KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

magicolor 4750EN
magicolor 4750DN

2010.05
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 1.0

FIELD SERVICE TOTAL CONTENTS

magicolor 4750EN/4750DN Main body

Lower Feeder Unit (PF-P07)

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SAFETY AND IMPORTANT WARNING ITEMS

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

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

DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

In this Service Manual, each of three expressions "⚠ DANGER", "⚠ WARNING", and "⚠ CAUTION" is defined as follows together with a symbol mark to be used in a limited meaning.
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**

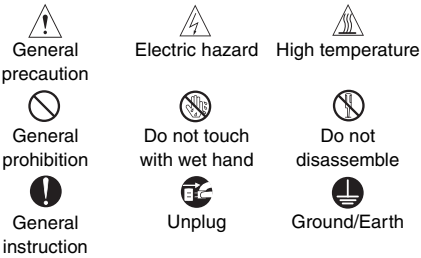
⚠ **CAUTION: Action having a possibility of suffering a slight wound, medium trouble, and property damage**

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

△ :Precaution when servicing the product.

⃠ :Prohibition when servicing the product.

● :Direction when servicing the product.



SAFETY WARNINGS

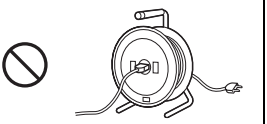
[1] MODIFICATIONS NOT AUTHORIZED BY KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.

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.

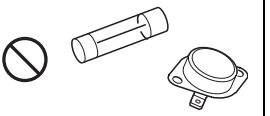
Prohibited Actions

⚠ DANGER

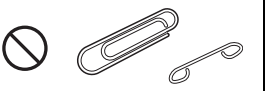
- Using any cables or power cord not specified by KMBT.



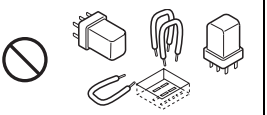
- Using any fuse or thermostat not specified by KMBT. Safety will not be assured, leading to a risk of fire and injury.



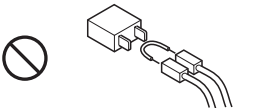
- Disabling fuse functions or bridging fuse terminals with wire, metal clips, solder or similar object.



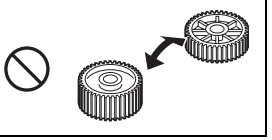
- Disabling relay functions (such as wedging paper between relay contacts).



- Disabling safety functions (interlocks, safety circuits, etc.). Safety will not be assured, leading to a risk of fire and injury.



- Making any modification to the product unless instructed by KMBT.
- Using parts not specified by KMBT.



[2] POWER PLUG SELECTION

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

Power Cord Set or Power Plug

⚠ WARNING

- Use power supply cord set which meets the following criteria:
  - provided with a plug having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
  - the plug has pin/terminal(s) for grounding, and
  - provided with three-conductor cable having enough current capacity, and
  - the cord set meets regulatory requirements for the area.

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

- Attach power plug which meets the following criteria:
  - having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
  - 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.

- Conductors in the power cable must be connected to terminals of the plug according to the following order:
  - •Black or Brown:L (line)
  - •White or Light Blue:N (neutral)
  - •Green/Yellow:PE (earth)

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

[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.

1. Power Supply

Connection to Power Supply

⚠ WARNING

- Check that mains voltage is as specified.

  Connection to wrong voltage supply may result in fire or electric shock.

- Connect power plug directly into wall outlet having same configuration as the plug.

  Use of an adapter leads to the product connecting to inadequate power supply (voltage, current capacity, grounding), and may result in fire or electric shock.

  If proper wall outlet is not available, advice the customer to contact qualified electrician for the installation.

- Plug the power cord into the dedicated wall outlet with a capacity greater than the maximum power consumption.

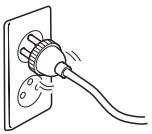
  If excessive current flows in the wall outlet, fire may result.

- If two or more power cords can be plugged into the wall outlet, the total load must not exceed the rating of the wall outlet.

  If excessive current flows in the wall outlet, fire may result.

- Make sure the power cord is plugged in the wall outlet securely.

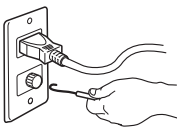
  Contact problems may lead to increased resistance, overheating, and the risk of fire.



- Check whether the product is grounded properly.

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

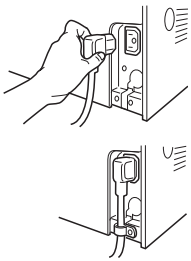
  Connect power plug to grounded wall outlet.



Power Plug and Cord

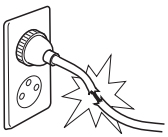
⚠ WARNING

- 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 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.

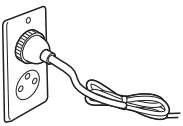


- Check whether the power cord is not stepped on or pinched by a table and so on.
  Overheating may occur there, leading to a risk of fire.

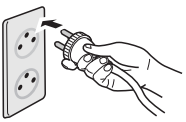
- Check whether the power cord is damaged. Check whether the sheath is damaged.
  If the power plug, cord, or sheath is damaged, replace with a new power cord (with plug and connector on each end) specified by KMBT. Using the damaged power cord may result in fire or electric shock.



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

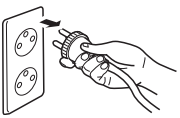


- Check whether dust is collected around the power plug and wall outlet.
  Using the power plug and wall outlet without removing dust may result in fire.



- Do not insert the power plug into the wall outlet with a wet hand.
  The risk of electric shock exists.

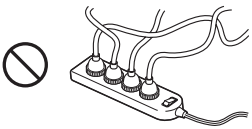
- When unplugging the power cord, grasp the plug, not the cable.
  The cable may be broken, leading to a risk of fire and electric shock.



Wiring

⚠ WARNING

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



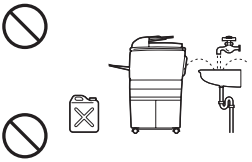
- When an extension cord is required, use a specified one. Current that can flow in the extension cord is limited, so using a too long extension cord may result in fire.
  Do not use an extension cable reel with the cable taken up. Fire may result.

2. Installation Requirements

Prohibited Installation Places

⚠ WARNING

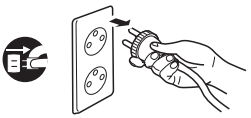
- Do not place the product near flammable materials or volatile materials that may catch fire.
  A risk of fire exists.
- Do not place the product in a place exposed to water such as rain.
  A risk of fire and electric shock exists.



When not Using the Product for a long time

⚠ WARNING

- When the product is not used over an extended period of time (holidays, etc.), switch it off and unplug the power cord.
  Dust collected around the power plug and outlet may cause fire.



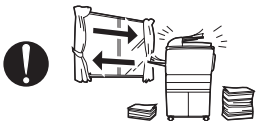
Ventilation

⚠ CAUTION

- The product generates ozone gas during operation, but it will not be harmful to the human body.

  If a bad 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 taking a lot of copies
  c. When using multiple products at the same time



Stability

⚠ CAUTION

- Be sure to lock the caster stoppers.

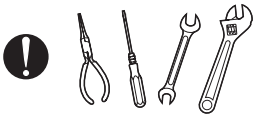
  In the case of an earthquake and so on, the product may slide, leading to a injury.

Inspection before Servicing

⚠ CAUTION

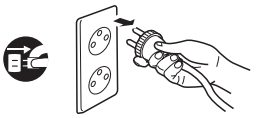
- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure in safety clothes, using only the prescribed tools. Do not make any adjustment not described in the documentation.

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



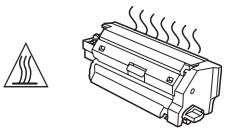
- Before conducting an inspection, be sure to disconnect the power plugs from the product and options.

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



- The area around the fixing unit is hot.

  You may get burnt.



Inspection before Servicing

⚠ CAUTION

- Do not leave the machine unattended during transportation, installation, and inspection of the machine. If it is to be unavoidably left unattended, face protrusions toward the wall or take other necessary risk reducing action.

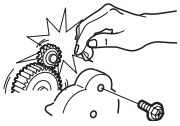
  The user may stumble over a protrusion of the machine or be caught by a cable, falling to the floor or being injured.

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.

Safety Checkpoints

⚠ WARNING

- Check the exterior and frame for edges, burrs, and other damage.

  The user or CE may be injured.

- Whenever mounting an option on the machine, be attentive to the motion of the fellow worker of the joint work.

  The fellow worker may be injured with his or her finger or hand pinched between the machine and the option.

Safety Checkpoints

⚠ WARNING

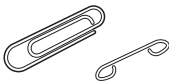
- When mounting an option on the machine, be careful about the clearance between the machine and the option.
  You may be injured with your finger or hand pinched between the machine and the option.

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

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

- When accessing a hard-to-view or narrow spot, be careful about sharp edges and burrs of 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 fire.



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

- Carefully remove all toner remnants and dust from electrical parts and electrode units such as a charging corona unit.
  Current can leak, leading to a risk of product trouble or fire.

- Check high-voltage cables and sheaths for any damage.
  Current can leak, leading to a risk of electric shock or fire.

- Check electrode units such as a charging corona unit for deterioration and sign of leakage.
  Current can leak, leading to a risk of trouble or fire.

Safety Checkpoints

⚠ WARNING

- Before disassembling or adjusting the write unit (P/H unit) incorporating a laser, make sure that the power cord has been disconnected.

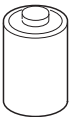
  The laser light can enter your eye, leading to a risk of loss of eyesight.

- Do not remove the cover of the write unit. Do not supply power with the write unit shifted from the specified mounting position.

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

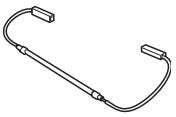
- When replacing a lithium battery, replace it with a new lithium battery specified in the Parts Guide Manual. Dispose of the used lithium battery using the method specified by local authority.

  Improper replacement can cause explosion.



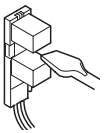
- After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.

  A risk of fire exists.



- 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.

  Current can leak, leading to a 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, electric shock, and fire exists.

Handling of Consumables

⚠ WARNING

- Toner and developer are not harmful substances, but care must be taken not to breathe excessive amounts or let the substances come into contact with eyes, etc. It may be stimulative.

  If the substances get in the eye, rinse with plenty of water immediately. When symptoms are noticeable, consult a physician.

- Never throw the used cartridge and toner into fire.

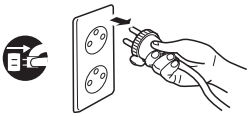
  You may be burned due to dust explosion.

Handling of Service Materials

⚠ CAUTION

- Unplug the power cord from the wall outlet.

  Drum cleaner (isopropyl alcohol) and roller cleaner (acetone-based) are highly flammable and must be handled with care. A risk of fire exists.



- Do not replace the cover or turn the product ON before any solvent remnants on the cleaned parts have fully evaporated.

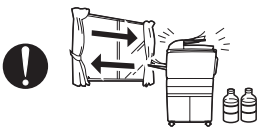
  A risk of fire exists.

- Use only a small amount of cleaner at a time and take care not to spill any liquid. If this happens, immediately wipe it off.

  A risk of fire exists.

- When using any solvent, ventilate the room well.

  Breathing large quantities of organic solvents can lead to discomfort.



[4] LASER SAFETY

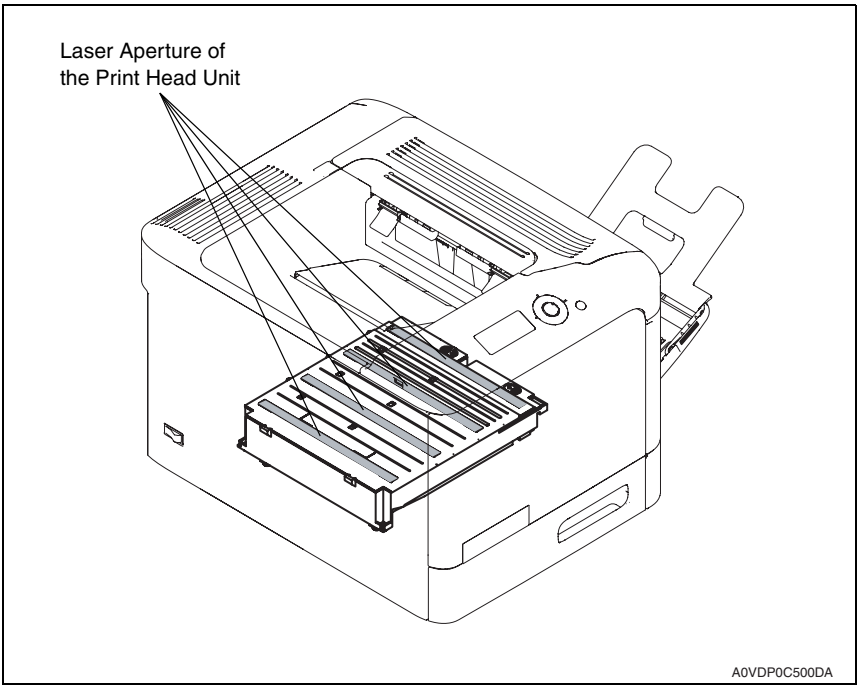
- This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

4.1 Internal Laser Radiation

semiconductor laser	
Maximum power of the laser diode	15 mW
Maximum average radiation power (*)	11.2 µW
Wavelength	770 - 800 nm

*at laser aperture of the Print Head Unit

- 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.



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 page S-16 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	15 mW
Wavelength	770 - 800 nm

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	15 mW
Wavelength	770 - 800 nm

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	15 mW
bølgelængden	770 - 800 nm

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	15 mW
aallonpituus	770 - 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	15 mW
våglängden	770 - 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.**

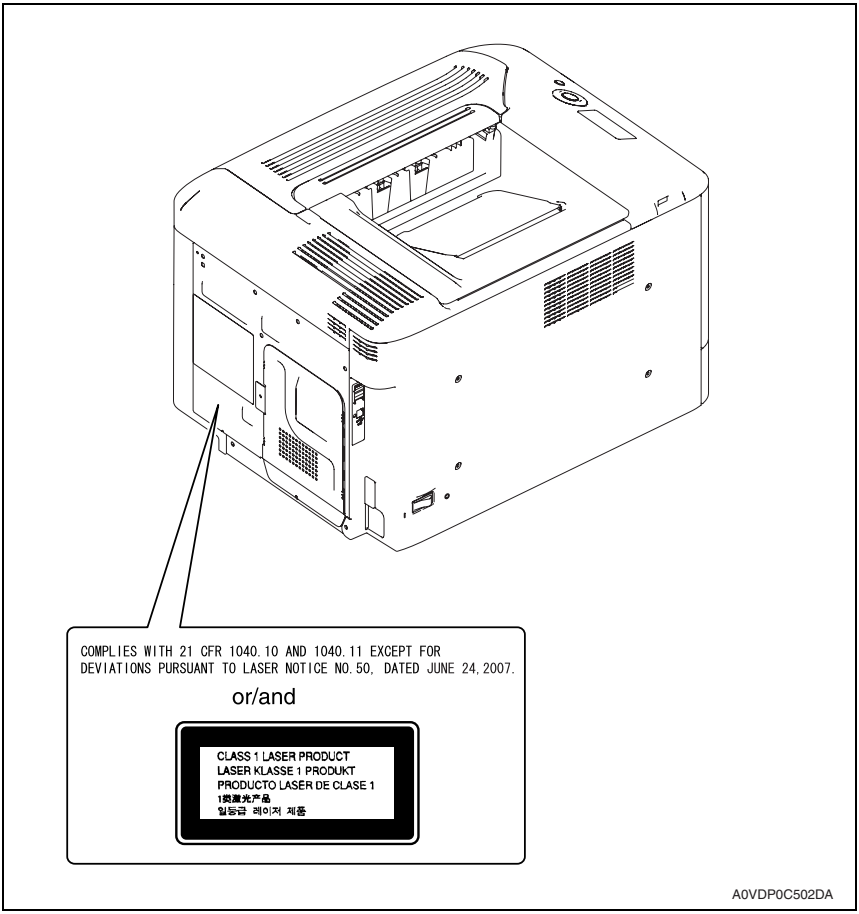
Norway

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

halvleder laser	
Maksimal effekt till laserdiode	15 mW
bølgelengde	770 - 800 nm

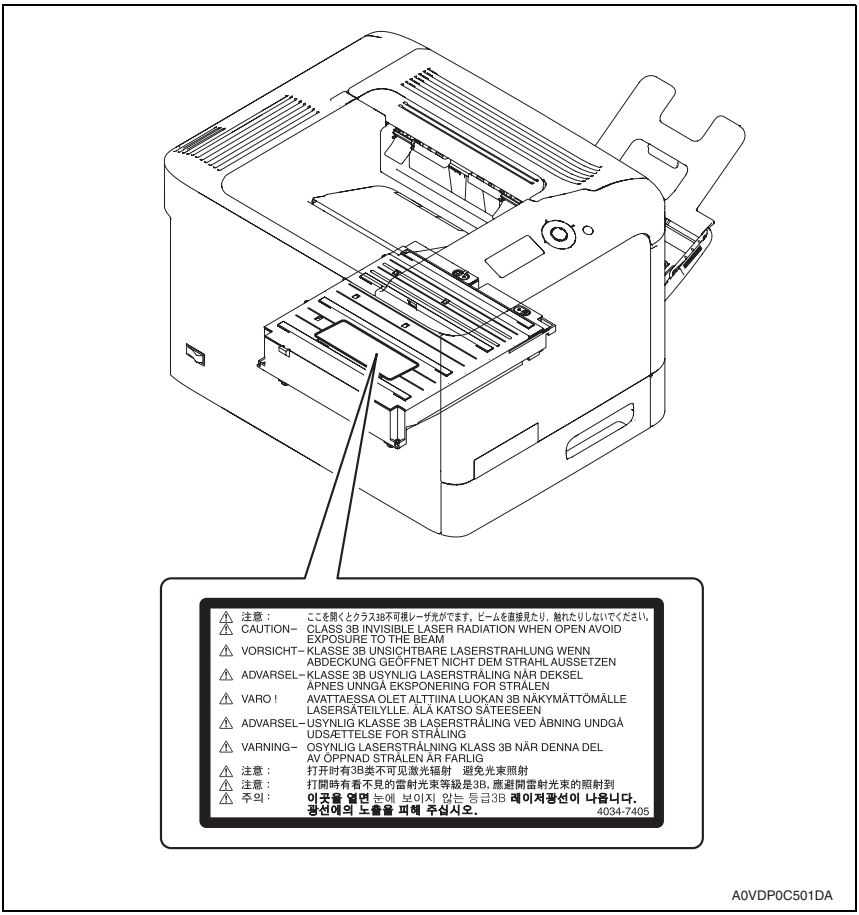
4.2 Laser Safety Label

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



4.3 Laser Caution Label

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

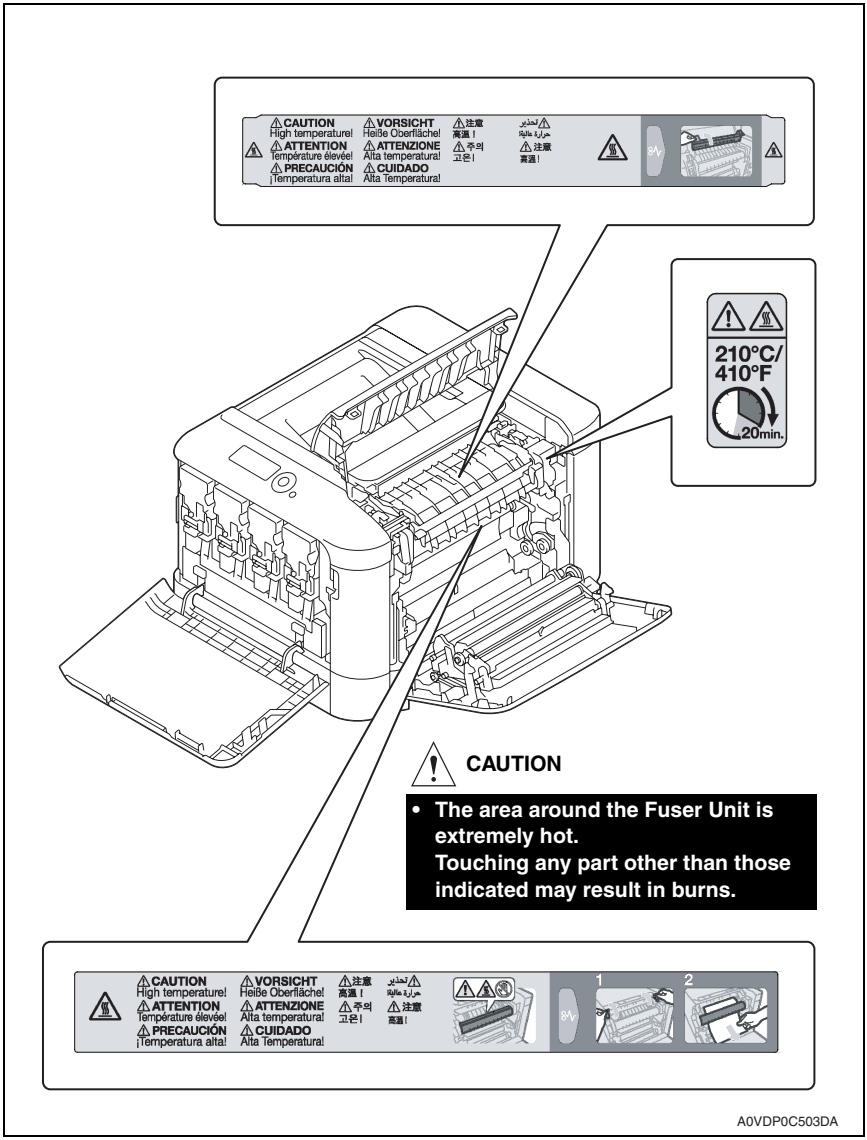


4.4 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

- When laser protective goggles are to be used, select ones with a lens conforming to the above specifications.
- When a disassembly job needs to be performed in the laser beam path, such as when working around the printerhead and PC Drum, be sure first to turn the printer OFF.
- If the job requires that the printer be left ON, take off your watch and ring and wear laser protective goggles.
- A highly reflective tool can be dangerous if it is brought into the laser beam path. Use utmost care when handling tools on the user's premises.

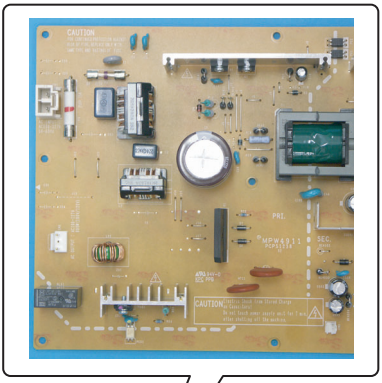
INDICATION OF WARNING ON THE MACHINE

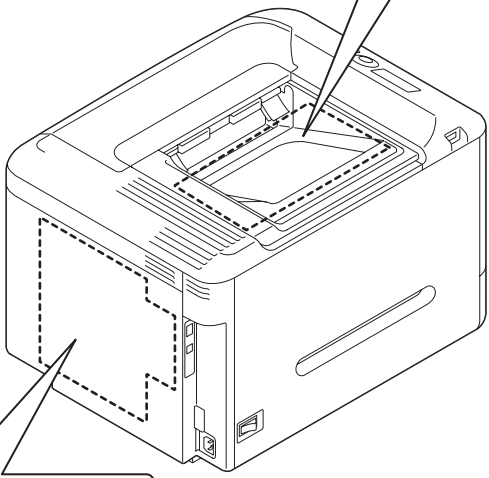
Caution labels shown below are attached in some areas on/in the machine.
When accessing these areas for maintenance, repair, or adjustment, special care should be taken to avoid burns and electric shock.

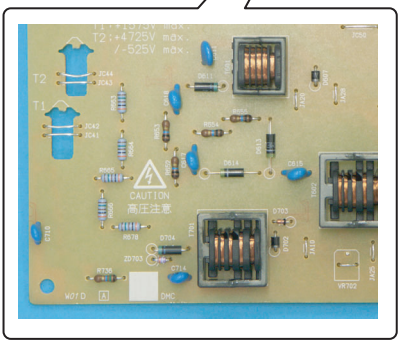


High voltage

- **This area generates high voltage. Be careful not to touch here when the power is turned ON to avoid getting an electric shock.**



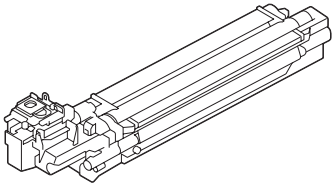


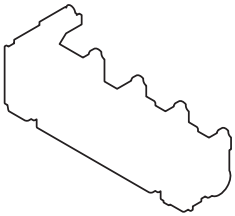


High voltage

- **This area generates high voltage. Be careful not to touch here when the power is turned ON to avoid getting an electric shock.**

A0VDP0C505DA





CAUTION:

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 KMBT 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 KMBT.
4. For reports and measures concerning serious accidents, follow the regulations specified by every distributor.

Composition of the service manual

This service manual consists of Theory of Operation section and Field Service section to explain the main machine and its corresponding options.

Theory of Operation section gives, as information for the CE to get a full understanding of the product, a rough outline of the object and role of each function, the relationship between the electrical system and the mechanical system, and the timing of operation of each part.

Field Service section gives, as information required by the CE at the site (or at the customer's premise), a rough outline of the service schedule and its details, maintenance steps, the object and role of each adjustment, error codes and supplementary information.

The basic configuration of each section is as follows. However some options may not be applied to the following configuration.

<Theory of Operation section>

OUTLINE:	Explanation of system configuration, product specifications, unit configuration, and paper path
COMPOSITION/OPERATION:	Explanation of configuration of each unit, operating system, and control system

<Field service section>

OUTLINE:	Explanation of system configuration, and product specifications
MAINTENANCE:	Explanation of service schedule, maintenance steps, service tools, removal/reinstallation methods of major parts, and firmware version up method etc.
ADJUSTMENT/SETTING:	Explanation of utility mode, service mode, and mechanical adjustment etc.
TROUBLESHOOTING:	Explanation of lists of jam codes and error codes, and their countermeasures etc.
APPENDIX:	Parts layout drawings, connector layout drawings, timing chart, overall layout drawing are attached.

Notation of the service manual

A. Product name

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

(1)	magicolor 4750EN/4750DN	Main body
(2)	Microsoft Windows NT 4.0:	Windows NT 4.0 or Windows NT
	Microsoft Windows 2000:	Windows 2000
	Microsoft Windows XP:	Windows XP
	Microsoft Windows Vista:	Windows Vista
	Microsoft Windows 7:	Windows 7
	When the description is made in combination of the OS's mentioned above:	
		Windows NT 4.0/2000
		Windows NT/2000/XP/Vista/7

B. Brand name

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

C. Feeding direction

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

<Sample notation>

Paper size	Feeding direction	Notation
A4	Long edge feeding	A4
	Short edge feeding	A4S
A3	Short edge feeding	A3

KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

magicolor 4750EN
magicolor 4750DN

Main body

2010.05

KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 1.0

Revision history

After publication of this service manual, the parts and mechanism may be subject to change for improvement of their performance.
Therefore, the descriptions given in this service manual may not coincide with the actual machine.

When any change has been made to the descriptions in the service manual, a revised version will be issued with a revision mark added as required.

Revision mark:

- To indicate clearly a section revised,  is shown at the left margin of the revised section.
  The number inside represents the number of times the revision has been made.

- To indicate clearly a page that contains the revision, is shown near the page number of the corresponding page.
  The number inside represents the number of times the revision has been made.

NOTE

Revision marks shown in a page are restricted only to the latest ones with the old ones deleted.

- When a page revised in Ver. 2.0 has been changed in Ver. 3.0:
  The revision marks for Ver. 3.0 only are shown with those for Ver. 2.0 deleted.
- When a page revised in Ver. 2.0 has not been changed in Ver. 3.0:
  The revision marks for Ver. 2.0 are left as they are.

2010/05	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

CONTENTS

magicolor 4750EN/4750DN Main body

OUTLINE

MAINTENANCE

ADJUSTMENT/SETTING

TROUBLESHOOTING

APPENDIX

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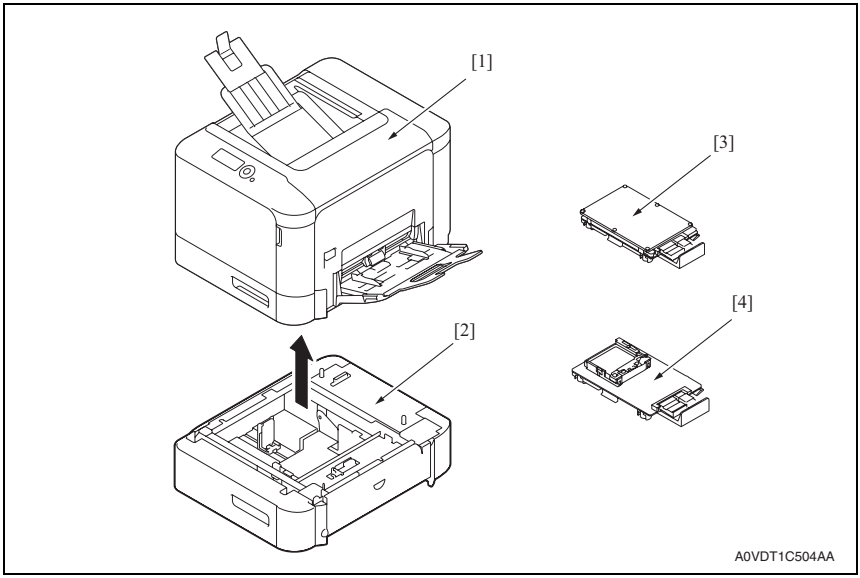
OUTLINE

1. SYSTEM CONFIGURATION



[1] magicolor 4750EN/DN
[2] PF-P07 (Lower feeder unit)
[3] HD-P03 (Hard disk kit)
[4] MK-725 (CF Adapter)

2. PRODUCT SPECIFICATIONS

A. Type

Type	Desktop tandem full-color A4 laser beam printer
Printing system	Semiconductor laser and electrostatic image transfer to plain paper
Exposure system	4 laser diode and 1 polygon mirror
PC drum type	OPC (organic photo conductor)
Print resolution	600 x 600 dpi
Paper feeding system	Tray1: Small roller separation system with torque limiter Tray2: Small roller separation system with torque limiter
Developing system	Single-element developing system
Charging system	Charge roller system
Image transfer system	Intermediate transfer belt system
Paper separating system	Curvature separation + charge-neutralizing system
Fusing system	Belt fusing
Paper exit system	Face down (Output tray capacity: 200 sheets (A4S/LetterS))

B. Functions

Warm-up time	120 V: Avg. 36 seconds 220 V: Avg. 39 seconds 240 V: Avg. 34 seconds (Time until the printer can start printing after being turned on at room temperature (23 °C))
Process speed	185 mm/sec. (plain paper) 92.5 mm/sec. (thick paper1/2, envelope, post card, label)
First-page output time	Simplex (Monochrome/Full color) 12.9 seconds for A4 (plain paper) 12.8 seconds for Letter (plain paper) Duplex (Monochrome/Full color) 18.1 seconds for A4 (plain paper)
Print speed	Simplex Monochrome/Full color: 30.0 page per minutes for A4 (plain paper) 31.6 page per minutes for Letter (plain paper) 15.2 page per minutes for A4 (thick paper1/2) Duplex (double-sided)(magicolor 4750DN only) Monochrome/Full color: 30.0 sheet per minutes for A4 (plain paper) 31.6 sheet per minutes for Letter (plain paper)

C. Media

Type		Paper source (maximum tray capacity)	
		Tray 1	Tray 2
Media type	Plain paper (60 to 90 g/m²; 16 to 24 lb)	100 sheets	250 sheets
	Thick 1 (91 to 150 g/m²)	20 sheets	20 sheets
	Thick 2 (151 to 210 g/m²)		
	Label		
	Letterhead		
	Glossy 1 (100 to 128 g/m²)		
	Glossy 2 (129 to 158 g/m²)		
	Postcard		
	Envelope	10 sheets	-
Media dimensions	Width	92 to 216 mm* (3.6 to 8.5 inch)	92 to 216 mm* (3.6 to 8.5 inch)
	Length	148 to 356 mm (5.8 to 14.0 inch)	148 to 356 mm (5.8 to 14.0 inch)

*: If the width set 210 mm to 216 mm, the max. length is to 279.6 mm.

D. Maintenance

Machine durability	400,000 prints or 5 years, whichever comes first

E. Machine specifications

Power requirements	Voltage:	AC 110V, 127V, 120 V, 220 to 240 V
	Frequency:	50 to 60 Hz
Max power consumption		1,000 W or less (110 V) 1,100 W or less (120 V) 1,300 W or less (127 V, 220-240 V)
Dimensions		419 (W) x 520 (D) x 330 (H) mm 16.5 (W) x 20.5 (D) x 13.0 (H) inch
Weight		magicolor 4750EN 22.0 kg (49 lb) or less without consumables 27.0 kg (60 lb) or less with consumables magicolor 4750DN 23.0 kg (51 lb) or less without consumables 27.0 kg (60 lb) or less with consumables
Operating noise		During standby : 39 dB (A) or less During printing : 54 dB (A) or less

F. Operating environment

Temperature	10 to 30 °C (50 to 86 °F) Fluctuations of no more than 10 °C (18 °F) within an hour.
Humidity	15% to 85% (Fluctuations of no more than 10% within an hour.)

G. Print functions

Type	Built-in printer controller
RAM	256 MB
HDD	40 GB (Option)
Interface	USB 2.0 (High Speed) compliant, 10Base-T/100Base-TX/1000Base-T Ethernet
Printer language	PostScript3 (3016) PCL6 (XL3.0) PCL5 e/c XPS (Version1.0) PDF Direct Printing (Version 1.7) JPEG/TIFF/XPS Direct Print
Printer fonts	PCL, PostScript3
Supported computer	Microsoft Windows Server 2008 Standard/Enterprise, Windows Server 2008 Standard/Enterprise x64 Edition Windows Vista Home Basic/ Home Premium/Ultimate/ Business/Enterprise, Windows Vista Home Basic /Home Premium /Ultimate/Business /Enterprise x64 Edition, Windows XP Home Edition/Professional (Service Pack 2 or later), Windows XP Professional x64 Edition, Windows Server 2003, Windows Server 2003 x64 Edition, Windows 2000 (Service Pack 4 or later) Mac OS X (10.2.8/10.3.9/10.4/10.5; We recommend installing the newest patch), Mac OS X Server (10.2.8 or later) RedHat Enterprise Linux 5 Desktop, SUSE Linux Enterprise Desktop 10
Printer driver	PCL6 Windows 2000 / XP / Server 2003 / Vista / Server 2008 printer driver Windows XP / Server 2003 /Vista / Server 2008 x64 Edition printer driver Windows 2000 / XP / Server 2003 / Vista / Server 2008 printer driver for monochrome printing Windows XP / Server 2003 / Vista / Server 2008 x64 Edition printer driver for monochrome printing Windows 2000 / XP / Server 2003 / Vista /Server 2008 Universal Driver Windows XP / Server 2003 / Vista / Server 2008 x64 Edition Universal Driver PostScript Level3 Windows 2000 / XP / Server 2003 / Vista / Server 2008 printer driver Windows XP / Server 2003 / Vista / Server 2008 x64 Edition printer driver Windows 2000 / XP / Server 2003 / Vista /Server 2008 Universal Driver Windows XP / Server 2003 / Vista / Server 2008 x64 Edition Universal Driver Macintosh OS X (10.2.8 / 10.3.9 / 10.4 / 10.5) printer driver Macintosh OS X (10.2.8 / 10.3.9 / 10.4 / 10.5) monochrome printing Linux printer driver (PPD for CUPS) XPS Windows Vista / Server 2008 XPS FULL driver Raster Windows 2000 / XP / Server 2003 / Vista / Server 2008 PC FAX driver Windows XP / Server 2003 / Vista / Server 2008 x64 Edition PC FAX driver

NOTE

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

MAINTENANCE

3. PERIODICAL MAINTENANCE ITEM

3.1 Periodical replacement parts list (CRU)

Class	Part to be replaced	Number of prints	Description	Ref. page
Processing section	Imaging unit (C,M,Y,K)	30,000 (Continuous printing) 20,000 (2P/J) *1		P.9
	Standard in-box toner cartridge (C,M,Y,K)	2,000 (Continuous printing)		P.6
	Standard-capacity toner cartridge (C,M,Y,K)	4,000 (Continuous printing)		
	High-capacity toner cartridge (C,M,Y,K)	6,000 (Continuous printing)		
Image transfer section	Waste toner bottle (WB-P03)	36,000 (monochrome) (Continuous printing)		P.12
		9,000 (full color) (Continuous printing)		
	Transfer roller (TF-P04)	100,000 (2P/J) *1		P.13
	Transfer belt unit (TF-P05)	100,000 (2P/J) *1		P.14
Fusing section	Fuser unit (FU-P02)	100,000 (2P/J) *1		P.17

*1: 2 pages/job

3.2 Periodical replacement parts list (FRU)

3.2.1 Main body

Class	Part to be replaced	Quantity	Parts No.	Actual durable cycle	Description	Ref. page
Tray1 (Manual feed tray)	Tray1 feed roller	1	4138 3032 ##	300,000		P.19
Tray2	Tray2 feed roller	1	4138 3032 ##	300,000		P.21

3.2.2 Option

Class	Part to be replaced	Quantity	Parts No.	Actual durable cycle	Description	Ref. page
Tray3 (Lower feeder unit) PF-P07	Tray3 feed roller	1	4537 6214 ##	300,000		*1

*1: For details, see the optional lower feeder unit (PF-P07) service manual.

3.3 Concept of parts life

- **See the accompanying sheet “magicolor 4750EN/DN Concept of parts life” for details.**

4. PERIODICAL MAINTENANCE PROCEDURE

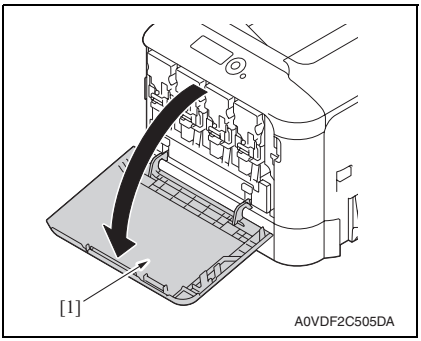
4.1 Processing section

4.1.1 Replacing the toner cartridge (C, M, Y, K)

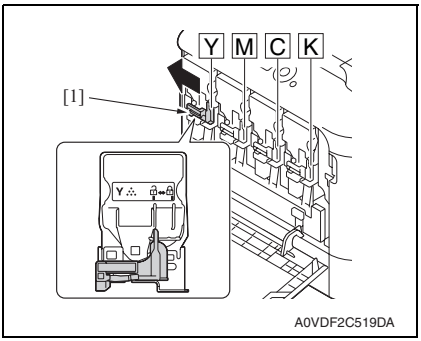
A. Periodically replaced parts/cycle

- Standard-in box toner cartridge (C, M, Y, K): Every 2,000 counts
- Standard-capacity toner cartridge (C, M, Y, K): Every 4,000 counts
- High-capacity toner cartridge (C, M, Y, K): Every 6,000 counts

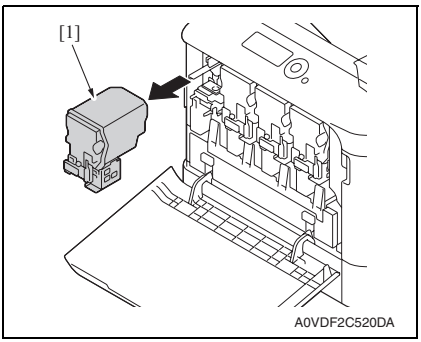
B. Removal procedure



1. Open the front cover [1].

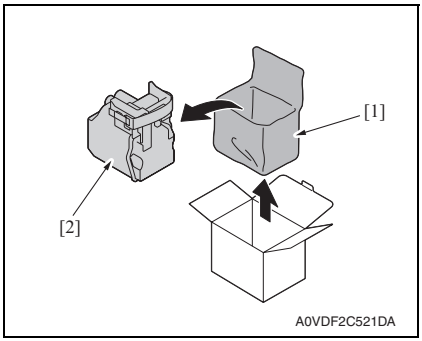


2. Slide the lock lever [1] to the left.

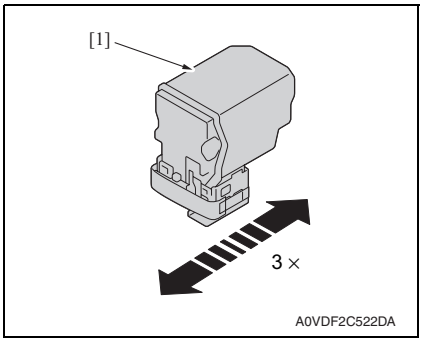


3. Grab the handle of the toner cartridge [1] to be replaced, and then pull out the toner cartridge [1].

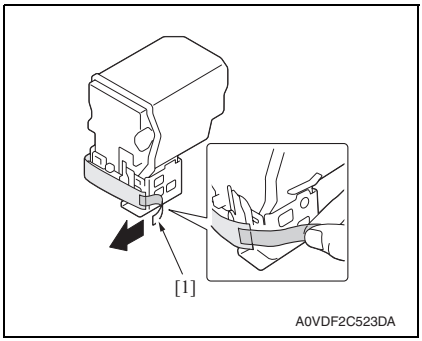
C. Reinstallation procedure



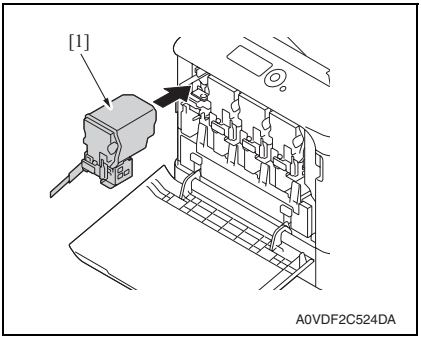
1. Take the toner cartridge [2] out of its plastic bag [1].



