



KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

bizhub C450P

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bizhub C450P Main Unit

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SAFETY AND IMPORTANT WARNING ITEMS

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

IMPORTANT NOTICE

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

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

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

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

Keep this Service Manual also for future service.

DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

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

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

-  **DANGER:** Action having a high possibility of suffering death or serious injury
-  **WARNING:** Action having a possibility of suffering death or serious injury
-  **CAUTION:** Action having a possibility of suffering a slight wound, medium trouble, and property damage

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

	:Precaution when servicing the product.		General precaution		Electric hazard		High temperature
	:Prohibition when servicing the product.		General prohibition		Do not touch with wet hand		Do not disassemble
	:Direction when servicing the product.		General instruction		Unplug		Ground/Earth

SAFETY WARNINGS

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

KONICA MINOLTA brand products are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network. Product design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degradation in performance and safety. Such modifications are therefore strictly prohibited. The points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

Prohibited Actions

⚠ DANGER

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



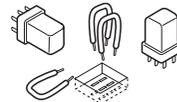
- Using any fuse or thermostat not specified by KMBT. Safety will not be assured, leading to a risk of fire and injury.



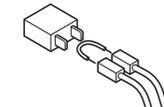
- Disabling fuse functions or bridging fuse terminals with wire, metal clips, solder or similar object.



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



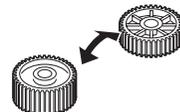
- Disabling safety functions (interlocks, safety circuits, etc.) Safety will not be assured, leading to a risk of fire and injury.



- Making any modification to the product unless instructed by KMBT



- Using parts not specified by KMBT



[2] POWER PLUG SELECTION

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

Power Cord Set or Power Plug

WARNING

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

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



- Attach power plug which meets the following criteria:
 - having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
 - the plug has pin/terminal(s) for grounding, and
 - meets regulatory requirements for the area.

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



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

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



[3] CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

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

1. Power Supply

Connection to Power Supply

WARNING

- Check that mains voltage is as specified.

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



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

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

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



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

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



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

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



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

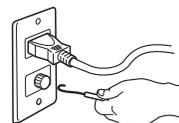
Contact problems may lead to increased resistance, overheating, and the risk of fire.



- Check whether the product is grounded properly.

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

Connect power plug to grounded wall outlet.



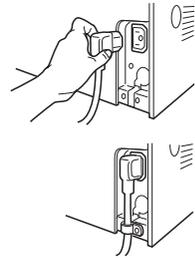
Power Plug and Cord

⚠ WARNING

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

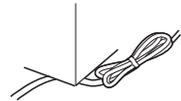
When securing measure is provided, secure the cord with the fixture properly.

If the power cord (inlet type) is not connected to the product securely, a contact problem may lead to increased resistance, overheating, and risk of fire.



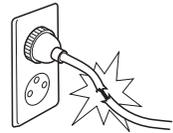
- Check whether the power cord is not stepped on or pinched by a table and so on.

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



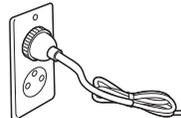
- Check whether the power cord is damaged. Check whether the sheath is damaged.

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



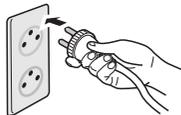
- Do not bundle or tie the power cord.

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



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

Using the power plug and wall outlet without removing dust may result in fire.



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

The risk of electric shock exists.



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

The cable may be broken, leading to a risk of fire and electric shock.

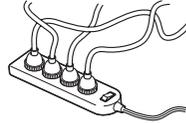


Wiring

WARNING

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

If used, the risk of fire exists.



- When an extension cord is required, use a specified one. Current that can flow in the extension cord is limited, so using a too long extension cord may result in fire.

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



2. Installation Requirements

Prohibited Installation Places

WARNING

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

A risk of fire exists.



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

A risk of fire and electric shock exists.



When not Using the Product for a long time

WARNING

- When the product is not used over an extended period of time (holidays, etc.), switch it off and unplug the power cord.

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



Ventilation

⚠ CAUTION

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

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

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



Stability

⚠ CAUTION

- Be sure to lock the caster stoppers.

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



Inspection before Servicing

⚠ CAUTION

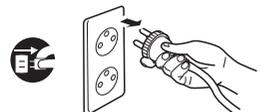
- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure, using only the prescribed tools. Do not make any adjustment not described in the documentation.

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



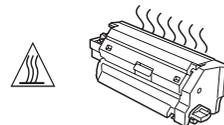
- Before conducting an inspection, be sure to disconnect the power plugs from the product and options.

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



- The area around the fixing unit is hot.

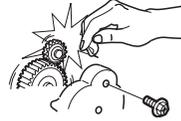
You may get burnt.



Work Performed with the Product Powered On

WARNING

- Take every care when making adjustments or performing an operation check with the product powered.
If you make adjustments or perform an operation check with the external cover detached, you may touch live or high-voltage parts or you may be caught in moving gears or the timing belt, leading to a risk of injury.
- Take every care when servicing with the external cover detached.
High-voltage exists around the drum unit. A risk of electric shock exists.



Safety Checkpoints

WARNING

- Check the exterior and frame for edges, burrs, and other damage.
The user or CE may be injured.
- Do not allow any metal parts such as clips, staples, and screws to fall into the product.
They can short internal circuits and cause electric shock or fire.
- Check wiring for squeezing and any other damage.
Current can leak, leading to a risk of electric shock or fire.
- Carefully remove all toner remnants and dust from electrical parts and electrode units such as a charging corona unit.
Current can leak, leading to a risk of product trouble or fire.
- Check high-voltage cables and sheaths for any damage.
Current can leak, leading to a risk of electric shock or fire.



Safety Checkpoints

WARNING

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

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



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

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



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

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



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

Improper replacement can cause explosion.



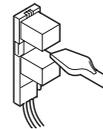
- After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.

A risk of fire exists.



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

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



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

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



Safety Checkpoints

WARNING

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

A risk of product trouble, electric shock, and fire exists.



Handling of Consumables

WARNING

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

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



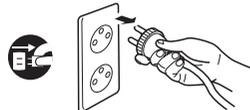
- Never throw the used cartridge and toner into fire. You may be burned due to dust explosion.



Handling of Service Materials

CAUTION

- Unplug the power cord from the wall outlet. Drum cleaner (isopropyl alcohol) and roller cleaner (acetone-based) are highly flammable and must be handled with care. A risk of fire exists.



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

A risk of fire exists.



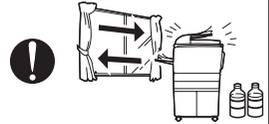
Handling of Service Materials

CAUTION

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



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



[4] Used Batteries Precautions

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 fejlagtig 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.

WARNING

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.

[5] FUSE

CAUTION
Double pole / neutral fusing

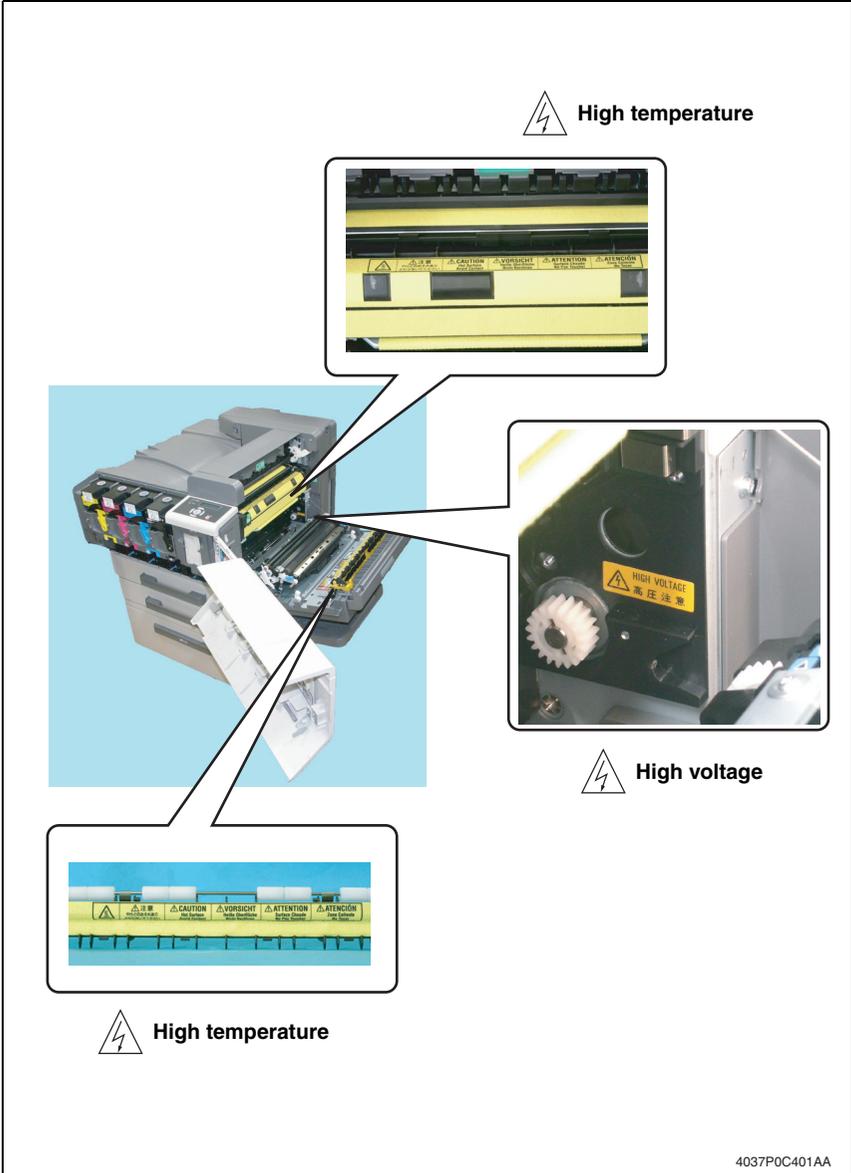
ATTENTION
Double pôle / fusible sur le neutre.

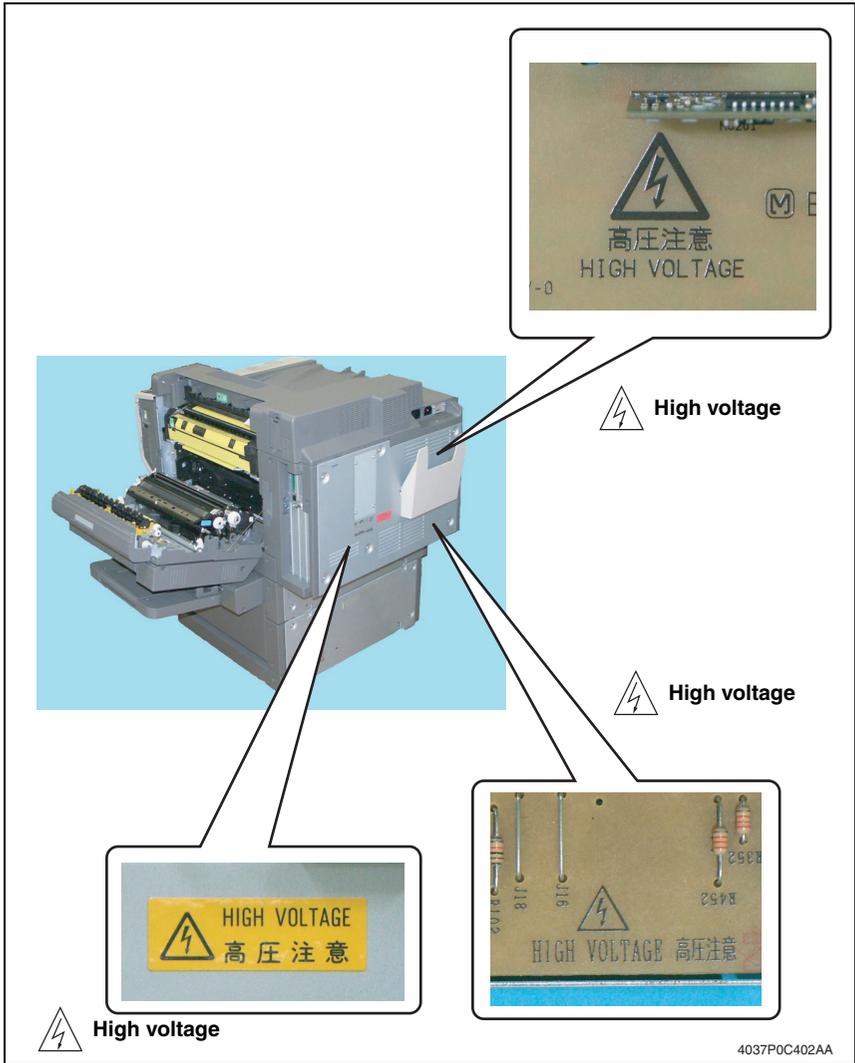
[6] LED Radiation Safety

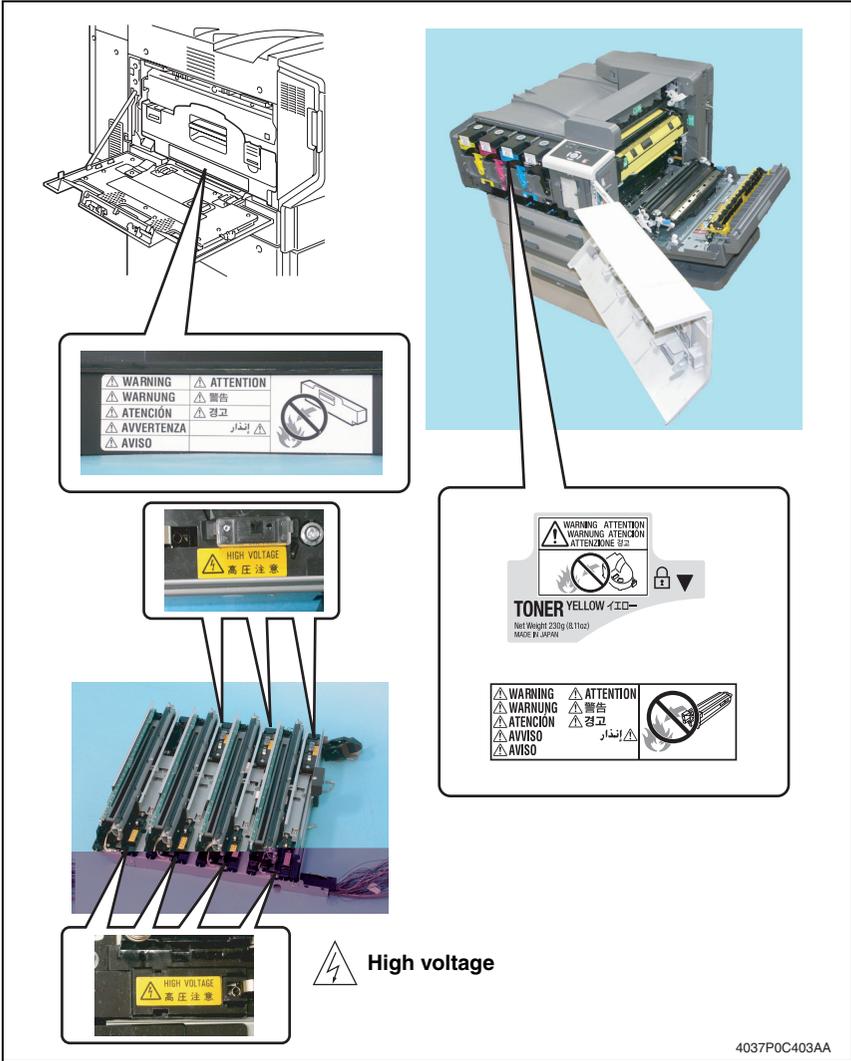
- This product is a copier which operates by means of a LED (light emitting diodes) exposure system. There is no possibility of danger from the LED optical radiation, because the LED optical radiation level dose not exceed the accessible radiation limit of class 1 under all conditions of operation, maintenance, service and failure.

WARNING INDICATIONS ON THE MACHINE

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







4037POC403AA

⚠ CAUTION:

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

MEASURES TO TAKE IN CASE OF AN ACCIDENT

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

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Composition of the service manual

This service manual explains about the Field Service section of the machine.

Since the Theory of Operation section is same as that of C450, refer to the Theory of Operation section of C450 service manual.

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.

<Field service section>

OUTLINE:	Explanation of system configuration, and product specifications
MAINTENANCE:	Explanation of service schedule, service jig, and firmware version up method etc.
ADJUSTMENT/SETTING:	Explanation of utility mode and service mode etc.
TROUBLESHOOTING:	Explanation of lists of jam codes and error codes, and their countermeasures etc.
APPENDIX:	Parts layout drawings

Notation of the service manual

A. Product name

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

- | | |
|---------------------------|------------------------------|
| (1) PWB-MFPC: | MFP Control Board |
| PWB-MC: | Control Board |
| PWB-ES: | Electronic sorting Board |
| PWB-CF: | Copier Board |
| (2) bizhub C450P: | Main body |
| (3) Microsoft Windows 98: | Windows 98 |
| Microsoft Windows Me: | Windows Me |
| Microsoft Windows NT 4.0: | Windows NT 4.0 or Windows NT |
| Microsoft Windows 2000: | Windows 2000 |
| Microsoft Windows XP: | Windows XP |

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

Windows 98/Me
Windows NT 4.0/2000
Windows NT/2000/XP
Windows 98/Me/ NT/2000/XP

B. Brand name

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

C. Feeding Direction

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

<Sample notation>

Paper size	Feeding direction	Notation
A4	Long Edge Feeding	A4
	Short Edge Feeding	A4S
A3	Short Edge Feeding	A3



KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

bizhub C450P

Main Unit

Confidential – for internal use only, do not distribute

Revision history

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

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

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

Revision mark:

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

NOTE

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

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

2006/09	3.0		Error corrections / Corresponded to a Card Version G4
2006/03	2.0		Corresponded to Phase2 /Corresponded to a full version manual
2005/08	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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General

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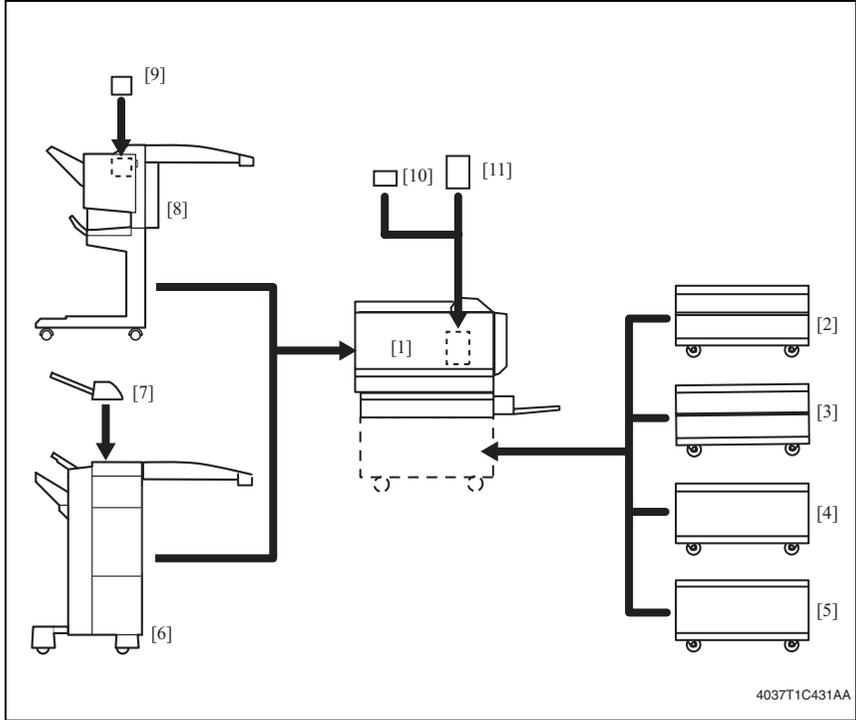
Appendix

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General

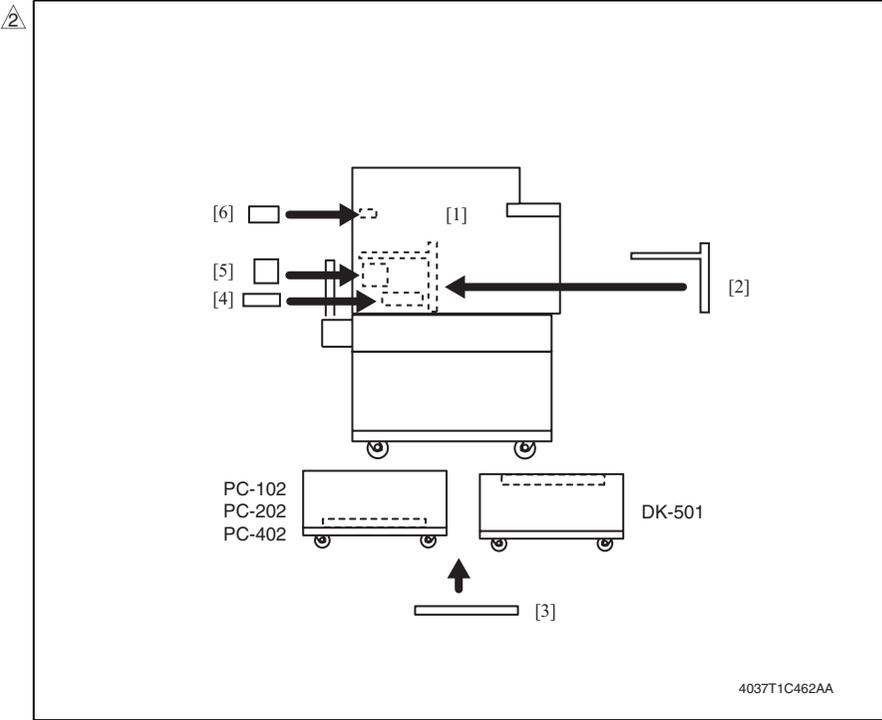
1. System configuration

1/2 System Front View



- | | | | |
|------------------------|--------|-------------------|--------|
| [1] Machine | | [7] Job Separator | JS-601 |
| [2] Paper Feed Cabinet | PC-102 | [8] Finisher | FS-603 |
| [3] Paper Feed Cabinet | PC-202 | [9] Punch Kit | PK-501 |
| [4] Paper Feed Cabinet | PC-402 | [10] Security Kit | SC-503 |
| [5] Desk | DK-501 | [11] HDD | HD-501 |
| [6] Finisher | FS-507 | | |

2/2 System Rear View



- | | | | |
|----------------------------|--------------------------|-------------------------|--------|
| [1] Machine | [4] Expanded Memory Unit | EM-306 | |
| [2] Mount Kit | MK-703 | [5] Local Interface Kit | EK-702 |
| [3] Dehumidifier Heater 1C | [6] Mechanical Counter | MC-501 | |

2. Product specifications

A. Type

Type	Desktop-type printer integrated
Copying System	Electrostatic dry-powdered image transfer to plain paper
Printing Process	Tandem-type indirect electrostatic recording system
PC Drum Type	OPC (organic photo conductor)
Print Density	Equivalent to 600 dpi in main scanning direction × 1800 dpi in sub scanning direction
Paper Feeding System (Standard) Three-way system	Multiple Bypass: 150 sheets Tray1: 250 sheets Tray2: 500 sheets
Exposure System	Four-LED exposure
Developing System	HMT developing system
Charging System	DC comb electrode Scorotron system with electrode cleaning function (manual)
Image Transfer System	Intermediate transfer belt system
Paper Separating System	Selecting either application of nonwoven fabric bias or resistor grounding + low-pressure paper separator claws
Fusing System	Belt fusing

B. Functions

Warm-up Time	99 sec. or less (at ambient temperature of 23 °C/73.4 °F and rated source voltage)	
Image Loss	Leading edge: 4.2 mm (3/16 inch), Trailing edge: 3 mm (1/8 inch), Rear edge: 3 mm (1/8 inch), Front edge: 3 mm (1/8 inch)	
First Print Time	(Tray1, A4, full size)	
	Black print	5.5 sec. or less
	Color print	8.5 sec. or less
Printing Speed (A4, 8 1/2 × 11)	Black print	1-sided: 45 print/min *1 2-sided: 37 print/min
	Color print	1-sided: 35 print/min
		2-sided: 31 print/min

*1: Only Tray1 and Bypass tray by 8 1/2 × 11 paper: 44 print/min

C. Types of Paper

Paper Source		Tray1	Tray2	Multiple Bypass
Print paper type	Plain paper (60 to 90 g/m ² / 16 to 24 lb)	○	○	○
	Translucent paper	–	–	–
	OHP transparencies (crosswise feeding only)	○ (20 sheets or less)	–	○ (20 sheets or less)
	Thick paper 1 (91 to 150 g/m ² / 24.25 to 40 lb)		○ (150 sheets or less)	
	Thick paper 2 (151 to 209 g/m ² / 40.25 to 55.5 lb)			
	Thick paper 3 (210 to 256 g/m ² / 55.75 to 68 lb) *1			
	Postcards		–	
	Envelopes	○ (10 sheets or less)	–	○ (10 sheets or less)
	Labels	○ (20 sheets or less)	–	○ (20 sheets or less)
	Long Size Paper (127 to 160 g/m ² / 33.75 to 42.5 lb)	–	–	○
Print paper dimensions	Max. (width × length)	311.1 × 457.2 mm 12 1/4 × 18 inches	297 × 432 mm 11 × 17 inches	311.1 × 457.2 mm 12 1/4 × 18 inches
	Min. (width × length)	90 × 139.7 mm 3 1/2 × 5 1/2 inches	140 × 182 mm 5 1/2 × 8 1/2 inches	90 × 139.7 mm 3 1/2 × 5 1/2 inches
	Long Size Paper (width × length)	–	–	210 to 297 mm × 1200 mm or less

*1: Image is not guaranteed when thick paper 3 is used.

Optional Paper Feed Cabinet : Only the plain paper weighing 60 to 90 g/m² (16 to 24 lb) and thick paper 1 to 3 is reliably fed.

Automatic Duplex Unit : Only the plain paper weighing 64 to 90 g/m² (17 to 24 lb) and thick paper 1 to 3 is reliably fed.

D. Maintenance

E. Machine Specifications

Power Requirements	Voltage:	AC 110 V, 120 V, 127 V, 220-240 V
	Frequency:	50/60 Hz \pm 3.0 Hz
Max Power Consumption		Less than 1500 W (120 V, 12 A / 220 - 240 V, 8 A)
Dimensions		706 (W) \times 765 (D) \times 586 (H) mm 27-3/4 (W) \times 30 (D) \times 23 (H) inches
Space Requirements		1014 (W) \times 765 (D) mm *2 40 (W) \times 30 (D) inches *2
Mass		Approx. 89 kg / 196.25 lb (without IU)

*2: The indicated spaced requirements represent the space required to fully extend the bypass tray.

F. Operating Environment

Temperature	10 to 30 °C / 50 to 86 °F (with a fluctuation of 10 °C / 18 °F or less per hour)
Humidity	15 to 85 % (with a fluctuation of 20 %/h)
 Levelness	Difference between front and back, right and left should be 1 degree or under.

 G. Print Functions

Type	Built-in type controller	
Printer Language	PCL5e/c Emulation PCL6 (XL 2.1) Emulation PostScript 3 Emulation (3011)	
CPU	PPC750 FX 600 MHz	
RAM	512 MB	
Host Interface	Standard: Ethernet (10Base-T or 100Base-TX) Optional: USB 1.1, USB 2.0, or IEEE 1284 *1	
Network Protocol	IPX/SPX (Auto, Ethernet II, 802.2, 802.3, 802.3 SNAP) NetBEUI, TCP/IP SMTP, POP3, FTP, SNMP, HTTP 1.1 DHCP, ARP/ICMP, BOOTP SLP, Apple Talk	
Network Print Service	Pserver (NDS) ... NetWare 4.x, 5.x, 6.x Pserver (Bindery) ... NetWare 4.x NDPS ... NetWare 5.x, 6.x SMB RAW Port Printing (Port 9100: To be changed from Page Scope Light) IPP 1.1, LPD	
Software Accessories (1) Drive CD	PCL5c Printer Driver, TWAIN Driver, Front Manager, BOX Utility OS: Windows98/98SE/Me, NT4.0, 2000, XP, Server2003	
Software Accessories (2)	Page Scope Web Connection has been built into the controller firmware.	
Compatible Paper Size	Max. standard paper size A3 Wide	
Fonts	PCL	Latin 80 Fonts
	PS	Latin 136 Fonts

*1: The optional Local Interface Kit (EK-702) is required.

- **Supporting client specifications**

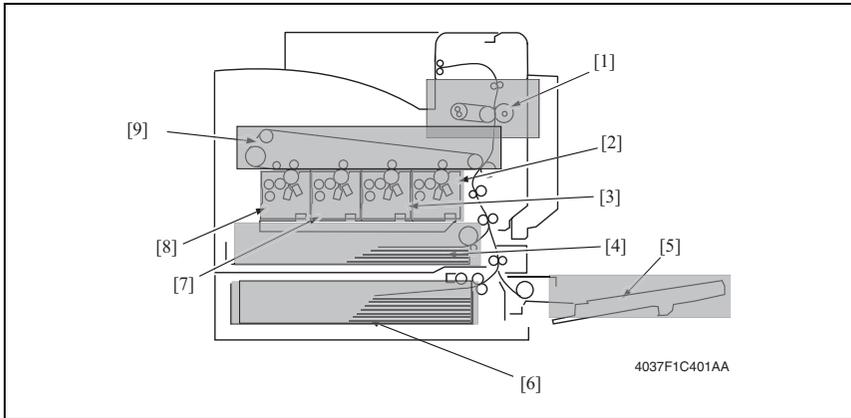
PC	IBM PC and its compatible		
RAM	64 MB or more (128MB or more for XP)		
OS	Windows 98/98SE, Windows Me, Windows 2000, Windows XP, Windows NT 4.0, Windows Server 2003		
Interface	With a network connection	Connection method	Ethernet 10Base-T/100Base-TX
		Protocols	TCP/IP, NetBEUI, IPX/SPX (NetWare 4.x, 5.x, 6.x)
	With a parallel connection *1	IEEE1284 (Compatible/Nibble/ECP) USB 1.1, USB 2.0	
Browser	The following browser is required to use Page Scope Web Connection: Netscape Communicator version 4.5 or later (Java-compliant) Internet Explorer version 5.5 or later (Java-compliant)		

*1: The optional Local Interface Kit (EK-702) is required.

NOTE

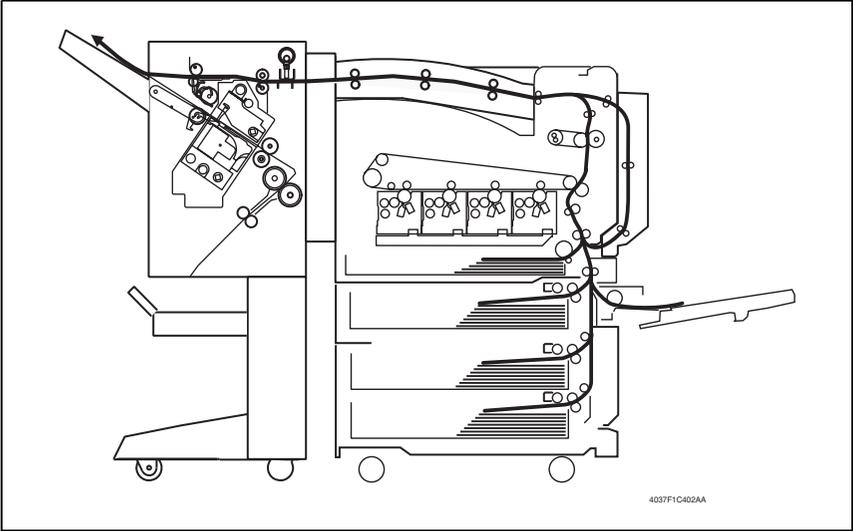
- **These specifications are subject to change without notice.**

3. Center cross section



- | | |
|---------------------|---------------------|
| [1] Fusing Unit | [6] Multiple Bypass |
| [2] Imaging Unit/K | [7] Tray2 |
| [3] Imaging Unit/C | [8] Imaging Unit/M |
| [4] Tray1 | [9] Imaging Unit/Y |
| [5] Multiple Bypass | |

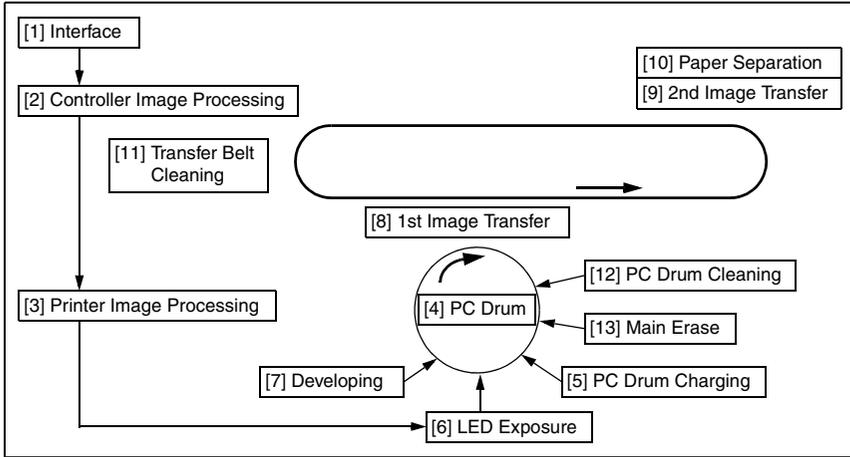
4. Paper path



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General

5. Image creation process



[1]	Interface	<ul style="list-style-type: none"> It is the access system to scan the printed data from the PC to the printer. This model supports the Ethernet as standard.
[2]	Controller Image Processing	<ul style="list-style-type: none"> Printed data in page description language are converted to VIDEO signals (C, M, Y, and Bk) to output to the printer's image processing section.
[3]	Printer Image Processing	<ul style="list-style-type: none"> The video signals (C, M, Y, and K) go through some corrections. Following digital-to-analog conversion, these signals are used for the control of the intensity level of the LED.
[4]	PC Drum	<ul style="list-style-type: none"> The image of the original projected onto the surface of the PC Drum is changed to a corresponding electrostatic latent image.
[5]	PC Drum Charging	<ul style="list-style-type: none"> A negative DC charge layer is formed on the surface of the PC Drum.
[6]	LED Exposure	<ul style="list-style-type: none"> The surface of the PC Drum is irradiated with LED light and an electrostatic latent image is thereby formed.
[7]	Developing	<ul style="list-style-type: none"> The toner, agitated and negatively charged in the Developer Mixing Chamber, is attracted onto the electrostatic latent image formed on the surface of the PC Drum. It is thereby changed to a visible, developed image. AC and DC negative bias voltages are applied to the Developing Roller, thereby preventing toner from sticking to the background image portion.
[8]	1st Image Transfer	<ul style="list-style-type: none"> A DC positive voltage is applied to the backside of the Transfer Belt, thereby allowing the visible, developed image on the surface of each of the PC Drums (Y, M, C, and K) to be transferred onto the Transfer Belt.
[9]	2nd Image Transfer	<ul style="list-style-type: none"> A DC positive voltage is applied to the backside of the paper, thereby allowing the visible, developed image on the surface of the Transfer Belt to be transferred onto the paper.
[10]	Paper Separation	<ul style="list-style-type: none"> The paper, which has undergone the 2nd image transfer process, is neutralized so that it can be properly separated from the Transfer Belt by the Paper Separator Claws.
[11]	Transfer Belt Cleaning	<ul style="list-style-type: none"> A charge is applied to the Transfer Belt. By potential difference, residual toner on the surface of the Transfer Belt is collected for cleaning.
[12]	PC Drum Cleaning	<ul style="list-style-type: none"> The residual toner left on the surface of the PC Drum is scraped off.
[13]	Main Erase	<ul style="list-style-type: none"> The surface of the PC Drum is irradiated with light, which neutralizes any surface potential remaining on the surface of the PC Drum.

Maintenance

6. Periodical check

6.1 Service schedule

▲ Guarantee period (5-year or 1,000,000 prints)

	Per cycle × print number	× 10,000-print									Number of times
		15	20	30	40	45	60	75	80	90	
Main body	150,000	●		●		●	●	●		●	6
	200,000		●		●		●		●		4
	300,000			●			●			●	3
PC-102 PC-202 PC-402	300,000			●			●			●	3
FS-507 FS-603	300,000			●			●			●	3

6.2 Maintenance items

6.2.1 Parts to be replaced by users (CRU)

No.	Class	Parts to be replaced	Cycle	Clean	Replace	Descriptions
1	Processing sections	Imaging Unit C/M/Y	50 K		●	
2		Imaging Unit K	100 K		●	*1
3		Dust filter	100 K		●	*1
4		Comb electrode	When TC is replaced	●		
5		Toner cartridge: TC (TC Y/TC M/TC C)	11.5 K		●	
6		Toner cartridge: TC (TC K)	11.5 K		●	*2
7		Deodorant filter	11.5 K		●	*2
8	Image Transfer section	Waste Toner Box	30 K		●	
9	LPH section	LPH Assy	When IU is replaced	●		

*1: The Imaging Unit K and Dust filter are the Kit parts.

*2: The TC K and Deodorant filter are the Kit parts.

6.2.2 Periodical parts replacement 1 (per 150,000-print)

No.	Class	Parts to be replaced	Number of personnel	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper take-up and image conditions		●				
2		Appearance		●	●			
3	Transport section	Paper Dust Remover	1			●		
4		2nd Image Transfer Roller Unit	1			●		
5	Processing section	Ozone Filter	1			●		

6.2.3 Periodical parts replacement 2 (per 200,000-print)

No.	Class	Parts to be replaced	Number of personnel	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper take-up and image conditions		●				
2		Appearance		●	●			
3	Tray 1 Bypass	Paper Take-up Roller	1			●		
4		Separation Roller	1			●		

6.2.4 Periodical parts replacement 3 (per 300,000-print)

No.	Class	Parts to be replaced	Number of personnel	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper take-up and image conditions		●				
2		Appearance		●	●			
3	Tray 2	Pick-up Roller	1			●		
4		Paper Take-up Roller	1			●		
5		Separation Roller Assy	1			●		
6	Image Transfer section	Image Transfer Belt Unit	1			●		
7	Fusing section	Fusing Unit	1			●		
8	PC-102 PC-202 PC-402	Pick-up Roller	1			●		Replace those three parts at the same time.
9		Paper Take-up Roller	1			●		
10		Separation Roller Assy	1			●		
11	FS-507 FS-603	Paper Feed Roller, Roll			●			
12		Transport route, Guide			●			
13		Sensor			●			

6.3 Maintenance parts

- To ensure that the machine produces good prints and to extend its service life, it is recommended that the maintenance jobs described in this schedule be carried out as instructed.
- Replace with reference to the numeric values displayed on the Life counter.
- Maintenance conditions are based on the case of A4 or 8.5 × 11, Standard mode and Low Power Mode OFF.

6.3.1 Replacement parts

A. Main unit



No.	Classification	Parts name	Quantity	Actual durable cycle *1	Parts No.	Descriptions	Ref. Page in this manual
1	Tray 1	Paper Take-up Roller	1	200 K	4021 3012 ##		P.15
2		Separation Roller Assy	1	200 K	4034 0151 ##		P.15
3	Bypass	Paper Take-up Roller	1	200 K	4131 3001 ##		P.16
4		Separation Roller Assy	1	200 K	4034 0151 ##		P.18
5	Tray 2	Pick-up Roller	1	300 K	4030 3005 ##		P.22
6		Paper Take-up Roller	1	300 K	4030 3005 ##		P.20
7		Separation Roller Assy	1	300 K	4030 0151 ##		P.18
8	Transport section	Paper Dust Remover	1	150 K	1483 0762 ##		P.24
9		2nd Image Transfer Roller Unit	1	150 K	4049 411		P.28
10	Fusing section	Fusing Unit	1	300 K	4049 522 *4 4049 523 *5 4049 524 *6		P.35
11	Processing section	Imaging Unit C/M/Y	1	50 K	—		P.32
12		Imaging Unit K	1	100 K	—	Dust filter *2	P.32
13		Ozone Filter	1	150 K	1483 0757 ##		P.26
14		Toner Cartridge (YMCK)	1	11.5 K	—	Deodorant filter *3	P.37
15	Image transfer section	Image Transfer Belt Unit	1	300 K	4049 212		P.29
16		Waste Toner Box	1	30 K	4049 111		P.25

*1: Actual durable cycle is the Life counter value.

*2: Also replace the Dust filter packed in the black imaging unit at the same time when 100 K is reached.

*3: Also replace the Deodorant filter packed in the black toner cartridge at the same time when 11.5 K is reached.

*4: 220-240 V areas only.

*5: 120 V/127 V areas only.

*6: 110 V areas only.

B. Option

No.	Classification	Parts name	Quantity	Actual durable cycle *1	Parts No.	Descriptions	Ref. Page in this manual
1	PC-102	Pick-up Roller	1	300 K	4030 3005 ##	Replace those three parts at the same time.	*2
2	PC-202	Paper Take-up Roller	1	300 K	4030 3005 ##		
3	PC-402	Separation Roller Assy	1	300 K	4030 0151 ##		

*1: Actual durable cycle is the Life counter value.

*2: See each Option Service Manual.

6.3.2 Cleaning parts

No.	Classification	Parts name	Actual cleaning cycle *1	Descriptions	Ref. Page in this manual
1	Transport section	Registration Roller	Upon each call (60 K)		P.23
2		Paper Dust Remover	Upon each call (60 K)		P.24
3		Transport Roller	Upon each call (60 K)		P.24
4		2nd Image Transfer Entrance Upper Guide	Upon each call (60 K)		P.25
5	Processing section	Comb Electrode	When TC is replaced (11.5 K)		P.27
6	Image transfer section	Area around the Waste Toner Collecting Port	Upon each call		P.26
7	LPH section	LPH Assy	Upon each call or When IU is replaced		P.27
8	Duplex section	Paper Feed Roller	Upon each call (60 K)		*2

*1: Actual cleaning cycle is the Life counter value.

*2: See Automatic Duplex Unit Service manual.

6.4 Concept of parts life

	Description	Life value (Specification value)	Max. number of printed pages
Waste Toner Bottle	A waste toner full condition is detected when about 8,000 printed pages have been produced after a waste toner near full condition has been detected.	-	30,000 *1
Fusing unit	The number of prints made is counted. (The counter counts up 2 for paper whose sub scan direction exceeds 216 mm.) When printing prohibited is encountered, the machine prohibits the initiation of any new print cycle.	300,000	402,000 *1
Paper Dust Remover	The number of prints made is counted. (The counter counts up 2 for paper whose sub scan direction exceeds 216 mm.)	150,000	152,000
Ozone Filter	The number of prints made is counted. (The counter counts up 2 for paper whose sub scan direction exceeds 216 mm.)	150,000	152,000
2nd Transfer Roller Unit	The number of prints made is counted. (The counter counts up 2 for paper whose sub scan direction exceeds 216 mm.)	150,000	152,000
Transfer Belt Unit	The number of prints made is counted. (The counter counts up 2 for paper whose sub scan direction exceeds 216 mm.) The number of prints made is compared with the value of the number of hours through which the belt has turned translated to a corresponding value of the number of prints made and the value, whichever reaches the life specifications value, is detected. When printing prohibited is encountered, the machine prohibits the initiation of any new print cycle.	300,000	402,000 *1
Imaging Unit C/M/Y	The number of hours through which the PC Drum has turned is compared with the number of hours through which the Developing Roller has turned translated to a corresponding value	2,928 M *2	3,045 M *2
Imaging Unit K	of the number of hours through which the PC Drum has turned and the value, whichever reaches the life specifications value, is detected.	4,137 M *2	4,220 M *2

*1: The initiation of any new print cycle is inhibited when the maximum number of printed pages is reached.

 *2: The mark "M" is indicated the value of the number of distance through which the PC drum has run translated to a corresponding value of the number of hours and the value.

A. Conditions for Life Specifications Values

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

Item	Description
Job Type	Monochrome: Making 5 prints per job Color: Making 4 prints per job
Paper Size	A4
Color Ratio	Black to Color = 1 : 4
CV/M	Black: 2,000 / Color: 8,000
Original Density	B/W = 5 % for each color, 6 % for Monochrome
No. of Operating Days per Month	20 days (Main Power Switch turned ON and OFF 20 times per month)

B. Control causing inhibited printing for one part when an inhibited-printing event occurs in another part

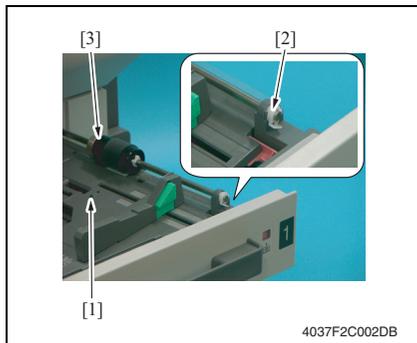
Purpose	In order to reduce the maintenance call times: when printing prohibiting is reached for any of the following parts, make printing prohibited also for other parts whose life value is reached, and replace those parts at the same time.
Target parts	Fusing unit, Image Transfer Belt Unit, Imaging Unit /C, Imaging Unit /M, Imaging Unit /Y, Imaging Unit /K

6.5 Maintenance procedure (Periodical check parts)

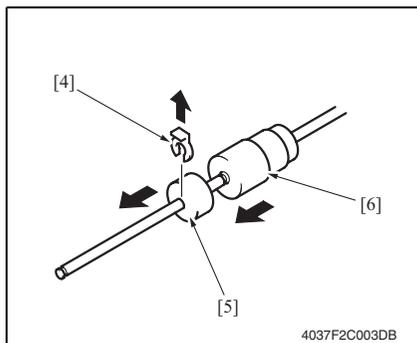
NOTE

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

6.5.1 Replacing the Tray 1 Paper Take-up Roller



1. Slide out the Tray 1.
2. Lock the Paper Lifting Plate [1] into position.
3. Snap off the C-clip [2] from the Tray 1 Paper Take-Up Roller Assy [3].
4. Remove the shaft for the Tray 1 Paper Take-up Roller Assy [3] from the front Bushing.

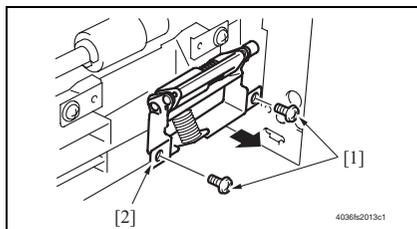


5. Snap off the C-clip [4], one collar [5] and remove the Tray 1 Paper Take-Up Roller [6].
6. To reinstall, reverse the order of removal.
7. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [1st].

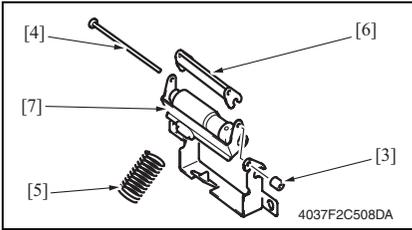
NOTE

- Replace the Tray 1 Paper Take-up Roller and Tray 1 Separation Roller at the same time.

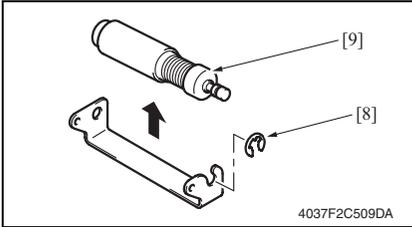
6.5.2 Replacing the Tray 1 Separation Roller Assy



1. Slide out the Tray 1.
2. Remove two screws [1] and the Tray 1 Separation Roller mounting bracket Assy [2].



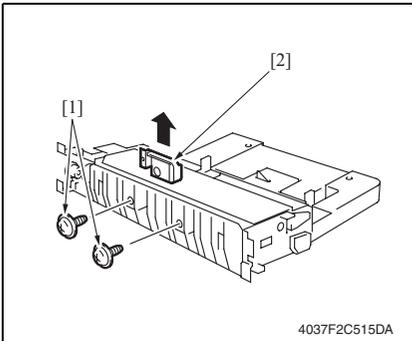
3. Take off the rubber stopper [3], shaft [4], spring [5], and guide plate [6] to remove the Paper Separation Roller fixing bracket Assy [7].



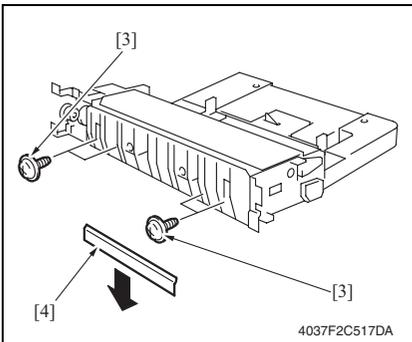
4. Snap off the E-ring [8] and the Tray 1 Paper Separation Roller Assy [9].
5. To reinstall, reverse the order of removal.
6. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [1st].

NOTE

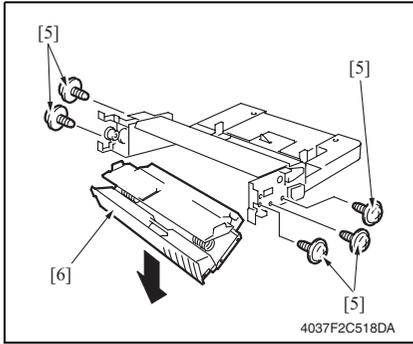
- Replace the Tray 1 Paper Take-up Roller and Tray 1 Separation Roller at the same time.

6.5.3 Replacing the Bypass Tray Paper Take-up Roller

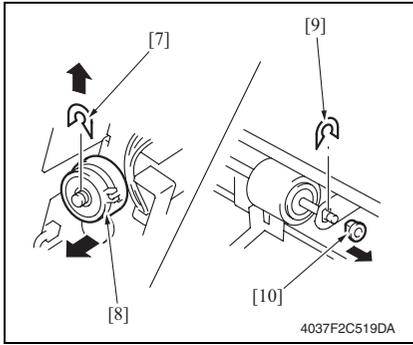
1. Remove the Multi Bypass Unit. [See P.99](#)
2. Remove two screws [1], and remove Bypass Paper Separation roller fixing bracket Assy [2].



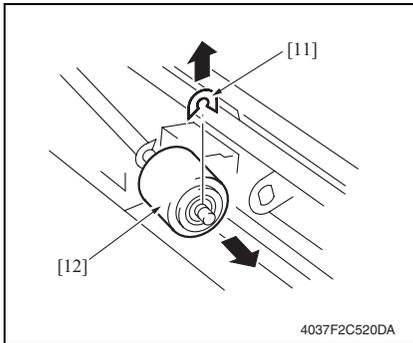
3. Remove four screws [3], and remove the Frame [4].



4. Remove five screws [5], and remove the Frame [6] under the Bypass Unit.



5. Snap off the C-clip [7], and remove the Bypass Paper Feed Clutch [8].
6. Snap off the C-clip [9] for the Paper Take-up roller, and remove the shaft [10].

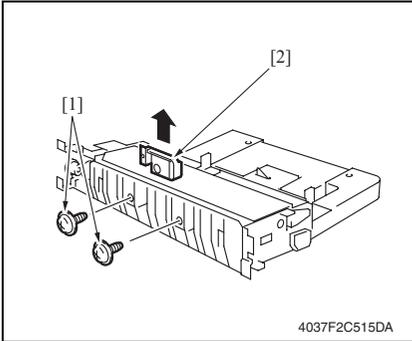


7. Snap off the C-clip [11], and remove the Bypass Paper Take-up Roller [12].
8. To reinstall, reverse the order of removal.
9. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [Manual Tray].

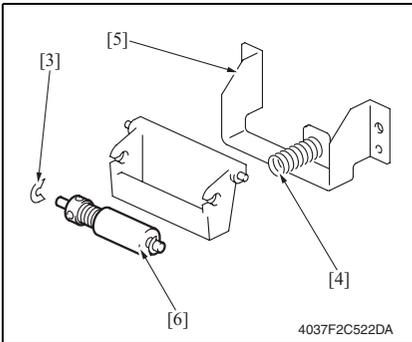
NOTE

- **Replace the Bypass Paper Take-up Roller and the Bypass Separation Roller Assy at the same time.**

6.5.4 Replacing the Bypass Tray Separation Roller Assy



1. Remove the Multi Bypass Unit.
[See P.99](#)
2. Remove two screws [1], and remove Bypass Paper Separation Roller fixing bracket Assy [2].

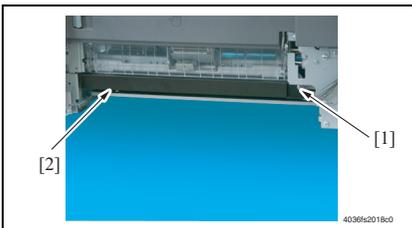


3. Snap off the C-clip [3], and remove the spring [4] and the guide plate [5]. Remove the Bypass Paper Separation Roller Assy [6].
4. To reinstall, reverse the order of removal.
5. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [Manual Tray].

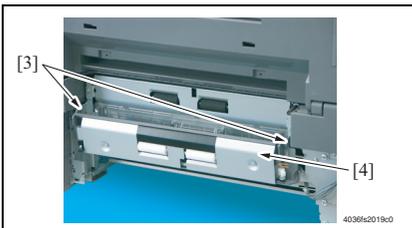
NOTE

- **Replace the Bypass Paper Take-up Roller and the Bypass Separation Roller Assy at the same time.**

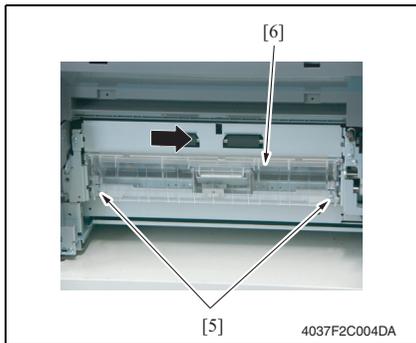
6.5.5 Replacing the Tray 2 Separation Roller



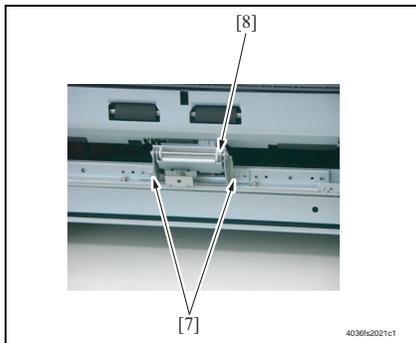
1. Slide out the Tray 2.
2. Remove the Multi Bypass unit.
[See P.99](#)
3. Remove the Screw [1], and the Reinforcement plate [2].



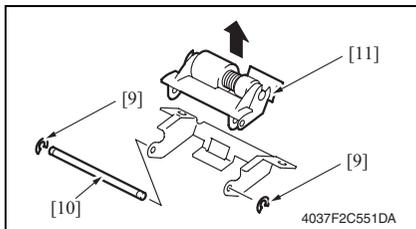
4. Open the Vertical transport door.
5. Remove two Claws [3] and the Vertical transport door [4].



6. Remove two Screws [5], and remove the Jam processing cover [6].



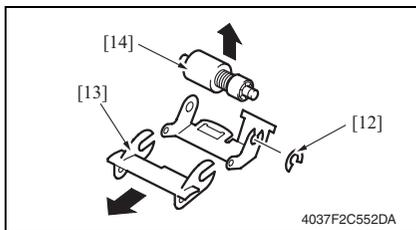
7. Remove two Screws [7] and the Tray 2 Separation Roller installation plate Assy [8].



8. Remove two C-rings [9] and the Shaft [10], and remove the Separation Roller fixing plate Assy [11].

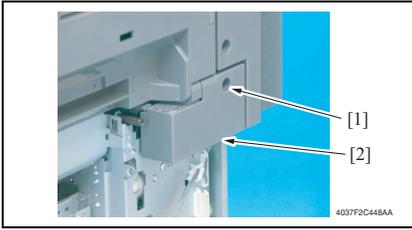
NOTE

- Use care not to miss the Spring.



9. Remove the C-ring [12] and Guide [13], and remove the Tray 2 Separation Roller Assy [14].

6.5.6 Replacing the Tray 2 Paper Take-up Roller

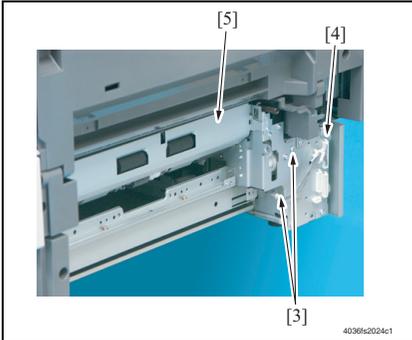


1. Remove the Tray 2 Separation Roller installation plate Assy.

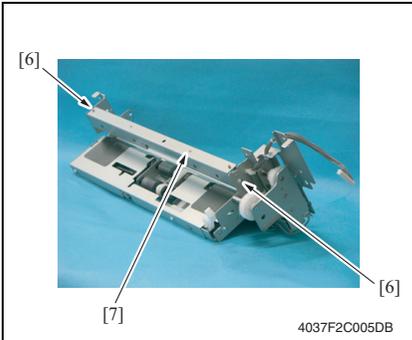
See the procedures 1 to 7 in "Tray 2 Separation Roller."

See P.18

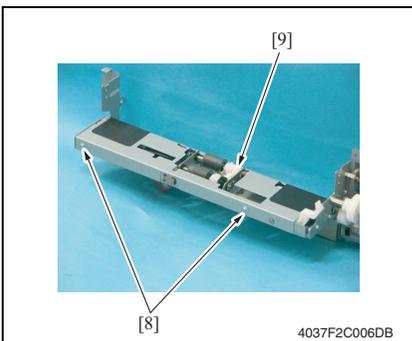
2. Remove the Screw [1] and Wiring cover [2].



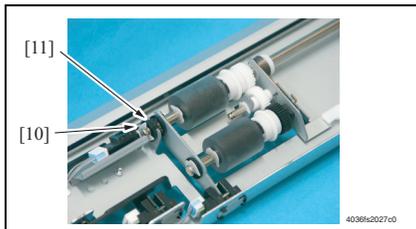
3. Remove two Screws [3] and Connector [4], and remove the Tray 2 Paper Take-up Roller Assy [5].



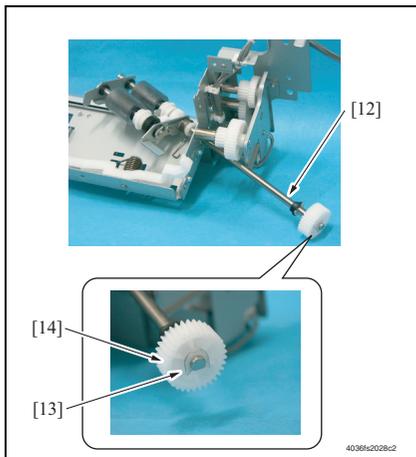
4. Remove two Screws [6] and the Installation frame [7] of the Tray 2 Separation Roller installation plate Assy.



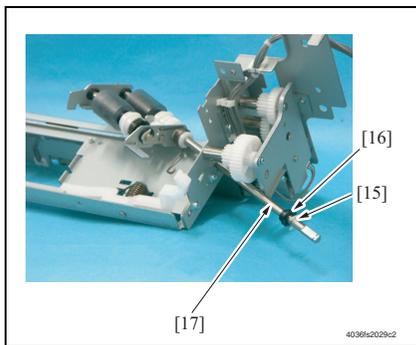
5. Remove two Screws [8] and Tray 2 Paper Take-up Roller cover [9].



