KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

magicolor® 2400W
magicolor® 2430 DL
magicolor® 2450

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2006.02
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 4.0

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**

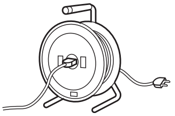
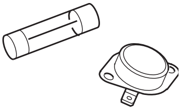
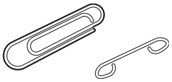
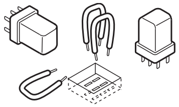
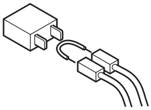
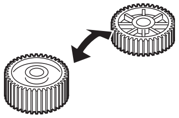
Symbols used for safety and important warning items are defined as follows:

△ :Precaution when servicing the product.	⚠ General precaution	⚡ Electric hazard	♨ High temperature
⊘ :Prohibition when servicing the product.	⊘ General prohibition	⊘ Do not touch with wet hand	⊘ Do not disassemble
● :Direction when servicing the product.	❗ General instruction	● Unplug	⏚ Ground/Earth

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

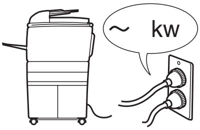
- Check that mains voltage is as specified.

  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.

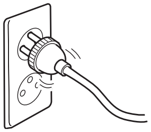
  If excessive current flows in the wall outlet, fire may result.

- 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.

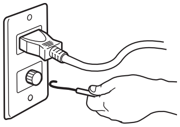
  Contact problems may lead to increased resistance, overheating, and the risk of fire.



- 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.

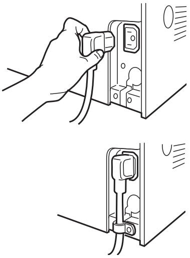


Power Plug and Cord

⚠ WARNING

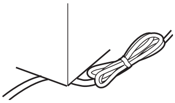
- When using the power cord set (inlet type) that came with this product, make sure the connector is securely inserted in the inlet of the product.
  When securing measure is provided, secure the cord with the fixture properly.

  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.



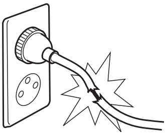
- Check whether the power cord is not stepped on or pinched by a table and so on.

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



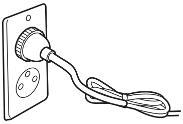
- Check whether the power cord is damaged. Check whether the sheath is damaged.

  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.



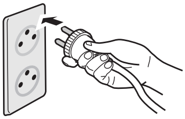
- Do not bundle or tie the power cord.

  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.

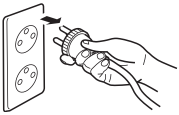


- Do not insert the power plug into the wall outlet with a wet hand.

  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.

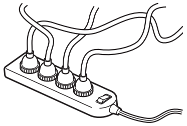


Wiring

⚠ WARNING

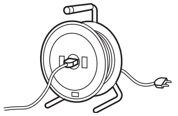
- Never use multi-plug adapters to plug multiple power cords in the same outlet.

  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

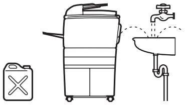
⚠ WARNING

- 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.

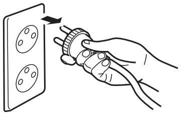


When not Using the Product for a long time

⚠ 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.

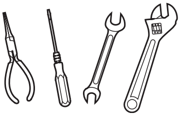
  In the case of an earthquake and so on, the product may slide, leading to a injury.

Inspection before Servicing

⚠ CAUTION

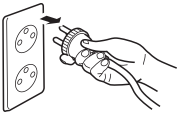
- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure, using only the prescribed tools. Do not make any adjustment not described in the documentation.

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



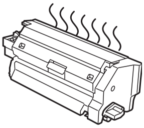
- Before conducting an inspection, be sure to disconnect the power plugs from the product and options.

  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.

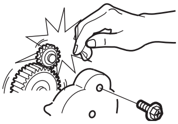


Work Performed with the Product Powered On

⚠ 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.

Safety Checkpoints

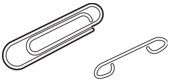
⚠ WARNING

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

  The user or CE may be injured.

- 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.

Safety Checkpoints

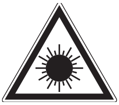
⚠ WARNING

- 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.

- 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.

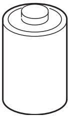


- Do not remove the cover of the write unit. Do not supply power with the write unit shifted from the specified mounting position.

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

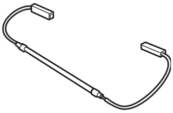
- When replacing a lithium battery, replace it with a new lithium battery specified in the Parts Guide Manual. Dispose of the used lithium battery using the method specified by local authority.

  Improper replacement can cause explosion.



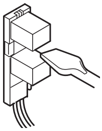
- After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.

  A risk of fire exists.



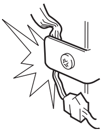
- Check the interlock switch and actuator for loosening and check whether the interlock functions properly.

  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.

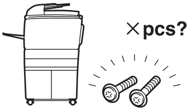


Safety Checkpoints

⚠ WARNING

- 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.

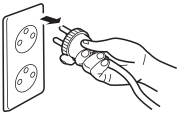
  You may be burned due to dust explosion.

Handling of Service Materials

⚠ CAUTION

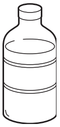
- Unplug the power cord from the wall outlet.

  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.



Handling of Service Materials

⚠ CAUTION

- 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

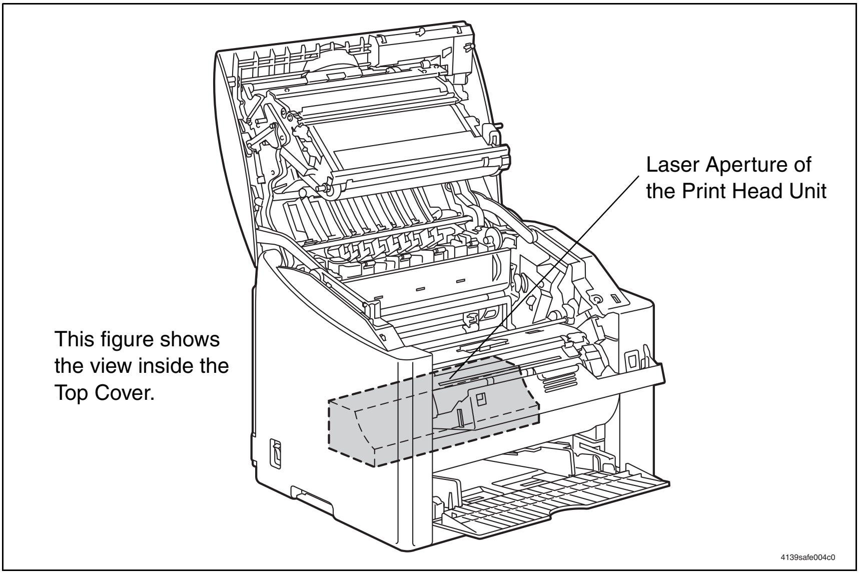
- This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

4.1 Internal Laser Radiation

semiconductor laser	
Maximum power of the laser diode	10 mW
Maximum average radiation power (*)	7.5 μW
Wavelength	775-800 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.


Laser Aperture of the Print Head Unit
This figure shows the view inside the Top Cover.
4139safe004c0

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	10 mW
Wavelength	775-800 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	10 mW
Wavelength	775-800 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	10 mW
bølgelængden	775-800 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	10 mW
aallonpituus	775-800 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	10 mW
våglängden	775-800 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

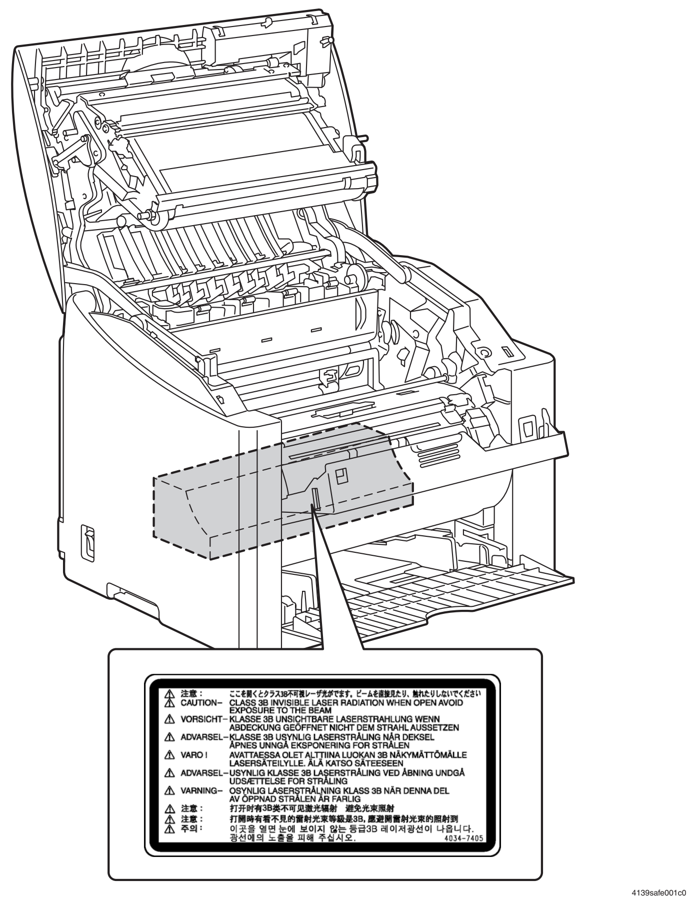
ADVERSEL

- **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	10 mW
bølgelengde	775-800 nm

4.2 Laser Safety Label

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

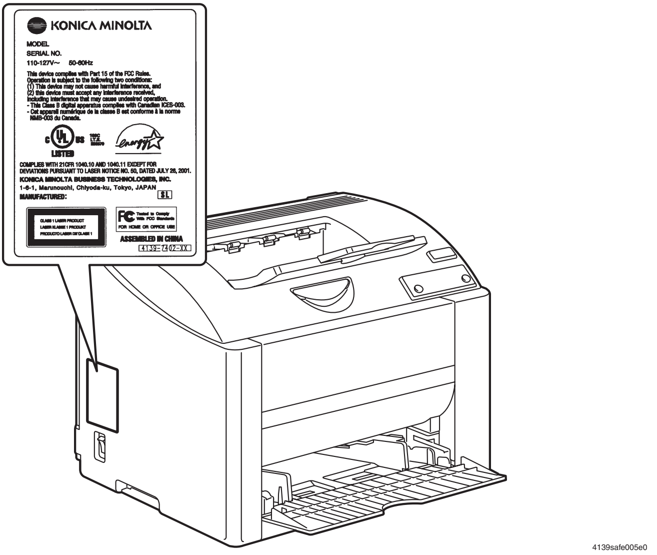


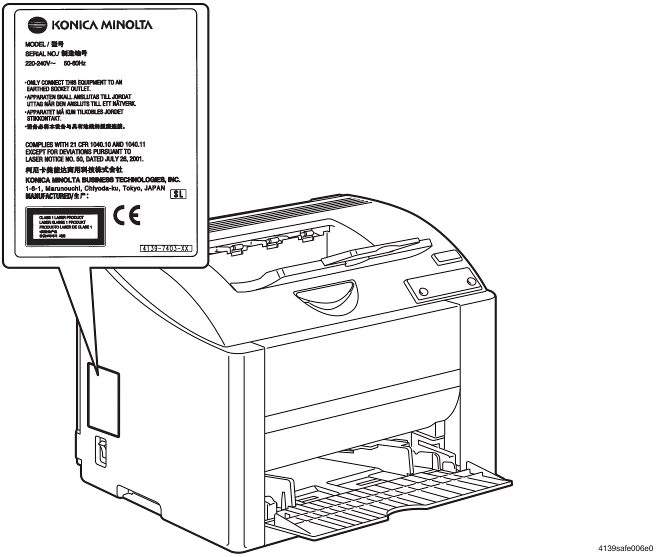
⚠ 注意： ここを開くとクラス3B不可視レーザ光がでます。ビームを直接見たり、触れたりしないでください
⚠ CAUTION– CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO THE BEAM
⚠ VORSICHT– KLASSE 3B UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN
⚠ ADVARSEL– KLASSE 3B USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN
⚠ VARO ! AVATTAESSA OLET ALTTIINA LUOKAN 3B NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN
⚠ ADVARSEL– USYNLIG KLASSE 3B LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING
⚠ VARNING– OSYNLIG LASERSTRÅLNING KLASS 3B NÄR DENNA DEL AV ÖPPNAD STRÅLEN ÄR FARLIG
⚠ 注意： 打开时有3B类不可见激光辐射　避免光束照射
⚠ 注意： 打開時有看不見的雷射光束等級是3B，應避開雷射光束的照射到
⚠ 주의： 이곳을 열면 눈에 보이지 않는 등급3B 레이저광선이 나옵니다. 광선에의 노출을 피해 주십시오.
4034-7405

4.3 Laser Caution Label

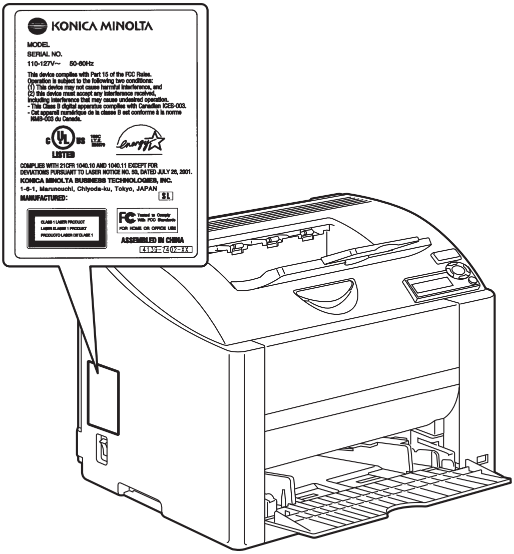
- A laser caution label is attached to the outside of the machine as shown below.

A. magicolor 2400W

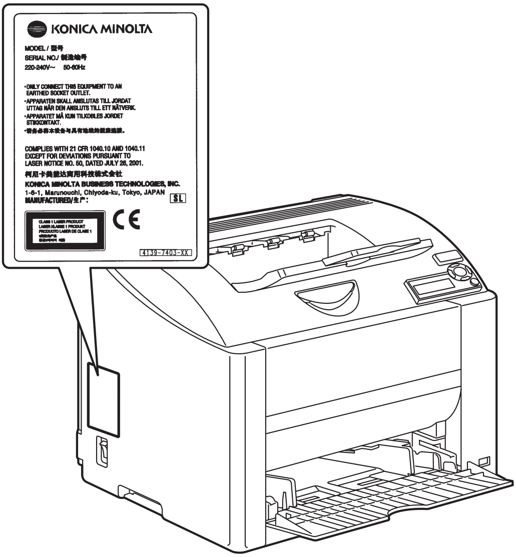

KONICA MINOLTA
MODEL
SERIAL NO.
110-127V~ 50-60Hz
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
LISTED
COMPLIES WITH 21CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED:
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
Tested to Comply With FCC Standards
FOR HOME OR OFFICE USE
ASSEMBLED IN CHINA
4139-7402-XX
4139safe005e0


KONICA MINOLTA
MODEL / 型号
SERIAL NO./ 制造编号
220-240V~ 50-60Hz
•ONLY CONNECT THIS EQUIPMENT TO AN EARTHED SOCKET OUTLET.
•APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG NÄR DEN ANSLUTS TILL ETT NÄTVERK.
•APPARATET MÅ KUN TILKOBLES JORDET STIKKONTAKT.
•请务必将本设备与具有地线的插座连接。
COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
柯尼卡美能达商用科技株式会社
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED/生产：
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
CE
4139-7403-XX
4139safe006e0

B. magicolor 2430 DL

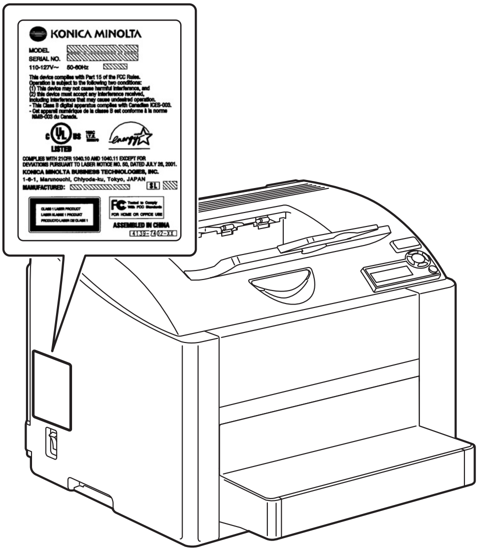

KONICA MINOLTA
MODEL
SERIAL NO.
110-127V~ 50-60Hz
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received,
including interference that may cause undesired operation.
- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
c UL us
LISTED
energy
COMPLIES WITH 21CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED:
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
FC Tested to Comply With FCC Standards
FOR HOME OR OFFICE USE
ASSEMBLED IN CHINA
4139-7402-XX

4139safe007e0

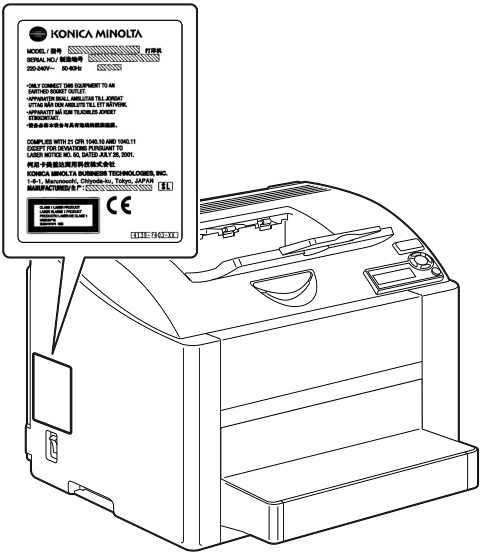

KONICA MINOLTA
MODEL / 型号
SERIAL NO./ 制造编号
220-240V~ 50-60Hz
•ONLY CONNECT THIS EQUIPMENT TO AN EARTHED SOCKET OUTLET.
•APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG NÄR DEN ANSLUTS TILL ETT NÄTVERK.
•APPARATET MÅ KUN TILKOBLES JORDET STIKKONTAKT.
•请务必将本设备与具有地线的插座连接。
COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
柯尼卡美能达商用科技株式会社
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED/生产:
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
CE
4139-7403-XX

4139safe008e0

C. magicolor 2450


KONICA MINOLTA
MODEL
SERIAL NO.
110-127V~ 50-60Hz
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received,
including interference that may cause undesired operation.
- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
c UL us
LISTED
energy
COMPLIES WITH 21CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED:
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
FC Tested to Comply With FCC Standards
FOR HOME OR OFFICE USE
ASSEMBLED IN CHINA
4139-7402-XX

4139P0E501DA


KONICA MINOLTA
MODEL / 型号
打印机
SERIAL NO./ 制造编号
220-240V~ 50-60Hz
•ONLY CONNECT THIS EQUIPMENT TO AN EARTHED SOCKET OUTLET.
•APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG NÄR DEN ANSLUTS TILL ETT NÄTVERK.
•APPARATET MÅ KUN TILKOBLES JORDET STIKKONTAKT.
•请务必将本设备与具有地线的插座连接。
COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JULY 26, 2001.
柯尼卡美能达商用科技株式会社
KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.
1-6-1, Marunouchi, Chiyoda-ku, Tokyo, JAPAN
MANUFACTURED/生产:
SL
CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
PRODUCTO LASER DE CLASE 1
CE
4139-7403-XX

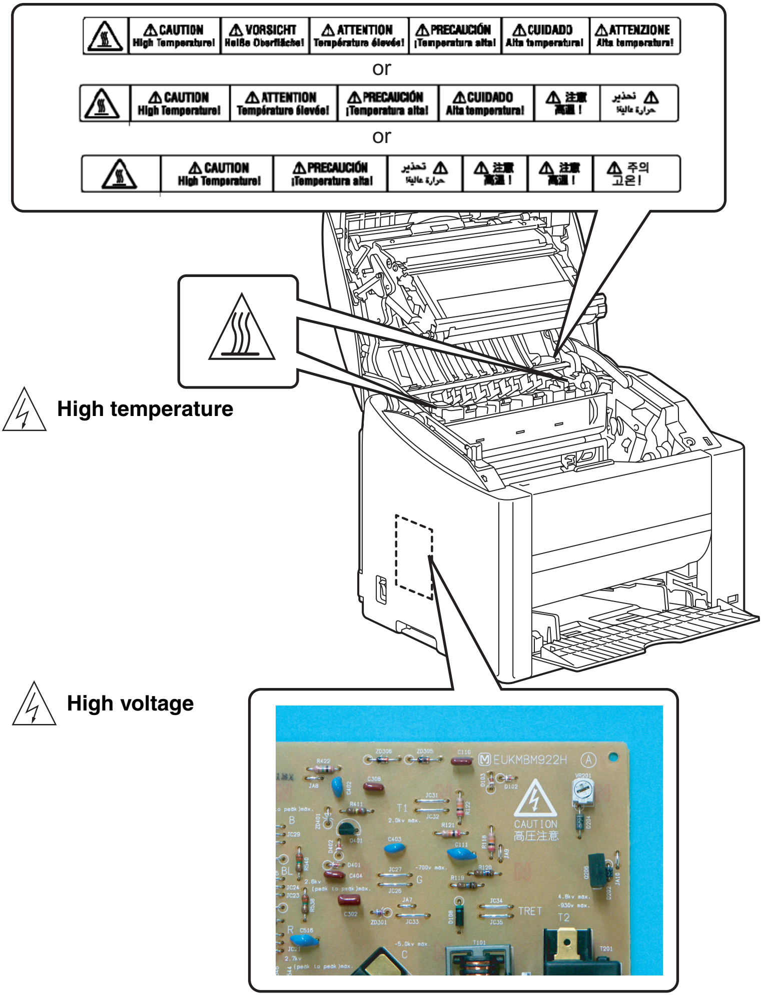
4139P0E502DA

4.4 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

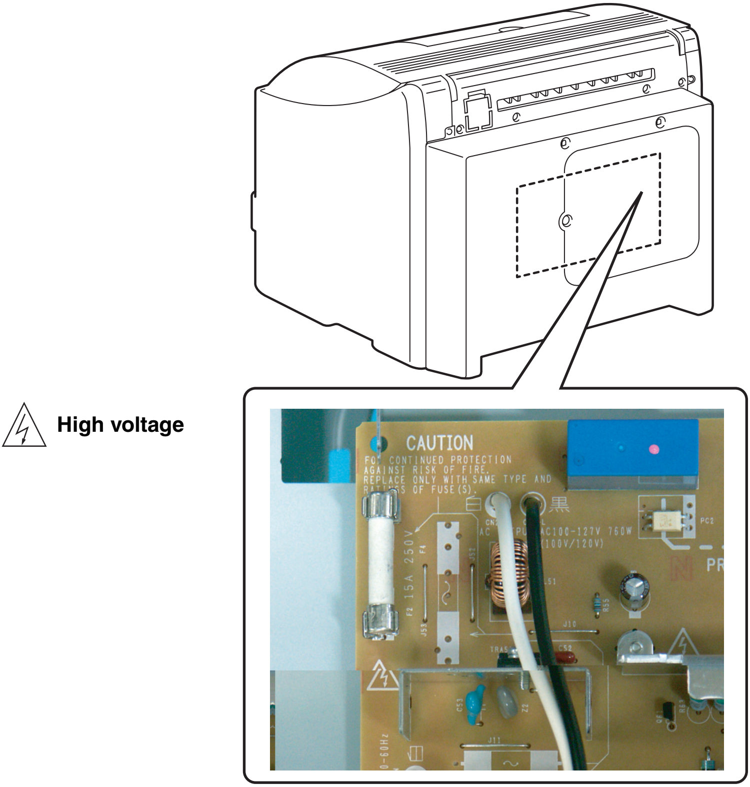
- When laser protective goggles are to be used, select ones with a lens conforming to the above specifications.
- When a disassembly job needs to be performed in the laser beam path, such as when working around the printerhead and PC Drum, be sure first to turn the printer OFF.
- If the job requires 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.
- The Print Head is not to be disassembled or adjusted in the field. Replace the Unit or Assembly including the Control Board. Therefore, remove the Laser Diode, and do not perform Control Board trimmer adjustment.

WARNING INDICATIONS ON THE MACHINE

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


CAUTION High Temperature!
VORSICHT Heiße Oberfläche!
ATTENTION Température élevée!
PRECAUCIÓN ¡Temperatura alta!
CUIDADO Alta temperatura!
ATTENZIONE Alta temperatura!
or
CAUTION High Temperature!
ATTENTION Température élevée!
PRECAUCIÓN ¡Temperatura alta!
CUIDADO Alta temperatura!
注意 高温！
تحذير حرارة عالية
or
CAUTION High Temperature!
PRECAUCIÓN ¡Temperatura alta!
تحذير حرارة عالية
注意 高温！
注意 高温！
주의 고온!
High temperature
High voltage
EUKMBM922H
CAUTION
高圧注意
T1
T2
TRET

4139safe009c0



4139safe010c0

CAUTION:

- **You may be burned or injured if you touch any area that you are advised not to touch by any caution label. Do not remove caution labels. If any caution label has come off or become dirty and therefore the caution cannot be read, contact our Service Office.**

KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

magicolor® 2400W
magicolor® 2430 DL
magicolor® 2450

Main Unit

Confidential – for internal use only, do not distribute

2006.02

KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 4.0

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 △1 to the left of the revised section.
  A number within △1 represents the number of times the revision has been made.

- To indicate clearly a section revised, show ▲1 in the lower outside section of the corresponding page.
  A number within ▲1 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.

2006/2	4.0	△3	Adding the descriptions of magicolor 2430 DL
2005/4	3.0	△2	Adding the descriptions of magicolor 2450
2004/10	2.0	△1	Adding the descriptions of magicolor 2430 DL
2004/09	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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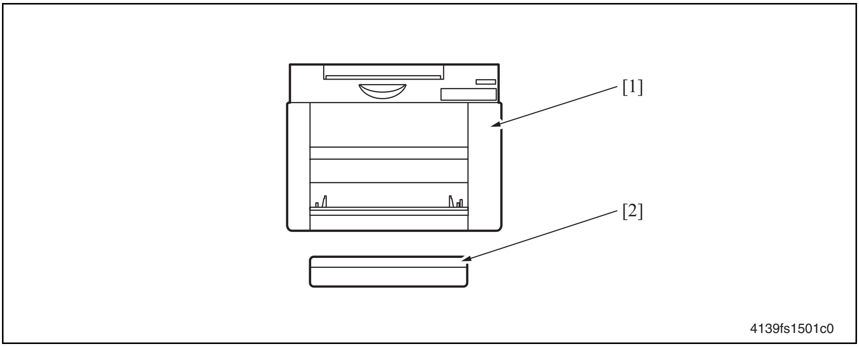
General

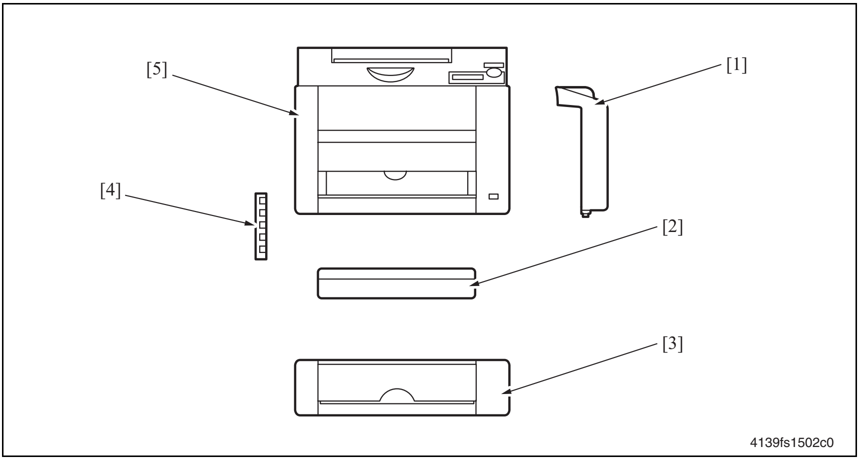
1. System configuration

A. magicolor 2400W



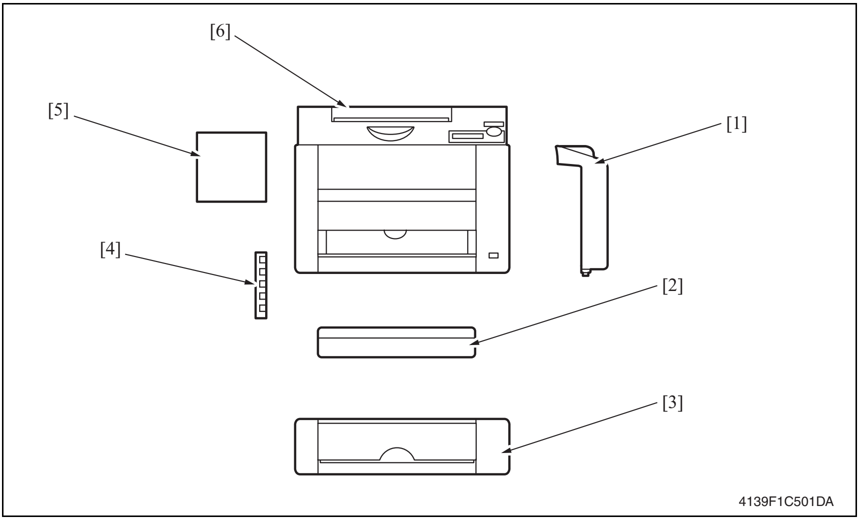
[1]	Main Unit	[2]	Dust Cover

B. magicolor 2430 DL



[1]	Duplex Option	[4]	256 MB/512 MB DIMM
[2]	Dust Cover	[5]	Main Unit
[3]	Lower Feeder Unit		

C. magicolor 2450



[1]	Duplex Option	[4]	128 MB/256 MB/512 MB DIMM
[2]	Dust Cover	[5]	HDD Option
[3]	Lower Feeder Unit	[6]	Main Unit

2. Product specifications

2.1 Type

Type	Desktop full-color laser beam printer	
Printing System	Semiconductor laser and electrostatic image transfer to plain paper	
Exposure System	2 laser diodes and polygon mirror	
PC Drum Type	OPC (organic photo conductor)	
Photoconductor Cleaning	Blade cleaning system	
Print Density	600 x 600 dpi	
Paper Feeding System	magicolor 2400W	One-way system (Tray 1: 200 sheets)
	magicolor 2430 DL/ magicolor 2450	One-way system (Tray 1: 200 sheets) * Expandable to a two-way system by adding an optional Lower Feeder Unit.
Developing System	Single-element developing system	
Charging System	DC comb electrode Scorotron system	
Image Transfer System	Intermediate transfer belt system	
Paper Separating System	Curvature separation + Charge-neutralizing system	
Fusing System	Roller fusing	
Paper Exit System	Face down (Output Tray capacity: 200 sheets)	

2.2 Functions

Warm-up Time (at ambient temperature of 23°C/73.4°F and rated source voltage)	magicolor 2400W/ magicolor 2430 DL	110 V to 127 V area	Average: 45 seconds
		220 V to 240 V area	Average: 49 seconds
	magicolor 2450	110 V to 127 V area	Average: 52 seconds
		220 V to 240 V area	Average: 55 seconds
System Speed	Plain paper	126.78 mm/second	
	Thick stock	63.39 mm/second	
	OHP film	42.26 mm/second	
First-Page-Out Time (Plain Paper)	magicolor 2400W	Full Color	1-sided: 21 seconds
		Monochrome	1-sided: 12 seconds
	magicolor 2430 DL	Full Color	1-sided: 21 seconds 2-sided: 33 seconds
		Monochrome	1-sided: 12 seconds 2-sided: 24 seconds
	magicolor 2450	Full Color	1-sided: 21 seconds 2-sided: 32 seconds
		Monochrome	1-sided: 12 seconds 2-sided: 26 seconds
Print Speed (Plain Paper)	magicolor 2400W	Full Color	1-sided: 5 pages/minute
		Monochrome	1-sided: 20 pages/minute
	magicolor 2430 DL/ magicolor 2450	Full Color	1-sided: 5 pages/minute 2-sided: 5 pages/minute
		Monochrome	1-sided: 20 pages/minute 2-sided: 11.4 pages/minute
Custom Paper Sizes	Paper width: 92 to 216 mm (3.6" to 8.5")		
	Paper length: 148 to 356 mm (5.9" to 14")		
Media Types	• Plain Paper (60 to 90 g/m^2 / 16 to 24 lb) • Transparencies • Thick stock (91 to 163 g/m^2/ 25 to 40 lb) • Postcards • Envelopes • Letterhead • Label stock • Glossy stock		
Tray Capacities	Plain paper and letterhead :200 sheets Transparencies, thick stock, postcards, labels stock, and glossy stock :50 sheets Envelopes :10 sheets		
Hard Disk	Option (magicolor 2450 only) 40 GB		

Lower Feeder Unit: Only plain paper and recycled paper weighing 60 to 90 g/m^2 (16 to 24 lb) can be loaded.

Duplex Option: Only plain paper and recycled paper weighing 60 to 90 g/m^2 (16 to 24 lb) can be fed through the unit.

☞ For details, see the Service Manual for each option.

2.3 Maintenance

Machine Durability	200,000 prints or 5 years, whichever comes first

2.4 Machine Specifications

Power Requirements Voltage:	AC 110 to 127 V AC 220 to 240 V
Frequency:	50/60 Hz ± 3 Hz
Max Power Consumption	1100 W
Dimensions	430 mm (W) x 395 mm (D) x 341 (H) mm 16.9" (W) x 15.6" (D) x 13.4" (H)
Weight	Approximately 19.6 kg (43.9 lb) (excluding the Dust Cover)
Operating Noise	During standby : 35 dB (A) or less During printing : 53 dB (A) or less

2.5 Operating Environment

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

2.6 Controller

A. magicolor 2400W

CPU	Naltec N4-Chip
Standard Memory	32 MB
Interface	USB 1.1/2.0 (High-Speed) compliant
Printer Driver	GDI Printer Driver
OS Compatibility	Windows 98SE/Me/2000/XP

B. magicolor 2430 DL

CPU	ARM9 130 MHz	
Standard Memory	32 MB	
Interfaces	USB 1.1/2.0, 10Base-T/100Base-TX (IEEE 802.3) Ethernet	
Printer Drivers	Windows	Windows GDI-based driver/PageScope Raster Language
	Mac OS 9	Raster-based driver/PageScope Raster Language
	Mac OS X	CUPS 1.15 or later/GhostScript (for Mac OS X10.2 only)/ PageScope Raster Language
	Linux	CUPS 1.15 or later/GhostScript/PageScope Raster Language
OS Compatibility	Windows 98SE/NT4.0/Me/2000/Server 2003/XP, Mac OS 9.04/X10.2 or later, Linux Red Hat 8.0 or later/SuSE 8.1 or later	

C. magicolor 2450

<table>
<tr><td>CPU</td><td colspan="2">freescale MPC8220i (300 MHz)</td></tr>
<tr><td>Standard Memory</td><td colspan="2">256 MB</td></tr>
<tr><td>Interfaces</td><td colspan="2">10 Base-T/100 Base-TX (IEEE 802.3) Ethernet
USB Revision 2.0/1.1
IEEE1284</td></tr>
<tr><td rowspan="4">Printer Drivers</td><td>Windows</td><td>Windows NT4.0//2000/Server 2003/XP PostScript driver, Windows 98SE/NT4.0/Me/2000/Server 2003/XP PPDs, PCL XL driver</td></tr>
<tr><td>Mac OS 9</td><td>PPD</td></tr>
<tr><td>Mac OS X</td><td>PPD + PDE</td></tr>
<tr><td>Linux</td><td>PPD for CUPS</td></tr>
<tr><td>OS Compatibility</td><td colspan="2">Windows 98SE/Me/NT4.0 (SP6 or later)/2000 (SP4 or later)/XP (SP1 or later)/Server 2003
Mac OS 9 (9.1 or later/Mac OS X (10.2 or later)
Mac OS X Server (10.2 or later)
RedHat Linux 9.0.1, SuSE Linux 8.2 (CUPS 1.1.15 or later)
NetWare 4/5/6</td></tr>
</table>

NOTE

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

Maintenance

3. Periodic check

3.1 Maintenance items

3.1.1 Parts to be replaced by users (CRUs)

No	Classification	Part name	Number of prints	Clean	Replace	Description
1	Processing section	Toner Cartridge * (TC Y/TC M/TC C)	1,500		●	
		Toner Cartridge ** (TC Y/TC M/TC C/ TC K)	4,500		●	
2		Drum Cartridge	Monochrome 45,000 (MP ***)		●	
			Monochrome 10,000 (1P/J****)			
			Full Color 11,250 (MP ***)			
			Full Color 7,500 (1P/J****)			
3		PH Window	When a malfunction occurs	●		
4	Tray1 paper pick-up section	Pick-up Roller	When a malfunction occurs	●		

* : The Toner Cartridges shipped with the magicolor 2400W/2430 DL have a life expectancy of 1,500 printed pages.

** : The Toner Cartridge shipped with the magicolor 2450 have a life expectancy of 4,500 printed pages.

*** : Continuous printing

**** : 1 page/job

3.1.2 Parts to be replaced by Service Engineers (FRUs)

No	Classification	Part name	Number of prints	Clean	Replace	Description
1	Image Transfer section	Transfer Belt Unit	Monochrome 135,000 (MP *)		●	
			Monochrome 45,000 (1P/J**)			
			Full Color 33,700 (MP *)			
			Full Color 22,500 (1P/J**)			
			Standard Mode *** 36,800			
2		2nd Transfer Roller	120,000		●	
3	Fusing section	Fusing Unit	120,000		●	

* : Continuous printing

** : 1 page/job

*** : Printed under the following conditions;
monochrome = 3 pages/job; color = 2 pages/job; monochrome-to-color ratio = 2/3

3.2 Maintenance parts

- To ensure that the machine produces good prints and to extend its service life, it is recommended that the maintenance jobs described in this schedule be carried out as instructed.
- Replace with reference to the numeric values displayed on the Life Counter.
- Maintenance conditions are based on A4 or Letter, Standard mode, and Preheat OFF.

No	Classification	Part name	Quantity	Actual durable cycle	Description	Ref. page in this manual
1	Processing section	Standard-Capacity Toner Cartridge * (TC Y/TC M/TC C)	1	1,500		☞ 14
		High-Capacity Toner Cartridge ** (TC Y/TC M/TC C/ TC K)	1	4,500		☞ 14
2		Drum Cartridge	1	Monochrome 45,000 (MP ***)		☞ 17
				Monochrome 10,000 (1P/J****)		
				Full Color 11,250 (MP ***)		
				Full Color 7,500 (1P/J****)		
3	Image Transfer section	Transfer Belt Unit	1	Monochrome 135,000 (MP *)		☞ 19
				Monochrome 45,000 (1P/J***)		
				Full Color 33,700 (MP *)		
				Full Color 22,500 (1P/J***)		
				Standard Mode **** 36,800		
4		2nd Transfer Roller	1	120,000		☞ 18
5	Fusing section	Fusing Unit	1	120,000		☞ 20

△2 * : The Toner Cartridges shipped with the magicolor 2400W/2430 DL have a life expectancy of 1,500 printed pages.
** : The Toner Cartridge shipped with the magicolor 2450 have a life expectancy of 4,500 printed pages.
*** : Continuous printing
**** : 1 page/job
***** : Printed under the following conditions;
monochrome = 3 pages/job; color = 2 pages/job; monochrome-to-color ratio = 2/3

3.3 Concept of parts life

	Description	Near Life Value	Life Value
Drum Cartridge	The period of time during which the Main Motor is energized is counted.	36,000 prints	45,000 prints
Fusing Unit	The number of printed pages is counted.	-	120,000 prints
2nd Transfer Roller	The number of printed pages is counted.	-	120,000 prints
Transfer Belt Unit	The period of time during which the Main Motor is rotated and the number of printed pages are both counted.	-	135,000 prints
Toner Cartridge C,M,Y,K *	The number of printed pages compared with the dot counter value, whichever reaches the life specifications value, is detected.	1,200 prints	1,500 prints**
		3,600 prints	4,500 prints**

* Standard-Capacity Toner Cartridges (C,M,Y), High-Capacity Toner Cartridges (C,M,Y,K).

** In the Status Display menu you can specify whether to continue or stop printing when there is a toner empty condition.

A. Conditions for Life Specifications Values

- The life specification values represent the number of pages printed or figures equivalent to it when the given conditions (see the table below) are met. They may be more or less depending on the machine operating conditions of each individual user.

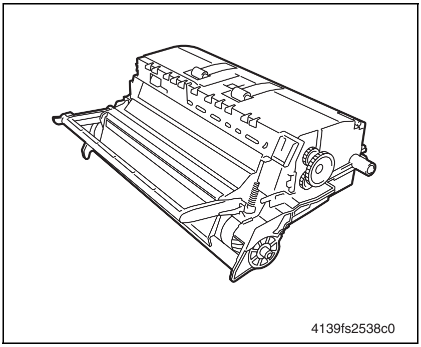
Item	Description
Print condition	Monochrome: 3 consecutive prints; color: 2 consecutive prints
Paper size	A4 or Letter
Color ratio	Black to Color = 2 to 3
Image density	C/W ratio = 5% for each color

3.4 Maintenance procedure (Periodic parts check)

NOTE

- **The alcohol referred to in the following procedures is isopropyl alcohol.**

3.4.1 Pick-up Roller


4139fs2538c0

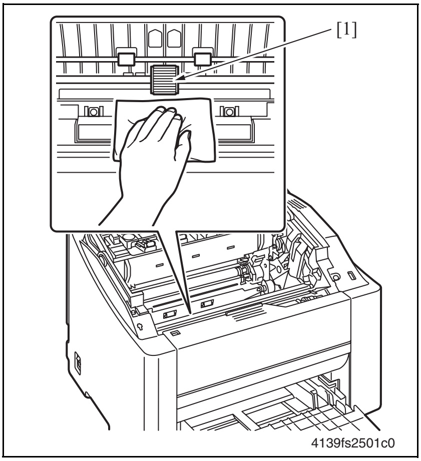
A. Cleaning Procedure

1. Open the Top Cover.
2. Remove the Drum Cartridge.

☞ 17

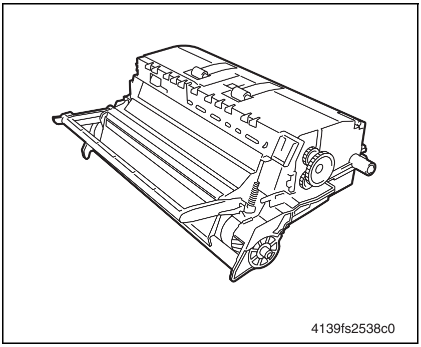
NOTE

- **Position the removed drum cartridge as shown in the illustration at the left.**
- **Be sure to keep the drum cartridge horizontal and place it where it will not become dirty.**
- **Do not leave the drum cartridge removed for more than 15 minutes, and do not place the removed drum cartridge in a location where it will be exposed to direct light (such as sunlight).**



4139fs2501c0

3. Using a soft cloth dampened with alcohol, wipe the Pick-up Roller [1] clean of dirt.



B. Removal Procedure

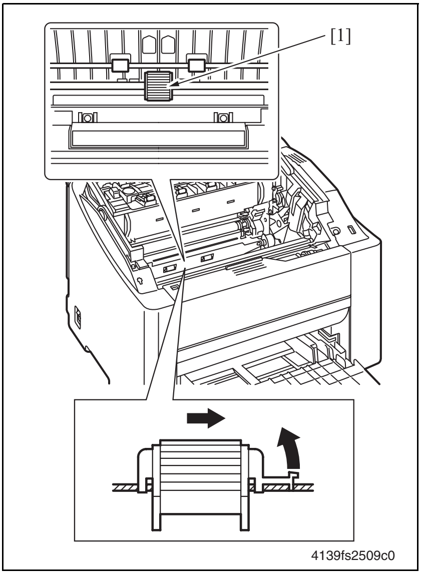
1. Open the Top Cover.
2. Remove the Drum Cartridge.