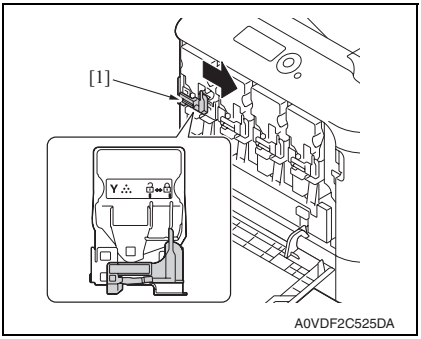
2. Gently shake the toner cartridge [1] three times to agitate the toner.



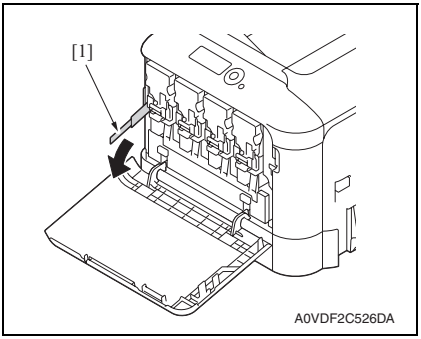
3. Peel off the protective film tape [1] from the right side of the toner cartridge.



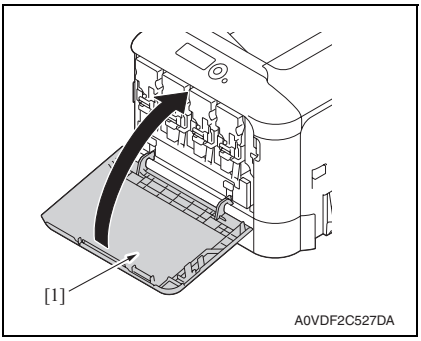
4. Insert the toner cartridge [1] into the machine.



5. Slide the lock lever [1] to the right to lock the toner cartridge.



6. Remove the protective film [1].



7. Close the front cover [1].

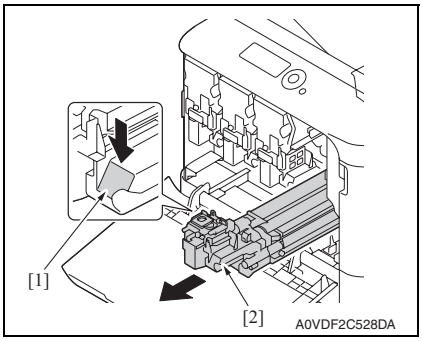
4.1.2 Replacing the imaging unit (C, M, Y, K)

A. Periodically replaced parts/cycle

- Imaging unit (C, M, Y, K): Every 30,000 counts

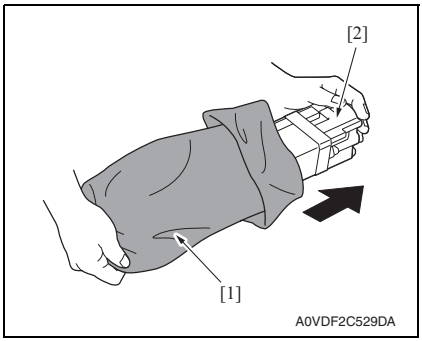
B. Removal procedure

1. Remove the toner cartridge.
See P.6
2. Remove the waste toner bottle.
See P.12



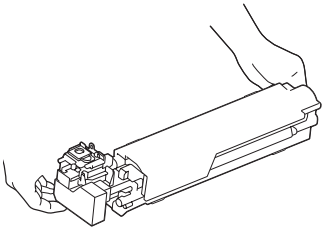
3. Press down the “Push” marked place [1].
4. Pull the imaging unit [2] out.

C. Reinstallation procedure



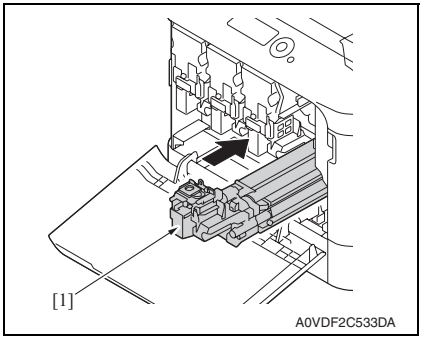
1. Take the imaging unit [2] out of the plastic bag [1].

2. Hold the imaging unit with both hands, and then shake it twice as shown in the illustration.



3. Remove the protective cover [1] from the imaging unit.
4. Remove all packing tape [2] from the imaging unit.

5. Remove the paper [1] from the imaging unit.
6. Remove the protective cover [2] from the imaging unit.



8. Install the waste toner bottle.
See P.12

9. Install the toner cartridge.
See P.6

10. Close the front cover.

7. Slide the imaging unit [1] in.

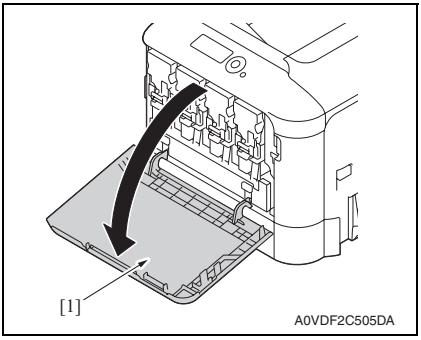
4.2 Transfer section

4.2.1 Replacing the waste toner bottle

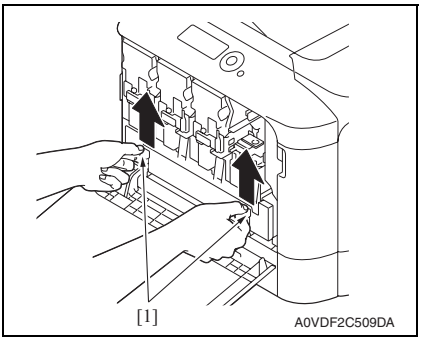
A. Periodically replaced parts/cycle

- Waste toner bottle: Every 36,000 counts (when printed in black only) / 9,000 counts (when printed in color only)

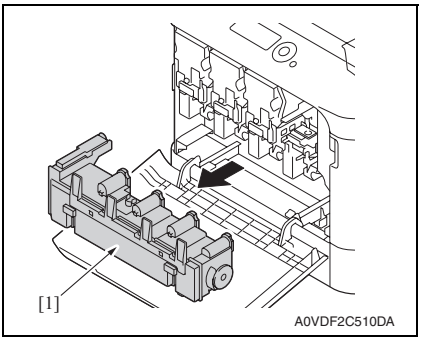
B. Removal procedure



1. Open the front cover [1].



2. Raise the left and right handles [1] to unlock the waste toner bottle.



3. Grab the left and right handles [1], remove the waste toner bottle [2].

4. To reinstall, reverse the order of removal.

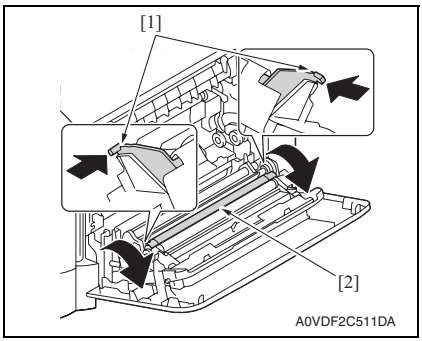
4.2.2 Replacing the transfer roller

A. Periodically replaced parts/cycle

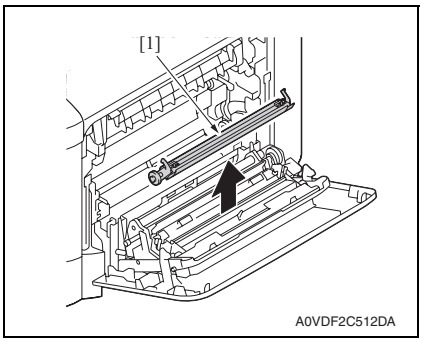
- Transfer roller: Every 100,000 counts

B. Removal procedure

1. Open the right door.



2. Push two levers [1] inside to unlock the transfer roller.
3. Rotate the transfer roller [2] in the direction of the arrow.



4. Remove the transfer roller [1].
5. To reinstall, reverse the order of removal.
6. From the Menu, select [MAINTENANCE MENU] → [SUPPLIES] → [REPLACE] → [TRANS. ROLLER.] and execute this function to reset the transfer roller counter value.
   For details, see “ADJUSTMENT/SETTING.”
7. From the Menu, select [QUALITY MENU] → [CARIBRATION] → [AIDC PROCESS] and execute this function.
   For details, see “ADJUSTMENT/SETTING.”

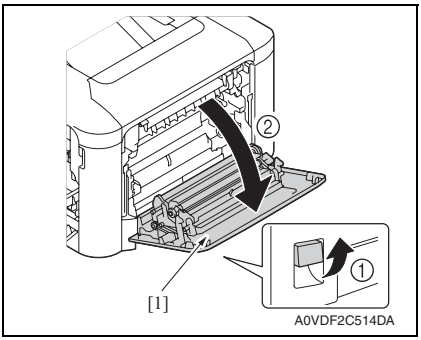
4.2.3 Replacing the transfer belt

A. Periodically replaced parts/cycle

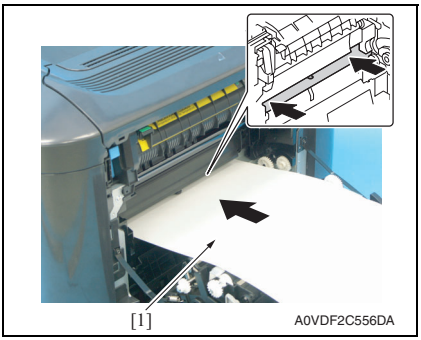
- Transfer belt: Every 100,000 counts

B. Removal procedure

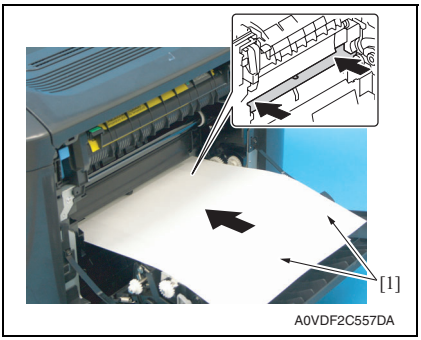
1. Turn OFF the power switch.
2. Remove the waste toner bottle.
See P.12
3. Remove the toner cartridge (C,M,Y,K).
See P.6
4. Remove the imaging unit (C,M,Y,K).
See P.9



5. Open the right door [1].

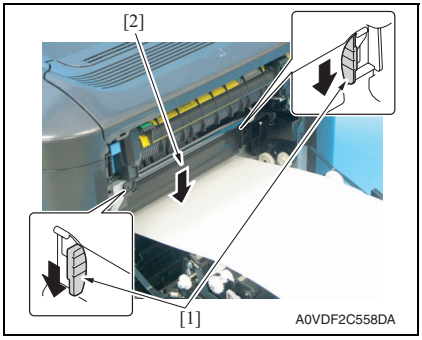


6. Completely insert the protective sheet [1] supplied with the transfer belt in the direction of the arrow.

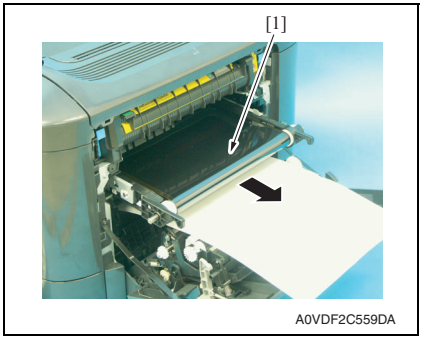


NOTE

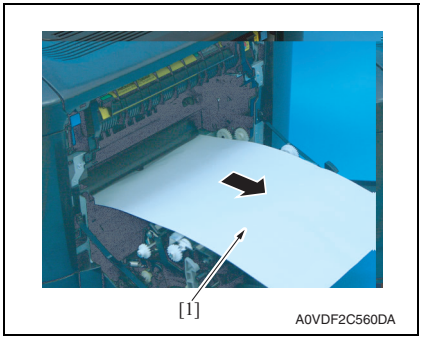
- **If the protective sheet is not supplied, use two sheets of A4 or Letter paper as shown in the illustration.**



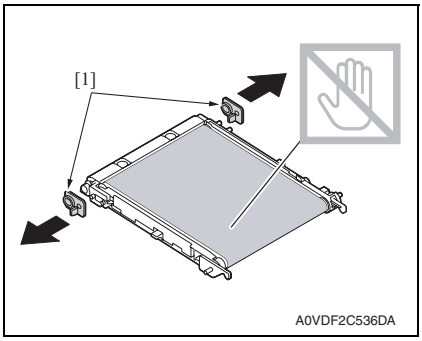
7. Hold the both handles [1] and lower the guide [2].



8. Hold the handles, and then carefully pull out the transfer belt [1].



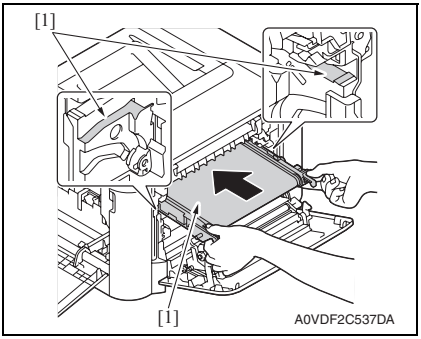
9. Pull the protective sheet [1] out.



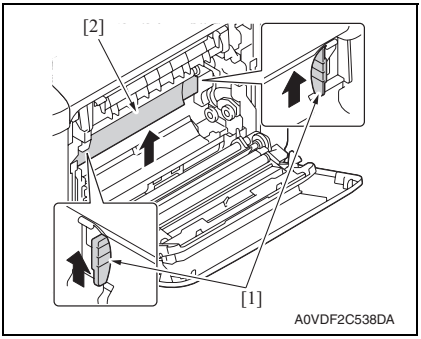
10. Remove the protective cover [1] from the new transfer belt.

NOTE

- **Be careful not to touch the surface of the belt.**



11. Insert the transfer belt [2] along the rail [1].



12. Hold the both handles [1] and raise the guide [2].

13. To reinstall, reverse the order of removal.

14. From the Menu, select [MAINTENANCE MENU] → [SUPPLIES] → [REPLACE] → [TRANS. BELT] and execute this function to reset the transfer belt counter value.
For details, see “ADJUSTMENT/SETTING.”

15. From the Menu, select [QUALITY MENU] → [CALIBRATION] → [AIDC PROCESS] and execute this function.
For details, see “ADJUSTMENT/SETTING.”

4.3 Fusing section

4.3.1 Replacing the fuser unit

⚠ CAUTION

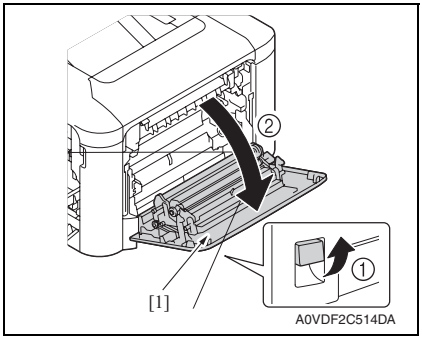
- **The temperature gets high in the vicinity of the fuser unit. You may get burned when you come into contact with the area. Before replacement operations, make sure that more than 20 minutes have elapsed since the main and sub power switches were turned off.**

A. Periodically replacing parts/cycle

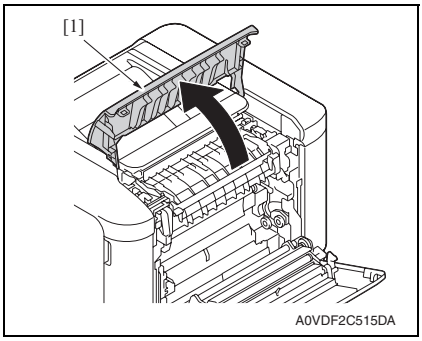
- Fuser unit: Every 100,000 counts (2P/J)

B. Procedure

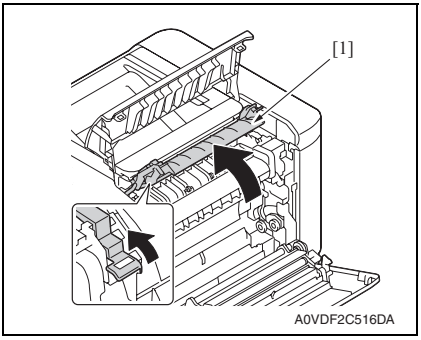
1. Turn OFF the power switch, unplug the power cord from the power outlet, and let the machine to stand idle for about 20 min.



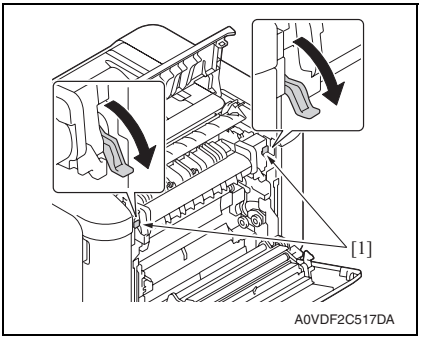
2. Open the right door [1].



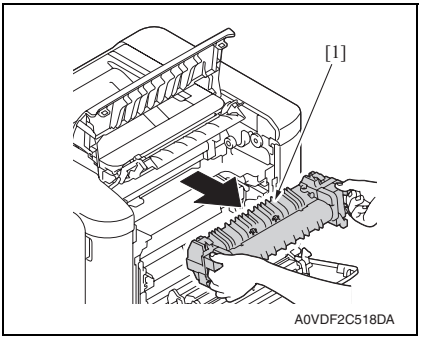
3. Open the eject cover [1].



4. Open the fuser unit cover [1].



5. Pull down two levers [1].



6. Remove the fuser unit [1].

7. Install the new fuser unit.

8. From the Menu, select [MAINTENANCE MENU] → [SUPPLIES] → [REPLACE] → [FUSER UNIT] and execute this function to reset the fuser unit counter value.
For details, see “ADJUSTMENT/SETTING.”

4.4 Feed section

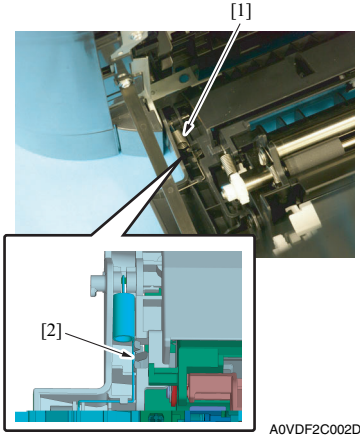
4.4.1 Replacing the tray1 feed roller

A. Periodically replaced parts/cycle

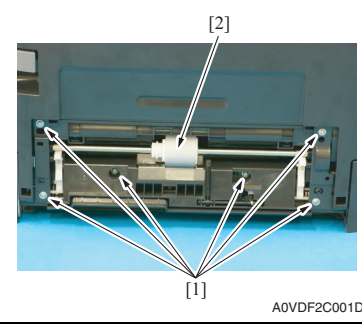
- Tray1 feed roller: Every 300,000 counts

B. Procedure

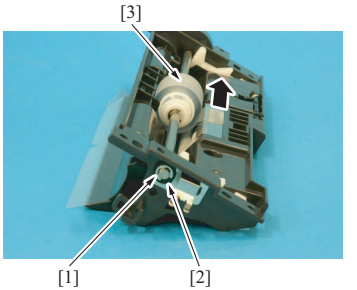
1. Remove the tray1.
See P.46
2. Open the right door.



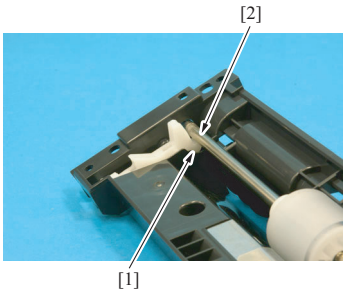
3. Detach the spring [1] from the hook [2] in order to unlock the plate.



4. Remove six screws [1], and remove the tray1 feed roller assy [2].

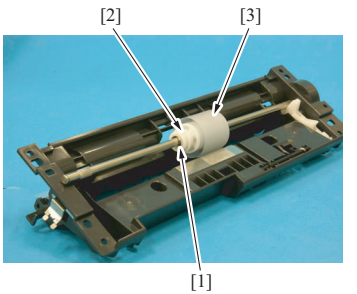


5. Remove the E-ring [1] and the bearing [2], and move the tray 1 feed roller assy [3] in the direction of the arrow.

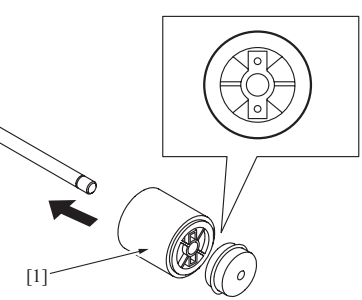


NOTE

- **When reinstalling the tray 1 feed roller assy, the stopper [1] must be located under the shaft [2] as shown in the illustration.**



6. Remove the E-ring [1] and mechanism clutch [2], and remove the tray1 feed roller [3].



7. To reinstall, reverse the order of removal.

NOTE

- **When reinstalling the feed roller [1], make sure that it is mounted in the direction shown in the illustration on the left.**

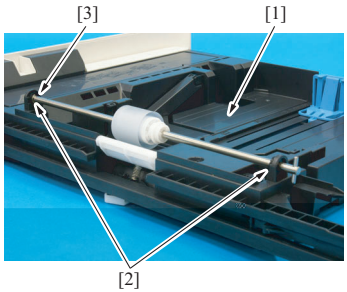
4.4.2 Replacing the tray2 feed roller

A. Periodically replaced parts/cycle

- Tray2 feed roller: Every 300,000 counts

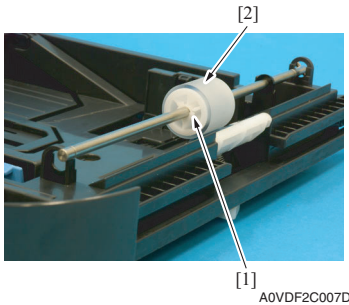
B. Procedure

1. Remove the tray2.

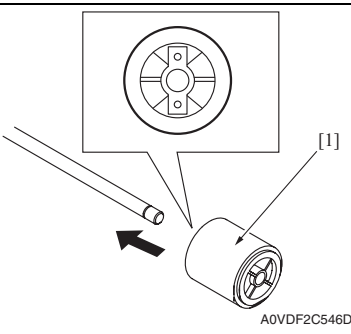


2. Lock the media lift metal plate [1].

3. Remove two E-rings [2] and the bushing [3].



4. Remove the C-ring [1], and remove the tray2 feed roller [2].



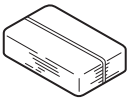
NOTE

- **When reinstalling the feed roller [1], make sure that it is mounted in the direction shown in the illustration on the left.**

5. To reinstall, reverse the order of removal.

5. SERVICE TOOL

5.1 Service material list

Tool name	Shape	Material No.	Remarks
Cleaning pad	 A02EF2C526DA	000V-18-1	10pcs/1pack
Isopropyl alcohol	 A00KF2C506DA	000V-19-0	

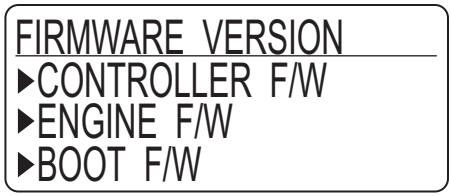
5.2 CE tool list

Tool name	Shape	Quantity	Parts No.
Laser lens cleaning tool	 A0VDF2C553DA	1	A0VD 1089 ##

6. FIRMWARE REWRITING

6.1 Checking the current firmware version

1. Display [SERVICE MENU].
2. Display [FIRMWARE VERSION].



A0VDF2E548DA

3. Select the firmware to be updated and check the current version.
See P.101

6.2 Firmware upgrading procedure by USB memory device

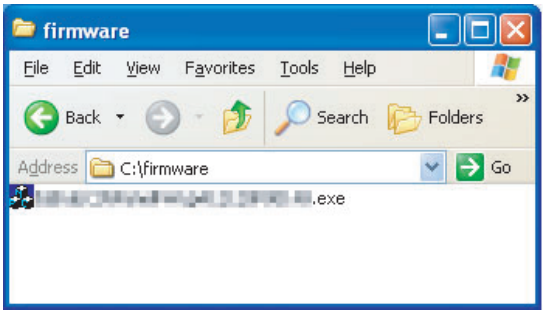
6.2.1 Preparations for firmware rewriting

A. System requirements

- PC equipped with a USB port
- USB memory device

B. 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.



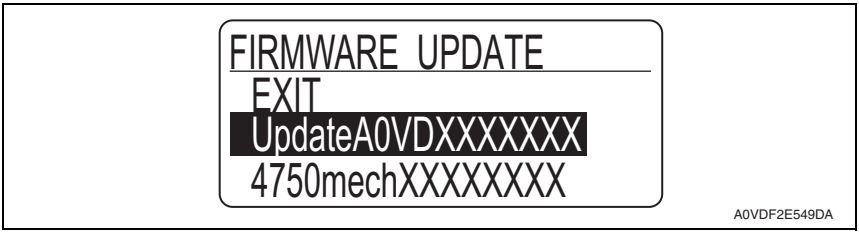
A121F2E554DA

NOTE

- **Be sure to save the firmware data in “drive:/firmware/***.exe.”**
- **The printer can display up to 20 files of firmware data during upgrading.**

C. How to write firmware data

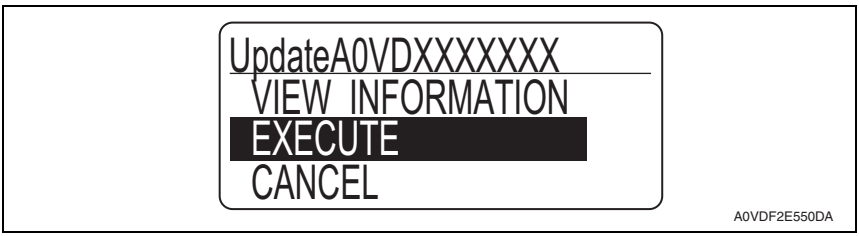
1. Turn the power switch ON.
2. Connect the USB memory device to the printer.
3. Call the SERVICE MENU to the display.
4. Select [FIRMWARE UPDATE] and press the Menu/Select key.
   A list of firmware data in the USB memory device is displayed.



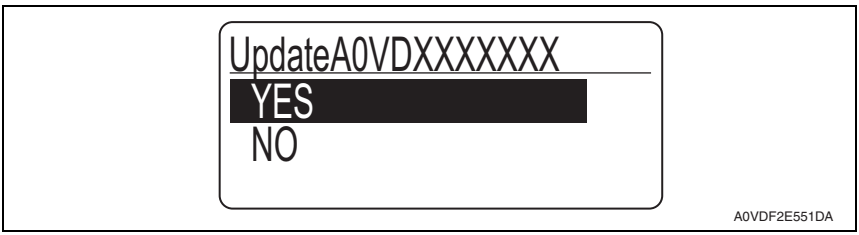
NOTE

- **Before upgrading firmware, use [VIEW INFORMATION] to check that the firmware data is correct.**

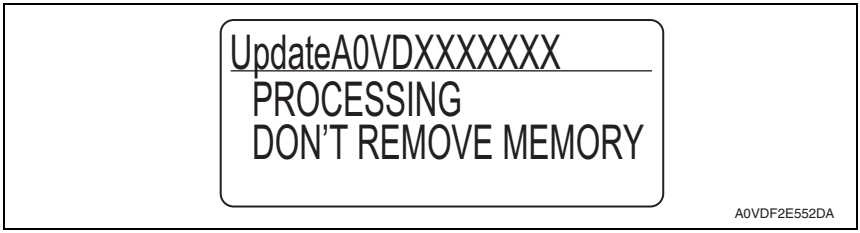
5. Select the specific firmware data to be upgraded and press the Menu/Select key.
6. Select [EXECUTE] and press the Menu/Select key.



7. Select [YES] and press the Menu/Select key.



8. The firmware upgrading procedure starts.



NOTE

- **Do not turn off the printer while its firmware is being updated.**
- **NEVER disconnect the USB memory device from the printer during the firmware upgrading procedure.**

9. The printer is automatically restarted as soon as the firmware is upgraded correctly.

6.3 Firmware upgrading procedure by updater

6.3.1 Updating method

- To update the firmware, perform "Firmware Updater."

A. System requirements

Computer	Windows	• PC with a Pentium 2, 400 MHz or faster processor (A Pentium 3, 500 MHz or faster processor is recommended.)
	Macintosh	• Apple Macintosh computer with a PowerPC G3 or later processor (A PowerPC G4 or later is recommended.) • Apple Macintosh computer with an Intel processor
OS	Windows	• Microsoft Windows XP Home Edition/Professional, Windows 2000, Windows Vista Home Basic/Home Premium/Business/ Enterprise/Ultimate
	Macintosh	• MacOS X 10.2.8/10.3.x/10.4.x/10.5.x (We recommend installing the newest patch.)
Available hard disk space	Windows	• Approximately 20 to 26 MB
	Macintosh	• Approximately 30 to 42 MB
Memory		• 128 MB or more
Interface	Windows	• 10Base-T/100Base-TX/1000Base-T Ethernet • USB 2.0 (High Speed) compliant
	Macintosh	• 10Base-T/100Base-TX/1000Base-T Ethernet

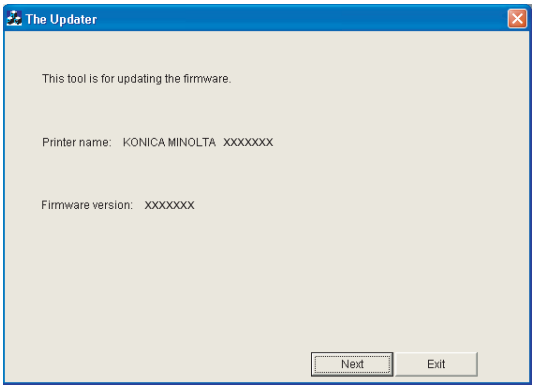
B. Connection for Windows

(1) Starting the firmware updater

NOTE

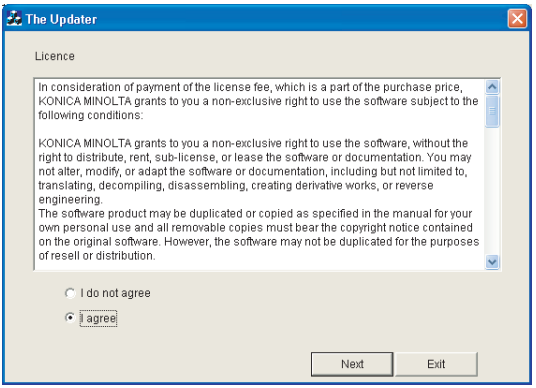
- **Before starting the firmware updater, turn on the printer, and make sure that it is correctly connected.**

1. Download the firmware updater.
2. Double-click “xxxxxxxxxxxx.exe.”
3. The printer name and firmware version are displayed. Click the [Next].



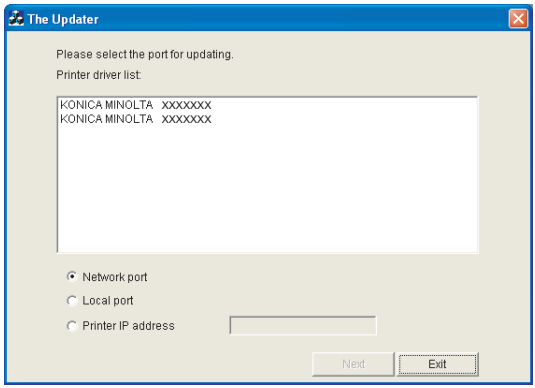
A121F2E537DA

4. The license agreement is displayed. Select “I agree”, and then click the [Next].



A011F2E556DA

5. The list of printer drivers is displayed. Select the appropriate connection for the environment where the printer is being used.



A121F2E538DA

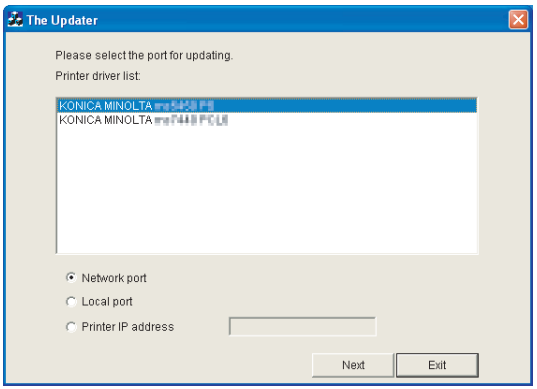
- For a network connection: Select “Network port.”
  See P.28
- For a local connection: Select “Local port.”
  See P.31
- When specifying the IP address of the printer: Select “Printer IP address.”
  See P.32

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, a list of printer drivers for the network port appears.
2. Select the printer driver, and then click the [Next].

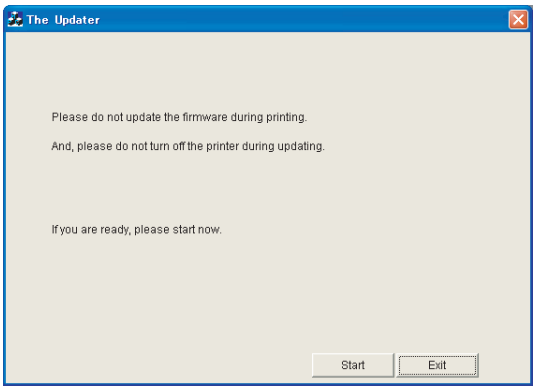


A011F2E558DA

3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.

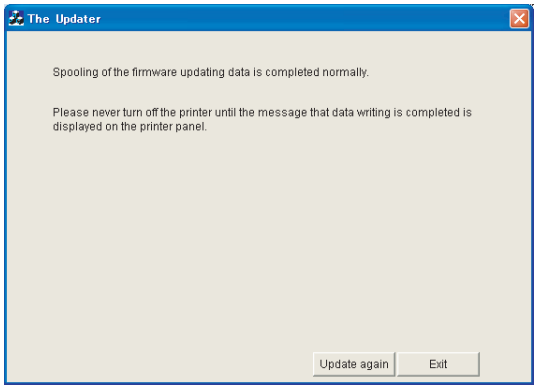
NOTE

- **Do not turn off the printer while its firmware is being updated.**



A011F2E559DA

4. The result of the firmware transfer is displayed. Click the [Exit].



A011F2E560DA

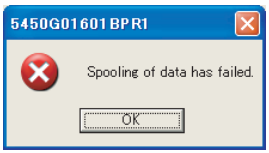
5. If the firmware was successfully updated, the printer will automatically restart.

<If spooling of the data fails>

NOTE

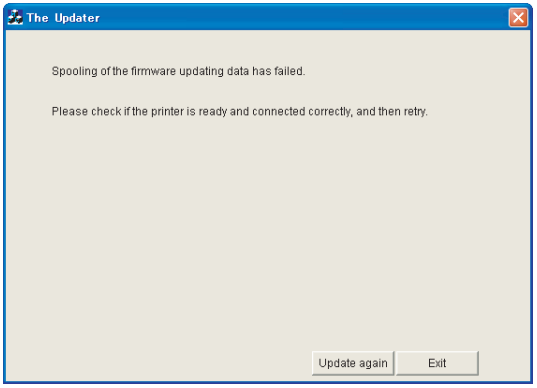
- **If spooling fails, data may remain in the printer spooler. Delete this data, and then try again.**

1. If spooling of the data fails, the following message appears.
2. Click [OK].



A011F2E561DA

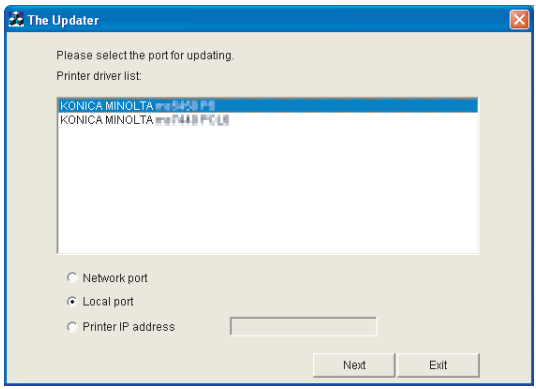
3. Check that the printer is ready and that it is correctly connected, and then click the [Update again].



A011F2E562DA

(3) For a local connection

1. When “Local port” is selected, a list of printer drivers for the local port appears.
2. Select the printer driver, and then click the [Next].

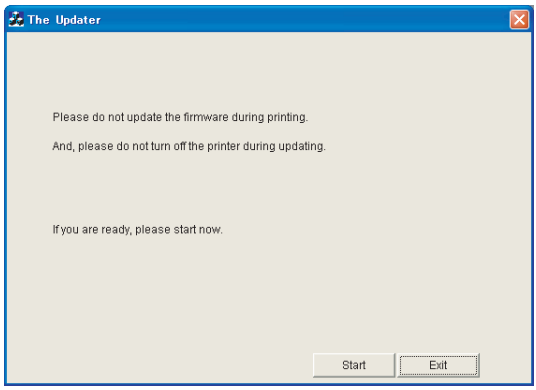


A011F2E563DA

3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.

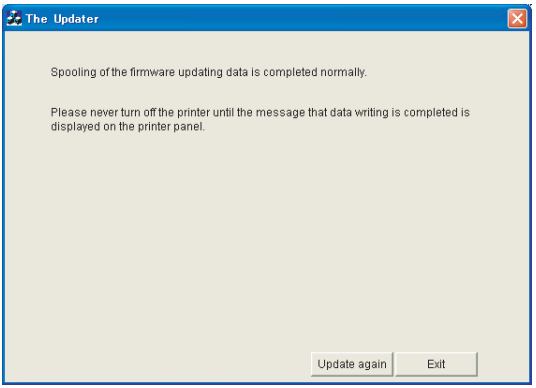
NOTE

- **Do not turn off the printer while its firmware is being updated.**



A011F2E564DA

4. The result of the firmware transfer is displayed. Click the [Exit].



A011F2E565DA

5. If the firmware was successfully updated, the printer will automatically restart.

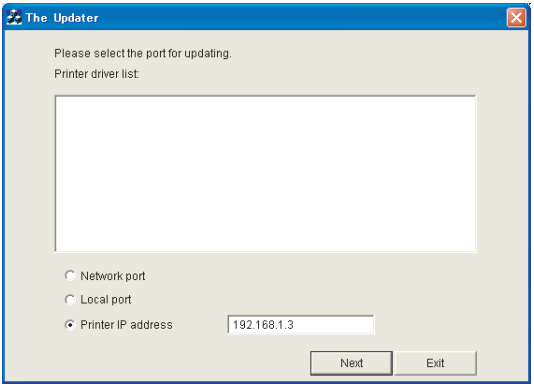
<If spooling of the data fails>

For details, see “For a network connection.”
See P.30

(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].