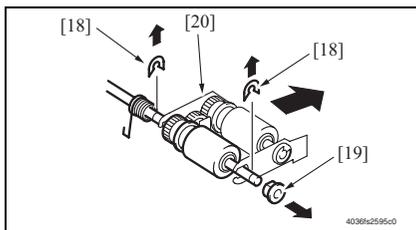
6. Remove the C-ring [10] and Bushing [11].



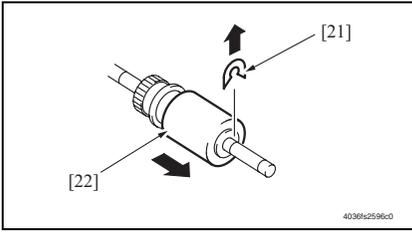
7. Remove the C-ring [13] and Gear [14] while sliding out the Shaft Assy [12] in the direction indicated in left figure.



8. Remove the C-ring [15] and Bushing [16], and remove the Shaft Assy [17].

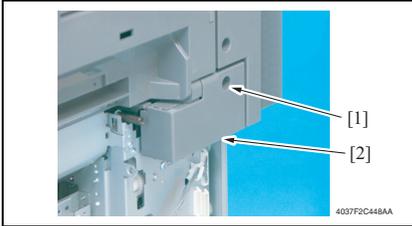


9. Remove two E-rings [18] and Bushing [19], and remove the Tray 2 Pick-up Roller fixing plate Assy [20].

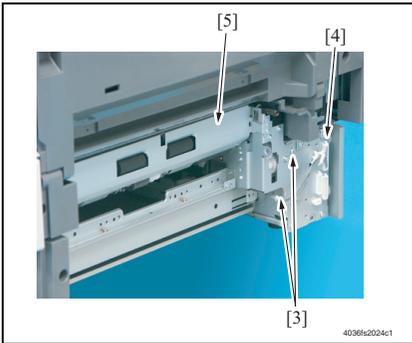


10. Remove the C-ring [21] and Tray 2 Paper Take-up Roller [22].
11. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [2nd].

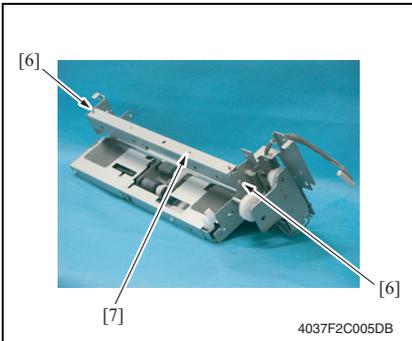
6.5.7 Replacing the Tray 2 Pick-up Roller



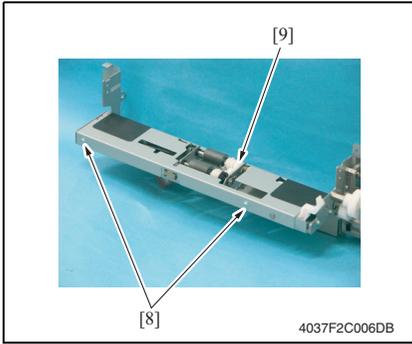
1. Remove the Tray 2 Separation Roller installation plate Assy.
See the procedures 1 to 7 in "Tray 2 Separation Roller."
See P.18
2. Remove the Screw [1] and Wiring cover [2].



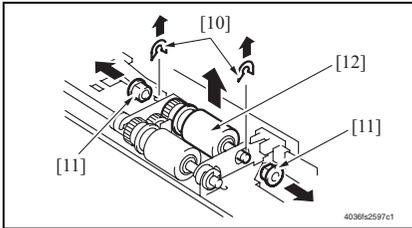
3. Remove two Screws [3] and Connector [4], and remove the Tray 2 Paper Take-up Roller Assy [5].



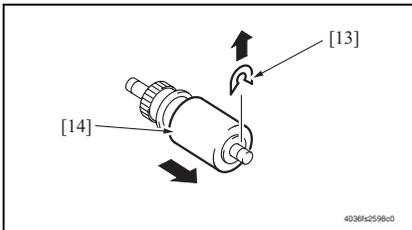
4. Remove two Screws [6], and remove the Tray 2 Separation Roller installation plate Assy [7] together with Frame.



- Remove two Screws [8] and Tray 2 Paper Take-up Roller cover [9].

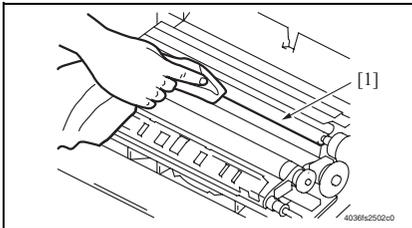


- Remove two C-rings [10] and two Bushings [11], and remove the Tray 2 Pick-up Roller Assy [12].



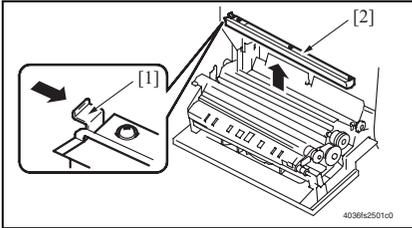
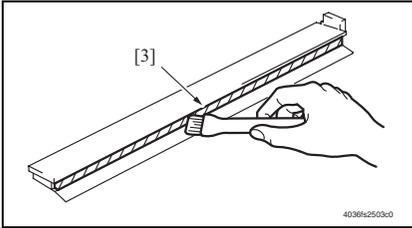
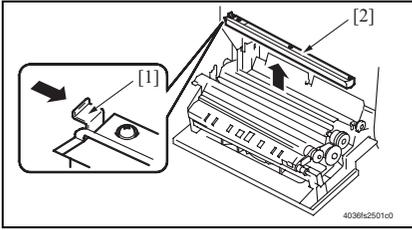
- Snap off the C-ring [13], and remove the Tray 2 Pick-up Roller [14].

6.5.8 Cleaning of Registration Roller



- Open the Right Door.
- Remove the Paper Dust Remover.
[See P.24](#)
- Using a soft cloth dampened with alcohol, wipe the Registration Rollers [1] clean of dirt.

6.5.9 Paper Dust Remover



A. Cleaning Procedure

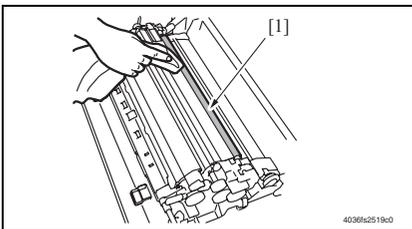
1. Open the Right Door.
2. Pushing the hook [1] with a blue label inward, remove the Paper Dust Remover [2].
3. Using a brush, whisk dust off the Paper Dust Remover [3].

B. Replacing Procedure

1. Open the Right Door.
2. Pushing the hook [1] with a blue label inward, remove the Paper Dust Remover [2].
3. Remove the Ozone Filter.
4. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [Paper Dust Remover/ Ozone Filter].

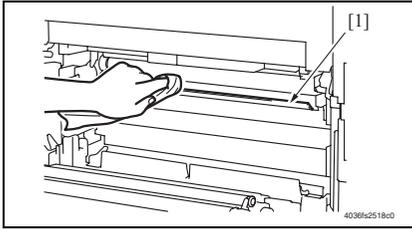
See P.26

6.5.10 Cleaning of Transport Roller



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

6.5.11 Cleaning of 2nd Image Transfer Entrance Upper Guide



1. Open the Right Door.
2. Open the Left Door.
3. Remove the Waste Toner Box.
[See P.25](#)
4. Remove two screws and slide the Transfer Belt Unit out halfway.
[See P.29](#)
5. Wipe the 2nd Image Transfer Entrance Upper Guide [1] clean of dirt using a soft cloth.

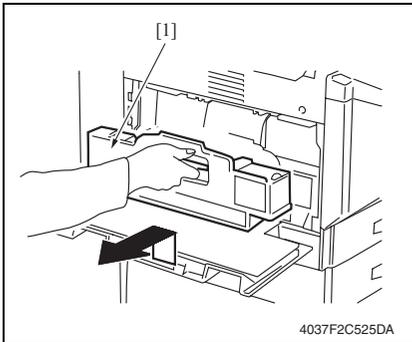
NOTE

- When cleaning, use care not to be hurt by the leading edge of the guide that is sharp.

6.5.12 Replacing the Waste Toner Box

NOTE

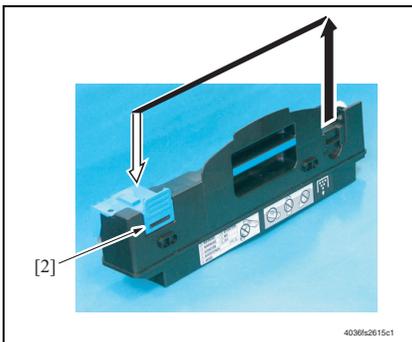
- If a Finishing Option is installed, remove it from the Main Unit before trying to replace the Waste Toner Bottle.
- When removing the Finishing Option, support the Horizontal Transport Unit with your hand to prevent it from dropping.



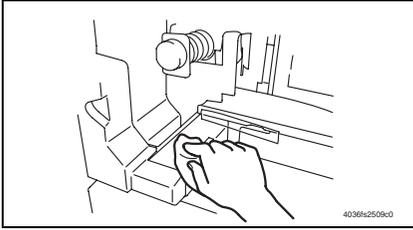
1. Turn OFF the main power switch.
2. Open the Left Door.
3. Grasp the handle, and remove the waste toner box [1].

NOTE

- Raise the waste toner box gently before removing it.
- If scattered toner has accumulated in the vicinity of the toner collecting port, do not tilt the waste toner bottle when removing it.
- Do not leave the waste toner bottle in a tilted condition after removing it.

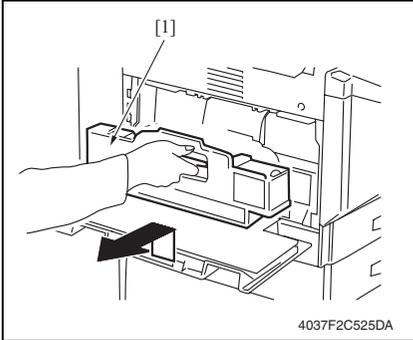


4. Remove the Cover [2] of Waste Toner Box, and set it on the Collecting port.

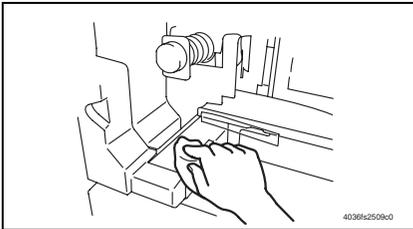


5. Clean the surface around the waste toner collecting port.
6. Remove the waste toner box from its box, and remove the packing material.
7. Grasp the handle, and set the waste toner box in place.
8. Close the Left Door.

6.5.13 Cleaning of the Area around the Waste Toner Collecting Port



1. Open the Rear Left Cover.
2. Remove the Waste Toner Box [1].



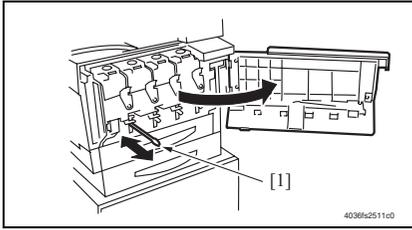
3. Wipe the areas around the Waste Toner Collecting Port clean of spilled toner and dirt using a soft cloth dampened with water or alcohol.

6.5.14 Replacing Ozone Filter



1. Holding onto the hook, remove the Ozone Filter [1].
2. Remove the Paper Dust Remover. [See P.24](#)
3. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [Paper Dust Remover/Ozone Filter].

6.5.15 Cleaning of the Comb Electrode



1. Open the Front Door.
2. Clean the Comb Electrode by moving the Comb Electrode Cleaning Lever [1] In and Out several times.

NOTE

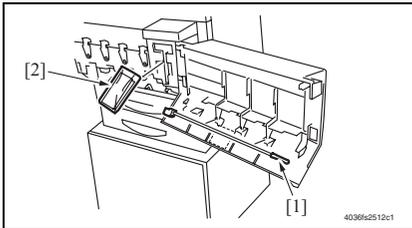
- Move the Comb Electrode Cleaning Lever slowly forward and backward until it stops.

6.5.16 Cleaning LPH Assy

NOTE

- After the Imaging Unit has been removed from the main unit, be sure to place it in the plastic bag (black) or wrap it in a light shielding cloth, and store it in a dark place.

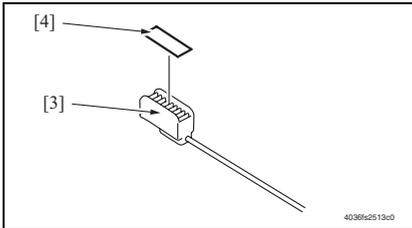
Do not leave the Imaging Unit exposed to light for a extended period of time, as it may become damaged.



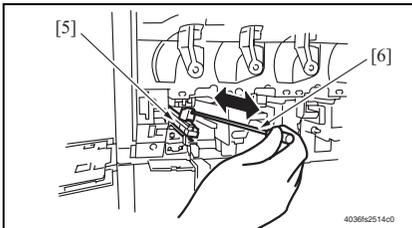
1. Open the Front Door.
2. Slide out the IU (C/M/Y/K).

See P.32

3. Remove the LED Cleaning Jig [1] and LED Cleaning Jig Pad [2].



4. Affix a LED Cleaning Jig Pad [4] to the LED Cleaning Jig [3].

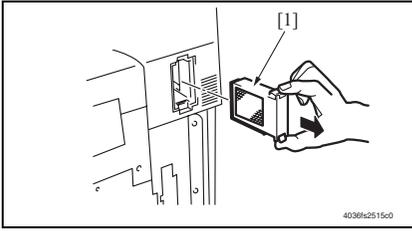


5. Clean the LED [5] of the LPH Assy by moving the LED Cleaning Jig [6] three reciprocating motions.

NOTE

- Use only the specified jig (LED Cleaning Jig) for cleaning.

6.5.17 Replacement of the Deodorant Filter

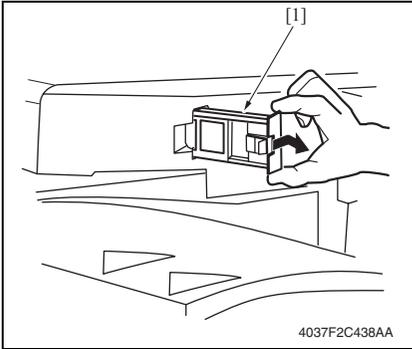


1. Holding onto the hook, take out the Deodorant Filter [1].

NOTE

- The Deodorant Filter is supplied with the toner cartridge (black). Replace it when replacing the toner cartridge (black).

6.5.18 Replacement of the Dust Filter



1. Grasping the hook, remove the Dust Filter [1].

NOTE

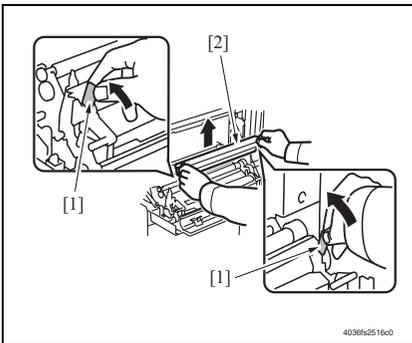
- The Dust Filter is supplied with the Imaging Unit (black). Replace it when replacing the Imaging Unit (black).

6.6 Replacing the unit

6.6.1 Replacing the 2nd Image Transfer Roller Unit

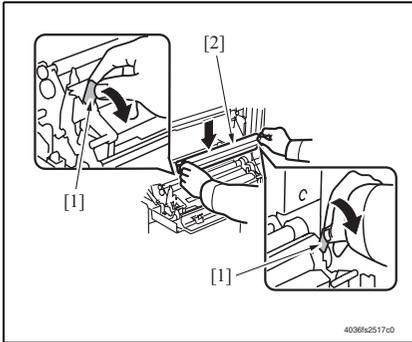
NOTE

- If a Finishing Option is installed, remove it from the main unit before trying to replace the Waste Toner Bottle.
- When removing the Finishing Option, support the horizontal transport unit with your hand to prevent it from dropping.



A. Removal Procedure

1. Turn OFF the main power switch.
2. Open the Right Door.
3. Unlock the blue lock levers [1] (at two places).
4. Holding onto the blue lock levers [1] (at two places), remove the 2nd Image Transfer Roller Unit [2].



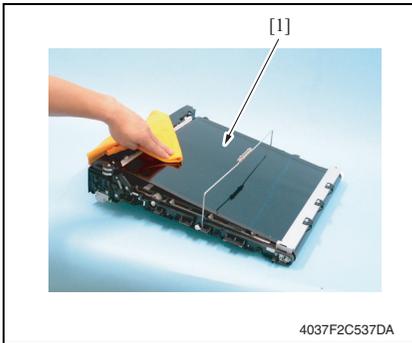
B. Reinstallation Procedure

1. Holding onto the blue lock levers [1] (at two places), mount the 2nd Image Transfer Roller Unit [2].
2. Lock the blue lock levers [1] (at two places).
3. Close the Right Door.

NOTE

- **Make sure that the door is locked in position both at front and rear.**
4. Turn ON the Main Power Switch.
 5. Select [Service Mode] → [Counter] → [Life] of the Jig software and clear the count of [Transfer Roller Unit].

6.6.2 Image Transfer Belt Unit



A. Cleaning Procedure

1. Remove the Image Transfer Belt Unit.

See P.29

2. Using a dried soft cloth, wipe the Transfer belt [1].

NOTE

- **If it is difficult to clean with dried soft cloth, dampen a soft cloth with a solvent.**
- **Do not wipe out with water.**
- **When solvent is used to dampen a cloth, do not use the ones other than shown below: isopropyl alcohol, ethyl alcohol, PPC Cleaner, Sol mix AP-7**
- **After cleaned with the solvent, make prints more than 28-piece of A3 white paper to eliminate the image noise.**

B. Replacing Procedure

NOTE

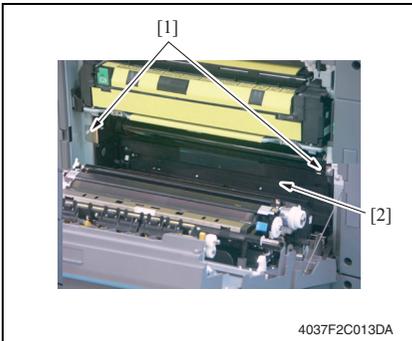
- If a Finishing Option is installed, remove it from the main unit before trying to replace the Transfer Belt Assembly.
- When removing the Finishing Option, support the horizontal transport unit with your hand to prevent it from dropping.

1. Turn OFF the main power switch.
2. Slide out the IU (C/M/Y/K).

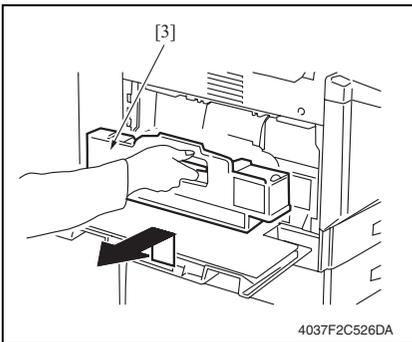
NOTE

- After the Imaging Unit has been removed from the main unit, be sure to place it in the plastic bag (black) or wrap it in a light shielding cloth, and store it in a dark place.

Do not leave the Imaging Unit exposed to light for an extended period of time, as it may become damaged.



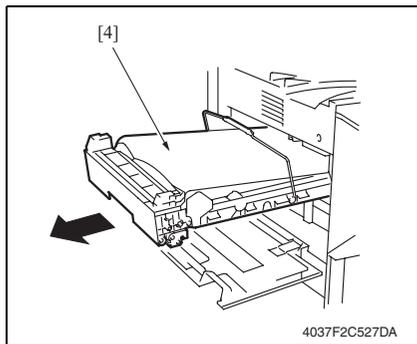
3. Open the Right Door.
4. Remove two Screws [1] and release the Lock of the Image Transfer Belt Unit [2].



5. Open the Left Door.
6. Grasp the handle, and remove the waste toner box [3].

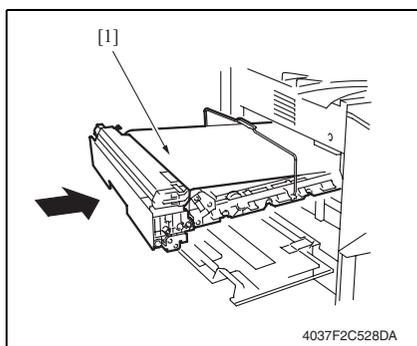
NOTE

- Raise the waste toner box gently before removing it.
- If scattered toner has accumulated in the vicinity of the toner collecting port, do not tilt the waste toner box when removing it.
- Do not leave the waste toner box in a tilted condition after removing it.



7. Pull out the Image Transfer Belt Unit [4].

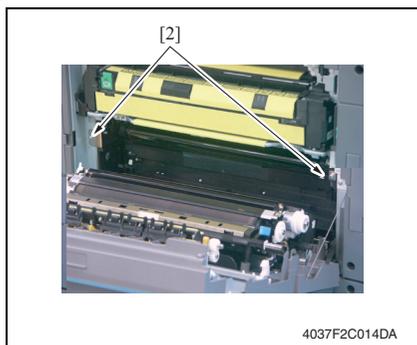
C. Reinstallation Procedure



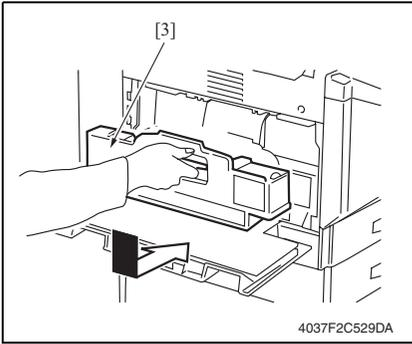
1. Insert the Transfer Belt Unit [1].

NOTE

- Insert the Transfer Belt Unit with care not to allow its docking gear to be damaged by hitting it against the rail or associated part.



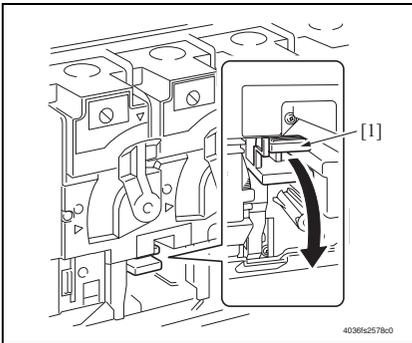
2. Install the Image Transfer Belt Unit with two Screws [2].



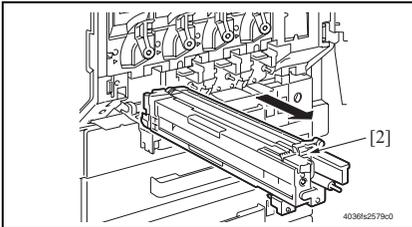
3. Hold the handle and install the Waste Toner Box [3] in position.
4. Close the Left Door.
5. Close the Right Door.

NOTE

- **Make sure that the door is locked in position both at front and rear.**
6. Turn ON the Main Power Switch.
 7. Select [Service Mode] → [Imaging Process Adjustment] → [X-Rite Calibration (Gradation Adjust)] of the Jig software and carry out Gradation Adjust.

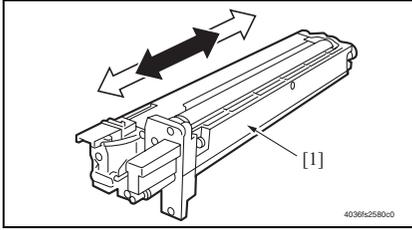
6.6.3 Replacing the Imaging Unit (C, M, Y, K)**A. Removal Procedure**

1. Turn OFF the Main Power Switch.
2. Unplug the power cord.
3. Open the Front Door.
4. Release the lock lever [1] of the Imaging Unit.



5. Pull out the IU [2], and remove it from main body.
6. Clean the LPH Assy.

See P.27



B. Reinstallation Procedure

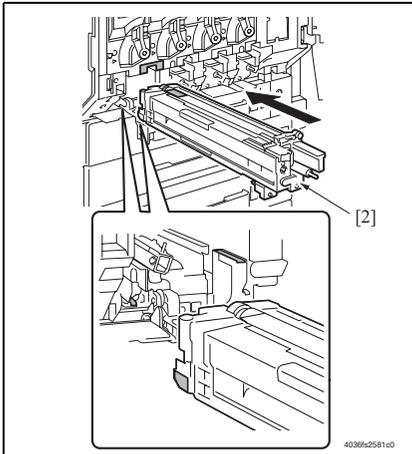
1. Remove the Imaging Unit from its plastic bag.
2. Tilt the Imaging Unit [1] to the left and shake it a small stroke in the tilt direction twice. Then, tilt it to the right and shake it a small stroke in the tilt direction twice.

NOTE

- Since the Imaging Unit is highly susceptible to light, keep it shielded from light up to the time it is installed.
- Carefully unseal the plastic bag (black).
- If the Imaging Unit is packed in the plastic bag (black) again, seal the package using tape or another means.

NOTE

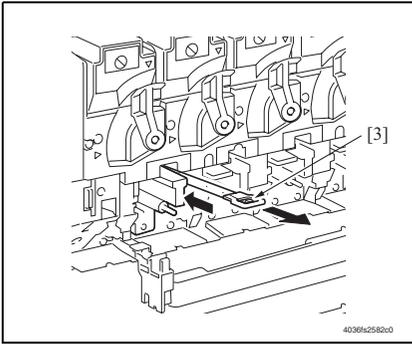
- When installing the Imaging Unit, ensure that the color of the mounting guide of the Imaging Unit is the same as the color of the label at the mounting position on the main unit.



3. Keeping the Imaging Unit [2] in a level position, insert the Imaging Unit [2] into the mounting position all the way until it is stopped.

NOTE

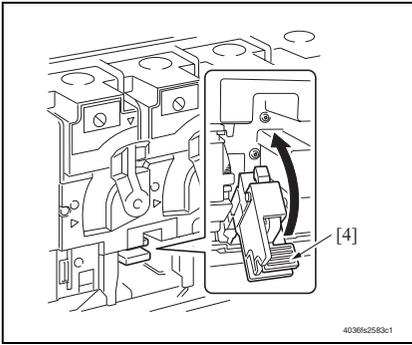
- Do not allow the Imaging Unit to become tilted while installing them into the Main Unit, as damage to the PC Drum or the LED assembly can result.
- Insert the Imaging Unit until a click is heard.



4. Pull out the PC Drum protective sheet [3] while pressing the IU.

NOTE

- Pull out the PC Drum protective sheet half way, and pull it down slantwise.



5. Close the Imaging Unit Locking Lever [4] while pressing the IU.

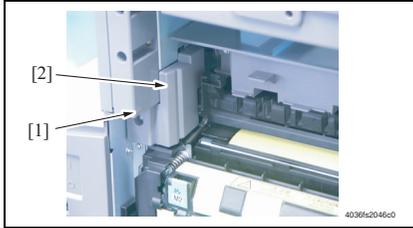
NOTE

- Place the IU Lock Lever into the locked position until a click is heard.
6. Close the Front Door.
 7. Plug in the power cord.
 8. Turn ON the Main Power Switch.
 9. Select [Service Mode] → [Imaging Process Adjustment] → [X-Rite Calibration (Gradation Adjust)] of the Jig software and carry out Gradation Adjust.

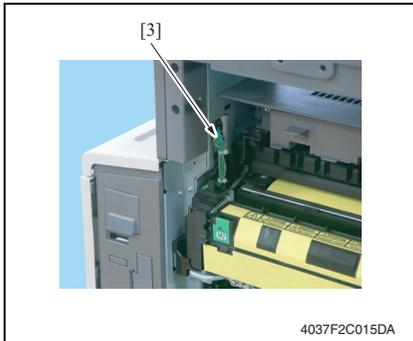
6.6.4 Replacing the Fusing Unit

⚠ NOTE

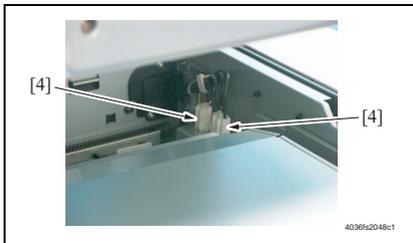
- Before replacing the Fusing Unit, ensure that it has had time to cool down.



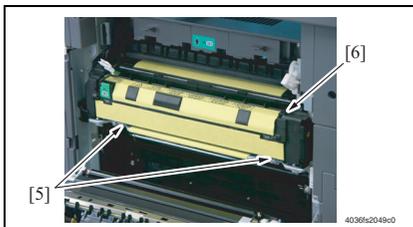
1. Turn OFF the main power switch and unplug the power cord from the power outlet, then wait for about 20 minutes.
2. Open the Right Door.
3. Remove the Screw [1], and remove the Connector protective cover [2].



4. Remove the Connector [3].



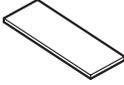
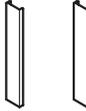
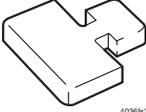
5. Remove the Exit Tray.
[See P.80](#)
6. Remove wire saddle and remove two Connectors [4] of Fusing unit.



7. Remove two Screws [5], and remove the Fusing unit [6].

7. Service tool

7.1 CE Tool list

Tool name	Shape	Personnel	Parts No.	Remarks
LED Cleaning Jig	 40361s2002c0	1	4004 7502 ##	
LED Cleaning Jig Pad	 40361s2003c0	1	4004 7503 ##	
LPH Assy Mounting Jigs	 40361s2004c0	2	4025 7901 ##	
Safety Switch Holding Jig	 40361s2184c0	1	1174 7901 ##	
 Compact Flash	 4037F2C601DA	1	4037 0751 ##	

7.2 Print materials

7.2.1 Imaging Unit Single Parts (IU)

Also replace the Dust filter packed in the Imaging Unit Black at the same time.

Parts name	Replacing period
IU Black	100,000 prints
IU Yellow	50,000 prints
IU Magenta	50,000 prints
IU Cyan	50,000 prints

[See P.14](#)

7.2.2 Toner Cartridge Single Parts (T/C)

Also replace the Deodorant filter packed in the T/C Black at the same time.

Parts name	Replacing period *1
T/C Black	11,500 prints
T/C Yellow	11,500 prints
T/C Magenta	11,500 prints
T/C Cyan	11,500 prints

*1: Life value that can be achieved with a probability of 90% even with product-to-product variations and fluctuating operating environmental conditions taken into consideration, when the T/C is used under the conditions of B/W ratio 5% for each color

7.2.3 Waste Toner Box

Parts name	Replacing period
Waste Toner Box	30,000 prints

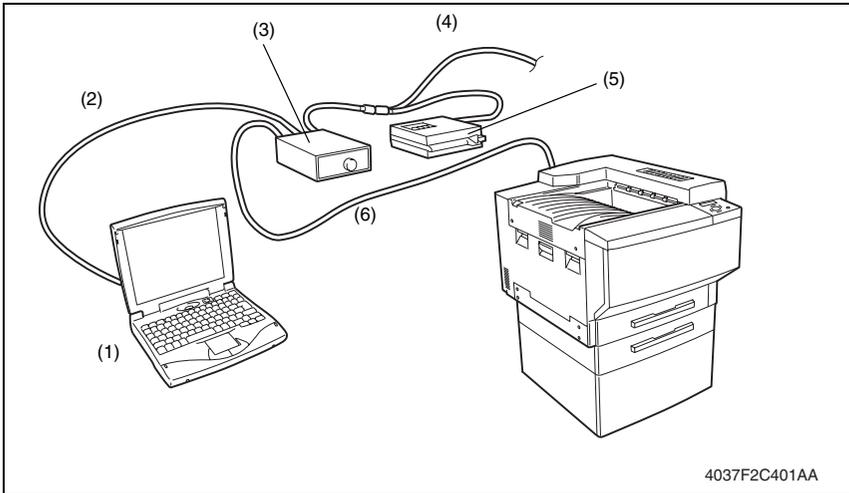
[See P.14](#)

7.2.4 Maintenance Kit

There is no setting for the Maintenance Kit.

8. Service Jig

8.1 Construction of the Service Jig



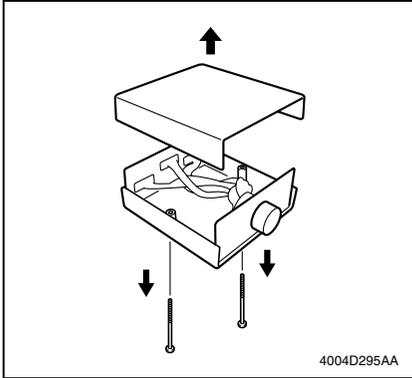
No.	Name	Description	Remark
1	Notebook PC	<ul style="list-style-type: none"> Starts the External Panel Controller for adjustment. 	Commercially available product
	External panel Controller *1	<ul style="list-style-type: none"> Allows settings, adjustments, and checks to be made for the printer using a PC. 	Supplied from KMBT
2	Straight cable (RS-232C D-sub 9 pin)	<ul style="list-style-type: none"> Connects between the Notebook PC and the connector C of the selector. 	Commercially available product
3	Selector	<ul style="list-style-type: none"> Switches between the Notebook PC and the X-Rite, printer. 	Commercially available product
	Aluminum tape	<ul style="list-style-type: none"> Removes noise that would otherwise occur when the Selector is operated. 	Commercially available product
4	X-Rite/Cross-cable	<ul style="list-style-type: none"> Color Tone Tester. 	Commercially available product
5	Cross-cable (DTP32)	<ul style="list-style-type: none"> Connects the Selector to X-Rite. 	Commercially available product
6	Cross-cable (RS-232C D-sub 9 pin)	<ul style="list-style-type: none"> Connects port A of the Selector to the printer. 	Commercially available product

*1: The recommended OS of the operating environment for the External Panel Control is Windows 98, Windows 2000, or Windows XP. No other OSs are guaranteed for correct operation. Another requirement is that the PC is capable of serial communications at 19,200 bps.

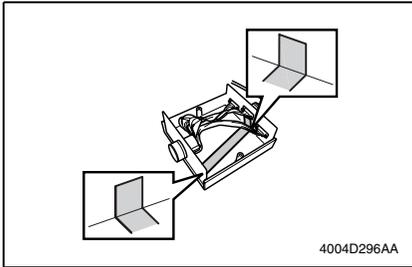
8.2 Setting up the Service Jig

8.2.1 Prepare the unit necessary for the Service Jig

- This operation is necessary only when using the selector for the first time.

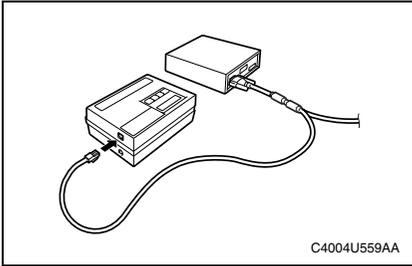


1. Remove the two screws from the selector, and then remove the upper cover.

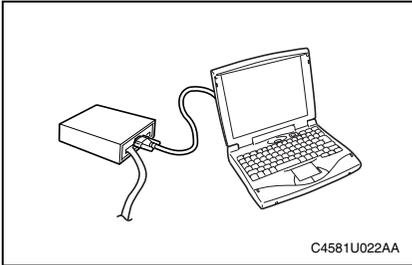


2. Affix the aluminum tape to the Selector as illustrated.

8.2.2 Connecting the Service jig



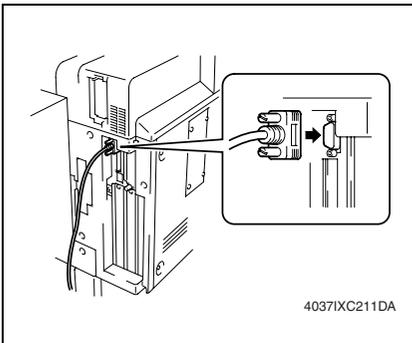
1. Using a DTP32 cross-cable, connect the I/O port of the X-Rite to port B of the selector.



2. Using the RS232 straight cable (2), connect the COM 1 port of the computer to port C on the selector.

NOTE

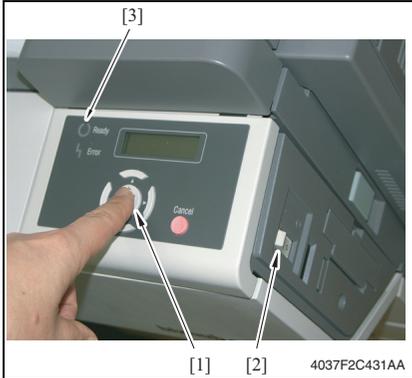
- When connecting to the COM2 port, set the External Panel Controller port setting to COM2.



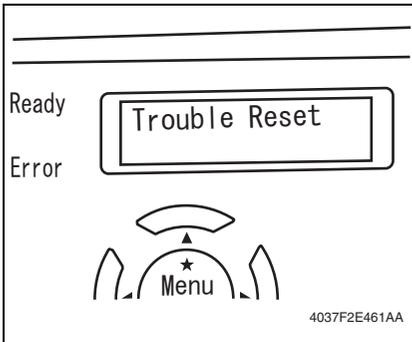
3. Using a cross-cable, connect port A of the selector to the printer.

8.2.3 Connecting the Jig Software to the Printer

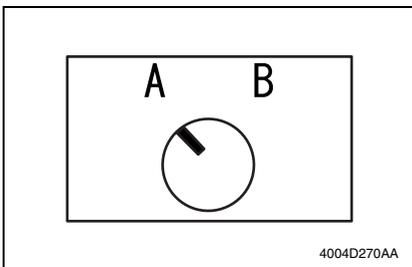
- Turn PC power ON. Turn the Printer power ON. Start the Jig Software (External panel Controller.)
- When the error message is displayed during operation, follow the message for the countermeasure.
- Do not finish the Jig Software while it is running. When the Jig Software is finished, start the printer and the Jig Software again.



1. Turn Printer power ON while pressing the Menu/select key [1] on the control panel [2].
- Keep pressing the Menu/select key until the LED [3] on the control panel turns OFF or "Please wait" is displayed.

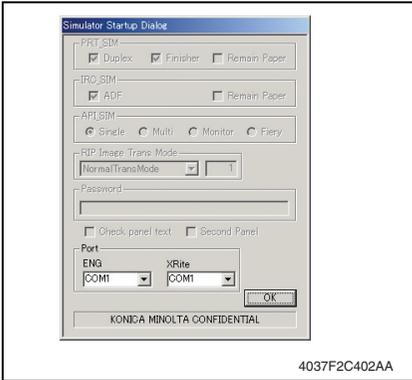


2. Make sure that "Trouble Reset" is displayed.
- When "Ready to print" is displayed, turn power OFF and turn it ON again.



3. Make sure that the selector knob is set to "A."

4. Turn on your PC and click the External Panel Controller icon.



4037F2C402AA

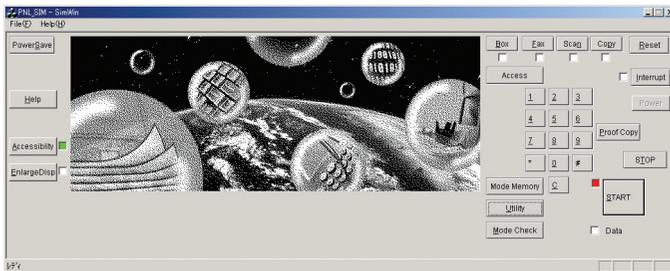
5. Make sure that the Startup dialog box has appeared.
6. Check that "COM1" is selected for "Port." Then, click the "OK" key.

7. Check that the initial startup screen of the External Panel Controller has appeared on the PC.

NOTE

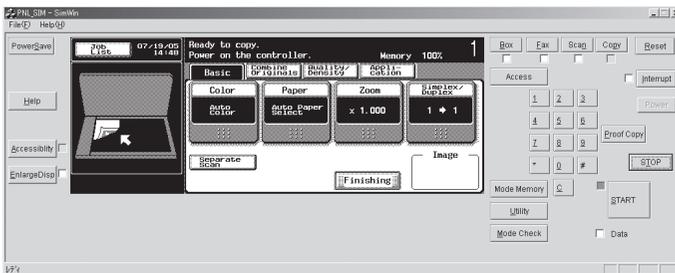
- If the basic screen does not appear in the External Panel Controller, turn the printer off. Restart the External Panel Controller, and then turn the printer on again.

Initial Startup Screen



4037F3J402AA

8. Check that the initial startup screen has changed to a panel screen.



4037F2E416AA

9. Electrical/Image Adjustment

NOTE

- Given in the following are only those adjustments that are made using the External Panel Controller.
- Ensure appropriate security for Service Mode setting procedures. They should never be known to any unauthorized person not involved with service jobs.

9.1 Calling the Service Mode to Screen

1. Connect the Service jig and display the Panel screen.
2. Press the Utility key.
3. Click [Details].
4. Press the following keys in this order:
Stop → 0 → 0 → Stop → 0 → 1
5. Call the Service Mode to the screen.

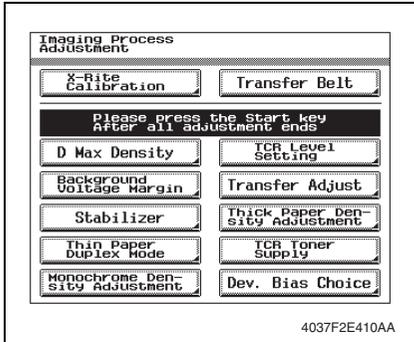
9.2 List of Functions

- Use the Jig Software and adjust or set on the PC screen.
- For adjustment items except X-Rite calibration, see Adjustment/Setting.

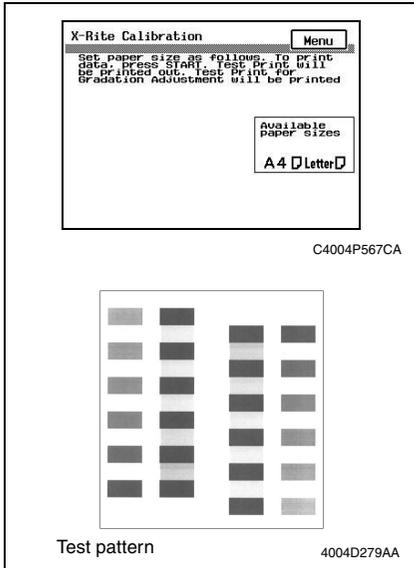
Machine	
• Fusing Nip	• Fusing Temperature
• Fusing Transport Speed	• Printer Area
• Printer Resist Loop	• Color Registration Adjustment
• LPH Rank	• LPH Chip Adjust
• Manual Bypass Tray Adjustment	• Lead Edge Erase Adjustment
• Cooling Fan Speed	
• Imaging Process Adjustment	
• X-Rite Calibration (Gradation Adjust)	• Transfer belt
• D max Density	• TCR Level Setting
• Background Voltage Margin	• Transfer Adjust
• Stabilizer	• Thick paper Density Adjustment
• Thin Paper Duplex Mode	• TCR Toner Supply
• Monochrome Density Adjustment	• Dev. Bias Choice

9.2.1 X-Rite Calibration (Gradation Adjust)

1. Set up the Service Jig.
2. Call the Service Mode to the screen.



3. Click the X-Rite Calibration key in the Imaging Process Adjustment screen.
4. Click the Gradation Mode.

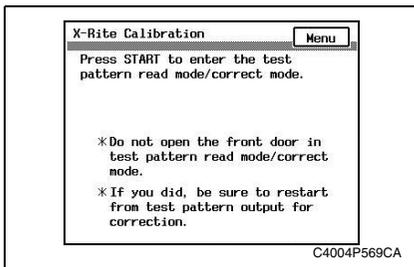


5. Check the message that appears, and then click the Start key in the External Panel Controller.
6. Test patterns are printed for the four colors. (Cyan, Magenta, Yellow, Black)

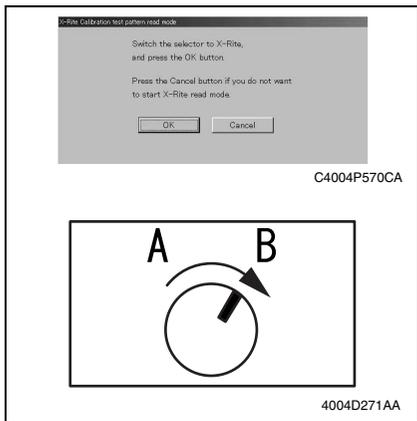
NOTE

- It will take approximately 2 minutes for the test patterns to be printed.
- During printing, do not open the front door.

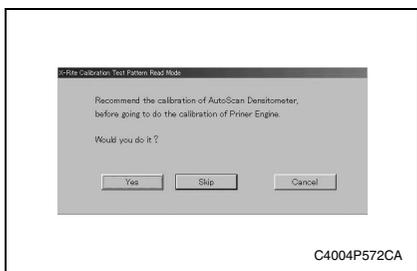
If the front door is opened, restart the procedure from step 1.



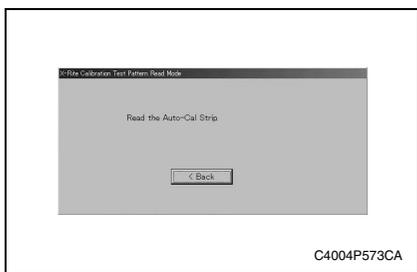
7. After the test patterns are printed, check that the message appears, and then click the Start key in the External Panel Controller.



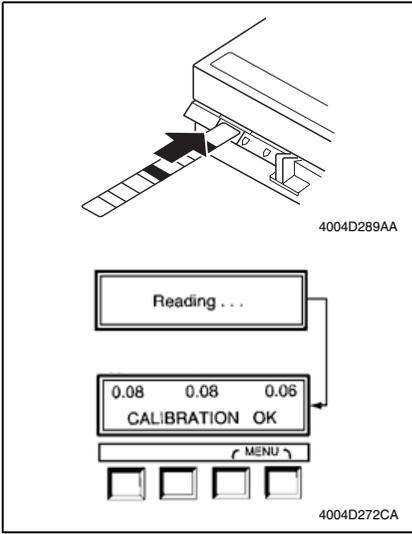
- 8. Check that the dialog box appears
- 9. Set the selector knob to "B."
- 10. Then click the OK key in the dialog box.



- 11. Check that the dialog box appears, and then click the Yes key in the dialog box.



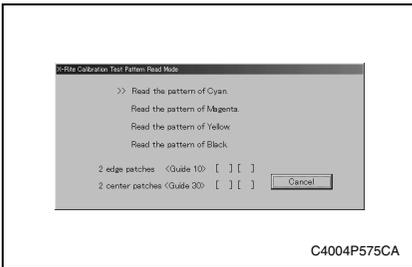
- 12. When the dialog box appears, the auto-cal strip can be read. Prepare the auto-cal strip.



13. Insert the auto-cal strip into the X-Rite.

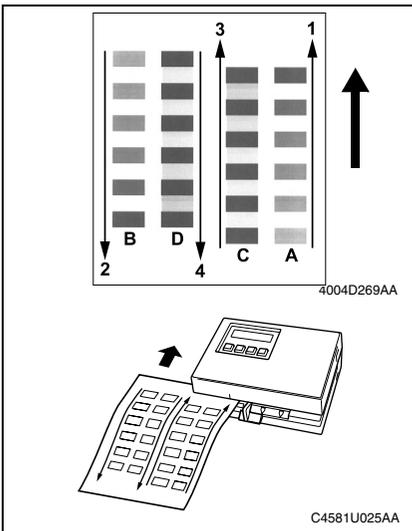
NOTE

- Insert the auto-cal strip after “INSERT CAL STRIP” appears on the X-Rite display.



14. If the reading was completed correctly, the dialog box shown at the left appears.

15. Prepare the cyan test pattern.

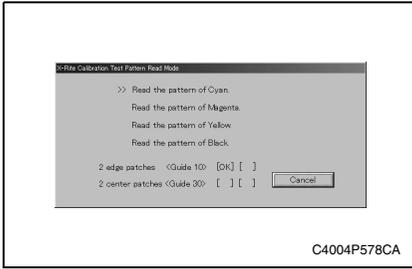


16. Set the X-Rite guide to “10.”

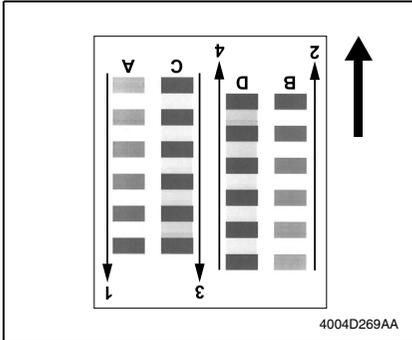
17. Feed the cyan test pattern in direction “1” to read the row represented by “A.”

NOTE

- Align the test pattern with the guide, and insert the pattern into the X-Rite.
- The arrows indicate the direction that the pattern should be fed into the X-Rite.
- The arrows shown in the illustration are not printed on the actual test pattern.

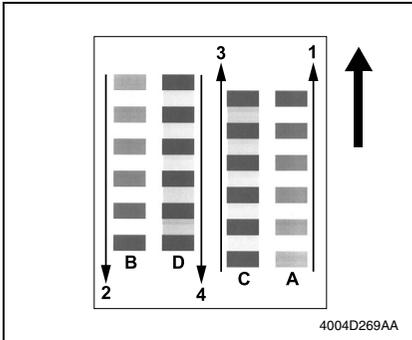


18. If the reading was completed correctly, "OK" is indicated.



19. Turn the test pattern around, and then feed it to read the row indicated by "B" in direction "2."

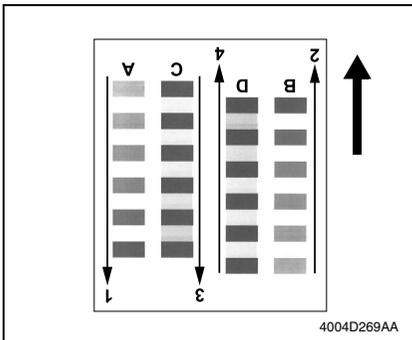
20. If the reading was completed correctly, a second "OK" is indicated.



21. Set the X-Rite guide to "30."

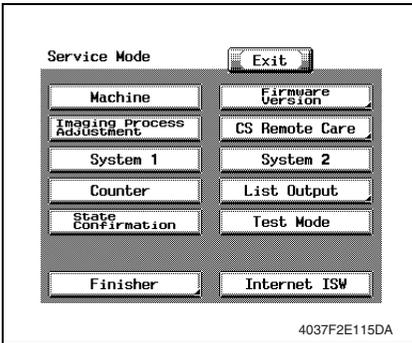
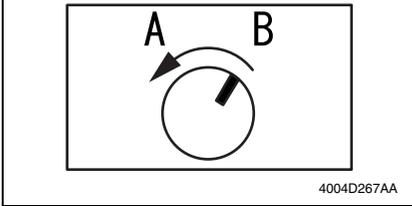
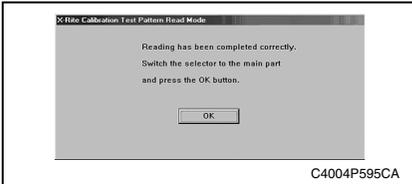
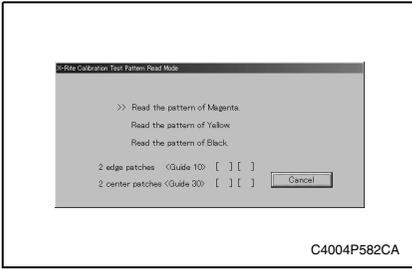
22. Turn the test pattern to its original orientation, and then feed the test pattern in direction "3" to read the row represented by "C."

23. If the reading was completed correctly, a third "OK" is indicated.



24. Turn the test pattern around, and then feed it to read the row indicated by "D" in direction "4."

25. If the reading was completed correctly, a fourth "OK" is indicated.



26. Check that “>>” appears beside “Read the Pattern of Magenta.”

NOTE

- From here on, read the test patterns of magenta, yellow, and black, in that order.
- If “>>” appears beside “Read the Pattern of Cyan”, perform the procedure for reading the cyan test pattern again.

27. Check that the dialog box appears.
 28. Set the selector knob on the selector from “B” to “A”.
 29. Then click the OK key in the dialog box.

NOTE

- Be sure to click the OK key only after the selector knob has been set.
- Quit X-Rite Calibration.

30. Make sure that the Service Mode screen reappears on the screen.
 31. Click the EXIT key.

10. Firmware upgrade

10.1 Outline

- There are two ways to update the Firmware: One is by directly connecting with the Printer using the Compact Flash, and the other is by downloading over a network using the Internet ISW.

NOTE

- **When updating the Firmware card with the Ver. 69 or earlier to the Ver. A7 or later, perform the following procedure without fail.**

1. When the Serial Number Input screen is displayed after the Firmware was updated with Main power being ON, enter the Serial Number with the following step.
[Tech. Rep. Mode] → [Serial Number]

[See P.193](#)

2. Perform the following setting.
[Tech. Rep. Mode] → [Version Upgrade] → [HDD Ver. Upgrade]

[See P.198](#)

3. Turn OFF the Main Power Switch and turn it ON again more than 10 seconds after.
4. Perform the following setting.
[Tech. Rep. Mode] → [Data Backup].

[See P.202](#)

5. Turn OFF the Main Power Switch and turn it ON again more than 10 seconds after.

10.2 Preparations for firmware rewriting by Cygwin

10.2.1 Outline

- Write the firmware into the compact flash using Cygwin.
- Cygwin consists of two types: Full install version and light version that is comprised only of necessary files.

10.2.2 Service environment

- OS: Windows 2000/XP
- Drive which enables writing/reading of Compact flash
- Compact flash (Service Tool: 4037 0751 ##)

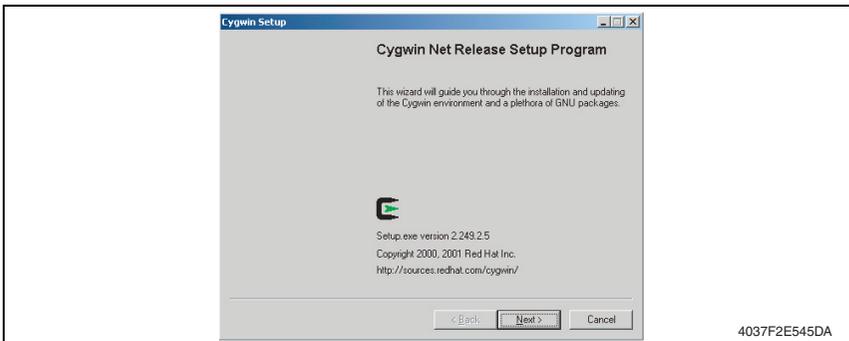
10.2.3 Installing the Cygwin

A. For the full installation version

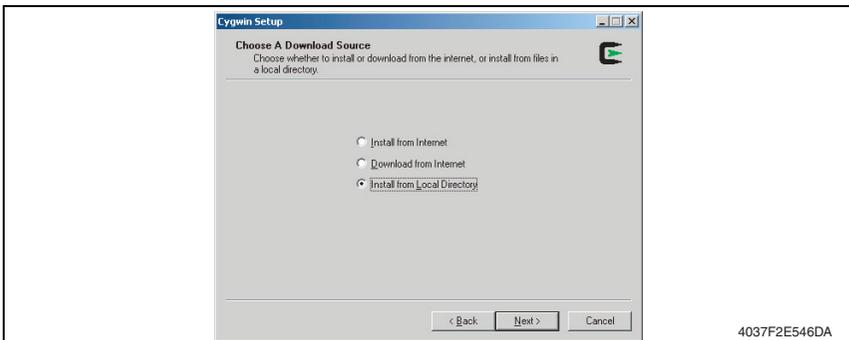
1. Double click the [setup.exe] on CD-ROM in which Cygwin is stored.



2. Click [Next (N)].



3. Select "Install from Local Directory", and click [Next (N)].

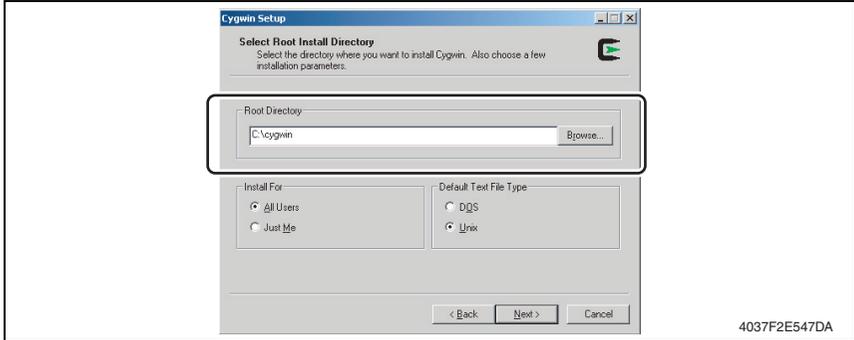


- Specify the folder for installation.
Check to make sure that “Root Directory” is in default setting, [C:\cygwin].

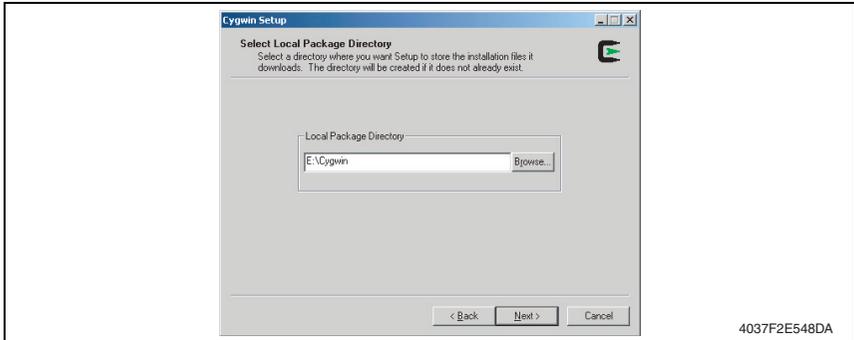
NOTE

- **Make sure to check that “Root Directory” is in default setting, [C:\cygwin].**
- **Do not change the setting value except “Root Directory.”**

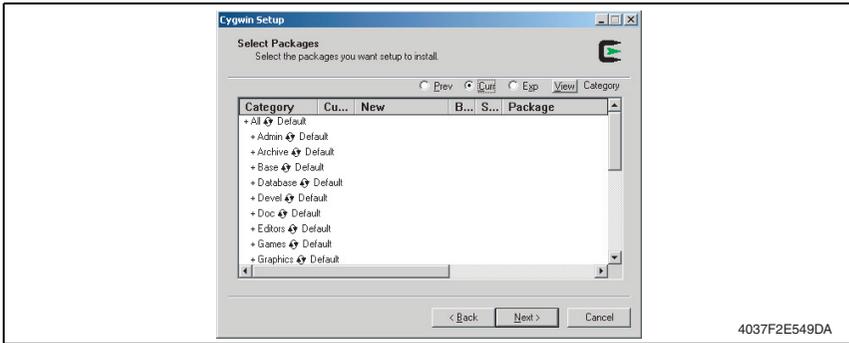
- Click [Next (N)].