☞ 17

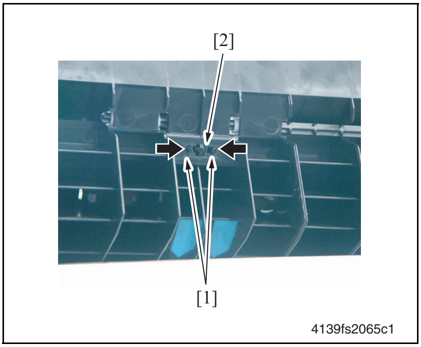
NOTE

- **Position the removed drum cartridge as shown in the illustration at the left.**
- **Be sure to keep the drum cartridge horizontal and place it where it will not become dirty.**
- **Do not leave the drum cartridge removed for more than 15 minutes, and do not place the removed drum cartridge in a location where it will be exposed to direct light (such as sunlight).**

3. Remove the Pick-up Roller [1].



3.4.2 Separation Pad

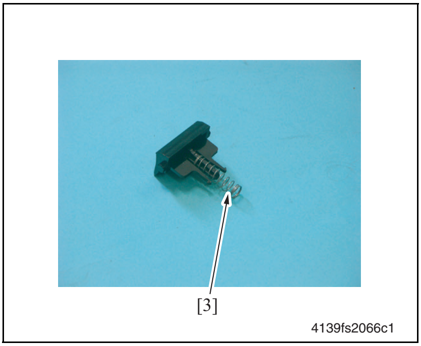


A. Removal Procedure

1. Remove the Paper Pick-up Unit.

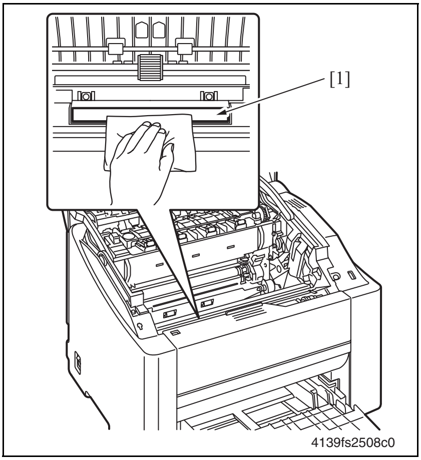
☞ 51

2. Unlock tabs [1] and remove the Separation Pad [2].



3. Unhook the spring [3].

3.4.3 PH Window



A. Cleaning Procedure

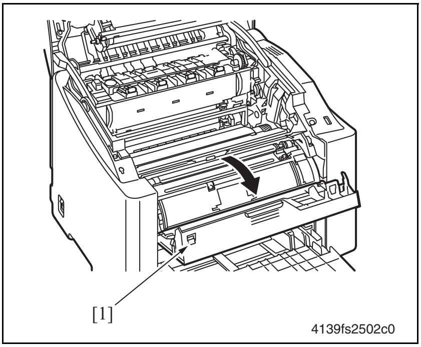
1. Open the Top Cover.
2. Remove the Drum Cartridge.

☞ 17

3. Using a soft cloth dampened with alcohol, wipe the PH window [1] clean of dirt.

Confidential – for internal use only, do not distribute

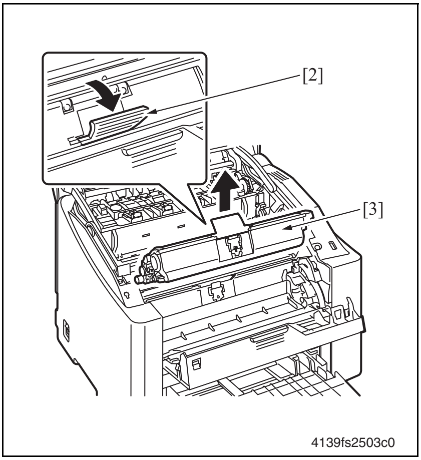
3.4.4 Toner Cartridge (C/M/Y/Bk)



A. Removal Procedure

(1) magicolor 2400W

1. Check the color of the Toner Cartridge to be replaced on the control panel.
2. Press the TONER ROTATE key.
3. Open the Top Cover.
4. Open the Front Cover [1] and make sure that the specific Toner Cartridge to be replaced is in the front.

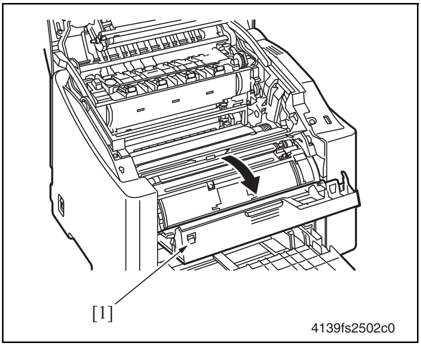


5. Hold onto the handle [2] of the Toner Cartridge, pull it and remove the Toner Cartridge [3].

NOTE

- **To remove and replace the Toner Cartridge of any given color, use "Replace Toner Cartridge" available from the Service mode.**

☞ For details, see "Adjustment/ Setting."

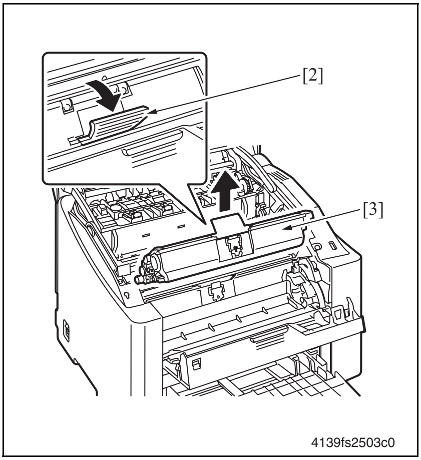


(2) magicolor 2430 DL

1. Check the color of the Toner Cartridge to be replaced on the control panel.
2. Select ENGINE -> REPLACE TONER from the menu and select the Toner Cartridge of the specific color of toner to be replaced.

☞ For details, see "Adjustment/ Setting."

3. Open the Top Cover.
4. Open the Front Cover [1] and make sure that the specific Toner Cartridge to be replaced is in the front.



5. Hold onto the handle [2] of the Toner Cartridge, pull it and remove the Toner Cartridge [3].

NOTE

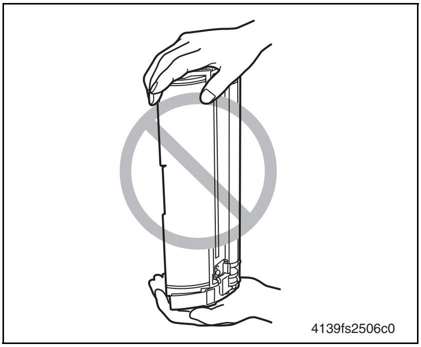
- **To remove and replace the Toner Cartridge of any given color, use “Replace Toner Cartridge” available from the Service mode.**

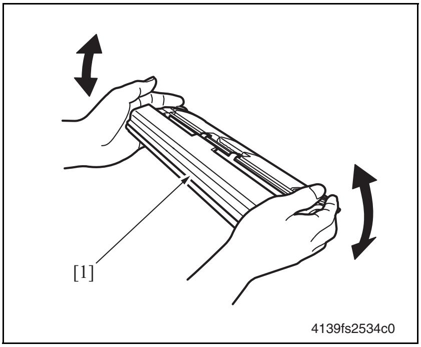
☞ For details, see “Adjustment/ Setting.”

B. Reinstallation Procedure

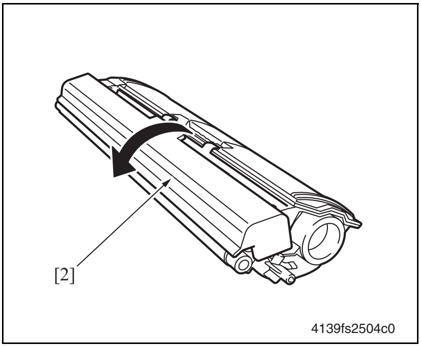
NOTE

- **Do not let the Toner Cartridge stand upright or keep it in that upright position.**

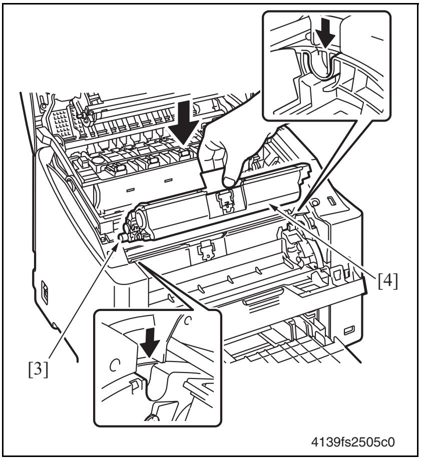




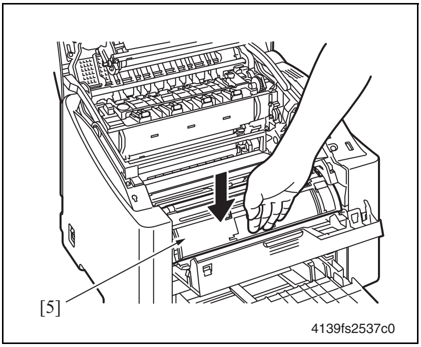
1. Prepare a new Toner Cartridge.
2. Shake the Toner Cartridge [1] a few times to distribute the toner.



3. Remove the Protective Cover [2].

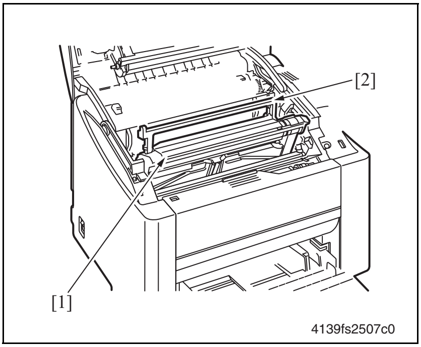


4. Aligning the shaft [3] on both sides of the Toner Cartridge with the rails in the machine, install the Toner Cartridge [4].



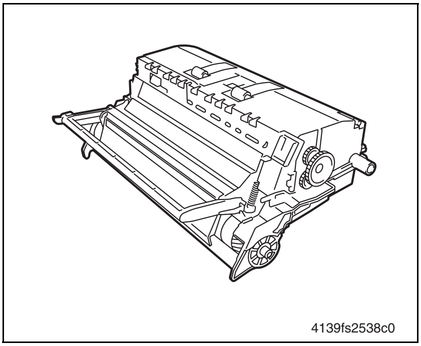
5. Press down on the Toner Cartridge [5] until it snaps into place.
6. Close the Front Cover.
7. Close the Top Cover.

3.4.5 Drum Cartridge



A. Replacement Procedure

1. Open the Top Cover.
2. Hold onto the handle [2] of the Drum Cartridge [1] and slowly lift the Drum Cartridge out of the machine.

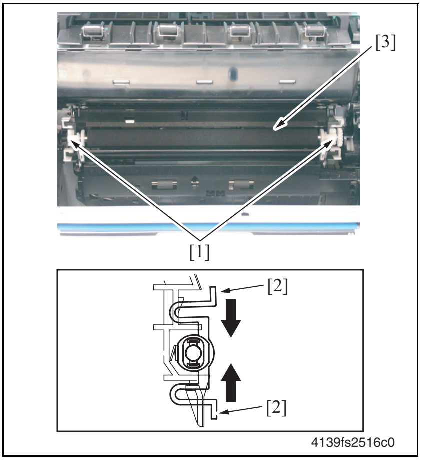


NOTE

- **Position the removed drum cartridge as shown in the illustration at the left.**
- **Be sure to keep the drum cartridge horizontal and place it where it will not become dirty.**
- **Do not leave the drum cartridge removed for more than 15 minutes, and do not place the removed drum cartridge in a location where it will be exposed to direct light (such as sunlight).**

3. To reinstall, reverse the order of removal.

3.4.6 2nd Transfer Roller



A. Replacement Procedure

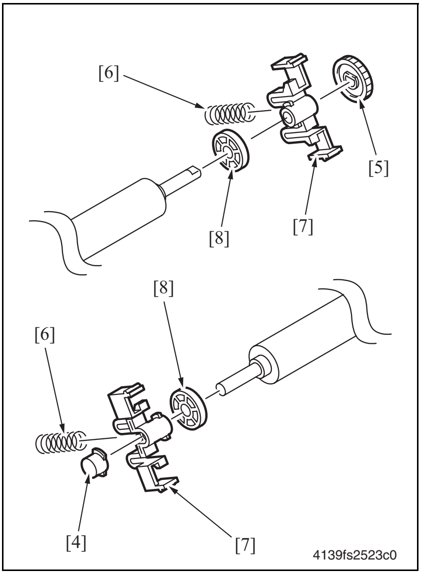
1. Open the Top Cover.
2. Remove the Drum Cartridge.

☞ 17

3. Remove the 2nd Transfer Roller Assy [3] as follows. While pushing the levers [2] of the holders [1] located on both sides, pull the holders [1] to the front.

NOTE

- **Use care not to lose the two springs of the 2nd Transfer Roller Assy. They can easily come off.**

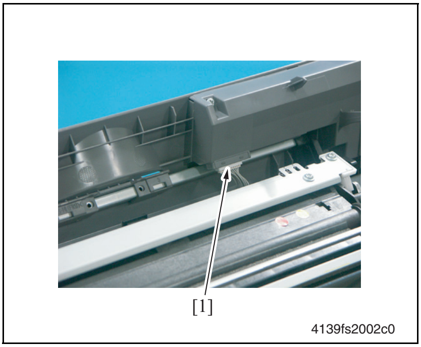


4. Remove the conductive material [4], gear [5], two springs [6], two holders [7], and two collars [8].
5. To reinstall, reverse the order of removal.

NOTE

- **When the 2nd Transfer Roller is replaced with a new one, it is necessary to reset the maintenance counter.**
  For details of how to reset the maintenance counter, see "Adjustment/Setting."

3.4.7 Transfer Belt Unit

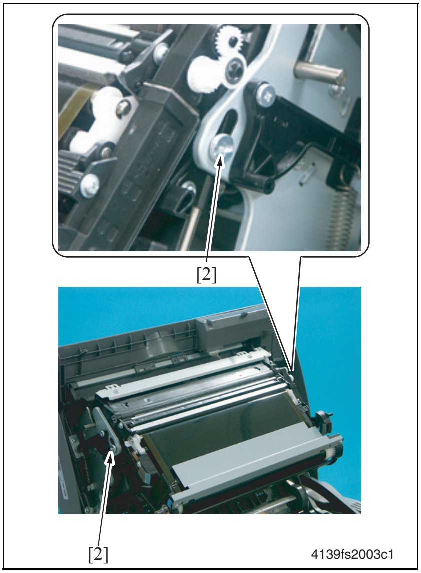


A. Replacement Procedure

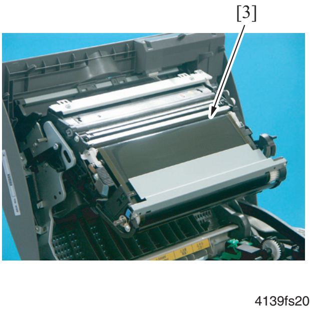
1. Open the Top Cover.
2. Disconnect the connector [1].

Precaution for Reconnecting the Connector

- **Make sure that the connector is connected in the correct direction.**



3. Remove two shoulder screws [2].



4. Remove the Transfer Belt Unit [3].

NOTE

- **When replacing the Transfer Belt Unit, use care not to touch the surface of the belt. A scratchy or dirty belt could result in image problems.**

5. To reinstall, reverse the order of removal.

Precaution for Replacing the Transfer Belt Unit

- **After replacing the Transfer Belt Unit, from the Status Display menu, select [Printer] → [Power On Test] and execute image stabilization control function.**

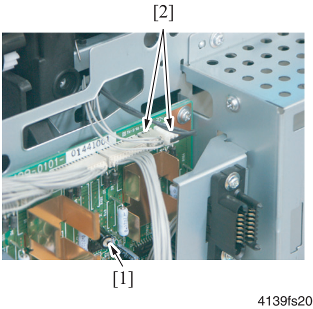
NOTE

- **When the Transfer Belt Unit is replaced with a new one, it is necessary to reset the maintenance counter.**
  For details of how to reset the maintenance counter, see “Adjustment/Setting.”

3.4.8 Fusing Unit

NOTE

- **Before replacing the Fusing Unit, ensure that it has had time to cool down.**



A. Replacement Procedure

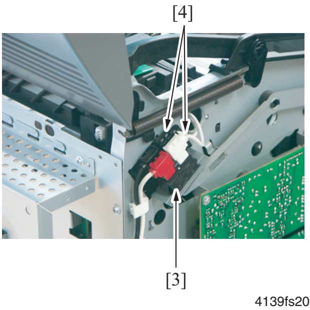
1. Remove the Rear Cover.

☞ 32

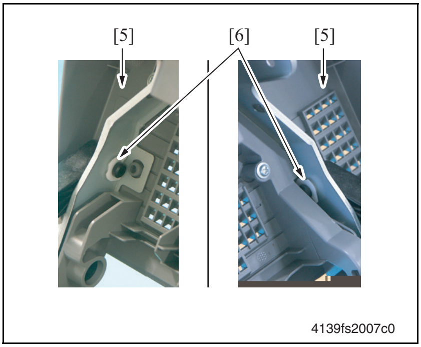
2. Remove the Left Cover.

☞ 33

3. Disconnect two connectors (PJ6A, PJ7A) [2] from the Mechanical Control Board [1].



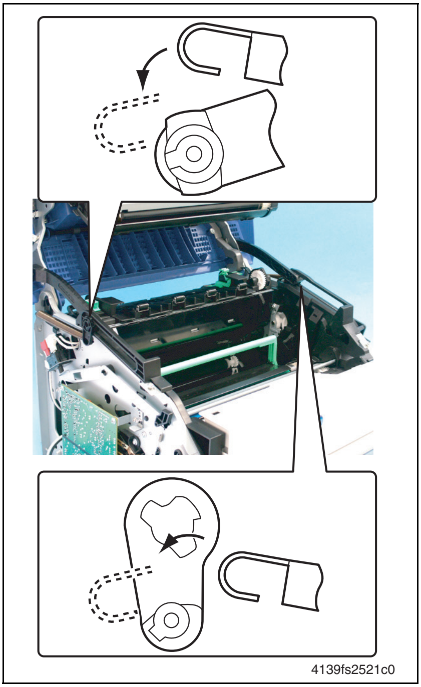
4. Disconnect the two connectors [4] (black and white) of the Fusing Safety Switch [3].



5. Remove the Transfer Belt Unit.

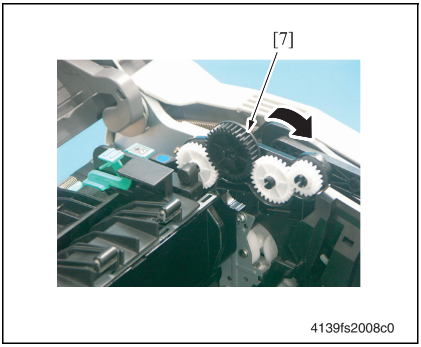
☞ 19

6. Snap off two C-rings [6] of the Upper Cover [5] and unhook the two fulcrum pins of the Upper Cover.

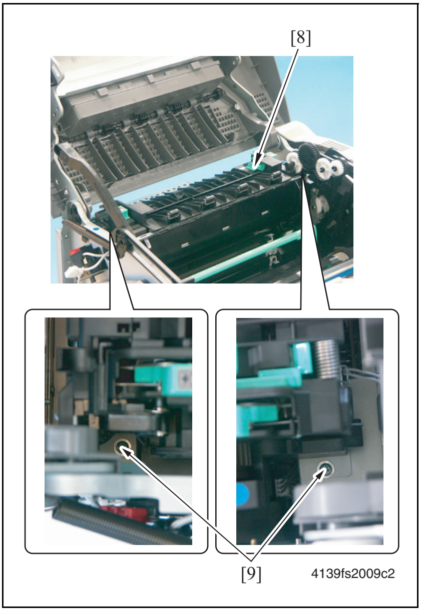


NOTE

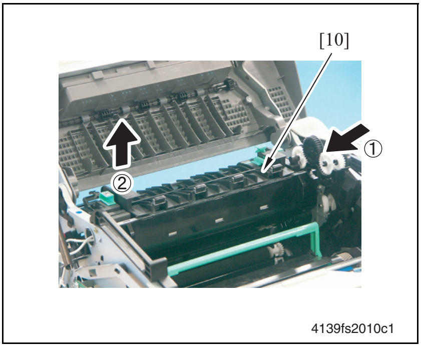
- **When the fulcrum pins of the Upper Cover are unhooked, the springs of the Upper Cover can be unhooked. If the springs are unhooked, make sure to reinstall them in the correct direction. See the illustration on the left.**



7. Swing open the Fusing Unit gear cover [7].



8. Remove two screws [9] from the Fusing Unit [8].



9. Remove the Fusing Unit [10].
10. To reinstall, reverse the order of removal.

Precaution for Reinstalling the Fusing Unit

- **Make sure that the docking gear shaft of the Fusing Unit fits in the hole of the Fusing Frame.**
- **When reinstalling the Left Cover after reinstalling the Fusing Unit, make sure that the harness of the Fusing Unit is located below the rib of the Left Cover.**

☞ 33

4. Service tool

4.1 Consumable Parts

4.1.1 Toner Cartridge (TC) (as an individual part)

Part name	Life expectancy
Standard-Capacity Toner Cartridge - Yellow (Y)	1,500 prints
Standard-Capacity Toner Cartridge - Magenta (M)	1,500 prints
Standard-Capacity Toner Cartridge - Cyan (C)	1,500 prints
High-Capacity Toner Cartridge - Black (K)	4,500 prints
High-Capacity Toner Cartridge - Yellow (Y)	4,500 prints
High-Capacity Toner Cartridge - Magenta (M)	4,500 prints
High-Capacity Toner Cartridge - Cyan (C)	4,500 prints

☞ For the predetermined conditions, see 10.

NOTE

- **The Toner Cartridges shipped with the magicolor 2400W/2430 DL have a life expectancy of 1,500 printed pages.**
- **The Toner Cartridges shipped with the magicolor 2450 have a life expectancy of 4,500 printed pages.**

4.1.2 Drum Cartridge

Part name	Life expectancy
Drum Cartridge	Monochrome 45,000 prints (MP *)
	Monochrome 10,000 prints (1P/J**)
	Full Color 11,250 prints (MP *)
	Full Color 7,500 prints (1P/J**)

* : Continuous printing
** : 1 page/job

☞ For the predetermined conditions, see 10.

4.1.3 Maintenance Kit

A Maintenance Kit is not available.

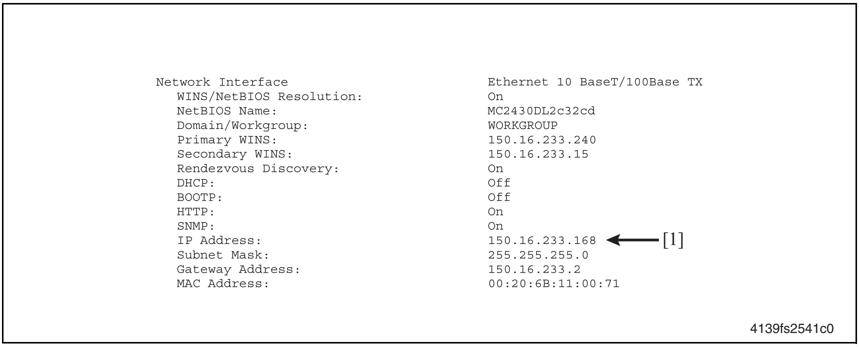
5. Firmware upgrade

5.1 Print Control Board (PWB-P) firmware upgrading (2400W/2430 DL)

5.1.1 Upgrading procedure

1. Connect the machine to the PC using an Ethernet cable. (The printer should be ON.)
2. In the Menu, select SPECIAL PAGES → PRINT CONFIG PAGE and execute the function. Then, check the IP address [1] of the machine.

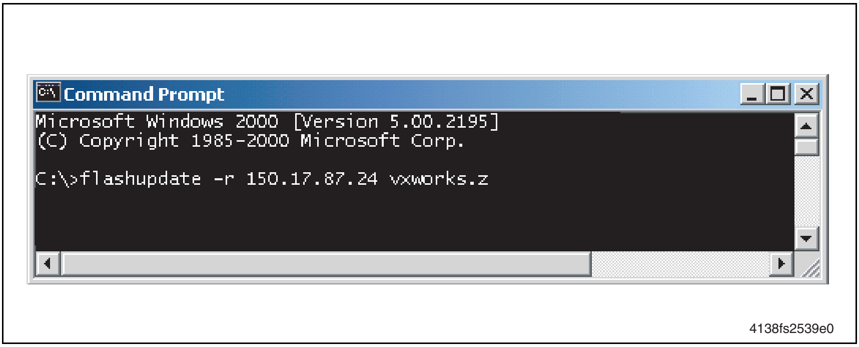
☞ For how to execute “PRINT CONFIG PAGE,” see “Adjustment/Setting.”



```
Network Interface                              Ethernet 10 BaseT/100Base TX
   WINS/NetBIOS Resolution:                    On
   NetBIOS Name:                               MC2430DL2c32cd
   Domain/Workgroup:                           WORKGROUP
   Primary WINS:                               150.16.233.240
   Secondary WINS:                             150.16.233.15
   Rendezvous Discovery:                       On
   DHCP:                                       Off
   BOOTP:                                      Off
   HTTP:                                       On
   SNMP:                                       On
   IP Address:                                 150.16.233.168
   Subnet Mask:                                255.255.255.0
   Gateway Address:                            150.16.233.2
   MAC Address:                                00:20:6B:11:00:71
```

[1]
4139fs2541c0

3. Copy the firmware data and upgrading program to any directory on the PC.
4. Start the Command Prompt and go to the directory in which the firmware data is stored.
5. Execute the “flashupdate” command to start the transfer of firmware data.
(The screen shown below indicates that the firmware data resides on the C drive.)



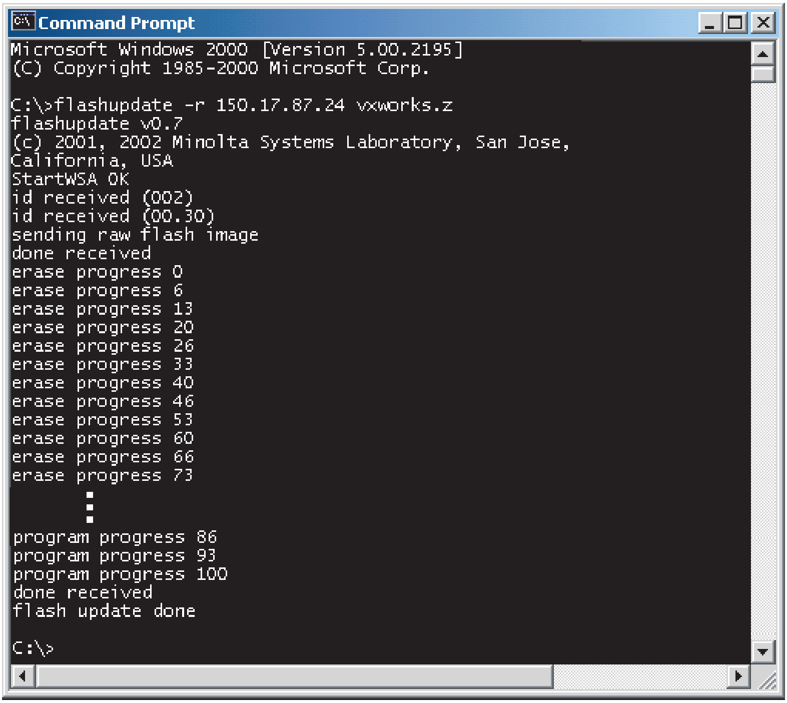
```
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\>flashupdate -r 150.17.87.24 vxworks.z
```

Data to be upgraded	Command
Application	flashupdate -r XXX.XXX.XXX.XXX ******.z
BOOT	flashupdate -b XXX.XXX.XXX.XXX ******.flt

XXX.XXX.XXX.XXX : IP address of the machine
****** : Firmware data file name

6. Check with the Command Prompt display on the progress of upgrading procedure.



```
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\>flashupdate -r 150.17.87.24 vxworks.z
flashupdate v0.7
(c) 2001, 2002 Minolta Systems Laboratory, San Jose,
California, USA
StartWSA OK
id received (002)
id received (00.30)
sending raw flash image
done received
erase progress 0
erase progress 6
erase progress 13
erase progress 20
erase progress 26
erase progress 33
erase progress 40
erase progress 46
erase progress 53
erase progress 60
erase progress 66
erase progress 73
       ⋮
program progress 86
program progress 93
program progress 100
done received
flash update done

C:\>
```

4138fs2540e0

NOTE

- **NEVER turn OFF and ON the printer's Power Switch until the message "flash update done" appears on the Command Prompt display.**

7. After the firmware upgrading procedure has been completed, turn the printer OFF and then ON again.
8. Check that the controller firmware version number has been upgraded.

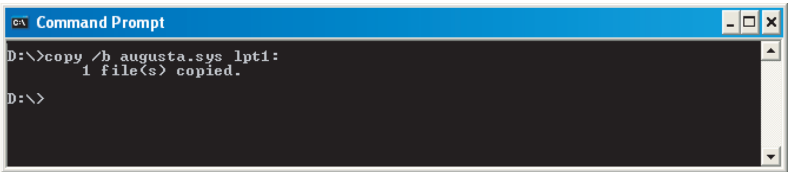
☞ For how to check the firmware version number, see "Adjustment/Setting."

5.2 Print Control Board (PWB-P) firmware upgrading (2450)

5.2.1 Upgrading procedure

A. Parallel connections

1. Connect the machine to the PC using an IEEE 1284 cable. (The printer should be OFF.)
2. Copy the firmware data (XXXXXX.sys) to any directory on the PC.
3. Holding down the Menu Select key and UP key on the Control Panel at the same time, turn ON the printer's Power Switch.
4. For each of the following functions, select YES using the ← or → key and press the Menu Select key: "UPDATE PRINTER," "REPLACE CODE," "REPLACE ALL FONT," and "UPDATE NOW."
5. Make sure that the message "SEND DATA NOW" appears on the Control Panel.
6. Start the Command Prompt and go to the directory in which the firmware data is stored.
7. Type "copy_/b_XXXXXX.sys_lpt1:" and then press the Enter key (XXXXXX is the firmware data file name).



```
D:\>copy /b augusta.sys lpt1:
        1 file(s) copied.

D:\>
```

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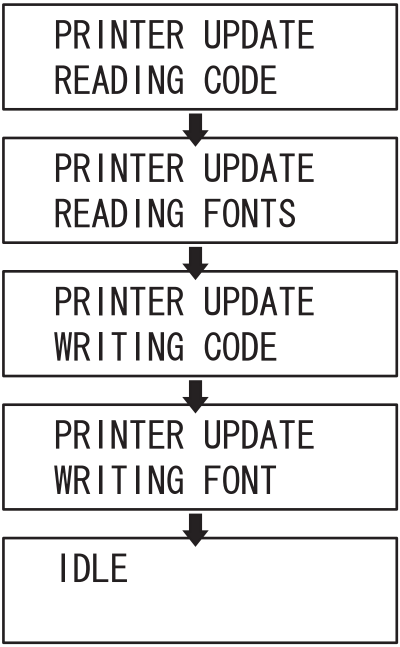
8. Check the message on the Control Panel and make sure that “IDLE” is displayed.



PRINTER UPDATE
READING CODE

PRINTER UPDATE
READING FONTS

PRINTER UPDATE
WRITING CODE

PRINTER UPDATE
WRITING FONT

IDLE

4139F2E509DA

NOTE
Do not turn the printer’s Power Switch OFF or ON while the firmware is upgrading.

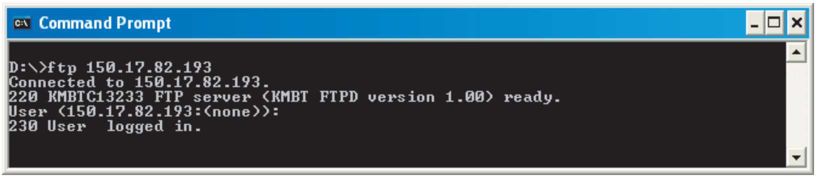
9. Print a Configuration Page (PRINT MENU → CONFIGURATION) and check the firmware version to verify the upgrade.

B. Network connections

1. Connect the machine to the PC using an Ethernet cable.
2. In the Menu, select PRINT MENU → CONFIGURATION and execute the function. Then, check the IP address [1] of the machine.

☞ For how to execute "CONFIGURATION," see "Adjustment/Setting."

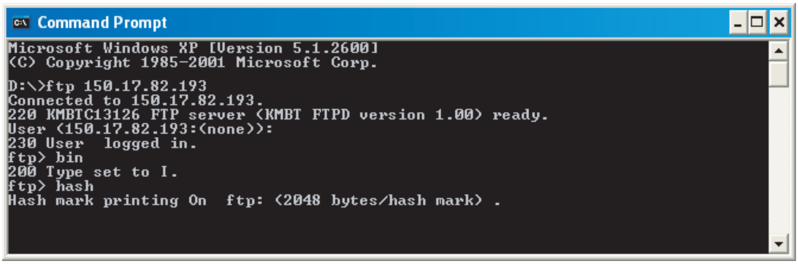
3. Copy the firmware data (XXXXX.ps) and upgrading program to any directory on the PC.
4. Start the Command Prompt and go to the directory in which the firmware data is stored.
5. Specify the IP address of the machine to start FTP.
6. Check the user name and then press the Enter key to go to the next step.



```
D:\>ftp 150.17.82.193
Connected to 150.17.82.193.
220 KMBTC13233 FTP server (KMBT FTPD version 1.00) ready.
User (150.17.82.193:(none)):
230 User  logged in.
```

4139F2E510DA

7. Using the "bin" command, set the file transfer mode to the binary transfer.
8. Type the hash command.

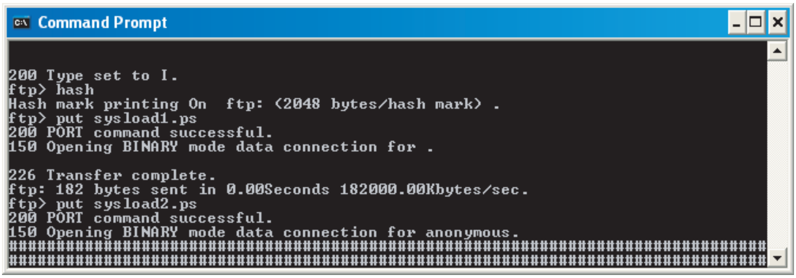


```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

D:\>ftp 150.17.82.193
Connected to 150.17.82.193.
220 KMBTC13126 FTP server (KMBT FTPD version 1.00) ready.
User (150.17.82.193:(none)):
230 User  logged in.
ftp> bin
200 Type set to I.
ftp> hash
Hash mark printing On  ftp: (2048 bytes/hash mark) .
```

4139F2E511DA

9. Type “put_XXXXX.ps” and press the Enter key.
   If there are two or more firmware data files involved, repeat the same steps (XXXXXX is the firmware data file name).



```
200 Type set to I.
ftp> hash
Hash mark printing On  ftp: (2048 bytes/hash mark) .
ftp> put sysload1.ps
200 PORT command successful.
150 Opening BINARY mode data connection for .

226 Transfer complete.
ftp: 182 bytes sent in 0.00Seconds 182000.00Kbytes/sec.
ftp> put sysload2.ps
200 PORT command successful.
150 Opening BINARY mode data connection for anonymous.
################################################################################
################################################################################
```

4139F2E512DA

NOTE
Do not turn the printer’s Power Switch OFF or ON while the firmware is upgrading.

10. After the firmware upgrading procedure has been completed, turn the printer OFF and then ON again.
11. Print a Configuration Page (PRINT MENU → CONFIGURATION) and check the firmware version to verify the upgrade.

6. Other

6.1 Disassembly/adjustment prohibited items

A. Paint-socked screws

NOTE

- **Paint-locked screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be adjusted, set, or removed in the field.**

B. Red-painted screws

NOTES

- **When the screws are removed, the red paint is coated on the points where readjustment is required.**
- **Once a red-painted screw is removed or loosened, you should make the adjustment. Accordingly, check the adjustment items in this manual and make the necessary adjustments. Note that when two or more screws are used on the part in question, only one representative screw may be marked with red paint.**

C. Variable resistors on the board

NOTE

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

D. Removal of PWBs

NOTES

- **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 sections 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 first.**

6.2 Disassembly/assembly list (other parts)

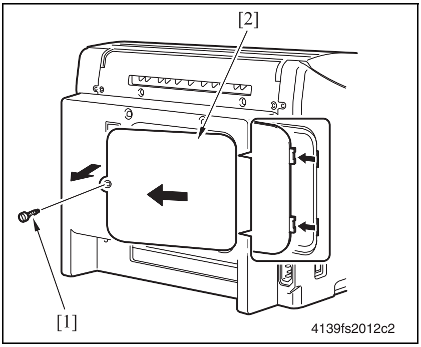
No	Section	Part name	Ref.Page
1	Exterior parts	Front Cover	☞ 34
2		Right Cover	☞ 34
3		Left Cover	☞ 33
4		Rear Cover	☞ 32
5		Rear Panel	☞ 32
6		Paper Take-up Cover	☞ 34
7	Boards and etc.	Print Control Board	☞ 36
8		Mechanical Control Board	☞ 41
9		Waste Toner Near Full Detection Board	☞ 47
10		Power Unit	☞ 43
11		High Voltage Unit	☞ 46
12		Control Panel	☞ 35
13		USB Board *	☞ 36
14	Units	PH Unit	☞ 48
15		Paper Pick-up Unit	☞ 51
16	Other Parts	Main Motor	☞ 52
17		Developing Motor	☞ 54
18		Rack Motor	☞ 55
19		Power Supply Cooling Fan Motor	☞ 52
20		Ventilation Fan Motor	☞ 53
21		Fusing Motor	☞ 54
22		Tray1 Paper Pick-up Solenoid	☞ 56
23		Registration Roller Solenoid	☞ 56
24		Pressure/Retraction Solenoid /Cleaning Blade	☞ 57
25		Pressure/Retraction Solenoid /2nd Image Transfer	☞ 57
26		Temperature/Humidity Sensor	☞ 58
27		AIDC Sensor	☞ 59
28		Torque Limiter	☞ 60
△2 29		Hard Disk**	☞ 61

* magicolor 2430 DL only

** magicolor 2450 only

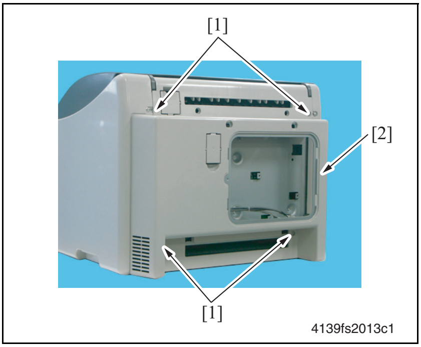
6.3 Disassembly/assembly procedure

6.3.1 Rear Panel



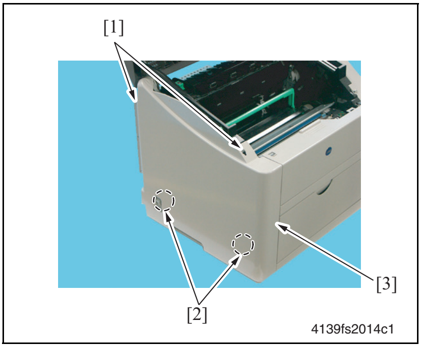
1. Remove the screw [1] and the Rear Panel [2].

6.3.2 Rear Cover

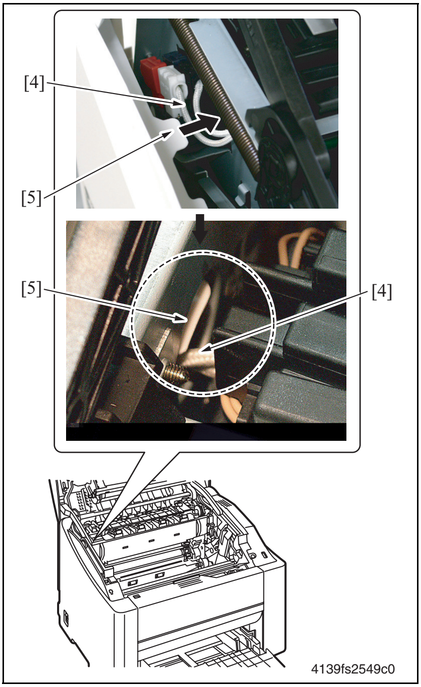


1. Remove the Rear Panel.
   ☞ 32
2. Remove four screws [1] and the Rear Cover [2].

6.3.3 Left Cover



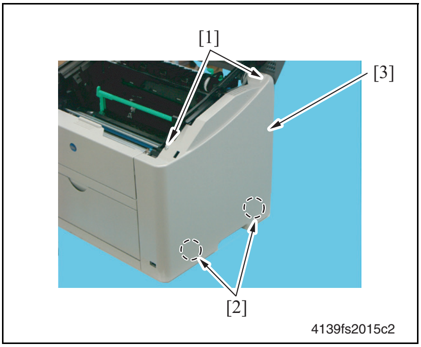
1. Open the Top Cover.
2. Remove two screws [1].
3. Unlock two tabs [2] and remove the Left Cover [3].



NOTE

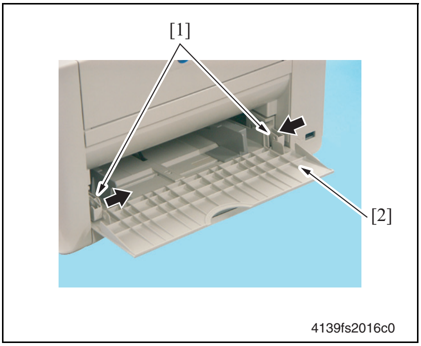
- **When installing the Left Cover, make sure that the harness [4] of the Fusing Unit is located below the rib [5] of the Left Cover.**
  And after installing the Left Cover, make sure that the harness [4] of the Fusing Unit is located below the rib [5] of the Left Cover at the location shown on the left.
- **Use care not to break the tabs during removal and reinstallation of the Left Cover.**

6.3.4 Right Cover



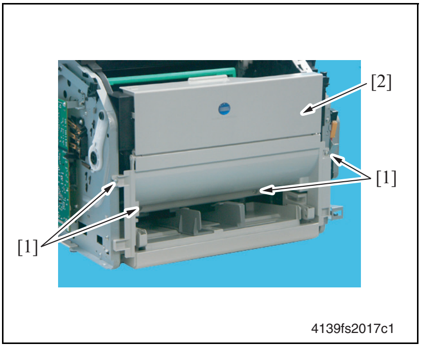
1. Open the Top Cover.
2. Remove two screws [1].
3. Unlock two tabs [2] and remove the Right Cover [3].

6.3.5 Paper Take-up Cover



1. Open the Paper Take-up Cover.
2. Push in the right and left holders [1] and remove the Paper Take-up Cover [2].

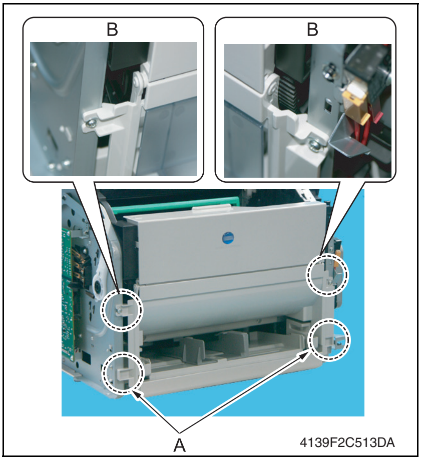
6.3.6 Front Cover



1. Open the Top Cover.
2. Remove the Right Cover.
☞ 34
3. Remove the Left Cover.
☞ 34
4. Remove the Paper Take-up Cover.
☞ 34
5. Remove four screws [1] and the Front Cover [2].

NOTE

- **When removing and reinstalling the Front Cover, use care not to touch the Developing Roller of the Toner Cartridge.**

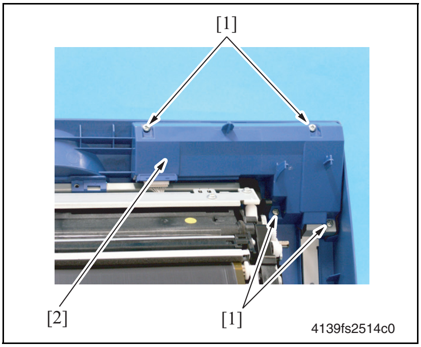


NOTE

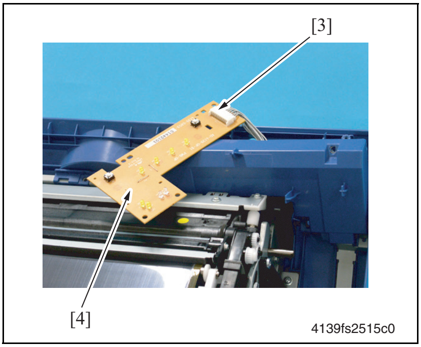
Precautions for Remounting the Front Cover

1. **When remounting the Front Cover, make sure that the two tabs in section A are properly fitted in position.**
2. **When tightening the screws, make sure that there is no clearance between the machine frame and Front Cover (in section B).**
   If there is any clearance, tighten the screws, while pressing the machine frame.