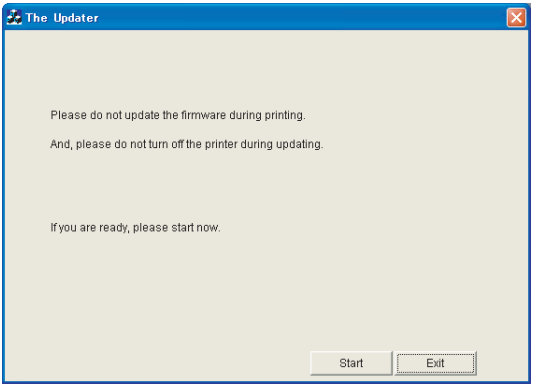


A011F2E566DA

3. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.

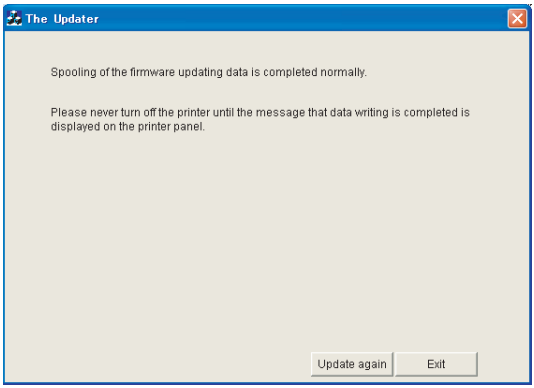
NOTE

- **Do not turn off the printer while its firmware is being updated.**



A011F2E567DA

4. The result of the firmware transfer is displayed. Click the [Exit].

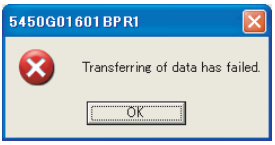


A011F2E565DA

5. If the firmware was successfully updated, the printer will automatically restart.

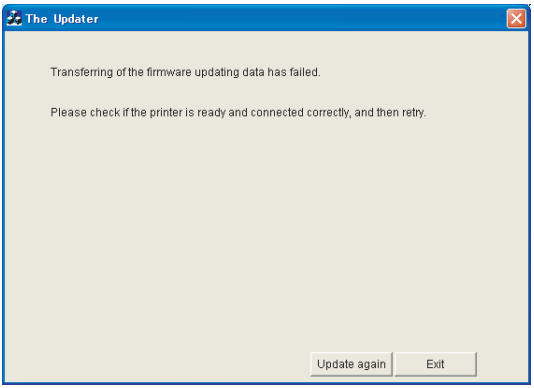
<If transferring of the data fails>

1. If transferring of the data fails, the following message appears.
2. Click [OK].



A011F2E569DA

3. Check that the printer is ready and that it is correctly connected, and then click the [Update again].



A011F2E570DA

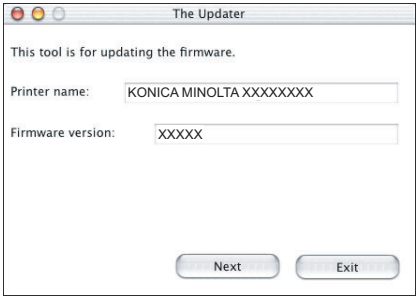
C. Connection for Macintosh

(1) Starting the firmware updater and the updating procedure

NOTE

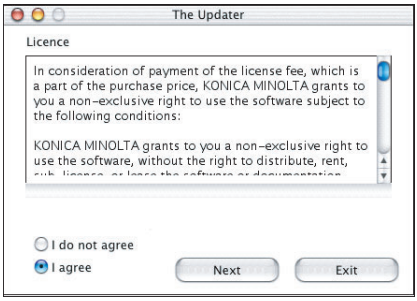
- **Before starting the firmware updater, turn on the printer, and make sure that it is correctly connected.**

1. Download the firmware updater.
2. Double-click “xxxxxxxxxxx.”
3. The printer name and firmware version are displayed. Click the [Next].



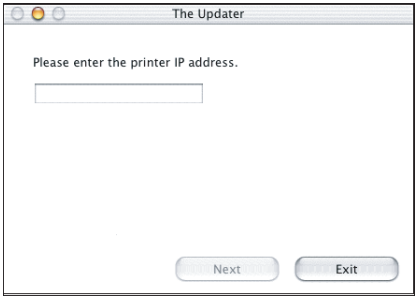
A121F2E539DA

4. The license agreement is displayed. Select “I agree”, and then click the [Next].



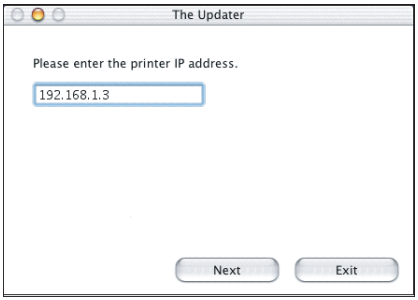
A011F2E572DA

5. The screen for specifying the IP address of the printer appears.



A011F2E573DA

6. Type in the IP address, and then click the [Next].

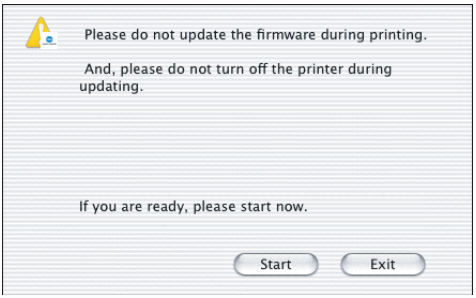


A011F2E574DA

7. A message appears, requesting confirmation to update the firmware. Click the [Start] to begin transferring the firmware.

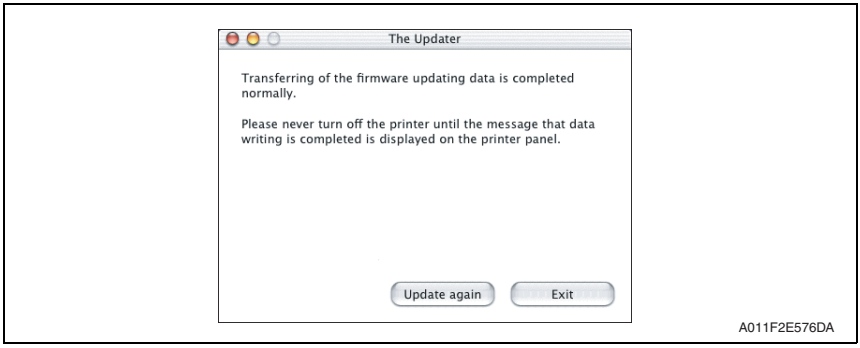
NOTE

- **Do not turn off the printer while its firmware is being updated.**



A011F2E575DA

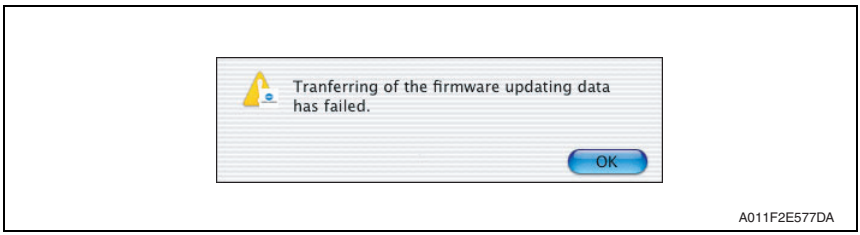
8. The result of the firmware transfer is displayed. Click the [Exit].



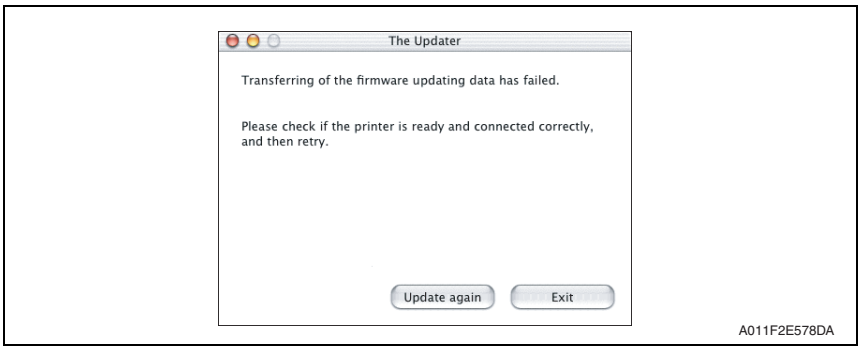
9. If the firmware was successfully updated, the printer will automatically restart.

<If transferring of the data fails>

1. If transferring of the data fails, the following message appears.
2. Click [OK].

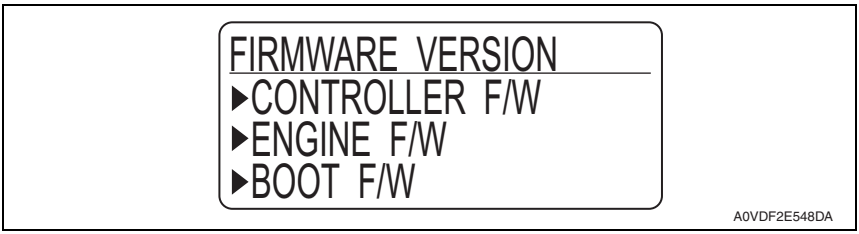


3. Check that the printer is ready and that it is correctly connected, and then click the [Update again].



6.3.2 Checking the version after the firmware update

1. Display [SERVICE MENU].
2. Display [FIRMWARE VERSION].



3. Select the firmware that has been updated and check the current version.
See P.101

7. OTHER MAINTENANCE ITEM

7.1 Items not allowed to be disassembled and adjusted

A. 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.**

B. 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.**

C. Variable resistors on board

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

D. Removal of PWBs

⚠ CAUTION
- **To avoid electrical shock, after turning OFF the power switch, do not touch the DC power supply for 7 minutes.**
- **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.**

E. Precautions for disassembly
- **When accessing a hard-to-view or narrow spot, be careful about sharp edges and burrs of 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.

F. Precautions during setup or transportation

- **Whenever mounting an option on the machine, be attentive to the motion of the fellow worker of the joint work.**
  The fellow worker may be injured with his or her finger or hand pinched 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.
- **Do not leave the machine unattended during transportation, installation, and inspection of the machine. If it is to be unavoidably left unattended, face protrusions toward the wall or take other necessary risk reducing action.**
  The user may stumble over a protrusion of the machine or be caught by a cable, falling to the floor or being injured.

7.1.1 PH unit

A. 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.

7.1.2 Fusing unit

A. Reason for prohibition

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

7.2 Disassembly/reassembly parts list

Section	Part name	Ref.Page
Exterior parts	Left cover	P.42
	Rear right cover	P.42
	Front right cover	P.43
	Upper cover	P.44
	Exit cover	P.43
	Operation panel	P.44
Boards and etc.	MFP board (MFPB)	P.47
	Print control board (PRCB)	P.48
	DC power supply (DCPU)	P.50
	High voltage unit/1 (HV1)	P.52
	Temperature/ humidity sensor (TEM/HUMS)	P.74
	IDC sensor (IDC)	P.75
Units	Tray1	P.46
	Tray2	P.45
	PH unit	P.55
	Hard disk kit (HD-P03)	P.57
	CF adapter (MK-725)	P.58
Other parts	Backup battery	P.59
	Developing motor (M1)	P.60
	Main motor (M2)	P.60
	Color PC drum motor (M4)	P.60
	DC power supply fan motor (FM10)	P.61
	Cooling fan motor (FM11) *1	P.61
	Tray2 media feed clutch (CL1)	P.62
	Tray1 media feed clutch (CL2)	
	Registration clutch (CL3)	P.63
	Toner supply motor/Y (CL4)	P.64
	Toner supply motor/M (CL5)	
	Toner supply motor/C (CL6)	
	Toner supply motor/K (CL7)	
	Loop detection clutch (CL8)	P.66
	Switchback roller feed clutch (CL11) *1	P.68
	Switchback roller reverse clutch (CL12) *1	
	Duplex conveyance roller clutch (CL13) *1	P.71
	2nd transfer release solenoid (SD2)	P.72

*1: Only for magicolor 4750DN

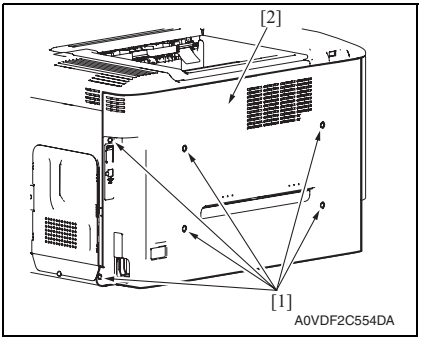
7.2.1 Cleaning parts list

Section	Part name	Ref.Page
Tray1	Tray1 feed roller	P.77
Tray2	Tray2 feed roller	P.77
Processing section	Laser irradiation section	P.78

7.3 Disassembly/reassembly procedure

7.3.1 Left cover

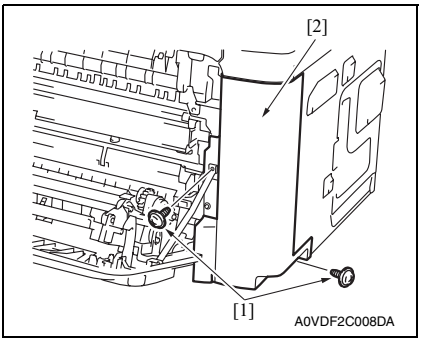
1. Open the front cover.
2. Slide out tray2.



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

7.3.2 Rear right cover

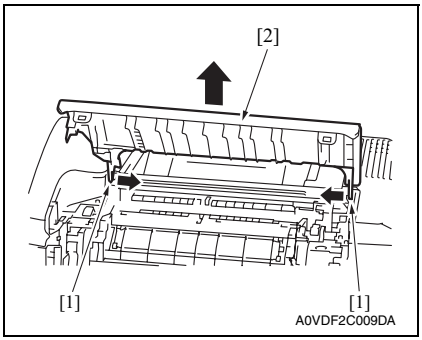
1. Open the right door.



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

7.3.3 Exit cover

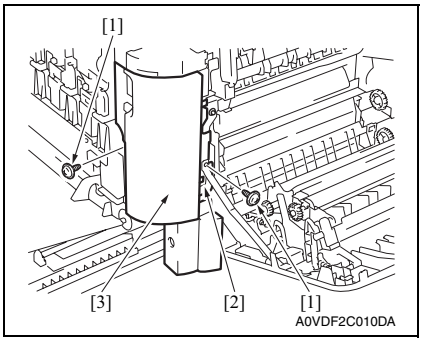
1. Open the right door.



2. Unlock two tabs [1], and remove the exit cover [2].

7.3.4 Front right cover

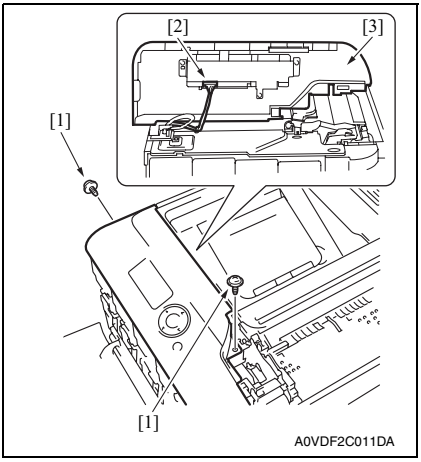
1. Remove the exit cover.
See P.43
2. Remove the operation panel.
See P.44
3. Open the right door.
4. Open the front door.



5. Remove two screws [1] and unlock the tab [2], and remove the front right cover [3].

7.3.5 Operation panel

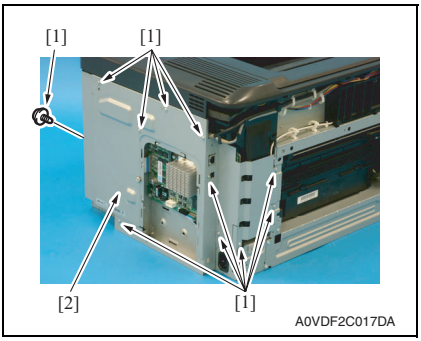
1. Remove the exit cover.
See P.43
2. Remove the left cover.
See P.42
3. Open the front door.



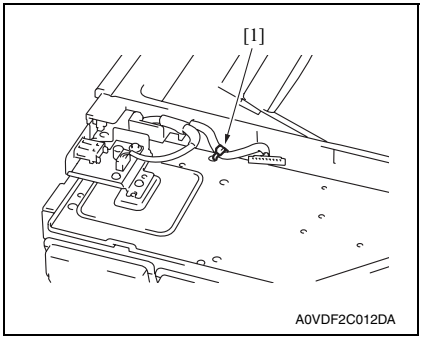
4. Remove two screws [1].
5. Disconnect the connector [2], and remove the operation panel [3].

.6 Upper cover

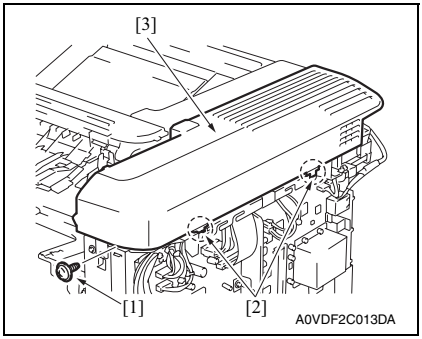
Remove the exit cover.
See P.43
. Remove the operation panel.
See P.44
3. Remove the left cover.
See P.42
4. Remove the rear right cover.
See P.42



5. Remove eleven screws [1], and remove the board protective shield [2].

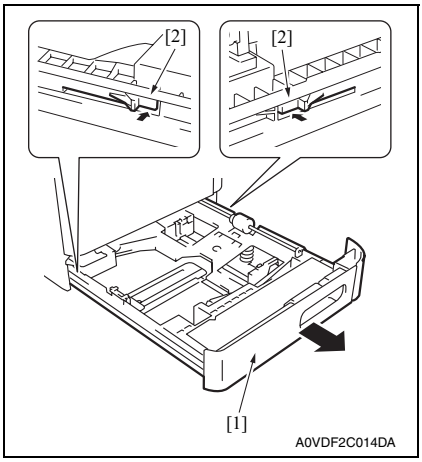


6. Cut off the insulation lock tie [1].



7. Remove the screw [1].
8. Unlock two tabs [2], and remove the upper cover [3].

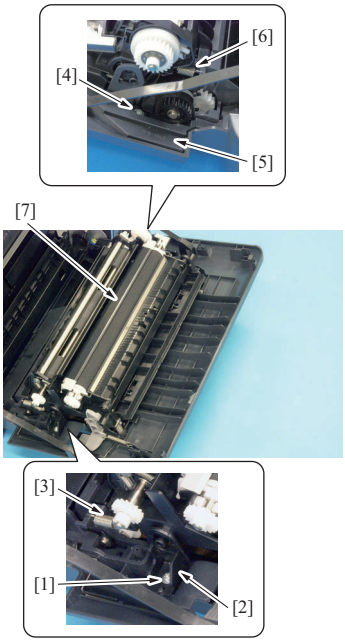
7.3.7 Tray2



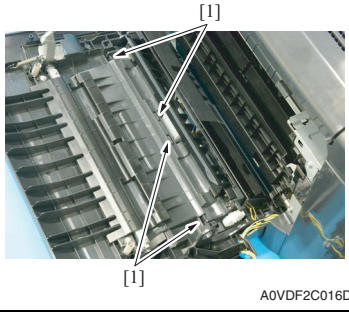
1. Pull out the tray 2 [1].
2. While pushing the left and right tabs [2], remove the tray 2 [1].

7.3.8 Tray1

1. Open the right door.



2. Remove the screw [1], and remove the fixed cover [2].
3. Remove the spring [3].
4. Remove four screws [4], and remove the harness cover [5].
5. Remove the spring [6].
6. Remove the conveyance unit [7].



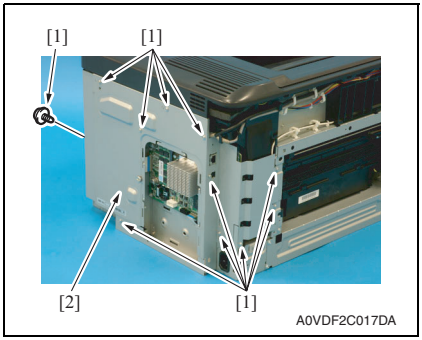
7. Unlock four tabs [1], and remove the tray 1.

7.3.9 MFP board (MFPB)

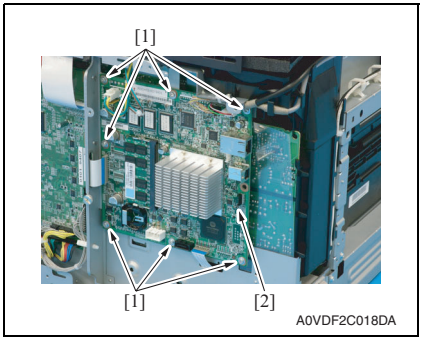
NOTE

- **When the MFP board is replaced, upgrade the firmware to the latest version.**
  See P.101
- **When the MFP board is replaced with a new one, be sure to execute [BK CLEAR].**
  See P.116

1. Remove the left cover.
   See P.42
2. Remove the rear right cover.
   See P.42
3. Remove the backup battery.
   See P.59



4. Remove eleven screws [1], and remove the board protective shield [2].



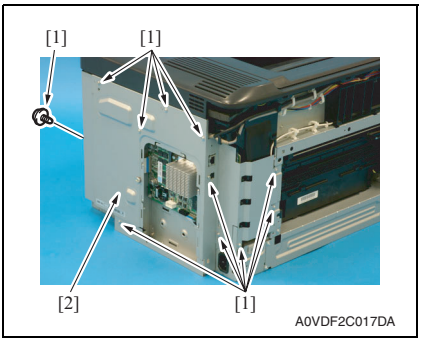
5. Disconnect all connectors and flat cables.
6. Remove seven screws [1], and remove the MFP board [2].

7.3.10 Print control board (PRCB)

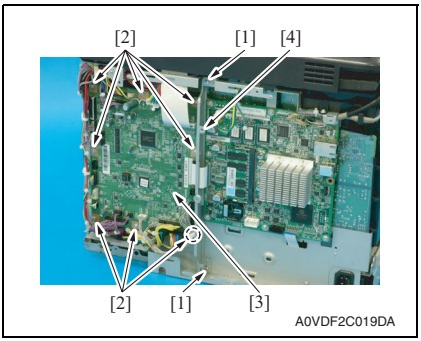
NOTE

- **When the printer control board is replaced with a new one, be sure to execute [BK CLEAR].**
  See P.116

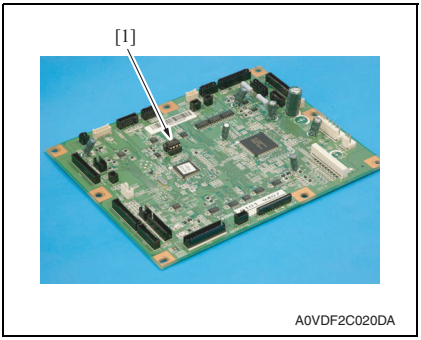
1. Remove the left cover.
   See P.42
2. Remove the rear right cover.
   See P.42



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

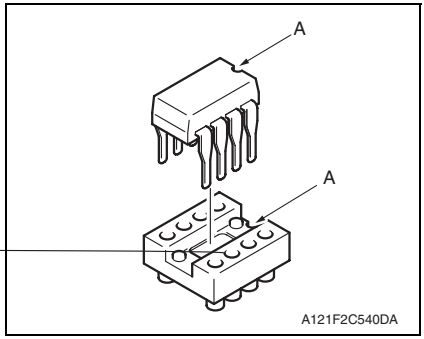


4. Remove two screws [1].
5. Disconnect all connectors and flat cables.
6. Remove eight screws [2].
7. Remove the print control board [3] and mounting sheet metal [4].



NOTE

- **When the printer control board (PRCB) has been replaced, be sure to remount EEPROM (ICS1). Unmount EEPROM (ICS1) from the old printer control board and mount it on the new printer control board.**



NOTE

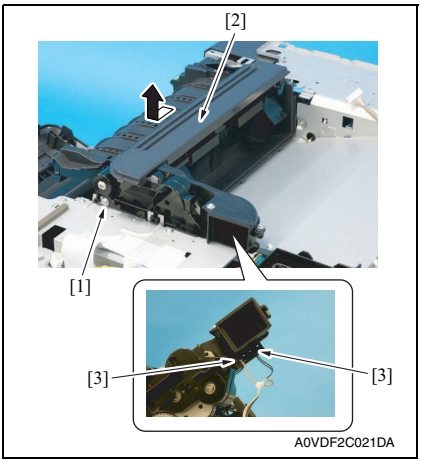
- **When mounting EEPROM (ICS1), make sure the notches "A" are precisely lined up.**

7.3.11 DC power supply (DCPU)

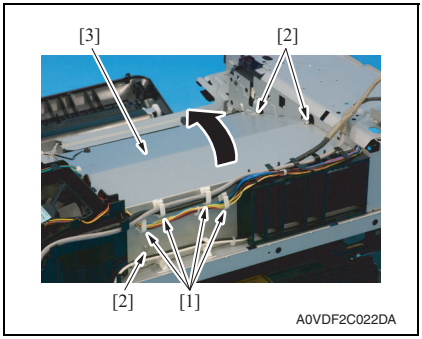
CAUTION

- **Note that in the event of DC power supply failure, it can take long before voltage drops even after turning OFF the power switch.**
  To avoid electrical shock, after turning OFF the power switch, do not touch the DC power supply for 7 minutes.

1. Remove the fuser unit.
   See P.17
2. Remove the exit cover.
   See P.43
3. Remove the left cover.
   See P.42
4. Remove the rear right cover.
   See P.42
5. Remove the operation panel.
   See P.44
6. Remove the upper cover.
   See P.44
7. Remove the cooling fan motor. (Only magicolor 4750DN)
   See P.61

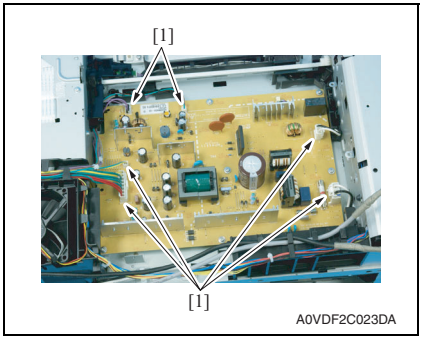


8. Remove the screw [1], and remove the exit drive assy [2].
9. Disconnect two connector [3].

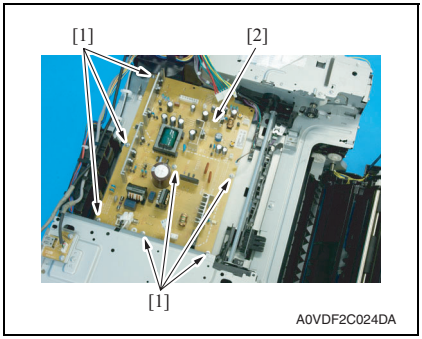


10. Remove the harness from four wire saddles [1].

11. Remove three screws [2], and remove the DC power supply protective cover [3].



12. Disconnect six connectors [1].

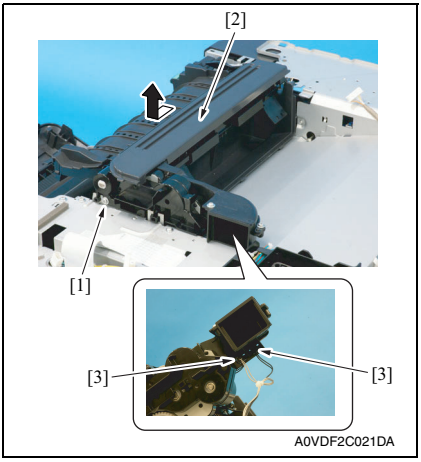


13. Remove seven screws [1], and remove the DC power supply [2].

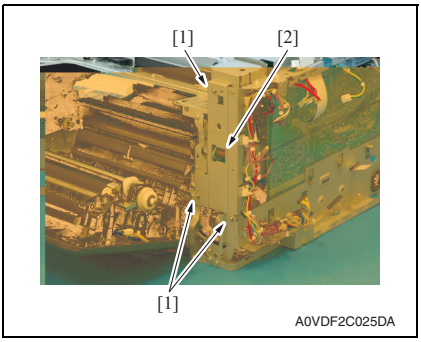
14. To reinstall, reverse the order of removal.

7.3.12 High voltage unit (HV1)

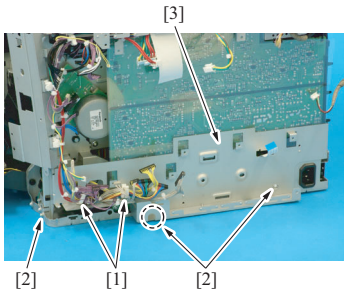
1. Remove the fuser unit.
See P.17
2. Remove the exit cover.
See P.43
3. Remove the left cover.
See P.42
4. Remove the rear right cover.
See P.42
5. Remove the operation panel.
See P.44
6. Remove the MFP board.
See P.47
7. Remove the printer control board.
See P.48
8. Remove the upper cover.
See P.44
9. Remove the DC power supply fan motor.
See P.50
10. Remove the cooling fan motor. (Only magicolor 4750DN)
See P.61



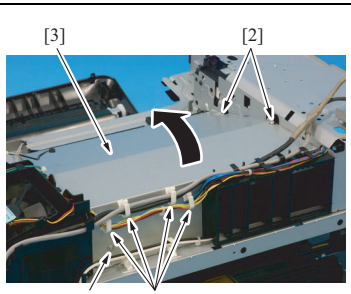
11. Remove the screw [1], and remove the exit drive assy [2].
12. Disconnect two connector [3].



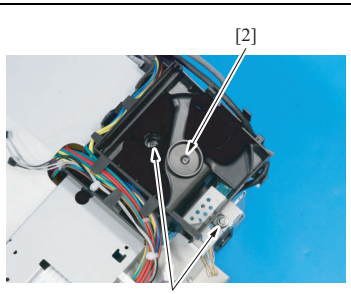
13. Remove three screws [1], and remove the metal plate [2].



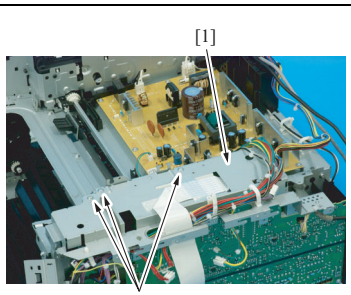
14. Remove the harness from two wire saddles [1].
15. Remove three screws [2], and remove the metal plate [3].



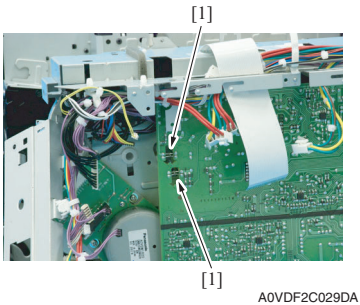
16. Remove the harness from four wire saddles [1].
17. Remove three screws [2], and remove the DC power supply protective cover [3].



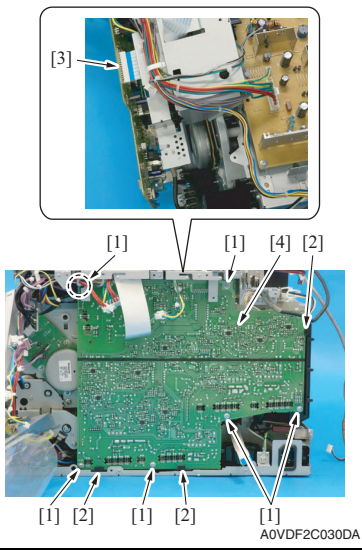
18. Remove two screws [1].
19. Remove the harness from the guide, and remove the duct [1].



20. Remove three screws [1].



21. Detach the spring from two hooks [1].

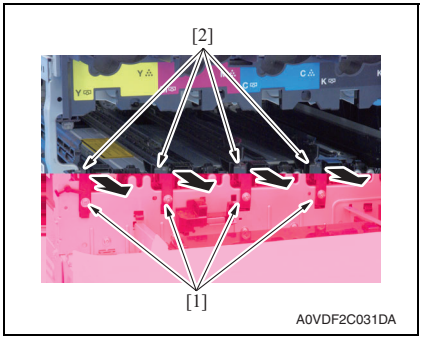


22. Remove six screws [1] and three tabs [2].
23. Disconnect the flat cable [3], and remove the high voltage unit [4].

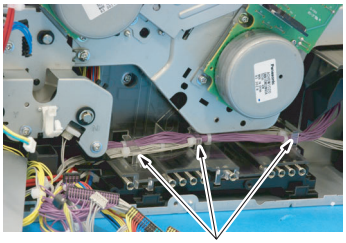
7.3.13 PH Unit

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 toner cartridge (C, M, Y, K).
See P.6
2. Remove the waste toner bottle.
See P.12
3. Remove the imaging unit (C, M, Y, K).
See P.9
4. Remove the fuser unit.
See P.17
5. Remove the exit cover.
See P.43
6. Remove the left cover.
See P.42
7. Remove the rear right cover.
See P.42
8. Remove the upper cover.
See P.44
9. Remove the operation panel.
See P.44
10. Remove the MFP board.
See P.47
11. Remove the printer control board.
See P.48
12. Remove the high voltage unit.
See P.52



13. Remove four screws [1], and remove four rails [2].



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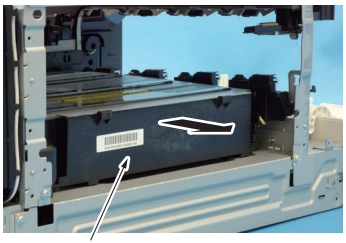
14. Remove the harness from three harness guides [1].



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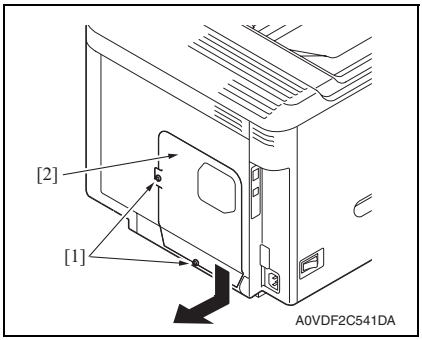
15. Remove the PH unit [1].

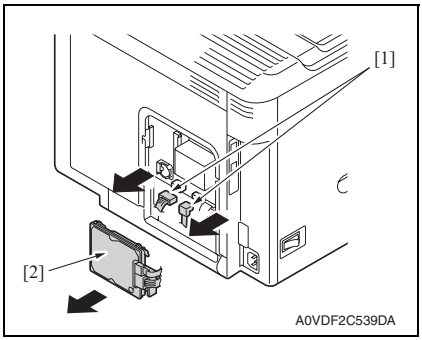
16. To reinstall, reverse the order of removal.

7.3.14 Hard disk kit (HD-P03)

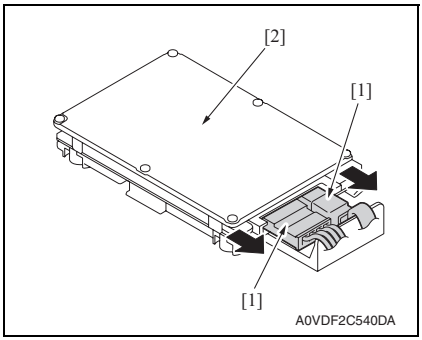
1. Turn OFF the power switch.



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



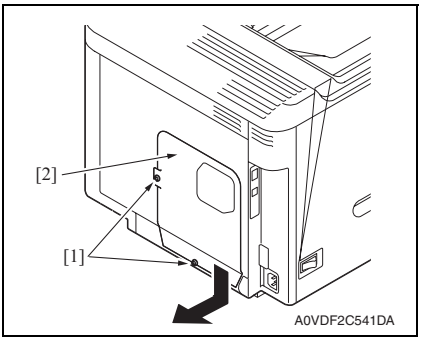
3. Disconnect two connectors [1], and remove the hard disk kit [2].



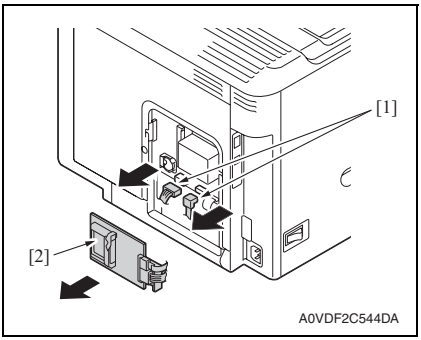
4. Disconnect two connectors [1], and remove the hard disk kit [2].

7.3.15 CF adapter (MK-725)

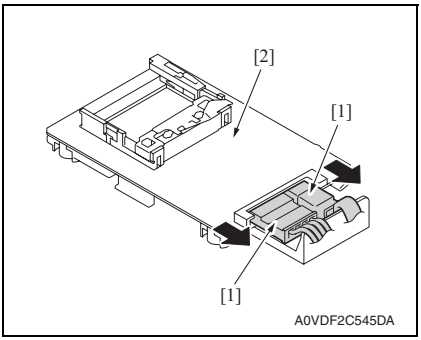
1. Turn OFF the power switch.



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



3. Disconnect two connectors [1], and remove the CF adapter [2].



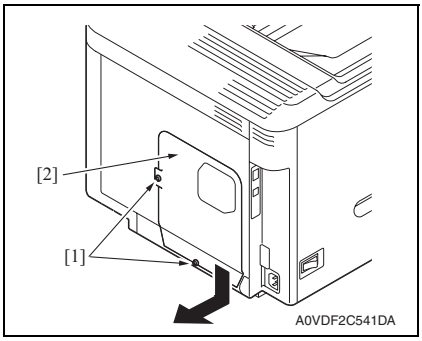
4. Disconnect two connectors [1], and remove the CF adapter [2].

7.3.16 Backup battery

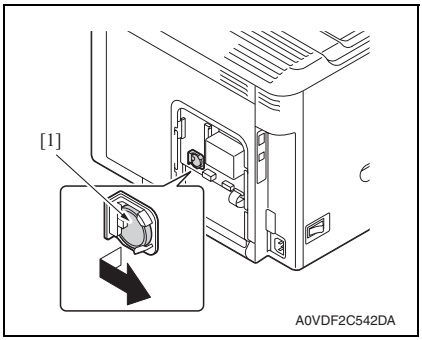
NOTE

- **This printer uses a lithium battery to backup memory. Replace the battery with our specified memory backup battery (CR2032). Use of a different battery or the one not equal to our specified battery may present risk of explosion.**
- **Before your backup battery replacement, refer to the section of Removal of PWBs on P.39.**

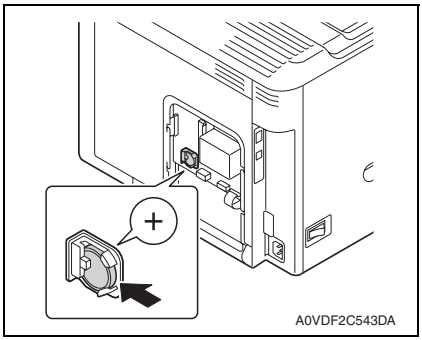
1. Turn OFF the power switch.