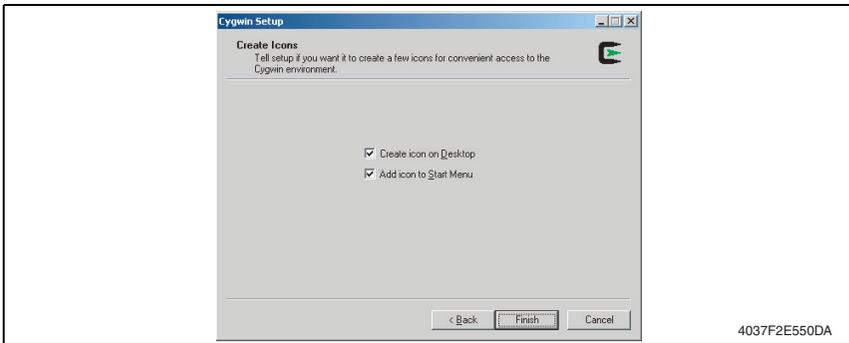
- Specify the place of the data to be installed.
For installing from CD-ROM, select the [cygwin] folder in CD-ROM drive.
(Described below is the sample procedure when CD-ROM drive is E-drive.)
- Click [Next (N)].



8. Click [Next (N)].



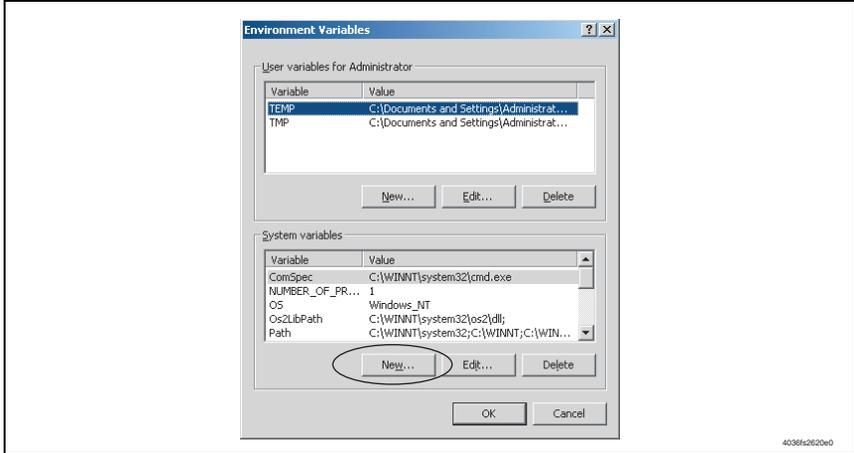
9. Click [Complete] to start installing.

**B. For the light version**

1. Decompress the downloaded compressed file "cygwin_rhein_phase2.zip" directly to the C drive (Windows system drive).
2. Confirm that the "Cygwin" folder is created directly in the C drive (Windows system drive).

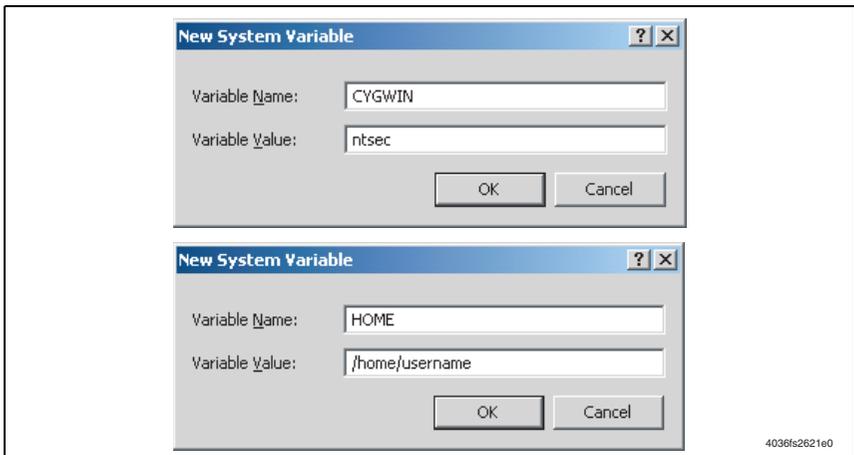
10.2.4 Settings of the Windows Environmental Variable

1. After installing, open the Property of “My Computer”, and click the “Environmental Variable” of “Advanced” tab.
2. Click the “New” in System Variable Setting.



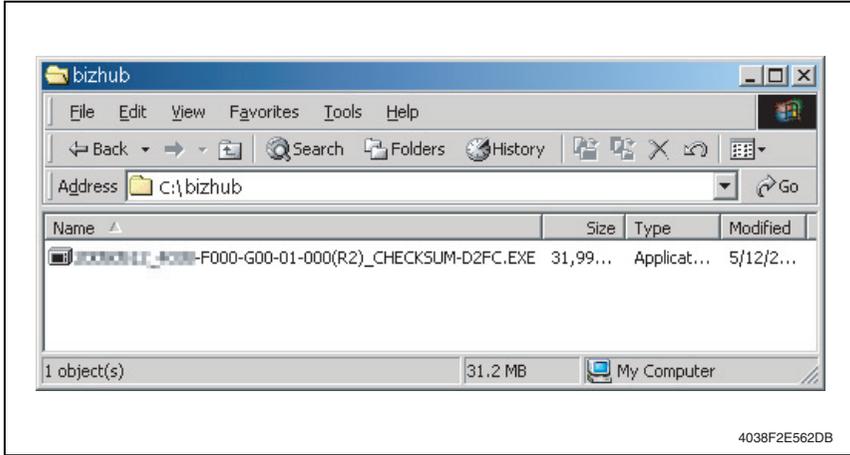
3. Set the following two values as the Windows Environmental Variable.

Variable name	Variable value
CYGWIN	ntsec
HOME	/home/username



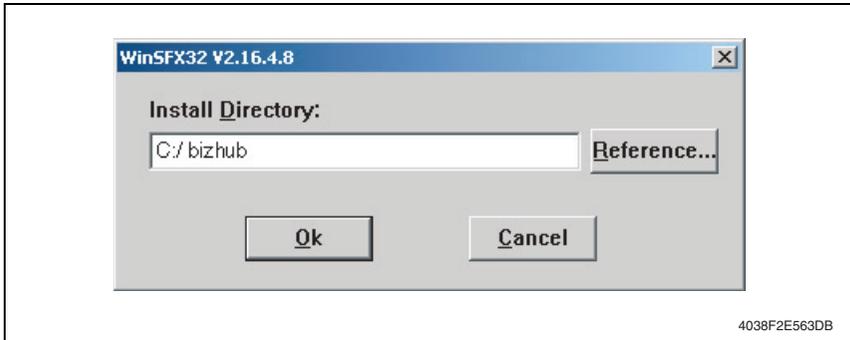
10.2.5 Writing into the Compact flash

1. Put the data of Firmware in the optional directory. (C:\bizhub in the below figure)



NOTE

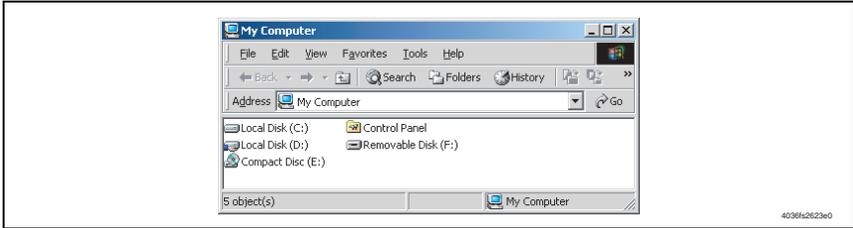
- The file name of Firmware data consists of the “Release Date_Version_CHECKSUM-****.exe.”
2. Double-click the Firmware data, and specify the directory to be uncompressed, and then uncompress it.



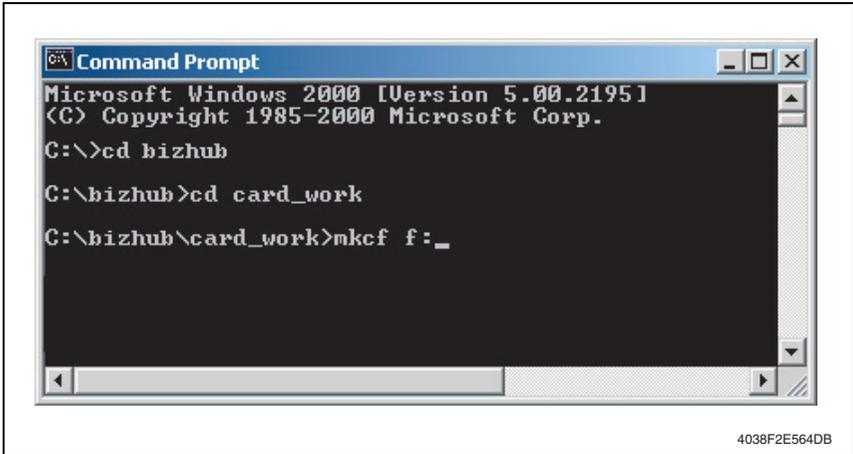
NOTE

- When old Firmware is still left in the specified directory to be uncompressed, delete it before uncompressing.
- When the firmware data is decompressed, “card_work” folder is created in the selected directory and the data is decompressed in this folder.

3. Mount the Compact flash on the PC, and check the Drive name, which was recognized in the Windows. (F-drive in the following figure)



4. Click "Start" → "Program" → "Accessories" → "Command Prompt" to open the Command Prompt.
5. Use the Command prompt to move into the uncompressed directory.
6. Specify the Drive of Compact flash, which was recognized through the procedure 3, and execute the "mksf.bat." (Input the C: \bizhub\card_work>mksf f: (Drive number): in the below figure, and push the "Enter".)



7. Once the "mkcf.bat" is executed, data writing into the Compact flash is started.
8. Upon completion of writing, CHECKSUM is executed. If CHECKSUM value is precisely matched, "VERIFY OK" appears.

```
C:\> Command Prompt
I14 data.....Skip
I15 data.....Skip
I16 data.....Skip
I17 data.....Skip
A3T data.....Skip
WLI data.....Skip
BBG data.....Skip
SUM = D2FC
Verify Check...CHECK SUM VERIFY OK.
Finish!

G:\bizhub\card_work>
```

4038F2E565DB

9. Remove the Compact flash from PC.

NOTE

- When removing the Compact flash, be sure to check if data is written as normal and then remove it according to the precise removing method.

10.3 Preparations for firmware rewriting by Firmware Imaging Toolkit 2006

- This software is designed as the tool to write firmware data of MFP/printer released by KMBT into the compact flash card.

10.3.1 Correspond model

- Correspond models of the software is as follows.

Color machine	<ul style="list-style-type: none"> • bizhub C250/C300/C350/C351/C352/C450 • bizhub C250P/C352P/C450P
B/W machine	<ul style="list-style-type: none"> • bizhub 200/250/350 • Di2510/3010/3510/2510f/3010f/3510f

10.3.2 Function outline

- The following functions are available with this software.

Function type	Function name	Description
Basic functions	Write Firmware to a card	<ul style="list-style-type: none"> • Write firmware data into the compact flash card. See P.63
	Compare Firmware with a card	<ul style="list-style-type: none"> • Compare the firmware data written into the compact flash card with the one saved in PC. See P.63
Advanced functions	Create a Firmware Image from a card	<ul style="list-style-type: none"> • Create the firmware image form using the firmware data written into the compact flash card. See P.64
	Format a card	<ul style="list-style-type: none"> • Format the compact flash card by the FAT or vxWorks form. <p>NOTE</p> <ul style="list-style-type: none"> • vxWorks form is not applicable See P.64
	Display information about a card	<ul style="list-style-type: none"> • Acquisition the information of firmware data written into the compact flash card. See P.64

10.3.3 System environment

- The following system environments are required or recommended to use the software.

Computer	<ul style="list-style-type: none"> • IBM PC/AT compatible machine
CPU	<ul style="list-style-type: none"> • Pentium III / 500 MHz or higher is recommended.
Correspond OS	<ul style="list-style-type: none"> • Windows 2000, Windows XP or Windows Server 2003
Required memory	<ul style="list-style-type: none"> • More than 128 MB (Windows 2000), 256MB (Windows XP/2003) is recommended.
Others	<ul style="list-style-type: none"> • Drive that is able to Read/Write compact flash

10.3.4 Installation of software

- Follow the procedures shown below to install the software.

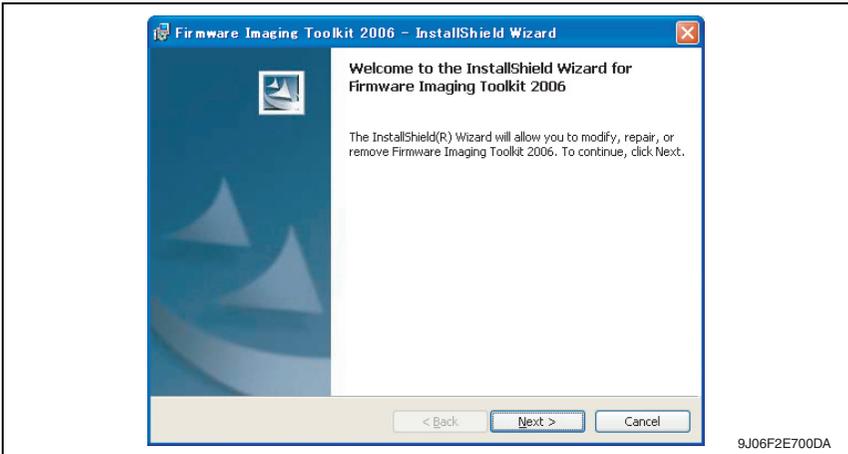
NOTE

- **Install the software to the PC with the administration authentication.**
- **When any anti-virus program is activated, quite the program before the installation.**

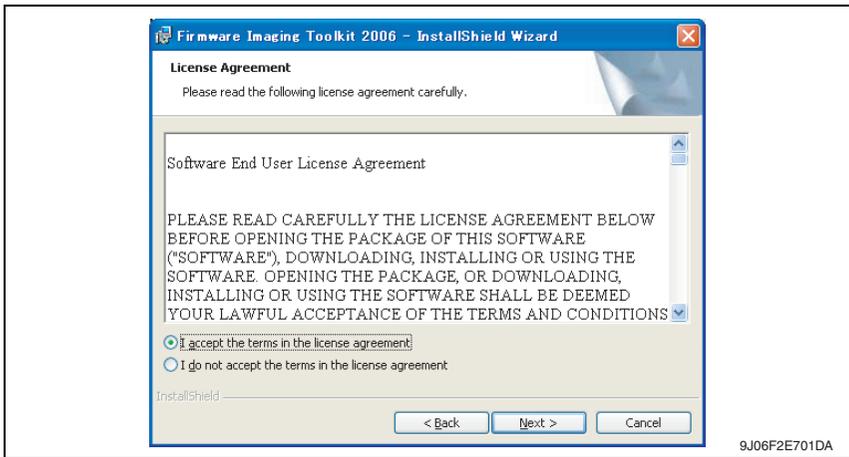
1. Double click [setup.exe] to start the installation of the software.



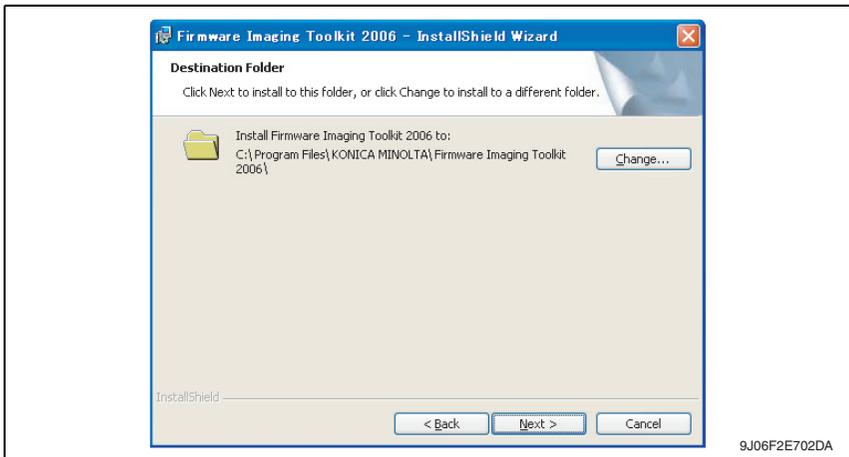
2. Click [Next >].



- 3. After checking the contents of license agreement, select [I accept the terms in the license agreement] and click [Next >].



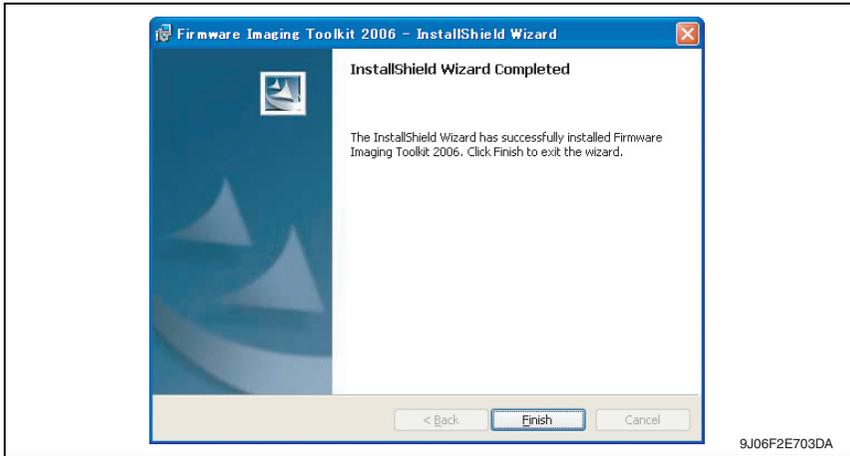
- 4. Select the installed destination folder of Firmware Imaging Toolkit 2006, and click [Next>].



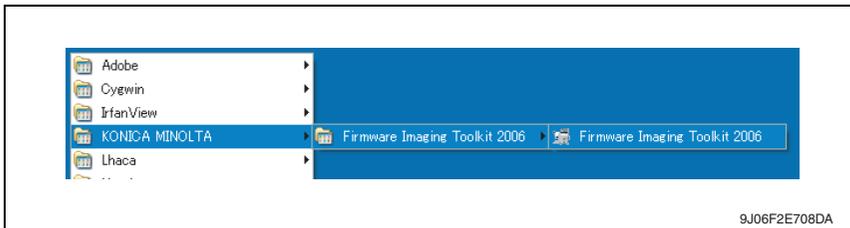
bizhub C450P

Maintenance

5. Click [Install] to start installation.
6. Click [Finish] to complete the installation.



7. Shortcut file will be created inside Windows Start menu ([Program] → [KONICA MINOLTA] → [Firmware Imaging Toolkit 2006]).



10.3.5 Update of software

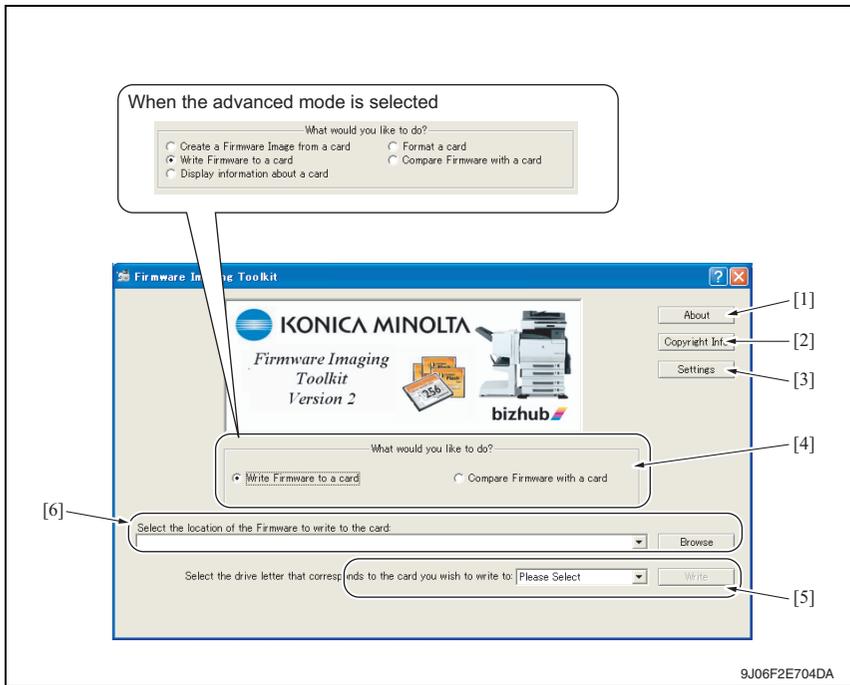
- To update the software version, delete (uninstall) the currently installed program and install the new version.
 - Follow the procedures shown below to delete (uninstall) the program.
1. Quite the program if the software is activated.
 2. Select [Firmware Imaging Toolkit 2006] of [Add/Remove Programs] in Windows Control Panel menu to delete the program.



10.3.6 Screen

A. Main window

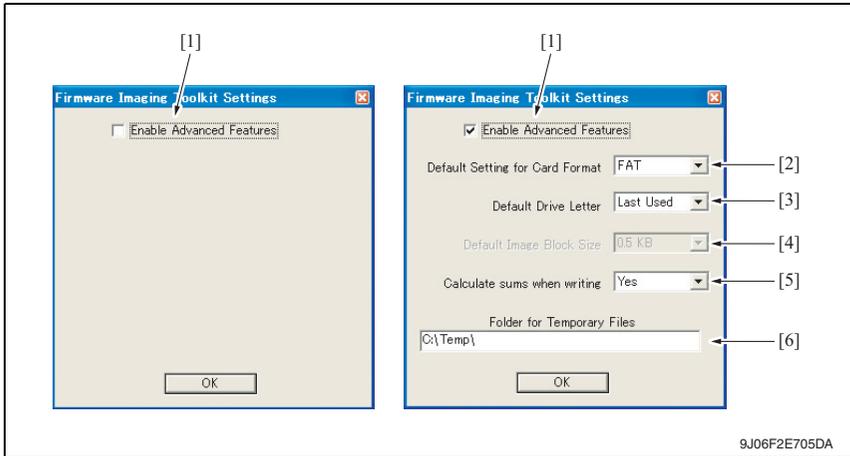
- The main window will be displayed after activating the software.
- Main window consists of 2 patterns: Basic mode, Advanced mode



[1]	About	• To display the outline of the tool.
[2]	Copyright Info	• To display the license agreement and version information of the tool.
[3]	Settings	• To display the dialog to enable the advanced functions. • Select the check box of [Enabled Advanced Features] to enable advanced functions at main window. See P.62
[4]	What would you like to do?	• To select the function to be used. • Displayed screen is different between Basic mode and Advanced mode. See P.63
[5]	Select the location of the Firmware to write to the card:	• To select the compact flash drive to which the data to write.
[6]	Select the drive letter that corresponds to the card you wish to write to:	• To select the location where the firmware is stored in PC.

B. Settings dialog

- It will be displayed by clicking [Settings] at main window.
- Other settings will be enabled by selecting the check box of [Enabled Advanced Features].



9J06F2E705DA

[1]	Enable Advanced Features	<ul style="list-style-type: none"> • Enable the setting of advanced functions at the dialog by selecting the check box. Also advanced functions can be selected at the main window.
[2]	Default Setting for Card Format	<ul style="list-style-type: none"> • Select the default card format during software starting. FAT : The format to be used by all models that the software supports. vxWorks : Not available yet.
[3]	Default Drive Letter	<ul style="list-style-type: none"> • Select how to set default of compact flash drive during software starting. LastUsed : The drive used at previous time is selected. None : [Please Select] is displayed on the screen every starting and the drive should be selected every time.
[4]	Default Image Block Size	<ul style="list-style-type: none"> • Not available yet.
[5]	Calculate sums when writing	<ul style="list-style-type: none"> • Set whether to calculate check sums during data writing. • If [YES] is selected, data consistency can be ensured by data verification of check sums during data writing. However, it takes more time for data writing compared to the case without sums calculation (Basically this mode shall be selected.) • If [No] is selected, check sums calculation is skipped during data writing. Although it take less time for data writing compared to the case with sums calculation, it fails to ensure the reliability of the written data.
[6]	Folder for Temporary Files	<ul style="list-style-type: none"> • Set the folder for saving temporary files during the tool is activating. The temporary file is automatically deleted after the operation completes normally.

10.3.7 Details of each function

A. Basic functions

(1) Write Firmware to a card

- To write FW data into the compact flash. The FW data of the models shown below can be written.
- To write FW data into the compact flash. The FW data of the models shown below can be written.

<Corresponding models and firmware file type>

Models	File type	Indexed firmware type	Compressed firmware type	Uncompressed firmware type	Di3510/350/250/200 firmware type
C450/C450P/C351		rhein1_cf.tar.gz	*.img.gz	*.img	—
C352/C352P/C300		rhein2_cf.tar.gz			—
C350		tss2_cf.tar.gz			—
C250/C250P		rhein3_cf.tar.gz			—
Di2510/3010/3510/2510f/3010f/3510f		—	—	—	ma001
200/250/350		—	—	—	ma001a

NOTE

- **The above-mentioned [Indexed firmware type] and [Di3510/350/250/200 firmware type] shall be comprised of multiple files and one of the files shall be named as above.**
- **[Compressed firmware type] means the compressed formed image file that is created using the tool's function of the [Create a Firmware Image from a card].**
- **[Uncompressed firmware type] means the image file that is uncompressed the compressed firmware file.**
- **To write the image file data (*.img.gz or *.img) into the compact flash, use the compact flash with the same capacity as the one used for the original image file. Although the compact flash with larger capacity than the original one can be used, it is not covered under warranty.**
- **C350 firmware requires the compact flash over 64 MB.**
- **Firmware of C450/C450P/C351/C352/C352P/C300/C250/C250P requires the compact flash over 128 MB.**

(2) Compare Firmware with a card

- Compare the firmware data written into the compact flash and the one (file) saved in PC.
- After the comparison, display the check sum information (comparison result dialog) of the firmware data of the compact flash and the file.
- The firmware data (file) format saved in PC shall consistent with the one written into the compact flash.

B. Advanced functions**(1) Create a Firmware Image from a card**

- Create the image file from the firmware data written into the compact flash.
Create the image file by dumping directly the data in the card. This function allows us to save the various type of firmware data in the compact flash as the image file and hold as copy data.
- The created FW image file is automatically compressed and created as the Compressed firmware file (*.img.gz).
The image file is written into the compact flash in the uncompressed form, however, the uncompressed data would occupy too much capacity, which makes file control difficult. Therefore this tool doesn't create uncompressed firmware file (*.img).

(2) Format a card

- Make format of the compact flash in FAT or vxWork form.
- To write the firmware data into the compact flash, the card should be formatted in FAT form to clear (initialize) the description of the compact flash.

NOTE

- **In current version, only FAT format is available but not vxWork format.**
- **After the firmware data is written into the compact flash, it becomes the own file style that is different from the FAT, and the compact flash that the firmware data is written cannot be browsed on the Windows OS.**

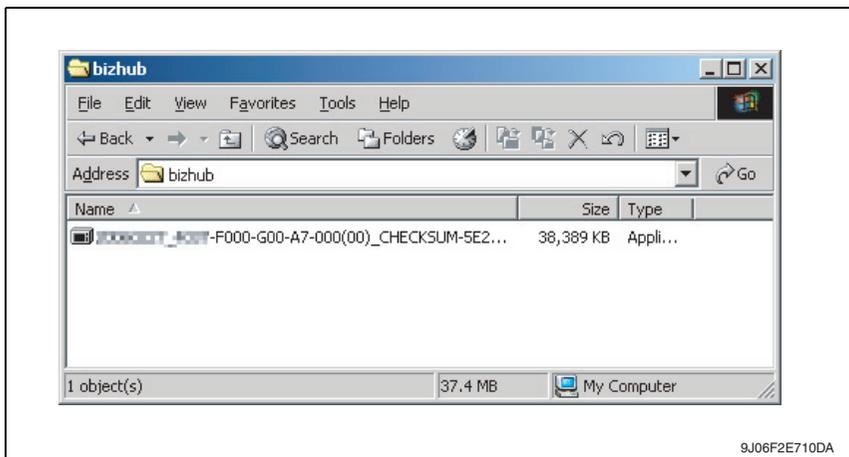
(3) Display information about a card

- Display the information of the firmware data written into the compact flash.
The information to be displayed is according to the type of written FW data.
- For the series of Di3510/200/250/350 series, MSC version is displayed.
- For the series of C450/C450P/C351/C352/C352P/C300/C250/C250P, check sums of each firmware data is displayed.

10.3.8 How to write firmware data

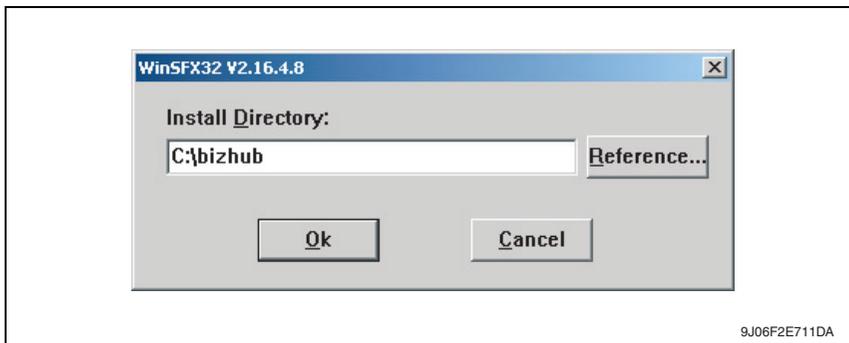
A. In the case of C450/C450P/C351/C352/C352P/C300/C250/C250P series

1. Put the firmware data in the optional directory. (C:\bizhub in the below figure)



NOTE

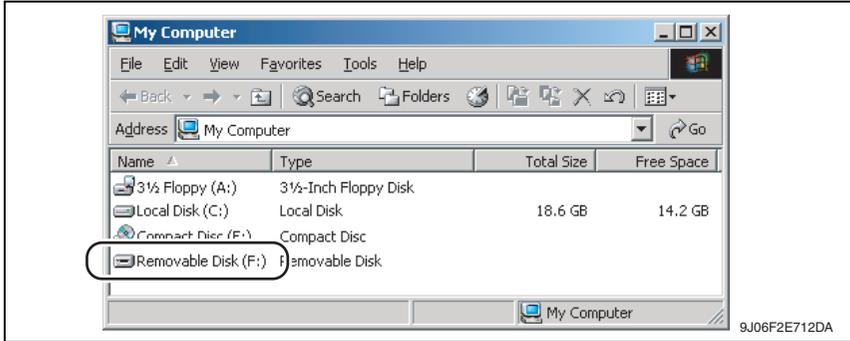
- The file name of firmware data consists of the “Release Date_Version_CHECKSUM-****.exe.”
2. Double-click the firmware data, and specify the directory to be uncompressed, and then uncompress it.



NOTE

- When old firmware is still left in the specified directory to be uncompressed, delete it before uncompressing.

3. Mount the compact flash on the PC, and check the drive name, which was recognized in the Windows. (F-drive in the following figure)

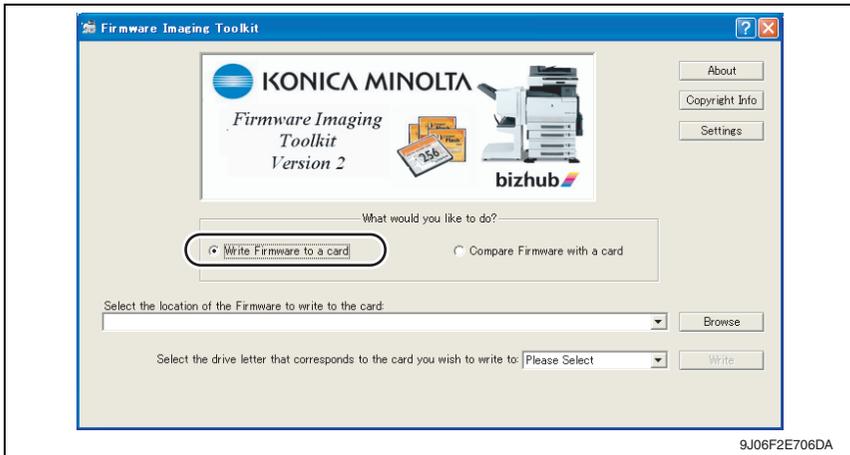


4. Start Firmware Imaging Toolkit 2006.

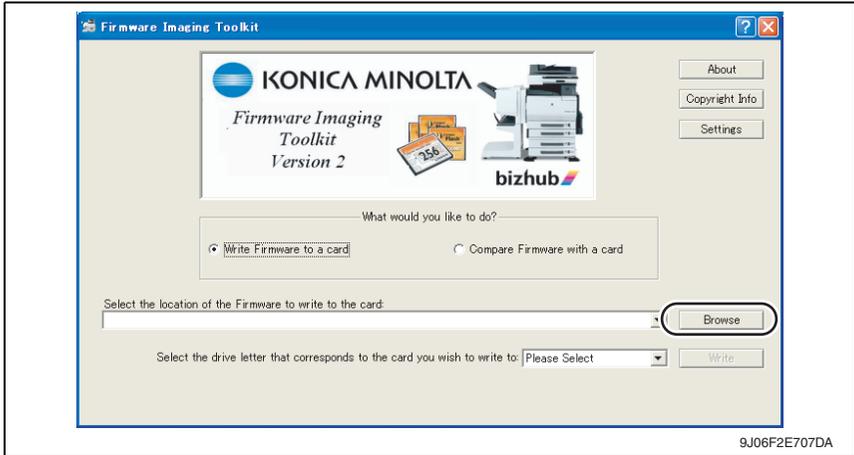
NOTE

- When using the external compact flash drive such as USB be sure to connect them before starting this tool.

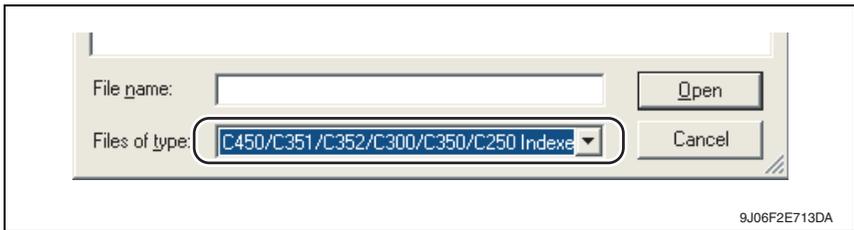
5. Select the check box of [Write Firmware to a card].



6. Click [Browse].



7. Select the file type [C450/ C351/C352/ C300/C350/C250 Indexed Firmware].

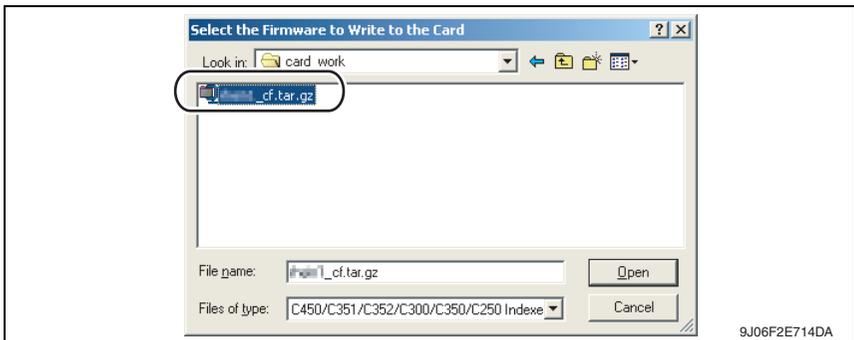


8. Move to the folder decompressed at step 2, confirm that only "###_cf.tar.gz" (### is for model name) is displayed, and select.

NOTE

- If the file extension is set to be not displayed in Windows, the file name ".gz" will not be displayed.

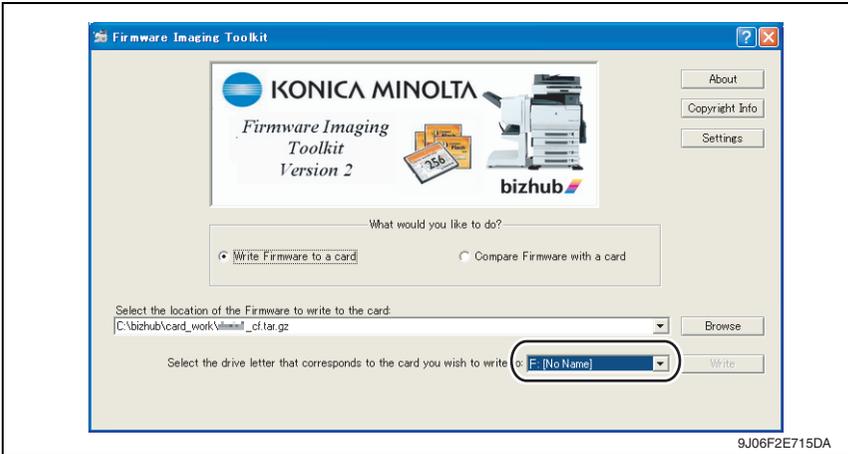
9. Click [Open].



10. Select the drive that the compact flash is inserted, which is confirmed at step 3.

NOTE

- The drives other than the compact flash that is recognized as “Removable Disk” can be selected for the writing destination. If these drives are selected mistakenly to make the writing, it may give fatal damage on Windows system or delete the saved data. Therefore pay close attention when selecting the drive.

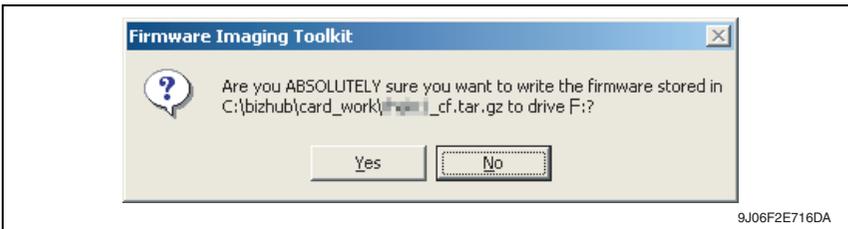


11. [Write] button is changed from gray into active status.

When clicking [Write] button, the following dialog is displayed.

12. In the dialog, re-confirm the firmware data and the written destination drive, and click [YES].

(If [NO] is clicked, the screen goes back of the main window.)



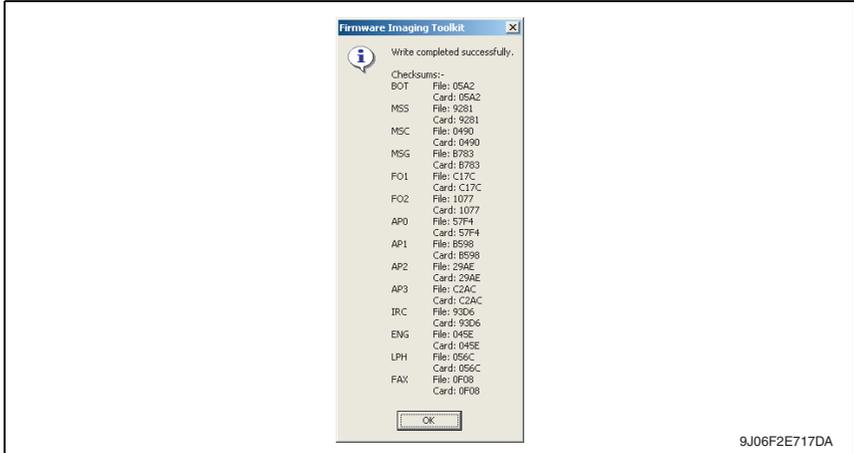
13. Click [Yes], and data writing starts.

NOTE

- **Writing a card is a resource intensive operation for your computer - do not attempt to multitask (use the computer for anything else) during the writing procedure.**

14. When the writing is completed, the following screen appears.

In this screen, check sums will be compared between the firmware data and one written into the compact flash.



NOTE

- **The contents displayed on the screen may differ according to the model type. The above is the screen displayed for firmware data writing of bizhub C450.**

15. Confirm each check sums are identical and quit Firmware Imaging Toolkit 2006.

16. Take out the compact flash from the PC.

NOTE

- **When removing the compact flash, be sure to check if data is written as normal and then remove it according to the precise removing method.**

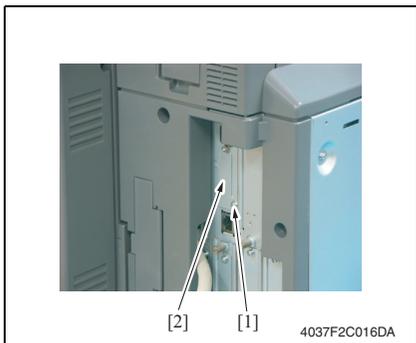
10.4 Firmware rewriting by compact flash

- The F/W is updated using the Compact flash.
- Do not use the Service Jig or Jig Software for rewriting the F/W.

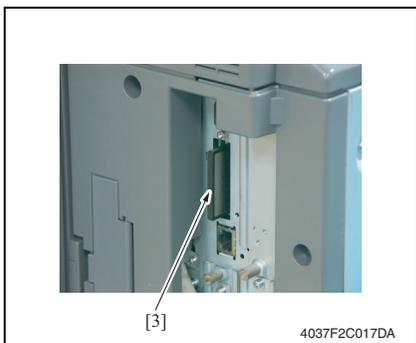
10.4.1 Updating method

NOTE

- **NEVER** remove or insert the Compact Flash card with the machine power turned ON.

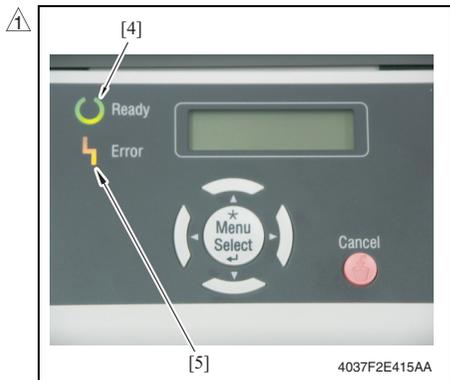


1. Turn OFF the Main Power Switch.
2. Remove the screw [1] and the metal Blanking Plate [2].



3. Insert the Compact Flash card into the slot.

4. Turn ON the Main Power Switch.



5. The ready to print LED [4] on the control panel changes its state as follows: steady light → off → blinking, and downloading of FW is started.
6. Ready to print LED [4] which is blinking will stay ON when the FW is normally downloaded.
*It takes about ten minutes until it stays ON.

7. Turn OFF the Main Power Switch.
8. Remove the Compact Flash card from the slot.
9. Turn ON the Main Power Switch.

NOTE

- **Do not turn OFF the Main Power Switch until “Ready to print” or serial number entry screen appears when turning ON the Main Power Switch for the first time after rewriting the firmware.**
- **If the serial number entry screen appears when the Main Power Switch is turned ON, select [Tech. Rep. Mode] → [Serial Number] and type the serial number.**
- **If the malfunction code D3## occurs when the Main Power Switch is turned ON, perform the data recovery procedure.**

See P.360

10. Call the Service Mode to the screen.
11. Perform the following setting.
[Version Upgrade] → [HDD Ver. Upgrade]

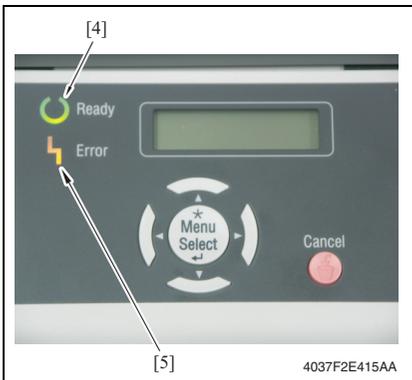
See P.198

12. Turn OFF the Main Power Switch and turn it ON again more than 10 seconds after.
13. Call the Service Mode to the screen.
14. Execute [Data Backup]

See P.202

15. Turn OFF the Main Power Switch and turn it ON again more than 10 seconds after.
16. From [List Output], select to print [Machine Manage].
17. Make sure if the version of Firmware is updated.

10.4.2 Action When Data Transfer Fails



- When the error LED [5] on the control panel turns ON, follow the procedure below for the countermeasure.

1. Perform the data rewriting procedure again.
2. If the procedure is abnormally terminated, change the Compact Flash for a new one and try another rewriting sequence.
3. When it still does not finish normally, replace the board below and rewrite data.
 - MFP Control Board (PWB-MFPC)
 - Control Board (PWB-MC)
 - LED Drive Board (PWB-LED)

10.5 Updating the Firmware with the Internet ISW

10.5.1 Out line

- [Internet ISW] is the system which gives the instruction for updating the Firmware with the control panel of the Printer, so the Printer will automatically receive the Firmware from the Program Server over a network for updating. With the Internet ISW, the Firmware can be updated when the operator is at the User's without Firmware data.

10.5.2 Service environment

The following conditions are necessary for using the Internet ISW function.

- The Printer is connected to such a network environment that the Firmware can be downloaded on the internet using the ftp or http Protocol.

The "Internet ISW" will not operate under the following conditions.

- Main power switch is set to OFF.
- ⚠ When the following setting is set to "ON":
[Admin. Setting] → [Security Setting] → [Enhanced Security]
- The Printer has the job currently performing.

10.5.3 Preparations for Firmware rewriting

- This machine uses Jig software to set Internet ISW and executes Internet ISW on the control panel.
- To use Internet ISW, it is necessary that Network Parameter, Program Server Address, Firewall Address, and other functions must be set in advance on the Jig software.
- For details of each setting item, refer to Adjustment/Setting "Internet ISW".

See P.294

A. Internet ISW Set

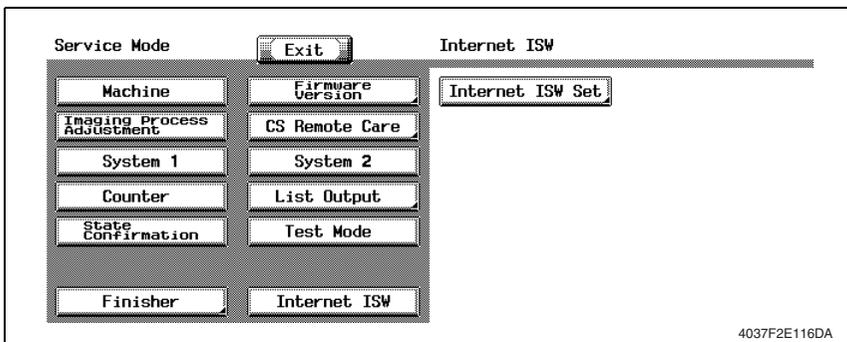
1. Connect a PC, in which the Jig software has been installed.

See P.220

2. Call the Service Mode to the screen.

See P.221

3. Click [Internet ISW Set] which is available from [Internet ISW].



4. Click [ON], and click [END].

NOTE

- **Settings such as Server setting, etc. will be available by selecting “ON” on this setting.**
- ▲ **When the following setting is set to “ON”, “ON” cannot be selected on this setting.**
[Admin. Setting] → [Security Setting] → [Enhanced Security]

B. Setting

- It performs the setting concerning the Protocol (ftp or http) for connecting to the Internet ISW.
- When connecting to the Program Server using a proxy server, perform the setting for a Proxy Server.

Step	Connecting by http	Connecting by ftp
0	Start the Jig software and select [Service Mode] → [Internet ISW].	
1	Data Input Setting • Click [HTTP Setting], and select [ON].	Data Input Setting • Click [FTP Setting], and select [ON].
2	Connect Proxy • For connecting via Proxy Server, select [ON].	
3	Proxy Server • For connecting via Proxy Server, set the Proxy Server Address and the Port Number. 1. Select the [Server Address], and set the Proxy Server Address by IP addressing scheme or FQDN scheme. 2. Select [Port Number], and set the Port Number for the Proxy Server from 1 through 65535.	
4	Proxy Authentication • Set the Login name and the Password which may be necessary for Authentication when accessing to the Proxy Server. 1. When Authentication is necessary for accessing to the Proxy Server, select [Authentication], and select [ON]. 2. Select [Log-in Name], and enter the Login name on the on-screen keyboard. 3. Select [Password], and enter the Password on the on-screen keyboard.	Connection Setting • Perform the setting for accessing FTP server. 1. Select [Port Number], and set the Port Number for FTP server from 1 through 65535. 2. Select [Connection Time Out], and set the time for the Connection Time Out from 1 through 60. 3. When connecting in PASV mode, select [PASV Mode], and select [ON]. *PASV Mode: This mode is for transferring the file with FTP under the condition where communication is restricted such as inside the Firewall. Since with PASV mode, the client with restriction sets the Port Number, data transmission port can be secured to enable the file transmission.
5	Connection Time-Out • Select [Connection Time-Out], and set the time for the Connection Time Out between 30 and 300 seconds.	—

10.5.4 Firmware rewriting

NOTE

- **When performing the Internet ISW, ask the administrator for permission beforehand.**

A. Conducting rewriting on the control panel.

1. Perform the following setting.
[Service Mode] → [Version Upgrade] → [Internet ISW] → [ISW Start]
2. Press the Menu/Select key to start downloading the firmware.

NOTE

- **Do not turn OFF the Main Power Switch while the firmware is being downloaded.**

B. During Firmware Updating

1. The ready to print LED on the control panel is blinking during connection and data transfer. It takes about 10 min. (the period of time varies depending on the network line conditions) for the data to be downloaded.
2. After the data has been downloaded, firmware updating is started.
It takes about 10 min. for the firmware to be updated.

C. Completed or failed

(1) Firmware updated normally

1. The machine is automatically restarted when updating of the firmware is normally terminated.
2. The message "Version Upgrade has succeeded." appears on the panel, indicating that upgrading has been completed.

(2) Failing to update the Firmware due to the Network trouble.

- If the message "Version Upgrade failed." appears on the panel:
 1. Press the Menu/Select key to go back to the ordinary screen and then perform Internet ISW from the control panel again.

(3) Failing to update the Firmware after downloading has started

- If the error LED lights up steadily
 1. If firmware updating fails in mid-sequence, the contents of the machine ROM are erased, no panel display is given, and the error LED only lights up steadily.
 2. Since Internet ISW cannot be used from the control panel, use the compact flash to update the firmware.

D. Confirming the Firmware Version.

1. Call the Tech. Rep. Mode to the screen.
2. From [List Output], select to print [Machine Manage].
3. Make sure if the version of Firmware is updated.

11. Other

11.1 Disassembly/Adjustment prohibited items

A. Paint-locked Screws

NOTE

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

B. Red Painted Screws

NOTE

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

C. Variable Resistors on Board

NOTE

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

D. Removal of PWBs



NOTE

- 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 click the ICs and other electrical components on the board, be sure to ground your body.

11.2 Disassembly/Assembly/Cleaning list (Other parts)

11.2.1 Disassembly/Assembly parts list

⚠	No.	Section	Part name	Ref.Page
	1	Exterior parts	Right Cover	P.79
	2		Multi Bypass Right Cover	P.79
	3		Multi Bypass Left Cover	P.79
	4		Exit Tray	P.80
	5		Rear Left Cover	P.80
	6		Front Left Cover	P.80
	7		Front Door	P.81
	8		Control Panel	P.81
	9		Tray 1 Front right cover	P.81
	10		Lower Rear Cover	P.81
	11		Tray 2 Rear Cover	P.81
	12		Tray 2 Rear Right Cover	P.81
	13		Wiring Cover	P.81
	14		Rear Right Cover	P.82
	15		Fusing Cover	P.82
	16		Top Rear Cover	P.82
	17		Tray 1	P.83
	18		Tray 2	P.84
	19	Board and etc.	LAN Board	P.85
	20		Standard Memory	P.86
	21		Hard Disk Drive	P.86
	22		Electronic Sorting Board	P.87
	23		MFP Control Board	P.87
	24		Control Board	P.89
	25		Slide Interface Board	P.90
	26		High Voltage Unit/1	P.92
	27		High Voltage Unit/2	P.93
	28		Tray 1 Paper Size Board	P.94
	29		DC Power Supply	P.94
	30	Board and etc.	LED Drive Board	P.96
	31		Tray 2 Board	P.97
	32		Tray 2 Paper Size Board	P.97
	33	Unit	Multi Bypass Unit	P.99
	34		Hopper Unit	P.100
	35		LPH Unit	P.102

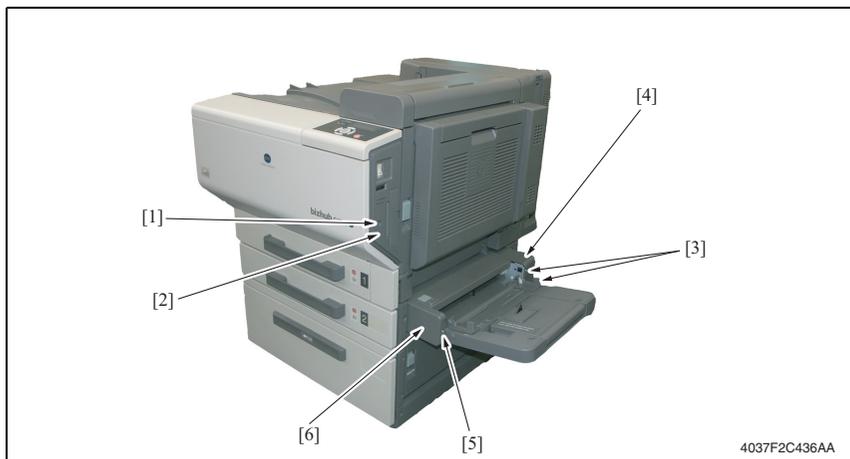
No.	Section	Part name	Ref.Page
36	Others	PWB Unit	P.105
37		PWB Box	P.106
38		Main Motor	P.109
39		Fusing Drive Motor	P.109
40		Toner Supply Motor C/K	P.110
41		Toner Supply Motor Y/M	P.111
42		Tray 2 Lift-Up Motor	P.111
43		Tray 2 Paper Feed Motor	P.112
44		Tray 2 Vertical Transport Motor	P.113
45		Color PC Drum Motor	P.114
46		Color Developing Motor	P.116
47		K PC Motor	P.117
48		1st Image Transfer Pressure/Retraction Motor	P.118
49		2nd Image Transfer Pressure/Retraction Motor	P.119
50		Intermediate Transport Motor	P.120
51		Fusing Pressure Roller Pressure/Retraction Motor	P.122
52		Cleaning Brush Motor	P.125
53		IDC/Registration Sensor/1,2	P.127
54		LPH Assy	P.128
55		TCR Sensor Y/M/C	P.132

11.2.2 Cleaning parts list

No.	Section	Part name	Ref.Page
1	Tray 1	Paper Take-up Roller	P.133
2		Separation Roller	P.133
3	Bypass	Paper Take-up Roller	P.134
4		Separation Roller	P.134
5	Tray 2	Paper Take-up Roller	P.135
6		Pick-up Roller	P.135
7		Separation Roller	P.135
8		Transport Roller	P.137

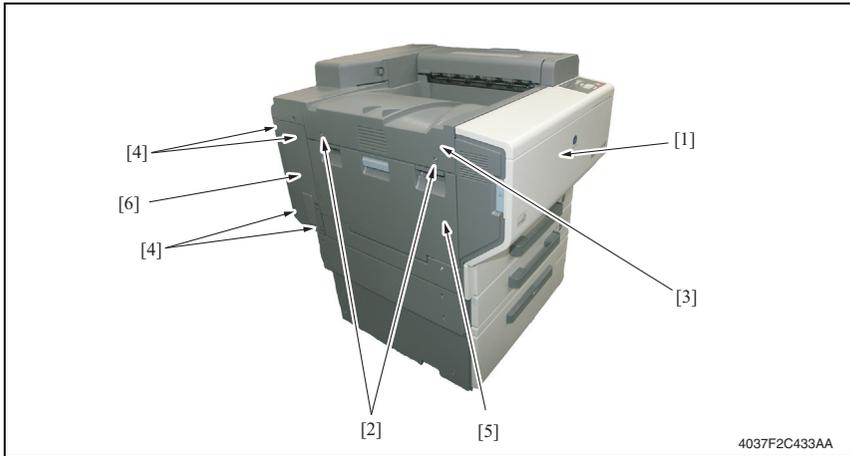
11.3 Disassembly/Assembly procedure

11.3.1 Front Right Cover/Bypass Right Cover/Bypass Left Cover

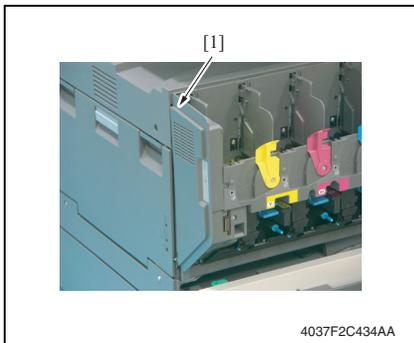


1. Remove the Screw [1], and remove the Front Right Cover [2].
2. Remove two Screws [3], and remove the Bypass Right Cover [4].
3. Remove the Screw [5], and remove the Bypass Left Cover [6].

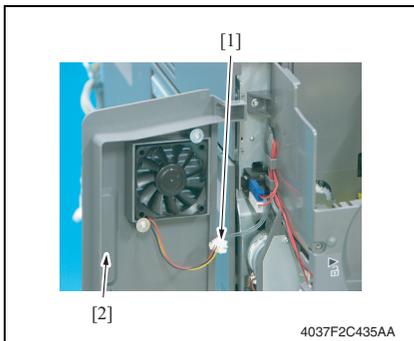
11.3.2 Exit Tray/Rear Left Cover/Left Front Cover



1. Open the Front Door [1].
2. Remove two Screws [2], and remove the Exit Tray [3].
3. Remove four Screws [4].
4. Open the Left Door [5], and remove the Rear Left Cover [6].

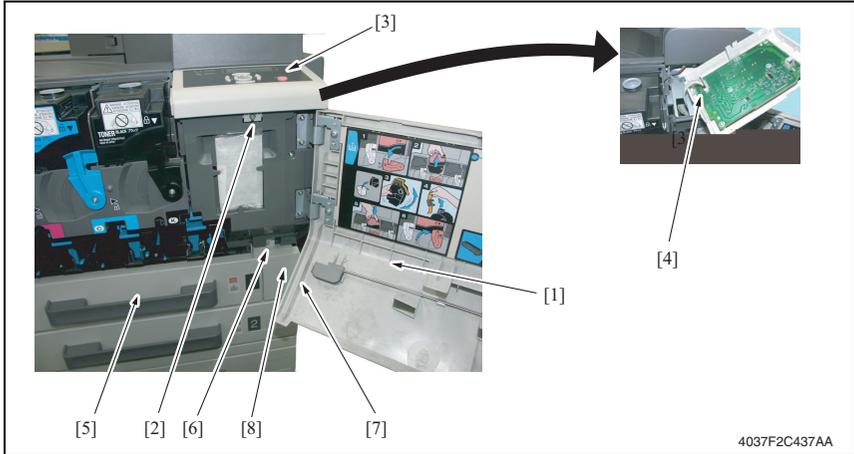


5. Remove the Screw [6].



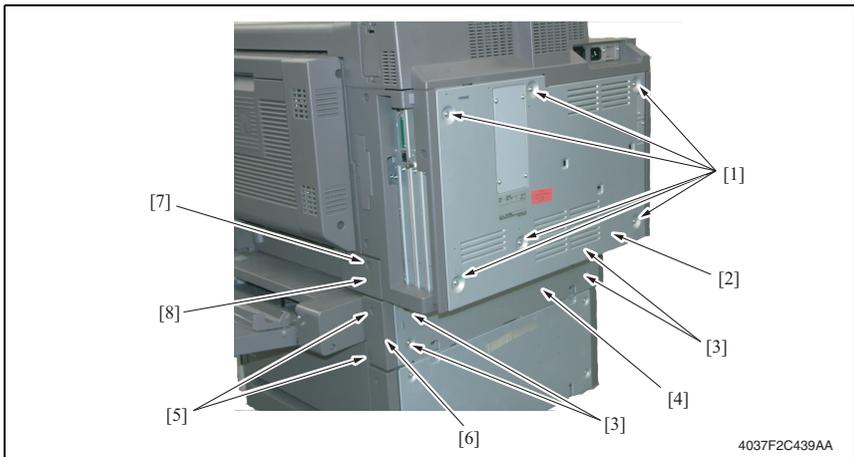
6. Remove Connectors [7] and the Left Front Cover [8].