6.3.7 Control Panel (PWB-OP)

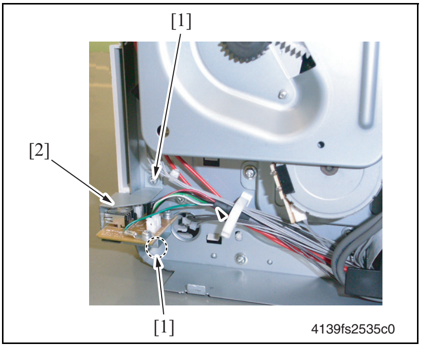


1. Open the Top Cover.
2. Remove four screws [1] and the Control Panel Protective Cover [2].



3. Disconnect the connector [3] and remove the Control Panel [4].

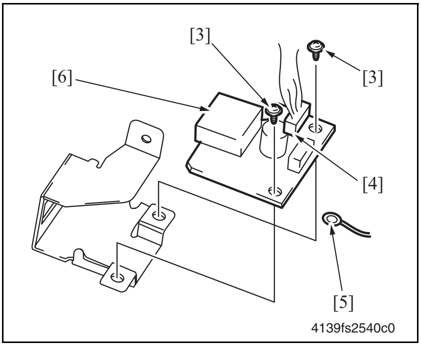
6.3.8 USB Board (PWB-USB)



1. Remove the Right Cover.

☞ 34

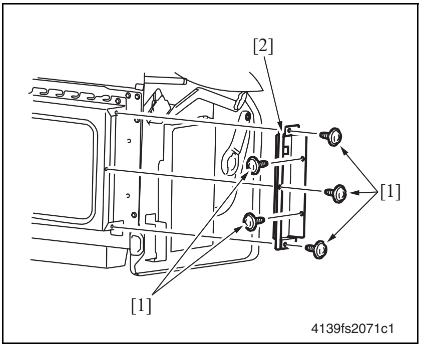
2. Remove one screw [1] and the USB Board Assy [2].



3. Remove two screws [3] and the Earth cable [5].

4. Disconnect one connector [4] and remove the USB Board Assy [6].

6.3.9 Print Control Board (PWB-P)



(1) magicolor 2400W

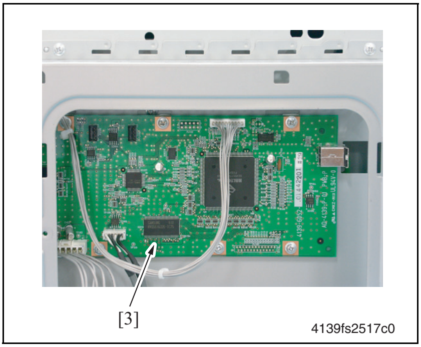
1. Remove the Rear Cover.

☞ 32

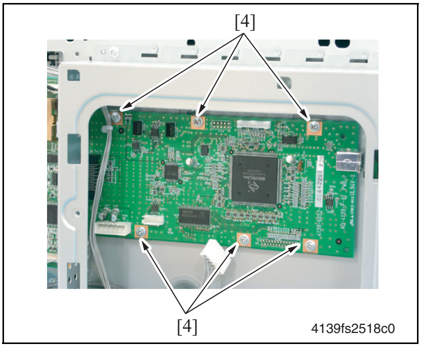
2. Remove the Left Cover.

☞ 33

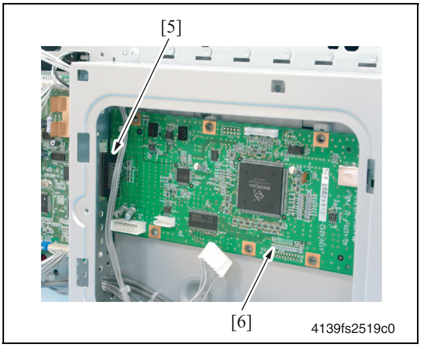
3. Remove five screws [1] and the interface protective cover [2].



4. Disconnect all connectors from the Print Control Board [3].

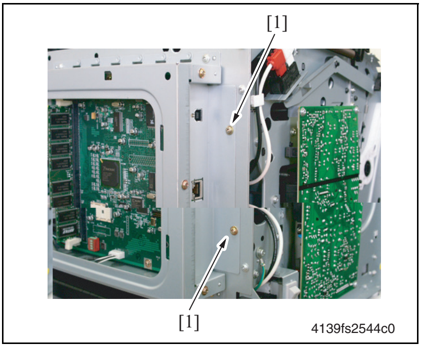


5. Remove six screws [4].

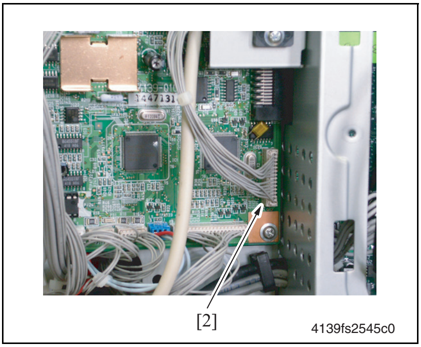


6. Disconnect the connector (PJ103P) [5] connected to the Mechanical Control Board and remove the Print Control Board [6].

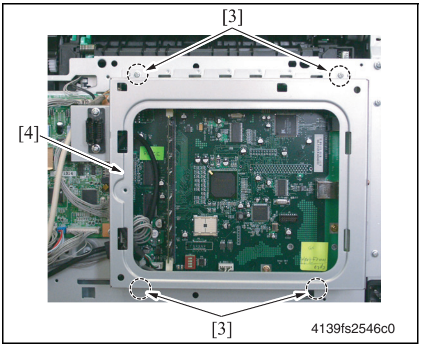
(2) magicolor 2430 DL



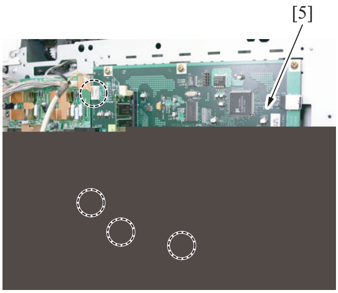
1. Remove the Rear Cover.
☞ 32
2. Remove the Left Cover.
☞ 33
3. Remove two screws [1].



4. Disconnect one connector [2].



5. Remove four screws [3] and Print Control Board protective shield [4].



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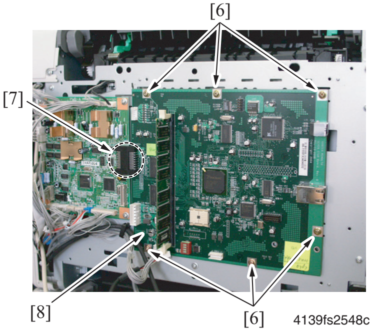
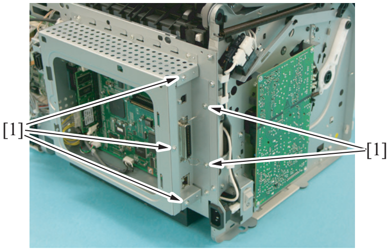
6. Disconnect all connectors from the Print Control Board [5].



4139fs2548c0

7. Remove six screws [6].
8. Disconnect the connector (PJ103P) [7] connected to the Mechanical Control Board and remove the Print Control Board [8].

2



4139F2C502AA

(3) magicolor 2450

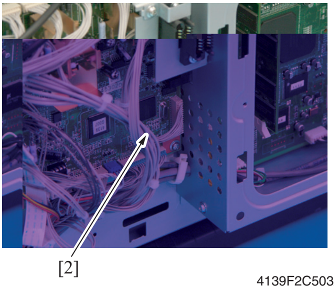
1. Remove the Rear Cover.

☞ 32

2. Remove the Left Cover.

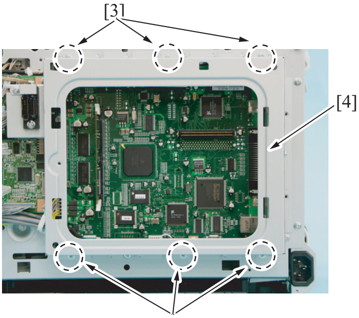
☞ 33

3. Remove five screws [1].



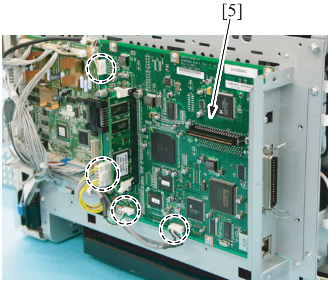
4139F2C503AA

4. Disconnect one connector [2].



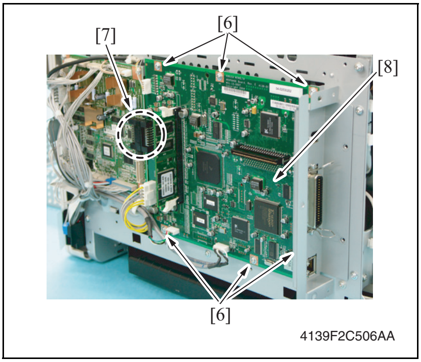
4139F2C504AA

5. Remove six screws [3] and Print Control Board protective shield [4].

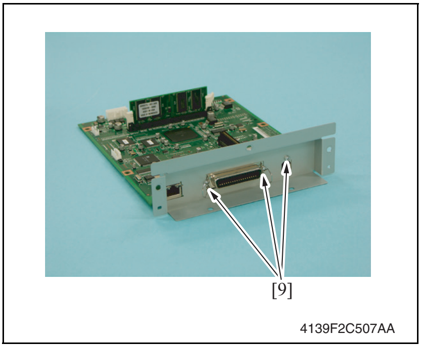


4139F2C505AA

6. Disconnect all connectors from the Print Control Board [5].

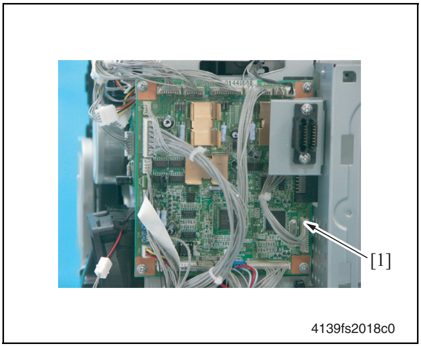


7. Remove six screws [6].
8. Disconnect the connector (PJ103P) [7] connected to the Mechanical Control Board and remove the Print Control Board Assy [8].



9. Remove the three screws [9] and Print Control Board.

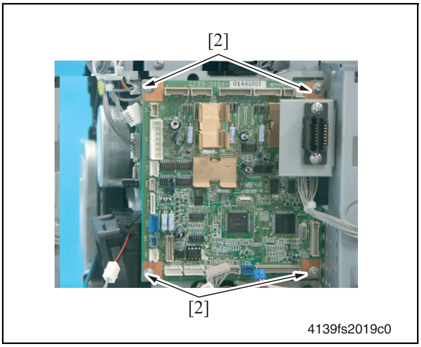
6.3.10 Mechanical Control Board (PWB-A)



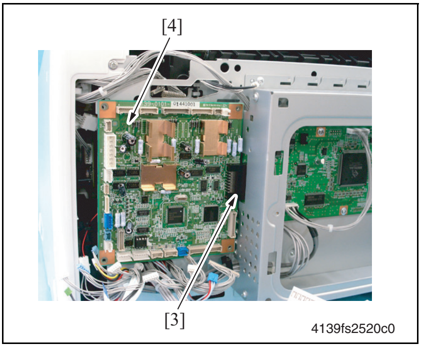
1. Remove the Rear Cover.

☞ 32

2. Disconnect all connectors and flat cables from the Mechanical Control Board [1].



3. Remove four screws [2].

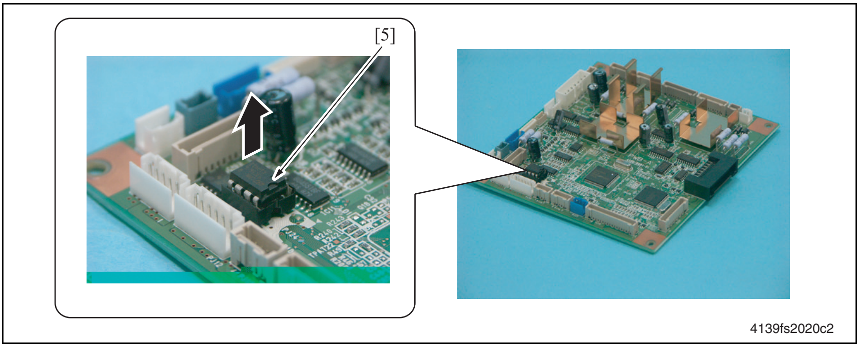


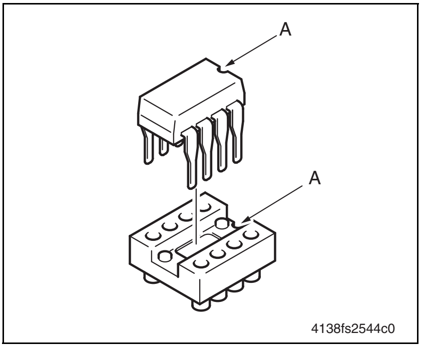
4. Disconnect the connector (PJ1A) [3] connected to the Print Control Board and remove the Mechanical Control Board [4].

5. Remove Parameter Chip (PJ26) [5] from the Mechanical Control Board.

NOTE

- **When the Mechanical Control Board (PWB-A) has been replaced, be sure to remount Parameter Chip (PJ26). Remove Parameter Chip (PJ26) from the old Mechanical Control Board and mount it on the new Mechanical Control Board.**

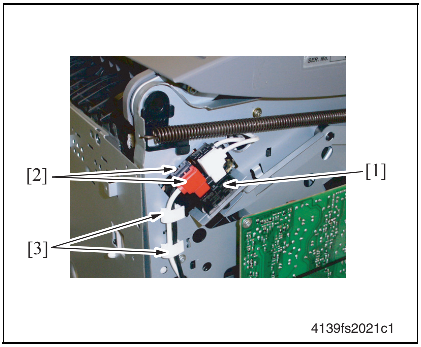




NOTE

- **When mounting Parameter Chip (PJ26), align the notches (indicated by “A” in the illustration).**

6.3.11 Power Unit (PU)



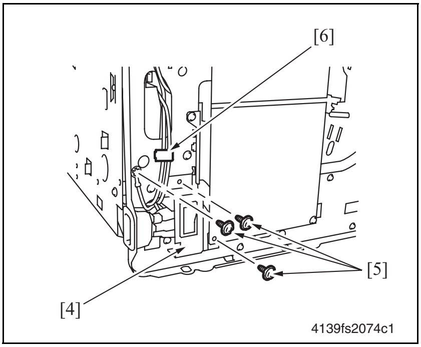
1. Remove the Mechanical Control Board.

☞ 41

2. Remove the Print Control Board.

☞ 36

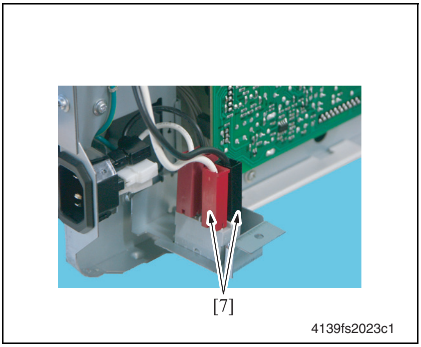
3. Disconnect the two connectors [2] (red and black) of the Fusing Safety Switch [1] and remove the wire from the two wiring saddles [3].



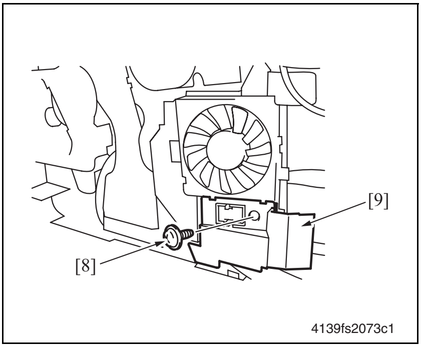
4. Remove two screws [5] from the Power Switch Assy [4] and remove the wire from the wiring saddle [6].

NOTE

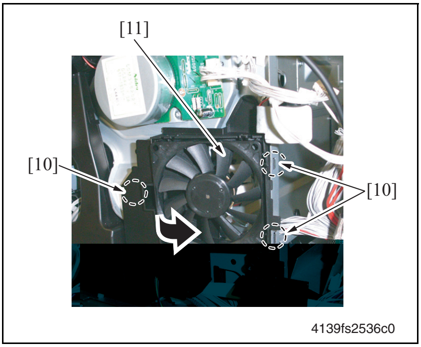
- **One of the two screws is used to secure the Power Switch Assy to the High Voltage Unit.**



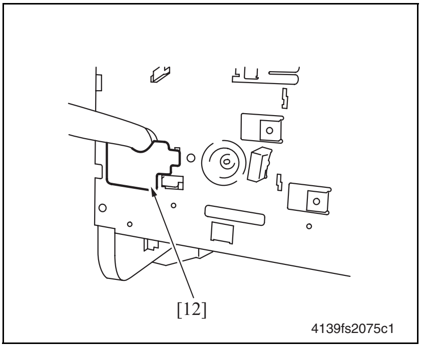
5. Disconnect two connectors [7] of the Power Switch.



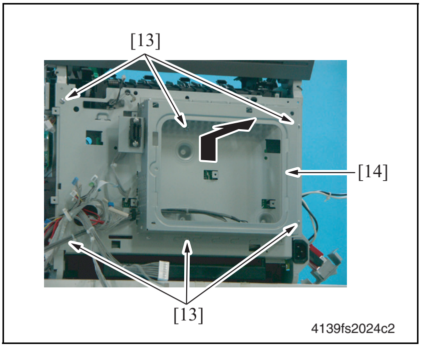
6. Remove a screw [8] and remove the Power Supply Cooling Fan Motor Cover [9].



7. Unlock three tabs [10] and remove the Power Supply Cooling Fan Motor Assy [11].



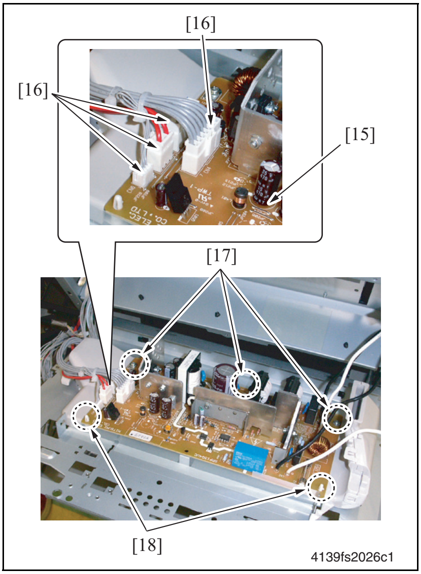
8. Remove the Harness Protective Seal [12].



9. Remove six screws [13] and pull the Power Unit Assy [14] to the front as shown on the left.

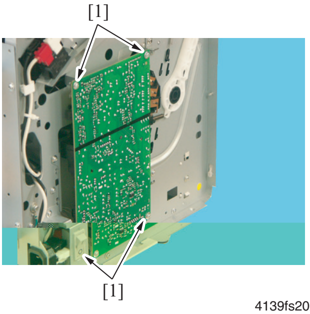
NOTE

- **Do not pull the Power Unit Assy hard, as a number of harnesses are connected to it.**



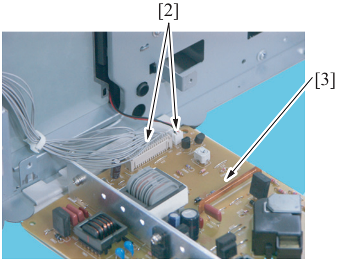
10. Disconnect four connectors [16] from the Power Unit [15].
11. Remove three screws [17], two PWBs Holders [18] and the Power Unit [15].

6.3.12 High Voltage Unit (HV)



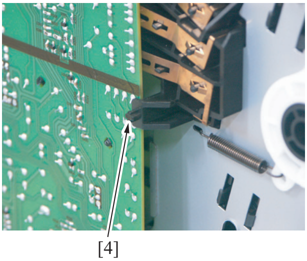
4139fs2027c0

1. Remove the Left Cover.
   ☞ 33
2. Remove four screws [1].



4139fs2028c0

3. Disconnect two connectors [2] and remove the High Voltage Unit [3].

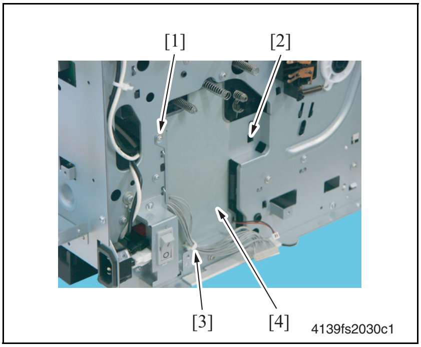


4139fs2029c0

Precautions for Reinstallation of the High Voltage Unit

- **Make sure that the High Voltage Unit fits into the tab [4] at the location shown on the left.**
- **During the reinstallation procedure, make sure that the high voltage terminal is not deformed or left loose.**

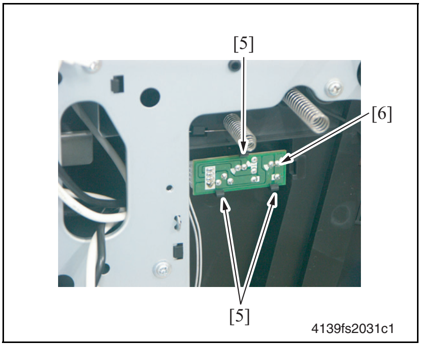
6.3.13 Waste Toner Near Full Detection Board (PWB-C)



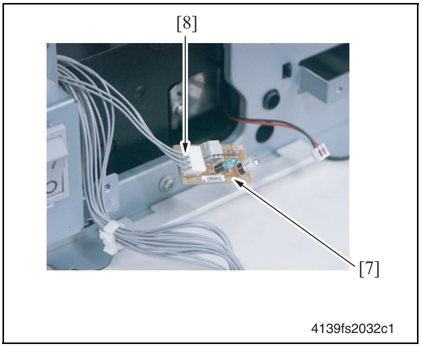
1. Remove the High Voltage Unit.
   ☞ 46
2. Remove the screw [1], unlock the tab [2], and remove the wiring saddle [3]. Then, remove the shield [4].

Precaution for Reinstallation

- **When reinstalling the shield, make sure that no part of the harness is wedged in the mechanism.**



3. Unlock three tabs [5] and remove the Waste Toner Near Full Detection Board [6].



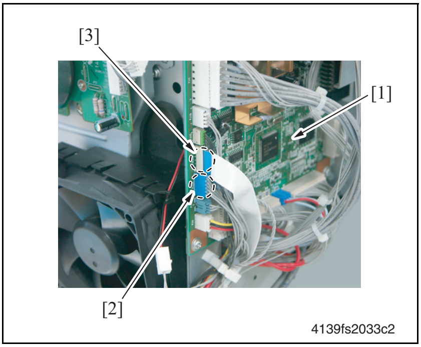
4. Disconnect the connector [8] of the Waste Toner Near Full Detection Board [7].

6.3.14 PH Unit

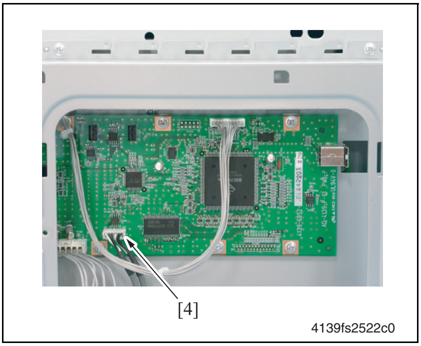
⚠ NOTE

- **Do not replace the PH Unit while the machine is turned ON. The laser beam that may be emitted can blind you.**
- **Do not attempt to disassemble or adjust the PH Unit. The laser beam that may be emitted can blind you.**

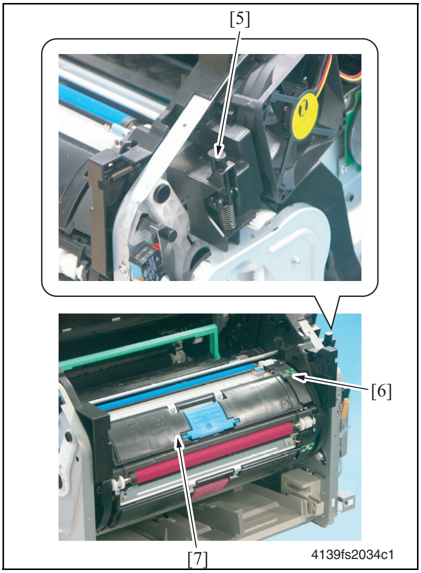
1. Remove the Rear Cover.
☞ 32
2. Remove the Right Cover.
☞ 34
3. Remove the Left Cover.
☞ 33
4. Remove the Front Cover.
☞ 34



5. Disconnect the connector (PJ20) [2] and the flat cable (PJ19) [3] from the Mechanical Control Board [1].



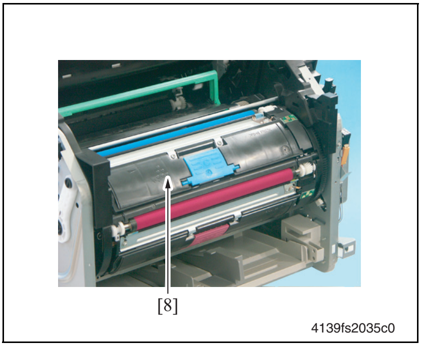
6. Disconnect the connector (PJ107) from the Print Control Board [4].



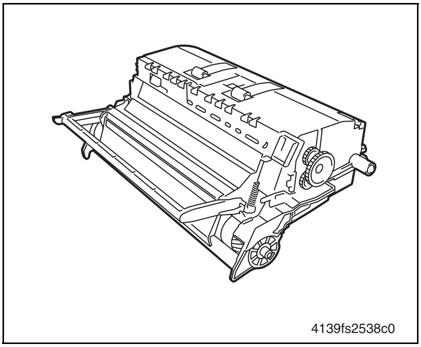
7. Press the Rack Release Lever [5] and then rotate the Rack [6] so that the Toner Cartridge [7] is moved to a position, at which the Toner Cartridge can be easily removed.

NOTE

- **When rotating the Rack, use care not to touch the Developing Roller.**



8. Hold onto the handle, pull it and remove the Toner Cartridge [8].
9. Repeat steps 7 and 8 to remove all Toner Cartridges.

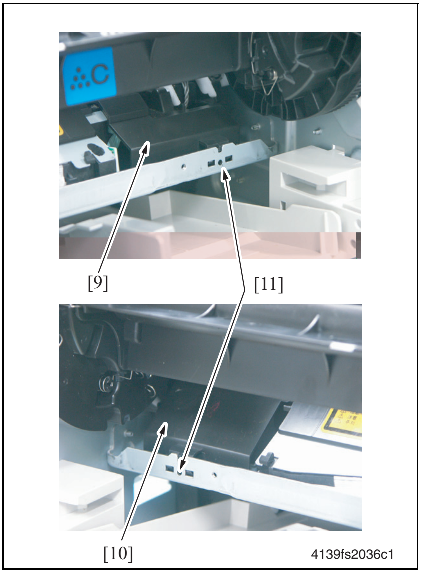


10. Remove the Drum Cartridge.

☞ 17

NOTE

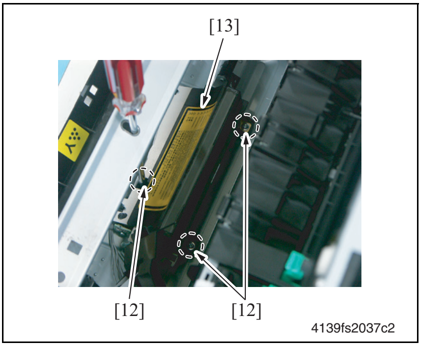
- **Position the removed drum cartridge as shown in the illustration at the left.**
- **Be sure to keep the drum cartridge horizontal and place it where it will not become dirty.**
- **Do not leave the drum cartridge removed for more than 15 minutes, and do not place the removed drum cartridge in a location where it will be exposed to direct light (such as sunlight).**



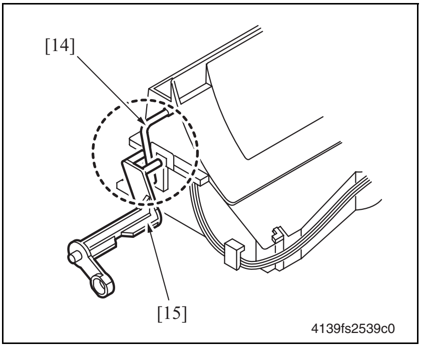
11. Remove the PH Unit Cover/Right [9], Left [10].

NOTE

- **Through the hole [11] at the location shown on the left, push the tab of the PH Unit Cover and remove the PH Unit Cover.**
- **Note the connector connected to the PH Unit Cover/Right. Use care not to pull the unit with an excessive force, so you don't break the wire.**



12. Press the Rack Release Lever and turn the Rack so that the screw on the PH Unit can be accessed through the hole in the machine frame.
13. Remove three screws [12] and the PH Unit [13].



Precautions for Reinstallation of the PH Unit

- **When reinstalling the PH Unit, make sure that you insert the lever [14] of the PH shutter into the lever of the machine [15].**

6.3.15 Paper Pick-up Unit

1. Remove the Rear Cover.

☞ 32

2. Remove the Right Cover.

☞ 34

3. Remove the Left Cover.

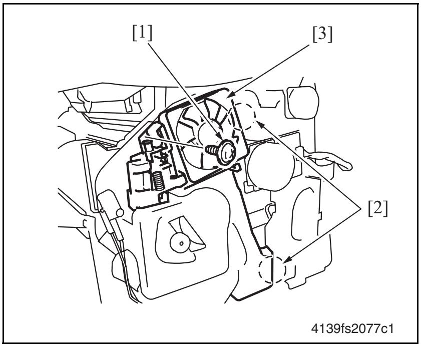
☞ 33

4. Remove the High Voltage Unit and Shield.

☞ See the removal procedure steps 1 to 2 of “Tray1 Paper Pick-up Solenoid” on p. 56.

5. Remove the Rack Drive Assy.

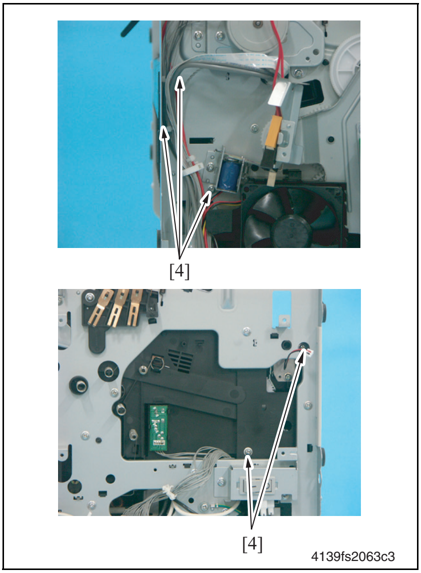
☞ See the removal procedure steps 1 to 3 of “Developing Motor” on p. 54.



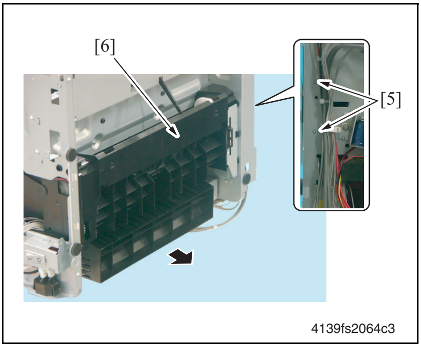
6. Remove the Ventilation Fan Motor.

☞ 53

7. Remove one screw [1], unlock two tabs [2] and remove the Ventilation Fan Duct [3].

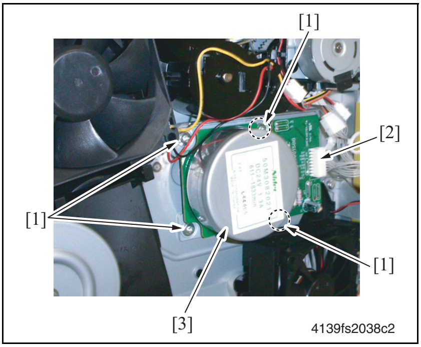


8. Lay the main body of the printer on its back.
9. Remove five screws [4].



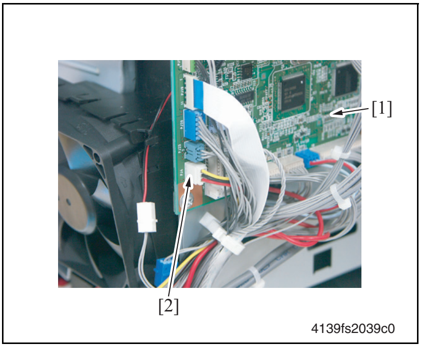
10. Unhook two dowels [5] and remove the Paper Pick-up Unit [6].

6.3.16 Main Motor (M1)

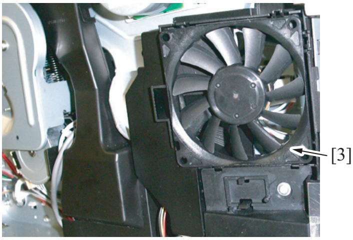


1. Remove the Right Cover.
☞ 34
2. Disconnect the connector [2], remove four screws [1] and Main Motor [3].

6.3.17 Power Supply Cooling Fan Motor (M4)



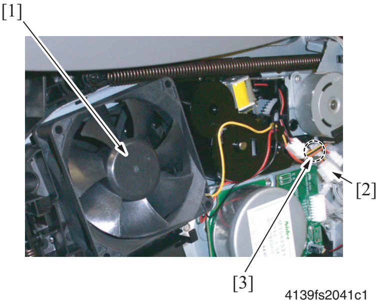
1. Remove the Right Cover.
☞ 34
2. Disconnect the connector (PJ4A) [2] from the Mechanical Control Board [1].



4139fs2040c1

3. Unlock tabs and remove the Power Supply Cooling Fan Motor [3].

6.3.18 Ventilation Fan Motor (M6)

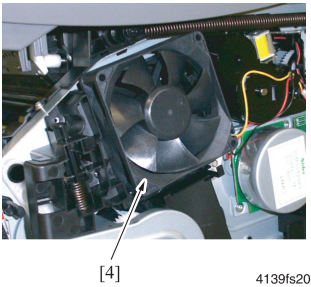


4139fs2041c1

1. Remove the Right Cover.

☞ 34

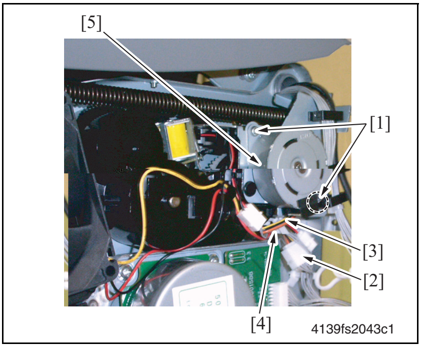
2. Disconnect the connector [2] of the Ventilation Fan Motor [1] and remove the harness from the wiring saddle [3].



4139fs2042c1

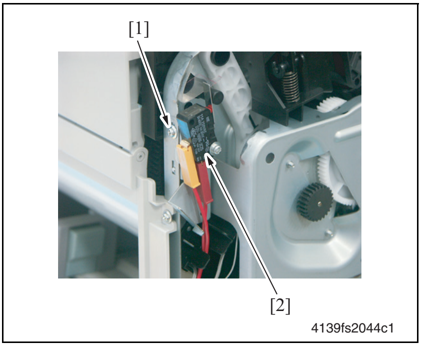
3. Unlock tabs and remove the Ventilation Fan Motor [4].

6.3.19 Fusing Motor (M7)

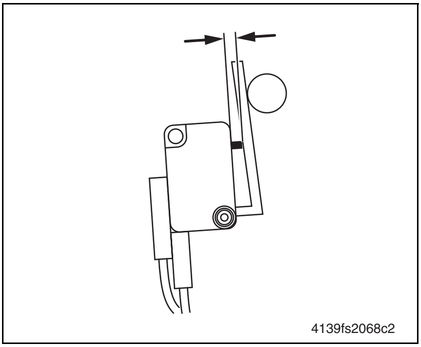


1. Remove the Right Cover.
☞ 34
2. Remove two screws [1] and the connector [2].
3. Remove the harness [3] from the wiring saddle [4] and then remove the Fusing Motor [5].

6.3.20 Developing Motor (M3)

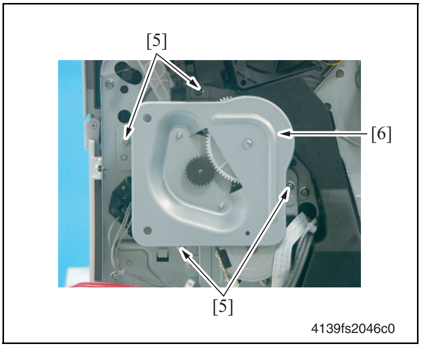


1. Remove the Front Cover.
☞ 34
2. Remove the screw [1] and the Safety Switch Assy [2].



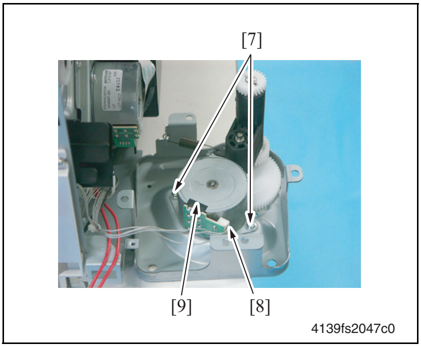
Precautions for Reinstallation of the Safety Switch Assy

- **Check that the switch is actuated with the Front Cover and the Upper Cover closed.**
- **Make sure that the distance between the switch lever and switch case (with the switch in the actuated position) falls within the specified range.**
  Specifications: 0.1 to 1.0 mm



4139fs2046c0

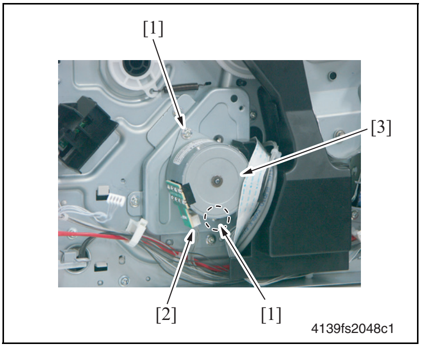
3. Remove four screws [5] and the Rack Drive Assy [6].



4139fs2047c0

4. Remove two screws [7], disconnect the connector [8], and remove the Developing Motor [9].

6.3.21 Rack Motor (M2)



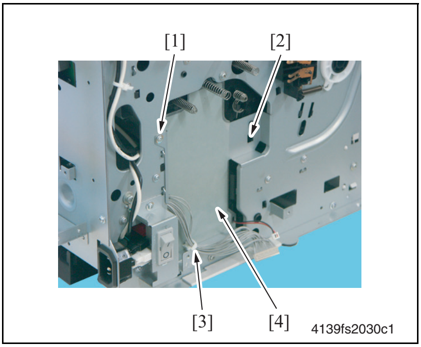
4139fs2048c1

1. Remove the Rack Drive Assy.

☞ See the removal procedure steps 1 to 3 of “Developing Motor” on p. 54.

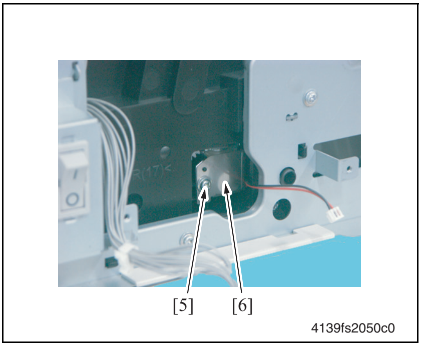
2. Remove two screws [1], disconnect the connector [2], and remove the Rack Motor [3].

6.3.22 Tray1 Paper Pick-up Solenoid (SL1)



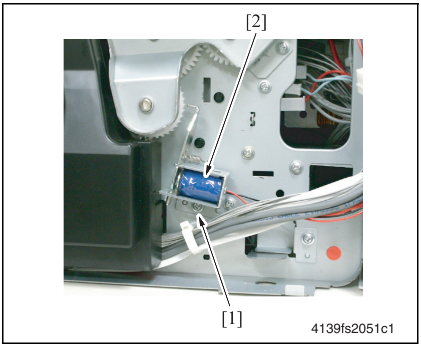
1. Remove the High Voltage Unit.
☞ 46
2. Remove one screw [1], unlock the tab [2], and remove the wiring saddle [3]. Then, remove the shield [4].

Precaution for Reinstallation
- **When reinstalling the shield, make sure that no part of the harness is wedged in the mechanism.**

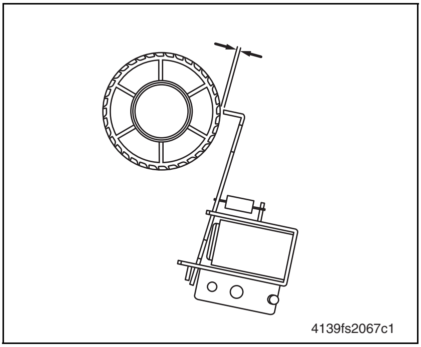


3. Remove the screw [5] and the Tray1 Paper Pick-up Solenoid [6].

6.3.23 Registration Roller Solenoid (SL2)



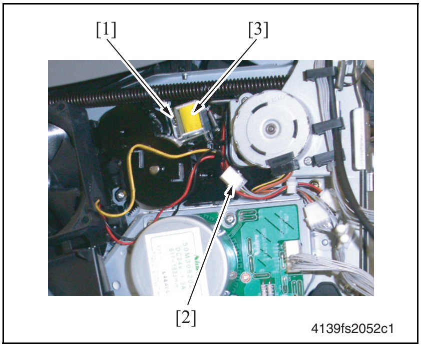
1. Remove the Right Cover.
☞ 34
2. Remove the Power Supply Cooling Fan Motor Assy.
☞ 43
3. Disconnect the connector, remove the screw [1], and remove the Registration Roller Solenoid [2].



Precaution for Reinstallation

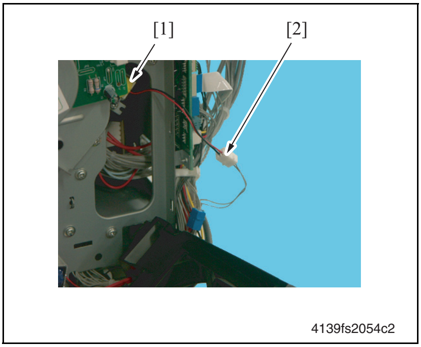
- **Reinstall the solenoid so that the clearance between the gear of the registration roller clutch and flapper falls within the specified range.**
  Specifications: 1.0 ± 0.2 mm

6.3.24 Pressure/Retraction Solenoid/Cleaning Blade (SL3)

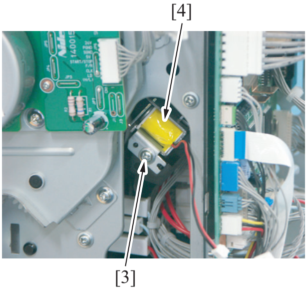


1. Remove the Right Cover.
   ☞ 34
2. Remove the screw [1], disconnect the connector [2], and remove the Pressure/Retraction Solenoid/Cleaning Blade [3].

6.3.25 Pressure/Retraction Solenoid /2nd Image Transfer (SL4)



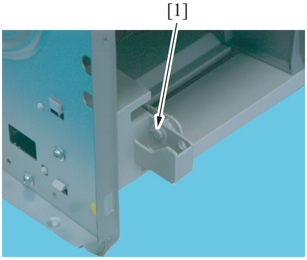
1. Remove the Right Cover.
   ☞ 34
2. Remove the Power Supply Cooling Fan Motor Assy.
   ☞ 43
3. Disconnect the connector [2] from the Pressure/Retraction Solenoid / 2nd Image Transfer [1].