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



3. Remove the backup battery [1].

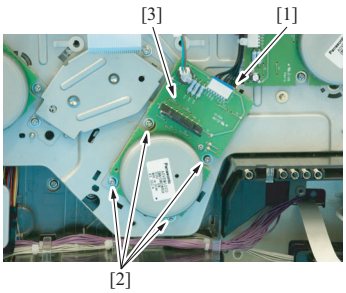


NOTE

- **When inserting the new backup battery, be sure that the + side faces toward the right.**

7.3.17 Developing motor (M1)

1. Remove the high voltage unit.
See P.52



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

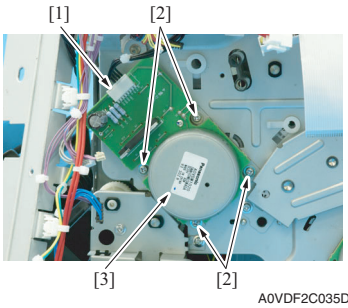
NOTE

- **When installing the motor, try to insert it straight, and take care not to damage the gears.**

4. To reinstall, reverse the order of removal.

7.3.18 Main motor (M2)

1. Remove the high voltage unit.
See P.52



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

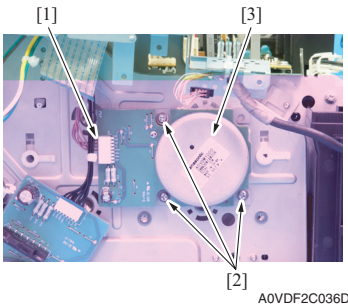
NOTE

- **When installing the motor, try to insert it straight, and take care not to damage the gears.**

4. To reinstall, reverse the order of removal.

7.3.19 Color PC drum motor (M4)

1. Remove the high voltage unit.
See P.52



2. Disconnect the connector [1].
3. Remove four screws [2], and remove the color PC drum motor [3].

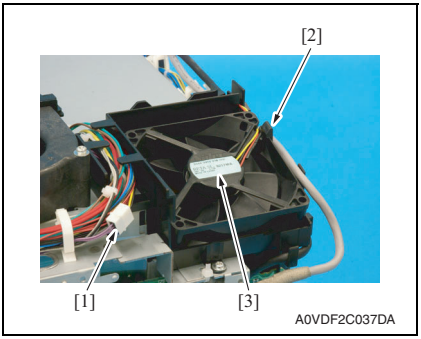
NOTE

- **When installing the motor, try to insert it straight, and take care not to damage the gears.**

4. To reinstall, reverse the order of removal.

7.3.20 DC power supply fan motor (FM10)

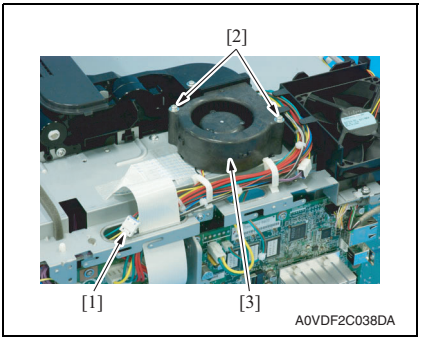
1. Remove the exit cover.
See P.43
2. Remove the operation panel.
See P.44
3. Remove the left cover.
See P.42
4. Remove the rear right cover.
See P.42
5. Remove the upper cover.
See P.44



6. Disconnect the connector [1].
7. Unlock the tab [2], and remove the DC power supply fan motor [3].
8. To reinstall, reverse the order of removal.

7.3.21 Cooling fan motor (FM11)

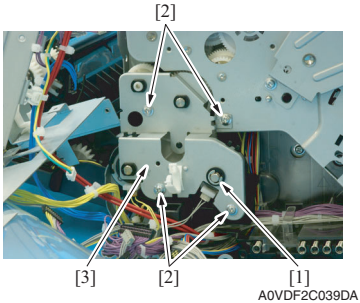
1. Remove the exit cover.
See P.43
2. Remove the operation panel.
See P.44
3. Remove the left cover.
See P.42
4. Remove the rear right cover.
See P.42
5. Remove the upper cover.
See P.44



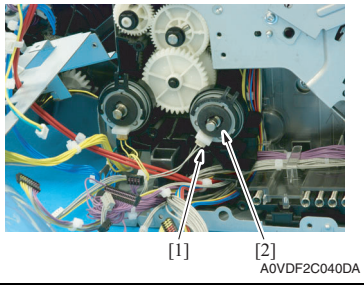
6. Disconnect the connector [1].
7. Remove two screws [2], and remove the cooling fan motor [3].
8. To reinstall, reverse the order of removal.

7.3.22 Tray2 media feed clutch (CL1) / Tray1 media feed clutch (CL2)

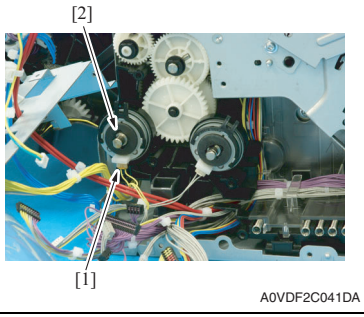
1. Remove the high voltage unit.
See P.52
2. Remove the main motor.
See P.60



3. Remove the E-ring [1].
4. Remove four screws [2], and remove the fixing metal plate [3].



5. Disconnect the connector [1], and remove the tray2 media feed clutch [2].

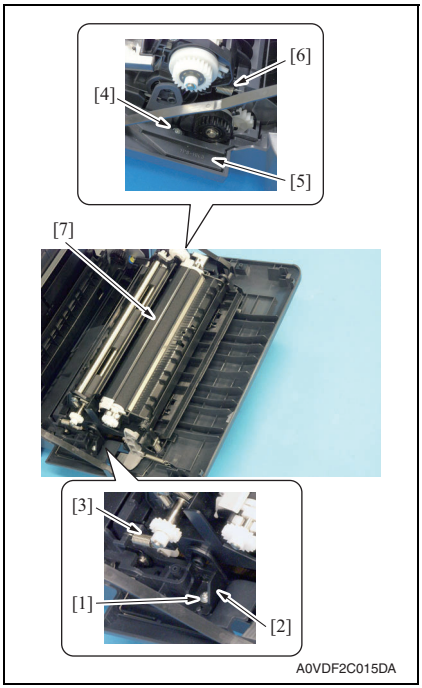


6. Disconnect the connector [1], and remove the tray1 media feed clutch [2].

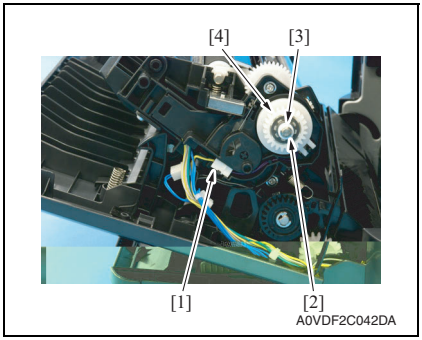
7. To reinstall, reverse the order of removal.

7.3.23 Registration clutch (CL3)

1. Open the right door.



2. Remove the screw [1], and remove the fixed cover [2].
3. Remove the spring [3].
4. Remove four screws [4], and remove the harness cover [5].
5. Remove the spring [6].
6. Remove the conveyance unit [7].

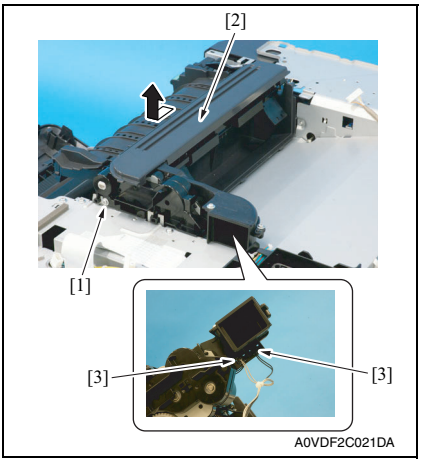


7. Disconnect the connector [1].
8. Remove the E-ring [2] and the bushing [3], and remove the registration clutch [4].

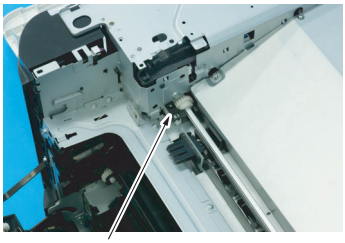
9. To reinstall, reverse the order of removal.

7.3.24 Toner supply clutch/Y (CL4) / Toner supply clutch/M (CL5) Toner supply clutch/C (CL6) / Toner supply clutch/K (CL7)

1. Remove the toner cartridge (C,M,Y,K).
See P.6
2. Remove the waste toner bottle.
See P.12
3. Remove the imaging unit (C,M,Y,K).
See P.9
4. Remove the fuser unit.
See P.17
5. Remove the exit cover.
See P.43
6. Remove the left cover.
See P.42
7. Remove the rear right cover.
See P.42
8. Remove the upper cover.
See P.44
9. Remove the operation panel.
See P.44
10. Remove the cooling fan motor. (Only magicolor 4750DN)
See P.61



11. Remove the screw [1], and remove the exit drive assy [2].
12. Disconnect two connector [3].



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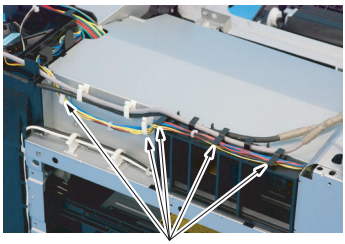
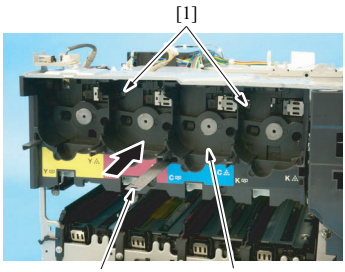
13. Remove the stopper [1].



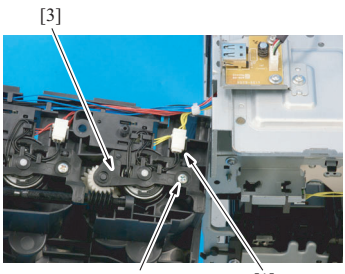
A0VDF2C044DA

14. Remove the harness from five wire saddles [1].



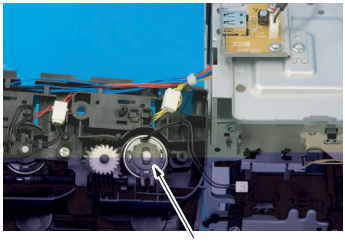
A0VDF2C045DA

15. Remove two screws [1].
16. While releasing the lock with the inserted metal ruler [2] or another similar tool as shown in the illustration, remove the toner box drive Assy [3].



A0VDF2C046DA

17. Remove the harness from guide, and disconnect the connector [1].
18. Remove the screws [2], and remove the cover [3].

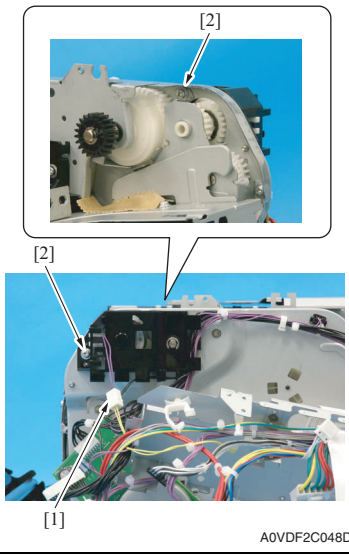


19. Remove the toner supply clutch [1].

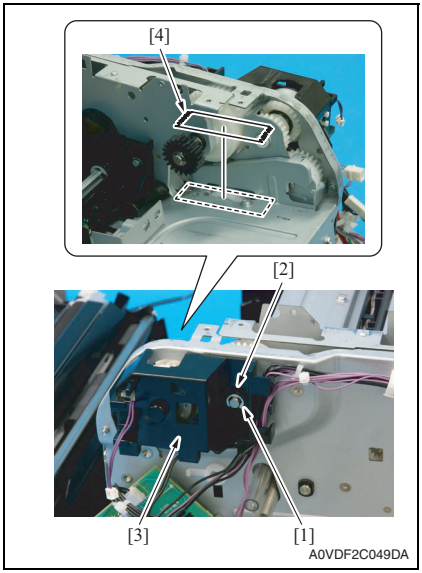
20. To reinstall, reverse the order of removal.

7.3.25 Loop detection clutch (CL8)

1. Remove the high voltage unit.
See P.52



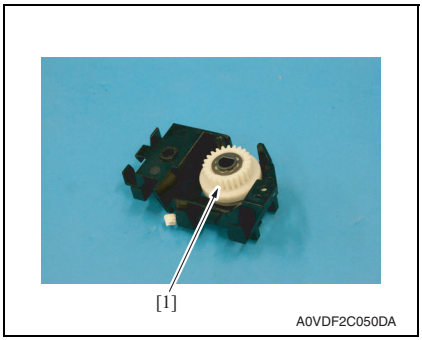
2. Disconnect the connector [1].
3. Remove two screws [2].



4. Remove the E-ring [1] and bushing [2], and remove the holder [3].

NOTE

- **Before removing the holder [3], attach tape or similar material [4] to the section shown in the illustration to prevent the shaft from falling down and being lost.**

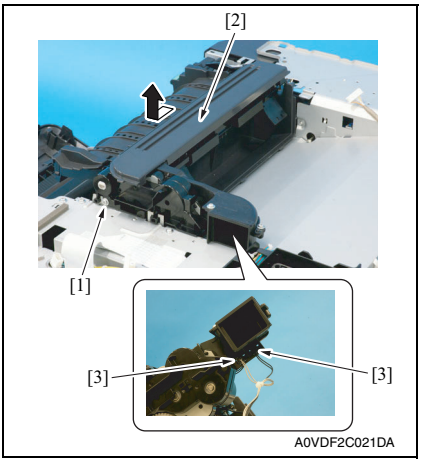


5. Remove the loop detection clutch [1].

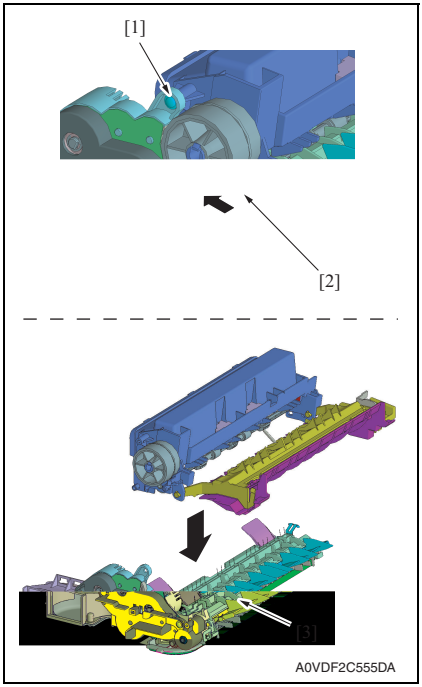
6. To reinstall, reverse the order of removal.

7.3.26 Switchback roller feed clutch (CL11) / Switchback roller reverse clutch (CL12)

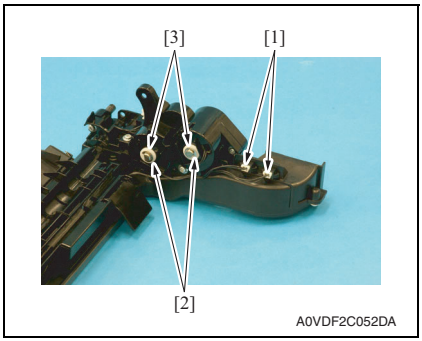
1. Remove the fuser unit.
See P.17
2. Remove the exit cover.
See P.43
3. Remove the left cover.
See P.42
4. Remove the rear right cover.
See P.42
5. Remove the operation panel.
See P.44
6. Remove the upper cover.
See P.44
7. Remove the cooling fan motor.
See P.61



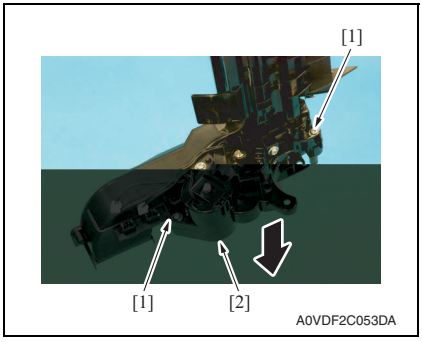
8. Remove the screws [1], and remove the exit drive assy [2].
9. Disconnect two connectors [3].



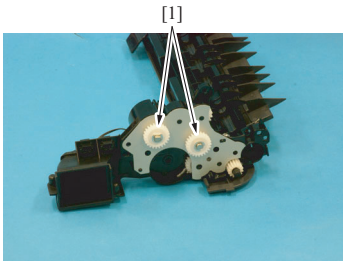
10. Remove the screw [1].
11. While pushing the tab [2] in the direction of the arrow to unlock it, disassemble and remove the exit drive assy [3].



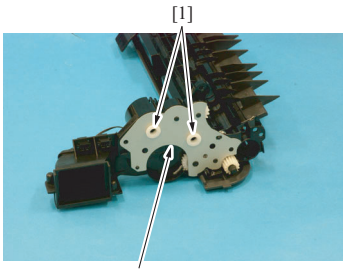
12. Disconnect two connectors [1].
13. Remove two E-rings [2] and two bushings [3].



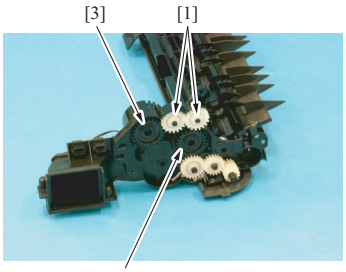
14. Remove two screws [1], and remove the gear assy [2].



15. Remove two gears assy [1].



16. Remove two bushings [1], and remove the metal plate [2].

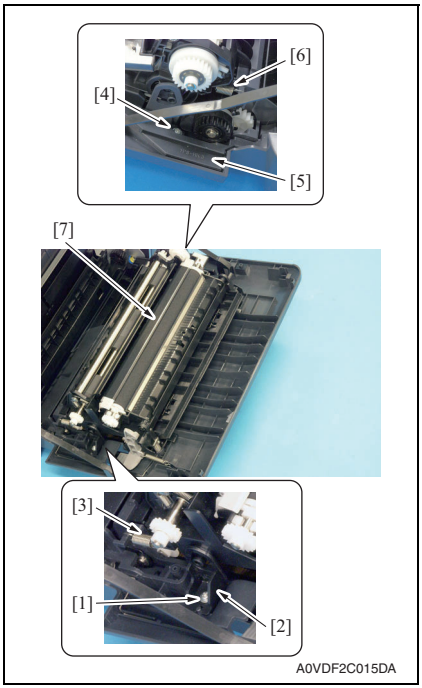


17. Remove two gears [1] and remove the switchback roller feed clutch [2] or the switchback roller reverse clutch [3].

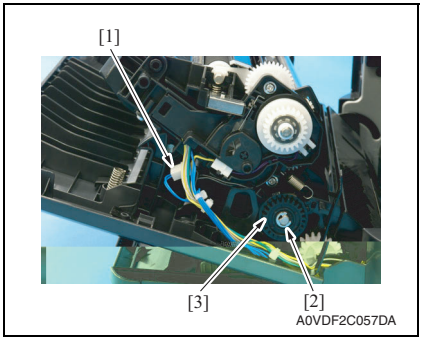
18. To reinstall, reverse the order of removal.

7.3.27 Duplex conveyance roller clutch (CL13)

1. Open the right door.



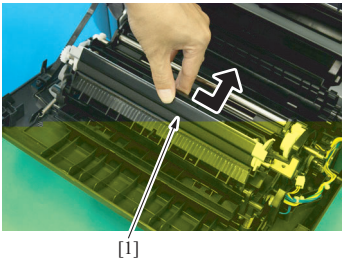
2. Remove the screw [1], and remove the fixed cover [2].
3. Remove the spring [3].
4. Remove four screws [4], and remove the harness cover [5].
5. Remove the spring [6].
6. Remove the conveyance unit [7].



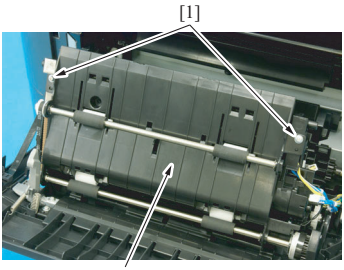
7. Disconnect the connector [1].
8. Remove the E-ring [2] and remove the duplex conveyance roller clutch [3].
9. To reinstall, reverse the order of removal.

7.3.28 2nd transfer release solenoid (SD2)

1. Remove the registration clutch.
See P.63



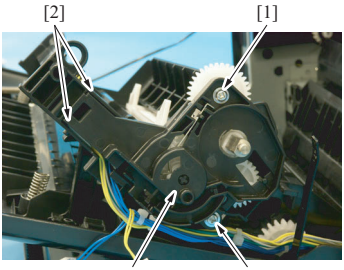
2. Remove the 2nd transfer roller unit assy [1].



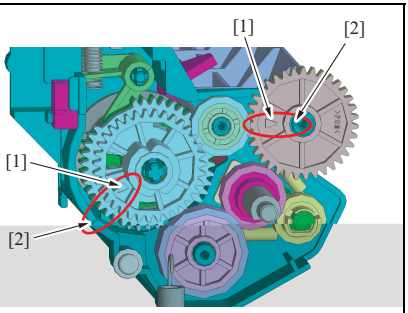
3. Remove two screws [1], and remove the duplex conveyance roller assy [2].

NOTE

- **Only for magicolor 4750DN.**



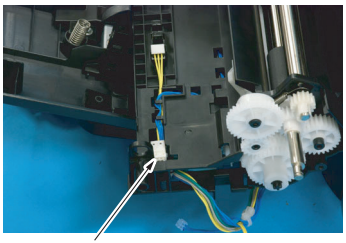
4. Remove two screws [1] and unlock two tabs [2], and remove the holder [3].



A0VDF2C548DA

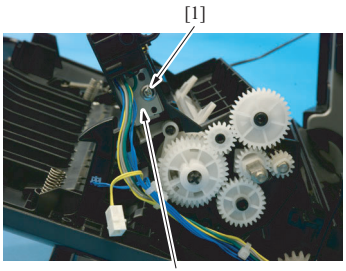
NOTE

- **If the gears come off and they need to be reinstalled, align the arrow [1] on the gear with the marked line [2] on the holder.**



A0VDF2C061DA

5. Disconnect the connector [1].

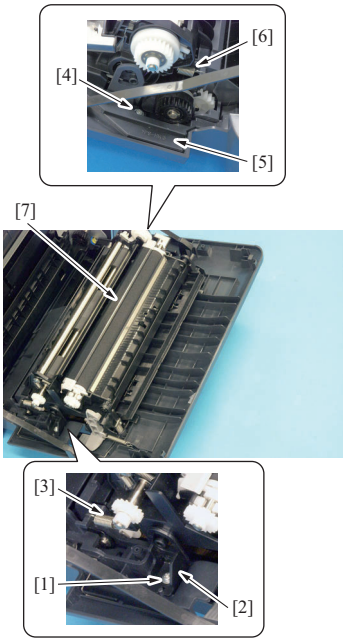


A0VDF2C062DA

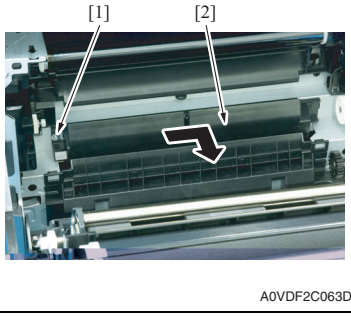
6. Remove the screw [1], and remove the 2nd transfer release solenoid [2].

7.3.29 Temperature/ humidity sensor (TEM/HUMS)

1. Open the right door.



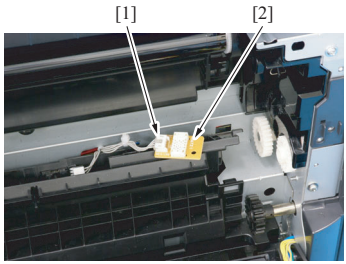
2. Remove the screw [1], and remove the fixed cover [2].
3. Remove the spring [3].
4. Remove four screws [4], and remove the harness cover [5].
5. Remove the spring [6].
6. Remove the conveyance unit [7].



7. Remove the screw [1] and remove the sensor holder [2] as shown in the illustration on the left.

NOTE

- **Do not jerk off the sensor holder, to which a harness is connected.**

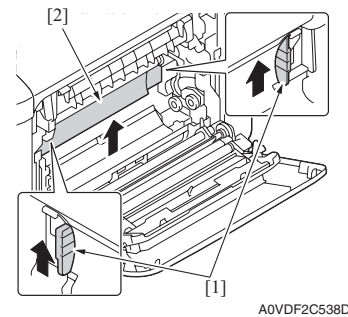


8. Disconnect the connector [1], and remove the temperature/humidity sensor [2].

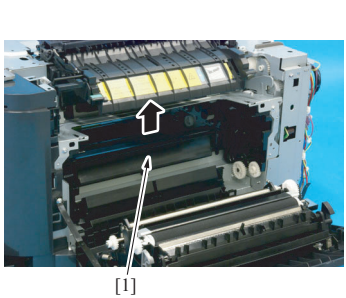
9. To reinstall, reverse the order of removal.

7.3.30 IDC sensor (IDC)

1. Remove the toner cartridge (C,M,Y,K). See P.6
2. Remove the waste toner bottle. See P.12
3. Remove the imaging unit (C,M,Y,K). See P.9
4. Remove the transfer belt. See P.13



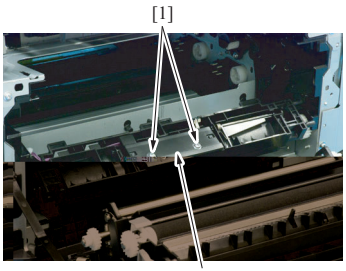
5. Hold the both handles [1] and raise the guide [2].



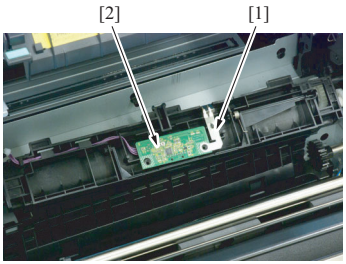
6. Raise the guide [1] further and remove it.

NOTE

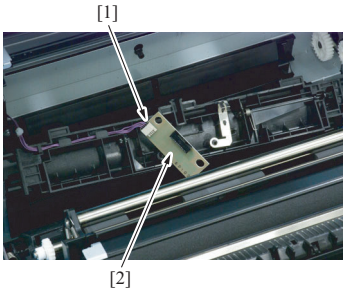
- **Do not jerk off the sensor holder, to which a harness is connected.**



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



8. While slightly raising the ground plate [1], remove the IDC sensor [2].



9. Disconnect the connector [1], and remove the IDC sensor [2].

NOTE

- **Be careful not to break the sensor head [3] of the IDC sensor.**

10. To reinstall, reverse the order of removal.

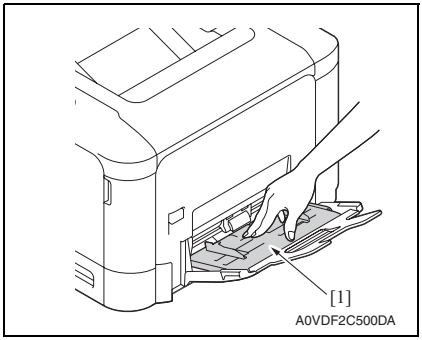
7.4 Cleaning procedure

NOTE

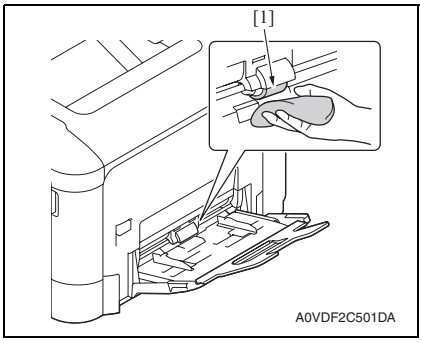
- **The alcohol described in the cleaning procedure represents the isopropyl alcohol.**

7.4.1 Tray1 feed roller

1. Open the tray1.



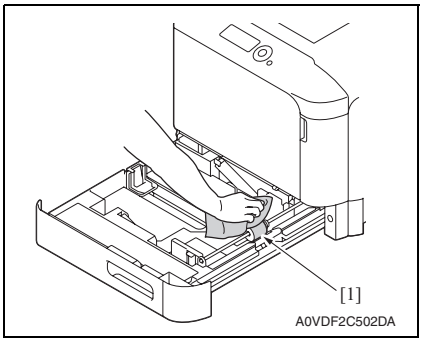
2. Press down the media lifting metal plate [1].



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

7.4.2 Tray2 feed roller

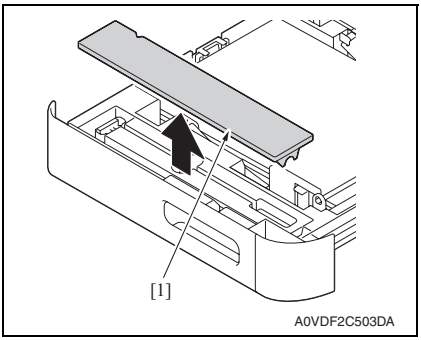
1. Slide out tray2.



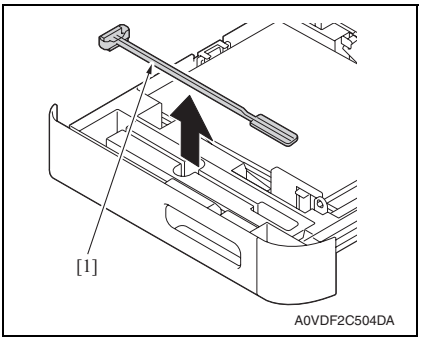
2. Using a cleaning pad dampened with alcohol, wipe the tray2 feed roller [1] clean of dirt.

7.4.3 Laser irradiation section

1. Slide out tray2.

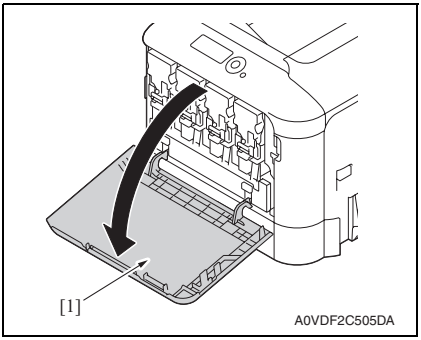


2. Remove the cover [1].

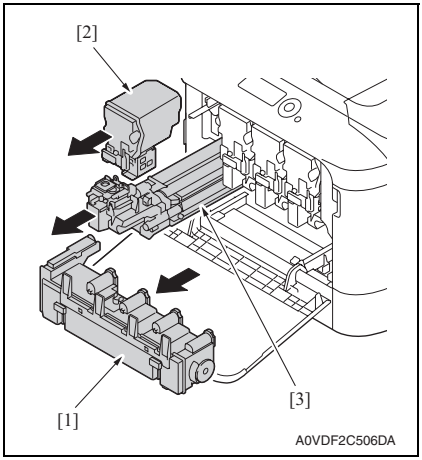


3. Remove the laser lens cleaning tool [1].

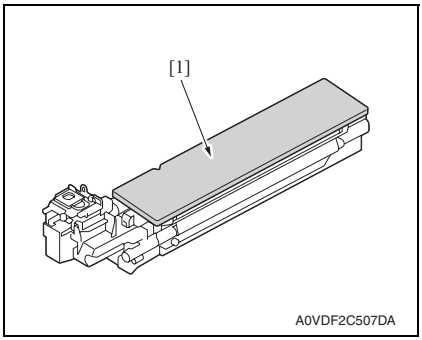
4. Close the tray2.



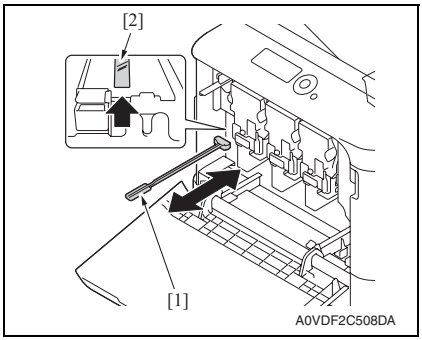
5. Open the front cover [1].



6. Remove the waste toner bottle [1]. See P.12
7. Remove the toner cartridge [2]. See P.6
8. Remove the imaging unit [3]. See P.9



9. Attach the cover [1] to the removed imaging unit.



10. Insert the laser lens cleaning tool [1] into the imaging unit opening [2], pull it out, and then repeat this back and forth movement 2 or 3 times.

Blank Page

ADJUSTMENT/SETTING

8. HOW TO USE THE ADJUSTMENT/SETTING SECTION

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

Advance checks

- Before attempting to solve the customer problem, the following advance checks must be made. Check to see if:

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

⚠ 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.**

9. Utility

9.1 List of menu functions

MENU			
PROOF/PRINT MENU *1			
PRINT MENU	CONFIGURATION PG		
	STATISTICS PAGE		
	FONT LIST	POSTSCRIPT	
		PCL	
	MENU MAP		
	DIRECTORY LIST *4		
PAPER MENU	PAPER SOURCE	DEFAULT TRAY	
		TRAY 1	
		TRAY 2	
		TRAY 3 *2	
		TRAY CHAINING	
		TRAY MAPPING	
	DUPLEX *3		
	COPIES		
	COLLATE *4		
QUALITY MENU	COLOR MODE		
	BRIGHTNESS		
	HALFTONE	IMAGE PRINTING	
		TEXT PRINTING	
		GRAPHICS PRINTING	
	EDGE ENHANCE-MENT	IMAGE PRINTING	
		TEXT PRINTING	
		GRAPHICS PRINTING	
	EDGE STRENGTH		
	ECONOMY PRINT		
	PCL SETTING	CONTRAST	
		IMAGE PRINTING	RGB SOURCE
			RGB INTENT
			RGB GRAY
		TEXT PRINTING	RGB SOURCE
			RGB INTENT
			RGB GRAY
		GRAPHICS PRINTING	RGB SOURCE
			RGB INTENT
			RGB GRAY

MENU				
QUALITY MENU	PS SETTING	IMAGE PRINTING	RGB SOURCE	
			RGB INTENT	
			RGB GRAY	
			DESTINATION PROF	
		TEXT PRINTING	RGB SOURCE	
			RGB INTENT	
			RGB GRAY	
			DESTINATION PROF	
		GRAPHICS PRINTING	RGB SOURCE	
			RGB INTENT	
			RGB GRAY	
			DESTINATION PROF	
		SIMULATION	SIMULATION PROF	
			SIMULATION INTENT	
			CMYK GRAY	
	CALIBRATION	TONE CALIBRATION		
		AIDC PROCESS		
		CMYK DENSITY	CYAN	
			MAGENTA	
			YELLOW	
			BLACK	
	COLOR SEPARATION			
MEMORY DIRECT *4, 5	LIST OF FILES *9			
	TYPE OF FILES			
INTERFACE MENU	JOB TIMEOUT			
	ETHERNET	TCP/IP	ENABLE	
			IP ADDRESS	
			SUBNET MASK	
			DEFAULT GATEWAY	
			DHCP	
			BOOTP	
			ARP/PING	
			HTTP	ENABLE
			FTP	ENABLE
			TELNET	
			BONJOUR	ENABLE
			DYNAMIC DNS	ENABLE
			IPP	ENABLE
			RAW PORT	ENABLE
				BIDIREC-TIONAL
			SLP	ENABLE

MENU				
INTERFACE MENU	ETHERNET	TCP/IP	SMTP	ENABLE
			SNMP	ENABLE
			WSD PRINT	ENABLE
			IPSEC	ENABLE
			IP ADDRESS FILTER	ACCESS PREMISSION
				ACCESS REFUSE
			IPv6	ENABLE
				AUTO SETTING
				LINK LOCAL
				GLOBAL ADDRESS
				GATEWAY ADDRESS
		NETWARE	ENABLE	
		APPLETALK	ENABLE	
		SPEED/DUPLEX		
		IEEE802.1X	ENABLE	
	MEMORY DIRECT *4			
SYS DEFAULT MENU	LANGUAGE			
	EMULATION	DEF. EMULATION		
		POSTSCRIPT	WAIT TIMEOUT	
			PS ERROR PAGE	
			PS PROTOCOL	
			AUTO TRAPPING	
			BLACK OVERPRINT	
		PCL	CR/LF MAPPING	
			LINES PER PAGE	
			FONT SOURCE	FONT NUMBER
				PITCH SIZE
				POINT SIZE
				SYMBOL SET
		XPS *5	DIGITAL SIGNATURE	
			XPS ERROR PAGE	
	PAPER	DEFAULT PAPER	PAPER SIZE	
			CUSTOM SIZE	
			PAPER TYPE	
		UNIT OF MEASURE		
	GRAYSCALE PAGE			

MENU			
SYS DEFAULT MENU	STARTUP OPTIONS	DO STARTUP PAGE	
	AUTO CONTINUE		
	HOLD JOB TIMEOUT *1		
	ENERGY SAVER		
	ENERGY SAVER TIME *7		
	MENU TIMEOUT		
	LCD CONTRAST		
	SECURITY	CHANGE PASSWORD	
		LOCK PANEL	
	CLOCK	DATE (xx.xx.xx)	
		TIME	
		TIME ZONE	
	HDD FORMAT *1		
	CARD FORMAT *8		
	RESTORE DEFAULTS	RESTORE NETWORK	
		RESTORE PRINTER	
		RESTORE ALL	
	ENABLE WARNING	PAPER EMPTY	
		TONER LOW	
		I-UNIT LOW	
MAINTENANCE MENU	PRINT MENU	EVENT LOG	
		HALFTONE 64	
		HALFTONE 128	
		HALFTONE 256	
		GRADATION	
	ALIGNMENT	TOP ADJUSTMENT	
		LEFT ADJUSTMENT	
		LEFT ADJ DUPLEX *3	
		TRANSFER POWER	SIMPLEX PASS
			MANUAL DUPLEX
		IMG ADJ THICK	
		IMG ADJ BLACK	
		FINE LINE ADJ	
		AIDC MODE	
		THICK MODE	
		ENGINE DIPSW	
	MAIN SCAN ADJUST	MAIN SCAN PAGE	
		SCAN ADJUST VALUE	

MENU			
MAINTENANCE MENU	SUPPLIES	REPLACE	TRANS. BELT
			TRANS ROLLER
			FUSER UNIT
	QUICK SETTING *9	UPDATE SETTING	
		BACKUP SETTING	
		BACKUP TYPE	

*1: It will be displayed only when an optional hard disk kit HD-P03 is installed.
*2: It will be displayed only when an optional paper feed unit PF-P07 is installed.
*3: It will be displayed only on magicolor 4750DN.
*4: It will be displayed only when an optional hard disk kit HD-P03 or compact flash card is installed.
*5: It will be displayed only when the following setting is set to “ENABLE.”
[INTERFACE MENU] → [MEMORY DIRECT]
*6: It will be displayed only when the following setting is set to “ENABLE.”
[INTERFACE MENU] → [CAMERA DIRECT]
*7: It will be displayed only when [ENERGY SAVER] is set to ON.
*8: It will be displayed only when a compact flash card is installed.
*9: It will be displayed only when a USB memory device is installed.

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

9.2 STATISTICS PAGE

- To check the status and the usage of the machine (consumables, maintenance parts and paper).

9.2.1 Sample of STATISTICS PAGE

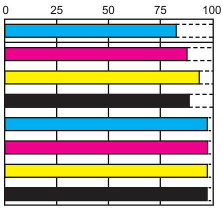
KONICA MINOLTA

SERIAL NUMBER: A0VD*********

Product Name : XXXXX
Printer name : XXXXX

DATE : 02.01.2010
TIME : 03:14

Supplies Status



	% Remaining	Cartridge Type
Cyan Toner Cartridge	82%	Starter
Magenta Toner Cartridge	87%	Starter
Yellow Toner Cartridge	93%	Starter
Black Toner Cartridge	88%	Starter
Cyan Imaging Unit	97%	
Magenta Imaging Unit	97%	
Yellow Imaging Unit	97%	
Black Imaging Unit	97%	
Waste Toner Bottle	Ready	

PM Parts Information

Transfer Roller	100%	Transfer Belt	100%	Fuser Unit	100%

Counter Information

Total Count		Total Count(Duplex)		Total Count(Normalized)	
Monochrome	8	Monochrome	2	Monochrome	8
Full Color	12	Full Color	0	Full Color	11
Total	20	Total	2	Total	19

Normalization : All Sizes converted to Letter/A4 equivalent.