11.3.3 Front Door/Control Panel/Tray 1 Front Right Cover



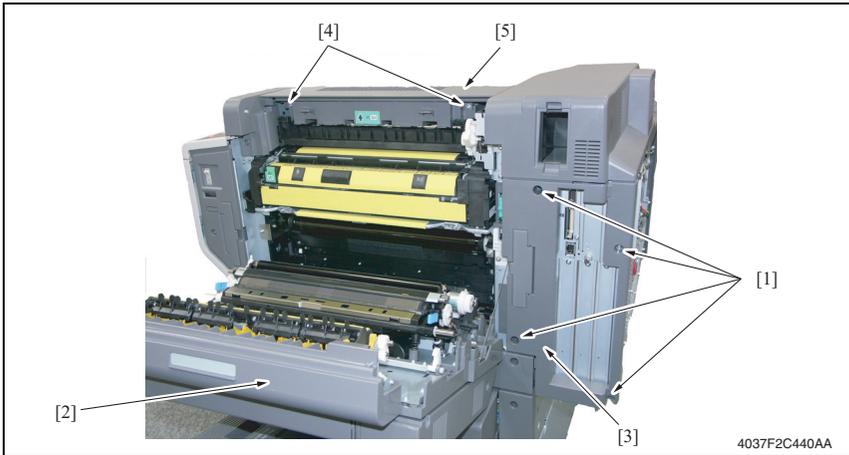
1. Open the Front Door [1].
2. Remove the Screw [2].
3. Remove the Screw [4], and remove the Control Panel [3].
4. Pick up the Front Door [1] and remove it.
5. Pull out the Tray 1 [5].
6. Remove the Screw [6].
7. Accessing from the right side panel, loosen the screw [7] and remove the Tray 1 Front Right Cover [8].

11.3.4 Lower Rear Cover/Tray 2 Rear Cover/Tray 2 Rear Right Cover/Wiring Cover



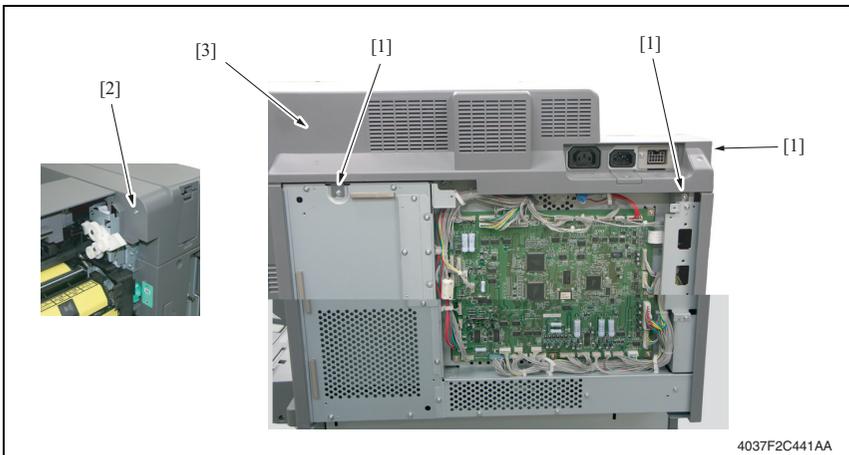
1. Remove six Screws [1], and remove the Lower Rear Cover [2].
2. Remove four Screws [3], and remove the Tray 2 Rear Cover [4].
3. Remove two Screws [5], and remove the Tray 2 Rear Right Cover [6].
4. Remove the Screw [7], and remove the Wiring Cover [8].

11.3.5 Rear Right Cover/Fusing Cover



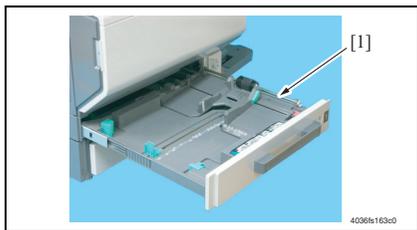
1. Remove four Screw [1].
2. Open the Right Door [2], and remove the Rear Right Cover [3].
3. Remove two Screws [4], and remove the Fusing Cover [5].

11.3.6 Top Rear Cover

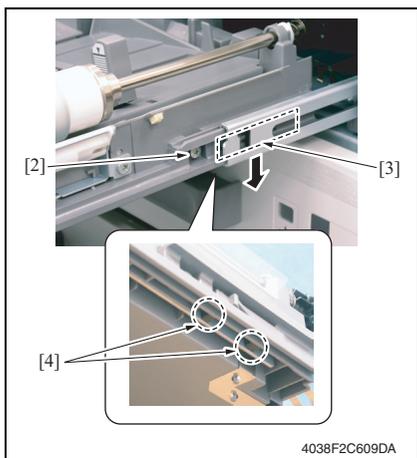


1. Remove the Lower Rear Cover.
[See P.81](#)
2. Remove the Exit Tray.
[See P.80](#)
3. Remove four Screw [1].
4. Open the Right Door.
5. Remove two Screws [2], and remove the Top Rear Cover [3].

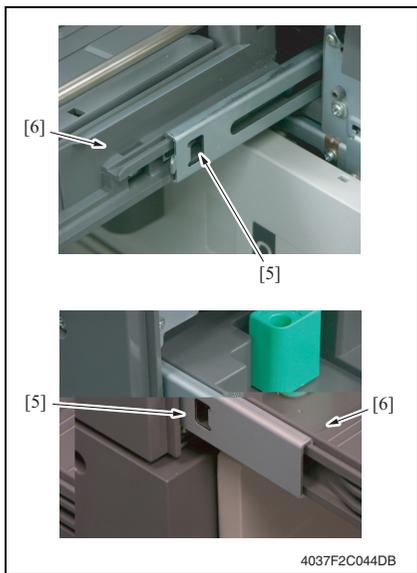
11.3.7 Tray 1



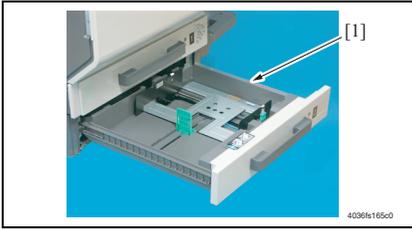
1. Slide out the Tray 1 [1].



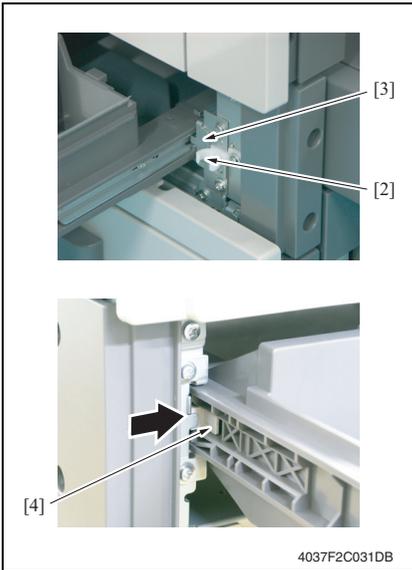
2. Loosen the screw [2], hold two tabs [3] and remove the spacer [4].



3. Slide out the Tray 1 [6] while pressing the Slide Locks [5] at both ends.

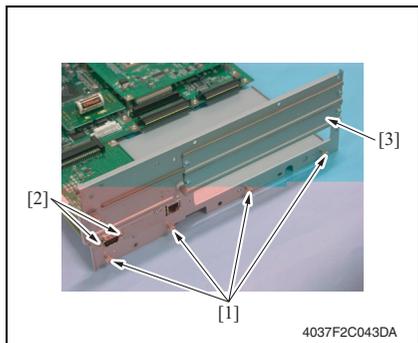
11.3.8 Tray 2

1. Slide out the Tray 2 [1].

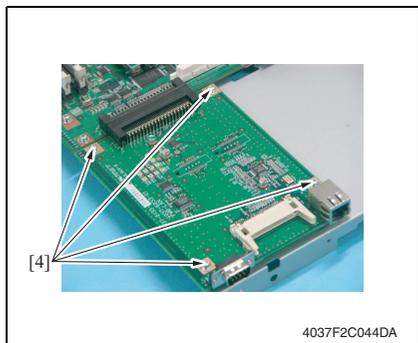


2. Remove one Screw [2], and remove the Stopper [3].
3. Slide out the Tray 2 while pressing the Slide Locks [4].

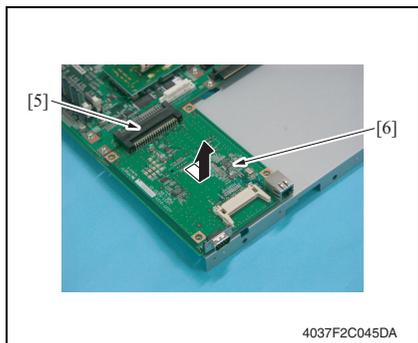
11.3.9 LAN Board (PWB-LAN)



1. Remove the PWB Unit.
[See P.105](#)
2. Remove four screws [1] and two hex-head screws [2]. Remove the Interface Cover [3].

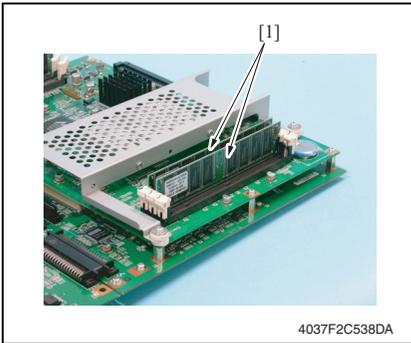


3. Remove four screws [4].



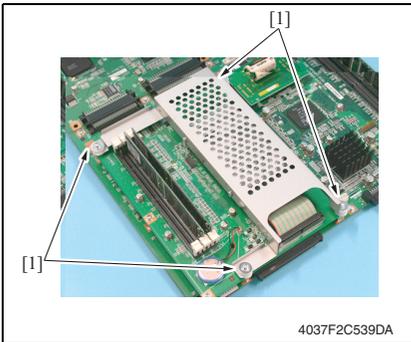
4. Remove the Interface connector [5] and LAN Board [6].

11.3.10 Standard Memory (D_FILE0)

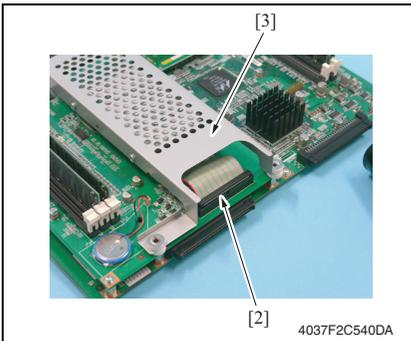


1. Remove the PWB Unit.
[See P.105](#)
2. Remove two Standard memories [1].

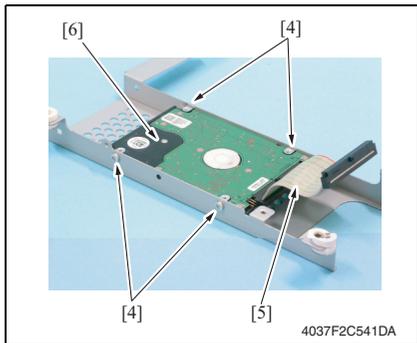
11.3.11 Hard Disk Drive (HDD)



1. Remove the PWB Unit.
[See P.105](#)
2. Remove four screws [1].



3. Remove the Flat cable [2] and the Hard Disk Drive Assy [3].

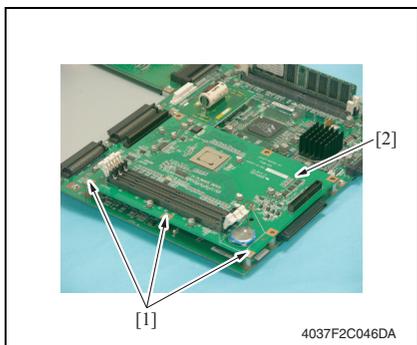


4. Remove four screws [4] and the Flat cable [5]. Remove the Hard Disk Drive [6].

NOTE

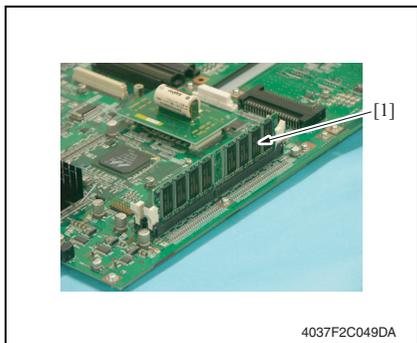
- **When the Hard Disk is replaced, select “HDD Format” in Tech. Rep. Mode for Logical format.**

11.3.12 Electronic Sorting Board (PWB-ES)

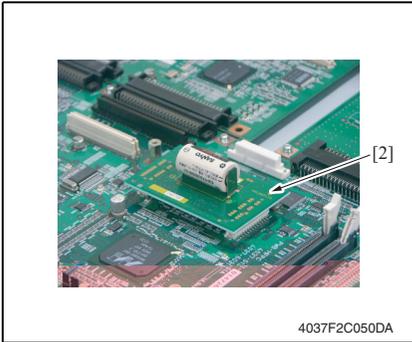


1. Remove the PWB Unit.
[See P.105](#)
2. Remove three screws [1] and the Electronic sorting Board [2].

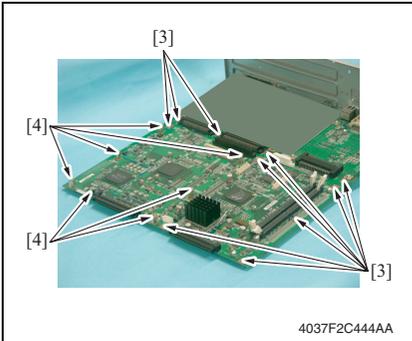
11.3.13 MFP Control Board (PWB-MFPC)



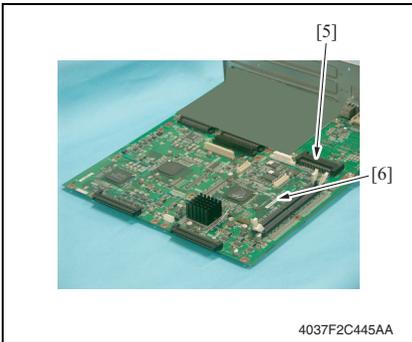
1. Remove the PWB Unit.
[See P.105](#)
2. Remove the Electronic sorting Board.
[See P.87](#)
3. Remove the work memory [1] on the MFP Control Board.



4. Remove the NVRAM [2] on the MFP Control Board.



5. Remove ten screws [3] and seven shoulder screws [4].



6. Remove Interface connector [5] and the MFP Control Board [6].

Note on replacing the MFP Control Board

- When the MFP Control Board is replaced, mount the removed Backup RAM to the new MFP Control Board.
- When the MFP Control Board is replaced, make sure to update the firmware.

⚠ Cautions in replacing the Control Board:

- When the Firmware's card Ver. is Ver A7 or later, the following operation must be performed without fail when replacing the MFP Control Board.

(1) Update the Firmware to the latest version.

(2) Perform X-Rite Calibration (Gradation Adjust) for all patterns.

See P.44

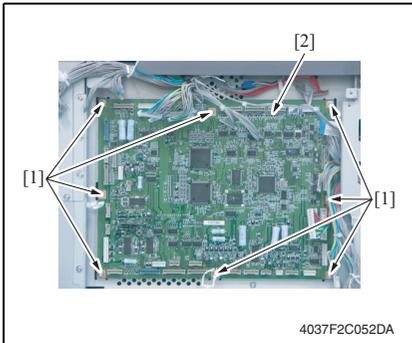
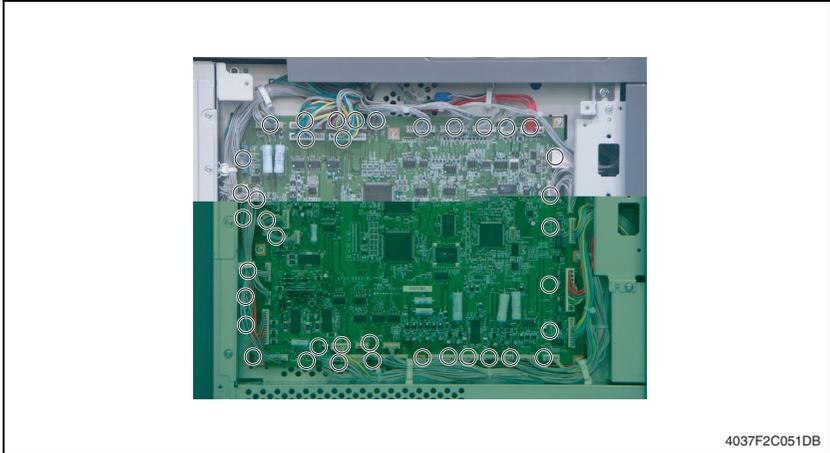
(3) Perform the following setting.

[Tech. Rep. Mode] → [Data Backup]

See P.202

11.3.14 Control Board (PWB-MC)

1. Remove the Lower Rear Cover.
[See P.81](#)
2. Remove all the Connectors on the Control Board.



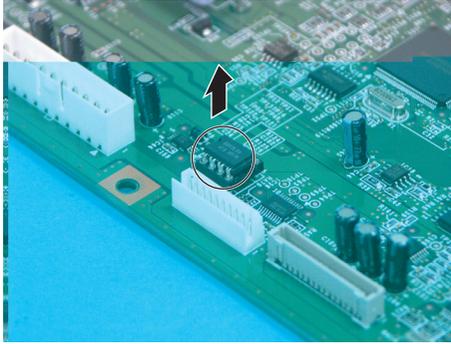
3. Remove eight Screws [1], and remove the Control Board [2].

NOTE

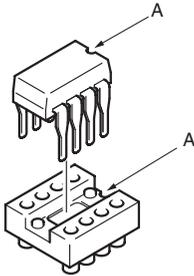
- **When the Control Board is to be replaced, rewriting the Firmware to the latest one.**

Cautions in replacing the Control Board:

- When Control Board (PWB-MC) is replaced, relocate the Parameter Chip (IC40). Mount the Parameter Chip (IC40) of old Control Board onto the new Control Board.



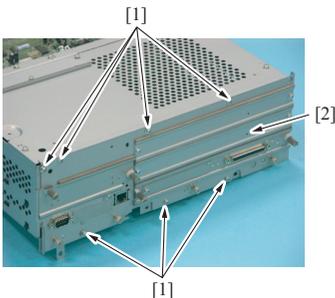
4037F2C053DB



4037F2C534DA

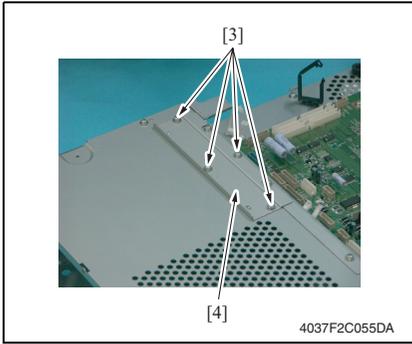
NOTE

- When the Parameter Chip (IC40) is mounted, precisely fit the directions of each "A".

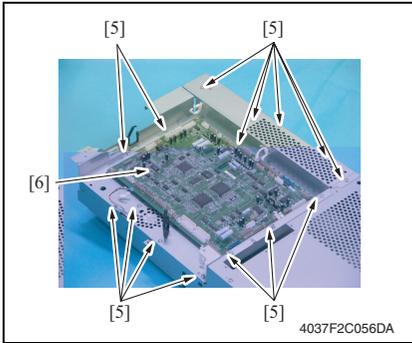
11.3.15 Slide Interface Board (PWB-SIF)

4037F2C054DA

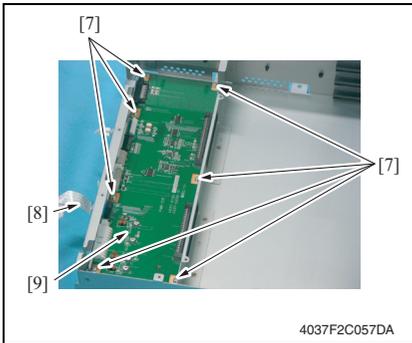
1. Remove the PWB Box.
[See P.106](#)
2. Remove seven screws [1] and the Board Unit [2].



- 3. Remove four screws [3] and the cover [4].

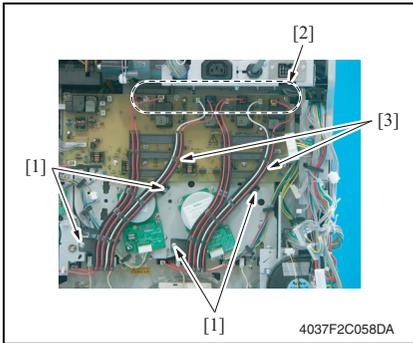


- 4. Remove fifteen screws [5] and the Control Board Assy [6].

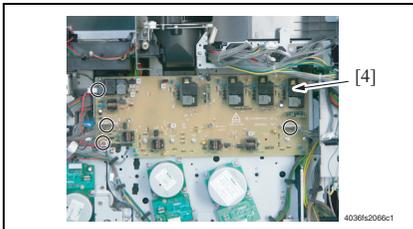


- 5. Remove seven screws [7] and the Flat cable [8]. Remove the Slide Interface Board [9].

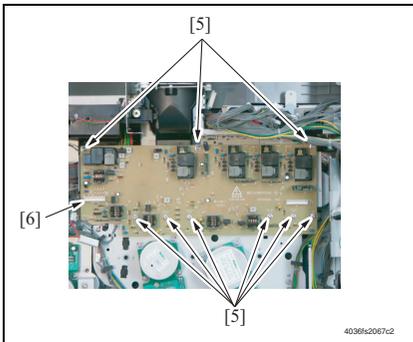
11.3.16 High Voltage Unit/1 (HV1)



1. Remove the PWB Box.
See P.106
2. Remove four Screws [1] and eight Connectors [2], and remove two Harness Holder [3].



3. Remove all the Connectors on the High Voltage Unit/1 [4].



4. Remove 9 Screws [5], and remove the High Voltage Unit/1 [6].

WB Box.

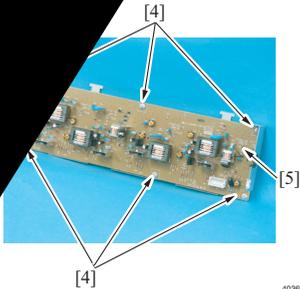
the Connectors on the
ge Unit/2 [1].

3. Remove two Screws [2], and remove the High Voltage Unit/2 Assy [3].



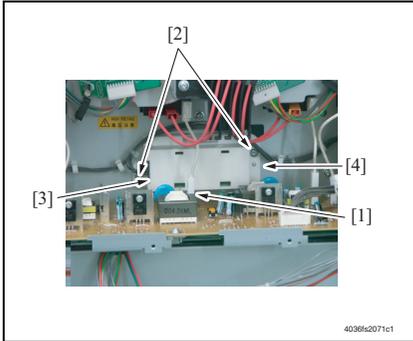
4037F2C060DA

4. Remove six Screws [4], and remove the High Voltage Unit/2 [5].

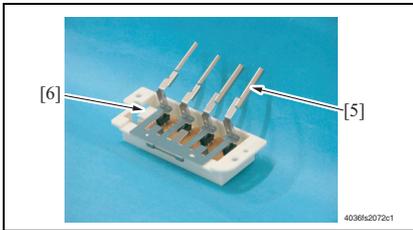


40369e2070c1

11.3.18 Tray 1 Paper Size Board (PWB-I1)

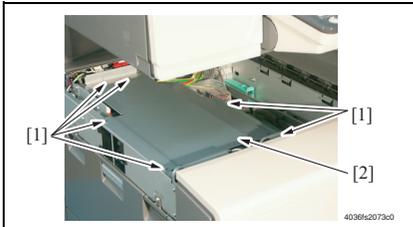


1. Slide out the Tray 1.
2. Remove the PWB Box.
[See P.106](#)
3. Remove the Connector [1] on the High Voltage Unit/2.
4. Remove two Screws [2] and Connector [3], and remove the Tray 1 Paper Size Board Assy [4].

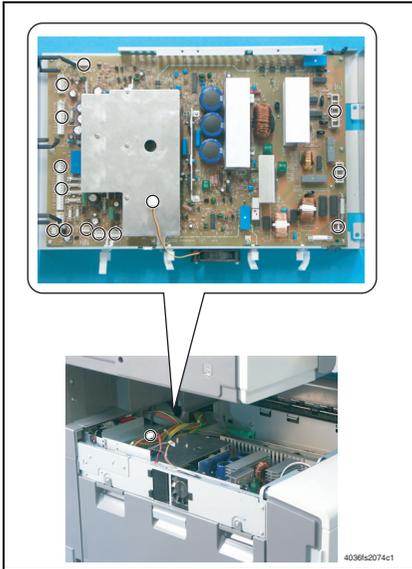


5. Remove the Lever [5].
6. Remove the Tray 1 Paper Size Board [6].

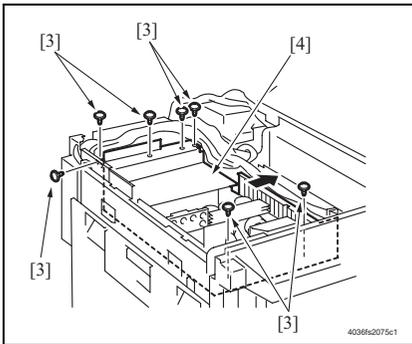
11.3.19 DC Power Supply (PU1)



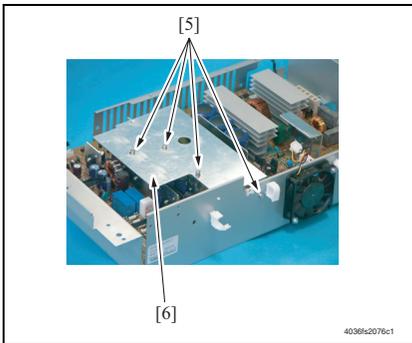
1. Remove the Exit Tray.
[See P.80](#)
2. Remove six Screws [1], and remove the Board Cover [2].



3. Remove the Harness from thirteen wire saddles.
4. Unplug all connectors from the DC Power Supply.

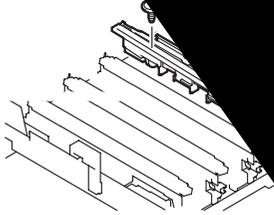


5. Remove seven Screws [3], and remove the DC Power Supply Assy [4].



6. Remove four Screws [5], and remove the Protective Cover [6].

11.3.20 LED Diode

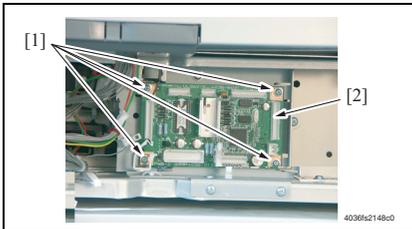


[4]

[4]

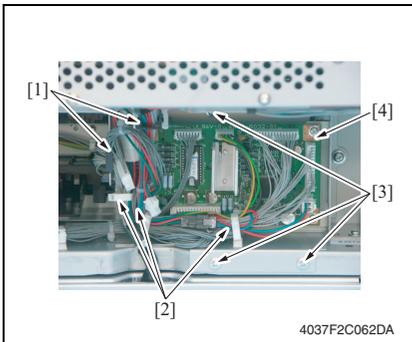
403662546c1

4. Remove the connector from the Drive Board.

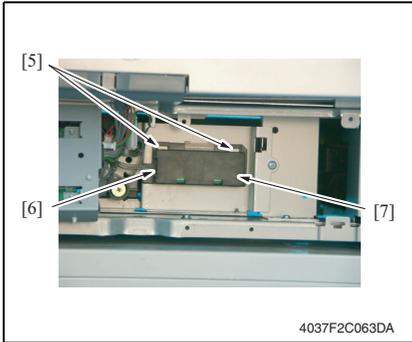
11.3.21 Tray 2 Board (PWB-Z)

1. Remove the Tray 2 Rear Cover.
[See P.81](#)
2. Remove all the Connectors on the Tray 2 Board.

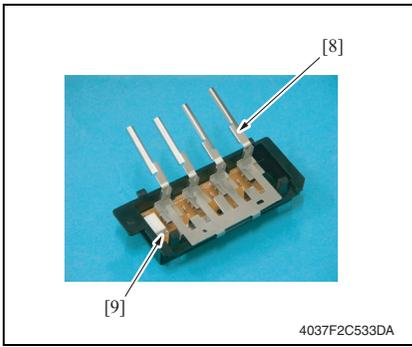
3. Remove four Screws [1], and remove the Tray 2 Board [2].

11.3.22 Tray 2 Paper Size Board (PWB-I2)

1. Slide out the Tray 2.
2. Remove the Tray 2 Rear Cover.
[See P.81](#)
3. Remove the harness [2] from the wire saddle [1].
4. Remove three Screws [3], and remove the Tray 2 Board Fixing Bracket [4].

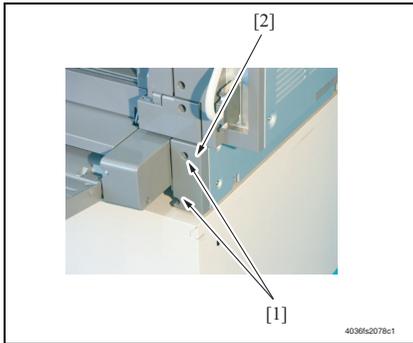


5. Remove two Claws [5] and Connector [6], and remove the Tray 2 Paper Size Board Assy [7].

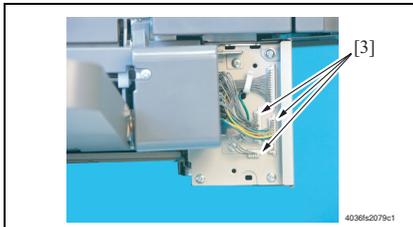


6. Remove the Lever [8], and remove the Tray 2 Paper Size Board [9].

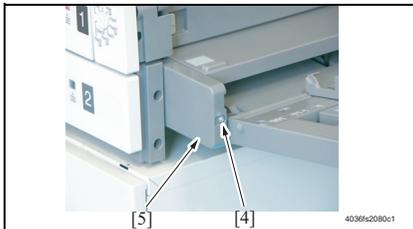
11.3.23 Multi Bypass Unit



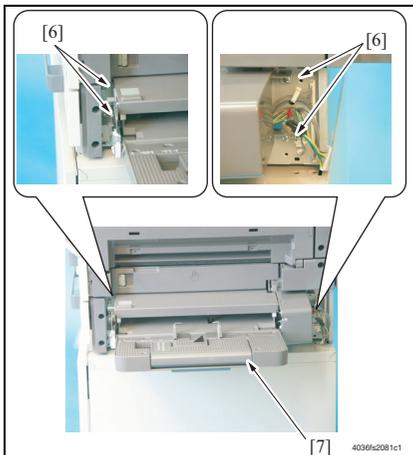
1. Remove two Screws [1], and remove the Tray 2 Rear Right Cover [2].



2. Remove three Connectors [3].



3. Remove the Screw [4], and remove the Bypass Left Cover [5].



4. Remove four Screws [6], and remove the Multi Bypass Unit [7].

NOTE

- The earth terminal will be screwed with one of four screws.

11.3.24 Toner Hopper Unit

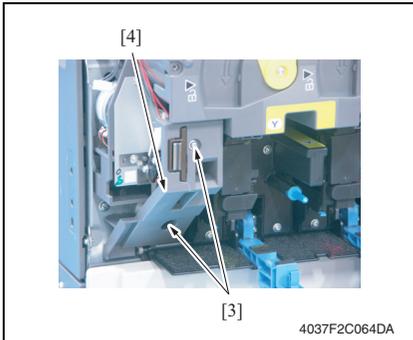
1. Open the Front Door.
2. Remove the Toner Cartridge (C, M, Y, K).
3. Remove the IU (C, M, Y, K).

NOTE

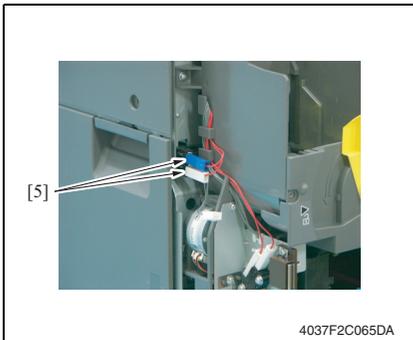
- After the Imaging Unit has been removed from the main unit wrap it in the light shielding cloth and store it in a dark place. DO NOT leave the Imaging Unit exposed to light for an extended period of time as it will become damaged.



4. Remove the Left Front Cover.
[See P.80](#)
5. Remove the Control Panel.
[See P.81](#)
6. Remove two Screws [1], and remove the Front Right Cover [2].



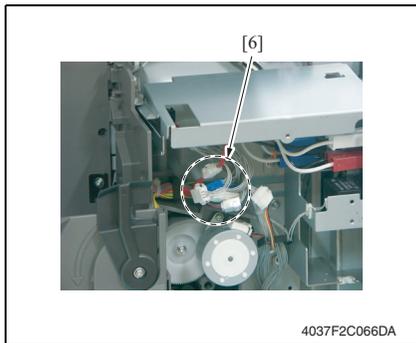
7. Remove two screws [3] and the Front Door Switch cover [4].



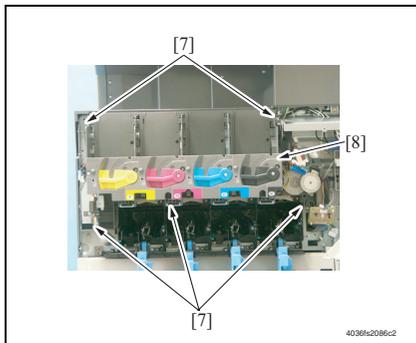
8. Remove two Terminals [5].

NOTE

- For installation of Hopper Unit, connect the Terminals in the sequence of blue and then white from upper.



9. Disconnect five connectors [6].



10. Remove five screws [7] and the Toner Hopper Unit [8].

11.3.25 LPH Unit

1. Open the Front Door.
2. Slide out the IU (C, M, Y, K).

NOTE

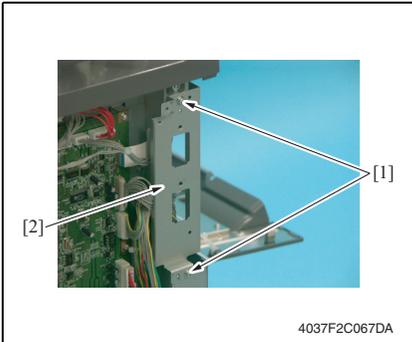
- **After the IU has been pulled out, place the IU lock lever back into the locked position. When installing the Imaging Unit into the main unit, make sure that the Toner supply shutter is opened if the Imaging Unit Lower Cover is not used.**

3. Remove the Image Transfer Belt Unit.

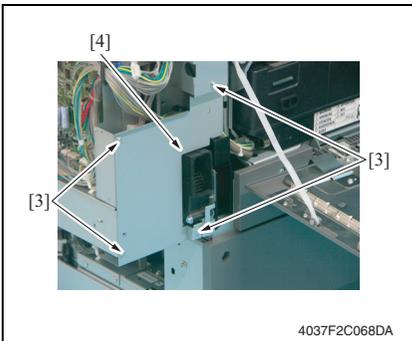
See P.29

4. Remove the Rear Right Cover, Rear Left Cover and Rear Cover.

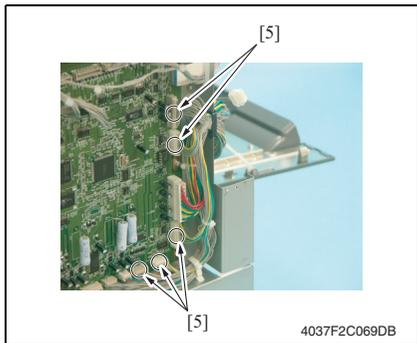
See P.80, P.81



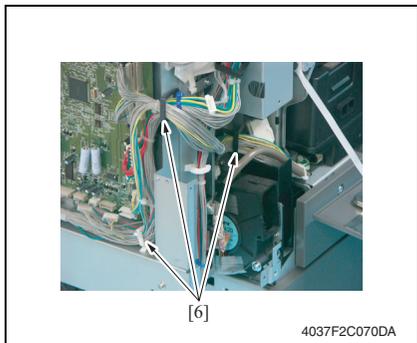
5. Remove two screws [1] and the lattice connector fixing bracket [2].



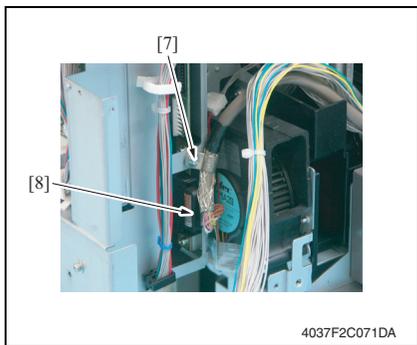
6. Open the Left Door.
7. Remove four Screws [3], and remove the Harness Protective Cover [4].



8. Remove five Connectors [5] on the Control Board.



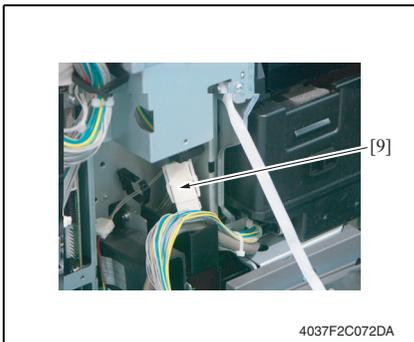
9. Remove the harness from three wire saddles [6].



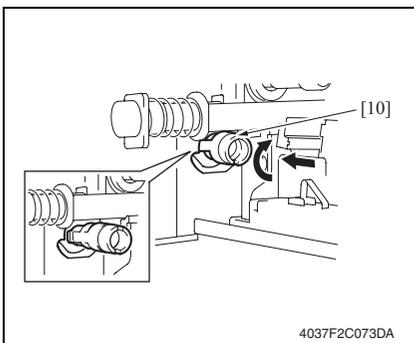
10. Remove the Screw [7] and Connector [8].

bizhub C450P

Maintenance



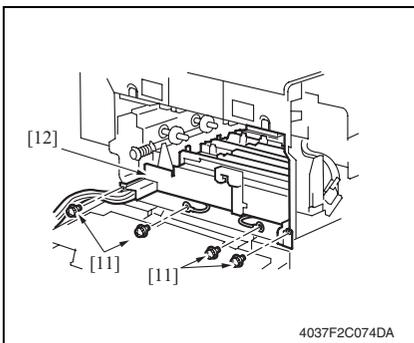
11. Remove the Connector [9].



12. Turning the IU (C, M, Y, K) drive hub [10], push it into the locked position (at four places).

NOTE

- During the locking procedure, use care not to touch the LED surface.
- Should the LED surface be touched, clean it with the LED Cleaning Jig.

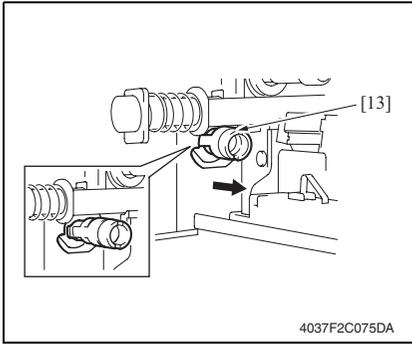


13. Remove four screws [11] and slide out the LPH Unit [12].

NOTE

- When the LPH Unit is to be replaced, remove the TCR Sensor from the old LPH Unit and remount it on the new one. This step is not, however, necessary if the IU is replaced at the same time.

See P.132

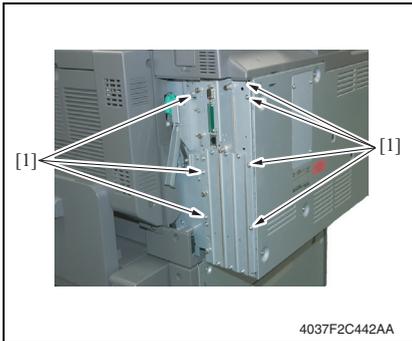
**NOTE**

- After replacing the LPH Unit, be sure to turn four Drive Hubs [13] to release locking. Proceeding with job while still being locked may unintentionally release the locking condition, thus damaging the Drive hub.
- For installation of the LPH Unit, lock four Drive hubs again before installation.
- When the LPH Unit has been reinstalled, be sure to perform [Service Mode] → [Image Adjust] → [Stabilizer] of the Jig software.

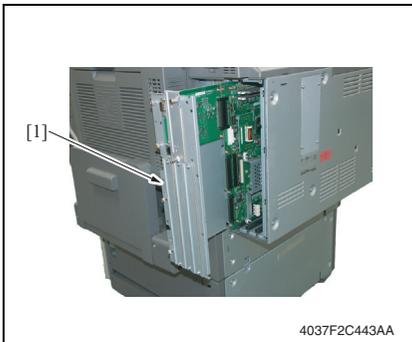
11.3.26 PWB Unit

1. Remove the Right Rear Cover.

See P.82

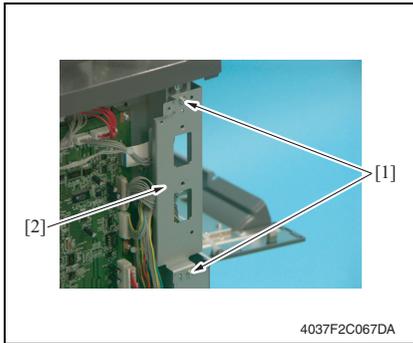


2. Remove seven screws [1].

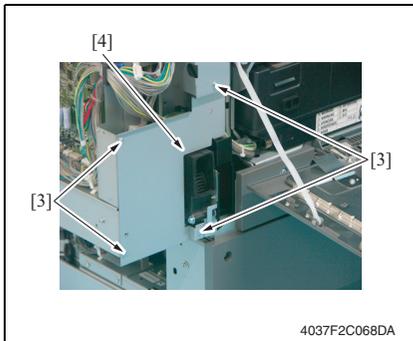


3. Remove the PWB Unit [1].

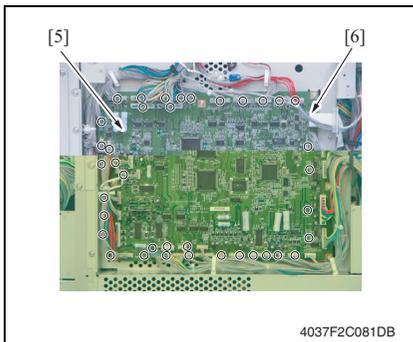
11.3.27 PWB Box



1. Remove the Ozone filter.
[See P.26](#)
2. Remove the Rear Cover, Lower Rear Cover, Right Rear Cover, Left Rear Cover.
[See P.81, P.82, P.80](#)
3. Remove two screws [1] and the lattice connector fixing bracket [2].



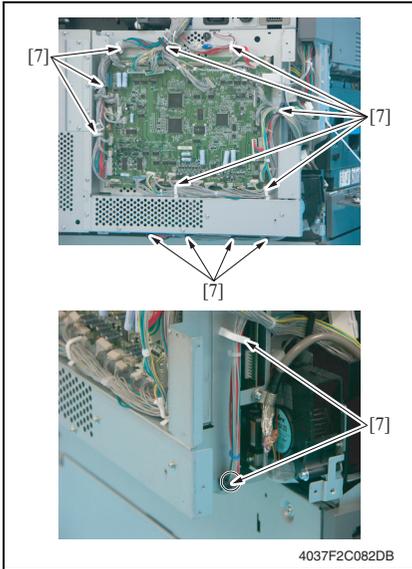
4. Open the Left door.
5. Remove four screws [3] and the Harness Protective Cover [4].



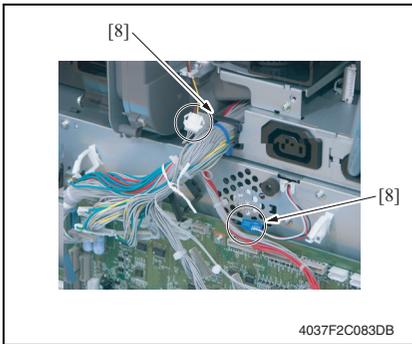
6. Remove all the connectors on the Mechanical Control Board [5].

NOTE

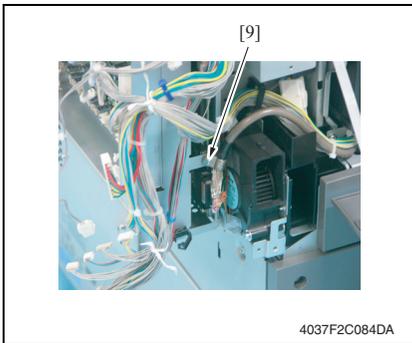
- **Do not remove the Flat cable [6].**



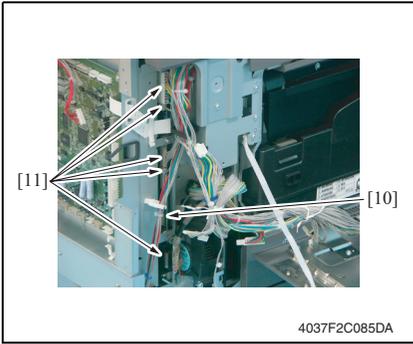
7. Remove the Harness from fourteen wire saddles [7].



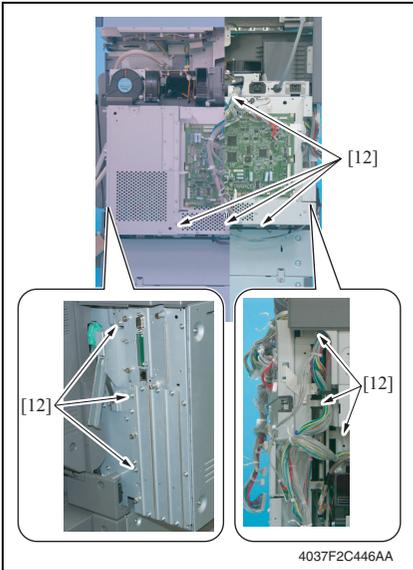
8. Remove two connectors [8].



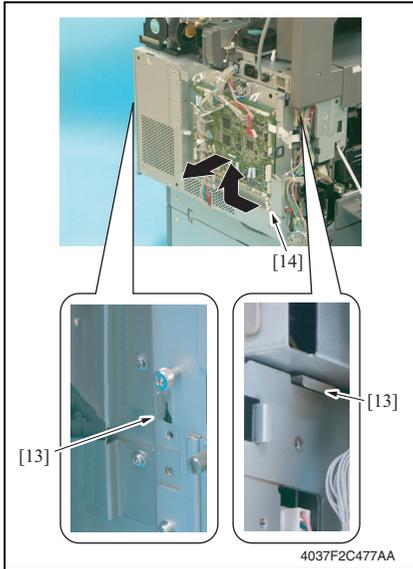
9. Remove the connector set screw [9].



10. Remove six connectors [11] connected to the Slide Interface Board [10].



11. Remove ten screws [12].



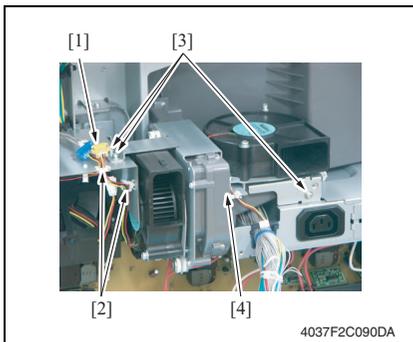
- Remove two claws [13] and the Board Box [14].

11.3.28 Main Motor (M1)

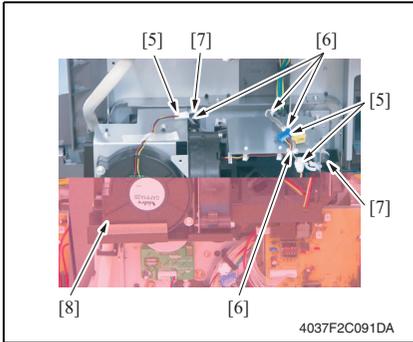


- Remove the PWB Box.
[See P.106](#)
- Remove the Connector [1] and three Screws [2], and remove the Main Motor [3].

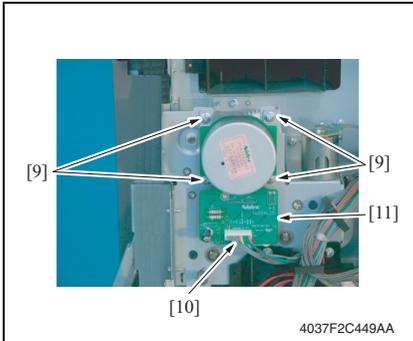
11.3.29 Fusing Drive Motor (M2)



- Remove the PWB Box.
[See P.106](#)
- Remove two connectors [1], and remove the Harness from two wire saddles [2].
- Remove three screws [3] and the Fan Motor Assy/1 [4].



4. Remove two connectors [5], and remove the Harness from three wire saddles [6].
5. Remove two shoulder screws [7] and the Fan Motor Assy[8].

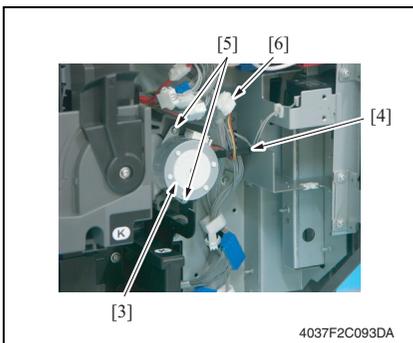


6. Remove four Screws [9] and Connector [10], and remove the Fusing Drive Motor [11].

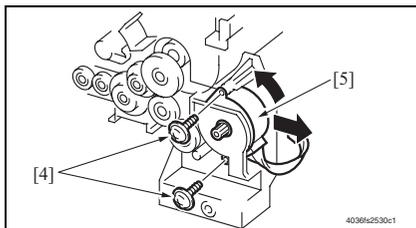
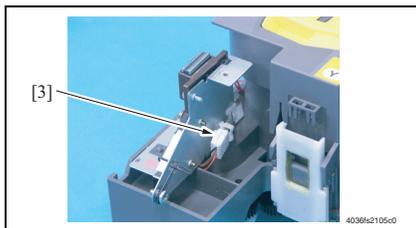
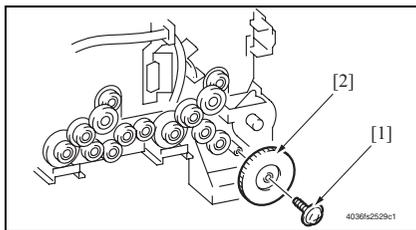
11.3.30 Toner Supply Motor C/K (M3)



1. Remove the Control Panel.
[See P.81](#)
2. Remove two Screws [1], and remove the Front Right Cover [2].



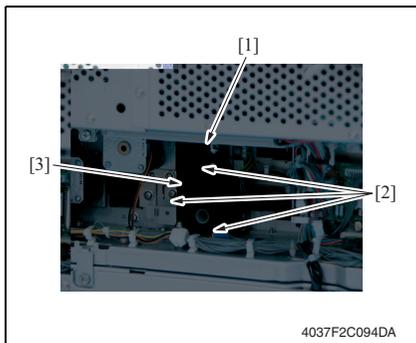
3. Remove the Harness for the Toner Supply Motor C/K [3] from the wire saddle [4].
4. Remove two Screws [5] and Connector [6], and remove the Toner Supply Motor C/K [3].

11.3.31 Toner Supply Motor Y/M (M4)

1. Remove the Toner Hopper.
[See P.100](#)
2. Remove the screw [1] and the gear [2].

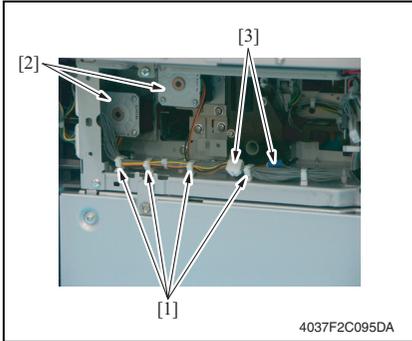
3. Remove the Connector [3].

4. Remove two screws [4]. Then, turn the Toner Replenishing Motor Y/M [5] counterclockwise and take it off the machine.

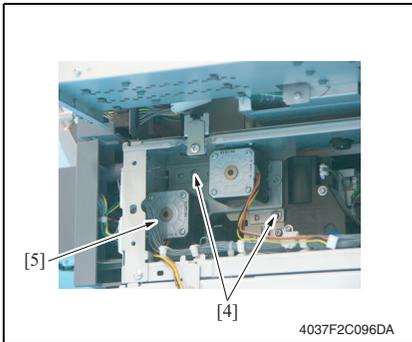
11.3.32 Tray 2 Lift-Up Motor (M101)

1. Pull out the Tray 2.
2. Remove the Tray 2 Rear Cover.
[See P.81](#)
3. Remove the connector [1].
4. Remove three screws [2] and the Tray 2 Lift-Up Motor [3].

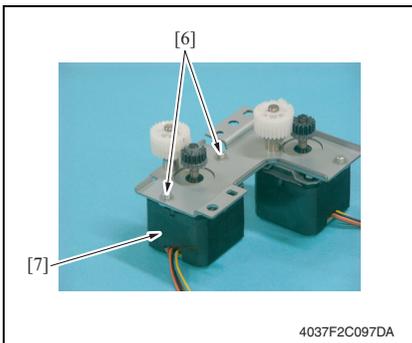
11.3.33 Tray 2 Paper Feed Motor (M102)



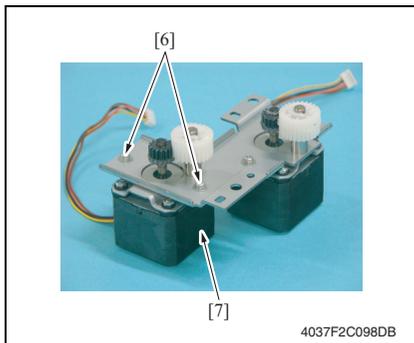
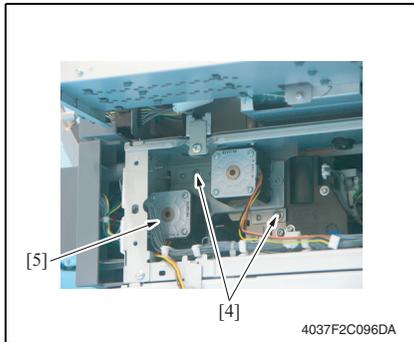
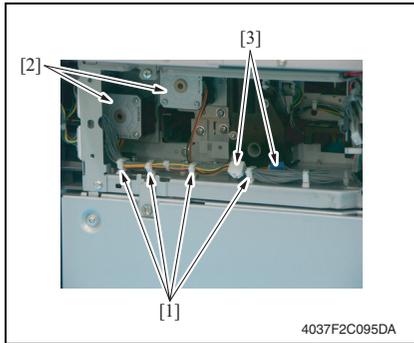
1. Pull out the Tray 2.
2. Remove the Tray 2 Rear Cover.
[See P.81](#)
3. Remove the Harness for the Motor Assy [2] from four wire saddles [1].
4. Remove two connectors [3].



5. Remove two screws [4] and the Motor Assy [5].



6. Remove two screws [6], and remove Tray 2 Paper Feed Motor [7].

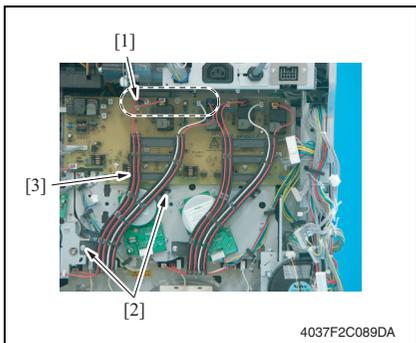
11.3.34 Tray 2 Vertical Transport Motor (M103)

1. Pull out the Tray 2.
2. Remove the Tray 2 Rear Cover.
[See P.81](#)
3. Remove the Harness Assy [2] from four wire saddles [1].
4. Remove two connectors [3].

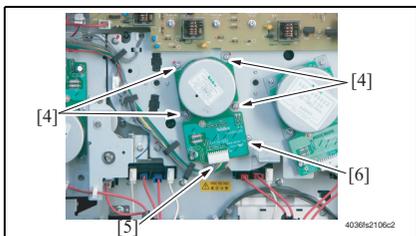
5. Remove two screws [4] and the Motor Assy [5].

6. Remove two screws [6] and the Tray 2 Vertical Transport Motor [7].

11.3.35 Color PC Drum Motor (M5)



1. Remove the PWB Box.
See P.106
2. Remove four Connectors [1] on the High Voltage Unit/1.
3. Remove two Screws [2], and remove the Harness Holder [3].

