including during lift-up and no paper feed tray conditions)
LED	ON	Blinking *	OFF

*: The LED turns OFF when Machine State LED Setting is set to Type 2: Service Mode / System Settings / Machine State LED Setting.



[1]	Tray 2 LED board (LEDB2)	[2]	Tray 3 LED board (LEDB3)
[3]	Tray 4 LED board (LEDB4) (For option PC-211)	[4]	Tray 5 LED board (LEDB5) (For option PC-211)
[5]	Tray 2 paper empty display	[6]	Tray 3 paper empty display

11.3.5 Paper feed tray locking mechanism

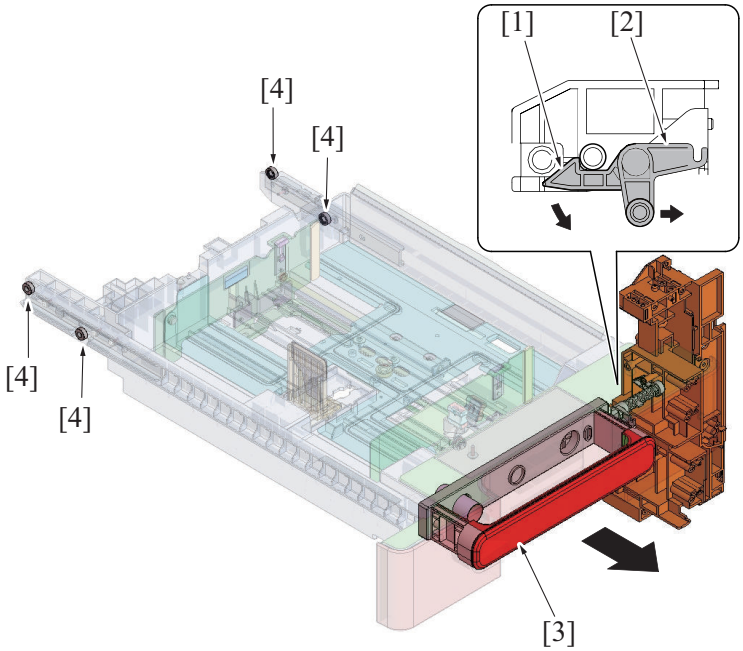
- The paper feed tray is provided with a locking mechanism.

(1) Unlocking the paper feed tray

- Withdrawing the knob of the paper feed tray to the front will disengage the tray lock pawl provided on the right side of the paper feed tray.
- The paper feed tray can be pulled out of the machine by continuing pulling the knob with the tray lock pawl disengaged.
- Rollers are provided for the right and left tray rails. They reduce the operating force required for sliding in/out the paper feed tray.

(2) Locking the paper feed tray

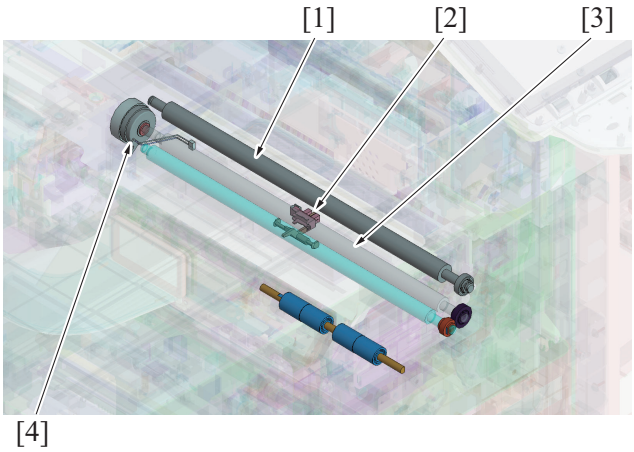
- Pushing the knob of the paper feed tray all the way toward the rear will allow the paper feed tray to be slid into the machine.
- When the paper feed tray is inserted all the way in place, the tray lock pawl provided on the right side of the paper feed tray locks the tray in place.



[1]	Lock pawl	[2]	Lock lever
[3]	Knob	[4]	Roller

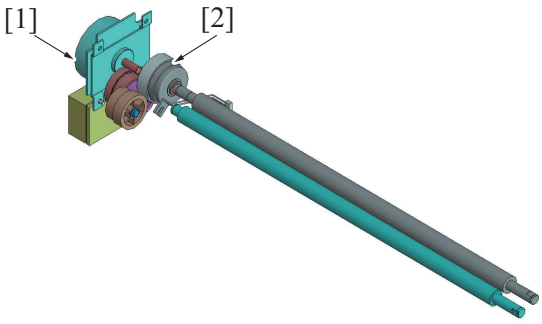
12. REGISTRATION SECTION

12.1 Configuration



[1]	Image transfer roller	[2]	Registration sensor (PS1)
[3]	Registration roller	[4]	Registration clutch (CL1)

12.2 Drive



[1]	Transport motor (M1)	[2]	Registration clutch (CL1)

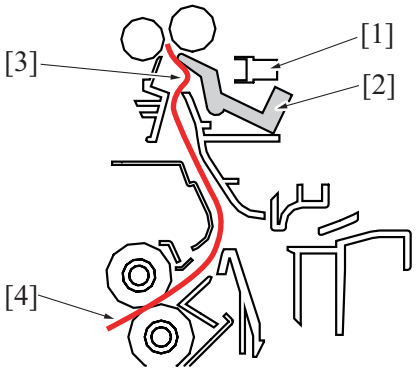
12.3 Operation

12.3.1 Registration control

- The transport motor provides the drive for the registration roller.
- The registration clutch is connected to the registration roller. When the registration clutch is energized, the driving force of the transport motor is transmitted to the registration roller. This rotates the registration roller.
- The paper will create a loop between the tray 2 paper feed roller (or tray 3 vertical transport roller/tray 1 paper feed roller) and the registration roller when the paper is being conveyed in order to correct the skew.
- The registration roller is controlled in order to synchronize the timing of when the unit starts writing the image and conveys paper.

(1) Adjustment

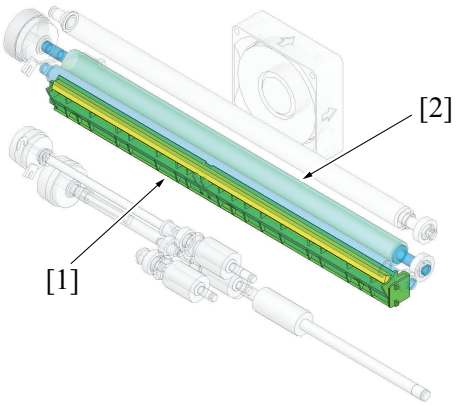
- The amount of the loop of the paper can be adjusted in the “Service Mode / Printer Adjustment / Printer Reg. Loop Adj.”. Changing the adjustment value will change the OFF timing of the tray 2 paper feed clutch (or tray 3 vertical transport clutch).



[1]	Registration sensor (PS1)	[2]	Actuator
[3]	Loop	[4]	Paper

12.3.2 Registration roller paper dust remover mechanism

- The paper dust remover is disposed so as to be in contact with the registration roller (driven side) in order to remove paper dust from the registration section.
- The paper dust remover is pressed up against the registration roller (driven side) at all times and is not provided with any retraction mechanism.

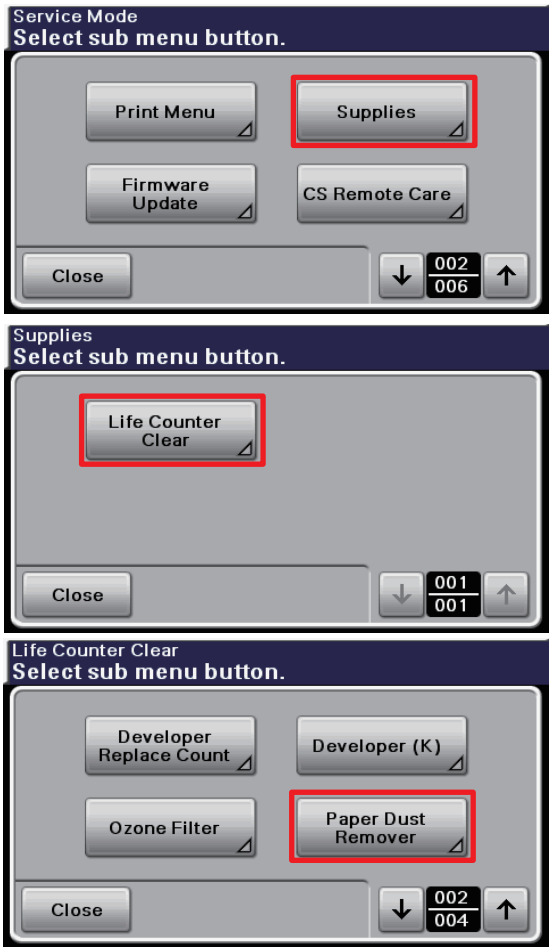


[1]	Paper dust remover	[2]	Registration roller

12.3.3 Paper dust remover new article detection

- No new article detection functions are provided. If the paper dust remover is replaced with a new one, the paper dust remover life counter must be reset using "Service Mode / Supplies / Life Counter Clear / Paper Dust Remover."

(1) Paper dust remover life counter



12.3.4 Paper dust remover life detection

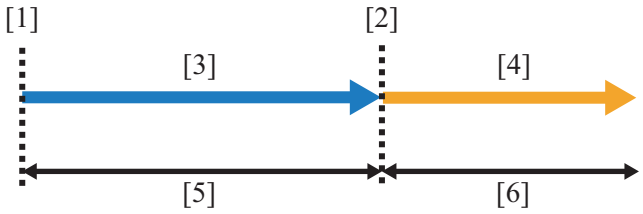
- The life counter of the paper dust remover controls detection of life of the paper dust remover.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Paper dust remover use time	M *

*: M represents a code that denotes the paper dust remover use time.

(1) Paper dust remover counter life determination

- If the counter value of paper dust remover life reaches the threshold, the machine determines that the paper dust remover has reached a new state.



[1]	Paper dust remover (new article)	[2]	Life threshold value
[3]	Normal display	[4]	Maintenance icon display (Paper dust remover use time excess)
[5]	Image guaranteed range	[6]	Outside image guaranteed range

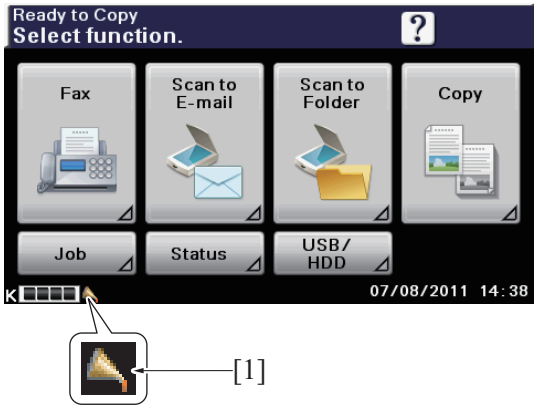
(a) Paper dust remover life counter life criteria

State	Display	Criteria
Normal	Normal (print enabled)	Less than the paper dust remover life threshold value
Paper dust remover use time excess (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the paper dust remover life threshold value

(2) Paper dust remover life display

- The maintenance icon is displayed when the value of the paper dust remover life counter reaches the life threshold (print enabled, outside image guaranteed range).

(a) Maintenance icon display (typical)



[1]	Maintenance icon

12.3.5 Life value of paper dust remover

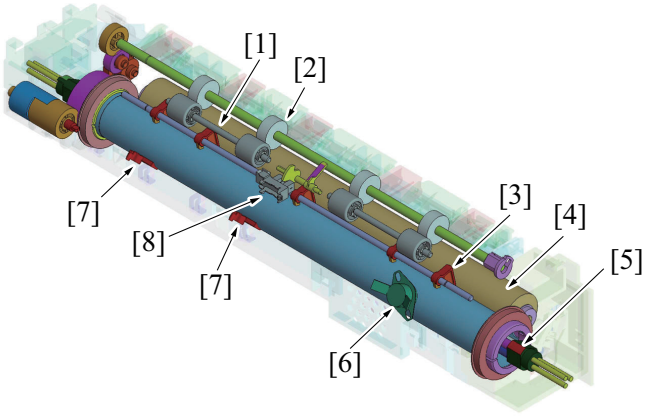
NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value
bizhub 42/36	3,921M

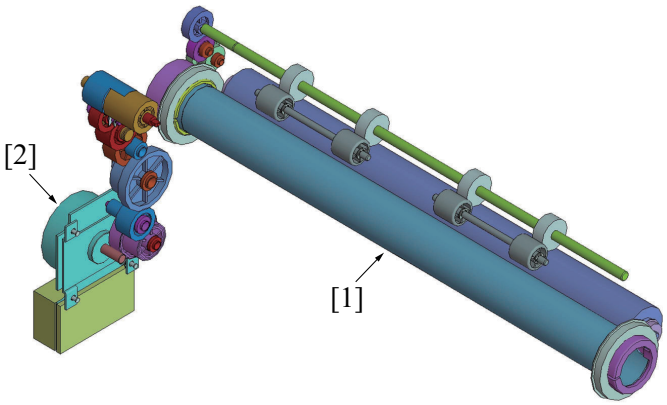
13. FUSING SECTION

13.1 Configuration



[1]	Paper transport roll	[2]	Paper transport roller
[3]	Fusing separation claw	[4]	Pressure roller
[5]	Heating roller fusing heater lamp (FH)	[6]	Heating roller thermostat (TS)
[7]	Heating roller thermistor (TH2)	[8]	Paper exit sensor (PS29)

13.2 Drive



[1]	Heating roller	[2]	Transport motor (M1)

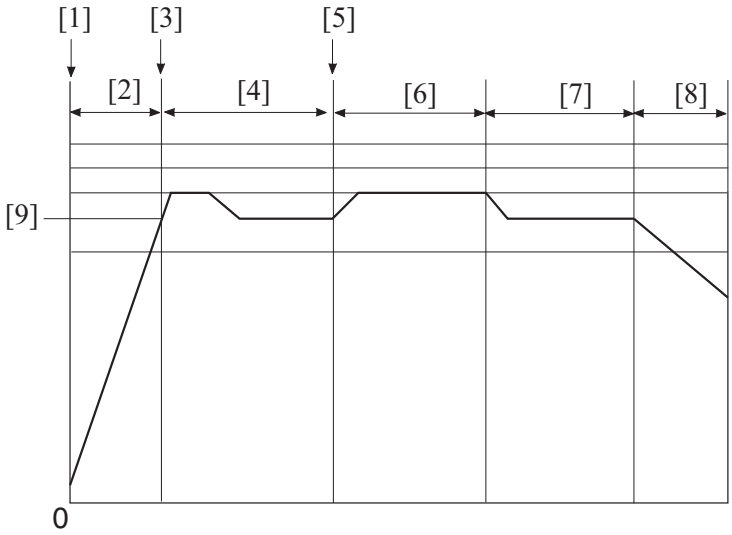
13.3 Operation

13.3.1 Fusing roller drive control

- Drive of the fusing unit is controlled by the transport motor.
- The transport motor drives the heating roller and the pressure roller is driven by the heating roller.

13.3.2 Fusing temperature control

- The surface temperature of the heating roller is detected using thermistors and the corresponding heater lamps are turned ON or OFF as necessary to maintain the set fusing temperature.



[1]	Power switch ON	[2]	During the warm-up cycle
[3]	Warm-up completed	[4]	In standby state
[5]	Print start command	[6]	During a print cycle
[7]	In standby state	[8]	Sleep mode
[9]	Warm-up complete temperature		

(1) Temperature control during warm-up

- Control is provided until the heating roller reaches the predetermined temperature.

(a) Control start timing

- The power switch is turned ON.
- The main body leaves the sleep mode.
- A door is closed.

(b) Control termination timing

- The heating roller reaches a predetermined temperature.
- A door is opened.

(2) Temperature control during stand-by

- Controlled so as to make the temperature of the heating roller suitable for printing. It is also controlled so as to shorten the period of time it takes the main body to enter the print mode.

(a) Control start timing

- At the end of the warm-up control
- At the end of a print cycle

(b) Control termination timing

- At the start of a print cycle
- A door is opened.
- A malfunction occur.

(3) Temperature control during printing

- The heating roller temperature is controlled according to the type of media and environmental conditions in order to achieve good fusing performance.

(a) Control start timing

- A print request is received.

(b) Control termination timing

- A malfunction or media misfeed occurs.
- A door is opened.
- At the end of a print cycle

(c) Print control temperatures

- The heating roller temperature is set according to the type of media, main body interior temperature (as measured by the temperature/ humidity sensor), and so on.

(4) Temperature control during sleep mode

- The heating roller fusing heater lamp is turned OFF during the sleep mode.

13.3.3 Protection from abnormal temperatures

(1) Heating roller thermistor protection (software)

- The heating roller thermistor is connected via a short-circuit connector. If a connection failure occurs in the heating roller thermistor as a result of the thermistor's not being connected via the short-circuit connector, a heater remote is cut off.
  If the above condition is detected, the machine displays the malfunction code representing a warm-up failure and prohibits the initiation of a new copy cycle. (This is an ordinary detection of a warm-up failure.)
- When the heating roller thermistor detects a predetermined temperature due to an abnormally high temperature as a result of a faulty triac or remote driver, the main body displays a malfunction code representing an abnormally high temperature and prohibits the initiation of a new copy cycle. (This is an ordinary detection of a malfunction of an abnormally high temperature.)

(2) Heating roller thermistor protection (hardware)

- A different protection is provided when the CPU overruns, becoming unable to detect the malfunction of an abnormally high temperature. If the heating roller thermistor detects a predetermined temperature, the heater relay of the power supply unit is turned OFF through the printer control board and the power supply to the heating roller fusing heater lamp is shut down. If the detected temperature thereafter decreases, the heater relay is turned ON again and supply of power to the heater lamp is resumed. The sequence of these operations is repeated until the CPU recovers from the overrun and becomes able to detect the malfunction of an abnormally high temperature. This control allows the power supply to the heater lamp to be shut down before the corresponding thermostat operates. It thereby suppresses damage to the fusing unit itself.

(3) Heating roller thermostat protection

- If detection of the abnormally high temperature is not possible due to a defective heating roller thermistor or for another other reason, the heating roller thermostat maybe the cause.
- Shut down the power supply to the heating roller fusing heater lamp. The heating roller thermostat is rated at the predetermined temperature. (Ordinary protection against abnormally high temperatures)

13.3.4 Paper feed wait control

- If Thick 1/2, User Paper Settings (Thick 1/2), postcards, envelopes, or letterhead is selected, the transport motor is deenergized at the start of the print cycle regardless of the paper size, thereby delaying the paper feed sequence three sec.
- The paper feed wait control is performed only for the first sheet of paper.

13.3.5 Paper-to-paper distance control

- Degraded fusing performance results due to a reduced temperature at the fusing section, if a continuous print cycle is run to produce printed pages on thick paper. To prevent this, a predetermined paper-to-paper distance is provided, thereby preventing the temperature of the fusing section from decreasing and maintaining an intended level of fusing performance.
- The paper-to-paper distance control is performed for the second and subsequent sheets of paper.
- The control is applicable to Thick 1/2.
- The control is enabled or disabled by so setting in“Service Mode / Printer Adjustment / Fusing Productivity Choice”.

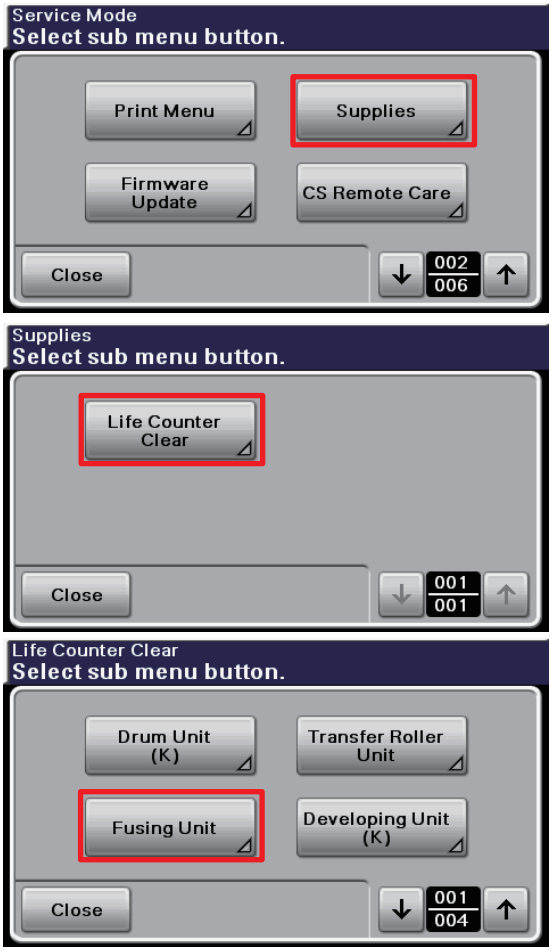
13.3.6 Curl prevention control

- Paper after the fusing process can be prevented from curling by delaying the paper feed sequence according to the type of the paper selected.
- Timing at which to execute the control can be changed using“Service Mode / Printer Adjustment / Print Interval Extension”.

13.3.7 Fusing unit new article detection

- No new article detection functions are provided. If the fusing unit is replaced with a new one, the fusing unit rotation time counter must be reset using “Service Mode / Supplies / Life Counter Clear / Fusing Unit.”

(1) Fusing unit rotation time counter



13.3.8 Fusing unit life detection

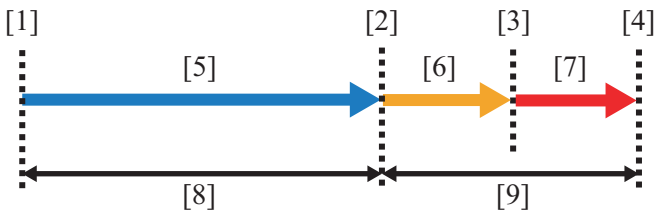
- The life counter of the fusing unit controls detection of life of the fusing unit.
- The counter value is recorded in the service EEPROM of the main body.

Controlled item	Counting unit
Fusing unit rotation time	M *

*: M represents a code that denotes the fusing unit rotation time.

(1) Fusing unit rotation time counter life determination

- If the counter value of fusing unit rotation time reaches the threshold, the machine determines that the fusing unit has reached a new state.

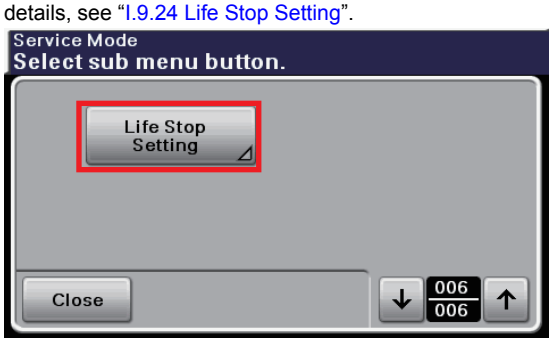


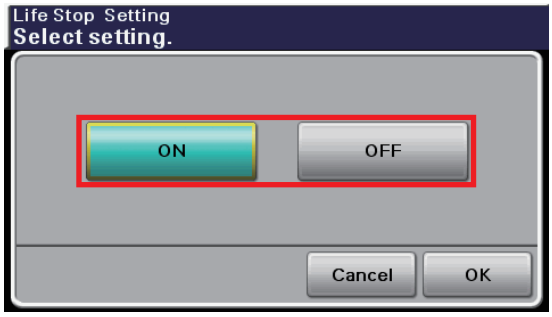
[1]	Fusing unit (new article)	[2]	Life threshold value
[3]	Alarm threshold value	[4]	Life stop threshold value
[5]	Normal display	[6]	Maintenance icon display (Replacement alarm display: Fusing unit rotation time excess)
[7]	Replacement alarm display	[8]	Image guaranteed range
[9]	Outside image guaranteed range		

(a) Fusing unit rotation time counter life criteria

State	Display	Criteria
Normal	Normal (print enabled: within image guaranteed range)	Less than the fusing unit rotation time threshold
Fusing unit rotation time excess (Reaching life)	Maintenance icon display (print enabled: outside image guaranteed range)	Equal to or more than the fusing unit rotation time threshold and less than the replacement alarm threshold
Replacement alarm	Replacement alarm display (print enabled: outside image guaranteed range)	Equal to or more than the fusing unit rotation time replacement alarm threshold and less than the life stop threshold
Life stop *	Life stop display (print prohibited)	Equal to or more than the fusing unit rotation time life stop threshold

*: Life stop may be disabled using “Service Mode / Life Stop Setting”; however, print image quality is not guaranteed in this case. For more details, see “I.9.24 Life Stop Setting”.

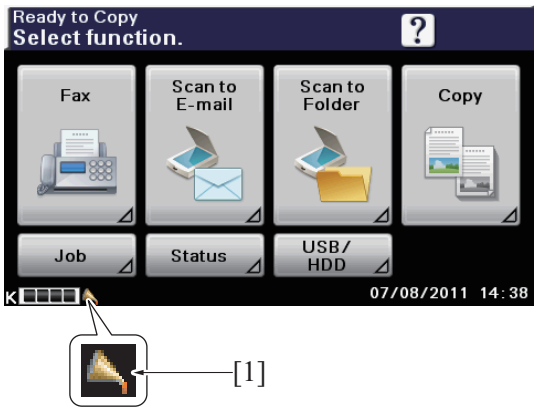




(2) Fusing unit life display

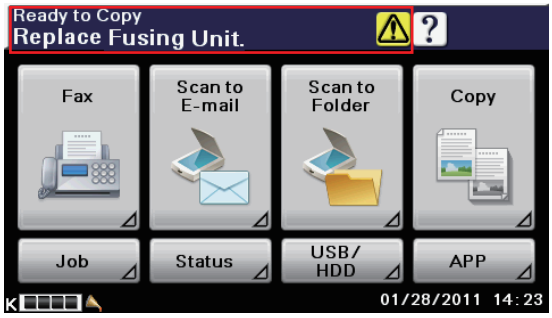
- The replacement alarm screen is displayed when the value of the fusing unit rotation time counter reaches the life threshold (print enabled, outside image guaranteed range).
- The maintenance icon is displayed when the value of the fusing unit rotation time counter reaches the fusing unit rotation time threshold (print enabled, outside image guaranteed range).
- The life stop screen is displayed when the value of the fusing unit rotation time counter reaches the life stop threshold (print prohibited).

(a) Maintenance icon display (typical)

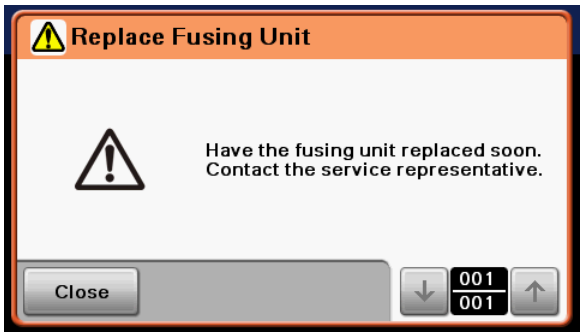


[1]	Maintenance icon

(b) Replacement alarm display (typical)



(c) Life stop display (typical)



13.3.9 Life value of fusing unit

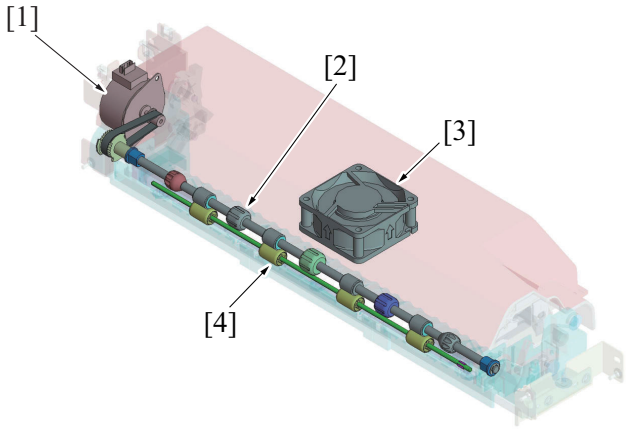
NOTE

- **The life of consumables varies depending on how the user uses the machine. For details, see "F.5.1 Life value of consumables and parts".**

Model	Life threshold value	Replacement alarm	Life stop
bizhub 42	14,800 M	15,800 M	16,440 M
bizhub 36	16,130 M	17,200 M	17,920 M

14. PAPER EXIT/SWITCHBACK SECTION

14.1 Configuration/Drive



[1]	Switchback motor (M6)	[2]	Paper exit/switchback roller
[3]	Fusing unit cooling fan motor (FM3)	[4]	Paper exit/switchback roll

14.2 Operation

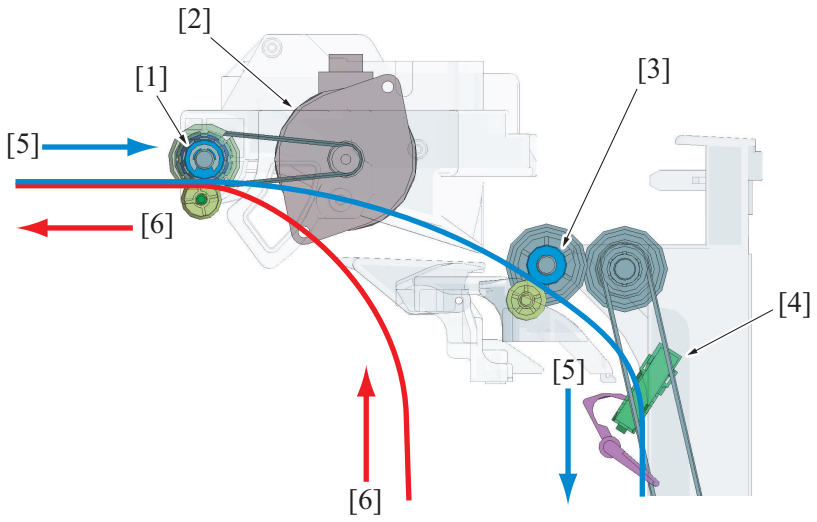
14.2.1 Transport control

(1) Paper transport path

- The paper exit/switchback roller is driven by the switchback motor.
- The duplex transport roller/1 is driven by the duplex transport motor.
- In 1-sided printing, the paper exit/switchback roller rotates forward and the paper transported from the fusing section is ejected onto the paper exit tray. In the second print cycle in 2-sided mode, the paper is ejected in the same manner.

(2) Duplex transport

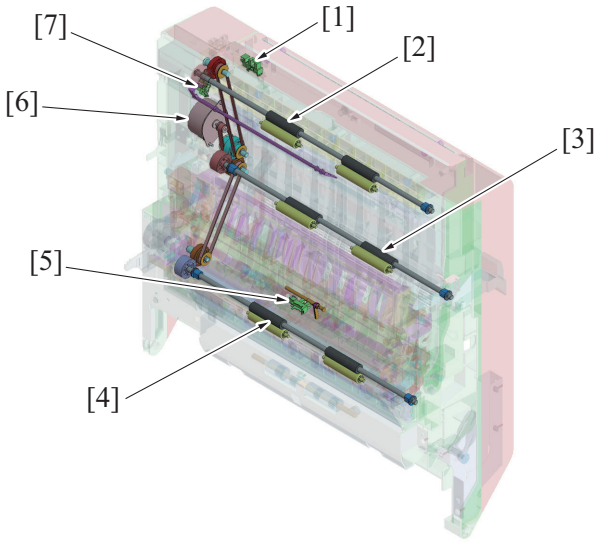
- In the first print cycle in 2-sided mode, the paper transported from the fusing section is transported to the paper exit direction. When the paper reaches a predetermined position, the paper exit/switchback roller rotates backward to convey the paper to the duplex transport roller/1. For details, see "O.15.2.1 Paper transport control" of the duplex section.



[1]	Paper exit/switchback roller	[2]	Switchback motor (M6)
[3]	Duplex transport roller/1	[4]	Duplex transport sensor/1 (PS27)
[5]	2-sided mode paper path	[6]	1-sided mode paper path

15. DUPLEX SECTION

15.1 Configuration/Drive

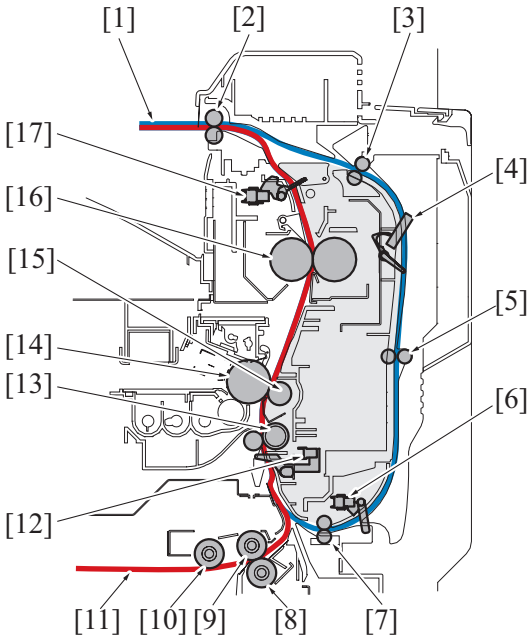


[1]	Duplex unit door sensor (PS26)	[2]	Duplex transport roller/1
[3]	Duplex transport roller/2	[4]	Duplex transport roller/3
[5]	Duplex transport sensor/2 (PS28)	[6]	Duplex transport motor (M7)
[7]	Duplex transport sensor/1 (PS27)		

15.2 Operation

15.2.1 Paper transport control

- Paper transported from the paper exit/switchback section is transported to the internal duplex section by the duplex transport roller/1.
- Paper is transported to the registration section by the duplex transport roller/2 and /3 to re-transport the paper.



[1]	2-sided mode paper path	[2]	Paper exit/switchback roller
[3]	Duplex transport roller/1	[4]	Duplex transport sensor/1 (PS27)
[5]	Duplex transport roller/2	[6]	Duplex transport sensor/2 (PS28)
[7]	Duplex transport roller/3	[8]	Tray 2 separation roller
[9]	Tray 2 paper feed roller	[10]	Tray 2 pick-up roller
[11]	1-sided mode paper path	[12]	Registration sensor (PS1)
[13]	Registration roller	[14]	Photo conductor
[15]	Image transfer roller	[16]	Fusing roller (Heating roller/Pressure roller)
[17]	Paper exit sensor (PS29)		

(1) Transport roller control

- The duplex transport roller/1, duplex transport roller/2 and duplex transport roller/3 are connected to duplex transport motor. When the duplex transport motor is energized, these rollers start rotating to transport paper.

(2) Paper entrance control

- The paper transported from the fusing section is temporarily fed in the paper exit direction. When the paper reaches a predetermined position, the switchback motor of the exit section is rotated backward. Then, the paper exit/switchback roller is rotated backward, so that the paper is fed to the duplex transport roller/1.
- When the paper reaches a predetermined position, the duplex transport motor of the duplex section is energized. The duplex transport roller/1 is then rotated to transport the paper fed from the paper exit section to the duplex transport roller/2.
- The duplex transport sensor/1 located upstream of the duplex transport roller/2 along the paper path detects the leading edge of the paper transported from the duplex transport roller/1.
- The paper is transported from the duplex transport roller/2 to the duplex transport roller/3.

(3) Duplex paper feed control

- The duplex transport sensor/2 located upstream of the duplex transport roller/3 along the paper path detects the leading edge of the paper transported from the duplex transport roller/2.
- When the leading edge of the paper moves past the duplex transport sensor/2 and reaches the specified position, the duplex transport motor is deenergized to stop the transport of the paper temporarily (re-feeding position).
- At predetermined paper feed timing, the duplex transport motor is energized to resume the transport of the paper.
- The paper is fed from the duplex transport roller/3 onto the registration roller at the vertical transport part.

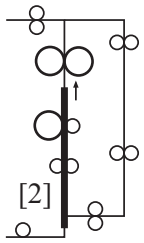
15.2.2 Duplex circulation control

- The duplex circulation control is performed differently based upon the length of the paper.

Paper length		Duplex circulation control
Lower limit	Upper limit	
Letter (215.9 mm)	Ledger (431.8 mm)	One-sheet circulation operation
B5 (182 mm)	Letter (215.9 mm)	Two-sheet circulation operation

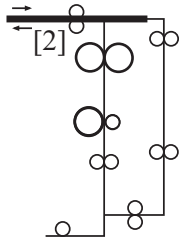
(1) One-sheet circulation operation

Operation 1



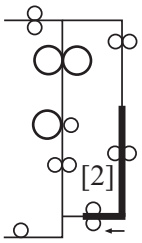
- The first sheet of paper is taken up and fed in from the main body drawer and the main body starts the first print cycle to produce the print image of the second page of the original [2].

Operation 2



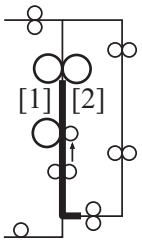
- The 1-sided print is transported to the paper exit/switchback section.
- When the paper reaches a predetermined position, the direction of rotation of the paper exit/switchback roller is changed and the 1-sided print is transported toward and into the duplex unit.

Operation 3



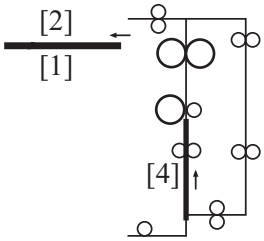
- The 1-sided print, which is being fed through the duplex section, is temporarily stopped at the re-transport position and then re-transported.

Operation 4



- The main body carries out the second print cycle to produce the print image of the first page of the original [1] on the other side of the 1-sided print.

Operation 5

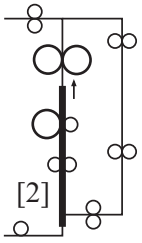


- The first 2-sided print is fed out to the exit section of the main body.
- At the same time that the first 2-sided print is fed out of the main body, the image of the fourth page of the original [4] is printed on the second sheet of paper.

- Steps 2 through 5 are repeated.

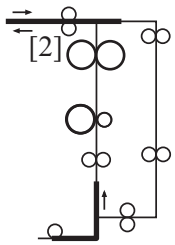
(2) Two-sheet circulation operation

Operation 1



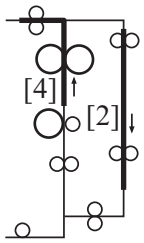
- The first sheet of paper is taken up and fed in from the main body drawer and the main body starts the first print cycle to produce the print image of the second page of the original [2].

Operation 2



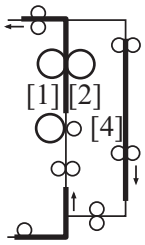
- The 1-sided print is transported to the paper exit/switchback section.
- When the paper reaches a predetermined position, the direction of rotation of the paper exit/switchback roller is changed and the 1-sided print is transported toward and into the duplex unit.
- At the same time that the 1-sided print is transported, the second sheet of paper is taken up and fed into the main body.

Operation 3



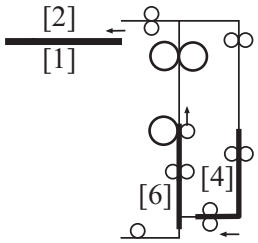
- The print image of the fourth page of the original is produced on the second sheet of paper [4] and the paper is transported to the paper exit/switchback section.
- At the same time, the first 1-sided print is transported through the duplex section.

Operation 4



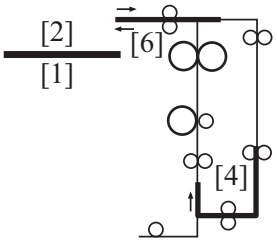
- The main body produces the print image of the first page of the original [1] on the first 1-sided print.
- At the same time that the image of the first page of the original is printed, the third sheet of paper is taken up and fed into the main body.
- The second 1-sided print is transported through the duplex section.

Operation 5



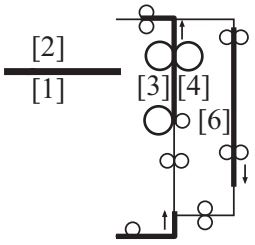
- While feeding the first 2-sided print out, main body produces the print image of the 6th page of the original [6] on the third sheet of paper.
- The second 1-sided print is stopped immediately after the duplex transport roller 3 and waits until the third sheet of paper undergoes the print process for printing the print image of the 6th page of the original.

Operation 6



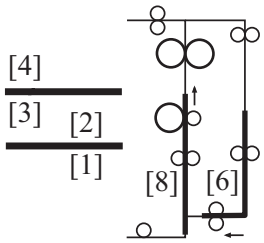
- The third 1-sided print is transported to the paper exit/switchback section.
- When the paper reaches a predetermined position, the direction of rotation of the paper exit/switchback roller is changed and the third 1-sided print is transported toward and into the duplex unit.
- At the same time, a sequence is started to re-feed the second 1-sided print that has been in the standby state in the duplex unit.

Operation 7



- The main body carries out the first print cycle for the second sheet of paper to produce the print image of the third page of the original [3].
- At the same time, the third 1-sided print is transported through the duplex section.
- At the same time, the forth sheet of paper is taken up and fed into the main body.

Operation 8

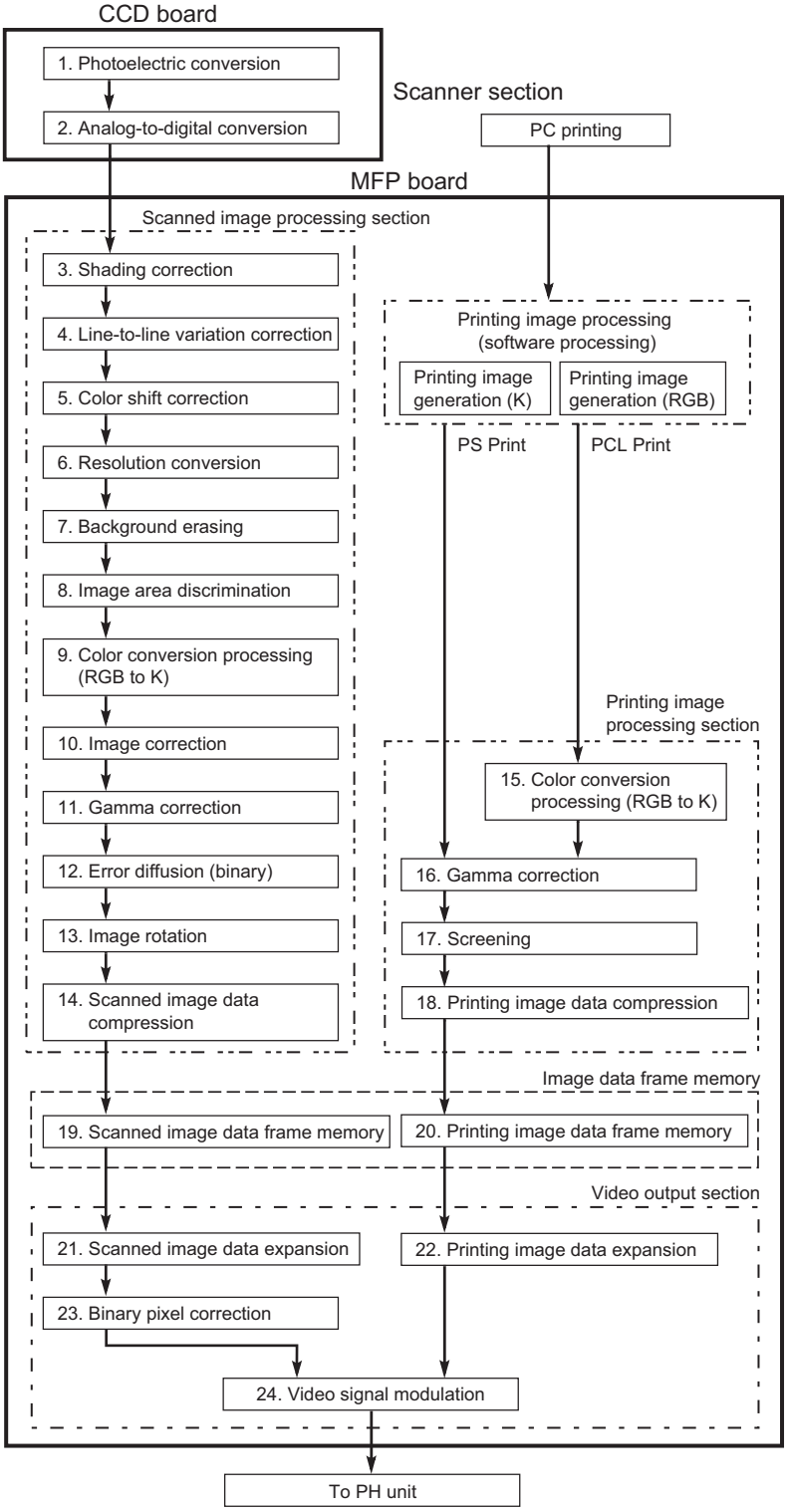


- Steps 6 through 8 are repeated.

- While feeding the second 2-sided print out, main body produces the print image of the 8th page of the original [8] on the fourth sheet of paper.
- The third 1-sided print is stopped immediately after the duplex transport roller 3 and waits until the fourth sheet of paper undergoes the print process for printing the print image of the 8th page of the original.

16. IMAGE PROCESSING

16.1 Configuration



16.2 Description

- The following detail the image processing operations performed.
  1. Photoelectric conversion
     A reduction type CCD sensor is used to read the light reflected off the original and convert the optical data to a corresponding electric signal.
  2. Analog-to-digital conversion
     The analog signals output from the CCD sensor chips are converted to 10-bit digital signals (1024 gradation levels).
  3. Shading correction
     Correct variations in image reading caused by pixel-to-pixel variations in sensitivity of the CCD sensor and uneven light distribution by the exposure lamp.
  4. Line-to-line variation correction
     To correct differences in the position of each chip of CCD sensors R, G, and B, to match the output timing.
  5. Color shift correction
     Corrected is minor color shift of R, G, and B that cannot be corrected by line-to-line variation correction.
  6. Resolution conversion
     Performed is resolution conversion (enlargement/reduction) in the main scanning and sub-scanning directions.
  7. Background erasing (manual setting)
     The background of the original is removed according to the setting made on the control panel.
  8. Image area discrimination
     Each of different image areas including color edges, black edges, and halftone dots is discriminated.
  9. Color conversion processing
     The RGB data of the scanned image is converted to corresponding K (black) density data.
  10. Image correction
      Image corrections are made, including improved character reproducibility and edge emphasis.
  11. Gamma correction
      The density of the input image data is corrected so that gradation of the printed image exhibits a linear characteristic.
  12. Error diffusion (binary)
      The error diffusion method is used to convert data into a corresponding black and white binary image according to the input image density.
  13. Image rotation
      The image is rotated to match the orientation of the printed output.
  14. Scanned image data compression
      The scanned image data is temporarily stored in buffer memory and then compressed.
  15. Color conversion processing
      The RGB data of the print image (PCL) is converted to corresponding K (black) density data.
  16. Gamma correction
      The density of the input image data is corrected so that gradation of the printed image exhibits a linear characteristic.
  17. Screening
      Edge correction is made at the same time that multi-valued dither processing is performed to achieve multi-gradation level reproduction.
  18. Printing image data compression
      Printing image data is compressed.
  19. Scanned image data frame memory
      The scanned image data to be printed is temporarily stored. The print image for received fax output is also temporarily stored in this memory.
  20. Printing image data frame memory
      The print image data to be printed is temporarily stored.
  21. Scanned image data expansion
      In time with the progress of print processes in the print engine, the scanned image data that has been compressed is read from the scanned image data frame memory and expanded.
  22. Printing image data expansion
      In time with the progress of print processes in the print engine, the print image data that has been compressed is read from the print image data frame memory and expanded.
  23. Binary pixel correction
      Binary pixels are converted to grayscale pixels according to the binary pixel array that has undergone the error diffusion method to thereby correct the width of lines that make up characters, line drawings, and ruled lines.
  24. Video signal modulation
      The digital multi-valued pixel data is converted to a corresponding PWM (pulse width modulated) laser emission (video) signal.

17. POWER SUPPLY SECTION

17.1 Parts energized when the main power switch is turned ON

17.1.1 Configuration

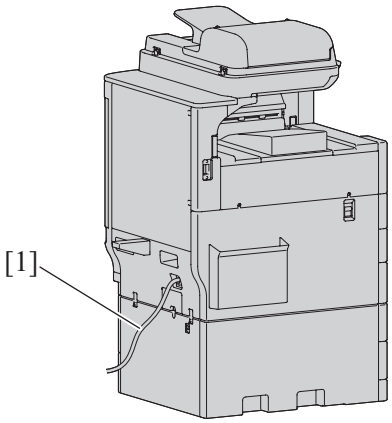
17.1.2 Operation

- When the main power switch is turned ON, power is supplied from the DC power supply unit to the following components.

Voltage	Power supplied to
24V	Printer control board, MFP board, Relay board/3
12V	Printer control board
5.1V	Printer control board, MFP board, Control panel, Relay board/3
3.3V	Printer control board

17.2 Power cables

17.2.1 Configuration



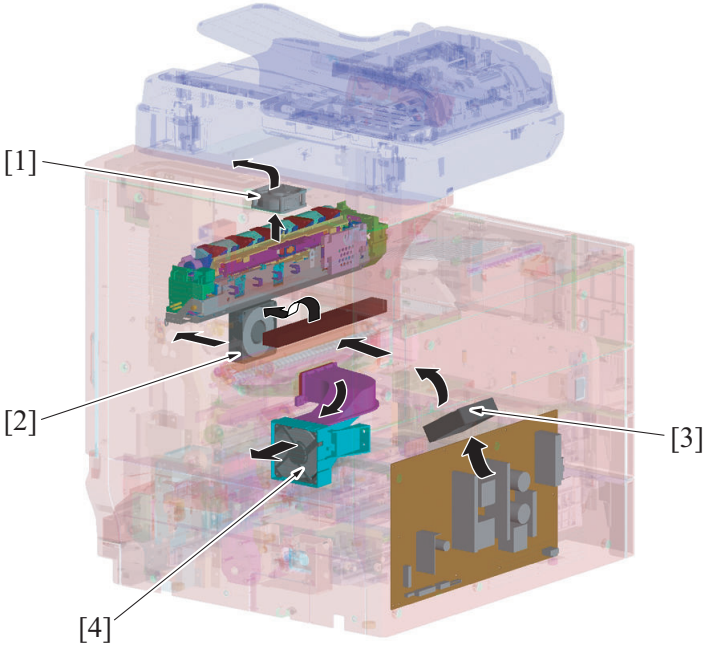
[1]	Power code

17.2.2 Operation

- The main body uses a single outlet.
  Power supply: 100V 15A, 110V 15A, 120V 12A, 127V 12A, 230V 7A

18. FAN CONTROL

18.1 Configuration



[1]	Fusing unit cooling fan motor (FM3)	[2]	Cooling fan motor (FM2)
[3]	Power supply cooling fan motor (FM1)	[4]	Toner suction fan motor (FM4)

18.2 Operation

18.2.1 Function

Motor name	Function (purpose)
Power supply cooling fan motor (FM1)	• Draws outside air into the inside of the machine to prevent the temperature of the DC power supply, PH section, and other parts from rising.
Cooling fan motor (FM2)	• A white belt may occur on the image because of the lower sensitivity of the photo conductor due to ozone accumulated around the photo conductor charge corona. In order to avoid this trouble, ozone filter removes the ozone inside the photo conductor charge corona to keep the sensitivity of the photo conductor. • Ozone accumulated the around photo conductor charge corona will be absorbed by ozone filter and be removed. • Discharges heat out of the main body to prevent the temperature of the toner bottle from rising.
Fusing unit cooling fan motor (FM3)	• Heat from the fusing unit is discharged out of the main body by the fusing unit cooling fan motor to thereby prevent the temperature at the fusing unit from rising.
Toner suction fan motor (FM4)	• Toner particles airborne in the imaging unit are drawn in adsorbed by the toner filter.