Media Information

Sheets Printed by PaperTray		Sheets Printed by PaperSize		Sheets Printed by PaperType	
TRAY1	6	LEGAL	0	PLAIN PAPER	19
TRAY2	8	LETTER	1	RECYCLED	0
TRAY3	3	A4	18	THICK 1	0
MANUAL FEED	2	B5(JIS)	0	THICK 2	0
		A5	0	LABEL	0
		CUSTOM	0	ENVELOPE	0
		OTHERS	0	POSTCARD	0
				LETTER HEAD	0
				GLOSSY 1	0
				GLOSSY 2	0
				SGL SIDE ONLY	0
				SPECIAL PAPER	0

Coverage Information(Normalized)

<Latest Job>		<Current Toner Cartridge>		<Total>	
Average % C	0.0	Average % C	3.3	Average % C	3.3
Average % M	0.0	Average % M	0.6	Average % M	0.6
Average % Y	0.0	Average % Y	2.2	Average % Y	2.2
Average % K	0.0	Average % K	9.6	Average % K	9.6

<Total:Color>		<Total:Monochrome>	
Color Average %	23.2	Monochrome Average %	4.9

Note: The consumable statistics on this page are an indication only and are intended only as guidance in the maintenance of your printer.

0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0 0B01

A0VDF3E502DA

A. Supplies Status

- Display the estimated percent of life remaining in the toner cartridge and imaging unit. The type of the toner cartridges that are installed in the printer is also displayed (See the table below).
- Display the status of the waste toner bottle.

Types of toner cartridges	
Starter	• Toner cartridge included with a product shipped from the factory: 2.0 K
Standard	• Standard-capacity toner cartridge: 4.0 K
High	• High-capacity toner cartridge: 6.0 K

NOTE

- **The percent of life remaining in the toner cartridge or imaging unit can be used as a guide, but may not exactly reflect the amount that has been used in the toner cartridge or imaging unit.**

B. PM Parts Information

- Display the estimated percent of life remaining in periodic replacement parts and units such as the transfer roller unit, transfer belt unit and fusing 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.

D. 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	Monochrome	• The total number of monochrome pages ejected from the printer. Increment by one per simplex and by two per duplex	When a sheet of media is ejected properly
	Full color	• The total number of color pages ejected from the printer. Increment by one per simplex and by two per duplex	
Total Count (duplex)	Monochrome	• The total number of monochrome duplex sheets ejected from the printer. Increment by one per duplex (and by zero per simplex)	
	Full color	• The total number of color duplex sheets ejected from the printer. Increment by one per duplex (and by zero per simplex)	
Total Count (Normalized)	Monochrome	• The total number of monochrome pages on a A4 basis that have been ejected from the printer. Increment by 100 per A4 simplex and by 200 per A4 duplex *1	
	Full color	• The total number of color pages on a A4 basis that have been ejected from the printer. Increment by 100 per A4 simplex and by 200 per A4 duplex *1	
Sheets Printed by Paper Tray		• The number of sheets used for each media source. Increment by one for both simplex and duplex	When a sheet of media is fed
Sheets Printed by Paper Size		• The number of sheets used for each media size. Increment by one for both simplex and duplex	
Sheets Printed by Paper Type		• The number of pages used per each media type. Increment by one for both simplex and duplex	

*1: A count of 100 in the counter is converted to 1 sheet of media and display the number of decimals are discarded.

NOTE

- **The total counters and the print counters count at a different timing, when a sheet of media is properly ejected and when a sheet of media is fed, respectively. Therefore, the sum of each total counter value may not be same with the sum of each print counter value if a sheet of media cannot be ejected due to media jam inside the machine or other possible problems.**

E. Coverage Information

- Each coverage information is calculated and displayed based on the description shown in the following table.

<Coverage information list>

Coverage information	Contents
Normalized Coverage Information <Latest Job>	• Individual average dot coverage of four colors (YMCK) in the last job is calculated on an A4 basis. (The average of the ratios of dot space on each page when the printable area is defined as 100% and shown in 0.1 percent increments)
Normalized Coverage Information <Current Toner Cartridge>	• Individual average dot coverage of four colors (YMCK) in the current toner cartridges is calculated on an A4 basis. (The average of the ratios of dot space on each page when the printable area is defined as 100% and shown in 0.1 percent increments)
Normalized Coverage Information <Total>	• Individual average dot coverage of four colors (YMCK) is calculated on an A4 basis for all prints performed after the printer was installed. (The average of the ratios of dot space on each page when the printable area is defined as 100% and shown in 0.1 percent increments)
Normalized Color (CMYK) Coverage Information	• Average dot coverage is calculated on an A4 basis for full color printing performed after the printer was installed. (The average of the ratios of dot space on each page when the printable area is defined as 100% and shown in 0.1 percent increments)
Normalized Monochrome Coverage Information	• Average dot coverage is calculated on an A4 basis for monochrome printing performed after the printer was installed. (The average of the ratios of dot space on each page when the printable area is defined as 100% and shown in 0.1 percent increments)

NOTE

- **Coverage information can be used as a guide and may not completely reflect the actual amount of toner used.**

F. How to read consumable/periodic replacement parts (units) counter information.

- The lower left part of the statistics page (① in the sample page) shows numerical values that represent consumable/periodic replacement parts (units) counter information.
  The table below explains counter information that is provided by each numerical data.

<Display on the statistics page>

0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0	0B02

<Meaning of counter value> (From the left of the numerical values)

No.	Contents
1	Number of times a high-capacity toner cartridge (K) has been replaced
2	Number of times a standard-capacity toner cartridge (K) has been replaced * This item is not available in this machine.
3	Number of times a toner cartridge (K) made by companies other than KMBT has been replaced

No.	Contents	
4	Number of times a high-capacity toner cartridge (C) has been replaced	
5	Number of times a standard-capacity toner cartridge (C) has been replaced * This item is not available in this machine.	
6	Number of times a toner cartridge (C) made by companies other than KMBT has been replaced	
7	Number of times a high-capacity toner cartridge (M) has been replaced	
8	Number of times a standard-capacity toner cartridge (M) has been replaced * This item is not available in this machine.	
9	Number of times a toner cartridge (M) made by companies other than KMBT has been replaced	
10	Number of times a high-capacity toner cartridge (Y) has been replaced	
11	Number of times a standard-capacity toner cartridge (Y) has been replaced * This item is not available in this machine.	
12	Number of times a toner cartridge (Y) made by companies other than KMBT has been replaced.	
13	Use of toner cartridge (K) made by companies other than KMBT is set at “1.” (The default value is 0.)	
14	Use of toner cartridge (C) made by companies other than KMBT is set at “1.” (The default value is 0.)	
15	Use of toner cartridge (M) made by companies other than KMBT is set at “1.” (The default value is 0.)	
16	Use of toner cartridge (Y) made by companies other than KMBT is set at “1.” (The default value is 0.)	
17	Use of toner refill cartridge (K) is set at “1.” (The default value is 0.)	
18	Use of toner refill cartridge (C) is set at “1.” (The default value is 0.)	
19	Use of toner refill cartridge (M) is set at “1.” (The default value is 0.)	
20	Use of toner refill cartridge (Y) is set at “1.” (The default value is 0.)	
21	Rate of transfer roller use (%)	
22	Number of times a transfer roller has been replaced	
23	Rate of transfer belt unit use (%)	
24	Number of times a transfer belt unit has been replaced	
25	Rate of fuser unit use (%)	
26	Number of times a fuser unit has been replaced	
27	Number of times a imaging unit (K) has been replaced	
28	Number of times a imaging unit (C) has been replaced	
29	Number of times a imaging unit (M) has been replaced	
30	Number of times a imaging unit (Y) has been replaced	
1	Start date of use *1	Year (e.g. The year 2010 is displayed as 0.)
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 1 is displayed as 01.)

*1: Start date of use begins when 100 prints are complete after the first new toner cartridge was detected following the main body installation.
“-2000000” is displayed before the start date of use.

9.3 Restore Defaults

- Restores various settings to their default values.
- Use when restoring settings to their default values.
  Restore Network : Restore the default for [INTERFACE MENU/ETHERNET] setting.
  Restore System : Restore the default for [PAPER MENU], [QUALITY MENU] and [SYS DEFAULT MENU] setting.
  Restore All : Restore defaults for all settings.

1. Select [RESTORE DEFFAULTS] and press the Menu/Select key.
2. Select desired mode and press the Menu/Select key.
3. [ARE YOU SURE?] is displayed.
4. By pressing the Menu/Select key, initialization starts. By pressing the Cancel key without pressing the Menu/Select key, the start of initialization can be cancelled.
5. The printer restarts and the hard disk is initialized. Once the initialization starts, it cannot be cancelled.

List of reset items 1

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
PAPER MENU	PAPER SOURCE	DEFAULT TRAY		—	Reset	Reset	TRAY2
		TRAY1	PAPER SIZE	—	Reset	Reset	Letter (A4)
			CUSTOM SIZE	—	Reset	Reset	WIDTH: 8.5 inches LENGTH: 11inches
				—	Reset	Reset	WIDTH:210mm LENGTH:297mm
			PAPER TYPE	—	Reset	Reset	PLAIN PAPER
		TRAY2	PAPER SIZE	—	Reset	Reset	Letter (A4)
			PAPER TYPE	—	Reset	Reset	PLAIN PAPER
		TRAY3	PAPER TYPE	—	Reset	Reset	PLAIN PAPER
		TRAY CHAINING		—	Reset	Reset	ON
		TRAY MAPPING		—	Reset	Reset	OFF
	DUPLEX			—	Reset	Reset	OFF
	COPIES			—	Reset	Reset	1
	COLLATE			—	Reset	Reset	OFF

*: Destination items. For details, see the page referenced.

List of reset items 2

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
QUALITY MENU	COLOR MODE			—	Reset	Reset	COLOR
	BRIGHTNESS			—	Reset	Reset	0%
	HALFTONE	IMAGE PRINTING		—	Reset	Reset	DETAIL
		TEXT PRINTING		—	Reset	Reset	LINE ART
		GRAPHICS PRINTING		—	Reset	Reset	DETAIL
	EDGE ENHANCE-MENT	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
	PCL SETTING	CONTRAST		—	Reset	Reset	0%
		IMAGE PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	PHOTOGRAPHIC
			RGB GRAY	—	Reset	Reset	COMPOSITE BLACK
		TEXT PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	VIVID
			RGB GRAY	—	Reset	Reset	BLACK AND GRAY
		GRAPHICS PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	VIVID
			RGB GRAY	—	Reset	Reset	BLACK AND GRAY
	PS SETTING	IMAGE PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	PHOTOGRAPHIC
			RGB GRAY	—	Reset	Reset	COMPOSITE BLACK
			DESTINATION PROF	—	Reset	Reset	AUTO
		TEXT PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	VIVID
			RGB GRAY	—	Reset	Reset	BLACK AND GRAY
			DESTINATION PROF	—	Reset	Reset	AUTO
		GRAPHICS PRINTING	RGB SOURCE	—	Reset	Reset	sRGB
			RGB INTENT	—	Reset	Reset	VIVID
			RGB GRAY	—	Reset	Reset	BLACK AND GRAY
			DESTINATION PROF	—	Reset	Reset	AUTO

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
QUALITY MENU	PS SETTING	SIMULATION	SIMULATION PROF	—	Reset	Reset	NONE
			SIMULATION INTENT	—	Reset	Reset	RELATIVE COLOR
			CMYK GRAY	—	Reset	Reset	COMPOSITE BLACK
	CALIBRATION	TONE CALIBRATION		—	Reset	Reset	ON
		CMYK DENSITY	CYAN	—	Reset	Reset	0
			MAGENTA	—	Reset	Reset	0
			YELLOW	—	Reset	Reset	0
			BLACK	—	Reset	Reset	0
	COLOR SEPARATION			—	Reset	Reset	OFF
MEMORY DIRECT	TYPE OF FILES			—	Reset	Reset	PDF,XPS

*: Destination items. For details, see the page referenced.

List of reset items 3

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
INTERFACE MENU	JOB TIMEOUT			—	Reset	Reset	15 seconds
	ETHERNET-TCP/IP	ENABLE		Reset	—	Reset	YES
		IP ADDRESS		Reset	—	Reset	000.000.000.000
		SUBNET MASK		Reset	—	Reset	000.000.000.000
		DEFAULT GATEWAY		Reset	—	Reset	000.000.000.000
		DHCP		Reset	—	Reset	ON
		BOOTP		Reset	—	Reset	OFF
		ARP/PING		Reset	—	Reset	OFF
		HTTP		Reset	—	Reset	YES
		FTP		Reset	—	Reset	YES
		TELNET		Reset	—	Reset	ENABLE
		BONJOUR		Reset	—	Reset	YES
		DYNAMIC DNS		Reset	—	Reset	NO
		IPP		Reset	—	Reset	YES
		RAW PORT	ENABLE	Reset	—	Reset	YES
			BIDIRECTIONAL	—	Reset	Reset	OFF
		SLP		Reset	—	Reset	YES
		SMTP		Reset	—	Reset	YES
		SNMP		Reset	—	Reset	YES

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
INTERFACE MENU	ETHERNET-TCP/IP	WSD PRINT		Reset	—	Reset	YES
		IPSEC		Reset	—	Reset	NO
		IP ADDRESS FILTER	ACCESS PERMISSION	Reset	—	Reset	DISABLE
			ACCESS REFUSE	Reset	—	Reset	DISABLE
		IPv6	ENABLE	Reset	—	Reset	YES
			AUTO SETTING	Reset	—	Reset	YES
	NETWARE			Reset	—	Reset	NO
	APPLE TALK			Reset	—	Reset	YES
	SPEED/DUPLEX			Reset	—	Reset	AUTO
	IEEE802.1X			Reset	—	Reset	NO
	MEMORY DIRECT			—	Reset	Reset	ENABLE

*: Destination items. For details, see the page referenced.

List of reset items 4

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
SYS DEFAULT MENU	LANGUAGE			—	Reset	Reset	ENGLISH
	EMULATION	DEF. EMULATION		—	Reset	Reset	AUTO
		POST-SCRIPT	WAIT TIMEOUT	—	Reset	Reset	0
			PS ERROR PAGE	—	Reset	Reset	OFF
			PS PROTOCOL	—	Reset	Reset	AUTO
			AUTO TRAPPING	—	Reset	Reset	AUTO
			BLACK OVERPRINT	—	Reset	Reset	AUTO
		PCL	CR/LF MAPPING	—	Reset	Reset	CR=CR LF=LF
			LINES PER PAGE	—	Reset	Reset	60
			FONT SOURCE/ FONT NUMBER	—	Reset	Reset	0
			FONT SOURCE/ PITCH SIZE (or POINT SIZE)	—	Reset	Reset	10.00
			FONT SOURCE/ SYMBOL SET	—	Reset	Reset	PC8
		XPS	DIGITAL SIGNATURE	—	Reset	Reset	DISABLE
			XPS ERROR PAGE	—	Reset	Reset	ON

Item				Reset Item			Initial Value
				RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
SYS DEFAULT MENU	PAPER	DEFAULT PAPER	PAPER SIZE	—	Reset	Reset	LETTER (A4)
			CUSTOM SIZE/ WIDTH	—	Reset	Reset	8.5 inches
			CUSTOM SIZE/ LENGTH	—	Reset	Reset	11.00 inches
			PAPER TYPE	—	Reset	Reset	PLAIN PAPER
		UNIT OF MEASURE		—	Reset	Reset	INCHES
	STARTUP OPTIONS	DO STARTUP PAGE		—	Reset	Reset	OFF
	AUTO CONTINUE			—	Reset	Reset	OFF
	HOLD JOB TIMEOUT			—	Reset	Reset	DISABLE
	ENERGY SAVER			—	Reset	Reset	ON
	ENERGY SAVER TIME			—	Reset	Reset	15 minutes
	MENU TIMEOUT			—	Reset	Reset	2 minutes
	LCD CONTRAST			—	Reset	Reset	0
	SECURITY	CHANGE PASSWORD		—	Reset	Reset	0000
		LOCK PANEL		—	Reset	Reset	OFF
	CLOCK	DATE		—	Reset	Reset	—
		TIME		—	Reset	Reset	—
		TIME ZONE		—	Reset	Reset	—
	ENABLE WARNING	PAPER EMPTY	TRAY 1	—	Reset	Reset	OFF
			TRAY 2	—	Reset	Reset	ON
			TRAY 3	—	Reset	Reset	ON
		TONER LOW		—	Reset	Reset	ON
		I-UNIT LOW		—	Reset	Reset	ON

List of reset items 5

Item		Reset Item			Initial Value
		RESTORE NETWORK	RESTORE PRINTER	RESTORE ALL	
PageScope Web Connection	Admin Password	—	Reset	Reset	administrator
	Refresh Rate	—	Reset	Reset	30 sec.
	Contact Name	—	Reset	Reset	KONICA MINOLTA Customer Support
	Contact Information	—	Reset	Reset	http://printer.konicaminolta.com/
	Contact Utility Link	—	Reset	Reset	http://pagescope.com/
	Corporate URL	—	Reset	Reset	http://printer.konicaminolta.com/
	Supplies and Accessories	—	Reset	Reset	http://www.q-shop.com/
	Product Help URL	—	Reset	Reset	http://printer.konicaminolta.com/
	Auto IP	Reset	—	Reset	DHCP
	WINS/NetBIOS Resolution	Reset	—	Reset	Checked
	** NetBIOS Name	Reset	—	Reset	MC4750-XXXXXX
	Domain/Workgroup	Reset	—	Reset	WORKGROUP
	Use DHCP	Reset	—	Reset	Checked
	IPP Config Printer Name	Reset	—	Reset	Blank
	IPP Config Printer Location	Reset	—	Reset	Blank

*: Destination items. For details, see the page referenced.
**: XXXXXX are the final 6 digits of the printer's MAC address.

10. SERVICE MODE

10.1 List of service mode

SERVICE MENU		Ref. Page
FUNCTION	PRINT	P.119
	COMP. CHECK	P.120
	SENSOR CHECK	P.121
TONER OUT MODE		P.122
IU YIELD SETTING		P.122

*1: Available only on magicolor 4750DN
*2: It will be displayed only when a USB memory device is installed.

10.2 Starting/Exiting

10.2.1 Starting procedure

NOTE

- **Make sure not to reveal the password of the service menu to any unauthorized person.**

A. Procedure 1

1. Display [SERVICE MENU] on the menu screen and press the Menu/Select key.
2. [ENTER PASSWORD] message is displayed.
3. Set first digit of password with the up key▲/down key▼ and press the right key▶.
4. Repeat the above procedures to set up to seventh digit of password.
   Enter “KMM4750” for service password.

NOTE

- **The service password needs to correspond to the product name.**

5. Press the Menu/Select key.

B. Procedure 2

1. Turn the power switch ON while pressing the up key▲ and the Menu/Select key at the power switch OFF.

NOTE

- **Continue to press the up key▲ and the Menu/Select key until “INITIALIZING” message appears on the control panel.**

2. When initializing is complete, the service menu appears.

NOTE

- **Password authentication is not required before starting to operate the service menu, however, once the service menu is closed, you need to enter the password to display the service menu again.**

C. Procedure 3

- If a service call message is on the display, perform the following steps, since the ordinary procedure may not be good for entering the service menu.

1. With the service call message on the display, hold down the Menu/Select key for 5 sec. or more.
2. Set first digit of password with the up key▲/down key▼ and press the right key▶.
3. Repeat the above procedures to set up to seventh digit of password.
   Enter “KMM4750” for service password.

Only the following menu items are, however, available if the service menu is accessed through the above steps.

SERIAL NUMBER, FIRMWARE VERSION, RESTORE PASSWORD, BK CLEAR,FIRMWARE UPDATE, SOFT SWITH, ENGINE DIPSW, FUNCTION

D. Exiting procedure

- Press the Cancel key.

10.3 SERIAL NUMBER

A. Use

- Displays the serial number of the machine.
- Use when maintaining and managing the machine.

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [SERIAL NUMBER] and press the Menu/Select key.
3. The serial number of the printer is displayed.

10.4 FIRMWARE VERSION

A. 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

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [FIRMWARE VERSION] and press the Menu/Select key.
3. Select desired firmware and press the Menu/Select key.
4. Version number of firmware is displayed.

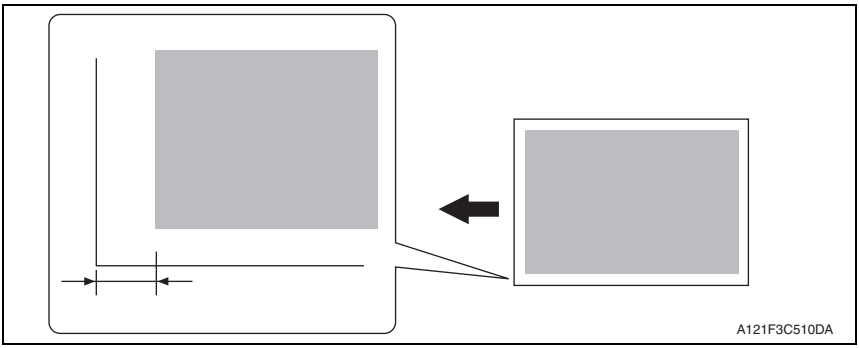
10.5 ALIGNMENT

10.5.1 TOP ADJUSTMENT

A. Use

- Adjusts the leading edge margin of media for single-sided printing.
- To correct a misaligned print image.

  PLAIN PAPER : Adjust the leading edge margin of plain paper.
  THICK : Adjust the leading edge margin of thick 1 paper.
  THICK2 : Adjust the leading edge of thick 2 paper
  ENVELOPE : Adjust the leading edge margin of envelope.



B. Procedure

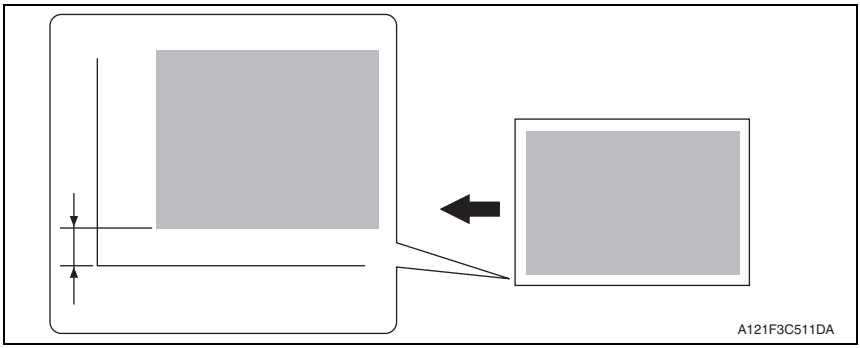
1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [TOP ADJUSTMENT] and press the Menu/Select key.
3. Select desired paper type and press the Menu/Select key.
4. Select desired adjustment amount with the up key▲/down key▼ and press the Menu/Select key.

- 15 to 15 (1 step: 0.2 mm)

10.5.2 LEFT ADJUSTMENT

A. Use

- Adjusts the left margin of media for single-sided printing.
- To correct a misaligned print image.
  LEFT ADJ TRAY 1: Adjust the left margin of paper fed from tray 1 (manual tray.)
  LEFT ADJ TRAY 2: Adjust the left margin of paper fed from tray 2.
  LEFT ADJ TRAY 3: Adjust the left margin of paper fed from tray 3.



B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [LEFT ADJUSTMENT] and press the Menu/Select key.
3. Select desired tray and press the Menu/Select key.
4. Select desired adjustment amount with the up key▲/down key▼ and press the Menu/Select key.

- 15 to 15 (1 step: 0.2 mm)

10.5.3 LEFT ADJ DUPLEX

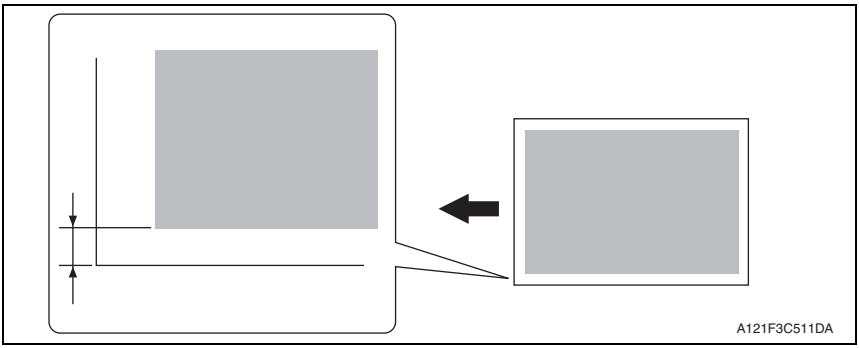
A. Use

- Adjusts the left margin of media for double-sided printing.
- To correct a misaligned print image.

  LEFT ADJ TRAY 1: Adjust the left margin of duplex print paper fed from tray 1 (manual tray.)

  LEFT ADJ TRAY 2: Adjust the left margin of duplex print paper fed from tray 2.

  LEFT ADJ TRAY 3: Adjust the left margin of duplex print paper fed from tray 3.



B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [LEFT ADJ DUPLEX] and press the Menu/Select key.
3. Select desired tray and press the Menu/Select key.
4. Select desired adjustment amount with the up key▲/down key▼ and press the Menu/Select key.

- 15 to 15 (1 step: 0.2 mm)

10.5.4 TRANSFER POWER-SIMPLEX PASS

A. Use

- Adjust the 2nd image transfer output (ATVC) on the single-sided pages for each media type.
- To use when the transfer failure at the trailing edge occurs.

B. Procedure

- The default setting is 0.

-8 to +7

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [TRANSFER POWER] and press the Menu/Select key.
3. Select [SIMPLEX PASS] and press the Menu/Select key.
4. Select desired media type with the up key▲/down key▼ and press the Menu/Select key.
5. Select desired setting value with the up key▲/down key▼ and press the Menu/Select key.

<Adjustment instructions>
To increase the ATVC value (in the direction of a foggier image), decrease the setting value.
To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.

10.5.5 TRANSFER POWER-MANUAL DUPLEX

A. Use

- Adjust the 2nd image transfer output (ATVC) on the manual duplexed pages for each media type.
- To use when the transfer failure at the trailing edge occurs.

B. Procedure

- The default setting is 0.

-8 to +7

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [TRANSFER POWER] and press the Menu/Select key.
3. Select [MANUAL DUPLEX] and press the Menu/Select key.
4. Select desired media type with the up key▲/down key▼ and press the Menu/Select key.
5. Select desired setting value with the up key▲/down key▼ and press the Menu/Select key.

<Adjustment instructions>
To increase the ATVC value (in the direction of a foggier image), decrease the setting value.
To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.

10.5.6 IMG ADJ THICK

A. Use

- To fine-adjust density of printed images of each color for thick paper.
- To change the density of the printed image for each color with thick paper.

B. Procedure

- The default setting is 0.

-5 to +5

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [IMG ADJ THICK] and press the Menu/Select key.
3. Select desired color with the up key▲/down key▼ and press the Menu/Select key.
4. Select desired setting value with the up key▲/down key▼ and press the Menu/Select key.

<Adjustment instructions>
Light color: increase the setting value
Dark color: decrease the setting value

10.5.7 IMG ADJ BLACK

A. Use

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

B. Procedure

- The default setting is 0.

-2 to +2

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [IMG ADJ BLACK] and press the Menu/Select key.
3. Select desired setting value with the up key▲/down key▼ and press the Menu/Select key.

<Adjustment instructions>
If the black is light, increase the setting value.
If the black is dark, decrease the setting value.

10.5.8 IMAGE ADJ PARAM

A. Use

- Adjusts the printer in case of an image quality problem (uneven density)
- To correct image quality problems (uneven density) due to the machine being operated at a high altitude.

B. Procedure

- The default setting is 0.

0 to 6

NOTE

- **When the setting has been changed, be sure to run a [QUALITY MENU] → [CALIBRATION] → [AIDC process].**

10.5.9 TEMPERATURE

A. Use

- To adjust the fusing heating temperature individually for each paper type so as to ensure good fusing performance that varies with varying 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 this function when curled paper, or paper misfeed as a result of the curled paper, occurs under varying environmental conditions or depending on the type of paper used.
  PLAIN PAPER : -10 °C to 0 °C (Step: 5 °C)
  THICK : -10 °C to 0 °C (Step: 5 °C)
  ENVELOPE : -10 °C to 0 °C (Step: 5 °C)

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [ALIGNMENT] → [TEMPERATURE] and press the Menu/Select key.
3. Select the type of paper and press the Menu/Select key.
4. Select desired setting value with the up key▲/down key▼ and press the Menu/Select key.

<Adjustment instructions>
If fusing performance is poor, increase the setting.
If wax streaks occur, decrease the setting.
If offset occur, decrease the setting.
If curling of the paper occurs, decrease the setting.

10.5.10 FUSER CONTROL

A. Use

- Sets the heater lamp lighting control so that it implements the flicker standards.
- To use when flickering from fluorescent light occurs.
  0: Not set flicker control
  1: Control flickering
  2: Not control flickering
  3: Undefined (When “3” is selected, it becomes “0: Not set flicker control.”)

B. Procedure

- The default setting is 0.

“0” to 3

10.5.11 AIDC MODE

A. Use

- Sets the frequency of image stabilization that is performed when the power switch is turned ON or the machine returns from sleep mode.
  Mode1: Always performs image stabilization when the main power switch is turned ON or the machine returns from sleep mode. (Standard mode)
  Mode2: Reduces the frequency of image stabilization that is performed when the main power switch is turned ON or the machine returns from sleep mode. (Low mode)

B. Procedure

- The default setting is MODE2.

MODE1 “MODE2”

10.5.12 THICK MODE

A. Use

- In order to prevent toner from clogging within the developer unit as a result of it being driven at half-speed, select the timing for driving the developer unit at full speed for a fixed length of time when thick paper is being fed.

  QUALITY MODE: While printing on thick paper, printing is periodically paused, and the developer unit is driven at full speed for a fixed length of time. Since printing is paused, the quality is not affected; however, a standby time of approximately 70 seconds occurs every 400 seconds or so of half-speed operation.

  SPEED MODE: While printing on thick paper, only the drive of the developer unit periodically switches to full speed for a fixed length of time. Since printing continues during full-speed drive, the print quality is slightly affected, however the standby time is short.

B. Procedure

- The default setting is QUALITY MODE.

"QUALITY MODE" SPEED MODE

10.5.13 FINE LINE ADJ

A. Use

- Adjust how fine lines are reproduced by changing the applied voltage (VC) to the electrostatic roller.

B. Procedure

- The default setting is 0.

-4 to 3

NOTE

- **The administrator can also make this setting. However, the adjustable range of the parameter is narrowed to -3 to 2.**

10.6 MAIN SCAN ADJUST

10.6.1 MAIN SCAN PAGE

A. Use

- Prints the test pattern used for the main scan adjustment.

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [MAIN SCAN ADJUST] → [MAIN SCAN PAGE] and press the Menu/Select key.
3. Select [PRINT], and press the Menu/Select key.
4. The test pattern is output.

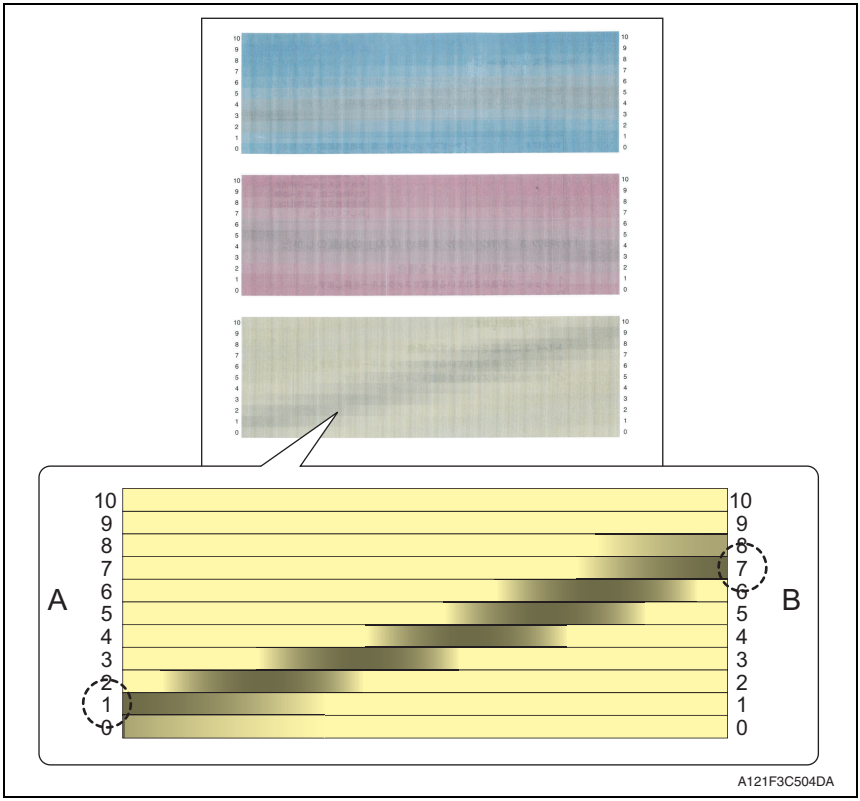
10.6.2 SCAN ADJUST VALUE

A. Use

- Adjusts magnification in the main scan direction.
- Use when replacing the PH unit.
- This adjustment is necessary when the adjustment values are cleared due to the replacement of the EEPROM on the print control board or other reasons.

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [MAIN SCAN ADJUST] → [MAIN SCAN PAGE] and press the Menu/Select key.
3. Select [PRINT], and press the Menu/Select key to print the test pattern.



4. Make adjustments so that the gray area on each color sample of the output test pattern becomes parallel to the main scan direction.
   Calculate the correction values for cyan, magenta, and yellow in the following way.

<1> Check the numbers indicated on the ends of A and B which correspond to the darkest black lines in the gray area of each color pattern.
(In the example of the yellow pattern, “1” is selected for the end of A and “7” is selected for the end of B.)

<2> The number indicated on the end of A minus the number on the end of B equals the correction value.
(In the example of the yellow pattern, the calculation is 1-7=-6. “-6” is the correction value.)

5. Call [SERVICE MENU] to the display.
6. Select [MAIN SCAN ADJUST] → [SCAN ADJUST VALUE] and press the Menu/Select key.
7. Select the color to be adjusted.
8. Select the correction value calculated in step 2 and press the Menu/Select key.
9. Enter the correction values for cyan, magenta, and yellow respectively.
10. Output the test pattern again to check the results of the adjustments.

- **Specification: The difference between the respective numbers indicated on the ends of A and B which correspond to the darkest black lines must be within 2 steps.**

10.7 PRINT MENU

10.7.1 MAINTENANCE INFO

A. 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 each color
Coverage (total) : Coverage rate for each color
Replace count (total) : Number of times IU, TC, transfer belt, transfer roller, and fuser unit have been replaced.
Imaging Unit Information : Information concerning the imaging unit
Toner Cartridge Information : Information concerning the toner cartridge

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [PRINT MENU] → [MAINTENANCE INFO] and press the Menu/Select key.
3. Select [PRINT] and press the Menu/Select key.

C. Process Caution Information

(1) List of the process caution information

BIT	Item	Status	
0	—	—	
1	—	—	
2	—	—	
3	Temperature/ humidity sensor failure	1	• No response is provided from the temperature/ humidity sensor.
		0	• Power switch OFF/ON, and normal image stabilization are complete besides the ones listed above.
4	—	—	
5	IDC Sensor failure	1	• IDC sensor output values are out of the specified range.
		0	• Right door or front cover open/close, power switch OFF/ON, and normal image stabilization are complete besides the ones listed above.
6	—	—	
7	—	—	
8	—	—	

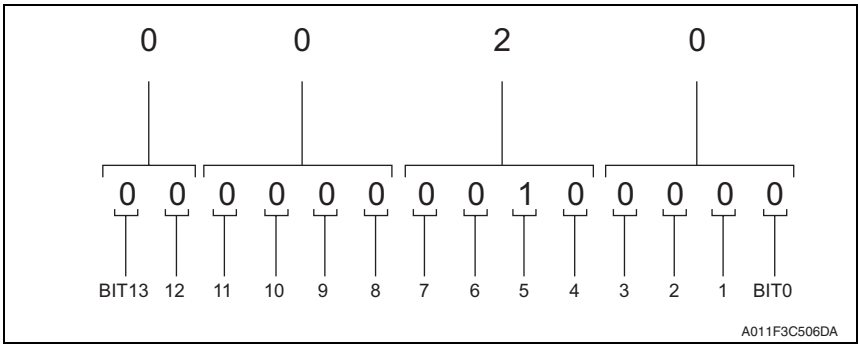
BIT	Item	Status	
9	—	—	
10	—	—	
11	Color Shift Test Pattern failure	1	• The number of points detected in the main scan direction is more or less than the specified value during main scan direction registration correction. • The number of points detected in the sub scan direction is more or less than the specified value during sub scan direction registration correction.
		0	• Right door or front cover open/close, power switch OFF/ON, and normal image stabilization are complete besides the ones listed above.
12	Color Shift Adjust failure	1	• The color shift amount is greater than the specified range during main scan direction registration correction. • The color shift amount is greater than the specified range during sub scan direction registration correction. • The skew correction amount is greater than the specified value.
		0	• Right door or front cover open/close, power switch OFF/ON, and normal image stabilization are complete besides the ones listed above.
13	—	—	

(2) 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 0x0020.

1. Convert four end digits “0020” of 0x0020 into the binary number (14 digits).
2. The BIT number is allocated in converted value “00000000100000.”
   (BIT0 to BIT13 is sequentially allocated from the first digit.)



3. In this case, BIT No. “5” corresponds to “1”. From the “PROCESS CAUTION INFORMATION”, IDC sensor failure can be detected.

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.

10.7.2 EVENT LOG

A. 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
  Fuser Unit : The history of replacing the fuser unit
  Transfer Belt : The history of replacing the transfer belt
  Second Trans : The history of replacing the transfer roller
  Toner Cartridge : The history of replacing the toner cartridge
  Imaging Unit : The history of replacing the print unit
  Trouble Counter : Trouble counting for each section

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [PRINT MENU] → [EVENT LOG] and press the Menu/Select key.
3. Select [PRINT] and press the Menu/Select key.

10.7.3 CONFIGURATION PG

A. 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.

  TOP ADJUSTMENT/LEFT ADJUSTMENT/LEFT ADJ DUPLEX/TRANSFER POWER/IMG ADJ THICK/IMG ADJ BLACK/IMAGE ADJ PARAM/TEMPERATURE/FUSER CONTROL//AIDC MODE/ ENGINE DIPSW/THICK MODE/FINE LINE ADJ/TONER OUT MODE/IU YIELD SETTING

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [PRINT MENU] → [CONFIGURATION PG] and press the Menu/Select key.
3. Select [PRINT] and press the Menu/Select key.

10.7.4 ELEMENT PAGE

A. Use

- To print the engine element data information.
- To check the element data.
- See the attached chart listed below for details.

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [PRINT MENU] → [ELEMENT PAGE] and press the Menu/Select key.
3. Select [PRINT] and press the Menu/Select key.

