

SERVICE MANUAL

FIELD SERVICE

magicolor 1600W magicolor 1650EN

FIELD SERVICE TOTAL CONTENTS

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SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the Safety and Important Warning Items described below to understand them before doing service work.

IMPORTANT NOTICE

Because of possible hazards to an inexperienced person servicing this product as well as the risk of damage to the product, Konica Minolta Business Technologies, INC. (hereafter called the KMBT) strongly recommends that all servicing be performed only by KMBT-trained service technicians.

Changes may have been made to this product to improve its performance after this Service Manual was printed. Accordingly, KMBT does not warrant, either explicitly or implicitly, that the information contained in this Service Manual is complete and accurate.

The user of this Service Manual must assume all risks of personal injury and/or damage to the product while servicing the product for which this Service Manual is intended.

Therefore, this Service Manual must be carefully read before doing service work both in the course of technical training and even after that, for performing maintenance and control of the product properly.

Keep this Service Manual also for future service.

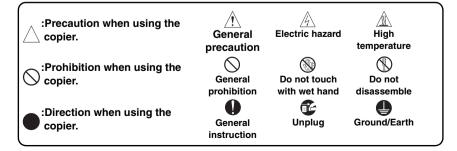
DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

In this Service Manual, each of three expressions "ADANGER", "AWARNING", and "ACAUTION" 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:



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

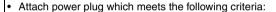
[2] POWER PLUG SELECTION

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

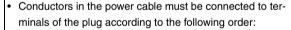
⚠ WARNING

- 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.



- 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.



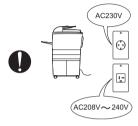
Black or Brown: L (line)

White or Light Blue: N (neutral)

Green/Yellow: PE (earth)

Wrong connection may connect enfoquered with

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 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.

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.



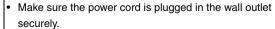
 Plug the power cord into the dedicated wall outlet with a capacity greater than the maximum power consumption.
 If excessive current flows in the wall outlet, fire may result.

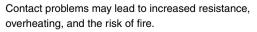


 If two or more power cords can be plugged into the wall outlet, the total load must not exceed the rating of the wall outlet.



If excessive current flows in the wall outlet, fire may







Connection to Power Supply

⚠ WARNING

Check whether the product is grounded properly.

If current leakage occurs in an ungrounded product, we

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.

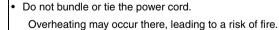
Overheating may occur there, leading to a risk of fire.



 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 or cord set (with plug and connector on each end) specified by KMBT.

Using the damaged power cord may result in fire or electric shock.









Power Plug and Cord

! WARNING

 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

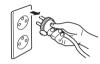


The risk of electric shock exists.

 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.



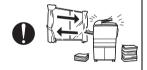
Ventilation

! 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



Fixing

! 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.



3. Servicina

Inspection before Servicing

ACAUTION

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



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

 Before conducting an inspection, be sure to disconnect the power plugs from the product and options.
 When the power plug is inserted in the wall outlet, some units are still powered even if the POWER switch is turned OFF. Arisk 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

 When taking a report of problems from a user, check each part and repair properly.



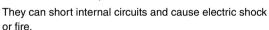
A risk of product trouble, injury, and fire exists.

 Check the exterior and frame for edges, burrs, and other damages.



The user or CE may be injured.

 Do not allow any metal parts such as clips, staples, and screws to fall into the product.



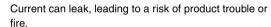




Check wiring for squeezing and any other damage.
 Current can leak, leading to a risk of electric shock or fire.



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





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



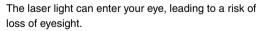


 Check electrode units such as a charging corona unit for deterioration and sign of leakage.

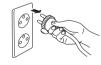
Current can leak, leading to a risk of trouble or fire.



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





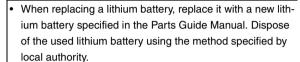


Safety Checkpoints

/ WARNING

• 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.



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.

fire.

- · 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
- 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.



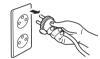


Handling of Service Materials

! CAUTION

 Unplug the power cord from the wall outlet.
 Isopropyl alcohol and acetone 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.





 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.

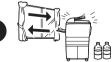


A risk of fire exists.

A risk of fire exists.

When using any solvent, ventilate the room well.
 Breathing large quantities of organic solvents can lead to discomfort.





4. Fuse

Fuse

ACAUTION

CAUTION

Double pole / neutral fusing

ATTENTION

Double pôle / Fusible sur le neutre

Used Batteries Precautions

Handling of batteries

ACAUTION

All Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.

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

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

Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

France

ATTENTION

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

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

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

Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved feilagtig håndtering.

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

Levér det brugte batteri tilbage til leverandøren.

Finland, Sweden

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.

Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING

Explosionsfara vid felaktigt batteribyte.

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

Kassera använt batteri enligt fabrikantens instruktion.

Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.

Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.

Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

[4] LASER SAFETY

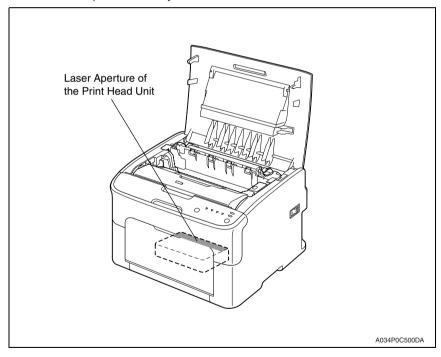
 This is a digital machine certified as a Class 1 laser product. There is no possibility of danger from a laser, provided the machine is serviced according to the instruction in this manual.

4.1 Internal Laser Radiation

semiconductor laser	
Maximum power of the laser diode	20 mW
Maximum average radiation power (*)	13.3 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.



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	20 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	20 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	20 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	20 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	20 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

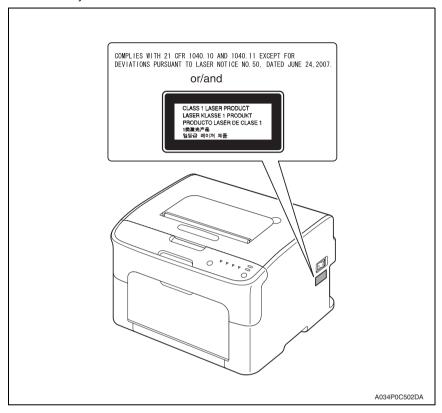
ADVERSEL

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	20 mW	
bølgelengde	775 - 800 nm	

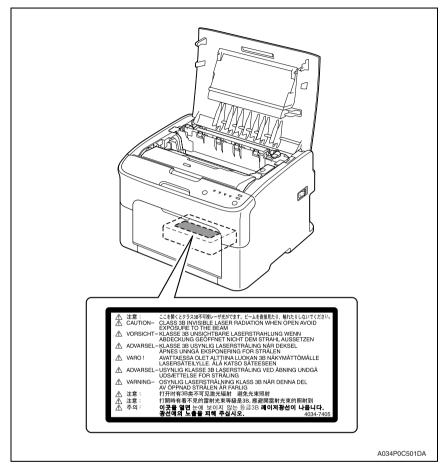
4.2 Laser Safety Label

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



4.3 Laser Caution Label

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



4.4 PRECAUTIONS FOR HANDLING THE LASER EQUIPMENT

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

SAFETY INFORMATION

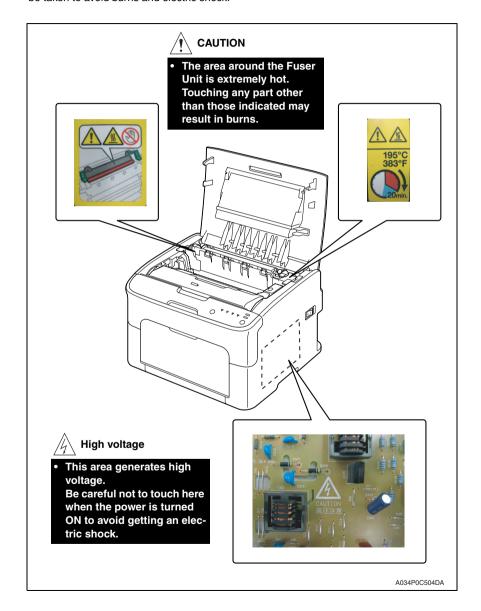
IMPORTANT NOTICE

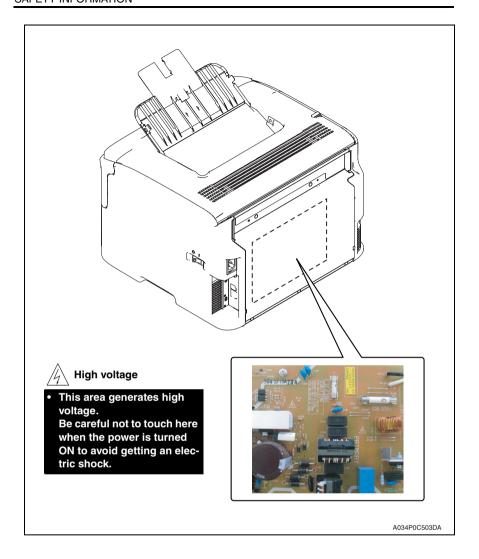
The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States.

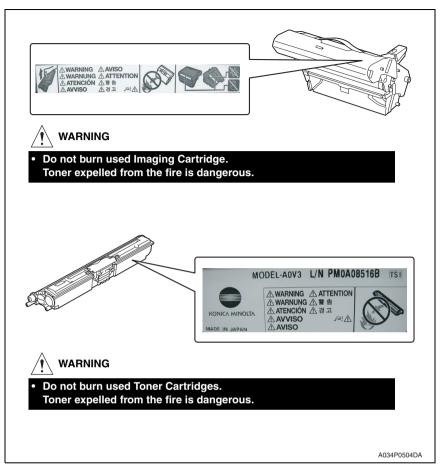
This copier is certified as a "Class 1" laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. Since radiation emitted inside this copier is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

INDICATION OF WARNING ON THE MACHINE

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









You may be burned or injured if you touch any area that you are advised by any
caution label to keep yourself away from. Do not remove caution labels. And also,
when the caution label is peeled off or soiled and cannot be seen clearly, replace
it with a new caution label.

MEASURES TO TAKE IN CASE OF AN ACCIDENT

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

Composition of the service manual

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

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

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

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

<Theory of Operation section>

OUTLINE: Explanation of system configuration,

product specifications, unit configuration, and paper path

COMPOSITION/OPERATION: Explanation of configuration of each unit,

operating system, and control system

<Field service section>

OUTLINE: Explanation of system configuration, and product

specifications

MAINTENANCE: Explanation of service schedule, maintenance steps, ser-

vice tools, removal/reinstallation methods of major parts,

and firmware version up method etc.

ADJUSTMENT/SETTING: Explanation of utility mode, service mode, and mechanical

adjustment etc.

TROUBLESHOOTING: Explanation of lists of jam codes and error codes, and

their countermeasures etc.

APPENDIX: Parts layout drawings, connector layout drawings, timing

chart, overall layout drawing are attached.

Notation of the service manual

A. Product name

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

(1) magicolor 1600W/magicolor 1650EN Main body

(2) Microsoft Windows NT 4.0: Windows NT 4.0 or Windows NT

Microsoft Windows 2000: Windows 2000
Microsoft Windows XP: Windows XP
Microsoft Windows Vista: Windows Vista

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

Windows NT 4.0/2000

Windows NT/2000/XP/Vista

B. Brand name

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

C. Feeding direction

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

<Sample notation>

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



SERVICE MANUAL

FIELD SERVICE

magicolor 1600W magicolor 1650EN Main body

Revision history

After publication of this service manual, the parts and mechanism may be subject to change for improvement of their performance.

Therefore, the descriptions given in this service manual may not coincide with the actual machine.

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

Revision mark:

- To indicate clearly a section revised, \bigwedge is shown at the left margin of the revised section. The number inside \bigwedge represents the number of times the revision has been made.
- To indicate clearly a page that contains the revision, Λ is shown near the page number of the corresponding page.

The number inside **\(\Lambda \)** 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:
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 The revision marks for Ver. 2.0 are left as they are.

2009/06	1.02	A	Error correction
2009/04	1.01	A	Error correction
2008/11	1.0	_	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

Troubleshooting

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magicolor 1600W/1650EN Main body

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Troubleshooting

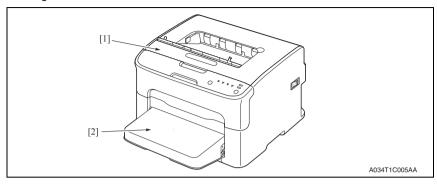
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OUTLINE

1. System configuration

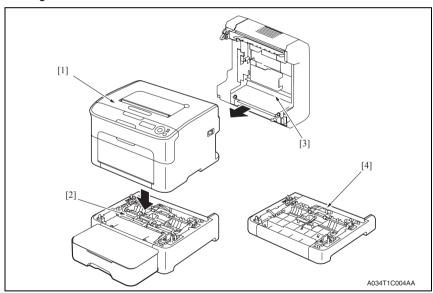
A. magicolor 1600W



[1] Main body

[2] Dust cover (option)

B. magicolor 1650EN



- [1] Main body
- [2] Lower Feeder Unit (option)
- [3] Duplex Option (option)
- [4] Duplex Option Attachment (Option)

2. Product specifications

A. Type

Туре	Desktop full-color laser beam printer			
Printing system	Semiconductor laser and electrostatic image transfer to plain paper			
Exposure system	2 laser diodes and polyg	on mirror		
PC drum type	OPC (organic photo con-	ductor)		
Photoconductor cleaning	Blade cleaning system			
Resolution	magicolor 1600W 1200 x 600 dpi, 600 x 600 dpi			
Resolution	magicolor 1650EN	600 dpi x 600 dpi x 4 bit or 600 dpi x 600 dpi x 1 bit		
	magicolor 1600W	One-way system (Tray 1: 200 sheets)		
Media feeding system	magicolor 1650EN	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	ng system		
Charging system	DC comb electrode score	DC comb electrode scorotron system		
Image transfer system	Intermediate transfer belt system			
Media separating system	Curvature separation + Charge-neutralizing system			
Fusing system	Roller fusing			
Media exit system	Face down (Output tray capacity: 100 sheets)			

Outline

B. Functions

Warm-up time	magicolor 1600W	Average 30 seconds		
warm-up lime	magicolor 1650EN	Average 45 seconds		
Droopes anond	Plain paper	126.78 mm/second		
Process speed	Thick stock	63.39 mm/second		
	Digin nanor	Full color		22 seconds 35 seconds
First-Page-Out Time (A4)	Plain paper	Monochrome		13 seconds 26 seconds
	Thick stock	Full color	1-sided: 3	30 seconds
	THICK SLOCK	Monochrome	1-sided: 2	21 seconds
Print speed (A4)	Digin nanor	Full color	1-sided: 5 pages/minute 2-sided: 5 pages/minute	
	Plain paper	Monochrome	1-sided: 20 pages/minute 2-sided: 13.2 pages/minute	
	Thick stock	Full color	1-sided: 2	2.6 pages/minute
		Monochrome	1-sided: 4	4.4 pages/minute
	Media width: 92 to 2	16 mm (3.6" to 8.5")		
Custom media sizes	Media length: 195 to 356 mm (Plai 184 to 297 mm (Thio	1 1 /		
Media types	 Plain paper (60 to 90 g/m² / 16 to 24 lb) Thick stock 1 (91 to 163 g/m² / 24.4 to 43.4 lb) Thick stock 2 (164 to 209 g/m² / 43.7 to 55.6 lb) Postcards Envelopes Letterhead Label sheet 			
Tray capacities	Plain paper and lette Thick stock, postcard Envelopes	d letterhead :200 sheets stock, and glossy stock :50 sheets :10 sheets		:50 sheets

Lower Feeder Unit: Only plain paper and recycled paper weighing 60 to 90 g/m²

(16 to 24 lb) can be loaded.

Duplex Option: Only plain paper and recycled paper weighing 60 to 90 g/m²

(16 to 24 lb) can be fed through the unit.

For details, see the service manual for each option.

C. Maintenance

D. Machine specifications

Power requirements	voltage:	AC 100 V ± 10 % AC 110 to 127 V ± 1 AC 220 to 240 V ± 1		
·	Frequency:	60 Hz ± 3 Hz (for N 50/60 Hz ± 3 Hz (for	·	
Max power	magicolor 1600W	970 W or less (100 \) 1020 W or less (220		
consumption	magicolor 1650EN	1000 W or less (100 V, 120 V) 1060 W or less (220 V to 240 V)		
Dimensions	396 mm (W) x 380 mm (D) x 275 mm (H)			
Weight		kg (without consuma kg (with consumable	•	
	During standby	magicolor 1600W	29 dB (A)	
Operating noise	During Standby	magicolor 1650EN	29 dB (A)	
	During printing	magicolor 1600W	49 dB (A): Color 51 dB (A): monochrome	
		magicolor 1650EN	49 dB (A): Color 50 dB (A): monochrome	

E. 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)

F. Controller

(1) magicolor 1600W

Туре	Built-in type controller
Standard memory	16 MB
Interface	USB 2.0 compliant
Support	Microsoft Windows Vista Home Basic/Home Premium/Ultimate/Business/ Enterprise Windows Vista Home Basic/Home Premium/ Ultimate/Business/Enterprise x64 Edition, Windows XP Home Edition/Professional (Service Pack 2 or later) Windows XP Professional x64 Edition Windows Server 2003, Windows Server 2003 x64 Edition Windows 2000 (Service Pack 4 or later)

(2) magicolor 1650EN

Туре	Built-in type controller
Standard memory	256MB
Interfaces	USB 2.0 and USB 1.1 compliant, 10Base-T/100Base-TX (IEEE 802.3) Ethernet
Support	Microsoft Windows Windows Server 2008 Standard/Enterprise/Datacenter, Vista Home Basic/Home Premium/Ultimate/Business/Enterprise, WindowsVista Home Basic /Home Premium /Ultimate/Business /Enterprise x64 Edition, Windows XP Home Edition/Professional (Service Pack 1 or later; Service Pack 2 or later is recommended), Windows XP Professional x64 Edition, Windows Server 2003, Windows Server 2003 x64 Edition, Windows 2000 (Service Pack 4 or later) Mac OS X (10.2 or later; We recommend installing the newest patch), Mac OS X Server (10.2 or later) Red Hat Linux 9.0, SuSE Linux 8.2

NOTE

• These specifications are subject to change without notice.

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MAINTENANCE

3. Periodical check

3.1 Maintenance items

3.1.1 Parts to be replaced by users (CRU)

Class	Part to be replaced	Number of prints	Clean	Replace
	Standard in-box toner cartridge (K) *1	500 (Continuous printing)		•
	Standard in-box toner cartridge (C, M, Y)	500 (Continuous printing)		•
	Standard in-box toner cartridge (K) *2	1,000 (Continuous printing)		•
	Standard-capacity toner cartridge (C, M, Y)	1,500 (Continuous printing)		•
Processing section	High-capacity toner cartridge (C, M, Y, K)	2,500 (Continuous printing)		•
		Monochrome 45,000 (Continuous printing) *3		
	Imaging cartridge	Monochrome 10,000 (1P/J) *3		
	imaging caranage	Full Color 11,250 (Continuous printing) *3		
		Full Color 7,500 (1P/J) *3		
	PH window	When a malfunction occurs	•	
Fusing section	Fuser unit	50,000		•
Tray 1 media feed section	Media feed roller	When malfunction occurs	•	
Tray 2 media feed section	Media feed roller	When malfunction occurs	•	
Duplex option	Transport roller	When malfunction occurs	•	
transport section	Media feed roller *4	when manunction occurs	•	

^{*1:} Only magicolor 1600W

^{*2:} Only magicolor 1650EN

^{*3:} In case of single side printing for normal paper of A4/Letter size

^{*4:} Only when the duplex option attachment is installed.

laintenance

3.2 Concept of parts life

	Description	on	Near life value	Life value	Max. life value
		High-capacity toner cartridge (C, M, Y, K)	2,350 pages	2,500 pages	3,500 pages *1
Toner	The consumption rates are calculated from the dot counter and the image	Standard-capacity toner cartridge (C, M, Y)	1,350 pages	1,500 pages	2,100 pages *1
cartridge	counter and the life is reached when the consumption rate,	Standard in-box toner cartridge (K) *3	850 pages	1,000 pages	1,400 pages *1
	whichever is greater, reaches 100%.	Standard in-box toner cartridge (K) *2 / Standard in-box toner cartridge (C, M, Y)	350 pages	500 pages	700 pages *1
Imaging cartridge	The imaging cartridge drive tin with the printed page count an its life value is detected.	•	_	45,000 images	48,500 images
Waste toner bottle (inte- grated in I/C)	Detected with the waste toner A waste toner full condition is more images are produced aft full condition has been detected	detected when 200 er a waste toner near-	_	_	_
Fuser unit	The fuser unit drive time is counted based on the transport motor drive time. The consumption rates of the fuser unit drive time count and the printed page count are calculated and the life value is reached when the consumption rate, whichever is greater, reaches 100%.		_	50,000 prints	_
Transfer roller	The number of printed pages i	s counted.	_	50,000 prints	_

^{*1:} The machine prohibits the initiation of any new print cycle when the maximum life value is reached.



*2: Only magicolor 1600W

*3: Only magicolor 1650EN

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 given below) are met. They may be more or
less, depending on the machine operating conditions of each individual user.