4139fs2055c1

4. Remove the mylar sheet.
5. Remove the screw [3] and the Pressure/Retraction Solenoid /2nd Image Transfer [4].

6.3.26 Temperature/Humidity Sensor (HS1)

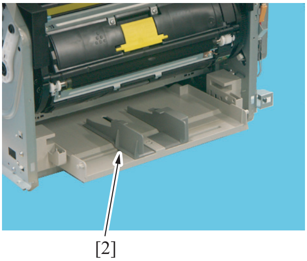


4139fs2056c0

1. Remove the Front Cover.

☞ 34

2. Remove the C-clip [1].

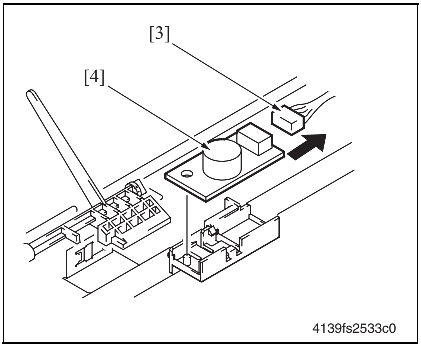


4139fs2057c0

3. Remove the Tray1 [2].

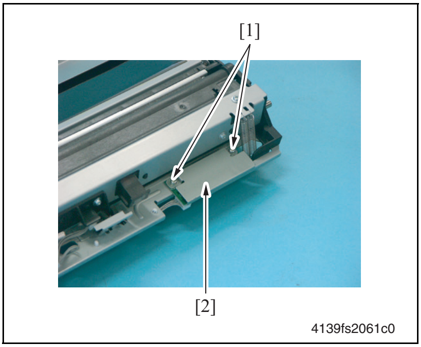
NOTE

- **Use care not to lose the two springs.**
- **Be careful not to damage the actuator of the Tray1 Paper Empty Sensor.**



4. Disconnect the connector [3] and remove the Temperature/Humidity Sensor [4].

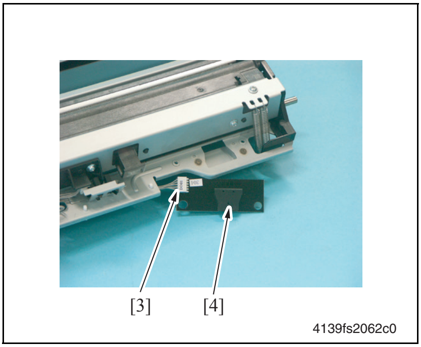
6.3.27 AIDC Sensor (AIDC)



1. Remove the Transfer Belt Unit.

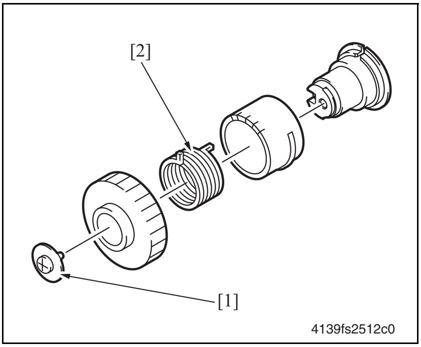
☞ 19

2. Remove two screws [1] and the AIDC Sensor protective cover [2].



3. Disconnect the connector [3] and remove the AIDC Sensor [4].

6.3.28 Torque limiter



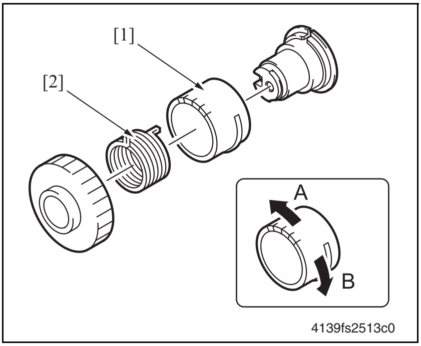
4139fs2512c0

A. Removal Procedure

1. Remove the Paper Pick-up Unit.

☞ 51

2. Remove the screw [1] and the Paper Pick-up Clutch.
3. Disassemble the Paper Pick-up Clutch and remove the torque limiter [2].

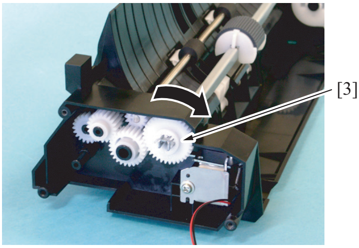


4139fs2513c0

B. Reinstallation Procedure

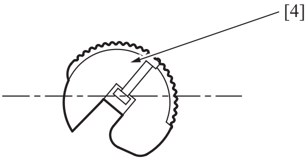
NOTE

- **There are five slots provided in the coupling gear [1] of the Paper Pick-up Clutch. These slots are for adjusting the position of the Pick-up Roller.**
  When the torque limiter [2] is reinstalled, it is necessary to adjust the position of the coupling gear [1] and torque limiter [2] so that any paper take-up failure can be prevented.



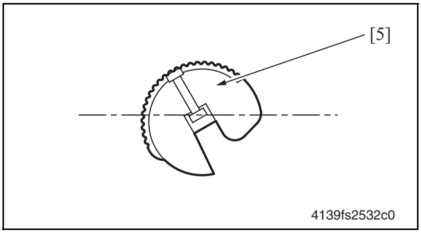
4139fs2530c0

1. Install the Paper Pick-up Clutch [3].
2. Turn the Paper Pick-up Clutch [3] in the direction of the arrow shown on the left until it is engaged with the solenoid and stopped.



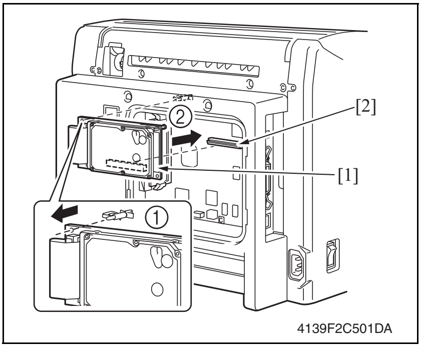
4139fs2531c0

3. If the Pick-up Roller [4] tilts in the clockwise direction, turn the coupling gear of the Paper Pick-up Clutch in the direction of A and reassemble the Paper Pick-up Clutch.



4. If the Pick-up Roller [5] tilts in the counterclockwise direction, turn the coupling gear of the Paper Pick-up Clutch in the direction of B and reassemble the Paper Pick-up Clutch.

2 6.3.29 Hard Disk (Option)



1. Remove the Rear Panel.

☞ 32

2. Pull out and remove the Hard Disk [1].

NOTE

- **Do not remove the Hard Disk with great force, as connector [2] is connected to it.**

Blank Page

Adjustment/Setting

7. How to use the adjustment section

- This section contains detailed information on the adjustment items and procedures for this machine.
- Throughout this section, the default settings are indicated by boldface.

A. Advance Checks

- Before attempting to solve the customer's problem, the following advance checks must be made:

1. Does the power supply voltage meet the specifications?
2. Is the power supply is properly grounded?
3. Does the machine share a power supply with any other machine that draws a large current intermittently (for example, an elevator or air conditioner that generates electrical noise)?
4. Is the installation site level and environmentally appropriate (for example, away from high temperatures, high humidity, direct sunlight, direct ventilation, etc.?
5. Does the original have a problem that may cause a defective image?
6. Is the density properly selected?
7. Is the correct media being used for printing?
8. Are the units, parts, and supplies used for printing (developer, PC Drum, etc.) properly replenished and replaced when they reach the end of their useful service life?
9. Is there an adequate supply of toner in the toner cartridges?

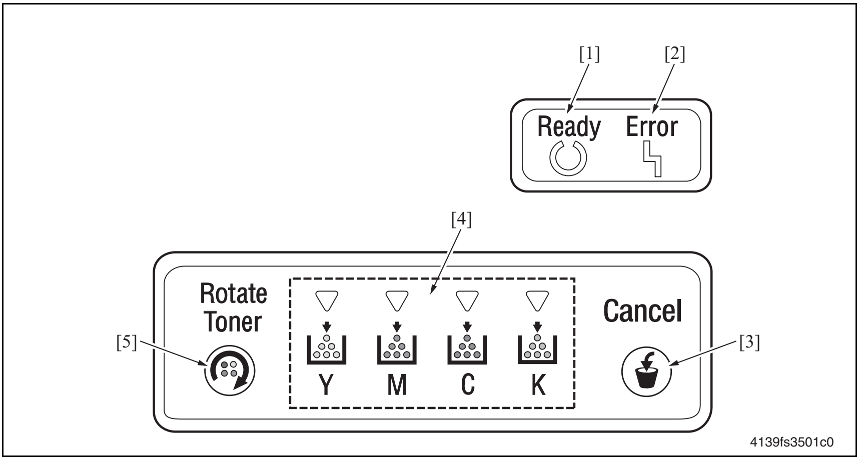
B. Precautions for Service Jobs

1. Unplug the machine's power cord before starting a service job procedure.
2. If it is unavoidably necessary to service the machine with its power turned ON, use the utmost care not to get caught in the Scanner Cables or gears of the Exposure Unit.
3. Use special care when handling the Fusing Unit, which can be extremely hot.
4. The Developing Unit has a strong magnetic field. Keep watches and measuring instruments away from it.
5. Take care not to damage the PC Drum with a tool or similar device.
6. Do not touch IC pins with your bare hands.

8. Description of the Control Panel (magicolor 2400W)

8.1 Control Panel Display

- The Control Panel contains six LED indicators and two keys, the Rotate Toner key and the Cancel key.



[1]	Ready indicator	[4]	Toner indicators
[2]	Error indicator	[5]	Rotate Toner key
[3]	Cancel key		

8.1.1 LED Indicator

- Each of the LED indicators provides five different types of signals. A specific printer condition is indicated by the combination of these signal types.

Signal	Description
Off	• Off at all times
On	• On at all times
Slow blinking	• 1 blink every 2 seconds
Blinking	• 1 blink per second
Rapid blinking	• 2 blinks per second

8.1.2 List of Status Messages

- The combinations of ON, OFF, and/or blinking states of the Ready indicator, Error indicator, and Toner indicators represent specific conditions of the printer.

A. Normal state messages

Ready indicator (green)	Error indicator (orange)	Description
Off	Off	• Power off.
On	Off	• Ready to print.
On	On	• Initializing (power on).
		• Canceling a job.
Rapid blinking	On	• Toner Cartridge change mode
Rapid blinking	Off	• Warming up.
		• Calibrating.
Blinking	Off	• Processing data.
		• Printing.
Slow blinking	Off	• Energy Saver mode.

B. Caution messages

Ready indicator (green)	Error indicator (orange)	Toner indicators	Description
-	-	Slow blinking	• The Toner Cartridge will soon run out.
-	-	On	• The Toner Cartridge is empty.
On	Rapid blinking	Rapid blinking	• The Toner Cartridge is not a genuine KONICA MINOLTA Toner Cartridge or not the correct type.
On	Slow blinking	-	• The Drum Cartridge will soon run out.
On	Blinking	-	• The Drum Cartridge is empty.

C. Error messages

Ready indicator (green)	Error indicator (orange)	Description
Blinking	Blinking	• Communication Error. A communication error of some kind has occurred in the USB interface.
		• Video Under-run.
Off	Blinking	• No media (during printer standby)
		• A media jam has occurred. ☞ For troubleshooting procedures, see “Troubleshooting.”
		• A Toner Cartridge or the Drum Cartridge is not installed properly.
Off	On	• The Front Cover or Top Cover is open.

Ready indicator (green)	Error indicator (orange)	Description
Rapid blinking alternately		• No media (during a print cycle)
		• Media is not loaded in the tray specified by the printer driver. • Media of the size specified by the printer driver is not loaded in the tray.
		• Media size error
		• Waiting for a proof print.

D. Malfunction messages

Ready indicator (green)	Error indicator (orange)	Description
Off	Rapid blinking	• A malfunction has occurred. ☞ For details of malfunction messages and trouble-shooting procedures, see “Troubleshooting.”

8.1.3 Cancel Key

- The Cancel key can be used to cancel a print job. It also allows that specific print job to be resumed after the error has been eliminated.

A. Cancelling a print job

- The currently processing print job can be canceled.

1. While data is being processed or printed (the green Ready indicator is blinking), hold down the Cancel key for more than 5 seconds.
2. Release the Cancel key after both indicators light up. The current print job has now been cancelled.

B. Continuing a print job after an error message

The print job can be resumed after an error of any of the following types has been eliminated:

- When there is no more media in the tray
- When media of a different format than that set in the printer driver was fed into the printer

1. Check that one of the above errors has occurred.
2. Perform the remedial action according to the error.
3. Press the Cancel key to reinitiate media feeding.
4. The print job continues.

8.2 Service Support Tools

8.2.1 Details of Service Support Tools

- The following is a list of the different types of Service Support Tools.

No.	Name	Ref. Page
1	High altitude support	☞ 67
2	White spots/void areas on high density areas	☞ 68
3	Consumables expected life display	☞ 68
4	Consumables counter reset	☞ 69
5	RoHS sensor support	☞ 71

8.2.2 Compatible OS

- Windows XP, 2000, 98SE

NOTE

- **Before using the Service Support Tools on Windows 98SE, the DLL file (msvbvm60.dll) must be copied to the "C:\Windows\System32" directory.**

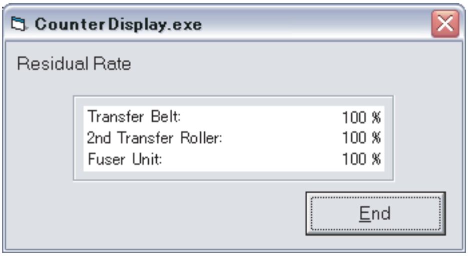
8.2.3 High altitude support

<table>
<tr><td>Function</td><td>• Optimizes the image by varying the output value of the developing bias when an image problem occurs as affected by the atmospheric pressure at high altitudes.</td></tr>
<tr><td>Use</td><td>• When an image problem (uneven density) occurs in an environment of low atmospheric pressure at high altitudes.</td></tr>
<tr><td>Setting /procedure</td><td>• The available setting options are as follows.
<table>
<tr><th>Setting Options</th><th>Developing Bias Value</th></tr>
<tr><td>Default</td><td>No offset</td></tr>
<tr><td>-1(Lower)</td><td>100 V</td></tr>
<tr><td>High Altitude</td><td>200 V</td></tr>
<tr><td>+1(Higher)</td><td>300 V</td></tr>
</table>
1. Connect the printer to the PC.
2. Execute the "HighAltitude.exe" Service Support Tool.
3. Click "Status" to check the current setting.
4. Click High Altitude, -1, or +1 to make the appropriate setting.
5. Click "Status" again to make sure that the setting has been correctly changed.
6. Turn the Power Switch OFF and then ON again.</td></tr>
</table>

8.2.4 White spots/void areas in high-density areas

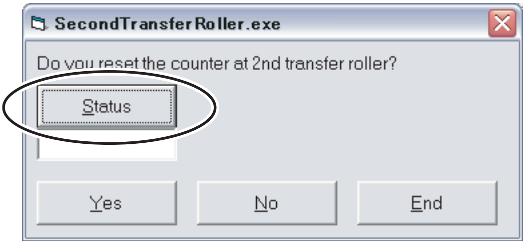
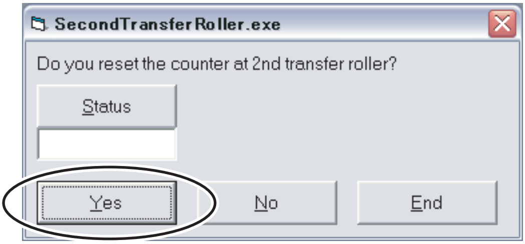
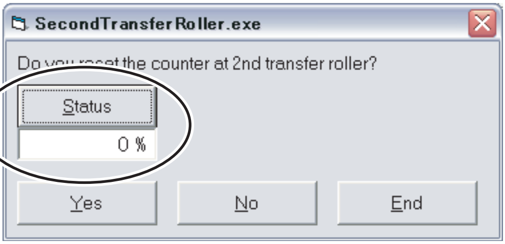
Function	• Adjusts image characteristics according to user requirements for each type of media by varying the second transfer voltage.
Use	• When an image problem (void areas, white spots) occurs due to the characteristics of the type of media being used. To give preference to the image quality of fine line drawing :Void Area+1, Void Area+2 To give preference to the image quality of solid images :White Spot+1, White Spot+2
Setting /procedure	*1.* Connect the printer to the PC. *2.* Execute the “LineDrawEffect.exe” Service Support Tool. *3.* Select the type of media for which adjustments are to be made. *4.* Click “Status” to check the current setting. *5.* Click to select either Void Area+1 or White Spot+1. *6.* Click “Status” again to make sure that the setting has been correctly changed. *7.* Execute a test print and check for the correct image. *8.* If good effects are not obtained, change the setting to either Void Area+2 or White Spot+2. *9.* Turn the Power Switch OFF and then ON again.

8.2.5 Consumables expected life display

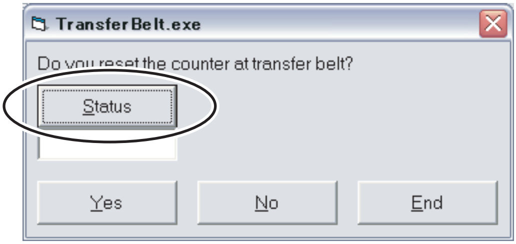
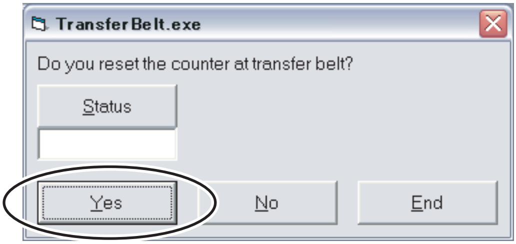
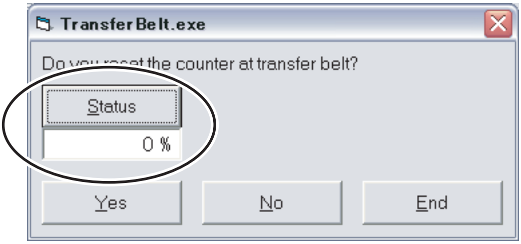
Function	• Displays the expected remaining life (as a percentage) of the 2nd Transfer Roller, Transfer Belt Unit, and Fusing Unit.
Use	• For checking the remaining life of the 2nd Transfer Roller, Transfer Belt Unit, and Fusing Unit.
Setting /procedure	*1.* Connect the printer to the PC. *2.* Execute the “CounterDisplay.exe” Service Support Tool. *3.* Check the counter for each consumable.  CounterDisplay.exe Residual Rate Transfer Belt: 100 % 2nd Transfer Roller: 100 % Fuser Unit: 100 % 4139fs3519e0

8.2.6 Consumables counter reset

A. 2nd Transfer Roller

Function	• Resets the counter for the 2nd Transfer Roller.
Use	• When the 2nd Transfer Roller has been replaced with a new one.
Setting /procedure	*1.* Connect the printer to the PC. **NOTE** • **At this time, make sure that the Upper Cover of the printer is open.** *2.* Execute the “SecondTransferRoller.exe” Service Support Tool. 4139fs3509c0 *3.* Click “Status” to check the current counter reading.  SecondTransferRoller.exe Do you reset the counter at 2nd transfer roller? 4139fs3520e0 *4.* Click “Yes” to reset the counter.  SecondTransferRoller.exe Do you reset the counter at 2nd transfer roller? 4139fs3521e0 * To quit the function without resetting the counter, click “No” or “End.” *5.* Click “Status” again to make sure that the counter has been correctly reset.  SecondTransferRoller.exe Do you reset the counter at 2nd transfer roller? 0 % 4139fs3522e0 *6.* Close the Upper Cover of the printer.

B. Transfer Belt Unit

Function	• Resets the counter for the Transfer Belt Unit.
Use	• When the Transfer Belt Unit has been replaced with a new one.
Setting /procedure	*1.* Connect the printer to the PC. **NOTE** • **At this time, make sure that the Upper Cover of the printer is open.** *2.* Execute the “TransferBelt.exe” Service Support Tool. 4139fs3513c0 *3.* Click “Status” to check the current counter reading.  Do you reset the counter at transfer belt? 4139fs3523e0 *4.* Click “Yes” to reset the counter.  Do you reset the counter at transfer belt? 4139fs3524e0 * To quit the function without resetting the counter, click “No” or “End.” *5.* Click “Status” again to make sure that the counter has been correctly reset.  Do you reset the counter at transfer belt? 0 % 4139fs3525e0 *6.* Close the Upper Cover of the printer.

8.2.7 RoHS sensor support

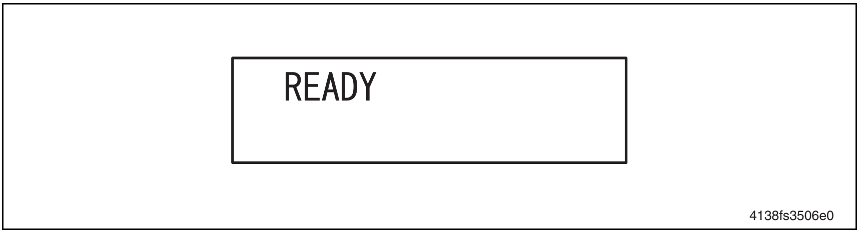
Function	• Sets supportability of the Temperature/Humidity Sensor (HS1) for RoHS.
Use	• When the Temperature/Humidity Sensor has been replaced with a new one. Sensor supporting RoHS : Yes Sensor not supporting RoHS : No
Setting /procedure	*1.* Connect the printer to the PC. *2.* Execute the "HumiditySensor.exe" Service Support Tool. *3.* Click "Status" to check the current setting. *4.* Click to select "Yes" or "No" as necessary. *5.* Click "Status" again to make sure that the setting has been correctly changed. *6.* Turn the Power Switch OFF and then ON again.

9. Description of the Control Panel (magicolor 2430 DL)

9.1 Control Panel Display

9.1.1 Basic Screen

- The Basic Screen is the Initialization Screen that displays when warmup is complete or when you exit from the configuration menu.

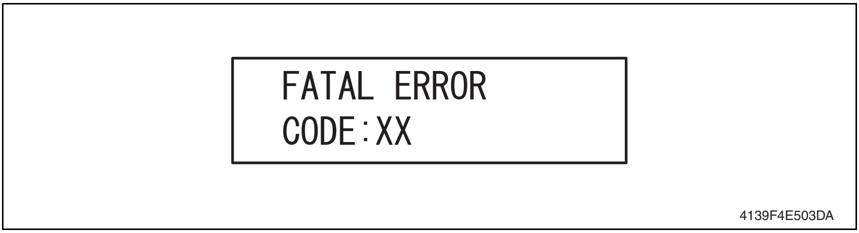


```
READY
```

4138fs3506e0

9.1.2 Warning Screen

- This screen appears when a malfunction occurs that can be taken care of by the user.

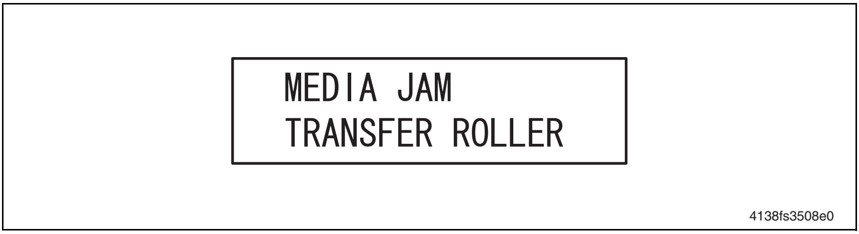


```
FATAL ERROR
CODE:XX
```

4139F4E503DA

9.1.3 Error display

- This display appears when an error occurs that requires a service technician.

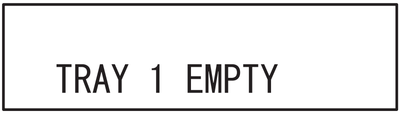


```
MEDIA JAM
TRANSFER ROLLER
```

4138fs3508e0

9.1.4 Caution Display

- A caution display appears when an event occurs that requires user intervention, but does not interrupt printing.



TRAY 1 EMPTY

4138fs3509e0

9.2 List of Control Panel Messages

9.2.1 Normal state messages

- Normal state messages are displayed on the upper line of the LCD.

Message	Description
READY	• Ready to print.
PROCESSING	• Processing data.
PRINTING	• Printing.
WARMING UP	• Warming up.
CALIBRATING	• Calibrating.
ENERGY SAVER	• Energy Saver mode.
CANCELLING JOB	• Canceling a job.
IMAGING	• An image for direct print is being rendered.

9.2.2 Caution messages

- Caution messages are displayed on the lower line of the LCD.

Message	Description
SIZE MISMATCH	• The correct size media is not loaded in any of the trays (only when AUTO CONTINUE is set to ON).
DRUM LOW	• The Drum Cartridge will soon run out.
X TONER LOW	• The specified color Toner Cartridge will soon run out.
TRAY 2 EMPTY	• No media in Tray 2 (only when an optional Lower Feeder Unit is installed).
TRAY 1 EMPTY	• No media in Tray 1.

* The higher the message in the above list, the higher the priority.

9.2.3 Minor error messages

Message	Description
INCORRECT CARTRIDGE XX	• The Toner Cartridge is not a genuine KONICA MINOLTA Toner Cartridge or not the correct type.
DRUM CARTRIDGE END OF LIFE	• The Drum Cartridge is empty.
TONER EMPTY X	• The specified color Toner Cartridge is empty.

* The higher the message in the above list, the higher the priority.

9.2.4 Error messages

Message	Description
MEDIA JAM XXXX	• A media jam has occurred at the specified location. ☞ For troubleshooting procedures, see “Troubleshooting” or the relevant Service Manual of the option concerned.
PUT MEDIA:TRAY 1 “MEDIA”	• The type of the media set in the printer driver differs from that of the media loaded in the specified tray.
PUT MEDIA:TRAY X “SIZE”	• The size of the media set in the printer driver differs from that of the media loaded in the specified tray. • The specified tray has run out of media while media was being fed from it.
DRAWER OPEN TRAY 2	• Tray 2 is not installed or is not correctly adjusted.

* The higher the message in the above list, the higher the priority.

9.2.5 Serious error messages

Message	Description
ERROR AIDC SENSOR	• The AIDC Sensor has developed a malfunction of some sort.
ILLEGAL ERROR DUPLEX	• A 2-sided print cycle has been run using a type or size of media not appropriate for 2-sided printing.
ERROR MEMORY OVERFLOW	• The volume of data to be printed exceeds the permissible amount of data to be processed by the machine memory.
ERROR VIDEO UNDERRUN	• The volume of data to be printed exceeds the permissible amount of data to be transferred in the machine.
COVER OPEN FRONT	• The Front Cover of the machine is open.
COVER OPEN DUPLEX	• The Duplex Option door is open.
DRUM CARTRIDGE NOT ATTACHED	• The Drum Cartridge is not installed.
X TONER NOT INSTALLED	• The specified color Toner Cartridge is not installed properly.
DRUM CARTRIDGE END OF LIFE	• The Drum Cartridge has reached its service life due to the Waste Toner Box being full.
TONER LIFE END XXXX	• The specified color Toner Cartridge has run out (only when ENGINE/TONER EMPTY is set to STOP).
TONER LIFE END XXXX (with the Error indicator lit up steadily)	• The specified color Toner Cartridge has run out completely or exceeded its service life.
TRAY 2 NOT ATTACHED	• The specified tray is not installed, but it is set in the printer driver.
DUPLEX UNIT NOT ATTACHED	• The Duplex Option is not installed, but 2-sided printing is specified in the printer driver.
SIZE/TYPE ERROR DUPLEX	• The media size or type loaded in the machine is not appropriate for 2-sided printing.

Message	Description
SIZE/TYPE ERROR	• The correct media size or type is not loaded in, or being fed through, the machine.

* The higher the message in the above list, the higher the priority.

9.2.6 Malfunction messages

☞ For details of malfunction messages and troubleshooting procedures, see “Troubleshooting.”

Message	Description
ERROR CONTROLLER	• A fault has occurred in the controller.
ERROR ENGINE INTERFACE	• There is a connection fault between the Mechanical Control Board (PWB-A) and the Print Control Board (PWB-P).
ERROR COMMUNICATION	• A communications error has occurred in the USB or Ethernet interface.
FATAL ERROR CODE: XXX	• The Engine or Controller is faulty.

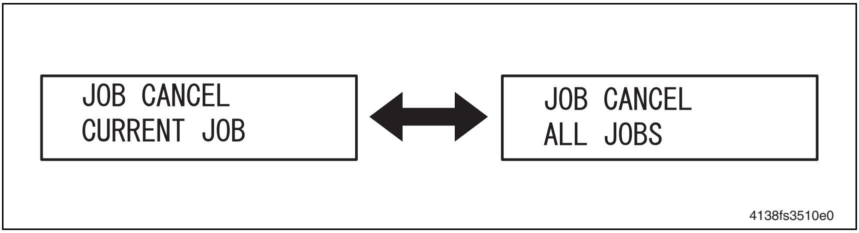
* The higher the message in the above list, the higher the priority.

9.3 Canceling a Print Job

- A print job being processed or printed can be canceled by pressing the Cancel key.

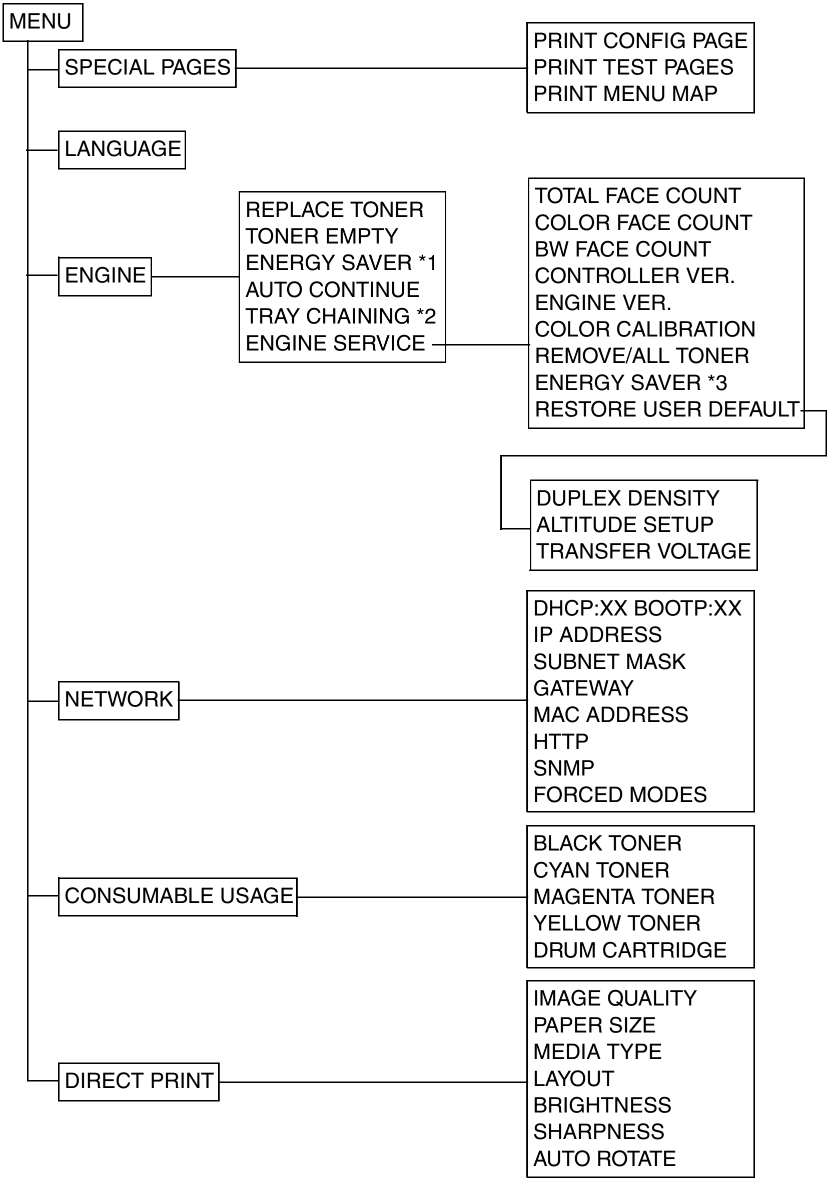
1. If the Cancel key is pressed while a print job is being printed, a message appears on the Control Panel.
2. Select the job to be canceled by using the right or left arrow key and then press the Menu Select key.

Panel Display	Description
CURRENT JOB	Cancels the job being currently printed.
ALL JOBS	Cancels all jobs the machine has so far received but has not yet finished printing.



10. Menu (magicolor 2430 DL)

10.1 List of menu functions



*1 Displayed only on 110V models if “ENERGY SAVER” in the ENGINE/SERVICE/ ENERGY SAVER menu is set to ON.

*2 Displays only if an optional Lower Feeder Unit is installed.

*3 Displayed only on 110V models.

10.2 SPECIAL PAGES

10.2.1 PRINT CONFIG PAGE

Function	• Prints a configuration page.
Use	• To check configuration of the machine. The following items can be checked: Consumables information Number of pages printed to date Installed options Amount of memory installed Firmware version Network settings Engine settings
Setting /procedure	Select PRINT CONFIG PAGE and press the Menu Select key.

10.2.2 PRINT TEST PAGES

Function	• Prints a test page.
Use	• To test printing.
Setting /procedure	• Select PRINT TEST PAGE and press the Menu Select key.

10.2.3 PRINT MENU MAP

Function	• Prints a menu map.
Use	• To check the available menu settings.
Setting /procedure	• Select PRINT MENU MAP and press the Menu Select key.

10.3 LANGUAGE

Function	• Sets the language of the Control Panel display.
Use	• To change the language of the Control Panel display. • The default setting varies according to the voltage of the printer.
Setting/ procedure	• The default setting is ENGLISH (110V and 220V printers) or JAPANESE (100V printers). "ENGLISH" FRENCH GERMAN ITALIAN PORTUGUESE SPANISH CZECH "JAPANESE"

10.4 ENGINE

10.4.1 REPLACE TONER

A. REPLACE TONER/(color)

Function	• Moves a specific color Toner Cartridge to the appropriate position to allow it to be replaced.
Use	• To allow a Toner Cartridge to be replaced.
Setting /procedure	*1.* Select REPLACE TONER and the specific color of toner to be replaced. *2.* The rack rotates to bring the specified color Toner Cartridge to the replacement position. When the rack has stopped moving, the message “OPEN DOOR/REPLACE TONER (color)” appears on the display. *3.* Open the Upper Cover and replace the Toner Cartridge. ☞ For the Toner Cartridge replacement procedures, see “Maintenance.” *4.* Close the Upper Cover. The initial screen will then reappear.

B. REPLACE TONER/ALL

Function	• Moves each Toner Cartridge to the appropriate position, one by one, to allow all of the Toner Cartridges to be replaced with new ones.
Use	• To allow all of the Toner Cartridges to be replaced.
Setting /procedure	*1.* Select REPLACE TONER/ALL. *2.* The rack rotates to bring the first color Toner Cartridge to the replacement position. When the rack has finished moving, the message “OPEN DOOR/REPLACE TONER C” appears on the display. *3.* Open the Upper Cover and replace the Toner Cartridge. ☞ For the Toner Cartridge replacement procedures, see “Maintenance.” *4.* Close the Upper Cover. Then, the message “OPEN DOOR/REPLACE TONER K” appears on the display. *5.* Repeating the same steps, replace all Toner Cartridges with new ones. **NOTE** **• The Toner Cartridges are to be replaced in the order of C -> K -> Y -> M.** *6.* Close the Upper Cover. The initial screen will then reappear.

10.4.2 TONER EMPTY

Function	• Specifies whether to stop or continue printing when a toner empty condition is detected.
Use	• To permit printing upon a toner empty condition.
Setting /procedure	• The default setting is STOP. “STOP” CONTINUE • When “STOP” is selected The print cycle is stopped when the toner consumption rate becomes 0%. The message shown on the control panel reads “TONER LIFE END.” Only the orange LED stays lit up steadily. • When “CONTINUE” is selected A print cycle can be carried out even when the toner consumption rate becomes 0%. The message shown on the control panel reads “TONER LIFE END.” Both the green and orange LEDs blink. The print cycle is stopped after 6K printed pages have been produced. The message shown on the control panel reads “TONER LIFE END.” Only the orange LED stays lit up steadily.

10.4.3 ENERGY SAVER

Function	• Sets the amount of time after the last job was printed or the last key operated before the machine enters Energy Saver mode. • Energy Saver mode is automatically canceled when any of the following operations is performed: The Machine is restarted. A print job is received. Any key on the Control Panel is pressed. The Front Cover or Top Cover is opened and closed.
Use	• To change the amount of time before the machine enters Energy Saver mode.
Setting /procedure	• The default setting is 30 MINUTES. 15 MINUTES “30 MINUTES” 60 MINUTES 120 MINUTES * * displayed only on the model for the Americas. **NOTE** • **This menu is displayed only on 110V models when ENGINE/SERVICE/ ENERGY SAVER is set to ON.**

10.4.4 AUTO CONTINUE

Function	• Enables or disables printing when the size of the media loaded in the tray does not match that of the print data.
Use	• To print data on the media loaded in the tray if the media loaded in the tray does not match that of the print data.
Setting /procedure	• The setting can be changed during printing. • The default setting is ON. “ON” OFF

10.4.5 TRAY CHAINING

Function	• Allows a print cycle to continue without interruption when the current tray runs out of paper during the print cycle by automatically reselecting Tray 2, in which the paper of the same size and the same type is loaded. • The setting is enabled when the optional Lower Feeder Unit is installed.
Use	• To continue printing from a second tray when the first tray runs out of paper.
Setting/procedure	• The setting can be changed during printing. • The default setting is ON. “ON” OFF

10.4.6 ENGINE SERVICE

A. TOTAL FACE COUNT

Function	• Displays the total number of pages printed to date.
Use	• To identify the total number of printed pages.

B. COLOR FACE COUNT

Function	• Displays the total number of pages printed in color.
Use	• To identify the total number of color pages printed.

C. BW FACE COUNT

Function	• Displays the total number of monochrome pages printed to date.
Use	• To identify the total number of monochrome pages printed.

D. CONTROLLER VER.

Function	• Displays the version of the controller firmware currently installed.
Use	• To help determine whether the controller firmware needs to be upgraded. • To identify the controller firmware version when the Print Control Board is replaced.

E. ENGINE VER.

Function	• Displays the version of printer engine firmware currently installed.
Use	• To identify the printer engine firmware version when the Mechanical Control Board is replaced.

F. COLOR CALIBRATION

Function	• Executes color calibration.
Use	• To calibrate the engine when there are print image quality problems. • To calibrate the engine when the Transfer Belt Unit and Transfer Roller are replaced with new ones.
Setting /procedure	*1.* Select COLOR CALIBRATION and press the Menu Select key. *2.* The COLOR CALIBRATION is executed and, when it is completed, the initial screen reappears.

G. REMOVE/ALL TONER

Function	• Moves each color Toner Cartridge to the appropriate replacement position, one by one, to allow all of the Toner Cartridges to be removed.
Use	• To allow all of the Toner Cartridges to be removed.
Setting /procedure	*1.* Select REMOVE/ALL TONER. *2.* The rack rotates to bring the first color Toner Cartridge to the replacement position. When the rack stops moving, the message “OPEN DOOR/REMOVE TONER C” appears on the display. *3.* Open the Upper Cover and remove the Toner Cartridge. ☞ For the Toner Cartridge removal procedures, see “Maintenance.” *4.* Close the Upper Cover. Then, the message “OPEN DOOR/REMOVE TONER K” appears on the display. *5.* Repeating the same steps, remove the remaining Toner Cartridges. **NOTE** • **The Toner Cartridges are to be removed in the order of C -> K -> Y -> M.** *6.* Close the Upper Cover. The initial screen will then reappear.

H. ENERGY SAVER

NOTE

- **This menu is displayed only on 110V models.**

Function	• Selects whether to use Energy Saver or not.
Use	• To enable or disable Energy Saver.
Setting /procedure	• The default setting is ON. "ON" OFF

I. RESTORE USER DEFAULT

Function	• Resets the ENERGY SAVER, AUTO CONTINUE, TRAY CHAINING, DUPLEX DENSITY, ALTITUDE SETUP and TRANSFER VOLTAGE values to their factory default settings. • Resets the administrator password to its factory default setting.
Use	• To reset the ENERGY SAVER, AUTO CONTINUE, TRAY CHAINING, DUPLEX DENSITY, ALTITUDE SETUP, and TRANSFER VOLTAGE menus and administrator password to their factory default settings.
Setting /procedure	*1.* Select RESTORE USER DEFAULT and press the Menu Select key. *2.* This initializes the setting values of the functions involved are reset to their factory default values, and the Engine/Service menu reappears.

J. DUPLEX DENSITY

Function	• Adjusts the T/C ratio control level when a faulty image density occurs due to changes in weather or environment.
Use	• To adjust the T/C ratio changes to compensate for changes in the user's operating environment during 2-sided printing.
Setting /procedure	• The default setting is 0. *1.* With RESTORE USER DEFAULT selected, hold down the ▼ key for 2 seconds or more. *2.* With DUPLEX DENSITY selected, press the < or > key as necessary to select the appropriate density level value. Adjustment range: -3 to +3 *3.* Press the Menu/Select key to accept the new density level setting.

K. ALTITUDE SETUP

Function	• Optimizes the image by varying the output value of the developing bias when an image problem occurs as affected by the atmospheric pressure in high altitudes.
Use	• To adjust the developing bias when an image problem (uneven density) occurs in an environment of low atmospheric pressure at high altitudes.
Setting /procedure	• The default setting is 0. *1.* With RESTORE USER DEFAULT selected, hold down the down key for 2 seconds or more. *2.* Select ALTITUDE SETUP using the < or > key and press the Menu/Select key. *3.* In ALTITUDE SETUP, press the < or > key as necessary to select the appropriate altitude setting value. Adjustment range: 0 to 3 (see table below) *4.* Press the Menu/Select key to accept the new setting. **NOTE** • **After changing this setting, be sure to run COLOR CALIBRATION (ENGINE Æ ENGINE SERVICE menu).**

Setting Value	Developing Bias Value
0	No offset
1	100 V
2	200 V
3	300 V

L. TRANSFER VOLTAGE

Function	• Adjusts image characteristics according to user requirements for each type of media by varying the second transfer voltage.
Use	• To adjust the second transfer voltage when an image problem (void areas, white spots) occurs due to the characteristics of the type of media being used. If white spots occur, decrease the 2nd transfer voltage (adjust in the minus direction). If void areas occurs, increase the 2nd transfer voltage (adjust in the plus direction).
Setting /procedure	• The default setting is 0. *1.* With RESTORE USER DEFAULT selected, hold down the down key for 2 seconds or more. *2.* Select TRANSFER VOLTAGE using the < or > key and press the Menu/Select key. *3.* In TRANSFER VOLTAGE, press the < or > key as necessary to select the appropriate voltage value. Adjustment range: -3 to +3 *4.* Press the Menu/Select key to accept the new voltage setting.

Setting Value	Voltage Value	Setting Value	Voltage Value
-3	-600 V	+1	+200 V
-2	-400 V	+2	+400 V
-1	-200 V	+3	+600 V
0	0 V		

10.5 NETWORK

10.5.1 DHCP:XX / BOOTP:XX

Function	• DHCP : Automatically acquires an IP address from the DHCP server, if there is one in the network, and specifies whether to load other network information. • BOOTP : Automatically acquires an IP address from BOOTP and specifies whether to load other network information.
Use	• To automatically acquire an IP address and load other network information.
Setting /procedure	• Turn "ON" either DHCP or BOOTP or "OFF" both. • The default setting is DHCP: ON / BOOTP: OFF. "DHCP:ON / BOOTP:OFF"DHCP:OFF / BOOTP:ON DHCP:OFF / BOOTP:OFF

10.5.2 IP ADDRESS

Function	• Sets the IP address of the printer on the network.
Use	• To enter the printer's IP address.
Setting /procedure	• Enter the IP address using the up, down, right, and left arrow keys. • The default setting is "192.168.1.2." **NOTE** • **Before manually setting the IP address, turn OFF DHCP and BOOTP in the NETWORK → DHCP:XX/BOOTP:XX menu.**

10.5.3 SUBNET MASK

Function	• Sets the subnet mask of the printer used on the network.
Use	• To enter the printer's subnet mask.
Setting /procedure	• Enter the subnet mask using the up, down, right, and left arrow keys. • The default setting is "255.255.255.0." **NOTE** • **Before manually setting the subnet mask, turn OFF DHCP and BOOTP in the NETWORK → DHCP:XX/BOOTP:XX menu.**

10.5.4 GATEWAY

Function	• Sets the gateway address of the printer used on the network.
Use	• To enter the printer's gateway address.
Setting/ procedure	• Enter the gateway address using the up, down, right, and left arrow keys. • The default setting is "192.168.1.1." **NOTE** • **Before manually setting the gateway address, turn OFF DHCP and BOOTP in the NETWORK → DHCP:XX/BOOTP:XX menu.**

10.5.5 MAC ADDRESS

Function	• Displays the Ethernet hardware address of the printer.
Use	• To display the printer's Ethernet hardware address.
Setting /procedure	• The address is displayed only and cannot be altered.