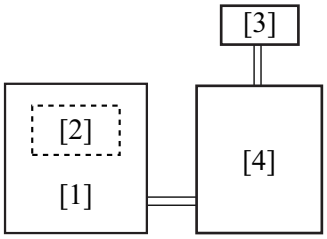
18.2.2 Control condition

Motor name	Control	Control conditions
Power supply cooling fan motor (FM1)	ON	• The transport motor remains energized
	OFF	• The transport motor remains deenergized
Cooling fan motor (FM2)	ON (high speed)	• During a predetermined period of time after the completion of a warm-up cycle • When printing
	ON (medium speed)	• An open door is detected during a print cycle • In a state not corresponding to ON (high speed) or OFF conditions • A fusing-related malfunction occurs
	OFF	• During a warm-up cycle • A malfunction not associated with fusing occurs • When the door is open
Fusing unit cooling fan motor (FM3)	ON	• During a predetermined period of time after the completion of a warm-up cycle • When printing
	OFF	• In a state not corresponding to ON conditions

Motor name	Control	Control conditions
Toner suction fan motor (FM4)	ON	• The PC motor remains energized
	OFF	• The PC motor remains deenergized

19. COUNTER INFORMATION

19.1 Configuration



[1]	MFP board (MFPB)	[2]	Electronic counter
[3]	Total counter	[4]	Printer control board (PRCB)

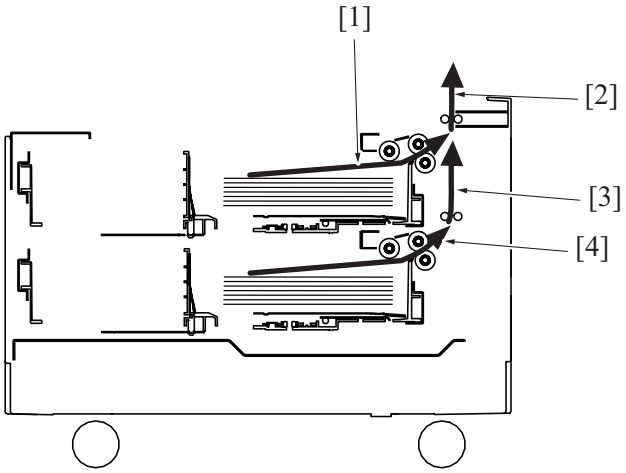
Name	Function
Total counter	• Shows the cumulative number of copies made in all copy and print modes • A mechanical counter driven by an electric signal • Counts one when an exit signal is applied to it
Electronic counter	• Shows the cumulative number of copies made or printed pages produced in each of different copy or print modes • Counts one when an exit signal is applied to it

NOTE

- **The counting modes can be selected at [billing setting] of service mode.**
  For details, see [I.10.3 Count Setting].

PA THEORY OF OPERATION PC-211 (TRAY 4/TRAY 5)

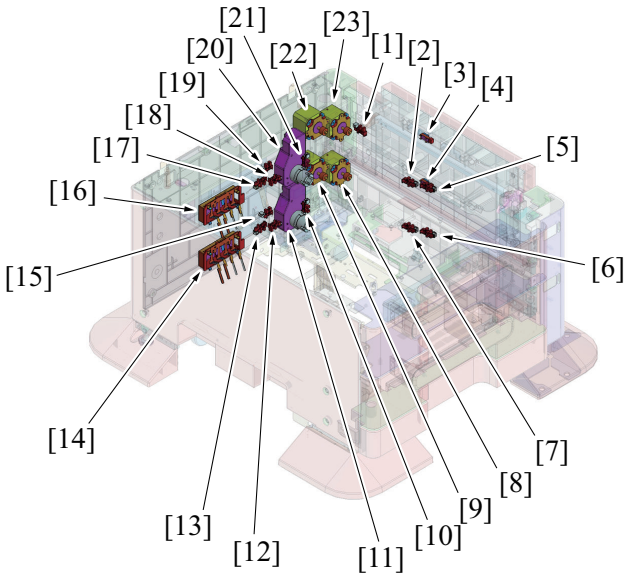
1. PAPER FEED PATH



[1]	Paper feed from the tray 4	[2]	Transportation to main body
[3]	Transportation in PC	[4]	Paper feed from the tray 5

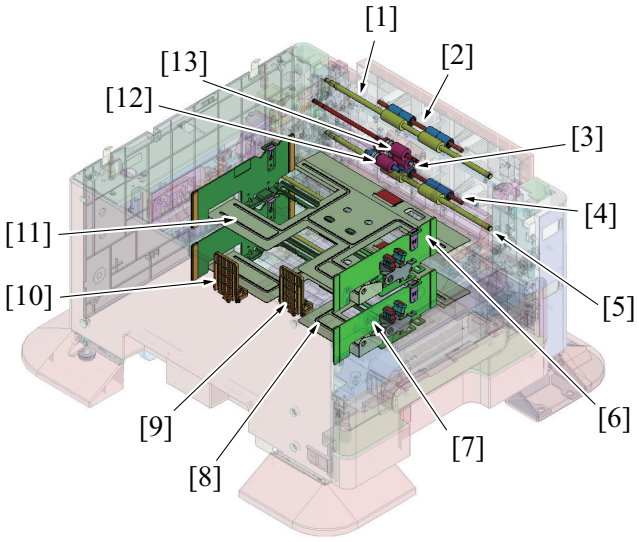
2. CONFIGURATION

2.1 Electrical parts configuration



[1]	Right lower door sensor (PS31)	[2]	Tray 4 upper limit sensor (PS43)
[3]	Tray 4 vertical transport sensor (PS45)	[4]	Tray 5 vertical transport sensor (PS55)
[5]	Tray 4 paper empty sensor (PS44)	[6]	Tray 5 paper empty sensor (PS54)
[7]	Tray 5 upper limit sensor (PS53)	[8]	Tray 5 vertical transport motor (M52)
[9]	Tray 5 paper feed motor (M51)	[10]	Tray 5 paper near empty sensor (PS52)
[11]	Tray 5 lift-up motor (M53)	[12]	Tray 5 paper CD size sensor/1 (PS56)
[13]	Tray 5 paper CD size sensor/2 (PS57)	[14]	Tray 5 paper FD sensor board (PSDTB5)
[15]	Tray 5 set sensor (PS51)	[16]	Tray 4 paper FD sensor board (PSDTB4)
[17]	Tray 4 paper CD size sensor/2 (PS47)	[18]	Tray 4 paper CD size sensor/1 (PS46)
[19]	Tray 4 set sensor (PS41)	[20]	Tray 4 lift-up motor (M43)
[21]	Tray 4 paper near empty sensor (PS42)	[22]	Tray 4 paper feed motor (M41)
[23]	Tray 4 vertical transport motor (M42)		

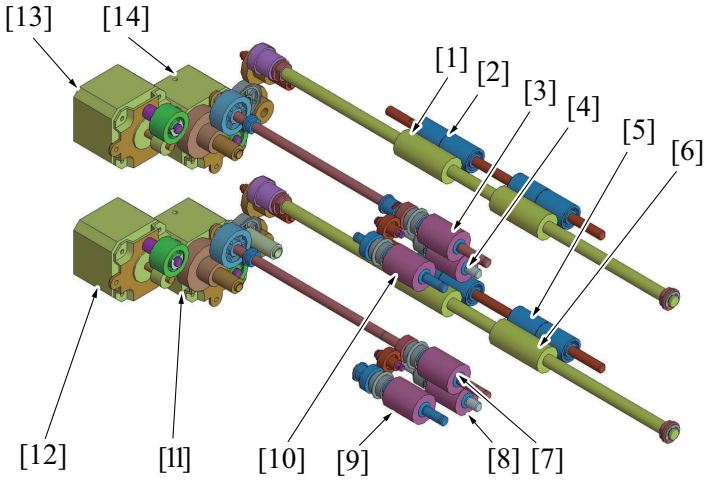
2.2 Mechanical parts configuration



[1]	Tray 4 vertical transport roller	[2]	Tray 4 vertical transport roll
[3]	Tray 4 separation roller *	[4]	Tray 5 vertical transport roll
[5]	Tray 5 vertical transport roller	[6]	Tray 4 paper guide (CD)
[7]	Tray 5 paper guide (CD)	[8]	Tray 5 paper lift-up plate
[9]	Tray 5 paper guide (FD)	[10]	Tray 4 paper guide (FD)
[11]	Tray 4 paper lift-up plate	[12]	Tray 4 pick-up roller *
[13]	Tray 4 paper feed roller *		

*: The paper feed roller is arranged in the same way in tray 4 and tray 5. If the description that follows is not identified with tray 4 or tray 5, it is applicable to both tray 4 and tray 5 in terms of mechanism and control.

3. DRIVE



[1]	Tray 4 vertical transport roller	[2]	Tray 4 vertical transport roll
[3]	Tray 4 paper feed roller	[4]	Tray 4 separation roller
[5]	Tray 5 vertical transport roll	[6]	Tray 5 vertical transport roller
[7]	Tray 5 paper feed roller	[8]	Tray 5 separation roller
[9]	Tray 5 pick-up roller	[10]	Tray 4 pick-up roller
[11]	Tray 5 vertical transport motor (M52)	[12]	Tray 5 paper feed motor (M51)
[13]	Tray 4 paper feed motor (M41)	[14]	Tray 4 vertical transport motor (M42)

- The drive parts are arranged in the same way in tray 4 and tray 5. If the description that follows is not identified with tray 4 or tray 5, it is applicable to both tray 4 and tray 5 in terms of mechanism and control.
- The paper feed motor of each paper feed tray drive the tray 4 and tray 5 paper feed roller section.
- The vertical transport motor of each paper feed tray drive the tray 4 and tray 5 vertical transport roller section.

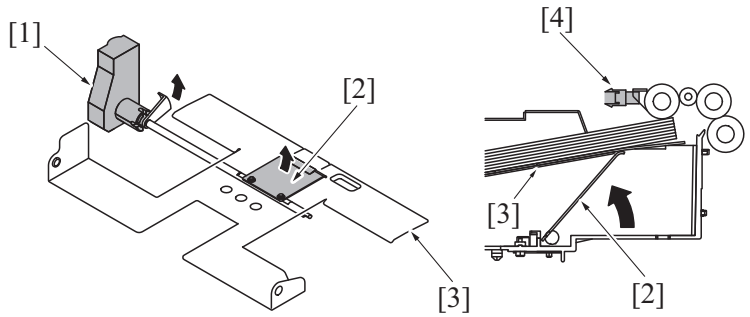
4. OPERATION

4.1 Up/down control

- The tray 4 and tray 5 are controlled in the same control procedure.

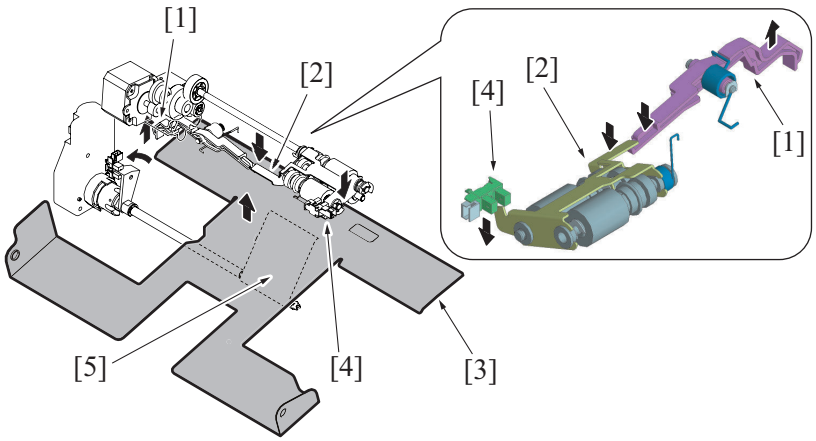
4.1.1 Up operation

- The paper lift-up plate B is located under the paper lift-up plate A.
- The lift-up plate drive shaft of the lift-up motor is connected to the paper lift-up plate B.
- When the drive shaft of the lift-up motor rotates, the paper lift-up plate B raises the paper lift-up plate A.



[1]	Lift-up motor (M43/M53)	[2]	Paper lift-up plate B
[3]	Paper lift-up plate A	[4]	Upper limit sensor (PS43/PS53)

(1) Upper position

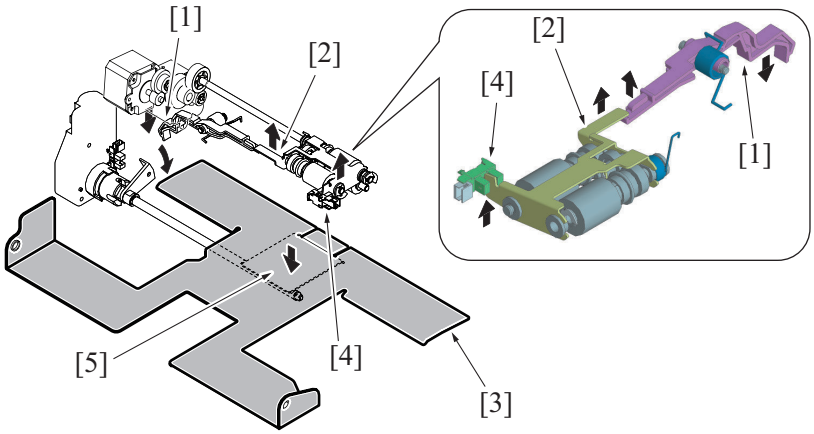


[1]	Actuator of upper limit sensor (Close paper feed tray)	[2]	Light blocking plate of upper limit sensor (Lower position: unblocked)
[3]	Paper lift-up plate A (Upper position)	[4]	Upper limit sensor (PS43/PS53) (Unblocked)
[5]	Paper lift-up plate B (Upper position)		

4.1.2 Down operation

- When the paper feed tray is slid out of the machine, the coupling of the lift-up motor and the lift-up plate drive shaft are disconnected from each other.
- When the driving force of the lift-up motor is released from the lift-up plate drive shaft, the paper lift-up plate starts lowering by its own weight.

(1) Down position

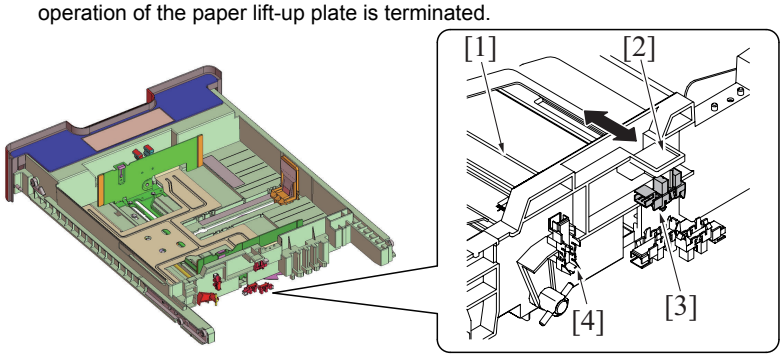


[1]	Actuator of upper limit sensor (Open paper feed tray)	[2]	Light blocking plate of upper limit sensor (Upper position: Blocked)
[3]	Paper lift-up plate A (Lower position)	[4]	Upper limit sensor (PS43/PS53) (Blocked)
[5]	Paper lift-up plate B (Lower position)		

4.1.3 Operation timing

(1) When the paper feed tray is slid in

- When the paper feed tray is slid into the machine, the tray set sensor is blocked. The machine then determines that the paper feed tray is slid into position.
- When the paper feed tray is slid in, the front side of the upper limit sensor actuator is placed in the lower position and the upper limit sensor light blocking plate is also placed in the lower position, so that the upper limit sensor is unblocked.
- Determining that the upper limit sensor is unblocked, the machine then lets the lift-up motor rotate to start the up operation of the paper lift-up plate.
- When the paper stack is raised to a predetermined height after the up operation of the paper lift-up plate has been started, the upper limit sensor is blocked.
- Determining that the upper limit sensor is blocked, the machine stops the lift-up motor to complete the up operation of the paper lift-up plate.
- Control is provided to make sure that only one paper feed tray performs the up operation at one time.
- If the paper feed tray is slid out during the up operation of the paper lift-up plate and accordingly the tray set sensor is unblocked, the up operation of the paper lift-up plate is terminated.



[1]	Paper feed tray	[2]	Light blocking plate of tray set sensor
[3]	Tray set sensor (PS41/PS51)	[4]	Paper near empty sensor (PS42/PS52)

(2) During a print cycle

- When the machine keeps printing and the amount of paper decreases, the pick-up roller will gradually come down to unblock the upper limit sensor. The lift-up motor will rotate again to lift up the paper lift-up plate.
- When the upper limit sensor is blocked, the lift-up motor will stop to complete the up operation of the paper lift-up plate.
- The sequence of these operations is repeated to keep the constant pressure (paper take-up pressure) between the pick-up roller and the paper stack regardless of the amount of paper still available for use.

4.2 Paper feed control

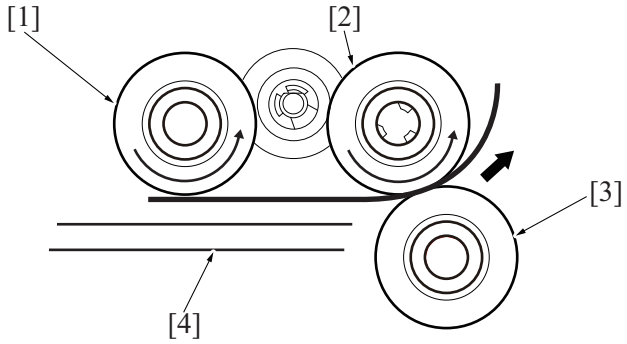
- The tray 4 and tray 5 are controlled in the same control procedure.

4.2.1 Pick-up control

- The paper feed motor is energized after the lapse of a predetermined period of time after the print start signal.
- The driving force of the paper feed motor is transmitted to the pick-up roller and paper feed roller. These rollers rotate to pick up and feed a sheet of paper into the machine.

4.2.2 Separation control

- The separation roller is pressed up against, and driven by, the paper feed roller. A torque limiter is mounted on the shaft of the separation roller.
- The acting pressure of the paper feed roller/separation roller/torque limiter serves as the limit torque for preventing double feed.
- When there is no sheet of paper or only one sheet of paper between the separation roller and the paper feed roller, the limit torque is exceeded and the separation roller follows the rotation of the paper feed roller.
- If there are two or more sheets of paper between the separation roller and paper feed roller, the limit torque is greater than the friction force of the paper, so that the separation roller stops rotating.
- Because of the stationary separation roller, the lower sheet of paper in contact with the separation roller is not fed in, so that the first sheet of paper is properly separated from the second sheet of paper.



[1]	Pick-up roller	[2]	Paper feed roller
[3]	Separation roller	[4]	Paper

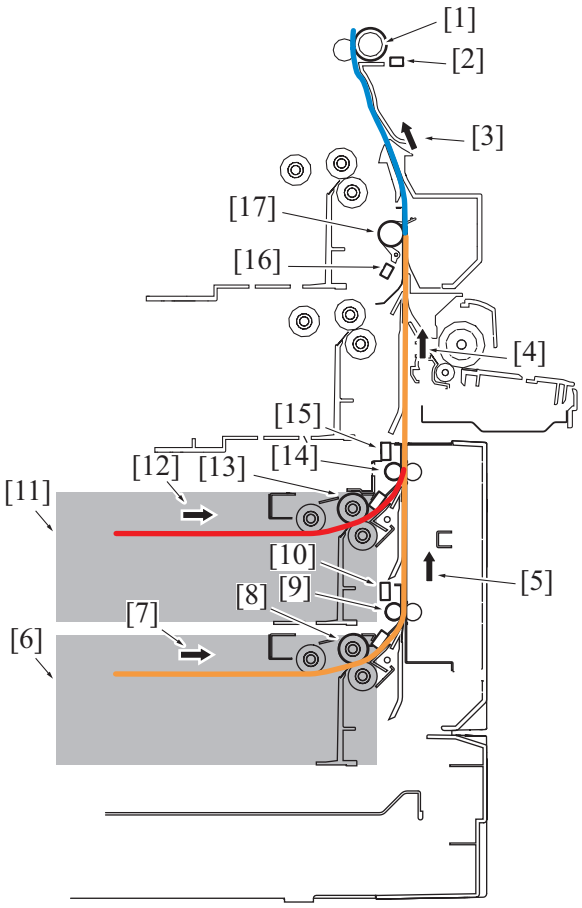
4.2.3 Paper feed retry control

- If the specified sensor is unable to detect the paper even after the lapse of a predetermined period of time after the start of the paper feed sequence, the machine determines that there is a paper misfeed. The paper feed sequence is repeated a second time if a paper misfeed is detected in a print job. A paper misfeed results if the specified sensor is still unable to detect the paper even after the paper feed retry sequence. The machine then determines that there is a paper misfeed.

Paper port	Sensor name
Tray 4 (Option: PC-211)	Tray 4 vertical transport sensor (PS45)
Tray 5 (Option: PC-211)	Tray 5 vertical transport sensor (PS55)

4.2.4 Paper feed control

(1) Paper transport path



[1]	Registration roller	[2]	Registration sensor (PS1)
[3]	Paper transport to registration section	[4]	Paper transport in tray 3 vertical transport section
[5]	Paper transport in tray 4 vertical transport section	[6]	Tray 5
[7]	Paper transport from tray 5	[8]	Tray 5 paper feed roller
[9]	Tray 5 vertical transport roller	[10]	Tray 5 vertical transport sensor (PS55)
[11]	Tray 4	[12]	Paper transport from tray 4
[13]	Tray 4 paper feed roller	[14]	Tray 4 vertical transport roller
[15]	Tray 4 vertical transport sensor (PS45)	[16]	Tray 3 vertical transport sensor (PS18)
[17]	Tray 3 vertical transport roller		

(2) Tray 4

- The tray 4 paper feed roller feeds the paper onto the tray 4 vertical transport roller.
- The tray 4 vertical transport sensor located downstream of the tray 4 vertical transport roller detects the paper fed from the tray 4 paper feed roller.
- The tray 4 vertical transport roller feeds the paper onto the tray 3 vertical transport roller.
- The tray 3 vertical transport sensor located upstream of the tray 3 vertical transport roller detects the paper fed from the tray 4 vertical transport roller.
- The tray 3 vertical transport roller feeds the paper onto the registration roller.
- The registration sensor located upstream of the registration roller detects the paper fed from the tray 3 vertical transport roller.
- When the paper fed from the tray 4 paper feed roller moves past the tray 4 vertical transport roller and reaches a predetermined position, the tray 4 paper feed motor is deenergized to disconnect the driving force. The tray 4 pick-up roller and tray 4 paper feed roller follow the movement of the paper, continuing rotating. The tray 4 pick-up roller and tray 4 paper feed roller stop rotating as soon as the paper moves past them.
- If the tray 4 vertical transport sensor is unable to detect the paper even after the lapse of a predetermined period of time, the machine determines that there is a paper misfeed. The paper feed sequence is repeated a second time, if a paper misfeed is detected (paper feed retry control). If the tray 4 vertical transport sensor is still unable to detect the paper, the machine determines that there is a paper misfeed at tray 4 and displays the message of “Misfeed Detected” on the control panel.
- If the tray 3 vertical transport sensor is unable to detect the paper even after the lapse of a predetermined period of time at the leading edge of the paper has moved past the tray 4 vertical transport sensor, the machine determines that there is a paper misfeed at the tray 4 vertical transport section and displays the message of “Misfeed Detected” on the control panel. For details of paper misfeed detection conditions, see “TROUBLESHOOTING / JAM DISPLAY / List of the JAM display”.

(3) Tray 5

- The tray 5 paper feed roller feeds the paper onto the tray 5 vertical transport roller.
- The tray 5 vertical transport sensor located downstream of the tray 5 vertical transport roller detects the paper fed from the tray 5 paper feed roller.
- The tray 5 vertical transport roller feeds the paper onto the tray 4 vertical transport roller.
- The tray 4 vertical transport sensor located downstream of the tray 4 vertical transport roller detects the paper fed from the tray 5 vertical transport roller.
- The tray 4 vertical transport roller feeds the paper onto the tray 3 vertical transport roller.
- The tray 3 vertical transport sensor located upstream of the tray 3 vertical transport roller detects the paper fed from the tray 4 vertical transport roller.
- The tray 3 vertical transport roller feeds the paper onto the registration roller.
- The registration sensor located upstream of the registration roller detects the paper fed from the tray 3 vertical transport roller.
- When the tray 5 vertical transport sensor disposed downstream of the tray 5 vertical transport roller on the paper feed path detects the leading edge of the paper fed from the tray 5 paper feed roller, the tray 5 paper feed motor is deenergized to disconnect the driving force. The tray 5 pick-up roller and tray 5 paper feed roller follow the movement of the paper, continuing rotating. The tray 5 pick-up roller and tray 5 paper feed roller stop rotating as soon as the paper moves past them.
- When the paper fed from the tray 5 paper feed roller moves past the tray 5 vertical transport roller and reaches a predetermined position, the tray 5 paper feed motor is deenergized to disconnect the driving force. The tray 5 pick-up roller and tray 5 paper feed roller follow the movement of the paper, continuing rotating. The tray 5 pick-up roller and tray 5 paper feed roller stop rotating as soon as the paper moves past them.
- If the tray 5 vertical transport sensor is unable to detect the paper even after the lapse of a predetermined period of time, the machine determines that there is a paper misfeed. The paper feed sequence is repeated a second time, if a paper misfeed is detected (paper feed retry control). If the tray 5 vertical transport sensor is still unable to detect the paper, the machine determines that there is a paper misfeed at tray 5 and displays the message of “Misfeed Detected” on the control panel.
- If the tray 4 vertical transport sensor is unable to detect the paper even after the lapse of a predetermined period of time at the leading edge of the paper has moved past the tray 5 vertical transport sensor, the machine determines that there is a paper misfeed at the tray 5 vertical transport section and displays the message of “Misfeed Detected” on the control panel.
- If the tray 3 vertical transport sensor is unable to detect the paper even after the lapse of a predetermined period of time at the leading edge of the paper has moved past the tray 4 vertical transport sensor, the machine determines that there is a paper misfeed at the tray 4 vertical transport section and displays the message of “Misfeed Detected” on the control panel.
- For details of paper misfeed detection conditions, see “TROUBLESHOOTING / JAM DISPLAY / List of the JAM display”.

4.2.5 Paper misfeed display

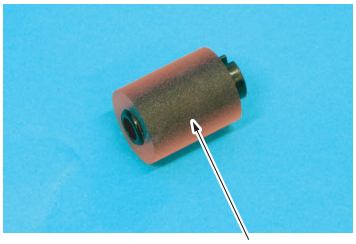
(1) Tray 4/5 (typical)

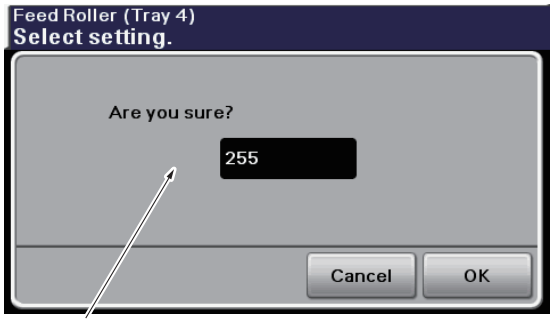
4.2.6 Periodically replaced parts

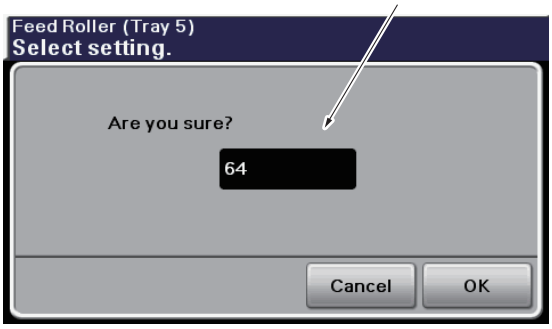
- The pick-up roller, paper feed roller, and separation roller are periodically replaced parts. Upon replacement, when one roller is replaced, all others should be replaced at the same time.
- These rollers are NOT provided with a new article detection mechanism. When they are replaced with new rollers, the paper feed roller (tray 4) or paper feed roller (tray 5) counter must be reset to zero using “Service Mode / Supplies / Life Counter Clear”.
- The number of times tray 4/tray 5 has been subjected to paper feed operations can be checked with the paper feed roller counter of the Service Mode.

Periodical replacement cycle	Paper feed operations 300,000 times

- For details of the applicable replacement procedures for the pick-up roller, paper feed roller, and separation roller and the Service Mode, see “F.7.1.3 Replacing the pick-up roller”, “F.7.1.2 Replacing the feed roller” and “F.7.1.1 Replacing the separation roller”.







[1]	Paper feed roller/Pick-up roller/Separation roller	[2]	Service Mode/Counter clear screen (Tray 4)
[3]	Service Mode/Counter clear screen (Tray 5)		

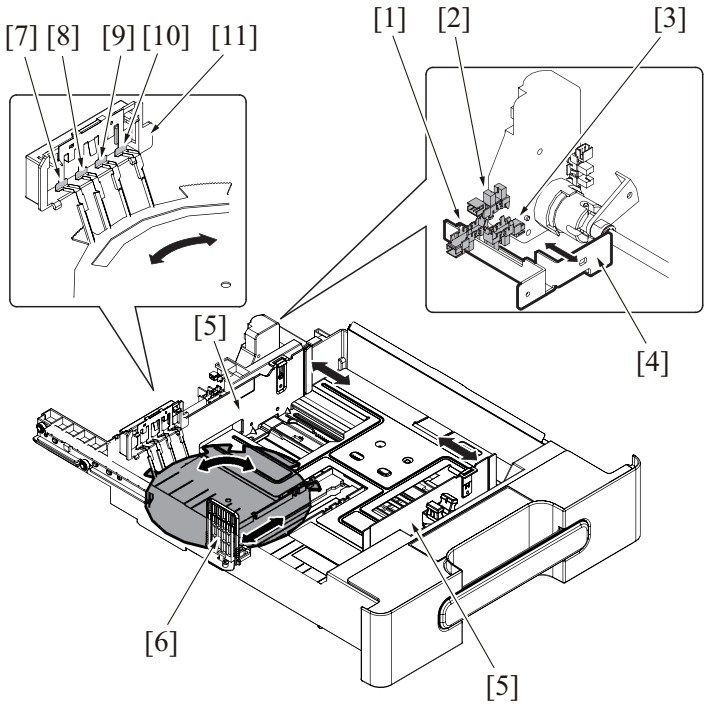
4.3 Paper size detection control

4.3.1 Main scanning direction

- The size in the main scanning direction is detected based on the combination of paper CD size sensor/1 and paper CD size sensor/2 being unblocked or blocked.
- The paper CD size sensor/1 and paper CD size sensor/2 are unblocked or blocked by the paper width detection plate which is provided in the paper width guide plate.

4.3.2 Sub scanning direction

- The size in the sub scanning direction is detected based on the combination of ON or OFF position of switches 1 to 4 mounted on the paper FD sensor board.
- Each of switches 1 to 4 is turned ON or OFF by the paper length detection plate connected to the paper length guide plate.



[1]	paper CD size sensor/2 (PS47/PS57)	[2]	Tray set sensor (PS41/PS51)
[3]	paper CD size sensor/1 (PS46/PS56)	[4]	Detection plate
[5]	Paper guide (CD)	[6]	Paper guide (FD)
[7]	Switch 4 (SW4)	[8]	Switch 3 (SW3)
[9]	Switch 2 (SW2)	[10]	Switch 1 (SW1)
[11]	Paper FD sensor board (PSDTB4/PSDTB5)		

4.3.3 Paper size determination

- Combination of the width of the main scanning and the length of the sub scanning will decide a paper size.

Paper size	Paper FD sensor board				Paper CD size sensor/ 1	Paper CD size sensor/ 2
	SW1	SW2	SW3	SW4		
A4	ON/OFF	ON	ON	ON	Blocked	Unblocked
B5	OFF	OFF	ON	ON	Blocked	Unblocked
A5S	ON/OFF	ON	ON	ON	Unblocked	Unblocked
Legal (8 $^1/_2$ × 14)	OFF	OFF	OFF	ON	Unblocked	Unblocked
Letter S (8 $^1/_2$ × 11)	OFF	ON	ON	OFF	Unblocked	Unblocked
Letter (8 $^1/_2$ × 11)	ON	ON	ON	ON	Blocked	Blocked
Foolscap S (8 × 13) *	OFF	OFF	OFF	OFF	Unblocked	Unblocked
16K (270 mm × 195 mm)	OFF	ON	ON	ON	Blocked	Blocked

*: One of the following paper sizes can be selected to be set for Foolscap. 8 × 13, 8 1/4 × 13, 8 1/2 × 13, 8 1/2 × 13 1/2

Switch/sensor states

Switch/sensor	Physical state	
	HIGH signal	LOW signal
Paper FD sensor board: Switches 1 to 4	OFF	ON
Tray 4 paper CD size sensor/1, 2	Blocked	Unblocked
Tray 5 paper CD size sensor/1, 2		

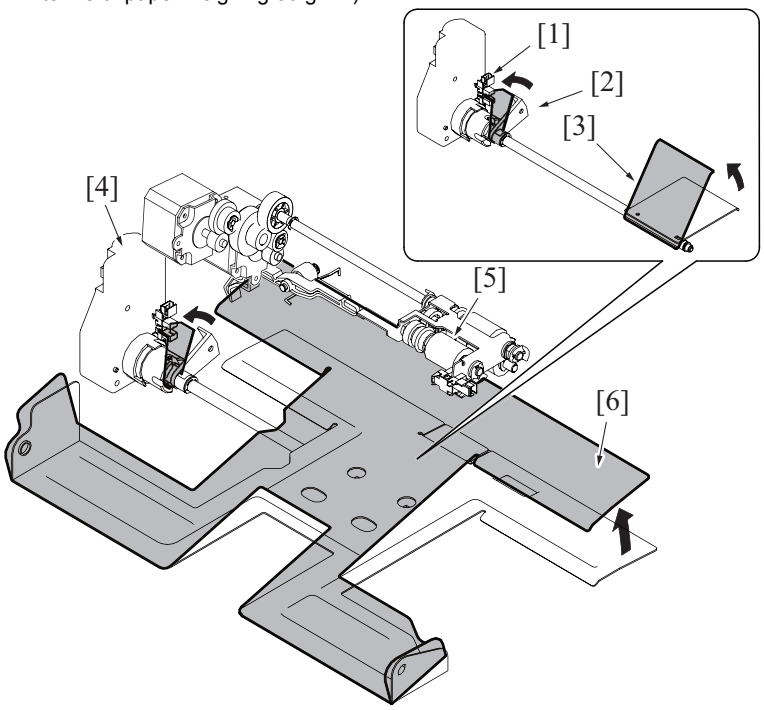
4.4 Paper level detection control

- The paper level detection control is performed under any of the following conditions:
  “Tray 4/tray 5 is closed in position”
  “The up/down control of the paper lift-up plate is completed”

4.4.1 Paper near-empty detection

- The paper near empty sensor detects a paper near-empty condition of the paper feed tray.
- As paper is consumed, the position of the near empty detection actuator provided at the lift-up plate drive shaft of the lift-up motor is raised.
- When the near empty detection actuator is raised to a position at which the paper near empty sensor is blocked, the machine detects a near-empty condition.

- A near-empty condition is detected when the amount of paper still available for use becomes about 50 ± 30 sheets (about 50 sheets in terms of paper weighing 80 g/m^2).

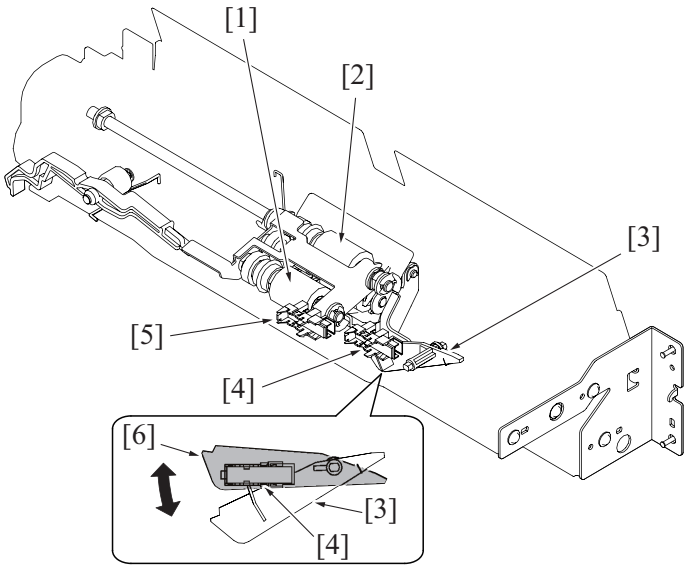


[1]	Paper near empty sensor (PS42/PS52)	[2]	Actuator
[3]	Paper lift-up plate B (upper position)	[4]	Lift-up motor (M43/M53)
[5]	Pick-up roller	[6]	Paper lift-up plate A (upper position)

4.4.2 Paper empty detection

- The tray 4 and tray 5 use the same control system to detect a paper empty condition.
- A paper empty condition is detected by the tray set sensor, upper limit sensor, and paper empty sensor.
- Based on the combination of detection signals from each of the sensors, a paper empty condition is detected.

Sensor	Paper empty
Paper empty sensor	Unblocked
Tray set sensor	Blocked
Upper limit sensor	Unblocked



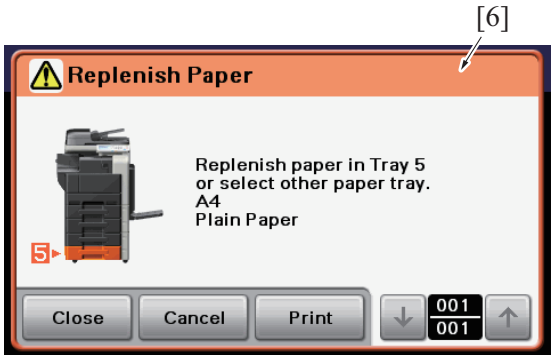
[1]	Pick-up roller	[2]	Paper feed roller
[3]	Paper empty detection plate (Lower position: paper empty)	[4]	Paper empty sensor (PS44/PS54)
[5]	Upper limit sensor (PS43/PS53)	[6]	Paper empty detection plate (Upper position: paper remaining)

4.4.3 Paper level display

- The paper level is indicated by the LED on the right side of each paper feed tray and by the screen of the control panel. (The control panel display is given only for a paper empty condition.)
- The following shows how the paper level is displayed.

Paper feed tray condition	Empty	Near empty	Other statuses (Including during lift-up and no paper feed tray conditions)
LED	ON	Blinking *	OFF

*: The LED turns OFF when Machine State LED Setting is set to Type 2: Service Mode/System Settings/Machine State LED Setting.



[1]	Tray 2 LED board (LEDB1)	[2]	Tray 3 LED board (LEDB2)
[3]	Tray 4 LED board (LEDB4)	[4]	Tray 5 LED board (LEDB5)
[5]	Paper empty display (Tray 4)	[6]	Paper empty display (Tray 5)

4.5 Paper feed tray locking mechanism

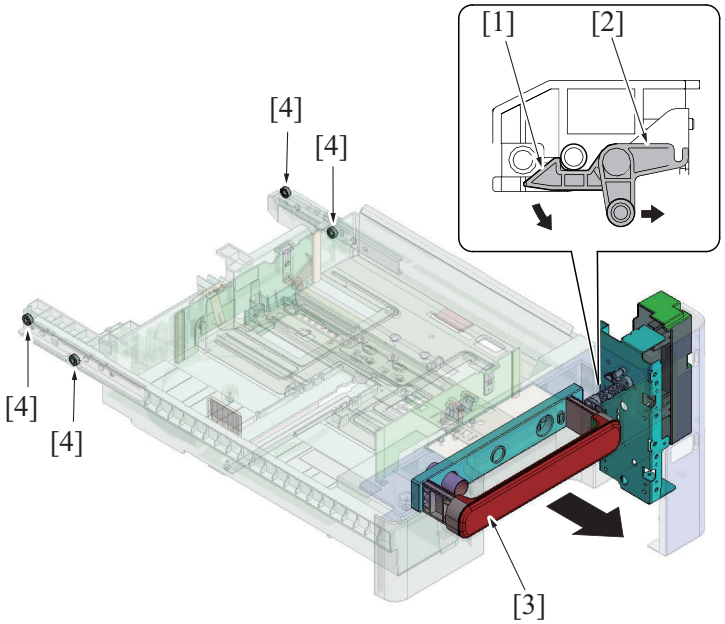
- The paper feed tray is provided with a locking mechanism.

4.5.1 Unlocking the paper feed tray

- Withdrawing the knob of the paper feed tray to the front will disengage the tray lock pawl provided on the right side of the paper feed tray.
- The paper feed tray can be pulled out of the machine by continuing pulling the knob with the tray lock pawl disengaged.
- Rollers are provided for the right and left tray rails. They reduce the operating force required for sliding in/out the paper feed tray.

4.5.2 Locking the paper feed tray

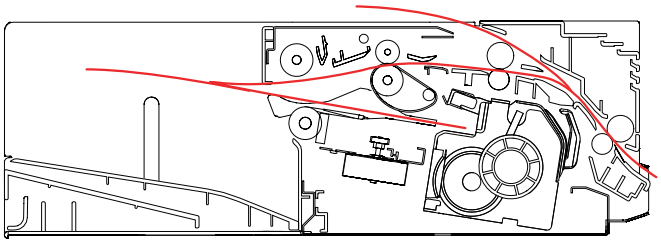
- Pushing the knob of the paper feed tray all the way toward the rear will allow the paper feed tray to be slid into the machine.
- When the paper feed tray is inserted all the way in place, the tray lock pawl provided on the right side of the paper feed tray locks the tray in place.



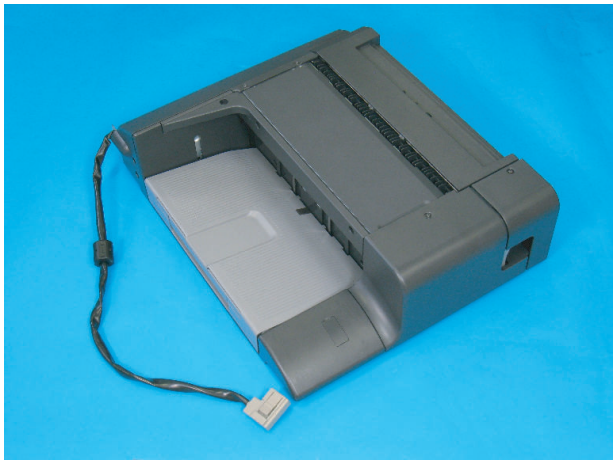
[1]	Lock pawl	[2]	Lock lever
[3]	Knob	[4]	Roller

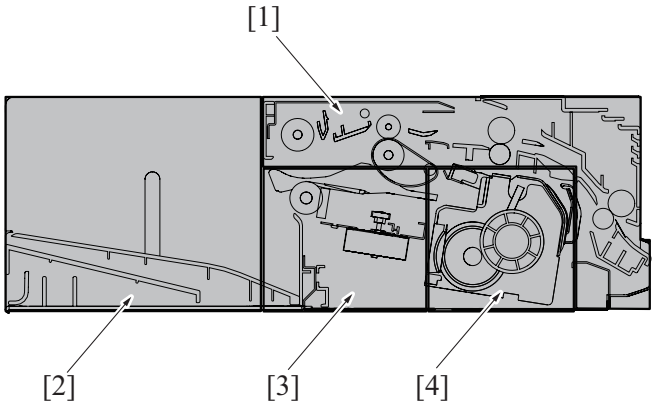
PB THEORY OF OPERATION FS-529

1. PAPER PATH



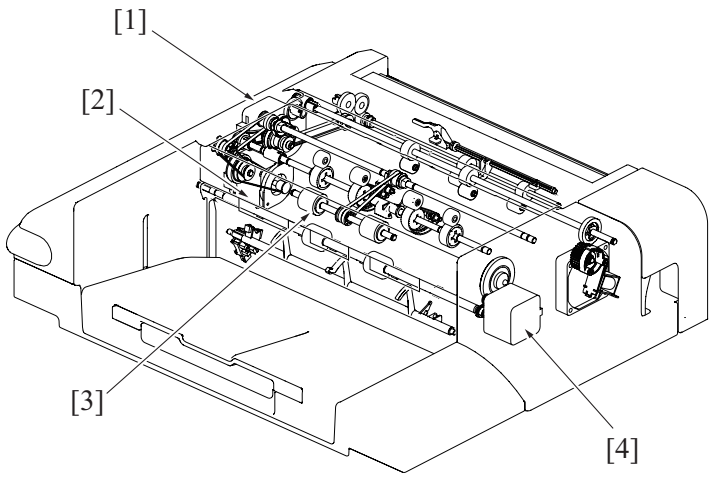
2. CONFIGURATION





[1]	Conveyance section	[2]	Exit tray section
[3]	Alignment section	[4]	Staple section

3. DRIVE



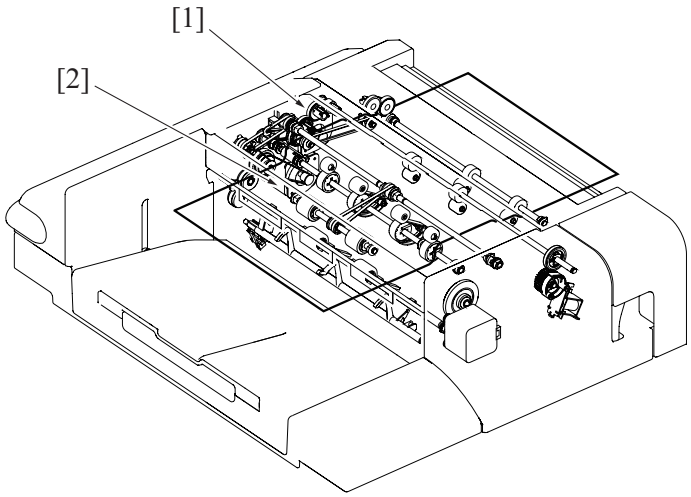
[1]	Conveyance motor/1 (M5)	[2]	Conveyance motor/2 (M6)
[3]	Exit roller	[4]	Pick up roller position motor (M1)

4. OPERATION

4.1 Conveyance section

4.1.1 Paper conveyance

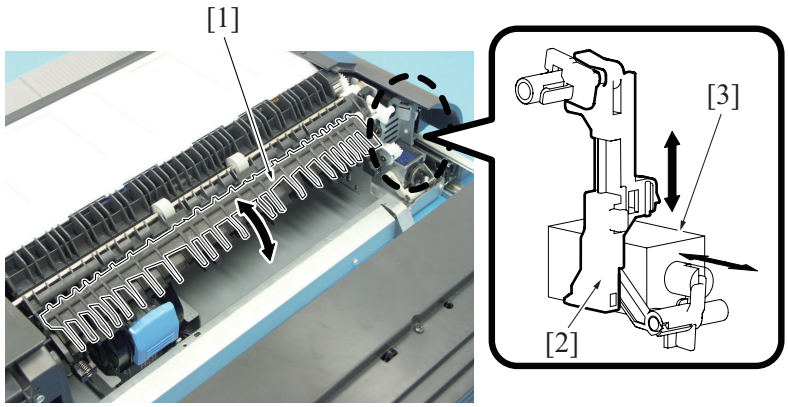
- Drive from the conveyance motor/1 and conveyance motor/2 cause the corresponding roller to rotate, thereby conveying the paper into the tray.
- After it is determined that the paper has been fed out of the main body, the conveyance motor/1 and conveyance motor/2 are energized.



[1]	Conveyance motor/1 (M5)	[2]	Conveyance motor/2 (M6)

4.1.2 Conveyance path switching

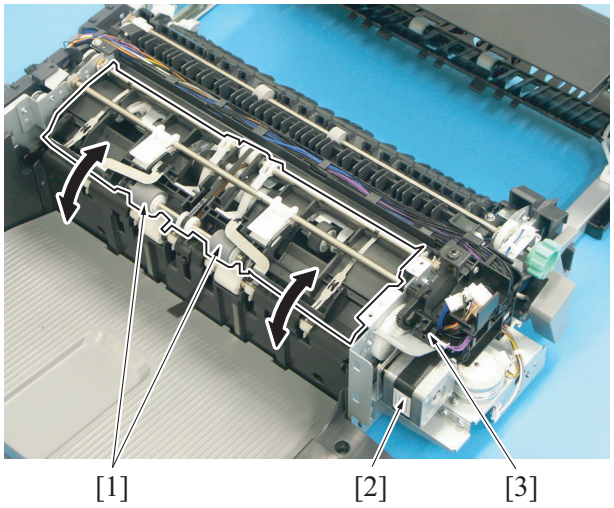
- The conveyance path is switched to conveyance paper onto the duplex section.
- The paper path switching guide works to switch the conveyance path as necessary. The lever is operated to swing up and down the paper path switching guide when the flapper solenoid is energized.



[1]	Paper path switching guide	[2]	Lever
[3]	Flapper solenoid (SD4)		

4.1.3 Tray exit roller pressure/retraction

- The exit roller is retracted as necessary in order to conveyance the paper from the main body temporarily onto the alignment section.
- After the alignment operation is completed, the exit roller is pressed again, so that the paper is fed into the tray.
- The exit roller is pressed or retracted by the pickup roller position motor.
- The exit roller is moved up or down via a gear train when the pick up roller position motor is energized.