Item	Description
Job type	Monochrome: 3 consecutive pages (3 pages/job) Full Color: 2 consecutive pages (2 pages/job)
Media size	A4S or LetterS
Color ratio	Black to Color = 1:1
Original density	ISO chart C/W ratio = 5% each color

3.3 Maintenance Procedure (periodical check parts)

3.3.1 Toner cartridge (C/M/Y/K)

A. Periodically replaced parts/cycle

- Standard in-box toner cartridge (C, M, Y, K): Every 500 prints
- Standard in-box toner cartridge (K): Every 1,000 prints
- Standard-capacity toner cartridge (C,M,Y): Every 1,500 prints
- High-capacity toner cartridge (C,M,Y,K): Every 2,500 prints

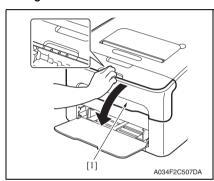
B. Removal procedure

(1) For magicolor 1600W

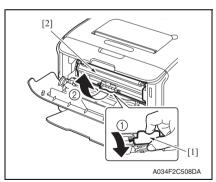
- 1. Check the color of the toner cartridge to be replaced on the control panel.
- 2. Press the Rotate Toner key and select the color of the toner cartridge to be replaced.

NOTE

Press the Rotate Toner key for more than 10 seconds to remove the toner cartridges of all colors.



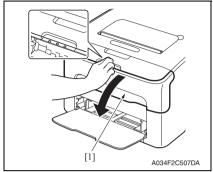
 Open the front cover [1] and make sure that the specific toner cartridge to be replaced is in the front.



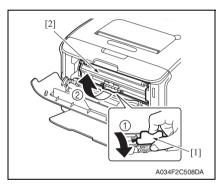
 Hold onto the handle [1] of the toner cartridge, pull it and remove the toner cartridge [2].

(2) For magicolor 1650EN

- 1. Check the color of the toner cartridge to be replaced on the control panel.
- 2. Select [MAIN MENU] [QUALITY MENU] [REPLACE TONER] from the menu and select the toner cartridge of the specific color of toner to be replaced. See P.69



3. Open the front cover [1] and make sure that the specific toner cartridge to be replaced is in the front.



4. Hold onto the handle [1] of the toner cartridge, pull it and remove the toner cartridge [2].

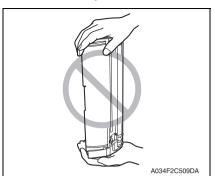
NOTE

· When all toner cartridges need to be removed and replaced manually, select [MAIN MENU] - [QUALITY MENU] - [REPLACE TONER] -[REMOVE ALL].

See P.69

magicolor 1600W magicolor 1650EN

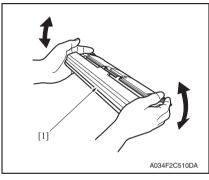
C. Reinstallation procedure



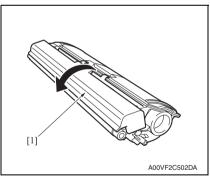
Do not let the toner cartridge stand upright or keep it in that upright posi-

NOTE

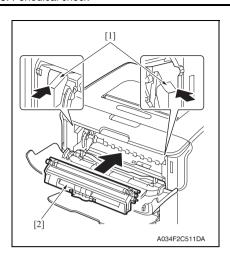
tion.



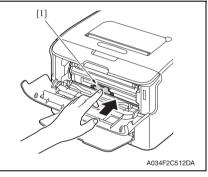
 Shake the toner cartridge [1] a few times to distribute the toner.



2. Remove the protective cover [1].



 Aligning the shaft [1] on both sides of the toner cartridge with the rails in the machine, install the toner cartridge [2].



4. Press in the toner cartridge until [1] it locks into place.

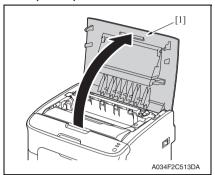
- 5. Close the front cover.
- 6. Press the Clear key.

3.3.2 Imaging cartridge

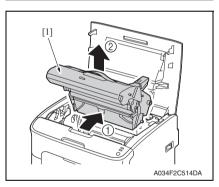
A. Periodically replaced parts/cycle

 Imaging cartridge (Monochrome continuous printing): Every 45,000 counts Imaging cartridge (Monochrome 1P/J): Every 10,000 counts Imaging cartridge (Full color continuous printing): Every 11,250 counts Imaging cartridge (Full color 1P/J): Every 7,500 counts

B. Replaced procedure



1. Open the top cover.



Hold onto the handle [1] of the imaging cartridge [2], pull it up slowly to remove the imaging cartridge as shown in the picture.

3. To reinstall, reverse the order of removal.

4. Service tool

4.1 Service material list

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

5. Firmware upgrade

5.1 For magicolor 1600W

5.1.1 Engine firmware / Controller firmware upgrading

NOTE

- · Make sure that the printer driver has been installed in the PC.
- Before updating the firmware, confirm the current Controller Firmware Version.
 See P.53
- 1. Connect the machine and PC using the USB cable.
- 2. Copy the firmware data and upgrading program in any arbitrary directory of the PC.
- 3. Double-click "UpdateFW.exe".
- 4. Click [Browse] and select File path, "XXXXX.bin".
- 5. Click [Update].



When [Transfer Successfully!] message appears on the screen, click [OK] to close the execution tool.



- 7. Turn OFF/ON the machine's main switch.
 - 8. Confirm the Firmware Version. See P.53

5.2 For magicolor 1650EN

5.2.1 Controller firmware upgrading

NOTE

- Make sure that the printer driver has been installed in the PC.
- Before updating the firmware, print Configuration Page to confirm the current Controller Firmware Version.

See P65

5. Firmware upgrade

A. USB connections

- 1. Connect the machine and PC using the USB cable.
- 2. Copy the firmware data (system3.img) to any directory on the PC.
- 3. Holding down the Menu Select key and ◀ key on the control panel at the same time, turn ON the printer's power switch.
- 4. To select YES for each of the items shown below, use the ◀ or ▶ key. Then press the Menu Select key.
- IUPDATE PRINTERI: YES
- [REPLACE CODE]: YES
- [REPLACE ALL FONT]: YES
- [REPLACE SYS FONT]: YES
- [UPDATE NOW]: YES
- 5. Make sure that the message "PRINTER UPDATE SEND DATA NOW" appears on the control panel.
- Start the command prompt and go to the directory in which the firmware data is stored.
- 7. Type "copy/b system.img \\xxxx\\yyyyy:" and then press the Enter key (xxxxx is the hostname) (yyyyy is the sharename)



8. Check the message on the control panel and make sure that [IDLE] is displayed.

NOTE

- Do not turn the printer's power switch OFF while the firmware is upgrading.
- 9. Print a Configuration Page and check the firmware version to verify the upgrade. See P.65

Maintenance

B. Network connections

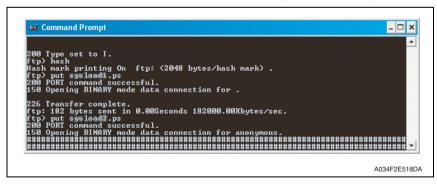
- 1. Connect the machine to the PC using an Ethernet cable.
- 2. Copy the firmware data (system.ps) to any directory on the PC.
- 3. Start the command prompt and go to the directory in which the firmware data is stored.
- 4. Specify the IP address of the machine to start FTP.
- 5. Check the user name and then press the Enter key to go to the next step.

```
_ 🗆 ×
 Command Prompt
D:\}ftp 150.17.82.193
Connected to 150.17.82.193.
220 KMBTC13233 FTP server (KMBT FTPD version 1.00) ready.
USB (150.17.82.193:(none)):
230 User logged in.
                                                                                                                                                         4139F2E510DA
```

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

```
_ 🗆 🗙
 Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
D:\>ffp 150.17.82.193
Connected to 150.17.82.193.
220 KMBTC13126 FTP server (KMBT FTPD version 1.90) ready.
User (150.17.82.193:(none)):
230 User logged in.
User (150:17:82:17):(IDNE//-
230 User logged in.
ftp) bin
290 Type set to I.
ftp) hash
Hash mark printing On ftp: (2048 bytes/hash mark) .
                                                                                                                                                                     4139F2E511DA
```

8. Type "put system.ps" and press the Enter key. If there are two or more firmware data files involved, repeat the same steps.



NOTE

- . Do not turn the printer's power switch OFF while the firmware is upgrading.
- 9. Print a Configuration Page and check the firmware version to verify the upgrade. See P.65

5.2.2 Boot Rom firmware rewriting

- 1. Connect the machine and PC using the USB cable.
- 2. Copy the firmware data (bootrom.img) to any directory on the PC.
- Press Menu Select key on [MAINTENANCE MENU GET BOOT VERSION] to confirm the present version of Boot Rom firmware. [GET BOOT VERSION X.X]
- 5. Push the Cancel key.
- Press ► key, and when [MAINTENANCE MENU UPDATE BOOTCODE] is displayed, press Menu Select key.
- Select item of [UPDATE BOOTCODE] and "Yes" with ◄/▶ key, and press Menu Select key.
- Make sure that the message "UPDATE BOOTCODE SEND DATA NOW" appears on the control panel.
- 9. Start the command prompt and go to the directory in which the firmware data is stored.
- 10. Type "copy/b bootrom.img \\xxxxx\yyyyy:" and then press the Enter key (xxxxx is the hostname) (yyyyy is the sharename)



11. Check the message on the control panel and make sure that [IDLE] is displayed.

NOTE

- · Do not turn the printer's power switch OFF while the firmware is upgrading.
- 12. Follow step 3 and 4 to confirm the version of Boot Rom firmware.

6. Other

6.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

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

B. Red-painted screws

NOTE

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

C. Variable resistors on board

NOTE

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

D. Removal of PWBs

! CAUTION

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

6.2 Disassembly/assembly/cleaning list (other parts)

6.2.1 Disassembly/assembly parts list

No	Section	Part name	Ref.Page
1		Rear cover	P.21
2	Cutavias nasta	Left cover	P.21
3	Exterior parts	Right cover	P.22
4		Operation panel	P.22
5		Print control board (PRCB)	P.23
6	Boards and etc.	MFP board (MFPB)	P.25
7	Boards and etc.	DC power supply (DCPU)	P.26
8		High voltage unit (HV)	P.28
9		Transfer roller unit	P.29
10	- Units	Fuser unit	P.30
11		PH unit	P.31
12		Media feed driving unit	P.33
13		Transport motor (M1)	P.36
14		Developing motor (M3)	P.37
15		DC power supply fan motor (FM1)	P.39
16		Ozone ventilation fan motor (FM2)	P.41
17	Other Parts	Tray1 media feed solenoid (SD1)	P.41
18	Other Parts	Registration roller solenoid (SD2)	P.42
19		2nd image transfer pressure/retraction solenoid (SD4)	P.43
20		Cleaning blade pressure/retraction solenoid (SD5)	P.44
21		Tray1 media feed roller	P.44
22		Separation pad	P.45

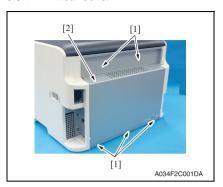
6.2.2 Cleaning parts list

No	Section	Part name	Ref.Page
1	Tray 1	Media feed roller	P.47
2	Processing section	Print head window	P.47

magicolor 1600W magicolor 1650EN

6.3 Disassembly/assembly procedure

6.3.1 Rear cover



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

6.3.2 Left cover

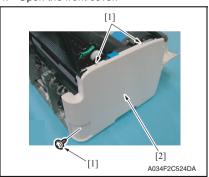




- Make sure to remove the rear cover before mounting the left cover in order to prevent the gasket attached to the cover from coming off.
 The gasket removing may lead electric leakage, which could cause electric shock during the machine operation. Or if the gasket flakes off into the machine, it may cause abnormal heat generation.
- 1. Remove the rear cover.

See P.21

- 2. Remove the operation panel
 - See P.22
- 3. Open the top cover.
- 4. Open the front cover.

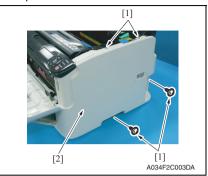


5. Remove three screws [1], and remove the left cover [2].

Maintenance

6.3.3 Right cover

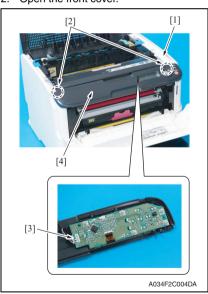
- Remove the operation panel See P.22
- 2. Open the top cover.
- 3. Open the front cover.



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

6.3.4 Operation panel

- 1. Open the top cover.
- 2. Open the front cover.



- 3. Remove the harness cover [1]
- Unhook two tabs [2] and disconnect the connector [3], and remove the operation panel [4].

NOTE

 The left picture shows magicolor 1650EN.

6.3.5 Print control board (PRCB)

NOTE

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

See P.92

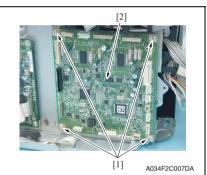
1. Remove the rear cover.

See P.21

2. Remove the left cover.

See P.21





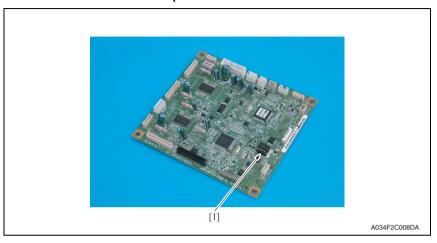
3. Disconnect all connectors and flat cables from the printer control board.

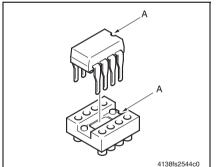
4. Remove four screws [1] and remove the printer control board [2].

5. Remove parameter chip (IC9) [1] from the printer control board.

NOTE

 When the printer control board (PRCB) has been replaced, be sure to remount parameter chip (IC9). Remove parameter chip (IC9) from the old printer control board and mount it on the new printer control board.





NOTE

 When mounting parameter chip (IC9), align the notches (indicated by "A" in the illustration).

6.3.6 MFP board (MFPB)

NOTE

- When the MFP board is replaced, upgrade the firmware to the latest version.
- When the MFP board is replaced with a new one, be sure to execute [BK CLEAR].
 See P.92
- 1. Remove the rear cover.
 - See P.21
- 2. Remove the right cover.

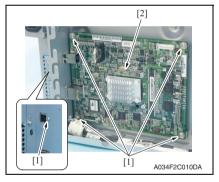
See P.22



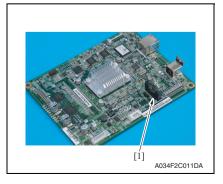
3. Disconnect all connectors and flat cables from the MFP board.

NOTE

 The left picture shows magicolor 1650EN.



4. Remove five screws [1] and remove the MFP board [2].



5. Remove the back up battery [1] on the MFP board.

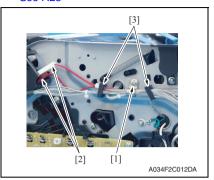
NOTE

• Only for magicolor 1650EN.

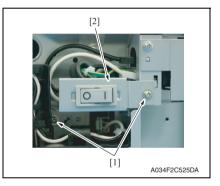
Maintenance

6.3.7 DC power supply (DCPU)

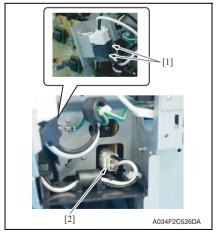
- 1. Remove the printer control board.
 - See P.23
- 2. Remove the MFP board. See P.25



- 3. Remove the screw [1].
- Disconnect two connectors [2] (Red and white), remove the harness from two wire saddles [3].

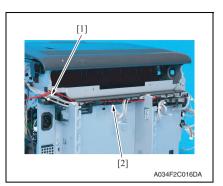


5. Remove two screws [1], and remove the main switch [2].

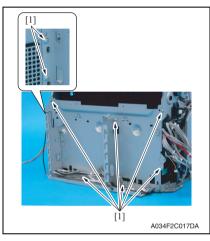


- 6. Disconnect two connectors (black) [1].
- 7. Disconnect the connector [2].

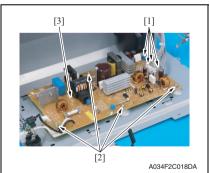
magicolor 1600W magicolor 1650EN



8. Remove the harness [1], and remove the harness guide [2].



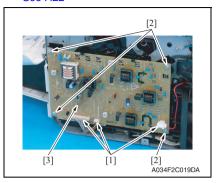
9. Remove eight screws [1] to pull out the DC power unit assy [2].



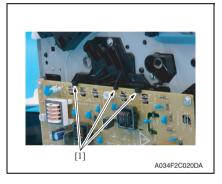
 Disconnect four connectors [1] and remove four screws [2], and remove the DC power supply assy [3].

6.3.8 High voltage unit (HV)

 Remove the right cover. See P.22



Disconnect three connectors [1] and remove four screws [2], and remove the high voltage unit [3].



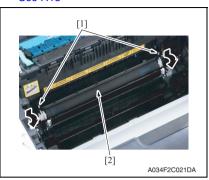
Precautions for reinstallation of the high voltage unit

- Make sure that the high voltage unit fits into the tab [1] at the location shown on the left.
- During the reinstallation procedure, make sure that the high voltage terminal is not deformed or left loose.

magicolor 1600W magicolor 1650EN

6.3.9 Transfer roller unit

Remove the imaging cartridge.
 See P.13



Press and pull the levers [1] at both sides forward to remove the transfer roller unit [2].

NOTE

 Use care not to lose the two springs of the transfer roller unit. They can easily come off.

3. To reinstall, reverse the order of removal.

NOTE

 When the transfer roller unit is replaced with a new one, it is necessary to reset the maintenance counter.

For magicolor 1600W: See P.59 For magicolor 1650EN: See P.87

· Make calibration after replacing the transfer roller unit.

For magicolor 1600W: See P.54 For magicolor 1650EN: See P.70

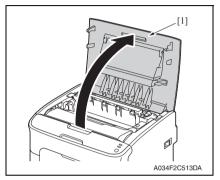
6.3.10 Fuser unit

∧ CAUTION

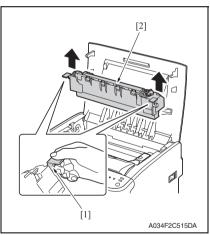


• The temperature gets high in the vicinity of the fuser unit. You may get burned when you come into contact with the area. Before replacement operations, make sure that more than 20 minutes have elapsed since the main and sub power switches were turned off.

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



2. Open the top cover.



3. Pull up the lever [1] to remove the fuser unit [2].

4. To reinstall, reverse the order of removal.

NOTE

 When the fuser unit is replaced with a new one, it is necessary to reset the maintenance counter.

For magicolor 1600W: See P.59 For magicolor 1650EN: See P.87

6.3.11 PH unit

⚠ CAUTION



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



- Do not disassemble or adjust the printer head unit.
 Laser beam generated during the above mentioned activity may cause blindness.
- 1. Remove the imaging cartridge.

See P.13

2. Remove the rear cover.

See P.21

3. Remove the right cover.

See P.22

4. Remove the left cover.

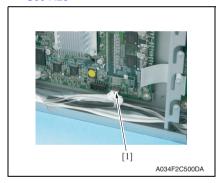
See P.21

5. Remove the control panel.

See P.22

6. Remove the high voltage unit.

See P.28

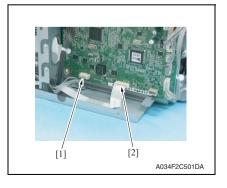


Disconnect the flat cable [1] on the MFP board.

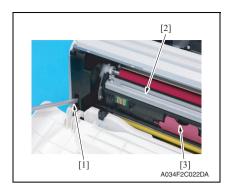
NOTE

• For magicolor 1600W: P108

• For magicolor 1650EN: CN5



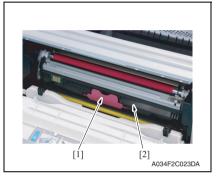
 Disconnect the connector (PJ19) [1] and flat cable (PJ18) [2] on the printer control board.



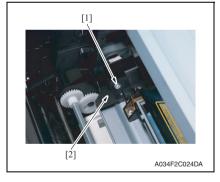
 Press the rack release lever [1] and then rotate the rack [2] so that the toner cartridge [3] is moved to a position, at which the toner cartridge can be easily removed.

NOTE

 When rotating the rack, use care not to touch the developing roller.

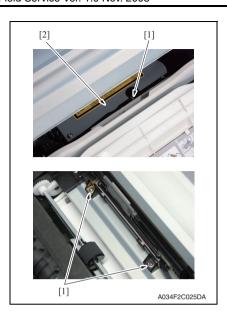


- 10. Hold onto the handle [1], pull it and remove the toner cartridge [2].
- 11. Repeat steps 9. and 10. to remove all toner cartridges.



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

magicolor 1600W magicolor 1650EN



13. Remove three screws [1], and remove the PH unit [2].

NOTE

 To remove the front screw, move the rack to the position where the screw can be removed easier and remove the screw using a short driver.

6.3.12 Media feed driving unit

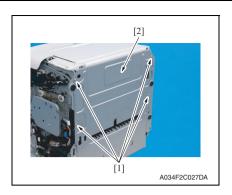
- Remove the right cover.
 See P.22
- 2. Remove the left cover. See P.21



Lay the main body of the printer on its back.

NOTE

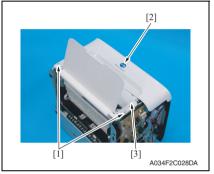
 Put the printer on the flat place such as a desk for this work, not to impose unreasonable force on the machine.



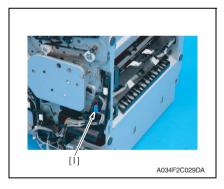
4. Remove four screws [1], and remove the sheet metal [2].

NOTE

 Use care not to lose the two springs.

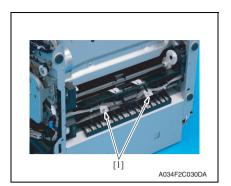


Remove two screws [1] and open the front cover [2] to remove the media feed tray unit [3].

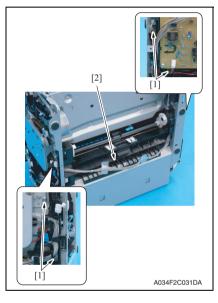


6. Disconnect the connector [1] of the tray1 media feed solenoid.

magicolor 1600W magicolor 1650EN



7. Remove the tapes [1] at two positions.



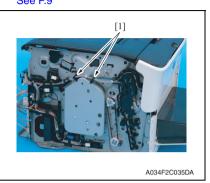
8. Remove four screws [1], and remove the media feed driving unit [2].