C. Engine element data information

Element data name	Description
Inside Humidity	• Displays the inside 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	
Fuser Heater 1 Temperature	• Displays the latest temperature on the middle of the heating roller (in 1 ºC increments).
Fuser Heater 2 Temperature	• Displays the latest temperature at the edges of the heating roller (in 1 ºC increments).
IDC Sensor 1 PS	• Shows the latest IDC data. • Range of output: 0V to 9.99V (in 0.01V increments)
IDC Sensor 1 P	
TONER LEVEL SENSOR C	• Displays the number of times the toner level sensor has detected an empty condition during one cycle of developer agitation. • Range of output: 0 to 200 (in increments of one time)
TONER LEVEL SENSOR M	
TONER LEVEL SENSOR Y	
TONER LEVEL SENSOR K	
VDC Volt C	• Displays the Vdc voltage of each color of toner. • Range of output: -1000V to 255V (in 1V increments)
VDC Volt M	
VDC Volt Y	
VDC Volt K	
VPP Volt C	• Displays the Vpp voltage of each color of toner. • Range of output: 700V to 2000V (in 1V increments)
VPP Volt M	
VPP Volt Y	
VPP Volt K	
VPP Volt Limit C	• Displays the limit value of Vpp voltage of each color of toner. • Range of output: 700V to 2000V (in 1V increments)
VPP Volt Limit M	
VPP Volt Limit Y	
VPP Volt Limit K	

Element data name	Description
Duty C	• Displays the duty ratio of each color of toner. • Range of output: 0% to 100.0% (in 0.1% increments)
Duty M	
Duty Y	
Duty K	
IDC Base Reflection 1	• Displays the IDC intensity adjustment value. • Range of output: 0 to 1023 (in 1 increments)
Trans Current 2	• Displays the latest second image transfer output value. • Range of output: -800V to 5000V (in 1V increments)

10.7.5 HALF TONE 64

A. Use

- Prints the halftone pattern with 25% level for CMYK respectively.
- To check the unevenness of the density and the pitch.

B. Procedure

1. Set the A4 or Letter paper on the tray.
2. Call [SERVICE MENU] to the display.
3. Select [PRINT MENU] → [HALF TONE 64] and press the Menu/Select key.
4. Select the desired color.
5. Select [PRINT] and press the Menu/Select key.

10.7.6 HALF TONE 128

A. Use

- Prints the halftone pattern with 50% level for CMYK respectively.
- To check the unevenness of the density and the pitch.

B. Procedure

1. Set the A4 or Letter paper on the tray.
2. Call [SERVICE MENU] to the display.
3. Select [PRINT MENU] → [HALF TONE 128] and press the Menu/Select key.
4. Select the desired color.
5. Select [PRINT] and press the Menu/Select key.

10.7.7 HALF TONE 256

A. Use

- Prints the halftone pattern with 100% level for CMYK respectively.
- To check the unevenness of the density and the pitch.

B. Procedure

1. Set the A4 or Letter paper on the tray.
2. Call [SERVICE MENU] to the display.
3. Select [PRINT MENU] → [HALF TONE 256] and press the Menu/Select key.
4. Select the desired color.
5. Select [PRINT] and press the Menu/Select key.

10.7.8 GRADATION

A. Use
- Prints the gradation pattern.
- To check the gradation reproductively.

B. Procedure
1. Set the A4 or Letter paper on the tray.
2. Call [SERVICE MENU] to the display.
3. Select [PRINT MENU] → [GRADATION] and press the Menu/Select key.
4. Select [PRINT] and press the Menu/Select key.

10.8 SUPPLIES

10.8.1 REPLACE-TRANS. BELT

A. Use
- Resets the transfer belt unit counter.
- To use when the transfer belt unit has been replaced.

B. Procedure
1. Call [SERVICE MENU] to the display.
2. Select [SUPPLIES] → [REPLACE] → [TRANS. BELT], and select “YES.”
3. Press the Menu/Select key and reset the counter.

10.8.2 REPLACE-TRANS. ROLLER

A. Use
- Resets the transfer roller unit counter.
- To use when the transfer roller unit has been replaced.

B. Procedure
1. Call [SERVICE MENU] to the display.
2. Select [SUPPLIES] → [REPLACE] → [TRANS. ROLLER], and select “YES.”
3. Press the Menu/Select key and reset the counter.

10.8.3 REPLACE-FUSER UNIT

A. Use
- Resets the fusing unit counter.
- To use when the fusing unit has been replaced.

B. Procedure
1. Call [SERVICE MENU] to the display.
2. Select [SUPPLIES] → [REPLACE] → [FUSER UNIT], and select “YES”.
3. Press the Menu/Select key and reset the counter.

10.9 RESTORE PASSWARD

A. Use

- Reinitializes the user password used for the [INTERFACE MENU / SYSTEM DEFAULT MENU / MAINTENANCE MENU] set by user.
- To reinitialize the user password when the menu cannot be opened even when entering the correct password.
- To reinitialize the user password when the user forgets the password.
  YES : Initialize password
  NO : Not initialize password

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [RESTORE PASSWORD] and press the Menu/Select key.
3. Select [YES] and press the Menu/Select key.
4. Return the password set at [INTERFACE MENU / SYSTEM DEFAULT MENU / MAINTENANCE MENU] to [0000.]

- The default setting is NO.

YES/“NO”

10.10 BK CLEAR

A. Use

- To clear engine information backup data.
- Use when the engine information backup data is cleared.
- Use when the MFP board or the printer control board is replaced.
  Yes: Executes data clear
  No: Does not execute data clear

B. Procedure

- The default setting is NO.

YES “NO”

10.11 QUICK SETTING

10.11.1 UPDATE SETTING

A. Use

- To update printer settings according to the printer setting definition file stored in the USB memory device.
- Printer definition files are saved according to various setting patterns and a pattern the most appropriate for a specific need can be selected promptly.

B. Procedure

1. Set the USB memory device.
2. Call [SERVICE MENU] to the display.
3. Select [QUICK SETTING] → [UPDATE SETTING].
4. The "/setup/*.ini" files in the USB memory device appear on the display.

NOTE

- **The directory name (setup) and file extension (*.ini) are fixed. The definition file with any other name or file extension is not recognized.**
- **Up to 20 files can be displayed.**

5. Using the up key ▲ or down key ▼, select the definition file to be updated and press the Menu/Select key.
6. Select [EXECUTE] and press the Menu/Select key.
7. The selected definition file is loaded and the settings are updated.
   The message "PROCESSING" appears during the updating procedure.
8. When the updating procedure is completed, the printer gives a message notifying that the procedure is completed.

NOTE

- **The printer is automatically restarted, if an item that calls for a restart of the printer is included in the updated items.**

10.11.2 BACKUP SETTING

A. Use

- To store, as a definition file, the current printer setting information in the USB memory device.
- Printer definition files are saved according to various setting patterns and a pattern the most appropriate for a specific need can be selected promptly.

B. Procedure

1. Set the USB memory device.
2. Call [SERVICE MENU] to the display.
3. Select [QUICK SETTING] → [BACKUP SETTING].
4. Select [EXECUTE] and press the Menu/Select key.
5. The definition file with a file name of "SETUP**.ini" is saved in the "/setup" folder of the USB memory device.
   The message "PROCESSING" appears while the definition file is being saved.

NOTE

- **Any number from 01 to 20 takes the place of " ** " in the file name.**
- **Up to 20 definition files can be saved.**
  If the USB memory device already contains 20 files, the maximum number of files saved is exceeded and any new file cannot be saved.

6. When the saving procedure is completed, the printer gives a message notifying that the procedure is completed.

10.12 FIRMWARE UPDATE

10.12.1 VIEW INFORMATION

A. Use

- To display the firmware information stored in the USB memory device.
- The following information is displayed:
  Model name (magicolor 4750) of firmware data
  Version information of firmware data

B. Procedure

1. Set the USB memory device.
2. Call [SERVICE MENU] to the display.
3. Select [FIRMWARE UPDATE] and press the Menu/Select key.
4. Select the specific type of firmware data to be upgraded and press the Menu/Select key.
5. Select [VIEW INFORMATON] and press the Menu/Select key.

NOTE

- **An error message appears if the selected data is not of the appropriate data format.**

10.12.2 EXECUTE

A. Use

- To upgrade firmware using the USB memory device.
- Use for upgrading firmware.

B. Procedure

- For details, see “Firmware rewriting.”
  See P.23

10.13 SOFT SWITCH

- Not used.

10.14 ENGINE DIPSW

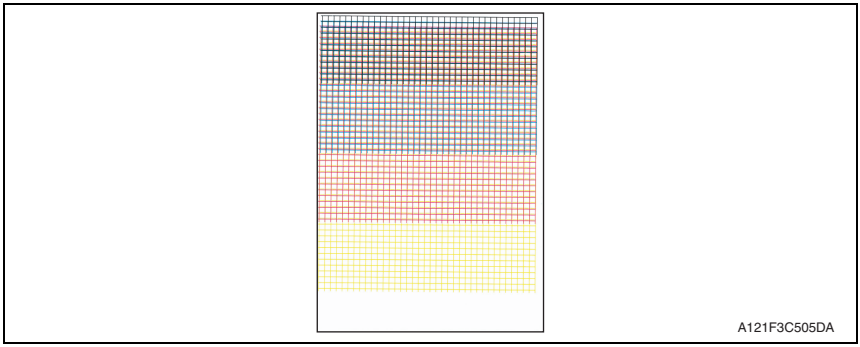
- Not used.

10.15 FUNCTION

10.15.1 PRINT-TEST PRINT A4/TEST PRINT LETTER

A. Use

- Prints the test pattern for the image adjustment.
- Use when adjusting skew, registration, and magnification.



B. Procedure

1. Set plain paper of A4 or Letter size in the tray1.

NOTE

- **To output the test pattern, the paper feed is only from the tray1.**

2. Call [SERVICE MENU] to the display.
3. Select [FUNCTION]→[PRINT]→[TEST PRINT A4] or [TEST PRINT LETTER].
4. Select [EXECUTE], and press the Menu/Select key.
5. The test pattern is output.

10.15.2 COMP. CHECK

A. Use

- Checks the operation of each electrical component.
- The electrical components which can be checked are as follows.

Name	Electric parts name	Symbol
LV FAN (H-S)	DC power supply fan motor (High speed)	FM10
DUP FAN (H-S)	Cooling fan motor (High speed)	FM11
DUP FAN (M-S)	Cooling fan motor (Half speed)	
POLYGON MOTOR	Polygon motor	M5
TRAY 3 FEED MOTOR	Tray 3 media feed motor	M1
COLOR PC MOTOR	Color PC drum motor	M4
DEV MOTOR K	Developing motor (reverse rotation)	M1
DEV MOTOR YMCK	Developing motor (normal rotation)	M1
TRAY 2 FEED CLUTCH	Tray 2 media feed clutch	CL1
TRAY 1 FEED CLUTCH	Tray 1 media feed clutch	CL2
SYNC ROLLER CLUTCH	Registration clutch	CL3
2ND TRANS CLUTCH	2nd transfer release solenoid	SD2
1ST TRANS CLUTCH	1st transfer release solenoid	SD1
TRAY 3 FEED CLUTCH	Tray 3 media feed clutch	CL1
TONER CLUTCH Y	Toner supply clutch/Y	CL4
TONER CLUTCH M	Toner supply clutch/M	CL5
TONER CLUTCH C	Toner supply clutch/C	CL6
TONER CLUTCH K	Toner supply clutch/K	CL7
DUP NORMAL CLUTCH *1	Switchback roller feed clutch	CL11
DUP REV CLUTCH *1	Switchback roller reverse clutch	CL12
DUP FEED CLUTCH *1	Duplex conveyance roller clutch	CL13
MAIN MOTOR	Main motor	M2

*1: magicolor 4750DN only.

NOTE

- **Any component does not operate in the event of jam or when a cover is open.**
- **When making the developing motor or the registration clutch driven, be sure to install the waste toner bottle.**

B. Procedure

1. Call [SERVICE MENU] to the display.
2. Select [Function]→[Comp. Check].
3. Select the electrical component of which operation is checked.
4. Select [EXECUTE], and press the Menu/Select key.
   The corresponding component starts to operate.
5. If the component is the one which can be stopped during its operation, you can select [STOP] to stop the operation.

NOTE

- **When the COMP. CHECK function has been executed, turn OFF the power switch and reboot the machine.**

10.15.3 SENSOR CHECK

A. 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.
- 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.

NOTE

- **When the SENSOR CHECK function has been executed, turn OFF the power switch and reboot the machine.**

B. Sensor check list

Symbol	Panel display	Part/signal name	Operation characteristics/panel display	
			ON	OFF
PS2	TRAY 2 EMPTY	Tray2 media empty sensor	Paper present	Paper not present
PS3	TRAY 1 EMPTY	Tray1 media empty sensor	Paper present	Paper not present
PS1	TRAY 3 EMPTY	Tray3 media empty sensor	Paper present	Paper not present
PS5	SYNC ROLLER	Registration sensor	Paper present	Paper not present
PS6	PAPER LOOP	Loop detection sensor	Paper present	Paper not present
PS8	EXIT	Exit sensor	Paper present	Paper not present
PS7	PAPER FULL	Tray media full sensor	Paper present	Paper not present
PS9	DUPLEX *1	Duplex conveyance sensor	Paper present	Paper not present
PS3	TRAY 3 FEEDER	Tray3 media feed sensor	Paper present	Paper not present
PS17	1ST TRANS	1st transfer release sensor	Engaged	Released
PS1	TRAY 2 SET	Tray2 set sensor	Set	Unset
SW1	TRAY 3 SIZE 1	Tray3 media size switch	ON	OFF
SW1	TRAY 3 SIZE 2	Tray3 media size switch	ON	OFF
SW1	TRAY 3 SIZE 3	Tray3 media size switch	ON	OFF
PS12	WASTE TONER	Waste toner near full sensor	Full	Not full

*1: magicolor 4750DN only.

10.16 TONER OUT MODE

A. Use

- Sets whether or not to enable monochrome print when the toner cartridge/Y,M,C becomes empty.
  MODE1: Enables monochrome print.
  MODE2: Disables monochrome print.

B. Procedure

- The default setting is MODE1.

"MODE1"/MODE2

10.17 IU YIELD SETTINGS

A. Use

- Sets the life detection timing of the imaging unit.
  STANDARD : Detect the imaging unit life (prohibition of printing) as the specification value.
  EXTENSION : Change the threshold value of the imaging unit life (prohibition of printing) detection, and extend the detection timing.

	STANDARD	EXTENSION
Life (prohibition of printing) threshold value (consumption rate)	105 %	150 %

B. Procedure

- The default setting is STANDARD.

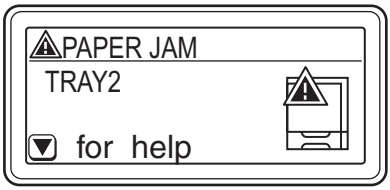
"STANDARD"/EXTENSION

TROUBLESHOOTING

11. JAM DISPLAY

11.1 Misfeed display

- When a media misfeed occurs a message is displayed on the control panel.



A0VDF4E525DA

Display		Misfeed location	Misfeed processing location	Action
LCD 1	LCD 2			
PAPER JAM	FUSER/EXIT	• Fusing/exit section	• Right side cover • Fuser unit	P.126
	SECOND TRANS	• Transfer section	• Right side cover	P.127
	VERTICAL TRANS	• Vertical transport	• Right side cover • Tray3 right side cover	P.129
	DUPLEX1 *1	• Duplex media feed section	• Duplex door	P.132
	DUPLEX2 *1	• Duplex transport section		P.133
	TRAY1	• Tray1 media feed	• Manual feed tray • Right side cover	P.128
	TRAY2	• Tray2 media feed	• Tray2 • Right side cover	P.129
	TRAY3 *2	• Tray3 media feed • Vertical Transport	• Tray3 right side cover	P.130 P.131
Service call: F001		• Media misfeed in control logic	—	P.134

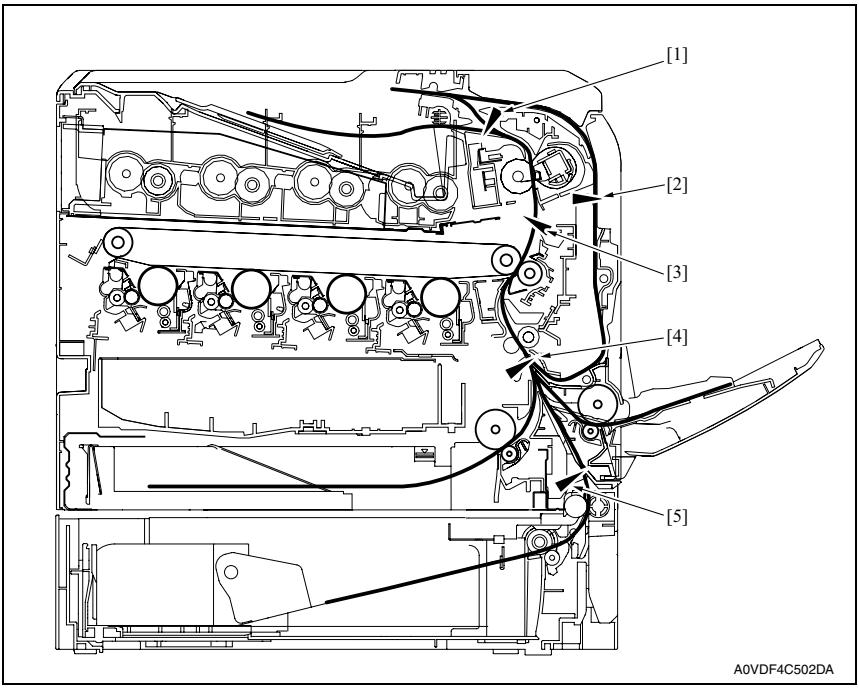
*1: magicolor 4750DN only
*2: Only when the optional lower feeder unit is mouted.

11.2 Misfeed display resetting procedure

- Open the relevant cover, clear the sheet of misfed media, and close the cover.
- Turn the power switch OFF and ON.

11.3 Sensor layout

- magicolor 4750DN with the optional lower feeder unit.



[1] Exit sensor (PS8)
[2] Duplex conveyance sensor (PS9) *1
[3] Loop detection sensor (PS6)
[4] Registration sensor (PS5)
[5] Media feed sensor (PS3) *2

*1: magicolor 4750DN only
*2: Only when the optional lower feeder unit is mouted.

11.4 Solution

11.4.1 Initial check items

A. When a media misfeed occurs, first make checks of the following initial check items.

Check item	Action
Does media meet product specifications?	• Change media.
Is media curled, wavy, or damp.	• Change media. • Instruct user in correct media storage.
Is a foreign matter present along the media path, or is the media path deformed or worn?	• Clean or change the media path.
Are rolls/rollers dirty, deformed, or worn?	• Clean or change the defective roll/roller.
Are the edge guide and trailing edge stop at correct position to accommodate the media?	• Set as necessary.
Are actuators found operational as checked for correct operation?	• Correct or change the defective actuator.

11.4.2 Misfeed at fusing/exit section

A. Detection timing

Type	Description
Detection of misfeed at fusing/ exit section	• The exit sensor (PS8) is not blocked even after the lapse of a given period of time after the media has unblocked the exit sensor (PS8). • The exit sensor (PS8) is blocked even before the lapse of a given period of time after the media has unblocked the exit sensor (PS8).
Detection of media left in fusing/exit section	• The exit sensor (PS8) is unblocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant electrical parts	
Exit sensor (PS8) Duplex conveyance roller clutch (CL13)	Printer control board (PRCB) Main motor (M2)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS8-PRCB PJ15 for proper connection and correct as necessary.	-	-
5	Check the connector between CL13-relay CN22-PRCB PJ15 for proper connection and correct as necessary.	-	-
6	PS8 sensor check	PRCB PJ15-9 (ON)	H-15
7	CL13 operation check	PRCB PJ15-5 (REM)	C-7
8	M2 operation check	PRCB PJ11-10 to 13	C-15
9	Change PRCB.	-	-

11.4.3 Misfeed at transfer section

A. Detection timing

Type	Description
Detection of misfeed at transfer section	• The registration sensor (PS5) is not blocked even after the lapse of a given period of time after the registration roller driving is started. • The media does not unblock the exit sensor (PS8) even after the lapse of a given period of time after the registration roller driving is started.
Detection of media left in transfer section	• The registration sensor (PS5) is unblocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset. • The loop detection sensor (PS6) is unblocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant electrical parts	
Registration sensor (PS5) Exit sensor (PS8) Loop detection sensor (PS6)	Printer control board (PRCB) Main motor (M2) Loop detection clutch (CL8)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS5-PRCB PJ23 for proper connection and correct as necessary.	-	-
5	Check the connector between PS6-PRCB PJ24 for proper connection and correct as necessary.	-	-
6	Check the connector between PS8-PRCB PJ15 for proper connection and correct as necessary.	-	-
7	Check the connector between CL8-relay CN2-PRCB PJ7 for proper connection and correct as necessary.	-	-
8	PS5 sensor check	PRCB PJ23-3 (ON)	K-15
9	PS8 sensor check	PRCB PJ15-9 (ON)	H-15
10	PS6 sensor check	PRCB PJ24-3 (ON)	C-7
11	CL8 operation check	PRCB PJ7-2 (REM)	C-15
12	M2 operation check	PRCB PJ11-10 to 13	C-15
13	Change PRCB.	-	-

11.4.4 Misfeed at tray1 media feed section

A. Detection timing

Type	Description
Detection of tray 1 media feed section	• The media does not unblock the registration sensor (PS5) even after the lapse of a given period of time after the tray1 media feed clutch (CL2) is turned ON.

B. Action

Relevant electrical parts	
Registration sensor (PS5) Tray1 media feed clutch (CL2)	Printer control board (PRCB) Main motor (M2)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS5-PRCB PJ23 for proper connection and correct as necessary.	-	-
5	Check the connector between CL2-PRCB PJ16 for proper connection and correct as necessary.	-	-
6	PS5 sensor check	PRCB PJ23-3 (ON)	K-15
7	CL2 operation check	PRCB PJ16-7 (REM)	B-7
8	M2 operation check	PRCB PJ11-10 to 13	C-15
9	Change PRCB.	-	-

11.4.5 Misfeed at tray 2 media feed section

A. Detection timing

Type	Description
Detection of misfeed at tray 2 media feed section	• The media does not unblock the registration sensor (PS5) even after the lapse of a given period of time after the tray2 media feed clutch (CL1) is turned ON.

B. Action

Relevant electrical parts	
Registration sensor (PS5) Tray2 media feed clutch (CL1)	Printer control board (PRCB) Main motor (M2)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS5-PRCB PJ23 for proper connection and correct as necessary.	-	-
5	Check the connector between CL1-PRCB PJ16 for proper connection and correct as necessary.	-	-
6	PS5 sensor check	PRCB PJ23-3 (ON)	K-15
7	CL1 operation check	PRCB PJ16-2 (REM)	A-7
8	M2 operation check	PRCB PJ11-10 to 13	C-15
9	Change PRCB.	-	-

11.4.6 Misfeed at tray 3 media feed section

A. Detection timing

Type	Description
Detection of misfeed at tray 3 media feed section	• The media does not unblock the media feed sensor (PS3) even after the lapse of a given period of time after the media feed clutch (CL1) is turned ON.
Detection of media left in tray 3 media feed section	• The media feed sensor (PS3) is unblocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant electrical parts	
Media feed sensor (PS3) Media feed clutch (CL1)	Printer control board (PRCB) PC control board (PCCB) Media feed motor (M1)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M1-PCCB PJ3 for proper connection and correct as necessary.	-	-
3	Check the M1 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS3-PCCB PJ5 for proper connection and correct as necessary.	-	-
5	Check the connector between CL1-relay CN57-PCCB PJ15 for proper connection and correct as necessary.	-	-
6	PS3 sensor check	PCCB PJ5-3 (ON)	I-2
7	CL1 operation check	PCCB PJ5-8 (REM)	I-2
8	M1 operation check	PCCB PJ3-4 to 8	K-2
9	Check the connector between PCCB PJ1, PJ2-relay CN53, CN70-PRCB PJ25 for proper connection and correct as necessary.	-	-
10	Change PCCB.	-	-
11	Change PRCB.	-	-

11.4.7 Misfeed at tray 3 vertical conveyance section

A. Detection timing

Type	Description
Detection of misfeed at tray 3 vertical conveyance section	• The media does not unblock the registration sensor (PS5) or the upper tray's media feed sensor (PS3) even after the lapse of a given period of time after the media has unblocked the media feed sensor (PS3). • The media does not block the media feed sensor (PS3) even after the lapse of a given period of time after the media has unblocked the media feed sensor (PS3).

B. Action

Relevant electrical parts	
Media feed sensor (PS3) Media feed clutch (CL1) Registration sensor (PS5)	Printer control board (PRCB) PC control board (PCCB) Media feed motor (M1)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Initial check items	-	-
2	Check the connector between M1-PCCB PJ3 for proper connection and correct as necessary.	-	-
3	Check the M1 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS5-PRCB PJ23 for proper connection and correct as necessary.	-	-
5	Check the connector between PS3-PCCB PJ5 for proper connection and correct as necessary.	-	-
6	Check the connector between CL1-relay CN57-PCCB PJ15 for proper connection and correct as necessary.	-	-
7	Check the connector between PCCB PJ1, PJ2-relay CN53, CN70-PRCB PJ25 for proper connection and correct as necessary.	-	-
8	PS3 sensor check	PCCB PJ5-3 (ON)	I-2
9	PS5 sensor check	PRCB PJ23-3 (ON)	K-15
10	CL1 operation check	PCCB PJ5-8 (REM)	I-2
11	M1 operation check	PCCB PJ3-4 to 8	K-2
12	Change PCCB.	-	-
13	Change PRCB.	-	-

11.4.8 Misfeed at duplex media transport section (magicolor 4750DN only)

A. Detection timing

Type	Description
Detection of misfeed at duplex media transport section	• The duplex conveyance sensor (PS9) is not blocked even after the lapse of a given period of time after the media has unblocked PS9. • The duplex conveyance sensor (PS9) is not unblocked even after the lapse of a given period of time after the media has blocked the exit sensor (PS8).
Detection of media left at duplex media transport section	• The duplex conveyance sensor (PS9) is unblocked when the power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Exit sensor (PS8) Duplex conveyance sensor (PS9) Duplex conveyance roller clutch (CL13)	Printer control board (PRCB) Main motor (M2)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS8-PRCB PJ15 for proper connection and correct as necessary.	-	-
5	Check the connector between PS9-PRCB PJ14 for proper connection and correct as necessary.	-	-
6	Check the connector between CL13-relay CN20-PRCB PJ15 for proper connection and correct as necessary.	-	-
7	PS8 sensor check	PRCB PJ15-9 (ON)	H15
8	PS9 sensor check	PRCB PJ14-3 (ON)	B-7
9	CL13 operation check	PRCB PJ15-5 (REM)	C-7
10	M2 operation check	PRCB PJ11-10 to 13	C-15
11	Change PRCB.	-	-

11.4.9 Misfeed at duplex media feed section (magicolor 4750DN only)

A. Detection timing

Type	Description
Detection of misfeed at duplex media feed section	• The media does not unblock the registration sensor (PS5) even after the lapse of a given period of time after the media feed sequence has been started at the duplex.

B. Action

Relevant Electrical Parts	
Registration sensor (PS5) Duplex conveyance roller clutch (CL13)	Printer control board (PRCB) Main motor (M2)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items	-	-
2	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
3	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
4	Check the connector between PS5-PRCB PJ23 for proper connection and correct as necessary.	-	-
5	Check the connector between CL13-relay CN20-PRCB PJ15 for proper connection and correct as necessary.	-	-
6	PS5 sensor check	PRCB PJ23-3 (ON)	K-15
7	CL13 operation check	PRCB PJ15-5 (REM)	C-7
8	M2 operation check	PRCB PJ11-10 to 13	C-15
9	Change PRCB.	-	-

11.4.10 Media misfeed in control logic

A. Detection timing

Type	Description
Detection of controller JAM	• A duplex print job is sent with the number of pages that goes beyond the maximum number of pages allowed to be in the printer for the selected media type. • When trying to feed duplex media though there is no media to be fed to the duplex print unit. • When printing is directed with the duplex print unit selected as a media source and an exit media set to be fed to the duplex unit. • While two sheets of media are in the printer, printing is directed with normal media feed settings other than a duplex media feed setting. • In duplex printing, a size error occurs.

B. Action

Relevant electrical parts	
Print control board (PRCB)	MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check printer driver settings.	-	-
2	Change PRCB.	-	-
3	Change MFPB.	-	-

12. PROCESS CAUTION INFROMATION

12.1 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 MENU]→[PRINT MENU]→[MAINTENANCE INFO].
See P.110
- 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.

12.2 List

- If an image stabilization fault occurs, the process caution information is provided.

Item	
Temperature/ humidity sensor failure	• No response is provided from the temperature/ humidity sensor.
IDC Sensor failure	• IDC sensor output values are out of the specified range.
Color Shift Test Pattern failure	• The number of points detected in the main scan direction is more or less than the specified value during main scan direction registration correction. • The number of points detected in the sub scan direction is more or less than the specified value during sub scan direction registration correction.
Color Shift Adjust failure	• The color shift amount is greater than the specified range during main scan direction registration correction. • The color shift amount is greater than the specified range during sub scan direction registration correction. • The skew correction amount is greater than the specified value.

12.3 Solution

12.3.1 Temperature/ humidity sensor failure

Relevant parts	
Temperature/ humidity sensor (TEM/HUMS)	Printer control board (PRCB)

Step	Action
1	Check the connector between TEM/HUMS-PRCB PJ20 for proper connection and correct as necessary.
2	Change TEM/HUMS.
3	Change PRCB.

12.3.2 IDC sensor failure

Relevant parts	
IDC sensor (IDC) Transfer belt unit	Printer control board (PRCB) High voltage unit (HV)

Step	Action
1	Wipe clean the surface of the transfer belt with a soft cloth, if it is dirty.
2	Change the image transfer belt unit if the transfer belt is damaged.
3	Reinstall or reconnect IDC, sensor shutter or connector, if it is installed or connected improperly.
4	Clean IDC if it is dirty.
5	Check the HV connector for proper connection and correct as necessary.
6	Change IDC.
7	Change PRCB.

12.3.3 Color regist test pattern failure

Relevant parts	
Transfer belt unit PH unit	Printer control board (PRCB) MFP board (MFPB)

Step	Action
1	Wipe clean the surface of the transfer belt with a soft cloth, if it is dirty.
2	Change the image transfer belt unit if the transfer belt is damaged.
3	Change PH unit.
4	Change PRCB.
5	Change MFPB.

12.3.4 Color regist adjust failure

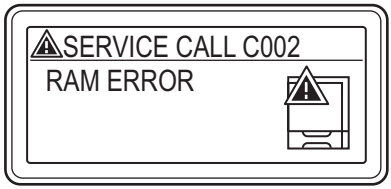
Relevant parts	
IDC sensor (IDC)	Printer control board (PRCB)

Step	Action
1	Slide out the imaging unit and reinstall it in position.
2	Reinstall or reconnect IDC if it is installed or connected improperly.
3	Change IDC.
4	Change PRCB.

13. MALFUNCTION CODE

13.1 Trouble codes (service call)

- The printer's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code and maintenance call mark on the control panel.



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13.1.1 Trouble code list

LCD1 (service call ID)	LCD2/LCD3 (error description)	Item	Detection timing
0010	P MOTOR 1	Color PC drum motor malfunction	• The color PC drum motor does not rotate evenly even after the lapse of a given period of time while it is being started. • The motor lock signal remains HIGH for a given period of consecutive time while the color PC drum motor is being rotated.
0017	P MOTOR 2	Main motor malfunction	• The main motor does not rotate evenly even after the lapse of a given period of time while it is being started. • The motor lock signal remains HIGH for a given period of consecutive time while the main motor is being rotated.
0018	D MOTOR 2	Developing motor malfunction	• The developing motor does not rotate evenly even after the lapse of a given period of time while it is being started. • The motor lock signal remains HIGH for a given period of consecutive time while the developing motor is being rotated.
004A	DUPLEX FAN	Cooling fan motor malfunction	• The cooling fan motor does not rotate evenly even after the lapse of a given period of time while it is being started. • The motor lock signal remains HIGH for a given period of consecutive time while the cooling fan motor is being rotated.
004E	POWER FAN	DC power supply fan motor malfunction	• The DC power supply fan motor does not rotate evenly even after the lapse of a given period of time while it is being started. • The motor lock signal remains HIGH for a given period of consecutive time while the DC power supply fan motor is being rotated.

LCD1 (service call ID)	LCD2/LCD3 (error description)	Item	Detection timing
0062	TRAY3 FEED MOT	Tray 3 media feed motor malfunction	• The motor lock signal remains HIGH for a given period of consecutive time while the media feed motor is being rotated.
0094	XFER DETACH 2	2nd image transfer pressure / retraction failure	• The IDC sensor does not come into the condition where the level detection is available (retracted position = IDC sensor shutter is open) within a given period of time after the 2nd transfer release solenoid has turned ON. • The IDC sensor does not come into the condition where the level detection is not available (pressed position = IDC sensor shutter is closed) within a given period of time after the 2nd transfer release solenoid has turned ON.
0096	XFER DETACH 1	1st image transfer pressure / retraction failure	• The 1st transfer release sensor is not activated (retracted position) within a given period of time after the 1st transfer release solenoid has turned ON. • The 1st transfer release sensor is not deactivated (pressed position) within a given period of time after the 1st transfer release solenoid has turned ON.
0300	POLYGON MOT	Polygon motor malfunction	• The polygon motor does not rotate evenly even after the lapse of a given period of time after it has been started. • The motor lock signal remains HIGH for a given period of consecutive time while the polygon motor is being rotated.
0310	LASER ERROR	Laser malfunction	• The SOS signal is not detected within a given period of time after the output of the laser has been started.
0500	FUSER ERROR	Heating roller warm-up failure	• The thermistor /1 does not detect the specified temperature and the warm-up cycle is not completed even after the lapse of a given period of time after the cycle has been started.
0502	TERMISTOR1	Thermistor open-circuit failure	• The temperature detected by the thermistor/1 does not reach a predetermined level even after the lapse of a given period time after the warm-up cycle has been started.
0503	TERMISTOR2	Thermistor resistance failure	• The difference between the temperature detected by thermistor/1 and that detected by thermistor/2 exceeds a predetermined value.
0510	FUSER ERROR	Abnormally low heating roller temperature	• The temperature detected by the thermistor /1 remains lower than the specified value for a given period of time or longer.
0520	FUSER ERROR	Abnormally high heating roller temperature	• The temperature detected by the thermistor /1 remains higher than the specified value for a given period of time or longer. • The heater lamp remains ON for a given period of time or longer.

LCD1 (service call ID)	LCD2/LCD3 (error description)	Item	Detection timing
0F52	TE SENSOR Y	Toner level sensor /Y malfunction	• An error occurs on the toner level sensor for each color.
0F53	TE SENSOR M	Toner level sensor /M malfunction	
0F54	TE SENSOR C	Toner level sensor /C malfunction	
0F55	TE SENSOR K	Toner level sensor /K malfunction	
13DD	EEPROM BK	Backup data error	• The engine counter data and the controller counter data are inconsistent.
13E2	FLASH WRITE	Flash ROM write error	• Flash ROM writing is found faulty during a check.
13E3	FLASH DEVICE	Flash ROM device fault	• An erase error occurs during erasing of data in flash ROM.
13F0	ENGINE ERR	Engine control failure	• An undefined malfunction occurs in the engine section (PRCB, etc.). While the machine is operating, if it detects defective conditions, e.g. the next print is not started after the lapse of a given period of time, it stops operating and the trouble code is displayed.
3C00	EEPROM1	Trouble related to security	• Contact the responsible people of KONICA MINOLTA when not returning in power switch OFF/ON.
3C10	EEPROM2		
C002	RAM ERROR	RAM error at startup (standard memory)	• RAM error at standard memory is detected during printer start-up.
C003	RAM ERROR	RAM error at startup (expanded memory)	• RAM error at expanded memory is detected during printer start-up.
C013	H/W ADDRESS	MAC address error at startup	• Invalid MAC address is detected during printer start-up.
C015	BOOT ROM	Boot ROM error at startup	• Boot ROM error is detected during printer start-up.
C025	CONTROLLER ROM	Controller ROM error (Configuration information error)	• Lead error of destination setting file is detected during the printer starting.
C026		Controller ROM error (Access error)	• Flash ROM access error is detected during the printer starting.
C027		Controller ROM error (Data error)	• Final check sum error is detected during the printer starting.
C050	HDD ERROR	HDD access error	• When correct access to the hard disk kit is failed during access.
C051	HDD DISK FULL	HDD full error	• Range for user space is full during access to the hard disk kit.
C052	CARD ERROR	Compact flash access error	• When correct access to the compact flash card is failed during access.
C053	CARD FULL	Compact flash full error	• Range for user space is full during access to the compact flash card.

LCD1 (service call ID)	LCD2/LCD3 (error description)	Item	Detection timing
C060	UPDATE ERROR	Firmware update error	• Firmware update fails to complete correctly during update.
FF10	-	• Undetectable	
FF20	-	• Undetectable	
FF40	-	• Undetectable	
FF80	-	• Undetectable	
FFFF	I/F COMM ERROR	Interface Communication error	• Correct communication is failed when receiving/sending the command between MFPB and PRCB.

13.2 Resetting a malfunction

- To reset a malfunction, turn the power switch OFF and then ON again.