10.5.6 HTTP

Function	• Specifies whether to access PageScope Web Connection and to use the IPP protocol or not.
Use	• To specify whether to use IPP and access PageScope Web Connection.
Setting /procedure	• The machine must be restarted after the setting has been changed. • The default setting is ON. ON OFF

10.5.7 SNMP

Function	• Specifies whether to use the SNMP protocol or not.
Use	• To specify whether to use SNMP.
Setting /procedure	• The machine must be restarted after the setting has been changed. • The default setting is ON. ON OFF

10.5.8 FORCED MODES

Function	• Sets the network speed, duplex mode, and negotiation of the printer if it is connected to the network via a network hub.
Use	• To set the printer's network speed, duplex mode, and negotiation. • The default setting of "AUTO/AUTO/ON" usually presents no problem. If special settings are made for a network hub in the printer setup environment, however, the settings must be changed to match those on the network side.
Setting /procedure	• Settings Network speed (SPEED): AUTO, 100Mbps, 10Mbps Duplex mode (DUP): AUTO, Full-duplex mode, Half-duplex mode Negotiation (NEG.): ON, OFF • The default setting is AUTO/AUTO/ON. AUTO/AUTO/ON AUTO/FULL/ON AUTO/HALF/ON 100M/AUTO/ON 100M/FULL/ON 100M/FULL/OFF 100M/HALF/ON 100M/HALF/OFF 10M/AUTO/ON 10M/FULL/ON 10M/FULL/OFF 10M/HALF/ON 10M/HALF/OFF

10.6 CONSUMABLE USAGE

10.6.1 BLACK TONER

Function	• Displays the remaining life of the Toner Cartridge (K) as a percentage.
Use	• To monitor the amount of life remaining in the Toner Cartridge (K).

10.6.2 CYAN TONER

Function	• Displays the remaining life of the Toner Cartridge (C) as a percentage.
Use	• To monitor the amount of life remaining in the Toner Cartridge (C).

10.6.3 MAGENTA TONER

Function	• Displays the remaining life of the Toner Cartridge (M) as a percentage.
Use	• To monitor the amount of life remaining in the Toner Cartridge (M).

10.6.4 YELLOW TONER

Function	• Displays the remaining life of the Toner Cartridge (Y) as a percentage.
Use	• To monitor the amount of life remaining in the Toner Cartridge (Y).

10.6.5 DRUM CARTRIDGE

Function	• Displays the remaining life of the Drum Cartridge as a percentage.
Use	• To monitor the amount of life remaining in the Drum Cartridge.

10.7 DIRECT PRINT

10.7.1 IMAGE QUALITY

Function	• Sets the output resolution for Camera Direct Photo Printing.
Use	• To change the output resolution for Camera Direct Photo Printing. • The output resolution for each setting is as follows. DRAFT : 600 dpi x 600 dpi NORMAL : 600 dpi x 1200 dpi FINE : 600 dpi x 2400 dpi **NOTE** • **To select Normal and Fine mode, an additional 128 MB of memory needs to be installed. Only Draft mode is available with the printer’s base memory.**
Setting /procedure	• The default setting is DRAFT. “DRAFT” NORMAL FINE

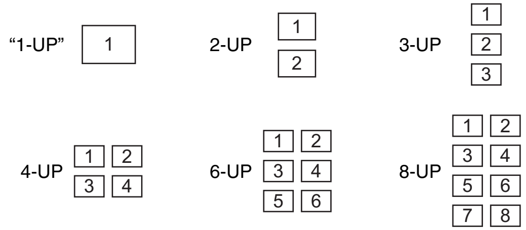
10.7.2 PAPER SIZE

Function	• Sets the paper size for Camera Direct Photo Printing.
Use	• To change the paper size for Camera Direct Photo Printing.
Setting /procedure	• The default setting is A4 or LETTER. LETTER A4 A5 STATEMENT J-POSTCARD **NOTE** • **LETTER is the default setting for the Americas, and A4 is the default setting for all other regions.**

10.7.3 MEDIA TYPE

Function	• Sets the type of media for Camera Direct Photo Printing.
Use	• To change the media type for Camera Direct Photo Printing.
Setting /procedure	• The default setting is PLAIN PAPER. “PLAIN PAPER” THICK STOCK GLOSSY POSTCARD LABELS

10.7.4 LAYOUT

Function	• Sets the number of images printed on one page for Camera Direct Photo Printing.
Use	• To specify the number of Camera Direct Photo Printing images to be printed on each sheet.
Setting /procedure	• The default setting is 1-UP.  "1-UP" 1 2-UP 1 2 3-UP 1 2 3 4-UP 1 2 3 4 6-UP 1 2 3 4 5 6 8-UP 1 2 3 4 5 6 7 8

10.7.5 BRIGHTNESS

Function	• Changes the color density of the printed image for Camera Direct Photo Printing.
Use	• To make a Camera Direct Photo Printing image brighter.
Setting /procedure	• The default setting is OFF. ON "OFF"

10.7.6 SHARPNESS

Function	• Changes sharpness of the printed image for Camera Direct Photo Printing.
Use	• To make a printed Camera Direct Photo Printing image look sharper by emphasizing its outlines.
Setting /procedure	• The default setting is OFF. ON "OFF"

10.7.7 AUTO ROTATE

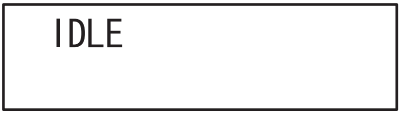
Function	• Rotates the image 90 degree in the clockwise direction for Camera Direct Photo Printing.
Use	• To print the Camera Direct Photo Printing image in portrait format.
Setting /procedure	• The default setting is OFF. ON "OFF" **NOTE** • **This option is available only when DIRECT PRINT → LAYOUT is set to "1-UP" or "4-UP."**

11. Description of the Control Panel (magicolor 2450)

11.1 Control Panel Display

11.1.1 Basic Screen

- The Basic Screen is the Initialization Screen that displays when warmup is complete or when you exit from the configuration menu.

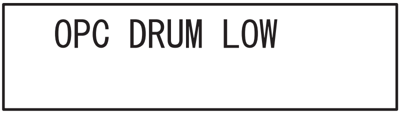


IDLE

4139F3E501DA

11.1.2 Caution display

- A caution display appears when an event occurs that requires user intervention, but does not affect printing.

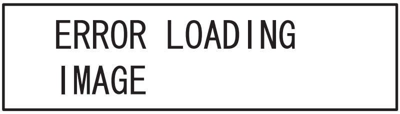


OPC DRUM LOW

4139F3E502DA

11.1.3 Error display

- This display appears when an error occurs that can be taken care of by the user.

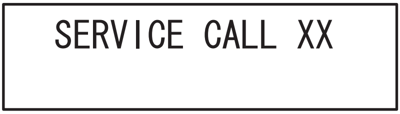


ERROR LOADING
IMAGE

4139F3E503DA

11.1.4 Malfunction screen

- This screen appears when a malfunction occurs that requires a service technician.



SERVICE CALL XX

11.2 List of Control Panel Messages

11.2.1 Standard status messages

- Normal state messages are displayed on the upper line of the LCD.

Message	Description
IDLE	• Ready to print.
PROCESSING	• Processing data.
PRINTING	• Printing.
WARMING UP	• Warming up.
CALIBRATING	• Calibrating. Whenever you replace a toner cartridge or reboot the printer after making an environmental change, the printer automatically pauses to do an Automatic Image Density Control (AIDC) cycle. This process is provided to make reliable printer operation with optimum output quality possible.
ENERGY SAVER	• Energy Saver mode.
CANCELLING JOB	• Canceling a job.
COPYING (XXX/XXX)	• The machine is copying with the collating function.
PRINTING (XXX/XXX)	• The machine is printing with the collating function.
FIRMWARE UPDATE WRITING IMAGE	• The firmware is being updated.
INITIALIZING	• The printer is being initialized.
MAGICOLOR 2450 STARTING SYSTEM	• The printer is starting up.

11.2.2 Caution messages

Message	Description
CANNOT ROTATE CARTRIDGE	• A problem occurred while the toner cartridge carousel was rotating.
DISK NEAR FULL	• The hard disk is nearly full.
X EMPTY	• The specified color of toner cartridge is empty. **NOTE** • **Appears when QUALITY MENU → TONER OUT ACTION is set to "CONTINUE."**
X INCORRECT	• The specified color of toner cartridge is not a genuine KONICAMINOLTA toner cartridge or not the correct type.
X TONER LOW	• The specified color of toner cartridge is low and should be replaced within 200 pages at 5% coverage of Letter/A4 pages.
OPC DRUM LOW	• The drum cartridge will soon run out.
OPC DRUM OUT	• The drum cartridge is empty.
TRAY 2 OPEN (When the Ready indicator is lit)	• Tray 2 is not installed or not fully inserted into the printer.
MEDIA MISMATCH	• The media type set in the printer driver is different from the type of media loaded.

Message	Description
PAPER MISMATCH	• The media size set in the printer driver is different from the size media loaded in Tray1. **NOTE** • **Appears when PAPER MENU → INPUT TRAY → AUTO CONTINUE is SEt to “OFF.”**

11.2.3 Error messages

Message	Description
FATAL ERROR	• The AIDC Sensor has developed a malfunction of some sort.
DISK ERROR	• The hard disk is full or damaged.
DISK FULL	• The hard disk is full.
DUPLEX UNIT PANEL OPEN	• The Duplex Option cover is open.
REPLACE X TONER	• The specified color of toner cartridge is empty. **NOTE** • **This message appears when QUALITY MENU → TONER OUT ACTION is set to “STOP.”**
ERROR LOADING IMAGE	• An error occurred while the system image was being scanned.
FIRMWARE UPDATE FOMAT ERROR	• An error occurred while the firmware was being initialized.
FIRMWARE UPDATE INVALID IMAGE	• The downloaded system image is corrupted or the version is incorrect.
MAIN UNIT COVER OPEN	• The Front Cover of the machine is open.
OPC DRUM MISSING	• The Drum Cartridge is not installed.
PAPER JAM XXXX	• A media jam has occurred at the specified location. ☞ For troubleshooting procedures, see “Troubleshooting” or the relevant Service Manual of the option concerned.
PUT “SIZE” “TYPE” IN ANY TRAY	• The media type set in the printer driver is different from the type of media loaded into the specified tray.
PUT “SIZE” “TYPE” IN TRAY 1	• The paper size set from the printer driver is different from the size of paper loaded in Tray 1. **NOTE** • **This message appears when PAPER MENU → INPUT TRAY → TRAY 1 MODE is set to “CASSETTE.”**
PUT “SIZE” “TYPE” IN TRAY 2	• The paper size set from the printer driver is different from the size of paper loaded in Tray 2. **NOTE** • **This message appears when PAPER MENU → INPUT TRAY → AUTO CONTINUE is set to “OFF.”**
REPLACE OPC DRUM	• The drum cartridge is empty.
X TONER MISSING	• The specified color of toner cartridge is not installed.

11.2.4 Malfunction messages

☞ For details of malfunction messages and troubleshooting procedures, see "Troubleshooting."

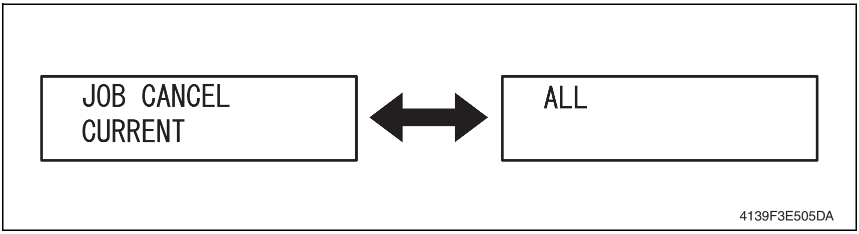
Message	Description
FIRMWARE UPDATE WRITING ERROR	• Data cannot be written since the flash memory is damaged.
SERVICE CALL XX	• The Engine or controller is faulty.

11.3 Cancelling a Print Job

- A print job being processed or printed can be cancelled by pressing the Cancel key.

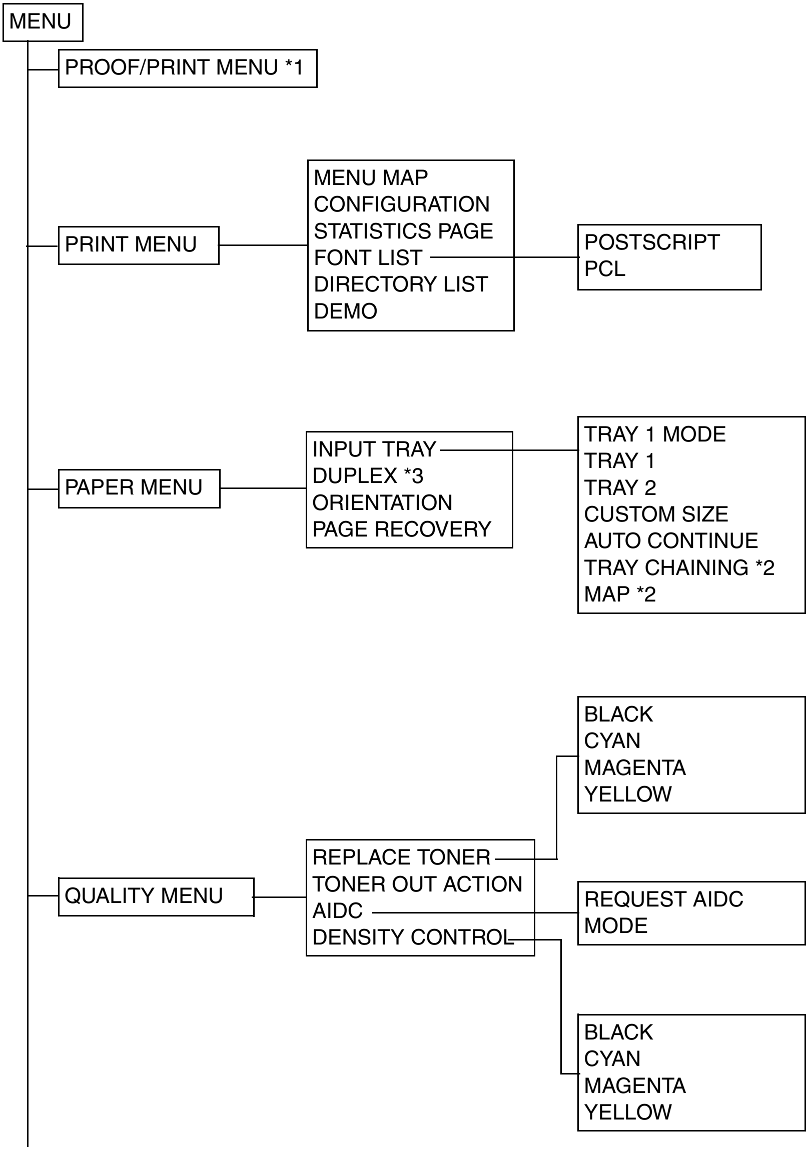
1. If the Cancel key is pressed while a print job is being printed, a message appears on the Control Panel.
2. Select the job to be cancelled using the right or left arrow key and press the Menu Select key.

Panel Display	Description
CURRENT	Cancels the job being currently printed.
ALL	Cancels all jobs the machine has so far received but has not yet finished printing.

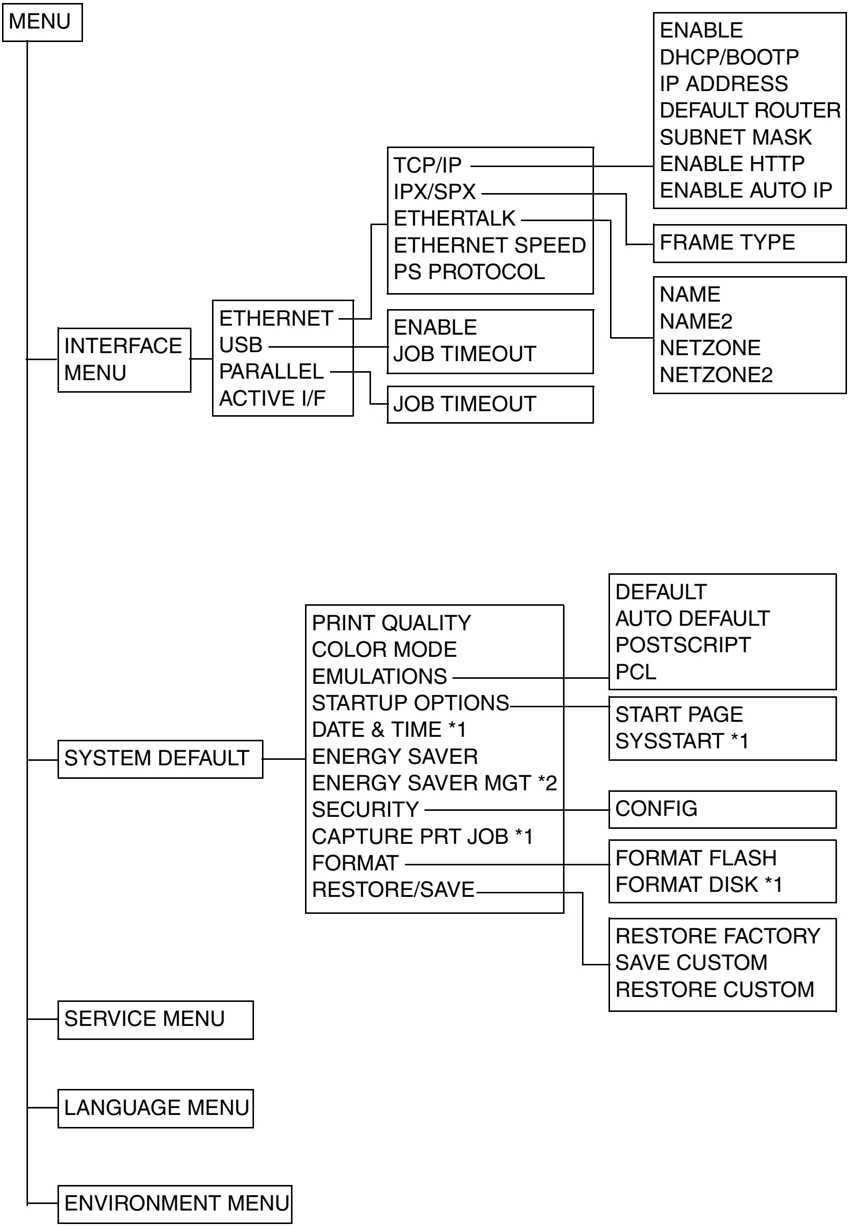


12. Menu (magicolor 2450)

12.1 List of menu functions



*1 This setting is available only when an optional Hard Disk is installed.
*2 This setting is available only when an optional Lower Feeder Unit is installed.
*3 This setting is available only when a Duplex Option is installed.



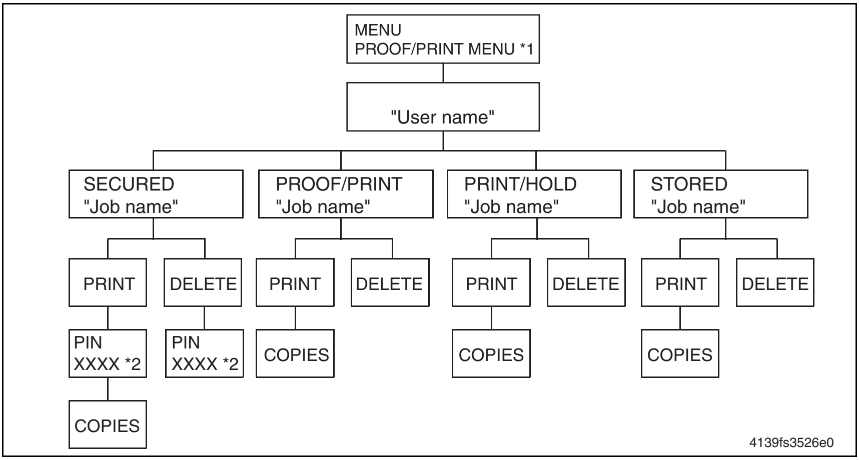
*1 This setting is available only when an optional Hard Disk is installed.
*2 This menu item appears only on 110 V units.

12.2 PROOF/PRINT MENU

- With this menu item, print jobs that were set to be saved on the hard disk by using Job Retention on the Basic tab of the printer driver can be printed or deleted.

NOTE

- **This setting is available only when an optional hard disk drive is installed.**



*1: If no jobs have been stored on the hard disk, NO STORED JOBS appears.

*2: In order to print or delete a secured job, enter the four-digit password specified from the printer driver. For details on entering the password, refer to “Entering the password.”

12.2.1 Entering the password

- In order to print or delete a secured job, the four-digit password specified from the printer driver must be entered. Follow the procedure described below.

1. Press the Up and Down keys to increase or decrease the first digit of the password.
2. Press the Right key to move the cursor to the next digit.
3. Press the Up and Down keys to increase or decrease the second digit of the password.
4. Continue these steps until all four digits of the password are specified.
5. Press the Menu/Select key.
   The PRINT/DELETE selection screen appears.

NOTE

- **If an incorrect password is entered, INVALID ENTRY appears and the screen for entering the password appears again.**

12.3 PRINT MENU

12.3.1 MENU MAP

Function	• Prints the menu map.
Use	• To check the available menu settings.
Setting /procedure	• Select MENU MAP and press the Menu Select key.

12.3.2 CONFIGURATION

Function	• Prints the configuration page.
Use	• To check configuration of the machine. The following items can be checked: Printer Information Printer Interfaces INSTALLED OPTIONS PAPER SETTINGS
Setting /procedure	• Select CONFIGURATION and press the Menu Select key.

12.3.3 STATISTICS PAGE

Function	• Prints the statistics page.
Use	• To check the consumable status and the usage of the machine, such as the number of pages printed.
Setting /procedure	• Select STATISTICS PAGE and press the Menu Select key.

12.3.4 FONT LIST

A. POSTSCRIPT

Function	• Prints a list of PostScript fonts.
Use	• To check the available PostScript fonts.
Setting /procedure	• Select FONT LIST→POSTSCRIPT and press the Menu Select key.

B. PCL

Function	• Prints a PCL fonts.
Use	• To check the available PCL fonts.
Setting /procedure	• Select FONT LIST→PCL and press the Menu Select key.

12.3.5 DIRECTORY LIST

Function	• Prints a directory list of the hard disk and flash.
Use	• To check the files saved on the hard disk and in flash.
Setting /procedure	• Select DIRECTORY LIST and press the Menu Select key. **NOTE** **• This menu item appears only if the optional hard disk drive is installed.**

12.3.6 DEMO

Function	• Prints the demo page.
Use	• To print a demo page.
Setting /procedure	• Select DEMO and press the Menu Select key.

12.4 PAPER MENU

12.4.1 INPUT TRAY

A. TRAY 1 MODE

Function	• When printing from Tray 1, selects whether the media size and media type set in the printer driver or the MEDIA SIZE and MEDIA TYPE settings set by selecting PAPER MENU → INPUT TRAY → TRAY 1 in the control panel have priority.
Use	• If AUTO is selected, to specify that the printer driver settings have priority during printing. • If CASSETTE is selected, to specify that printing is performed when the printer driver settings and the control panel settings are all the same.
Setting /procedure	• The default setting is AUTO. “AUTO” CASSETTE

B. TRAY 1

(1) MEDIA SIZE

Function	• Specifies the size of the media loaded in Tray 1.
Use	• To specify the size of the media loaded in Tray 1.
Setting /procedure	• The default setting for North America is LETTER. The default setting for all other regions is A4. • The media sizes available are as follows.

LETTER	LEGAL	EXECTIVE	A4
A5	B5(JIS)	GOVT LETTER	STATEMENT
FOLIO	SP FOLIO	UK QUARTO	FOOLSCAP
GOVT LEGAL	16K	KAI 16	32K
ENV C5	ENV C6	ENV DL	ENV MONARCH
ENV CHOU#3	ENV CHOU#4	B5(ISO)	ENV #10
ENV YOU#4	JPOST	JPOST-D	CUSTOM

(2) MEDIA TYPE

Function	• Specifies the setting for the type of media loaded in Tray 1.
Use	• To specify the type of media loaded in Tray 1.
Setting /procedure	• The default setting is PLAIN PAPER. "PLAIN PAPER" THICK TRANSPARENCY LETTERHEAD LABEL POSTCARD ENVELOPE GLOSSY

C. TRAY 2

(1) MEDIA SIZE

Function	• Specifies the size of the media loaded in Tray 2.
Use	• To specify the size of the media loaded in Tray 2.
Setting /procedure	• The default setting for North America is LETTER. The default setting for all other regions is A4. LETTER A4

(2) MEDIA TYPE

Function	• Specifies the setting for the type of media loaded in Tray 2.
Use	• To specify the type of media loaded in Tray 2.
Setting /procedure	• The default setting is PLAIN PAPER. PLAIN PAPER LETTERHEAD

D. CUSTOM

(1) WIDTH

Function	• Specifies the width of the custom-sized paper in Tray 1.
Use	• To specify the width of the custom-sized media in Tray 1.
Setting /procedure	• On the model for North America, the settings appear in inches and the menu item appears as WIDTH(IN). On the models for all other regions, the settings appear in millimeters and the menu item appears as WIDTH(MM). • The default setting is 92.0 mm (3.62 in.). 92.0 to 216.0 mm (3.62 to 8.50 in.)

(2) LENGTH

Function	• Specifies the length of the custom-sized paper in Tray 1.
Use	• To specify the length of the custom-sized media in Tray 1.
Setting /procedure	• On the model for North America, the settings appear in inches and the menu item appears as LENGTH(IN). On the models for all other regions, the settings appear in millimeters and the menu item appears as LENGTH(MM). • The default setting is 148.0 mm (5.83 in.). 148.0 to 356.0 mm (5.83 to 14.02 in.)

E. AUTO CONTINUE

Function	• Enables or disables printing when the size of the media loaded in the tray does not match that of the print data.
Use	• To print data on the media loaded in the tray of the media loaded in the tray does not match that of the print data.
Setting /procedure	• The default setting is ON. "ON" OFF

F. TRAY CHAINING

Function	• Allows a print cycle to continue without interruption when the current tray runs out of media during the print cycle by automatically reselecting another tray, in which the media of the same size and the same type is loaded.
Use	• To allow media to be pulled from another tray when the media in the first tray runs out.
Setting /procedure	• The default setting is ON. "ON" OFF **NOTE** **• This setting is available only when an optional Lower Feeder Unit is installed.**

G. MAP

(1) MODE

Function	• Selects whether or not the Tray Mapping function is used.
Use	• To specify whether trays are mapped.
Setting /procedure	• The default setting is ON. "ON" OFF

(2) LOGICAL TRAY0-9

Function	• Specifies whether jobs received from another manufacturer's printer driver are printed using Tray 1 or Tray 2.
Use	• To specify the media source for print jobs using another manufacturer's printer driver.
Setting /procedure	• Only the default for LOGICAL TRAY 2 is PHYSICAL TRAY 2. PHYSICAL TRAY 1 is the default for all trays other than LOGICAL TRAY 2. PHYSICAL TRAY 1 PHYSICAL TRAY 2

12.4.2 DUPLEX

Function	• Selects whether or not the duplex print function is used.
Use	• To use the duplex print function. OFF : Duplex printing is not possible. LONG EDGE : The pages will be printed on both sides of the paper for long-edge binding. SHORT EDGE : The pages will be printed on both sides of the paper for short-edge binding.
Setting /procedure	• The default setting is OFF. "OFF" LONG EDGE SHORT EDGE **NOTE** • **This setting is available only when a Duplex Option is installed.**

12.4.3 ORIENTATION

Function	• Specifies the orientation of the media.
Use	• To change the orientation of the media.
Setting /procedure	• The default setting is PORTRAIT. "PORTRAIT" LANDSCAPE

12.4.4 PAGE RECOVERY

Function	• Selects whether or not the page is printed again after recovering from a media misfeed.
Use	• To specify the point from which printing should continue after a media misfeed. ON : The page that was misfeed is printed again. OFF : Printing continues with the next page without reprinting the misfed page.
Setting /procedure	• The default setting is ON. "ON" OFF

12.5 QUALITY MENU

12.5.1 REPLACE TONER

A. BLACK/CYAN/MAGENTA/YELLOW

Function	• Moves the specified color of Toner Cartridge into replacement position, so it can be replaced.
Use	• To replace the specified color of Toner Cartridge.
Setting /procedure	*1.* Select QUALITY MENU→TONER and the specific color of toner to be replaced. *2.* The rack rotates to bring the specified color of Toner Cartridge to the replacement position. When the rack stops moving, the message "OPEN DOOR AND REPLACE (color) TONER" appears on the display. *3.* Open the Upper Cover and replace the Toner Cartridge. ☞ For the Toner Cartridge replacement procedures, see "Maintenance." *4.* Close the Upper Cover. The initial screen will then reappear.

12.5.2 TONER OUT ACTION

Function	• Specifies whether to stop or continue printing when a toner empty condition is detected.
Use	• To select to permit printing upon a toner empty condition.
Setting /procedure	• The default setting is STOP. "STOP" CONTINUE

12.5.3 AIDC

A. REQUEST AIDC

Function	• Executes image adjustments.
Use	• To calibrate the engine when there are print image quality problems. • To calibrate the engine when the Transfer Belt Unit and Transfer Roller are replaced with new ones.
Setting /procedure	• The default setting is NO. YES "NO" • If YES is selected, image adjustments are performed.

B. MODE

Function	• Applies the image adjustments
Use	• If ON is selected, to apply the image adjustments. • If OFF is selected, to not apply image adjustments.
Setting /procedure	• The default setting is ON. "ON" OFF

12.5.4 DENSITY CONTROL

A. BLACK/CYAN/MAGENTA/YELLOW

Function	• Adjusts the density of the toner to one of five levels.
Use	• To vary the density of the printed image.
Setting /procedure	• The default setting is 3. 1 to 5

12.6 INTERFACE MENU

12.6.1 ETHERNET

A. TCP/IP

(1) ENABLE

Function	• Sets whether to enable or disable TCP/IP.
Use	• To disable TCP/IP.
Setting /procedure	• The default setting is YES. “YES” NO

(2) DHCP/BOOTP

Function	• Automatically acquires an IP address from the DHCP or BOOTP server, if there is one in the network, and specifies whether to load other network information.
Use	• To automatically acquire an IP address and load other network information.
Setting /procedure	• The default setting is YES. “YES” NO

(3) IP ADDRESS

Function	• Sets the IP address of the printer on the network.
Use	• To enter the printer’s IP address.
Setting /procedure	• Enter the IP address using the up, down, right, and left arrow keys. • The default setting is “192.168.1.2.” **NOTE** • **When the printer’s IP address is set manually, DHCP/BOOTP is automatically set to OFF.**

(4) DEFAULT ROUTER

Function	• Sets the IP address of the router if one is on the network.
Use	• To enter the IP address of the router.
Setting /procedure	• Enter the IP address using the up, down, right, and left arrow keys. • The default setting is “192.168.1.2.”

(5) SUBNET MASK

Function	• Sets the subnet mask of the printer used on the network.
Use	• To enter the printer subnet mask.
Setting /procedure	• Enter the subnet mask using the up, down, right, and left arrow keys. • The default setting is “0.0.0.0.”

(6) ENABLE HTTP

Function	• Specifies whether or not HTTP is used.
Use	• To specify whether HTTP is used. ON : the Web page provided in the printer by the built-in HTTP server is enabled. OFF: the Web page cannot be used.
Setting /procedure	• The machine must be restarted after the setting has been changed. • The default setting is ON. "ON" OFF

(7) ENABLE AUTO IP

Function	• Selects whether or not the IP address is automatically acquired when DHCP/BOOTP, PING, and ARP are not functioning or when there is no response.
Use	• To automatically acquire an IP address when DHCP/BOOTP, PING, and ARP are not functioning or when there is no response.
Setting /procedure	• The default setting is YES. "YES" NO

B. IPX/SPX

(1) FRAME TYPE

Function	• Sets the Ethernet frame type.
Use	• To specify the Ethernet frame type for transmission.
Setting /procedure	• The default setting is Auto. "Auto" 802.2 802.3 ETHER II SNAP

C. ETHERTALK

(1) NAME

Function	• Specifies the first part of the name of the printer on the Macintosh EtherTalk (AppleTalk) network, so it can be "found."
Use	• To set the Printer name displayed on the Macintosh EtherTalk (AppleTalk) network. • The printer name can contain a maximum of 16 characters.
Setting /procedure	• The default setting is magicolor 2450.

(2) NAME 2

Function	• Specifies the second part of the name of the printer on the Macintosh EtherTalk (AppleTalk) network, so it can be "found."
Use	• To set the Printer name displayed on the Macintosh EtherTalk (AppleTalk) network. • The printer name can contain a maximum of 16 characters.
Setting /procedure	• The default setting is NULL.

(3) NETZONE

Function	• Specifies the first part of the Macintosh EtherTalk zone name.
Use	• To set the Zone name on Macintosh EtherTalk (AppleTalk) network where the printer is located. • The zone name can contain a maximum of 16 characters.
Setting /procedure	• The default setting is ✱.

(4) NETZONE 2

Function	• Specifies the second part of the Macintosh EtherTalk zone name.
Use	• To set the Zone name connected with Macintosh EtherTalk (AppleTalk) network where the printer is located. • The zone name can contain a maximum of 16 characters.
Setting /procedure	• The default setting is NULL.

D. ETHERNET SPEED

Function	• Specifies the transmission speed for the network and the transmission method for bi-directional transmission.
Use	• To set the specific network speed and the transmission method.
Setting /procedure	• The default setting is Auto. “Auto” 100 Full Duplex 100 Half Duplex 10 Full Duplex 10 Half Duplex **NOTE** • **Make sure to turn the Power Switch OFF and ON again after changing the network speed.**

E. PS PROTOCOL

Function	• Selects whether PostScript jobs are received in the binary format or the quoted format.
Use	• To transmit PostScript data in quoted format.
Setting /procedure	• The default setting is BINARY. “BINARY” QUOTED BINARY

12.6.2 USB

A. ENABLE

Function	• Specifies whether to enable or disable USB.
Use	• To disable USB.
Setting /procedure	• The default setting is YES. “YES” NO

B. JOB TIMEOUT

Function	• Specifies the length of time until the print job being received is timed out when the USB interface is being used.
Use	• To set the amount of time before a print job sent to the USB interface times out.
Setting /procedure	• The default setting is 60 (seconds). 0 to 999

12.6.3 PARALLEL

A. JOB TIMEOUT

Function	• Specifies the length of time until the print job being received is timed out when the parallel interface is being used.
Use	• To set the amount of time before a print job sent to the parallel interface times out.
Setting /procedure	• The default setting is 30 (seconds). 0 to 999

12.6.4 ACTIVE I/F

Function	• Sets the interface to be used.
Use	• To set the interface to be used.
Setting /procedure	• The default setting is ETHERNET. “ETHERNET” PARALLEL

12.7 SYSTEM DEFAULT MENU

12.7.1 PRINT QUALITY

Function	• Selects the image quality for prints.
Use	• To change the image quality setting.
Setting /procedure	• The default setting is HIGH. “HIGH” STANDARD

12.7.2 COLOR MODE

Function	• Specifies whether printing is in full color or grayscale.
Use	• To select color or grayscale printing.
Setting /procedure	• The default setting is COLOR. “COLOR” GRAYSCALE

12.7.3 EMULATIONS

A. DEFAULT

Function	• Specifies the printer control language.
Use	• To change the printer control language. • If AUTOMATIC is selected, the printer automatically selects the printer control language from the data stream.
Setting /procedure	• The default setting is AUTOMATIC. "AUTOMATIC" POSTSCRIPT PCL5 PCL XL HEX DUMP PDF

B. AUTO DEFAULT

Function	• Selects the printer description language when it cannot be identified from the data.
Use	• To set the printer control language to be used when it cannot be automatically identified from the print job.
Setting /procedure	• The default setting is AUTOMATIC. "AUTOMATIC" PCL5 POSTSCRIPT

C. POSTSCRIPT
(1) ERROR PAGE

Function	• Sets whether or not an error page is printed when a PostScript error occurs.
Use	• To specify whether an error page should be printed if a PostScript error occurs.
Setting /procedure	• The default setting is ON. "ON" OFF

D. PCL
(1) LINE TERMINATION

Function	• Sets the CR/LF mapping for line termination in the PCL language.
Use	• To change the CR/LF mapping.
Setting /procedure	• The default setting is CR=CR LF=CRLF. "CR=CR LF=CRLF" CR=CR LF=LF CR=CRLF LF=LF CR=CRLF LF=CRLF

(2) FONT
<PITCH SIZE>

Function	• Sets the font pitch size in the PCL language when not specified by the printer driver.
Use	• To set the font pitch size in the PCL language when it cannot be specified by the printer driver during printing from Windows DOS, etc.
Setting /procedure	• The default setting is 1000. 44 to 9999

<FONT NUMBER>

Function	• Sets the font in the PCL language when not specified by the printer driver.
Use	• To use when the printer driver cannot specify the font during printing from Windows DOS, etc. The font numbers that appear correspond to the PCL font list. ☞ For details on printing the font list, refer to FONT LIST on page 97.
Setting /procedure	• The default setting is 0. 0 to 32767

<POINT SIZE>

Function	• Sets the font size in the PCL language when not specified by the printer driver.
Use	• To set the font size in the PCL language when it cannot be specified by the printer driver during printing from Windows DOS, etc.
Setting /procedure	• The default setting is 1200. 400 to 99975

<SYMBOL SET>

Function	• Sets the font symbol set in the PCL language when not specified by the printer driver.
Use	• To use when the font symbol set cannot be specified by the printer driver during printing from Windows DOS, etc.
Setting /procedure	• The default setting is PC8. • The font symbol set available for setting are as follows. PC8, DESKTOP, ISO4, ISO6, ISO11, ISO15, ISO17, ISO21, ISO60, ISO69, ISOL1, ISOL2, ISOL5, ISOL6, ISOL9, LEGAL, MATH8, MCTEXT, MSPUBL, PC775, PC850, PC852, PC8DN, PC8TK, PC1004, PIFONT, PSMATH, PSTEXT, ROMAN8, VNINTL, VNMATH, VNUS, WIN30, WINBALT, WINL1, WINL2, WINL5, WIN31J, GB2312, ARABIC8, HPWARA, PC864ARA, HEBREW7, ISOHEB, HEBREW8, PC862HEB, ISOCYR, PC866CYR, WINCYR, PC866UKR, GREEK8, WINGRK, PC851GRK, PC8GRK, ISOGRK

12.7.4 STARTUP OPTIONS

A. STATUP PAGE

Function	• Selects whether or not a startup page is printed when the printer is turned on.
Use	• To specify whether a startup page is printed. YES: The startup page is printed when the printer is turned on. NO : The startup page is not printed.
Setting /procedure	• The default setting is NO. YES “NO”

B. SYSSTART

Function	• Selects whether or not the PostScript format definitions file is applied when the printer is turned on.
Use	• To specify whether to apply the PostScript format definitions file. YES: The PostScript format definitions file is applied. NO : The PostScript format definitions file is not applied.
Setting /procedure	• The default setting is NO. YES “NO”

12.7.5 DATE & TIME

Function	• Sets the TOD (time-of-day) clock on the hard disk.
Use	• To adjust the TOD clock on the hard disk. • The settings appear in the following order: year, month, day:hour, minutes, seconds. **NOTE** • **This menu item appears only if an optional hard disk installed.**
Setting /procedure	*1.* Select “DATE & TIME.” *2.* Using ▲, ▼, ◀, and ▶ keys, enter the time-of-day, and day, month, and year. *3.* Accept the date and time setting using the Menu Select key.

12.7.6 ENERGY SAVER

Function	• Specifies the length of time before the machine enters Energy Saver mode after the last print is received or the last key operated.
Use	• To set the amount of time before the machine enters Energy Saver mode.
Setting /procedure	• The default setting is 30 MINUTES. 15 MINUTES “30 MINUTES” 1 HOUR 2 HOURS * * Displayed only on the model for the 110 V models. **NOTE** • **This setting is available only when SYSTEM DEFAULT→ ENERGY SAVER MGT is set to “ON.”**

12.7.7 ENERGY SAVER MGT

Function	• Sets whether the printer should go into Energy Saver mode when not printing or processing a print job and when the Control Panel is not being used.
Use	• To specify whether Energy Saver mode is to be used.
Setting /procedure	• The default setting is ON. “ON” OFF **NOTE** • **This menu item is available only on the 110 V model.**

12.7.8 SECURITY

A. CONFIG

(1) ENABLE

Function	• Selects whether or not the menus are protected with a password.
Use	• To protect all menus with a password.
Setting /procedure	• The default setting is OFF. "OFF" ON

(2) SET PASSWORD

Function	• Sets the password for displaying the menus.
Use	• To set the password for protecting the menus. **NOTE** • **The specified password is applied only if SECURITY → CONFIG → ENABLE is set to "ON."**
Setting /procedure	*1.* Select "SET PASSWORD." *2.* Enter the 8-digit password. *3.* Accept the password setting using the Menu Select key.

12.7.9 CAPTURE PRT JOB

Function	• Selects whether or not received print jobs are saved on the hard disk.
Use	• When an error occurs, to help you analyze the cause of the error according to the print job data. OFF : The print jobs are not saved on the hard disk. ON : The received print jobs are saved on the hard disk without being printed. PRINT : The received print jobs are printed and saved on the hard disk. **NOTE** **This menu item appears only if an optional hard disk is installed.**
Setting /procedure	• The default setting is OFF. "OFF" ON PRINT

12.7.10 FORMAT

A. FORMAT FLASH

Function	• Selects whether or not to initialize the flash RAM.
Use	• To initialize the flash RAM.
Setting /procedure	• The default setting is NO. "NO" YES If YES is selected, the flash RAM is initialized.

B. FORMAT DISK

Function	• Selects whether or not to initialize the hard disk.
Use	• Initializes the hard disk. **NOTE** • **This menu item appears only if an optional hard disk is installed.**
Setting /procedure	• The default setting is NO. "NO" YES If YES is selected, the hard disk is initialized.

12.7.11 RESTORE/SAVE

A. RESTORE FACTORY

Function	• Selects whether or not all menu items are reset to their factory default settings.
Use	• To return the current settings to their factory default settings.
Setting /procedure	• The default setting is NO. "NO" YES If YES is selected, all menu items are reset to their initial settings.

12.7.12 SAVE CUSTOM

Function	• Selects whether or not all changed menu settings are saved.
Use	• To save the custom settings.
Setting /procedure	• The default setting is NO. "NO" YES If YES is selected, all changes are saved.

A. RESTORE CUSTOM

Function	• Selects whether or not menu items are reverted to the previously saved settings.
Use	• To revert the settings to the previously saved settings.
Setting /procedure	• The default setting is NO. "NO" YES If YES is selected, the menu items are reverted to the previously saved settings.

12.8 LANGUAGE MENU

Function	• Sets the language of the Control Panel display.
Use	• To change the language of the Control Panel display. • The default setting varies according to the applicable marketing area.
Setting /procedure	ENGLISH FRANCAIS ESPANOL PORTUGES CESKY DEUTSCH ITALIANO

12.9 ENVIRONMENT MENU

<Procedure to enter the ENVIRONMENT MENU>

- At the top level (Idle status), press the ▲ key for 3 to 4 seconds. Then go into the menu and press left arrow key. The ENVIRONMENT MENU appears.

12.9.1 ALTITUDE SETUP

<table>
<tr><td>Function</td><td>• Optimizes the image by varying the output value of the developing bias when an image problem occurs due to the atmospheric pressure at high altitudes.</td></tr>
<tr><td>Use</td><td>• To adjust the developing when an image problem (uneven density) occurs in an environment of low atmospheric pressure in places such as at high altitudes.</td></tr>
<tr><td>Setting
/procedure</td><td>• The default setting is 0.
1. Call the ENVIRONMENT MENU to the menu screen.
2. Select ALTITUDE SETUP using the < or > key and press the Menu/Select key.
3. In ALTITUDE SETUP, press the < or > key as necessary to select the appropriate altitude setting value.
Adjustment range: 0 to 3
<table>
<tr><th>Setting Value</th><th>Developing Bias Value</th></tr>
<tr><td>0</td><td>No offset</td></tr>
<tr><td>1</td><td>100 V</td></tr>
<tr><td>2</td><td>200 V</td></tr>
<tr><td>3</td><td>300 V</td></tr>
</table>
4. Press the Menu/Select key to accept the new setting.
NOTE
• **After the setting has been changed, be sure to run REQUEST AIDC (QUALITY MENU).**</td></tr>
</table>

12.9.2 TRANSFER VOLTAGE

Function	• Adjusts image characteristics according to user requirements for each type of media by varying the second transfer voltage.
Use	• To adjust the second transfer voltage when an image problem (void areas, white spots) occurs due to the characteristics of the type of media being used. If white spots occur, decrease the 2nd transfer voltage (adjust in the minus direction). If void areas occurs, increase the 2nd transfer voltage (adjust in the plus direction).
Setting /procedure	• The default setting is 0. *1.* Call the ENVIRONMENT MENU to the menu screen. *2.* Select TRANSFER VOLTAGE using the < or > key and press the Menu/Select key. *3.* In TRANSFER VOLTAGE, press the < or > key as necessary to select the appropriate voltage value. Adjustment range: -3 to +3

Setting Value	Voltage Value	Setting Value	Voltage Value
-3	-600 V	+1	+200 V
-2	-400 V	+2	+400 V
-1	-200 V	+3	+600 V
0	0 V		

4. Press the Menu/Select key to accept the new voltage setting.

12.9.3 DUPLEX DENSITY

Function	• Adjusts the T/C ratio control level when a faulty image density occurs due to changes in weather or environment.
Use	• To adjust the T/C ratio changes to compensate for changes in the user's operating environment during 2-sided printing.
Setting /procedure	• The default setting is 0. *1.* Call the ENVIRONMENT MENU to the menu screen. *2.* With DUPLEX DENSITY selected, press the < or > key as necessary to select the appropriate density level value. Adjustment range: -3 to +3 *3.* Press the Menu/Select key to accept the new density level setting.