6.3.13 Transport motor (M1)

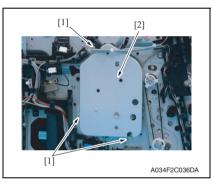
1. Remove the left cover.

See P.21

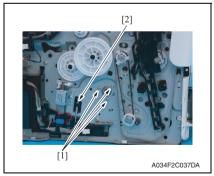
Remove all toner cartridges.See P.9



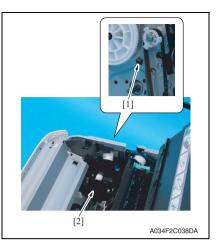
3. Remove the harness from two wire saddles [1].



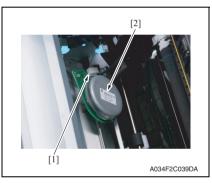
4. Remove three screws [1], and remove the sheet metal [2].



- 5. Remove three screws [1].
- 6. Remove the harness [2] from the harness guide.



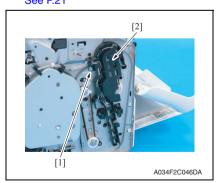
7. Unlock the tab [1], and remove the motor cover [2].



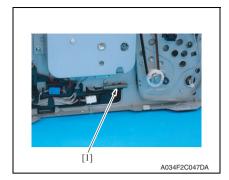
8. Disconnect the connector [1], and remove the transport motor [2].

6.3.14 Developing motor (M3)

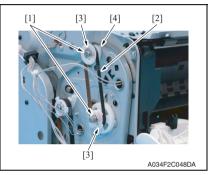
 Remove the left cover. See P.21



Remove the screw [1], and remove the harness guide [2] by taking out the harness.



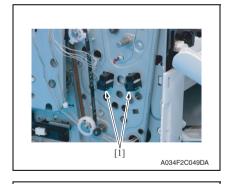
3. Remove the spring [1].



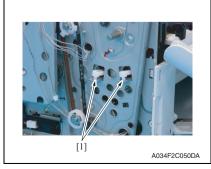
4. Remove two E-rings [1], belt [2], two gears [3] and bearing [4].

NOTE

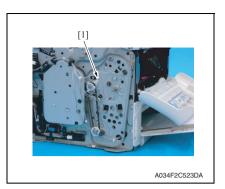
- Make sure to pull out the belt [2] and gears [3] forward parallel together.
- · Use care not to lose the shaft.



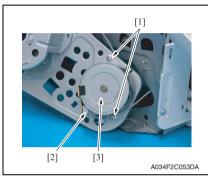
Remove two covers [1] by taking out the hooks at both sides.



6. Remove two levers [1].



7. Slide out the motor assy [1].

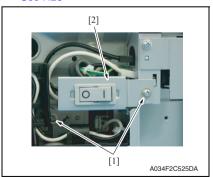


 Remove two screws [1] and disconnect the connector [2], and remove the developing motor [3].

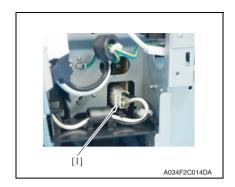
6.3.15 DC power supply fan motor (FM1)

- 1. Remove the rear cover.
 - See P.21
- 2. Remove the right cover.
 - See P.22
- 3. Remove the high voltage unit.

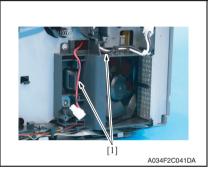
See P.28



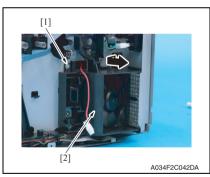
4. Remove two screws [1], and remove the main switch [2].



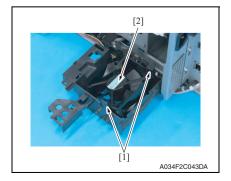
5. Disconnect the connector [1].



Remove the harness [1] from the wire saddle.



Remove the screw [1] to take out the DC power unit motor assy [2] as shown in the picture.

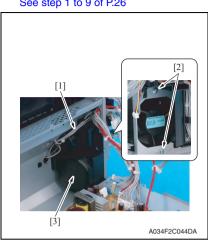


8. Unhook two tabs [1], remove the DC power supply fan motor [2].

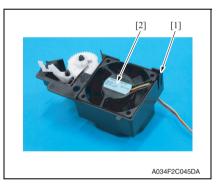
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6.3.16 Ozone ventilation fan motor (FM2)

Slide out the DC power supply assy.
 See step 1 to 9 of P.26



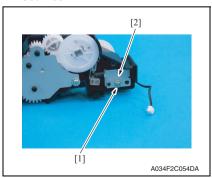
- 2. Remove the harness [1] from the harness guide.
- 3. Remove the screw [2], remove the ozone ventilation fan motor assy [3].



4. Unhook the tab [1], remove the ozone ventilation fan motor [2].

6.3.17 Tray1 media feed solenoid (SD1)

 Remove the media feed driving unit. See P.33



2. Remove the screw [1], and remove the tray1 media feed solenoid [2].

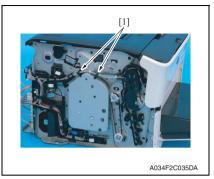
NOTE

Use care not to lose the two springs.

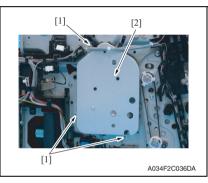
6.3.18 Registration roller solenoid (SD2)

1. Remove the left cover.

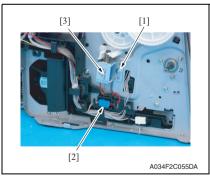
See P.21



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



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



 Remove the screw [1] and disconnect the connector [2], and remove the registration roller solenoid [3].

NOTE

Use care not to lose the two springs.

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6.3.19 2nd image transfer pressure/retraction solenoid (SD4)

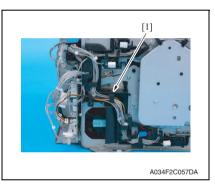
1. Remove the rear cover.

See P.21

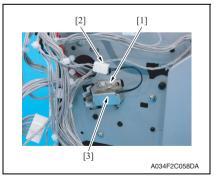
Remove the left cover.See P.21



3. Disconnect all connectors and flat cables from the printer control board.



4. Remove the harness from the harness guide [1] to remove it.



 Remove the screw [1] and disconnect the connector [2], and remove the 2nd image transfer pressure/ retraction solenoid [3].

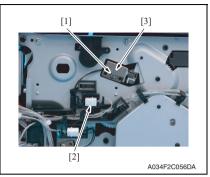
NOTE

Use care not to lose the two springs.

6.3.20 Cleaning blade pressure/retraction solenoid (SD5)

1. Remove the left cover.

See P.21



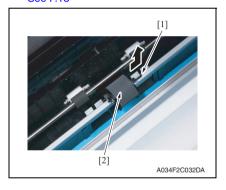
 Remove the screw [1] and disconnect the connector [2], and remove the cleaning blade pressure/retraction solenoid [3].

NOTE

 Use care not to lose the two springs.

6.3.21 Tray 1 media feed roller

- 1. Open the top cover.
- Remove the imaging cartridge. See P.13

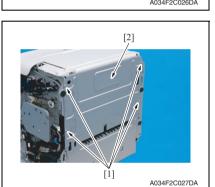


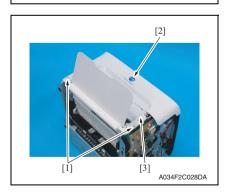
3. Remove the media feed roller [2] pulling up the hook [1].

6.3.22 Separation pad

- Remove the right cover.
 See P.22
- Remove the left cover.See P.21







3. Lay the main body of the printer on its back.

NOTE

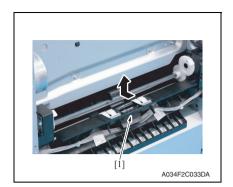
 Put the printer on the flat place such as a desk for this work, not to impose unreasonable force on the machine.

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

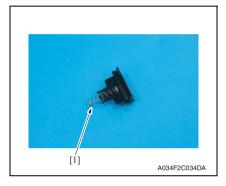
NOTE

Use care not to lose the two springs.

Remove two screws [1] and open the front cover [2] to remove the media feed tray unit [3].



6. Remove the separation pad [1].



7. Remove the spring [1].

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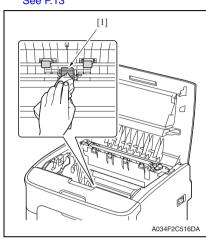
6.4 Cleaning procedure

NOTE

• The alcohol described in the cleaning procedure represents the isopropyl alcohol.

6.4.1 Tray 1 media feed roller

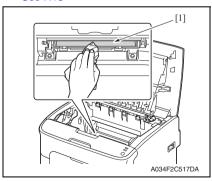
- 1. Open the top cover.
- Remove the imaging cartridge. See P.13



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

6.4.2 Printer head window

- Enter the [P/H CLEAN UP] mode. For magicolor 1600W: See P.53 For magicolor 1650EN: See P.70
- 2. Open the top cover.
- Remove the imaging cartridge. See P.13



4. Clean P/H window [1] with soft cloth.

Blank Page

ADJUSTMENT/SETTING

How to use the adjustment section

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

Advance checks

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

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

⚠ CAUTION

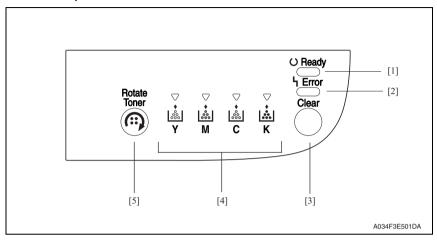
- Be sure to unplug the power cord of the machine before starting the service job procedures.
- If it is unavoidably necessary to service the machine with its power turned ON, use utmost care not to be caught in the scanner cables or gears of the exposure unit.
- Special care should be used when handling the fusing unit which can be extremely hot.
- The developing unit has a strong magnetic field. Keep watches and measuring instruments away from it.
- · Take care not to damage the PC drum with a tool or similar device.
- . Do not touch IC pins with bare hands.

Adjustment / Setting

8. Description of the control panel (magicolor 1600W)

8.1 Control panel display

 The control panel contains six LED indicators and two keys, the Rotate Toner key and the Clear key.



[1] Ready indicator

[4] Toner indicators

[2] Error indicator

[5] Rotate Toner key

[3] Clear 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

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• 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. State messages

Ready indicator (green)	Error indicator (orange)	Description
OFF	OFF	• Idle
ON	OFF	Ready to print.
Middle blinking	OFF	Processing data.
		Printing.
ON ON	ON	Initializing
	ON	Cancel job.
Slow blinking	OFF	Energy save mode

B. Error messages

Ready indicator (green)	Error indicator (orange)	Toner indicators (orange)	Description
Slow blinkin	g alternately	Toner status	Media empty/jam
OFF	Middle blinking	Toner status	Front cover or top cover is open.The imaging cartridge is not installed.
OFF	ON	Toner status	The toner cartridge is not installed. The toner cartridge is empty.
OFF	High blinking	Toner status	Toner out
OFF	ON	High blinking	The imaging cartridge is empty.
OFF	High blinking	Toner status	Process error.
Slow blinkin	Slow blinking alternately		Media size error.
OFF	Slow blinking	Toner status	Memory full.

C. Warning messages

Ready indicator (green)	Error indicator (orange)	Toner indicators (orange)	Description
ON	OFF	High blinking	The toner cartridge is not a genuine KONICA MINOLTA toner cartridge or not the correct type.
ON	OFF	Middle blinking	The installed toner cartridge is a wrong toner cartridge.
ON	Slow blinking	Toner status	The imaging cartridge is near end.
OFF	Slow blinking	All high blinking	The imaging cartridge is empty.
ON	OFF	Slow blinking	The toner cartridge in near empty.
ON	Slow blinking	Toner status	Process caution
High blinking	High blinking	All high blinking	Fatal error

8.1.3 Clear key

 The Clear 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.
- While data is being processed or printed (the green "Ready" indicator is blinking), hold down the Clear key for more than 5 seconds.
- Release the Clear 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 Clear key (less than 5 seconds) to reinitiate media feeding.
- 4. The print job continues.

8.1.4 Rotate Toner key

 The Rotate Toner key allows you to switch the printer from normal operation mode to change toner mode, eject all toner mode or print head cleanup mode.
 The mode that the printer enters depends on how long the Rotate Toner key is held down.

Mode	Key operation	Indicators status
Change toner mode	Press the Rotate Toner key (Less than 5 seconds)	Magenta toner indicator flashes. Replaceable toner indicator flashes every time the key is pressed.
Printer head cleanup mode	Press Rotate toner key for between 5 and 10 seconds.	All indicators blink once after the key has been held down for 5 seconds.
Eject all toner mode	Press Rotate toner key for more than 10 seconds.	All indicators flash once after the key has been held down for 10 seconds.

9. Remote panel utility (Only for magicolor 1600W)

• The Remote Panel Utility shows information about the current status of the printer and allows you to specify various settings.

NOTE

• In order to use the Remote Panel Utility, install it after installing the printer driver.

9.1 Opening

- 1. Connect the PC with user machine.
- 2. Double-click the Remote Panel Utility icon that appears in the notification area.

NOTE

 The Remote Panel Utility can be used when the printer is connected to a computer and both machines are turned on.

9.2 Panel tab

9.2.1 Remote Panel

	Display	Content
	Status	Allows the current status of the printer to be checked.
_	Display Configuration Page	Displays the configuration page. In addition, the contents of the configuration page can be saved as an INI file. See P.54
	T/C Change	Click the button to switch the printer to the selected operation mode. The following two modes are available. Change Toner: Used when replacing a toner cartridge. Select this mode, and then click the T/C Change button to switch the printer to the Change Toner mode. Eject All Toner: To remove all toner cartridges.
	Image Refresh	When faint lines occur at a pitch of 24 mm in the main scanning direction, aging of the toner cartridge is performed to help make the faint lines less noticeable. NOTE Execution of the image refresh mode consumes toner. This function does not help uneven density at a pitch of 25 mm.

lack

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

The lower left part of the [Counter] tab shows numerical values that represent consumable/periodic replacement parts (units) counter information.
 The table below explains counter information that is provided by each numerical data.

<Display on the [Counter] tab>

0/0/0/0/0/0/0/0/0/0/0/0/0

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

- · ·		• • •	
No.	Contents		
1	Number of times a High-capacity toner cartridge (K) has been replaced		
2	Number of times a S	Standard-capacity toner cartridge (K) has been replaced	
3	Number of times a H	ligh-capacity toner cartridge (C) has been replaced	
4	Number of times a S	Standard-capacity toner cartridge (C) has been replaced	
5	Number of times a H	ligh-capacity toner cartridge (M) has been replaced	
6	Number of times a S	Standard-capacity toner cartridge (M) has been replaced	
7	Number of times a H	ligh-capacity toner cartridge (Y) has been replaced	
8	Number of times a S	Standard-capacity toner cartridge (Y) has been replaced	
9	Rate of transfer roller use (%)		
10	Number of times a transfer roller has been replaced		
11	Rate of fuser unit use (%)		
12	Number of times a fuser unit has been replaced		
13	Imaging cartridge consumption		
14	Number of times a in	maging cartridge has been replaced	
1		Not used	
2		Not used	
3		Not used	
4		PC Print	
5	Application counter	Not used	
6	Application counter	Not used	
7		Not used	
8		Not used	
9		Not used	
10		Not used	

^{*1:} Start date of use begins when 100 prints are complete after the first new toner cartridge was detected following the main body installation.

9.2.2 Set Default

Display	Content
	Toner Low Message: Specifies whether a printer indicator blinks or a warning message appears in the status display box of the Remote Panel Utility when toner is about to run out. If Off is selected, neither of these notifications appear when the toner is about to run out. The default setting is On. "On" / Off
	Toner Out Stop: Specifies whether to stop or continue printing when a toner empty condition is detected. The default setting is On. "On" / Off
Apply	Energy Save Time: Specifies the length of time before the machine enters energy saver mode after the last print is received or the last key operated. The default setting is 30 (min).
	5 / 15 / "30" / 60 Auto Continue: If Off is selected, the next print job will not be performed if a paper size error occurred in the printer, unless the Clear key is pressed to cancel the error. If On is selected, the next print job is sent if a paper size error occurred in the printer, the error is automatically cancelled, and the next print job is performed. The default setting is Off.
	On / "Off"

9.2.3 Calibration

Display	Content
Start	Performs the calibration operation.

9.3 User Service tab

9.3.1 Top Adjustment

Function	Adjusts the top margin of media for single-sided printing.	
Use	 To correct a misaligned print image. Plain Paper: Adjust the head margin of plain paper. Thick Paper: Adjust the head margin of thick paper. Envelope: Adjust the head margin of envelope. 	
Setting /procedure	-15 to +15 (1 step: 0.2 mm)	

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9.3.2 Left Adjustment

Function	Adjusts the left margin of media for single-sided printing.
Use	To correct a misaligned print image. Tray1 (Simplex Side): Adjust the left margin of media fed from tray 1 (manual tray.)
Setting /procedure	-15 to +15 (1 step: 0.2 mm)

9.3.3 Transfer Power

Function	Adjust the 2nd image transfer output (ATVC) on the single-sided pages for each media type.
Use	To use when the transfer failure at the trailing edge occurs. Plain Paper: Adjust the 2nd image transfer output of plain paper. Thick1: Adjust the 2nd image transfer output of thick paper 1. Thick2: Adjust the 2nd image transfer output of thick paper 2. Postcard: Adjust the 2nd image transfer output of Postcard. Envelope: Adjust the 2nd image transfer output of Envelope. Labels: Adjust the 2nd image transfer output of Labels.
Adjustment Range	The default setting is 0. -8 to +7 (1 step)
Adjustment Instructions	 To increase the ATVC value (in the direction of a foggier image), decrease the setting value. To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.

9.3.4 P/H Clean Up

Function	To move the toner cartridge (Magenta) to the position where it can be removed so that the printer head window can be cleaned.
Use	To clean the printer head window.
Setting /procedure	 Click [P/H Clean Up]. Open the front cover and remove the toner cartridge (M). Close the front cover. Open the top cover and remove the imaging cartridge. Clean the print head window by wiping it with a soft, dry cloth.

stment / Setting

9.3.5 Service's Choice

A. GDI Time out

Function	To specify the time for GDI time out.
Use	
Setting	The default setting is 60 (min).
/procedure	5 / 10 / 20 / 30 / 40 / 50 / "60"

B. Energy Save

Function	Set weather to activate Energy Save mode when print job receiving or panel opera-
Use	tion have not been made for a given period.
Setting	The default setting is On.
/procedure	"On" / Off
	NOTE Other than 110v: option not available

C. Flicker

Function	Eliminates flickers of a room fluorescent light when it occurs due to power source use environment or similar reason.
Use	 Use when the fluorescent light flickers due to power source use environment or simi- lar reason.
Setting /procedure	The default setting is 0. "0" / 1 / 2

D. Image Adj Param

Function	 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.
Use	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.
Setting	The default setting is 0.
/procedure	"0" / 1 / 2 / 3
	NOTE • When the setting has been changed, be sure to run a [Calibration] process. See P.54

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9.3.6 Print Pattern 1

Function	To print the test pattern for adjusting the imag	e.
Use	If there is tilt or when registration or zoom rati [1]: The length of the half of the width of a pap [2]: 20 mm (Fixed value) [3]: 200 mm (Fixed value) [4], [5]: 50 mm (Fixed value)	•
	[3]	
	[2]	
	[4]	
		A034F3C500DA

9.3.7 Print Pattern 2

Function	To print the test pattern for halftones and gradations. One page each is printed for each of Y, M, C, and K, a total of four pages.
Use	When checking density and pitch irregularities When checking reproducibility of gradations

9.3.8 Download

Function	To download the service data shown below from the printer.
Use	Top Adjustment
000	Left Adjustment
	Transfer Power
	Service's Choice

9.3.9 Upload

Function	To upload the set data shown below to the printer.
Use	Top Adjustment
000	Left Adjustment
	Transfer Power
	Service's Choice

Adjustment / Setting

A. Procedure

· Press the following key in this order

Service Mode Tab

- 1. Press the [Tab] key.
- 2. Press the [Alt] key + [a] key.
- 3. Input the "KMADMIN".

NOTE

9.4

· Make sure to enter "KMADMIN" with bit letter.

9.4.1 **Enable Warming**

A. Toner Low

Function Use	 Specifies whether a printer indicator blinks or a warning message appears in the sta- tus display box of the Remote Panel Utility when toner is about to run out. If Off is selected, neither of these notifications appear when the toner is about to run out.
Adjustment	The default setting is On.
Range	"On" / Off

B. I/C Low

Function Use	 Specifies whether a printer indicator blinks or a warning message appears in the sta- tus display box of the Remote Panel Utility when imaging cartridge is about to run out. If Off is selected, neither of these notifications appear when the imaging car- tridge is about to run out.
Adjustment	The default setting is On.
Range	"On" / Off

9.4.2 Temperature

Function	 To adjust the fusing heating temperature individually for each paper type so as to ensure good fusing performance that varies with varying environmental conditions.
Use	 When fusing performance is poor, or wax streak or offset occurs when the type of paper is changed or environmental conditions change. Use this function when curled paper, or paper misfeed as a result of the curled paper, occurs under varying environmental conditions or depending on the type of paper used.
Adjustment Range	The default setting is 0. Plain Paper: -10 / -5 / "0" Thick Paper: -10 / -5 / "0" ENVELOPE: -10 / -5 / "0"

9.4.3 **BK Clear**

Function	To clear engine information backup data
Use	• Execute this function to synchronize data when the MFP board or the printer control board is replaced with a new one.

9.4.4 Supplies Replace

A. Fuser Unit

Function	Resets the fuser unit counter.	
Use	To use when the fuser unit has been replaced.	