13.3 Solution

13.3.1 0010: Color PC drum motor malfunction

Relevant electrical parts	
Color PC drum motor (M4)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M4-PRCB PJ12 for proper connection and correct as necessary.	-	-
2	Check the M4 connector for proper drive coupling and correct as necessary.	-	-
3	M4 operation check	PRCB PJ12-3 to 6	E-15
4	Change M4.	-	-
5	Change PRCB.	-	-

13.3.2 0017: Main motor malfunction

Relevant electrical parts	
Main motor (M2)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M2-PRCB PJ11 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 PJ11-10 to 13	C-15
4	Change M2.	-	-
5	Change PRCB.	-	-

13.3.3 0018: Developing motor malfunction

Relevant electrical parts	
Developing motor (M1)	Print control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M1-PRCB PJ11 for proper connection and correct as necessary.	-	-
2	Check the M1 connector for proper drive coupling and correct as necessary.	-	-
3	M1 operation check	PRCB PJ11-3 to 6	B-15
4	Change M1.	-	-
5	Change PRCB.	-	-

13.3.4 004A: Cooling fan motor malfunction

Relevant electrical parts	
Cooling fan motor (FM11)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between FM11-relay CN29-PRCB PJ10 for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	FM11 operation check	PRCB PJ10-5 (REM) PRCB PJ10-7 (LOCK)	F-7
4	Change FM11.	-	-
5	Change PRCB.	-	-

13.3.5 004E: DC power supply fan motor malfunction

Relevant electrical parts	
DC power supply fan motor (FM10)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between FM10-relay CN43-PRCB PJ3 for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	FM10 operation check	PRCB PJ3-5 (REM) PRCB PJ3-7 (LOCK)	K-10
4	Change FM10.	-	-
5	Change PRCB.	-	-

13.3.6 0062: Tray 3 media feed motor malfunction

Relevant electrical parts	
Media feed motor (M1)	Printer control board (PRCB) PC control board (PCCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M1-PCCB PJ3 for proper connection and correct as necessary.	-	-
2	Check the connector between PCCB PJ1, PJ2-relay CN53, CN70-PRCB PJ25 for proper connection and correct as necessary.	-	-
3	Check the M1 connector for proper drive coupling and correct as necessary.	-	-
4	M1 operation check	PCCB PJ3-4 to 8	K-2
5	Change M1.	-	-
6	Change PCCB.	-	-
7	Change PRCB.	-	-

13.3.7 0094: 2nd image transfer pressure/retraction failure

Relevant electrical parts	
IDC sensor (IDC) 2nd transfer release solenoid (SD2) Main motor (M2)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
2	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
3	Check the connector between IDC-PRCB PJ19 for proper connection and correct as necessary.	-	-
4	Check the connector between SD2-relay CN23-PRCB PJ24 for proper connection and correct as necessary.	-	-
5	IDC sensor check	PRCB PJ19-1 (IDC_D_LEFT) PRCB PJ19-4 (IDC_CTL_LEFT)	J-15
6	SD2 operation check	PRCB PJ24-6 (REM)	D-7
7	M2 operation check	PRCB PJ11-10 to 13	C-15
8	Change SD2.	-	-
9	Change M2.	-	-
10	Change IDC.	-	-
11	Change PRCB.	-	-

13.3.8 0096: 1st image transfer pressure/retraction failure

Relevant electrical parts	
1st transfer release sensor (PS17) 1st transfer release solenoid (SD1) Main motor (M2)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between M2-PRCB PJ11 for proper connection and correct as necessary.	-	-
2	Check the M2 connector for proper drive coupling and correct as necessary.	-	-
3	Check the connector between PS17-PRCB PJ26 for proper connection and correct as necessary.	-	-
4	Check the connector between SD1-relay CN25-PRCB PJ13 for proper connection and correct as necessary.	-	-
5	PS17 sensor check	PRCB PJ26-3 (ON)	I-15
6	SD1 operation check	PRCB PJ13-2 (REM)	D-15
7	M2 operation check	PRCB PJ11-10 to 13	C-15
8	Change PS17.	-	-
9	Change SD1.	-	-
10	Change M2.	-	-
11	Change PRCB.	-	-

13.3.9 0300: Polygon motor malfunction

Relevant electrical parts	
PH unit	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between PH unit-PRCB PJ18 for proper connection and correct as necessary.	-	-
2	Change PH unit.	-	-
3	Change PRCB.	-	-

13.3.10 0310: Laser malfunction

Relevant electrical parts	
PH unit	Printer control board (PRCB) MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between PH unit-PRCB PJ18 for proper connection and correct as necessary.	-	-
2	Check the connector between PH unit-MFPB CN15 for proper connection and correct as necessary.	-	-
3	Change PH unit.	-	-
4	Change PRCB.	-	-

13.3.11 0500: Heating roller warm-up failure

13.3.12 0502: Thermistor open-circuit failure

13.3.13 0503: Thermistor resistance failure

13.3.14 0510: Abnormally low heating roller temperature

13.3.15 0520: Abnormally high heating roller temperature

Relevant electrical parts	
Fuser unit	Printer control board (PRCB) DC power supply (DCPU)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the fuser unit for correct installation (whether it is secured in position).	-	-
2	Check the connector between fuser unit-PRCB PJ9 for proper connection and correct as necessary.	-	-
3	Check the connector between fuser unit-DCPU CN2 for proper connection and correct as necessary.	-	-
4	Change fuser unit.	-	-
5	Change PRCB.	-	-
6	Change DCPU.	-	-

13.3.16 0F52: Toner level sensor/Y malfunction

13.3.17 0F53: Toner level sensor/M malfunction

13.3.18 0F54: Toner level sensor/C malfunction

13.3.19 0F55: Toner level sensor/K malfunction

Relevant electrical parts	
Toner level sensor/Y (PS13) Toner level sensor/M (PS14) Toner level sensor/C (PS15) Toner level sensor/K (PS16)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the connector between each sensor-PRCB PJ21 for proper connection and correct as necessary.	-	-
2	Replace the toner level sensor of the corresponding color.	-	-
3	Change PRCB.	-	-

13.3.20 13DD: Backup data error

Relevant electrical parts	
Print control board (PRCB)	MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Select [SERVICE MENU] → [BK Clear], and execute the BK Clear function.	-	-
2	Check the connector between MFPB CN16-PRCB PJ5 for proper connection and correct as necessary.	-	-
3	Change PRCB.	-	-
4	Change MFPB.	-	-

13.3.21 13E2: Engine flash ROM write error

13.3.22 13E3: Engine flash ROM device fault

Relevant electrical parts	
Print control board (PRCB)	

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Rewrite the engine firmware.	-	-
2	Change PRCB.	-	-

13.3.23 13F0: Engine control failure

Relevant electrical parts	
Print control board (PRCB)	

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-

13.3.24 C002: RAM error at startup (standard memory)
C003: RAM error at startup (expanded memory)

Relevant electrical parts	
MFP board (MFPB)	Standard memory Expanded memory

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Check connection state of the standard/ expanded memory and correct as necessary.	-	-
3	Check the MFPB connector for proper connection and correct as necessary.	-	-
4	Change the standard/expanded memory.	-	-
5	Change MFPB.	-	-

13.3.25 C013: MAC address error at startup

13.3.26 C015: BOOT ROM error at startup

Relevant electrical parts
MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Check the MFPB connector for proper connection and correct as necessary.	-	-
3	Change MFPB.	-	-

13.3.27 C025: Controller ROM error (Configuration information error)

13.3.28 C026: Controller ROM error (Access error)

13.3.29 C027: Controller ROM error (Data error)

Relevant electrical parts
MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
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.	-	-

13.3.30 C050: HDD access error

Relevant electrical parts	
MFP board (MFPB)	Hard disk kit (HDD)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Check the HDD connector for proper connection and correct as necessary.	-	-
3	Check the MFPB connector for proper connection and correct as necessary.	-	-
4	Change HDD.	-	-
5	Change MFPB.	-	-

13.3.31 C051: HDD full error

Relevant electrical parts	
MFP board (MFPB)	Hard disk kit (HDD)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Delete the job hold in [PROOF/PRINT MENU] to increase the available range for user space.	-	-
3	Check the HDD connector for proper connection and correct as necessary.	-	-
4	Format HDD with [SYS DEFAULT MENU]-[HDD FORMAT.]	-	-
5	Change HDD.	-	-

13.3.32 C052: Compact flash access error

Relevant electrical parts	
MFP board (MFPB)	Compact flash card

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Check the compact flash for proper connection and correct as necessary.	-	-
3	Check the MFPB connector for proper connection and correct as necessary.	-	-
4	Change compact flash.	-	-
5	Change MFPB.	-	-

13.3.33 C053: Compact flash full error

Relevant electrical parts	
MFP board (MFPB)	Compact flash card

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Delete the job hold in [PROOF/PRINT MENU] to increase the available range for user space.	-	-
3	Check the compact flash for proper connection and correct as necessary.	-	-
4	Format compact flash with [SYS DEFAULT MENU]-[CARD FORMAT.]	-	-
5	Change compact flash.	-	-

13.3.34 C060: Firmware update error

Relevant electrical parts
MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
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.	-	-

13.3.35 FFFF: Interface Communication error

Relevant electrical parts	
Print control board (PRCB)	MFP board (MFPB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Reboot the main body.	-	-
2	Check the PRCB connector for proper connection and correct as necessary	-	-
3	Check the MFPB connector for proper connection and correct as necessary.	-	-
4	Change MFPB.	-	-
5	Change PRCB.	-	-

14. POWER SUPPLY TROUBLE

14.1 Machine is not energized at all (DCPU operation check)

Relevant parts	
Power switch (SW1) Printer control board (PRCB)	DC power supply (DCPU)

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is a power voltage supplied across CN1 on DCPU?	J-11	NO	Check the wiring from the wall outlet to inlet to SW1 to CN1DCPU.
2	Are DC5 V and DC3.3V being output from CN24, CN25 on MFPB?	CN24: G-11 CN25: H-11	NO	Check the wiring from the CN4, CN5DCPU to CN24, CN25MFPB.
3	Is DC3.3 V being output from PJ1 on PRCB?	G-13	NO	Check the wiring from the CN4DCPU to PJ1PRCB.
4	Check the wiring from the CN16MFPB to PJ5PRCB.	-	YES	Reconnect. Change flat cable.
5	Check the wiring from the PJ1PRCB to CN4DCPU.	-	YES	Reconnect.
			NO	Change PRCB.

14.2 Control panel indicators do not light

Relevant electrical parts	
MFP board (MFPB) Control panel	DC power supply (DCPU)

Step	Check item	Location (electrical component)	Result	Action
1	Is a power voltage supplied across CN1 on DCPU?	G-10	NO	Check the wiring from the wall outlet to inlet to SW1 to CN1DCPU.
2	Are the fuses on DCPU conducting?	-	NO	Change DCPU.
3	Is CN17 on MFPB properly connected?	C-2	NO	Reconnect.
			YES	Change MFPB. Change operation panel.

14.3 Fusing heaters do not operate

Relevant parts	
Main power switch (SW1) Right door switch (SW3) Fuser unit	DC power supply (DCPU) Printer control board (PRCB)

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is the power source voltage applied across CN1 on DCPU?	G-10	NO	Check the wiring from the wall outlet to inlet to SW1 to CN1DCPU.
2	Is the power source voltage applied across CN2 on DCPU?	G-6	YES	Change fuser unit.
			NO	Check the wiring from the CN2DCPU to PJ9PRCB. Change DCPU. Change PRCB.

15. IMAGE QUALITY PROBLEMS

15.1 How to identify problematic part

- This chapter is divided into two parts: “Initial check items” and “Troubleshooting procedure by a particular image quality problem.”
- When an image quality problem occurs, first go through the “Initial check item” and, if the cause is yet to be identified, go to “Troubleshooting procedure by a particular image quality problem.”

15.1.1 Initial check item

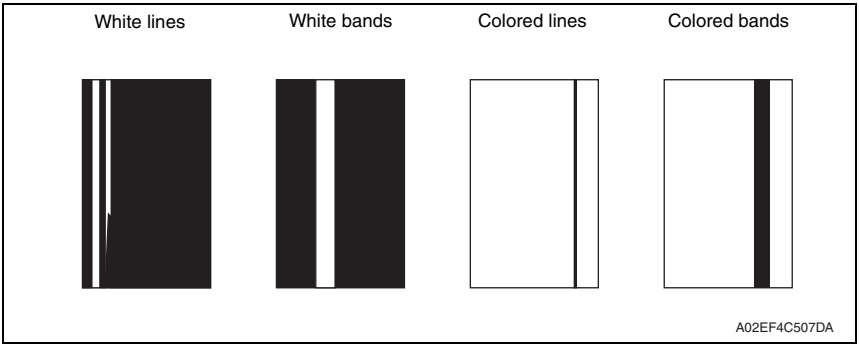
- If the printer is responsible for the image problem, let the machine produce a test print and determine whether the image problem occurs in a specific single color or four colors
- Evaluation procedure

Action	Result	Cause	Next step
From [SERVICE MENU], select [PRINT MENU] → [GRADATION], and produce a test print. Is image problem evident in each of all four colors?	YES	Printer, 4 colors	P.168
	NO	Printer, single color	P.156

15.2 Solution

15.2.1 Printer monocolor: white lines, white bands, colored lines and colored bands in sub scan direction

A. Typical faulty images

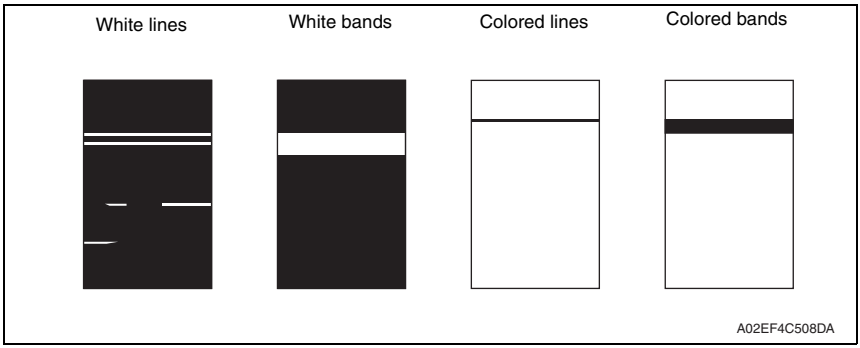


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A white line or black line in sub scan direction is sharp.	YES	Clean the electrostatic charger wire.
2		When printing thick paper, black lines appear.	YES	Select [SERVICE MENU] → [ALIGNMENT] → [THICK MODE] and set [IMAGE QUALITY].
3	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
4		Dirty on the outside.	YES	Clean.
5		Contact terminals make good connection between each imaging unit and machine.	NO	Clean contact terminals.
6		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
7	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
8		The problem has been eliminated through the checks of steps up to 7.	NO	Change transfer belt unit. Change PH unit.

15.2.2 Printer monocolor: white lines, white bands, colored lines and colored bands in main scan direction

A. Typical faulty images

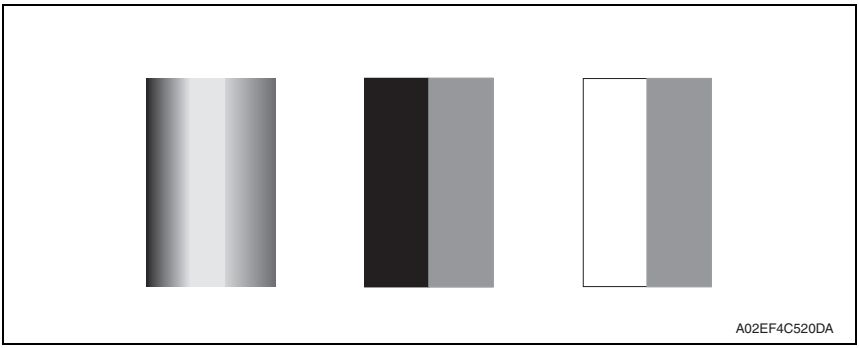


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A white line or black line in main scan direction is sharp.	NO	Clean the electrostatic charger wire.
2	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
3		Dirty on the outside.	YES	Clean.
4		Contact terminals make good connection between each imaging unit and machine.	NO	Clean contact terminals.
5		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
6	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change transfer belt unit. Change PH unit.

15.2.3 Printer monocolor: uneven density in sub scan direction

A. Typical faulty images

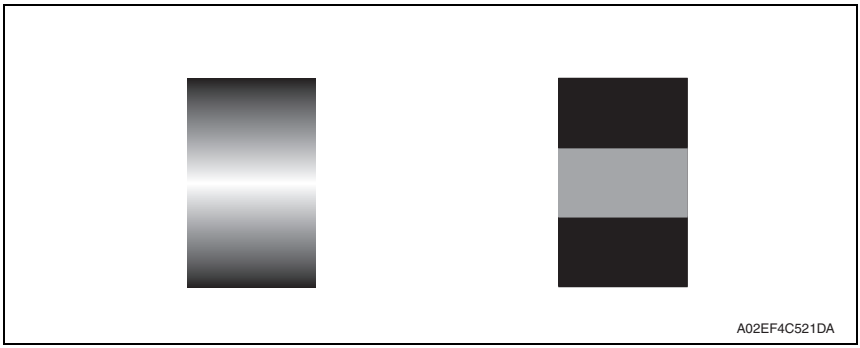


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
2	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
2		Dirty on the outside.	YES	Clean.
3	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
4	Transfer roller unit	Image transfer roller is installed properly.	NO	Reinstall.
5		Image transfer roller is dirty or scratched.	YES	Change transfer roller unit.
6	Transfer belt unit	Is abnormality found in the cam gear?	YES	Change transfer belt unit.
7		The problem has been eliminated through the checks of steps up to 7.	NO	Change PH unit. Change High voltage unit. Printer control board.

15.2.4 Printer monocolor: uneven density in main scan direction

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
2		Dirty on the outside.	YES	Clean.
3	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
4	Transfer roller	Check that the spring does not come off during the pressure operation of the transfer roller.	NO	Correct. Change transfer roller unit.
5	Transfer belt unit	Transfer belt unit makes positive contact with plates on rails.	NO	Check and correct contacts.
6		Is abnormality found in the cam gear?	YES	Change image transfer belt unit.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change PH unit. Change high voltage unit.

15.2.5 Printer monocolor: low image density

A. Typical faulty images

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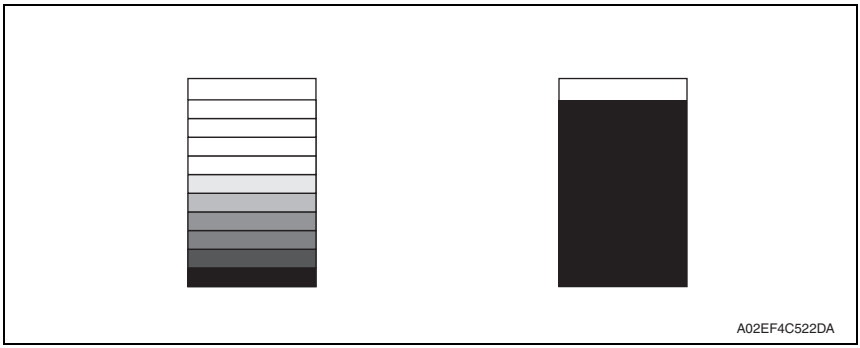
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	IDC sensor	The surface of the IDC sensor is dirty.	YES	Clean.
2	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
3	Transfer belt unit	Transfer belt unit makes positive contact with plates on rails.	NO	Check and correct contacts.
4		Is abnormality found in the cam gear?	YES	Change image transfer belt unit.
5		The problem has been eliminated through the checks of steps up to 3.	NO	Change imaging unit. → Change IDC sensor. → Change printer control board. →Change PH unit. →Change high voltage unit.

15.2.6 Printer monocolor: gradation reproduction failure

A. Typical faulty images

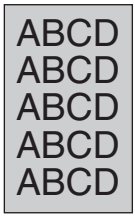


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Photo/density	Original type and screen pattern are selected properly.	NO	Change screen pattern.
2	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
3	IDC sensor	The surface of the IDC sensor is dirty.	YES	Clean.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Change imaging unit. → Change printer control board → Change PH unit. → Change high voltage unit.

15.2.7 Printer monocolor: foggy background

A. Typical faulty images



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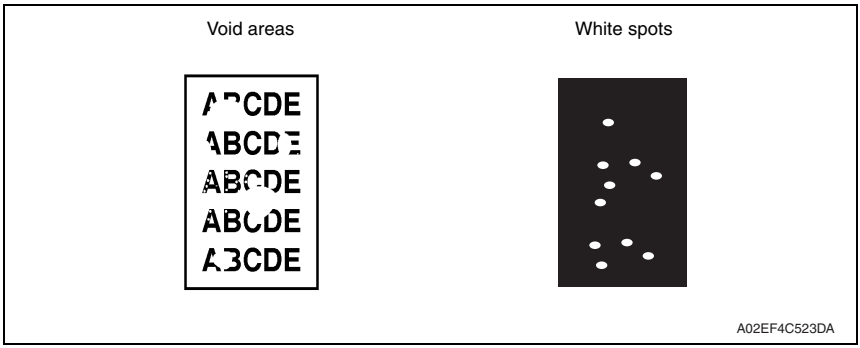
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	IDC sensor	The surface of the IDC sensor is dirty.	YES	Clean.
2	Imaging unit	Dirty on the outside.	YES	Clean.
3	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
4	Printer control board (PRCB)	Check the connection of connectors, harness, and flat cables between PRCB and PH unit, and correct if necessary.	NO	Change printer control board.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Change imaging unit. → Change PH unit. → Change high voltage unit.

15.2.8 Printer monocolor: void areas, white spots

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image Check	There are void areas at the front side or high density section.	YES	See P.160
2		There is void area at the rear side section.	YES	Perform [SERVICE MENU] → [ALIGNMENT] → [TRANSFER POWER].
3	Imaging unit	The surface of the PC drum is scratched.	YES	Change drum unit.
4	Toner cartridge	Foreign matter or caked toner in the toner cartridge.	YES	Remove foreign matter.
5	Installation environment	Is the atmospheric pressure at the installation site low?	YES	Make the following adjustment: [SERVICE MENU] → [ALIGNMENT] → [IMAGE ADJ PARAM].

15.2.9 Printer monocolor: colored spots

A. Typical faulty images

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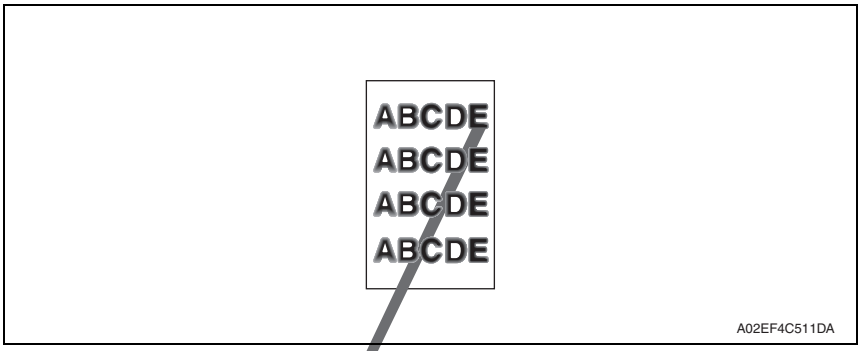
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
2		The surface of the PC drum is scratched.	YES	Change imaging unit.
3		Dirty on the outside.	YES	Clean.

15.2.10 Printer monocolor: blurred image

A. Typical faulty images

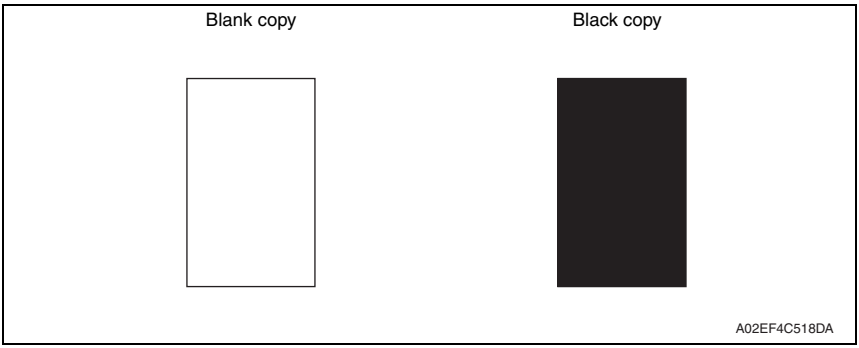


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
2	Imaging unit	Dirty on the outside.	YES	Clean.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change imaging unit. → Change PH unit.

15.2.11 Printer monocolor: blank copy, black copy

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A blank copy occurs.	YES	Check PH unit connector for proper connection.
2	Imaging unit	Coupling of drum unit drive mechanism is installed properly.	NO	Check and correct drive transmitting coupling. Change imaging unit.
3		The PC drum charge corona voltage contact or PC drum ground contact of the imaging unit is connected properly.	NO	Check, clean, or correct the contact.
4	High voltage unit/	Connector is connected properly.	NO	Reconnect.
5		The problem has been eliminated through the check of step 4.	NO	Change high voltage unit. → Change printer control board → Change PH unit. → Change MFP board.

15.2.12 Printer monocolor: uneven image

A. Typical faulty images

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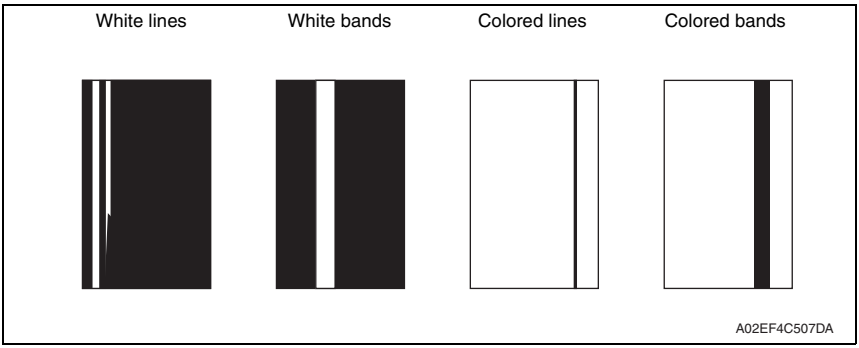
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Toner cartridge	The toner cartridge of every color is surely installed.	NO	Re-install it.
2	PH unit	The PH unit is surely installed.	NO	Re-install it.
3	Toner cartridge	There is any stain or breakage on the drive section of the toner cartridge.	YES	Clean/replace the toner cartridge.
4	Imaging unit	There is any stain, damage or abrasion on the PC drum.	YES	Replace the imaging unit.
5	Transfer roller	There is any stain, damage, deformation or abrasion on the transfer roller.	YES	Replace the transfer roller.
6	Fuser unit	There is any stain, damage, deformation or abrasion on the roller and drive section of the fuser unit.	YES	Replace the fuser unit.
7		The problem has been eliminated through the check of step 6.	NO	Replace the image transfer belt unit.

15.2.13 Printer 4-color: white lines, white bands, colored lines and colored bands in sub scan direction

A. Typical faulty images

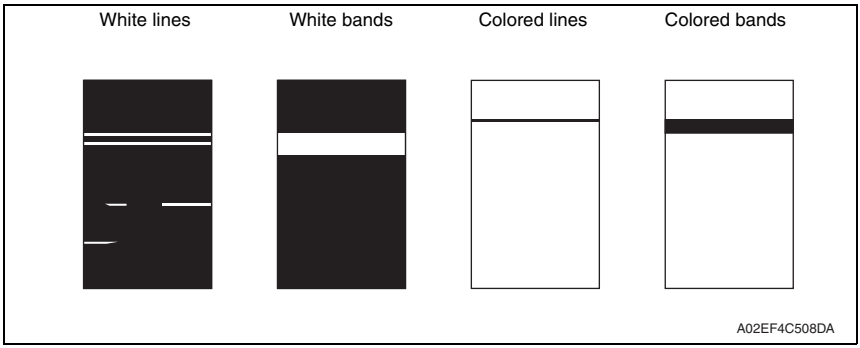


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	A white line or colored line in sub scan direction.	YES	Clean the comb electrode.
2	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean with specified solvent. (See Maintenance.)
3		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
4		Cleaning blade is not effective in removing toner completely.	YES	Change transfer belt unit.
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.
7		Image transfer paper separator fingers are damaged or dirty.	YES	Clean or change.
8	Fuser unit	Fusing entrance guide plate is dirty or damaged.	YES	Clean. Change fuser unit.
9		Fusing paper separator fingers are dirty.	YES	Clean.
10		The problem has been eliminated through the checks of steps up to 9.	NO	Change printer control board

15.2.14 Printer 4-color: white lines, white bands, colored lines and colored bands in main scan direction

A. Typical faulty images

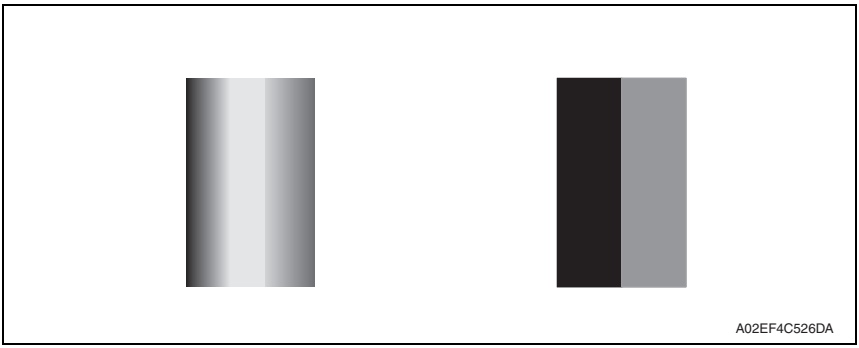


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean with specified solvent. (See Maintenance.)
2		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
3	Transfer roller unit	Transfer roller is dirty or scratched.	YES	Change transfer roller unit.
4	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
5		Image transfer paper separator fingers are damaged or dirty.	YES	Clean or change.
6	Fuser unit	Fusing entrance guide plate is dirty or damaged.	YES	Clean. Change fuser unit.
7		Fusing paper separator fingers are dirty.	YES	Clean.
8	Neutralizing brush	The resistance values between the neutralizing brush and the ground terminal is not ∞.	NO	Check the contact. Change neutralizing brush.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change printer control board

15.2.15 Printer 4-color: uneven density in sub scan direction

A. Typical faulty images

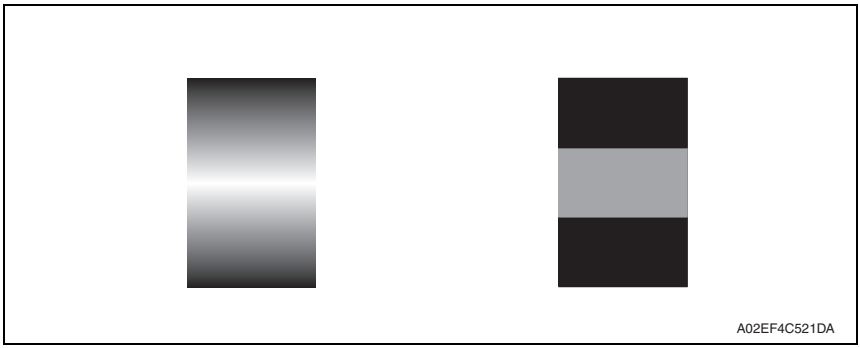


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
2		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
3		Terminal is dirty.	YES	Clean.
4	Transfer roller unit	Image transfer roller is installed properly.	NO	Reinstall.
5		Image transfer roller is dirty or scratched.	YES	Change transfer roller unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change transfer belt unit.

15.2.16 Printer 4-color: uneven density in main scan direction

A. Typical faulty images

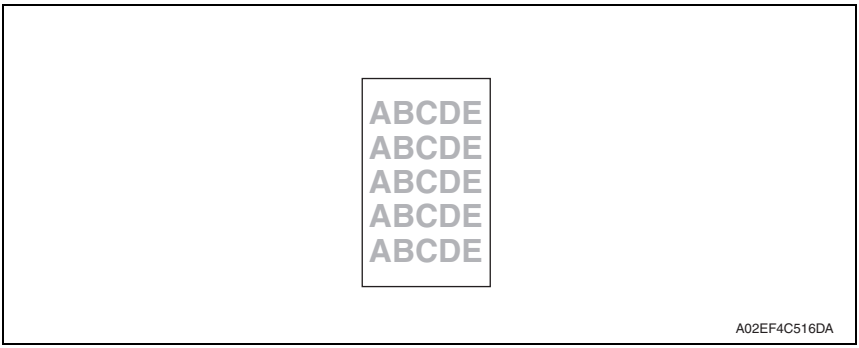


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
2		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
3		Terminal is dirty.	YES	Clean.
4	Transfer roller unit	Image transfer roller is installed properly.	NO	Reinstall.
5		Image transfer roller is dirty or scratched.	YES	Change transfer roller unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change transfer belt unit. → Change high voltage unit.

15.2.17 Printer 4-color: low image density

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2	Transfer belt unit	Terminal is dirty.	YES	Clean.
3	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
4		Charge neutralizing needle is not separated and ground terminal is connected properly.	NO	Correct or change.
5	IDC sensor	Sensor is dirty.	YES	Clean IDC sensor and execute the image stabilization.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change image transfer belt unit. → Change IDC sensor. → Change printer control board. → Change high voltage unit.

15.2.18 Printer 4-color: poor color reproduction

A. Typical faulty images

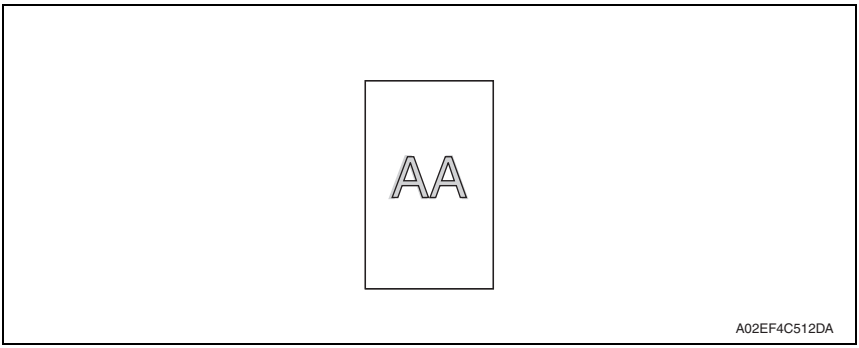
A02EF4C527DA

B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2	Transfer belt unit	Terminal is dirty.	YES	Clean.
3	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
4		Charge neutralizing needle is not separated and ground terminal is connected properly.	NO	Correct or change.
5	IDC sensor	Sensor is dirty.	YES	Clean IDC sensor and execute the image stabilization.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change transfer belt unit. → Change printer control board. → Change high voltage unit. → Change MFP board.

15.2.19 Printer 4-color: incorrect color image registration

A. Typical faulty images



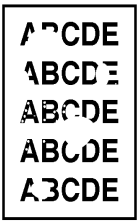
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Machine condition	Vibration is given to the machine after main power switch has been turned ON.	YES	Turn off the main power switch and turn it on again more than 10 seconds after.
2	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
3		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
4		Drive coupling to the machine is dirty.	YES	Clean.
5	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
6	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
7		Transfer roller is dirty or scratched.	YES	Change transfer roller unit.
8		The problem has been eliminated through the checks of steps up to 7.	NO	Change transfer belt unit. Change printer control board. Change MFP board.

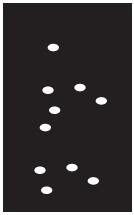
15.2.20 Printer 4-color: void areas, white spots

A. Typical faulty images

Void areas



White spots



A02EF4C523DA

B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	There are void areas at the front side or high density section.	YES	See P.173
2		There are void areas in the trailing edge.	YES	Perform [SERVICE MENU] → [ALIGNMENT] → [TRANSFER POWER].
3	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
4		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
5	Transfer roller unit	Transfer roller is dirty or scratched.	YES	Change 2nd image transfer roller unit.
6		Charge neutralizing needle is not separated and ground terminal is connected properly.	NO	Correct or change.
7	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
8		Pre-image transfer guide plate is damaged or dirty.	YES	Clean or change.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change transfer belt unit.

15.2.21 Printer 4-color: colored spots

A. Typical faulty images

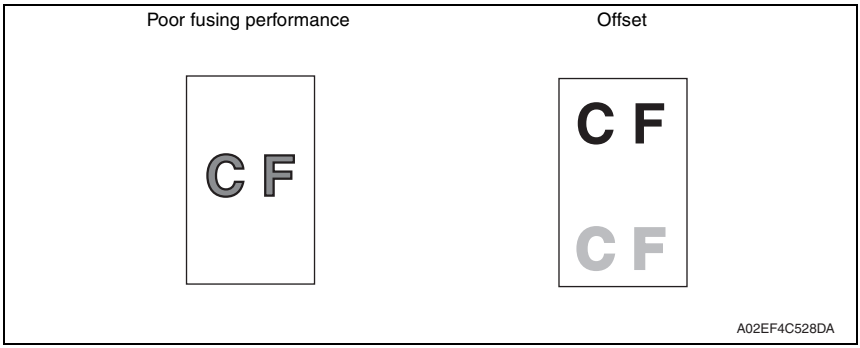
A02EF4C509DA

B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
2	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the image transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
3		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
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	Fuser unit	Fusing belt is dirty or scratched.	YES	Change fuser unit.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change transfer belt unit.

15.2.22 Printer 4-color: poor fusing performance, offset

A. Typical faulty images

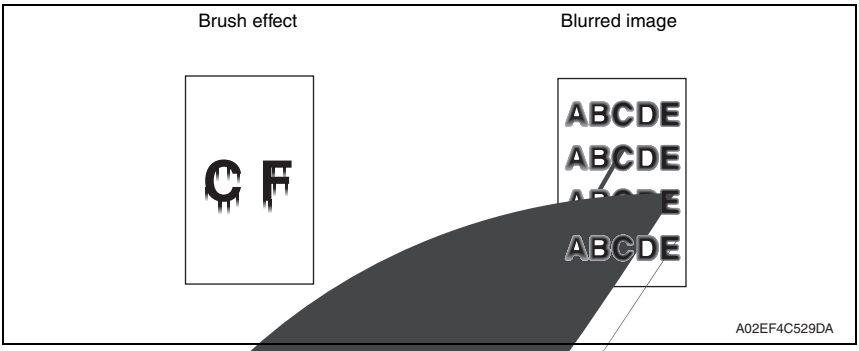


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper type does not match.	YES	Change the setting.
2	ALIGNMENT → TEMPERATURE (SERVICE MENU)	Changing fusing temperature eliminates the problem of poor fusing performance and offset.	YES	Readjust fusing temperature.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change fuser unit.

15.2.23 Printer 4-color: brush effect, blurred image

A. Typical faulty images

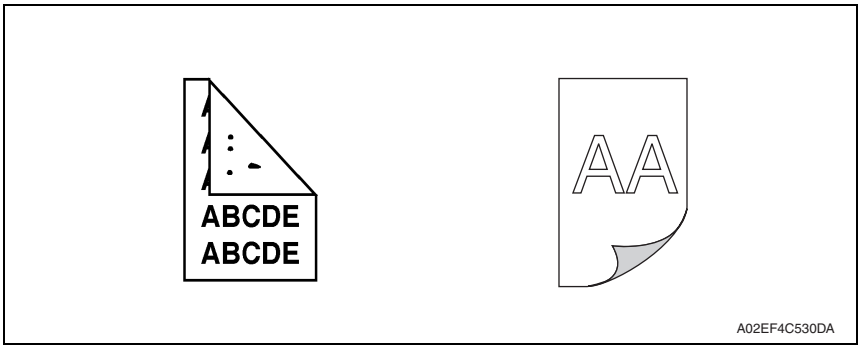


B. Troubleshooting r

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2		Paper type does not match.	YES	Change the setting.
3	Fuser unit	Fuser unit is installed properly.	NO	Reinstall.
4		Fusing entrance guide plate is dirty.	YES	Clean.
5		Fusing belt is dirty or scratched.	YES	Change fuser unit.

15.2.24 Printer 4-color: back marking

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Transfer roller unit	Transfer roller is scratched or dirty.	YES	Change transfer roller unit.
2	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
3	Fuser unit	Fusing entrance guide plate is scratched or dirty.	YES	Clean or change.
4		Lower fusing roller is scratched or dirty.	YES	Change fuser unit.
5	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean it with the tender cloth or paper which is dusted with the toner.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change transfer belt unit. → Change high voltage unit.

15.2.25 Printer 4-color: uneven image

A. Typical faulty images

A02EF4C525DA

B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Toner cartridge	The toner cartridge of every color is surely installed.	NO	Re-install it.
2	PH unit	The PH unit is surely installed.	NO	Re-install it.
3	Toner cartridge	There is any stain or breakage on the drive section of the toner cartridge.	YES	Clean/replace the toner cartridge.
4	Imaging unit	There is any stain, damage or abrasion on the PC drum.	YES	Replace the imaging unit.
5	Transfer roller unit	There is any stain, damage, deformation or abrasion on the transfer roller.	YES	Replace the transfer roller unit.
6	Fuser unit	There is any stain, damage, deformation or abrasion on the roller and drive section of the fuser unit.	YES	Replace the fuser unit.
7		The problem has been eliminated through the check of step 6.	NO	Replace the transfer belt unit.

16. IC protector

16.1 Outline

- To increase product safety, this printer 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.

16.2 IC protector list

16.2.1 Main body

A. Printer control board

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
F1	-	SOS sensor	No function	0310
	-	Laser diode		
F2	CL1	Media feed clutch	No function	Misfeed at tray 3 paper feed section *1
	CL2	Conveyance clutch		
	M1	Media feed motor		
ICP1	FM10	DC power supply fan motor	No function	0045 *1
	FM11	Cooling fan motor		
	FM12	MFP board cooling fan motor		
ICP2	CL1	Tray 2 media feed clutch	No function	0094 *1 0096 *1
	CL2	Tray 1 media feed clutch		
	CL3	Registration clutch		
	CL4	Toner supply clutch/Y		
	CL5	Toner supply clutch/M		
	CL6	Toner supply clutch/C		
	CL7	Toner supply clutch/K		
	CL8	Loop detection clutch		
	CL11	Switchback roller feed clutch		
	CL12	Switchback roller reverse clutch		
	CL13	Duplex conveyance roller clutch		
	SD1	1st transfer release solenoid		
	SD2	2nd transfer release solenoid		
	TCT	Total counter		
ICP3	HV	High voltage unit	No function	Process caution *1
ICP4	M5	Polygon motor	No function	0300
ICP5	-	On-board components	No function	Regardless of whether the door is open or closed, Door Open error is displayed.

*1: This is an error that occurs when the power switch is turned ON. If the IC protector trips after the power switch is turned ON, another error may occur.

B. DC power supply

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
FU101	-	DC power supply circuit	DC power supply does not supply power.	Power switch is not turned ON.
FU191	-	Heater circuit	The heater does not turn ON.	0500 *1

*1: This is an error that occurs when the power switch is turned ON. If the IC protector trips after the power switch is turned ON, another error may occur.