13. Service Mode (magicolor 2400W)

13.1 Service Mode entry procedure

NOTE

- **Ensure appropriate security for the Service Mode entry procedure. It should NEVER be given to any unauthorized person.**

13.1.1 Toner Cartridge removal mode

- This mode is used for manually removing and/or replacing a specific color of Toner Cartridge or all four Toner Cartridges.

A. Procedure

1. Hold down the Cancel key for 10 seconds or longer.
2. With the Cancel key held down, hold down the Rotate Toner key for 10 seconds or longer.
3. When all LED indicators are blinking rapidly, release the Cancel and Rotate Toner keys.
4. Hold down the Rotate Toner key for another 10 seconds or longer.
5. The cyan Toner Cartridge moves into the proper position, so it can be removed.
6. Remove the cyan Toner Cartridge, if necessary.
7. Open and close the Upper Cover. Each time you do this, another Toner Cartridge moves into the proper position, so it can be removed in this order: cyan, black, yellow, magenta.

14. Service Mode (magicolor 2430 DL)

14.1 Service/Service person mode entry procedure

NOTE

- **Ensure appropriate security for the Service/Service Person mode entry procedure. It should NEVER be given to any unauthorized person.**

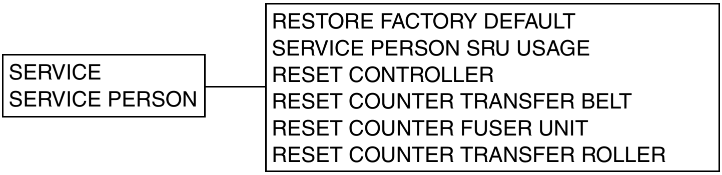
A. Procedure

1. In the configuration menu, display “ENGINE SERVICE” and press the ▼ key.
2. Using the ▶ key, display the “TOTAL FACE COUNT” menu.
3. Hold down the Menu Select key and the ▼ key at the same time for 2 seconds or more.
4. When “SERVICE/SERVICE PERSON” displays, press the ▼ key.

B. Exiting

- Press the Cancel key.

14.2 List of Service Mode menu functions



14.3 Settings/adjustments in Service/Service person mode functions

14.3.1 RESTORE FACTORY DEFAULT

<table>
<tr><td>Function</td><td>• Reinitializes the settings to their factory defaults.</td></tr>
<tr><td>Use</td><td>• To return the current settings to the factory default settings.
• Use this as the last resort before replacing the board when taking remedial steps for a malfunction.
• The following table lists the items to be reinitialized and their default values.

<b>NOTE</b>
<b>• Some items can be reset after being reinitialized while others cannot be.</b>

<b>A. Items that cannot be reset after reinitialization</b>
<table>
<tr><th colspan="2">Item</th><th>Factory Default Value</th><th>Ref. Page</th></tr>
<tr><td rowspan="3">Counter:
Main Unit</td><td>Color</td><td>0</td><td>-</td></tr>
<tr><td>B/W</td><td>0</td><td>-</td></tr>
<tr><td>Total</td><td>0</td><td>-</td></tr>
<tr><td rowspan="3">Counter:
Duplex *1</td><td>Color</td><td>0</td><td>-</td></tr>
<tr><td>B/W</td><td>0</td><td>-</td></tr>
<tr><td>Total</td><td>0</td><td>-</td></tr>
<tr><td colspan="2">Counter : Transfer Roller</td><td>0</td><td>-</td></tr>
<tr><td colspan="2">Counter : Transfer Belt Unit</td><td>0</td><td>-</td></tr>
<tr><td colspan="2">Counter : Fusing Unit</td><td>0</td><td>-</td></tr>
</table>
*1 When the Duplex Option is installed</td></tr>
</table>

Use

B. Items that can be reset after reinitialization

Item		Factory Default Value	Ref. Page
SPECIAL PAGES/ PRINT CONFIG PAGE		NO	☞ 79
SPECIAL PAGES/ PRINT TEST PAGES		NO	☞ 79
SPECIAL PAGES/PRINT MENU MAP		NO	☞ 79
LANGUAGE		ENGLISH	☞ 79
ENERGY SAVER MGMT (only on the model for the Americas)		ON	☞ 81
ENERGY SAVER		30 MINUTES	☞ 81
ENGINE TONER EMPTY		STOP	☞ 80
AUTO CONTINUE		ON	☞ 81
CHAINING TRAY		ON	☞ 81
DUPLEX DENSITY		0	☞ 83
ALTITUDE SETUP		0	☞ 84
TRANSFER VOLTAGE		0	☞ 84
IP ADDRESS		192.168.1.2	☞ 85
SUBNET MASK		255.255.255.0	☞ 85
GATEWAY		192.168.1.1	☞ 85
DHCP:XX / BOOTP:XX		DHCP:ON / BOOTP:OFF	☞ 85
HTTP		ON	☞ 86
SNMP		ON	☞ 86
FORCED MODES		AUTO/AUTO/ON	☞ 86
DIRECT PRINT	IMAGE QUALITY	DRAFT	☞ 87
	PAPER SIZE	A4 or Letter	☞ 87
	MEDIA TYPE	PLAIN PAPER	☞ 87
	LAYOUT	1-UP	☞ 88
	BRIGHTNESS	OFF	☞ 88
	SHARPNESS	OFF	☞ 88
	AUTO ROTATE	OFF	☞ 88

Use

Item		Factory Default Value	Ref. Page
PageScope Web Connection	Admin. Password	administrator	-
	Refresh Rate	30 seconds	-
	Contact Name	KONICA MINOLTA Customer Support	-
	Contact Information	http://printer.konicaminolta.com/	-
	Product Help URL	http://pagescope.com/	-
	Corporate URL	http://printer.konicaminolta.com/	-
	Supplies and Accessories	http://www.q-shop.com/	-
	Online Help URL	http://printer.konicaminolta.com/	-
	Auto IP	DHCP	-
	WINS/NetBIOS Resolution	Checked	-
	NetBIOS Name	MC2430DLXXXXXX *2	-
	Domain/Workgroup	WORKGROUP	-
	Use DHCP for WINS	Checked	-
	Primary WINS	grayed out/disabled	-
	Secondary WINS	grayed out/disabled	-
	Rendezvous Service Discovery	Checked	-
	Rendezvous Config Printer Name	KONICA MINOLTA magicolor 2430 DL	-
	Rendezvous Config Host Name	MC2430DLXXXXXX *2	-
	IPP Config Printer Name	magicolor 2430 DL	-
	IPP Config Printer Location	Blank	-

*2 XXXXXX are the low-order 6 digits of the printer MAC address.

Setting /procedure

1. Take note of the current setting.
2. Enter the SERVICE/SERVICE PERSON mode.
3. Select RESTORE FACTORY DEFAULT and press the Menu Select key.
4. When the initialization procedure is completed, restart the machine.
5. Make the settings that were valid before initialization once again.

NOTE

- **The reinitialization procedure resets the settings and counter values backed up in the parameter chip on the Mechanical Control Board. Use utmost care whenever executing reinitialization.**
- **After the reinitialization has been executed, be sure to replace all Toner Cartridges, 2nd Transfer Roller, Transfer Belt Unit, Fusing Unit, and Drum Cartridge with new ones.**

14.3.2 SERVICE PERSON SRU USAGE

Function	• Displays the remaining life of the Transfer Belt, Transfer Roller, and Fusing Unit.
Use	• To check the remaining life of the maintenance service parts.
Setting /procedure	*1.* Enter Service Mode. *2.* Select SERVICE PERSON SRU USAGE and press the Menu Select key. *3.* Select the desired unit using the right and left arrow keys.

14.3.3 RESET CONTROLLER

Function	• Resets the controller.
Use	• To return the controller to its initial condition.
Setting /procedure	*1.* Enter Service Mode. *2.* Select RESET CONTROLLER and press the Menu Select key. *3.* This automatically restarts the machine and the initial *4.* screen reappears.

14.3.4 RESET COUNTER TRANSFER BELT

Function	• Resets the counter value of the Transfer Belt Unit.
Use	• To reset the Transfer Belt Unit counter after the Transfer Belt Unit is replaced.
Setting /procedure	*1.* Enter Service Mode. *2.* Select RESET COUNTER TRANSFER BELT UNIT and press the Menu Select key. *3.* This resets the counter and the Engine/Service menu reappears.

14.3.5 RESET COUNTER FUSER UNIT

Function	• Resets the counter value of the Fusing Unit.
Use	• To reset the Fusing Unit counter after the Fusing Unit is replaced.
Setting /procedure	*1.* Enter Service Mode. *2.* Select RESET COUNTER FUSER UNIT and press the Menu Select key. *3.* This resets the counter and the Engine/Service menu reappears.

14.3.6 RESET COUNTER TRANSFER ROLLER

Function	• Resets the counter value of the Transfer Roller.
Use	• To reset the Transfer Roller counter after the Transfer Roller is replaced.
Setting /procedure	*1.* Enter Service Mode. *2.* Select RESET COUNTER TRANSFER ROLLER and press the Menu Select key. *3.* This resets the counter and the Engine/Service menu reappears.

15. Service Menu (magicolor 2450)

15.1 Service menu entry procedure

NOTE

- **Ensure appropriate security for the Service menu entry procedure. It should NEVER be given to any unauthorized person.**

A. Procedure

1. Select “SERVICE MENU” and press the Menu Select key.

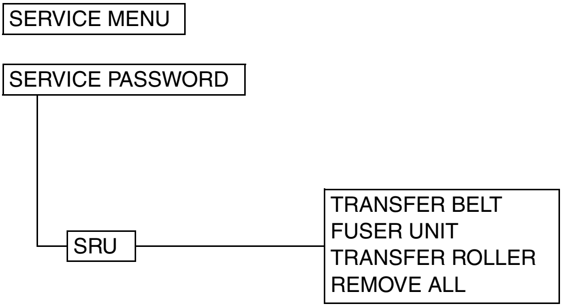
2. Press the Menu Select key twice. Then, using ▲, ▼, ◀, and ▶ keys, enter the password. (The default password is “KM2450.”)

3. Press the Menu Select key and ▶ key.

B. Exiting

- Press ▲ key to return to the initial screen.

15.2 List of Service Menu Functions



15.3 Settings/adjustments in Service Menu functions

15.3.1 SRU

A. TRANSFER BELT

Function	• Resets the counter value of the Transfer Belt Unit.
Use	• To reset the Transfer Belt Unit counter when the Transfer Belt Unit is replaced.
Setting /procedure	*1.* Enter the Service menu. *2.* Select "TRANSFER BELT." *3.* Select "YES" and press the Menu Select key.

B. FUSER UNIT

Function	• Resets the counter value of the Fusing Unit.
Use	• To reset the Fusing Unit counter when the Fusing Unit is replaced.
Setting /procedure	*1.* Enter the Service menu. *2.* Select "FUSER UNIT." *3.* Select "YES" and press the Menu Select key.

C. TRANSFER ROLLER

Function	• Resets the counter value of the Transfer Roller.
Use	• To reset the Transfer Roller counter when the Transfer Roller is replaced.
Setting /procedure	*1.* Enter the Service menu. *2.* Select "TRANSFER ROLLER." *3.* Select "YES" and press the Menu Select key.

D. REMOVE ALL

Function	• Moves each color Toner Cartridge to the appropriate replacement position, one by one, to allow all of the Toner Cartridges to be removed.
Use	• To allow all of the Toner Cartridges to be removed.
Setting /procedure	*1.* Enter the Service menu. *2.* Select "REMOVE ALL." *3.* The rack rotates to bring the first color Toner Cartridge to the replacement position. When the rack stops moving, the message "OPEN DOOR/REMOVE TONER C" appears on the display. *4.* Open the Upper Cover and remove the Toner Cartridge. ☞ For the Toner Cartridge removal procedures, see "Maintenance." *5.* Close the Upper Cover. Then, the message "OPEN DOOR/REMOVE TONER K" appears on the display. *6.* Repeating the same steps, remove all Toner Cartridges. **NOTE** • **The Toner Cartridges are to be removed in the order of C -> K -> Y -> M.** *7.* Close the Upper Cover. The initial screen will then reappear.

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Troubleshooting

16. Jam Display

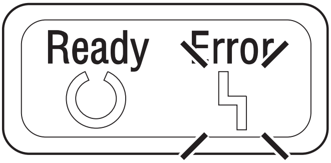
16.1 Misfeed display

- When a media misfeed occurs, the printer shows the corresponding media misfeed status by means of the Error indicator on the control panel or LCD display.

A. Indication given by the Error indicator (magicolor 2400W)

- The Error indicator blinks once a second.

☞ For details of the Error indicator, see “Adjustment/Setting.”



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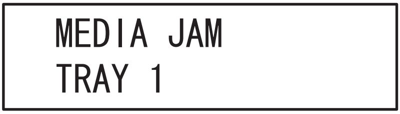
NOTE

- **Details of the misfeed location are given in the Status Display on the PC connected to the printer.**

B. Indication given by the LCD display (magicolor 2430 DL)

- When a media misfeed occurs, a message is displayed on the Control Panel.

☞ For details of the Error indicator, see “Adjustment/Setting.”



MEDIA JAM
TRAY 1

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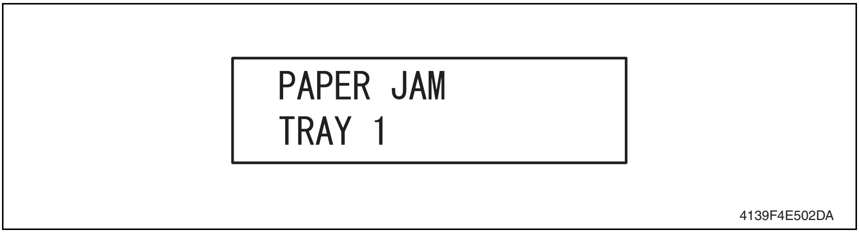
Display (magicolor 2430 DL only)	Misfeed Location	Misfeed processing location	Action
MEDIA JAM TRAY 1	Paper take-up section	Top Cover, Front Cover	☞ 126
MEDIA JAM TRANSFER ROLLER	Transfer section	Top Cover	☞ 127
MEDIA JAM FUSER	Fusing section	Top Cover	☞ 128
	Exit section	Top Cover	☞ 129
MEDIA JAM TRAY 2	Lower Feeder Unit Paper take-up section	Tray 2	☞ See Lower Feeder Unit Service Manual.
MEDIA JAM DUPLEX LOWER	Duplex Option paper feed section	Duplex Option Door	☞ See Duplex Option Service Manual.
MEDIA JAM DUPLEX UPPER	Duplex Option paper conveyance section		

C. Indication given by the LCD display (magicolor 2450)

- When a media misfeed occurs a message is displayed on the Control Panel.

☞ For details of the Error indicator, see "Adjustment/Setting."



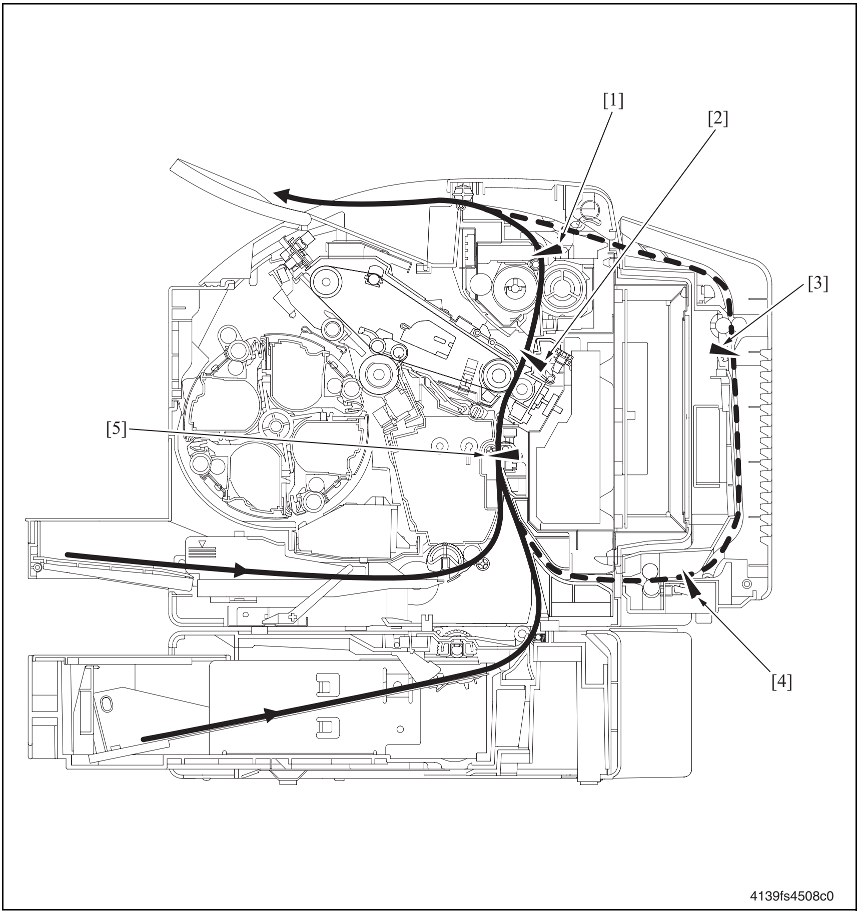
PAPER JAM
TRAY 1

Display (magicolor 2450 only)	Misfeed Location	Misfeed processing location	Action
PAPER JAM TRAY 1	Paper take-up section	Top Cover, Front Cover	☞ 126
PAPER JAM TRANSFER	Transfer section	Top Cover	☞ 127
PAPER JAM FUSER	Fusing section	Top Cover	☞ 128
PAPER JAM EXIT	Exit section	Top Cover	☞ 129
PAPER JAM TRAY 2	Lower Feeder Unit paper take-up section	Tray 2	☞ See Lower Feeder Unit Service Manual.
PAPER JAM DUPLEX	Duplex Option paper feed/conveyance section	Duplex Option Door	☞ See Duplex Option Service Manual.

16.2 Misfeed Display Resetting Procedure

- Open the relevant cover, clear the sheet of misfed media, and close the cover.

16.3 Sensor layout



[1]	Exit Sensor	PC7	[4]	Duplex Paper Loop Sensor	PC10 DU
[2]	Fusing Paper Loop Sensor	PC8	[5]	Registration Sensor	PC1
[3]	Duplex Transport Sensor	PC12 DU			

16.4 Solution

16.4.1 Initial check items

- When a media misfeed occurs, check the following:

Check Item	Action
Does the media meet product specifications?	Change the media.
Is the media curled, wavy, or damp.	Change the media. Instruct the user in correct media storage.
Is a foreign object present along the media path, or is the media path deformed or worn?	Clean or change the media path.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or change the defective Paper Separator Finger.
Are the rolls/rollers dirty, deformed, or worn?	Clean or change the defective roll/roller.
Are the Edge Guide and Trailing Edge Stop at the correct position to accommodate paper?	Set as necessary.
Are the actuators operational?	Correct or change the defective actuator.

16.4.2 Misfeed at paper feed section

A. Detection Timing

Type	Description
Detection of misfeed at Paper feed section	The leading edge of the paper does not block the Registration Sensor (PC1) even after the lapse of a predetermined period of time after the Tray1 Paper Pick-up Solenoid has been energized.

B. Action

Relevant Electrical Parts	
Registration Sensor (PC1) Tray1 Paper Pick-up Solenoid (SL1)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	PC1 sensor check.	PWB-A PJ12A-3 (ON)	2-C
4	SL1 operation check.	HV PJ2HV-2 (REM)	4-A
5	Change PWB-A.	-	-

16.4.3 Misfeed at 2nd transfer section

A. Detection Timing

Type	Description
Detection of misfeed at 2nd transfer section	The paper does not unblock the Registration Sensor (PC1) even after the lapse of a predetermined period of time after the Registration Roller Solenoid (SL2) has been deenergized.
	The Fusing Paper Loop Sensor (PC8) is not blocked by the paper that has moved past the position, at which the sensor is blocked.
Detection of paper left in 2nd transfer section	The Registration Sensor (PC1) is blocked when the Power Switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.
	The Fusing Paper Loop Sensor (PC8) is blocked when the Power Switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Registration Sensor (PC1) Fusing Paper Loop Sensor (PC8) Registration Roller Solenoid (SL2)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	PC1 sensor check.	PWB-A PJ12A-3 (ON)	2-C
4	PC8 sensor check.	PWB-A PJ14A-6 (ON)	2-A
5	SL2 operation check.	PWB-A PJ11A-4 (REM)	2-C
6	Change PWB-A.	-	-

16.4.4 Misfeed at fusing section

A. Detection Timing

Type	Description
Detection of misfeed at fusing section	The paper does not block the Exit Sensor (PC7) even after the lapse of a predetermined period of time after the Registration Roller Solenoid (SL2) has been energized.
	The Exit Sensor (PC7) is unblocked within a predetermined period of time after it has been blocked by the paper.
	The Main Motor, Polygon Motor, and Rack Motor are energized even after the lapse of a predetermined period of time after paper information has been created.
Detection of paper left in fusing section	The Exit Sensor (PC7) is blocked when the Power Switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Exit Sensor (PC7) Registration Roller Solenoid (SL2)	Mechanical Control Board (PWB-A) Print Control Board (PWB-P)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	PC7 sensor check.	PWB-A PJ6A-3 (ON)	2-D
5	SL2 operation check.	PWB-A PJ11A-4 (REM)	2-C
6	Change PWB-P.	-	-
7	Change PWB-A.	-	-

16.4.5 Misfeed at exit section

A. Detection Timing

Type	Description
Detection of misfeed at exit section	The Exit Sensor (PC7) is not unblocked even after the lapse of a predetermined period of time after it has been blocked by the paper.
Detection of paper left in exit section	The Exit Sensor (PC7) is blocked when the Power Switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Exit Sensor (PC7)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	PC7 sensor check.	PWB-A PJ6A-3 (ON)	2-D
4	SL2 operation check.	PWB-A PJ11A-4 (REM)	2-C
5	Change PWB-A.	-	-

16.4.6 Undefined misfeed

A. Detection Timing

Type	Description
Detection of undefined misfeed	Conflicting settings are made in the printer driver.

B. Action

Relevant Electrical Parts	
Print Control Board (PWB-P)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check printer driver settings.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	Change PWB-P.	-	-
5	Change PWB-A.	-	-

17. Error Codes

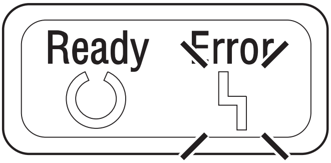
17.1 Trouble code

- When a malfunction occurs, the printer shows the corresponding trouble status by means of the Error indicator on the control panel or LCD display.

17.1.1 Indication of the Error indicator (magicolor 2400W)

- The CPU circuit of the printer performs a self-diagnostics procedure. If a faulty condition is encountered, the Error indicator blinks twice a second.

☞ For details of the Error indicator, see “Adjustment/Setting”.



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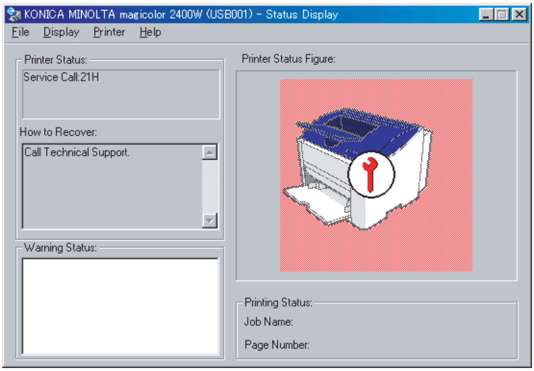
A. Check the Trouble Code

- If trouble status is displayed by the Error indicator, the corresponding trouble code can be checked in the Status Display on the PC connected to the printer.



Printer Status: Service Call:21H

How to Recover: Call Technical Support.

Warning Status:

Printing Status:
Job Name:
Page Number:

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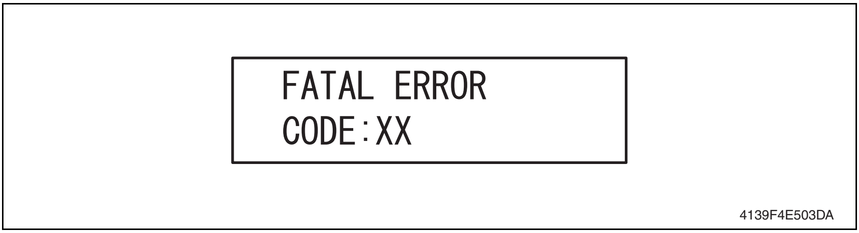
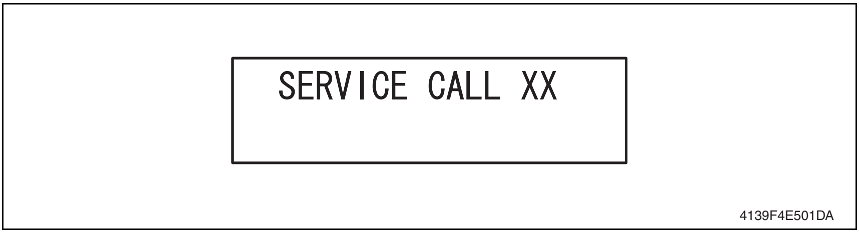
17.1.2 Indication of the LCD display (magicolor 2430 DL)

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



17.1.3 Indication of the LCD display (magicolor 2450)

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



17.1.4 Trouble code list

Code	Item	Detection Timing
04	Mechanical Control Board malfunction	• Communications with the M/C expansion IO G/A (IC on the Mechanical Control Board) are not properly carried out.
05	Flash ROM malfunction	• Firmware upgrading has failed.
08	Main Motor malfunction	• The Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Main Motor remains energized.
		• The Motor Lock signal remains LOW for a predetermined consecutive period of time while the Main Motor remains deenergized.
0B	Ventilation Fan Motor malfunction	• The Fan Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Ventilation Fan Motor remains energized.
0C	Power Supply Cooling Fan Motor malfunction	• The Fan Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Power Supply Cooling Fan Motor remains energized.
0F	Duplex Cooling Fan Motor malfunction	• The Fan Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Power Supply Cooling Fan Motor remains energized. ☞ For details, see the Duplex Option Service Manual.

Code	Item	Detection Timing
10	Polygon Motor malfunction	• A LOW Motor Lock signal is not detected even after the lapse of a predetermined period of time after the Polygon Motor has been started.
		• The Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Polygon Motor remains energized.
12	Laser malfunction	• The SOS signal is not detected within a predetermined period of time after the output of a laser has been started.
		• The SOS signal is never detected in the image area.
14	2nd image transfer pressure /retraction failure	• The state of the Retraction Position Sensor/2nd Image Transfer is not changed from the unblocked to blocked state even after the lapse of a predetermined period of time during predrive.
		• The Retraction Position Sensor/2nd Image Transfer is in the unblocked state even after the lapse of a predetermined period of time during predrive.
		• The Retraction Position Sensor/2nd Image Transfer is not blocked (roller in the retracted position) within a predetermined period of time after the retraction sequence of the 2nd Transfer Roller has been started.
		• The Retraction Position Sensor/2nd Image Transfer is not unblocked (roller in the pressed position) within a predetermined period of time after the pressure sequence of the 2nd Transfer Roller has been started.
15	Cleaning Blade pressure /retraction failure	• The state of the Retraction Position Sensor/Cleaning Blade is not changed from the blocked to unblocked state even after the lapse of a predetermined period of time during predrive.
		• The Retraction Position Sensor/Cleaning Blade is in the blocked state even after the lapse of a predetermined period of time during predrive.
		• The Retraction Position Sensor/Cleaning Blade is not unblocked (blade in the retracted position) within a predetermined period of time after the retraction sequence of the Cleaning Blade has been started.
		• The Retraction Position Sensor/Cleaning Blade is not blocked (blade in the pressed position) within a predetermined period of time after the pressure sequence of the Cleaning Blade has been started.
16	Transfer Belt rotation failure	• The Belt Positioning Sensor does not detect the Transfer Belt position detection hole a second time even after the lapse of a predetermined period of time after it has detected one while the Transfer Belt is rotated.

Code	Item	Detection Timing
17	Rack rotation failure	• The Rack Positioning Sensor is in the blocked state when the Rack Motor remains deenergized.
		• The Rack Positioning Sensor is not blocked a second time even after the lapse of a predetermined period of time after it has been blocked once while the Rack Motor remains energized.
		• The Rack Positioning Sensor is unable to detect the deceleration control position after the lapse of a given period of time after the Rack Motor has started while the Rack Motor is turning.
		• The count value of the edge of ON signal of the Rack Positioning Sensor during each developing positions are not a predetermined value while the Rack Motor is turning.
18	Heating Roller warm-up failure	• The Thermistor does not detect a predetermined temperature value even after the lapse of a predetermined period of time after the current warm-up cycle has been started and the current warm-up cycle is thus not completed.
19	Abnormally low Heating Roller temperature	• The temperature detected by the Thermistor remains lower than a predetermined value for a predetermined period of time.
1A	Abnormally high Heating Roller temperature	• The temperature detected by the Thermistor is a predetermined value or higher for a predetermined period of time.
1B	Faulty Thermistor	• The condition of a temperature rise of less than 1°C extends continuously for a predetermined period of time that begins when the warm-up cycle is started.
21	Faulty OHP Sensor	• It is determined that the OHP Sensor is faulty through a check made at the end of the predrive.
23	Faulty Waste Toner Near Full Detection Board	• It is determined that the LED and photoreceiver are faulty through a check made when a new Drum Cartridge is detected.
24	Faulty Fusing Thermistor Resistor	• The Heater Lamp remains ON for a predetermined consecutive period of time.
3 29	Trouble related to security	• Contact the responsible people of KONICA MINOLTA when not returning in power switch OFF/ON.
2A		
2B		
2C		

17.2 How to reset

- To reset the printer after a malfunction has occurred, turn the Power Switch OFF and then ON again.

17.3 Solution

17.3.1 04: Mechanical Control Board malfunction

Relevant Electrical Parts	
Mechanical Control Board (PWB-A)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-A connector for proper connection and correct as necessary.	-	-
2	Change PWB-A.	-	-

17.3.2 05: Flash ROM malfunction

Relevant Electrical Parts	
Mechanical Control Board (PWB-A)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-A connector for proper connection and correct as necessary.	-	-
2	Change PWB-A.	-	-

17.3.3 08: Main Motor malfunction

Relevant Electrical Parts	
Main Motor (M1)	Mechanical Control Board (PWB-A) Power Unit (PU)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M1 connector for proper connection and correct as necessary.	-	-
2	Check M1 for proper drive coupling and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	M1 operation check.	PWB-A PJ8A-5 (REM) PWB-A PJ8A-8 (LOCK)	2-G~H
5	Change PWB-A.	-	-
6	Change PU.	-	-

17.3.4 08: Ventilation Fan Motor malfunction

Relevant Electrical Parts	
Ventilation Fan Motor (M6)	Mechanical Control Board (PWB-A) Power Unit (PU)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M6 connector for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	M6 operation check.	PWB-A PJ10A-1 (REM) PWB-A PJ10A-3 (LOCK)	2-H
5	Change PWB-A.	-	-
6	Change PU.	-	-

17.3.5 0C: Power Supply Cooling Fan Motor malfunction

Relevant Electrical Parts	
Power Supply Cooling Fan Motor (M4)	Mechanical Control Board (PWB-A) Power Unit (PU)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M4 connector for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	M4 operation check.	PWB-A PJ4A-1 (REM) PWB-A PJ4A-3 (LOCK)	7-D
5	Change PWB-A.	-	-
6	Change PU.	-	-

17.3.6 10: Polygon Motor malfunction

Relevant Electrical Parts	
PH Unit	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the cable and connector for proper connection and correct as necessary.	-	-
2	Change PH Unit.	-	-
3	Change PWB-A.	-	-

17.3.7 12: Laser malfunction

Relevant Electrical Parts	
PH Unit	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the cable and connector for proper connection and correct as necessary.	-	-
2	Change PH Unit.	-	-
3	Change PWB-A.	-	-

17.3.8 14: 2nd image transfer pressure/retraction failure

Relevant Electrical Parts	
Retraction Position Sensor /2nd Image Transfer (PC5) Pressure/Retraction Solenoid /2nd Image Transfer (SL4) Main Motor (M1)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M1 connector for proper connection and correct as necessary.	-	-
2	Check M1 for proper drive coupling and correct as necessary.	-	-
3	Check the SL4 connector for proper connection and correct as necessary.	-	-
4	Check the PWB-A connector for proper connection and correct as necessary.	-	-
5	PC5 sensor check.	PWB-A PJ14A-3 (ON)	2-G
6	SL4 operation check.	PWB-A PJ11A-2 (REM)	2-G
7	M1 operation check.	PWB-A PJ8A-5 (REM) PWB-A PJ8A-8 (LOCK)	2-G~H
8	Change PWB-A.	-	-

17.3.9 15: Cleaning Blade pressure/retraction failure

Relevant Electrical Parts	
Retraction Position Sensor /Cleaning Blade (PC6) Pressure/Retraction Solenoid /Cleaning Blade (SL3) Main Motor (M1)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M1 connector for proper connection and correct as necessary.	-	-
2	Check M1 for proper drive coupling and correct as necessary.	-	-
3	Check the SL3 connector for proper connection and correct as necessary.	-	-
4	Check the PWB-A connector for proper connection and correct as necessary.	-	-
5	PC6 sensor check.	PWB-A PJ9A-11 (ON)	2-F
6	SL3 operation check.	PWB-A PJ10-5 (REM)	2-F
7	M1 operation check.	PWB-A PJ8A-5 (REM) PWB-A PJ8A-8 (LOCK)	2-G~H
8	Change PWB-A.	-	-

17.3.10 16: Transfer Belt rotation failure

Relevant Electrical Parts	
Belt Positioning Sensor (PC4) Image Transfer Belt Unit	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-A connector for proper connection and correct as necessary.	-	-
2	PC4 sensor check.	PWB-A PJ9A-8 (ON)	2-E
3	Change Transfer Belt Unit.	-	-
4	Change PWB-A.	-	-

17.3.11 17: Rack rotation failure

Relevant Electrical Parts	
Rack Motor (M2) Rack Positioning Sensor (PC3)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M2 connector for proper connection and correct as necessary.	-	-
2	Check M2 for proper drive coupling and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	PC3 sensor check.	PWB-A PJ5A-11 (ON)	4-C
5	M2 operation check.	PWB-A PJ5A-1~4 (Pulse Output)	4-B
6	Change PWB-A.	-	-

17.3.12 18: Heating Roller warm-up failure

17.3.13 19: Abnormally low Heating Roller temperature

17.3.14 1A: Abnormally high Heating Roller temperature

17.3.15 1B: Faulty Thermistor

Relevant Electrical Parts	
Fusing Unit	Mechanical Control Board (PWB-A) Power Unit (PU)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the Fusing Unit for correct installation (whether it is secured in position).	-	-
2	Check the Fusing Unit, PU, and PWB-A for proper connection and correct as necessary.	-	-
3	Check the lever of the Safety Switch and correct as necessary.	-	-
4	Change the Fusing Unit.	-	-
5	Change PWB-A.	-	-
6	Change PU.	-	-

17.3.16 21: Faulty OHP Sensor

Relevant Electrical Parts	
OHP Sensor (PC2A)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-A connector for proper connection and correct as necessary.	-	-
2	PC2A sensor check.	PWB-A PJ12A-6 (ON)	2-D
3	Change PWB-A.	-	-

17.3.17 23: Faulty Waste Toner Near Full Detection Board

Relevant Electrical Parts	
Waste Toner Near Full Detection Board (PWB-C) Drum Cartridge	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-C connector for proper connection and correct as necessary.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	Change the Drum Cartridge.	-	-
4	Change PWB-C.	-	-
5	Change PWB-A.	-	-

18. Power Supply Errors

18.1 Machine is not energized at all (PU operation check)

Relevant Electrical Parts	
Power Switch Mechanical Control Board (PWB-A)	Power Unit (PU)

Step	Check Item	Location (Electrical Component)	Result	Action
1	Is the power source voltage being applied to CN1 on PU?	7-C	NO	Check wiring from power outlet to PG1 to CN1.
2	Are fuses (F1 and F2) on PU conducting?	-	NO	Change PU.
3	Are DC24 V and DC5 V being applied to PJ2A on the Mechanical Control Board?	4-E	NO	Change PU.
			YES	Change PWB-A.

18.2 Control panel indicators do not light

Relevant Electrical Parts	
Print Control Board (PWB-P) Control Panel (PWB-OP)	Power Unit (PU)

Step	Check Item	Location (Electrical Component)	Result	Action
1	Is the power source voltage being applied to CN1 on PU?	7-C	NO	Check wiring from power outlet to PG1 to CN1.
2	Are fuses (F1 and F2) on PU conducting?	-	NO	Change PU.
3	Is PJ104P on PWB-P properly connected?	8-G	NO	Reconnect.
4	Is PJ10P on PWB-OP properly connected?	9-A	NO	Reconnect.
			YES	Change PWB-OP. Change PWB-P.

18.3 Fusing heaters do not operate

Relevant Electrical Parts	
Safety Switch (S2) Fusing Unit	Power Unit (PU)

Step	Check Item	Location (Electrical Component)	Result	Action
1	Is the power source voltage being applied to CN1 on PU? The Top Cover and Front Cover should in closed position at this time.	7-C	NO	Check wiring from power outlet to PG1 to CN1.
2	Is the power source voltage being applied to CN2 on PU?	7-B	YES	Change the Fusing Unit.
			NO	Change PU.

19. Miscellaneous Errors

19.1 List of miscellaneous malfunctions

Message in the Status Display	Description
Fatal Error Engine I/F	• A communication error of some sort has occurred in the USB interface.
ROM Error	• A controller ROM error has been detected.
SDRAM Error	• An SDRAM read or write error has been detected.
Fatal Error EEPROM	• Writing to the parameter chip has failed.
Fatal Error Data Decompression	• Data decompression has failed due to an error in print data.
Fatal Error Non-Supported Engine	• A connection is made to an unsupported engine controller.
Fatal Error AIDC Sensor	• An error has occurred in the AIDC Sensor.
Controller Internal Error	• A control error has been detected in the printer.
Fatal Error DBE	• There is an abnormal condition at N4DBE (DBE: Dual Beam Embedded) on the Print Control Board.
Fatal Error Video Transfer	• It failed to write data while transferring printed data.
Fatal Print Spooler Error	• Communication error with the printed data.

19.2 Fatal error engine I/F

Relevant Electrical Parts	
Print Control Board (PWB-P)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the USB cable for proper connection and correct as necessary.	-	-
3	Check the PWB-P connector for proper connection and correct as necessary.	-	-
4	Check the PWB-A connector for proper connection and correct as necessary.	-	-
5	Change PWB-P.	-	-
6	Change PWB-A.	-	-

19.3 ROM error

Relevant Electrical Parts	
Print Control Board (PWB-P)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Change PWB-P.	-	-

19.4 SDRAM error

Relevant Electrical Parts	
Mechanical Control Board (PWB-A)	Print Control Board (PWB-P)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	Check the PWB-P connector for proper connection and correct as necessary.	-	-
4	Change PWB-A.	-	-
5	Change PWB-P.	-	-

19.5 Fatal error EEPROM

Relevant Electrical Parts	
Mechanical Control Board (PWB-A) Print Control Board (PWB-P)	Parameter Chip

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	Check Parameter Chip (PJ26) on PWB-A for proper connection and correct as necessary.	-	-
4	Check the PWB-P connector for proper connection and correct as necessary.	-	-
5	Change the Parameter Chip.	-	-
6	Change PWB-A.	-	-
7	Change PWB-P.	-	-

19.6 Fatal error data decompression

Relevant Electrical Parts	
Print Control Board (PWB-P)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Change PWB-P.	-	-

19.7 Fatal error non-supported engine

Relevant Electrical Parts	
Mechanical Control Board (PWB-A)	Print Control Board (PWB-P)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check to see if PWB-A is compatible with the printer.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	Check the PWB-P connector for proper connection and correct as necessary.	-	-
5	Change PWB-A.	-	-
6	Change PWB-P.	-	-

19.8 Fatal error AIDC Sensor

Relevant Electrical Parts	
AIDC Sensor (AIDC)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the AIDC connector for proper connection and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	AIDC sensor check.	-	-
5	Change AIDC.		
6	Change PWB-A.	-	-

19.9 Controller internal error

Relevant Electrical Parts	
Print Control Board (PWB-P)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the PWB-P connector for proper connection and correct as necessary.	-	-
2	Change PWB-P.	-	-

19.10 Fatal error DBE

Relevant Electrical Parts	
Print Control Board (PWB-P)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Change PWB-P.	-	-

19.11 Fatal error video transfer

Relevant Electrical Parts	
Print Control Board (PWB-P)	

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
△3 1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PWB-P connector for proper connection and correct as necessary.	-	-
3	Change PWB-P.	-	-

19.12 Fatal print spooler error

Relevant Electrical Parts	
Print Control Board (PWB-P)	

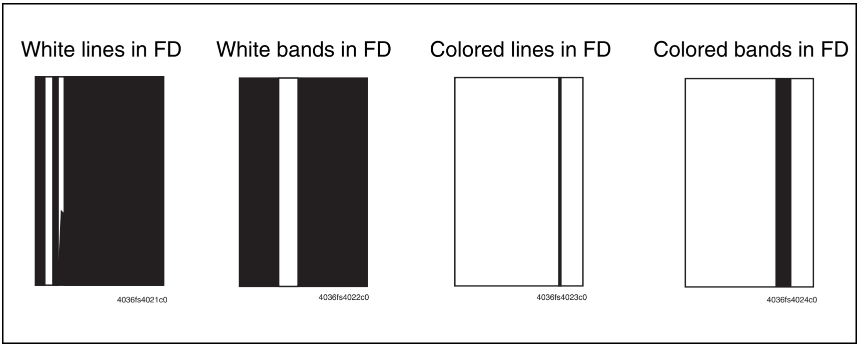
Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
△3 1	Turn OFF the Power Switch, wait for 10 sec. or more, and turn ON the Power Switch.	-	-
2	Check the PC and the Printer for proper connection, and correct as necessary.	-	-
3	Change PWB-P.	-	-

20. Image Quality Problems

20.1 Solution

20.1.1 White lines in FD, white bands in FD, colored lines in FD, and colored bands in FD

A. Typical faulty images

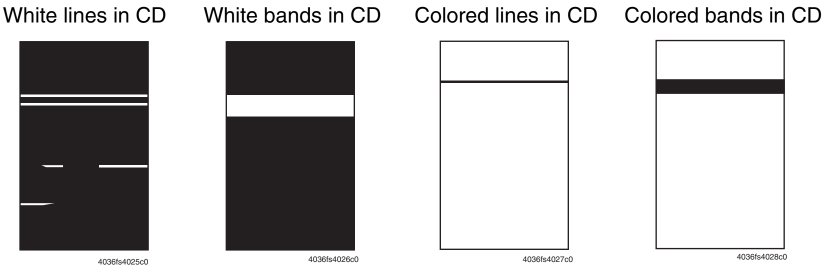

White lines in FD White bands in FD Colored lines in FD Colored bands in FD

B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3		Is the connector or contact terminal of the Drum Cartridge connected properly?	NO	Clean the contact terminal or reconnect the connector.
4	PH Unit	Is the connector or contact terminal of the PH Unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
5		Is the window surface dirty?	YES	Clean.
6	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or oil?	YES	Clean.
7		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
8		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
9	Paper path	Is there a foreign object in the paper path?	YES	Remove the foreign object.
10	Fusing Unit	Is the Fusing Entrance Guide Plate dirty or scratched?	YES	Clean. Replace the Fusing Unit.
11		Is the Separation Claw dirty?	YES	Replace the Fusing Unit.
12		Have steps 1-11 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the PH Unit.