[1]	Exit roller	[2]	Pick up roller position motor (M1)
[3]	Pick up roller position sensor (PS12)		

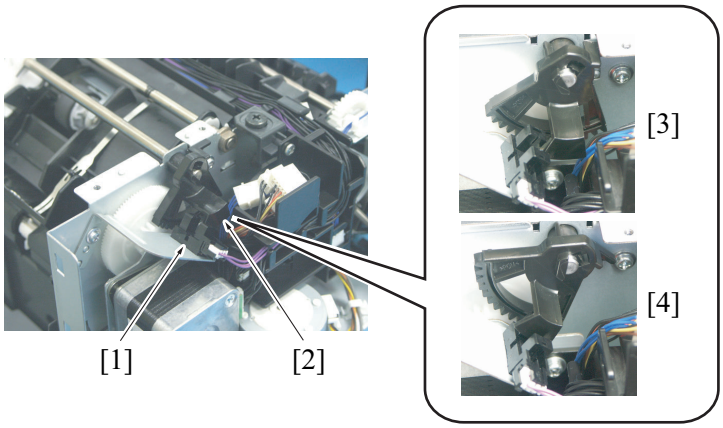
(1) Exit roller pressure/retraction overview

- The exit roller is normally in its retracted condition.
- When the main body is turned or retracted from the sleep mode, or a front door open/close, the pick up roller position motor is energized to bring the exit roller into its retracted condition, which is done to determine the condition of the exit roller.

(2) Exit roller pressure/retraction operation

- When the pick up roller position motor is energized, the gear is rotated. The exit roller is then raised and lowered to complete a pressure/retraction operation.
- Whether the pick up roller position sensor is blocked or unblocked determines the condition of the exit roller, either pressed or retracted.

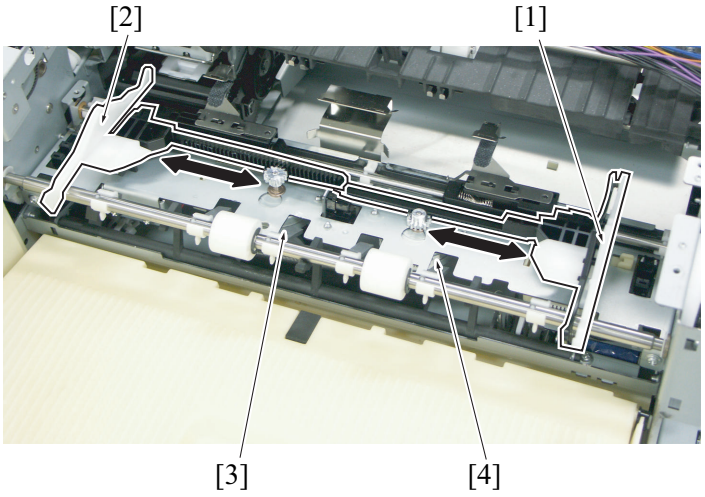
	Pick up roller position sensor
Pressed	Unblocked
Retracted	Blocked



[1]	Pick up roller position sensor (PS12)	[2]	Actuator
[3]	Unblocked	[4]	Blocked

4.2 Alignment section

4.2.1 Drive



[1]	Alignment plate/F	[2]	Alignment plate/R
[3]	Alignment motor/R (M4)	[4]	Alignment motor/F (M3)

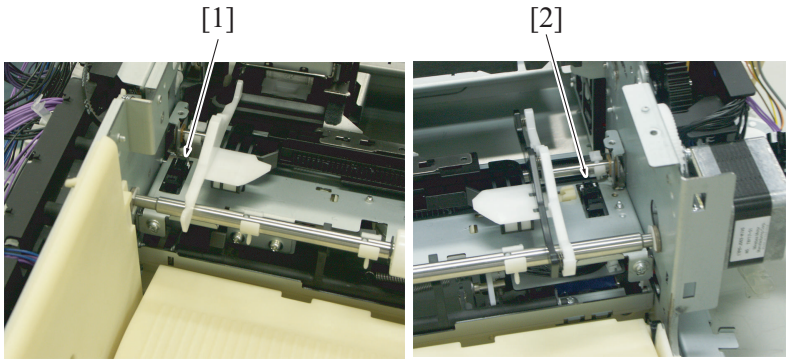
4.2.2 Operation

(1) Alignment section

- The alignment section performs stapling, aligning, sorting, and offsetting.
- The paper is conveyed, one sheet at a time, onto the alignment section for subsequent necessary operation.

(2) Alignment plate

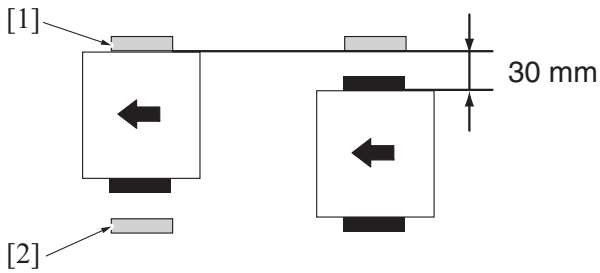
- The alignment plate/F and alignment plate/R align the paper.
- The alignment plate/F and alignment plate/R are driven by the alignment motor/F and alignment motor/R, respectively. The alignment plate home sensor/F and alignment plate home sensor/R detect the position of the alignment plate/F and alignment plate/R, respectively.



[1]	Alignment plate home sensor/R (PS9)	[2]	Alignment plate home sensor/F (PS8)

(3) Shift control

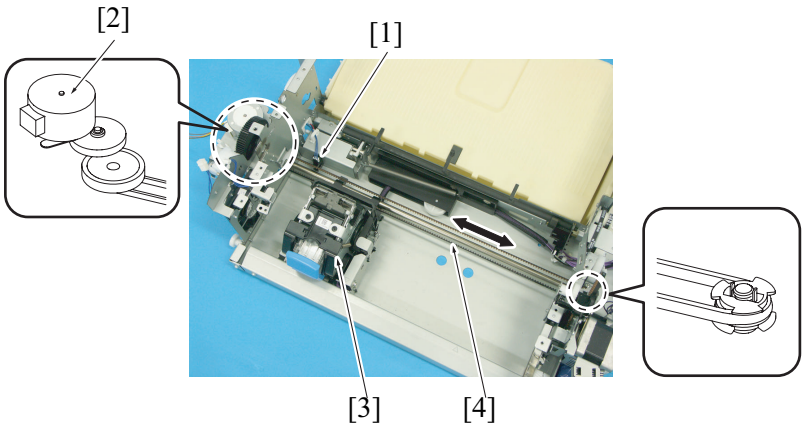
- In the sort or group copy mode, the alignment plate shifts to the front or rear. This stacks copy sets/stacks in a saw tooth manner, each being offset by about 30 mm with respect to the others.
- The registration in normal print mode varies depending on the paper size, stapling position, and the position of the alignment plate during paper exit.



[1]	Alignment plate/R	[2]	Alignment plate/F

4.3 Stapler

4.3.1 Drive



[1]	Stapler home sensor (PS11)	[2]	Stapler movement motor (M7)
[3]	Stapler	[4]	Drive belt

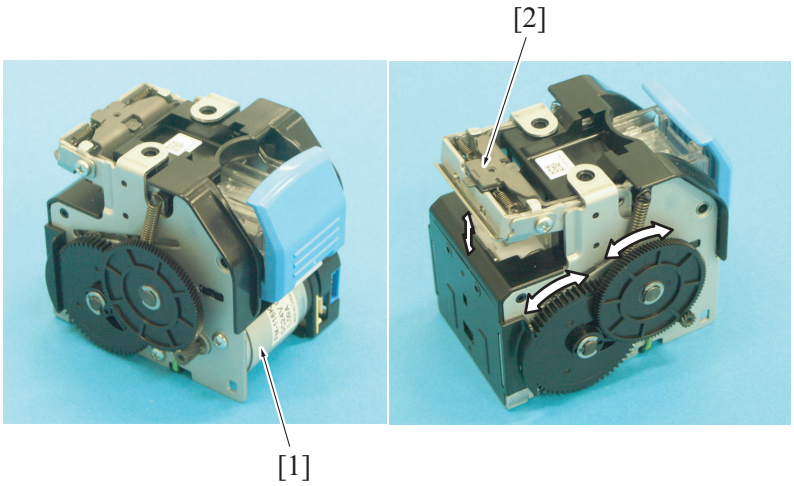
4.3.2 Operation

(1) Stapler movement

- The stapler movement motor moves the stapler.
- The stapler movement motor rotates to drive the belt, which in turn moves the stapler unit.
- The stapling position is controlled based on the number of pulses generated by the stapler movement motor. No position sensors are provided for back corner stapling and two-point stapling.
  The stapler home sensor determines the home position of the stapler, as that may be needed when the stapler is brought to a stop at an irregular position during, for example, a malfunction. In such cases, the stapler is moved until the stapler home sensor is blocked.

(2) Stapling operation

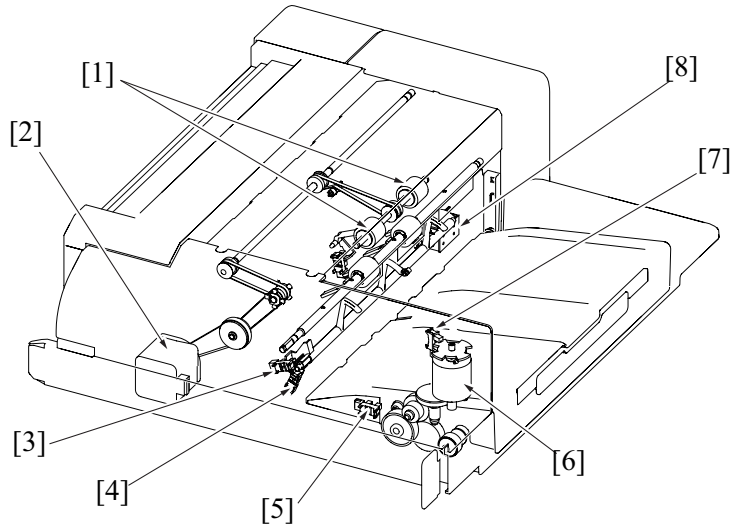
- The stapling operation is performed by the stapler motor.
- In the stapling operation, the stapler motor drives the clincher side to press the paper. Then, the staple is pushed out from the stapler side and bent at the clincher side.



[1]	Stapler motor (M8)	[2]	Clincher

4.4 Exit tray section

4.4.1 Drive

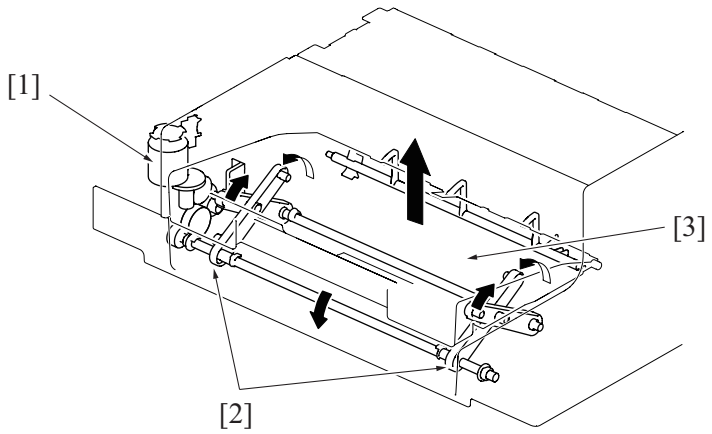


[1]	Exit roller	[2]	Conveyance motor/2 (M6)
[3]	Paper surface detect sensor/1 (PS2)	[4]	Paper surface detect sensor/2 (PS3)
[5]	Tray lower limit sensor (PS6)	[6]	Tray up/down motor (M2)
[7]	Tray up/down operation sensor (PS4)	[8]	Paper surface detect solenoid (SD1)

4.4.2 Operation

(1) Tray up/down

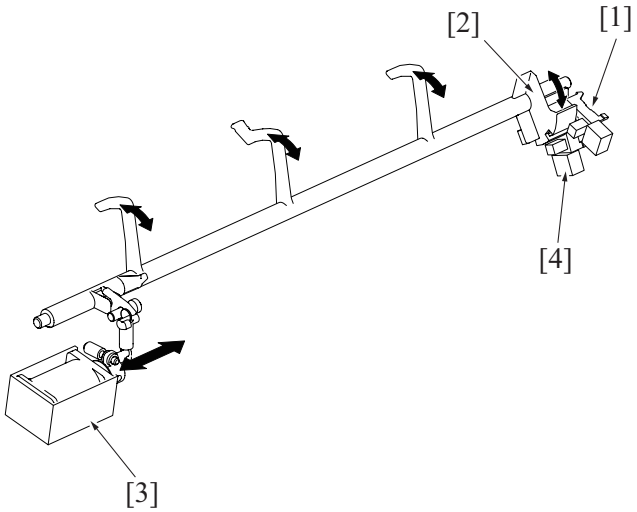
- When the tray up/down motor is energized, the corresponding arm is operated via a gear train to raise the tray.
- The upper limit of motion of the tray is established by a stopper provided in the finisher.
  The tray is lowered as the motor rotates backward.
- The tray lower limit sensor detects the lower limit of motion of the tray.



[1]	Tray up/down motor (M2)	[2]	Arm
[3]	Exit tray		

(2) Full-of-paper condition detection

- The paper surface detect sensor/1 and paper surface detect sensor/2 detect a full-of-paper condition in the tray. If the paper surface detect sensor/1/2 is not blocked (unblocked) even when the paper surface detect solenoid is energized, the main body determines that the tray is full of paper.

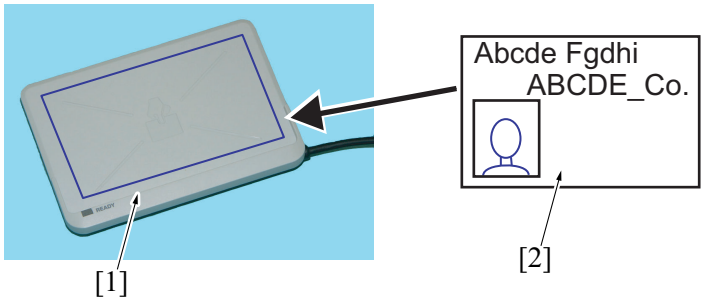


[1]	Paper surface detect sensor/1 (PS2)	[2]	Actuator
[3]	Paper surface detect solenoid (SD1)	[4]	Paper surface detect sensor/2 (PS3)

PC THEORY OF OPERATION AU-201

1. AU-201

1.1 Configuration



[1]	Authentication unit (AU-201)	[2]	Non-contact IC card

1.2 Operation

- A non-contact IC card, such as an employee ID card, is used for personal identification.
- The system supports the communications protocol in compliance with Type A, Type B, and Felica (Type C) of ISO14443.
- It can be used that the card corresponded to Felica, TypeA, SSFC (Shared Security Formats Cooperation), FCF (Felica common-use format), or FCF campus.
- Simply placing the IC card on the authentication unit will let the unit read the data from the card.

Q PARTS GUIDE MANUAL (1st Edition)

INFORMATION FOR PARTS GUIDE MANUAL

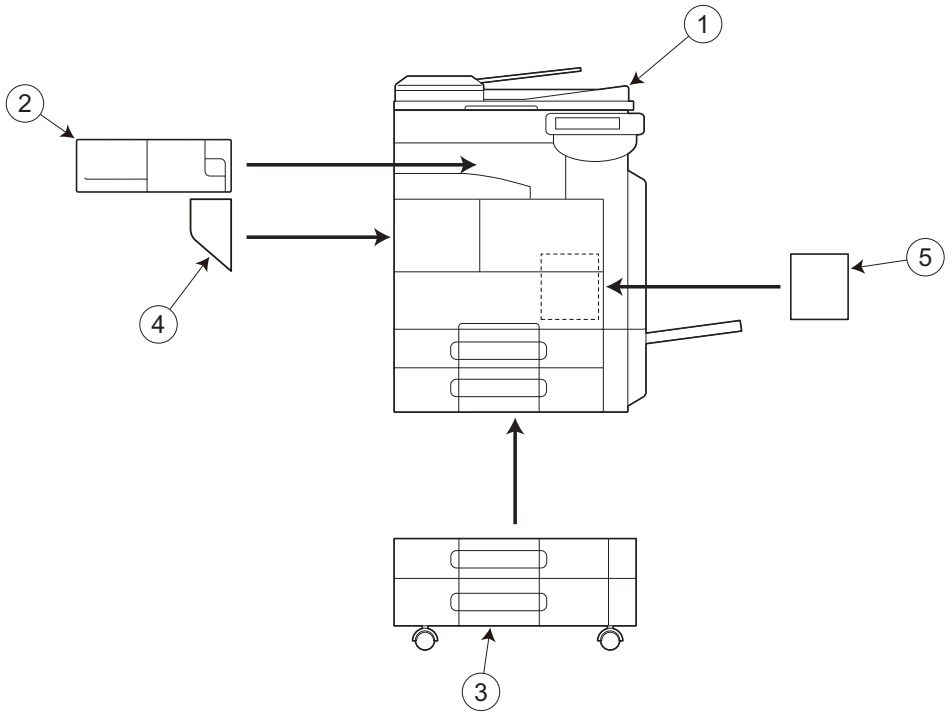
To find correct Parts No., refer to the "HOW TO MAKE THE BEST USE OF THIS MANUAL" in the following page.
NOTICE

- 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.
7. All rights reserved. (any reprints or quotations are prohibited.)
   Use of this parts guide manual should be strictly supervised to avoid disclosure of confidential information.

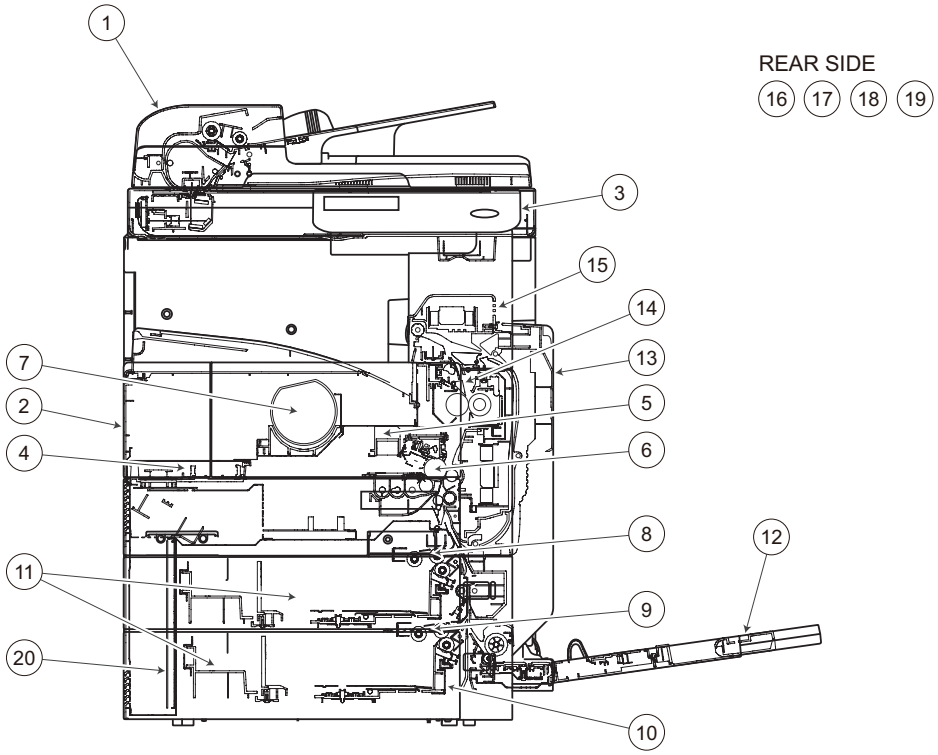
SYSTEM OUTLINE



No.	Description	Model
1	DIGITAL MFP B/W	bizhub 36/bizhub 42
2	SORTER/FINISHER	FS-529
3	PAPER FEEDER	PC-211
4	OTHER OPTION	MK-601
5	OTHER OPTION	FK-509

1. DIGITAL MFP B/W (bizhub 36/bizhub 42)

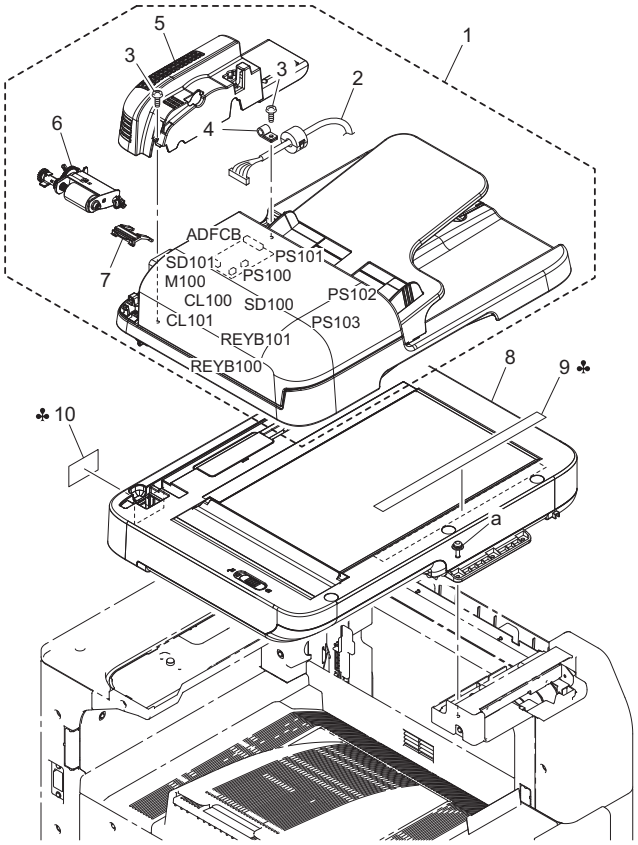
DIAGRAMS OF MAIN PARTS SECTION



[1]	ADF/IR Unit	[2]	EXTERNAL PARTS
[3]	OPERATION PANEL SECTION	[4]	PRINT HEAD SECTION
[5]	OZONE DUCT/ FAN MOTOR SECTION	[6]	IU SECTION
[7]	HOPPER SECTION	[8]	1ST PAPER FEED SECTION
[9]	2ND PAPER FEED SECTION	[10]	IU/ CASSETTE RAIL SECTION
[11]	CASSETTE RAIL SECTION	[12]	MANUAL PAPER FEED SECTION
[13]	PAPER TRANSPORT SECTION	[14]	FUSING SECTION
[15]	PAPER EXIT SECTION	[16]	HOPPER/ PAPER FEED DRIVE SECTION
[17]	MAIN DRIVE SECTION	[18]	REAR FRAME SECTION
[19]	ELECTRICAL COMPONENTS	[20]	POWER SUPPLY SECTION
[21]	WIRING	[22]	WIRING ACCESSORIES AND JIGS
[23]	ACCESSORY PARTS	-	-

1.1 ADF/IR Unit

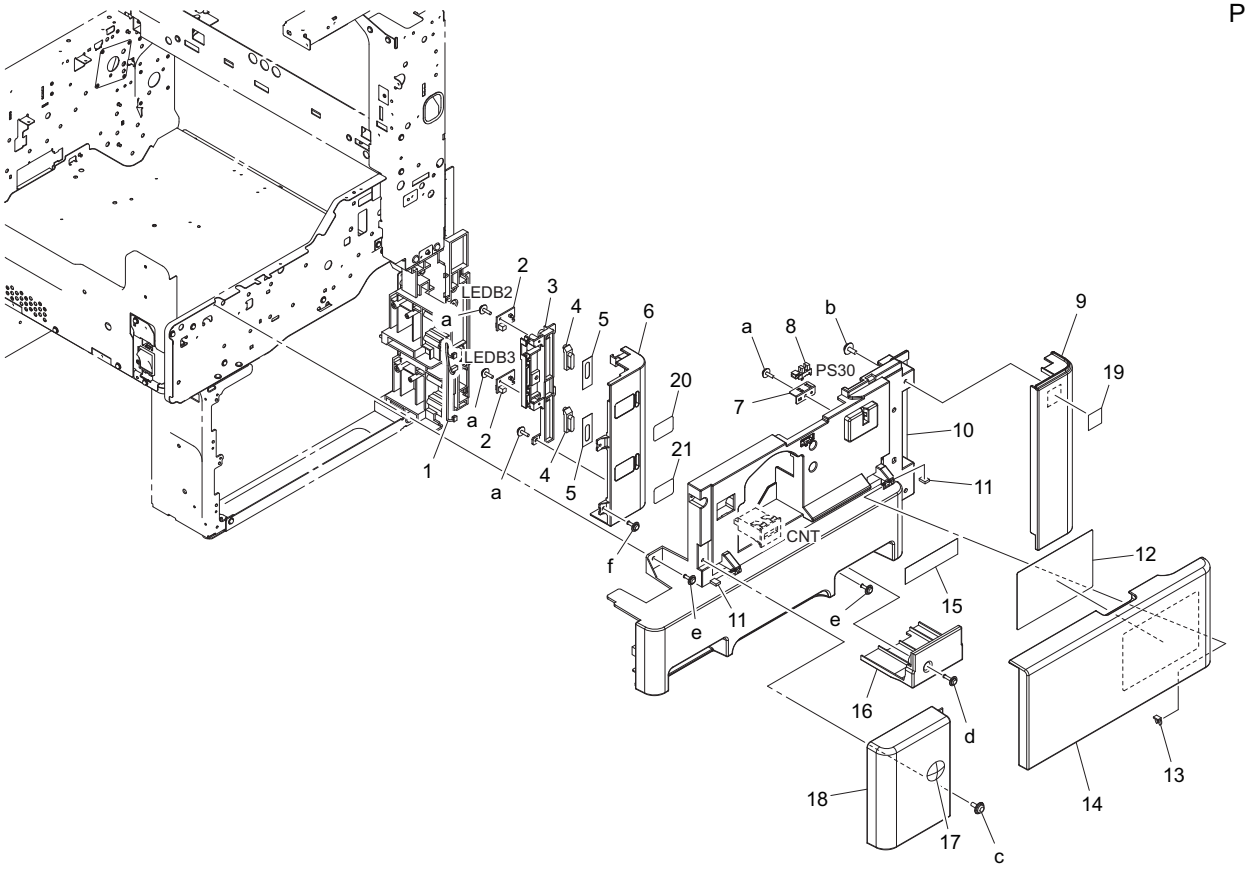
P 1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A121270101	CONVEYANCE UNIT			C	1
1	2	A121PP0100	WIRE HARNESS ASSY			D	1
1	3	A121PP0300	SCREW			D	1
1	4	A121PP0200	CABLE CLAMP			D	1
1	5	A121PP0000	UPPER COVER/REAR			D	1
1	6	A0CRPP0100	Separator Roller Assy			C	1
1	7	A0CRPP0200	Separator Pad Assy			C	1
1	8	A3EW260101	OPTICAL UNIT			C	1
1	9	A121944700	Label Prohibit		B	C	1
1	10	A121943900	Label CCFL		B	C	1
1	a	V116041203	Screw			V	

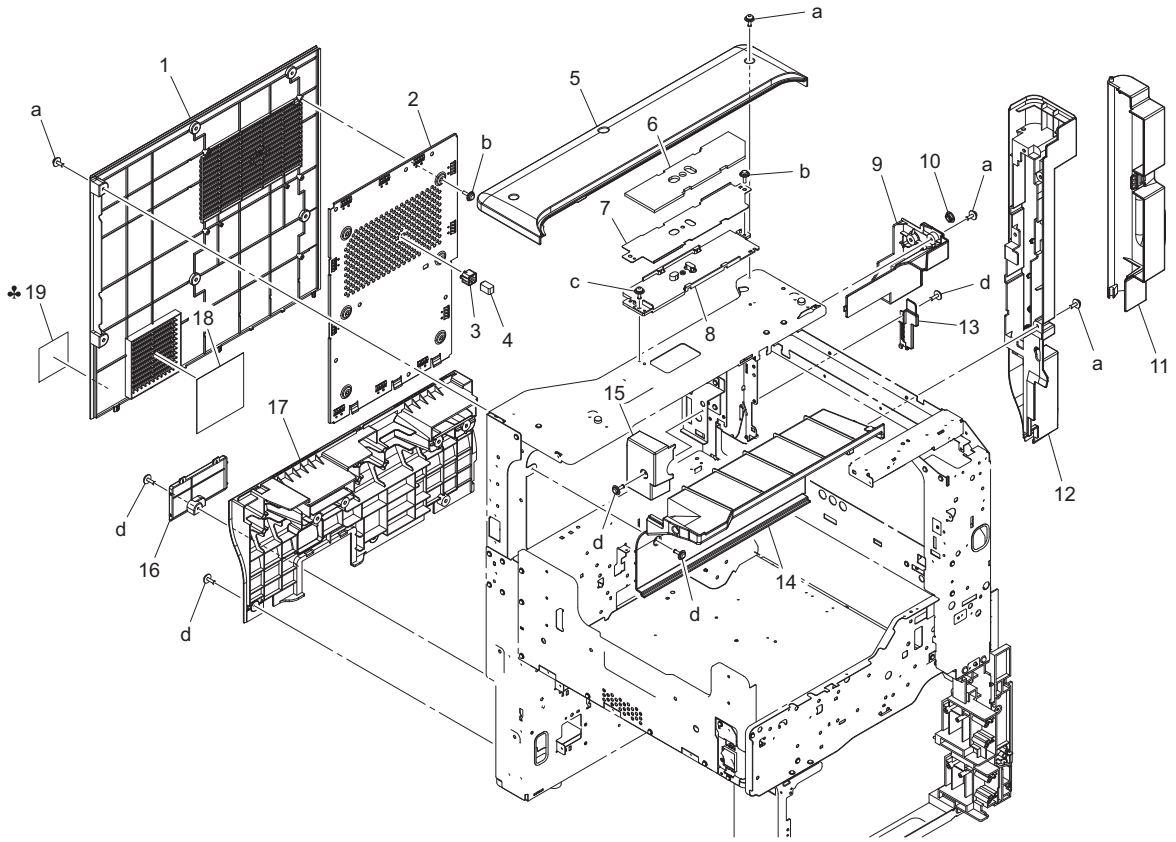
1.2 EXTERNAL PARTS

P 2



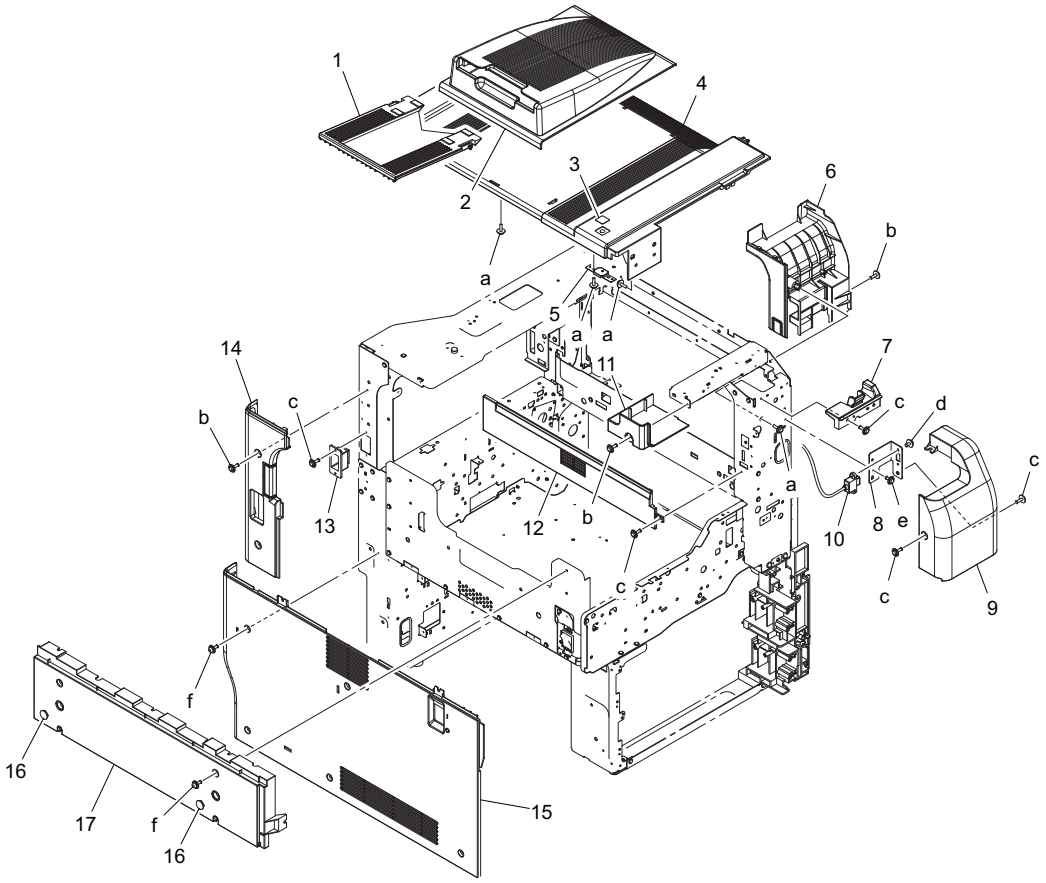
Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
2	1	A1UDN12601	Indicating Wiring			D	1
2	2	A00JH00D00	PWB Assembly LED1	Tray 2 LED board (LEDB2) Tray 3 LED board (LEDB3)		C	2
2	3	A00J168301	Light blocking Cover			D	1
2	4	A0ED162600	Lens			C	2
2	5	A0ED162700	Light blocking Plate			C	2
2	6	A1UD163002	Cover			D	1
2	7	9J06323501	BRACKET			D	1
2	8	A108M50100	Photointerrupter	Front door sensor (PS30)		B	1
2	9	A1UD160901	Cover			D	1
2	10	A3EW160200	Cover /Front			D	1
2	11	A1UD106100	Cushion			D	2
2	12	A3EW941400	Label			D	1
2	13	1033440203	STOPPER RING			C	1
2	14	A1UD160102	Cover /Front			C	1
2	15	A3EW942200	Label		{bizhub 42}	D	1
2	15	A45X942200	Label		{bizhub 36}	D	1
2	16	A3EW160500	Cover /Front			D	1
2	17	A00J945500	Logo Mark			C	1
2	18	A3EW160300	Cover /Left front			D	1
2	19	A011946200	Label Emperon			D	1
2	20	A02E941900	Label Number 2			C	1
2	21	A093940100	Label Indication 3rd			C	1
2	a	V153030803	Screw			V	
2	b	V153041003	screw			V	
2	c	V153040804	screw			V	
2	d	V137031004	SCREW			V	
2	e	V137030804	screw			V	
2	f	V137030803	screw			V	

P 3



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
3	1	A3EW164101	Cover			D	1
3	2	A3EW130300	Shield Cover			D	1
3	3	A3EW138000	Guide			D	1
3	4	A3EWM90400	Gasket			D	1
3	5	A3EW170700	Read Cover			D	1
3	6	A3EW134100	Cushion			D	1
3	7	A3EW134001	Cover Part			D	1
3	8	A3EW121600	Guide Part			D	1
3	9	A3EW171801	Read Cover			D	1
3	10	A00J169100	Cover			C	1
3	11	A1UD162600	Cover /Right rear			C	1
3	12	A3EW162500	Cover			D	1
3	13	A1UD162800	Cover			D	1
3	14	A3EW161200	Read Cover /Rear			D	1
3	15	A1UD161301	Read Cover /Rear			D	1
3	16	A1UD161101	Cover /Rear			C	1
3	17	A3EW161000	Cover /Rear			D	1
3	18	A02E148400	Filter			C	1
3	19	A00J945000	Label Only connect		C	C	1
3	a	V116030804	Screw			V	
3	b	V153030803	Screw			V	
3	c	V116030803	Screw			V	
3	d	V137030804	screw			V	

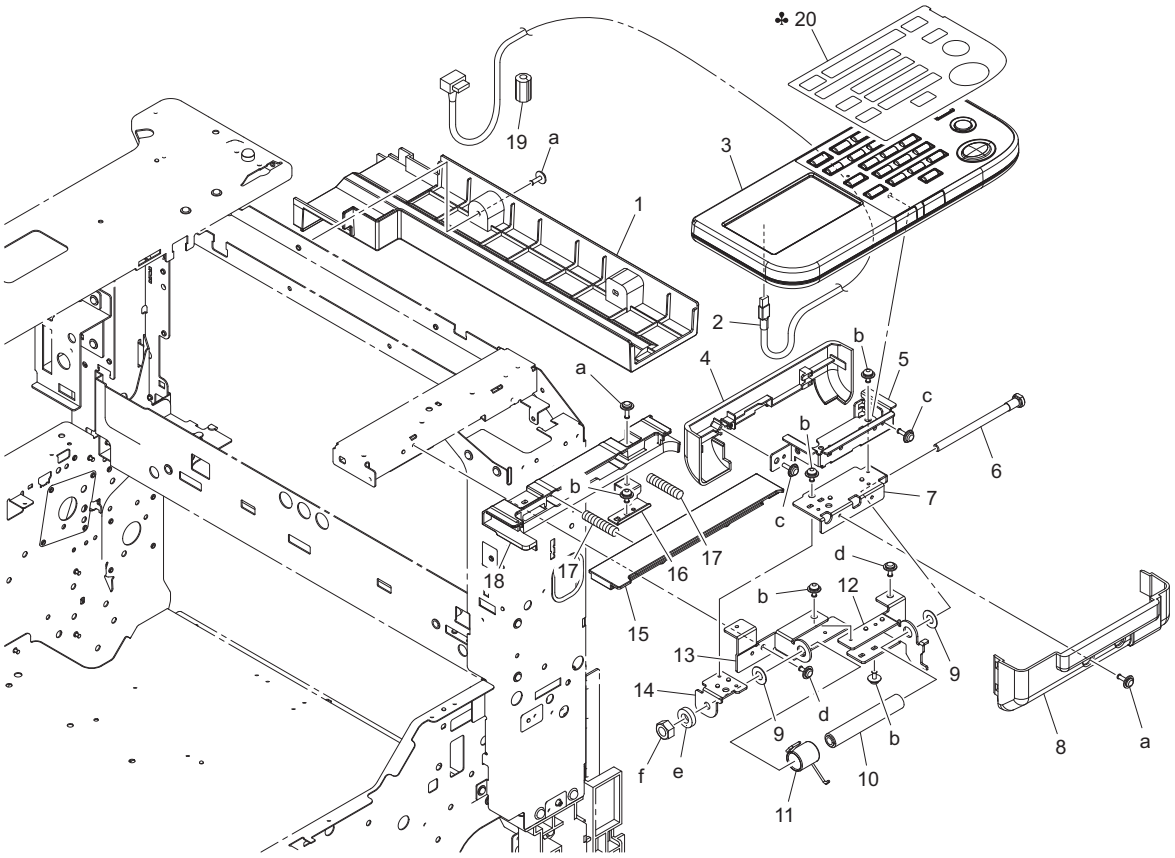
P 4



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
4	1	A083895301	Tray			C	1
4	2	A3EW162101	Tray			D	1
4	3	A02E941700	Label Jam/Adu			C	1
4	4	A3EW162001	Cover /Upper			D	1
4	5	A1UD161500	Mounting Plate			D	1
4	6	A3EW171200	Read Cover /Inside			D	1
4	7	A3EW171101	Read Cover /Upper			D	1
4	8	A3EW121300	Fixing Plate			D	1
4	9	A3EW171400	Read Cover /Front			D	1
4	10	A3EWN14101	Relay harness			D	1
4	11	A3EW171000	Read Cover			D	1
4	12	A1UD161800	Cover			D	1
4	13	A3EWN13100	FNS Relay harness			D	1
4	14	A3EW160600	Cover /Left			D	1
4	15	A3EW160700	Cover /Left			D	1
4	16	A00J169100	Cover			C	2
4	17	A3EW162201	Tray /Left			D	1
4	a	V153030803	Screw			V	
4	b	V137030804	screw			V	
4	c	V137030803	screw			V	
4	d	V116030603	Screw			V	
4	e	V137030603	screw			V	
4	f	V116030804	Screw			V	

1.3 OPERATION PANEL SECTION

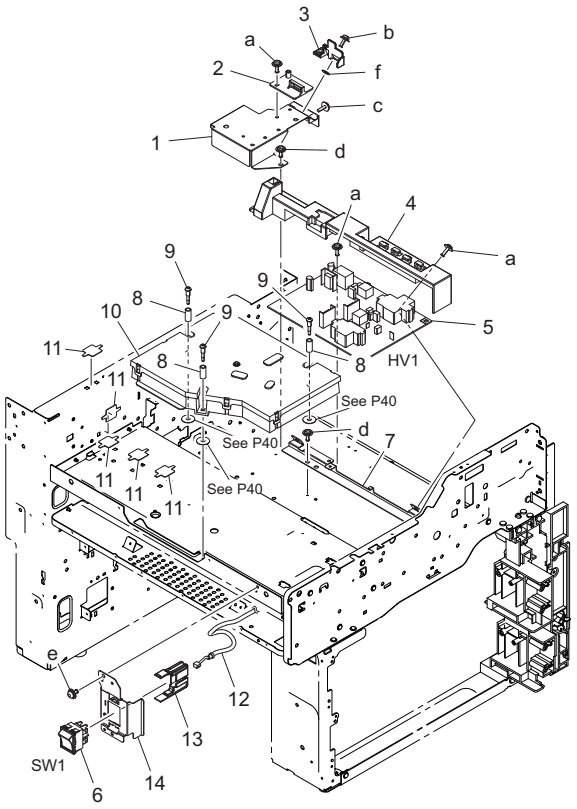
P 5



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
5	1	A3EW171300	Read Cover			D	1
5	2	A3EWN14002	Relay harness			D	1
5	3	A3EWM70002	Panel assembly			I	1
5	4	A3EW191100	Cover			D	1
5	5	A3EW190200	Support Plate			D	1
5	6	A3EW190601	Support Screw			D	1
5	7	A3EW191501	Mounting Plate			D	1
5	8	A3EW191000	Cover			D	1
5	9	A00J191900	Washer			C	2
5	10	A3EW191700	Collar			D	1
5	11	A3EW191900	Torsion Coil spring			D	1
5	12	A3EW190101	Mounting Plate			D	1
5	13	A3EW192001	Mounting Plate			D	1
5	14	A3EW191601	Mounting Plate			D	1
5	15	A3EW172000	Read Cover /Upper			D	1
5	16	A3EW191800	Mounting Plate			D	1
5	17	A3EW172101	Compressing Coil spring			D	2
5	18	A3EW171500	Read Cover /Lower			D	1
5	19	A3EWM90300	Ferritecore			D	1
5	20	A3EW950100	Sheet		B	D	1
5	a	V137030804	screw			V	
5	b	V116030603	Screw			V	
5	c	V153030803	Screw			V	
5	d	V137030603	screw			V	
5	e	V205060003	washer			V	
5	f	V195060003	nut			V	

1.4 PRINT HEAD SECTION

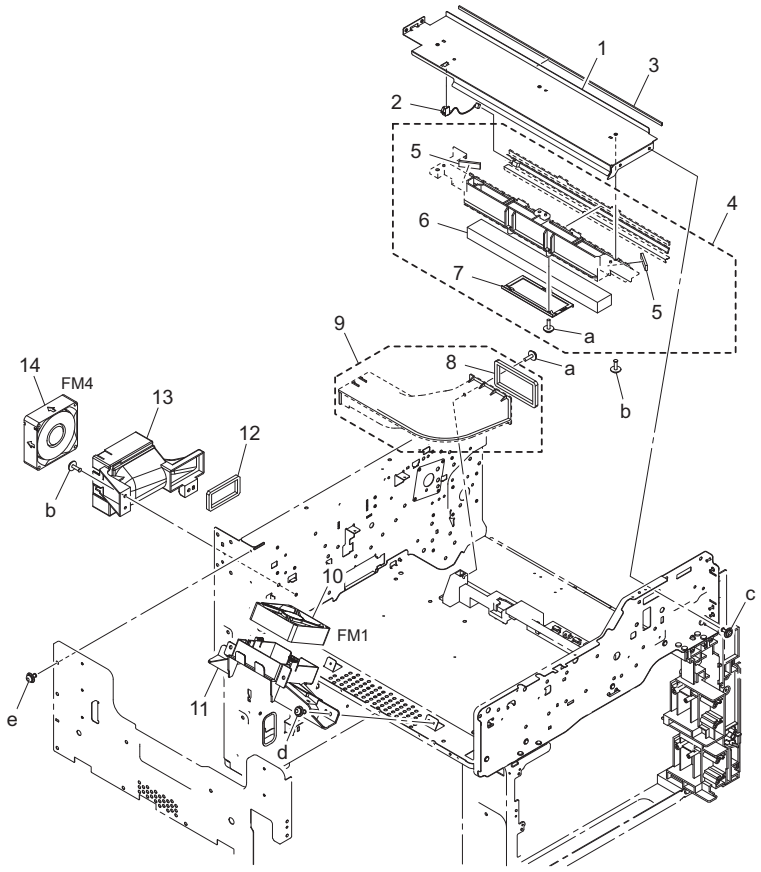
P 6



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
6	1	A1UD104001	Mounting Plate			D	1
6	2	A1UD104101	Holder			D	1
6	3	A1UD104201	Cover			D	1
6	4	A1UD131000	Cover			D	1
6	5	A1UDM40301	High voltage unit	High Voltage Unit (HV1)		I	1
6	6	A2WUM60000	Rocker switch	Main power switch (SW1)		C	1
6	7	4030204001	BRACKET			D	1
6	8	4128197801	PRESSURE SPRING			C	3
6	9	4128197901	SHOULDER SCREW			C	3
6	10	A3EWR70000	PRINT HEAD ASSY			I	1
6	11	A1UD104500	Seal			D	5
6	12	A3EWN12Y00	AC Control harness			D	1
6	13	A2WU135300	Cover			D	1
6	14	A3EW121400	Mounting Plate			D	1
6	a	V137030803	screw			V	
6	b	V116030803	Screw			V	
6	c	V153030803	Screw			V	
6	d	V144030803	SCREW			V	
6	e	V116030603	Screw			V	
6	f	V211030080	washer			V	

1.5 OZONE DUCT/ FAN MOTOR SECTION

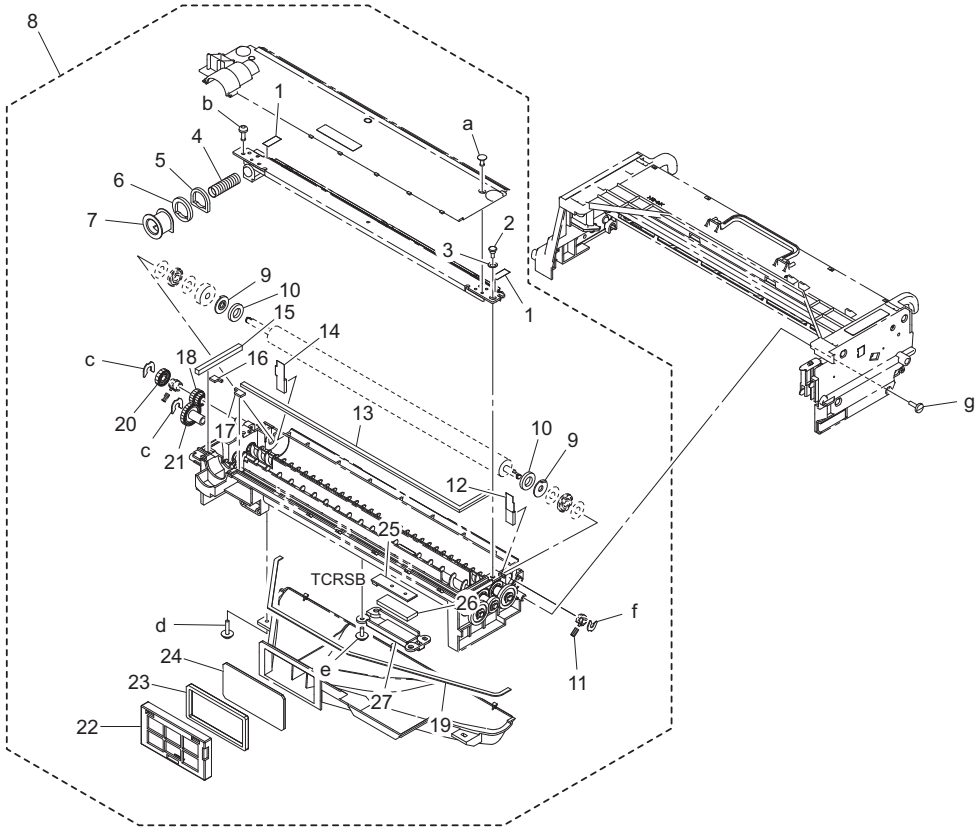
P 7



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
7	1	A1UD135701	Top plate			D	1
7	2	A1UDN12A00	Neutralizing Wiring			D	1
7	3	A1UD136100	Seal			C	1
7	4	A1UDR71811	Ozone Duct Assy			C	1
7	5	A1UD136400	Seal			C	2
7	6	A1UD135100	Filter			A	1
7	7	A1UD135312	Holding Plate			C	1
7	8	4040209401	SEAL			C	1
7	9	4040016301	DUCT			D	1
7	10	A1UDM10500	Fan motor	Power supply cooling fan motor (FM1)		C	1
7	11	A3EW130501	Duct			D	1
7	12	4040209501	SEAL			C	1
7	13	A3EW130901	Duct			D	1
7	14	9J03M10000	FAN MOTOR	Toner suction fan motor (FM4)		B	1
7	a	V153030803	Screw			V	
7	b	V137030803	screw			V	
7	c	V137030603	screw			V	
7	d	V116030803	Screw			V	
7	e	V116030603	Screw			V	