16.2.2 Lower feeder unit

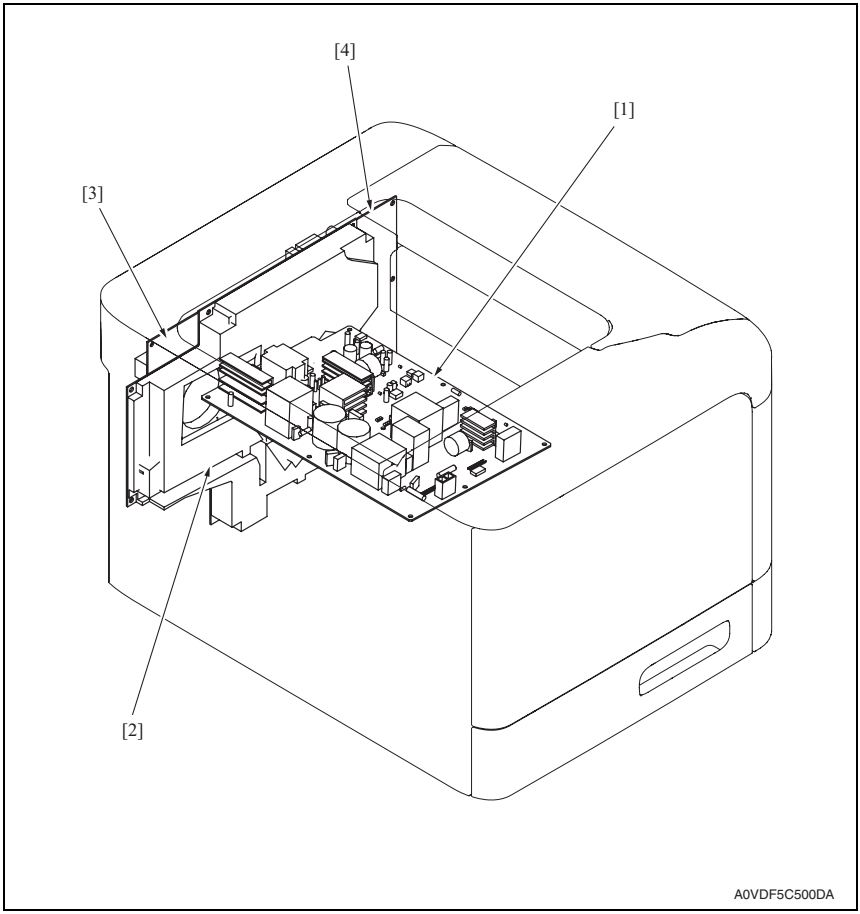
A. PC control board

ICP No.	Symbol	Target part name	When ICP trips	
			Symptom in each load	Trouble code and others
ICP1	CL1	Media feed clutch	No function	Misfeed at tray 3 paper feed section
ICP2	CL2	Conveyance clutch	No function	Misfeed at tray 3 vertical conveyance section

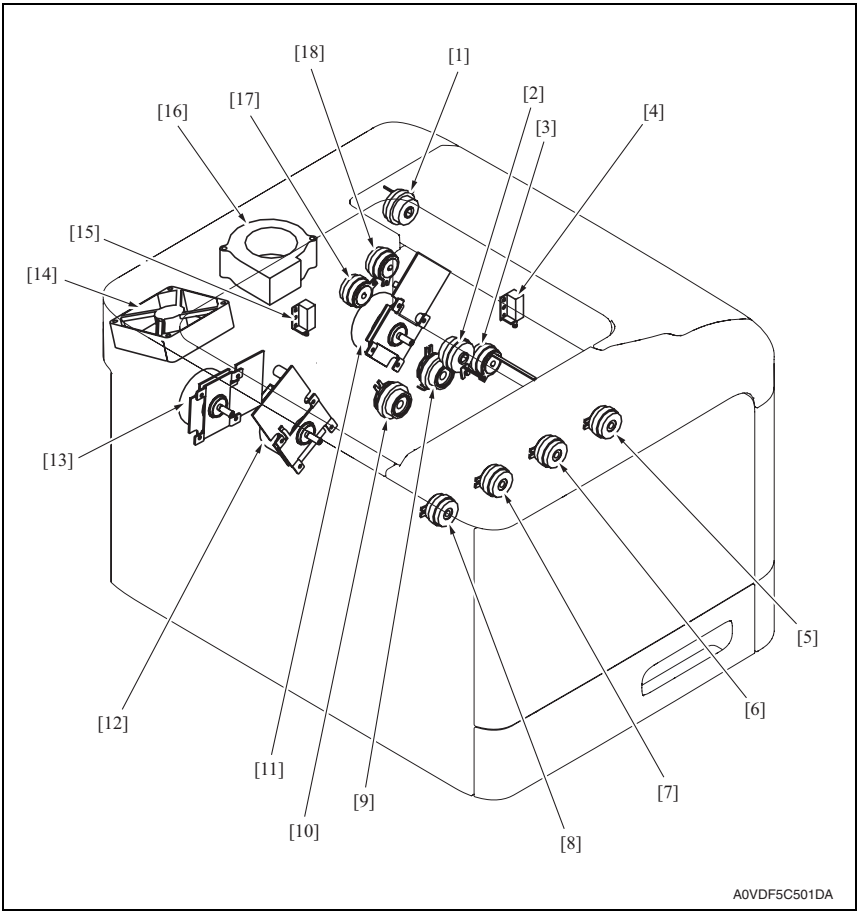
APPENDIX

17. PARTS LAYOUT DRAWING

17.1 Main body

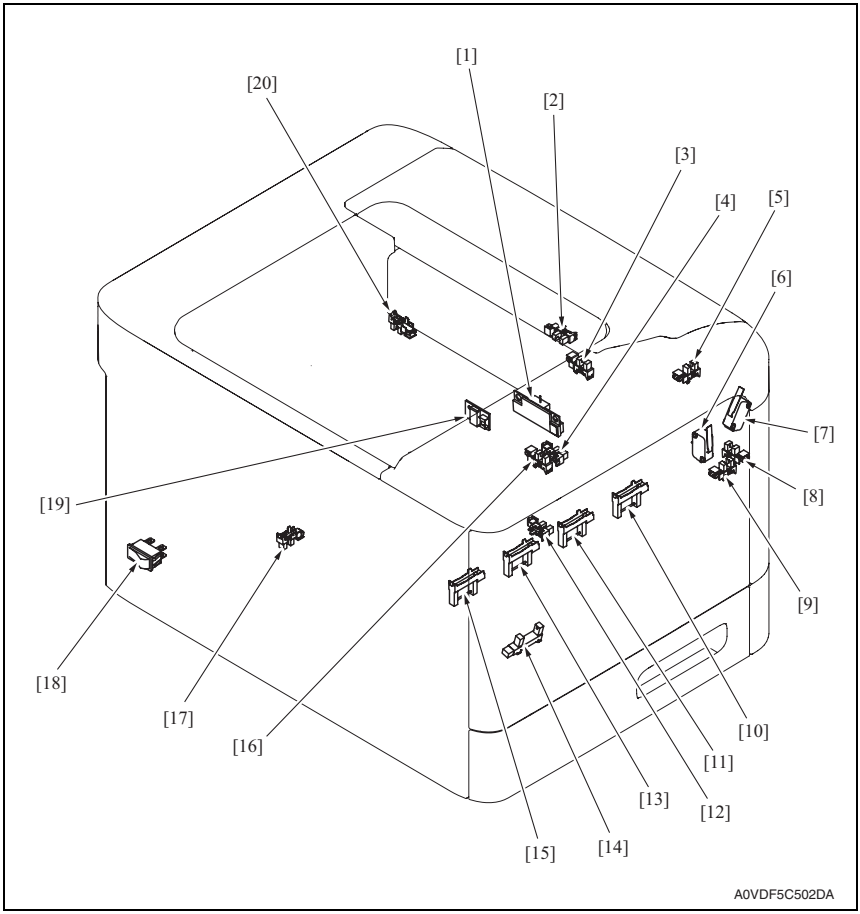


[1] DC power supply (DCPU)
[2] High voltage unit (HV1)
[3] MFP board (MFPB)
[4] Printer control board (PRCB)



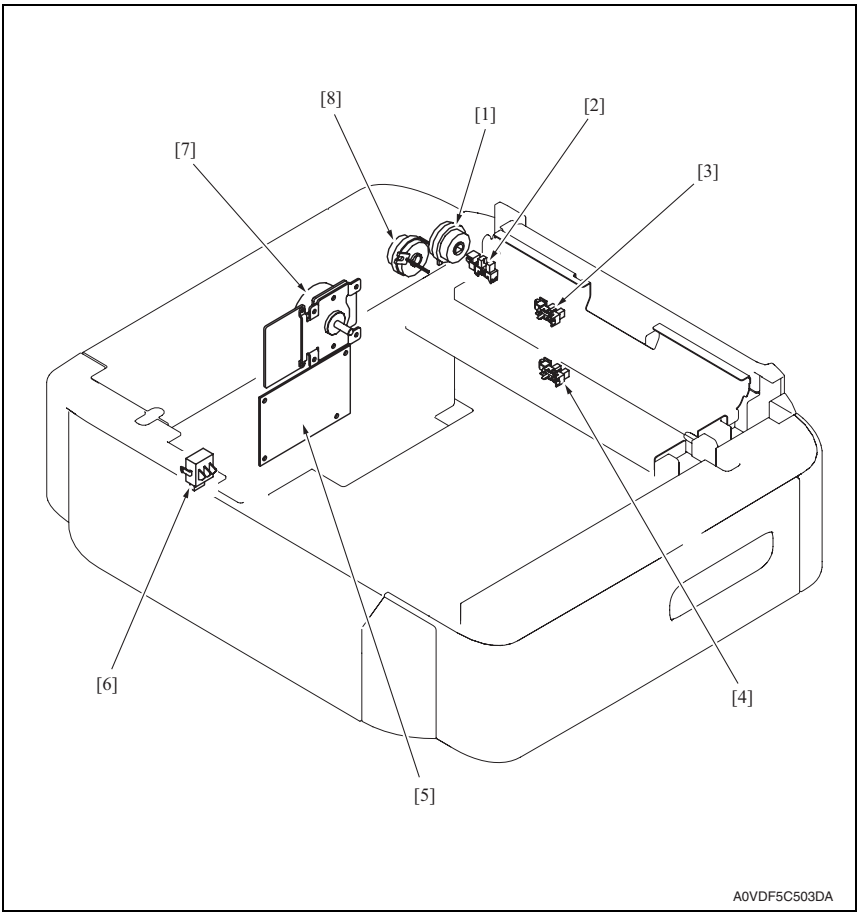
[1] Loop detection clutch (CL8)
[2] Registration clutch (CL3)
[3] Duplex conveyance roller clutch (CL13) *
[4] 2nd transfer release solenoid (SD2)
[5] Toner supply motor/K (CL7)
[6] Toner supply motor/C (CL6)
[7] Toner supply motor/M (CL5)
[8] Toner supply motor/Y (CL4)
[9] Tray 1 media feed clutch (CL2)
[10] Tray 2 media feed clutch (CL1)
[11] Main motor (M2)
[12] Developing motor (M1)
[13] Color PC drum motor (M4)
[14] DC power supply fan motor (FM10)
[15] 1st transfer release solenoid (SD1)
[16] Cooling fan motor (FM11) *
[17] Switchback roller reverse clutch (CL12) *
[18] Switchback roller feed clutch (CL11) *

*: magicolor 4750DN only



[1] IDC sensor (IDC)
[2] Loop detection sensor (PS6)
[3] Duplex conveyance sensor (PS9)
[4] Tray1 media empty sensor (PS3)
[5] Exit sensor (PS8)
[6] Front door switch (SW2)
[7] Right door switch (SW3)
[8] Right door sensor (PS11)
[9] Front door sensor (PS10)
[10] Toner level sensor/K (PS16)
[11] Toner level sensor/C (PS15)
[12] Tray2 media empty sensor (PS2)
[13] Toner level sensor/M (PS14)
[14] Waste toner near full sensor (PS12)
[15] Toner level sensor/Y (PS13)
[16] Registration sensor (PS5)
[17] Tray2 set sensor (PS1)
[18] Power switch (SW1)
[19] Temperature/ humidity sensor (TEM/HUMS)
[20] 1st transfer release sensor (PS17)

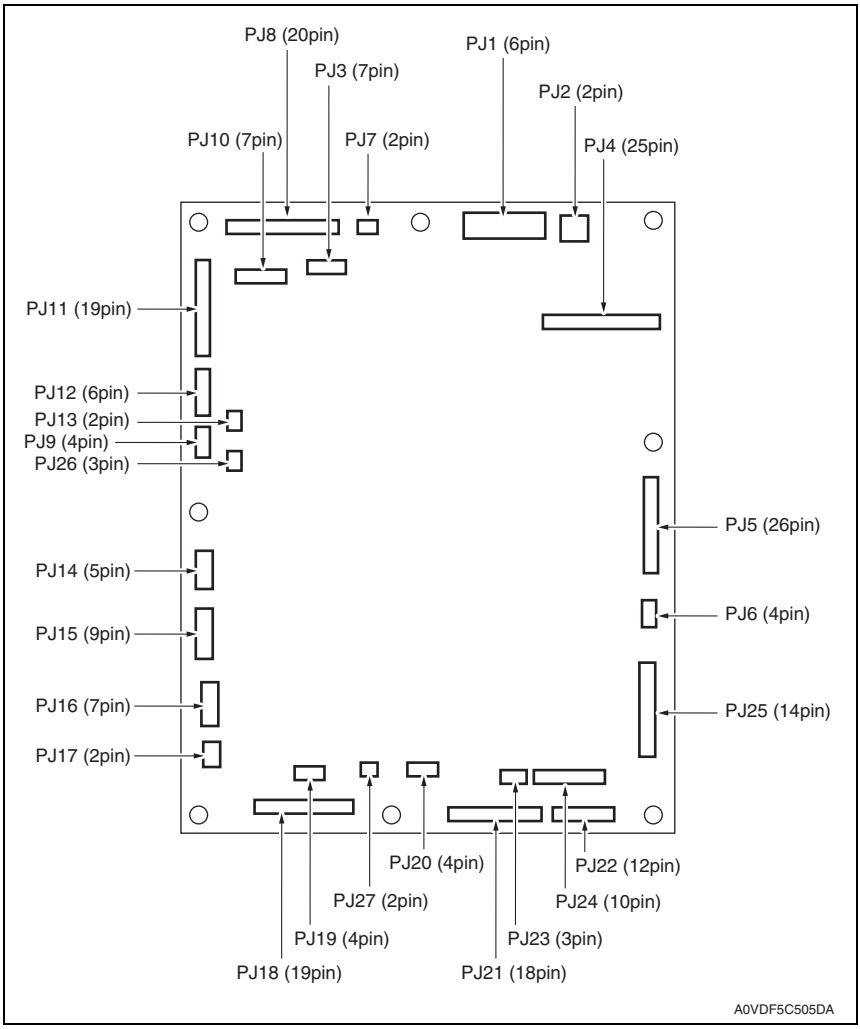
17.2 Lower feeder unit (option)



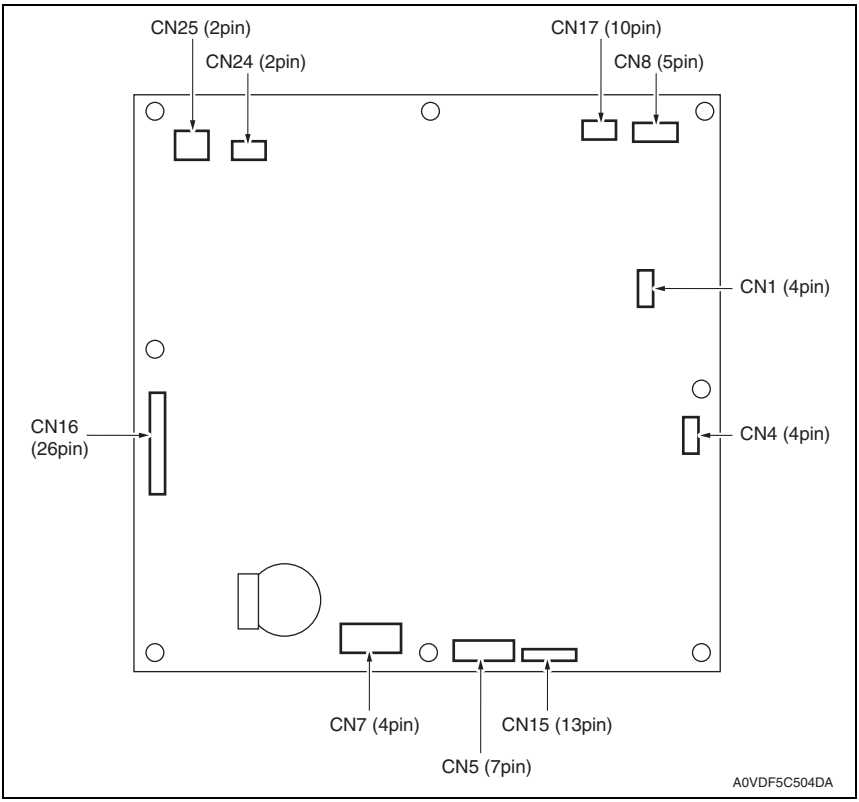
[1] Conveyance clutch (CL2)
[2] Right door sensor (PS5)
[3] Media feed sensor (PS3)
[4] Media empty sensor (PS1)
[5] PC control board (PCCB)
[6] Media size switch (SW1)
[7] Media feed motor (M1)
[8] Media feed clutch (CL1)

18. CONNECTOR LAYOUT DRAWING

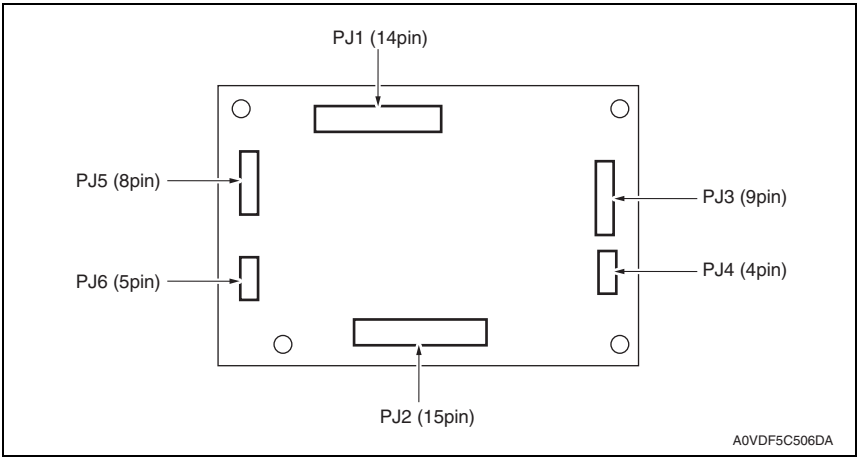
18.1 Printer control board (PRCB)



18.2 MFP board (MFPB)



18.3 PC control board (PCCB)

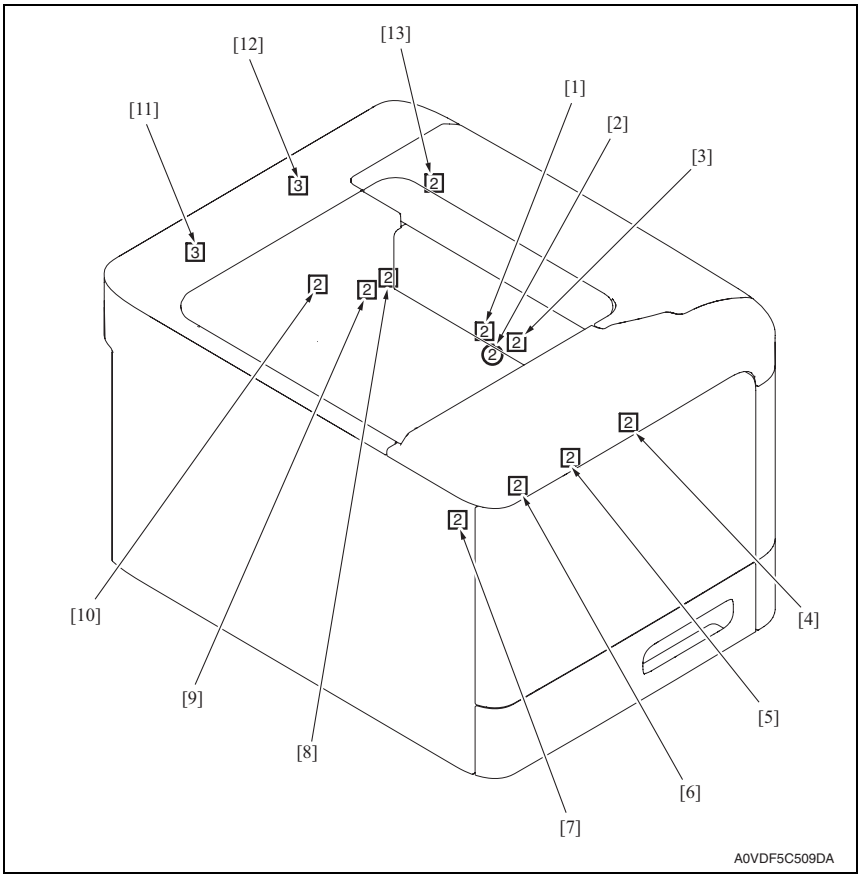


19. CONNECTOR LAYOUT DRAWING

Description

Number of Pin → ① Possible to confirm by removing external cover.

→ 1 Not possible to confirm by removing external cover.



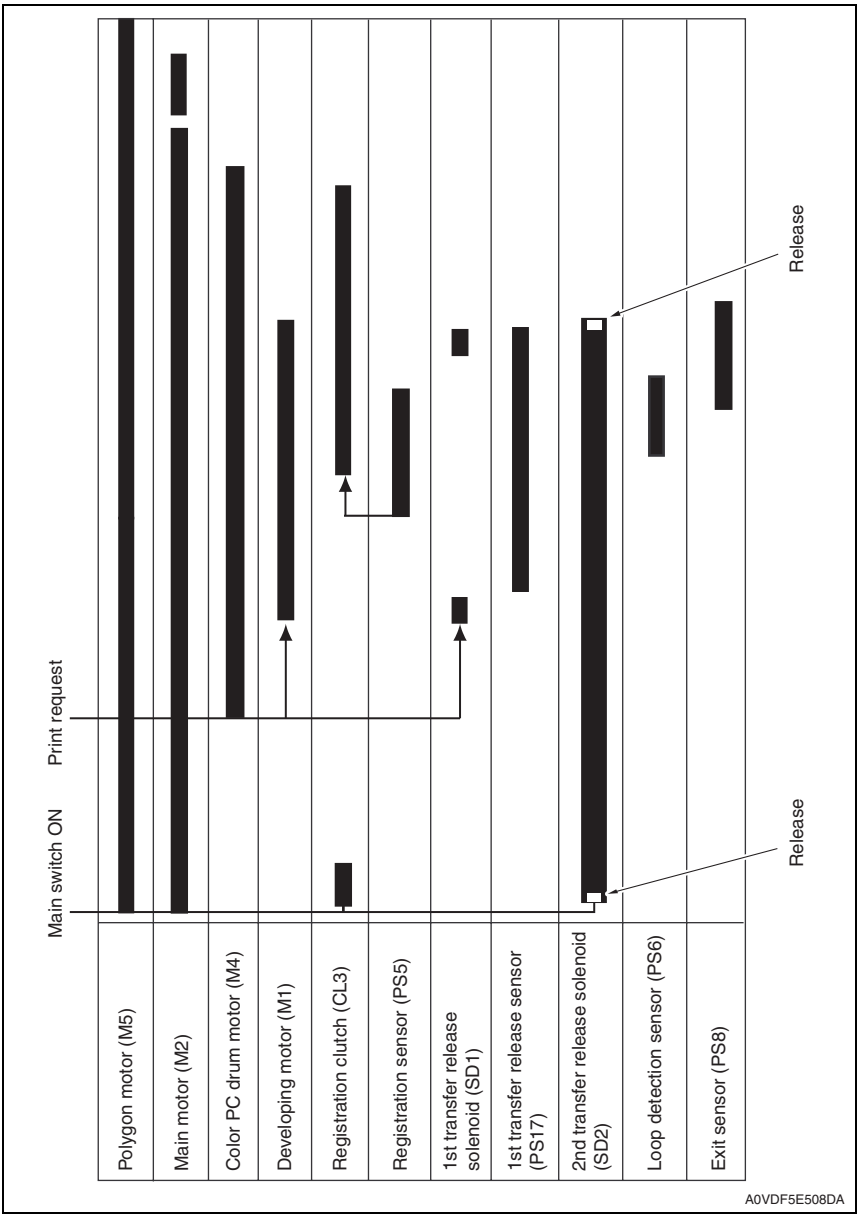
No.	CN No.	Location	No.	CN No.	Location
[1]	CN23	D-7	[8]	CN27	E-7
[2]	CN22	D-7	[9]	CN28	E-7
[3]	CN20	C-7	[10]	CN25	C-15
[4]	CN35	H-7	[11]	CN29	F-7
[5]	CN34	H-7	[12]	CN43	K-11
[6]	CN33	H-7	[13]	CN2	C-15
[7]	CN32	G-7			

20. TIMING CHART

A. Operating conditions

- Color, A4S or 8 $^{1}/_{2}$ x 11S

B. Timing chart



KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

Lower Feeder Unit (PF-P07)

2010.05

KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 1.0

Revision history

After publication of this service manual, the parts and mechanism may be subject to change for improvement of their performance.
Therefore, the descriptions given in this service manual may not coincide with the actual machine.

When any change has been made to the descriptions in the service manual, a revised version will be issued with a revision mark added as required.

Revision mark:

- To indicate clearly a section revised, show  to the left of the revised section.
  A number within represents the number of times the revision has been made.

- To indicate clearly a section revised, show  in the lower outside section of the corresponding page.
  A number within represents the number of times the revision has been made.

NOTE

Revision marks shown in a page are restricted only to the latest ones with the old ones deleted.

- When a page revised in Ver. 2.0 has been changed in Ver. 3.0:
  The revision marks for Ver. 3.0 only are shown with those for Ver. 2.0 deleted.
- When a page revised in Ver. 2.0 has not been changed in Ver. 3.0:
  The revision marks for Ver. 2.0 are left as they are.

2010/05	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

CONTENTS

Lower Feeder Unit (PF-P07)

OUTLINE

MAINTENANCE

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OUTLINE

1. PRODUCT SPECIFICATIONS

A. Type

Name	Add-on 500-sheet media feed cassette
Type	Front-loading type
Installation	Desk type
Media feeding system	Media separation by a small-diameter roller with torque limiter
Document alignment	Center

B. Media type

Media size	B5S(JIS)/Executive/LetterS/A4S/Letter Plus/G-Legal/Legal
Media type	• Plain paper: 60 to 90 g/m² (16 to 24 lb) • Recycled paper: 60 to 90 g/m² (16 to 24 lb)
Capacity	500 sheets

C. Machine specifications

Power Requirements	DC 24 V ± 10% (supplied from the main body)
	DC 3.3 V ± 5%
Max. Power Consumption	16 W or less
Dimensions	447 mm (W) × 519 mm (D) × 117 mm (H) 17.6 inch (W) × 20.4 inch (D) × 4.6 inch (H)
Weight	Approx. 6.5 kg (14.25 lb)

D. Operating environment

Temperature	10° to 35° C/50° to 95° F (with a fluctuation of 10° C/h (18° F/h))
Humidity	15% to 85% (with a fluctuation of 20%/h)

NOTE
These specifications are subject to change without notice.

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MAINTENANCE

2. Periodical maintenance procedure

2.1 Feed section

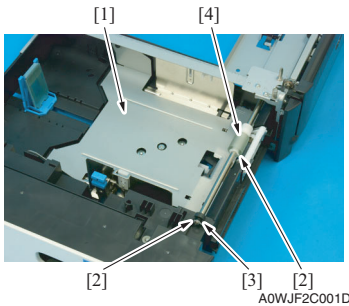
2.1.1 Replacing the tray3 feed roller

A. Periodically replaced parts/cycle

- Tray3 feed roller: Every 300,000 counts

B. Procedure

1. Slide out tray3.



2. Lock the media lifting metal plate [1].

3. Remove two C-rings [2] and the bearing [3] at the front, and remove the tray3 feed roller [4].

3. OTHER MAINTENANCE ITEM

3.1 Items not allowed to be disassembled and adjusted

A. 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.**

B. 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.**

C. Variable resistors on board

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

D. Removal of PWBs

⚠ 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.**

E. Precautions for disassembly
- **When accessing a hard-to-view or narrow spot, be careful about sharp edges and burrs of 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.

F. Precautions during setup or transportation

- **Whenever mounting an option on the machine, be attentive to the motion of the fellow worker of the joint work.**
  The fellow worker may be injured with his or her finger or hand pinched 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.
- **Do not leave the machine unattended during transportation, installation, and inspection of the machine. If it is to be unavoidably left unattended, face protrusions toward the wall or take other necessary risk reducing action.**
  The user may stumble over a protrusion of the machine or be caught by a cable, falling to the floor or being injured.

3.2 Disassembly/reassembly parts list

Section	Part name	Ref. page
Exterior parts	Rear cover	P.6
	Rear right cover	P.7
Unit	Lower feeder unit	P.7
Board and etc	PC control board (PCCB)	P.8
Others	Media feed motor (M1)	P.8
	Media feed clutch (CL1)	P.9
	Conveyance clutch (CL2)	P.11

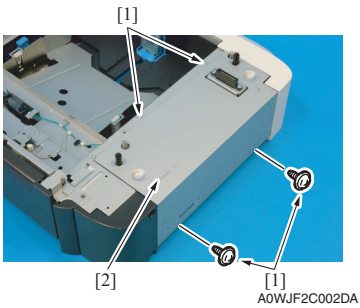
3.3 Cleaning parts list

Section	Part name	Ref. page
Rollers	Tray3 feed roller	P.13
	Conveyance roller	P.13

3.4 Disassembly/reassembly procedure

3.4.1 Rear cover

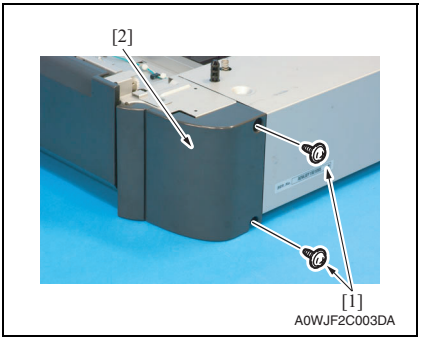
1. Remove the lower feeder unit from the machine.
See P.7



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

3.4.2 Rear right cover

1. Remove the lower feeder unit from the machine.
See P.7

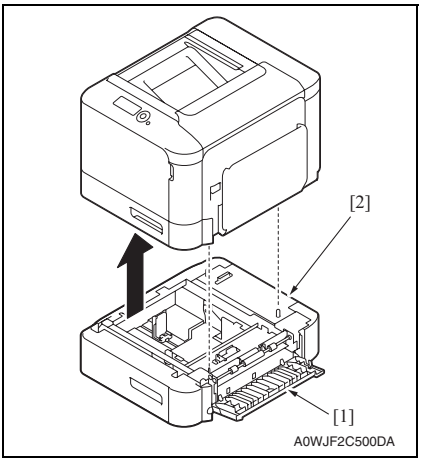


2. Remove two screws [1], and remove the rear right cover [2].

3.4.3 Lower feeder unit

NOTE

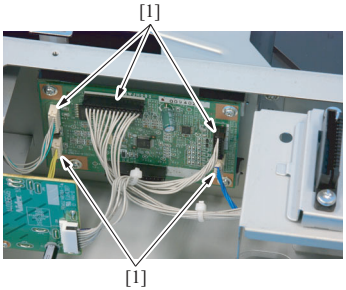
- **Whenever removing or reinstalling the Lower Feeder Unit, be sure first to unplug the power cord of the printer from the power outlet.**



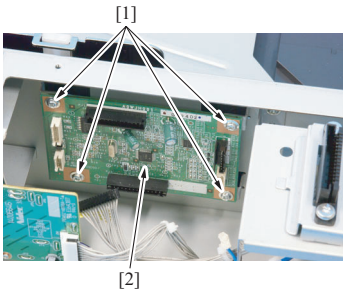
1. Open the right door [1].
2. Lift the printer main body and then remove the Lower Feeder Unit [2] from the printer.

3.4.4 PC control board (PCCB)

1. Remove the lower feeder unit from the machine.
See P.7
2. Remove the rear cover.
See P.6



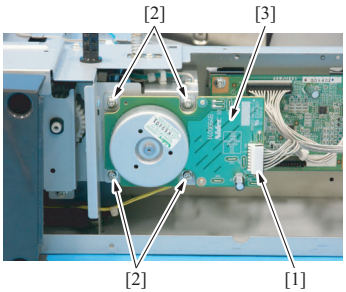
3. Disconnect five connectors [1] from the PC control board.



4. Remove four screws [1], and remove the PC control board [2].

3.4.5 Media feed motor (M1)

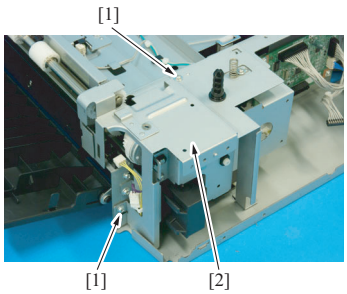
1. Remove the rear cover.
See P.6



2. Disconnect the connector [1].
3. Remove four screws [2], and remove the media feed motor [3].

3.4.6 Media feed clutch (CL1)

1. Remove the lower feeder unit from the machine.
See P.7
2. Remove the rear cover.
See P.6
3. Remove the rear right cover.
See P.7
4. Remove the media feed motor.
See P.8
5. Open the right door.



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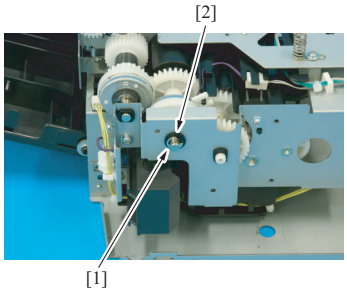
6. Remove two screws [1], and remove the protect metal plate [2].



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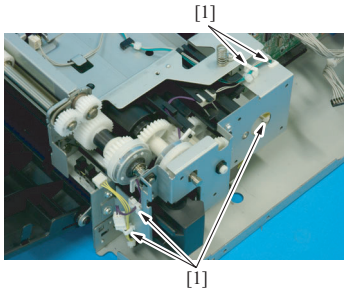
7. Remove the E-ring [1] and bushing [2].



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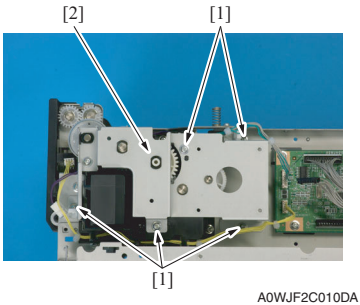
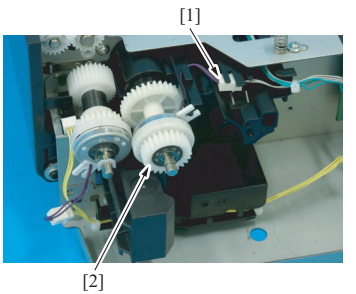
8. Remove the harness from five edge covers [1].



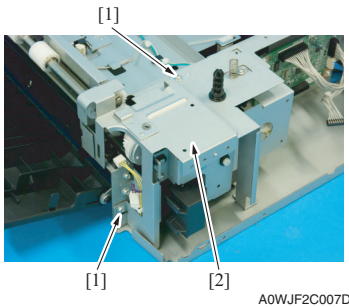
9. Remove five screws [1], and remove the gear fixing metal plate [2].



10. Disconnect the connector [1], and remove the media feed clutch [2].

3.4.7 Conveyance clutch (CL2)

1. Remove the lower feeder unit from the machine.
See P.7
2. Remove the rear cover.
See P.6
3. Remove the rear right cover.
See P.7
4. Remove the media feed motor.
See P.8
5. Open the right door.



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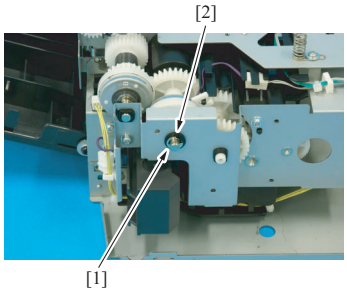
6. Remove two screws [1], and remove the protect metal plate [2].



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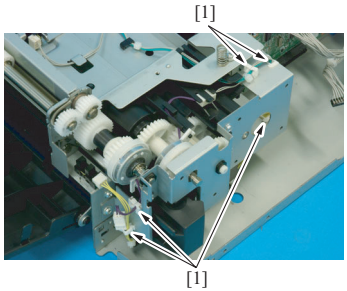
7. Remove the E-ring [1] and bushing [2].



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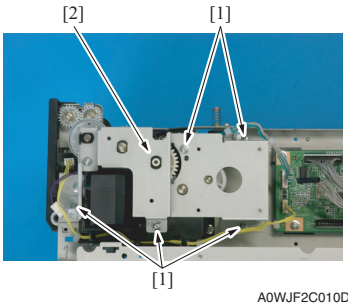
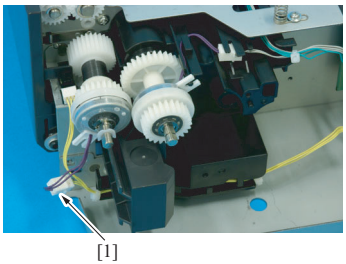
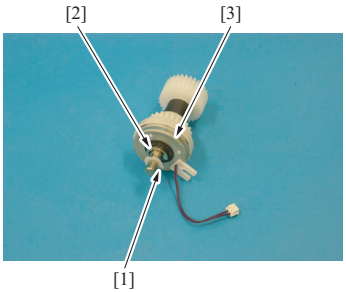
8. Remove the harness from five edge covers [1].



9. Remove five screws [1], and remove the gear fixing metal plate [2].



10. Disconnect the connector [1].



11. Remove the C-ring [1] and the E-ring [2], and remove the conveyance clutch [3].

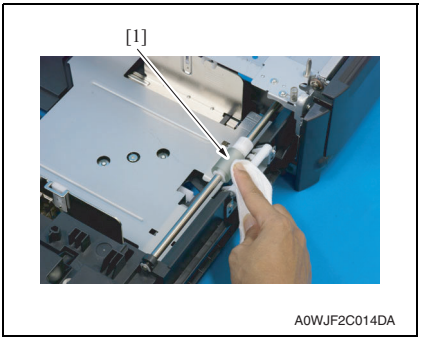
3.5 Cleaning point

NOTE

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

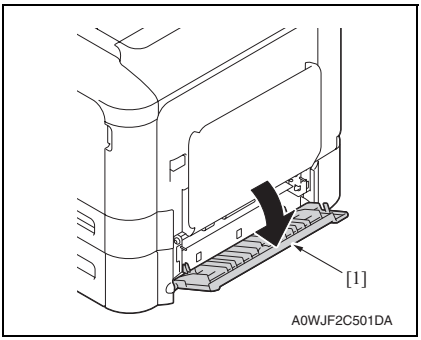
3.5.1 Tray3 media feed rollers

1. Slide out tray3.

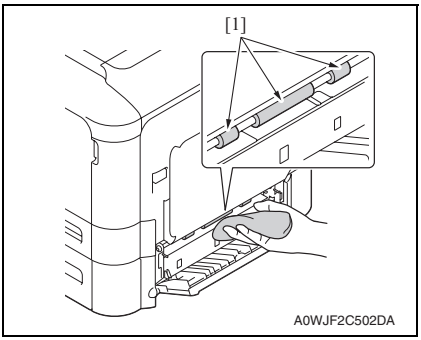


2. Wipe the tray3 media feed roller [1] clean of dirt using a cleaning pad dampened with alcohol.

3.5.2 Conveyance roller



1. Open the right door [1].



2. Wipe the conveyance roller [1] clean of dirt using a cleaning pad dampened with alcohol.

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