B. Transfer Roller

Function	Resets the transfer roller counter.	
Use	To use when the transfer roller has been replaced.	

9.4.5 Download

Function	To download the service data shown below from the printer.					
Use	Enable Warning: To set whether to display Toner low or I/C low.					
	Temperature: Displays the set fuser temperature of each paper.					
	Jam Counter: Displays the number of misfeeds that have occurred.					
Trouble Counter: Displays the number of malfunctions detected.						
	Transfer Belt: Displays the remaining life of the transfer belt as a percentage.					
	Fuser Unit: Displays the remaining life of the fuser unit as a percentage.					
	Transfer Roller: Displays the remaining life of the transfer roller as a percentage.					
	Drum Unit: Displays the remaining life of the imaging cartridge as a percentage.					

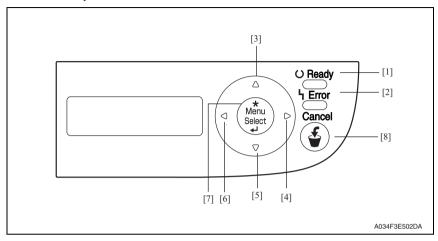
9.4.6 Upload

Function	To upload the set data shown below to the printer.					
Use	Enable Warning: To set whether to display Toner low or I/C low.					
	Temperature: Displays the set fusion temperature of each paper.					

10. Description of the control panel (magicolor 1650EN)

10.1 Control panel display

 The control panel contains six LED indicators and two keys, the Rotate Toner key and the Cancel key.



- [1] Ready indicator
- [2] Error indicator
- [3] Moves up in the menu structure
- [4] Moves right in the menu structure
 - Moves right through the available menu choices

- [5] Moves down in the menu structure.
 - Within a menu choice that is changeable character by character, scrolls downward through the available characters
- [6] Moves left in the menu structure
 - Moves left through the available menu choices
- [7] Enters the menu system
 - · Moves down in the menu structure
 - · Selects the displayed menu choice
- [8] · Cancel key

11. Description of the control panel (magicolor 1650EN)

11.1 List of control panel messages

11.1.1 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.				
INITIALIZING	The printer is being initialized.				
magicolor 1650 STARTING PRINTER	The printer is starting up.				
PORT AUTH ACTIVE	The IEEE802.1x port is being authorized.				

11.1.2 Caution messages

Message	Description			
I/C END	The imaging cartridge has reached the end of its life.			
I/C LOW	The imaging cartridge is near the end of its life.			
TRAY 2 IS EMPTY	Tray 2 is media empty.			
TRAY 2 OPEN	Tray 2 cassette is not installed or is not fully closed.			
VIDEO I/F ERROR	A video interface error occurred in the printer.			
X INCORRECT	The specified color of toner cartridge is not a genuine KONICAMINOLTA toner cartridge or not the correct type.			
X MEMORY ERROR	A memory error occurred in the toner cartridge.			
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.			

11.1.3 Error messages

11.1.5 LITOI IIIes	3			
Message	Description			
CHECK TRAY1 PAPER It (Displaying alternately)) PRESS MENU/SELECT	Tray 1 is media empty. Media has misfed in Tray 1.			
I/C LIFE END	The imaging cartridge has reached the end of its life.			
AUTH TIMEOUT	The user is automatically logged off due to IEEE802.1x port authorization.			
AIDC ERROR	The AIDC sensor has developed a malfunction of some sort.			
BELT ERROR	The printer detected incorrect image position on the image transfer belt.			
DUPLEX UNIT PANEL OPEN	The duplex option cover is open.			
ERROR LOADING IMAGE DOWNLOAD IMAGE INVALID	While updating code, an error has occurred.			
TOP COVER OPEN	The top cover of the machine is open.			
PAPER JAM XXXX	A media jam has occurred at the specified location.			
PUT "SIZE" "TYPE" IN TRAY 1	The media size set from the printer driver is different from the size of media loaded in Tray 1. NOTE Load the correct paper on Tray1, and press the Menu Select key, then specify the [SIZE] and [TYPE] of the paper.			
PUT "SIZE" "TYPE" IN TRAY 2	 The media size set from the printer driver is different from the size of media loaded in Tray 2. NOTE This message appears when [MAIN MENU] → [PAPER MENU] → [INPUT TRAY] → [AUTO CONTINUE] is set to [OFF]. 			
X TONER LIFE END REPLACE X	The X toner cartridge has reached the end of its life.			
X TONER MISSING	The specified color of toner cartridge is not installed.			
	The specified color of toner cartridge is empty.			
X TONER OUT	NOTE • Appears when [MAIN MENU] → [QUALITY MENU] → [TONER OUT ACTION] is set to [CONTINUE].			

11.1.4 Malfunction messages

For details of malfunction messages and troubleshooting procedures, see "Malfunction code".

Message	Description
FIRMWARE UPDATE WRITING ERROR	Data cannot be written since the flash memory is damaged.
SERVICECALL XX	The engine or controller is faulty.

12. MENU (magicolor 1650EN)

12.1 List of MAIN MENU functions

- *1: This setting is available only when an optional Lower Feeder Unit is installed.
- *2: This setting is available only when a Duplex Option is installed.

		ME	NU		Ref. page	
MAIN MENU	PRINT MENU	PRINT MENU MENU MAP				
		CONFIGURATION			P.65	
		STATISTICS PAGE			P.65	
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12.2 PRINT MENU

12.2.1 MENU MAP

Function	Prints the menu map.	
Use	To check the available menu settings.	
Setting	The default setting is Yes.	
/procedure	"YES" / NO	

12.2.2 CONFIGURATION

Function	Prints the configuration page.	
Use	To check configuration of the machine. The following items can be checked: TCP/IP Printer Information Printer Interfaces Installed Options Paper Settings	
Setting /procedure	y y	

12.2.3 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	The default setting is Yes.	
/procedure	"YES" / NO	

A. Supplies Status

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

Types of toner cartridges	
Starter	Starter-capacity toner cartridge: 1.0 K
Standard	Standard-capacity toner cartridge: 1.5 K
High	High-capacity toner cartridge: 2.5 K

NOTE

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

B. PM Parts Information

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

A '

C. Counter Information

 The total number of pages that have been printed is counted and displayed based on the description shown in the following table.

<Counter information list>

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

NOTE

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



D. Coverage Information

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

<Coverage information list>

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

NOTE

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

lack

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

The lower left part of the statistics page shows numerical values that represent consumable/periodic replacement parts (units) counter information.

The table below explains counter information that is provided by each numerical data.

<Display on the statistics page>

0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0/0 XXXXX

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

No.		Contents	
1	Number of times a High-capacity toner cartridge (K) has been replaced		
2	Number of times a Standard-capacity toner cartridge (K) has been replaced		
3	Number of times a toner cartridge (K) made by companies other than Konica Minolta has been replaced		
4	Number of times a H	High-capacity toner cartridge (C) has been replaced	
5	Number of times a S	Standard-capacity toner cartridge (C) has been replaced	
6	Number of times a toner cartridge (C) made by companies other than Konica Minolta has been replaced		
7	Number of times a H	ligh-capacity toner cartridge (M) has been replaced	
8	Number of times a Standard-capacity toner cartridge (M) has been replaced		
9	Number of times a toner cartridge (M) made by companies other than Konica Minolta has been replaced		
10	Number of times a H	ligh-capacity toner cartridge (Y) has been replaced	
11	Number of times a S	Standard-capacity toner cartridge (Y) has been replaced	
12	Number of times a toner cartridge (Y) made by companies other than Konica Minolta has been replaced.		
13	Rate of transfer roller use (%)		
14	Number of times a to	ransfer roller has been replaced	
15	Rate of transfer belt	unit use (%)	
16	Number of times a to	ransfer belt unit has been replaced	
17	Rate of fuser unit use (%)		
18	Number of times a fuser unit has been replaced		
1		Year (e.g. The year 2009 is displayed as 09.)	
2		Total (e.g. The year 2000 to displayed as oc.)	
3		Month (e.g. January is displayed as A. February is B. March is C. and December is L.)	
5		Day (e.g. The day 7 is displayed as 07.)	

^{*1:} Start date of use begins when 100 prints are complete after the first new toner cartridge was detected following the main body installation.

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12.2.4 FONT LIST

A. POSTSCRIPT

Function	Prints a list of PostScript fonts.	
Use	To check the available PostScript fonts.	
Setting /procedure	The default setting is Yes.	
	"YES" / NO	

B. PCL

Function	Prints a PCL fonts.
Use	To check the available PCL fonts.
Setting	The default setting is Yes.
/procedure	"YES" / NO

12.2 PRINT MENU

12.2.1 MENU MAP

Function	Prints the menu map.
Use	To check the available menu settings.
Setting	The default setting is Yes.
/procedure	"YES" / NO

12.2.2 CONFIGURATION

Function	Prints the configuration page.
Use	To check configuration of the machine. The following items can be checked: TCP/IP Printer Information Printer Interfaces Installed Options Paper Settings
Setting /procedure	The default setting is Yes. **YES! (NO.)
, p. 000 da. 0	"YES" / NO

12.2.3 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	The default setting is Yes.
/procedure	"YES" / NO

12.2.4 FONT LIST

A. POSTSCRIPT

Function	Prints a list of PostScript fonts.
Use	To check the available PostScript fonts.
Setting	The default setting is Yes.
/procedure	"YES" / NO

B. PCL

Function	Prints a PCL fonts.
Use	To check the available PCL fonts.
Setting	The default setting is Yes.
/procedure	"YES" / NO

12.2.5 DIRECTORY LIST

Function	Prints a directory list of the flash.
Use	To check the files saved on the flash.
Setting	The default setting is Yes.
/procedure	"YES" / NO

12.2.6 **DEMO**

Function	Prints the demo page.
Use	To print a demo page.
Setting	The default setting is Yes.
/procedure	"YES" / NO

12.3 PAPER MENU

12.3.1 INPUT TRAY

A. TRAY 1 MODE

Function	To set auto tray switch.
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 / EXECUTIVE / "A4" / A5 / B5 / B5(ISO) / G LETTER / STATEMENT / FOLIO / UK QUARTO / FOOLSCAP / G LEGAL / C6 / DL / J-POSTCARD / KAI 16 / KAI 32 / 16K / SP FOLIO / OFICIO / 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" / LABELS / LETTERHEAD / ENVELOPE / POSTCARD / THICK1 / THICK2 THICK2

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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
	NOTE • This setting is available only when an optional Lower Feeder Unit is installed.

D. CUSTOM SIZE

(1) WIDTH (XX)

Function	Specifies the width of the custom-sized media 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 mm (3.63 inch).
	92 to 216 (363 to 850)

(2) LENGTH (XX)

Function	Specifies the length of the custom-sized media 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 184 mm (7.24 inch). For PLAIN PAPER: 195 to 356 (731 to 1401) For THICK1, 2: 184 to 297 (724 to 1170)

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 OFF. "OFF" / ON

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	The default setting is YES.
/procedure	"YES" / NO
	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 TRAY 0-9

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

12.3.2 **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. SHORTEDGE : The pages will be printed on both sides of the media for short-edge binding. LONGEDGE : The pages will be printed on both sides of the media for long-edge binding.
Setting /procedure	The default setting is OFF. "OFF" / SHORTEDGE / LONGEDGE.
	NOTE • This setting is available only when a Duplex Option is installed.

12.3.3 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

12.3.4 PAGE RECOVERY

Function	Selects whether or not the page is printed again after recovering from a media misfeed or a paper jam.
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

12.4 QUALITY MENU

12.4.1 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	 Select [QUALITY MENU] → [REPLACE TONER] and the specific color of toner to be replaced. Select [YES], and press the Menu Select key. 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. Open the front cover and replace the toner cartridge. Close the front cover. The initial screen will then reappear.

B. REMOVAL ALL

Function	To remove (or replace) every toner cartridge in order and move the position where the removal is available so that all toner cartridges can be removed (or replaced).
Use	To remove (or replace) all toner cartridges.
Setting /procedure	 Select [QUALITY MENU] → [REPLACE TONER] → [REMOVAL ALL]. Select [YES], and press the Menu Select key. The rack rotates to bring the first color toner cartridge to the replacement position. When the rack stops moving, the message [OPEN DOOR AND REMOVE M TONER] appears on the display. Open the front cover and replace the toner cartridge. Close the front cover. then, the message [OPEN DOOR AND REMOVE C TONER] appears on the display. Repeating the same steps, remove the remaining toner cartridges. NOTE
	• The toner cartridges are to be removed in the order of $M \to C \to K \to Y \to M$.
	7. Close the front cover. the initial screen will then reappear.

12.4.2 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

12.4.3 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	The default setting is NO.
/procedure	YES / "NO"
	If YES is selected, image adjustments are performed.

B. MODE

Function	Applies the image adjustments
	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

12.4.4 P/H CLEAN UP

Function	To move the toner cartridge (Magenta) to the position where it can be removed so that the printer head window can be cleaned.
Use	To clean the printer head window.
Setting /procedure	The default setting is YES. "YES" / NO
	1. Select [MAIN MENU] - [QUALITY MENU] - [P/H CLEAN UP]. 2. Open the front cover and remove the toner cartridge (M). 3. Close the front cover. 4. Open the top cover and remove the imaging cartridge. 5. Clean the print head window by wiping it with a soft, dry cloth.

12.4.5 ECONOMY PRINT

Function	To set whether to print with saving toner consumption amount.
	If OFF is selected: Normal printing If On is selected: Toner consumption amount will be saved for printing.
Setting /procedure	The default setting is OFF. "OFF" / ON

12.4.6 DUPLEX SPEED

Function	To set print speed and image quality for duplex printing.
Use	 If AUTOMATIC is selected, the print speed is automatically selected. If SPEED is selected, the print speed is increased, while the print quality is decreased. If QUALITY is selected, the print speed is decreased, while the print quality is increased.
Setting /procedure	The default setting is AUTOMATIC. "AUTOMATIC" / SPEED / QUALITY

12.4.7 IMAGE REFRESH

Function Use	 Use this function to perform aging of the toner cartridge, thereby making less noticeable the faint lines occurring at a pitch of 24 mm in the main scanning direction. NOTE Execution of the image refresh mode consumes toner. This function does not help uneven density at a pitch of 25 mm.
Setting /procedure	The default setting is YES. "YES" / NO

12.5 INTERFACE MENU

12.5.1 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) IPV4

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.
procedure	"YES" / NO

IPV4 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 ▲, ▼, ◄, and ▶ arrow keys. The default setting is "192.168.001.002."
	NOTE • When the printer's IP address is set manually, DHCP/BOOTP is automatically set to OFF.

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 ▲, ▼, ◄, and ▶ arrow keys. The default setting is "000.000.000.000".

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 ▲, ▼, ◄, and ▶ arrow keys. The default setting is "000.000.000.000".

• 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 NO. YES / "NO"

(3) IPV6

• ENABLE

Function	To set whether to use IPv6 in IP network communication.
Use	If YES is selected, IPv6 is enabled. If NO is selected, IPv6 is disabled.
Setting /procedure	The default setting is YES. "YES" / NO

• IDENTIFIER

Function	Displays the Link-Local address.
Use	Displays the Link Loodi address.

ENABLE AUTO

Function	To set whether to use the IPv6 address automatic acquisition setting.
Use	If YES is selected, IPv6 address is automatically obtained. If NO is selected, IPv6 auto configuration is disabled.
Setting /procedure	The default setting is YES. "YES" / NO

GLOBAL PREFIX

Function	Displays the global address.
Use	Displays the global address.

B. IP SERVICES

(1) ENABLE HTTP

Function	To set enabled/disabled of HTTP
Use	If YES is selected, HTTP is enabled. If NO is selected, HTTP is disabled.
Setting /procedure	The default setting is YES. "YES" / NO

rt / Setting

(2) DISABLE FILTERS



Function	To set enabled/disabled of IP filtering
Use	If YES is selected, filter is enabled. If YES is selected, filter is disabled.
Setting /procedure	The default setting is NO. YES / "NO"

(3) DISABLE IPSEC



	Function	To set enabled/disabled of IPsec
_	Use	If YES is selected, IPsec is enabled. If YES is selected, IPsec is disabled.
	Setting /procedure	The default setting is NO. YES / "NO"

C. 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.
procedure	"AUTO" / 802.2 / 802.3 / ETHER II / SNAP

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 10 HALF DUPLEX
	NOTE • Make sure to turn the power switch OFF and ON again after changing the network speed.

E. DISABLE 802.1X



\	Function	To set enabled/disabled of IEEE802.1x
	Use	If YES is selected, IEEE802.1x function is enabled. If YES is selected, IEEE802.1x function is disabled.
	Setting /procedure	The default setting is NO. YES / "NO"

F. 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	The default setting is BINARY.
/procedure	"BINARY" / QUOTED BINARY

12.5.2 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 SYSTEM DEFAULT

12.6.1 PRINT QUALITY

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

12.6.2 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

12.6.3 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.
procedure	"AUTOMATIC" / POSTSCRIPT / PCL5 / PCL XL / HEX DUMP

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 PCL5.
	"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.
procedure	"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	The default setting is CR=CR LF=CRLF.
/procedure	"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.
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 / PC858 / PC8DN / PC8TK / PC1004 / PIFONT / PSMATH / PSTEXT / ROMAN8 / WIN30 / WINBALT / WINL1 / WINL2 / WINL5 / WIN31 J / GB2312 / ARABIC8 / HPWARA / PC864ARA / HEBREW7 / ISOHEB / HEBREW8 / PC862HEB / ISOCYR / PC866CYR / WINCYR / PC866UKR / GREEK8 / WINGRK / PC851GRK / PC8GRK / ISOGRK

12.6.4 STARTUP OPTIONS

A. START 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"

12.6.5 DATE & TIME

Function	Set the date and time on the time-of-day (TOD) clock.
Use	To adjust the TOD clock.The settings appear in the following order: year, month, day:hour, minutes, seconds.
	 Select [DATE & TIME]. Using ▲, ▼, ◀, and ▶ keys, enter the time-of-day, and day, month, and year. Accept the date and time setting using the Menu Select key.

12.6.6 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 MIN. 15 MIN / "30 MIN" / 1 HOUR / 2 HOUR (*)					
	NOTE • (*) Displayed only on the model for the 110 V models.					

12.6.7 SECURITY

A. CONFIG

(1) ENABLE

Function	To set whether or not to protect all menus with password.			
Use	To protect all menus with password input.			
Setting /procedure	The default setting is OFF. "OFF" / ON			

(2) SET USER PASSWD

Function	To set user password to display the user menu.
Use	 NOTE The specified password is applied only if [SECURITY] → [CONFIG] → [ENABLE] is set to [ON]. Empty passwords are not allowed.
Setting /procedure	The default setting is 1. Select [SET USER PASSWD]. Enter passwords with 16 digits at maximum. Accept the password setting using the Menu Select key.

(3) SET ADMIN PASSWD

Function	To set Admin password to display the admin menu.		
Use	NOTE • The specified password is applied only if [SECURITY] → [CONFIG] → [ENABLE] is set to [ON]. • Empty passwords are not allowed.		
Setting /procedure	The default setting is "the last four digits of the printer serial number". Select [SET ADMIN PASSWD]. Enter passwords with 16 digits at maximum. Accept the password setting using the Menu Select key.		

12.6.8 FORMAT

A. ERASE 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.			
	NO / TES			
	NOTE If YES is selected, the flash RAM is initialized.			

12.6.9 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.			
	NOTE Printer will auto reboot if [YES] is selected.			

B. 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			
	NOTE • If [YES] is selected, all changes are saved.			

C. 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			
	NOTE Printer will auto reboot if [YES] is selected.			

12.7 SERVICE MENU

See P.83

12.8 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 applicable marketing area. 				
Setting /procedure	The default setting is ENGLISH.				
	ENGLISH / FRANCAIS / ESPANOL / PORTUGES / CESKY / DEUTSCH / ITALIANO /JAPANESE / NEDERLANDS / POLISH				

13. USER SERVICE MENU (magicolor 1650EN)

13.1 USER SERVICE MENU entry procedure

A. Procedure

- 1. Press the ▲ key for more than 2 seconds on [IDLE] screen.
- 2. Press the Menu Select key.
- 3. Press the Menu Select key to display [MAIN MENU].
- 4. Press the ◀ key.

B. Exiting

Press ▲ key to return to the initial screen.

13.2 List of SERVICE MENU functions

	USER SVC	MENU		Ref. page
SETTINGS	ENERGY SAVE	ENERGY SAVE		
ADJUSTMENTS	FLICKER	FLICKER		
	TOP MARGIN	PLAIN PAPER		
		THICK PAPER		P.85
		ENVELOPE		
	LEFT MARGIN	LEFT ADJ TRAY1		P.85
		LEFT ADJ TRAY2		P.85
	LEFT MARGIN DUP	LEFT ADJ TRAY1		P.86
		LEFT ADJ TRAY2		
	TRANSFER POWER	SIMPLEX PASS	PLAIN PAPER	P.86
			THICK1	
			THICK2	
			POSTCARD	
			ENVELOPE	
			LABELS	
		DUPLEX PASS	PLAIN PAPER	P.86
	IMAGE ADJ PARAM	•	•	P.87
TEST	TEST PRINT	PATTERN 1		P.91
		PATTERN 2		- 1.31

14. Service mode (magicolor 1600W)

14.1 Service mode entry procedure

It will be displayed by activating Panel Remote Utility and enter the password.
 See P.58

NOTE

 Ensure appropriate security for the service mode entry procedure. It should NEVER be given to any unauthorized person.

15. SERVICE MENU (magicolor 1650EN)

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 [MAIN MENU] → [SERVICE MENU] and press the Menu Select key.
- 2. Press Menu Select key twice.
- 3. Using ▲, ▼, ◄, and ▶ keys, input the "KM1650" and then press the Menu Select key.

B. Exiting

Press ▲ key to return to the initial screen.