1.6 IU SECTION

P 8

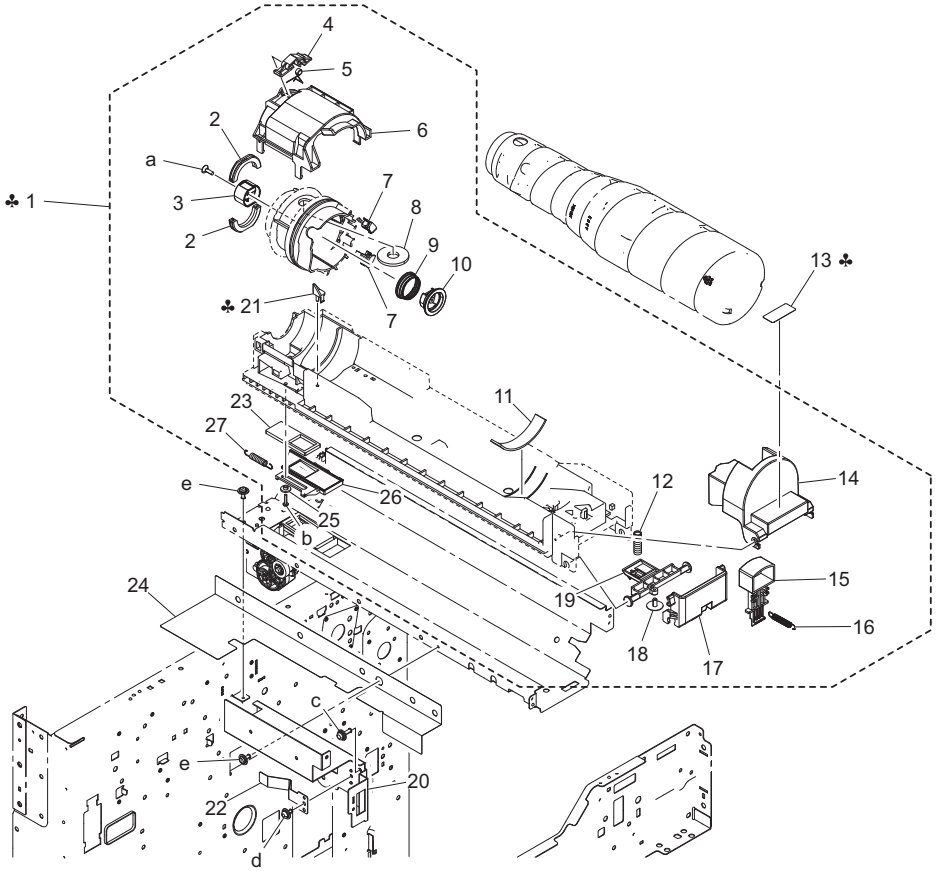


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
8	1	4040526001	SEAL			C	2
8	2	1139524901	SHOULDER SCREW			C	1
8	3	1139525001	PLATE SPRING			C	1
8	4	4163521002	PRESSURE SPRING			C	1
8	5	4163523801	SEAL			C	1
8	6	4163520801	SEAL			C	1
8	7	4163520501	SHUTTER			D	1
8	8	A1UDR71111	Developing UNIT			B	1
8	9	4163522601	HOLDER			D	2
8	10	4021522501	SEAL			C	2
8	11	4163523102	PRESSURE SPRING			C	1
8	12	4163522101	SEAL			C	1
8	13	4163520701	SEAL			C	1
8	14	4163523701	SEAL			C	1
8	15	4163520901	SEAL			C	1
8	16	4163524001	SEAL			C	1
8	17	4163523901	SEAL			C	1
8	18	A1UD371000	Gear			C	1
8	19	4040521101	SEAL			C	1
8	20	A1UD370900	Gear			C	1
8	21	4163522401	GEAR 20T			C	1
8	22	4040522201	COVER			C	1
8	23	4040522301	SEAL			C	1
8	24	A1UD370700	Filter			A	1
8	25	A0TKH00200	PWB Assembly(PWB-TCR ASSY)	TCR sensor board (TCRSB)		I	1
8	26	A1UD370601	Seal			C	1
8	27	A1UD370500	Holder			D	1
8	a	V112030621	screw			V	

8	b	V115030803	Screw			V	
8	c	V218040086	E ring			V	
8	d	V153031003	screw			V	
8	e	V153030803	Screw			V	
8	f	V218030086	E ring			V	
8	g	V149030803	screw			V	

1.7 HOPPER SECTION

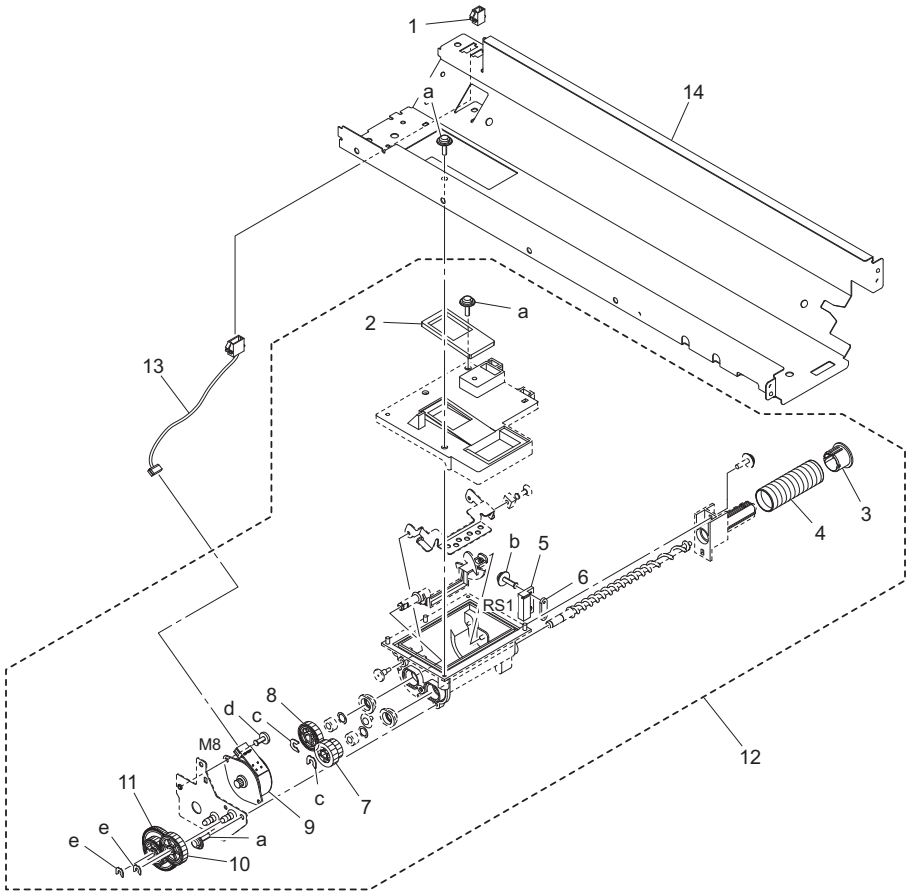
P 9



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
9	1	A3EWR70200	Hopper Assy		C{bizhub 42}	I	1
9	1	A45XR70000	Hopper Assy		C{bizhub 36}	I	1
9	1	A3EWR70100	Hopper Assy		B	I	1
9	2	1151502301	SUPPORT			C	2
9	3	A1UD410700	Joint			C	1
9	4	4030538702	STOPPER			D	1
9	5	4030538802	Torsion Spring			C	1
9	6	4030538001	HOLDER			D	1
9	7	1165532501	PIN			D	2
9	8	1165532703	SEAL			C	1
9	9	4040531801	PRESSURE SPRING			C	1
9	10	A3EW410800	Collar			C	1
9	11	A1UD410900	Cushion			C	1
9	12	A1UD410300	Compressing Coil spring			C	1
9	13	A3EW940600	Label		B,C{bizhub 42}	D	1
9	13	A45X940600	Label		C{bizhub 36}	D	1
9	14	A1UD410101	Stopper			D	1
9	15	4030539301	HANDLE			C	1
9	16	A1UD410400	Pulling Coil spring			C	1
9	17	A1UD410601	Handle			C	1
9	18	4163529301	SCREW			C	1
9	19	A1UD410200	Claw			C	1

9	20	A1UD102802	Stopper			D	1
9	21	4040532201	STOPPER		C{bizhub 36}	C	1
9	22	4030539601	PLATE SPRING			C	1
9	23	4030538401	SEAL			C	1
9	24	A1UD103401	Light blocking Sheet			D	1
9	25	4030539801	COLLAR			D	1
9	26	4030538302	SHUTTER			D	1
9	27	4030538601	TENSION SPRING			C	1
9	a	V147030803	screw			V	
9	b	V151031403	screw			V	
9	c	V116041203	Screw			V	
9	d	V116030603	Screw			V	
9	e	V137030603	screw			V	

P 10

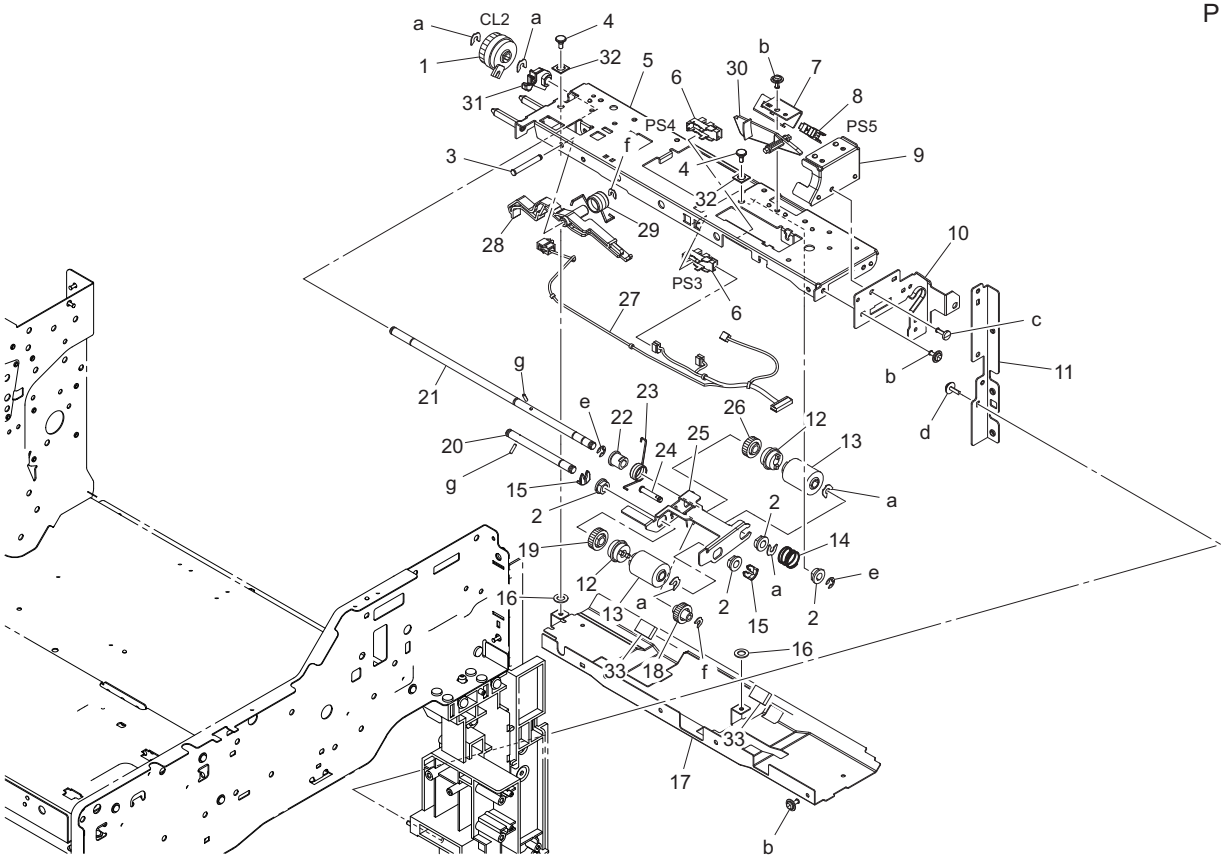


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
10	1	V651010001	connector			D	1
10	2	4030538502	SEAL			C	1
10	3	1165530801	SHUTTER			D	1
10	4	1165530902	PRESSURE SPRING			C	1
10	5	A1UDM50200	Lead Switch	Toner near empty switch (RS1)		C	1
10	6	4011533901	PLATE NUT			D	1
10	7	4030537901	GEAR 14/19T			C	1
10	8	A1UD400801	Toner supply Gear			C	1
10	9	A02EM10400	Stepping motor	Toner supply motor (M8)		C	1
10	10	A1UD400900	Toner supply Gear			C	1
10	11	A1UD400700	Toner supply Gear			C	1
10	12	A1UDR70411	Sub Hopper Assy			C	1
10	13	A1UDN12500	Supply Drive harness			D	1
10	14	A1UD102401	Mounting Plate			D	1
10	a	V153030803	Screw			V	
10	b	V116031003	Screw			V	
10	c	V218040086	E ring			V	

10	d	V136030603	screw			V	
10	e	V218030086	E ring			V	

1.8 1ST PAPER FEED SECTION

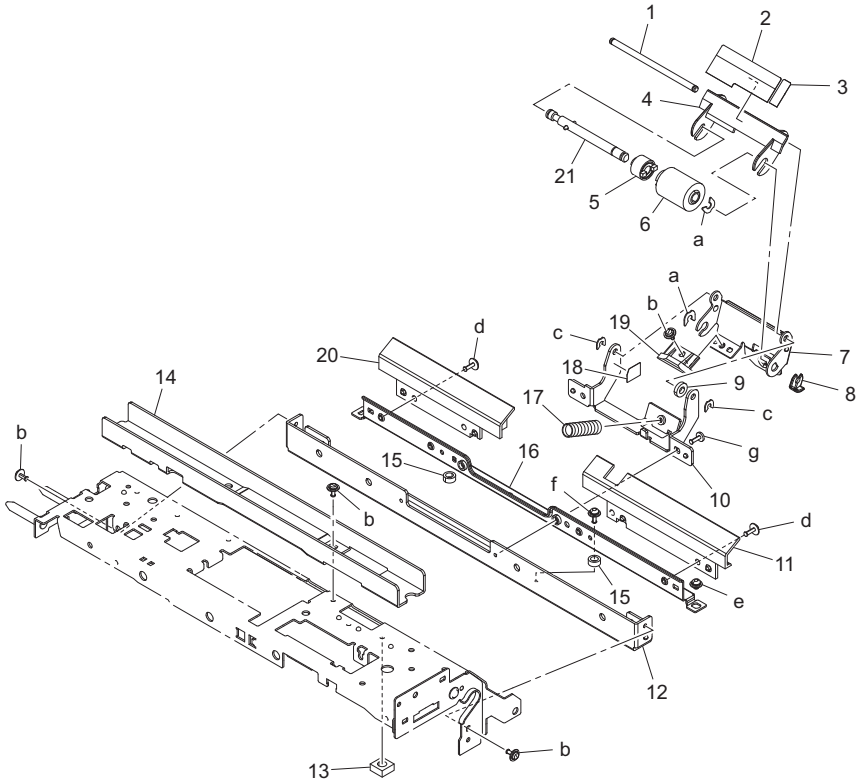
P 11



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
11	1	A00FM20000	Clutch	Tray 2 paper feed clutch (CL2)		C	1
11	2	4131300301	BUSHING			C	4
11	3	4040309601	SHAFT			D	1
11	4	A1UD560600	Shoulder screw			D	2
11	5	A1UD560102	Frame			D	1
11	6	A108M50100	Photointerrupter	Tray 2 upper limit sensor (PS3) Tray 2 paper empty sensor (PS4)		B	2
11	7	A1UD564901	Mounting Plate		{bizhub 42}	D	1
11	8	A0EDM50100	Photoreflector	Tray 2 paper feed sensor (PS5)	{bizhub 42}	I	1
11	9	A1UD104400	Mounting Plate			D	1
11	10	A1UD564101	Frame			D	1
11	11	A1UD101801	Mounting Plate			D	1
11	12	A02E561100	Clutch			C	2
11	13	A00J563600	Roller			A	2
11	14	A1UD560701	Compressing Coil spring			C	1
11	15	56AA40490	SHAFT STOPPER 4			C	2
11	16	A1UD560500	Cushion			D	2
11	17	A1UD560200	Guide Plate			D	1
11	18	4030300801	GEAR 29T			C	1
11	19	4425301601	GEAR 32T			C	1
11	20	A00J564000	Shaft /P			D	1
11	21	A1UD560401	Shaft			D	1
11	22	1065308601	BUSHING			C	1
11	23	A00J560302	Torsion Spring			C	1
11	24	4040309701	SHAFT			D	1
11	25	A00J560100	Paper feed Holder			D	1

11	26	4425301301	GEAR 30T			C	1
11	27	A1UDN12700	Paperfeed Wiring /1		{bizhub 42}	D	1
11	27	A1UEN12700	Paperfeed Wiring /1		{bizhub 36}	D	1
11	28	A1UD561101	Lever			C	1
11	29	A00J566801	Torsion Spring			C	1
11	30	4030301612	ACTUATOR			C	1
11	31	A1UD565500	Paper feed Bushing			C	1
11	32	A1UD563300	Vibrationproof Spacer			D	2
11	33	A1UD563400	Vibrationproof Cushion			D	2
11	a	V218040086	E ring			V	
11	b	V137030603	screw			V	
11	c	V136030803	screw			V	
11	d	V153030803	Screw			V	
11	e	V217040001	E Ring			V	
11	f	V218030086	E ring			V	
11	g	V237200850	Pin			V	

P 12

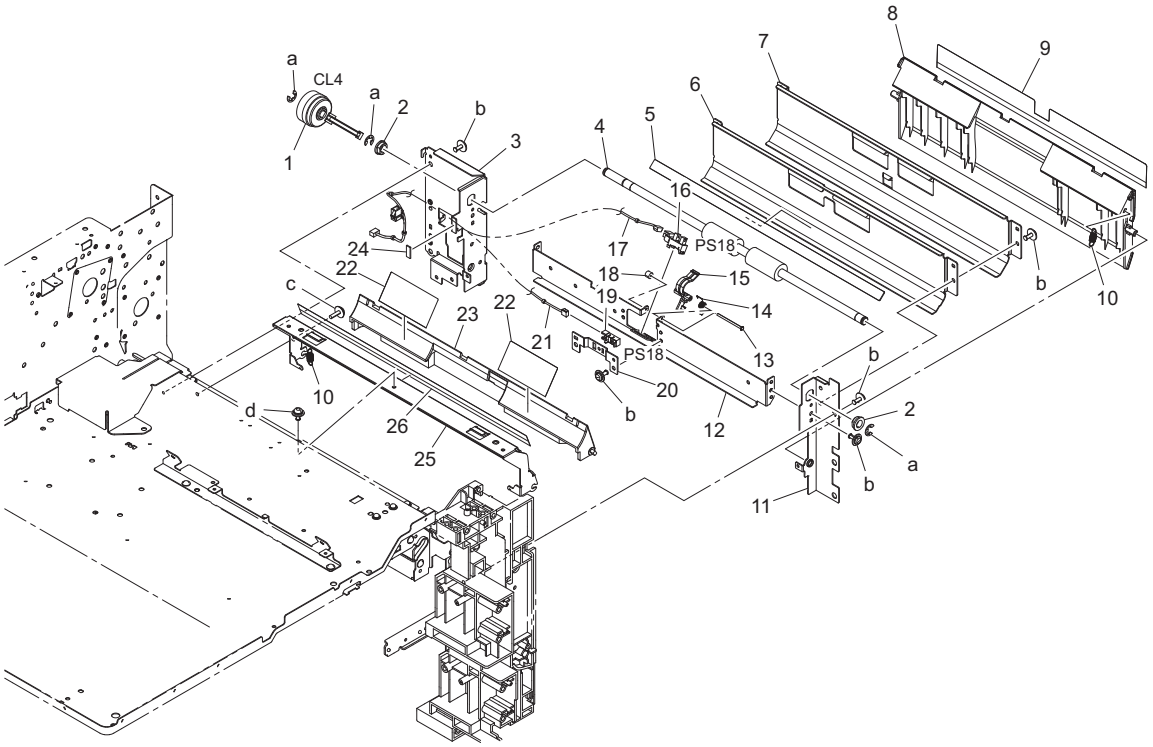


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
12	1	4030303901	SHAFT			D	1
12	2	4030307901	GUIDE			C	1
12	3	4030308001	GUIDE			C	1
12	4	4030307701	GUIDE			D	1
12	5	A0ED563900	Torque limiter			C	1
12	6	A00J563600	Roller			A	1
12	7	A00J564700	Holder /S			D	1
12	8	56AA40490	SHAFT STOPPER 4			C	1
12	9	A1UD563100	Cushion			C	1
12	10	A00J564600	Mounting Plate /S			D	1
12	11	A1UD562611	Guide			D	1
12	12	4030302505	Bracket			D	1
12	13	57GA61560	SCREW PROTECTION CUSHION/1		{bizhub 42}	C	1

12	14	A1UD564600	Reinforce Plate			D	1
12	15	26NA20300	SEPARATE ROCKING COLLAR			C	2
12	16	4030303701	REINFORCE PLATE			D	1
12	17	4030301703	PRESSURE SPRING			C	1
12	18	A1UD563200	Spacer			C	1
12	19	4030307801	LEVER			C	1
12	20	A3EW562700	Guide			D	1
12	21	A0P0561600	Torque limiter /S			D	1
12	a	V218040086	E ring			V	
12	b	V137030603	screw			V	
12	c	V218030086	E ring			V	
12	d	V137030803	screw			V	
12	e	V121030303	screw			V	
12	f	V116030803	Screw			V	
12	g	V136030803	screw			V	

1.9 2ND PAPER FEED SECTION

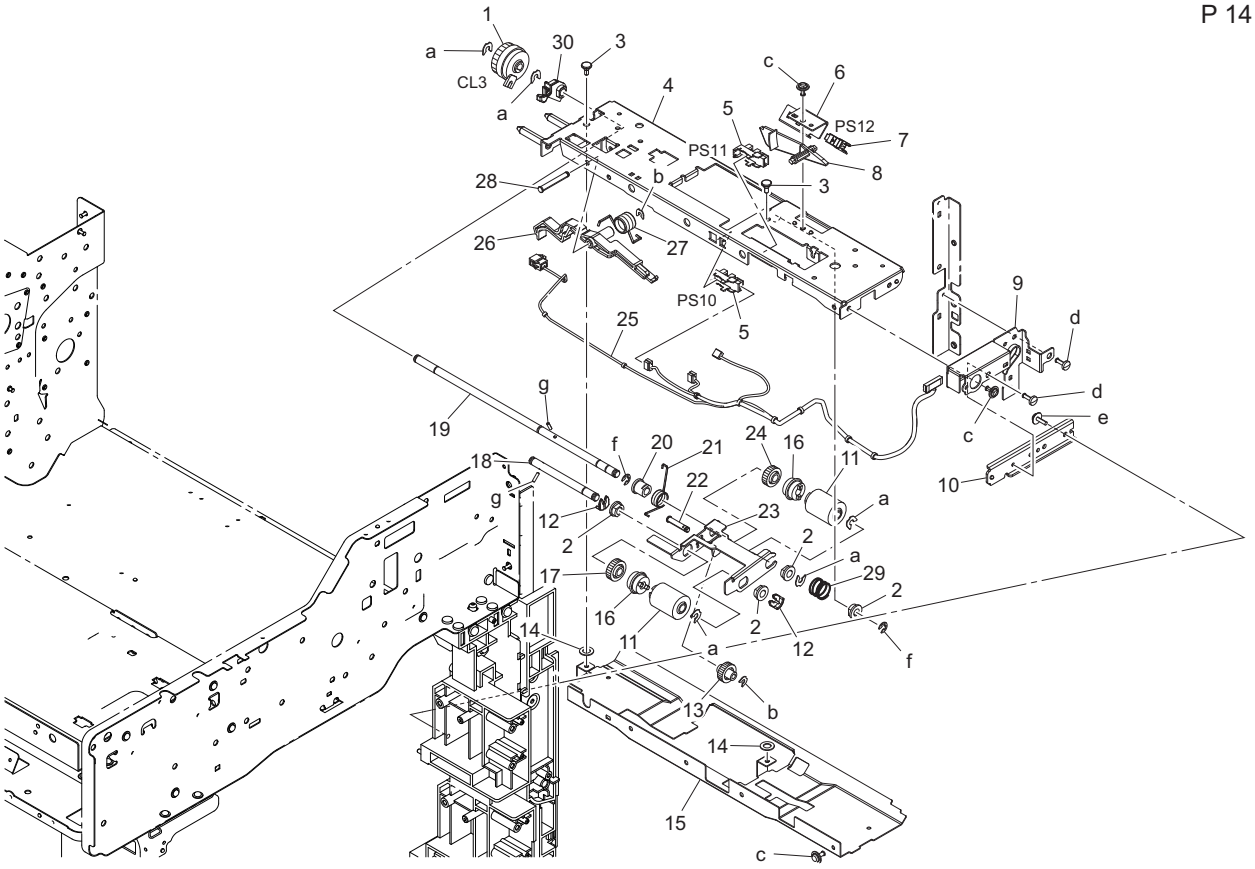
P 13



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
13	1	A1UDM20100	Clutch	Tray 3 vertical transport clutch (CL4)		C	1
13	2	4131353202	BUSHING			C	2
13	3	A1UD564401	Frame			D	1
13	4	A1UD562100	Roller			C	1
13	5	A1UD561400	Weight			D	1
13	6	4030311202	GUIDE PLATE		{bizhub 36}	D	1
13	7	A1UD561200	Guide Plate		{bizhub 42}	D	1
13	8	A1UD572400	Guide			C	1
13	9	A1UD570500	Guide			C	1
13	10	4030312501	TENSION SPRING			C	2
13	11	A1UD564300	Frame			D	1

13	12	A1UD561801	Mounting Plate			D	1
13	13	1200521204	PIN		{bizhub 36}	D	1
13	14	4030303101	TORSION SPRING		{bizhub 36}	C	1
13	15	A1UD561600	Conveyance Actuator		{bizhub 36}	D	1
13	16	A108M50100	Photointerrupter	Tray 3 vertical transport sensor (PS18)	{bizhub 36}	B	1
13	17	A1UEN12400	Conveyance Drive harness /2		{bizhub 36}	D	1
13	18	1134304101	COLLAR		{bizhub 36}	D	1
13	19	A0EDM50100	Photoreflector	Tray 3 vertical transport sensor (PS18)	{bizhub 42}	I	1
13	20	A1UD561900	Mounting Plate		{bizhub 42}	D	1
13	21	A1UDN12400	Conveyance Drive harness /2		{bizhub 42}	D	1
13	22	4030310801	GUIDE			C	2
13	23	4030303203	GUIDE			C	1
13	24	A1UD561500	Cushion			D	1
13	25	A1UD570300	Mounting Plate			D	1
13	26	A1UD570400	Guide			C	1
13	a	V217060001	E Ring			V	
13	b	V137030603	screw			V	
13	c	V153030803	Screw			V	
13	d	V116030603	Screw			V	

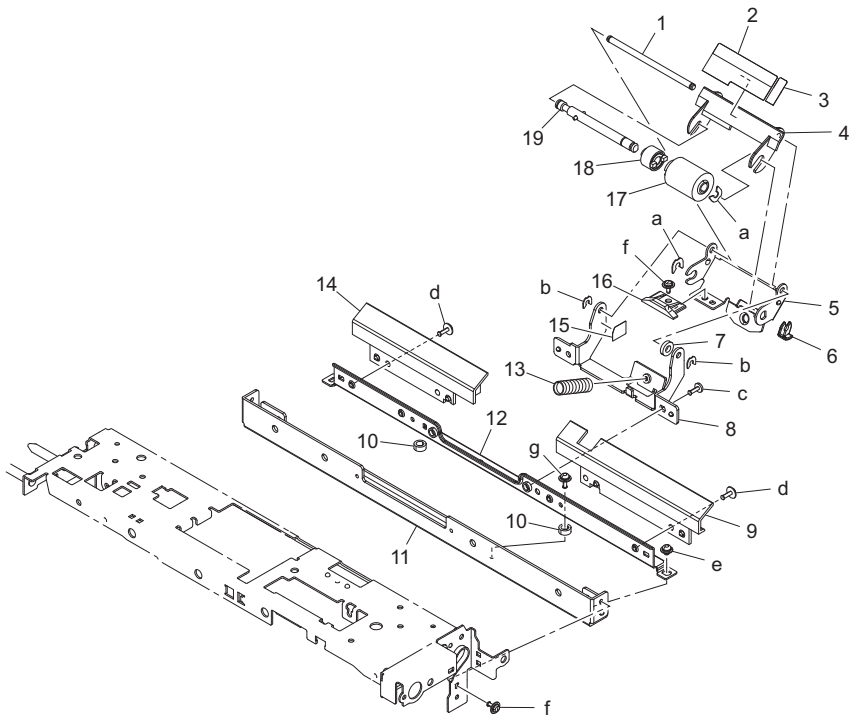
P 14



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
14	1	A00FM20000	Clutch	Tray 3 paper feed clutch (CL3)		C	1
14	2	4131300301	BUSHING			C	4
14	3	A1UD560600	Shoulder screw			D	2
14	4	A1UD565101	Frame			D	1
14	5	A108M50100	Photointerrupter	Tray 3 upper limit sensor (PS10) Tray 3 paper empty sensor (PS11)		B	2
14	6	A1UD564901	Mounting Plate		{bizhub 42}	D	1

14	7	A0EDM50100	Photoreflector	Tray 3 paper feed sensor (PS12)	{bizhub 42}	I	1
14	8	4030301612	ACTUATOR			C	1
14	9	A1UD564200	Frame			D	1
14	10	A1UD103300	Mounting Plate			D	1
14	11	A00J563600	Roller			A	2
14	12	56AA40490	SHAFT STOPPER 4			C	2
14	13	4030300801	GEAR 29T			C	1
14	14	A1UD560500	Cushion			D	2
14	15	A1UD560200	Guide Plate			D	1
14	16	A02E561100	Clutch			C	2
14	17	4425301601	GEAR 32T			C	1
14	18	A00J564000	Shaft /P			D	1
14	19	A1UD560401	Shaft			D	1
14	20	1065308601	BUSHING			C	1
14	21	A00J560302	Torsion Spring			C	1
14	22	4040309701	SHAFT			D	1
14	23	A00J560100	Paper feed Holder			D	1
14	24	4425301301	GEAR 30T			C	1
14	25	A1UDN12800	Paperfeed Wiring /2		{bizhub 42}	D	1
14	25	A1UEN12800	Paperfeed Wiring /2		{bizhub 36}	D	1
14	26	A1UD561101	Lever			C	1
14	27	A00J566801	Torsion Spring			C	1
14	28	4040309601	SHAFT			D	1
14	29	A1UD560701	Compressing Coil spring			C	1
14	30	A1UD565500	Paper feed Bushing			C	1
14	a	V218040086	E ring			V	
14	b	V218030086	E ring			V	
14	c	V137030603	screw			V	
14	d	V136030803	screw			V	
14	e	V153030803	Screw			V	
14	f	V217040001	E Ring			V	
14	g	V237200850	Pin			V	

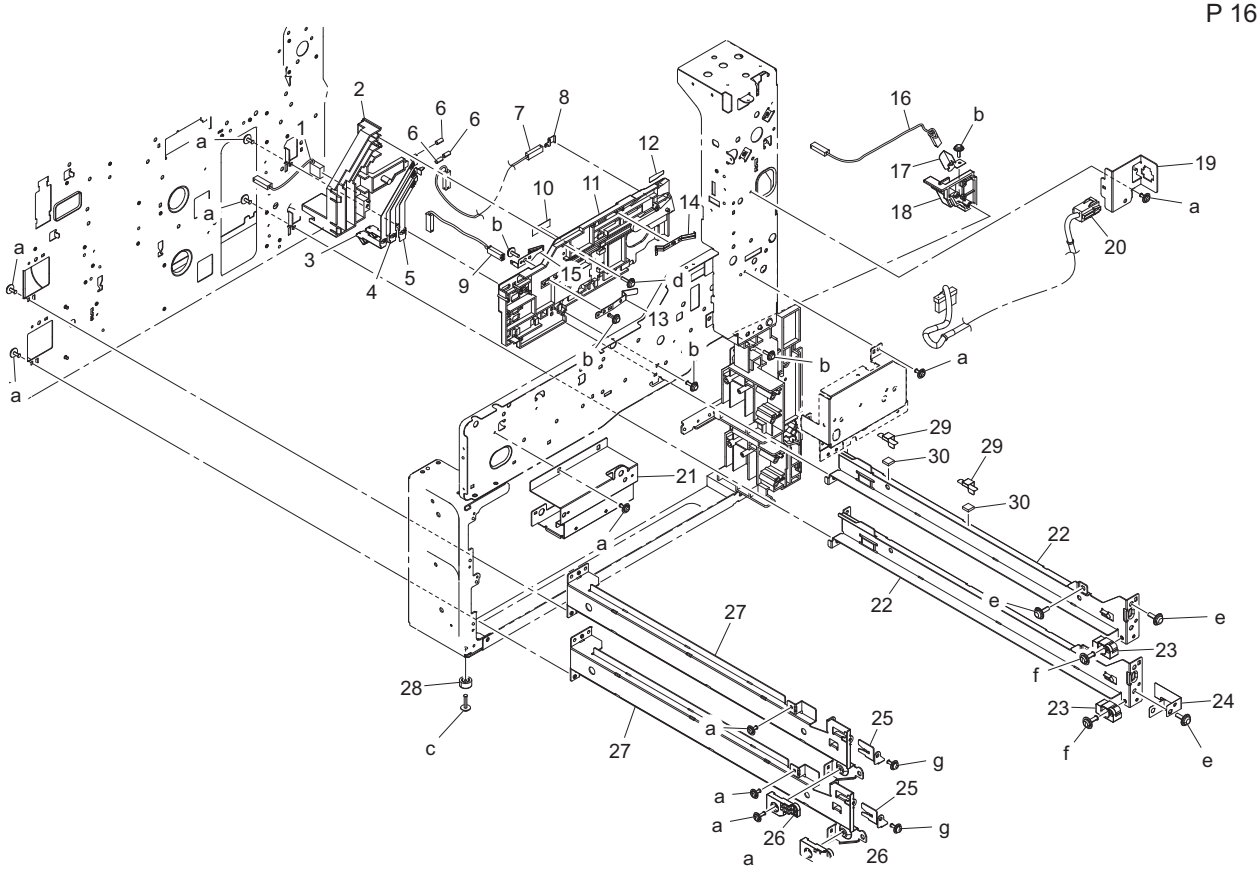
P 15



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
15	1	4030303901	SHAFT			D	1
15	2	4030307901	GUIDE			C	1
15	3	4030308001	GUIDE			C	1
15	4	4030307701	GUIDE			D	1
15	5	A00J564700	Holder /S			D	1
15	6	56AA40490	SHAFT STOPPER 4			C	1
15	7	A1UD563100	Cushion			C	1
15	8	A00J564600	Mounting Plate /S			D	1
15	9	A1UD562611	Guide			D	1
15	10	26NA20300	SEPARATE ROCKING COLLAR			C	2
15	11	4030302505	Bracket			D	1
15	12	4030303701	REINFORCE PLATE			D	1
15	13	4030301703	PRESSURE SPRING			C	1
15	14	A3EW562700	Guide			D	1
15	15	A1UD563200	Spacer			C	1
15	16	4030307801	LEVER			C	1
15	17	A00J563600	Roller			A	1
15	18	A0ED563900	Torque limiter			C	1
15	19	A0P0561600	Torque limiter /S			D	1
15	a	V218040086	E ring			V	
15	b	V218030086	E ring			V	
15	c	V136030803	screw			V	
15	d	V137030803	screw			V	
15	e	V116030403	Screw			V	
15	f	V137030603	screw			V	
15	g	V116030803	Screw			V	

1.10 IU/ CASSETTE RAIL SECTION

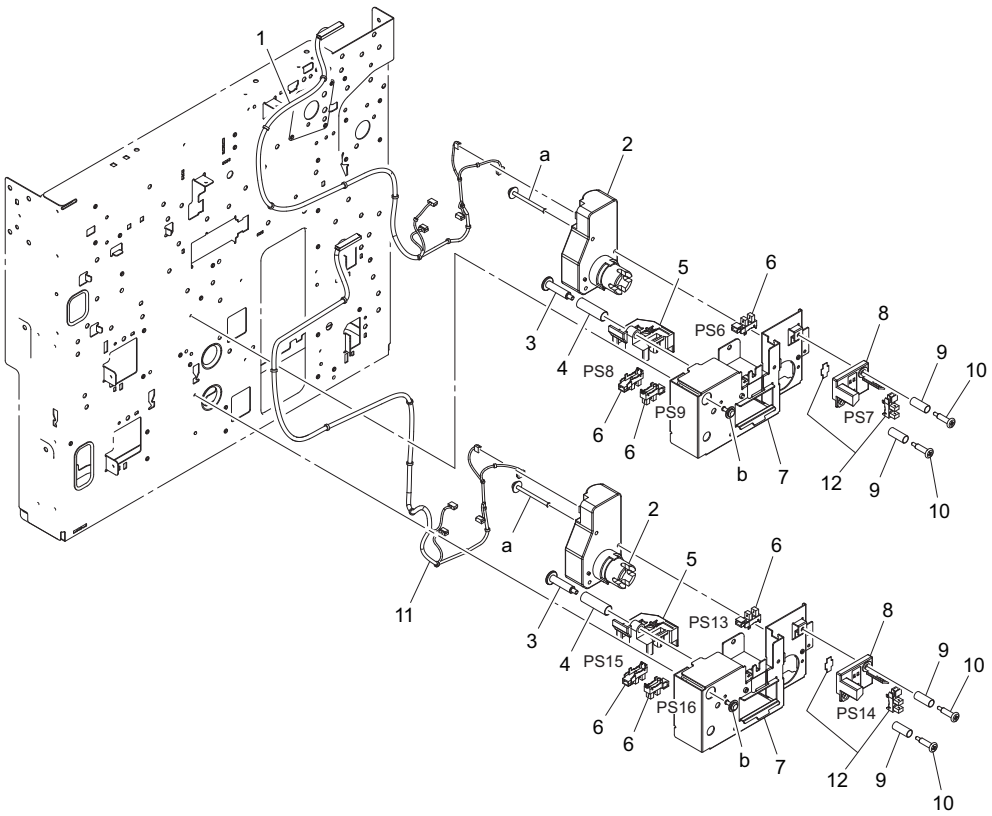
P 16



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
16	1	A1UDN12H00	Chaging Wiring			D	1
16	2	4030210201	HOLDER			D	1
16	3	4030211501	CONTACT			C	1
16	4	4030211301	CONTACT			C	1
16	5	4030211201	CONTACT			C	1
16	6	4011213401	PRESSURE SPRING			C	3
16	7	A1UDN12J00	Separating Wiring			D	1
16	8	1165215301	CONTACT			C	1
16	9	A1UDN12G00	Developing Wiring			D	1
16	10	1129730301	LABEL HI-VOL CAUTION			D	1
16	11	4030201903	Guide			D	1
16	12	4011204701	SEAL			C	1
16	13	1164202102	PLATE SPRING			C	1
16	14	1165214201	EARTH GROUND			D	1
16	15	4030211401	CONTACT			C	1
16	16	A1UDN12F00	Transfer Wiring			D	1
16	17	1164215501	CONTACT			C	1
16	18	A1UD105302	Holder			D	1
16	19	A1UD131400	Mounting Plate			D	1
16	20	A3EWN11501	Fixing Relay harness /2			D	1
16	21	A3EW132100	Mounting Plate			D	1
16	22	A1UD100701	Rail			D	2
16	23	A1UD102501	Guide			D	2
16	24	A1UD105001	Ground Plate			D	1
16	25	A1UD101600	Stopper			D	2
16	26	A1UD106001	Guide			D	2
16	27	A1UD100802	Rail			D	2
16	28	4030208101	SPACER			D	1
16	29	A3EW107200	Holding Sheet			C	2
16	30	A3EW107100	Vibrationproof Cushion			C	2
16	a	V137030603	screw			V	
16	b	V153030803	Screw			V	
16	c	V137031203	screw			V	
16	d	V153031003	screw			V	
16	e	V153041003	screw			V	
16	f	V137041003	screw			V	
16	g	V116030803	Screw			V	

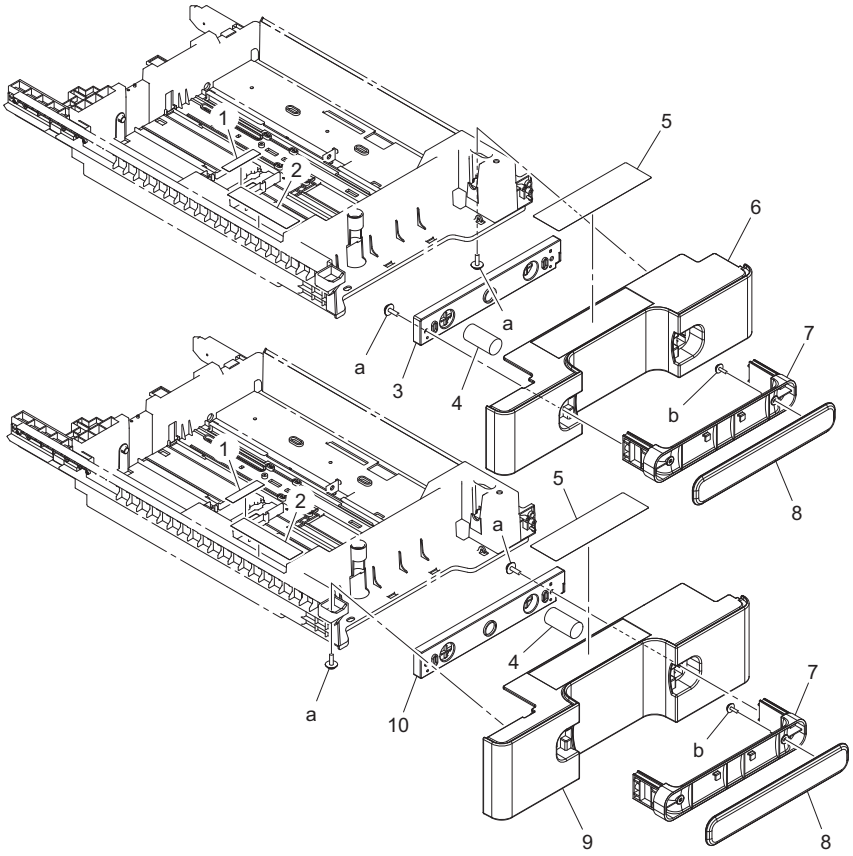
1.11 CASSETTE SECTION

P 17



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
17	1	A3EWN12K00	Paperfeed Detection harness /1			D	1
17	2	9J06M10300	MOTOR			B	2
17	3	4002313101	SHOULDER SCREW			C	2
17	4	65JA45030	PRESSURE SPRING			C	2
17	5	A0ED627500	Holder			C	2
17	6	A108M50100	Photointerrupter	Tray 2 set sensor (PS6) Tray 2 paper CD size sensor/1 (PS8) Tray 2 paper CD size sensor/2 (PS9) Tray 3 set sensor (PS13) Tray 3 paper CD size sensor/1 (PS15) Tray 3 paper CD size sensor/2 (PS16)		B	6
17	7	A3EW634600	Mounting Plate			D	2
17	8	4030308301	HOLDER			D	2
17	9	65JA45140	PRESSURE SPRING			C	4
17	10	4030322402	SHOULDER SCREW			C	4
17	11	A3EWN12M00	Paperfeed Detection harness /2			D	1
17	12	A108R90000	PHOTO INTERRUPTER	Tray 2 paper near empty sensor (PS7) Tray 3 paper near empty sensor (PS14)		I	2
17	a	V116033003	Screw			V	
17	b	V137030603	screw			V	

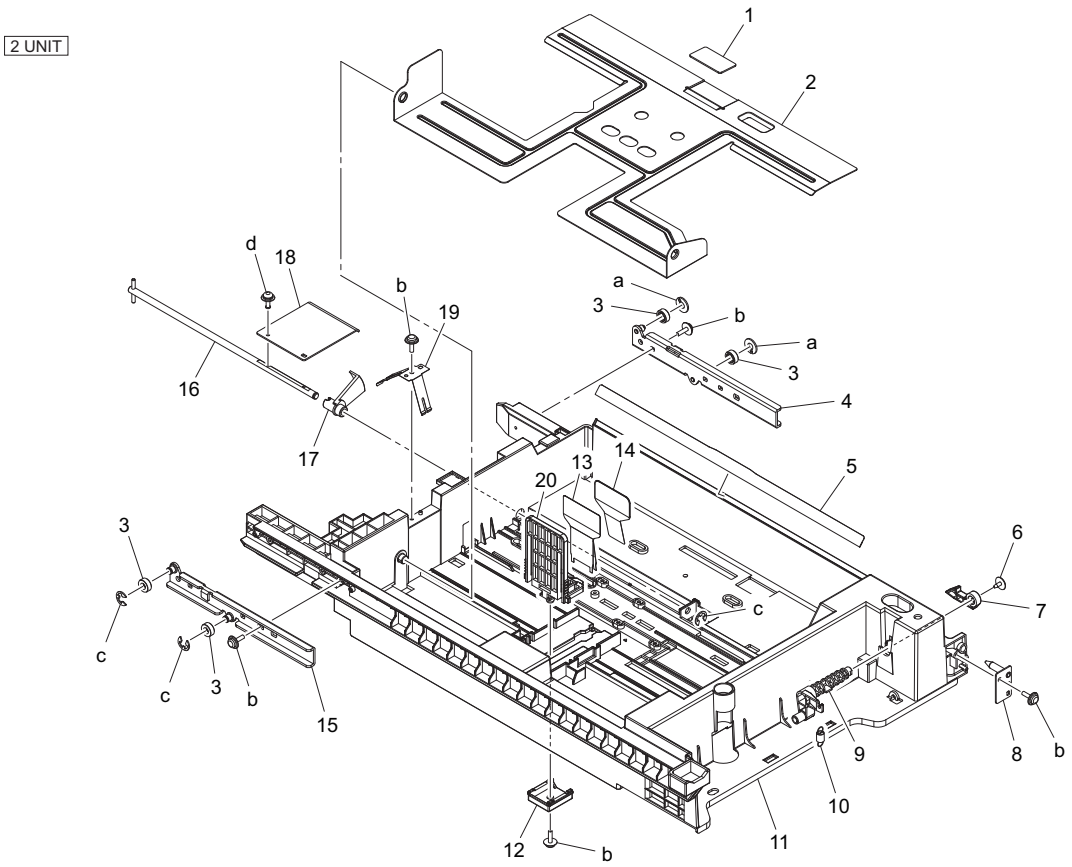
P 18



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
18	1	A3EW940400	Label			D	2
18	2	A3EW940500	Label			D	2
18	3	A1UD625300	Holder			D	1
18	4	A0ED625400	Compressing Coil spring			D	2
18	5	A0ED940100	Label Paper			D	2
18	6	A3EW625100	Cover			D	1
18	7	A0ED625201	Handle			C	2
18	8	A0ED625000	Cover			C	2
18	9	A3EW635100	Cover			D	1
18	10	A0ED625301	Holder			D	1
18	a	V153041003	screw			V	
18	b	V153030803	Screw			V	

P 19

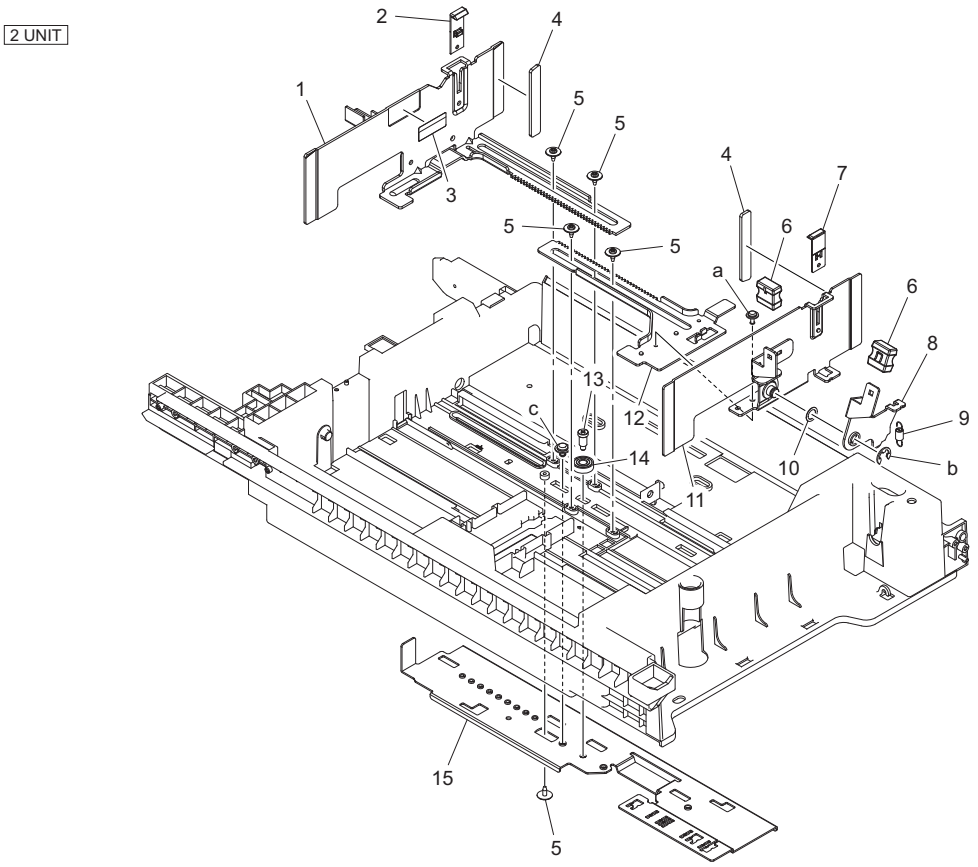
2 UNIT



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
19	1	4030322601	FRICTION SHEET			C	2
19	2	A0ED620500	Lifting Plate			D	2
19	3	A0ED623400	Roll			D	8
19	4	A0ED633100	Reinforce Plate /Right rear			D	2
19	5	A0ED620200	Guide			C	2
19	6	4163529301	SCREW			C	2
19	7	A0ED625500	Lock Lever			C	2
19	8	A3EWF62200	Caulking(Mounting Plate cassette)			D	2
19	9	A3EW625700	Release Lever			D	2
19	10	A0ED635801	Pulling Coil spring			D	2
19	11	A3EW620101	Paper feed Cassette			D	2
19	12	A3EW627100	Mounting Plate			D	2
19	13	4030322812	GUIDE			C	2
19	14	A02E622300	Guide plate			C	2
19	15	A0ED623200	Reinforce Plate /Left rear			D	2
19	16	A0ED631600	Lifting Shaft			D	2
19	17	A0ED620701	Actuator			C	2
19	18	4030320601	LEVER			D	2
19	19	A0ED622100	Ground Plate			D	2
19	20	4037321312	REGULATING PLATE			C	2
19	a	V221040050	ring			V	
19	b	V153030803	Screw			V	
19	c	V217040001	E Ring			V	
19	d	V116030803	Screw			V	