20.1.2 White lines in CD, white bands in CD, colored lines in CD, and colored bands in CD

A. Typical faulty images

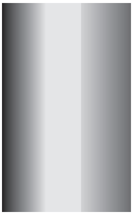


B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3		Is the connector or contact terminal of the Drum Cartridge connected properly?	NO	Clean the contact terminal or reconnect the connector.
4	Toner Cartridge	Is the developing bias contact terminal in good contact?	NO	Clean the contact terminal or check the terminal position.
5	PH Unit	Is the connector or contact terminal of the PH Unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
6	Transfer Belt Unit	Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
7		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
8	Paper path	Is there a foreign object in the paper path?	YES	Remove the foreign object.
9	Fusing Unit	Is the Fusing Entrance Guide Plate dirty or scratched?	YES	Clean.
10		Is the Separation Claw dirty.	YES	Replace the Fusing Unit.
11		Have steps 1-10 eliminated the problem?	NO	Replace the Power Unit.

20.1.3 Uneven density in FD

A. Typical faulty images



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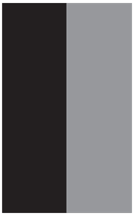
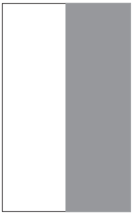


4036fs4044c0



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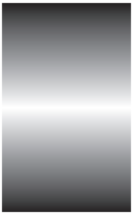
B. Troubleshooting procedure

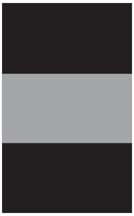
Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3	PH Unit	Is the window surface dirty?	YES	Clean.
4	Transfer Belt Unit	Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
5		Is the terminal dirty?	YES	Clean.
6		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
7		Have steps 1-6 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the PH Unit. → Replace High Voltage Unit.

20.1.4 Uneven density in CD

A. Typical faulty images



4036fs4046c0



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B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3	Transfer Belt Unit	Is the contact on the rail of the Transfer Belt Unit in good contact with the mating part?	NO	Check or correct contact.
4		Is the Transfer Belt dirty with fingerprints or oil?	YES	Clean.
5		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
6		Is the terminal dirty?	YES	Clean.
7		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
8		Have steps 1-7 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace High Voltage Unit.

20.1.5 Low image density

A. Typical faulty images

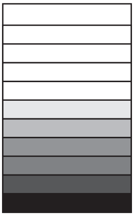
ABCDE
ABCDE
ABCDE
ABCDE
ABCDE
4036fs4036c0

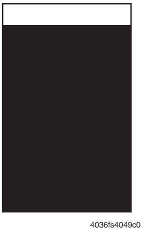
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Is the outside dirty?	YES	Clean.
2	PH Unit	Is the window surface dirty?	YES	Clean.
3	Transfer Belt Unit	Is the contact on the rail of the Transfer Belt Unit in good contact with the mating part?	NO	Check or correct contact.
4		Is the contact dirty?	YES	Clean.
5	2nd Transfer Roller	Is the contact dirty?	YES	Clean.
6	Paper	Is the paper damp?	YES	Replace the paper with new paper that has just been unwrapped.
7	AIDC Sensor	Is the sensor dirty?	YES	Clean.
8		Have steps 1-7 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the Transfer Belt Unit. → Replace the 2nd Transfer Roller. → Replace the PH Unit. → Replace the AIDC Sensor. → Replace the Mechanical Control Board. → Replace the High Voltage Unit.

20.1.6 Gradation reproduction failure

A. Typical faulty images



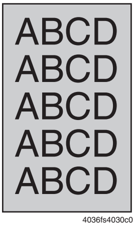


B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Is the outside dirty?	YES	Clean.
2	PH Unit	Is the window surface dirty?	YES	Clean.
3	AIDC Sensor	Is the sensor dirty?	YES	Clean.
4		Have steps 1-3 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the PH Unit. → Replace the AIDC Sensor. → Replace the High Voltage Unit.

20.1.7 Foggy background

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3		Is the connector or contact terminal of the Drum Cartridge connected properly?	NO	Clean the contact terminal or reconnect the connector.
4	Toner Cartridge	Is the developing bias contact terminal in good contact?	NO	Clean the contact terminal or check the terminal position.
5	PH Unit	Is the connector or contact terminal of the PH Unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
6		Is the window surface dirty?	YES	Clean.
7	AIDC Sensor	Is the sensor dirty?	YES	Clean.
8		Have steps 1-7 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the PH Unit. → Replace the AIDC Sensor.

20.1.8 Poor color reproduction

A. Typical faulty images

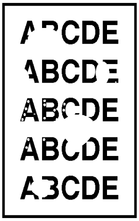
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper	Is the paper damp?	YES	Replace the paper with new paper that has just been unwrapped.
2	Transfer Belt Unit	Is the terminal dirty?	YES	Clean.
3	AIDC Sensor	Is the sensor dirty?	YES	Clean.
4		Have steps 1-3 eliminated the problem?	NO	Replace the Transfer Belt Unit. → Replace the AIDC Sensor. → Replace the Mechanical Control Board. → Replace the High Voltage Unit.

20.1.9 Void areas, white spots

A. Typical faulty images

Void areas



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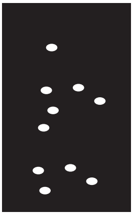
White spots



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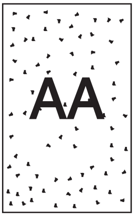
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
2		Is the outside dirty?	YES	Clean.
3	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or oil?	YES	Clean.
4		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
5		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
6		Is the ground terminal connected properly?	NO	Correct.
7	Paper path	Is there a foreign object in the paper path?	YES	Remove the foreign object.
8		Is the Fusing Entrance Guide Plate dirty or scratched?	YES	Clean or replace.
9		Have steps 1-8 eliminated the problem?	NO	Replace the Toner Cartridge.

20.1.10 Colored spots

A. Typical faulty images

Colored spots



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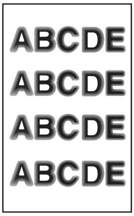
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Drum Cartridge	Are the spots in a single color?	NO	Replace the Drum Cartridge.
2		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
3	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or oil?	YES	Clean.
4		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Change a scratched Transfer Belt for a Transfer Belt Unit.
5		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
6	Paper path	Is there a foreign object in the paper path?	YES	Remove the foreign object.
7	Fusing Unit	Is the Fusing Roller dirty or scratched?	YES	Replace the Fusing Unit.
8		Have steps 1-7 eliminated the problem?	NO	Replace the Toner Cartridge.

20.1.11 Blurred image

A. Typical faulty images

Blurred image



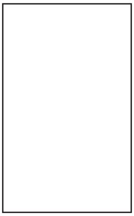
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	PH Unit	Is the window surface dirty?	YES	Clean.
2	Drum Cartridge	Is the outside dirty?	YES	Clean.
3		Have steps 1-2 eliminated the problem?	NO	Replace the Toner Cartridge. → Replace the PH Unit.

20.1.12 Blank copy, black copy

A. Typical faulty images

Blank print



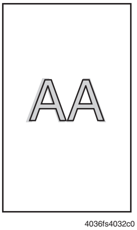
Black print

B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Image check	Does a blank print occur?	YES	Check the PH Unit connector for proper connection.
2	Drum Cartridge	Is the gear of the Drum Cartridge drive mechanism installed properly?	NO	Check or correct the drive transmitting section or replace the Drum Cartridge.
3		Is the charge corona voltage contact or photo conductor ground contact of the Drum Cartridge connected properly?	NO	Check, clean, or correct the contact.
4	High Voltage Unit	Is the connector connected properly?	NO	Reconnect.
5		Have steps 1-4 eliminated the problem?	NO	Replace the High Voltage Unit. → Replace the Mechanical Control Board. → Replace the PH Unit.

20.1.13 Incorrect color image registration

A. Typical faulty images

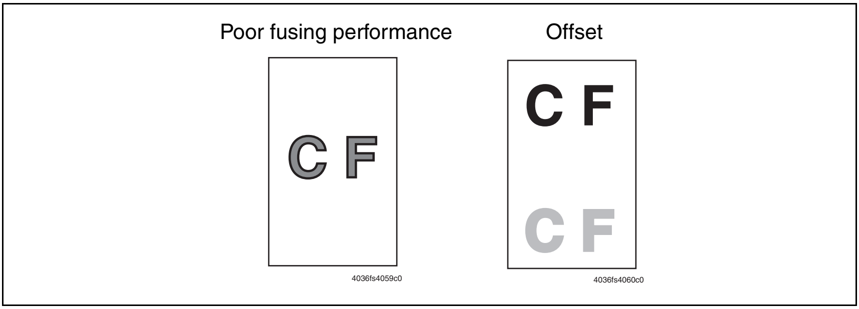


B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or foreign matter?	YES	Clean.
2		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
3		Is the drive coupling to the machine dirty?	YES	Clean.
4		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
5	Drum Cartridge	Is the Drum Cartridge installed in position?	NO	Reinstall the Drum Cartridge.
6		Is the photo conductor scratched?	YES	Replace the Drum Cartridge.
7		Have steps 1-6 eliminated the problem?	NO	Replace the PH Unit. → Replace the Mechanical Control Board.

20.1.14 Poor fusing performance, offset

A. Typical faulty images



Poor fusing performance

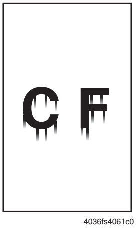
Offset

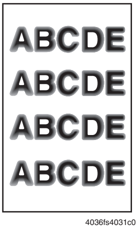
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper	Does the paper being used conform to specifications?	NO	Replace the paper.
2	Fusing Unit	Are the fuser separator levers in the correct position?	NO	Correct.
3		Have steps 1-2 eliminated the problem?	NO	Replace the Fusing Unit. → Replace the Mechanical Control Board.

20.1.15 Brush effect, blurred image

A. Typical faulty images


Brush effect

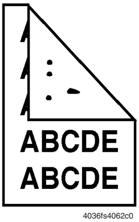

Blurred image

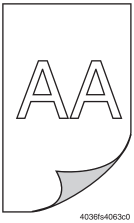
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper	Is the paper damp?	YES	Replace the paper with new paper that has just been unwrapped.
2		Does the paper being used conform to specifications?	NO	Replace the paper.
3	Drum Cartridge	Are there scratches or lines evident on the photo conductor surface?	YES	Replace the Drum Cartridge.
4	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or oil?	YES	Clean.
5		Is the Transfer Belt dirty or scratched?	YES	Wipe the surface clean of dirt with a soft cloth. Replace the scratched Transfer Belt with a new Transfer Belt Unit.
6	Fusing Unit	Is the Fusing Entrance Guide Plate dirty?	YES	Clean.
			NO	Replace the Fusing Unit.

20.1.16 Back marking

A. Typical faulty images



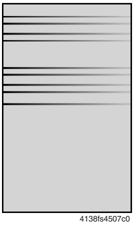


B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Paper path	Is there a foreign object in the paper path?	YES	Remove the foreign object.
2	Fusing Unit	Is the Fusing Entrance Guide Plate dirty or scratched?	YES	Clean or replace.
3		Is the Fusing Roller scratched or dirty?	YES	Replace the Fusing Unit.
4	Transfer Belt Unit	Is the Transfer Belt dirty with fingerprints or foreign matter?	YES	Clean.
5		Is the 2nd Transfer Roller dirty or scratched?	YES	Replace the 2nd Transfer Roller.
6		Have steps 1-5 eliminated the problem?	NO	Replace the Transfer Belt Unit. → Replace the High Voltage Unit.

20.1.17 Uneven pitch

A. Typical faulty images



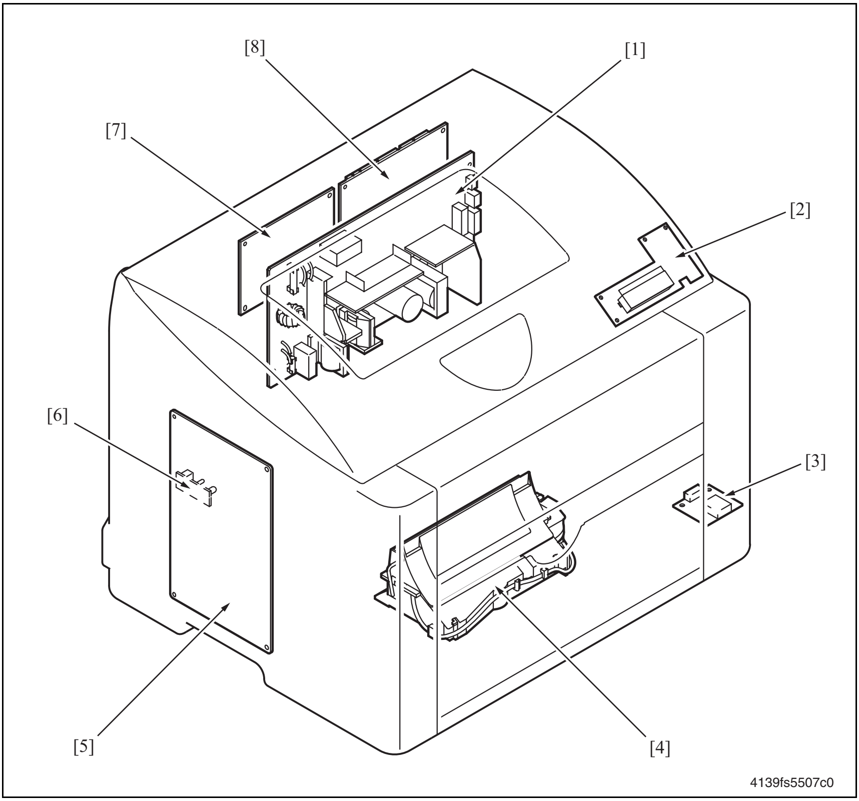
B. Troubleshooting procedure

Step	Section	Check Item	Result	Action
1	Toner Cartridge	Is the Toner Cartridge for each color of toner installed in position?	NO	Reinstall.
2	PH Unit	Is the PH Unit secured in position with the fixing screw?	NO	Secure it in position.
3	Toner Cartridge	Is the drive mechanism of the Toner Cartridge dirty or damaged?	YES	Clean or replace the Toner Cartridge.
4	Drum Cartridge	Is the photo conductor dirty, scratched, or worn?	YES	Replace the Drum Cartridge.
5	2nd Transfer Roller	Are the 2nd Transfer Roller and drive mechanism dirty, deformed, or worn?	YES	Replace the 2nd Transfer Roller.
6	Fusing Unit	Are the rollers and drive mechanism of the Fusing Unit dirty, scratched, deformed, or worn?	YES	Replace the Fusing Unit.
7		Have steps 1-6 eliminated the problem?	NO	Replace the Transfer Belt Unit.

Appendix

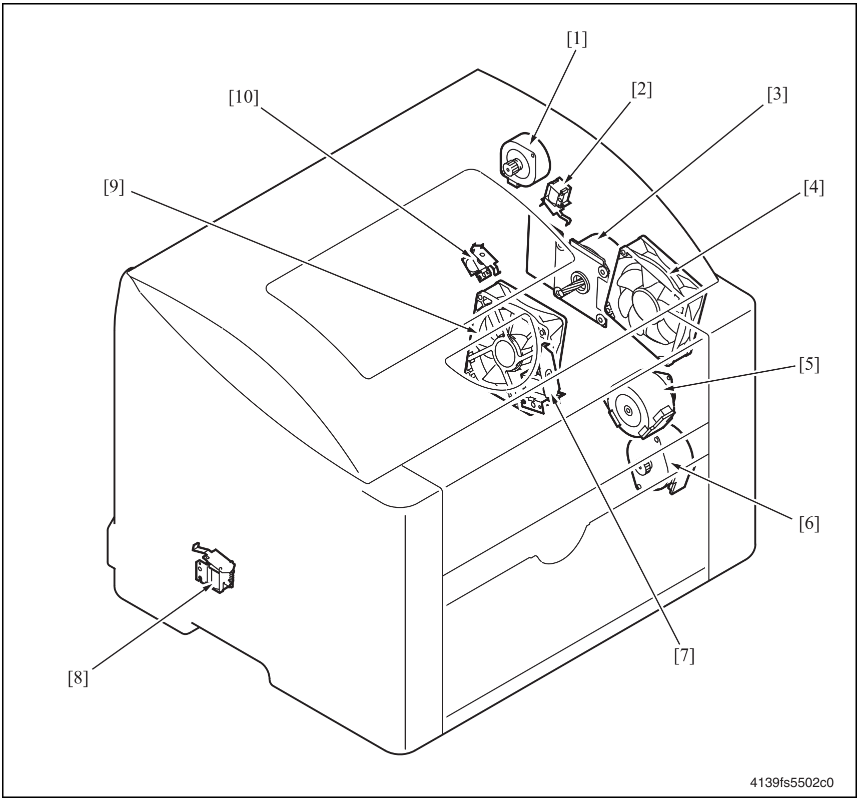
21. Parts layout drawing

21.1 Main Unit

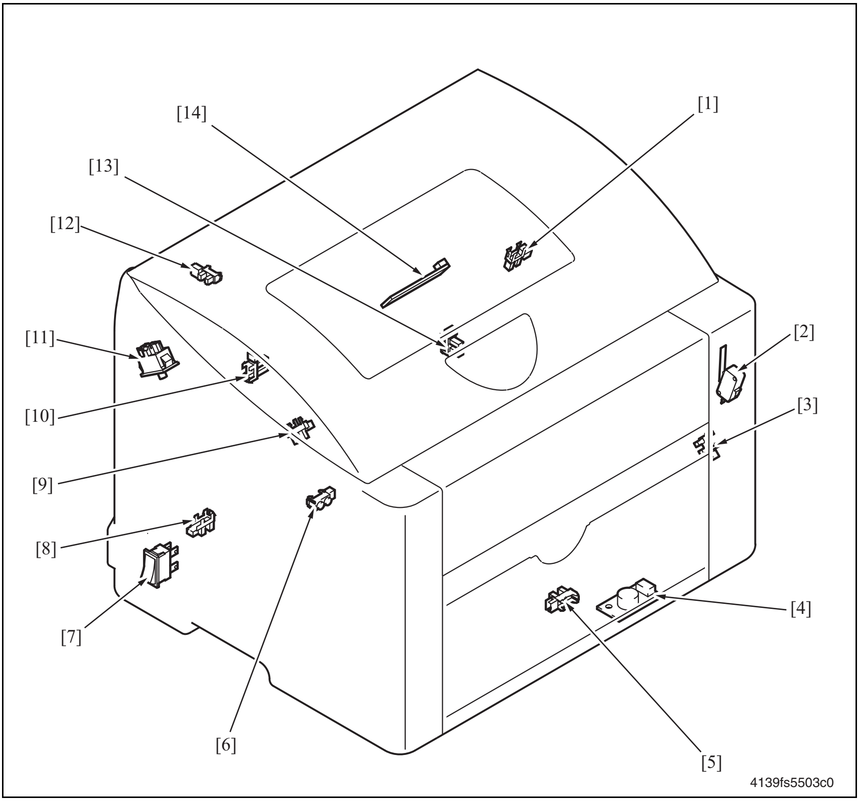


[1]	Power Unit (PU)	[5]	High Voltage Unit (HV)
[2]	Control Panel (PWB-OP)	[6]	Waste Toner Near Full Detection Board (PWB-C)
[3]	USB Board (PWB-USB) *	[7]	Print Control Board (PWB-P)
[4]	PH Unit (PH)	[8]	Mechanical Control Board (PWB-A)

△2 * Only for the magicolor 2430 DL and magicolor 2450

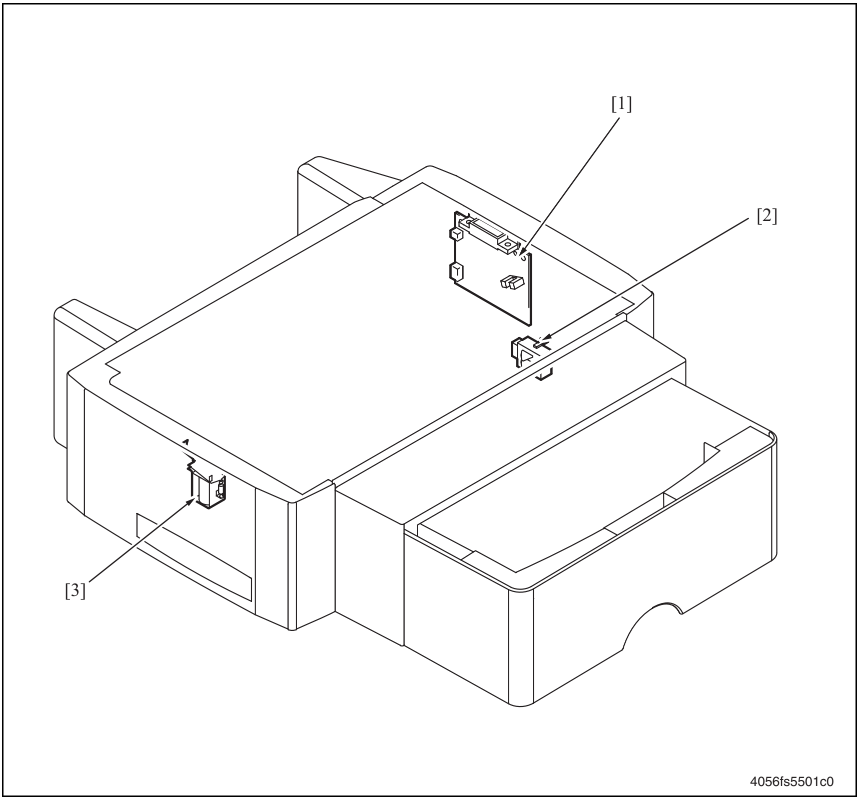


[1]	Fusing Motor (M7)	[6]	Rack Motor (M2)
[2]	Pressure/Retraction Solenoid /Cleaning Blade (SL3)	[7]	Registration Roller Solenoid (SL2)
[3]	Main Motor (M1)	[8]	Tray1 Paper Pick-up Solenoid (SL1)
[4]	Ventilation Fan Motor (M6)	[9]	Power Supply Cooling Fan Motor (M4)
[5]	Developing Motor (M3)	[10]	Pressure/Retraction Solenoid /2nd Image Transfer (SL4)



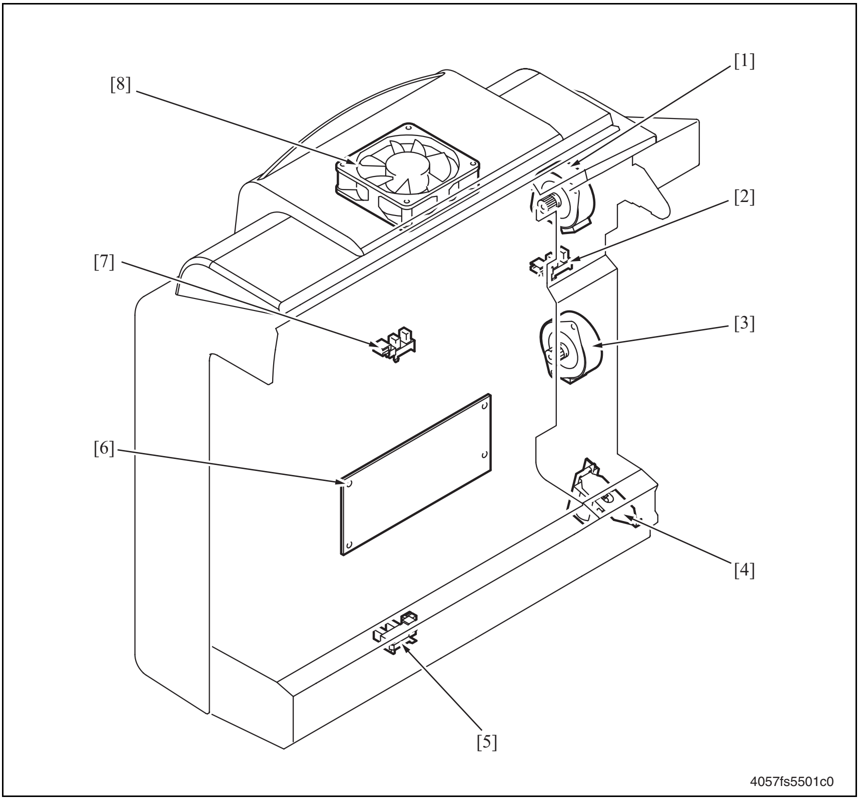
[1]	Retraction Position Sensor /Cleaning Blade (PC6)	[8]	Fusing Paper Loop Sensor (PC8)
[2]	Safety Switch (S2)	[9]	Registration Sensor (PC1)
[3]	Rack Positioning Sensor (PC3)	[10]	Belt Positioning Sensor (PC4)
[4]	Temperature/ humidity Sensor (HS1)	[11]	Fusing Safety switch (S3)
[5]	Tray1 Paper Empty Sensor (PC9)	[12]	Exit Sensor (PC7)
[6]	OHP Sensor (PC2A)	[13]	Retraction Position Sensor /2nd Image Transfer (PC5)
[7]	Power Switch (S1)	[14]	AIDC Sensor (AIDC)

21.2 Lower Feeder Unit (option)



[1]	Lower Feeder Board (PWB-F PF)	[3]	Lower Feeder Paper Pick-up Solenoid (SL7 PF)
[2]	Tray Set Detecting Switch (S4 PF)		

21.3 Duplex Option (option)



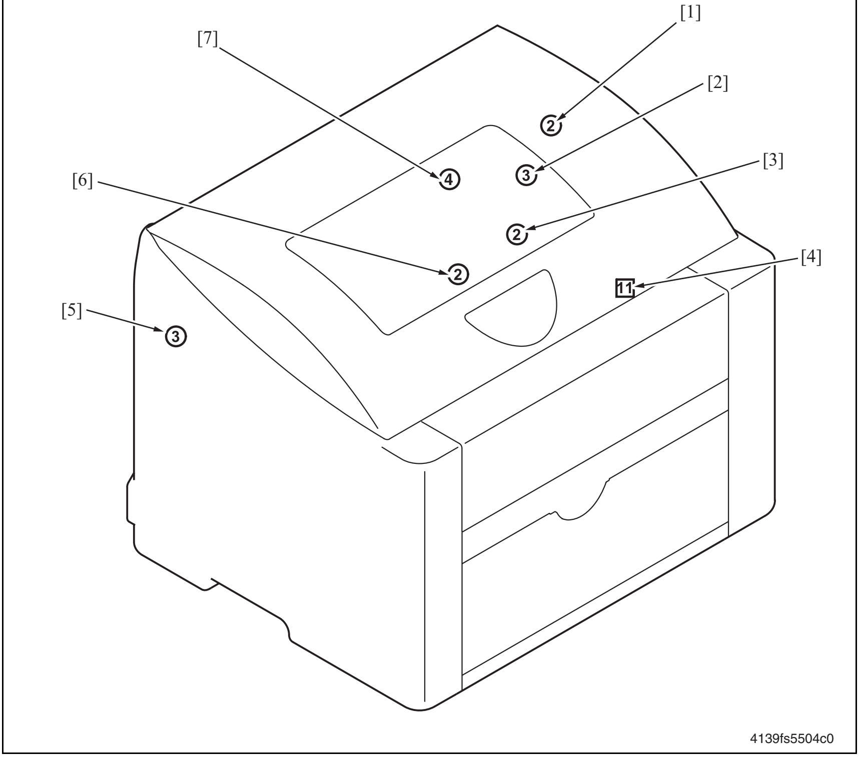
[1]	Duplex Reverse Motor (M9 DU)	[5]	Duplex Paper Loop Sensor (PC10 DU)
[2]	Duplex Door Sensor (PC11 DU)	[6]	Duplex Board (PWB-A DU)
[3]	Duplex Transport Motor (M8 DU)	[7]	Duplex Transport Sensor (PC12 DU)
[4]	Duplex Registration Solenoid (SL6 DU)	[8]	Duplex Cooling Fan Motor (M10 DU)

22. Connector layout drawing

Description

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

Number of Pin → 1 Not possible to confirm by removing external cover.



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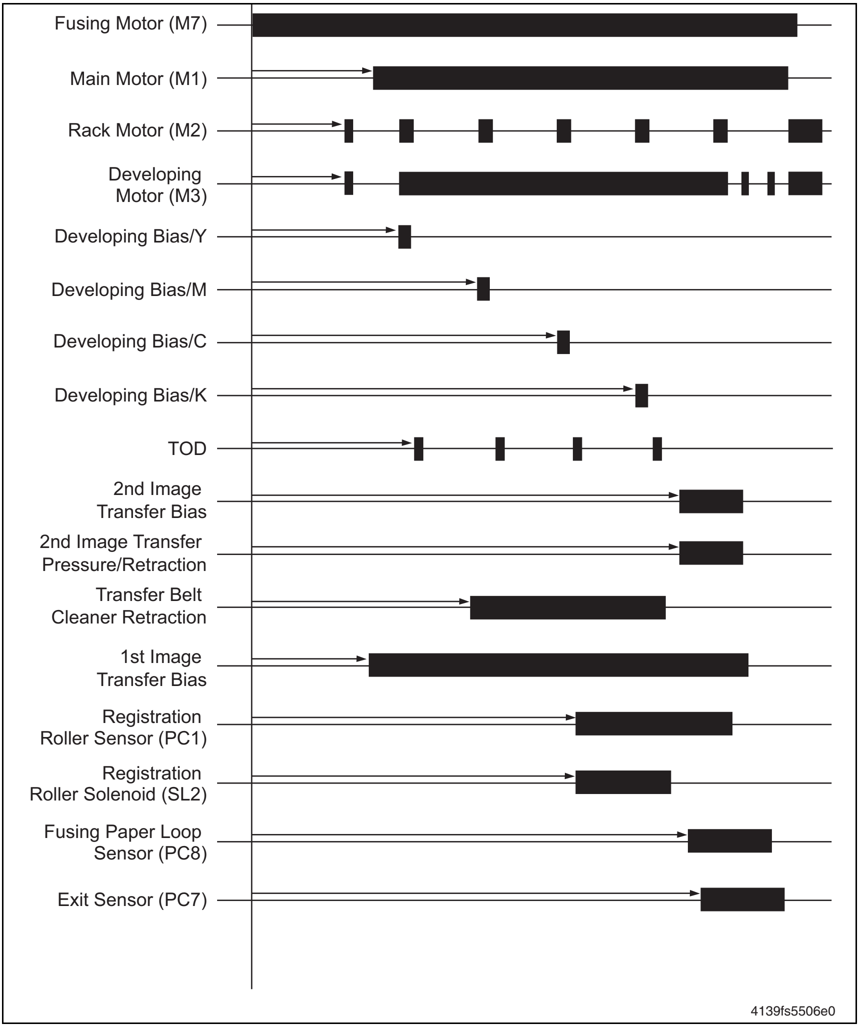
No.	CN No.	Location	No.	CN No.	Location
[1]	CN3	2-F	[5]	CN7	2-G
[2]	CN2	2-H	[6]	CN6	2-C
[3]	CN5	2-G	[7]	CN4	2-A
[4]	CN1	2-E~F			

23. Timing chart

Color A4



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KONICA MINOLTA

SERVICE MANUAL FIELD SERVICE

Lower Feeder Unit

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2005.04

KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 2.0

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:

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  The revision marks for Ver. 2.0 are left as they are.

2005/04	2.0	—	Change format
2004/09	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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General

1. Product specifications

1.1 Type

Name	Add-on 500-sheet paper feed cassette
Type	Front-loading type
Installation	Desk type
Document Alignment	Center

1.2 Paper type

Paper Size	A4/Letter
Paper Type	• Plain paper: 60 to 90 g/m^2 (16 to 24 lb) • Recycled paper: 60 to 90 g/m^2 (16 to 24 lb)
Capacity	500 sheets

1.3 Machine specifications

Power Requirements	DC 24 V ± 10 % (supplied from the main unit)
	DC 5 V ± 5 %
Max. Power Consumption	12 W
Dimensions	430 (W)× 500 (D)× 138 (H) mm 16.9" (W) × 19.6" (H) × 5.4" (D)
Weight	Approx. 4.6 kg (10.1 lb)

1.4 Operating environment

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

NOTE

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

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Maintenance

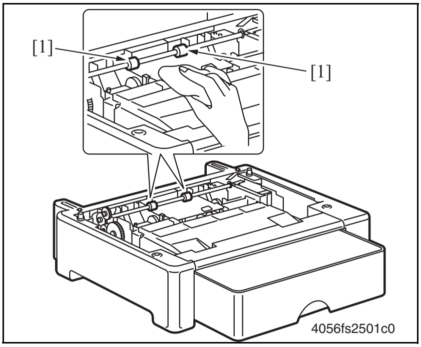
2. Periodic check

2.1 Maintenance procedure (Periodic parts check)

NOTE

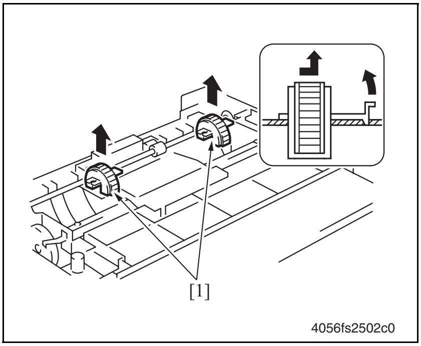
- **The alcohol described in the cleaning procedure is isopropyl alcohol.**

2.1.1 Pick-up Roller



A. Cleaning procedure

1. Remove the Lower Feeder Unit from the main unit.
2. Wipe the Pick-up Roller [1] clean of dirt using a soft cloth dampened with alcohol.



B. Removal procedure

1. Remove the Lower Feeder Unit from the main unit.
2. Remove two Pick-up Rollers [1].

3. Other

3.1 Disassembly/Adjustment prohibited items

A. Paint-locked Screws

NOTE

- **Paint-locked screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be adjusted, set, or removed in the field.**

B. Red Painted Screws

NOTES

- **When the screws are removed, the red paint is coated on the points where readjustment is required.**
- **Once the red painted screw is removed or loosened, you should make the adjustment. Accordingly check the adjustment items in the operation manual and make the necessary adjustment. Note that when two or more screws are used on the part in question, only one representative screw may be marked with 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

NOTES

- **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 yourself.**

3.2 Disassembly/Assembly list (Other parts)

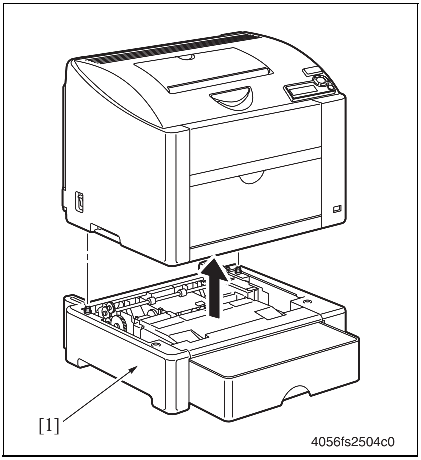
No	Section	Part name	Ref. page
1	-	Lower Feeder Unit	☞ 5
2	Exterior parts	Tray	☞ 6
3		Lower Feeder Unit Rear Cover	☞ 6
4	Unit	Lower Feeder Paper Pick-up Unit	☞ 6
5	Board and etc	Lower Feeder Board	☞ 8
6	Others	Lower Feeder Paper Pick-up Solenoid	☞ 8
7		Lower Feeder Paper Size Switch	☞ 9

3.3 Disassembly/Assembly procedure

3.3.1 Lower Feeder Unit

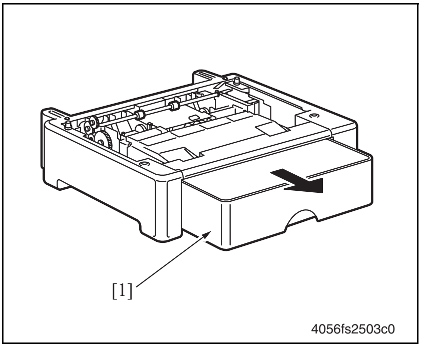
NOTE

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



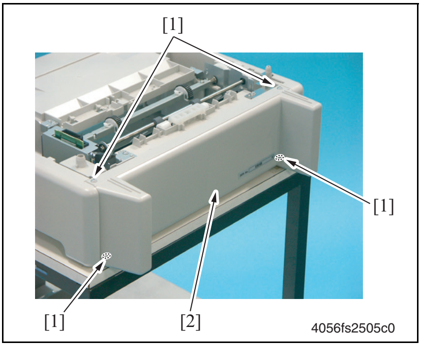
1. Lift the printer main body and then remove the Lower Feeder Unit [1] from the printer.

3.3.2 Tray



1. Remove the Lower Feeder Unit from the main unit.
2. Slide out the Tray [1].

3.3.3 Lower Feeder Rear Cover

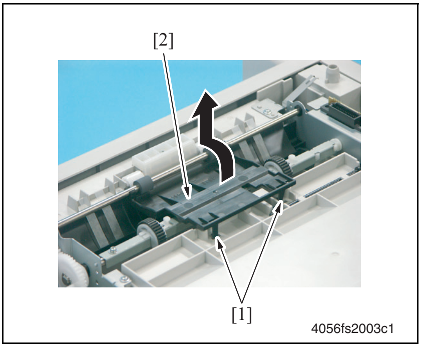


1. Slide out the Tray.

☞ 6

2. Remove four screws [1], and remove the Lower Feeder Unit Rear Cover [2].

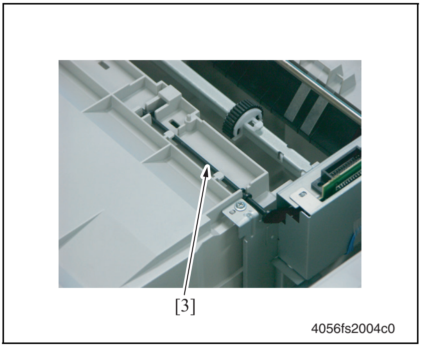
3.3.4 Lower Feeder Paper Pick-up Unit



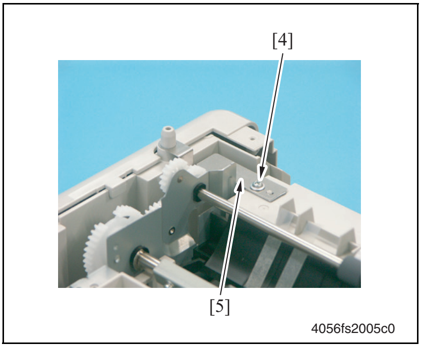
1. Remove the Lower Feeder Unit Rear Cover.

☞ 6

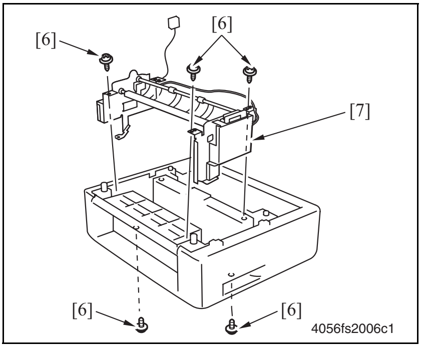
2. Unlock two tabs [1] and remove the Cover [2].



3. Remove the Actuator [3].

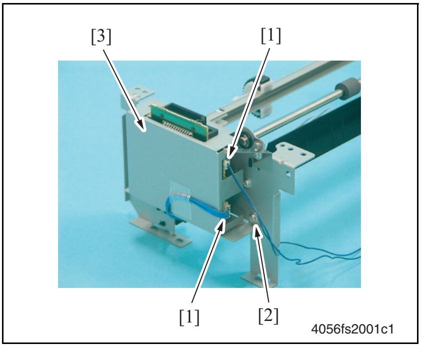


4. Remove one screw [4] and the metal plate [5].

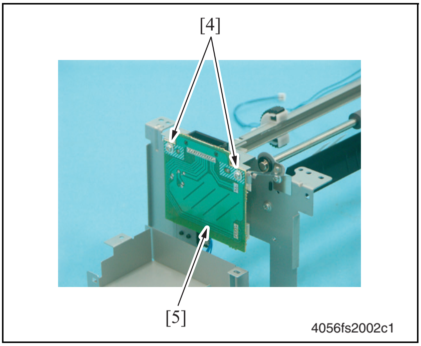


5. Remove five screws [6] and the Lower Feeder Paper Pick-up Unit [7].

3.3.5 Lower Feeder Board (PWB-A PF)

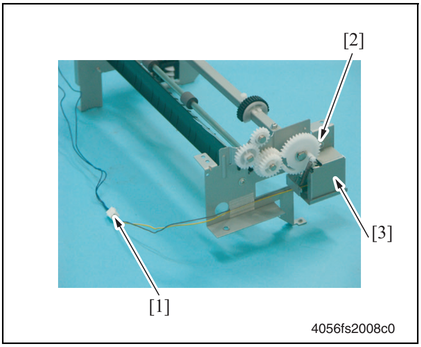


1. Remove the Lower Feeder Paper Pick-up Unit.
   ☞ 6
2. Disconnect two connectors [1] from the Lower Feeder Board.
3. Remove one screw [2] and the PWB Protective Cover [3].

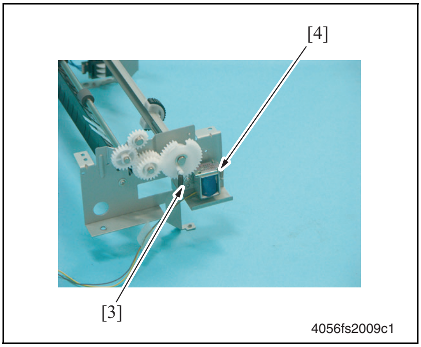


4. Remove two screws [4] and the Lower Feeder Board [5].

3.3.6 Lower Feeder Paper Pick-up Solenoid (SL7 PF)

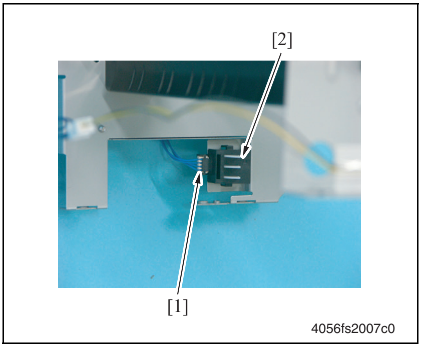


1. Remove the Lower Feeder Paper Pick-up Unit.
   ☞ 6
2. Disconnect one connector [1].
3. Remove one screw [2] and the Protective Cover [3].



4. Remove one screw [3] and the Lower Feeder Paper Pick-up Solenoid [4].

3.3.7 Tray Set Detecting Switch (S4 PF)



1. Remove the Lower Feeder Paper Pick-up Unit.

☞ 6

2. Unlock two tabs [1], disconnect one connector [2] and remove the Tray Set Detecting Switch [3].

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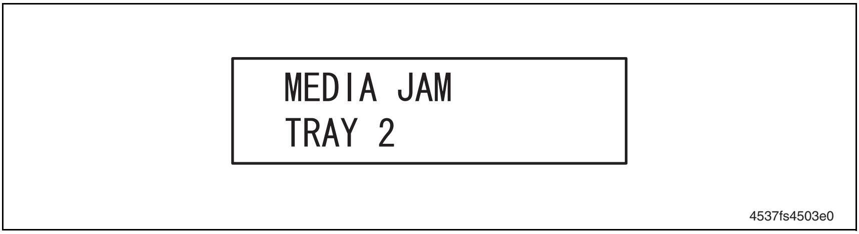
Troubleshooting

4. Jam Display

4.1 Misfeed Display

- When a paper misfeed occurs a message is displayed on the Control Panel.