15.2 List of SERVICE MENU functions

SERVICE MENU				Ref.
SERVICE PASSWORD ENTER PASSWORD				_
SETTINGS	ENERGY SAVE			P.85
ADJUSTMENTS	FLICKER			P.85
	TOP MARGIN	PLAIN PAPER		
		THICK PAPER		P.85
		ENVELOPE		
	LEFT MARGIN	LEFT ADJ TRAY1		DOE
		LEFT ADJ TRAY2		- P.85
	LEFT MARGIN DUP	LEFT ADJ TRAY1		P.86
		LEFT ADJ TRAY2		
	TRANSFER POWER	SIMPLEX PASS	PLAIN PAPER	
			THICK1	P.86
			THICK2	
			POSTCARD	
			ENVELOPE	
			LABELS	
		DUPLEX PASS	PLAIN PAPER	P.86
	IMAGE ADJ PARAM	1		P.87
	FUSER TEMP	PLAIN PAPER		P.87
		THICK1		
		THICK2		
		ENVELOPE		
	SUPPLIES REPLACE	TRANSFER ROLLER		P.87
		FUSER UNIT		P.88
	ERASE NVRAM			P.88
COUNTERS	TOTAL COUNTER	TOTAL FACES		P.88
		COLOR FACES		P.88

	SERVICE	EMENU	Ref. page
		MONOCHROME FACES	P.88
		TOTAL DUP FACES	P.88
		COLOR DUP FACES	P.88
		MONO DUP FACES	P.89
	TRAY COUNTER	TRAY 1	P.89
		TRAY 2	P.89
	PAPER SIZE COUNT	A4	
		B5	
		A5	D 00
		LEGAL	P.89
		LETTER	
		OTHERS	
	PAPER TYPE COUN	T PLAIN PAPER	
		THICK1	
		THICK2	
		ENVELOPE	P.89
		LETTERHEAD	
		POSTCARD	
		LABELS	
	SUPPLIES USAGE	CYAN TONER	P.89
		MAGENTA TONER	P.89
		YELLOW TONER	P.89
		BLACK TONER	P.89
		I/C	P.89
	SRU USAGE	TRANS BELT UNIT	P.90
		TRANSFER ROLLER	P.90
		FUSER UNIT	P.90
	JAM COUNTER	•	P.90
	TROUBLE COUNTER	3	P.90
SYSTEM VERSION	MAIN F/W VER		P.90
	ENGINE F/W VER		P.90
	MAIN RAM SIZE		P.90
	SERIAL NUMBER		P.90
TEST	PAPER FEED TEST		P.91
	TEST PRINT	PATTERN1	P.91
		PATTERN2	P.91
PRINT SETTINGS			P.92
BK CLEAR			P.92
FUSER UNLOCK			P.92
CIE COLORSPACE			P.92
	-		

15.3 SETTINGS

15.3.1 ENERGY SAVE

Function	Set to activate Energy Save mode when print job receiving or panel operation have not been made for a given period.
Use	not been made for a given period.
Setting /procedure	The default setting is ON.
procedure	"ON" / OFF
	NOTE
	Other than 110v: option not available

15.4 ADJUSTMENTS

15.4.1 FLICKER

Function	Eliminates flickers of a room fluorescent light when it occurs due to power source use environment or similar reason.
Use	Use when the fluorescent light flickers due to power source use environment or similar reason.
Setting /procedure	The default setting is 0. "0" / 1 / 2

15.4.2 TOP MARGIN

Function	Adjusts the top margin of media for single-sided printing.
Use	To correct a misaligned print image. PLAIN PAPER: Adjust the head margin of plain paper. THICK PAPER: Adjust the head margin of thick paper. ENVELOPE: Adjust the head margin of envelope.
Setting /procedure	 Enter the SERVICE MENU. Select [ADJUSTMENTS] - [TOP MARGIN] and press the Menu Select key. Select desired paper type and press the Menu Select key. Select desired adjustment amount with the up key ▲ /down key ▼ and press the Menu Select key.
	-15 to +15 (1 step: 0.2 mm)

15.4.3 LEFT MARGIN

Function	Adjusts the left margin of media for single-sided printing.
Use	To correct a misaligned print image. LEFT ADJ TRAY1: Adjust the left margin of media fed from tray 1. LEFT ADJ TRAY2: Adjust the left margin of media fed from tray 2.
Setting /procedure	 Enter the SERVICE MENU. Select [ADJUSTMENTS] - [LEFT MARGIN] and press the Menu Select key. Select desired tray and press the Menu Select key. Select desired adjustment amount with the up key▲ /down key▼ and press the Menu Select key.
	-15 to +15 (1 step: 0.2 mm)

15.4.4 LEFT MARGIN DUP

Function	Adjusts the left margin of media for double-sided printing.
Use	To correct a misaligned print image. LEFT ADJ TRAY1: Adjust the left margin of duplex print media fed from tray 1. LEFT ADJ TRAY2: Adjust the left margin of duplex print media fed from tray 2.
Setting /procedure	 Enter the SERVICE MENU. Select [ADJUSTMENTS] - [LEFT ADJ DUPLEX] and press the Menu Select key. Select desired tray and press the Menu Select key. Select desired adjustment amount with the up key ▲/down key ▼ and press the Menu Select key.
	-15 to +15 (1 step: 0.2 mm)

15.4.5 TRANSFER POWER

A. SIMPLEX PASS

Function	Adjust the 2nd image transfer output (ATVC) on the single-sided pages for each media type.
Use	To use when the transfer failure at the trailing edge occurs.
Adjustment	The default setting is 0.
Range	-8 to +7 (1 step)
Adjustment Instructions	 To increase the ATVC value (in the direction of a foggier image), decrease the setting value. To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.
Setting /procedure	 Enter the SERVICE MENU. Select [TRANSFER POWER] and press the Menu Select key. Select [SIMPLEX PASS] and press the Menu Select key. Select desired media type with the left key ◀/right key ▶ and press the Menu Select key. Select desired setting value with the up key ▲/down key ▼ and press the Menu Select key.

B. DUPLEX PASS

Function	Adjust the 2nd image transfer output (ATVC) on the duplexed pages for each media type.
Use	To use when the transfer failure at the trailing edge occurs.
Adjustment	The default setting is 0.
Range	-8 to +7 (1 step)
Adjustment Instructions	 To increase the ATVC value (in the direction of a foggier image), decrease the setting value. To decrease the ATVC value (in the direction of a less foggy image), increase the setting value.
Setting /procedure	 Enter the SERVICE MENU. Select [TRANSFER POWER] and press the Menu Select key. Select [DUPLEX PASS] and press the Menu Select key. Select desired setting value with the up key ▲/down key ▼ and press the Menu Select key.

15.4.6 IMAGE ADJ PARAM

Function	 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.
Use	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.
Setting /procedure	The default setting is 0. "0" / 1 / 2 / 3
	NOTE • When the setting has been changed, be sure to run a [REQUEST AIDC] process. See P.70

15.4.7 FUSER TEMP

Function	To adjust the fusing heating temperature individually for each paper type so as to ensure good fusing performance that varies with varying environmental conditions.
Use	 When fusing performance is poor, or wax streak or offset occurs when the type of paper is changed or environmental conditions change. Use this function when curled paper, or paper misfeed as a result of the curled paper, occurs under varying environmental conditions or depending on the type of paper used.
Adjustment Range	• The default setting is 0. PLAIN PAPER: -10 / -5 / "0" THICK1: -10 / -5 / "0" THICK2: -10 / -5 / "0" ENVELOPE: -10 / -5 / "0"
Adjustment Instructions	If fusing performance is poor, increase the setting. If wax streaks occur, decrease the setting. If offset is poor, decrease the setting. If curling of the paper occurs, decrease the setting.
Setting /procedure	 Enter the SERVICE MENU. Select [FUSER TEMP] and press the Menu Select key. Select the type of paper and press the Menu Select key. Select desired setting value with the up key

15.4.8 SUPPLIES REPLACE

A. TRANSFER ROLLER

Function	Resets the transfer roller counter.
Use	To use when the transfer roller has been replaced.
Setting /procedure	The default setting is NO. (**LON LANGE (**LON LANG
	"NO" / YES
	 Enter the SERVICE MENU. Select [ADJUSTMENTS] - [SUPPLIES REPLACE] → [TRANSFER ROLLER], and
	select [YES.] 3. Press the Menu Select key and reset the counter.

B. FUSER UNIT

Function	Resets the fuser unit counter.
Use	To use when the fuser unit has been replaced.
Setting /procedure	The default setting is NO. "NO" / YES.
	112 1 122
	1. Enter the SERVICE MENU.
	2. Select [ADJUSTMENTS] - [SUPPLIES REPLACE] → [FUSER UNIT], and select [YES.]
	3. Press the Menu Select key and reset the counter.

15.4.9 ERASE NVRAM

Function	To erase NVRAM data.
Use	
Setting /procedure	The default setting is NO.
procedure	"NO" / YES

15.5 COUNTERS

15.5.1 TOTAL COUNTER

A. TOTAL FACES

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

B. COLOR FACES

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

C. MONOCHROME FACES

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

D. TOTAL DUP FACES

Function	To display total number of duplex printing.
Use	To confirm the number of duplex printing so that usage status can be comprehended.

E. COLOR DUP FACES

Function	To display total number of color duplex printing.
Use	 To confirm the number of color duplex printing so that usage status can be comprehended.

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F. MONO DUP FACES

Function	To display total number of monochrome duplex printing.
Use	 To confirm the number of monochrome duplex printing so that usage status can be comprehended.

15.5.2 TRAY COUNTER

Function	To display the number of printing by tray.
Use	To confirm the number of printing by tray so that usage status can be comprehended.

15.5.3 PAPER SIZE COUNT

Function	To display the number of printing by paper size.
Use	 To confirm the number of printing by paper size so that usage status can be comprehended.

15.5.4 PAPER TYPE COUNT

Function	To display the number of printing by paper type.
Use	 To confirm the number of printing by paper type so that usage status can be comprehended.

15.5.5 SUPPLIES USAGE

A. CYAN TONER

Function	Displays how much of the toner cartridge (C) has been used as a percentage.
Use	To monitor the amount of life remaining in the toner cartridge (C).

B. MAGENTA TONER

Function	Displays how much of the toner cartridge (M) has been used as a percentage.
Use	To monitor the amount of life remaining in the toner cartridge (M).

C. YELLOW TONER

Function	Displays how much of the toner cartridge (Y) has been used as a percentage.
Use	To monitor the amount of life remaining in the toner cartridge (Y).

D. BLACK TONER

Function	Displays how much of the toner cartridge (K) has been used as a percentage.
Use	To monitor the amount of life remaining in the toner cartridge (K).

E. I/C

Function	Displays the remaining life of the imaging cartridge as a percentage.
Use	To monitor the amount of life remaining in the imaging cartridge.

ijustment / Setting

15.5.6 SRU USAGE

A. TRANS BELT UNIT

Function	Displays the remaining life of the transfer belt as a percentage.
Use	To monitor the amount of life remaining in the transfer belt.

B. TRANSFER ROLLER

Function	Displays the remaining life of the transfer roller as a percentage.
Use	To monitor the amount of life remaining in the transfer roller.

C. FUSER UNIT

Function	Displays the remaining life of the fuser unit as a percentage.
Use	To monitor the amount of life remaining in the fuser unit.

15.5.7 JAM COUNTER

Function	Displays the number of misfeeds that have occurred.
Use	When checking for the number of misfeeds that have occurred

15.5.8 TROUBLE COUNTER

Function	Displays the number of malfunctions detected.
Use	When checking for the number of malfunctions detected

15.6 SYSTEM VERSION

15.6.1 MAIN F/W VER

Function	Displays the version of the controller firmware.
Use	When upgrading the firmware
	 When the image processing board has been replaced with a new one

15.6.2 **ENGINE F/W VER**

Function	Displays the version of the engine firmware.
Use	When the printer control board has been replaced with a new one

15.6.3 MAIN RAM SIZE

Function	Displays the size of the main memory.
Use	When checking for the memory size

15.6.4 SERIAL NUMBER

Function	Displays the serial number of the printer engine.
Use	When checking for the printer serial number

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15.7 TEST

15.7.1 PAPER FEED TEST

Function	 To check the paper feeding in the paper take-up/transport sections without printing on the paper. 	
Use	When a paper misfeed occurs	
Setting /procedure	The default setting is YES. "YES" / NO	

15.7.2 TEST PRINT

A. PATTERN1

Function	To print the test pattern for adjusting the image.			
Use	If there is tilt or when registration or zoom ratio adjustments are performed [1]: The length of the half of the width of a paper (Change with the width of the paper. [2]: 20 mm (Fixed value) [3]: 200 mm (Fixed value) [4], [5]: 50 mm (Fixed value)			
	[2] [5]			
	[1]			
	A034F3C500DA			
Setting	The default setting is YES.			
/procedure	"YES" / NO			

B. PATTERN2

Function	To print the test pattern for halftones and gradations.	
Use	 When checking density and pitch irregularities When checking reproducibility of gradations 	
Setting /procedure	The default setting is YES. "YES" / NO	

15.8 PRINT SETTINGS

Function	To print the list of engine adjusted values.	
Use	To confirm every adjusted values set at SERVICE MENU.	
Setting /procedure	The default setting is YES.	
	"YES" / NO	

15.9 BK CLEAR

Function	To clear engine information backup data	
Use	Use when the engine information backup data is cleared. YES: Executes data clear NO: Does not execute data clear	
	NOTE • Execute this function to synchronize data when the MFP board or the printer control board is replaced with a new one.	
Setting	The default setting is YES.	
/procedure	"YES" / NO	

15.10 FUSER UNLOCK

Function Use	 The engine will lock when there are two consecutive increases of fuser warm-up failures (SERVICE CALL 0500) or Thermistor resistance failures (SERVICE CALL 0503) and the printer cannot be reset by turning the power OFF/ON. This command resets the lock to restore functionality. 	
Setting /procedure	The default setting is YES. "YES" / NO.	
	1. Enter the SERVICE MENU.	
	Select [FUSER UNLOCK], and press the Menu Select key.	
	Select [YES], and press the Menu Select key.	
	Confirm [POWER CYCLE THE PRINTER NOW] is displayed and turn OFF/ON the power.	

15.11 CIE COLORSPACE

Function	Prints color spaces precisely using CIE standard color instead of CMYK.	
Use	CMYK: Improves printing capability (speed) CIE: Prints color spaces precisely	
Setting /procedure	The default setting is CMYK.	
procedure	"CMYK" / CIE	

TROUBLESHOOTING

16. Jam display

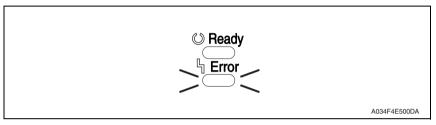
16.1 Misfeed display

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

16.1.1 Indication given by the error indicator (magicolor 1600W)

• The Error indicator blinks once a second.

See P.50

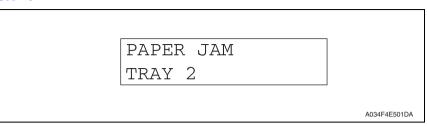


NOTE

Details of the misfeed location are given in the Remote Panel Utility on the PC connected to the printer.

16.1.2 Indication given by the LCD display (magicolor 1650EN)

When a media misfeed occurs, a message is displayed on the control panel.
 See P.61



Display	Misfeed Location	Misfeed processing location	Action
PAPER JAM TRANSFER	Transfer section	Top cover	See P.97
PAPER JAM FUSER	Fusing section	Top cover	See P.98
PAPER JAM EXIT	Exit section	Top cover	See P.99
PAPER JAM TRAY 2	Lower Feeder Unit media take-up section	Tray 2	Lower Feeder Unit Service Manual P.13
PAPER JAM	Duplex Option media feed/conveyance section	Duplex option door	Duplex Option Service Manual P.13
DUPLEX	Duplex Option media feed section		
PAPER JAM TRAY 1	Media feed section	Top cover, front cover	See P.99

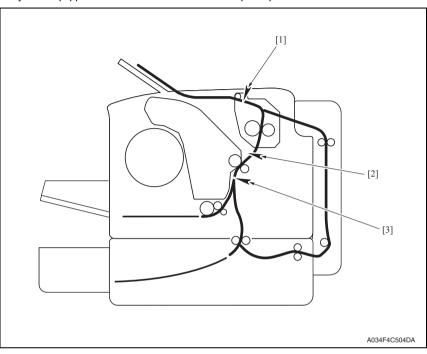
16.1.3 Misfeed display resetting procedure

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

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16.2 Sensor layout

• System equipped with a lower feeder unit and duplex option.



- [1] Exit sensor (PS4)
- [2] 2nd image transfer retraction position sensor (PS3)
- [3] Registration sensor (PS2)

16.3 Solution

16.3.1 Initial check items

• When a paper misfeed occurs, first make checks of the following initial check items.

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

16.3.2 Misfeed at 2nd transfer section

A. Detection timing

Туре	Description		
Detection of misfeed at 2nd transfer	The media does not unblock the registration sensor (PS2) even after the lapse of a predetermined period of time after the registration roller solenoid (SD2) has been deenergized.		
section	The 2nd image transfer retraction position sensor (PS3) is not blocked by the media that has moved past the position, at which the sensor is blocked.		
Detection of media	The registration sensor (PS2) is blocked when the power switch is turned ON, a cover is opened and closed, or a misfeed or malfunction is reset.		
left in 2nd transfer section	The 2nd image transfer retraction position sensor (PS3) 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 (PS2) 2nd image transfer retraction position sensor (PS3) Registration roller solenoid (SD2)	Printer control board (PRCB)	

	Action	WIRING DIAGRAM	
Step		Control signal	Location (electrical component)
1	Initial check items	_	_
2	Check the PRCB connector for proper connection and correct as necessary.	_	_
3	PS2 sensor check.	PRCB PJ12-6 (ON)	1600W: C-3 1650EN: C-3
4	PS3 sensor check.	PRCB PJ12-3 (ON)	1600W: C-2 to 3 1650EN: C-2
5	SD2 operation check.	PRCB PJ10-4 (REM)	1600W: C-9 to 10 1650EN: C-9
6	Change PRCB.	=	=

16.3.3 Misfeed at fusing section

A. Detection timing

Туре	Description		
	The media does not block the exit sensor (PS4) even after the lapse of a predetermined period of time after the registration roller solenoid (SD2) has been energized.		
Detection of misfeed at fusing section	The exit sensor (PS4) is unblocked within a predetermined period of time after it has been blocked by the media.		
	The transport motor, polygon motor, and rack motor are energized even after the lapse of a predetermined period of time after media information has been created.		
Detection of media left in fusing section	The exit sensor (PS4) 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 (PS4)	Printer control board (PRCB)	
Registration roller solenoid (SD2)	MFP board (MFPB)	

	Action	WIRING DIAGRAM	
Step		Control signal	Location (electrical component)
1	Initial check items	_	_
2	Check the MFPB connector for proper connection and correct as necessary.	_	_
3	Check the PRCB connector for proper connection and correct as necessary.	_	_
4	PS4 sensor check.	PRCB PJ6-3 (ON)	1600W: B to C-6 1650EN: C-6
5	SD2 operation check.	PRCB PJ10-4 (REM)	1600W: C-9 to 10 1650EN: C-9
6	Change MFPB.	_	_
7	Change PRCB.	=	=

16.3.4 Misfeed at exit section

A. Detection timing

Туре	Description
Detection of misfeed at exit section	The exit sensor (PS4) is not unblocked even after the lapse of a predetermined period of time after it has been blocked by the media.
Detection of media left in exit section	The exit sensor (PS4) 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 (PS4)	Printer control board (PRCB)	

	Action	WIRING DIAGRAM		
Step		Control signal	Location (electri- cal component)	
1	Initial check items	_	_	
2	Check the PRCB connector for proper connection and correct as necessary.	_	_	
3	PS4 sensor check.	PRCB PJ6-3 (ON)	1600W: B to C-6 1650EN: C-6	
4	Change PRCB.	_	_	

16.3.5 Misfeed at media feed section

A. Detection timing

Туре	Description
lat media teed section	The leading edge of the media does not block the registration sensor (PS2) even after the lapse of a predetermined period of time after the tray1 media feed solenoid (SD1) has been energized.

B. Action

Relevant electrical parts		
Registration sensor (PS2) Tray1 media feed solenoid (SD1)	Printer control board (PRCB)	

	Action	WIRING DIAGRAM	
Step		Control signal	Location (electrical component)
1	Initial check items	_	_
2	Check the PRCB connector for proper connection and correct as necessary.	1	_
3	PS2 sensor check.	PRCB PJ12-6 (ON)	1600W: C-3 1650EN: C-3
4	SD1 operation check.	PRCB PJ10-2 (REM)	1600W: C-10 1650EN: C-10
5	Change PRCB.		_

17. Malfunction code

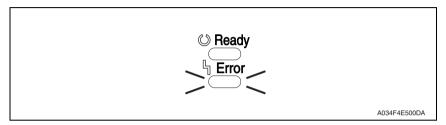
17.1 Trouble codes (service call)

 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 1600W)

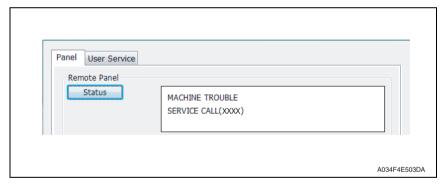
 The CPU circuit of the printer performs a self-diagnostics procedure. If a faulty condition is encountered, the Error indicator blinks twice a second.

See P.50



A. Check the trouble code

When PANEL REMOTE UTILITY is activated, trouble code is displayed by clicking [Status].



17.1.2 Indication of the LCD display (magicolor 1650EN)

• 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.