P 20

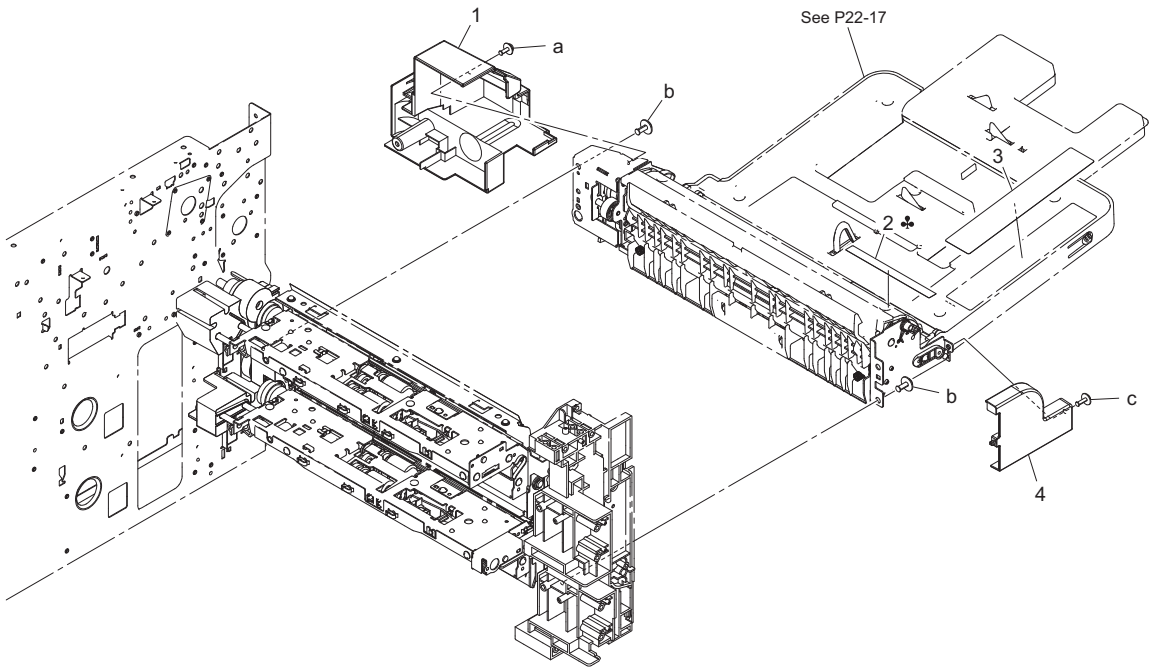
2 UNIT



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
20	1	A3EW620900	Regulating Plate /Rear			D	2
20	2	A0ED621000	Guide			D	2
20	3	4002730601	LABEL CARRYING CAPACITY			C	2
20	4	A02E622700	Cushion			C	4
20	5	4163529301	SCREW			C	10
20	6	4037320401	KNOB			C	4
20	7	4537331701	GUIDE			D	2
20	8	A0ED621300	Lever			D	2
20	9	A0ED621400	Pulling Coil spring			D	2
20	10	4011302101	WASHER			C	2
20	11	A0EDF62100	Caulking(Regulating Plate/ ASSY)			C	2
20	12	A0ED621101	Rack /Front			D	2
20	13	A0ED620601	Shoulder screw			D	2
20	14	A02E622400	Gear 14T			C	2
20	15	A0ED621901	Mounting Plate			D	2
20	a	V137030603	screw			V	
20	b	V217060001	E Ring			V	
20	c	V144040603	SCREW			V	

1.12 MANUAL PAPER FEED SECTION

P 21



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
21	1	A1UD590700	Cover			D	1
21	2	A3EW941000	Scale		C	D	1
21	2	A3EW940800	Scale		B	D	1
21	3	A3EW941200	Bypass Label			D	1
21	4	A1UD590600	Cover			D	1
21	a	V116030804	Screw			V	
21	b	V137040803	SCREW			V	
21	c	V137030804	screw			V	

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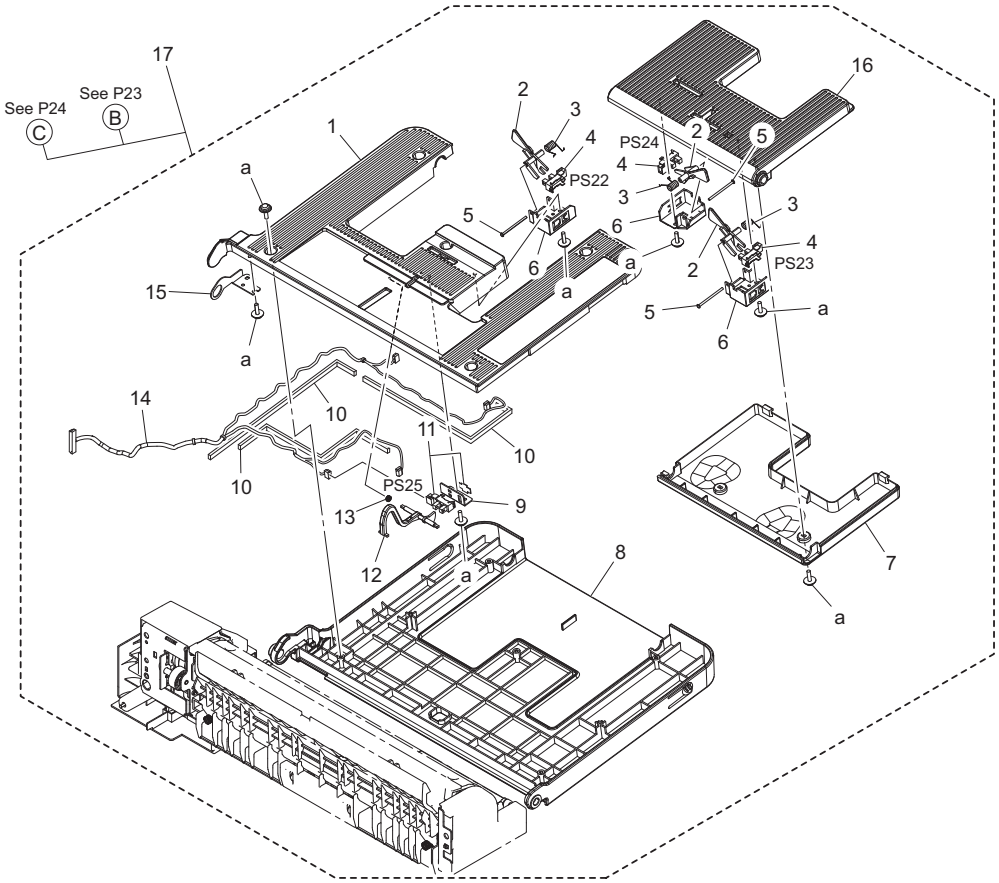
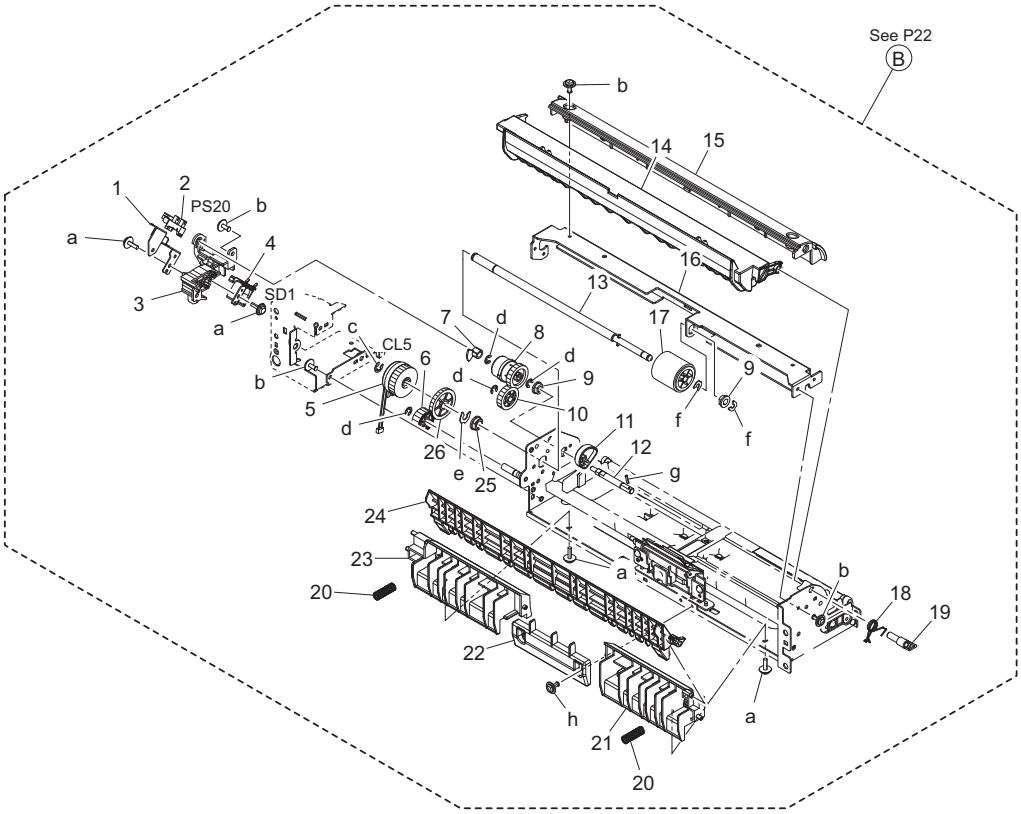


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
22	1	A0ED590900	Cover			D	1
22	2	A02E598400	Actuator			C	3
22	3	4030344601	TORSION SPRING			C	3
22	4	A108M50100	Photointerrupter	Tray 1 paper FD size sensor/1 (PS22) Tray 1 paper FD size sensor/2 (PS23) Tray 1 paper FD size sensor/3 (PS24)		B	3
22	5	1134304202	SHAFT			D	3
22	6	A0ED598700	Holder			D	3
22	7	A02E591801	Cover			C	1
22	8	A0ED590800	Tray			C	1
22	9	9J06323501	BRACKET			D	1
22	10	A1UD598600	Seal			D	3
22	11	A108R90000	PHOTO INTERRUPTER	Tray 1 paper empty sensor (PS25)		I	1
22	12	A02E598200	Actuator			C	1
22	13	4038323402	TORSION SPRING			C	1
22	14	A1UDN12B00	Paperfeed Detection harness /3			D	1
22	15	A0ED591000	Mounting Plate			D	1
22	16	A02E591100	Tray			C	1
22	17	A1UDR70600	Bypass Tray Assy			S	1
22	a	V153030803	Screw			V	

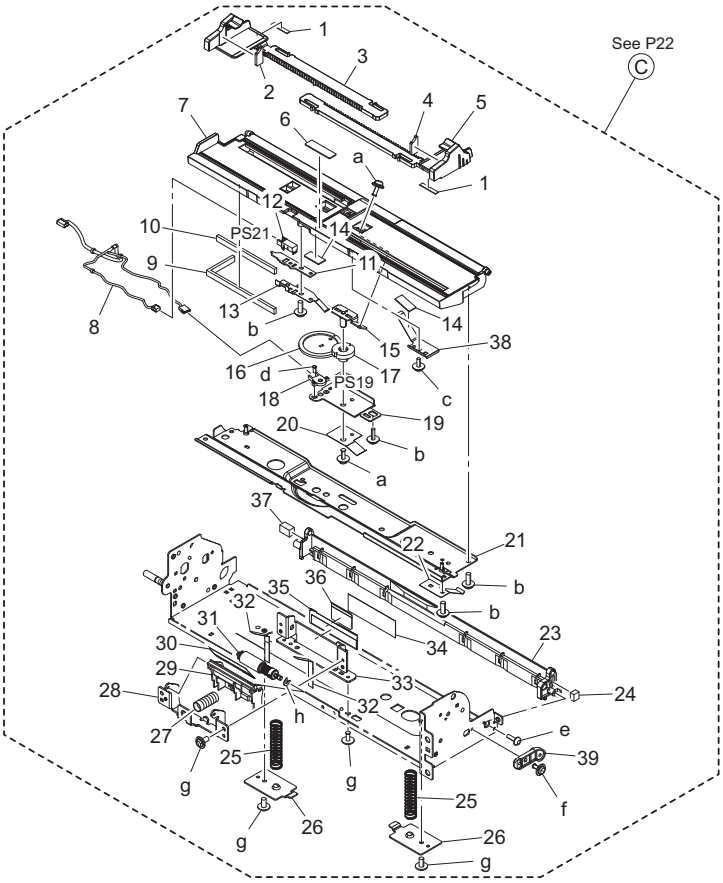
P 23



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
23	1	A02E595600	Bracket			D	1
23	2	A108M50100	Photointerrupter	Tray 1 lift-up position sensor (PS20)		B	1
23	3	A02E595201	Bracket			D	1
23	4	9J06M20000	SOLENOID	Tray 1 pick-up solenoid (SD1)		C	1
23	5	A1UDM20100	Clutch	Tray 1 paper feed clutch (CL5)		C	1
23	6	A1UD595500	Gear			C	1
23	7	4038323701	SHIELD PLATE			C	1
23	8	A02E595100	Clutch assy			C	1
23	9	4131300301	BUSHING			C	2
23	10	A02E595400	Gear 22T			C	1
23	11	A02E596002	Cam			C	1
23	12	A02E595302	Shaft			D	1
23	13	A1UD595700	Shaft			D	1
23	14	A1UD594101	Guide			C	1
23	15	A02E591200	Cover			C	1
23	16	A1UD591300	Mounting Plate			D	1
23	17	A00F623201	Roller			B	1
23	18	A02E594500	Torsion spring			C	1
23	19	A02E594600	Lever			C	1
23	20	A1UD595900	Compressing Coil spring			C	2
23	21	A1UD590100	Guide			D	1
23	22	A1UD591500	Guide			D	1
23	23	A1UD590200	Guide			D	1
23	24	A1UD594200	Guide			C	1
23	25	4131353202	BUSHING			C	1
23	26	A02E596100	Gear 30T			C	1
23	a	V153030803	Screw			V	
23	b	V137030603	screw			V	
23	c	V217050001	E ring			V	

23	d	V217040001	E Ring			V	
23	e	V218060086	E ring			V	
23	f	V218040086	E ring			V	
23	g	V233201050	pin			V	
23	h	V137030803	screw			V	

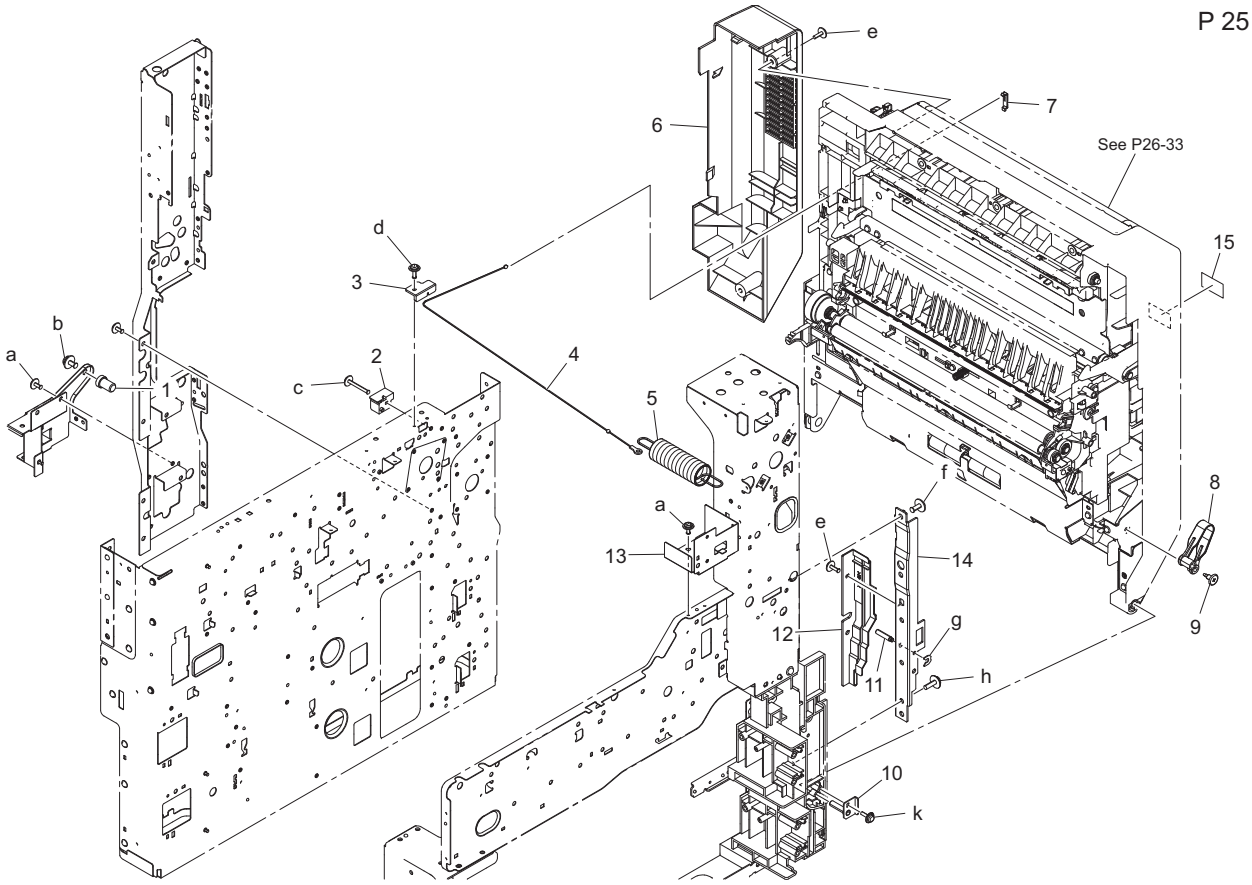
P 24



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
24	1	A02E593400	Brake			C	2
24	2	A02E593300	Brake			C	1
24	3	A02E592400	Regulating plate			C	1
24	4	A02E593200	Brake			C	1
24	5	A02E592300	Regulating plate			C	1
24	6	4687328101	FRICTION SHEET			C	1
24	7	A0ED592201	Lifting Plate			C	1
24	8	A1UDN12C02	Paperfeed Detection harness /4			D	1
24	9	A1UD599200	Seal			D	1
24	10	A02E593700	Seal			C	1
24	11	A0ED599100	Mounting Plate			D	1
24	12	A0EDM50100	Photoreflector	Tray 1 paper sensor (PS21)		I	1
24	13	A0ED599000	Ground Plate			D	1
24	14	A1UD598100	Friction Plate			D	2
24	15	A02EG62100	Caulking Gear Mounting Plate			D	1
24	16	A02E598300	Gear 40T			C	1
24	17	A02E592100	Gear 20T			C	1
24	18	A1UDM50100	VR	Tray 1 paper CD size sensor (PS19)		D	1
24	19	A02E598100	Bracket			D	1
24	20	A02E593500	Earth ground			D	1
24	21	A1UD592800	Reinforce Plate			D	1
24	22	A0ED593600	Ground Plate			D	1
24	23	A0ED590500	Holder			C	1

24	24	A0ED591900	Cushion			C	1
24	25	A02E592501	Pressure Spring			C	2
24	26	A02E592600	Hold plate			D	2
24	27	4030347501	PRESSURE SPRING			C	1
24	28	A02E597200	Bracket			D	1
24	29	A0ED597100	Holder			D	1
24	30	A02E597600	Guide			C	1
24	31	4034015101	SEPARATION ROLLER			A	1
24	32	A0ED599300	Guide			D	2
24	33	A02E597301	Reinforce plate			D	1
24	34	4030348901	SEAL			C	1
24	35	4030340201	GUIDE PLATE			C	1
24	36	4030340301	GUIDE			C	1
24	37	A0ED591700	Cushion			C	1
24	38	A0ED593100	Brake Part			D	1
24	39	A0ED593900	Hold Plate			C	1
24	a	V116030804	Screw			V	
24	b	V153030803	Screw			V	
24	c	V153030603	screw			V	
24	d	V111170403	screw			V	
24	e	V145030803	screw			V	
24	f	V137030803	screw			V	
24	g	V137030603	screw			V	
24	h	V218030086	E ring			V	

1.13 PAPER TRANSPORT SECTION



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
25	1	A1UD101500	Shaft			D	1
25	2	A1UD103900	Guide			D	1
25	3	A1UD103800	Stopper			D	1
25	4	A1UD103700	Wire			C	1

25	5	A1UD101300	Pulling Coil spring			C	1
25	6	A1UD810400	Cover			D	1
25	7	4030103301	COVER			D	1
25	8	A1UD711200	Stopper			C	1
25	9	4038351102	SHOULDER SCREW			C	1
25	10	A1UDR7A000	Supporting point Caulking Assy			D	1
25	11	A1UD121000	Shaft			D	1
25	12	A1UD105200	Cover			D	1
25	13	A1UD132400	Mounting Plate			D	1
25	14	A1UD120700	Reinforce Plate /Right front			D	1
25	15	A3EW940200	Label			D	1
25	a	V137030603	screw			V	
25	b	V116040804	Screw			V	
25	c	V137032003	screw			V	
25	d	V137030803	screw			V	
25	e	V137030804	screw			V	
25	f	V137040803	SCREW			V	
25	g	V218030086	E ring			V	
25	h	V153041003	screw			V	
25	k	V153030803	Screw			V	

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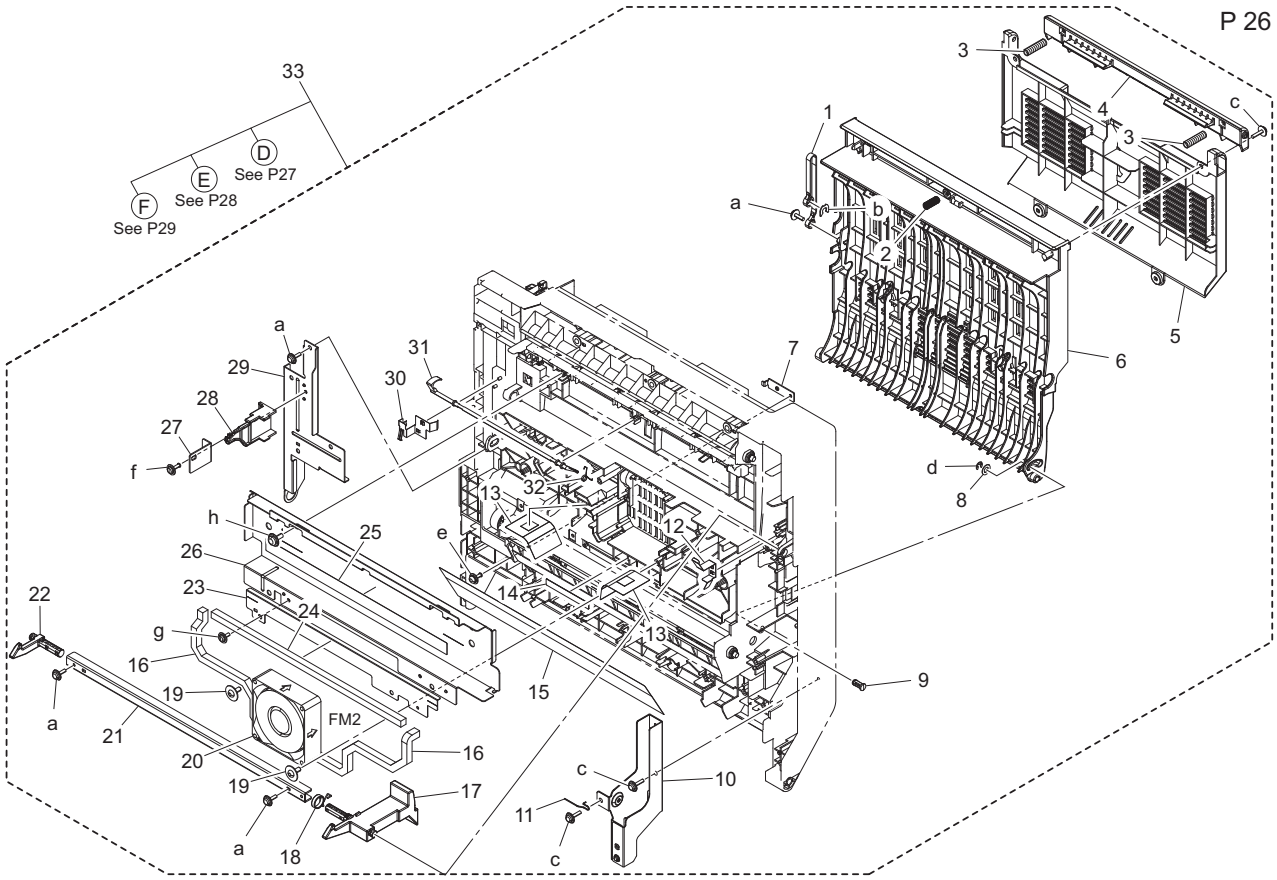
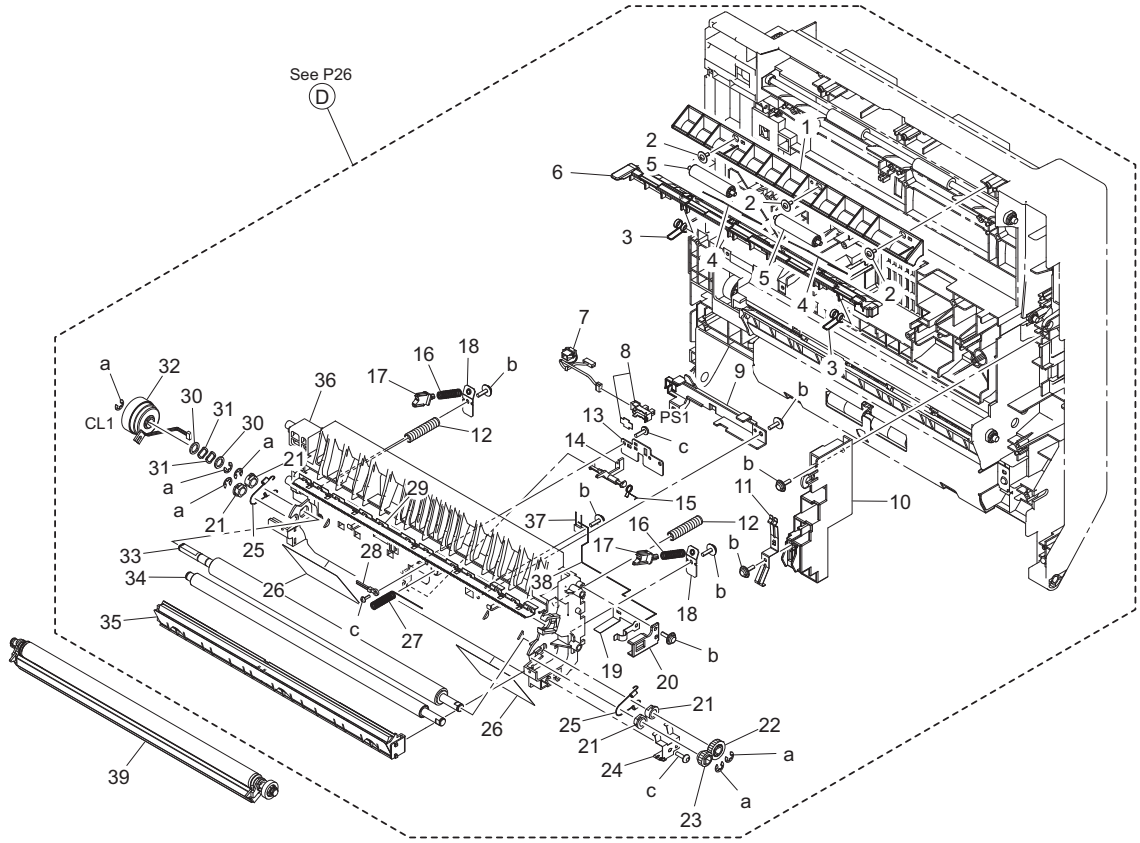


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
26	1	A1UD811000	Stopper			C	1
26	2	A1UD814000	Compressing Coil spring			C	1
26	3	4066370501	PRESSURE SPRING			C	2
26	4	A1UD810300	Handle			C	1
26	5	A1UD810100	Cover			C	1
26	6	A1UD810201	Door			C	1
26	7	A1UD712500	Mounting Plate			D	1
26	8	4661315501	WASHER			D	1
26	9	A11U815000	Pin			D	1

26	10	A1UD710101	Mounting Plate			D	1
26	11	A1UD711900	Ground Part			D	1
26	12	A1UD812200	Ground Plate			D	1
26	13	A1UD712300	Seal			D	2
26	14	A1UD712700	Seal			D	1
26	15	4012352412	GUIDE			C	1
26	16	A1UD712100	Seal			D	2
26	17	A1UD710302	Lock Claw /Front			C	1
26	18	A1UD711300	Torsion Spring			C	1
26	19	4163529301	SCREW			C	2
26	20	9J03M10000	FAN MOTOR	Cooling fan motor (FM2)		B	1
26	21	A1UD710500	Mounting Plate			D	1
26	22	A1UD710400	Claw			C	1
26	23	A1UD711000	Mounting Plate			D	1
26	24	A1UD712200	Seal			D	1
26	25	4138586601	LABEL HI-TEMP CAUTION			D	1
26	26	A1UD710800	Reinforce Plate			D	1
26	27	A1UD712800	Reinforce Plate			D	1
26	28	A1UD711101	Gear			C	1
26	29	A1UD710200	Mounting Plate			D	1
26	30	A1UD710900	Ground Plate			D	1
26	31	A1UD812900	Actuator			C	1
26	32	A02E813100	Torsion spring			D	1
26	33	A1UDR70711	Vertical Conveyance Assy			S	1
26	a	V153030803	Screw			V	
26	b	V218060086	E ring			V	
26	c	V153031004	screw			V	
26	d	V217040001	E Ring			V	
26	e	V116030803	Screw			V	
26	f	V137030803	screw			V	
26	g	V137030603	screw			V	
26	h	V153040803	screw			V	

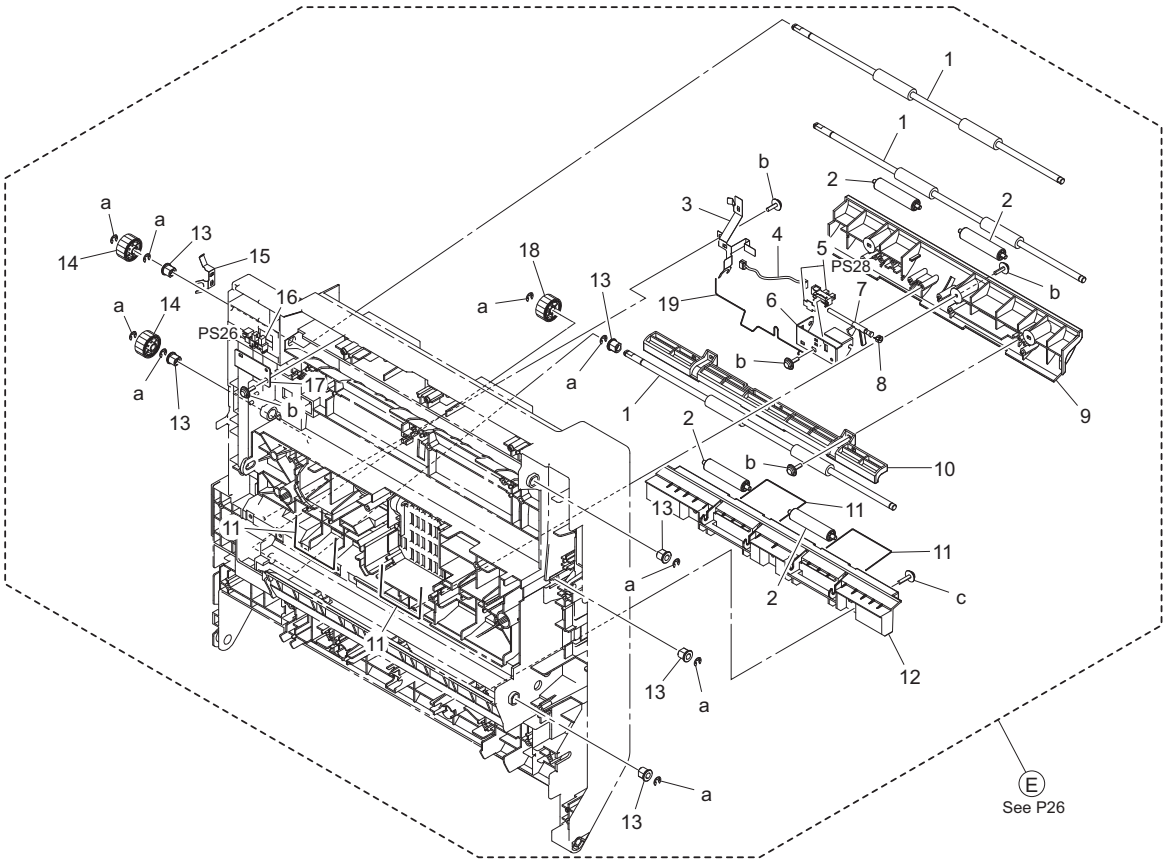
P 27



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
27	1	A1UD812700	Guide			D	1
27	2	4163529301	SCREW			C	3
27	3	A1UD711800	Torsion Coil spring			C	2
27	4	A1UD814100	Holding Part			C	2
27	5	4497311601	ROLL			C	2
27	6	A1UD810900	Guide			D	1
27	7	A1UDN13200	Conveyance Detection harness			D	1
27	8	A108R90000	PHOTO INTERRUPTER	Registration sensor (PS1)		I	1
27	9	A1UD700300	Holder			D	1
27	10	A1UD710700	Holder			D	1
27	11	A1UD712000	Contact			D	1
27	12	4011351501	PRESSURE SPRING			C	2
27	13	1164352901	BRACKET			D	1
27	14	4030350401	ACTUATOR			C	1
27	15	1164352702	TORSION SPRING			C	1
27	16	4030420701	PRESSURE SPRING			C	2
27	17	1164420602	BUSHING			C	2
27	18	1164420902	CONTACT			C	2
27	19	A1UD713000	Contact			D	1
27	20	1164421801	HOLDER			D	1
27	21	1164354901	BUSHING			B	4
27	22	1164350801	GEAR 18T			B	1
27	23	1164351501	GEAR 13T			B	1
27	24	1164351402	EARTH GROUND			C	1
27	25	1164351302	Tension Spring			C	2
27	26	4030350501	GUIDE			C	2
27	27	4030421304	Pressure Spring			C	1
27	28	9372271022	THERMISTOR			B	1
27	29	1164420204	NEUTRALIZING NEEDLE			D	1

27	30	4011351201	WASHER			C	2
27	31	4011302001	WASHER			C	2
27	32	A1UDM20000	Clutch	Registration clutch (CL1)		C	1
27	33	A1UD700200	Roller			C	1
27	34	4011350901	ROLLER			C	1
27	35	4040077800	PAPER DUST REMOVER			A	1
27	36	4030350109	Holder			C	1
27	37	V800500300	FIXED POWER RESISTORS			D	1
27	38	4030422001	CONTACT			C	1
27	39	A1UDR70500	Transfer Roller Assy			A	1
27	a	V217050001	E ring			V	
27	b	V153030803	Screw			V	
27	c	V145030803	screw			V	

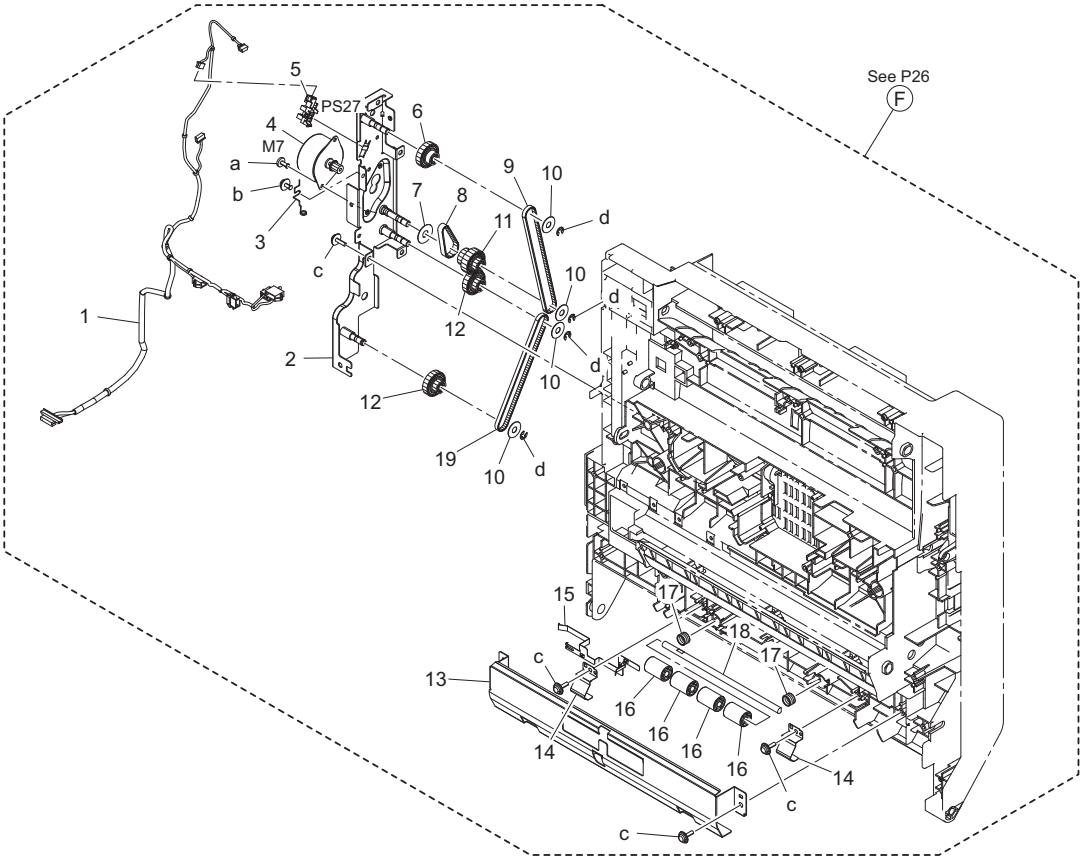
P 28



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
28	1	A1UD810500	Roller			C	3
28	2	4497311601	ROLL			C	4
28	3	A1UD812300	Ground Plate			D	1
28	4	A1UDN12P01	ADU Relay harness			D	1
28	5	A108R90000	PHOTO INTERRUPTER	Duplex transport sensor/2 (PS28)		I	1
28	6	4030374201	BRACKET			D	1
28	7	4030374001	ACTUATOR			C	1
28	8	4030374103	TORSION SPRING			C	1
28	9	A1UD813400	Guide			D	1
28	10	A1UD811100	Guide			D	1
28	11	A1UD814100	Holding Part			C	4
28	12	A1UD812800	Guide			D	1
28	13	A02E815200	BUSHING			C	6
28	14	A1UD811600	Gear			C	2
28	15	A1UD812600	Ground Plate			D	1
28	16	A108M50100	Photointerrupter	Duplex unit door sensor (PS26)		B	1

28	17	A02E810800	Bracket			D	1
28	18	A1UD813700	Gear			C	1
28	19	A1UD814201	Ground Part			D	1
28	a	V217040001	E Ring			V	
28	b	V153030803	Screw			V	
28	c	V153031004	screw			V	

P 29

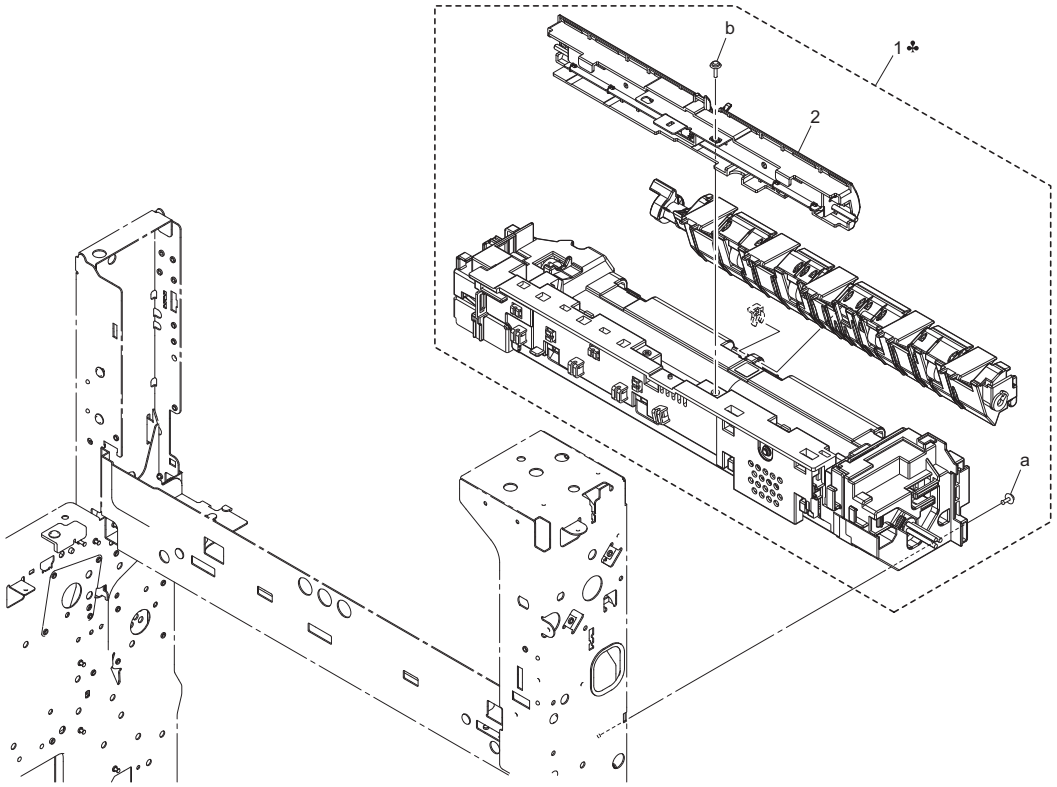


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
29	1	A1UDN12N01	Conveyance Drive harness /1			D	1
29	2	A1UDR7A100	ADU Drive Caulking Assy			D	1
29	3	A1UD814300	Ground Spring			D	1
29	4	A1UDM10100	Stepping motor	Duplex transport motor (M7)		C	1
29	5	A108M50100	Photointerrupter	Duplex transport sensor/1 (PS27)		B	1
29	6	A1UD811700	Gear			C	1
29	7	A1UD813900	Flange			C	1
29	8	A1UD813800	Timing belt			C	1
29	9	A1UD811300	Timing belt			C	1
29	10	A02E811900	Flange			C	4
29	11	A1UD813200	Gear			C	1
29	12	A1UD813600	Gear			C	2
29	13	A1UD711500	Guide Plate			D	1
29	14	A1UD712600	Plate spring			D	2
29	15	A1UD711700	Ground Plate			D	1
29	16	4030312201	ROLL			C	4
29	17	A1UD711600	Compressing Spring			C	2
29	18	4030312101	SHAFT			D	1
29	19	A02E811300	Timing Belt 264L			C	1
29	a	V118030603	screw			V	
29	b	V116030603	Screw			V	
29	c	V153030803	Screw			V	

29	d	V217040001	E Ring			V	

1.14 FUSING SECTION

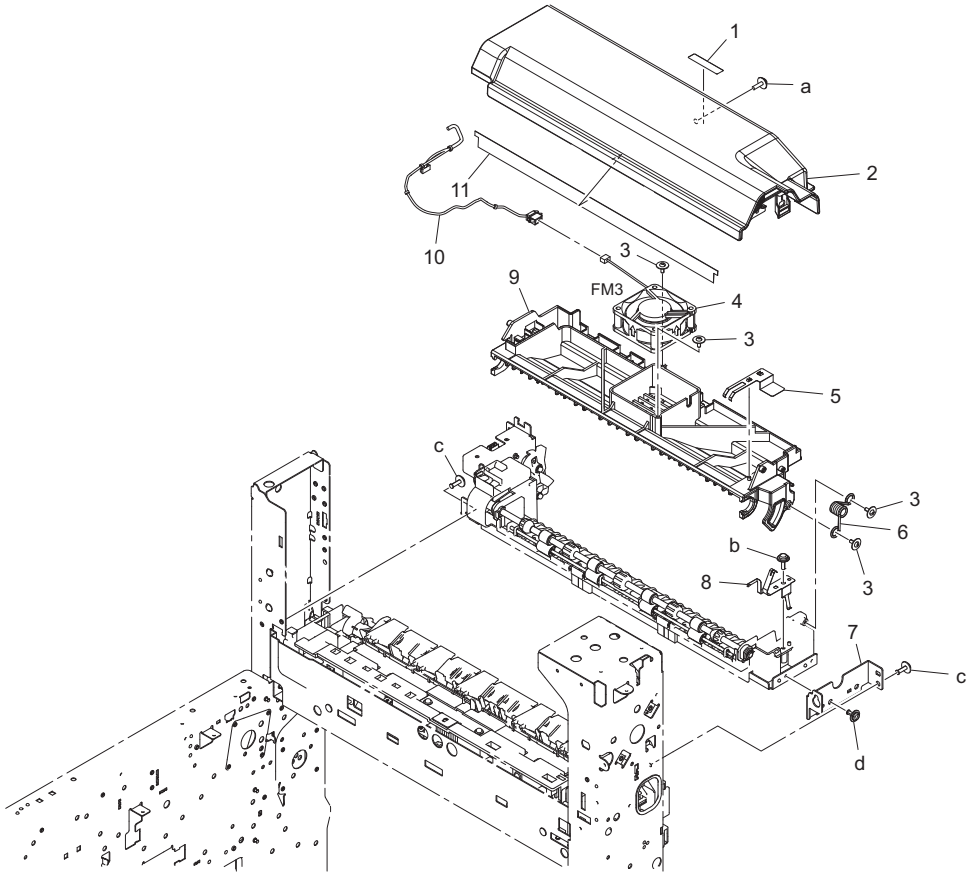
P 30



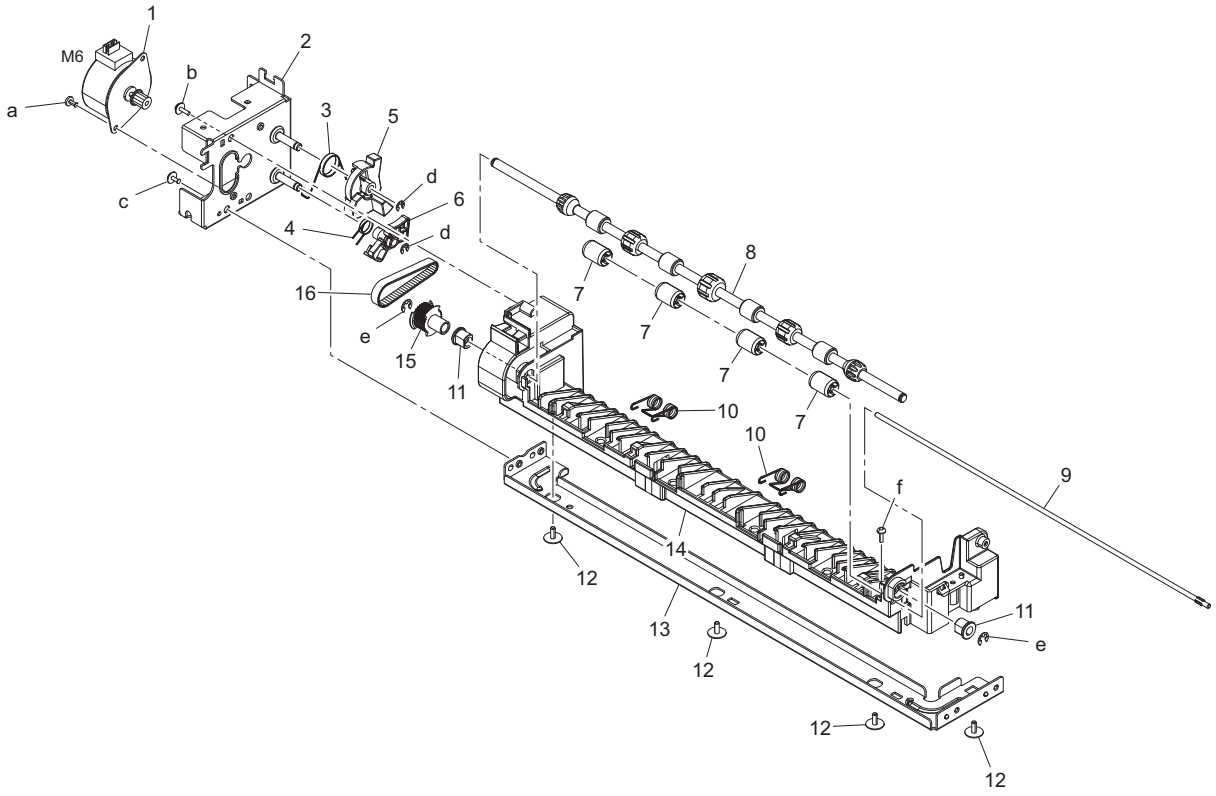
Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
30	1	A1UDR71011	Fusing Unit 200V		C	B	1
30	1	A1UDR70911	Fusing Unit 120V		B	B	1
30	2	A1UDR72100	Separating Guide Assy			D	1
30	a	V116030803	Screw			V	
30	b	V153031003	screw			V	1

1.15 PAPER EXIT SECTION

P 31



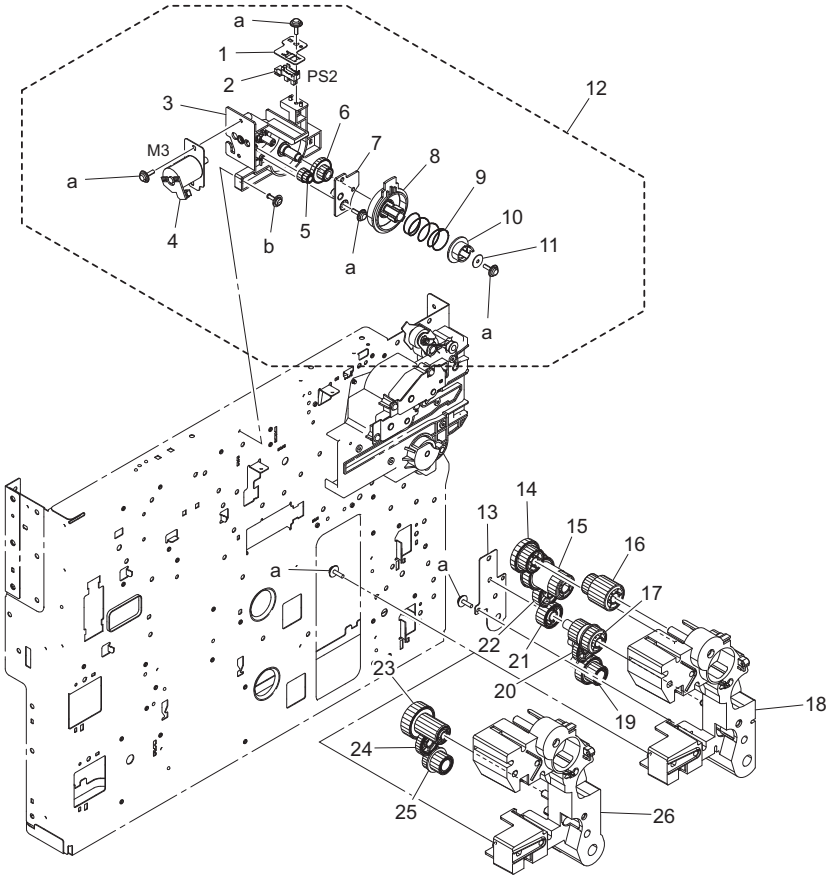
Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
31	1	A1UD941400	Label			D	1
31	2	A1UD890100	Cover			D	1
31	3	4163529301	SCREW			C	4
31	4	4556M10000	FAN MOTOR	Fusing unit cooling fan motor (FM3)		B	1
31	5	A1UD890700	Ground Plate /Upper			D	1
31	6	A1UD890800	Torsion Coil spring			C	1
31	7	A1UD892100	Mounting Plate /Front			D	1
31	8	A1UD890500	Ground Plate /Lower			D	1
31	9	A1UD890401	Guide			D	1
31	10	A1UDN12E00	ADU Wiring			D	1
31	11	4038585601	NEUTRALIZING BRUSH			C	1
31	a	V153030804	screw			V	
31	b	V153030803	Screw			V	
31	c	V137030803	screw			V	
31	d	V137030603	screw			V	