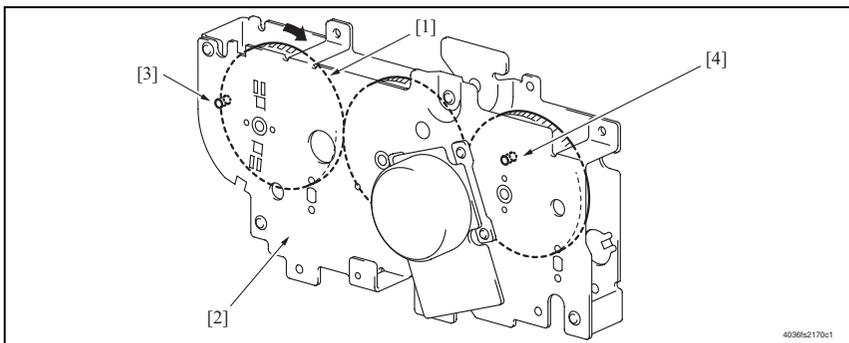


4. Remove four Screws (Red-painted) [4] and Connector [5], and remove the Color PC Drum Motor [6].

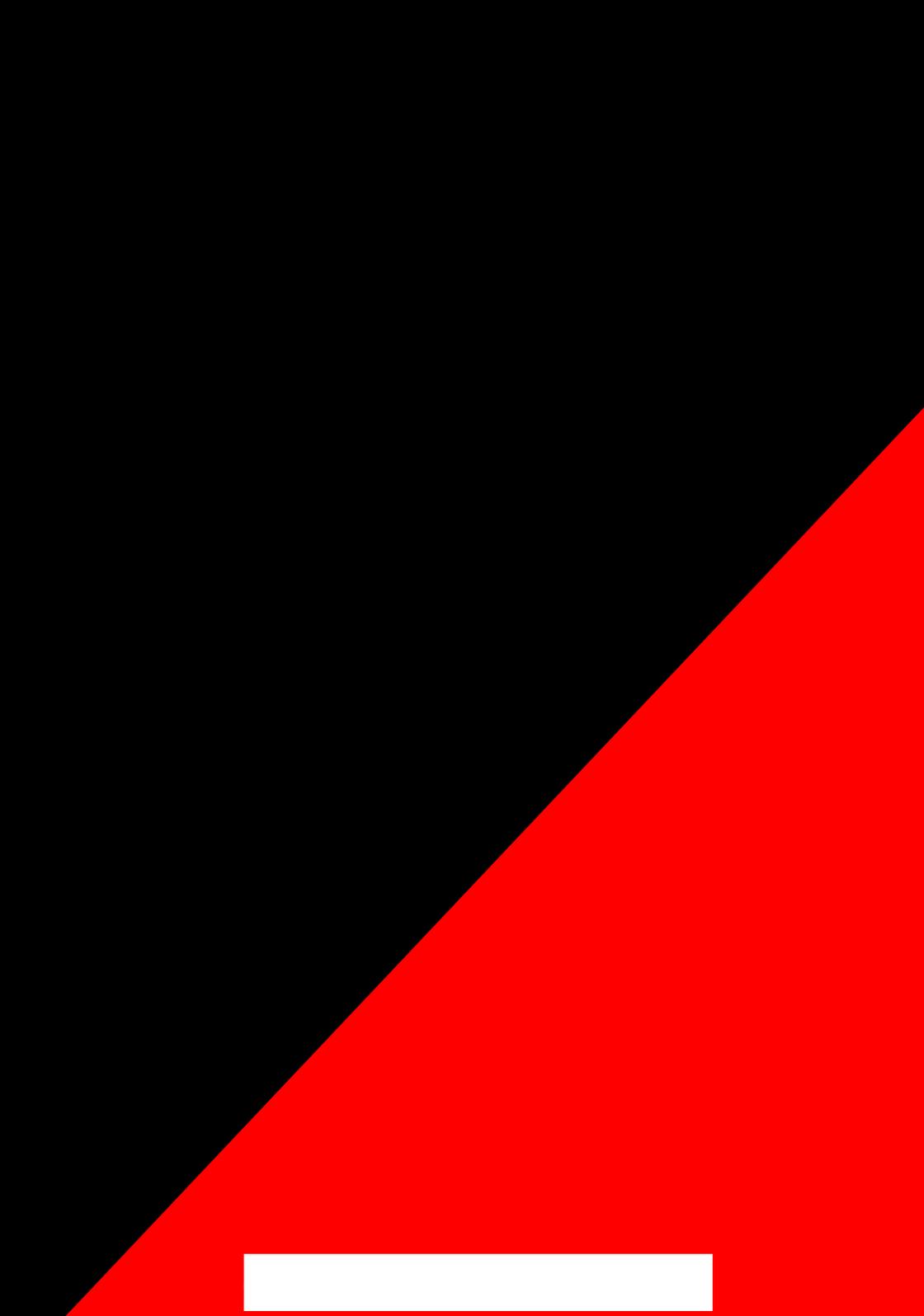
Cautions when mounting the Color PC Drum Motor:

- Before mounting the Color PC Drum Motor, be sure to check the assembled position of PC Gear. If its position is improper, make positioning adjustment.

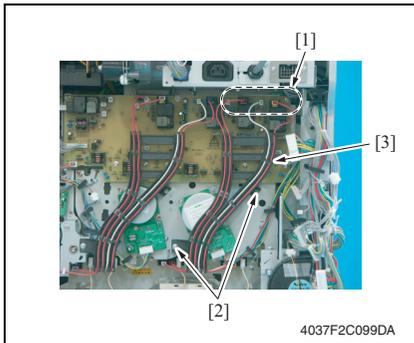
A. Checking method



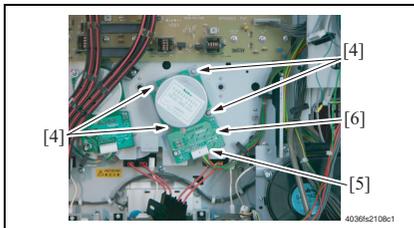
1. Slowly turn the PC Gear/1 [1], and fit the hole A [3] and B [4] with the Gear holes as shown on the above figure.
2. Visually check if the hole A [3] and B [4] are fit with each Gear hole at the same time.



11.3.36 Color Developing Motor (M6)



1. Remove the PWB Box.
See P.106
2. Remove eight Connectors [1] on the High Voltage Unit/1.
3. Remove two Screws [2], and remove the Harness Holder [3].

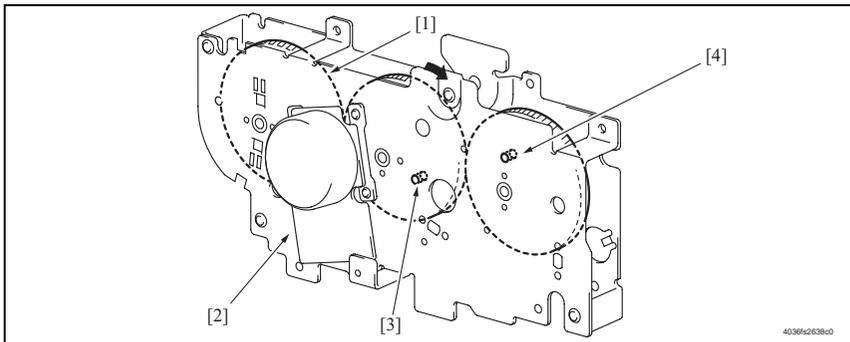


4. Remove four Screws [4] and Connector [5], and remove the Color Developing Motor [6].

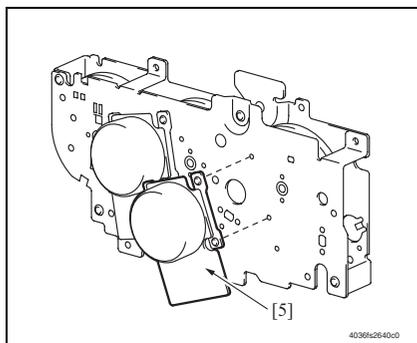
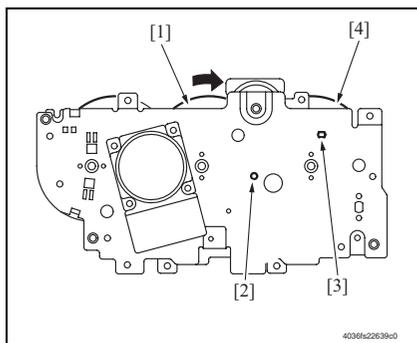
Cautions when mounting the Color Developing Motor:

- Before mounting the Color Developing Motor, be sure to check the assembled position of PC Gear. If its position is improper, make positioning adjustment.

A. Checking method



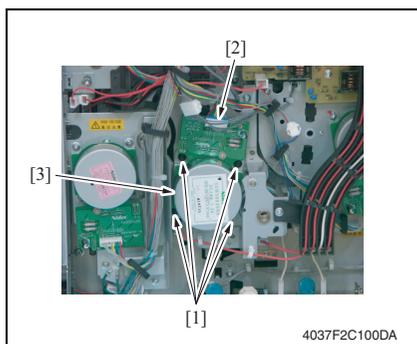
1. Slowly turn the PC Gear/1 [1], and fit the hole A [3] and B [4] with the Gear holes as shown on the above figure.
2. Visually check if the hole A [3] and B [4] are fit with each Gear hole at the same time.



B. Adjusting method

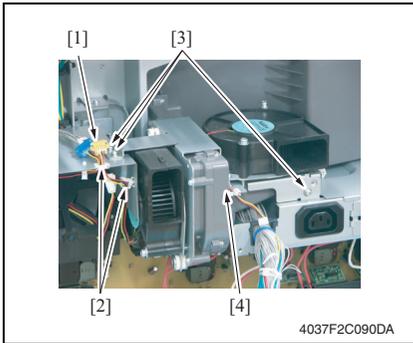
1. Remove seven Screws and the Upper Frame Assy.
2. Turn the PC Gear/3 [1], and fit the hole C [2] with the PC Gear/3 [1] hole while visually checking.
3. Fix the PC Gear/3 [1], and then fit the hole B [3] with the PC Gear/2 [4] hole while visually checking.
4. Mount the Color Developing Motor [5] while two hole positions are well set.
5. Reinstall the Upper Frame Assy.

11.3.37 K PC Motor (M7)

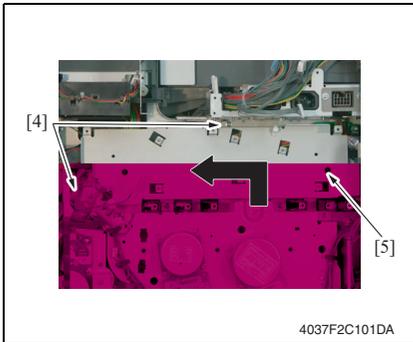


1. Remove the PWB Box.
[See P.106](#)
2. Remove four Screws [1] and Connector [2], and remove the K PC Motor [3].

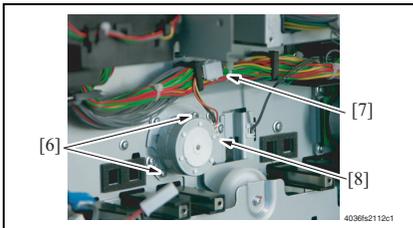
11.3.38 1st Image Transfer Pressure/Retraction Motor (M11)



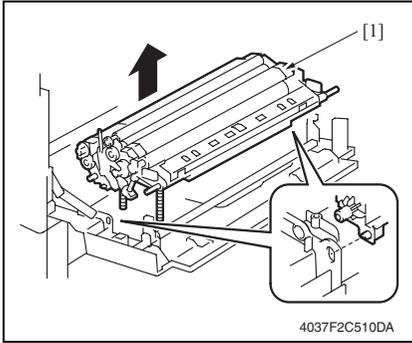
1. Remove the PWB Box.
[See P.106](#)
2. Remove two connectors [1], and remove the Harness from two wire saddles [2].
3. Remove three screws [3] and the Fan Motor Assy/1 [4].



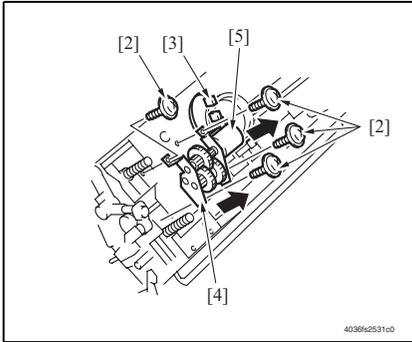
4. Remove the High Voltage Unit/1.
[See P.92](#)
5. Remove two Screws [4], and remove the High Voltage Unit/1 Fixing plate [5].



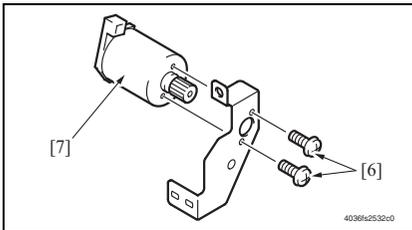
6. Remove two Screws [6] and Connector [7], and remove the 1st Image Transfer Pressure/Retraction Motor [8].

11.3.39 2nd Image Transfer Pressure/Retraction Motor (M13)

1. Open the Right Door.
2. Unlock the tab and remove the Transport Unit Assy [1].

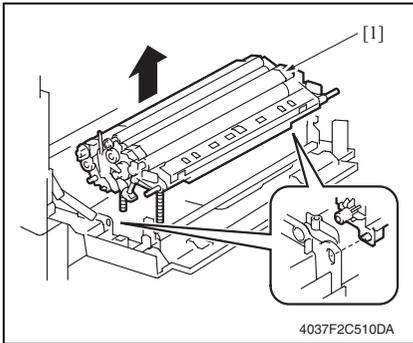


3. Remove four screws [2], unplug the connector [3], and remove the gear Assy [4] and motor Assy [5].

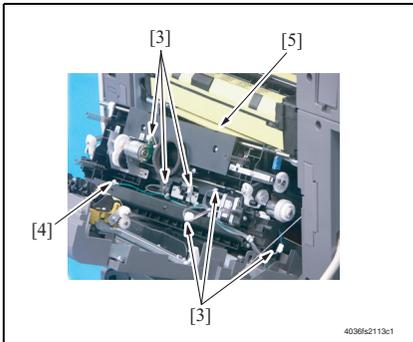


4. Remove two screws [6] and the 2nd Image Transfer Pressure/Retraction Motor [7].

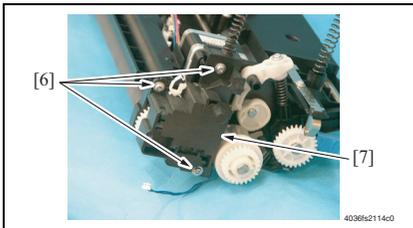
11.3.40 Intermediate Transport Motor (M14)



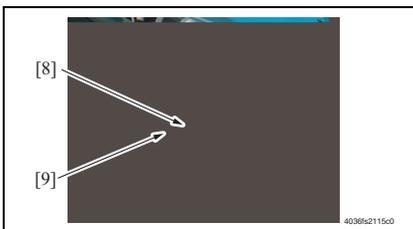
1. Open the Right Door.
2. Remove the Lock claw to make free conditions of Transport section Assy [1].



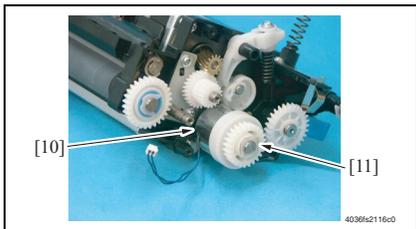
3. Remove six Connectors [3] and Earth [4], and remove the Transport section Assy [5].



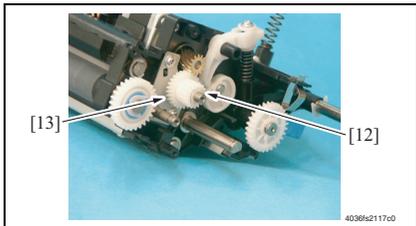
4. Remove three Screws [6], and remove the Holder [7].



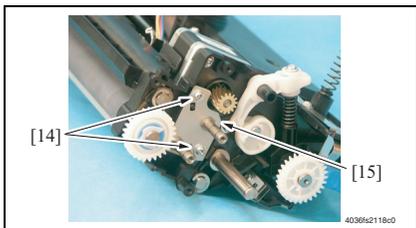
5. Remove the C-ring [8], and remove the Gear 1 [9].



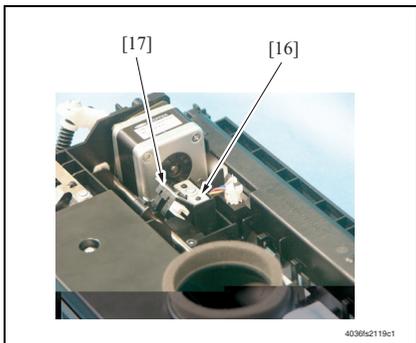
- Remove the C-ring [10], and remove the Gear 2 [11].



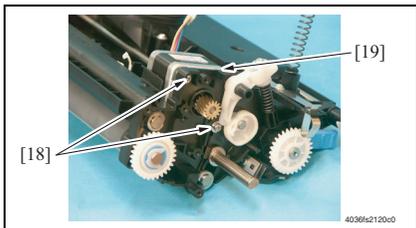
- Remove the C-ring [12], and remove the Gear 3 [13].



- Remove two Screws [14], and remove the Mounting plate [15].



- Remove the Screw [16], and remove the Sensor Assy [17].

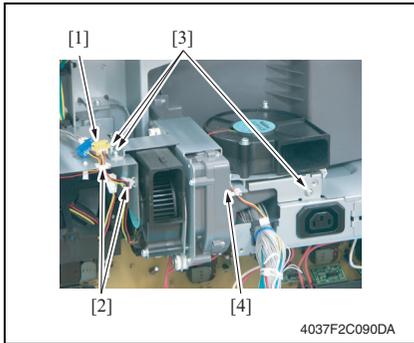


- Remove two Screws [18], and remove the Intermediate Transport Motor [19].

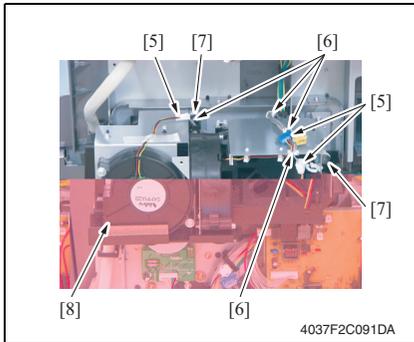
NOTE

- Remove the Intermediate Transport Motor while its Harness is well fit with the groove.
- Use care on the harness not to be bitten.

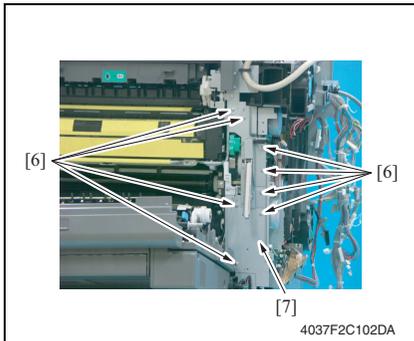
11.3.41 Fusing Pressure Roller Pressure/Retraction Motor (M19)



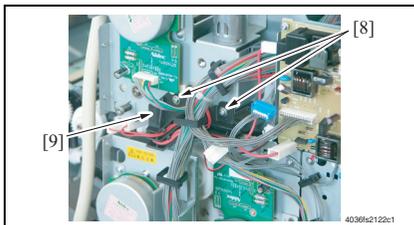
1. Remove the PWB Box.
[See P.106](#)
2. Remove two connectors [1], and remove the Harness from two wire saddles [2].
3. Remove three screws [3] and the Fan Motor Assy/1 [4].



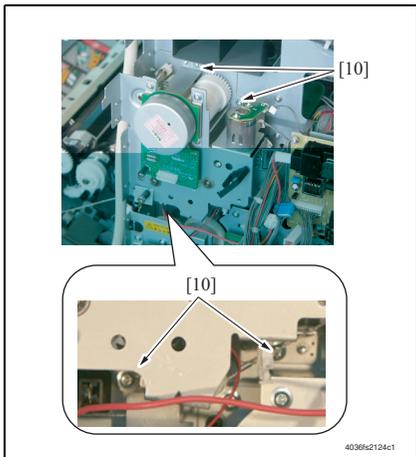
4. Remove two connectors [5], and remove the Harness from three wire saddles [6].
5. Remove two shoulder screws [7] and the Fan Motor Assy/2 [8].



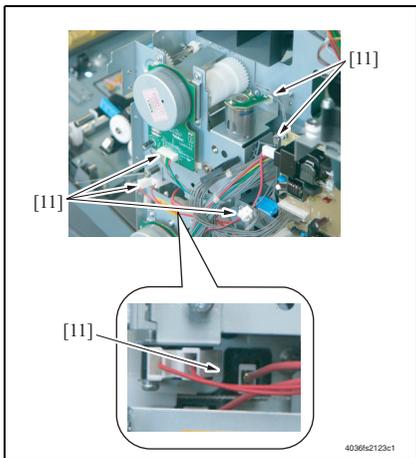
6. Open the Right Door.
7. Remove the Fusing Unit.
[See P.35](#)
8. Remove the Wiring Cover.
[See the procedure 2 of "Replacing of Tray 2 Paper Take-up Roller".](#)
[See P.20](#)
9. Remove eight Screws [6], and remove the Rear Handle Assy [7].



10. Remove two Screws [8], and remove the Harness Guide [9].



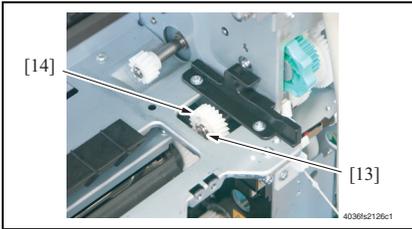
11. Remove four Screws [10].



12. Remove six Connectors [11].



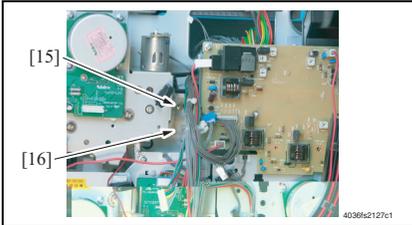
13. Remove the Gear [12].



14. Remove the E-ring [13], and remove the Gear [14].

NOTE

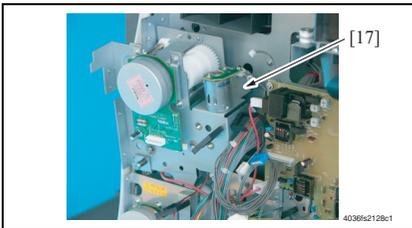
- Use care not to miss the Shaft.



15. Remove the Screw [15], and remove the Wire Rail [16].

NOTE

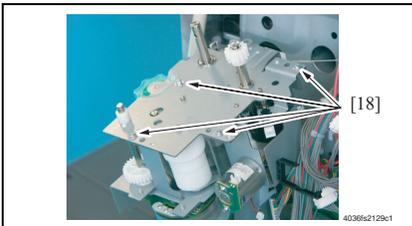
- Close the Right Door when removing to prevent the wire from damaging.



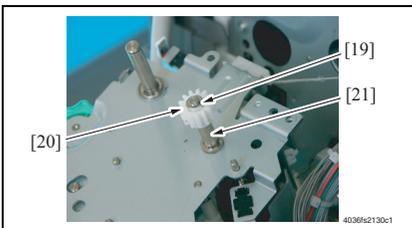
16. Remove the Fusing Drive Gear Assy [17].

NOTE

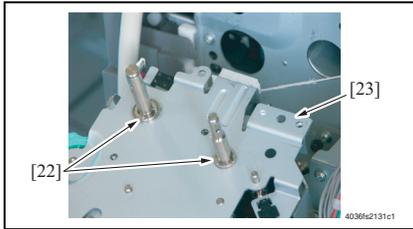
- Use care not to hurt the Right Door wire and Harness around.



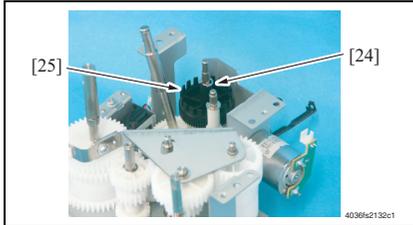
17. Remove four Screws [18].



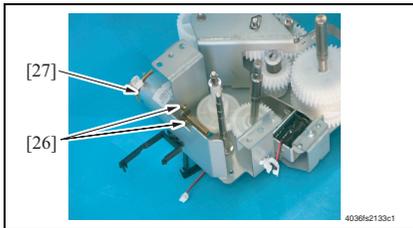
18. Remove the E-ring [19] and Shaft [20], and remove the Gear [21].



19. Remove two E-rings [22], and remove the Cover [23].

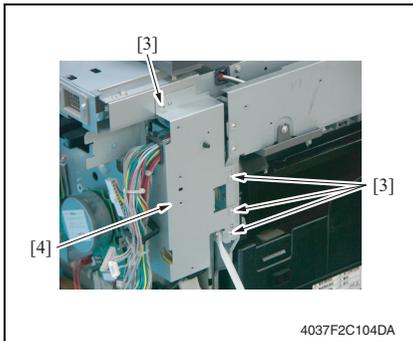


20. Remove the E-ring [24], and remove the Gear [25].

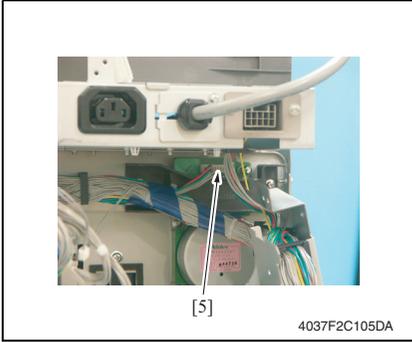


21. Remove the two Screws [26], and remove the Fusing Pressure Roller Pressure/Retraction Motor [27].

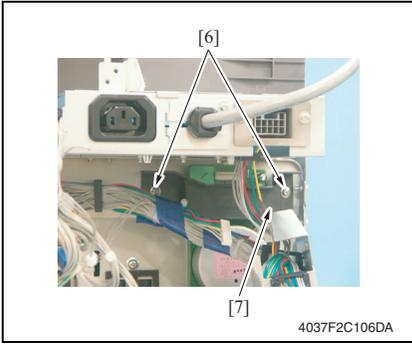
11.3.42 Cleaning Brush Motor (M22)



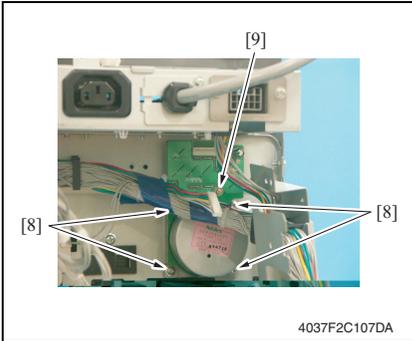
1. Remove the Top Rear Cover.
[See P.82](#)
2. Remove the High Voltage Unit/1 mounting plate.
[See the procedures 1 to 4 of "1st Image Transfer Pressure/Retraction Motor".](#)
[See P.118](#)
3. Remove four screws [3] and the wiring guide plate [4].



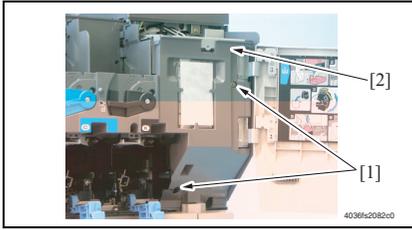
4. Remove the connector [5].



5. Remove two Screws [6], and remove the Harness Holder [7].



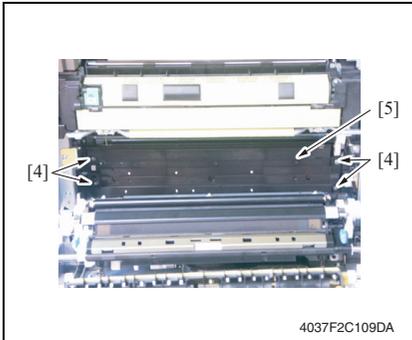
6. Remove four Screws [8], and remove the Cleaning Brush Motor [9].

11.3.43 IDC/Registration Sensor/1,2 (PC8/PC9)

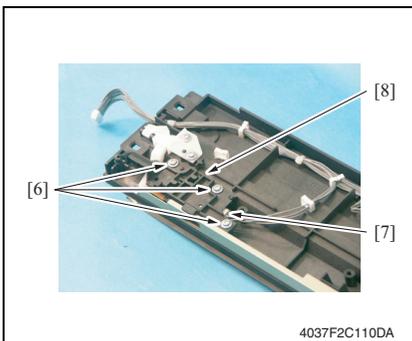
1. Open the Front Door.
2. Remove the Control Panel.
[See P.81](#)
3. Remove two Screws [1], and remove the Front Right Cover [2].



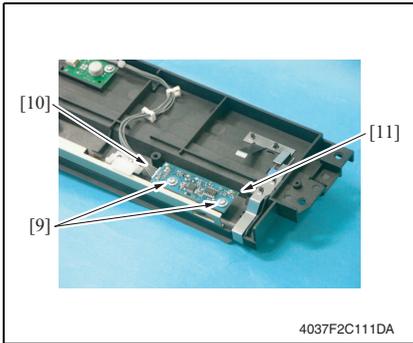
4. Remove the Connector [3].



5. Open the Right Door.
6. Remove four screws [4] and the Registration Roller entrance guide [5].



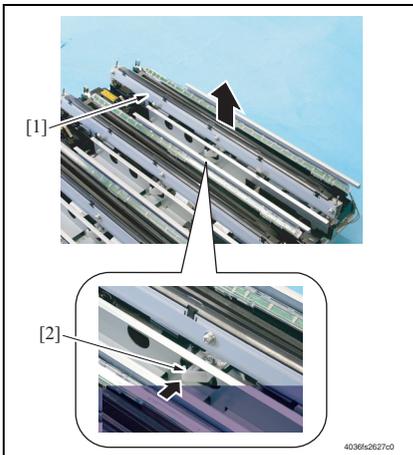
7. Remove three Screws [6] and Connector [7], and remove the IDC/Registration Sensor/1 [8].



- Remove two Screws [9] and Connector [10], and remove the IDC/Registration Sensor/2 [11].

NOTE

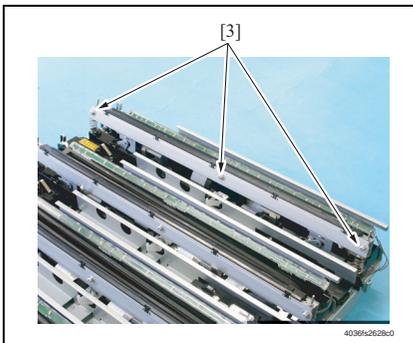
- Whenever the IDC/Registration Sensor/1,2 have been replaced, be sure to replace the Image Transfer Belt Unit.

11.3.44 LPH**A. Removal Procedure**

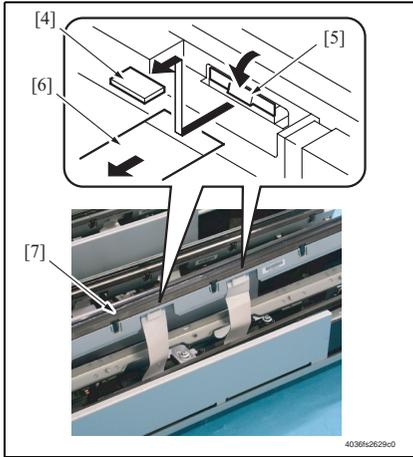
- Remove the LPH Unit.
[See P.102](#)
- Holding the LPH Assy [1] with hands, unlock [2] it.

NOTE

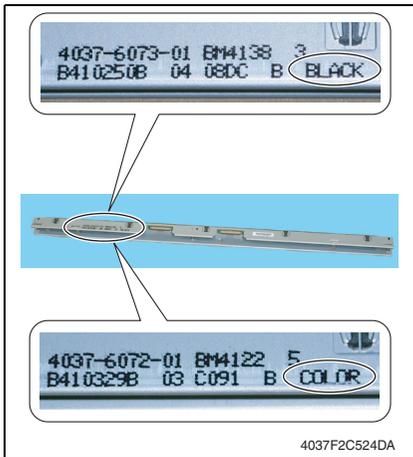
- Do not touch the LED by hand. Clean the LED, if touched by hand, using the LED cleaning jig.
- Be careful about the spring that can spring off when the LPH Assy is unlocked.
- If the LPH Assy comes off position when the Lock is unlocked, the LPH Assy must be installed using the LPH Assy mounting jig.



- Remove the three LPH mounting screws [3].



4. Peel off the seal [4], unlock [5] the LPH Assy, and remove the flat cable [6].
5. Remove the LPH [7].
6. Perform the same procedure for each of different colors of LPH.



B. Reinstallation Procedure

NOTE

- The LPH comes in two types, one for black and the other for color (common to Y, M, and C). At replacement, make sure of the type of the LPH, whether it is for black or color.

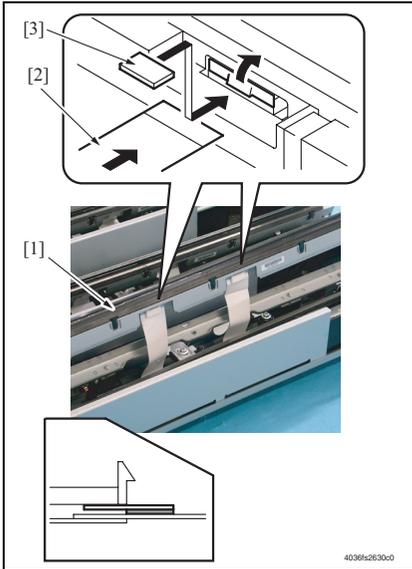
<Check method>

Determine the type of LPH using the marking on the side face of the LPH.

The markings are:

LPH for black: **BLACK**

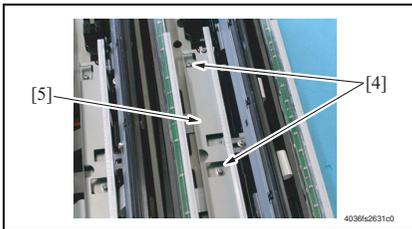
LPH for color: **COLOR**



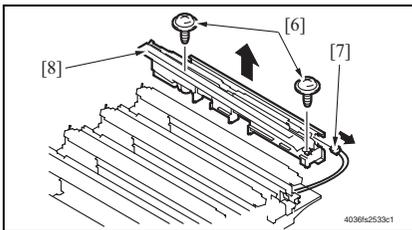
1. Insert the flat cable [2] into the LPH [1] and lock the LPH [1].
2. Affix the seal [3] that comes with the LPH Assy to the location shown on the left.

NOTE

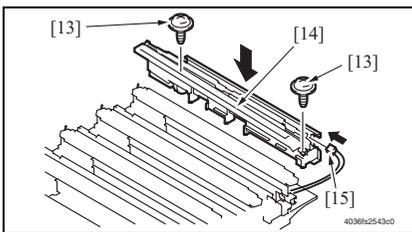
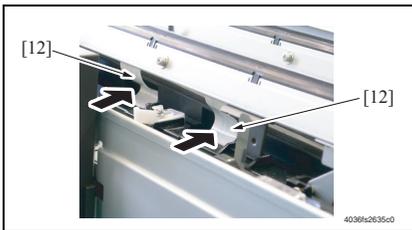
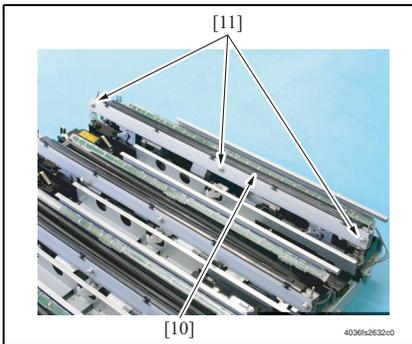
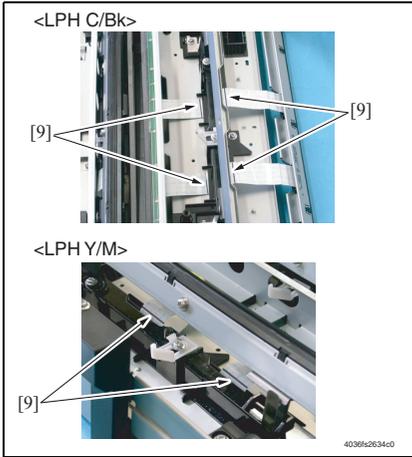
- Failure to affix the seal could cause the flat cable to come off the LPH Assy.



3. Remove two screws [4] and the Guide [5].



4. Remove two Screws [6] and Connector [7], and remove the guide Assy [8].



5. Align the markings [9] on the flat cable with the positions shown in the photo.
6. Install the Guide.

NOTE

- Make sure that no part of the flat cable is wedged in mechanisms or bent.

7. Secure the LPH [10] using three screws [11].

8. Push the slack portion in the flat cable [12] into the inside of the machine.

9. Install the two screws [13] to secure the guide Assy [14].

10. Connect the connector [15].

NOTE

- Make sure that no part of the flat cable is wedged in mechanisms or bent.
- Make sure that the flat cable is aligned with the groove in the Guide Assy.

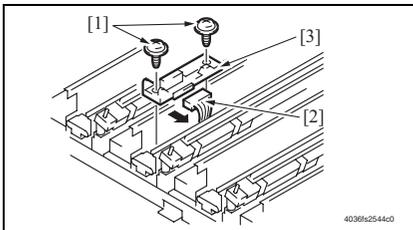


11. Press the LPH Assy [16] down into the locked position.

NOTE

- Select [Service Mode] → [Machine] → [LPH Rank] of the Jig software and change the value of [LPH Rank] to "1".
- When the LPH Unit has been reinstalled, be sure to run [Stabilizer] available from [Image Process Adjustment] of the [Service Mode] of the Jig software.

11.3.45 TCR Sensor Y/M/C (PWB-N1/-N2/-N3)



1. Remove the LPH Unit.

[See P.102](#)

2. Remove two screws [1], unplug the connector [2], and remove the TCR Sensor.

NOTE

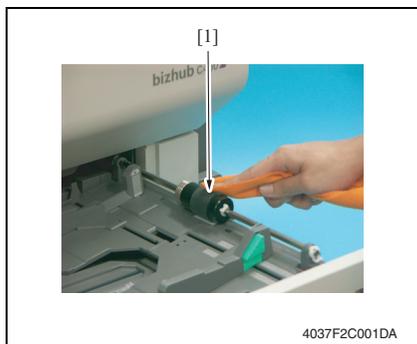
- When the TCR Sensor has been reinstalled, be sure to run [Stabilizer] available from [Image Process Adjustment] of the [Service Mode] of the Jig software.

11.4 Cleaning procedure

NOTE

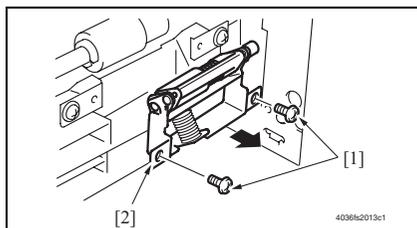
- The alcohol described in the cleaning procedure represents the isopropyl alcohol.

11.4.1 Tray 1 Paper Take-up Roller

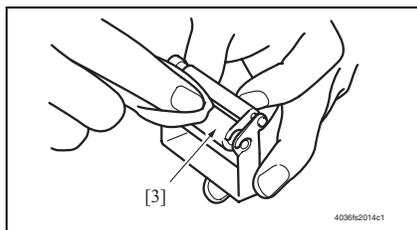


1. Slide out the Tray 1.
2. Using a soft cloth dampened with alcohol, wipe the Tray 1 Paper Take-Up Roller [1] clean of dirt.

11.4.2 Tray 1 Separation Roller

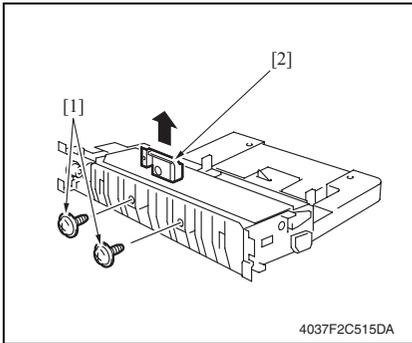


1. Slide out the Tray 1.
2. Remove two screws [1] and the Tray 1 Paper Separation Roller mounting bracket Assy [2].

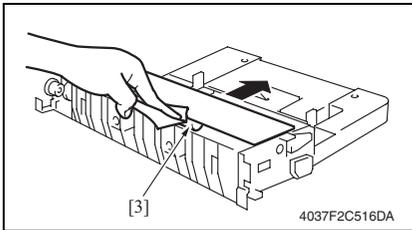


3. Using a soft cloth dampened with alcohol, wipe the Tray 1 Separation Roller [3] clean of dirt.

11.4.3 Bypass Tray Paper Take-up Roller

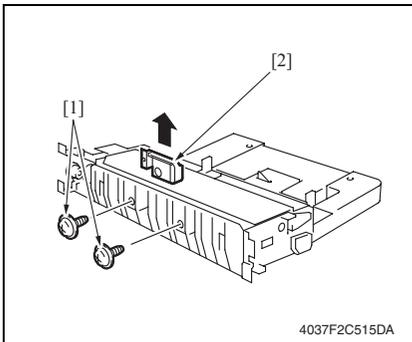


1. Remove the Multi Bypass Unit.
[See P.99](#)
2. Remove two screws [1], and remove the Bypass Paper Separation Roller fixing bracket Assy [2].

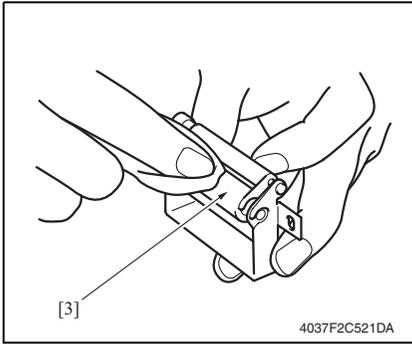


3. Using a soft cloth dampened with alcohol, wipe the Bypass Paper Take-up Roller [3].

11.4.4 Bypass Tray Separation Roller

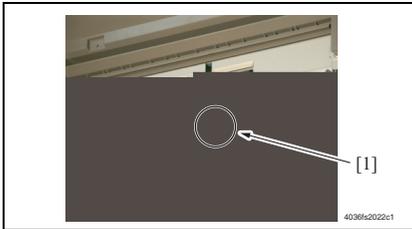


1. Remove the Multi Bypass Unit.
[See P.99](#)
2. Remove two screws [1], and remove the Bypass Paper Separation Roller fixing bracket Assy [2].



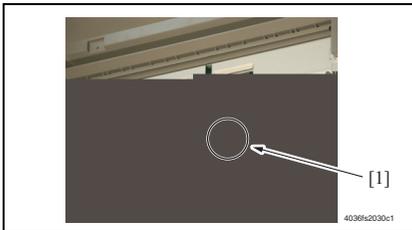
- Using the soft cloth dampened with alcohol, wipe the Bypass Paper Separation Roller [3].

11.4.5 Tray 2 Paper Take-up Roller



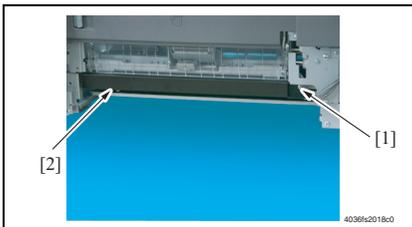
- Remove the Tray 2 Separation Roller installation plate Assy.
See the procedures 1 to 7 in "Cleaning of Tray 2 Separation Roller."
See P.135
- Using a soft cloth dampened with alcohol, wipe the Tray 2 Paper Take-up Roller [1].

11.4.6 Tray 2 Pick-up Roller

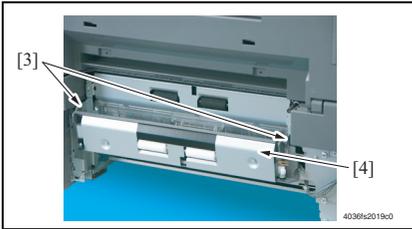


- Remove the Tray 2 Separation Roller installation plate Assy.
See the procedures 1 to 7 in "Cleaning of Tray 2 Separation Roller."
See P.135
- Using a soft cloth dampened with alcohol, wipe the Tray 2 Pick-up Roller [1].

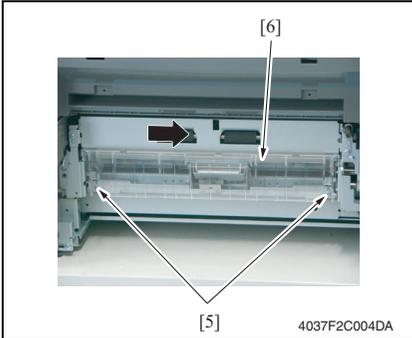
11.4.7 Tray 2 Separation Roller



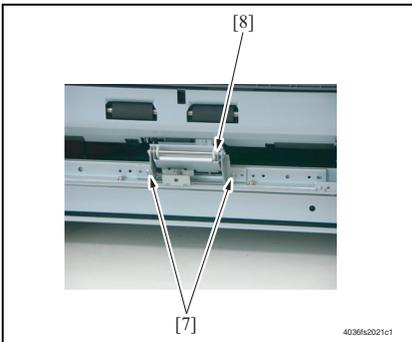
- Slide out the Tray 2.
- Remove the Multi Bypass unit.
See P.99
- Remove the Screw [1], and the Reinforcement plate [2].



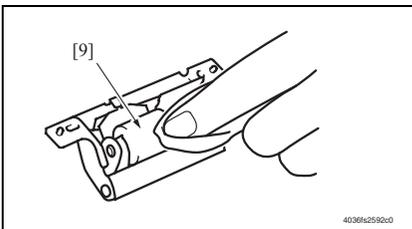
4. Open the Vertical transport door.
5. Remove two Claws [3] and the Vertical transport door [4].



6. Remove two Screws [5], and remove the Jam processing cover [6].



7. Remove two Screws [7] and the Tray 2 Separation Roller installation plate Assy [8].



8. Using a soft cloth dampened with alcohol, wipe the Tray 2 Separation Roller [9].

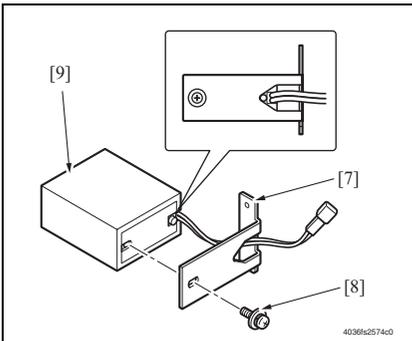
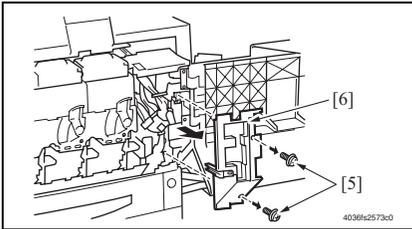
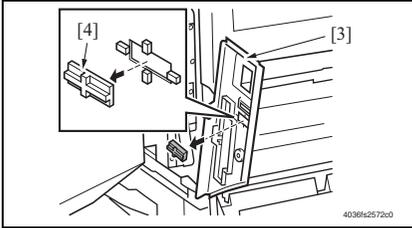
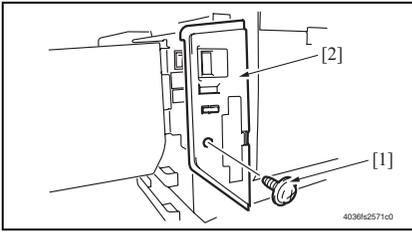
11.4.8 Tray 2 Transport Roller



1. Open the Vertical transport door.
2. Using a soft cloth dampened with alcohol, wipe the Tray 2 Transport Roller [1].

11.5 Option counter

⚠ 11.5.1 Installation of The Counter/K

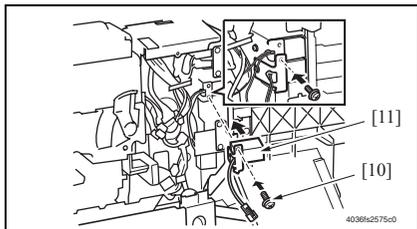


1. Open the Front Door.
2. Remove the Control Panel.
[See P.81](#)
3. Remove the Screw [1], and remove the Front Right Cover [2].

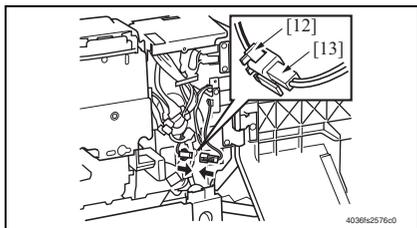
4. Cut out the knockout [4] in the Front Right Cover [3].

5. Remove two screws [5] and the Right Front Cover [6].

6. Install the Mounting plate [7] on the Counter/K [9] with the Screw [8].



- 7. Secure the Counter/K [11] with the screw [10].



- 8. Mount the Connector [12] of Counter/K on the Relay Connector [13] at main body side.

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Maintenance

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Adjustment/Setting

12. 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

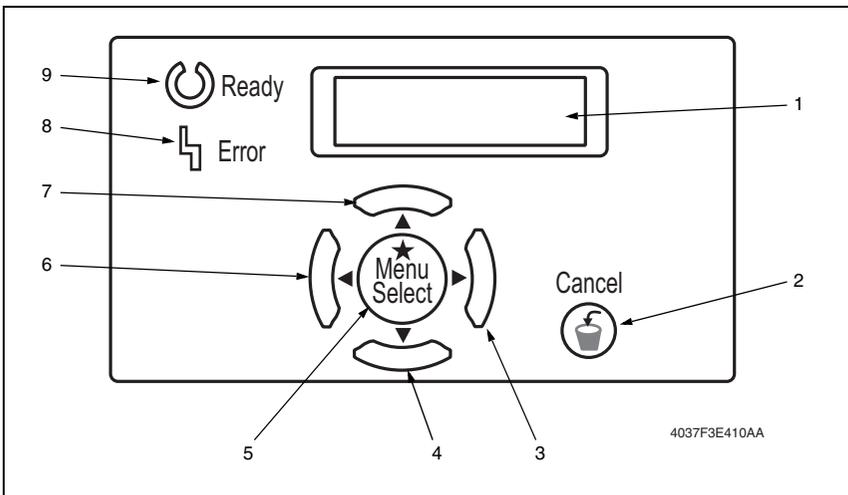
- Before attempting to solve the customer problem, the following advance checks must be made. Check to see if:
 - The power supply voltage meets the specifications.
 - The power supply is properly grounded.
 - The machine shares the power supply with any other machine that draws large current intermittently (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 density is properly selected.
 - Correct paper is being used for printing.
 - The units, parts, and supplies used for printing (developer, PC Drum, etc.) are properly replenished and replaced when they reach the end of their useful service life.
 - Toner is not running out.

CAUTION

- **To unplug the power cord of the machine before starting the service job procedures.**
- **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.**

13. Control Panel

13.1 Identification and Functions of Keys on Printer Panel



No.	Name	Description
1	Message window	<ul style="list-style-type: none"> Displays information about the current status. It turns OFF when the printer controller is OFF or running.
2	Cancel key	<ul style="list-style-type: none"> Pressing this key will finish changing the settings and return to the "Ready to print" screen. Pressing this key while printing will stop printing or job processing.
3	Right Arrow keys (Hereinafter shown as ►.)	<ul style="list-style-type: none"> Pressing this key will display each setting menu. It will move the cursor to the right side for the next input position.
4	Down Arrow keys (Hereinafter shown as ▼.)	<ul style="list-style-type: none"> Pressing this key while displaying the menu will display the next option or the next setting item. Pressing this key while entering the letters will display the next letter.
5	Menu/Select key	<ul style="list-style-type: none"> Pressing this key will display the function menu. The currently selected option will be decided to proceed to the next menu.
6	Left Arrow keys (Hereinafter shown as ◀.)	<ul style="list-style-type: none"> Pressing this key while entering the letters will delete the letters left side of the cursor.
7	Up Arrow keys (Hereinafter shown as ▲.)	<ul style="list-style-type: none"> Pressing this key while the menu is being displayed will return it to the previous option or the previous setting item. Pressing this key while entering letters will display the previous letter.
8	Error LED	<ul style="list-style-type: none"> It turns ON in red for over thirty seconds when a transmission error occurred between the Printer controller and the Printer. It blinks in red when an error occurred and printing had to stop.
9	Ready LED	<ul style="list-style-type: none"> It turns ON in green when the printing is available. It blinks in green when the Printer Controller is shifting to RIP, or when it is printing, or when it is transmitting with an outside computer.

13.2 Utility Mode function tree

- The function tree is shown to comply with the format displayed on the screen.
- To display each item for the Admin. Setting, enter the Password and log in.

NOTE

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

*1: It needs to be entered only when using the Account Track.

*2: The subfunction of a lower hierarchy marked with *3 is selected according to the setting value of *2.

Utility Mode				
Ready to print				
Job Operation	Account Name *1	Password *1	Secure Print	
			User Box	
			Held Jobs	
Paper Tray	Tray 1 Size			
	Tray 1 Type			
	Tray 2 Type			
	Tray 3 Type			
	Tray 4 Type			
	Bypass Size			
	Bypass Type			
User Setting	Print Reports	Meter Count		
		Check Consumable		
		Setting Info.		
		Font List		
		Demo Page		
	System Setting	Language Setting		
	Power Save	Low Power		
		Sleep Mode		
	Tray Setting	Auto Tray Select		
		Tray Priority		
		Auto Tray Select		
		No Match. Paper		
	Output Setting	Print Output		
		Exit Tray Set		
	Printer Setting	Basic Setting	PDL Setting	
			Paper Tray	
			2-Sided Print	
			Bind Direction	
			Staple	
			Punch	
# of Sets				

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Adjustment / Setting

Utility Mode					
User Setting	Printer Setting	Basic Setting	Paper Size		
			Org. Direction		
			Spool Setting		
			Size Change		
			Banner Setting		
			Banner Tray		
		PCL Setting	Font Number		
			Symbol Set		
			Line/Page		
			Font Size		
PS Setting	CR/LF Mapping				
	PS Error Print				
Admin. Setting (Password)	Network Setting	TCP/IP	TCP/IP Setting		
			IP Address *2	Auto Input *3	DHCP Setting
					BOOTP Setting
					ARP/PING Setting
					AUTO IP Setting
			Manual Input *3	IP Address	
				Subnet Mask	
				Default Gateway	
			DNS Server	DNS Auto Obtain	
				Priority DNS	
				Substitute DNS1	
				Substitute DNS2	
			IP Filtering	Permit Access	Setting Range 1
					Setting Range 2
					Setting Range 3
					Setting Range 4
					Setting Range 5
Deny Access	Setting Range 1				
	Setting Range 2				
	Setting Range 3				
	Setting Range 4				
	Setting Range 5				
RAW Poat No.	Port1				
	Port2				
	Port3				
	Port4				
	Port5				
	Port6				
Host Name					

Utility Mode						
Admin. Setting (Password)	Network Setting	TCP/IP	DNS Domain Set	DNS Auto Obtain		
				Default Name		
				Search Name 1		
				Search Name 2		
			Search Name 3			
			DynamicDNS Set			
			NetWare	IPX Setting	IPX Setting	
		Ethernet Frame				
		Print Setting		Print Mode		
				PServer	PServer Name	
					PServer Password	
					Polling Interval	
					NDS/Bindery Set	
					File Server Name	
					NDS Context Name	
				NDS Tree Name		
		N/R Printer		Printer Name		
			Printer Number			
		AppleTalk	AppleTalk Set			
			Printer Name			
			Zone Name			
		Bonjour	Bonjour Setting			
			Bonjour Name			
		SMB	WINS	WINS Setting		
				DNS Auto Obtain		
				WINS Server IP 1		
				WINS Server IP 2		
Printer	Printer Setting					
	NetBIOS Name					
	Print Service					
	Workgroup					
SNMP	SNMP Setting	SNMP v1/v2c (IP)				
		SNMP v3 (IP)				
		SNMP v1 (IPX)				
	UDP Port Number					
	v1/v2c Setting	Read Community				
		Write Setting				
		Write Community				
	v3 Setting	Context Name				
		Discovery Set	Discovery User			
			User Name			

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Adjustment / Setting

Utility Mode								
Admin. Setting (Password)	Network Setting	SNMP	v3 Setting	Read Setting	User Name			
					Security Level			
					auth-password			
				priv-password				
				Write Setting	User Name			
					Security Level			
		auth-password						
		TCP Socket	TCP Socket (Binary Mode)	TCP Socket Set				
				Port No.				
				SSL Setting				
	Port No. (SSL)							
	TCP Socket (ASCII Mode)		TCP Socket Set					
			Port No.					
			http Server					
			http Server Set					
	I/F Setting	Time Adjustment	PSWC Setting					
			IPP	IPP Setting				
				IPP Auth.	IPP Auth. Set			
					Auth. System			
					realm			
				Accept IPP Job				
				Support Info.	Print Job			
					Cancel Job			
					Acquire Job			
Valid Job								
Job Attributes								
Printer Info.			Printer Attrib.					
			Printer Name					
			Printer Location					
Printer Info.								
Disable Proof								
Network Speed								
Parallel Timeout								
Network Timeout								
USB Timeout								
Parallel I/F								
IEEE 1284/USB								
NTP Setting		NTP Server Add.	IP Address					
			DNS Host Name					
Port No.								

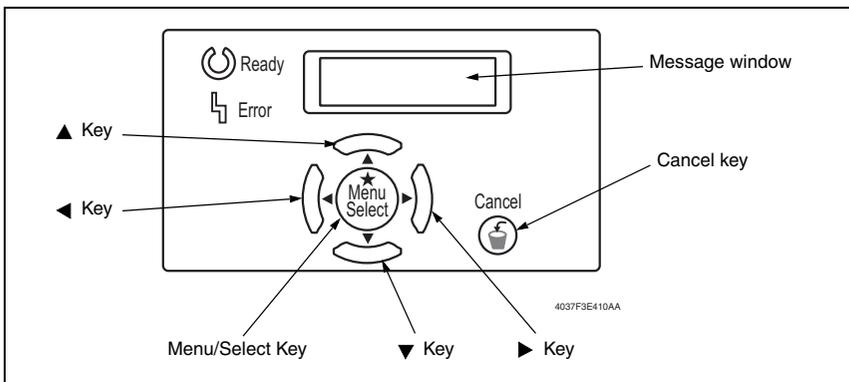
Utility Mode						
Admin. Setting (Password)	System Setting	Daylight Savings				
		Auto Reset				
		Date/Time	Date	Time	Time Zone	Daylight Savings
		Set Date (Adjusting)				
	User Box Oper.	Delete User Box				
		Secure Print	Del. Secure Doc.			
			Auto Delete			
	List Output Mode List					
	Call Center					
	Security Setting	Admin. Password				
		Enhanced Security				
		Security Details	Password Rules			
			Prohibit Func.	Prohibit Setting		
				No. of Tries		
		Release Setting				
		HDD Setting	HDD Password			
			HDD Formatting			
			Overwrite All			
			Overwrite Temp.			
	Priority Setting					
Encryption Key						
OpenAPI	Access Setting					
	Port No.					
	Port No. (SSL)					
	SSL					
	Authenticat-ion	Auth. Setting				
		Login Name				
Password						
Data Capture						
Tech. Rep. Mode						
Banner Printing						

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Adjustment / Setting

13.3 Settings in Control panel

13.3.1 Procedure



A. Job Operation

1. Make sure that the Default screen (Ready to print) is being displayed, and press the Menu/Select key on the control panel.
2. Press ▶ key to open the Account Name screen.
3. Select the Account Name using ▲, ▼, ▶, and ◀ keys.
4. Press the Menu/Select key to set the Account Name.
5. Enter the Password using ▲, ▼, ▶, and ◀ keys.
6. Press the Menu/Select key to set the Password.
7. Display the item to be changed using ▲, ▼ keys.
8. Press the Menu/Select key to set the item to be changed.

⚠ * Steps 3 through 6 are required only if Account Track is enabled.

B. Paper Tray

1. Make sure that the Default screen (Ready to print) is being displayed, and press the Menu/Select key on the control panel.
2. Display the Paper Tray using ▲, ▼ keys.
3. Press ▶ key to open the Paper Tray screen.
4. Display the item to be changed using ▲, ▼, and ◀ keys.
5. Press the Menu/Select key to set the item to be changed.

13.3.2 Canceling the settings

- Press the Cancel key.

13.3.3 Changing the settings on the Setting menu

1. Enter the target value using ▲, ▼ keys.
2. Press ▶ key to shift to the next digit.
3. Enter the target value using ▲, ▼ keys.
4. Repeat the steps 2 and 3 to enter all the necessary items.
5. Press the Menu/Select key to enter the setting.