A034F4E502DA

17.1.3 Trouble code list

Code	Item	Detection Timing
0001	Transport motor malfunction	The motor lock signal remains HIGH for a predeter- mined consecutive period of time while the transport motor remains energized.
		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.
001B	Rack rotation failure	 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.
004A	Duplex unit cooling fan motor malfunction	Duplex Option Service Manual P.17
004C	Ozone ventilation fan motor	The ozone ventilation fan motor does not rotate evenly even after the lapse of a given period of time while it is being started.
0040	malfunction	 The motor lock signal remains HIGH for a given period of consecutive time while the ozone ventilation fan motor is being rotated.
004E	Power supply cooling fan motor malfunction	The fan motor lock signal remains HIGH for a predeter- mined consecutive period of time while the power sup- ply cooling fan motor remains energized.
0092	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.

magicolor 1600W magicolor 1650EN

Code	Item	Detection Timing
		 The state of the 2nd image transfer retraction position sensor is not changed from the unblocked to blocked state even after the lapse of a predetermined period of time during predrive.
	2nd image transfer pressure	 The 2nd image transfer retraction position sensor is in the unblocked state even after the lapse of a predeter- mined period of time during predrive.
0094	/retraction failure	 The 2nd image transfer retraction position sensor is not blocked (roller in the retracted position) within a prede- termined period of time after the retraction sequence of the 2nd transfer roller has been started.
		 The 2nd image transfer retraction position sensor is not unblocked (roller in the pressed position) within a pre- determined period of time after the pressure sequence of the 2nd transfer roller has been started.
0300	Polygon motor malfunction	 A LOW motor lock signal is not detected even after the lapse of a predetermined period of time after the poly- gon motor has been started.
0300	Tolygon motor manufaction	 The motor lock signal remains HIGH for a predeter- mined consecutive period of time while the polygon motor remains energized.
0310	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.
0500	Fuser warm-up failure	 The thermistor does not detect a predetermined tem- perature 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 com- pleted.
0502	Thermistor open-circuit failure	 The temperature detected by the thermistor does not reach a predetermined level even after the lapse of a given period time after the warm-up cycle has been started.
0503	Thermistor resistance failure	 The heater lamp remains ON for a predetermined con- secutive period of time.
0510	Abnormally low fuser temperature	 The temperature detected by the thermistor remains lower than a predetermined value for a predetermined period of time.
0520	Abnormally high fuser temperature	 The temperature detected by the thermistor is a prede- termined value or higher for a predetermined period of time.
0F51	Waste toner full sensor trouble	Waste toner full sensor detects abnormal situation.
13C0	Printer control board malfunction	Communications with the M/C expansion IO G/A (IC on the printer control board) are not properly carried out.
13DD	Backup data error	The printer determines that EEPROM is yet to be mounted when the main power switch is turned ON.
13E2	Flash ROM write error	Flash ROM writing is found faulty during a check.
13F0	Engine control failure	An undefined malfunction occurs in the engine section (PRCB, etc.).

Code	Item	Detection Timing
3C00	EEPROM installation error	Contact the responsible people of KONICA MINOLTA
3C10	EEPROM data error	when not returning in power switch OFF/ON.

17.1.4 Resetting a malfunction

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

17.2 Solution

17.2.1 0001: Transport motor malfunction

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

		WIRING DIAGRAM	
Step	Action	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 PRCB connector for proper connection and correct as necessary.	_	_
4	M1 operation check.	PRCB PJ8-1 to 6	1600W: C-2 1650EN: C-2
5	Change PRCB.	=	_
6	Change DCPU.	_	_

17.2.2 001B: Rack rotation failure

Relevant electrical parts	
` '	Printer control board (PRCB)
Rack positioning sensor (PS5)	

		WIRING DIAGRAM	
Step	Action	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 PRCB connector for proper connection and correct as necessary.	_	_
4	PS5 sensor check.	PRCB PJ5-11 (ON)	1600W: C-11 to 12 1650EN: C-11 to 12
5	M2 operation check.	PRCB PJ5-5 to 8	1600W: C-12 1650EN: C-12
6	Change PRCB.	=	=

17.2.3 004C: Ozone ventilation fan motor malfunction

Relevant ele	ectrical parts
Ozone ventilation fan motor (FM2)	Printer control board (PRCB)

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Check the FM2 connector for proper connection and correct as necessary.	_	=
2	Check the fan for possible overload and correct as necessary.	_	_
3	Check the PRCB connector for proper connection and correct as necessary.	_	_
4	FM2 operation check.	PRCB PJ16-1 (REM) PRCB PJ16-3 (LOCK)	1600W: C-4 1650EN: C-4
5	Change FM2.	_	_
6	Change PRCB.		_

17.2.4 004E: Power supply cooling fan motor malfunction

Relevant electrical parts	
DC power supply fan motor (FM1)	Printer control board (PRCB) DC power supply (DCPU)

		WIRING DIAGRAM	
Step	Action	Control signal	Location (Electrical component)
1	Check the FM1 connector for proper connection and correct as necessary.	_	_
2	Check the fan for possible overload and correct as necessary.	_	_
3	Check the PRCB connector for proper connection and correct as necessary.	_	_
4	FM1 operation check.	HV CN2-1 (REM) HV CN2-3 (LOCK)	1600W: B-5 1650EN: B-4 to 5
5	Change PRCB.	=	_
6	Change DCPU.	_	_

17.2.5 0092: Transfer belt rotation failure

Relevant electrical parts	
Belt positioning sensor (PS6) Imaging cartridge	Printer control board (PRCB)

		WIRING DIAGRAM	
Step	Action	Control signal	Location (Electrical component)
1	Check the PRCB connector for proper connection and correct as necessary.	_	_
2	PS6 sensor check.	_	_
3	Change Imaging cartridge.	_	_
4	Change PRCB.	_	_

17.2.6 0094: 2nd image transfer pressure/retraction failure

Relevant electrical parts	
2nd image transfer retraction position sensor (PS3) 2nd image transfer pressure/retraction solenoid (SD4) Transport motor (M1)	Printer control board (PRCB)

	Action	WIRING DIAGRAM	
Step		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 SD4 connector for proper connection and correct as necessary.	_	
4	Check the PRCB connector for proper connection and correct as necessary.	_	_
5	PS3 sensor check.	PRCB PJ12-3 (ON)	1600W: C-2 to 3 1650EN: C-2
6	SD4 operation check.	PRCB PJ10-6 (REM)	1600W: C-9 1650EN: C-9
7	M1 operation check.	PRCB PJ8-1 to 6	C-2
8	Change PRCB.	=	=

17.2.7 0300: Polygon motor malfunction

Relevant electrical parts	
PH unit	Printer control board (PRCB)

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

17.2.8 0310: Laser malfunction

Relevant electrical parts	
PH Unit	Printer control board (PRCB)

		WIRING DIAGRAM	
Step	Action	Control signal	Location (Electrical component)
1	Check the cable and connector for proper connection and correct as necessary.	_	=
2	Change PH unit.	_	_
3	Change PRCB.	=	_

17.2.9 0500: Fuser warm-up failure 0503: Thermistor resistance failure

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

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Change fuser unit.	_	_
2	For magicolor 1600W: 1. Main switch is turned ON. 2. Open the top cover. 3. Press the following keys in this order. Rotate Toner key → Clear key → Clear key → Rotate Toner key. 4. Main switch is turned OFF/ON. For magicolor 1650EN: 1. Main switch is turned ON. 2. Execute [SERVICE MENU] - [FUSER UNLOCK]. See P.92	I	
3	Change PRCB.	_	_
4	Change DCPU.	=	_

17.2.10 0502: Thermistor open-circuit failure 0510: Abnormally low fuser temperature 0520: Abnormally high fuser temperature

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

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Check the fuser unit for correct installation (whether it is secured in position).	_	_
2	Check the fuser unit, DCPU, and PRCB for proper connection and correct as necessary.	_	_
3	Change fuser unit.	_	_
4	Change PRCB.	_	_
5	Change DCPU.	_	_

17.2.11 0F51: Waste toner full sensor trouble

Relevant ele	ectrical parts
Waste toner full sensor (PS7)	Printer control board (PRCB)

		WIRING DIAGRAM	
Step	Action	Control signal	Location (Electrical component)
1	Check the PRCB connector for proper connection and correct as necessary.	_	_
2	PS7 sensor check.	_	_
3	Change PRCB.	_	_

17.2.12 13C0: Printer control board malfunction

	Relevant ele	ectrical parts
Printer control board (PRCB)		

		WIRING DIAGRAM	
Step	Action	Control signal	Location (Electrical component)
1	Check the PRCB connector for proper connection and correct as necessary.	_	_
2	Change PRCB.	_	_

17.2.13 13DD: Backup data error

Relevant e	electrical parts
Printer control board (PRCB)	

		WIRING DIAGRAM		
Step	Action	Control signal	Location (Electrical component)	
1	Confirm mounting status of EEPROM on the printer control board, and make modification if necessary.			
2	Change PRCB.	=	_	

17.2.14 13E2: Flash ROM write error

Relevant ele	ectrical parts
Printer control board (PRCB)	MFP board (MFPB)

		WIRING DIAGRAM		
Step	Action	Control signal	Location (Electrical component)	
1	Check the cable and connector for proper connection and correct as necessary.	_	_	
2	Change PRCB.	_	_	
3	Change MFPB.	_	_	

17.2.15 13F0: Engine control failure

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

		WIRING DIAGRAM		
Step	Action	Control signal	Location (Electrical component)	
1	Check the cable and connector for proper connection and correct as necessary.	_	_	
2	Change PRCB.	_	_	
3	Change MFPB.	_	_	

18. Power supply errors

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

Relevant electrical parts	
Power switch Printer control board (PRCB)	DC power supply (DCPU)
Tilliter control beard (TTOB)	

Step	Check Item	Location (Electrical component)	Result	Action
1	Is the power source voltage being applied to CN6 on DCPU?	1600W: L-3 1650EN: L-3	NO	Check wiring from power outlet to SW1 to CN1-N.
2	Are fuses (F1 and F2) on DCPU conducting?	_	NO	Change DCPU.
3	Are DC24 V and DC5 V being applied to PJ17 on the printer control board?	1600W: E-5 1650EN: E-4 to 5	NO YES	Change DCPU. Change PRCB.

18.2 Control panel indicators do not light

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

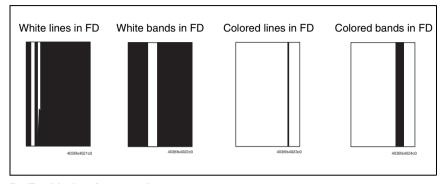
Step	Check Item	Location (Electrical component)	Result	Action
1	Is the power source voltage being applied to CN6 on DCPU?	1600W: L-3 1650EN: L-3	NO	Check wiring from power outlet to SW1 to CN1-N.
2	Are fuses (F1 and F2) on DCPU conducting?	=	NO	Change DCPU.
	Is PJ1 on PRCB properly connected?	1600W: F to G-4 to 5 1650EN: F to G-3 to 4		
3	For 1600W: Is P105 on MFPB properly connected? For 1650EN: Is CN8 on MFPB properly connected? 1600W: H-4 to 5 1650EN: F to G-3 to 4		NO	Reconnect.
	For 1600W: Is P102 on MFPB properly connected? For 1650EN: Is CN9 on MFPB properly connected?	1600W: I-6 1650EN: I-5		
	For magicolor 1600W		NO	Reconnect.
4	Is PJ1 on operation board properly con- nected? For magicolor 1650EN Is CN1 on operation board properly con- nected?	1600W: K-6 1650EN: K-5	YES	Operation panel. Change MFPB.

19. Image quality problems

19.1 Solution

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

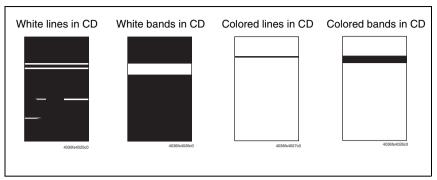
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2		Is the outside dirty?	YES	Clean.
3	Imaging cartridge	Is the connector or contact terminal of the imaging cartridge connected properly?	NO	Clean the contact terminal.
4	ou. mago	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 imaging cartridge.
6	PH unit	Is the connector or contact terminal of the PH unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
7		Is the window surface dirty?	YES	Clean.
8	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
9	Media path	Is there a foreign object in the media path?	YES	Remove the foreign object.
10	Fuser unit	Is the fusing entrance guide plate dirty or scratched?	YES	Clean. Replace the fuser unit.
11		Have steps 1 to10 eliminated the problem?	NO	Replace the toner cartridge. → Replace the PH unit.

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

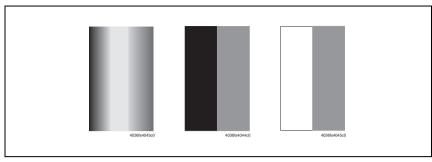
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2		Is the outside dirty?	YES	Clean.
3	Imaging cartridge	Is the connector or contact terminal of the imaging cartridge connected properly?	NO	Clean the contact terminal.
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 imaging cartridge.
5	Toner cartridge	Is the developing bias contact terminal in good contact?	NO	Clean the contact terminal or check the terminal position.
6	PH unit	Is the connector or contact terminal of the PH unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
7	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
8	Media path	Is there a foreign object in the media path?	YES	Remove the foreign object.
9	Fuser unit	Is the fusing entrance guide plate dirty or scratched?	YES	Clean.
10		Have steps 1 to 9 eliminated the problem?	NO	Replace the DC power supply.

19.1.3 Uneven density in FD

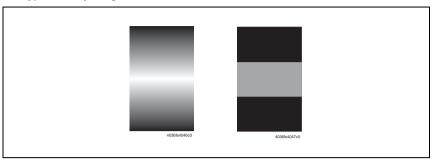
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2	Imaging	Is the outside dirty?	YES	Clean.
3	cartridge	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 imaging cartridge.
4]	Is the terminal dirty?	YES	Clean.
5	PH unit	Is the window surface dirty?	YES	Clean.
6	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
7		Have steps 1 to 6 eliminated the problem?	NO	Replace the toner cartridge. → Replace the PH Unit. → Replace high voltage unit.

19.1.4 Uneven density in CD

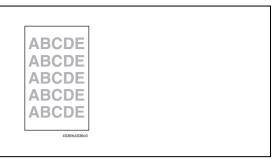
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2		Is the outside dirty?	YES	Clean.
3	Imaging cartridge	Is the transfer belt dirty with fingerprints or oil?	YES	Clean.
4	carmuge	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 imaging cartridge.
5		Is the terminal dirty?	YES	Clean.
6	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
7		Have steps 1 to 6 eliminated the problem?	NO	Replace the toner cartridge. → Replace high voltage unit.

19.1.5 Low image density

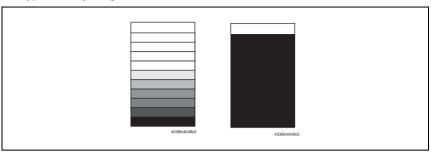
A. Typical faulty images



Step	Section	Check item	Result	Action
1	Imaging	Is the outside dirty?	YES	Clean.
2	cartridge	Is the contact dirty?	YES	Clean.
3	PH unit	Is the window surface dirty?	YES	Clean.
4	2nd transfer roller	Is the contact dirty?	YES	Clean.
5	Media	Is the media damp?	YES	Replace the media with new media that has just been unwrapped.
6	IDC sensor board	Is the sensor dirty?	YES	Clean.
7		Have steps 1 to 6 eliminated the problem?	NO	Replace the toner cartridge. → Replace the Imaging cartridge. → Replace the 2nd transfer roller. → Replace the PH unit. → Replace the IDC sensor board. → Replace the printer control board. → Replace the high voltage unit.

19.1.6 Gradation reproduction failure

A. Typical faulty images



Step	Section	Check item	Result	Action
1	Imaging cartridge	Is the outside dirty?	YES	Clean.
2	PH unit	Is the window surface dirty?	YES	Clean.
3	IDC sensor board	Is the sensor dirty?	YES	Clean.
4		Have steps 1 to 3 eliminated the problem?	NO	Replace the toner cartridge. → Replace the PH unit. → Replace the IDC sensor board. → Replace the high voltage unit.

ubleshooting

19.1.7 Foggy background

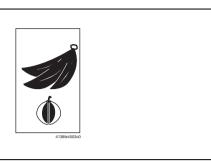
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2	Imaging cartridge	Is the outside dirty?	YES	Clean.
3	ou.mage	Is the contact terminal of the imaging cartridge connected properly?	NO	Clean the contact terminal.
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 termi- nal of the PH unit connected properly?	NO	Clean the contact terminal or reconnect the connector.
6		Is the window surface dirty?	YES	Clean.
7	IDC sensor bozrd	Is the sensor dirty?	YES	Clean.
8		Have steps 1 to 7 eliminated the problem?	NO	Replace the toner cartridge. → Replace the PH unit. → Replace the IDC sensor board

19.1.8 Poor color reproduction

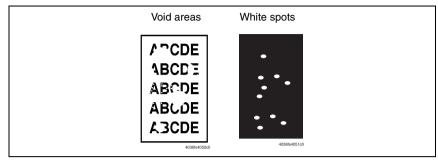
A. Typical faulty images



Step	Section	Check item	Result	Action
1	Media	Is the media damp?	YES	Replace the media with new media that has just been unwrapped.
2	imaging cartridge	Is the terminal dirty?	YES	Clean.
3	IDC sensor board	Is the sensor dirty?	YES	Clean.
4		Have steps 1 to 3 eliminated the problem?	NO	Replace the imaging cartridge. → Replace the IDC sensor board. → Replace the printer control board. → Replace the high voltage unit.

19.1.9 Void areas, white spots

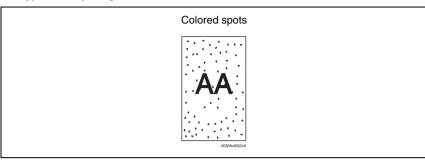
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
2		Is the outside dirty?	YES	Clean.
3	Imaging	Is the transfer belt dirty with fingerprints or oil?	YES	Clean.
4	cartridge	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 imaging cartridge.
5		Is the ground terminal connected properly?	NO	Correct.
6	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
7	- Media path	Is there a foreign object in the media path?	YES	Remove the foreign object.
8		Is the fusing entrance guide plate dirty or scratched?	YES	Clean or replace.
9		Have steps 1 to 8 eliminated the problem?	NO	Replace the toner cartridge.

19.1.10 Colored spots

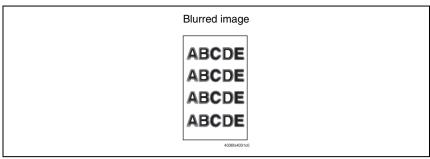
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Are the spots in a single color?	NO	Replace the imaging cartridge.
2		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.
3	Imaging cartridge	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 imaging cartridge.
5	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
6	Media path	Is there a foreign object in the media path?	YES	Remove the foreign object.
7	Fuser unit	Is the fusing roller dirty or scratched?	YES	Replace the fuser unit.
8		Have steps 1 to 7 eliminated the problem?	NO	Replace the toner cartridge.

19.1.11 Blurred image

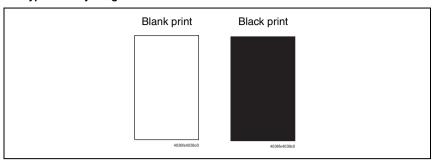
A. Typical faulty images



Step	Section	Check item	Result	Action
1	PH unit	Is the window surface dirty?	YES	Clean.
2	Imaging cartridge	Is the outside dirty?	YES	Clean.
3		Have steps 1 to 2 eliminated the problem?	NO	Replace the imaging cartrdge. → Replace the PH unit.

19.1.12 Blank copy, black copy

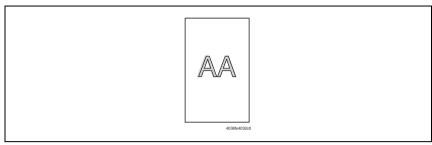
A. Typical faulty images



Step	Section	Check item	Result	Action	
1	Image check	Does a blank print occur?	YES	Check the PH unit connector for proper connection.	
2	Imaging cartridge	Is the gear of the imaging car- tridge drive mechanism installed properly?	NO	Check or correct the drive transmitting section or replace the imaging cartridge.	
3		Is the charge corona voltage contact or photo conductor ground contact of the imaging 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 to 4 eliminated the problem?	NO	Replace the high voltage unit. → Replace the printer control board. → Replace the PH unit.	

19.1.13 Incorrect color image registration

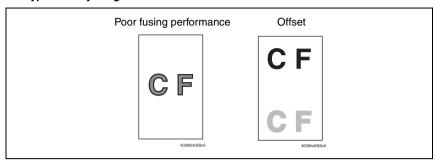
A. Typical faulty images



Step	Section	Check item	Result	Action
1		Is the transfer belt dirty with fingerprints or foreign matter?	YES	Clean.
2	Imaging cartridge	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 imaging cartridge.
3		Is the photo conductor scratched?	YES	Replace the imaging cartridge.
4		Is the drive coupling to the machine dirty?	YES	Clean.
5	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.
6		Have steps 1 to 5 eliminated the problem?	NO	Replace the PH unit. → Replace the printer control board.

19.1.14 Poor fusing performance, offset

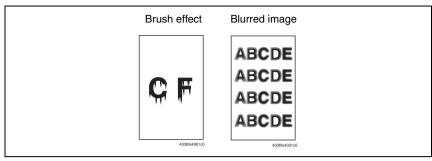
A. Typical faulty images



Step	Section	Check item	Result	Action	
1	Media	Does the media being used conform to specifications?	NO	Replace the media.	
2	Fuser unit	Are the fuser separator levers in the correct position?	NO	Correct.	
3		Have steps 1 to 2 eliminated the problem?	NO Replace the fuser unit. → Replace the printer control board.		