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
32	1	A1UDM10100	Stepping motor	Switchback motor (M6)		C	1
32	2	A1UD892800	Mounting Plate /ASSY			D	1
32	3	A1UD891800	Torsion Coil spring /1			D	1
32	4	A1UD891600	Torsion Coil spring /2			D	1
32	5	A1UD891100	Lever /1			C	1
32	6	A1UD891500	Lever /2			C	1
32	7	A1UD892900	Roll			C	4
32	8	A1UD891000	Paper exit Roller			C	1
32	9	4025598401	SHAFT			D	1
32	10	A1UD890600	Torsion Coil spring			C	2
32	11	A02E815200	BUSHING			C	2
32	12	4163529301	SCREW			C	4
32	13	A1UD892200	Mounting Plate			D	1
32	14	A1UD890201	Guide			D	1
32	15	A1UD892600	Pulley			C	1
32	16	A1UD892700	Timing belt			C	1
32	a	V118030603	screw			V	
32	b	V153030803	Screw			V	
32	c	V137030603	screw			V	
32	d	V217030001	E Ring			V	
32	e	V217040001	E Ring			V	
32	f	V145030803	screw			V	

1.16 HOPPER/ PAPER FEED DRIVE SECTION

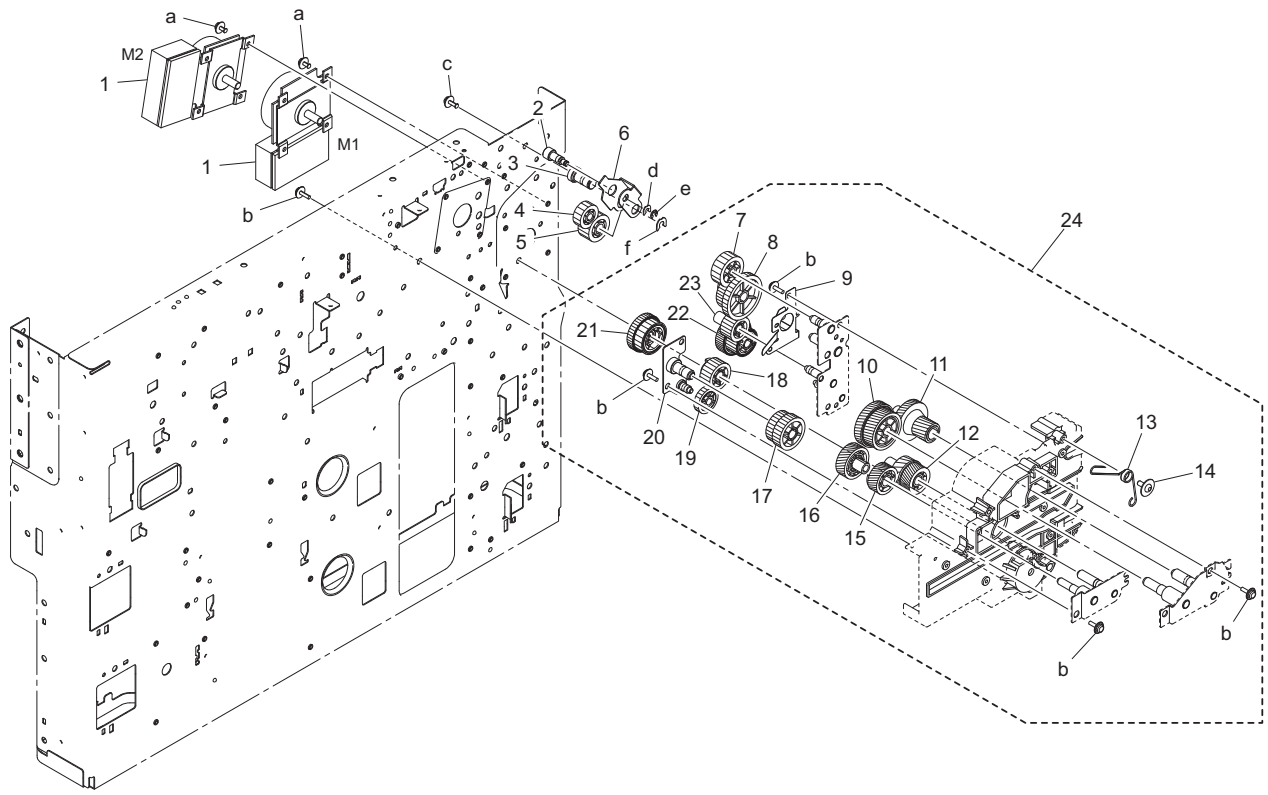
P 33



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
33	1	A1UD218900	Mounting Plate			D	1
33	2	A108M50100	Photointerrupter	Toner bottle home sensor (PS2)		B	1
33	3	A1UD218601	Holder			D	1
33	4	A1UDR70200	Hopper Drive Motor Assy	Toner bottle motor (M3)		C	1
33	5	A1UD218100	Gear			C	1
33	6	A1UD218200	Gear			C	1
33	7	A1UD218700	Mounting Plate			D	1
33	8	A1UD218301	Gear			C	1
33	9	A1UD218501	Compressing Coil spring			C	1
33	10	A1UD218400	Joint			C	1
33	11	A1UD219000	Washer			C	1
33	12	A1UDR70100	Hopper Drive Assy			D	1
33	13	A1UD211401	Mounting Plate		{bizhub 42}	D	1
33	14	A1UD210300	Gear			C	1
33	15	A1UD210401	Gear			C	1
33	16	A1UD210201	Gear			C	1
33	17	A1UD210601	Gear		{bizhub 42}	C	1
33	18	A1UD210001	Holder		{bizhub 42}	D	1
33	19	A1UD210900	Gear		{bizhub 42}	C	1
33	20	A1UD211300	Gear		{bizhub 42}	C	1
33	21	A1UD212000	Gear		{bizhub 42}	C	1
33	22	A1UD210500	Gear			C	1
33	23	A1UE210700	Gear		{bizhub 36}	C	1
33	24	A1UE210800	Gear		{bizhub 36}	C	1
33	25	A1UE211000	Gear		{bizhub 36}	C	1
33	26	A1UE210101	Holder		{bizhub 36}	D	1
33	a	V153030803	Screw			V	
33	b	V137030803	screw			V	16

1.17 MAIN DRIVE SECTION

P 34

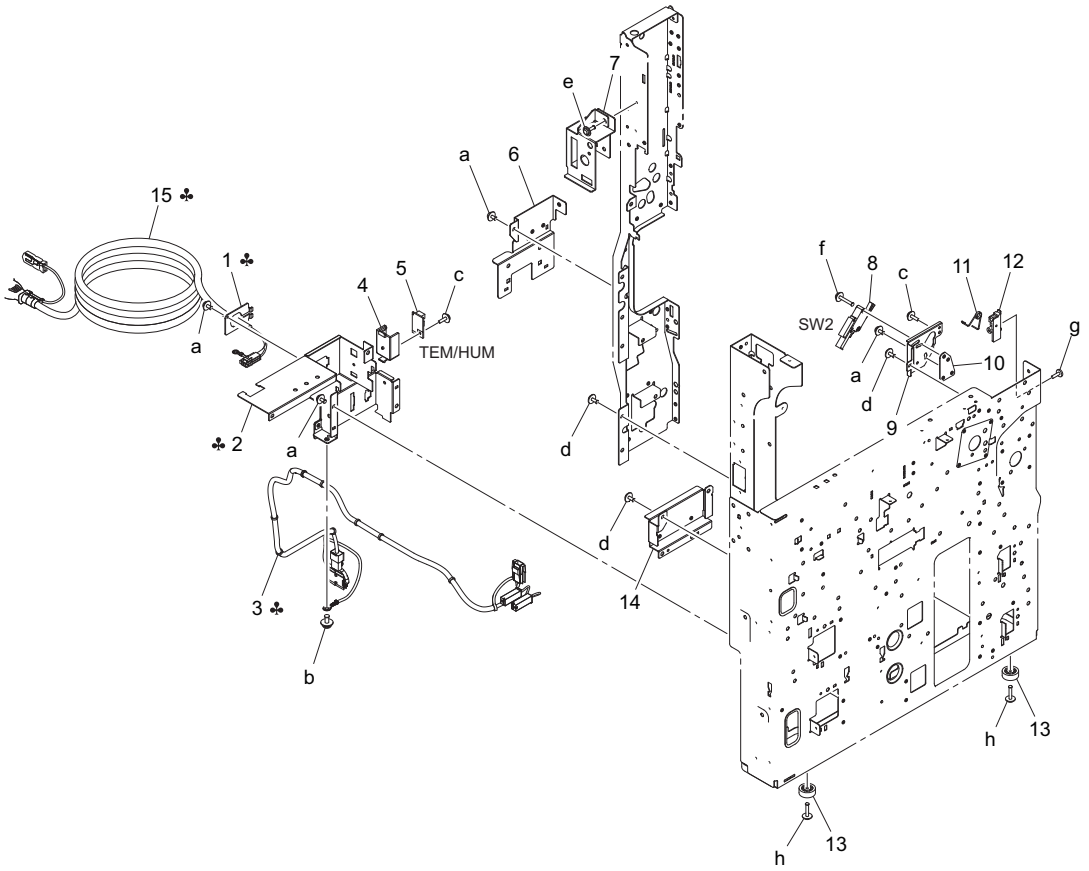


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
34	1	A1UDM10000	DC Brushless motor	Transport motor (M1) PC motor (M2)		C	2
34	2	4030252401	SHAFT			D	1
34	3	4030252303	Shaft			D	1
34	4	4030251801	GEAR 18T			C	1
34	5	4030251701	GEAR 21T			C	1
34	6	4030252501	BRACKET			D	1
34	7	4030251601	GEAR 24T			C	1
34	8	4030251501	GEAR 28/49T			C	1
34	9	4030253002	PLATE SPRING			C	1
34	10	4030250501	GEAR 58/67T			C	1
34	11	4030250601	GEAR 23/60T			C	1
34	12	4030251201	GEAR 19/44T			C	1
34	13	4030253104	Spring			C	1
34	14	4163529301	SCREW			C	1
34	15	4030251101	GEAR 42T			C	1
34	16	4030251001	GEAR 49T			C	1
34	17	4030252601	GEAR 32/35T			C	1
34	18	4040254501	GEAR 29T			C	1
34	19	4030253501	GEAR 27T			C	1
34	20	4030R71200	BRACKET ASSY			D	1
34	21	A1UD211600	Gear			C	1
34	22	A1UD220600	Gear			C	1
34	23	4040255201	GEAR 26T			C	1
34	24	A1UDR70000	Main drive Assy			C	1
34	a	V116030603	Screw			V	
34	b	V153030803	Screw			V	
34	c	V116030803	Screw			V	
34	d	V218030086	E ring			V	

34	e	V217030001	E Ring			V	
34	f	V218060086	E ring			V	

1.18 REAR FRAME SECTION

P 35

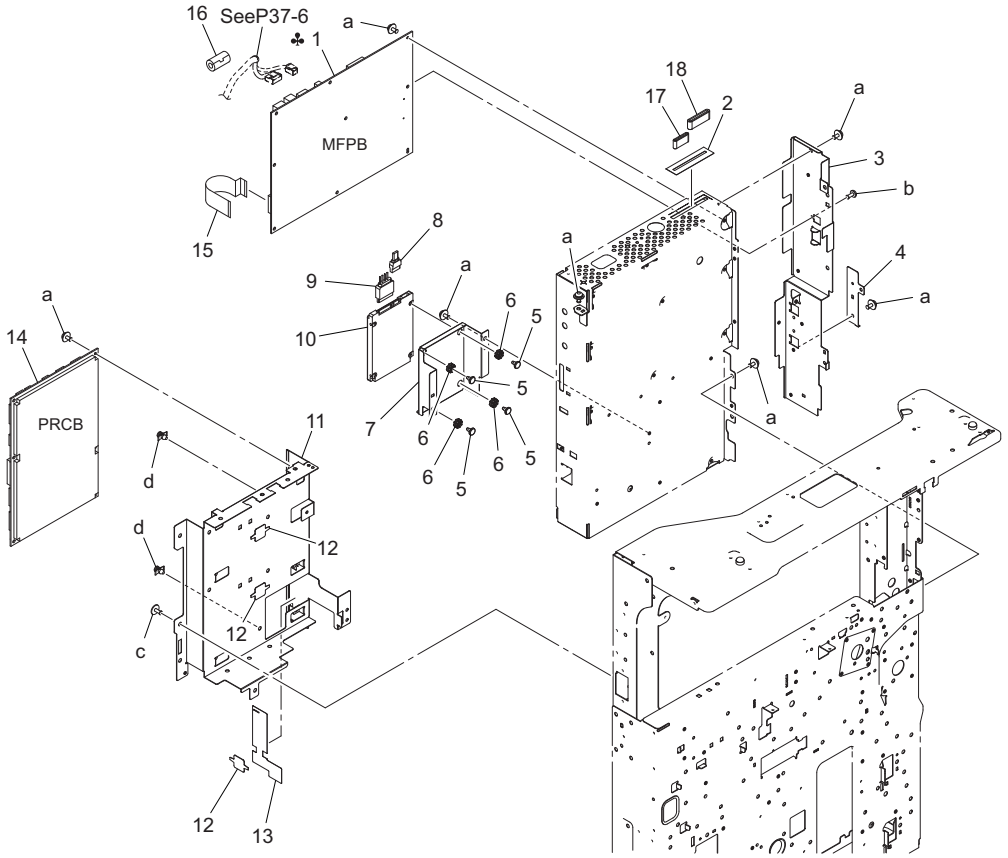


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
35	1	4037223902	BRACKET		B	D	1
35	2	A3EW131201	Mounting Plate		C	D	1
35	2	A3EW131100	Mounting Plate		B	D	1
35	3	A3EWN11200	AC Wiring /230V		C	D	1
35	3	A3EWN11100	AC Wiring /120V		B	D	1
35	4	A1UD133100	Holder			D	1
35	5	A0P0M50400	Humidity sensor	Temperature/humidity sensor (TEM/HUM)		C	1
35	6	A1UD106201	Reinforce Cover /2			D	1
35	7	A1UD102300	Mounting Plate			D	1
35	8	9J06M60100	MICRO SWITCH	Right door switch (SW2)		C	1
35	9	A1UD133700	Mounting Plate			D	1
35	10	A1UD133800	Mounting Plate			D	1
35	11	A1UD133900	Torsion Coil spring			D	1
35	12	1164205101	GUIDE			D	1
35	13	4030208001	RUBBER FOOT			D	2
35	14	A3EW101000	Mounting Plate			D	1
35	15	A1UDN30001	Power code /120V		B	C	1
35	a	V116030603	Screw			V	
35	b	V116040803	Screw			V	
35	c	V153030803	Screw			V	
35	d	V137030603	screw			V	
35	e	V137030803	screw			V	
35	f	V116031603	Screw			V	
35	g	V149030803	screw			V	

35	h	V137031203	screw			V	

1.19 ELECTRICAL COMPONENTS

P 36

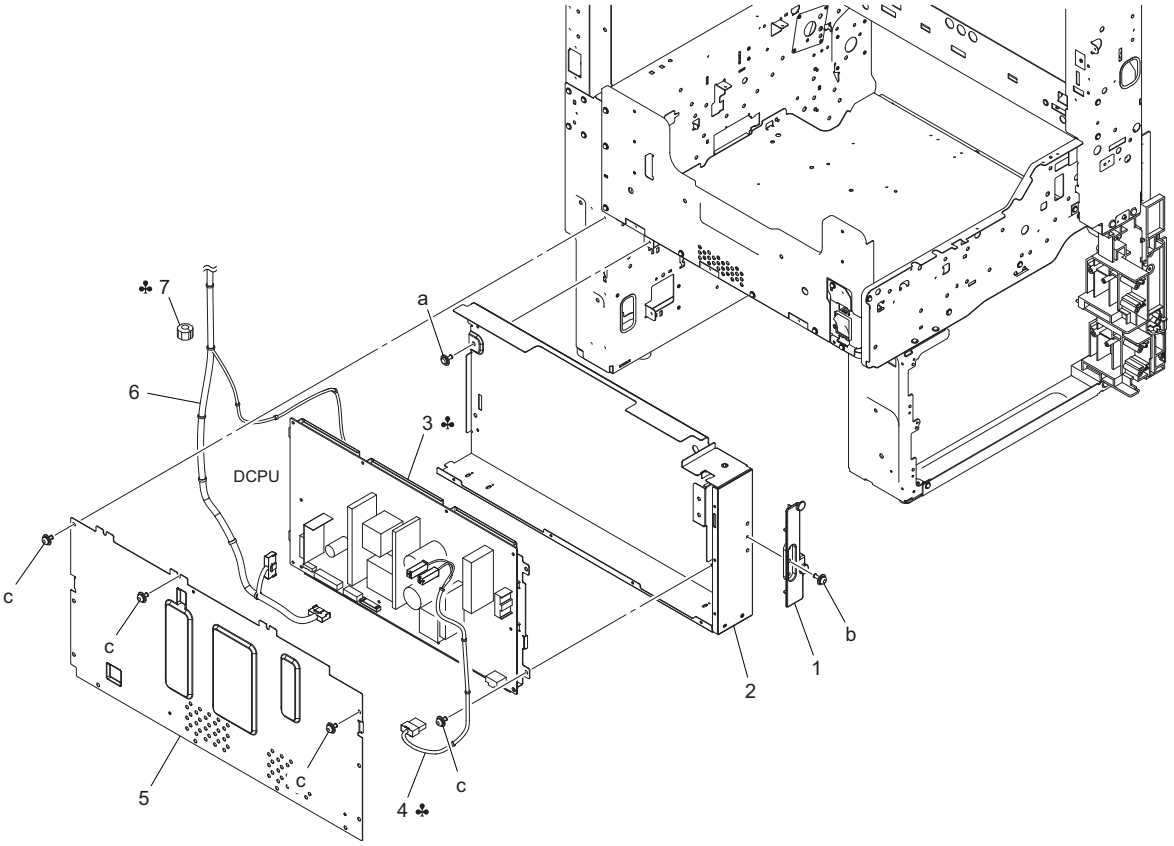


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
36	1	A3EWR70500	After PWB-MFP Assembly	MFP board (MFPB)	C{bizhub 42}	I	1
36	1	A45XR70300	After PWB-MFP Assembly	MFP board (MFPB)	C{bizhub 36}	I	1
36	1	A3EWR70400	After PWB-MFP Assembly	MFP board (MFPB)	B{bizhub 42}	I	1
36	1	A45XR70200	After PWB-MFP Assembly	MFP board (MFPB)	B{bizhub 36}	I	1
36	2	A3EW133401	Insulating Film			D	1
36	3	A3EW130201	Mounting Cover			D	1
36	4	A3EW131800	Cover Cover			D	1
36	5	A121132200	Shoulder screw			D	4
36	6	13KK73060	Base Plate Support Rubber			C	4
36	7	A3EW140000	Mounting Plate			D	1
36	8	A3EWN14300	Relay harness			D	1
36	9	A0VDN12300	Relay harness			D	1
36	10	A2X0M72C00	HDD			I	1
36	11	A3EW130101	Mounting Plate			D	1
36	12	A1UD104500	Seal			D	3
36	13	A3EW133500	Insulating Film			D	1
36	14	A1UDP00004	After PWB Assembly (PWB-MC ASSY)	Printer control board (PRCB)		I	1
36	15	A1UDN12W00	Controller Control harness			D	1
36	16	A3EWM90200	Ferritecore			D	1
36	17	A3EWM90100	Ferritecore			D	1
36	18	A3EWM90000	Ferritecore			D	1
36	a	V116030603	Screw			V	
36	b	V111030603	screw			V	
36	c	V137030603	screw			V	

36	d	V502010041	BUSHING			D	

1.20 POWER SUPPLY SECTION

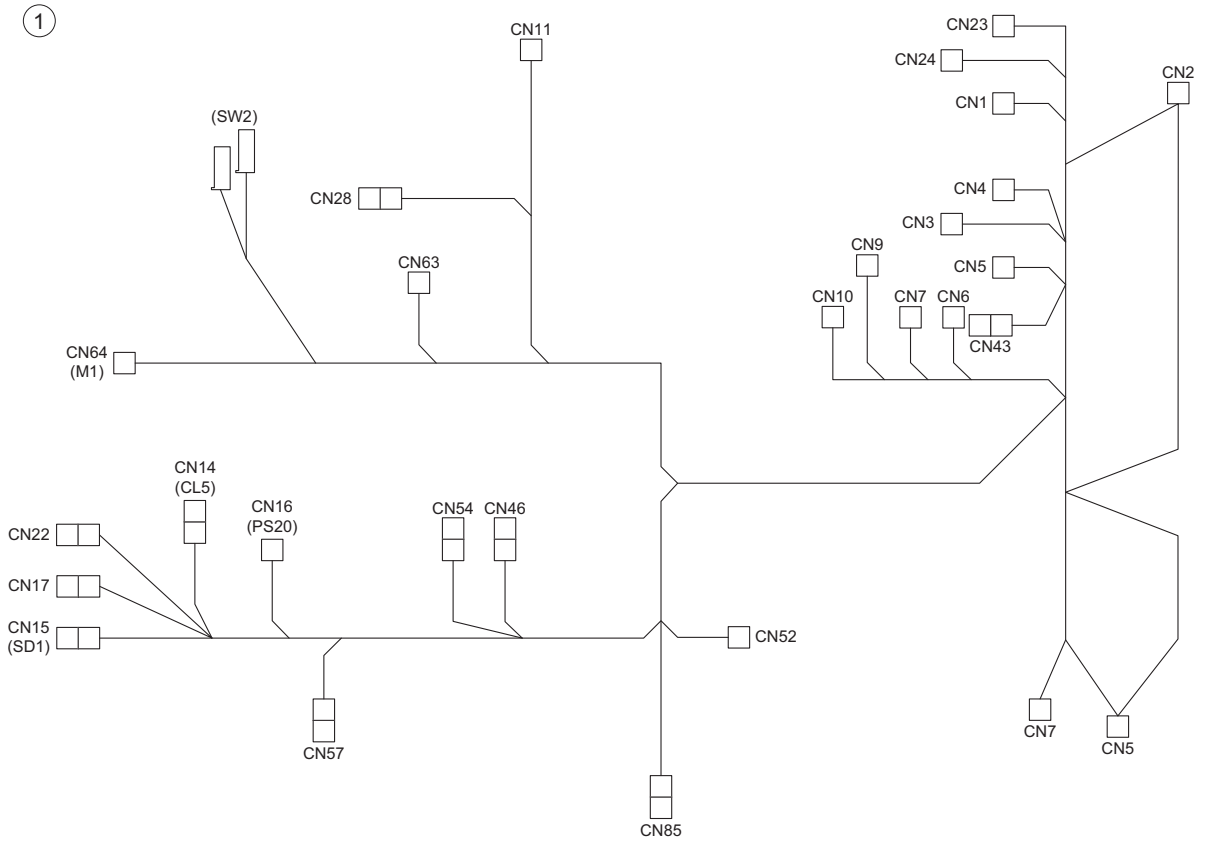
P 37



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
37	1	A3EW160400	Cover /Front			D	1
37	2	A3EW137001	Mounting Plate			D	1
37	3	A3EWM40200	Power supply	DC power supply (DCPU)	C	I	1
37	3	A3EWM40100	Power supply	DC power supply (DCPU)	B	I	1
37	4	A3EWN21301	AC Power source harness /230V		C	D	1
37	4	A3EWN11301	AC Power source harness /100V		B	D	1
37	5	A3EW137100	Mounting Plate			D	1
37	6	A3EWN13401	Power source Wiring			D	1
37	7	A3EWM90500	Ferritecore		C	D	1
37	a	V137030603	screw			V	
37	b	V116030804	Screw			V	
37	c	V116030603	Screw			V	

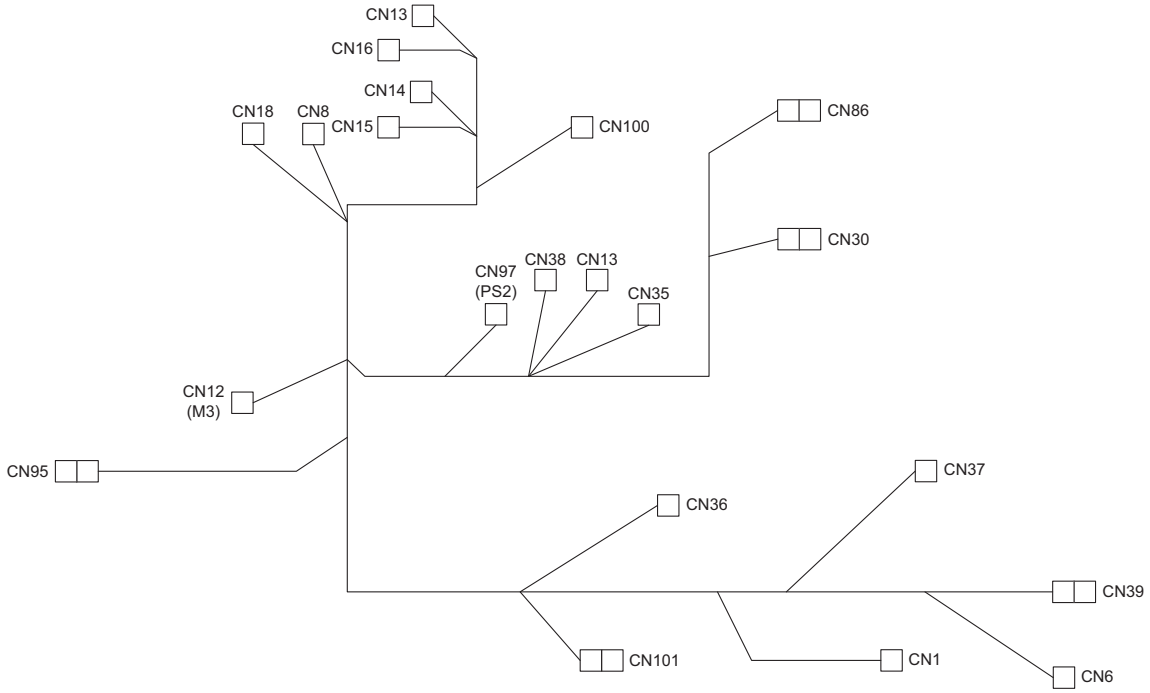
1.21 WIRING

P 38



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
38	1	A3EWN12002	Main body Relay harness / 1		{bizhub 42}	D	1
38	1	A45XN12002	Main body Relay harness / 1		{bizhub 36}	D	1

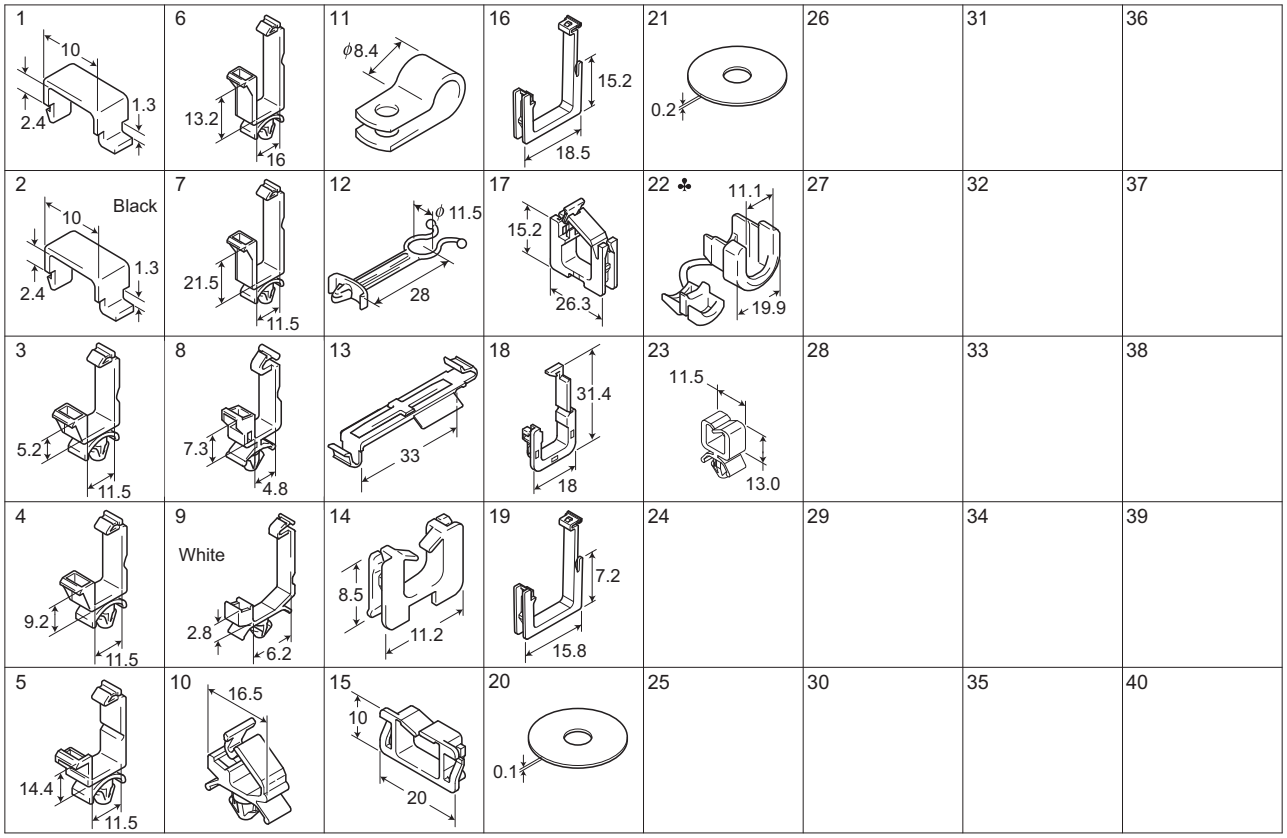
①



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
39	1	A3EWN12100	Main body Relay harness / 2		{bizhub 42}	D	1
39	1	A45XN12100	Main body Relay harness / 2		{bizhub 36}	D	1

1.22 WIRING ACCESSORIES AND JIGS

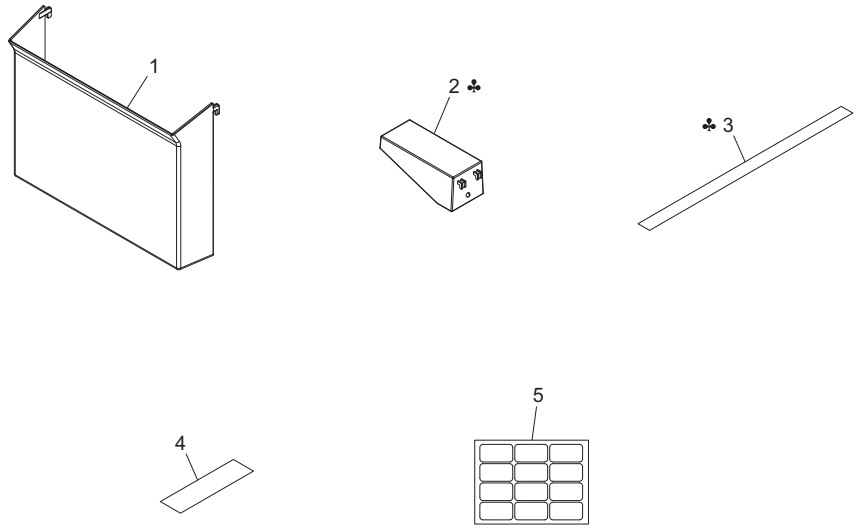
P 40



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
40	1	990559601	CORD CLAMP			D	
40	2	1065587202	CORD CLAMP			D	
40	3	V500010003	Saddle			D	
40	4	V500010005	saddle			D	
40	5	V500010007	saddle			D	
40	6	V500010008	saddle			D	
40	7	V500010013	saddle			D	
40	8	V500010020	Saddle			D	
40	9	V500010046	saddle			D	
40	10	V500010061	saddle			D	
40	11	V500020020	clamp			D	
40	12	V500020042	locker			D	
40	13	V500020066	CLAMP			D	
40	14	V570010021	Saddle			D	
40	15	V570010023	saddle			D	
40	16	V570010026	saddle			D	
40	17	V570010027	saddle			D	
40	18	V570010031	holder			D	
40	19	V570010046	SADDLE			D	
40	20	4030205301	SPACER (BLACK)			C	1
40	21	4030205401	SPACER (WHITE)			C	1
40	22	V500020052	bushing		B	D	
40	23	V500010049	Saddle			D	

1.23 ACCESSORY PARTS

P 41



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
41	1	A0ED166200	Holder			C	1
41	2	A0ED166100	Installing Spacer		C	D	1
41	3	A121944700	Label Prohibit		C	C	1
41	4	A3EW941100	Label			D	1
41	5	A3EW942000	Scale			D	1

1.24 MAINTENANCE LIST

- The items with no Page/Key numbers are not handled as spare parts.

No.	Section	PM Parts Description	Maintenance Cycle (K=1,000)		Parts No.	Destinations	Page/Key	Note
			QTY	Replace				
1	Tray 1	Tray 1 feed roller	1	200k *2	A00F623201		P23-17	*4
2		Tray 1 separation roller assy	1	200k *2	4034015101		P24-31	*4
3	Tray 2	Tray 2 pick-up roller	1	300k *2	A00J563600		P11-13	*4
4		Tray 2 feed roller	1	300k *2	A00J563600		P11-13	*4
5		Tray 2 separation roller assy	1	300k *2	A00J563600		P12-6	*4
6	Tray 3	Tray 3 pick-up roller	1	300k *2	A00J563600		P14-11	*4
7		Tray 3 feed roller	1	300k *2	A00J563600		P14-11	*4
8		Tray 3 separation roller assy	1	300k *2	A00J563600		P15-17	*4
9	Conveyance section	Registration roller bearing	4	900k	1164354901		P27-21	
10		Registration roller gear1	1	900k	1164350801		P27-22	
11		Registration roller gear2	1	900k	1164351501		P27-23	
12		Paper dust remover	1	150k *2	4040077800		P27-35	
13	Fusing section	Fusing Unit 120V	1	450k *3	A1UDR70911		P30-1	
14		Fusing Unit 200V	1	450k *3	A1UDR71011		P30-1	
15	Transfer section	Transfer roller unit	1	150k *2	A1UDR70500		P27-39	
16	Processing section	Drum unit	1	120k *3	-	{bizhub 42}	P8-8	*5
17		Developer	1	110K *3	-	{bizhub 36}	P8-8	*5
18		Developing unit	1	120k *3	-	{bizhub 42}	P8-24	*6
19		Toner filter (Developing unit)	1	110k *3	-	{bizhub 36}	P8-24	*6
20		Toner filter (Main body)	1	480k *3	A1UDR71111	{bizhub 42}	P3-18	*5
21		Ozone filter	1	440k *3	A1UDR71111	{bizhub 36}	P3-18	*5
22		Toner bottle	1	120k *3	A1UD370700	{bizhub 42}	P7-6	*6

23			1	110k *3	A1UD370700	{bizhub 36}		*6
24			1	480k *3	A02E148400	{bizhub 42}		*1
25			1	440k *3	A02E148400	{bizhub 36}		*1
26			1	150k *3	A1UD135100	{bizhub 42}		
27			1	25k	-	{bizhub 36}		
28			1	25k	-			

- *1 The parts can be replaced either by user or service engineer.
- *2 Actual durable cycle (life counter value)
- *3 Specification value
- *4 Replace those three parts at the same time.
- *5 The drum unit and toner filter (Developing unit) should be replaced with new ones at the same time.
- *6 The drum unit and toner filter (Main body) should be replaced with new ones at the same time.

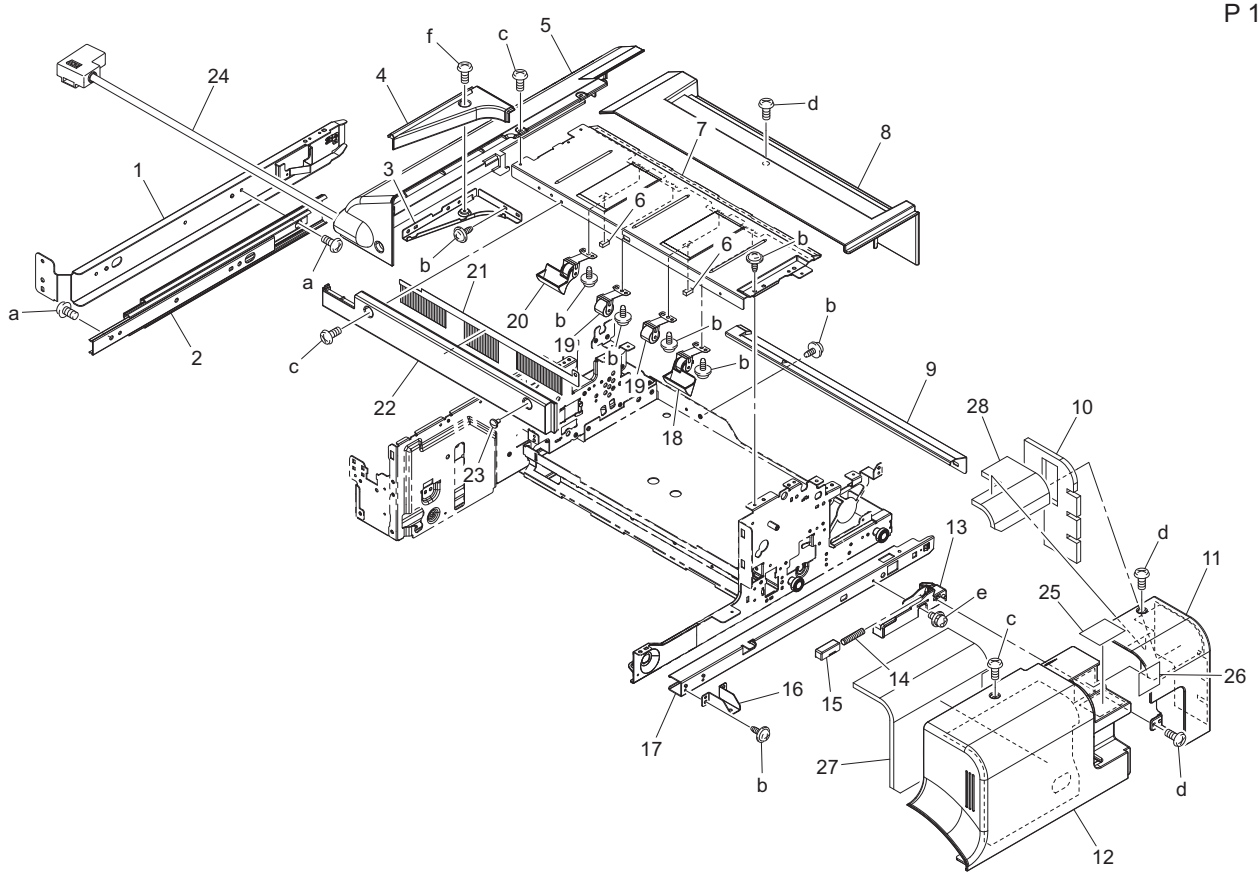
1.25 DESTINATION

Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN				
	A2	JAPAN				
B		USA, CANADA		120	60	A3EW011/A45X011
C		EUROPEAN TYPE		220-240	50/60	A3EW021/A45X021
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA			
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND			
E		PHILIPPINES				
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA				
G	G1	C.S AMERICA				
	G2	C.S AMERICA		120	60	A3EW011/A45X011
H		TAIWAN				
I		JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO				
J		CHINA				
K		KOREA				

2. SORTER/FINISHER (FS-529)

2.1 EXTERNAL PARTS

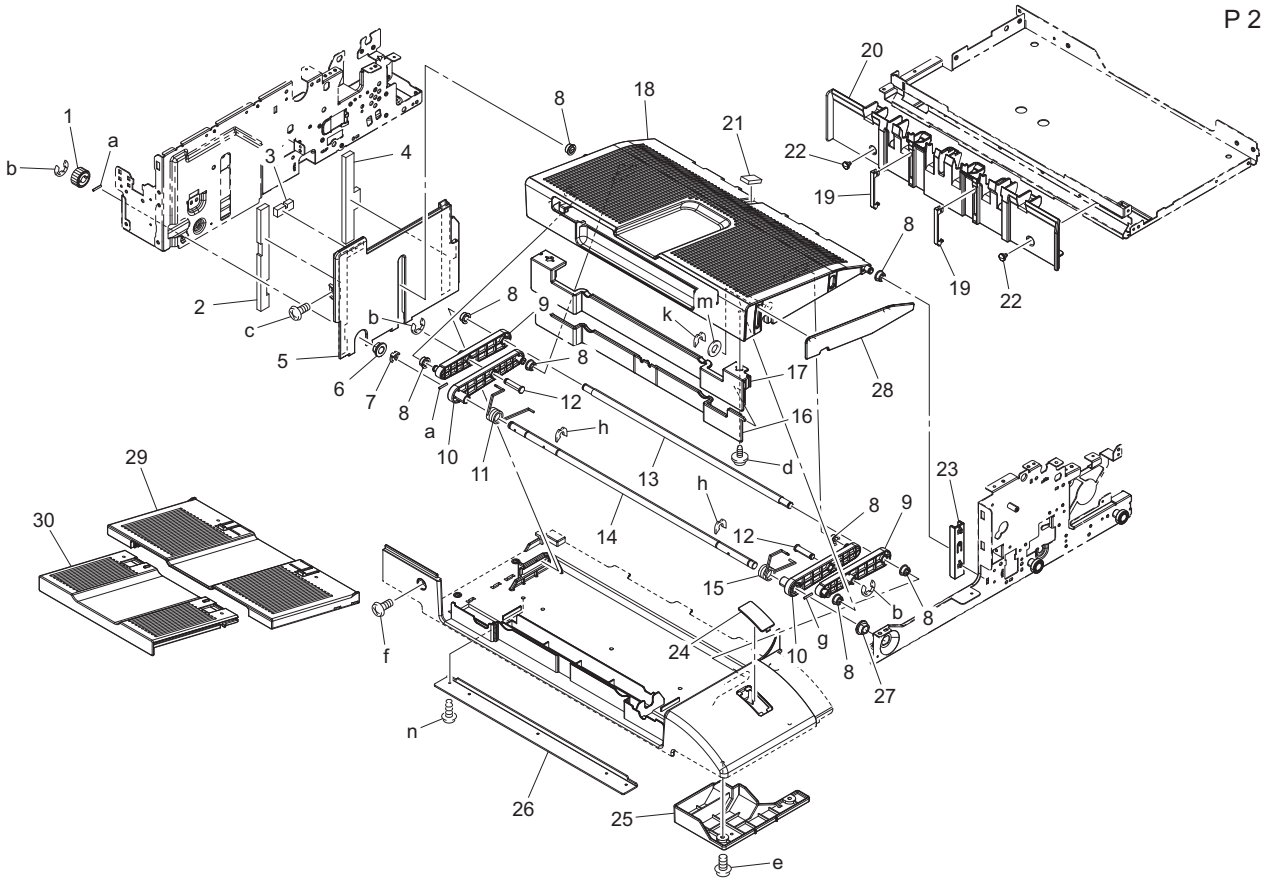
P 1



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
1	1	A0U7PP6V01	Mounting Plate			D	1
1	2	A0U7PP2N00	SLIDE RAIL			D	1
1	3	A0U7PP7E00	MOUNTING PLATE			D	1
1	4	A0U7PP9W00	COVER			D	1
1	5	A0U7PP4P00	REAR COVER			D	1
1	6	A0U7PP9400	CUSHION			D	2
1	7	A0U7PP6S00	COVER			D	1
1	8	A0U7PP4600	UPPER COVER			D	1
1	9	A0U7PP7C00	GUIDE			D	1
1	10	A0U7PPB100	Cushion			D	1
1	11	A0U7PP5800	Cover			C	1
1	12	A0U7PP4N01	Front Cover			C	1
1	13	A0U7PP6J00	HOLDER			C	1
1	14	A0U7PPAX01	Pressing Spring			C	1
1	15	A0U7PP9K00	HOLDER			C	1
1	16	A0U7PP7P00	MOUNTING PLATE			D	1
1	17	A0U7PP6U01	Rail			D	1
1	18	A0U7PPAM01	Roller Assy			C	1
1	19	A0U7PPAN01	Roller Assy			C	2
1	20	A0U7PPAP01	Roller Assy			C	1
1	21	A0U7PP8P00	NEUTRALIZING BRUSH			D	1
1	22	A0U7PP6701	Cover			C	1
1	23	A0U7PPB001	Shoulder Screw			D	1
1	24	A0U7PP3J01	Hamess			D	1
1	25	A0U7PPB900	Label			C	1
1	26	A0U7PPBA00	Label			C	1
1	27	A0U7PPAU00	Cushion			D	1

1	28	A0U7PPAV00	Cushion			D	1
1	a	A0U7PP1600	SCREW			D	
1	b	A0U7PP1400	SCREW			D	
1	c	A0U7PPAE00	Screw			D	
1	d	A0U7PPAJ00	Screw			D	
1	e	A0U7PP0400	SCREW			D	
1	f	A0U7PPAH00	Screw			D	

2.2 ELEVATE TRAY SECTION

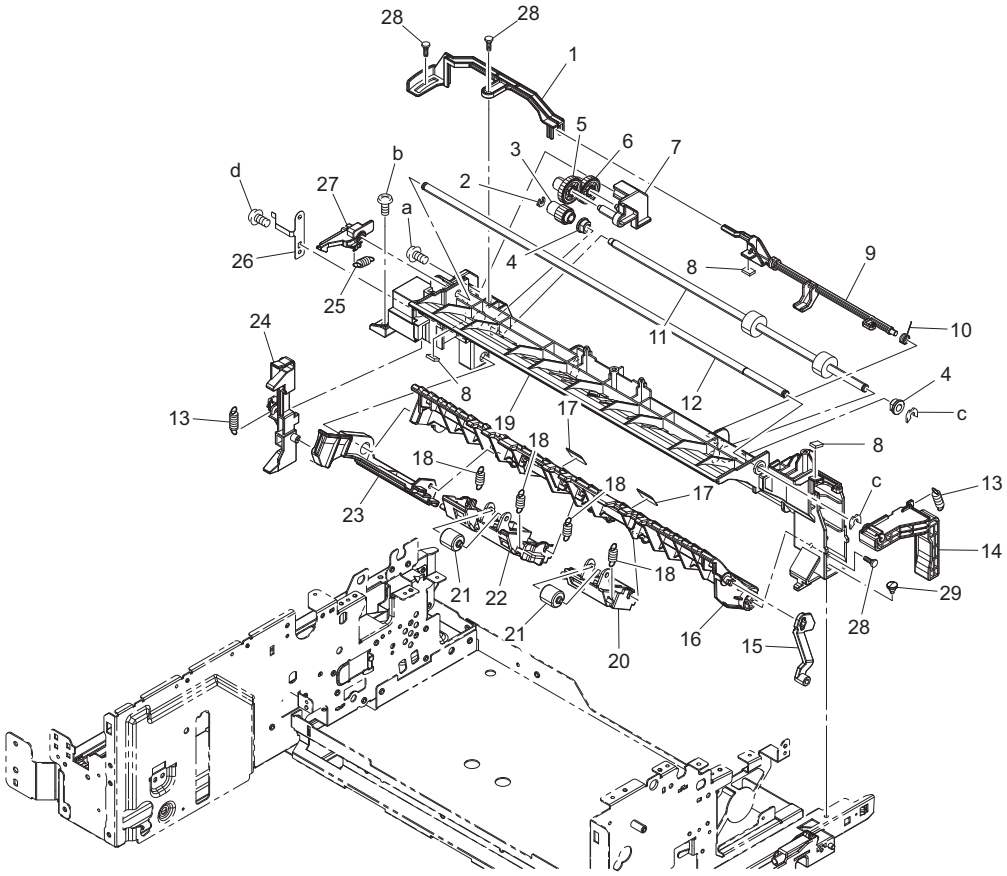


Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
2	1	A0U7PPC100	GEAR			C	1
2	2	A0U7PPB300	Cushion			D	1
2	3	A0U7PPB200	Cushion			D	1
2	4	A0U7PP8T00	CUSHION			D	1
2	5	A0U7PP6G01	Cover			D	1
2	6	A0U7PP1300	BUSHING			C	1
2	7	A0U7PP0X00	STOPPER RING			C	1
2	8	A0U7PP4J01	Roll			C	8
2	9	A0U7PP5W00	ARM			C	2
2	10	A0U7PP4H01	Arm			C	2
2	11	A0U7PP9201	Torsion Spring			D	1
2	12	A0U7PP8000	SHAFT			D	2
2	13	A0U7PPAT00	Shaft			D	1
2	14	A0U7PP7R01	Shaft			D	1
2	15	A0U7PP9101	Torsion Spring			D	1
2	16	A0U7PPC001	Shutter			C	1
2	17	A0U7PPBY00	Shutter			C	1
2	18	A0U7PP4E01	Tray			C	1
2	19	A0U7PP6W00	GUIDE			C	2
2	20	A0U7PP4S00	COVER			C	1
2	21	A01FPP1H00	CUSHION			C	1