MEDIA JAM
TRAY 2

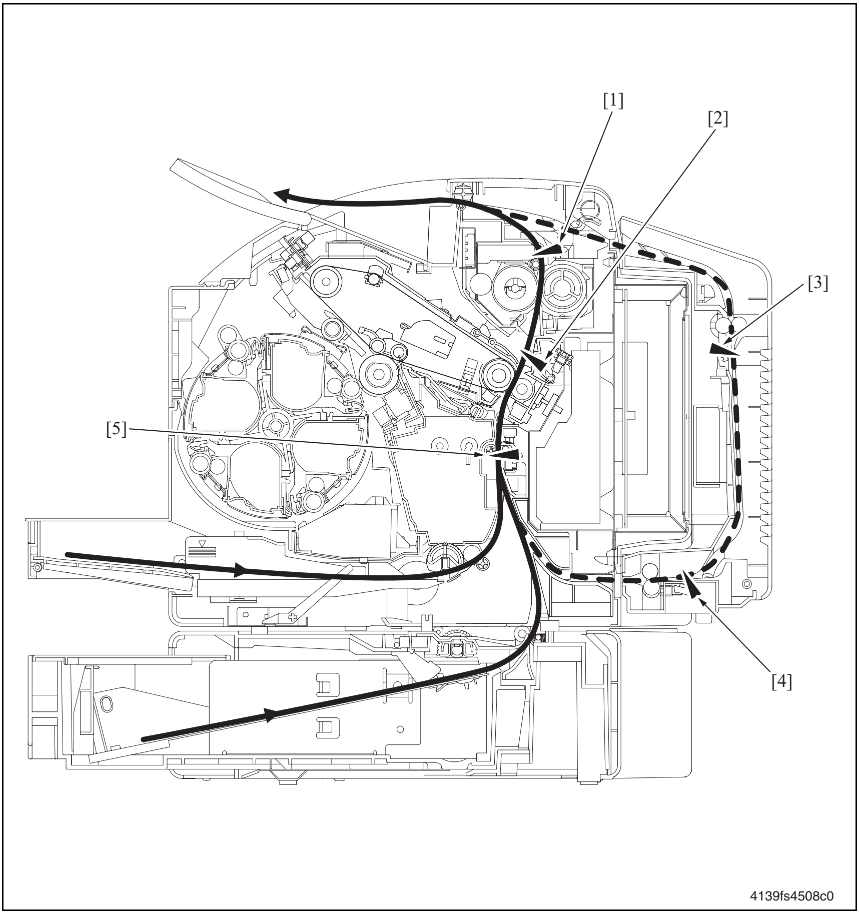
Display	Misfeed location	Misfeed clearing location	Ref. page
MEDIA JAM TRAY 2	Tray 2 paper feed section	Tray 2	☞ 13

4.2 Misfeed Display Resetting Procedure

- Open the relevant door, clear the sheet of misfed paper, and close the door.

4.3 Sensor layout

4.3.1 magicolor 2430 DL (mounted with the Lower Feeder Unit and Duplex Unit)



[1]	Exit Sensor	PC7	[4]	Duplex Paper Loop Sensor	PC10 DU
[2]	Fusing Paper Loop Sensor	PC8	[5]	Registration Sensor	PC1
[3]	Duplex Transport Sensor	PC12 DU			

4.4 Solution

4.4.1 Initial Check Items

- When a paper misfeed occurs, first check the following initial check items.

Check Item	Action
Does the paper meet product specifications?	Change the paper.
Is paper curled, wavy, or damp.	Change the paper. Instruct the user in correct paper storage.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean or change the paper path.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or change the defective Paper Separator Finger.
Are the rolls/rollers dirty, deformed, or worn?	Clean or change the defective roll/roller.
Are the Edge Guide and Trailing Edge Stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators found operational when checked for correct operation?	Correct or change the defective actuator.

4.4.2 Misfeed at Tray 2 paper feed section

A. Detection Timing

Type	Description
Detection of misfeed at Tray 2 paper feed section	The leading edge of the paper does not block the Registration Sensor (PC1) even after the lapse of a predetermined period of time after the Lower Feeder Paper Pick-up Solenoid (SL7 PF) has been energized.

B. Action

Relevant Electrical Parts	
Registration Sensor (PC1) Lower Feeder Paper Pick-up Solenoid (SL7 PF)	Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the initial check items.	-	-
2	Check the PWB-A connector for proper connection and correct as necessary.	-	-
3	Check the PC1 sensor.	PWB-A PJ12A-3 (ON)	2-C (Main Unit)
4	Check SL7 PF for correct operation.	PWB-A PF PJ22A PF-2 (REM)	4-E
5	Change PWB-A.	-	-

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KONICA MINOLTA

SERVICE MANUAL FIELD SERVICE

Duplex Option

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  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.

2005/4	2.0	△1	Adding the descriptions of magicolor 2450 and change format
2004/10	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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General

1. Product specifications

1.1 Type

Name	Duplex Option
Type	Switchback and Circulating Duplex Unit
Installation	Mounted on the right side door of main unit
Reversing System	Exit Roller switchback
Conveyance system	Rubber roller + driven rolls
Document Alignment	Center

1.2 Paper type

Paper Size	A4/Letter
Paper Type	• Plain paper: 60 to 90 g/m^2 (16 to 24 lb) • Recycled paper: 60 to 90 g/m^2 (16 to 24 lb)

1.3 Machine specifications

Power Requirements	DC 24 V ± 10 % (supplied from the main unit)
	DC 5 V ± 5 % (supplied from the main unit)
Max. Power Consumption	42 W
Dimensions	370 (W) × 153 (D) × 327 (H) mm 14.6" (W) × 6.0" (D) × 12.9" (H)
Weight	Approx. 2.3 kg (5.1 lb)

1.4 Operating environment

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

NOTE

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

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Maintenance

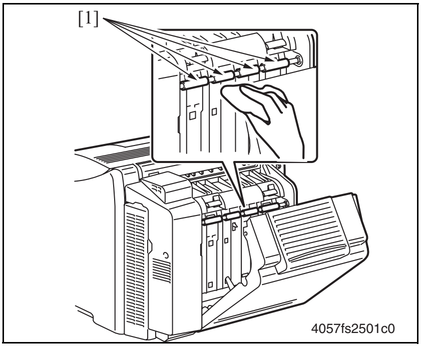
2. Periodic check

2.1 Maintenance procedure (Periodic parts check)

NOTE

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

2.1.1 Transport Roller



A. Cleaning procedure

1. Open the Duplex Door.
2. Using a soft cloth dampened with alcohol, wipe the Transport Roller [1] clean of dirt.

3. Other

3.1 Disassembly/Adjustment prohibited items

A. Paint-locked Screws

NOTE

- **Paint-locked screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be adjusted, set, or removed in the field.**

B. Red Painted Screws

NOTE

- **When the screws are removed, the red paint is coated on the points where readjustment is required.**
- **Once the red painted screw is removed or loosened, you should make the adjustment. Accordingly check the adjustment items in the operation manual and make the necessary adjustment. Note that when two or more screws are used on the part in question, only one representative screw may be marked with 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

NOTES

- **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 yourself.**

3.2 Disassembly/Assembly list (Other parts)

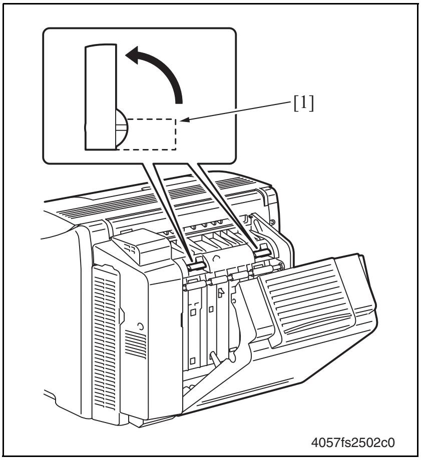
No	Section	Part name	Ref. page
1	-	Duplex Option	☞ 5
2	Exterior parts	Right Cover	☞ 7
3	Board and etc.	Duplex Board	☞ 8
4	Others	Duplex Cooling Fan Motor	☞ 9
5		Duolex Transport Motor	☞ 12
6		Duplex Reverse Motor	☞ 12
7		Duplex Registration Solenoid	☞ 13

3.3 Disassembly/Assembly procedure

3.3.1 Duplex Option

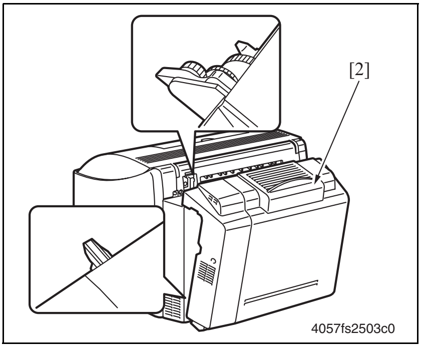
NOTE

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



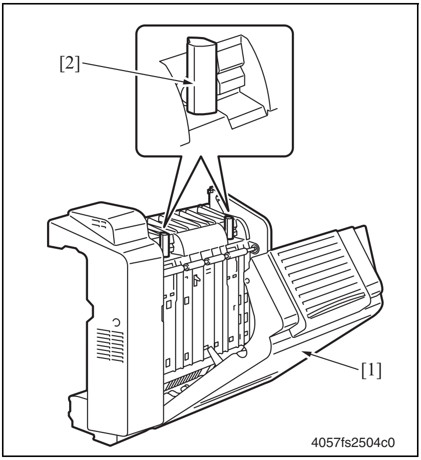
A. Removal Procedure

1. Open the Duplex Option Door.
2. Turn the two locking knobs [1] to unlock the Duplex Option.

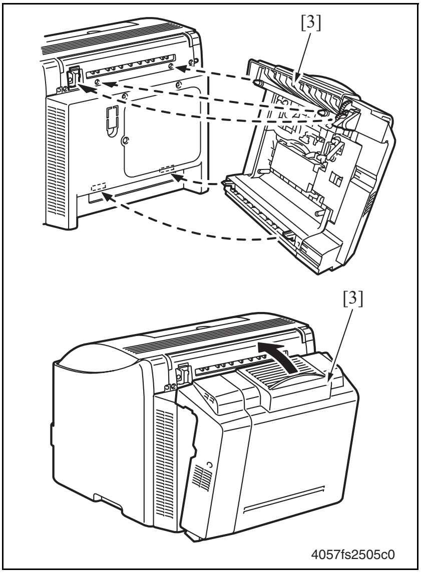


3. Remove the Duplex Option [2].

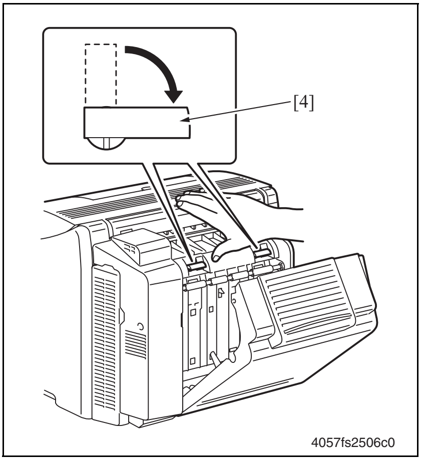
B. Reinstall Procedure



1. Open the Duplex Unit Door [1] and turn the two locking knobs [2] to unlock the Duplex Unit.



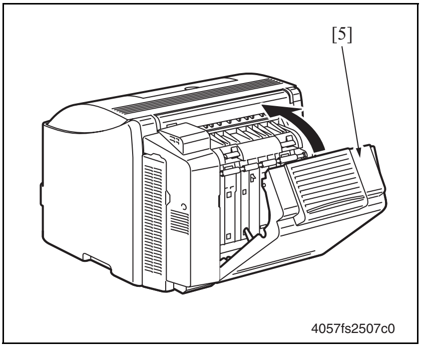
2. Mount the Duplex Unit [3] onto the printer main body.



3. Turn the two locking knobs [4] to lock the Duplex Unit into position.

NOTE

- **When locking the Duplex Unit into position, be sure to hold the unit with a hand and, at the same time, press it up against the printer main body.**

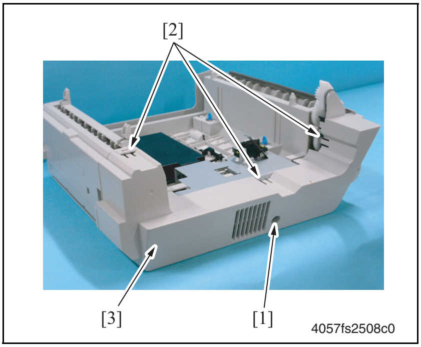


NOTE

- **After the Duplex Unit has been locked into position, check that the two locking knobs are in the correct locked position.**

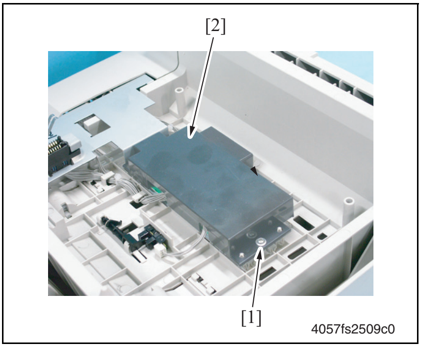
4. Close the Duplex Option Door [5].

3.3.2 Right Cover



1. Remove one screw [1], unlock three tabs [2] and remove the Right Cover [3].

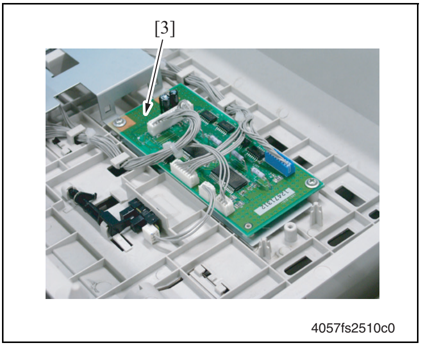
3.3.3 Duplex Board (PWB-A DU)



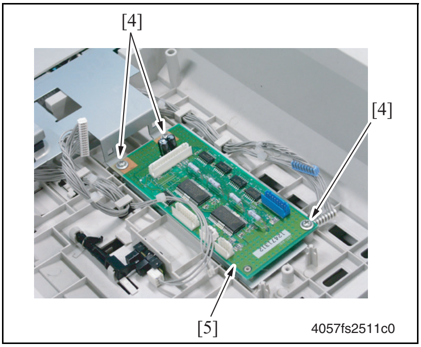
1. Remove the Right Cover.

☞ 7

2. Remove one screw [1] and the Duplex Board Cover [2].

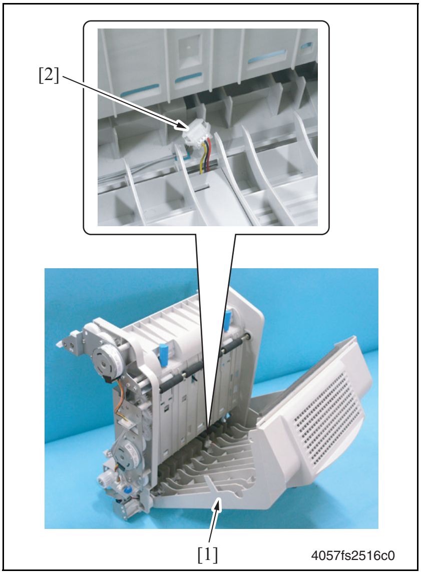


3. Disconnect all connectors from the Duplex Board [3].

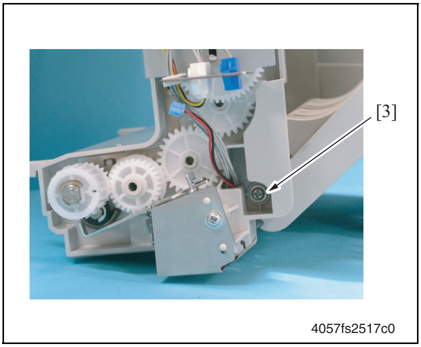


4. Remove three screws [4] and the Duplex Board [5].

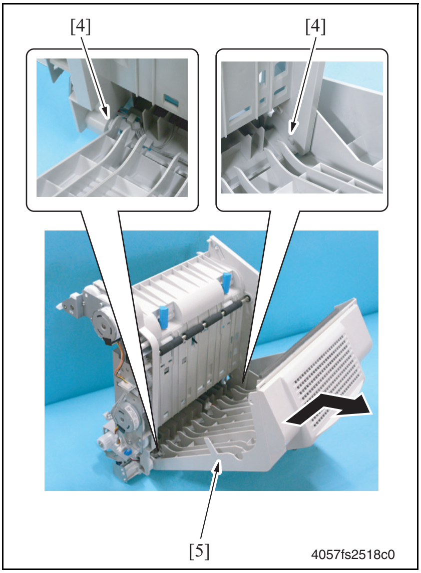
3.3.4 Duplex Cooling Fan Motor (M10 DU)



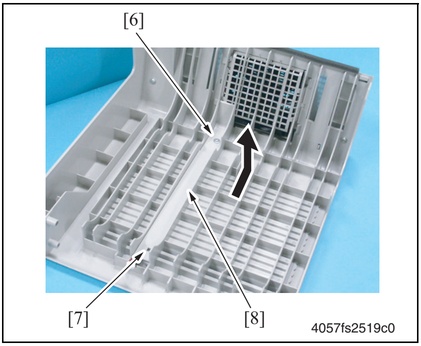
1. Remove the Right Cover.
   ☞ 7
2. Open the Duplex Door [1] and disconnect the connector [2].



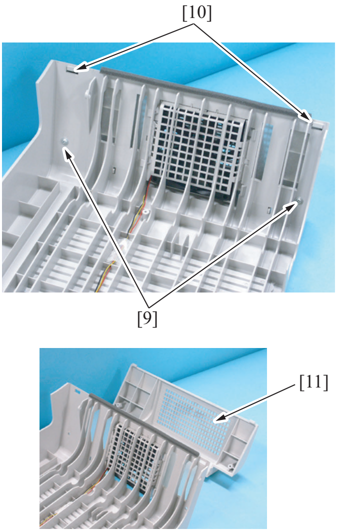
3. Remove one screw [3].



4. Unhook the two dowel pins [4] and remove the Duplex Unit Door [5].

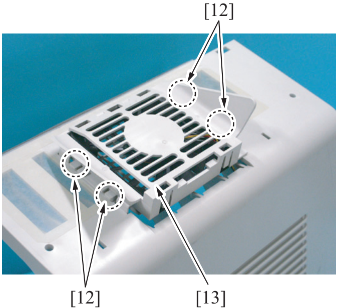


5. Remove one screw [6], unlock one tab [7] and remove the Harness Cover [8].



4057fs2520c0

6. Remove two screws [9], unlock two tabs [10] and remove the Duplex Door Upper Cover [11].



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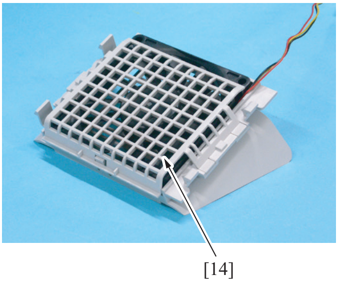
7. Unlock four tabs [12] and remove the Duplex Cooling Fan Motor Assy [13].



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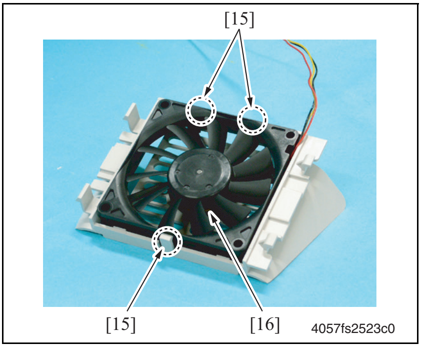
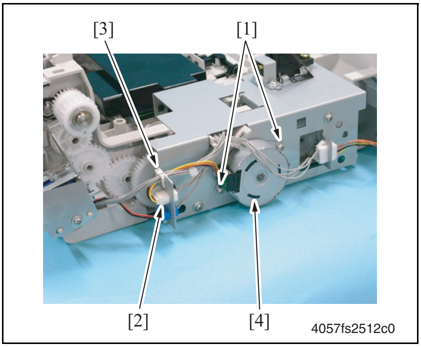
8. Remove the Duplex Cooling Fan Motor Cover [14].



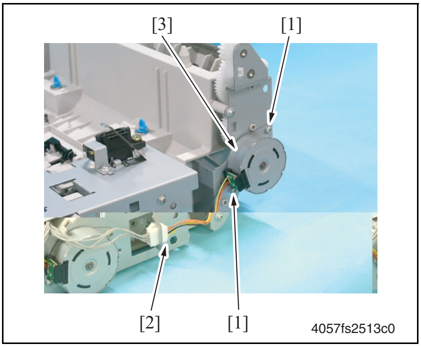
9. Unlock three tabs [15] and remove the Duplex Cooling Fan Motor [16].

3.3.5 Duolex Transport Motor (M8 DU)



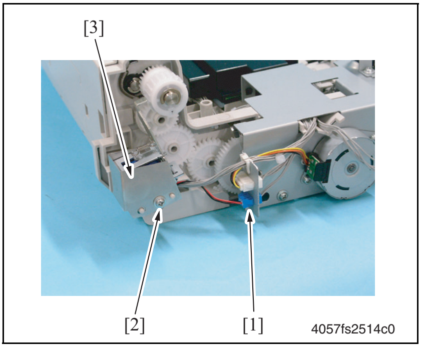
1. Remove the Right Cover.
☞ 7
2. Remove two screws [1] and disconnect the connector [2].
3. Remove the harness from the harness holder [3] and then remove the Duplex Transport Motor [4].

3.3.6 Duplex Reverse Motor (M9 DU)



1. Remove the Right Cover.
☞ 7
2. Remove two screws [1], disconnect the connector [2], and remove the Duplex Reverse Motor [3].

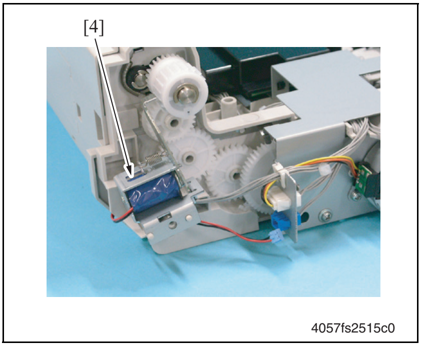
3.3.7 Duplex Registration Solenoid (SL6 DU)



1. Remove the Right Cover.

☞ 7

2. Disconnect the connector [1].
3. Remove one screw [2] and the Protective Cover [3].



4. Remove the Duplex Registration Solenoid [4].

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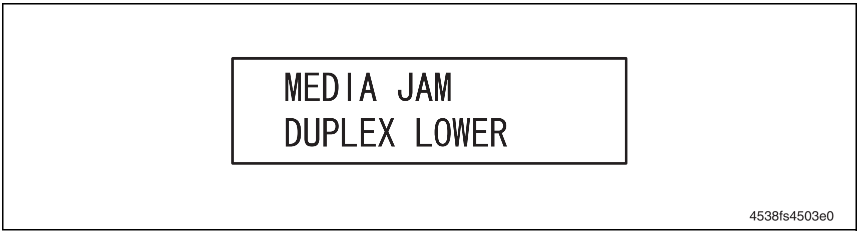
Troubleshooting

4. Jam Display

4.1 List of Display Messages

- When a paper misfeed occurs a message is displayed on the Control Panel.



MEDIA JAM
DUPLEX LOWER

4538fs4503e0

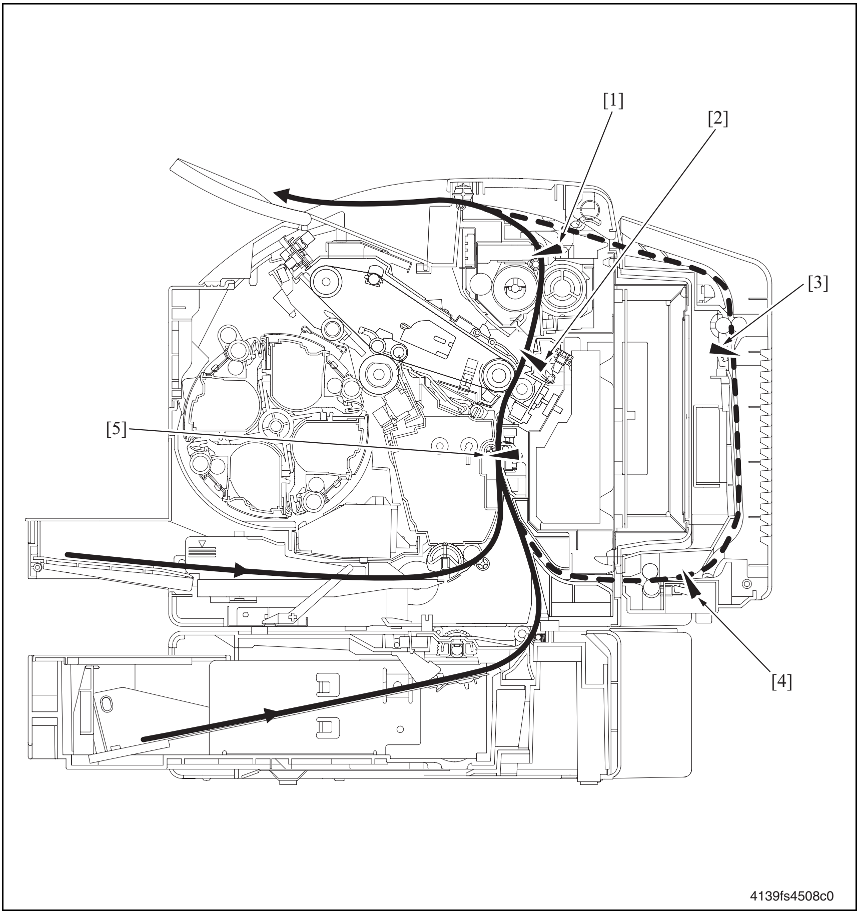
Display	Misfeed location	Misfeed clearing location	Ref. page
MEDIA JAM DUPLEX LOWER	Duplex Unit reverse drive/storage section	Duplex Unit Door	☞ 17
MEDIA JAM DUPLEX UPPER	Duplex Unit paper feed section		☞ 18

4.2 Misfeed Display Resetting Procedure

- Open the relevant door, clear the sheet of misfed paper, and close the door.

4.3 Sensor layout

4.3.1 magicolor 2430 DL (mounted with the Lower Feeder Unit and Duplex Unit)



[1]	Exit Sensor	PC7	[4]	Duplex Paper Loop Sensor	PC10 DU
[2]	Fusing Paper Loop Sensor	PC8	[5]	Registration Sensor	PC1
[3]	Duplex Transport Sensor	PC12 DU			

4.4 Solution

4.4.1 Initial Check Items

- When a paper misfeed occurs, first check the following initial check items.

Check Item	Action
Does the paper meet product specifications?	Change the paper.
Is paper curled, wavy, or damp.	Change the paper. Instruct the user in correct paper storage.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean or change the paper path.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or change the defective Paper Separator Finger.
Are the rolls/rollers dirty, deformed, or worn?	Clean or change the defective roll/roller.
Are the Edge Guide and Trailing Edge Stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators found operational when checked for correct operation?	Correct or change the defective actuator.

4.4.2 Misfeed at Duplex Unit reverse drive/storage section

A. Detection Timing

Type	Description
Detection of misfeed at Duplex Unit reverse drive/storage section	The Duplex Transport Sensor (PC12 DU) is not unblocked even after the lapse of a predetermined period of time after the Duplex Reverse Motor (M9 DU) has been energized for reverse drive.

B. Action

Relevant Electrical Parts	
Duplex Transport Sensor (PC12 DU) Duolex Transport Motor (M8 DU) Duplex Reverse Motor (M9 DU)	Duplex Board (PWB-A DU) Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PC12 DU sensor.	PWB-A DU PJ5A DU-3 (ON)	3-C
3	Check M8 DU for correct operation.	PWB-A DU PJ2A DU-1~4 (pulse)	5~6-C
4	Check M9 DU for correct operation.	PWB-A DU PJ2A DU-5~8 (pulse)	5~6-C~D
5	Change PWB-A DU.	-	-
6	Change PWB-A.	-	-

4.4.3 Misfeed at Duplex Unit paper feed section

A. Detection Timing

Type	Description
Detection of mis-feed at Duplex Unit paper feed section	The Duplex Paper Loop Sensor (PC10 DU) is not unblocked even after the lapse of a predetermined period of time after a Duplex paper feed sequence has been started.
	The Duplex Paper Loop Sensor (PC10 DU) is not blocked even after the lapse of a predetermined period of time after a Duplex paper feed sequence has been started.
	The Duplex Transport Sensor (PC12 DU) is not blocked even after the lapse of a predetermined period of time after a Duplex paper feed sequence has been started.

B. Action

Relevant Electrical Parts	
Duplex Paper Loop Sensor (PC10 DU) Duplex Transport Sensor (PC12 DU) Duolex Transport Motor (M8 DU)	Duplex Board (PWB-A DU) Mechanical Control Board (PWB-A)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Initial check items.	-	-
2	Check the PC10 DU sensor.	PWB-A DU PJ3A DU-3 (ON)	3-G
3	Check the PC12 DU sensor.	PWB-A DU PJ5A DU-3 (ON)	3-C
4	Check M8 DU for correct operation.	PWB-A DU PJ2A DU-1~4 (pulse)	5~6-C
5	Change PWB-A DU.	-	-
6	Change PWB-A.	-	-

5. Error Codes

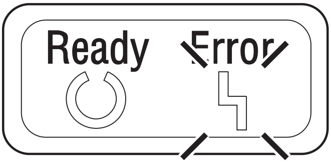
5.1 Trouble code

- When a malfunction occurs, the printer shows the corresponding trouble status by means of the Error indicator on the control panel or LCD display.

5.1.1 Indication of the Error indicator (magicolor 2400W)

- The CPU circuit of the printer performs a self-diagnostics procedure. If a faulty condition is encountered, the Error indicator blinks twice a second.

☞ For details of the Error indicator, see “Adjustment/Setting”.



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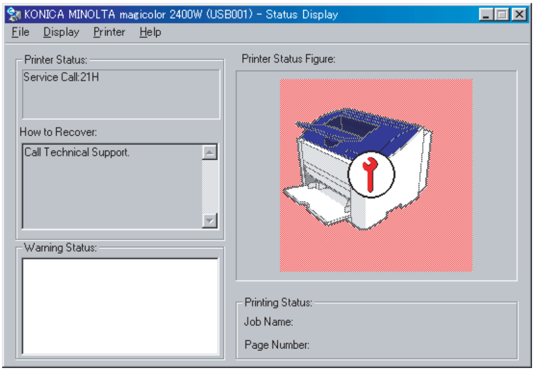
A. Check the Trouble Code

- If trouble status is displayed by the Error indicator, the corresponding trouble code can be checked with the Status Display of the PC connected to the printer.



KONICA MINOLTA magicolor 2400W (USB001) - Status Display

Printer Status:
Service Call:21H

How to Recover:
Call Technical Support.

Warning Status:

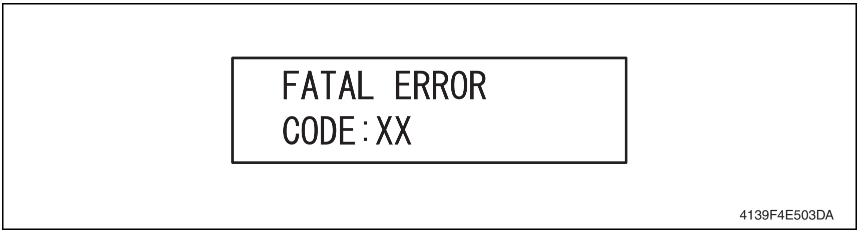
Printer Status Figure:

Printing Status:
Job Name:
Page Number:

4139fs4504e0

5.1.2 Indication of the LCD display (magicolor 2430 DL)

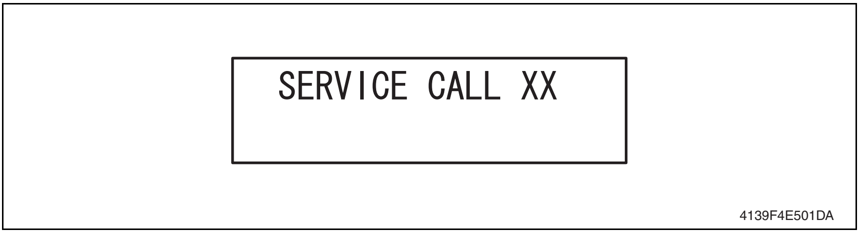
- The printer’s CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding trouble code and maintenance call mark on the Control Panel.



FATAL ERROR
CODE:XX

△1 5.1.3 Indication of the LCD display (magicolor 2450)

- The printer’s CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding trouble code and maintenance call mark on the Control Panel.



SERVICE CALL XX

5.1.4 Trouble code list

Code	Item	Detection Timing
0F	Duplex Cooling Fan Motor malfunction	• The Fan Motor Lock signal remains HIGH for a predetermined consecutive period of time while the Power Supply Cooling Fan Motor remains energized.

5.2 Solution

5.2.1 0F: Duplex Cooling Fan Motor malfunction

Relevant Electrical Parts	
Duplex Cooling Fan Motor (M10 DU)	Duplex Board (PWB-A DU)

Step	Action	WIRING DIAGRAM	
		Control Signal	Location (Electrical Component)
1	Check the M10 connector for proper connection and correct as necessary.	-	-
2	Check the fan for possible overload and correct as necessary.	-	-
3	Check the PWB-A DU connector for proper connection and correct as necessary.	-	-
4	M10 DU operation check.	-	-

6. Miscellaneous Malfunctions

6.1 List of miscellaneous malfunctions

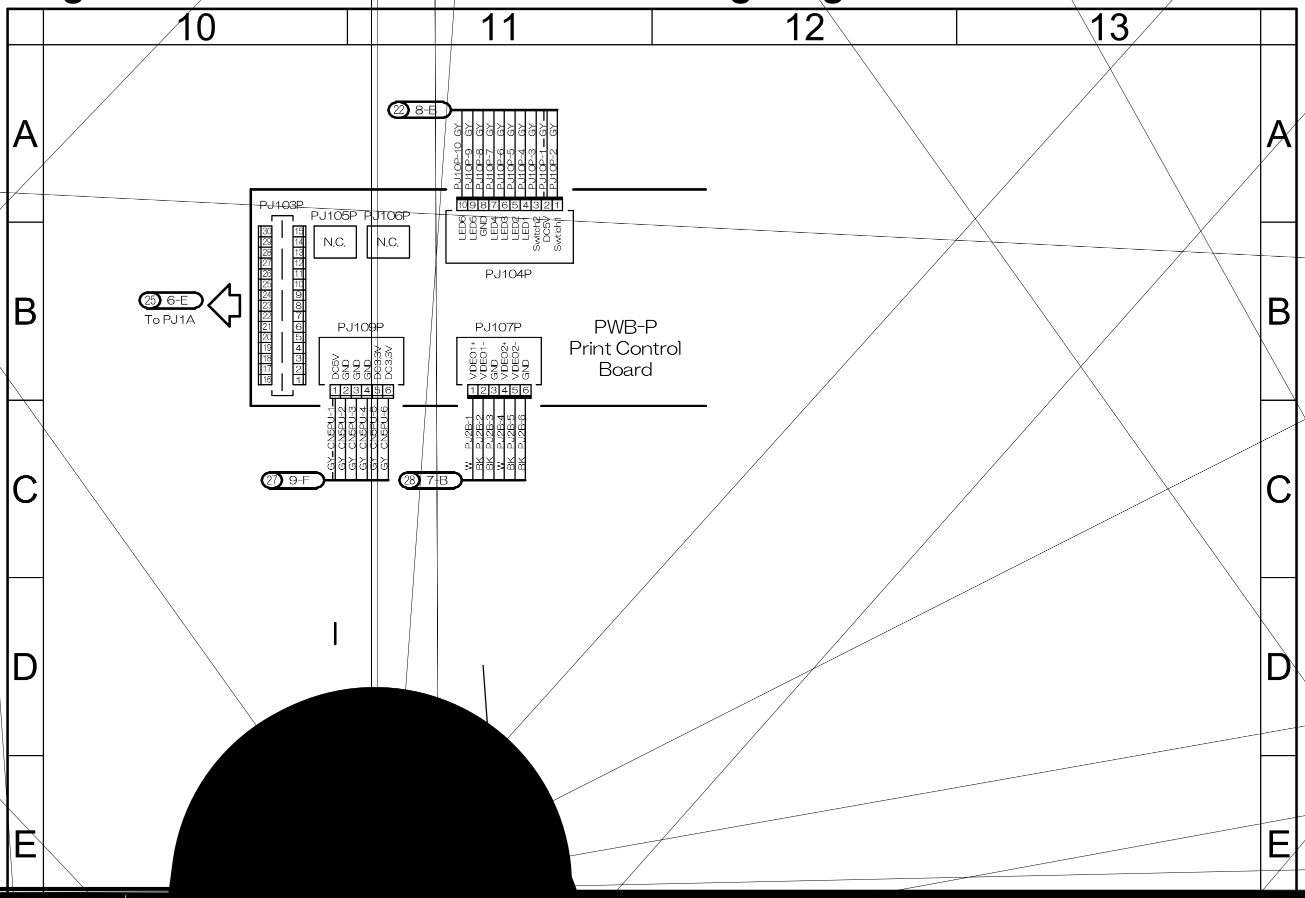
Message	Description
ILLEGAL ERROR DUPLEX	• The Duplex Unit is not mounted. • A 2-sided print cycle is run using the type and size of paper that are not good for 2-sided printing.

6.2 ILLEGAL ERROR DUPLEX

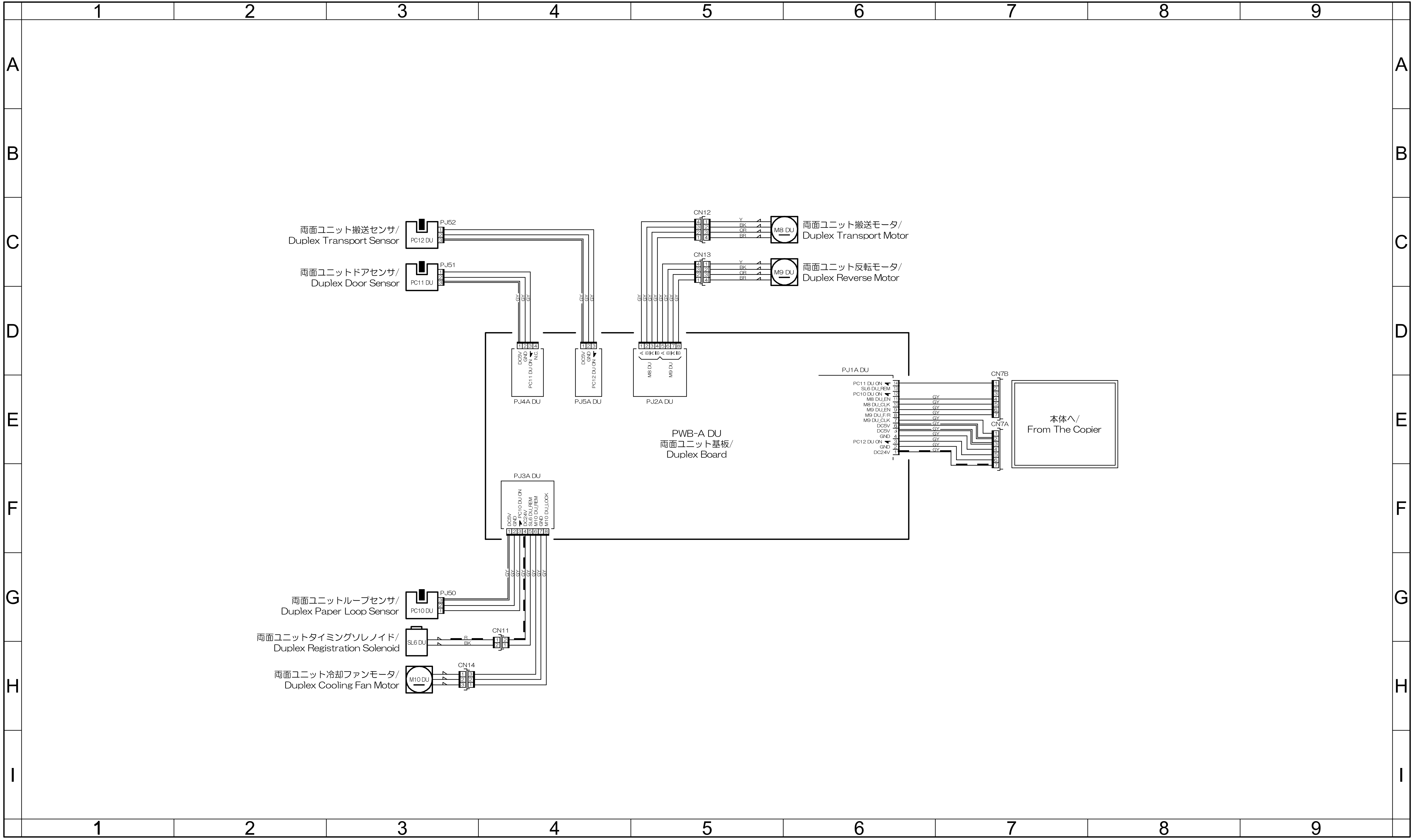
Relevant Electrical Parts	
Duplex Board (PWB-A DU)	Mechanical Control Board (PWB-A) Print Control Board (PWB-P)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (electrical component)
1	Check the printer driver settings.	-	-
2	Check the PWB-A DU connector for proper connection and correct as necessary.	-	-
3	Check the PWB-A connector for proper connection and correct as necessary.	-	-
4	Check the PWB-P connector for proper connection and correct as necessary.	-	-
5	Change PWB-A DU.	-	-
6	Change PWB-P.	-	-
7	Change PWB-A.	-	-

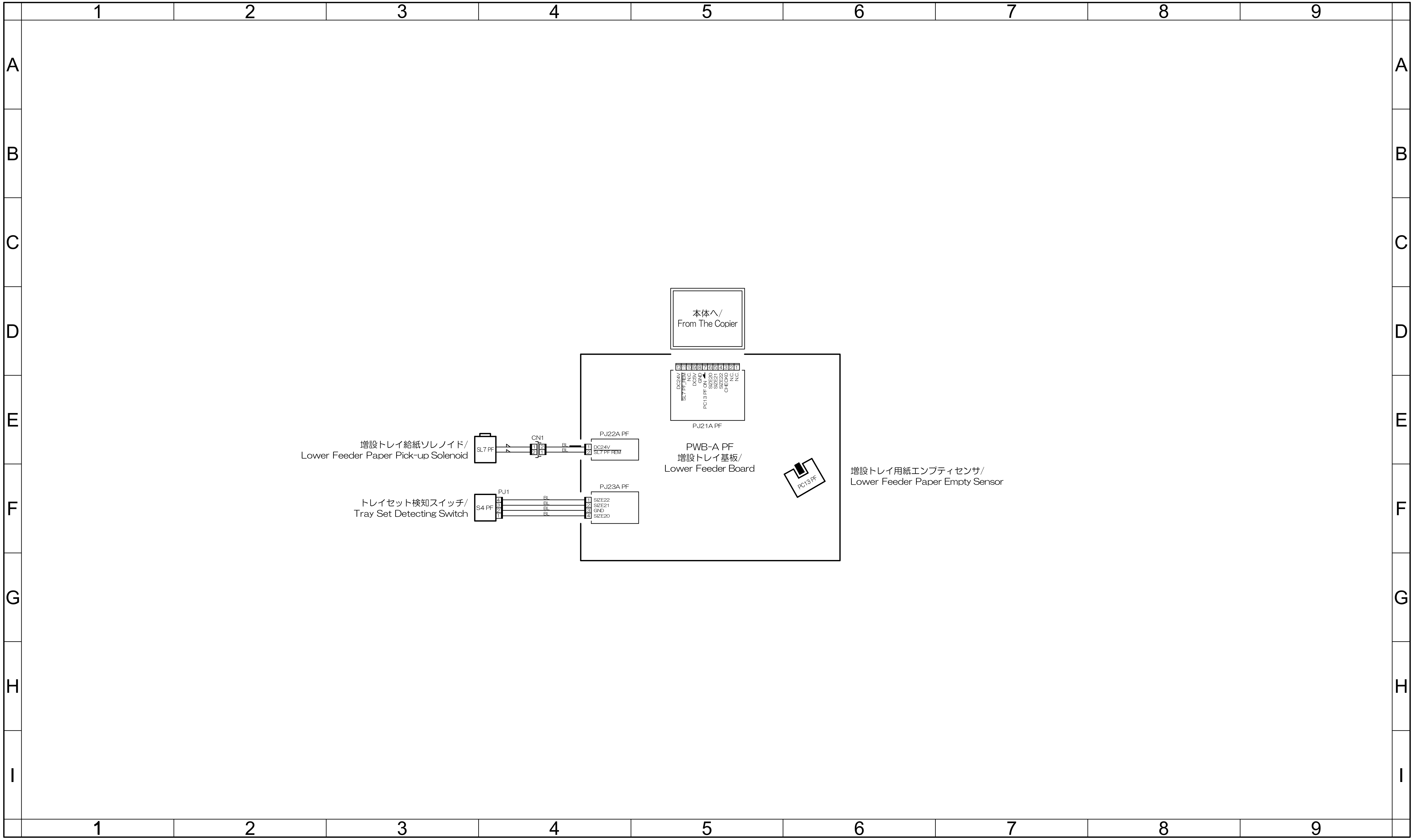
magicolor 2400W/2430 DL Overall Wiring Diagram



両面プリントユニット 全体配線系統図/DUPLEX UNIT Overall Wiring Diagram



給紙ユニット 全体配線系統図/Lower Feeder Unit Overall Wiring Diagram



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