19.1.15 Brush effect, blurred image

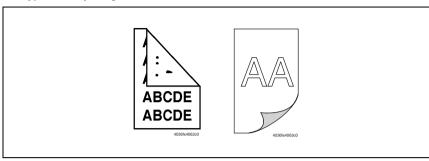
A. Typical faulty images



Step	Section	Check item	Result	Action	
1	Media	Is the media damp?	YES	Replace the media with new media that has just been unwrapped.	
2		Does the media being used conform to specifications?	NO	Replace the media.	
3		Are there scratches or lines evident on the photo conductor surface?	YES	Replace the imaging cartridge.	
4	Imaging cartridge	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 imaging cartridge.	
6	Fuser unit	Is the fusing entrance guide plate	YES	Clean.	
U		dirty?	NO	Replace the fuser unit.	

19.1.16 Back marking

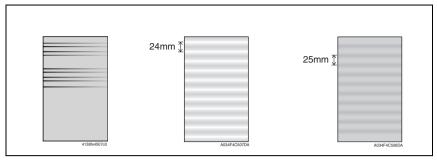
A. Typical faulty images



Step	Section	Check item	Result	Action	
1	Media path	Is there a foreign object in the media path?	YES	Remove the foreign object.	
2	Fuser unit	Is the fusing entrance guide plate dirty or scratched?	YES	Clean or replace.	
3	i user unit	Is the fusing roller scratched or dirty?	YES	Replace the fuser unit.	
4	imaging cartridge	Is the transfer belt dirty with fingerprints or foreign matter?	YES	Clean.	
5	2nd transfer roller	Is the 2nd transfer roller dirty or scratched?	YES	Replace the 2nd transfer roller.	
6		Have steps 1 to 5 eliminated the problem?	NO	Replace the imaging cartridge. → Replace the fuser unit. → Replace the high voltage unit.	

19.1.17 Pitch lines, pitch uneven density

A. Typical faulty images

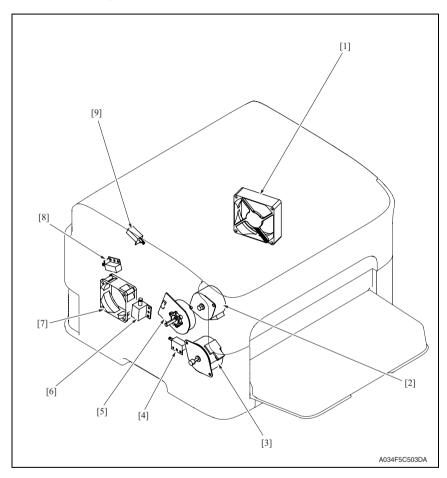


Step	Section	Check item	Result	Action	
1	Image check	Do faint lines occur at a pitch of 24 mm in the main scanning direction?	YES	For magicolor 1600W: Execute [Image Refresh] using the remote panel utility. See P.53 For magicolor 1650EN: Execute [MAIN MENU] - [QUALITY MENU] - [IMAGE REFRESH]. See P.71 NOTE If one image refresh sequence does not make the faint lines less noticeable, run it a second time.	
		Does uneven density at a pitch of 25 mm occur?	YES	 Leave the main unit to stand idle under environment free of high humidity. 	
2	Toner cartridge	Is the toner cartridge for each color of toner installed in position?	NO	Reinstall.	
3	PH unit	Is the PH unit secured in position with the fixing screw?	NO	Secure it in position.	
4	Toner cartridge	Is the drive mechanism of the toner Cartridge dirty or damaged?	YES	Clean or replace the toner cartridge.	
5	Imaging cartridge	Is the photo conductor dirty, scratched, or worn?	YES	Replace the imaging cartridge.	
6	2nd transfer roller	Are the 2nd transfer roller and drive mechanism dirty, deformed, or worn?	YES	Replace the 2nd transfer roller.	
7	Fuser unit	Are the rollers and drive mechanism of the fuser unit dirty, scratched, deformed, or worn?	YES	Replace the fuser unit.	
8		Have steps 1 to 7 eliminated the problem?	NO	Replace the imaging cartridge.	

APPENDIX

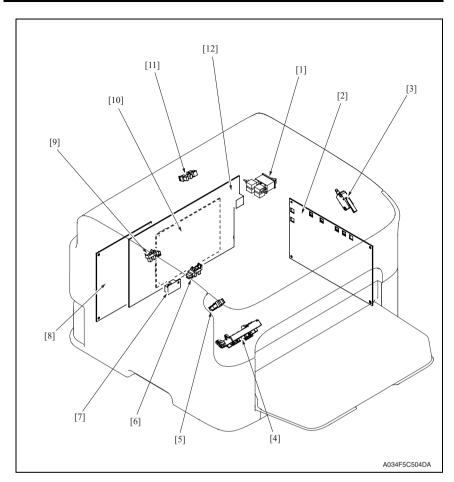
20. Parts layout drawing

20.1 Main body



- [1] DC power supply fan motor (FM1)
- [2] Rack motor (M2)
- [3] Developing motor (M3)
- [4] Tray1 media feed solenoid (SD1)
- [5] Transport motor (M1)

- [6] Registration roller solenoid (SD2)
- [7] Ozone ventilation fan motor (FM2)
- [8] 2nd image transfer pressure/retraction solenoid (SD4)
- [9] Cleaning blade pressure/retraction solenoid (SD5)

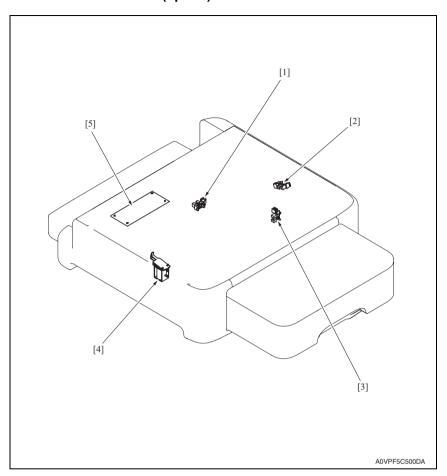


- [1] Main power switch (SW1)
- [2] High voltage unit (HV)
- [3] Interlock switch (MS2)
- [4] Contact switch (SW5)
- [5] Rack positioning sensor (PS5)
- [6] Registration sensor (PS2)

- [7] Temperature/ humidity sensor (TEM/HUMS)
- [8] Print control board (PRCB)
- [9] 2nd image transfer retraction position sensor (PS3)
- [10] MFP board (MFPB)
- [11] Exit sensor (PS4)
- [12] DC power supply (DCPU)

magicolor 1600W magicolor 1650EN

20.2 Lower feeder unit (option)

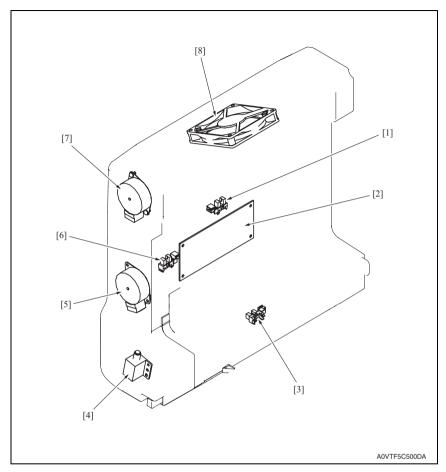


- [1] Transport sensor (PS12)
- [2] Media empty sensor (PS10)
- [3] Tray set sensor (PS11)

- [4] Media feed solenoid (SD6)
- [5] PC control board (PCCB)

Appendix

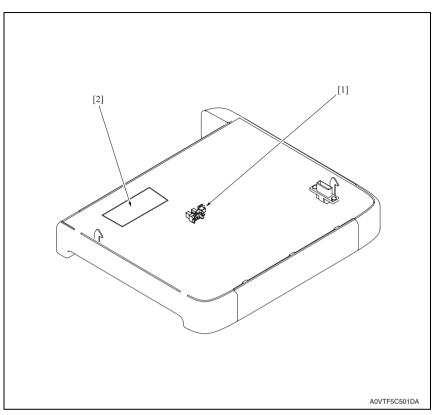
20.3 Duplex option (option)



- [1] Transport sensor/1 (PS15)
- [2] AD drive board (ADDB)
- [3] Loop sensor (PS13)
- [4] Registration solenoid (SD7)

- [5] Transport motor (M6)
- [6] Door sensor (PS14)
- [7] Switchback motor (M5)
- [8] Cooling fan motor (FM3)

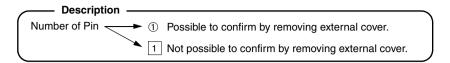
20.4 Duplex option attachment (option)

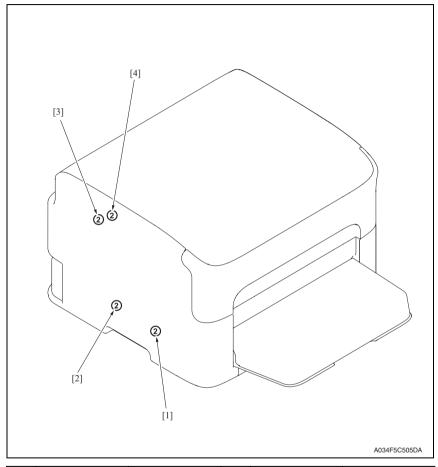


[1] Transport sensor/2 (PS17)

[2] Relay board/2 (REYB/2)

21. Connector layout drawing

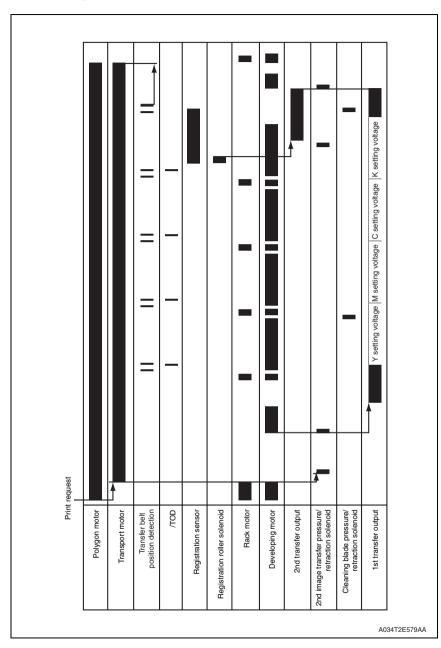




No.	CN No.	Location	No.	CN No.	Location
[1]	CN2	D-10	[3]	CN5	D-9
[2]	CN3	D-9	[4]	CN6	D-11

Appendix

22. Timing chart



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SERVICE MANUAL

FIELD SERVICE

Lower Feeder Unit

Revision history

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2008/11	1.0	_	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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Lower Feeder Unit

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OUTLINE

1. Product specifications

1.1 Type

Name	Add-on 500-sheet paper feed cassette
Installation	Desk type
Document alignment	Center

1.2 Paper type

Paper size A4S/LetterS	
Paper type	Plain paper: 60 to 90 g/m² (16 to 24 lb)
Capacity	500 sheets

1.3 Machine specifications

Power requirements	DC 24 V \pm 10 % (supplied from the main unit)
	DC 5 V ± 5 %
Max. power consumption	10 W
Dimensions	396 (W) × 509.6 (D) × 120.5 (H) mm 15.6 (W) × 20.1 (H) × 4.75 (D) inch
Weight	Approx. 4.5 kg (1.2 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)
- Periodically replaced parts are not employed.

Other

3.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

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

B. Red-painted screws

NOTE

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

C. Variable resistors on board

NOTE

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

D. Removal of PWBs

⚠ CAUTION

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

3.2 Disassembly/Assembly list (Other parts)

3.2.1 Disassembly/assembly parts list

No	Section	Part name	Ref. page
1	-	Lower Feeder Unit	P.5
2		Right cover	P.6
3	Exterior parts	Left cover	P.6
4		Rear cover	P.6
5	Unit	Pick-up roller	P.7
6	Offic	Media pick-up drive unit	P.8
7	Board and etc	PC control board (PCCB)	P.10
8	Others	Media feed solenoid (SD6)	P.11

3.2.2 Cleaning parts list

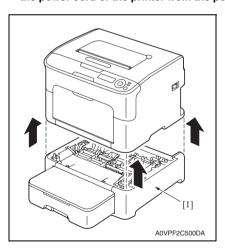
No	Section	Part name	Ref. page
1	Rollers	Pick-up rollers	P.12

3.3 Disassembly/Assembly procedure

3.3.1 Lower Feeder Unit

NOTE

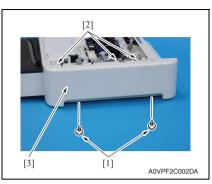
 Whenever removing or reinstalling the Lower Feeder Unit, be sure first to unplug the power cord of the printer from the power outlet.



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

3.3.2 Right cover

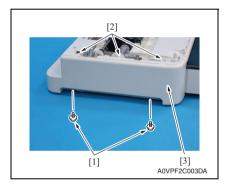
1. Remove the Lower Feeder Unit from the main body.



Remove two screws [1] and unhook three tabs [2], and remove the right cover [3].

3.3.3 Left cover

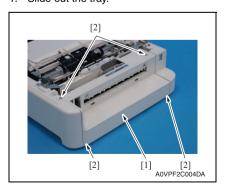
1. Remove the Lower Feeder Unit from the main body.



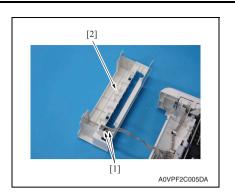
Remove two screws [1] and unhook three tabs [2], and remove the left cover [3].

3.3.4 Rear cover

1. Slide out the tray.



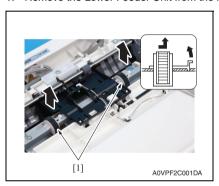
2. Remove four screws [1], and remove the rear cover [2].



3. Disconnect two connectors [1], and remove the rear cover [2].

3.3.5 Pick-up roller

1. Remove the Lower Feeder Unit from the main body.



2. Remove two pick-up rollers [1].

3.3.6 Media pick-up drive unit

1. Remove the right cover.

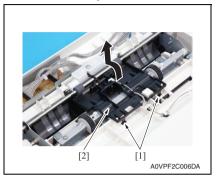
See P.6

2. Remove the left cover.

See P.6

3. Remove the rear cover. See P.6

Slide out the tray.



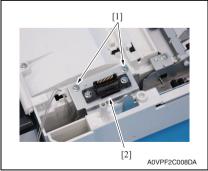
5. Unlock two tabs [1] and remove the cover [2].

NOTE

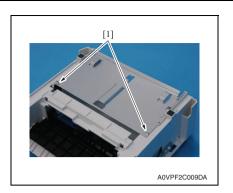
 Make sure to take off the harness from the guide when removing it.



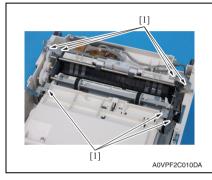
6. Remove the actuator [1].



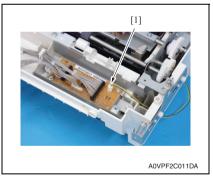
7. Remove two screws [1], and remove the connector fixing plate [2].



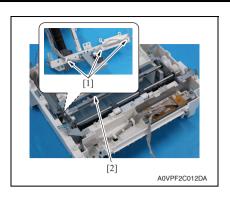
8. Remove two screws [1] on the bottom of media feed unit.



9. Remove seven screws [1], and slide out the media pick-up drive unit [2].



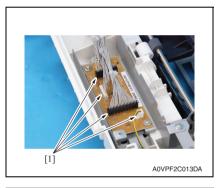
10. Remove the harness from three wire saddles [1].



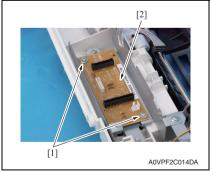
- 11. Remove the harness from three wire saddles [1].
- 12. Remove the media pick-up drive unit.

3.3.7 PC control board (PCCB)

- Remove the lower feeder unit.
 See P.5
- Remove the rear cover. See P.6



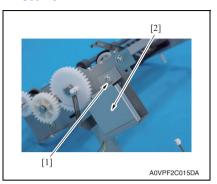
3. Disconnect four connectors [1] from the PC control board.



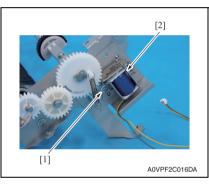
4. Remove two screws [1] and the PC control board [2].

3.3.8 Media feed solenoid (SD6)

 Remove the media pick-up drive unit. See P.8



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



3. Remove the screw [1], and remove the media feed solenoid [2].

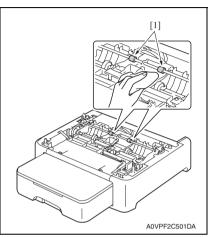
3.4 Cleaning procedure

NOTE

• The alcohol described in the cleaning procedure is isopropyl alcohol.

3.4.1 Pick-up roller

1. Remove the Lower Feeder Unit from the main body.



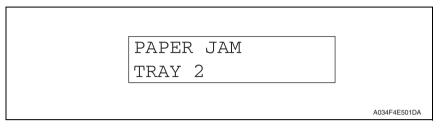
Wipe the pick-up roller [1] clean of dirt using a cleaning pad dampened with alcohol.

TROUBLESHOOTING

4. Jam display

4.1 Misfeed display

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



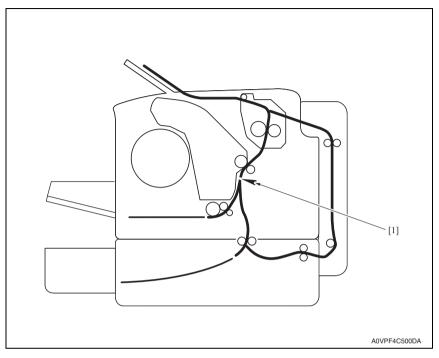
Display	Misfeed location	Misfeed clearing location	Ref. page
PAPER JAM	Lower Feeder Unit	Trav 2	P.15
TRAY 2	media take-up section	nay 2	1.10

4.1.1 Misfeed display resetting procedure

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

4.2 Sensor layout

4.2.1 magicolor 1650EN (mounted with the Lower Feeder Unit and Duplex Option)



[1] Registration sensor (PS2)

4.3 Solution

4.3.1 Initial check items

• When a media misfeed occurs, first check the following initial check items.

Check Item	Action	
Does the media meet product specifications?	Change the media.	
Is media curled, wavy, or damp.	Change the media. Instruct the user in correct paper storage.	
Is a foreign object present along the paper path, or is the media path deformed or worn?	Clean or change the media path.	
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.	

4.3.2 Lower feeder unit media take-up section

A. Detection timing

Type	Description
feed at tray 2 media	The leading edge of the paper does not block the registration sensor (PS2) even after the lapse of a predetermined period of time after the media feed solenoid (SD6) has been energized.

B. Action

Relevant electrical parts		
Registration sensor (PS2) Media feed solenoid (SD6)	Printer control board (PRCB)	

		WIRING DIAGRAM		
Step	Action	Control signal	Location (Electrical component)	
1	Check the initial check items.	-	-	
2	Check the PRCB connector for proper connection and correct as necessary.	-	-	
3	Check the PS2 sensor.	PRCB PJ12-6 (ON)	1600W: C-3 1650EN: C-3	
4	Check SD6 for correct operation.	PCCB CN3-2 (ON)	B-5	
5	Change PRCB.	-	-	

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SERVICE MANUAL

FIELD SERVICE

Duplex Option

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Date	Service manual Ver.	Revision mark	Descriptions of revision

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OUTLINE

1. Product specifications

A. Type

Name	Duplex Option
Installation	Mounted on the back side of main body
Reversing system	Exit roller switchback
Document alignment	Center

B. Paper type

Paper size	A4S/LetterS
Paper type	Plain Paper (60 to 90 g/m² / 16 to 24 lb)

C. Machine specifications

Power requirements DC 24 V ± 10 % (supplied from the main unit)		
	DC 5 V \pm 5 % (supplied from the main unit)	
Max. power consumption	37 W	
Dimensions	357 (W) × 129.3 (D) × 315.5 (H) mm 14.1 (W) × 5.1 (D) × 12.5 (H) inch	
Weight	Approx. 2.5 kg (5.6 lb)	

D. 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)
- Periodically replaced parts are not employed.

3. Other

3.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

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

B. Red-painted screws

NOTE

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

C. Variable resistors on board

NOTE

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

D. Removal of PWBs

⚠ CAUTION

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

3.2 Disassembly/Assembly list (Other parts)

3.2.1 Disassembly/assembly parts list

No	Section	Part name	Ref. page
1	-	Duplex Option	P.5
2	Exterior parts	Right cover	P.6
3	Exterior parts	Left cover	P.6
4	Board and etc.	AD drive board (ADDB)	P.7
5		Cooling fan motor (FM3)	P.8
6	Others	Transport motor (M6)	P.10
7	Outers	Switchback motor (M5)	P.10
8		Registration solenoid (SD7)	P.10

3.2.2 Cleaning parts list

No	Section	Part name	Ref. page
1	Transport section	Transport rollers	P.11
2	Media feed section	Media feed rollers *1	P.11

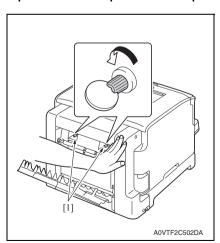
^{*1:} Only when the duplex option attachment is installed.

3.3 Disassembly/Assembly procedure

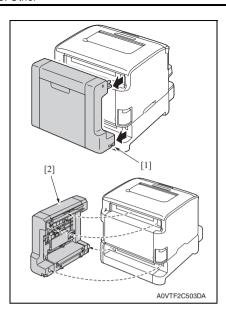
3.3.1 Duplex Option

⚠ NOTE

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

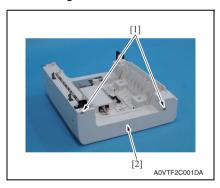


- 1. Open the Duplex Option door.
- 2. Turn two locking screws [1] to unlock the Duplex Option.



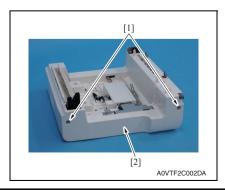
3. Remove the duplex print unit [2] pushing the lever [1].