2	22	A0U7PP8S01	Shoulder Screw			D	2
2	23	A0U7PP5901	Rail			D	1
2	24	A0U7PP6M01	Cover			C	1
2	25	A0U7PP9X00	COVER			D	1
2	26	A0U7PPBC00	Reinforce Plate			D	1
2	27	A0U7PP1200	BUSHING			C	1
2	28	A0U7PPBV00	Guide			C	1
2	29	A0U7PP4F01	Sub Tray			C	1
2	30	A0U7PP4G01	Sub Tray			C	1
2	a	V231201450	pin			V	
2	b	A0U7PP0F00	E RING			D	
2	c	A0U7PP0400	SCREW			D	
2	d	A0U7PP1700	SCREW			D	
2	e	A0U7PP1500	SCREW			D	
2	f	A0U7PPBE00	Screw			D	
2	g	V231201250	pin			V	
2	h	A0U7PP0V00	E RING			D	
2	k	A0U7PPBX00	E ring			C	
2	m	A0U7PPBW00	Washer			C	
2	n	A0U7PPBD00	Screw			D	

2.3 PAPER ENTRANCE SECTION

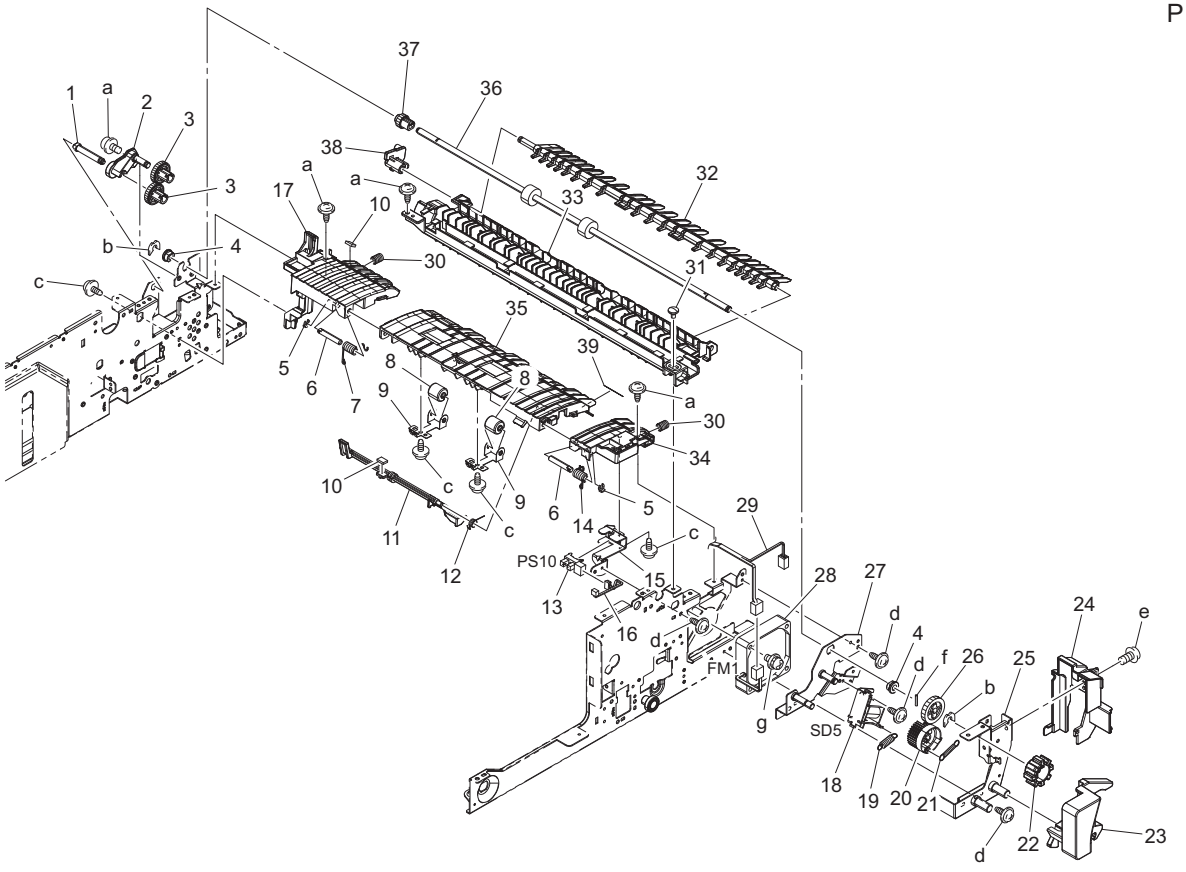
P 3



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
3	1	A0U7PP4501	Holder			D	1
3	2	A0U7PP0U00	STOPPER RING			D	1
3	3	A0U7PP9Q00	GEAR			D	1
3	4	A0U7PP0S00	BUSHING			C	2
3	5	A0U7PP9P00	GEAR			C	1
3	6	A0U7PP9N00	GEAR			C	1
3	7	A0U7PP4100	HOLDER			D	1
3	8	A0U7PP1W00	CUSHION			D	3

3	9	A0U7PP4401	Lever			C	1
3	10	A0U7PP8800	TORSION SPRING			D	1
3	11	A0U7PP8400	ROLLER			C	1
3	12	A0U7PP7Q00	SHAFT			D	1
3	13	A0U7PP8701	Tension Spring			D	2
3	14	A0U7PP4700	LEVER			D	1
3	15	A0U7PP4200	STOPPER			C	1
3	16	A0U7PP3U01	Guide			C	1
3	17	A0U7PP8600	GUIDE			C	2
3	18	A0U7PP8500	Tension Spring			C	4
3	19	A0U7PP3T01	Guide			D	1
3	20	A0U7PP9G00	HOLDER			C	1
3	21	A0U7PP2K00	ROLLER			D	2
3	22	A0U7PP3V01	Holder			C	1
3	23	A0U7PP3W00	HOLDER			C	1
3	24	A0U7PP3X00	HOLDER			C	1
3	25	A0U7PP8Y00	TENSION SPRING			D	1
3	26	A0U7PP6R01	Plate Spring			D	1
3	27	A0U7PP4301	Hook			C	1
3	28	A0U7PP1A00	SHOULDER SCREW			C	3
3	29	A0U7PPB001	Shoulder Screw			D	1
3	a	A0U7PP1500	SCREW			D	
3	b	A0U7PP0200	SCREW			D	
3	c	A0U7PP0V00	E RING			D	
3	d	A0U7PPC400	Screw			D	

P 4

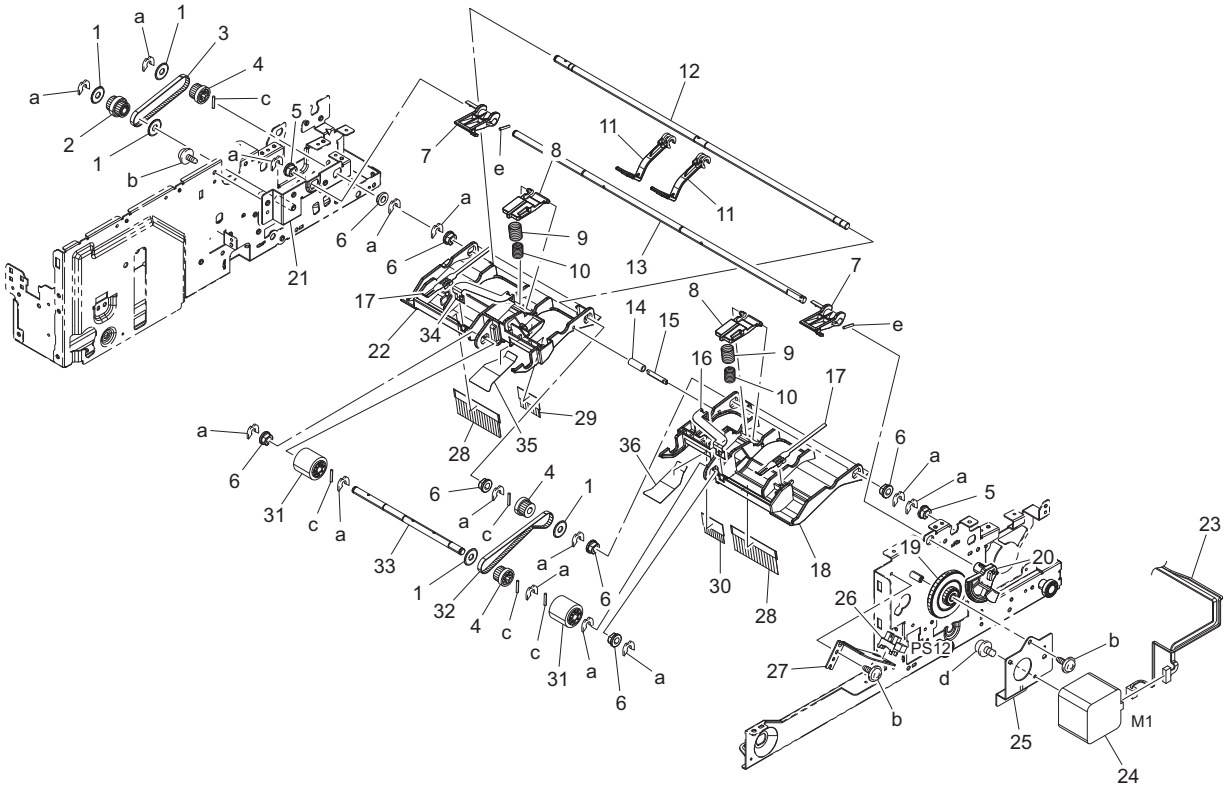


Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
4	1	A0U7PP7W00	SHAFT			D	1
4	2	A0U7PP5A00	HOLDER			D	1
4	3	A0U7PP4000	GEAR			C	2
4	4	A0U7PP1100	BUSHING			C	2
4	5	A0U7PP0U00	STOPPER RING			D	2

4	6	A0U7PP7X00	SHAFT			D	2
4	7	A0U7PP8J00	TORSION SPRING			D	1
4	8	A0U7PP2K00	ROLLER			D	2
4	9	A0U7PP7M00	PLATE SPRING			D	2
4	10	A0U7PP1W00	CUSHION			D	2
4	11	A0U7PP5B00	LEVER			C	1
4	12	A0U7PP8800	TORSION SPRING			D	1
4	13	A0U7PP0900	PHOTOINTERRUPTER	Paper passage sensor/2 (PS10)		I	1
4	14	A0U7PP8H00	TORSION SPRING			D	1
4	15	A0U7PP7G01	Mounting Plate			D	1
4	16	A0U7PP3P00	HARNESS			D	1
4	17	A0U7PP5000	GUIDE			D	1
4	18	A0U7PPA500	Solenoid	Belt retract solenoid (SD5)		C	1
4	19	A0U7PPBU00	Tension Spring			D	1
4	20	A0U7PP6P00	GEAR			D	1
4	21	A0U7PP8N02	Tension Spring			D	1
4	22	A0U7PP5J00	KNOB			D	1
4	23	A0U7PP6K01	Lever			D	1
4	24	A0U7PP6N00	COVER			D	1
4	25	A0U7PP3301	Mounting Plate			D	1
4	26	A0U7PP1K00	GEAR			D	1
4	27	A0U7PP3201	Mounting Plate			D	1
4	28	A0U7PP2300	FUN MOTOR	Fan motor (FM1)		C	1
4	29	A0U7PP3K01	Harness			D	1
4	30	A0U7PP8G00	PRESSING SPRING			D	2
4	31	A0U7PPB001	Shoulder Screw			D	1
4	32	A0U7PP4X00	GUIDE			D	1
4	33	A0U7PP4Y00	GUIDE			D	1
4	34	A0U7PP4M00	GUIDE			D	1
4	35	A0U7PP4W00	GUIDE			D	1
4	36	A0U7PP8B00	ROLLER			C	1
4	37	A0U7PP3Y00	GEAR			C	1
4	38	A0U7PP5101	Joint			D	1
4	39	A0U7PPBS00	Label			C	1
4	a	A0U7PP0400	SCREW			D	
4	b	A0U7PP0V00	E RING			D	
4	c	A0U7PP1500	SCREW			D	
4	d	A0U7PP1400	SCREW			D	
4	e	A0U7PP0200	SCREW			D	
4	f	V231201250	pin			V	
4	g	A0U7PP0600	SCREW			D	

2.4 PAPER TRANSPORT SECTION

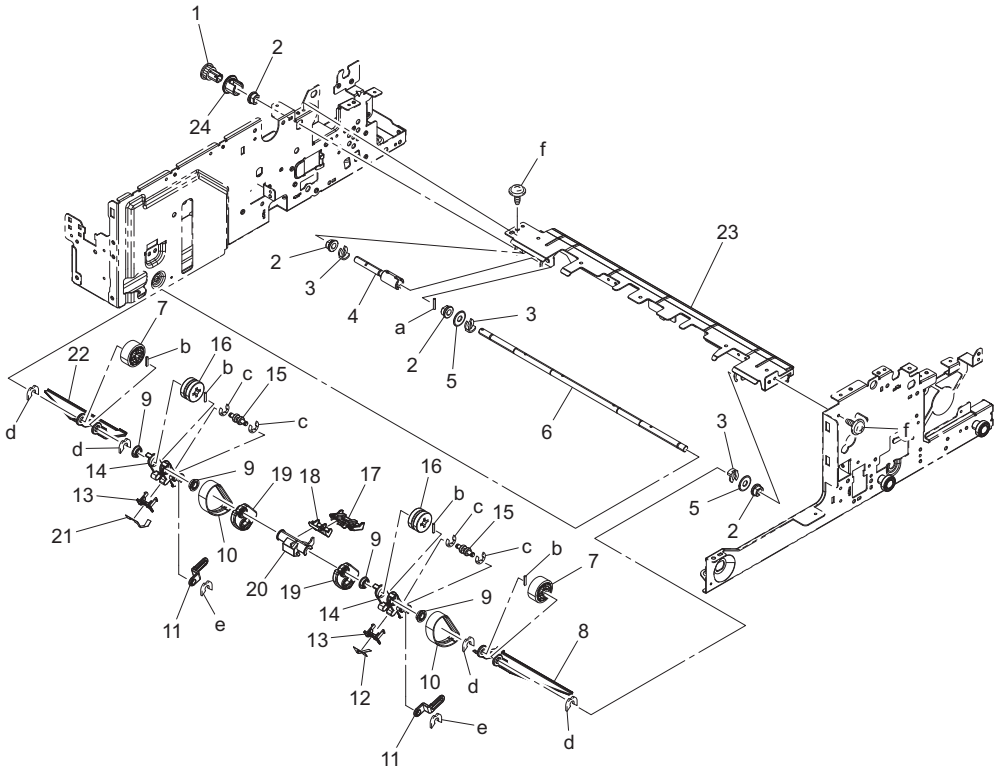
P 5



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
5	1	A0U7PP1E00	FLANGE			D	5
5	2	A0U7PP9H00	PULLEY			C	1
5	3	A0U7PP0P00	TIMING BELT			C	1
5	4	A01FPP1800	PULLEY 22T			C	3
5	5	A0U7PP1100	BUSHING			C	2
5	6	A0U7PP0S00	BUSHING			C	7
5	7	A0U7PP9D00	ARM			C	2
5	8	A0U7PP4V01	Lever			C	2
5	9	A0U7PPB501	Pressing Spring			C	2
5	10	A0U7PPB400	Pressing Spring			C	2
5	11	A0U7PP6H00	LEVER			C	2
5	12	A0U7PP7T00	SHAFT			D	1
5	13	A0U7PP7U01	Shaft			D	1
5	14	A0U7PP4Q00	ROLL			C	1
5	15	A0U7PP2F00	SHAFT			D	1
5	16	A0U7PP7D00	GUIDE			D	1
5	17	A0U7PP7900	PLATE SPRING			D	2
5	18	A0U7PP4T01	Holder			D	1
5	19	A0U7PP9900	Harness			C	1
5	20	A0U7PP9801	MOTOR			C	1
5	21	A0U7PP3100	MOUNTING PLATE			D	1
5	22	A0U7PP4U01	Holder			D	1
5	23	A0U7PP3E01	Harness			D	1
5	24	A0U7PP3R00	MOTOR	Pick up roller position motor (M1)		C	1
5	25	A0U7PP7600	MOUNTING PLATE			D	1
5	26	A0U7PP0900	PHOTOINTERRUPTER			I	1
5	27	A0U7PP6X00	MOUNTING PLATE			D	1
5	28	A0U7PP8R01	Neutralizing Brush			D	2
5	29	A0U7PP9001	Neutralizing Brush			D	1

5	30	A0U7PPB801	Neutralizing Brush			D	1
5	31	A0U7PP8E01	Roller			C	2
5	32	A0U7PPAF00	Timing Belt			C	1
5	33	A0U7PP8301	Shaft			D	1
5	34	A0U7PP7F00	GUIDE			D	1
5	35	A0U7PPB600	Sheet			D	1
5	36	A0U7PPB700	Sheet			D	1
5	a	A0U7PP0V00	E RING			D	
5	b	A0U7PP1400	SCREW			D	
5	c	V231201250	pin			V	
5	d	A0U7PP0400	SCREW			D	
5	e	A0U7PPA700	PIN			C	

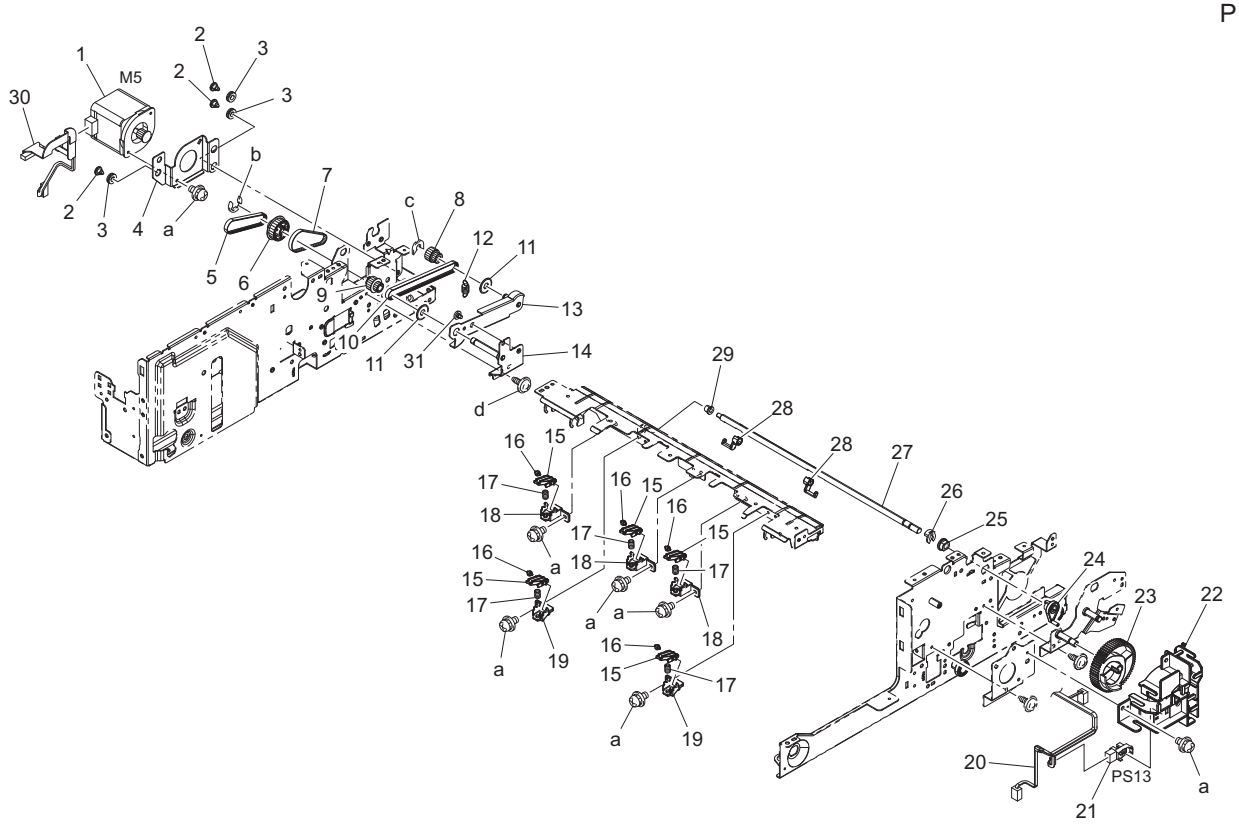
P 6



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
6	1	A0U7PP5E00	PULLEY			C	1
6	2	A0U7PP1100	BUSHING			C	4
6	3	A0U7PP0W00	STOPPER RING			D	3
6	4	A0U7PP2T00	JOINT ASSY			D	1
6	5	A0U7PP1E00	FLANGE			D	2
6	6	A0U7PP7S00	SHAFT			D	1
6	7	A0U7PP8F01	Roller			C	2
6	8	A0U7PP9E00	GUIDE			C	1
6	9	A0U7PP0R00	ROLLER BEARING			C	4
6	10	A0U7PP2G00	BELT			C	2
6	11	A0U7PP5T00	LEVER			C	2
6	12	A0U7PP9R00	SHEET			C	1
6	13	A0U7PP9C00	HOLDER			C	2
6	14	A0U7PP5R01	Holder			C	2
6	15	A0U7PP2M00	ROLLER			C	2
6	16	A0U7PP1J00	ROLLER			C	2
6	17	A0U7PP2700	HOLDER			C	1
6	18	A0U7PP2B00	HOLDER			C	1

6	19	A0U7PP9V00	GUIDE			C	2
6	20	A0U7PP9A00	HOLDER			D	1
6	21	A0U7PP9S00	SHEET			C	1
6	22	A0U7PP9F00	GUIDE			C	1
6	23	A0U7PP6T01	Guide			D	1
6	24	A0U7PPBT00	Collar			C	1
6	a	A0U7PPA700	PIN			C	
6	b	V231201050	pin			V	
6	c	V217030001	E Ring			V	
6	d	A0U7PP0V00	E RING			D	
6	e	A0U7PP0U00	STOPPER RING			D	
6	f	A0U7PP1400	SCREW			D	

P 7

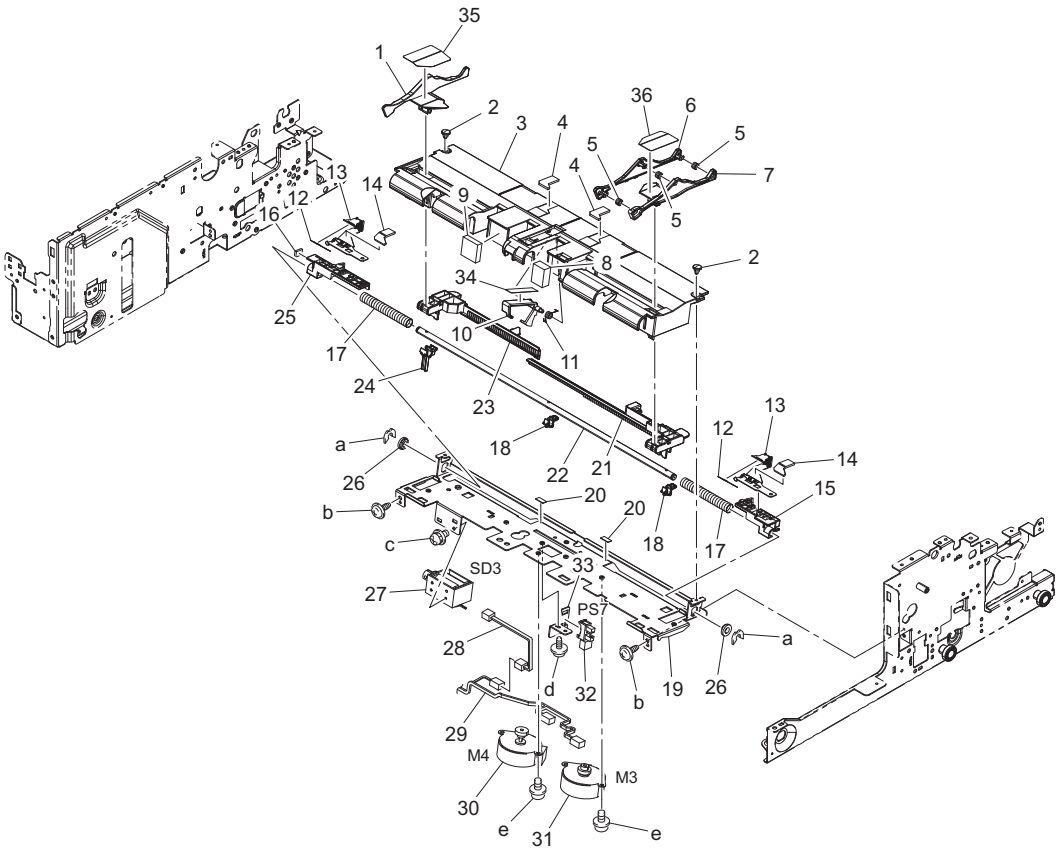


Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
7	1	A0U7PP1H00	MOTOR	Conveyance motor/1 (M5)		C	1
7	2	A0U7PP8S01	Shoulder Screw			D	3
7	3	A0U7PPAK00	Rubber			D	3
7	4	A0U7PP7300	MOUNTING PLATE			D	1
7	5	A0U7PP0G00	TIMING BELT			C	1
7	6	A0U7PP5500	PULLEY			C	1
7	7	A0U7PP0K00	TIMING BELT			C	1
7	8	A0U7PP9M00	PULLEY			C	1
7	9	A0U7PP5300	PULLEY			C	1
7	10	A0U7PP0J00	TIMING BELT			C	1
7	11	A0U7PP1E00	FLANGE			D	2
7	12	A0U7PP8900	TENSION SPRING			C	1
7	13	A0U7PP2X00	MOUNTING PLATE			D	1
7	14	A0U7PP2Y00	MOUNTING PLATE			D	1
7	15	A0U7PP4900	ARM			C	5
7	16	A0U7PP4A00	ROLLER			C	5
7	17	A0U7PP8A00	PRESSING SPRING			C	5
7	18	A0U7PP4800	HOLDER			D	3

7	19	A0U7PP4B00	HOLDER			D	2
7	20	A0U7PP3B01	Harness			D	1
7	21	A0U7PP0900	PHOTOINTERRUPTER	Belt position sensor (PS13)		I	1
7	22	A0U7PP5X00	GUIDE			D	1
7	23	A0U7PP2600	GEAR			C	1
7	24	A0U7PP5V00	LEVER			C	1
7	25	A0U7PP1100	BUSHING			C	1
7	26	A0U7PP0W00	STOPPER RING			D	1
7	27	A0U7PP7Y00	SHAFT			D	1
7	28	A0U7PP5U00	ARM			C	2
7	29	A0U7PP0Y00	BUSHING			C	1
7	30	A0U7PP3F00	HARNESS			D	1
7	31	A0U7PP1900	SHOULDER SCREW			C	1
7	a	A0U7PP0400	SCREW			D	
7	b	A0U7PP0E00	E RING			D	
7	c	A0U7PP0V00	E RING			D	
7	d	A0U7PP1400	SCREW			D	

2.5 ALIGNMENT SECTION

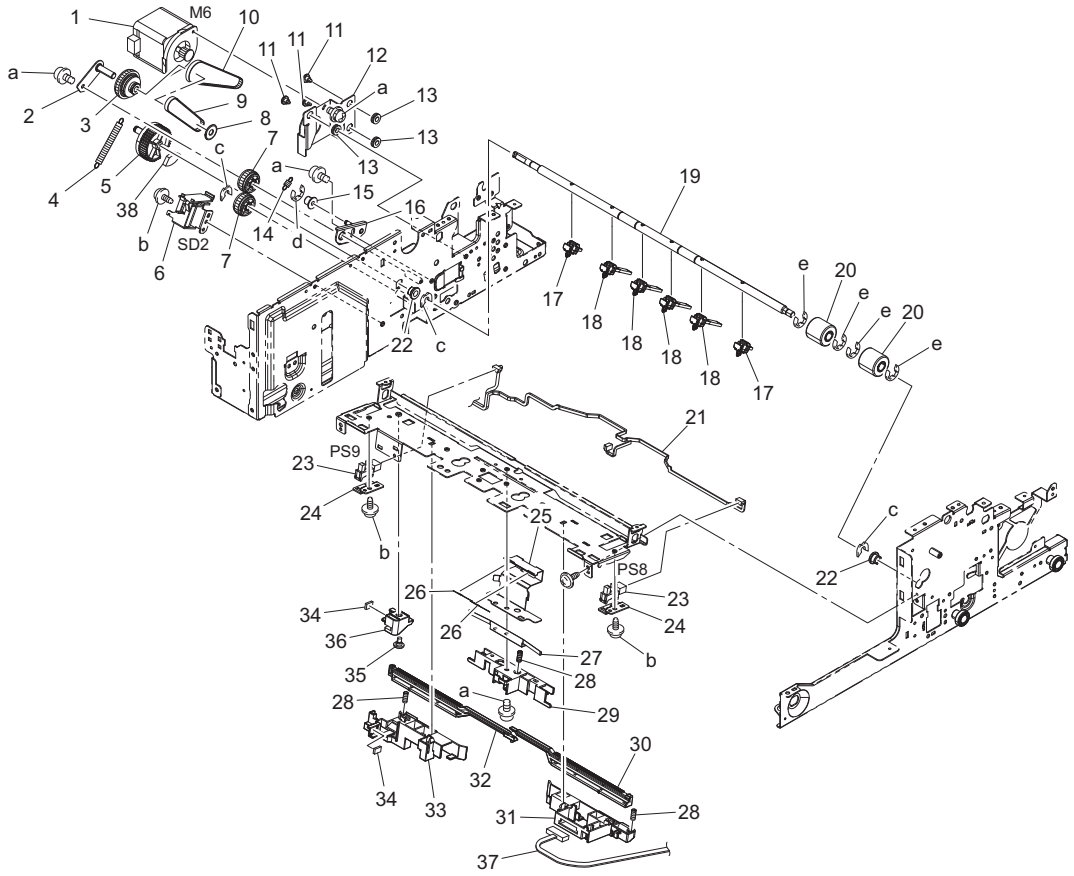
P 8



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
8	1	A0U7PP6C02	Guide			C	1
8	2	A0U7PP8S01	Shoulder Screw			D	2
8	3	A0U7PP6600	GUIDE			D	1
8	4	A0U7PP8Q00	CUSHION			C	2
8	5	A0U7PP1T00	PRESSING SPRING			C	3
8	6	A0U7PP6B01	Guide			C	1
8	7	A0U7PP6Q02	Guide			C	1
8	8	A0U7PP2100	PAD			C	1
8	9	A0U7PP2000	PAD			C	1
8	10	A0U7PP9J00	LEVER			C	1
8	11	A0U7PP1S00	TORSION SPRING			D	1

8	12	A0U7PP1R00	GUIDE			C	2
8	13	A0U7PP7K00	HOLDER			D	2
8	14	A0U7PP8Q00	CUSHION			C	2
8	15	A0U7PP5K00	HOLDER			D	1
8	16	A0U7PPBN00	Cushion			D	1
8	17	A0U7PP8C00	PRESSING SPRING			D	2
8	18	A0U7PP6800	STOPPER			C	2
8	19	A0U7PP7700	MOUNTING PLATE			D	1
8	20	A0U7PP9700	CUSHION			D	2
8	21	A0U7PP5G02	Rack			C	1
8	22	A0U7PP8100	SHAFT			D	1
8	23	A0U7PP5H01	Rack			C	1
8	24	A0U7PP6900	Stopper			C	1
8	25	A0U7PP5M00	HOLDER			D	1
8	26	A0U7PP1000	BUSHING			C	2
8	27	A01FPP0R00	SOLINOID ASSY	Alignment stopper solenoid (SD3)		C	1
8	28	A0U7PP3Q00	HARNESS			D	1
8	29	A0U7PP3D00	HARNESS			D	1
8	30	A0U7PPA100	MOTOR	Alignment motor/R (M4)		C	1
8	31	A0U7PPA000	MOTOR	Alignment motor/F (M3)		C	1
8	32	A0U7PP0900	PHOTOINTERRUPTER	Paper empty sensor (PS7)		I	1
8	33	A0U7PP7800	MOUNTING PLATE			D	1
8	34	A0U7PPBQ00	Sheet			D	1
8	35	A0U7PPBR00	Sheet			D	1
8	36	A0U7PPC300	Sheet			D	1
8	a	A0U7PP0V00	E RING			D	
8	b	A0U7PP1500	SCREW			D	
8	c	A0U7PPBP00	Screw			D	
8	d	A0U7PP1400	SCREW			D	
8	e	A0U7PP0300	SCREW			D	

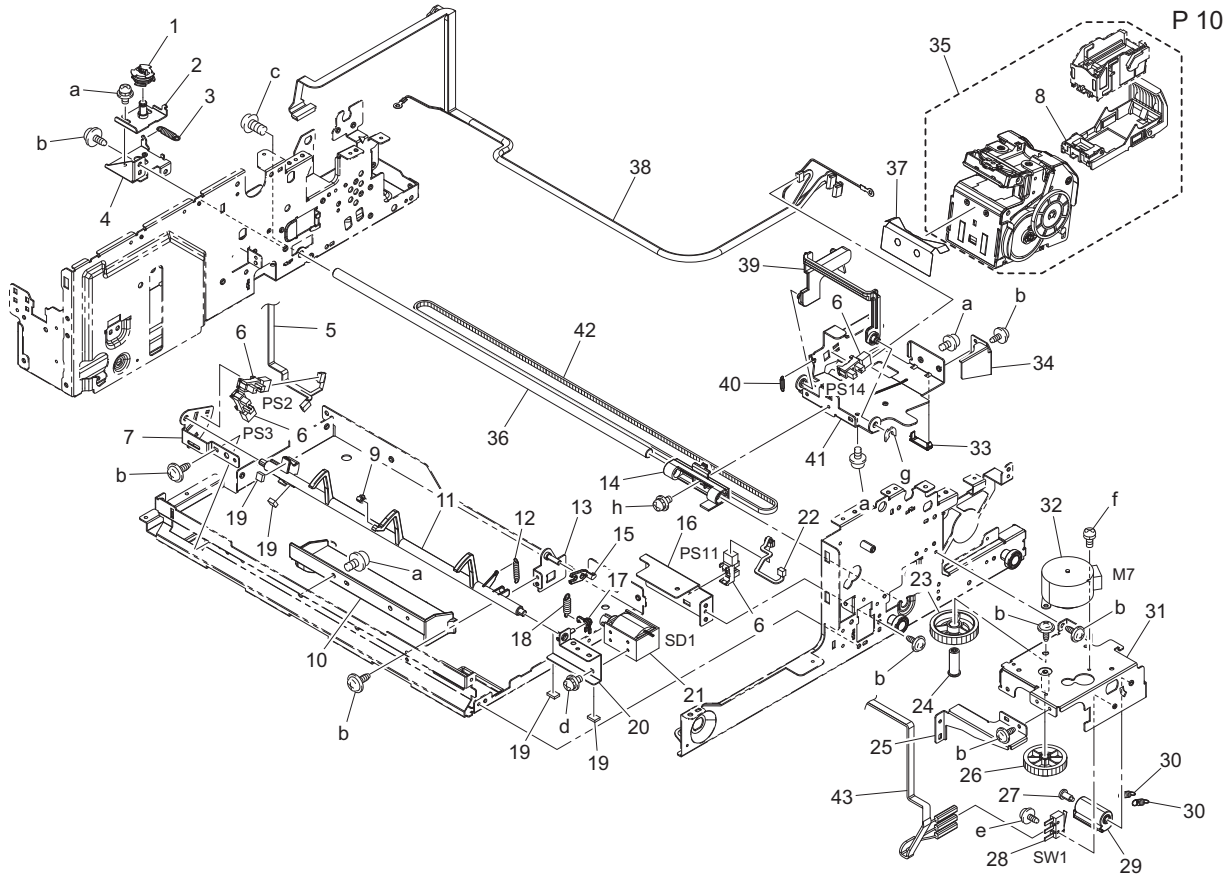
P 9



Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity

9	1	A0U7PP1H00	MOTOR	Conveyance motor/2 (M6)		C	1
9	2	A0U7PP3000	MOUNTING PLATE			D	1
9	3	A0U7PP5F00	PULLEY			C	1
9	4	A0U7PP1U00	TRNSION SPRING			D	1
9	5	A0U7PP2500	GEAR			D	1
9	6	A0U7PPA400	SOLENOID	Paddle solenoid (SD2)		C	1
9	7	A0U7PP5Q00	GEAR			D	2
9	8	A0U7PP1E00	FLANGE			D	1
9	9	A0U7PP0H00	TIMING BELT			C	1
9	10	A0U7PP0N00	TIMING BELT			C	1
9	11	A0U7PP8S01	Shoulder Screw			D	3
9	12	A0U7PP7400	MOUNTING PLATE			D	1
9	13	A0U7PPAK00	Rubber			D	3
9	14	A0U7PP8X00	TENSION SPRING			D	1
9	15	A0U7PP4C00	ROLL			D	1
9	16	A0U7PP3700	MOUNTING PLATE			D	1
9	17	A0U7PP2S00	PADDLE ASSY			C	2
9	18	A0U7PP2R00	PADDLE ASSY			C	4
9	19	A0U7PP8200	SHAFT			D	1
9	20	A0U7PP2C00	ROLLER			C	2
9	21	A0U7PP3A00	HARNESS			D	1
9	22	A0U7PP1100	BUSHING			C	2
9	23	A0U7PP0900	PHOTOINTERRUPTER	Alignment plate home sensor/F (PS8) Alignment plate home sensor/R (PS9)		I	2
9	24	A0U7PP7H00	MOUNTING PLATE			D	2
9	25	A0U7PP7B00	GUIDE			D	1
9	26	A0U7PP1R00	GUIDE			C	2
9	27	A0U7PP7A00	GUIDE			D	1
9	28	A0U7PP8D00	PRESSING SPRING			D	3
9	29	A0U7PP5N00	HOLDER			D	1
9	30	A0U7PP6F01	Rack			C	1
9	31	A0U7PP6D00	HOLDER			D	1
9	32	A0U7PP6501	Rack			C	1
9	33	A0U7PP6E00	HOLDER			D	1
9	34	A0U7PP1W00	CUSHION			D	2
9	35	A0U7PPB001	Shoulder Screw			D	1
9	36	A0U7PP6A00	HOLDER			D	1
9	37	A0U7PP3M01	Harness			D	1
9	38	A0U7PP9500	CUSHION			D	1
9	a	A0U7PP0400	SCREW			D	
9	b	A0U7PP1400	SCREW			D	
9	c	A0U7PP0V00	E RING			D	
9	d	V217030001	E Ring			V	
9	e	A0U7PP0F00	E RING			D	

2.6 STAPLER SECTION

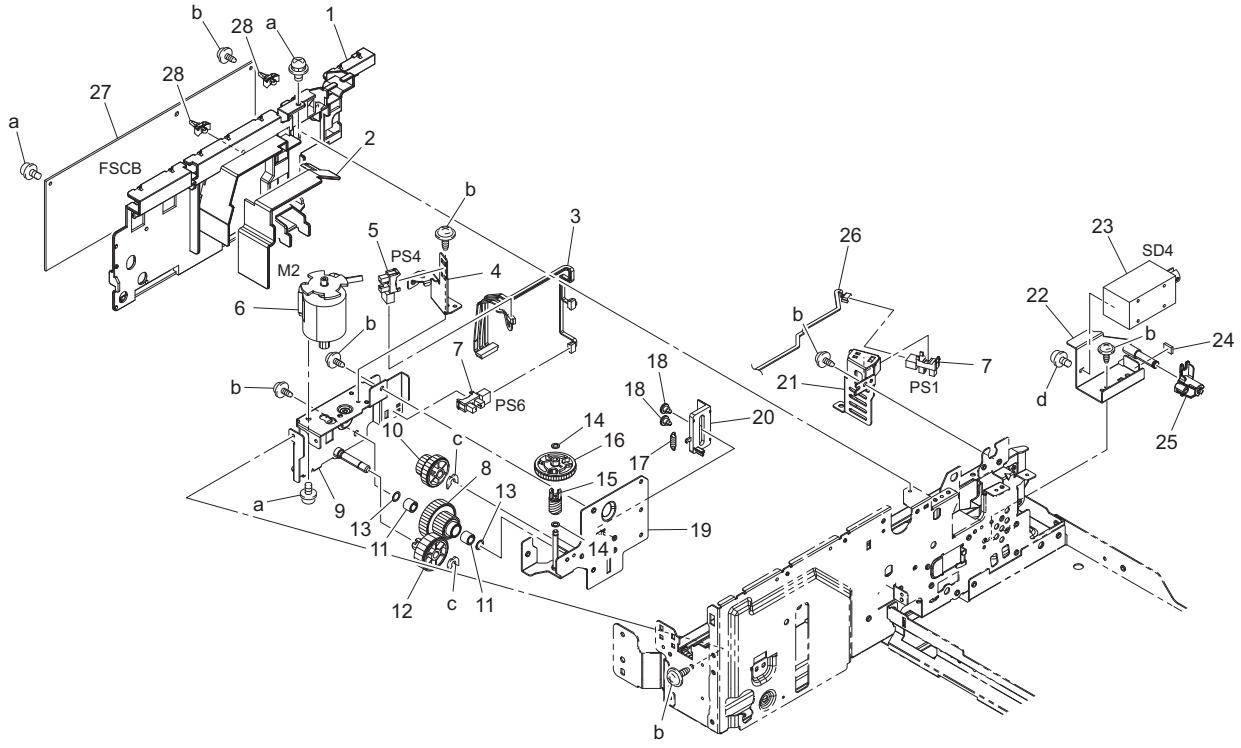


Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
10	1	A0U7PP2400	PULLEY			C	1
10	2	A0U7PP2W00	MOUNTING PLATE			D	1
10	3	A0U7PP8K00	TENSION SPRING			D	1
10	4	A0U7PP6Y00	MOUNTING PLATE			D	1
10	5	A0U7PP3901	Harness			D	1
10	6	A0U7PP0900	PHOTOINTERRUPTER	Leading edge stopper home sensor (PS14) Stapler home sensor (PS11) Paper surface detect sensor/1 (PS2) Paper surface detect sensor/2 (PS3)		I	4
10	7	A0U7PP7500	MOUNTING PLATE			D	1
10	8	9J08P00100	STAPLE CARTRIDGE			C	1
10	9	A0U7PP1G00	CUSHION			C	1
10	10	A0U7PP5700	HOLDER			D	1
10	11	A0U7PP5C01	Lever			C	1
10	12	A01FPP0V00	TENSION SPRING			C	1
10	13	A0U7PP2U00	MOUNTING PLATE			D	1
10	14	A0U7PP5600	HOLDER			C	1
10	15	A0U7PP2200	LEVER			C	1
10	16	A0U7PP7101	Mounting Plate			D	1
10	17	A0U7PP4R00	LEVER			D	1
10	18	A0U7PP8U00	TENSION SPRING			D	1
10	19	A0U7PP1W00	CUSHION			D	4
10	20	A0U7PP2P00	MOUNTING PLATE			D	1
10	21	A0U7PPAC00	Solenoid	Paper surface detect solenoid (SD1)		C	1
10	22	A0U7PP3N01	Harness			D	1
10	23	A0U7PP5400	GEAR			C	1
10	24	A0U7PP7V00	SHAFT			D	1

10	25	A0U7PP7N01	Guide			D	1
10	26	A0U7PP9U00	GEAR			C	1
10	27	A0U7PP1800	SHOULDER SCREW			C	1
10	28	A0U7PP0800	MICRO SWITCH	Front door switch (SW1)		C	1
10	29	A0U7PP9B00	LEVER			C	1
10	30	A0U7PP8W01	Tension Spring			D	2
10	31	A0U7PP2V01	Mounting Plate			D	1
10	32	A0U7PPA200	MOTOR	Stapler movement motor (M7)		C	1
10	33	A0U7PP5200	HOLDER			D	1
10	34	A0U7PP7J00	MOUNTING PLATE			D	1
10	35	A01FPP5X00	STAPLER UNIT			C	1
10	36	A0U7PP1N00	SHAFT			D	1
10	37	A0U7PP2H00	GUIDE			C	1
10	38	A0U7PP3G01	Harness			D	1
10	39	A0U7PP5S00	LEVER			C	1
10	40	A0U7PP8M00	TENSION SPRING			C	1
10	41	A0U7PP7000	MOUNTING PLATE			D	1
10	42	A0U7PP0M00	TIMING BELT			C	1
10	43	A0U7PP3801	Harness			D	1
10	a	A0U7PP0400	SCREW			D	
10	b	A0U7PP1400	SCREW			D	
10	c	A0U7PP0700	SCREW			D	
10	d	A0U7PP0100	SCREW			D	
10	e	A0U7PPC200	Screw			D	
10	f	A0U7PP0300	SCREW			D	
10	g	A0U7PP0U00	STOPPER RING			D	
10	h	A0U7PPBK00	Screw			D	

2.7 ELECTRICAL COMPONENTS

P 11

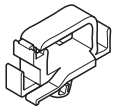
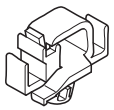
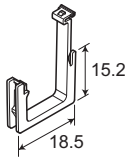
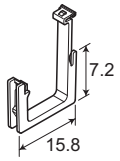


Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
11	1	A0U7PP5D01	Guide			D	1

11	2	A0U7PPAW01	Cushion			D	1
11	3	A0U7PP3C01	harness			D	1
11	4	A0U7PPAA00	MOUNTING PLATE			D	1
11	5	A0U7PPAB00	PHOTOINTERRUPTER	Tray up/down operation sensor (PS4)		I	1
11	6	A0U7PPAR00	Motor Assy	Tray up/down motor (M2)		C	1
11	7	A0U7PP0900	PHOTOINTERRUPTER	Paper passage sensor/1 (PS1) Tray lower limit sensor (PS6)		I	2
11	8	A0U7PPBF00	Gear			C	1
11	9	A0U7PP3601	Mounting Plate			D	1
11	10	A0U7PP6000	GEAR			C	1
11	11	A0U7PPBG00	Collar			C	2
11	12	A0U7PP6300	GEAR			C	1
11	13	A0U7PPBB00	Spacer			C	2
11	14	A0U7PPA600	WASHER			C	2
11	15	A0U7PPBJ01	Gear			C	1
11	16	A0U7PPBH00	Gear			C	1
11	17	A0U7PP9600	TENSION SPRING			D	1
11	18	A0U7PP8S01	Shoulder Screw			D	2
11	19	A0U7PP3401	Mounting Plate			D	1
11	20	A0U7PP6401	Holder			D	1
11	21	A0U7PP7200	MOUNTING PLATE			D	1
11	22	A0U7PP3500	MOUNTING PLATE			D	1
11	23	A0U7PPAD00	Solenoid	Flapper solenoid (SD4)		C	1
11	24	A0U7PP1W00	CUSHION			D	1
11	25	A0U7PP5P00	LEVER			C	1
11	26	A0U7PP3H01	Harness			D	1
11	27	A0U7PP3S02	PWB Assembly	FS control board (FSCB)		I	1
11	28	A0U7PPAG00	Spacer			D	2
11	a	A0U7PP0400	SCREW			D	
11	b	A0U7PP1400	SCREW			D	
11	c	A0U7PP0V00	E RING			D	
11	d	A0U7PP0100	SCREW			D	

2.8 WIRING ACCESSORIES AND JIGS

P 12

1 	6	11	16	21	26	31	36
2 	7	12	17	22	27	32	37
3 	8	13	18	23	28	33	38
4 	9	14	19	24	29	34	39
5	10	15	20	25	30	35	40

Page	Key	Parts No.	Description	ServiceManual	Destinations	Class	Quantity
12	1	A0U7PP0C00	CODE CLAMP			D	
12	2	A0U7PP0D00	CODE CLAMP			D	
12	3	A0U7PP0A00	EDGE COVER			D	
12	4	A0U7PP0B00	SADDLE			D	
12	5	4688675101	CABLE TIE			D	

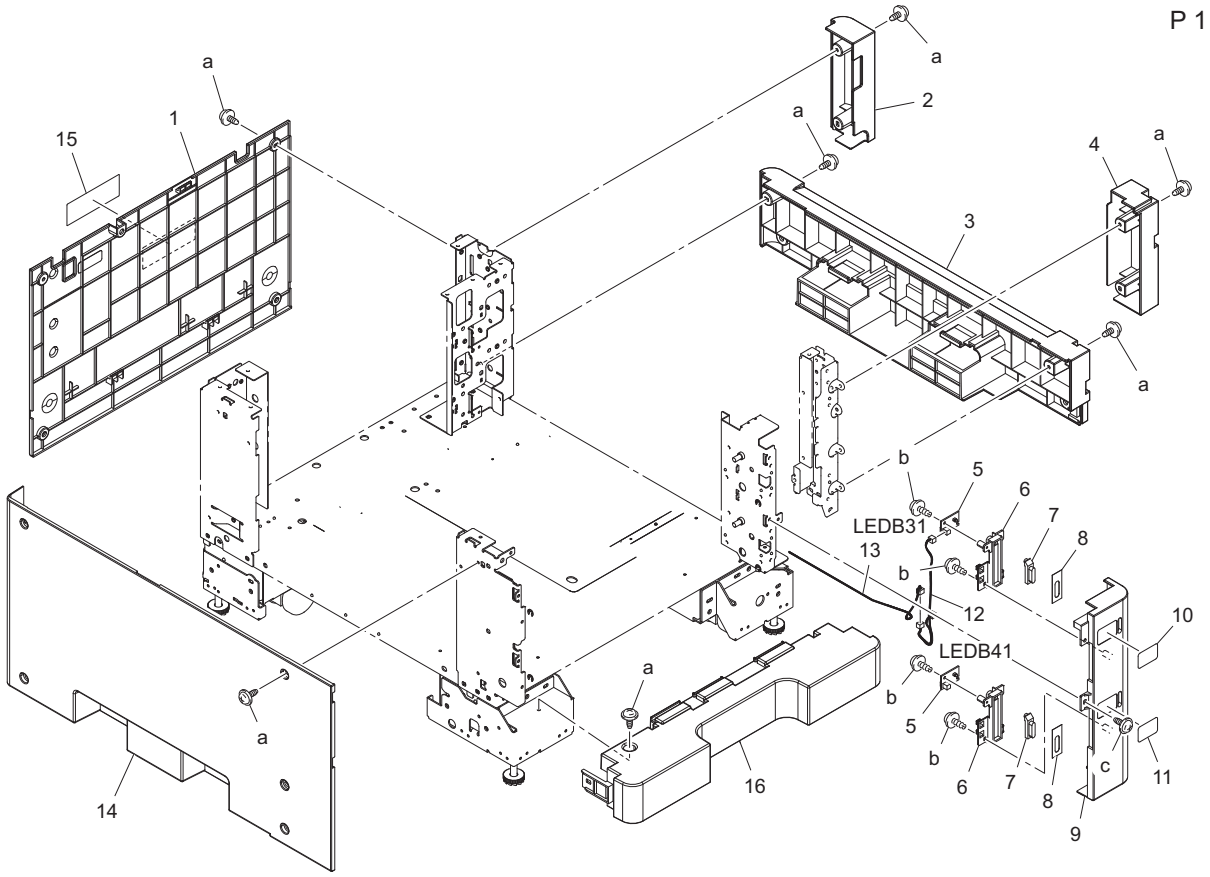
2.9 DESTINATION

Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN		100	50/60	A0U7WY1
	A2	JAPAN				
B		USA, CANADA		120	60	A0U7WY1
C		EUROPEAN TYPE		220-240	50/60	A0U7WY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220-240	50/60	A0U7WY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220-240	50/60	A0U7WY1
E		PHILIPPINES		220-240	50/60	A0U7WY1
F	F1	SAUDI ARABIA		127	60	A0U7WY1
	F2	SAUDI ARABIA		220-240	50/60	A0U7WY1
G	G1	C.S AMERICA		220-240	50/60	A0U7WY1
	G2	C.S AMERICA		120	60	A0U7WY1
H		TAIWAN		110	60	A0U7WY1
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	A0U7WY1