13.4 Settings in Job Operation (Account Track)

- Setting items for Job operation can be used only when the option HDD is mounted.
- When Account Track is being performed, the Account name and the Password need to be entered.
- The Account Track cannot be set on the control panel. Use the PageScope Data Administrator.

A. Secure Print

Purpose/Use	• To print the secure document stored in the Machine.
Setting/ Procedure	• Type in the ID for the confidential document. • Type in the password for the confidential document.

B. User Box

Purpose/Use	• To print the document stored in the box.
Setting/ Procedure	• Select the name of the box. • Type in the password of the box.

C. Held Jobs

Purpose/Use	• To print or delete the Held Jobs in the Machine.
Setting/ Procedure	• Enter the "Number of prints" for printing the Held Jobs. • Delete the Held Jobs.

13.5 Settings in Paper Tray

- It sets the paper type for each Tray.

A. Tray 1 Size

Purpose/Use	To set the paper size for the 1st Drawer.
Setting/ Procedure	The default setting is "A4" paper.

B. Tray 1 Type

Purpose/Use	To set the paper type for the 1st Drawer.
Setting/ Procedure	The default setting is "Normal" paper.

C. Tray 2 Type

Purpose/Use	To set the paper type for the 2nd Drawer.
Setting/ Procedure	The default setting is "Normal" paper.

D. Tray 3 Type

Purpose/Use	To set the paper type for the 3rd Drawer.
Setting/ Procedure	The default setting is "Normal" paper.

E. Tray 4 Type

Purpose/Use	To set the paper type for the 4th Drawer.
Setting/ Procedure	The default setting is "Normal" paper.

F. Bypass Size

Purpose/Use	To set the paper size for the Bypass Tray.
Setting/ Procedure	The default setting is "A4" paper.

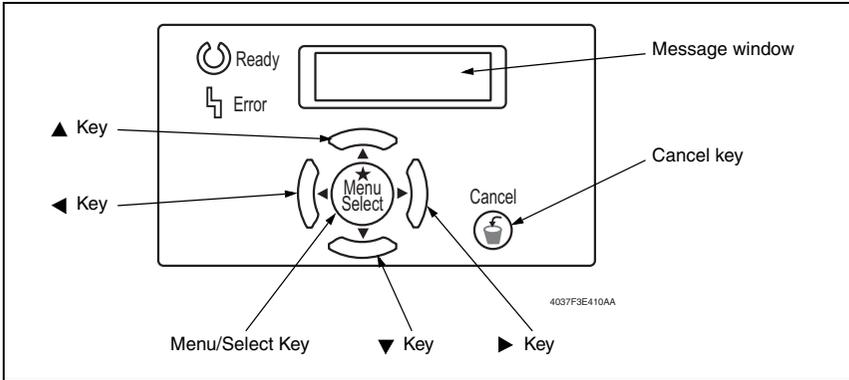
G. Bypass Type

Purpose/Use	To set the paper type for the Bypass Tray.
Setting/ Procedure	The default setting is "Normal" paper.

14. User Setting

14.1 User Setting Function Setting Procedure

14.1.1 Procedure



1. Make sure that the Default setting (Ready to print) is displayed, and press the Menu/Select key on the control panel.
2. Display the User setting using ▲, ▼ keys.
3. Press ▶ key to open the User setting screen.
4. Display the User setting item to be changed using ▲, ▼, ▶, and ◀ keys.
5. Press the Menu/Select key to set the item to be changed.

14.1.2 Canceling the settings

- Press the Cancel key.

14.1.3 Changing the settings on the Setting menu

1. Enter the target value using ▲, ▼ keys.
2. Press ▶ key to shift to the next digit.
3. Enter the target value using ▲, ▼ keys.
4. Repeat the steps 2 and 3 to enter all the necessary items.
5. Press the Menu/Select key to enter the setting.

14.2 Settings in User setting

14.2.1 Print Reports

<p>⚠ Functions</p>	<ul style="list-style-type: none"> To output the report or Demo Page concerning the print setting.
<p>Use</p>	<ul style="list-style-type: none"> To check the setting concerning the printer. The types of report available for output are as follows. <p>Meter Count : Prints the total checklist. Check Consumable : Prints the checklist for consumables. Setting Info. : Prints a list of the machine settings. Font List : Prints the font lists for PCL mode or PS mode. Demo Page : Prints the demo page.</p> <p>Demo Page</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Test Page</p> </div> <p style="text-align: right;">4037F3J406AA</p> <ul style="list-style-type: none"> It sets the Simplex/Duplex printing of the output for the report. (Only when the Duplex unit is mounted.)
<p>Setting/ Procedure</p>	<p><Selecting Report></p> <ol style="list-style-type: none"> Select Default setting → User setting → Report output. Select the report to be output. Press the Menu/Select key. <p><Simplex/Duplex></p> <ul style="list-style-type: none"> The default setting is 1-Sided.

14.2.2 System Setting

A. Language Setting

<p>⚠ Functions</p>	<ul style="list-style-type: none"> To select the language on the Message Window.
<p>Use</p>	<ul style="list-style-type: none"> To change the language on the control panel to another language.
<p>Setting/ Procedure</p>	<ul style="list-style-type: none"> The types of languages displayed vary according to the setting made in [Service Mode] → [System 1] → [Marketing Area] of Jig software.

14.2.3 Power Save**A. Low Power**

Functions	<ul style="list-style-type: none"> To set the time until Low Power starts operating after the last key operation has been completed. Low Power: To turn LED and LCD OFF, and lower the power consumption.
Use	<ul style="list-style-type: none"> To change the time until Low Power starts.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 10 min. <p style="text-align: center;">"10 min." (10 to 240)</p>

B. Sleep Mode

Functions	<ul style="list-style-type: none"> To set the time until Sleep Mode starts operating after the last key operation has been completed. Turn all lines OFF except 5 V line for Control. "OFF" will only be displayed when "No Sleep" in Service Mode is set.
Use	<ul style="list-style-type: none"> To change the time until the Sleep Mode starts.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 15 min. <p style="text-align: center;">"15 min." (15 to 240) / OFF</p>

14.2.4 Tray Setting**A. Auto Tray Select**

Functions	<ul style="list-style-type: none"> To set the Tray for the Auto select when the Auto Paper function is set.
Use	<ul style="list-style-type: none"> To select the Tray for Auto Paper function.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "T1 T2 T3 T4 BP" <p>T1 (Tray1), T2 (Tray2), T3 (Tray3), T4 (Tray4), BP (Bypass Tray) *T3 and T4 will be displayed only when they are mounted as options.</p>

B. Tray Priority

Functions	<ul style="list-style-type: none"> To set the priority for switching Trays when the Auto Tray switch function is set.
Use	<ul style="list-style-type: none"> To set the priority of the Trays when the Auto Tray switch function is set.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "T1 T2 T3 T4 BP" <p>T1 (Tray1), T2 (Tray2), T3 (Tray3), T4 (Tray4), BP (Bypass Tray) *Outputs the corresponding Tray by Auto select in listed order.</p>

C. Auto Tray Select

Functions	<ul style="list-style-type: none"> To set whether to automatically switch to another Tray with same size paper when the Paper Take-up Tray runs out of paper during printing.
Use	<ul style="list-style-type: none"> To switch the Paper Take-up Tray automatically.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Permit. <p style="text-align: center;">"Permit" Prohibit</p>

D. No Match Paper

Functions	<ul style="list-style-type: none"> To set whether to switch to another Tray automatically when the specified Tray runs out of paper during printing. Stop Printing (Tray Fixed) : It stops printing when the specified Tray runs out of paper. Switch Trays (Tray Priority): To switch to another Tray with the specified paper and print when the Tray is out of paper.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Stop Printing (Tray Fixed). "Stop Printing (Tray Fixed)" Switch Trays (Tray Priority)

14.2.5 Output Setting

A. Print Output

Functions	<ul style="list-style-type: none"> To set the timing for printing for the PC print job or Fax received.
Use	Batch Print : Starts printing when all data are received Page Print : Starts printing every time data for each page are received
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Page Print.

B. Exit Tray Set

Functions	<ul style="list-style-type: none"> To set the priority output tray for each application. * This setting is available only when FS-507 is mounted.
Use	<ul style="list-style-type: none"> To change the output tray according to the application.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Main Tray. "Main Tray" Sub Tray 1 Sub Tray 2

14.2.6 Printer Setting

A. Basic Setting

(1) PDL Setting

Functions	<ul style="list-style-type: none"> To set the PDL (Page Description Language) for PC printing.
Use	<ul style="list-style-type: none"> To fix the PDL as necessary. It usually switches automatically.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Auto. "Auto" PCL PS

(2) Paper Tray

Functions	<ul style="list-style-type: none"> To set the Paper Take-up Tray when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when Paper Take-up Tray cannot be specified by the printer driver when printing from Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Auto.

(3) 2-Sided Print

Functions	<ul style="list-style-type: none"> To set whether to carry out duplex print during PC printing when not specified by the printer driver.
Use	<ul style="list-style-type: none"> To use when 2-sided printing cannot be specified by the printer driver while printing by Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

(4) Bind Direction

Functions	<ul style="list-style-type: none"> To set the binding direction during duplex printing when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when binding direction cannot be specified by the printer driver during printing by Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Left Bind. <p style="text-align: center;">Top Bind "Left Bind"</p>

(5) Staple

Functions	<ul style="list-style-type: none"> To set whether to staple or not when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when staple is not specified by the printer driver during printing by the Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">1 Position 2 Positions "OFF"</p>

(6) Punch

Functions	<ul style="list-style-type: none"> To select whether to make punch-holes or not when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when the printer driver cannot specify punching during printing from Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

(7) # of Sets

Functions	<ul style="list-style-type: none"> To set the number to be printed when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when the number cannot be specified by the printer driver during printing from Windows DOS, etc.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 1. <p style="text-align: center;">"1" (1 to 999)</p>

(12) Banner Setting

- Banner Page: Page that contains the sender and subject of a print job
<Typical printout>

Banner Page	
	P1 2006/02/01 10:00 Serial No. 02000001 TC: 10000
Job	0200
Sender	Admin
Title	Microsoft word - banner.doc
Interface	Parallel
Language	PCLXL
Date	9:55:00 FEB 1 2006
4037F3E430AA	

Functions	• To set whether to enable or disable banner printing.
Use	• When banner printing is to be performed.
Setting/ Procedure	• The default setting is OFF. ON "OFF"

(13) Banner Tray

Functions	• To set the paper source to be used for banner printing.
Use	• When changing the paper source for banner printing.
Setting/ Procedure	• The default setting is Auto. Tray 1 Tray2 Tray3 Tray4 Bypass "Auto" *Tray 3 and Tray 4 will be displayed only when they are mounted as options.

B. PCL Setting**(1) Font Number**

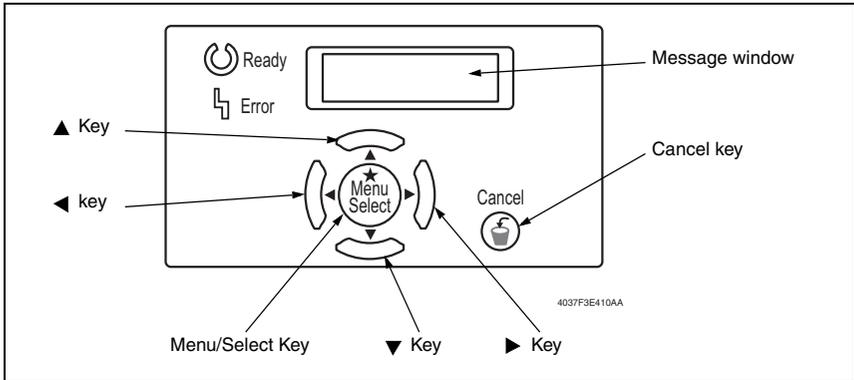
Functions	• To set the font when not specified by the printer driver during PC printing.
Use	• To use when the printer driver cannot specify the font.
Setting/ Procedure	• The default setting is 001. "001" (000 to 999)

Font List

000	Courier	027	Albertus Medium	054	ITC Bookman Demi
001	CG Times	028	Albertus Extra Bold	055	ITC Bookman Light Italic
002	CG Times Bold	029	Arial	056	ITC Bookman Demi Italic
003	CG Times Italic	030	Arial Bold	057	New Century Schoolbook Roman
004	CG Times Bold Italic	031	Arial Italic	058	New Century Schoolbook Bold
005	CG Omega	032	Arial Bold Italic	059	New Century Schoolbook Italic
006	CG Omega Bold	033	Times New Roman	060	New Century Schoolbook Bold Italic
007	CG Omega Italic	034	Times New Roman Bold	061	Times Roman
008	CG Omega Bold Italic	035	Times New Roman Italic	062	Times Bold
009	Coronet	036	Times New Roman Bold Italic	063	Times Italic
010	Clarendon Condensed	037	Helvetica	064	Times Bold Italic
011	Univers Medium	038	Helvetica Bold	065	ITC Zapf Chancery
012	Univers Bold	039	Helvetica Oblique	066	Symbol
013	Univers Medium Italic	040	Helvetica BoldOblique	067	SymbolIPS
014	Univers Bold Italic	041	Helvetica Narrow	068	Wingdings
015	Univers Condensed Medium	042	Helvetica Narrow Bold	069	ITC Zapf Dingbats
016	Univers Condensed Bold	043	Helvetica Narrow Oblique	070	Courier Bold
017	Univers Condensed Medium Italic	044	Helvetica Narrow Bold Oblique	071	Courier Italic
018	Univers Condensed Bold Italic	045	Palatino Roman	072	Courier Bold Italic
019	Antique Olive	046	Palatino Bold	073	Letter Gothic
020	Antique Olive Bold	047	Palatino Italic	074	Letter Gothic Bold
021	Antique Olive Italic	048	Palatino Bold Italic	075	Letter Gothic Italic
022	Garamond Antiqua	049	ITC Avant Garde Gothic Book	076	CourierPS
023	Garamond Halbfett	050	ITC Avant Garde Gothic Demi	077	CourierPS Bold
024	Garamond Kursiv	051	ITC Avant Garde Gothic Book Oblique	078	CourierPS Oblique
025	Garamond Kursiv Halbfett	052	ITC Avant Garde Gothic Demi Oblique	079	CourierPS Bold Oblique
026	Marigold	053	ITC Bookman Light	080	Line Printer

14.3 Settings in Admin. Setting

14.3.1 Procedure



1. Make sure that the Default setting (Ready to print) is displayed, and press the Menu/Select key on the control panel.
 2. Display the Admin. Setting using ▲, ▼ keys.
 3. Press ▶ key to open the Password screen.
 4. Enter the Password using the ▲, ▼, ▶, and ◀ keys.
- Enter the encrypted number (up to eight digits) which is set on the Service mode. (Default value: 12345678)
5. Press the Menu/Select key to set the password.
 6. Display the item to be changed using ▲, ▼, ▶, and ◀ keys.
 7. Press the Menu/Select key to set the item to be changed.

14.3.2 Canceling the settings

- Press the Cancel key.

14.3.3 Changing the settings on Admin. Setting

1. Enter the target value using ▲, ▼ keys.
2. Press ▶ key to shift to the next digit.
3. Enter the target value using ▲, ▼ keys.
4. Repeat the steps 2 and 3 to enter all the necessary items.
5. Press the Menu/Select key to enter the setting.

14.3.4 Network Setting

A. TCP/IP

(1) TCP/IP Setting

Functions	<ul style="list-style-type: none"> To set whether to enable or disable TCP/IP setting.
Use	<ul style="list-style-type: none"> To disable TCP/IP setting.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p> <p>NOTE</p> <ul style="list-style-type: none"> When the setting is changed, turn main power switch OFF and ON again.

(2) IP Address

Functions	<ul style="list-style-type: none"> To set whether to enter the IP address directly or to obtain it automatically.
Use	<ul style="list-style-type: none"> To change the method for setting the IP address.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Auto Input. <p style="text-align: center;">"Auto Input" Manual Input</p> <ul style="list-style-type: none"> When it is set to [Auto Input], select the method to obtain it automatically. <p>DHCP Setting : ON OFF BOOTP Setting : ON OFF ARP/PING Setting : ON OFF AUTO IP Setting : ON OFF</p> <ul style="list-style-type: none"> If [Manual Input] has been set, enter the setting values manually. <p>IP Address : [0 to 255] . [0 to 255] . [0 to 255] . [0 to 255] Subnet Mask : [0 to 255] . [0 to 255] . [0 to 255] . [0 to 255] Default Gateway : [0 to 255] . [0 to 255] . [0 to 255] . [0 to 255]</p> <p>NOTE</p> <ul style="list-style-type: none"> [ARP/PING Setting] and [Auto IP Setting] cannot be set to "OFF" simultaneously. They will all be set to "ON" when [Manual Input] is changed to [Auto Input].

(3) DNS Server

Functions	<ul style="list-style-type: none"> To set the DNS Server.
Use	<ul style="list-style-type: none"> When changing the DNS server setting method. <p>DNS Auto Obtain: To disable the Auto Obtaining of the DNS Server Address. Priority DNS: To enter Priority DNS Server. Substitute DNS: To enter substitute DNS1 and substitute DNS2.</p>
Setting/ Procedure	<p><DNS Auto Obtain></p> <ul style="list-style-type: none"> The default setting is Enable. <p style="text-align: center;">"Enable" Disable</p> <p>NOTE</p> <ul style="list-style-type: none"> "Enable" cannot be set when [IP Address] is set to "Auto Input". <p><Priority DNS, Substitute DNS1, Substitute DNS2></p> <ul style="list-style-type: none"> IP address Version 4 format [0 to 255] . [0 to 255] . [0 to 255] . [0 to 255]

(8) DynamicDNS Set

Functions	<ul style="list-style-type: none"> To set whether or not to enable the Auto Obtaining for the DynamicDNS Set.
Use	<ul style="list-style-type: none"> To set the Dynamic DNS.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Disable. <p style="text-align: center;">Enable "Disable"</p>

B. NetWare

(1) IPX Setting

Functions	<ul style="list-style-type: none"> To set the NetWare (IPX).
Use	<ul style="list-style-type: none"> When changing the NetWare (IPX) setting. IPX Setting: To use NetWare (IPX) setting. Ethernet Frame: To specify the Frame type for transmission.
Setting/ Procedure	<p><IPX Setting></p> <ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p> <p><Ethernet Frame></p> <ul style="list-style-type: none"> The default setting is Auto. <p style="text-align: center;">"Auto" IEEE802.2 IEEE802.3 Ethernet 2 IEEE802.2_SNAP</p>

(2) Print Setting

1. Print Mode

Functions	<ul style="list-style-type: none"> To set the Netware print mode.
Use	<ul style="list-style-type: none"> To change the Netware print mode.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is PServer. <p style="text-align: center;">OFF "PServer" N/R Printer</p>

(2) Printer Name

Functions	• To set the Printer name displayed on the AppleTalk network.
Use	• To set the Printer name displayed on the AppleTalk network.
Setting/ Procedure	• Enter the Printer name. (up to 31 characters)

(3) Zone Name

Functions	• To set the Zone name connected with AppleTalk network.
Use	• To set the Zone name connected with AppleTalk network.
Setting/ Procedure	• Enter the Zone name. (up to 31 characters)

D. Bonjour

- "Bonjour" is an alternative Network technology to AppleTalk. It automatically detects and identifies the network only by physically connecting to the network.

The name "Rendezvous" has been changed for Mac OS X 10.4 and later version.

(1) Bonjour Setting

Functions	• To set whether or not to use the Bonjour setting.
Use	• To use when operating under the Bonjour service environment.
Setting/ Procedure	• The default setting is ON. "ON" OFF

(2) Bonjour Name

Functions	• To set the Bonjour name.
Use	• To set the name for identifying over the Bonjour network.
Setting/ Procedure	• Enter the Bonjour name (up to 63 characters).

E. SMB**(1) WINS****1. WINS Setting**

Functions	• To set whether or not to enable the WINS setting.
Use	• To use the WINS (Windows Internet Name Service) setting is necessary. • By using the WINS, the traffic by broadcast can be reduced, and the communication becomes available with the network where broadcast does not reach.
Setting/ Procedure	• The default setting is ON. "ON" OFF

F. SNMP

(1) SNMP Setting

Functions	<ul style="list-style-type: none"> To set whether to use SNMP (Simple Network Management Protocol) or not. To set the SNMP Version to be used.
Use	<ul style="list-style-type: none"> Not to use SNMP. To readout Management Information Base and to enter Community name for writing.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p> <p><SNMP v1/v2c (IP), SNMP v3 (IP), and SNMP v1 (IPX)></p> <ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p>

(2) UDP Port Number

Functions/ Use	<ul style="list-style-type: none"> To set the UDP standby Port Number which is used for SNMP (IP).
Setting/ Procedure	<ul style="list-style-type: none"> Enter the Port Number between 1 and 65535.

(3) v1/v2c Setting

Functions	<ul style="list-style-type: none"> To conduct setting when using SNMP v1/v2c.
Use	<ul style="list-style-type: none"> To use when changing Write setting. To use when entering the Community Name for reading the Management Information (MIB) and writing to it.
Setting/ Procedure	<p><Read Community></p> <ul style="list-style-type: none"> Enter the Read Community Name. (up to 15 characters) <p><Write Setting></p> <ul style="list-style-type: none"> The default setting is Enable. <p style="text-align: center;">"Enable" Disable</p> <p>NOTE</p> <ul style="list-style-type: none"> [Enable] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security] <p><Write Community></p> <ul style="list-style-type: none"> Enter the Write Community Name. (up to 15 characters)

(4) v3 Setting

1. Context Name

Functions/ Use	<ul style="list-style-type: none"> To set the Context Name which is used for SNMP v3.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the Context Name. (up to 63 characters)



2. Discovery Set

Functions	<ul style="list-style-type: none"> To set the Discovery Authority User which is used for SNMP v3.
Use	<p>Discovery User: To enable or disable the Discovery Authority User.</p> <p>User Name: To set the Discovery Authority User name.</p>
Setting/ Procedure	<p><Discovery User></p> <ul style="list-style-type: none"> The default setting is Enable. <p style="text-align: center;">"Enable" Disable</p> <p><User Name></p> <ul style="list-style-type: none"> Enter the Discovery User Name. (up to 32 characters) <p>NOTE</p> <ul style="list-style-type: none"> The User name same with the Read User Name or the Write User name cannot be set.

3. Read Setting

Functions	<ul style="list-style-type: none"> To set the read-only User name used for SNMP v3.
Use	<p>User Name: To set the user name</p> <p>Security Level: To set the security level of the user</p> <p style="padding-left: 20px;">Auth. OFF: No authentication is made upon user access.</p> <p style="padding-left: 20px;">Auth.: Authentication is made only of the authentication password upon user access.</p> <p style="padding-left: 20px;">Auth.&Priv.: Authentication is made of the authentication password and privacy password upon user access.</p> <p>Auth-Password: To set the authentication password</p> <p>Priv-Password: To set the privacy password</p>
Setting/ Procedure	<p><User Name></p> <ul style="list-style-type: none"> Enter the Read User Name. (up to 32 characters) <p>NOTE</p> <ul style="list-style-type: none"> The User Name same with the Discovery User Name cannot be used. <p><Security Level></p> <ul style="list-style-type: none"> The default setting is Auth. & Priv. <p style="text-align: center;">Auth. OFF Auth. "Auth. & Priv."</p> <p><auth-password></p> <ul style="list-style-type: none"> Enter the Auth-Password. (up to 8 to 32 characters) <p><priv-password></p> <ul style="list-style-type: none"> Enter the Priv-Password. (up to 8 to 32 characters)



4. Write Setting

Functions	<ul style="list-style-type: none"> To set the name of the Reading/Writing Authority User which is used for SNMP v3.
Use	<p>User Name: To set the user name.</p> <p>Security Level: To set the security level of the user.</p> <p>Auth. OFF: No authentication is made upon user access.</p> <p>Auth.: Authentication is made only of the authentication password upon user access.</p> <p>Auth.&Priv.: Authentication is made of the authentication password and privacy password upon user access.</p> <p>Auth-Password: To set the authentication password.</p> <p>Priv-Password: To set the privacy password.</p>
<p>Setting/ Procedure</p> <p></p> <p></p>	<p><User Name></p> <ul style="list-style-type: none"> Enter the Read User Name. (up to 32 characters) <p>NOTE</p> <ul style="list-style-type: none"> The User Name same with the Discovery User Name cannot be used. <p><Security Level></p> <ul style="list-style-type: none"> The default setting is Auth. & Priv. <p style="text-align: center;">Auth. OFF Auth. "Auth. & Priv."</p> <p>NOTE</p> <ul style="list-style-type: none"> [Auth. OFF] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security] <p><auth-password></p> <ul style="list-style-type: none"> Enter the Auth-Password. (up to 8 to 32 characters) <p><priv-password></p> <ul style="list-style-type: none"> Enter the Priv-Password. (up to 8 to 32 characters)

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Adjustment / Setting

G. TCP Socket**(1) TCP Socket (Binary Mode)**

1. TCP Socket Set

Functions	• To set whether or not to use the TCP Socket setting of Binary Mode.
Use	• For using an application or the like that performs TCP Socket communications by Binary Mode.
Setting/ Procedure	• The default setting is ON. "ON" OFF

2. Port No.

Functions	• To set the port number used for TCP Socket communications not using the SSL.
Use	• When entering the port number used for TCP Socket communications not using the SSL.
Setting/ Procedure	• Enter the Port Number between 1 and 65535.

3. SSL Setting

Functions	• To set whether or not to use SSL for TCP Socket communications.
Use	• When SSL is not to be used for TCP Socket communications.
Setting/ Procedure	• The default setting is ON. "ON" OFF
	<p>NOTE</p> <ul style="list-style-type: none"> • [OFF] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security]



4. Port No. (SSL)

Functions	• To set the port number used for TCP Socket communications using the SSL.
Use	• When entering the port number used for TCP Socket communications not using the SSL.
Setting/ Procedure	• Enter the Port Number between 1 and 65535.

(2) TCP Socket (ASCII Mode)

1. TCP Socket Set

Functions	• To set whether or not to set the TCP Socket for ASCII Mode.
Use	• To use when using the application, etc. for TCP Socket transmission by ASCII Mode.
Setting/ Procedure	• The default setting is ON. "ON" OFF

2. Port No. (ASCII Mode)

Functions	• To set the Port Number which is used for TCP Socket transmission by ASCII Mode.
Use	• To use when entering the Port Number for TCP Socket transmission by ASCII Mode.
Setting/ Procedure	• Enter the Port Number between 1 and 65535.

H. http Server**(1) http Server Set**

Functions	• To set whether or not to use the http Server setting.
Use	• Not to use the http Server setting.
Setting/ Procedure	• The default setting is ON. "ON" OFF

(2) PSWC Setting

Functions	• To set whether to use the PageScope Web Connection.
Use	• Not to use the PageScope Web Connection.
Setting/ Procedure	• The default setting is ON. "ON" OFF NOTE • "OFF" cannot be set when [http Server Set] is set to "OFF".

(3) IPP**1. IPP Setting**

Functions	• To set whether to enable or disable IPP (Internet Printing Protocol) setting.
Use	• Not to use the IPP setting.
Setting/ Procedure	• The default setting is ON. "ON" OFF NOTE • "OFF" cannot be set when [http Server Set] is set to "OFF".

5. Printer Info.

Functions	• To set the Printer information.
Use	Printer Name: To set the Printer Name. Printer Location: To set the Printer Location. Printer Info.: To set the Printer Info.
Setting/ Procedure	<Printer Name> • Enter the Printer Name. (up to 127 characters) <Printer Location> • Enter the Printer Location. (up to 127 characters) <Printer Info.> • Enter the Printer Info. (up to 127 characters)

I. Disable Proof

Functions	• To set how to process the Job when SSL Certificate becomes invalid.
Use	
Setting/ Procedure	• The default setting is Permit. "Permit" Prohibit

J. Network Speed

Functions	• To set the Network speed.
Use	• To set the specific network speed.
Setting/ Procedure	• The default setting is Auto. "Auto" 10Mbps Full Duplex 10Mbps Half Duplex 100Mbps Full Duplex 100Mbps Half Duplex NOTE • When Network speed setting is changed, turn off the Main Power Switch and turn it on again more than 10 seconds after.

14.3.5 I/F Setting

A. Parallel Timeout

Functions	• To set the timeout period for Parallel transmission.
Use	• To make the timeout period longer according to the network condition.
Setting/ Procedure	• The default settings are 60 sec. "60 sec" (10 to 1000)

B. Network Timeout

Functions	• To set the timeout period for Network transmission.
Use	• To make the timeout period longer according to the network condition.
Setting/ Procedure	• The default settings are 60 sec. "60 sec" (10 to 1000)

C. USB Timeout

Functions	<ul style="list-style-type: none"> To set the timeout period for USB transmission.
Use	<ul style="list-style-type: none"> To make the timeout period longer according to the network condition.
Setting/ Procedure	<ul style="list-style-type: none"> The default settings are 60 sec. "60 sec" (10 to 1000)

D. Parallel I/F

Functions	<ul style="list-style-type: none"> To set the two-way communication method for Parallel interface.
Use	<ul style="list-style-type: none"> To change the two-way communication method for Parallel interface.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ECP. Compatible Nibble "ECP"

E. IEEE 1284/USB

Functions	<ul style="list-style-type: none"> To set the interface to be used when mounting the local I/F kit.
Use	<ul style="list-style-type: none"> To be used when using the Parallel interface.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is USB. IEEE1284 "USB"

14.3.6 Time Adjustment**A. NTP Setting**

Functions	<ul style="list-style-type: none"> To set whether or not to use the NTP setting.
Use	<ul style="list-style-type: none"> To synchronize the time between the server and the client.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. ON "OFF"

B. NTP Server Add.

Functions	<ul style="list-style-type: none"> To set the NTP server address.
Use	<ul style="list-style-type: none"> To enter the NTP server address. NTP server address is to be set by the IP address or the Host name.
Setting/ Procedure	<p><IP Address></p> <ul style="list-style-type: none"> Enter the IP address. IP Address Version 4 format [0 to 255] . [0 to 255] . [0 to 255] . [0 to 255] <p><DNS Host Name></p> <ul style="list-style-type: none"> Enter the host name. (up to 255 characters)

C. Port No.

Functions	<ul style="list-style-type: none"> To set the Port No. for transmitting with NTP server.
Use	<ul style="list-style-type: none"> To enter the Port No. for transmitting with NTP server.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the Port number between 1 and 65535.

14.3.8 User Box Oper.

A. Delete User Box

Function/Use	<ul style="list-style-type: none"> To delete the unnecessary box without data.
Setting/ Procedure	<ol style="list-style-type: none"> Enter the Box number (up to nine numerical characters) to be deleted. Press the Menu/Setting key to display the OK to Delete? screen. Press the Menu/Setting key to delete the unnecessary box.

B. Secure Print

(1) Delete Secure Doc.

Function/Use	<ul style="list-style-type: none"> To delete the whole classified documents in the box.
Setting/ Procedure	<ol style="list-style-type: none"> Press the Menu/Setting key to display the OK to Delete? screen. Press the Menu/Setting key to delete the documents.

(2) Auto Delete

Function/Use	<ul style="list-style-type: none"> To set whether or not to delete the confidential documents saved in the box after the lapse of a predetermined period of time, and to set that period of time. 								
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 1 day. <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">12 Hours</td> <td style="width: 25%;">"1 day"</td> <td style="width: 25%;">2 days</td> <td style="width: 25%;">3 days</td> </tr> <tr> <td>7 days</td> <td>30 days</td> <td>Save</td> <td></td> </tr> </table>	12 Hours	"1 day"	2 days	3 days	7 days	30 days	Save	
12 Hours	"1 day"	2 days	3 days						
7 days	30 days	Save							

14.3.9 List Output Mode List

Function/Use	<ul style="list-style-type: none"> The set value list can be printed.
Setting/ Procedure	<ol style="list-style-type: none"> Press the Menu/Setting key to display the OK to Print? screen. Press the Menu/Setting key to print. <p><Simplex/Duplex></p> <ul style="list-style-type: none"> The default setting is 1-Sided.

14.3.10 Call Center

Function/Use	<ul style="list-style-type: none"> To call the CS Remote Care Center from the Administrator, When the CS Remote Care setup is complete.
Setting/ Procedure	<p>For details, see "CS Remote Care." See P.203</p>

C. Security Details

(1) Password Rules

Functions	<ul style="list-style-type: none"> To set whether to apply the Password rules.
Use	<ul style="list-style-type: none"> To apply the password rule to enhance security. Passwords to be covered: Password for CE (Service), Administrator, Box, Classified document, SNMP. Details of the Password Rules: Password except SNMP password shall be 8 digits of one-bite alphanumeric characters. (Case-sensitive) SNMP password shall be 8 to 32 digits of one-bite alphanumeric characters. Password with only the same letter is prohibited. Password same with the one prior to change is prohibited. <p>When the password rule is set to Enable, the password cannot be changed or registered unless it follows the above conditions.</p>
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Disable. <p style="text-align: center;">Enable "Disable"</p> <p>NOTE</p> <ul style="list-style-type: none"> [Disable] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security] [Enable] cannot be selected when the following setting is set to "OFF". [Service Mode] → [Enhanced Security] → [CE Authentication] of the Jig Software [CE Authentication] of the Jig Software will not be displayed when [Password Rules] is set to "Enable".

D. HDD Setting**(1) HDD Password**

Functions	<ul style="list-style-type: none"> To set the Lock Password for the hard disk.
Use	<ul style="list-style-type: none"> To enter the Lock Password for the hard disk.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the password (up to 8 on-byte characters) Reenter the password to confirm, turn main power switch OFF and ON again. <p>NOTE</p> <ul style="list-style-type: none"> Double-byte and identical characters are not acceptable. <ol style="list-style-type: none"> 1. Password : Enter the current HDD Lock password 2. New Password : Enter the new HDD Lock password to be used 3. Retype Password : Reenter the new HDD Lock password 4. Turn off the Main Power Switch and turn it on again more than 10 seconds after.

(2) HDD Formatting

Functions	<ul style="list-style-type: none"> To format the hard disk. The function proceeds in the order of Physical Format to Logical Format. If the hard disk is yet to be formatted, the malfunction code "C-D010" will appear. Ignore this code and continue with the formatting procedure.
Use	<ul style="list-style-type: none"> When the hard disk is mounted. When the hard disk is to be initialized. (Physical Format to Logical Format)
Adjustment Procedure	<ol style="list-style-type: none"> 1. Press the Menu/Setting key to display the Format OK? screen. 2. Press the Menu/Setting key to format the hard disk. 3. Turn off the Main Power Switch and turn it on again more than 10 seconds after.

(3) Overwrite All

- Overwrite All overwrites meaningless data to all areas, in which image data is stored, thereby destroying the structure of the image data.
- Destroying the data structure prevents any data left in the areas from being leaked out even when the HDD is stolen.

Function/Use	<ul style="list-style-type: none"> • To delete the whole data in the hard disk by overwriting.
Use	<ul style="list-style-type: none"> • To use when disposing of the Hard Disk. • Select the overwriting method from Mode 1 through 8. <ul style="list-style-type: none"> Mode 1 : It overwrites 0x00 once. Mode 2 : Overwrites with random numbers → Overwrites with random numbers → Overwrites with 0x00 Mode 3 : Overwrites with 0x00 → Overwrites with 0xff → Overwrites with random numbers → Verifies Mode 4 : Overwrites with random numbers → Overwrites with 0x00 → Overwrites with 0xff Mode 5 : Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff Mode 6 : Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with random numbers Mode 7 : Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0xaa Mode 8 : Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0x00 → Overwrites with 0xff → Overwrites with 0xaa → Verifies
Setting/ Procedure	<ol style="list-style-type: none"> 1. Select the mode of overwriting method. 2. Press the Menu/Setting key on the Check screen. 3. Turn off the Main Power Switch and turn it on again more than 10 seconds after.

(4) Overwrite Temp.

- The image data sent from the PC is temporarily written to the HDD and memory areas.
- Overwrite Temp overwrites meaningless data to the HDD and memory areas, to which image data has been temporarily written, thereby destroying the image data after the completion of the print cycle.

Function	<ul style="list-style-type: none"> • To set whether or not to use Temporary Data Overwrite. • To set overwriting method to use Temporary Data Overwrite function.
Use	<ul style="list-style-type: none"> • To use when making Temporary Data Overwrite function valid. • To change overwriting method to use Temporary Data Overwrite function. <ul style="list-style-type: none"> Mode 1: To overwrite 0x00 one time. Mode 2: Overwrite 0x00 → Overwrite 0xff → Overwrite 0x61 → Validation
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">"OFF" Mode 1 Mode 2</p> <p>NOTE</p> <ul style="list-style-type: none"> • [OFF] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security]

⚠ (5) Priority Setting

- Use of the optional Security Kit (SC-503) prevents important image data from being leaked out, thus achieving security at high level.
- If security at high level is required, it is recommended that the HDD lock password function be used in combination with the Security Kit.

Function	• To set the encryption method when the Security Kit (SC-503) is mounted.
Use	<ul style="list-style-type: none"> • When the optional Security Kit (SC-503) is mounted, either Encryption or Overwrite can also be selected. <p>Encryption: Gives priority to encryption of data to be written by overwrite for the enhanced security.</p> <p>Overwrite: Gives priority to data to be written by overwrite, thereby assuring contents of the data.</p> <p>NOTE:</p> <ul style="list-style-type: none"> • If the setting of Encryption/Overwrite has been changed, HDD Format must be performed.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Encryption. <p style="text-align: center;">“Encryption” Overwrite</p>

⚠ (6) Encryption Key

- It can be set only when the optional Security Kit (SC-503) is mounted.

Functions	• To set Encryption key necessary to mount the optional Security Kit SC-503.
Use	<ul style="list-style-type: none"> • To setup Security Kit SC-503. • To re-set encrypting word due to exchange of NVRAM board or etc. <p>NOTE</p> <ul style="list-style-type: none"> • This setting is available only when the optional Security Kit SC-503 is mounted. • HDD formatting is required after this setting. Therefore it is necessary to retrieve certain data from HDD in advance. The following data will be lost after HDD formatting. * Authentication data : Authentication mode, Account Track setting * Box setting data : Box and text in the box, Setting information of each box * Job history
Setting/ Procedure	<ol style="list-style-type: none"> 1. Enter the Encryption key. (consisting of up to 20 characters) <p>NOTE</p> <ul style="list-style-type: none"> • Double-byte and identical characters are not acceptable. <ol style="list-style-type: none"> 2. Press the Menu/Select key. (Go to step 7 for the initial registration.) 3. If the Encryption Key is changed, enter a new encryption word (consisting of up to 20 characters). 4. Press the Menu/Select key. 5. If the Encryption Key is changed, enter the new encryption word (consisting of up to 20 characters) a second time. 6. Press the Menu/Select key. 7. Turn off the Main Power Switch and turn it on again more than 10 seconds after. 8. Select [Admin. Setting] → [Security Setting] and perform HDD Format. 9. Turn off the Main Power Switch and turn it on again more than 10 seconds after.

14.3.12 OpenAPI

A. Access Setting

Functions	<ul style="list-style-type: none"> To allow or restrict the access from other systems with OpenAPI when using Page Scope Data Administrator.
Use	<ul style="list-style-type: none"> To restrict access from other systems with OpenAPI.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Permit. <p style="text-align: center;">"Permit" Prohibit</p>

B. Port No.

Functions	<ul style="list-style-type: none"> To set the access port for other systems with OpenAPI when using Page Scope Data Administrator.
Use	<ul style="list-style-type: none"> To change the access port number for other systems with OpenAPI.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the port number between 1 and 65535.

C. Port No. (SSL)

Functions	<ul style="list-style-type: none"> To set the access port (SSL) for other systems with OpenAPI when using Page Scope Data Administrator.
Use	<ul style="list-style-type: none"> To change the access port number (SSL) for other systems with OpenAPI.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the port number (SSL) between 1 and 65535.

D. SSL

Functions	<ul style="list-style-type: none"> To set whether to encrypt access from other systems by SSL when using Page Scope Data Administrator.
Use	<ul style="list-style-type: none"> To encrypt access by SSL from other systems using OpenAPI.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p> <p>NOTE</p> <ul style="list-style-type: none"> [OFF] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security]

E. Authentication

Functions	<ul style="list-style-type: none"> To set whether to authenticate access of other systems which uses OpenAPI when using PageScope Data Administrator.
Use	<ul style="list-style-type: none"> To set authentication of the access from other systems using OpenAPI.
Setting/ Procedure	<p><Auth. Setting></p> <ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;">"ON" OFF</p> <p><Login Name></p> <ul style="list-style-type: none"> Enter the Login name. (up to 8 characters) <p><Password></p> <ul style="list-style-type: none"> Enter the Password. (up to 8 characters)

14.3.13 Data Capture



Functions	<ul style="list-style-type: none"> To set whether to allow or restrict capturing the Print Job Data.
Use	<ul style="list-style-type: none"> To be used when carrying out [Tech. Rep. Mode] → [Data Capture].
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Permit. <p style="text-align: center;"> "Permit" Prohibit </p> <p>NOTE</p> <ul style="list-style-type: none"> [Permit] cannot be selected when the following setting is set to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security]

15. Adjustment item list

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Replacement Part/Service Job			No	Replace Paper Take-Up Roller	Replace Paper Separator Roll Assy	Change Paper (1st Drawer) Kind	Change Marketing Area	Install Paper Feed Unit	Replace IU	Replace Image Transfer Belt Unit	
Adjustment/Setting Items			No								
Service Mode	Machine	Printer Area	Print Positioning: Leading Edge	1		<input type="radio"/>					
			Print Positioning: Side Edge	2			<input type="radio"/>				
		LPH Chip Adjust			3						
		LPH Rank (Changes to 1)			4						
	State Confirmation	Memory/HDD Adjust	HDD R/W Check		5						
			HDD Format		6						
		Table Number			7						
	Firmware Version			8							
	System 1, 2	Reentry of Setting Values		9							
		Serial Number		10							
	Counter	Life	Counter Clear		11	<input type="radio"/>	<input type="radio"/>				
		Image Process Adjustment		Gradation Adjust		12				<input type="radio"/>	<input type="radio"/>
Re-entry of Utility settings			13								
Re-entry of Enhanced Security settings			14								
F/W upgrading			15								
Remounting of Parameter Chip (Control Board)			16								
Remounting of NVRAM (MFP Control Board)			17								
Replace Image Transfer Belt Unit			18								

Adjustment / Setting

* This table shows the adjustment items that are required when a part of the machine has been replaced. Priority order, if applicable, during the adjustment procedures is indicated by the corresponding number in the parentheses.

No	Replace Image Transfer Roller Unit	Replace Paper Dust Remover	Replace LPH Assy	Replace LPH Unit	Replace Control Board	Replace MFP Control Board	Replace Image Processing Board	Replace IDC/Registration Sensor/1, 2	Replace Hard Disk	Execute Memory Clear	Execute Add. Option	Execute FW update
1			(3)	(3)								
2			(4)	(4)								
3			(2)	(2)								
4			(1)	(1)								
5								(2)				
6								(1)				
7									(2)			
8											○	○
9									(4)			
10									(3)			
11	○	○										
12												
13									(1)			
14									(5)			
15					(2)	(2)	○					
16					(1)							
17						(1)						
18								○				

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Adjustment / Setting

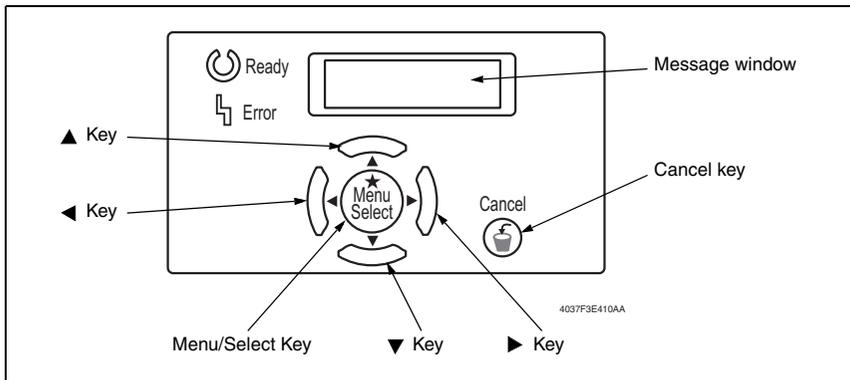
16. TECH. REP. MODE

16.1 Calling the Tech. Rep. Mode to Screen

NOTE

- Ensure appropriate security for Tech. Rep. mode function setting procedures.

16.1.1 Procedure



1. Make sure that the default screen (Ready to print) is being displayed, and press the Menu/Select key on the control panel.
2. Display the Service mode using ▲, ▼ keys.
3. Press ▶ key to open the Password screen.
4. Enter the Password using ▲, ▼, ▶, and ◀ keys.
5. Press the Menu/Select key to set the Password.

NOTE

- When selecting “CE Authentication” under “Enhanced Security” available from Service Mode, authentication by CE (Service) password is necessary. Enter the 8 digits CE (Service) password, and press the Menu/Select key. (The initial setting for CE (Service) password is “92729272.”)
 - ⚠ When the following setting is set to “ON”, CE (Service) password Authentication is necessary.
[Admin. Setting] → [Security Setting] → [Enhanced Security]
 - If a wrong CE (Service) password is entered, re-enter the right password. The machine will not enter Service Mode unless the CE (Service) password is entered correctly. To return to the Basic screen, turn Main Power Switch OFF, and ON again.
 - ⚠ When the following setting is set to “Mode 2”, operation will be prohibited since it indicates Authentication failure by failing to enter the correct CE (Service) Password within the specified number of times. It needs to be cancelled by turning Main-power OFF/ON.
[Admin. Setting] → [Security Setting] → [Security Details] → [Prohibit Func.] → [Prohibit Setting]
 - The CE (Service) password entered is displayed as “*.”
6. Display the Service mode item to be changed using ▲, ▼, ▶, and ◀ keys.
 7. Press the Menu/Select key to set the item to be changed.

16.1.2 Exiting

- Press the "Cancel" key.

16.1.3 Changing the Setting Value in Service Mode Functions

1. Enter the target value using ▲, ▼ keys.
2. Press ► key to shift to the next digit.
3. Enter the target value using ▲, ▼ keys.
4. Repeat the steps 2 and 3 to enter all the necessary items.
5. Press the Menu/Select key to enter the setting.

16.2 Tech. Rep. Mode function tree

*1: Available only when Internet ISW is enabled on the Jig software

*2: Unavailable when Data Capture is prohibited on the utility mode

Tech. Rep. Mode				
Ready to Print				
Job Operation				
Paper Tray				
User Setting				
Admin. Setting (Password)				
Tech. Rep. Mode (Password)	Counter Reset			
	Running Mode			
	Option Board			
	List Output			
	Serial Number			
	Image Controller		Image Controller	
			Peripheral Mode	
	Unit Change			
	LCT Paper Size			
	Initialization			
	Foolscap Size			
	No Sleep			
	Security Setting		Admin. Password	
			Service Password	
	HDD Formatting			
	Version Upgrade		HDD Ver. Upgrade	
			HD Ver. Downgrade	
			Internet ISW *1	
	Data Capture *2			
	Data Backup			
	Software SW		Switch No.	
			Bit Assignment	
			HEX Assignment	
	Comm. System			
	CS Remote Care		System Selection	
			ID Code	
			Detail Set: Mail	
			Center/Device ID	Center ID
				Device ID
			E-Mail Address	
			Data/Time	
		RAM Clear		
		Log Print		

Tech. Rep. Mode						
Tech. Rep. Mode (Password)	CS Remote Care	Detail Set: Mail	Software SW	Switch No.		
				Bit Assignment		
				HEX Assignment		
			Response Timeout			
			Detail Set: Modem	Center/Device ID	Center ID	
					Device ID	
		Center Tel No.				
		Device Tel No.				
		Data/Time				
		Initial Trans.				
		RAM Clear				
		Log Print				
		Software SW		Switch No.	Bit Assignment	
					HEX Assignment	
					Reset Command	
		Server Setting		Server for RX	POP3 Server	
			POP3 Login Name			
			POP3 Password			
			POP3 Port Number			
			Receive Setting	E-Mail Address		
				E-Mail Check		
				Connect Timeout		
				APOP		
			Send Setting	SMTP Server		
SMTP Port Number						
Connect Timeout						
Auth. Setting						
TX/RX Test						
Data Initialize						

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Adjustment / Setting

16.3 Settings in Tech. Rep. Mode

16.3.1 Counter Reset

Functions	<ul style="list-style-type: none"> To check the number of hours or times each of the different maintenance parts has been used. To clear the count of each counter.
Use	<ul style="list-style-type: none"> When each of the maintenance parts is replaced.
Setting/ Procedure	<ul style="list-style-type: none"> To clear the count of a counter, select the specific part and press the Clear key. If a counter is cleared mistakenly, press the Interrupt key, which will undo the clearing operation. It is not possible to clear the count of the counters for the Fusing Unit, Transfer Belt Unit, and IU, which are provided with a new unit detection function. <ul style="list-style-type: none"> ALL : All counters Transfer Roller : Number of times a sheet of paper is fed through Ozone Filter : Number of times a sheet of paper is fed through Tray 1 : Number of sheets of paper fed from Tray 1 Tray 2 : Number of sheets of paper fed from Tray 2 Tray 3 : Number of sheets of paper fed from Tray 3 Tray 4 : Number of sheets of paper fed from Tray 4 Bypass : Number of sheets of paper fed from the Bypass LCT : Number of sheets of paper fed from LCT Finisher : Number of sheets of paper fed out of the Finisher

16.3.2 Running Mode

Functions	<ul style="list-style-type: none"> To test the printing operation in Running Mode.
Use	<ul style="list-style-type: none"> Use to check the printing operation in Running Mode from each paper source.
Setting/ Procedure	<ol style="list-style-type: none"> Display the Running Mode and click the Menu/Select key. Select the position for paper feed and click the Menu/Select key. Select the paper size and paper type. Press the Men/Select key to start the Running Mode. Pressing the Cancel key will stop operation.

16.3.3 Option Board

Functions	<ul style="list-style-type: none"> To set when the Optional HDD Kit, Local Interface Kit is mounted. 						
Use	<ul style="list-style-type: none"> Use when setting up the HDD Kit, Local Interface Kit is mounted. 						
Setting/ Procedure	<ul style="list-style-type: none"> Setting modes are HDD and local I/F. The default setting is "Unset." <table> <tr> <td>local I/F</td> <td>: Set</td> <td>"Unset"</td> </tr> <tr> <td>HDD</td> <td>: Set</td> <td>"Unset"</td> </tr> </table> <p>NOTE</p> <ul style="list-style-type: none"> When the setting has been changed, turn OFF and ON the Main Power Switch. 	local I/F	: Set	"Unset"	HDD	: Set	"Unset"
local I/F	: Set	"Unset"					
HDD	: Set	"Unset"					

16.3.4 List Output

A. Machine Management List

Functions	<ul style="list-style-type: none"> To produce an output of a list of setting values, adjustment values, Total Counter values, and others.
Use	<ul style="list-style-type: none"> At the end of setup or when a malfunction occurs.
⚠ Setting/ Procedure	<p><Selecting Report></p> <ul style="list-style-type: none"> Load the A4S plain paper to a paper source. Select the type of list to be printed. Data printed is in English (alphanumeric characters). The time-of-day and date will also be printed. <p><Simplex/Duplex></p> <ul style="list-style-type: none"> The default setting is 1-Sided.

B. Adjustment List

Functions	<ul style="list-style-type: none"> To output the adjustment list for machine adjustment, process adjustment, etc. in Service Mode.
Use	<ul style="list-style-type: none"> At the end of setup or when a malfunction occurs.
Setting/ Procedure	<p><Selecting Report></p> <ul style="list-style-type: none"> Load the A4S plain paper to a paper source. Press the Menu/Select key, which will let the machine produce the list. Data printed is in English (alphanumeric characters). The time-of-day and date will also be printed. <p><Simplex/Duplex></p> <ul style="list-style-type: none"> The default setting is 1-Sided.

16.3.5 Serial Number

Functions	<ul style="list-style-type: none"> To register the serial numbers of the machine and options. The numbers will be printed on the list output.
Use	<ul style="list-style-type: none"> Upon setup.
Setting/ Procedure	<ul style="list-style-type: none"> Type the serial numbers. 9 digits (0 to 9)

16.3.6 Image Controller

Functions	<ul style="list-style-type: none"> To set the type of the controller. "Peripheral Mode" appears when "Others" is selected.
Use	<ul style="list-style-type: none"> When setting up the controller.
Setting/ Procedure	<p>Image Controller</p> <ul style="list-style-type: none"> Select the controller to be used. <ul style="list-style-type: none"> "Controller 0" : The standard controller is used. Controller 1 : Not use Controller 2 : Not use Controller 3 : Not use Others : Not use <p>See the Setup Instructions for the Controller.</p> <p>Peripheral Mode</p> <ul style="list-style-type: none"> Select the operating mode of the other. <ul style="list-style-type: none"> Mode 1: Not use Mode 2: Not use Mode 3: Not use <p>NOTE</p> <ul style="list-style-type: none"> Do not change the setting.

16.3.7 Unit Change

Functions	<ul style="list-style-type: none"> To select who is to replace a unit. When the unit life arrives, the warning display is intended for the specific person who is going to replace the unit. <ul style="list-style-type: none"> When "User" is selected : Copying is inhibited. When "Service" is selected : Life warning. 															
Use	<ul style="list-style-type: none"> Upon setup 															
Setting/ Procedure	<ul style="list-style-type: none"> The following are the default settings: <table style="margin-left: 40px;"> <tr> <td></td> <td>US, Japan, Others 4</td> <td>Europe, Others 1/2/3</td> </tr> <tr> <td>Toner Cartridge</td> <td>: "User" Service</td> <td>"User" Service</td> </tr> <tr> <td>Imaging Unit</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> <tr> <td>Waste Toner</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> <tr> <td>Punch Dust Box</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> </table>		US, Japan, Others 4	Europe, Others 1/2/3	Toner Cartridge	: "User" Service	"User" Service	Imaging Unit	: User "Service"	"User" Service	Waste Toner	: User "Service"	"User" Service	Punch Dust Box	: User "Service"	"User" Service
	US, Japan, Others 4	Europe, Others 1/2/3														
Toner Cartridge	: "User" Service	"User" Service														
Imaging Unit	: User "Service"	"User" Service														
Waste Toner	: User "Service"	"User" Service														
Punch Dust Box	: User "Service"	"User" Service														

16.3.8 LCT Paper Size

Functions	<ul style="list-style-type: none"> To set the paper size for the LCT. 		
Use	<ul style="list-style-type: none"> Use to change the paper size for the LCT. 		
Setting/ Procedure	<p>The default setting depends on the setting made for the applicable marketing area.</p> <table style="margin-left: 40px;"> <tr> <td>"A4"</td> <td>8 1/2 × 11</td> </tr> </table>	"A4"	8 1/2 × 11
"A4"	8 1/2 × 11		

△ 16.3.12 Security Setting

A. Admin. Password

Functions	<ul style="list-style-type: none"> To set and change the Administrator Password.
Use	<ul style="list-style-type: none"> Use to change the Administrator Password. Use this function when the administrator forget the Administrator Password because a new password can be set without entering the current Administrator Password with this.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the Administrator Password (8 digits) on the on-screen keyboard. The initial setting is "12345678." <p style="margin-left: 40px;">New Password : Enter the new Administrator Password. Retype Password : Enter the new Administrator Password again.</p> <p>NOTE</p> <ul style="list-style-type: none"> When the following setting leads to the Password Rules "Enable", the password with the same letters as well as the password which is same as the previous one cannot be changed. [Admin. Setting] → [Security Setting]

B. Service Password

Functions	<ul style="list-style-type: none"> To set and change the Service Password.
Use	<ul style="list-style-type: none"> Use to change the Service Password.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the Service Password (8 digits) on the on-screen keyboard. The initial setting is "92729272." <p style="margin-left: 40px;">Password : Enter the currently using Service Password. New Password : Enter the new Service Password. Retype Password : Enter the new Service Password again.</p> <p>NOTE</p> <ul style="list-style-type: none"> When the following setting leads to the Password Rules "Enable", the password with the same letters as well as the password which is same as the previous one cannot be changed. [Admin. Setting] → [Security Setting] NEVER forget the Service password. When forgetting the Service password, call responsible person of KONICA MINOLTA.

16.3.13 HDD Formatting

Functions	<ul style="list-style-type: none"> • To format the hard disk • The function proceeds in the order of Physical Format to Logical Format. • If the hard disk is yet to be formatted, the trouble code "C-D010" will appear. Ignore this code and continue with the formatting procedure.
Use	<ul style="list-style-type: none"> • When the hard disk is mounted. • When the hard disk is to be initialized. (Physical Format to Logical Format)
Adjustment Procedure	<p>Physical Format</p> <ol style="list-style-type: none"> 1. Select the Physical Format. 2. Press the Menu/Select key to start the formatting sequence. 3. The sequence will be automatically terminated as it is completed. 4. Turn OFF and ON the Main Power Switch. <p>Logical Format (Only when initial is set up)</p> <ol style="list-style-type: none"> 1. Select the Logical Format. 2. Press the Menu/Select key to start the formatting sequence. 3. The sequence will be automatically terminated as it is completed. 4. Turn OFF and ON the Main Power Switch. <p>* Formatting the hard disk will erase all data contained in it.</p>

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Adjustment / Setting

16.3.14 Version Upgrade

A. HDD Ver. Upgrade

Functions	<ul style="list-style-type: none"> To upgrade Administration data (Document management information, Address information, etc.) other than image data in HDD.
Use	<ul style="list-style-type: none"> To use when updating Firmware Card from Ver. 69 or earlier to 7A or later. <ul style="list-style-type: none"> * "MFP Controller" is the only Firmware which can be upgraded. When the Firmware Card Ver. 69 or earlier is upgraded to the Ver. 7A or later, the Printer cannot be used unless HDD version is upgraded. <p>NOTE</p> <ul style="list-style-type: none"> When the Firmware version is modified to the version 7A or earlier after HDD version is upgraded, turn Main-power OFF/ON, and conduct HDD ethics format.
Adjustment Procedure	<ol style="list-style-type: none"> Select the HDD Format. Press the Menu/Select key to start upgrading the version. When upgrading the version is complete, the outcome will be displayed on the screen. <p>NOTE</p> <ul style="list-style-type: none"> Make sure to turn Main-power of the Printer OFF when upgrading is complete, and wait for ten seconds to turn power back ON.

B. HD Ver. Downgrade

Functions	<ul style="list-style-type: none"> Not Used.
Use	
Adjustment Procedure	

C. Internet ISW

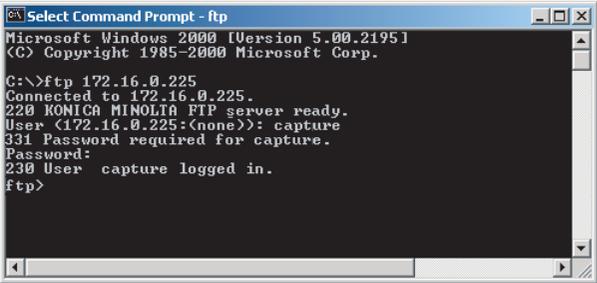
- By using this setting, the Firmware stored in the Server can be downloaded over internet for upgrading.
- For details for upgrading the Firmware, refer to "Firmware upgrade" in the Maintenance section.