3.3.2 Right cover



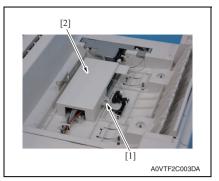
1. Remove two screws [1], and remove the right cover [2].

3.3.3 Left cover

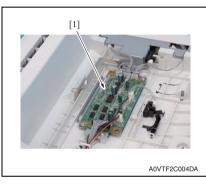


1. Remove two screws [1], and remove the left cover [2].

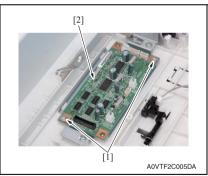
3.3.4 AD drive board (ADDB)



 Remove the screw [1], and the AD drive board cover [2].



Disconnect all connectors from the AD drive board [1].



3. Remove two screws [1], and the AD drive board [2].

aintenance

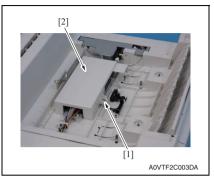
3.3.5 Cooling fan motor (FM3)

1. Remove the right cover.

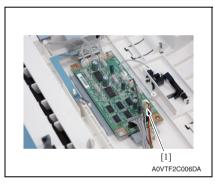
See P.6

2. Remove the left cover.

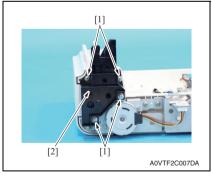
See P.6



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



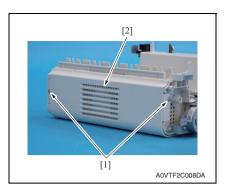
4. Disconnect the connector (CN6) [1].



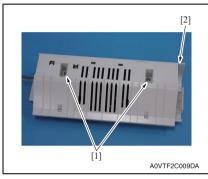
5. Remove four screws [1], remove the gear box [2].

NOTE

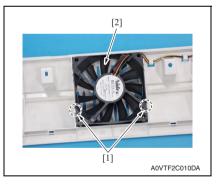
 Pay close attention to gear as it is come off when removing the gear box.



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



7. Remove two screws [1], and remove cooling fan motor cover [2].

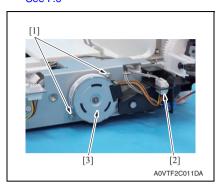


8. Unhook two tabs [1], and remove the cooling fan motor [2].

3.3.6 Transport motor (M6)

1. Remove the right cover.

See P.6

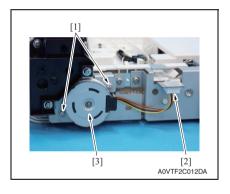


Remove two screws [1] and disconnect the connector [2], and remove the transport motor [3].

3.3.7 Switchback motor (M5)

1. Remove the right cover.

See P.6

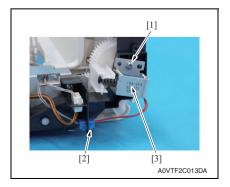


Remove two screws [1] and disconnect the connector [2], and remove the switchback motor [3].

3.3.8 Registration solenoid (SD7)

1. Remove the right cover.

See P.6



Remove the screw [1] and disconnect the connector [2], and remove the registration solenoid [3].

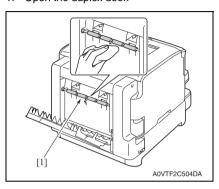
3.4 Cleaning procedure

NOTE

• The alcohol described in the cleaning procedure is isopropyl alcohol.

3.4.1 Transport roller

1. Open the duplex door.



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

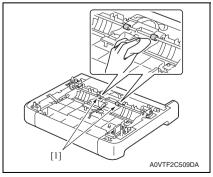
3.4.2 Media feed roller

NOTE

· Only when the duplex option attachment is installed.



 Lift the printer main body and then remove the Duplex option attachment [1] from the printer.



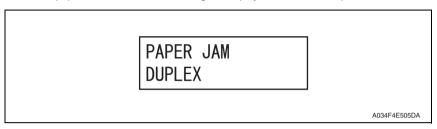
 Using a cleaning pad dampened with alcohol, wipe the media feed rollers
 clean of dirt. Blank Page

TROUBLESHOOTING

4. Jam display

4.1 List of display messages

• When a paper misfeed occurs a message is displayed on the control panel.



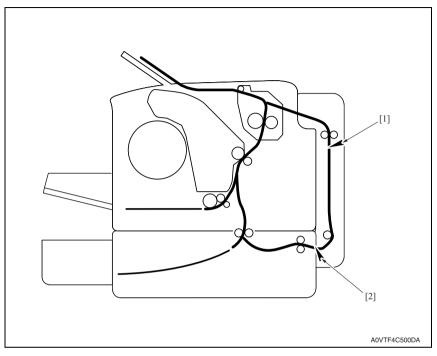
Display	Misfeed location	Misfeed clearing location	Ref. page
PAPER JAM	Duplex Option reverse drive/storage section	Duplex Option door	P.15
DOI LEX	Duplex Option media feed section		P.16

4.1.1 Misfeed display resetting procedure

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

4.2 Sensor layout

4.2.1 magicolor 1650EN (mounted with the Lower Feeder Unit and Duplex Option)



- [1] Transport sensor/1 (PS15)
- [2] Loop sensor (PS13)

4.3 Solution

4.3.1 Initial check items

• When a media misfeed occurs, first check the following initial check items.

Check Item	Action
Does the media meet product specifications?	Change the media.
Is 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 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 media?	Set as necessary.
Are the actuators found operational when checked for correct operation?	Correct or change the defective actuator.

4.3.2 Misfeed at Duplex Option reverse drive/storage section

A. Detection timing

Type	Description
Detection of mis- feed at Duplex Option reverse drive/storage sec- tion	The transport sensor/1 (PS15) is not unblocked even after the lapse of a predetermined period of time after the switchback motor (M5) has been energized for reverse drive.

B. Action

Relevant electrical parts		
Transport sensor/1 (PS15)	AD drive board (ADDB)	
Transport motor (M1)	Printer control board (PRCB)	
Switchback motor (M5)		

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Initial check items.	_	_
2	Check the PS15 sensor.	ADDB CN4-3 (ON)	G-5
3	Check M6 for correct operation.	ADDB CN7-1 to 4	G-3
4	Check M5 for correct operation.	ADDB CN3-1 to 4	G-3
5	Change ADDB.	_	_
6	Change PRCB.	_	_

4.3.3 Misfeed at Duplex Option media feed section

A. Detection timing

Type	Description
Detection of mis-	The paper loop sensor (PS13) is not unblocked even after the lapse of a predetermined period of time after a duplex paper feed sequence has been started.
feed at Duplex Option paper feed	The loop sensor (PS13) is not blocked even after the lapse of a predetermined period of time after a duplex paper feed sequence has been started.
section	The transport sensor/1 (PS15) 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		
. , ,	AD drive board (ADDB) Printer control board (PRCB)	

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Initial check items.	_	_
2	Check the PS13 sensor.	ADDB CN2-3 (ON)	B-4 to 5
3	Check the PS15 sensor.	ADDB CN4-3 (ON)	G-5
4	Check M6 for correct operation.	ADDB CN7-1 to 4	G-3
5	Change ADDB.	_	_
6	Change PRCB.	_	_

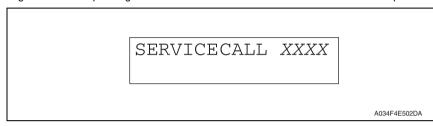
5. Error codes

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 LCD display (magicolor 1650EN)

• 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.



5.1.2 Trouble code list

Code	Item	Detection Timing
004A	Duplex unit cooling fan motor malfunction	The fan motor lock signal remains HIGH for a predeter- mined consecutive period of time while the cooling fan motor remains energized.

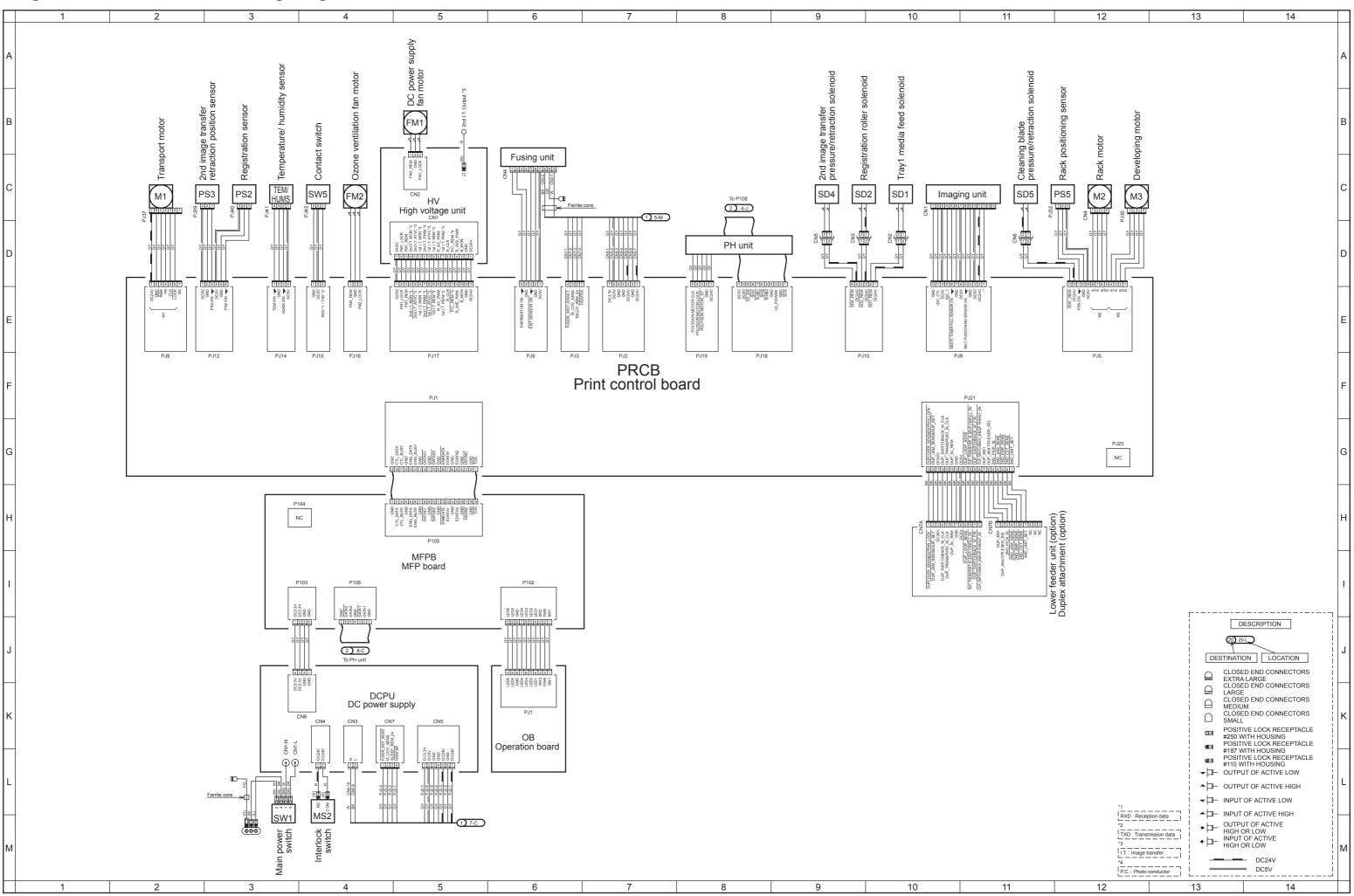
5.2 Solution

5.2.1 004A: Duplex unit cooling fan motor malfunction

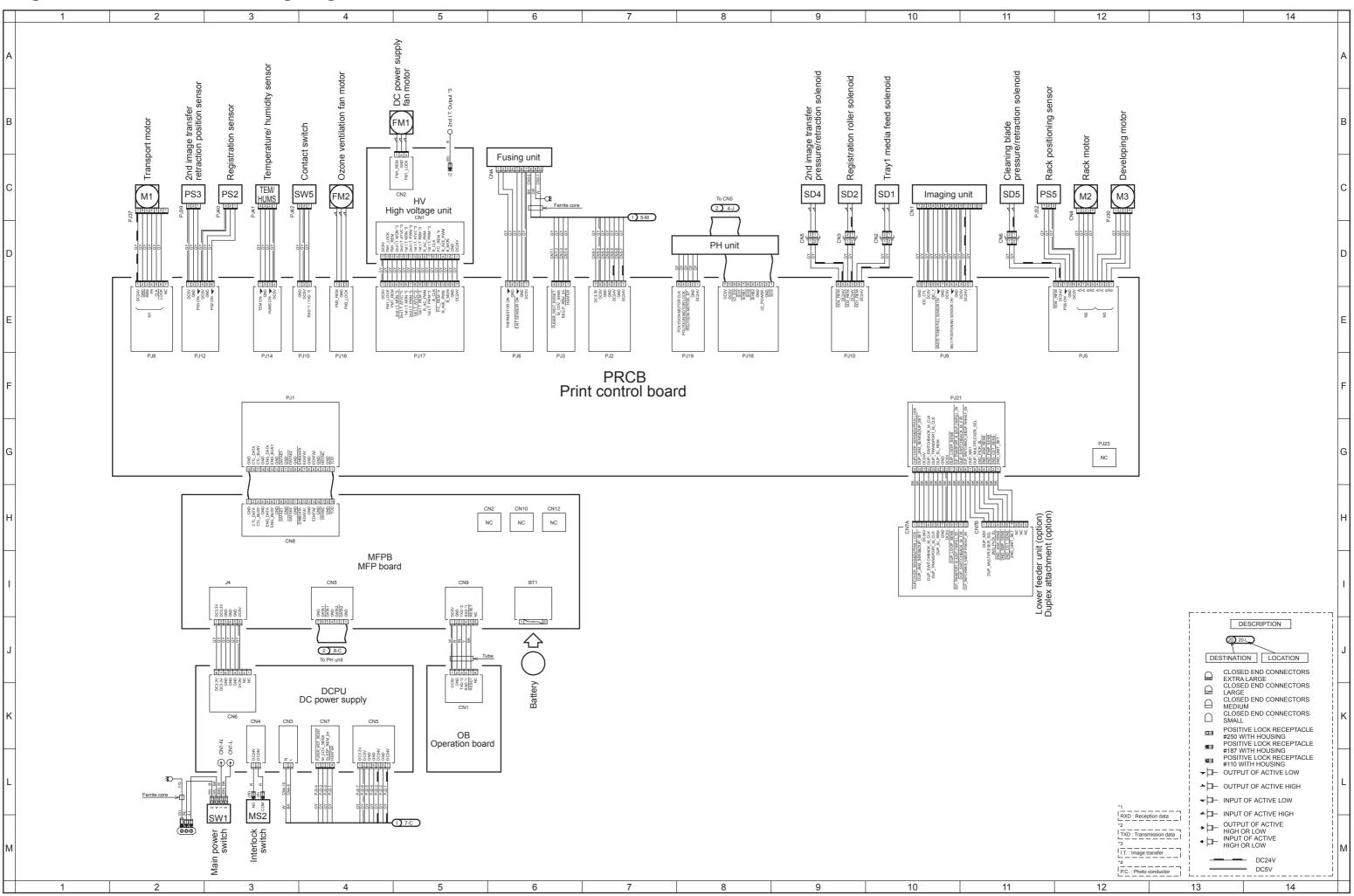
Relevant electrical parts		
, ,	AD drive board (ADDB) Printer control board (PRCB)	

	Action	WIRING DIAGRAM	
Step		Control signal	Location (Electrical component)
1	Check the FM3 connector for proper connection and correct as necessary.		
2	Check the fan for possible overload and correct as necessary.	_	_
3	Check the ADDB connector for proper connection and correct as necessary.	_	_
4	FM3 operation check.	ADDB CN6-1 (REM) ADDB CN6-3 (LOCK)	B-5
5	Change ADDB.	_	_
6	Change PRCB.	_	_

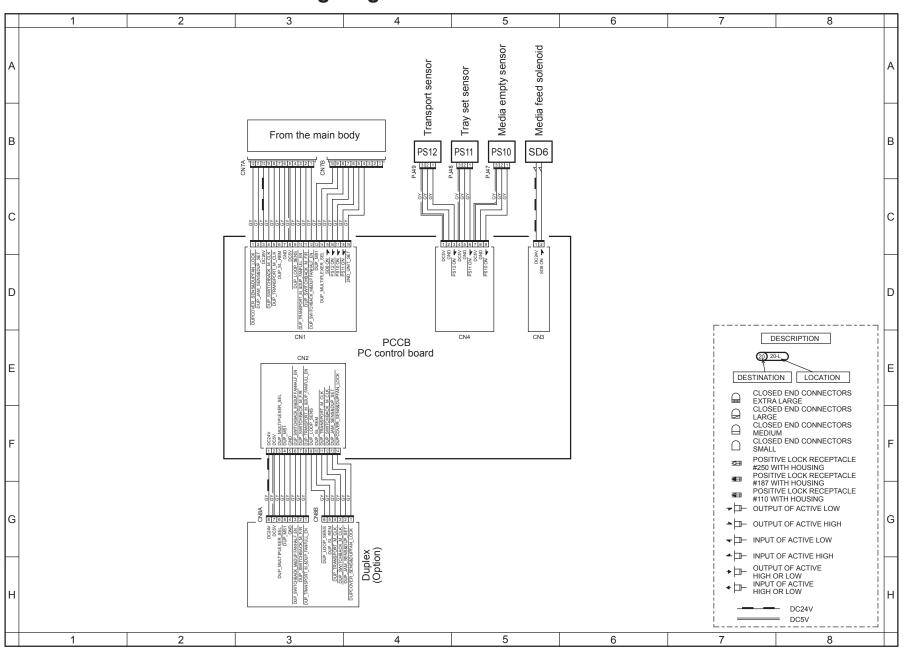
magicolor 1600W Overall wiring diagram



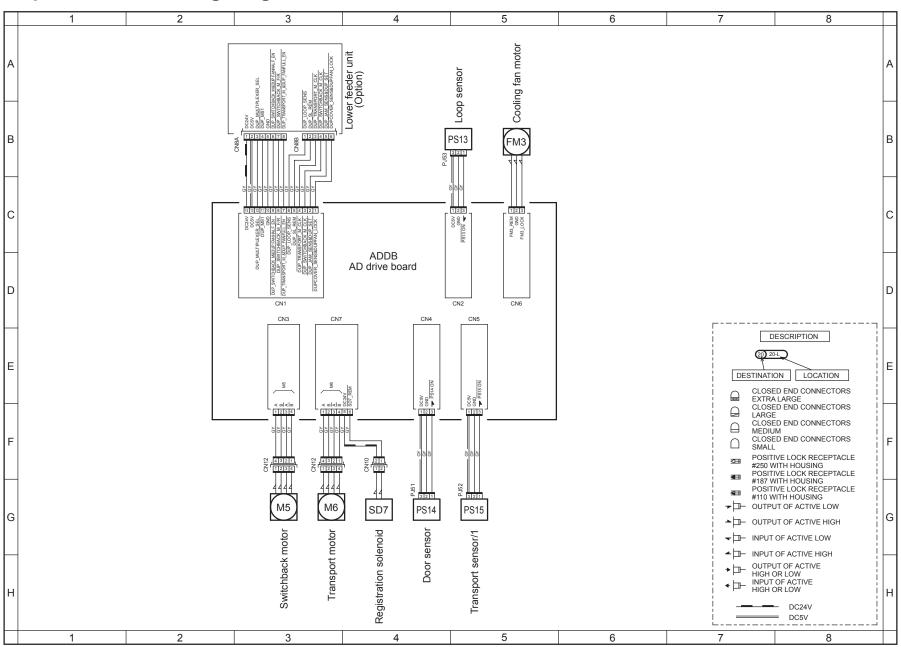
magicolor 1650EN Overall wiring diagram



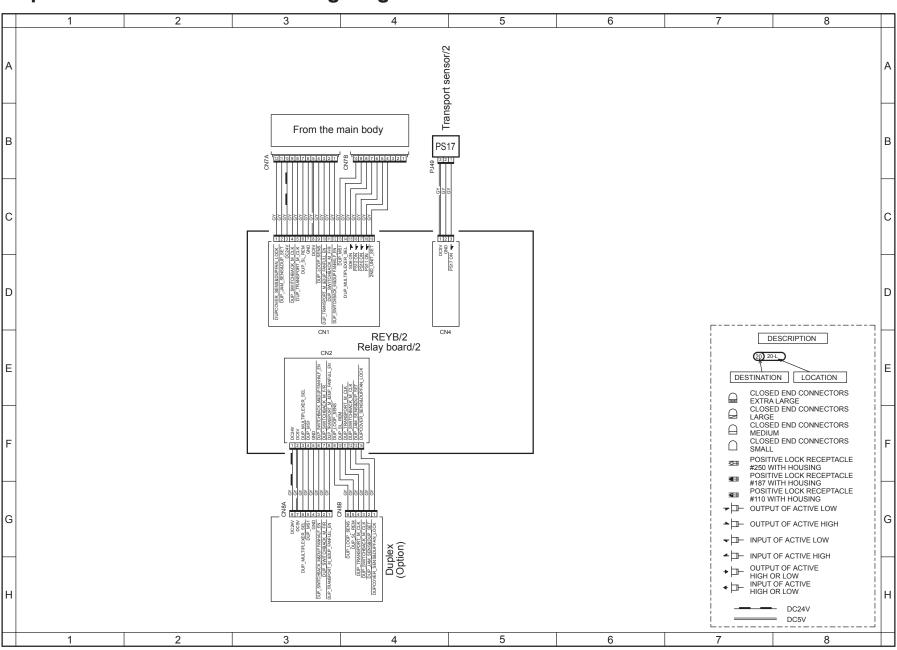
Lower feeder unit Overall wiring diagram



Duplex Overall wiring diagram



Duplex attachment Overall wiring diagram





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