J	CHINA	220-240	50/60	A0U7WY1
K	KOREA	220-240	50/60	A0U7WY1

3. PAPER FEEDER (PC-211)

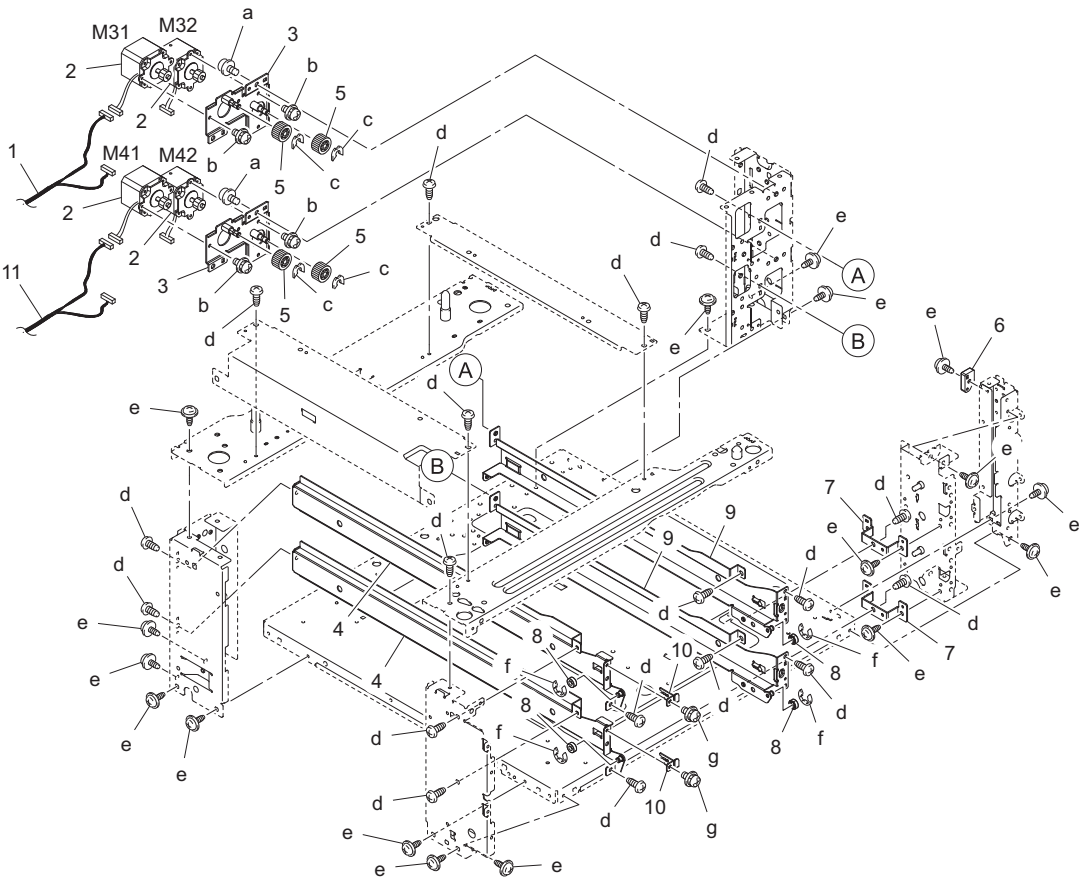
3.1 EXTERNAL PARTS



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A3J0611200	Cover /Rear		B, C, D1, D3, F2, G1, G2, I, K	D	1
1	2	A1V4610500	Right Rear Cover			C	1
1	3	A1V4610700	Right Lower Cover			C	1
1	4	A1V4610600	Right Front Cover			C	1
1	5	A00JH00D00	PWB Assembly LED1	Tray 4 LED board (LEDB4) Tray 5 LED board (LEDB5)		C	2
1	6	A00J168400	Light blocking Cover			C	2
1	7	A0ED162600	Lens			C	2
1	8	A0ED162700	Light blocking Plate			C	2
1	9	A1V4610300	Front Right Cover			C	1
1	10	A093940200	Label Indication 4th			C	1
1	11	A3J0940300	Label			C	1
1	12	A0XWN11100	Indicating Wiring /1			D	1
1	13	A1V4N11200	Indicating Relay harness / 1			D	1
1	14	A1V4610100	Left Cover			C	1
1	15	A093940700	Label			C	1
1	16	A3J0610400	Cover			D	1
1	a	V137040804	screw			V	
1	b	V153030803	Screw			V	
1	c	V137040803	SCREW			V	

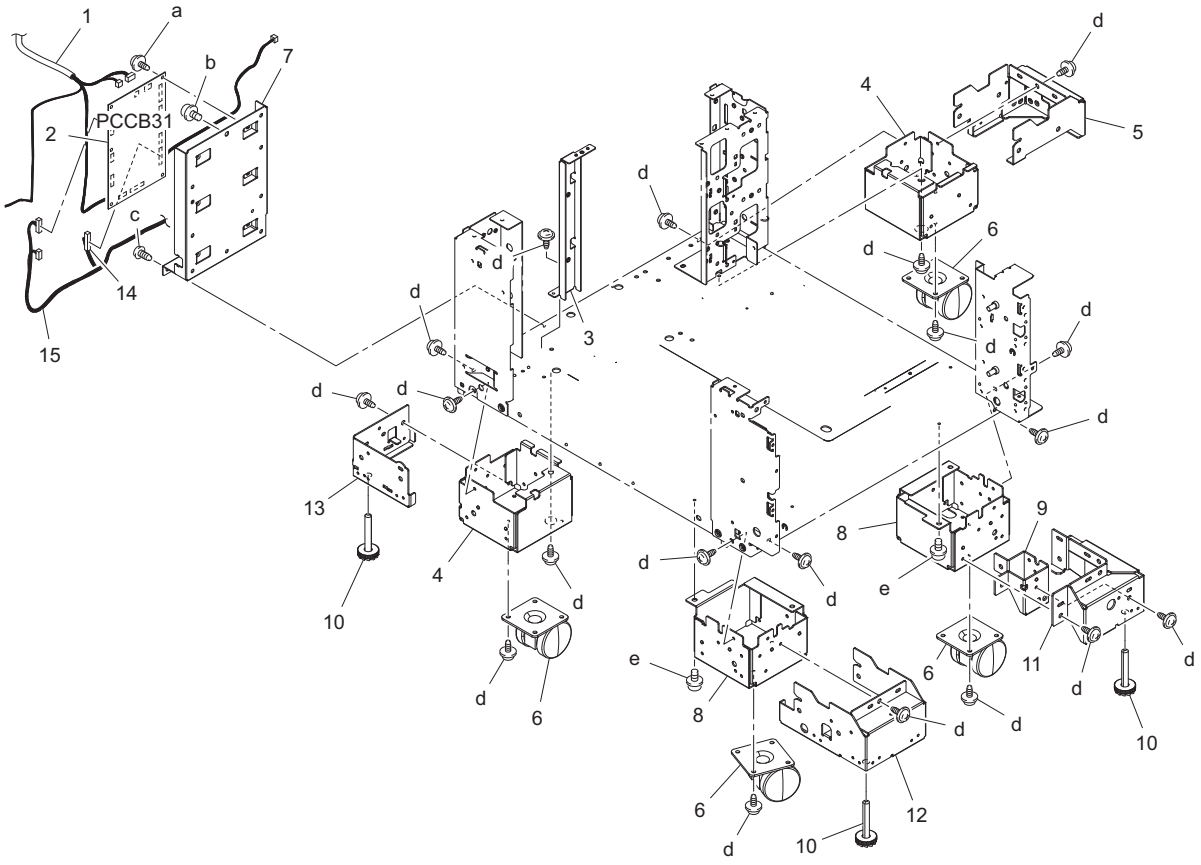
3.2 FRAME SECTION

P 2



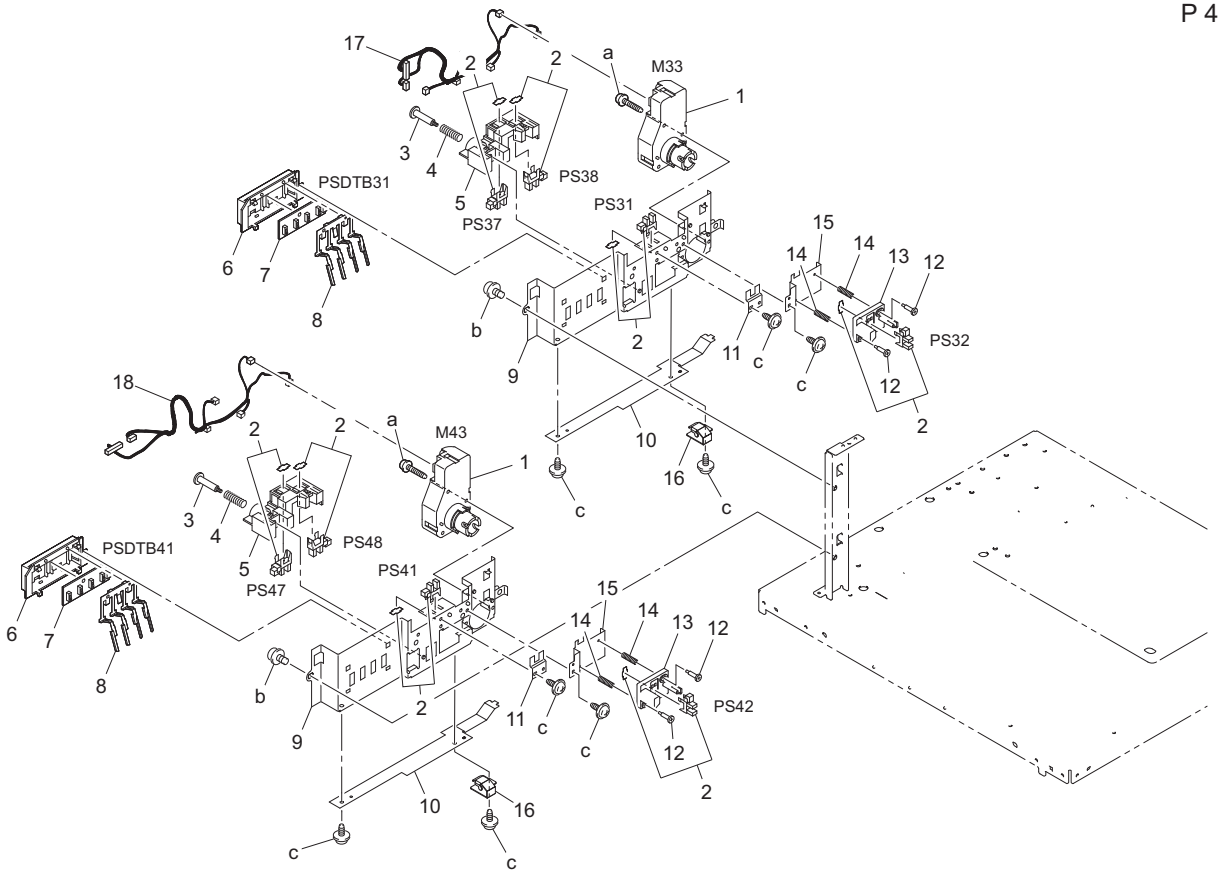
Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
2	1	A3J0N10600	Paperfeed Drive harness / 3			D	1
2	2	9J08M10600	MOTOR	Tray 4 paper feed motor (M41) Tray 4 vertical transport motor (M42) Tray 5 paper feed motor (M51) Tray 5 vertical transport motor (M52)		B	4
2	3	4348020201	FRAME ASSY			D	2
2	4	A1V4601701	Rail			D	2
2	5	4348303001	GEAR 27T			C	4
2	6	A0XW601000	Holder			D	1
2	7	A0XW601500	Reinforce Plate			D	2
2	8	A0ED623400	Roll			D	4
2	9	A0XW601600	Rail			D	2
2	10	A1V4601900	Stopper			D	2
2	11	A3J0N11400	Paperfeed Drive harness / 4			D	1
2	a	V116040803	Screw			V	
2	b	V116030603	Screw			V	
2	c	V218040086	E ring			V	
2	d	V143040803	screw			V	
2	e	V137040803	SCREW			V	
2	f	V217040001	E Ring			V	
2	g	V116030803	Screw			V	

P 3



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
3	1	A3J0N10000	Main body Relay harness / 1			D	1
3	2	A1V4H00002	PWB Assembly(PWB-CAB ASSY)	PC control board (PCCB)		I	1
3	3	A3J0600200	Mounting Plate			D	1
3	4	A1V4603702	Lifting Pedestal /Rear			D	2
3	5	A1V4608300	Support Plate /Right rear			D	1
3	6	4061101000	Castor			C	4
3	7	4348203605	Bracket			D	1
3	8	A1V4603100	Lifting Pedestal /Front			D	2
3	9	A1V4608500	Reinforce Plate /Right front			D	1
3	10	A1V4603600	Fixing Part			D	3
3	11	A1V4608100	Support Plate /Right front			D	1
3	12	A1V4608200	Support Plate /Left front			D	1
3	13	A1V4608400	Support Plate /Left rear			D	1
3	14	A3J0N10300	Paperfeed Relay harness / 3			D	1
3	15	A3J0N10400	Paperfeed Relay harness / 4			D	1
3	a	V137030603	screw			V	
3	b	V116040803	Screw			V	
3	c	V143040803	screw			V	
3	d	V137040803	SCREW			V	
3	e	V116040804	Screw			V	

P 4

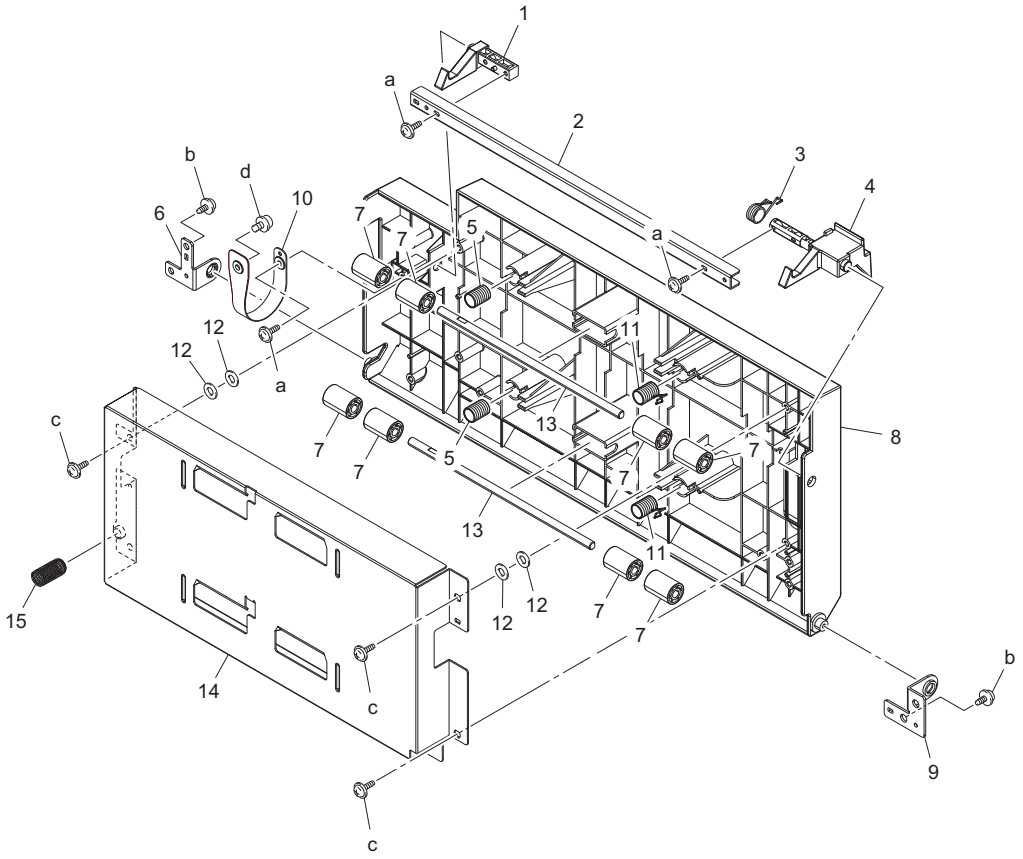


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
4	1	9J06M10300	MOTOR	Tray 4 lift-up motor (M43) Tray 5 lift-up motor (M53)		B	2
4	2	A108M50100	Photointerrupter	Tray 4 set sensor (PS41) Tray 4 paper near empty sensor (PS42) Tray 4 paper CD size sensor/1 (PS46) Tray 4 paper CD size sensor/2 (PS47) Tray 5 set sensor (PS51) Tray 5 paper CD size sensor/1 (PS56) Tray 5 paper CD size sensor/2 (PS57)		B	8
4	3	4002313101	SHOULDER SCREW			C	2
4	4	A093651300	Pressure spring			C	2
4	5	4030304702	HOLDER			D	2
4	6	4011301201	HOLDER			D	2
4	7	4037010401	PWB ASSY	Tray 4 paper FD sensor board (PSDTB4) Tray 5 paper FD sensor board (PSDTB5)		C	2
4	8	4030309101	LEVER			C	2
4	9	4030304603	BRACKET			D	2
4	10	4030304901	BRACKET			D	2
4	11	4030304802	BRACKET			D	2
4	12	4030322402	SHOULDER SCREW			C	4
4	13	4030308301	HOLDER			D	2
4	14	A093651400	Pressure spring			C	4
4	15	4030320802	BRACKET			D	2
4	16	50GA627101	LIFTING STAY			C	2
4	17	A3J0N11000	Paperfeed Wiring /3			D	1
4	18	A3J0N11300	Paperfeed Wiring /4			D	1
4	a	V116033003	Screw			V	

4	b	V116040803	Screw			V	
4	c	V137030603	screw			V	

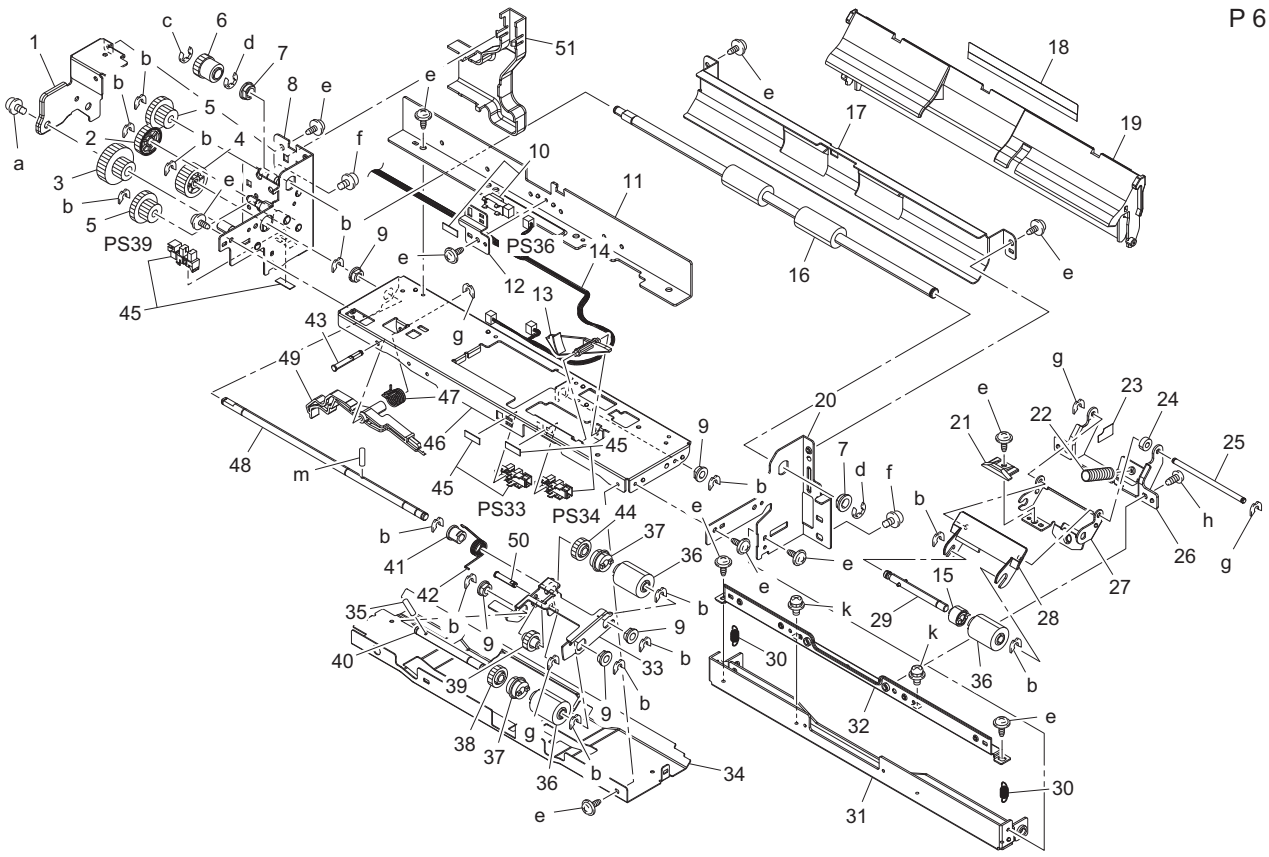
3.3 PAPER TRANSPORT SECTION

P 5



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
5	1	4348305301	PAWL			C	1
5	2	4348305401	BRACKET			D	1
5	3	A093564100	Torsion spring			C	1
5	4	A093165200	Claw			C	1
5	5	A093564000	Pressure spring			C	2
5	6	4348306401	BRACKET			D	1
5	7	4030312201	ROLL			C	8
5	8	A0XW607203	Door			C	1
5	9	A0XW615100	Mounting Plate			C	1
5	10	A0XW615000	Band			C	1
5	11	A0XW615300	Compressing Coil spring			C	2
5	12	4349164101	WASHER			C	4
5	13	4348307101	SHAFT			D	2
5	14	A0XW607111	Guide			D	1
5	15	A0XW616000	Compressing Coil spring			C	1
5	a	V153030803	Screw			V	
5	b	V137040803	SCREW			V	
5	c	V153041003	screw			V	
5	d	V116041003	Screw			V	

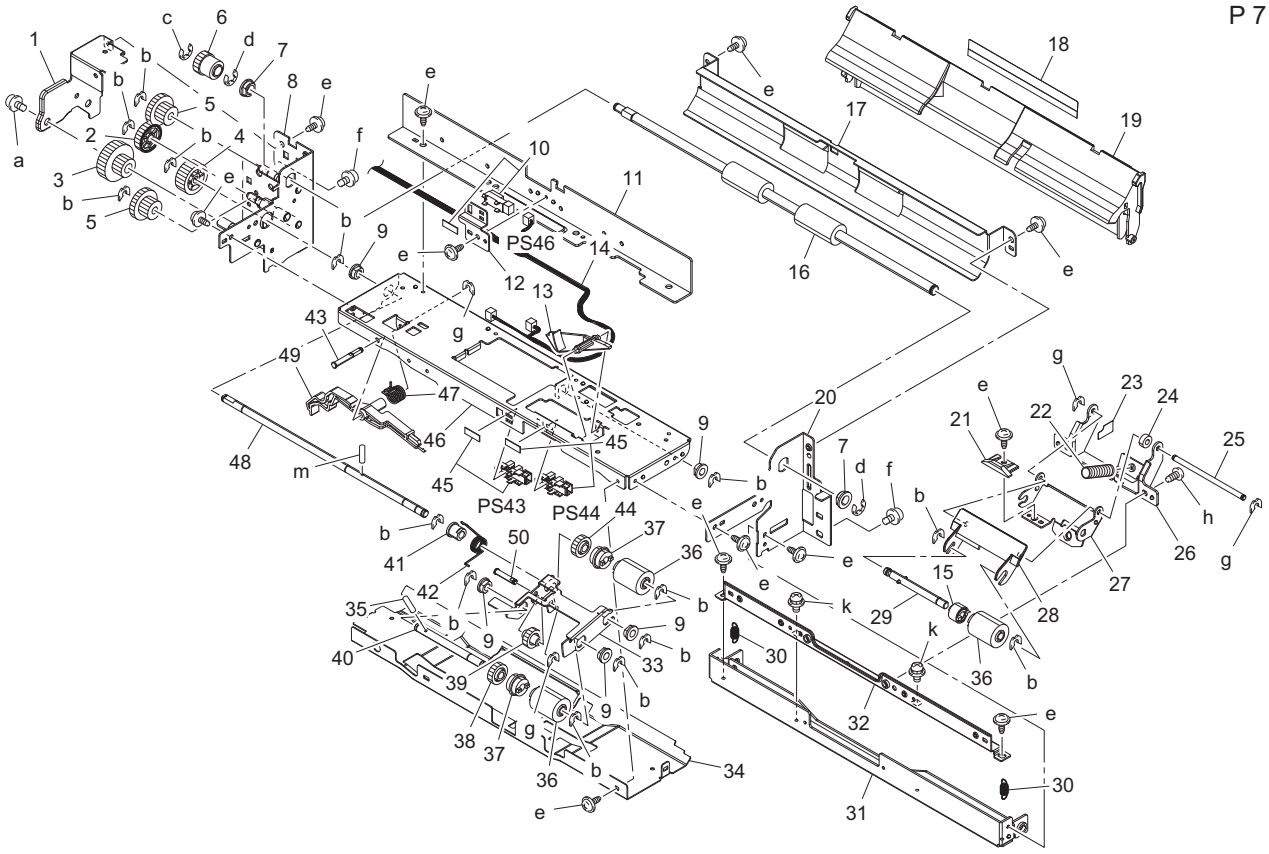
3.4 UPPER PAPER TAKE-UP SECTION



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
6	1	A0XW604300	Mounting Plate			D	1
6	2	A0XW603900	GEAR 30T			D	1
6	3	4348304801	GEAR 19/40T			C	1
6	4	4348302901	GEAR 32T			C	1
6	5	4348303101	GEAR 19/32T			C	2
6	6	4348302801	GEAR 22T			C	1
6	7	4131353202	BUSHING			C	2
6	8	A0XWR7A000	Frame			D	1
6	9	4131300301	BUSHING			C	5
6	10	4037090201	PHOTO INTERRUPTER	Tray 4 vertical transport sensor (PS45)		B	1
6	11	A0XW603501	Reinforce Plate			D	1
6	12	A0XW603001	Mounting Plate			D	1
6	13	4030301612	ACTUATOR			C	1
6	14	A1V4N10700	Paperfeed Detection harness /3			D	1
6	15	A0ED563900	Torque limiter			C	1
6	16	4348301104	ROLLER			C	1
6	17	4348304201	GUIDE PLATE			C	1
6	18	4030310501	GUIDE			C	1
6	19	4061560000	GUIDE			C	1
6	20	4348304408	Frame			D	1
6	21	4030307801	LEVER			C	1
6	22	4030301703	PRESSURE SPRING			C	1
6	23	4040561200	Spacer			D	1
6	24	4040561000	Spacer			D	1
6	25	4030303901	SHAFT			D	1
6	26	4030301401	BRACKET			D	1
6	27	4030301301	HOLDER			C	1

6	28	A093563600	Guide			D	1
6	29	A0ED563700	Shaft			D	1
6	30	4030312501	TENSION SPRING			C	2
6	31	A0XW603800	Mounting Plate			D	1
6	32	4030303701	REINFORCE PLATE			D	1
6	33	4030300202	HOLDER			C	1
6	34	4030309501	GUIDE PLATE			C	1
6	35	1067250101	PIN			C	1
6	36	A00J563600	Roller			A	3
6	37	A00J563500	Clutch			C	2
6	38	4425301601	GEAR 32T			C	1
6	39	4030300801	GEAR 29T			C	1
6	40	4030300301	SHAFT			D	1
6	41	1065308601	BUSHING			C	1
6	42	4030303001	TORSION SPRING			C	1
6	43	4030302002	SHAFT			D	1
6	44	4425301301	GEAR 30T			C	1
6	45	A1V4R90000	Photointerrupter	Right lower door sensor (PS31) Tray 4 upper limit sensor (PS43) Tray 4 paper empty sensor (PS44)		B	3
6	46	4030301004	Frame			C	1
6	47	A093561400	Torsion spring			C	1
6	48	4348304701	SHAFT			C	1
6	49	A00J567300	Release Lever			D	1
6	50	4040309701	SHAFT			D	1
6	51	A0XW604200	Cover			D	1
6	a	V116030603	Screw			V	
6	b	V218040086	E ring			V	
6	c	V217040001	E Ring			V	
6	d	V217060001	E Ring			V	
6	e	V137030603	screw			V	
6	f	V116040803	Screw			V	
6	g	V218030086	E ring			V	
6	h	V136030803	screw			V	
6	k	V116030803	Screw			V	
6	m	V237200850	Pin			V	

3.5 LOWER PAPER TAKE-UP SECTION

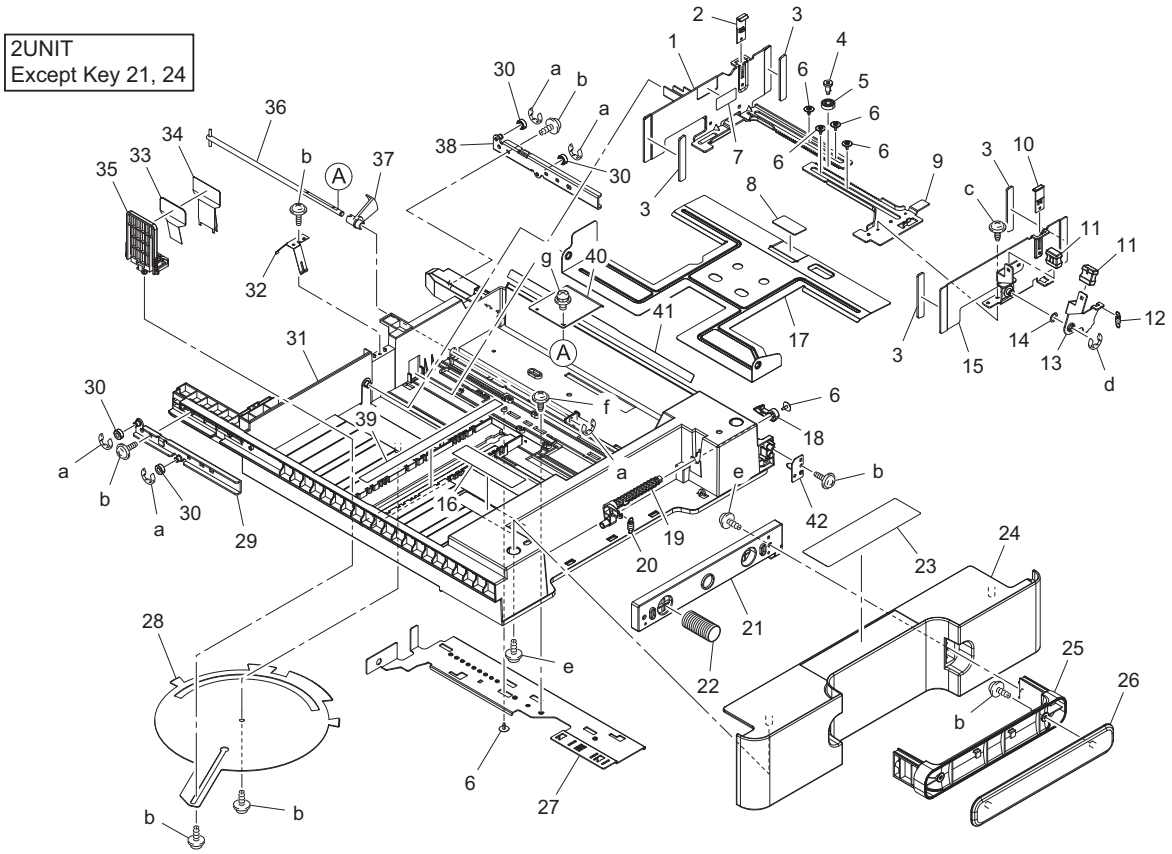


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
7	1	A0XW604300	Mounting Plate			D	1
7	2	A0XW603900	GEAR 30T			D	1
7	3	4348304801	GEAR 19/40T			C	1
7	4	4348302901	GEAR 32T			C	1
7	5	4348303101	GEAR 19/32T			C	2
7	6	4348302801	GEAR 22T			C	1
7	7	4131353202	BUSHING			C	2
7	8	A0XWR7A000	Frame			D	1
7	9	4131300301	BUSHING			C	5
7	10	4037090201	PHOTO INTERRUPTER	Tray 5 vertical transport sensor (PS55)		B	1
7	11	A0XW603501	Reinforce Plate			D	1
7	12	A0XW603001	Mounting Plate			D	1
7	13	4030301612	ACTUATOR			C	1
7	14	A1V4N11000	Paperfeed Detection harness /4			D	1
7	15	A0ED563900	Torque limiter			C	1
7	16	4348301104	ROLLER			C	1
7	17	4348304201	GUIDE PLATE			C	1
7	18	4030310501	GUIDE			C	1
7	19	4061560000	GUIDE			C	1
7	20	4348304408	Frame			D	1
7	21	4030307801	LEVER			C	1
7	22	4030301703	PRESSURE SPRING			C	1
7	23	4040561200	Spacer			D	1
7	24	4040561000	Spacer			D	1
7	25	4030303901	SHAFT			D	1
7	26	4030301401	BRACKET			D	1
7	27	4030301301	HOLDER			C	1

7	28	A093563600	Guide			D	1
7	29	A0ED563700	Shaft			D	1
7	30	4030312501	TENSION SPRING			C	2
7	31	A0XW603800	Mounting Plate			D	1
7	32	4030303701	REINFORCE PLATE			D	1
7	33	4030300202	HOLDER			C	1
7	34	4030309501	GUIDE PLATE			C	1
7	35	1067250101	PIN			C	1
7	36	A00J563600	Roller			A	3
7	37	A00J563500	Clutch			C	2
7	38	4425301601	GEAR 32T			C	1
7	39	4030300801	GEAR 29T			C	1
7	40	4030300301	SHAFT			D	1
7	41	1065308601	BUSHING			C	1
7	42	4030303001	TORSION SPRING			C	1
7	43	4030302002	SHAFT			D	1
7	44	4425301301	GEAR 30T			C	1
7	45	A1V4R90000	Photointerrupter	Tray 5 upper limit sensor (PS53) Tray 5 paper empty sensor (PS54)		B	2
7	46	4030301004	Frame			C	1
7	47	A093561400	Torsion spring			C	1
7	48	4348304701	SHAFT			C	1
7	49	A00J567300	Release Lever			D	1
7	50	4040309701	SHAFT			D	1
7	a	V116030603	Screw			V	
7	b	V218040086	E ring			V	
7	c	V217040001	E Ring			V	
7	d	V217060001	E Ring			V	
7	e	V137030603	screw			V	
7	f	V116040803	Screw			V	
7	g	V218030086	E ring			V	
7	h	V136030803	screw			V	
7	k	V116030803	Screw			V	
7	m	V237200850	Pin			V	

3.6 PAPER TRAY UNIT

P 8

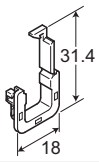
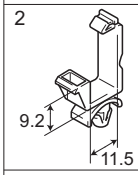
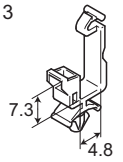
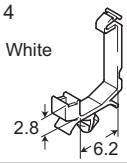
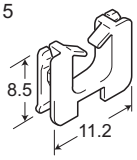


Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
8	1	A0XW604724	Regulating Plate /ASSY			C	2
8	2	A0ED621000	Guide			D	2
8	3	A02E622700	Cushion			C	8
8	4	A0ED620601	Shoulder screw			D	2
8	5	A02E622400	Gear 14T			C	2
8	6	4163529301	SCREW			C	12
8	7	4002730601	LABEL CARRYING CAPACITY			C	2
8	8	4030322601	FRICTION SHEET			C	2
8	9	A0ED621101	Rack /Front			D	2
8	10	4537331701	GUIDE			D	2
8	11	4037320401	KNOB			C	4
8	12	A0ED621400	Pulling Coil spring			D	2
8	13	A0ED621300	Lever			D	2
8	14	4011302101	WASHER			C	2
8	15	A0XWR7A100	Rogulating Plate			C	2
8	16	A3J0940500	Label			D	2
8	17	A0XW604900	Lifting Plate			C	2
8	18	A0ED625500	Lock Lever			C	2
8	19	A3EW625700	Release Lever			D	2
8	20	A0ED625800	Pulling Coil spring			D	2
8	21	A0ED625301	Holder		(4th)	D	1
8	21	A1V4605300	Holder		(3rd)	D	1
8	22	A0ED625400	Compressing Coil spring			D	2
8	23	A0ED940100	Label Paper			D	2
8	24	A3J0604600	Cover		(4th)	D	1
8	24	A3J0605100	Cover		(3rd)	D	1
8	25	A0ED625201	Handle			C	2
8	26	A0ED625000	Cover			C	2

8	27	A0XW604800	Mounting Plate			D	2
8	28	A3J0605800	Lever			D	2
8	29	A0ED623200	Reinforce Plate /Left rear			D	2
8	30	A0ED623400	Roll			D	8
8	31	A3J0605001	Paper feed Cassette			D	2
8	32	4030322303	Earth ground			C	2
8	33	A00J622900	Guide Plate			C	2
8	34	4030322812	GUIDE			C	2
8	35	4037321312	REGULATING PLATE			C	2
8	36	A0XW616400	Lifting Shaft			D	2
8	37	A0ED620701	Actuator			C	2
8	38	A0ED623100	Reinforce Plate /Right rear			D	2
8	39	A3J0940400	Label			D	2
8	40	4030320601	LEVER			D	2
8	41	A0XW605200	Guide			C	2
8	42	A3J0R7A000	Mounting Plate			D	2
8	a	V217040001	E Ring			V	
8	b	V153030803	Screw			V	
8	c	V137030603	screw			V	
8	d	V217060001	E Ring			V	
8	e	V153041003	screw			V	
8	f	V144040603	SCREW			V	
8	g	V116030803	Screw			V	

3.7 WIRING ACCESSORIES AND JIGS

P 9

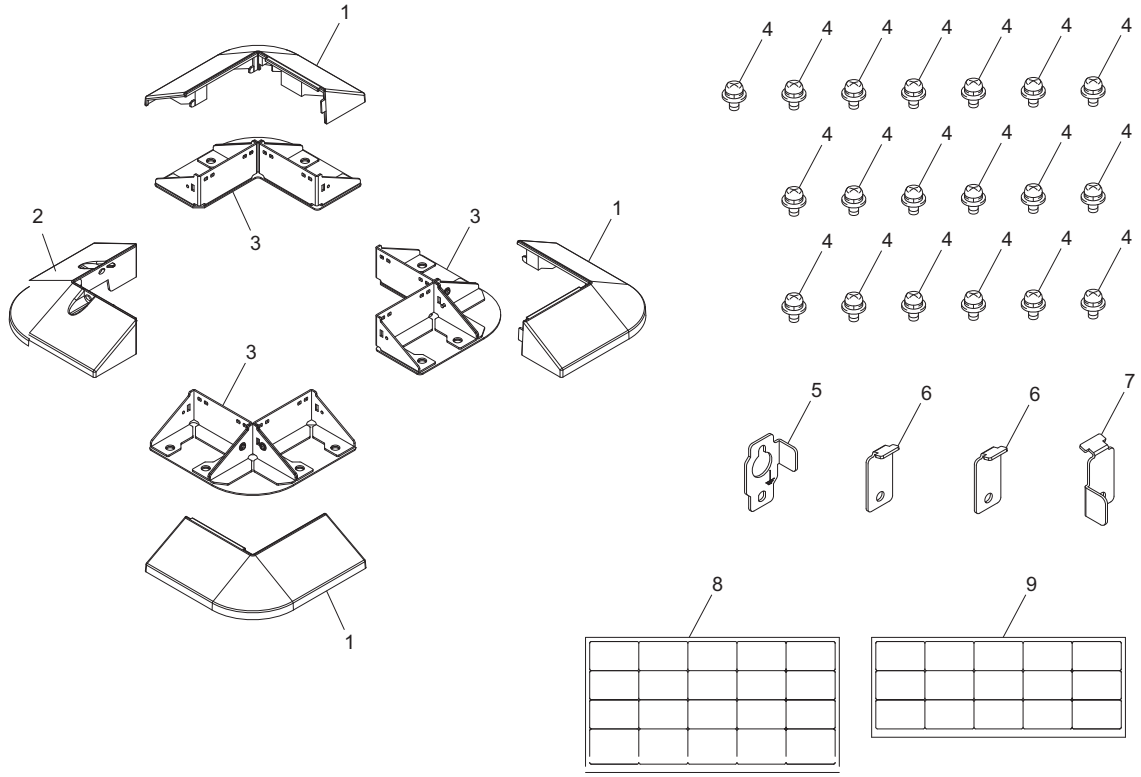
1 	6	11	16	21	26	31	36
2 	7	12	17	22	27	32	37
3 	8	13	18	23	28	33	38
4 	9	14	19	24	29	34	39
5 	10	15	20	25	30	35	40

Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
9	1	V570010031	holder			D	
9	2	V500010005	saddle			D	
9	3	V500010020	Saddle			D	
9	4	V500010046	saddle			D	

9	5	V570010021	Saddle			D	

3.8 ACCESSORY PARTS

P 10



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
10	1	A1V4603501	Cover			C	3
10	2	A1V4603800	Installing Leg			C	1
10	3	A1V4603400	Mounting Plate			C	3
10	4	V116040804	Screw			V	19
10	5	A3J0609300	Fixing Plate			C	1
10	6	A093104300	Stop plate			C	2
10	7	A1V4609200	Fixing Plate			C	1
10	8	A3J0942000	Scale			D	1
10	9	A3J0942100	Scale			D	1

3.9 DESTNATION

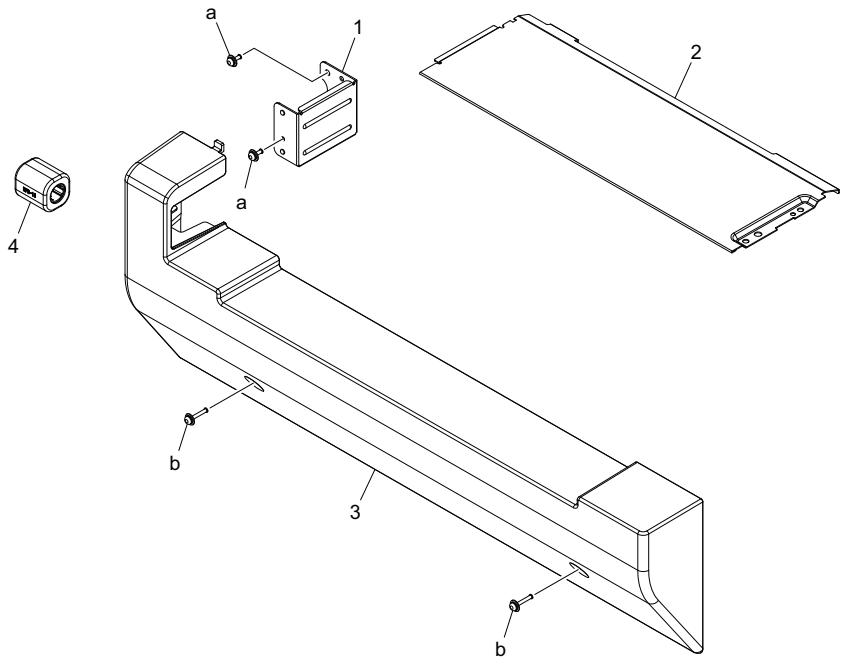
Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN				
	A2	JAPAN				
B		USA, CANADA		120	60	A3J0WY1
C		EUROPEAN TYPE		220-240	50/60	A3J0WY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220-240	50/60	A3J0WY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220-240	50/60	A3J0WY1
E		PHILIPPINES				
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA		220-240	50/60	A3J0WY1

G	G1	C.S AMERICA	220-240	50/60	A3J0WY1
	G2	C.S AMERICA	120	60	A3J0WY1
H		TAIWAN	110	60	A3J0WY1
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	A3J0WY1
J		CHINA	220-240	50/60	A3J0WY1
K		KOREA	220-240	50/60	A3J0WY1

4. OTHER OPTION (MK-601)

4.1 MOUNT KIT

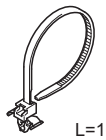
P 1



Page	Key	Parts No.	Service Manual	Description	Destinations	Class	Quantity
1	1	A3UK180500		Mounting Plate		D	1
1	2	A3UK180600		Cover		D	1
1	3	A3UK180100		Cover		D	1
1	4	A3UKM90000		Ferritecore		D	1
1	a	V116030803		Screw		V	
1	b	V116031604		Screw		V	

4.2 WIRING ACCESSORIES AND JIGS

P 2

1 	6	11	16	21	26	31	36
2	7	12	17	22	27	32	37
3	8	13	18	23	28	33	38
4	9	14	19	24	29	34	39
5	10	15	20	25	30	35	40

Page	Key	Parts No.	Service Manual	Description	Destinations	Class	Quantity
2	1	V501010018		BAND		D	

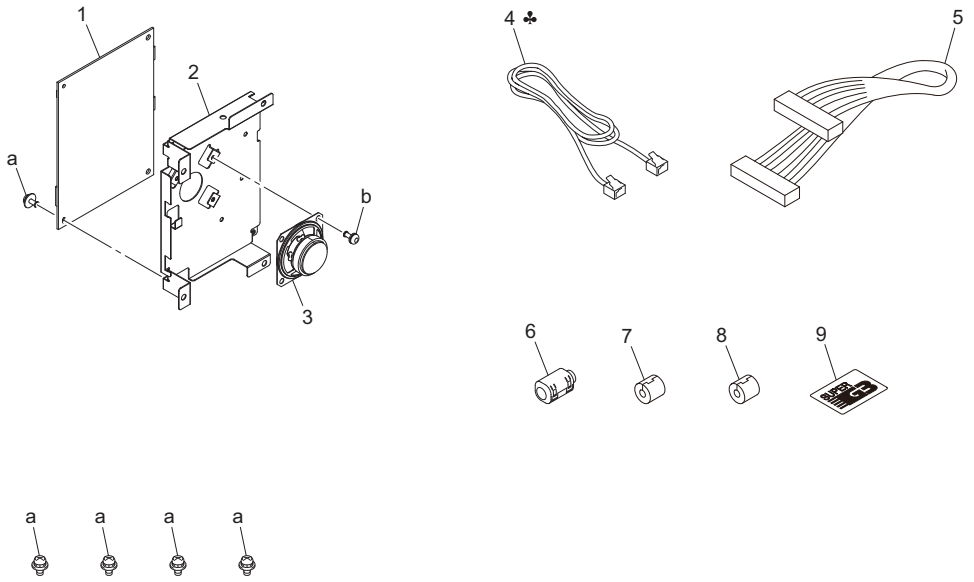
4.3 DESTINATION

Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN		100	50/60	A3UKWY1
	A2	JAPAN				
B		USA, CANADA		120	60	A3UKWY1
C		EUROPEAN TYPE		220-240	50/60	A3UKWY1
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220-240	50/60	A3UKWY1
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220-240	50/60	A3UKWY1
E		PHILIPPINES				
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA		220-240	50/60	A3UKWY1
G	G1	C.S AMERICA		220-240	50/60	A3UKWY1
	G2	C.S AMERICA		120	60	A3UKWY1
H		TAIWAN		110	60	A3UKWY1
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	A3UKWY1
J		CHINA		220-240	50/60	A3UKWY1
K		KOREA		220-240	50/60	A3UKWY1

5. OTHER OPTION (FK-509)

5.1 FAX KIT

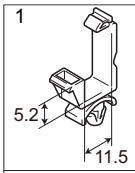
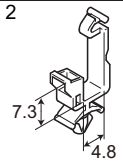
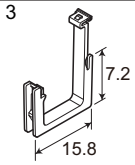
P 1



Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
1	1	A49FH01801	FAX Assembly (WW)		B, C, D1, D3, G2	I	1
1	2	A49F130601	Mounting Plate			D	1
1	3	4040M40100	LOUDSPEAKER			D	1
1	4	15LG90020	MODULAR WIRING 1		(NEW ZEALAND)	C	1
1	4	4628680101	WIRE HARNESS ASSY		B,G2,C,D1	D	1
1	4	4628680201	WIRE HARNESS ASSY		(AUSTRALIA)	D	1
1	5	A49FN14200	Relay harness			D	1
1	6	A11PM70100	Ferritecore /1			D	1
1	7	A49FM90000	Ferritecore			D	1
1	8	A49FM90100	Ferritecore			D	1
1	9	A00J943800	Label			C	1
1	a	V116030603	Screw			V	
1	b	V115030603	Screw			V	

5.2 WIRING ACCESSORIES AND JIGS

P 2

1 	6	11	16	21	26	31	36
2 	7	12	17	22	27	32	37
3 	8	13	18	23	28	33	38
4	9	14	19	24	29	34	39
5	10	15	20	25	30	35	40

Page	Key	Parts No.	Description	Service Manual	Destinations	Class	Quantity
2	1	V500010003	Saddle			D	
2	2	V500010020	Saddle			D	
2	3	V570010046	SADDLE			D	

5.3 DESTINATION

Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN				
	A2	JAPAN				
B		USA, CANADA		120	60	A49F011
C		EUROPEAN TYPE		220-240	50/60	A49F021
D	D1	S.E ASIA TYPE	THAILAND,SRI LANKA,SINGAPORE,MALAYSIA,HONGKONG, PAKISTAN,INDIA,BANGLADESH,INDONESIA	220-240	50/60	A49F041
	D3	OCEAINA TYPE	AUSTRALIA,NEW ZEALAND	220-240	50/60	A49F051/A49F0E1
E		PHILIPPINES				
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA				
G	G1	C.S AMERICA				
	G2	C.S AMERICA		120	60	A49F011
H		TAIWAN				
I		JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO				
J		CHINA				
K		KOREA				

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