NOTE

- To start Internet ISW from the control panel, it is first necessary to set the Internet ISW on the Jig software side.**

Functions	<ul style="list-style-type: none"> To access the program server according to the settings made in Internet ISW, thereby downloading the firmware.
Use	<ul style="list-style-type: none"> When upgrading the firmware over the network.
Adjustment Procedure	<ol style="list-style-type: none"> Select the Internet ISW. Press the Menu/Select key to start downloading the firmware. The message "Please wait" appears on the screen during connection and data transfer. When upgrading of the firmware is normally terminated, the machine is restarted to complete Internet ISW. <p>NOTE</p> <ul style="list-style-type: none"> If connection to the program server or downloading of data fails, refer to "Firmware upgrade" of "Maintenance" and take necessary action.

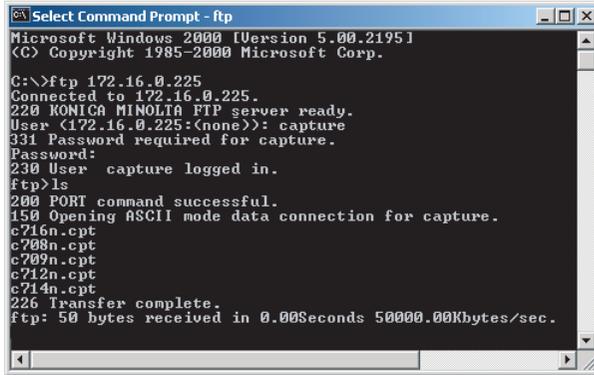
16.3.15 Data Capture

Functions	<ul style="list-style-type: none"> When an error occurs, it acquires the print job data in order to analyze the cause of the error.
Use	<ul style="list-style-type: none"> When an error occurs, this will be used to analyze the cause of the error according to the print job data.
Setting/ Procedure	<p>NOTE</p> <ul style="list-style-type: none"> The following conditions are necessary for this function. When selecting [Data Capture] in Administrator Setting, "Permit" must be set. The hard disk must be mounted to the machine. <ol style="list-style-type: none"> Select [Admin. Setting] → [Data Capture]. Select "ON." (While the Data Capture setting is "ON", the print job data from the PC will be stored in the hard disk.) Check the IP address of the machine. Connect the PC (Windows) and the machine with Ethernet cable. Start the DOS command prompt of the PC, and specify the IP address of the machine.  <p style="text-align: right;">4037F3E538DA</p> <ol style="list-style-type: none"> Input the user name and the password. User name: capture Password: sysadm  <p style="text-align: right;">4037F3E539DA</p>

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6. Using the "ls" command, display the list of the file available for capture.



```

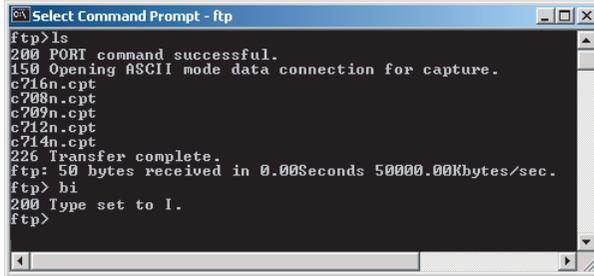
Select Command Prompt - ftp
Microsoft Windows [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\>ftp 172.16.0.225
Connected to 172.16.0.225.
220 KOMICA MINOLTA FTP server ready.
User (172.16.0.225:(none>): capture
331 Password required for capture.
Password:
230 User capture logged in.
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.

```

4037F3E540DA

7. Using the "binary" command, set the File transfer mode to the binary transfer.



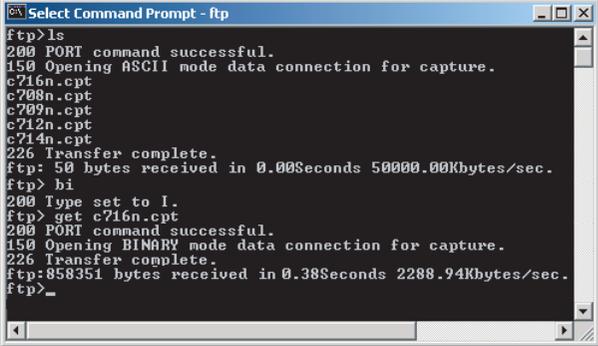
```

Select Command Prompt - ftp
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.
ftp> binary
200 Type set to I.
ftp>

```

4037F3E541DA

8. Using the “get” command, transfer the data for capture to PC.



```
GA Select Command Prompt - ftp
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.
ftp> hi
200 Type set to I.
ftp> get c716n.cpt
200 PORT command successful.
150 Opening BINARY mode data connection for capture.
226 Transfer complete.
ftp:858351 bytes received in 0.38Seconds 2288.94Kbytes/sec.
ftp>_
```

4037F3E542DA

9. Finish the command prompt.

NOTE

- After receiving capture data, select [Admin. Setting] → [Data Capture], and select “Prohibit” for Print Data Capture in order to delete the job data stored in the hard disk.

16.3.16 Data Backup

Functions	<ul style="list-style-type: none"> To backup nonvolatile data (data stored in NVRAM) in the Printer to the Flash memory.
Use	<ul style="list-style-type: none"> To backup current data in order to prevent data in NVRAM from being erased unexpectedly. To backup data manually. It usually makes backup every hour automatically. Backup data can be restored by following the specified procedure when the trouble (CD3##) occurred. <p>Refer to "Troubleshooting" for details on restoration procedure. See P.360</p>
Setting/ Procedure	<ol style="list-style-type: none"> Select the Data Backup. Press the Menu/Select key to start making a backup. Check the message [OK], and turn Main power OFF. Wait for ten seconds or more and turn power back ON.

16.3.17 Software SW

Functions	<ul style="list-style-type: none"> Not Used
Use	
Setting/ Procedure	

16.3.18 Comm. System

Functions	<ul style="list-style-type: none"> To select communication system used for RS-232C port. 																				
Use	<ul style="list-style-type: none"> To switch RS-232C port in order to connect with the CS remote care modem or the JScribe- enabled-device. Communication requirements for each setting are shown below. <table border="1"> <thead> <tr> <th></th> <th>CS Remote Care</th> <th>JScribe1</th> <th>JScribe2</th> </tr> </thead> <tbody> <tr> <td>Baud rate</td> <td>9,600 bps</td> <td>19,200 bps</td> <td>19,200 bps</td> </tr> <tr> <td>Data bit</td> <td>8 bit</td> <td>7 bit</td> <td>8 bit</td> </tr> <tr> <td>Parity bit</td> <td>None</td> <td>Odd</td> <td>None</td> </tr> <tr> <td>Stop bit</td> <td>1 bit</td> <td>1 bit</td> <td>1 bit</td> </tr> </tbody> </table> <p>NOTE</p> <ul style="list-style-type: none"> If connecting the machine to the JScribe-enabled-device, the optional Expanded Memory (EM-306) needs to be mounted. 		CS Remote Care	JScribe1	JScribe2	Baud rate	9,600 bps	19,200 bps	19,200 bps	Data bit	8 bit	7 bit	8 bit	Parity bit	None	Odd	None	Stop bit	1 bit	1 bit	1 bit
	CS Remote Care	JScribe1	JScribe2																		
Baud rate	9,600 bps	19,200 bps	19,200 bps																		
Data bit	8 bit	7 bit	8 bit																		
Parity bit	None	Odd	None																		
Stop bit	1 bit	1 bit	1 bit																		
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is CS Remote Care. <p style="text-align: center;"> "CS Remote Care" JScribe1 JScribe2 </p>																				

16.4 Settings in CS Remote Care

16.4.1 Outlines

- CS Remote Care is a system of controlling the machine, in which the machine and the CS Remote Care center computer send and receive data of various types for machine control via the telephone line or e-mail.
- CS Remote Care enables the machine to call the computer at the center when trouble occurs. It also enables the computer at the center to contact the machine for the necessary data.
- Data which CS Remote Care handles can be divided into the following groups.
 - a. Data which show the status of use of the machine such as Total count, PM count.
 - b. Data which show the abnormal situation on the machine such as where and how often errors occur.
 - c. Data on adjustment
 - d. Data on setting

NOTE

- **It cannot be set when the following setting is set to "ON".**
[Admin. Setting] → [Security Setting] → [Enhanced Security]

16.4.2 Setting Up the CS Remote Care

NOTE

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

See P.213

- **When using the telephone line for connection, use the recommended modem.**
(For recommended modem, contact responsible person of KONICA MINOLTA.)

Step	Procedure	
	Using the telephone line modem	Using E-mail
0	Register the device ID to the application at CS Remote Care Center. The initial connection is not available unless the device ID is registered.	
1	Connecting the modem Turn the power for the modem OFF. Connect the machine and the modem with a modem cable. Connect the modem and the wall jack with a modular cable. * For connecting the modular cable, see the manual for the modem.	Be sure to remove the telephone line modem when e-mail is used.
2	Selecting the CS Remote Care function CS Remote Care → System Selection, and select the Modem.	Selecting the CS Remote Care function CS Remote Care → System Selection, and select the E-Mail.
3	Inputting the ID Code 1. Select the CS Remote Care → System Selection → ID Code 2. Input the seven digits ID of the service person, and press Menu/Select key. See P.212	

Step	Procedure	
	Using the telephone line modem	Using E-mail
4	Clearing the RAM 1. Select CS Remote Care → ID Code → Detail Set: Modem 2. Select the RAM Clear, and press the Menu/Select key. 3. Press the Menu/Select key. See P.213 NOTE <ul style="list-style-type: none"> • When the detail setting key is not displayed, proceed to step 5 without clearing the RAM. 	
5	Setting the date and time for CS Remote Care 1. Select the Detail Set: *** → Date/Time. (***: modem or e-mail) 2. Press the Menu/Select key. 3. Input the Date, Time, Time zone, and press Menu/Select key. See P.212	
6	Setting the Center ID 1. Select the Detail Set: *** → Center/Device ID. (***: modem or e-mail) 2. Input the Center ID (5 digits) See P.212	
7	Setting the Device ID 1. Select the Detail Set: *** → Center/Device ID. (***: modem or e-mail) 2. Input the Center ID (9 digits) See P.212	
8	Setting the telephone number of the Center 1. Select the CS Remote Care → Detail Set: Modem → Center Tel No. 2. Input the telephone number of the Center See P.212	Setting the E-mail address 1. Select the Detail Set: E-mail → E-Mail Address. 2. Input the e-mail address of the remote destination. See P.212
9	Inputting the Device telephone number 1. Select the CS Remote Care → Detail Set: Modem → Device Tel No. 2. Input the Device telephone number See P.212	Setting the Response Timeout 1. Select the Detail Set: E-mail → Response Timeout. 2. Input the response timeout period. NOTE <ul style="list-style-type: none"> • Normally, leave it as the default setting. See P.213
10	Inputting the AT command for initializing the modem 1. Select the CS Remote Care → Detail Set: Modem → Initial Trans. 2. Input AT Command. NOTE <ul style="list-style-type: none"> • Change this Command only when it is necessary. (They do not need to be changed in normal condition.) • For details on AT Command, see the manual for the modem. See P.213	Setting the E-mail address 1. Select the Server Setting. See P.214 2. Select the Server for RX, and set POP3 server address, POP3 Login name, POP3 password and POP3 port number. 3. Select the Receive Setting, and set the E-Mail address, Mail Check, Connection Time Out and APOP Authentication. 4. Select the Send Setting, and set the SMTP server address, SMTP port number, Connection Time Out, and APOP Authentication. 5. Select the TX/RX Test, and press Start key to carry out a transmission/reception test. If it fails to exchange messages, see the error message to take necessary measure, and try again.

Step	Procedure	
	Using the telephone line modem	Using E-mail
11	Setting the DIPSW for CS Remote Care NOTE <ul style="list-style-type: none"> • This setting is not normally necessary. Take this step only when necessary in a specific connecting condition. 	
12	Executing the initial transmission 1. Select the CS Remote Care → Detail Set: Modem → Initial Trans. 2. Press the Menu/Select key of the screen to start initial transmission. 3. When the machine is properly connected with the Center, CS Remote Care setting screen will be displayed. NOTE <ul style="list-style-type: none"> • The initial transmission key at the right bottom of the screen will be displayed only when the Center ID, the Device ID, Telephone number of the Center and the Device telephone number have been input. See P.212	Receiving the initial connection E-mail message Sending the initial connection E-mail message from the Center to the address of the Printer. NOTE <ul style="list-style-type: none"> • When receiving the initial connection E-mail message from the Center while CS Remote Care-related screen is being displayed, the current setting information will be deleted, and CS Remote Care setting will be displayed. • For sending the initial connection E-mail, see the manual for CS Remote Care Center. • Messages can be exchanged only between the Center with initial connection and the Printer. • The initial connection from the Center will be carried out, and the E-mail address of the Center will be stored in the Printer. • The Center e-mail address is displayed under E-Mail Address.

16.4.3 Software SW setting for CS Remote Care

NOTE

- SW bits data are written into the NVRAM every time a change is made. In case you changed bit data by accident, be sure to restore the previous state.

A. Input procedure

1. Select [Tech. Rep. Mode] → [CS Remote Care] → [Detail Setting: ***], and click [Software Switch Setting]. (***: modem or e-mail)
2. Click [Switch No.], and input the SW number (two digits) using the 10-Key Pad.
3. Click [Bit Assignment], and select SW bit number using the arrow keys, and input 0 or 1 using the 10-Key Pad.
(For setting by hexadecimal numbers, click [HEX Assignment], and input using the 1-Key Pad or A to F keys.)
4. Press the Menu/Select key.

NOTE

- About functions of each switch, see to “B.List of software SW for CS Remote Care.”

B. List of software SW for CS Remote Care

NOTE

- Do not change any bit not described on this table.

SW No.	Bit	Functions	0	1	Default
SW 01	0	Dial Mode	Pulse	Tone	1
	1	Reservation	—	—	0
	2	Reservation	—	—	0
	3	Reservation	—	—	0
	4	Baud rate	*1	*1	0
	5		*1	*1	0
	6		*1	*1	0
7	*1		*1	1	
SW 02	0	Auto call on SC occurrence	Do not call	Call	1
	1	Auto call on date specification	Do not call	Call	1
	2	Reservation	—	—	0
	3	Reservation	—	—	0
	4	Reservation	—	—	0
	5	Auto call on the IC Life	Do not call	Call	1
	6	Auto call on CCD Clamp/Gain Adjustment failure	Do not call	Call	1
7	Reservation	—	—	0	
SW 03	0	Reservation	—	—	0
	1	Auto call on the toner supply	Do not call	Call	1
	2	Reservation	—	—	0
	3	Auto call on the waste toner bottle full	Do not call	Call	1
4 to 7	Reservation	—	—	0	
SW 04	0 to 7	Reservation	—	—	0

SW No.	Bit	Functions	0	1	Default
SW 05	0	Modem redial interval	*2	*2	1
	1		*2	*2	1
	2		*2	*2	0
	3		*2	*2	0
	4 to 7	Reservation	—	—	0
SW 06	0	Modem redial times	*3	*3	0
	1		*3	*3	1
	2		*3	*3	0
	3		*3	*3	1
	4		*3	*3	0
	5		*3	*3	0
	6		*3	*3	0
	7	Reservation	—	—	0
SW 07	0	Redial for response time out	Do not redial	Redial	1
	1 to 7	Reserved	—	—	0
SW 08	0	Retransmission interval on E-Mail delivery error	*4	*4	0
	1		*4	*4	1
	2		*4	*4	1
	3		*4	*4	0
	4 to 7	Reservation	—	—	0
SW 09	0	Retransmission times on E-Mail delivery error	*5	*5	0
	1		*5	*5	1
	2		*5	*5	0
	3		*5	*5	1
	4		*5	*5	0
	5		*5	*5	0
	6		*5	*5	0
	7	Reservation	—	—	0
SW 10	0 to 7	Reservation	—	—	0
SW 11	0	Timer 1	*6	*6	0
	1	RING reception → CONNECT reception	*6	*6	0
	2		*6	*6	0
	3		*6	*6	0
	4		*6	*6	0
	5		*6	*6	1
	6		*6	*6	0
	7		*6	*6	0

SW No.	Bit	Functions	0	1	Default
SW 12	0	Timer 2 Dial request completed → CONNECT reception	*7	*7	0
	1		*7	*7	0
	2		*7	*7	0
	3		*7	*7	0
	4		*7	*7	0
	5		*7	*7	0
	6		*7	*7	1
	7		*7	*7	0
SW 13	0 to 7	Reservation	—	—	0
SW 14	0	Timer 4 Line connection → Start request telegram delivery	*8	*8	0
	1		*8	*8	0
	2		*8	*8	0
	3		*8	*8	0
	4		*8	*8	0
	5		*8	*8	1
	6		*8	*8	0
	7		*8	*8	0
SW 15	0	Timer 5 Wait time for other side's response	*9	*9	0
	1		*9	*9	1
	2		*9	*9	1
	3		*9	*9	1
	4		*9	*9	1
	5		*9	*9	0
	6		*9	*9	0
	7		*9	*9	0
SW 16	0 to 7	Reservation	—	—	0
SW 17	0 to 7	Reservation	—	—	0
SW 18	0	Attention display To set weather to give the alarm display when using the modem but the power for the modem is OFF.	Do not call	Call	1
	1 to 7	Reservation	—	—	0
SW 19 to SW 40	0 to 7	Reservation	—	—	0



*1: Baud rate

Mode	01-7	01-6	01-5	01-4
9600 bps	0	1	1	0
19200 bps	0	1	1	1
"38400 bps"	1	0	0	0

*2: Modem redial interval

Mode	05-3	05-2	05-1	05-0
1 minute	0	0	0	1
2 minutes	0	0	1	0
"3 minutes"	0	0	1	1
4 minutes	0	1	0	0
5 minutes	0	1	0	1
6 minutes	0	1	1	0
7 minutes	0	1	1	1
8 minutes	1	0	0	0
9 minutes	1	0	0	1
10 minutes	1	0	1	0

*3: Modem redial times

Mode	06-6	06-5	06-4	06-3	06-2	06-1	06-0
0 to 9 times	000 0000 to 000 1001						
"10 times"	0	0	0	1	0	1	0
11 to 99 times	000 1011 to 110 0011						

*4: Retransmission interval on E-Mail delivery error

Mode	08-3	08-2	08-1	08-0
0 minute	0	0	0	0
10 minutes	0	0	0	1
20 minutes	0	0	1	0
30 minutes	0	0	1	1
40 minutes	0	1	0	0
50 minutes	0	1	0	1
"60 minutes"	0	1	1	0
70 minutes	0	1	1	1
80 minutes	1	0	0	0
90 minutes	1	0	0	1
100 minutes	1	0	1	0
110 minutes	1	0	1	1
120 minutes	1	1	0	0

*5: Retransmission times on E-Mail delivery error

Mode	09-6	09-5	09-4	09-3	09-2	09-1	09-0
0 to 9 times	000 0000 to 000 1001						
"10 times"	0	0	0	1	0	1	0
11 to 99 times	000 1011 to 110 0011						

*6: Timer 1 (RING reception → CONNECT reception)

Mode	11-7	11-6	11-5	11-4	11-3	11-2	11-1	11-0
0 to 31 sec	0000 0000 to 0001 1111							
"32 sec"	0	0	1	0	0	0	0	0
33 to 255 sec	0010 0001 to 1111 1111							

*7: Timer 2 (Dial request completed → CONNECT reception)

Mode	12-7	12-6	12-5	12-4	12-3	12-2	12-1	12-0
0 to 63 sec	0000 0000 to 0011 1111							
"64 sec"	0	1	0	0	0	0	0	0
65 to 255 sec	0100 0001 to 1111 1111							

*8: Timer 4 (Line connection → Start request telegram delivery)

Mode	14-7	14-6	14-5	14-4	14-3	14-2	14-1	14-0
0 to 31 (x 100 msec)	0000 0000 to 0001 1111							
"32 (x 100 msec)"	0	0	1	0	0	0	0	0
33 to 255 (x 100 msec)	0010 0001 to 1111 1111							

*9: Timer 5 (Wait time for other side's response)

Mode	15-7	15-6	15-5	15-4	15-3	15-2	15-1	15-0
0 to 29 sec	0000 0000 to 0001 1101							
"30 sec"	0	0	0	1	1	1	1	0
31 to 255 sec	0001 1111 to 1111 1111							

16.4.4 Setup confirmation

- **Follow the steps below to make sure that CS Remote Care has been properly set up.**
 1. Call the Service Mode to the screen.
 2. Select the CS Remote Care.
 3. Check to make sure that only selected item is displayed.

16.4.5 Calling the Maintenance

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

A. When starting the Maintenance

1. Select the CS Remote Care.
2. Select the ID Code, and input ID Code.
3. Press the Menu/Select key.

* The ready to print LED remains blinking until Maintenance is completed.

B. When finishing the Maintenance

1. Select the CS Remote Care.
2. Select the Mainte. Complete, and press the Menu/Select key.

16.4.6 Calling the Center from the Administrator

- When the CS Remote Care setup is complete, the administrator can call the CS Remote Care center.
 1. Select the Admin. Setting → Call Center.
 2. Press the Menu/Select key.
When the setup is not complete, or other transmission is being performed, pressing the Menu/Select key will not perform transmission.

NOTE

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

16.4.7 Checking the transmission log

- The transmission log list will be output to be checked.
 1. Select the CS Remote Care → Detail Set: Modem → Log Print.
 2. Load Tray 1 or Bypass Tray with A4S paper.
 3. Press the Menu/Select key to output transmission log.

16.4.8 Detail on settings

A. System Selection

Functions	<ul style="list-style-type: none"> To select the system type for remote diagnosis.
Use	<ul style="list-style-type: none"> Use to newly build or change the system.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is E-Mail. <p style="text-align: center;">"E-Mail" Modem</p>

B. ID Code

Functions	<ul style="list-style-type: none"> To register the Service ID.
Use	<ul style="list-style-type: none"> Use when registering and changing Service ID.
Setting/ Procedure	<ol style="list-style-type: none"> Enter a 7-digit code. (0000001 to 9999999) Press the Menu/Select key to register the ID. The "Detail Setting" key will appear when the ID has been registered.

C. Detail Set: E-Mail/Modem

(1) Machine Setting

Functions	<ul style="list-style-type: none"> Execute the primary setting.
Use	<ul style="list-style-type: none"> Use to change the set contents. Use to register the machine to the CS Remote Care Center.
Setting/ Procedure	<ol style="list-style-type: none"> Select the CS Remote Care → ID Code. Input the ID Code, and press the Menu/Select key. Select the Detail Set: Modem or the Detail Set: E-Mail, and press the Menu/Select key. <p>Primary Setting</p> <ul style="list-style-type: none"> Set the Center ID, Device ID, and the phone No. When e-mail is selected for system and all setup procedures are completed, E-mail address of the Center is displayed. <p>* When entering the phone No, 10-Keys and keys on the screen have following meanings.</p> <p style="margin-left: 20px;">[-] Pose : Waits to start transmitting after dialing [W] Wait : Detects the dial tone of the other end [T] Tone dial : Carry out tone dialing [P] Pulse dial : Carry out pulse dialing [*],[#] : To be used as necessary</p> <p>Initial Transmission</p> <ul style="list-style-type: none"> Clicking the Initial Transmission key will sent the information to the CS Remote Care Center to register the machine. (Only when the Modem or Fax is selected on the system Input.)

(2) Data/Time

Functions	<ul style="list-style-type: none"> To set the data and time-of-day
Use	<ul style="list-style-type: none"> Use to set or change the date and time-of-day.
Setting/ Procedure	<ol style="list-style-type: none"> Enter the date (month, day and year). Enter the time-of-day. Enter the time zone. Press the Menu/Select key to start the clock.



(3) RAM Clear



Functions	<ul style="list-style-type: none"> To clear the following data at the Center ID Code, Primary Setting, Date/Time Input, and Common DT.
Use	<ul style="list-style-type: none"> To be used for setting CS Remote Care. To be used for reset the every data of the Center to default. <p>NOTE</p> <ul style="list-style-type: none"> Perform RAM Clear when setting the following setting to "ON". [Admin. Setting] → [Security Setting] → [Enhanced Security]
Setting/ Procedure	<ul style="list-style-type: none"> Press the Menu/Select key to start RAM Clear.

(4) Log Print



Functions	<ul style="list-style-type: none"> To print out the Communication Log.
Use	<ul style="list-style-type: none"> Use to output and use the Communication Log.
Setting/ Procedure	<ul style="list-style-type: none"> Press the Menu/Select key to print out the Communication Log. Load Tray 1 or Bypass Tray with A4S paper. <p><Simplex/Duplex></p> <ul style="list-style-type: none"> The default setting is 1-Sided.

(5) Software SW

Functions	<ul style="list-style-type: none"> To change the CS Remote Care settings.
Use	<ul style="list-style-type: none"> To change the settings for CS Remote Care as necessary.
Setting/ Procedure	<p>See P.206</p>

(6) Response Time Out

Functions	<ul style="list-style-type: none"> It sets the intervals for resending E-Mails when transmission error occurred. It can be set only when [E-Mail] is selected by System Setting.
Use	<ul style="list-style-type: none"> To use when changing the intervals for resending E-Mails when transmission error occurred.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 60 minute. <p style="text-align: right;">"60 minute" (10 to 1440)</p>

(7) Reset Command

Functions	<ul style="list-style-type: none"> To set the command to be issued at the time of Modem Initialization. This setting is available only when "Modem" is selected for the system setting.
Use	<ul style="list-style-type: none"> To set the command to be issued at the time of Modem Initialization.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the command and Press the Menu/Select key to register.

D. Server Setting

- Server Setting can be set only when [E-Mail] is selected by System Setting.

(1) Server for RX

⚠ <POP3 server>

Functions	<ul style="list-style-type: none"> • To set the POP3 server address used for the CS Remote Care.
Use	<ul style="list-style-type: none"> • To set the address of the POP3 Server.
Setting/ Procedure	<Input IP Address> <ul style="list-style-type: none"> • IP Address Version 4 format [0 to 255].[0 to 255].[0 to 255].[0 to 255]

<POP3 login name>

Functions	<ul style="list-style-type: none"> • To set the logon name for the POP3 server used for the CS Remote Care.
Use	<ul style="list-style-type: none"> • To set the logon name for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is No. • Up to 64 characters (alphanumeric characters and symbols) can be used.

<POP3 password>

Functions	<ul style="list-style-type: none"> • To set the logon password for the POP3 server used for the CS Remote Care.
Use	<ul style="list-style-type: none"> • To set the logon password for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is No. • Up to 15 characters (alphanumeric characters and symbols) can be used.

<POP3 port number>

Functions	<ul style="list-style-type: none"> • To set the POP3 port number used for the CS Remote Care.
Use	<ul style="list-style-type: none"> • To set the port number for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is 110. <p style="text-align: right;">"110" (1 to 65535)</p>

16.4.9 List of the CS Remote Care error code**NOTE**

- **Error codes in the shaded region may occur when transmitting from the machine to the center.**

△	Error code	Error	Solution
	0001	The line is busy (Busy detection)	<ul style="list-style-type: none"> • Transmit again manually.
	0002	Failure of the Modem default setting at transmitting (When the transmission completes with modem initial setting failed)	<ul style="list-style-type: none"> • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
	0003	Timeout of CONNECT at transmitting (No response to ATD)	<ul style="list-style-type: none"> • Transmit again manually • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
	0004	Timeout of Incoming request response (No response to incoming (starting) request MSG)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
	0005	Timeout of CONNECT at receiving (No response to ATA)	<ul style="list-style-type: none"> • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
	0006	Shut down of the data modem line (Host) (Carrier OFF is detected)	<ul style="list-style-type: none"> • No solution, because the line is shut down at the host side.
	0007	Shut down of the data modem line (Main unit) (Line is shut down forcibly due to event)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
	0008	Timeout of start request telegram delivery (Start request telegram is not delivered after line connection)	<ul style="list-style-type: none"> • Transmit again manually.
	0009	Timeout of finish request telegram delivery (Finish request telegram is not delivered (Start of shut down).)	<ul style="list-style-type: none"> • Transmit again manually.
	000A	Receiving rejection (Receiving is made when the main unit is set to reject receiving.)	<ul style="list-style-type: none"> • Check the setting condition of the host side. • Check the setting condition of the main unit side.
	000B	RS232C Driver Over Run (When the modem detects Over Run.)	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
	000C	If the same error is detected several times, turn the modem power OFF and ON.	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
	000D	Break Interrupt (BI) Indicator (When the modem detects Break Interrupt (BI) Indicator.)	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
	000E	Receiving RING Buffer Full (When the Receiving RING Buffer is full.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.

Error code	Error	Solution
000F	Transmitting RING Buffer Full (When the Transmitting RING Buffer is full.)	• Contact responsible person of KONICA MINOLTA.
0010	RX FIFO ERROR (when Read / Write error occurs at RX FIFO)	• Contact responsible person of KONICA MINOLTA.
0011	Baud Rate ERROR (When selected Baud Rate is out of the specification (9600 bps to 38400 bps).)	• Check the Baud rate of the software DipSW.
0012	TX FIFO Level Error (When the threshold of the selected TX FIFO is not error value (1, 3, 9, 13).)	• Contact responsible person of KONICA MINOLTA.
0013	RX FIFO Level Error (When the threshold of the selected RX FIFO is not error value (0, 4, 8, 14).)	• Contact responsible person of KONICA MINOLTA.
0014	Receiving Data Over Error (When the data whose size exceeds the transmitting RING buffer is requested.)	• Contact responsible person of KONICA MINOLTA.
0015	Status Error (During modem operation is being confirmed)	• Contact responsible person of KONICA MINOLTA.
0016	Status Error (During receiving)	• Contact responsible person of KONICA MINOLTA.
0017	Status Error (During line is being shut down)	• Contact responsible person of KONICA MINOLTA.
0018	Machine ID has already been registered (Request telegram 2 (SET-UP) comes from the main unit that has already registered Machine ID.)	• Set the initial registrations again for all including the host side.
0019	Center ID Error (Center ID of the host is not identical with the one of start request telegram.)	• Check Center ID setting of the main unit side. • Check Center ID setting of the main unit side.
001A	Device ID inconsistency (Device ID of the host is not identical with the one of start request telegram.)	• Check Device ID setting of the main unit side. • Check the setting of the host side.
001B	Device ID Unregistered (Request telegram 2 (Constant data transmitting, Emergency call) comes from the main unit that has not registered Machine ID yet.)	• Check Device ID setting of the main unit side. • Check the setting of the host side.
001C	Grammar Error (Received response telegram is unregulated format.)	• Contact responsible person of KONICA MINOLTA.
001D	Impossible to change (Unchangeable items) (Host requests to change the setting of items which are not allowed to change.)	• Contact responsible person of KONICA MINOLTA.
001E	Impossible to change (During printing) (Setting cannot be changed because the setting change is made during the machine is printing or starts printing.)	• Try again when the machine is not printing.
001F	Impossible to change (Unread items) (The host tries to make writing on the items the current value has not been read.)	• Contact responsible person of KONICA MINOLTA.

Error code	Error	Solution
0020	Timeout of Telegram Delivery (At waiting mode of telegram delivery the machine fails to receive the telegram in a given time.)	• Try communication again.
0021	Telegram Size Over (The machine receives the telegram whose size exceeds the specification.)	• Contact responsible person of KONICA MINOLTA.
0022	Transmitting Phase Response NG (Transmitting phase response MSG is not appropriate.)	• Contact responsible person of KONICA MINOLTA.
0023	Timeout of Transmitting Phase Response MSG (Transmitting phase response MSG is timeout.)	• Contact responsible person of KONICA MINOLTA.
0024	Event Data Acquisition Function Error (Although the transmitting phase response MSG is OK, the function for Data acquisition shows "No event".)	• Contact responsible person of KONICA MINOLTA.
0025	Timeout of Driver transmitting check MSG (Transmitting check MSG from the driver task is timeout.)	• Contact responsible person of KONICA MINOLTA.
0026	Detection of Internal Contradiction (Unknown event is detected. Condition value is not correct or so on.)	• Contact responsible person of KONICA MINOLTA.
0027	Transmission / Receiving collision (Receiving is detecting during transmitting processing)	• Try communication again.

16.4.10 Troubleshooting for CS Remote Care

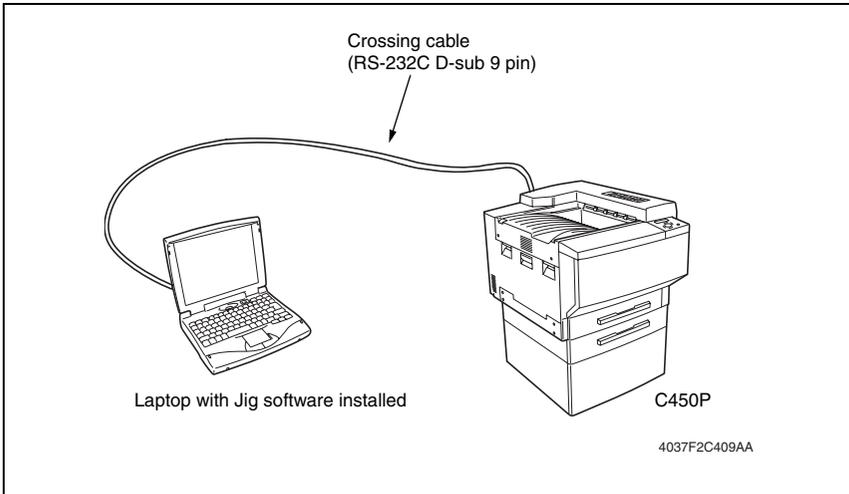
If communication is not done properly during use of the modem, check the condition by following the procedures shown below.

- Is the Modem power ON?
- Is the phone line normally connected?

17. Jig Soft

17.1 Connection when using the Jig Software

- Connect it as shown below when using only the Jig software.
- For Gradation adjustment, connect the Service jig including the X-Rite.



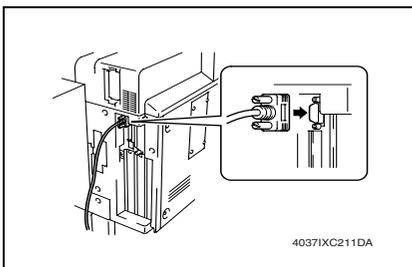
17.1.1 Connecting the Crossing Cable



1. Connect the Crossing cable to the COM1 port on the PC.

NOTE

When connecting to the COM2, set the port of the Jif software to COM2.

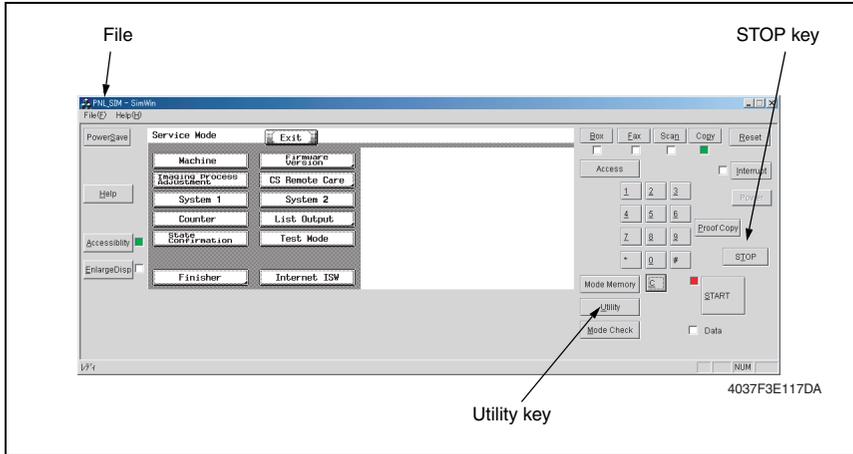


2. Connect the Crossing cable to the printer.

17.2 How to display the Jig Software

NOTE

- Do not reveal the displaying method of the Jig software to the people except those who are concerned.



<Procedure>

1. Connect the crossing cable to the printer and PC.
2. Turn the PC Power ON.
3. Turn the Printer Power ON while pressing the Menu/Select key on the control Panel.
4. Keep pressing the Menu/Select key until the LED turns OFF on the control Panel.
5. Check to make sure that the "Trouble Reset" will be displayed on the control Panel after LED turns OFF.
6. Start the Jig software and check to make sure the Start-up Dialog will be displayed.
7. Click the OK key in the dialogue.
8. Check to make sure that the Start screen will be displayed on the PC.
9. Check to make sure that the Start screen will change to the Panel screen.
10. Click the Utility key.
11. Click the Details key.
12. Click the keys below.
STOP → 0 → 0 → STOP → 0 → 1
13. Service mode will be displayed.

<How to exit>

- Select Exit which is available from File.

17.3 Jig software function tree (Service Mode)

* The function tree is shown to comply with the format displayed on the screen.

*1: It will be displayed only when the [Internet ISW Set] is set to "ON".

Service Mode		
Machine	Fusing Nip	
	Fusing Temperature	
	Fusing Transport Speed	
	Printer Area	Print Positioning: Leading Edge
		Print Positioning: Side Edge
		Dup Print Positioning: Side Edge
		Paper Feed Direction Adj.
	Printer Resist Loop	
	Color Registration Adjustment	Cyan
		Magenta
		Yellow
		Black
	LPH Rank	
	LPH Chip Adjust	
Manual Bypass Tray Adjustment		
Lead Edge Erase Adjustment		
Cooling Fan Speed		
Firmware Version		
Imaging Process Adjustment	X-Rite Calibration	
	Transfer Belt	
	D Max Density	
	TCR Level Setting	
	Background Voltage Margin	
	Transfer Adjust	2nd Transfer Adjust
		1st Transfer Adjust
	Stabilizer	Stabilization Only
		Initialize+Image Stabilization
	Thick Paper Density Adjustment	
	Thin Paper Duplex Mode	
	TCR Toner Supply	
	Monochrome Density Adjustment	
	Dev. Bias Choice	
CS Remote Care		
System 1	Marketing Area	
	Serial Number	
	No Sleep	
	Foolscap Size Setting	
	Install Date	
	Initialization	

Service Mode		
System 1	Communication System Setting	
System 2	HDD	
	Image Controller Setting	
	Option Board Status	
	Unit Change	
	Software Switch Setting	
	LCT Paper Size Setting	
	Data Capture	
Counter	Life	
	Jam	
	Service Call Counter	
	Warning	
	Maintenance	
	Service Total	
	Counter Of Each Mode	
	Service Call History (Data)	
	Paper Jam History	
	Counter Reset	
List Output	Machine Management List	
	Adjustment List	
State Confirmation	Sensor Check	
	Table Number	
	Level History1	
	Level History2	
	Temp. & Humidity	
	Memory/HDD Adj.	Memory Check
		Compress / Decompression Check
		Work Memory In/Out Check
		HDD R/W Check
		HDD Format
	Memory/HDD State	
	Color Regist	
	IU Lot No.	
	LPH Status	
Adjustment Data List		
Test Mode	Gradation Pattern	
	Halftone Pattern	
	Lattice Pattern	
	Solid Pattern	
	Color Sample	
	8 Color Solid Pattern	
	LPH Pattern	

Service Mode	
Test Mode	Running Mode
Finisher	
Internet ISW	Internet ISW Set
	HTTP Setting *1
	FTP Setting *1
	Forwarding Access Setting *1

*1: It will be displayed only when the [Internet ISW Set] is set to "ON".

17.4 Date/Time Input mode

- This mode is used to set time-of-day and date.

17.4.1 Date/Time Input mode screen

END

Date/Time Input

0	0	0	0	0
Year	Month	Date	Hour	Min.

Entry

Date/Time

0	0	0	0	0	0
Year	Month	Date	Hour	Min.	Sec.

4037F3E504DA

A. Date/Time input mode setting procedure

<Procedure>

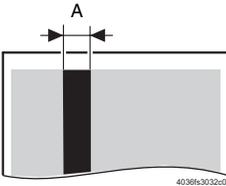
1. Call the Service Mode to the screen.
2. Press the following keys in this order.
Stop → 1 → 1 → 4 → 4 → Clear
3. Enter year, month, day, hour, and minute, in that order, from 10-key Pad.
(Year 4 digits → Month 2 digits → Day 2 digits → Hour 2 digits → Minute 2 digits)

NOTE

- **When setting the month, day, hour, or minute, enter “0” first if the data one digit.**
4. Make sure that correct figures have been entered and then click “Entry.”
 5. Click “END” key to return to the Service Mode.

17.5 Machine

17.5.1 Fusing Nip

Functions	<ul style="list-style-type: none"> To check the Fusing Roller nip width.
Use	<ul style="list-style-type: none"> When a fusing failure occurs. When a blurred image or brush effect occurs.
Check Range	<p style="text-align: right;">A: 9 ± 0.5 mm</p> 
Adjustment Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Click these keys in this order: "Machine" → "Fusing Nip" 3. Press the Start key to let the machine produce a test pattern. 4. Check the fusing roller nip width.

17.5.2 Fusing Temperature

Functions	<ul style="list-style-type: none"> To adjust individually the temperature of the Heating Roller and the Fusing Pressure Roller for each type of paper, thereby coping with varying fusing performance under changing environmental conditions. * Though all temperatures shown on the screen are 0 °C, they represent the following specific temperatures. <table border="1"> <thead> <tr> <th></th> <th>Heating Roller</th> <th>Pressure Roller</th> </tr> </thead> <tbody> <tr> <td>Plain paper</td> <td>195 °C</td> <td>145 °C</td> </tr> <tr> <td>OHP film</td> <td>190 °C</td> <td>170 °C</td> </tr> <tr> <td>Thick 1</td> <td>175 °C</td> <td>130 °C</td> </tr> <tr> <td>Thick 2</td> <td>185 °C</td> <td>130 °C</td> </tr> <tr> <td>Thick 3</td> <td>185 °C</td> <td>130 °C</td> </tr> <tr> <td>Envelope</td> <td>185 °C</td> <td>130 °C</td> </tr> </tbody> </table>		Heating Roller	Pressure Roller	Plain paper	195 °C	145 °C	OHP film	190 °C	170 °C	Thick 1	175 °C	130 °C	Thick 2	185 °C	130 °C	Thick 3	185 °C	130 °C	Envelope	185 °C	130 °C
	Heating Roller	Pressure Roller																				
Plain paper	195 °C	145 °C																				
OHP film	190 °C	170 °C																				
Thick 1	175 °C	130 °C																				
Thick 2	185 °C	130 °C																				
Thick 3	185 °C	130 °C																				
Envelope	185 °C	130 °C																				
Use	<ul style="list-style-type: none"> When fusing performance is poor, or wax streak or offset occurs when the type of paper is changed or environmental conditions change. 																					
Adjustment Range	<p>Heating Roller : -10 °C to +5 °C (step: 5 °C) Plain paper : -5 °C to +5 °C (step: 5 °C) Envelope : -20 °C to +5 °C (step: 5 °C) others Pressure Roller : -20 °C to +5 °C (step: 5 °C) OHP film : -5 °C to +5 °C (step: 5 °C) others</p>																					
Adjustment Instructions	<p>If fusing performance is poor, increase the setting. If wax streaks occur, decrease the setting. If offset is poor, decrease the setting.</p>																					
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Machine" → "Fusing Temperature." Select the paper type and Fusing Roller type. Enter the new setting from the +/- key Pad. The temperature does not change immediately when the setting is change. Wait a while before performing the subsequent steps. As a general rule, do not adjust the fusing temperature on the pressure application side. Click "END" to validate the adjustment value. Check the copy image for any image problem. Make the adjustment for each type of paper. 																					

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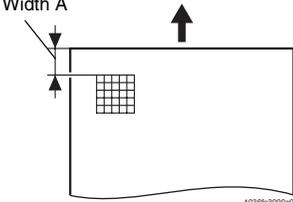
Adjustment / Setting

17.5.3 Fusing Transport Speed

Functions	<ul style="list-style-type: none"> To adjust the speed of the Fusing Drive Motor so as to match the fusing speed with transport speed. 								
Use	<ul style="list-style-type: none"> Brush effect or blurred image is evident as a result of changes in environmental conditions or degraded durability. 								
Variable Range	-2 % to +2 % (in 0.1 % increments)								
Adjustment Instructions	<p>If brush effect is evident, vary the setting value and check for image. If a blurred image occurs, decrease the setting.</p>								
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Machine" → "Fusing Transport Speed." Select the transport speed, at which the brush effect or blurred image has occurred. <table border="1"> <thead> <tr> <th>Transport speed</th> <th>Paper Setting</th> </tr> </thead> <tbody> <tr> <td>215 mm/s</td> <td>Plain paper: monochrome</td> </tr> <tr> <td>165 mm/s</td> <td>Plain paper: color</td> </tr> <tr> <td>60 mm/s</td> <td>Thick paper, OHP film, Envelope, Postcard, Labels: monochrome, color</td> </tr> </tbody> </table> Enter the new setting from the 10-Key Pad. Click "END" to validate the adjustment value. Check the copy image for any image problem. <p>* Make the adjustment for each paper type.</p>	Transport speed	Paper Setting	215 mm/s	Plain paper: monochrome	165 mm/s	Plain paper: color	60 mm/s	Thick paper, OHP film, Envelope, Postcard, Labels: monochrome, color
Transport speed	Paper Setting								
215 mm/s	Plain paper: monochrome								
165 mm/s	Plain paper: color								
60 mm/s	Thick paper, OHP film, Envelope, Postcard, Labels: monochrome, color								

17.5.4 Printer Area

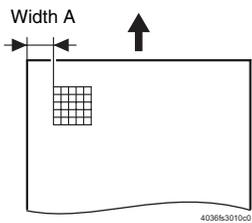
A. Print Positioning: Leading Edge

Functions	<ul style="list-style-type: none"> To vary the print start position in the sub scan direction for each of different paper types in Tray 1.
Use	<ul style="list-style-type: none"> The LPH Unit has been replaced. The paper type has been changed. The image on the copy deviates in the sub scan direction. A faint image occurs on the leading edge of the image.
Adjustment Specification	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>Width A</p>  <p style="text-align: right; font-size: small;">403863009:0</p> </div> <div style="flex: 1; padding-left: 20px;"> <p>Width A on the test pattern produced should fall within the following range.</p> <p>Specifications : 4.0 to 7.0 mm</p> <p>Setting Range : -3.0 mm to +3.0 mm (in 0.2 mm increments)</p> </div> </div>
Adjustment Instructions	<p>If width A is longer than the specifications, make the setting value smaller than the current one.</p> <p>If width A is shorter than the specifications, make the setting value greater than the current one.</p>
Adjustment Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Click "Machine" → "Printer Area" → "Print Positioning: Leading Edge." 3. Select the "Plain Paper." 4. Press the Start key to let the machine produce a test pattern. 5. Check the dimension of width A on the test pattern. 6. If width A falls outside the specified range, change the setting using the +/- key. 7. Press the Start key to let the machine produce a test pattern. 8. Check the dimension of width A on the test pattern. 9. If width A is outside the specified range, change the setting again and make a check again. 10. If width A falls within the specified range, click "END." 11. Following the same procedure, adjust for Thick 1 to 3, OHP Film, and Env.

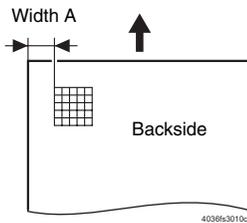
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Adjustment / Setting

B. Print Positioning: Side Edge

Functions	<ul style="list-style-type: none"> To vary the print start position in the main scan direction for each paper source.
Use	<ul style="list-style-type: none"> The LPH Unit has been replaced. A paper feed unit has been added. The image on the copy deviates in the main scan direction.
Adjustment Specification	<div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 2;"> <p>Width A on the test pattern produced should fall within the following range.</p> <p>Specifications : 3.0 ± 0.5 mm Setting Range : -3.0 mm to +3.0 mm (in 0.2 mm increments)</p> </div> </div>
Adjustment Instructions	<p>If width A is longer than the specifications, make the setting value smaller than the current one.</p> <p>If width A is shorter than the specifications, make the setting value greater than the current one.</p>
Adjustment Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Click "Machine" → "Printer Area" → "Print Positioning: Side Edge." 3. Select the paper source to be adjusted. 4. Press the Start key to let the machine produce a test pattern. 5. Check the dimension of width A on the test pattern. 6. If width A falls outside the specified range, change the setting using the +/- key. 7. Press the Start key to let the machine produce a test pattern. 8. Check the dimension of width A on the test pattern. 9. If width A is outside the specified range, change the setting again and make a check again. 10. If width A falls within the specified range, click "END." 11. Following the same procedure, adjust for all other paper sources. (Use A4 or 8 1/2 × 11 plain paper for the Bypass.)

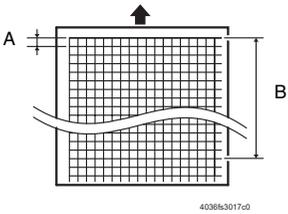
C. Dup Print Positioning: Side Edge

Functions	<ul style="list-style-type: none"> To vary the print start position in the main scan direction for each paper source in the 2-Sided mode.
Use	<ul style="list-style-type: none"> The image on the backside of the 2-sided copy deviates in the main scan direction.
Adjustment Specification	<div style="display: flex; align-items: center;"> <div style="flex: 1;">  <p style="text-align: center;">Backside</p> <p style="text-align: right; font-size: small;">40386s3010c0</p> </div> <div style="flex: 2;"> <ul style="list-style-type: none"> Width A on the test pattern produced should fall within the following range. For measurement, use the image produced on the backside of the test pattern. <p>Specifications : 3.0 ± 0.5 mm Setting Range : -3.0 mm to +3.0 mm (in 0.2 mm increments)</p> </div> </div>
Adjustment Instructions	<ul style="list-style-type: none"> If width A is longer than the specifications, make the setting value smaller than the current one. If width A is shorter than the specifications, make the setting value greater than the current one.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click "Machine" → "Printer Area" → "Dup Print Positioning: Side Edge." Select the paper source to be adjusted. Press the Start key to let the machine produce a test pattern. Check the dimension of width A on the test pattern. If width A falls outside the specified range, change the setting using the +/- key. Press the Start key to let the machine produce a test pattern. Check the dimension of width A on the test pattern on the backside of the copy. If width A is outside the specified range, change the setting again and make a check again. If width A falls within the specified range, click "END." Following the same procedure, adjust for all other paper sources. (Use A4 or 8 1/2 × 11 plain paper for the Manual Bypass Tray.)

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Adjustment / Setting

D. Paper Feed Direction Adj.

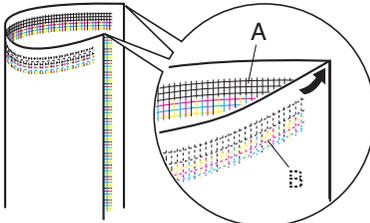
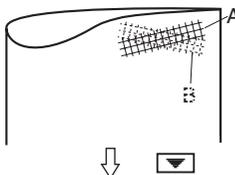
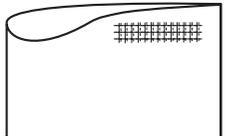
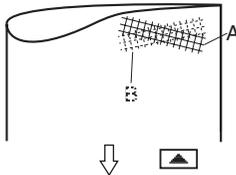
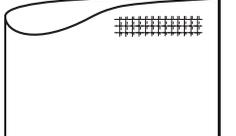
Functions	<ul style="list-style-type: none"> To synchronize the paper transport speed with the image writing speed.
Use	<ul style="list-style-type: none"> Feed Direction Adjustment becomes necessary. The image on the copy distorts (stretched, shrunk). When the image on the copy is stretched in the sub scan direction.
Adjustment Specification	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Width A and width B on the test pattern produced should fall within the following ranges.</p> <p>Width A: equivalent to one grid Width B: equivalent to 48 grids</p> <p>Specifications A: 7.9 to 8.3 B: 389.1 to 392.1</p> <p>Setting Range A, B: -10 to +10</p> </div> </div> <p style="text-align: center; font-size: small;">4036b3017c0</p>
Adjustment Instructions	<p>If width A or B is longer than the specifications, make the setting value smaller than the current one.</p> <p>If width A or B is shorter than the specifications, make the setting value greater than the current one.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Load Tray 1 with A3 or 11 × 17 plain paper. Call the Service Mode to the screen. Click these keys in this order: "Test Mode" → "Lattice Pattern." Select "Black," "SINGLE," "FEET," "CD Width:6," "FD Width:6," "Density:255," and "Normal." Press the Start key to let the machine produce a test pattern. Check width A (equivalent to one grid) and width B (equivalent to 48 grids) on the test pattern. Click these keys in this order: "Machine" → "Printer Area" → "Paper Feed Direction Adj." If width of A or B falls outside the specified range, change the setting using the Up/Down keys. Press the Start key to let the machine produce a test pattern. Check width A and width B on the test pattern. If width A or B falls outside the specified range, change the setting value and make a check again. If width A or B falls within the specified range, click "END." Following the same procedure, adjust for "Thick 1 to 3," "OHP Film," and "Env." (Check width A only for "OHP Film" and "Env.")

17.5.5 Printer Resist Loop

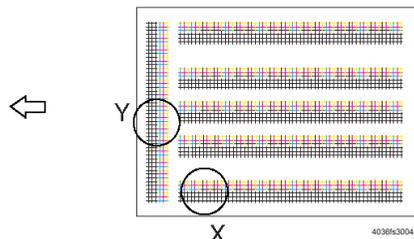
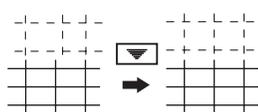
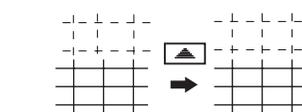
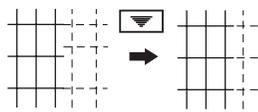
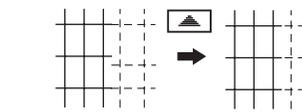
Functions	<ul style="list-style-type: none"> • To set the correction value of the paper loop length for each process speed of Tray 1 to Tray 4, Bypass, and Duplex. • To adjust the length of the loop formed in paper before the Registration Rollers. • Use "Paper Passage" for paper passage check.
Use	<p>When a paper skew occurs.</p> <p>When a paper misfeed occurs.</p>
Adjustment Range	<p>Different setting ranges are set for different transport speeds.</p> <p>215 mm/s : -6 to +6</p> <p>165 mm/s : -10 to +10</p> <p>60 mm/s : -15 to +15</p>
Adjustment Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Click these keys in this order: "Machine" → "Printer Resist Loop." 3. Select the transport speed. 4. Enter the new setting from the 10-Key Pad.

17.5.6 Color Registration Adjustment

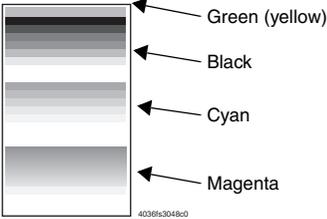
A. Black

Functions	<ul style="list-style-type: none"> To correct black color shift, if it occurs with plain or thick paper. Make Color Registration Adjustment (cyan, magenta, and yellow) after this adjustment has been made.
Use	<ul style="list-style-type: none"> To correct black color shift, if it occurs The LPH Assy (K) has been replaced.
Adjustment Range	"0" (-10 to +10 dot)
Adjustment Instructions	<p>If the black reference line deviates in the direction of C, decrease the setting value. If the black reference line deviates in the direction of D, increase the setting value.</p>
Adjustment Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Click these keys in this order: "Machine" → "Color Registration Adjustment." 3. Load Tray 1 with A3 or A4 paper (plain or thick). 4. Press the Start key. 5. Fold the printed test pattern in half lengthwise to check for deviation (the image on the inside). 6. Check deviation between black lines A and B. 7. Select the paper type. 8. Select black. 9. Change the setting value using the +/- key as necessary. 10. Produce another test pattern and check for deviation. <p>Check Procedure</p> <p>Check point A, B</p>  <p>4036fs3001c0</p> <p>If the black reference line deviates in the direction of C, decrease the setting value. If the black reference line deviates in the direction of D, increase the setting value.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Direction of C</p>   <p>4036fs3002c0</p> </div> <div style="text-align: center;"> <p>Direction of D</p>   <p>4036fs3003c0</p> </div> </div>

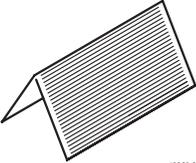
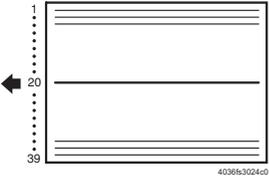
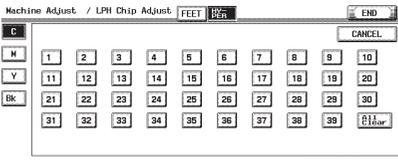
B. Cyan, Magenta, Yellow

Functions	<ul style="list-style-type: none"> To adjust color shift if there is any when comparing the original with copy of the plain or thick paper. Before making this adjustment, be sure to perform Color Registration Adjustment (Black).
Use	<ul style="list-style-type: none"> To correct any color shift
Adjustment Range	"0" (-6 to +6 dot)
Adjustment Instructions	<p>If the cross deviates in the direction of C, increase the setting. If the cross deviates in the direction of D, decrease the setting.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Machine" → "Color Registration Adjustment." Load Tray 1 with A3 or A4 paper (plain or thick). Press the Start key. On the test pattern produced, check for deviation between the black line and the line of each color at positions X and Y. Select the paper type. Select the color to be adjusted. Using the +/- key, change the setting value as necessary. (At this time, only the line of the selected color moves.) Produce another test pattern and make sure that there is no deviation. <p>Check Procedure</p> <p>Check point X, Y</p>  <p>Adjustment for X direction: Check point X</p> <div style="display: flex; justify-content: space-around;"> <div> <p>Direction of C</p>  </div> <div> <p>Direction of D</p>  </div> </div> <p>Adjustment for Y direction: Check point Y</p> <div style="display: flex; justify-content: space-around;"> <div> <p>Direction of C</p>  </div> <div> <p>Direction of D</p>  </div> </div> <p>If the cross deviates in the direction of C, increase the setting. If the cross deviates in the direction of D, decrease the setting.</p>

17.5.7 LPH Rank

Functions	<ul style="list-style-type: none"> To correct uneven LPH image by producing an output of the LPH Pattern of Test Print
Use	<ul style="list-style-type: none"> When an uneven image occurs and is not eliminated even after other troubleshooting procedures have been carried out. When the LPH Unit has been replaced When the LPH Assy has been replaced
Adjustment Range	<p>"1" (1 to 5) * 0 is not used.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Load Tray 1 with A3 plain paper. Call the Service Mode to the screen. Click "Machine" → "LPH Rank." Return the Rank settings for all four colors back to "1." Press the Start key to let the machine produce a test pattern. <p style="text-align: center;">LPH Pattern</p>  <ol style="list-style-type: none"> Identify the spot, at which uneven image occurs. Select the color (Cyan, Magenta, Yellow, Black) that develops uneven image. <ul style="list-style-type: none"> * Select Yellow if green on the test pattern develops uneven image. Using the 10-Key Pad, enter a value of the Rank value shown on the screen plus one. <ul style="list-style-type: none"> * If Rank is "1," enter 2. * If "0" is set for Rank, set "1." Do not use "0." Let the machine produce another test pattern and check for uneven image. Repeat steps 1 through 8 until the uneven image is gone.

17.5.8 LPH Chip Adjust

Functions	<ul style="list-style-type: none"> To correct chips of locations where sub scan direction white lines or black lines occur in the LPH Pattern produced using "Test Print."
Use	<ul style="list-style-type: none"> White line or color line or black line occurs in the sub scan direction. The LPH Assy has been replaced. The LPH Unit has been replaced.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Test Mode" → "LPH Pattern." Select "SINGLE," "HYPER," "Gradation," and "Border Line: ON." Press the Start key to let the machine produce a test pattern. Check the test pattern for the location, at which white lines or color or black lines in sub scan direction occur. Click these keys in this order: "Machine" → "LPH Chip Adjust." <p style="text-align: right;">7. Fold the test pattern in half. (with the pattern face on the outside)</p>  <p style="text-align: center;">4036fs3023c0</p> <ol style="list-style-type: none"> The chip boundary line on the crease (the center) of the test pattern corresponds to "20" on the panel. Starting here count out to each side of the paper to identify each location. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">4036fs3024c0 4037F3E513DA</p> <ol style="list-style-type: none"> Find the number on the panel, to which the location of white lines or black lines in sub scan direction checked in step 5 corresponds. Select the color (C, M, Y, or K) in which white lines or black lines in sub scan direction occur. <ul style="list-style-type: none"> * If the lines occur only in green on the test pattern, select Y. Click the corresponding number on the panel. (It is then highlighted and the setting value is displayed besides the highlighted number.) Change the setting value using the 10-Key Pad. <ul style="list-style-type: none"> * When a new LPH Unit has been installed, corrections can be made for up to eight locations. * Corrections for up to five locations can be made through factory adjustments. If white lines or black lines in sub scan direction occur, therefore, corrections can therefore be made in the field for three to eight locations. Select HYPER and color. Press the Start key to let the machine produce a test pattern and check for lines.

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Adjustment / Setting

17.5.9 Manual Bypass Tray Adjustment

Functions	<ul style="list-style-type: none"> To set the maximum width and the minimum width for the Manual Bypass Paper Size Unit of the Manual Bypass Guide
Use	<ul style="list-style-type: none"> Use when the Manual Bypass Paper Size Unit of the Manual Bypass Guide has been changed. Use when a false paper size is displayed when the manual Bypass is used.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Machine" → "Manual Bypass Tray Adjustment" Click "Max. Width." Load the Bypass Tray with paper having a width of 301 mm. Press the Start key and check that the results are OK. Click "Min. Width." Load the Bypass Tray with paper having a width of 89 mm. Press the Start key and check that the results are OK. <p>* Make the adjustment again if the results are NG.</p>

17.5.10 Lead Edge Erase Adjustment

Functions	<ul style="list-style-type: none"> To set the leading edge erase amount of the paper.
Use	<ul style="list-style-type: none"> To change the width of the area not printed along the leading edge of the paper
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 4 mm. <p style="text-align: center;">"4 mm" 5 mm 7 mm</p>

17.5.11 Cooling Fan Speed

Functions	<ul style="list-style-type: none"> To set the Cooling Fan Speed.
Use	<ul style="list-style-type: none"> Use when operating the Paper Cooling Fan Motor at full speed regardless of the paper type. <p>Mode1 : When the system speed is 60 mm/s (using the gloss paper or paper type other than plain paper), rotate the fan at half speed. When the system speed is 215 mm/sec or 165 mm/sec, rotate the fan at full speed.</p> <p>Mode2 : The fan will be operated at full speed regardless of the system speed.</p>
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Mode1. <p style="text-align: center;">"Mode1" Mode2</p>

17.5.12 Firmware Version

Functions	<ul style="list-style-type: none"> To check the Firmware version.
Use	<ul style="list-style-type: none"> Use when the firmware is upgraded. When the firmware is upgraded or PWB is replaced.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click "Firmware Version." Select the appropriate key from 1 to 3 to check the Firmware Version.

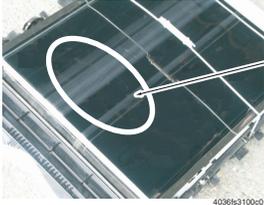
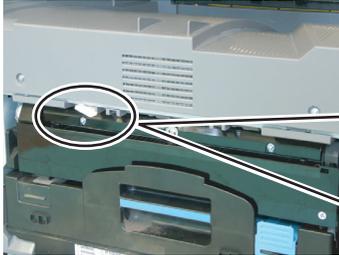
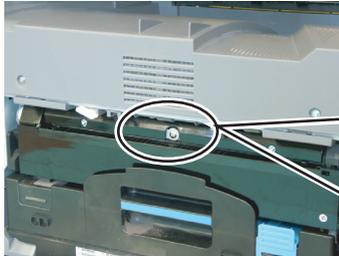
17.6 Imaging Process Adjustment

17.6.1 X-Rite Calibration (Gradation Adjust)

Functions	<ul style="list-style-type: none"> To make an automatic adjustment for an optimum gradation value based on the test pattern produced and the reading taken by the X-Rite.
Use	<ul style="list-style-type: none"> Color reproduction performance becomes poor. The IU has been replaced. The Image Transfer Belt Unit has been replaced. <p>Adjustment Mode</p> <ul style="list-style-type: none"> Gradation Mode : It gives the highest priority to gradation performance of the image as it adjusts. Resolution Mode : It gives the highest priority to reproduction performance of letters and lines as it adjusts.
Adjustment Procedure	<ul style="list-style-type: none"> For the adjustment procedure, see the following page. <p>See P.44</p>

17.6.2 Transfer Belt

A. Refresh

Functions	<ul style="list-style-type: none"> To turn the Transfer Belt idly
Use	<ul style="list-style-type: none"> To refresh the surface of the Transfer Belt when filming occurs on the Transfer Belt.  <p style="text-align: right; margin-right: 50px;">Filming</p> <p style="text-align: center; font-size: small;">40361es110000</p>
Setting/ Procedure	<ol style="list-style-type: none"> From the Service mode, enter the Transfer Belt Refresh mode. Open the Left Door and, using the Safety Switch Holding Jig, turn ON the Left Door Switch. <div style="text-align: center; margin-top: 10px;">  <p style="text-align: center;">Safety Switch Holding Jig</p> </div> Wait until predrive is completed. Loosen one screw completely and press the Belt Refresh Pad up against the Transfer Belt. <div style="text-align: center; margin-top: 10px;">  <p style="text-align: center;">Screw</p> </div> Press the Start key. After about 5 min., the Transfer Belt refresh sequence will be completed. Remove the Safety Switch Holding Jig. Tighten one screw and retract the Belt Refresh Pad from the Transfer Belt.

B. Cleaning Bias

Functions	<ul style="list-style-type: none"> To set the strength of the Transfer Belt cleaning bias
Use	<ul style="list-style-type: none"> When the image pattern is not completely removed, it strengthen the Transfer Belt cleaning bias in order to make the cleaner more effective. <p>Print : To set the cleaning bias value for printing.</p> <p>Not Print : To set the cleaning bias value in situations such as being recovered from the paper jam, carrying out the image stabilization, or cleaning the 2nd image transfer roller. <ul style="list-style-type: none"> The strength of the bias increases as changing the mode as follows. Mode1 → Mode2 → Mode3 → Mode4 </p>
Setting/ Procedure	<p><Print></p> <ul style="list-style-type: none"> The default setting is Mode1. <p style="text-align: center;">"Mode1" Mode2 Mode3 Mode4</p> <p><Not Print></p> <ul style="list-style-type: none"> The default setting is Mode1. <p style="text-align: center;">"Mode1" Mode2 Mode3 Mode4</p>

C. Auto Cleaning

Functions	<ul style="list-style-type: none"> To carry out a 1-min. cleaning sequence for every 1,000 printed pages (sub scan direction: 216 mm or less) after the power has been turned ON
Use	<ul style="list-style-type: none"> To select "Disable" for Transfer Belt Auto Cleaning if the wait time of 1-min. cleaning sequence is to be eliminated
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Enable. <p style="text-align: center;">"Enable" Disable</p>

D. IDC Table Revise

Functions	<ul style="list-style-type: none"> To set the upper limit value of Vdc during the execution of the image stabilization sequence, thereby preventing part of the Photo Conductor surface from being left uncleaned due to filming
Use	<ul style="list-style-type: none"> To select "Disable" for IDC Table Correction if a higher density image is desired
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Enable. <p style="text-align: center;">"Enable" Disable</p> <ul style="list-style-type: none"> Enable: Sets the upper limit value for Vdc Disable: Does not set the upper limit value for Vdc

17.6.3 D Max Density

Functions	<ul style="list-style-type: none"> To adjust gradation, color, and image density to target reproduction levels by varying the maximum amount of toner sticking to paper through auxiliary manual fine-adjustment of gamma of each color after Gradation Adjust.
Use	<ul style="list-style-type: none"> An image quality problem is not corrected even after Gradation Adjust has been run.
Adjustment Range	"0" (-10 to +10)
Adjustment Instructions	To increase the maximum amount of toner sticking, increase the setting value. To decrease the maximum amount of toner sticking, decrease the setting value.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Imaging Process Adjustment" → "D Max Density." Select "COPY" or "Printer." Select the color to be adjusted. Enter the new setting from the 10-Key Pad. Click "END" to return to the "Process" menu screen. Click "Stabilizer." Click "Stabilizer Mode." Press the Start key to validate the adjustment value. Check the copy image for any image problem. <p>NOTE</p> <ul style="list-style-type: none"> If the setting value has been changed, be sure to run an image stabilization sequence to make valid the new value.

17.6.4 TCR Level Setting

Functions	<ul style="list-style-type: none"> To adjust the T/C control level when an abnormal image density occurs as a result of a change in the amount of charge of toner and carrier due to an environmental change.
Use	<ul style="list-style-type: none"> Use when T/C changes due to changes in environmental conditions of the user site
Adjustment Range	"0" (-3 to +3) The central value of 0 corresponds to 7 % of T/C (in 1.0 % increments).
Adjustment Instructions	To increase T/C, increase the setting value. To decrease T/C, decrease the setting value.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Process" → "TCR Level Setting." Select the color to be adjusted. Enter the new setting from the 10-Key Pad. Click "END" to validate the adjustment value. Check the copy image for any image problem.

17.6.5 Background Voltage Margin

Functions	<ul style="list-style-type: none"> To adjust the highlight portion (fog level) to the target reproduction level by making an auxiliary manual fine-adjustment of γ of each color after Gradation Adjust.
Use	<ul style="list-style-type: none"> Use when a foggy background occurs due to a printer problem
Adjustment Range	"0" (-5 to +5)
Adjustment Instructions	<p>To make the background level foggier, increase the setting value. To make the background level less foggy, decrease the setting value.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Imaging Process Adjustment" → "Background Voltage Margin." Select the color to be adjusted. Enter the new setting from the 10-Key Pad. Click "END" to return to the "Image Adjust" menu screen. Click "Stabilizer." Click "Stabilization Only." Press the Start key to validate the adjustment value. Check the copy image for any image problem. <p>NOTE</p> <ul style="list-style-type: none"> If the setting value has been changed, be sure to run an image stabilization sequence to make valid the new value.

17.6.6 Transfer Adjust

A. 2nd Transfer Adjust

Functions	<ul style="list-style-type: none"> Adjust the 2nd image transfer output (ATVC) on the 1st page and the 2nd page for each paper type.
Use	<ul style="list-style-type: none"> To use when the transfer failure at the trailing edge occurs.
Adjustment Range	"0" (-5 to +5)
Adjustment Instructions	<p>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.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Imaging Process Adjustment" → "Transfer Adjust." Select the side of the image (First side or Second side), on which the transfer failure at the trailing edge occurs. Select the paper type with the transfer failure at the trailing edge. Enter the new setting from the 10-Key Pad. Click "END" to validate the adjustment value. Check the copy image for any image problem.

B. 1st Transfer Adjust

Functions	<ul style="list-style-type: none"> Adjust the output value for the 1st image transfer voltage.
Use	<ul style="list-style-type: none"> To use when white spots appeared.
Adjustment Range	"0" (-5 to +5)
Adjustment Instructions	Adjust the output value for the 1st image transfer voltage by; Increasing it: Increase the setting value (white spots will decrease) Decreasing it: Decrease the setting value
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Select "Test Mode" → "Halftone Pattern" to output the red or green test pattern. See P.291 When the test pattern image has white spots, adjust with the following procedure. Click these keys in this order: "Imaging Process Adjustment" → "Transfer Adjust" Select color/black. Change the setting value using the 10-Key Pad. Click "OK" key to set the adjustment value. Gradually increase the adjustment value to the acceptable white spots level while checking the test pattern. <p>NOTE</p> <ul style="list-style-type: none"> PC Drum memory (94mm pitch) may occur by taking measure to white spots occurred by increasing the 1st image transfer voltage to adjust it. Check the image on the test print or the color chart when adjusting. The value for the 1st image transfer adjustment will be reset when the new transfer belt unit is detected. The value will be 0.

17.6.7 Stabilizer

A. Stabilization Only

Functions	<ul style="list-style-type: none"> The image stabilization sequence is carried out without clearing the historical data of image stabilization control.
Use	<ul style="list-style-type: none"> Use if an image problem persists even after Gradation Adjustment has been executed. When D Max Density and Background Voltage Margin of Service mode are changed.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Imaging Process Adjustment" → "Stabilization Only" Press the Start key to start Stabilizer. The Start key turns orange and stays lit up orange during the Stabilizer sequence. Stabilizer is completed when the Start key turns green.

B. Initialize+Image Stabilization

Functions	<ul style="list-style-type: none"> To carry out an image stabilization sequence after the historical data of image stabilization control has been initialized.
Use	<ul style="list-style-type: none"> Use if an image problem persists even after Gradation Adjustment has been executed. Use if tone reproduction and maximum density are faulty even after Stabilizer Mode has been executed.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Imaging Process Adjustment" → "Initialize+Image Stabilization." Press the Start key to start Stabilizer. The Start key turns orange and stays lit up orange during the Stabilizer sequence. Stabilizer is completed when the Start key turns green.

C. Span

Functions	<ul style="list-style-type: none"> Setting the period of the cycle for image stabilization 		
Use	<ul style="list-style-type: none"> To use when making the period of the cycle before the image stabilization longer. <ol style="list-style-type: none"> Image stabilization will be conducted by the normal cycle. Image stabilization will be conducted by the longer period of the cycle. 		
Adjustment Procedure	<ul style="list-style-type: none"> The default setting is 1. <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;">“1”</td> <td style="text-align: center; width: 50%;">2</td> </tr> </table> 	“1”	2
“1”	2		

17.6.8 Thick Paper Density Adjustment

Functions	<ul style="list-style-type: none"> To fine-adjust density of printed images of each color for thick paper and OHP transparencies.
Use	<ul style="list-style-type: none"> To change the density of the printed image for each color with thick paper and OHP transparencies
Adjustment Range	<ul style="list-style-type: none"> The fine-adjustment can be made over a range of a total of five steps, two darker levels and two lighter levels around the standard central level.
Adjustment Instructions	Light color: Click the Darker key. Dark color: Click the Lighter key.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: “Imaging Process Adjustment” → “Thick Paper Density Adjustment.” Click the Lighter or Darker key for the desired color to correct the image density.

17.6.9 Thin Paper Duplex Mode

Functions	<ul style="list-style-type: none"> Turn this function ON when thin paper (64 g/m²) is used in an ambience of high temperature and high humidity in the 2-sided mode. It decreases the transfer output value so as to prevent a paper misfeed from occurring. 		
Use	<ul style="list-style-type: none"> Use when a paper misfeed occurs when thin paper is used. 		
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;">ON</td> <td style="text-align: center; width: 50%;">“OFF”</td> </tr> </table> 	ON	“OFF”
ON	“OFF”		

17.6.10 TCR Toner Supply

Functions	<ul style="list-style-type: none"> To adjust the set T/C level by replenishing an auxiliary supply of toner when a low ID occurs due to a lowered T/C after large numbers of prints have been made of originals having a high image density.
Use	<ul style="list-style-type: none"> When there is a drop in T/C.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: “Imaging Process Adjustment” → “TCR Toner Supply.” Select the color, for which supply of toner is to be replenished. Pressing the Start key will let the machine detect the current toner density and; if the density is lower than a reference value, a toner replenishing sequence and then a developer agitation sequence are run. These sequences are repeated up to a maximum of four times until the toner density reaches the reference value. If the toner density is found to be higher than the reference value, only a developer agitation sequence is carried out.

17.7 CS Remote Care

17.7.1 Outlines

- CS Remote Care enables the machine and the computer at CS Remote Care center to exchange data through telephone line in order to control the machine.
- CS Remote Care enables the machine to call the computer at the center when trouble occurs. It also enables the computer at the center to contact the machine for the necessary data.
- Data which CS Remote Care handles can be divided into the following groups.
 - a. Data which show the status of use of the machine such as Total count, PM count.
 - b. Data which show the abnormal situation on the machine such as where and how often errors occur.
 - c. Data on adjustment
 - d. Data on setting

NOTE

- **It cannot be set when the following setting is set to "ON".**
[Admin. Setting] → [Security Setting] → [Enhanced Security]

17.7.2 Setting Up the CS Remote Care

NOTE

- **For resetting up the machine which CS Remote Care has already been set up, clear the RAM for CS Remote Care before resetting.**
 See P.257
- **When using the telephone line for connection, use the recommended modem.**
(For recommended modem, contact responsible person of KONICA MINOLTA.)



Step	Procedure	
	Using the telephone line modem	Using E-mail
0	Register the device ID to the application at CS Remote Care Center. The initial connection is not available unless the device ID is registered.	
1	Connecting the modem Turn the power for the modem OFF. Connect the machine and the modem with a modem cable. Connect the modem and the wall jack with a modular cable. * For connecting the modular cable, see the manual for the modem.	Be sure to remove the telephone line modem when e-mail is used.
2	Clearing the RAM 1. Select Service Mode → CS Remove Care, and click "Detail Setting" key. 2. Click "RAM Clear" key. 3. Select Set, and Click "OK." See P.257	
3	Selecting the CS Remote Care function Select Service Mode → CS Remove Care → System Selection, and Click "Modem" key.	Selecting the CS Remote Care function Select [Service Mode] → [CS Remote Care] → [System Setting], and click [E-Mail].
4	Inputting the ID Code 1. Select Service Mode → CS Remote Care → ID Code, and Click "ID Code" key. 2. Input the seven digits ID of the service person, and click "ID Code" key again. See P.256	



Step	Procedure	
	Using the telephone line modem	Using E-mail
5	Setting the date and time for CS Remote Care 1. Select Service Mode → CS Remote Care, and click "Detail Setting" key. 2. Click "Date & Time Setting" key. 3. Input the date, time and the time zone using the 10-Key Pad, and click "Set" key. See P.256	
6	Setting the Center ID 1. Select Service Mode → CS Remote Care, and click "Detail Setting" key. 2. Click Machine Setting → Center ID, and input the Center ID (five digits). See P.256	
7	Setting the Device ID 1. Select Service Mode → CS Remote Care, and click "Detail Setting" key. 2. Click Machine Setting → Device ID, and input Device ID (nine digits). See P.256	
8	Setting the telephone number of the Center 1. Select Service Mode → CS Remote Care, and click "Detail Setting" key. 2. Click Machine Setting → Center Telephone Number key. 3. Input the telephone number of the Center using the 10-Keys Pad and P, T, W, - keys. See P.256	Setting the Respond Timeout 1. Select [Service Mode] → [CS Remote Care], and click [Detail Setting]. 2. Click [Respond Timeout] and enter the response timeout using the 10-Key Pad. NOTE • Under normal conditions, there is no need to change the default setting.] See P.257
9	Inputting the Device telephone number 1. Select Service Mode → CS Remote Care, and click "Detail Setting" key. 2. Click Machine Setting → Device Telephone Number key. 3. Input the Device telephone number using the 10-Key Pad and P, T, W, - keys. See P.256	Proceed to Step 10.
10	Inputting the AT command for initializing the modem 1. Select Service Mode → CS Remote Care → and click "Detail Setting" key. 2. Click "AT Command" key. 3. Input AT Command. NOTE • Change this Command only when it is necessary. (They do not need to be changed in normal condition.) • For details on AT Command, see the manual for the modem. See P.258	Setting the E-mail address 1. Select [Service Mode] → [CS Remote Care], and click [Server Set]. See P.258 2. Click [Server for RX], and set POP3 server address, POP3 Login name, POP3 password and POP3 port number. 3. Press [Receive], and set the E-Mail address, Mail Check, Connection Time Out and APOP Authentication. 4. Click [Send], and set the SMTP server address, SMTP port number, Connection Time Out, and APOP Authentication. 5. Click [TX/RX Test], and press Start key to carry out a transmission/reception test. If it fails to exchange messages, see the error message to take necessary measure, and try again.
11	Setting the DIPSW for CS Remote Care NOTE • This setting is not normally necessary. Take this step only when necessary in a specific connecting condition.	Proceed to Step 12.

Step	Procedure	
	Using the telephone line modem	Using E-mail
12	<p>Executing the initial transmission</p> <ol style="list-style-type: none"> 1. Select Service Mode → CS Remote Care, and select "Detail Setting" key. 2. Click "initial transmission" key on the right bottom of the screen to start initial transmission. 3. When the machine is properly connected with the Center, CS Remote Care setting screen will be displayed. <p>NOTE</p> <ul style="list-style-type: none"> • The initial transmission key at the right bottom of the screen will be displayed only when the Center ID, the Device ID, Telephone number of the Center and the Device telephone number have been input. <p>See P.256</p>	<p>Receiving the initial connection E-mail message</p> <p>Sending the initial connection E-mail message from the Center to the address of the Printer.</p> <p>NOTE</p> <ul style="list-style-type: none"> • When receiving the initial connection E-mail message from the Center while CS Remote Care-related screen is being displayed, the current setting information will be deleted, and CS Remote Care setting will be displayed. • For sending the initial connection E-mail, see the manual for CS Remote Care Center. • Messages can be exchanged only between the Center with initial connection and the Printer. • The initial connection from the Center will be carried out, and the E-mail address of the Center will be stored in the Printer. • When the initial registration is complete, the E-mail address of the Center will be displayed by selecting [Service Mode] → [CS Remote Care] → [Detail Setting], [Basic Setting] → [E-Mail address].

bizhub C450P

Adjustment / Setting

17.7.3 Software SW setting for CS Remote Care

NOTE

- SW bits data are written into the NVRAM every time a change is made. In case you changed bit data by accident, be sure to restore the previous state.

A. Input procedure

1. Select Service Mode → “CS Remote Care” → “Detail Setting”, and click “Software Switch Setting” key.
2. Click “Switch No.” key, and input the SW number (two digits) using the 10-Key Pad.
3. Click “Bit Assignment”, and select SW bit number using the arrow keys, and input 0 or 1 using the 10-Key Pad.
(For setting by hexadecimal numbers, click “HEX Assignment” key, and input using the 1-Key Pad or A to F keys.)
4. Click “Fix” key.

NOTE

- About functions of each switch, see to “B.List of software SW for CS Remote Care.”

B. List of software SW for CS Remote Care

NOTE

- Do not change any bit not described on this table.

SW No.	Bit	Functions	0	1	Default
SW 01	0	Dial Mode	Pulse	Tone	1
	1	Reservation	—	—	0
	2	Reservation	—	—	0
	3	Reservation	—	—	0
	4	Baud rate	*1	*1	0
	5		*1	*1	0
	6		*1	*1	0
	7		*1	*1	1
SW 02	0	Auto call on SC occurrence	Do not call	Call	1
	1	Auto call on date specification	Do not call	Call	1
	2	Reservation	—	—	0
	3	Reservation	—	—	0
	4	Reservation	—	—	0
	5	Auto call on the IC Life	Do not call	Call	1
	6	Auto call on CCD Clamp/Gain Adjustment failure	Do not call	Call	1
	7	Reservation	—	—	0
SW 03	0	Reservation	—	—	0
	1	Auto call on the toner supply	Do not call	Call	1
	2	Reservation	—	—	0
	3	Auto call on the waste toner bottle full	Do not call	Call	1
	4 to 7	Reservation	—	—	0
SW 04	0 to 7	Reservation	—	—	0

SW No.	Bit	Functions	0	1	Default
SW 05	0	Modem redial interval	*2	*2	1
	1		*2	*2	1
	2		*2	*2	0
	3		*2	*2	0
	4 to 7	Reservation	—	—	0
SW 06	0	Modem redial times	*3	*3	0
	1		*3	*3	1
	2		*3	*3	0
	3		*3	*3	1
	4		*3	*3	0
	5		*3	*3	0
	6		*3	*3	0
	7	Reservation	—	—	0
SW 07	0	Redial for response time out	Do not redial	Redial	1
	1 to 7	Reserved	—	—	0
SW 08	0	Retransmission interval on E-Mail delivery error	*4	*4	0
	1		*4	*4	1
	2		*4	*4	1
	3		*4	*4	0
	4 to 7	Reservation	—	—	0
SW 09	0	Retransmission times on E-Mail delivery error	*5	*5	0
	1		*5	*5	1
	2		*5	*5	0
	3		*5	*5	1
	4		*5	*5	0
	5		*5	*5	0
	6		*5	*5	0
	7	Reservation	—	—	0
SW 10	0 to 7	Reservation	—	—	0
SW 11	0	Timer 1	*6	*6	0
	1	RING reception → CONNECT reception	*6	*6	0
	2		*6	*6	0
	3		*6	*6	0
	4		*6	*6	0
	5		*6	*6	1
	6		*6	*6	0
	7		*6	*6	0

SW No.	Bit	Functions	0	1	Default
SW 12	0	Timer 2	*7	*7	0
	1	Dial request completed → CONNECT reception	*7	*7	0
	2		*7	*7	0
	3		*7	*7	0
	4		*7	*7	0
	5		*7	*7	0
	6		*7	*7	1
	7		*7	*7	0
SW 13	0 to 7	Reservation	—	—	0
SW 14	0	Timer 4	*8	*8	0
	1	Line connection → Start request telegram delivery	*8	*8	0
	2		*8	*8	0
	3		*8	*8	0
	4		*8	*8	0
	5		*8	*8	1
	6		*8	*8	0
	7		*8	*8	0
SW 15	0	Timer 5	*9	*9	0
	1	Wait time for other side's response	*9	*9	1
	2		*9	*9	1
	3		*9	*9	1
	4		*9	*9	1
	5		*9	*9	0
	6		*9	*9	0
	7		*9	*9	0
SW 16	0 to 7	Reservation	—	—	0
SW 17	0 to 7	Reservation	—	—	0
SW 18	0	Attention display To set weather to give the alarm display when using the modem but the power for the modem is OFF.	Do not call	Call	1
	1 to 7	Reservation	—	—	0
SW 19 to SW 40	0 to 7	Reservation	—	—	0

*1: Baud rate

Mode	01-7	01-6	01-5	01-4
9600 bps	0	1	1	0
19200 bps	0	1	1	1
"38400 bps"	1	0	0	0

*2: Modem redial interval

Mode	05-3	05-2	05-1	05-0
1 minute	0	0	0	1
2 minutes	0	0	1	0
"3 minutes"	0	0	1	1
4 minutes	0	1	0	0
5 minutes	0	1	0	1
6 minutes	0	1	1	0
7 minutes	0	1	1	1
8 minutes	1	0	0	0
9 minutes	1	0	0	1
10 minutes	1	0	1	0

*3: Modem redial times

Mode	06-6	06-5	06-4	06-3	06-2	06-1	06-0
0 to 9 times	000 0000 to 000 1001						
"10 times"	0	0	0	1	0	1	0
11 to 99 times	000 1011 to 110 0011						

*4: Retransmission interval on E-Mail delivery error

Mode	08-3	08-2	08-1	08-0
0 minute	0	0	0	0
10 minutes	0	0	0	1
20 minutes	0	0	1	0
30 minutes	0	0	1	1
40 minutes	0	1	0	0
50 minutes	0	1	0	1
"60 minutes"	0	1	1	0
70 minutes	0	1	1	1
80 minutes	1	0	0	0
90 minutes	1	0	0	1
100 minutes	1	0	1	0
110 minutes	1	0	1	1
120 minutes	1	1	0	0

*5: Retransmission times on E-Mail delivery error

Mode	09-6	09-5	09-4	09-3	09-2	09-1	09-0
0 to 9 times	000 0000 to 000 1001						
"10 times"	0	0	0	1	0	1	0
11 to 99 times	000 1011 to 110 0011						

*6: Timer 1 (RING reception → CONNECT reception)

Mode	11-7	11-6	11-5	11-4	11-3	11-2	11-1	11-0
0 to 31 sec	0000 0000 to 0001 1111							
"32 sec"	0	0	1	0	0	0	0	0
33 to 255 sec	0010 0001 to 1111 1111							

*7: Timer 2 (Dial request completed → CONNECT reception)

Mode	12-7	12-6	12-5	12-4	12-3	12-2	12-1	12-0
0 to 63 sec	0000 0000 to 0011 1111							
"64 sec"	0	1	0	0	0	0	0	0
65 to 255 sec	0100 0001 to 1111 1111							

*8: Timer 4 (Line connection → Start request telegram delivery)

Mode	14-7	14-6	14-5	14-4	14-3	14-2	14-1	14-0
0 to 31 (× 100 msec)	0000 0000 to 0001 1111							
"32 (× 100 msec)"	0	0	1	0	0	0	0	0
33 to 255 (× 100 msec)	0010 0001 to 1111 1111							

*9: Timer 5 (Wait time for other side's response)

Mode	15-7	15-6	15-5	15-4	15-3	15-2	15-1	15-0
0 to 29 sec	0000 0000 to 0001 1101							
"30 sec"	0	0	0	1	1	1	1	0
31 to 255 sec	0001 1111 to 1111 1111							

17.7.4 Setup confirmation

- **Follow the steps below to make sure that CS Remote Care has been properly set up.**
 1. Call the Service Mode to the screen.
 2. Click “CS Remote Care” key.
 3. Check to make sure that only selected item is displayed.

17.7.5 Calling the Maintenance

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

A. When starting the Maintenance

1. Select Service Mode and click “CS Remote Care” key.
2. Click “ID Code” key, and input ID Code.
3. Click “ID Code” key.

* The ready to print LED remains blinking until Maintenance is completed.

B. When finishing the Maintenance

1. Select Service Mode and click “CS Remote Care” key.
2. Click “Maintenance Complete” key.

17.7.6 Calling the Center from the Administrator

- When the CS Remote Care setup is complete, the administrator can call the CS Remote Care center.
 1. Select “Administrator Setting”, and click “System Connection” key.
 2. Click “Admin. transmission” key.
 3. Press the Start key.

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

NOTE

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

17.7.7 Checking the transmission log

- The transmission log list will be output to be checked.
 1. Select Service Mode → “CS Remote Care”, and click “Detail setting” key.
 2. Click “Communication Log Print” key.
 3. Load Tray 1 or Bypass tray with A4S paper.
 4. Press the Start key to output transmission log.

(7) AT Command

Functions	<ul style="list-style-type: none"> To set the command to be issued at the time of Modem Initialization. This setting is available only when "Modem" is selected for the system setting.
Use	<ul style="list-style-type: none"> To set the command to be issued at the time of Modem Initialization.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the command and click "SET" to register.

⚠ D. Server Setting

- Server Setting can be set only when [E-Mail] is selected by System Setting.

(1) Server for RX

<POP3 server>

Functions	<ul style="list-style-type: none"> To set the POP3 server address used for the CS Remote Care.
Use	<ul style="list-style-type: none"> To set the address of the POP3 Server. POP3 server address can be set with IP address or the domain name.
Setting/ Procedure	<p><Input IP Address></p> <ul style="list-style-type: none"> IP Address Version 4 format [0 to 255].[0 to 255].[0 to 255].[0 to 255] <p><Input FQDN></p> <ul style="list-style-type: none"> Enter the domain name.

<POP3 login name>

Functions	<ul style="list-style-type: none"> To set the logon name for the POP3 server used for the CS Remote Care.
Use	<ul style="list-style-type: none"> To set the logon name for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is No. Up to 64 characters (alphanumeric characters and symbols) can be used.

<POP3 password>

Functions	<ul style="list-style-type: none"> To set the logon password for the POP3 server used for the CS Remote Care.
Use	<ul style="list-style-type: none"> To set the logon password for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is No. Up to 15 characters (alphanumeric characters and symbols) can be used.

<POP3 port number>

Functions	<ul style="list-style-type: none"> To set the POP3 port number used for the CS Remote Care.
Use	<ul style="list-style-type: none"> To set the port number for the POP3 server.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 110. <p style="text-align: right;">"110" (1 to 65535)</p>

17.7.9 List of the CS Remote Care error code

NOTE

- **Error codes in the shaded region may occur when transmitting from the machine to the center.**



Error code	Error	Solution
0001	The line is busy (Busy detection)	<ul style="list-style-type: none"> • Transmit again manually.
0002	Failure of the Modem default setting at transmitting (When the transmission completes with modem initial setting failed)	<ul style="list-style-type: none"> • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
0003	Timeout of CONNECT at transmitting (No response to ATD)	<ul style="list-style-type: none"> • Transmit again manually • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
0004	Timeout of Incoming request response (No response to incoming (starting) request MSG)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0005	Timeout of CONNECT at receiving (No response to ATA)	<ul style="list-style-type: none"> • Check if the power of the modem is ON. • Check the connecting condition between the modem and the main unit.
0006	Shut down of the data modem line (Host) (Carrier OFF is detected)	<ul style="list-style-type: none"> • No solution, because the line is shut down at the host side.
0007	Shut down of the data modem line (Main unit) (Line is shut down forcibly due to event)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0008	Timeout of start request telegram delivery (Start request telegram is not delivered after line connection)	<ul style="list-style-type: none"> • Transmit again manually.
0009	Timeout of finish request telegram delivery (Finish request telegram is not delivered (Start of shut down).)	<ul style="list-style-type: none"> • Transmit again manually.
000A	Receiving rejection (Receiving is made when the main unit is set to reject receiving.)	<ul style="list-style-type: none"> • Check the setting condition of the host side. • Check the setting condition of the main unit side.
000B	RS232C Driver Over Run (When the modem detects Over Run.)	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
000C	If the same error is detected several times, turn the modem power OFF and ON.	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
000D	Break Interrupt (BI) Indicator (When the modem detects Break Interrupt (BI) Indicator.)	<ul style="list-style-type: none"> • If the same error is detected several times, turn the modem power OFF and ON.
000E	Receiving RING Buffer Full (When the Receiving RING Buffer is full.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.

Error code	Error	Solution
000F	Transmitting RING Buffer Full (When the Transmitting RING Buffer is full.)	• Contact responsible person of KONICA MINOLTA.
0010	RX FIFO ERROR (when Read / Write error occurs at RX FIFO)	• Contact responsible person of KONICA MINOLTA.
0011	Baud Rate ERROR (When selected Baud Rate is out of the specification (9600 bps to 38400 bps).)	• Check the Baud rate of the software DipSW.
0012	TX FIFO Level Error (When the threshold of the selected TX FIFO is not error value (1, 3, 9, 13).)	• Contact responsible person of KONICA MINOLTA.
0013	RX FIFO Level Error (When the threshold of the selected RX FIFO is not error value (0, 4, 8, 14).)	• Contact responsible person of KONICA MINOLTA.
0014	Receiving Data Over Error (When the data whose size exceeds the transmitting RING buffer is requested.)	• Contact responsible person of KONICA MINOLTA.
0015	Status Error (During modem operation is being confirmed)	• Contact responsible person of KONICA MINOLTA.
0016	Status Error (During receiving)	• Contact responsible person of KONICA MINOLTA.
0017	Status Error (During line is being shut down)	• Contact responsible person of KONICA MINOLTA.
0018	Machine ID has already been registered (Request telegram 2 (SET-UP) comes from the main unit that has already registered Machine ID.)	• Set the initial registrations again for all including the host side.
0019	Center ID Error (Center ID of the host is not identical with the one of start request telegram.)	• Check Center ID setting of the main unit side. • Check Center ID setting of the main unit side.
001A	Device ID inconsistency (Device ID of the host is not identical with the one of start request telegram.)	• Check Device ID setting of the main unit side. • Check the setting of the host side.
001B	Device ID Unregistered (Request telegram 2 (Constant data transmitting, Emergency call) comes from the main unit that has not registered Machine ID yet.)	• Check Device ID setting of the main unit side. • Check the setting of the host side.
001C	Grammar Error (Received response telegram is unregulated format.)	• Contact responsible person of KONICA MINOLTA.
001D	Impossible to change (Unchangeable items) (Host requests to change the setting of items which are not allowed to change.)	• Contact responsible person of KONICA MINOLTA.
001E	Impossible to change (During printing) (Setting cannot be changed because the setting change is made during the machine is printing or starts printing.)	• Try again when the machine is not printing.
001F	Impossible to change (Unread items) (The host tries to make writing on the items the current value has not been read.)	• Contact responsible person of KONICA MINOLTA.

Error code	Error	Solution
0020	Timeout of Telegram Delivery (At waiting mode of telegram delivery the machine fails to receive the telegram in a given time.)	<ul style="list-style-type: none"> • Try communication again.
0021	Telegram Size Over (The machine receives the telegram whose size exceeds the specification.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0022	Transmitting Phase Response NG (Transmitting phase response MSG is not appropriate.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0023	Timeout of Transmitting Phase Response MSG (Transmitting phase response MSG is timeout.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0024	Event Data Acquisition Function Error (Although the transmitting phase response MSG is OK, the function for Data acquisition shows "No event".)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0025	Timeout of Driver transmitting check MSG (Transmitting check MSG from the driver task is timeout.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0026	Detection of Internal Contradiction (Unknown event is detected. Condition value is not correct or so on.)	<ul style="list-style-type: none"> • Contact responsible person of KONICA MINOLTA.
0027	Transmission / Receiving collision (Receiving is detecting during transmitting processing)	<ul style="list-style-type: none"> • Try communication again.

17.7.10 Troubleshooting for CS Remote Care

If communication is not done properly during use of the modem, check the condition by following the procedures shown below.

- Is the Modem power ON?
- Is the phone line normally connected?

17.8 System 1

17.8.1 Marketing Area

Functions	<ul style="list-style-type: none"> To make the various settings (language, paper size, fixed zoom ratios, etc.) according to the applicable marketing area. 														
Use	<ul style="list-style-type: none"> Upon setup. 														
Setting/ Procedure	<p><Marketing Area></p> <ul style="list-style-type: none"> Select the applicable marketing area and click "END" to set the marketing area. <p style="text-align: center;"> JAPAN US Europe Others1 Others2 Others3 Others4 </p> <p>* These are the languages that can be selected on the Utility screen according to different marketing area settings:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Japan</td> <td>English, Japanese</td> </tr> <tr> <td>US</td> <td>English, French, Spanish, Japanese</td> </tr> <tr> <td>Europe</td> <td>English, French, Italian, German, Spanish, Japanese</td> </tr> <tr> <td>Others1</td> <td>English, French, Spanish, Japanese</td> </tr> <tr> <td>Others2</td> <td>English, French, Spanish, Hangul</td> </tr> <tr> <td>Others3</td> <td>Simplified Chinese, English</td> </tr> <tr> <td>Others4</td> <td>Traditional Chinese, English</td> </tr> </table>	Japan	English, Japanese	US	English, French, Spanish, Japanese	Europe	English, French, Italian, German, Spanish, Japanese	Others1	English, French, Spanish, Japanese	Others2	English, French, Spanish, Hangul	Others3	Simplified Chinese, English	Others4	Traditional Chinese, English
Japan	English, Japanese														
US	English, French, Spanish, Japanese														
Europe	English, French, Italian, German, Spanish, Japanese														
Others1	English, French, Spanish, Japanese														
Others2	English, French, Spanish, Hangul														
Others3	Simplified Chinese, English														
Others4	Traditional Chinese, English														

17.8.2 Serial Number

Functions	<ul style="list-style-type: none"> To register the serial numbers of the machine and options. The numbers will be printed on the list output.
Use	<ul style="list-style-type: none"> Upon setup.
Setting/ Procedure	<ul style="list-style-type: none"> Type the serial numbers. 9 digits (0 to 9) <p>NOTE</p> <ul style="list-style-type: none"> When Main-power was turned ON while the Serial No. was not entered (including initial status), the message to require entering the Serial No. will be displayed. Make sure to enter the Serial No. at setup.

17.8.3 No Sleep

Functions	<ul style="list-style-type: none"> To display the option of "OFF" for the Sleep Mode Setting screen available from Administrator Setting.
Use	<ul style="list-style-type: none"> To display the option of "OFF" for the Sleep Mode Setting.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "Prohibit." <p style="text-align: center;"> Permit "Prohibit" </p>

17.8.4 Foolscap Size Setting

Functions	<ul style="list-style-type: none"> To set the size for Foolscap paper.
Use	<ul style="list-style-type: none"> Upon setup. To change the size for Foolscap paper.
Setting/ Procedure	<ul style="list-style-type: none"> Select the size from among the following five. <p style="text-align: center;"> 220 × 330 mm 8 1/2 × 13 8 1/4 × 13 8 1/8 × 13 1/4 8 × 13 </p>

17.8.5 Install Date

Functions	<ul style="list-style-type: none"> To register the date the main unit was installed.
Use	<ul style="list-style-type: none"> Upon setup.
Setting/Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Select the key as follows. "System 1" → "Install Date." Enter the date (Year 4 digit → Month 2 digit → date 2 digit) from the 10-Key Pad. Click "Entry" key to set the date of installation.

17.8.6 Initialization

A. Data Clear

Functions	<ul style="list-style-type: none"> To initialize the setting data.
Use	<ul style="list-style-type: none"> To clears the setting data. <p>For details on items to be cleared, see "Contents to be cleared by Reset function." See P.304</p> <p>NOTE</p> <ul style="list-style-type: none"> When removing or installing the hard disk after registering the data below, be sure to clear the data. Referring data: One-Touch Registration, User Authentication/Account Track.
Setting/Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Select the key as follows. "System 1" → "Initialization" → "Data clear." Press the Start key. When "OK" is displayed, turn the main power switch OFF, and ON again.

B. System Error Clear

Functions	<ul style="list-style-type: none"> To reset the trouble data.
Use	<ul style="list-style-type: none"> Use to clear the "Jam", "Trouble", "Error" displays, and other improper displays. <p>For details on items to be cleared, see "Contents to be cleared by Reset function." See P.304</p>
Setting/Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Select the key as follows. "System 1" → "Initialization" → "System Error Clear." Press the Start key. When "OK" is displayed, turn the main power switch OFF, and ON again.

17.8.7 Communication System Setting

Functions	<ul style="list-style-type: none"> To select communication system used for RS-232C port. 			
Use	<ul style="list-style-type: none"> To switch RS-232C port in order to connect with the CS remote care modem or the JScribe-enabled-device. Communication requirements for each setting are shown below. 			
		CS Remote Care	JScribe1	JScribe2
	Baud rate	9,600 bps	19,200 bps	19,200 bps
	Data bit	8 bit	7 bit	8 bit
	Parity bit	None	Odd	None
	Stop bit	1 bit	1 bit	1 bit
	<p>NOTE</p> <ul style="list-style-type: none"> If connecting the machine to the JScribe-enabled-device, the optional Expanded Memory (EM-306) needs to be mounted. 			
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is CS Remote Care. <p style="text-align: center;"> “CS Remote Care” JScribe1 JScribe2 </p>			

bizhub C450P

Adjustment / Setting

17.9.4 Unit Change

Functions	<ul style="list-style-type: none"> To select who is to replace a unit. When the unit life arrives, the warning display is intended for the specific person who is going to replace the unit. When "User" is selected : Copying is inhibited. When "Service" is selected : Life warning. 															
Use	<ul style="list-style-type: none"> Upon setup 															
Setting/ Procedure	<ul style="list-style-type: none"> The following are the default settings: <table style="margin-left: 40px;"> <tr> <td></td> <td>US, Japan, Others 4</td> <td>Europe, Others1/2/3</td> </tr> <tr> <td>Toner Cartridge</td> <td>: "User" Service</td> <td>"User" Service</td> </tr> <tr> <td>Imaging Unit</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> <tr> <td>Waste Toner Box</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> <tr> <td>Punch Dust Box</td> <td>: User "Service"</td> <td>"User" Service</td> </tr> </table>		US, Japan, Others 4	Europe, Others1/2/3	Toner Cartridge	: "User" Service	"User" Service	Imaging Unit	: User "Service"	"User" Service	Waste Toner Box	: User "Service"	"User" Service	Punch Dust Box	: User "Service"	"User" Service
	US, Japan, Others 4	Europe, Others1/2/3														
Toner Cartridge	: "User" Service	"User" Service														
Imaging Unit	: User "Service"	"User" Service														
Waste Toner Box	: User "Service"	"User" Service														
Punch Dust Box	: User "Service"	"User" Service														

17.9.5 Software Switch Setting

Functions	<ul style="list-style-type: none"> Not Used
Use	
Setting/ Procedure	

17.9.6 LCT Paper Size Setting

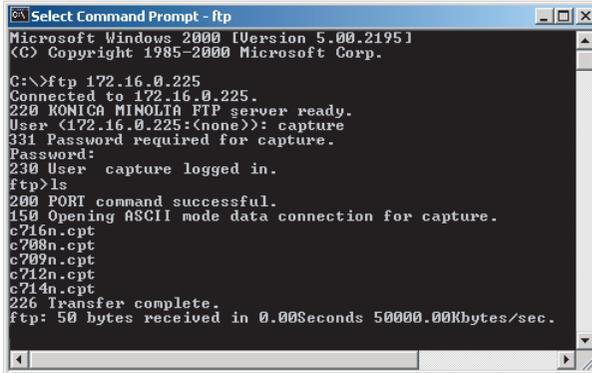
Functions	<ul style="list-style-type: none"> To set the paper size for the LCT 		
Use	<ul style="list-style-type: none"> Use to change the paper size for the LCT. 		
Setting/ Procedure	<p>The default setting depends on the setting made for the applicable marketing area.</p> <table style="margin-left: 40px;"> <tr> <td>"A4"</td> <td>8 1/2 × 11</td> </tr> </table>	"A4"	8 1/2 × 11
"A4"	8 1/2 × 11		

17.9.7 Data Capture

Functions	<ul style="list-style-type: none"> When an error occurs, it acquires the print job data in order to analyze the cause of the error.
Use	<ul style="list-style-type: none"> When an error occurs, this will be used to analyze the cause of the error according to the print job data.
Setting/ Procedure	<p>NOTE</p> <ul style="list-style-type: none"> The following conditions are necessary for this function. When selecting [Data Capture] in Admin. Setting, "permit" must be set. The hard disk must be mounted to the machine. <ol style="list-style-type: none"> Select [Service Mode] → [System 2], and click [Data Capture]. Select "ON." (While the Data Capture setting is "ON", the print job data from the PC will be stored in the hard disk.) Check the IP address of the machine. Connect the PC (Windows) and the machine with Ethernet cable. Start the DOS command prompt of the PC, and specify the IP address of the machine to start FTP. <div> <pre> Select Command Prompt - ftp Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985-2000 Microsoft Corp. C:\>ftp 172.16.0.225 Connected to 172.16.0.225. 220 KONICA MINOLTA FTP server ready. </pre> </div> <p style="text-align: right;">4037F3E538DA</p> <ol style="list-style-type: none"> Input the user name and the password. User name: capture Password: sysadm <div> <pre> Select Command Prompt - ftp Microsoft Windows 2000 [Version 5.00.2195] (C) Copyright 1985-2000 Microsoft Corp. C:\>ftp 172.16.0.225 Connected to 172.16.0.225. 220 KONICA MINOLTA FTP server ready. User (172.16.0.225-(none)): capture 331 Password required for capture. Password: 230 User capture logged in. ftp> </pre> </div> <p style="text-align: right;">4037F3E539DA</p>

Setting/
Procedure

6. Using the "ls" command, display the list of the file available for capture.



```

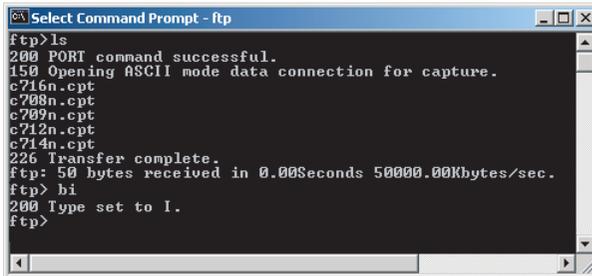
Select Command Prompt - ftp
Microsoft Windows [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\>ftp 172.16.0.225
Connected to 172.16.0.225.
220 KONICA MINOLTA FTP server ready.
User (172.16.0.225:(none)): capture
331 Password required for capture.
Password:
230 User capture logged in.
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.

```

4037F3E540DA

7. Using the "binary" command, set the File transfer mode to the binary transfer.



```

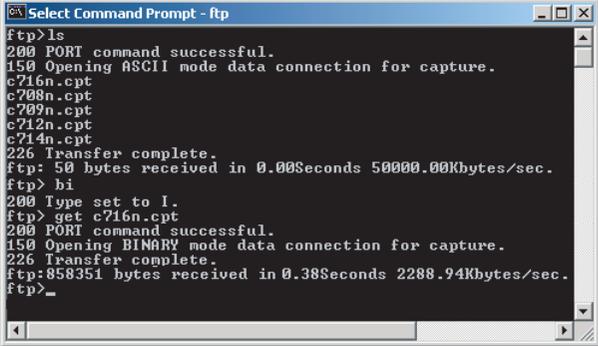
Select Command Prompt - ftp
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.
ftp>bi
200 Type set to I.
ftp>

```

4037F3E541DA

Setting/
Procedure

8. Using the "get" command, transfer the data for capture to PC.



```
Select Command Prompt - ftp
ftp>ls
200 PORT command successful.
150 Opening ASCII mode data connection for capture.
c716n.cpt
c708n.cpt
c709n.cpt
c712n.cpt
c714n.cpt
226 Transfer complete.
ftp: 50 bytes received in 0.00Seconds 50000.00Kbytes/sec.
ftp> hi
200 Type set to I.
ftp> get c716n.cpt
200 PORT command successful.
150 Opening BINARY mode data connection for capture.
226 Transfer complete.
ftp: 858351 bytes received in 0.38Seconds 2288.94Kbytes/sec.
ftp>_
```

4037F3E542DA

9. Finish the command prompt.

NOTE

- When the data capture is set to "ON", all print job data will be stored in the hard disk.
- After receiving capture data, select [Adm. Setting] → [Data Capture], and select "Prohibit" for Print Data Capture in order to delete the job data stored in the hard disk.

17.10 Counter

- The Counter displays the counts of various counters to allow the Technical Representative to check or set as necessary.

17.10.1 Procedure

1. Click "Counter" to show the Counter menu.
2. Select the specific counter to be displayed.
3. To clear the counts of two or more counters within a group or across different groups at once, click "Counter Reset," select the specific counters to be cleared, and click "END." Two or more counters can be selected.

17.10.2 Life

Functions	<ul style="list-style-type: none"> • To check the number of hours or times each of the different maintenance parts has been used. • To clear the count of each counter.
Use	<ul style="list-style-type: none"> • When each of the maintenance parts is replaced.
Setting/ Procedure	<ul style="list-style-type: none"> • To clear the count of a counter, select the specific part and press the Clear key. • If a counter is cleared mistakenly, press the Interrupt key, which will undo the clearing operation. • It is not possible to clear the count of the counters for the Fusing Unit, Transfer Belt Unit, and IU, which are provided with a new unit detection function. <p><1></p> <ul style="list-style-type: none"> • Fusing Unit : Number of times a sheet of paper is fed through • Transfer Roller Unit : Number of times a sheet of paper is fed through • Transfer Belt Unit : Number of times a sheet of paper is fed through • Paper Dust Remover/ Ozone Filter : Number of times a sheet of paper is fed through • 1st. : Number of sheets of paper fed from Tray 1 • 2nd. : Number of sheets of paper fed from Tray 2 • 3rd. : Number of sheets of paper fed from Tray 3 • 4th. : Number of sheets of paper fed from Tray 4 • Manual Tray : Number of sheets of paper fed from the Bypass <p><2></p> <ul style="list-style-type: none"> • Cyan IU : Period of time over which the Cyan Developing Unit has been used. • Magenta IU : Period of time over which the Magenta Developing Unit has been used. • Yellow IU : Period of time over which the Yellow Developing Unit has been used. • Black IU : Period of time over which the Black Developing Unit has been used. • LCT Parts : Number of sheets of paper fed from the LCT • ADF Feed : Not Use • ADF Reverse : Not Use • Sorter/Finisher : Number of sheets of paper fed out of the Sorter/Finisher

17.10.3 Jam

Functions	<ul style="list-style-type: none"> To check the number of misfeeds that have occurred at different locations in the machine. To clear the count of each counter.
Use	<ul style="list-style-type: none"> To check the number of paper misfeeds that have occurred
Setting/ Procedure	<ul style="list-style-type: none"> To clear the count of a counter, select the specific part and press the Clear key. If a counter is cleared mistakenly, press the Interrupt key, which will undo the clearing operation.

17.10.4 Service Call Counter

Functions	<ul style="list-style-type: none"> To check the number of malfunctions that have occurred at different locations in the machine To clear the count of each counter.
Use	<ul style="list-style-type: none"> To check the number of malfunctions that have occurred
Setting/ Procedure	<ul style="list-style-type: none"> To clear the count of a counter, select the specific part and press the Clear key. If a counter is cleared mistakenly, press the Interrupt key, which will undo the clearing operation.

17.10.5 Warning

Functions	<ul style="list-style-type: none"> To check the number of warning conditions detected according to the warning type To clear the count of each counter.
Use	<ul style="list-style-type: none"> To check the number of warning conditions that have been detected
Setting/ Procedure	<ul style="list-style-type: none"> To clear the count of a counter, select the specific part and press the Clear key. If a counter is cleared mistakenly, press the Interrupt key, which will undo the clearing operation. When a warning condition occurs, an oil mark appears at the lower left corner of the Basic screen. Click the oil mark will display the warning code screen.

17.10.6 Maintenance

Functions	<ul style="list-style-type: none"> To set a count value for maintenance of any given part.
Use	<ul style="list-style-type: none"> When any given part is replaced.
Setting/ Procedure	<p>Maint.-Set</p> <ul style="list-style-type: none"> Enter the maintenance counter value from the 10-Key Pad. <p>Maint.-Count</p> <ul style="list-style-type: none"> Counts up when a sheet of paper is fed through the machine. Pressing the Clear key will clear the count. If the count is cleared mistakenly, press the Interrupt key, which will undo the clearing operation.

17.10.7 Service Total**A. Total**

Functions	• To display the count value for the service total counter.
Use	• Use to check the total No. of printed pages including the ones printed by the Service Mode.
Setting/ Procedure	Service Total : No. of pages printed by User mode and Service Mode. Service Total (Duplex) : No. of pages printed by User mode and Service Mode in Duplex.

B. Paper Size

Functions	• To display the count value for Service Total Counter of each paper size.
Use	• To check the total number of printed pages including the one at Service Mode according to each paper size.
Setting/ Procedure	NOTE • The total counter value of each paper size is controlled on the HDD. So, performing HDD Format clears the counter data. If the HDD is not mounted, it is not possible to check the counter data on the screen.

17.10.8 Counter of Each Mode

Functions	• To display the printed pages in the following specified modes; Copy, Printer, Scanner, and Fax. It also displays the count value of using the specified mode.
Use	• Use to check the printed pages in the following specified modes; Copy, Printer, Scanner, and Fax, as well as No. of times each mode was used, in order to know the using condition.

17.10.9 Service Call History (Data)

Functions	• To display the trouble history in chronological order.
Use	• Use to check the trouble history in chronological order.

17.10.10 Paper Jam History

Functions	• To display the jam history in chronological order.
Use	• Use to check the jam history in chronological order. NOTE • [Code] displayed on the screen of JAM history indicates JAM code. For details of JAM code, see "Trouble shooting" on page 316.

17.11 List Output

17.11.1 Machine Management List

Functions	<ul style="list-style-type: none"> To produce an output of a list of setting values, adjustment values, Total Counter values, and others.
Use	<ul style="list-style-type: none"> At the end of setup or when a malfunction occurs.
Setting/ Procedure	<ul style="list-style-type: none"> Load the A4S plain paper to a paper source. Press the Start key, which will let the machine produce the list. The time-of-day and date will also be printed.

17.11.2 Adjustment List

Functions	<ul style="list-style-type: none"> To output the adjustment list for machine adjustment, process adjustment, etc. in Service Mode.
Use	<ul style="list-style-type: none"> At the end of setup or when a malfunction occurs.
Setting/ Procedure	<ul style="list-style-type: none"> Load the A4S plain paper to a paper source. Press the Start key, which will let the machine produce the list. The time-of-day and date will also be printed.

17.12 State Confirmation

17.12.1 Sensor Check

Functions	<ul style="list-style-type: none"> To display the states of the input ports of sensors and switches when the machine remains stationary.
Use	<ul style="list-style-type: none"> Used for troubleshooting when a malfunction or a misfeed occurs.
Setting/ Procedure	<ul style="list-style-type: none"> The operation of each of the switches and sensors can be checked on a real-time basis. It can be checked as long as the 5-V power line remains intact even when a cover is open.

A. Electrical Components Check Procedure Through Input Data Check

Example

- When a paper misfeed occurs in the paper take-up section of the machine, the Tray 2 Paper Take-Up Sensor is considered to be responsible for it.
 - Remove the sheet of paper misfed.
 - From the Sensor Check List that follows, check the panel display of the Tray 2 Paper Take-Up Sensor. For the Tray 2 Paper Take-Up Sensor, you check the data of "Take-Up" of "Tray 2."
 - Call the Service mode to the screen.
 - Select "State Confirmation" → "Sensor Check" and then select the screen that contains "Take-Up" under "Tray 2." For "Take-Up" under "Tray 2," select "1" on the left-hand side of the screen.
 - Check that the data for "Take-Up" under "Tray 2" is "0" (sensor blocked).
 - Move the actuator to unblock the Tray 2 Paper Take-Up Sensor.
 - Check that the data for "Take-Up" under "Tray 2" changes from "0" to "1" on the screen.
 - If the input data is "0," change the sensor.

C. Sensor Check List**(1) Sensors 1 (Main Unit, PC-102, PC-202)**

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PC14	Tray 1	Device Detection	Tray 1 Set Sensor	In position	Out of position
PC2		Paper Empty	Tray 1 Paper Empty Sensor	Paper not present	Paper present
PC13		Near Empty	Tray 1 Paper Near-Empty Sensor	Blocked	Unblocked
PC1		Chain Feed	Tray 1 Double Feed Sensor	Paper present	Paper not present
PC103	Tray 2	Device Detection	Tray 2 Set Sensor	In position	Out of position
PC106		Paper Empty	Tray 2 Paper Empty Sensor	Paper not present	Paper present
PC104		Near Empty	Tray 2 Paper Near-Empty Sensor	Blocked	Unblocked
PC108		Vertical Transport	Tray 2 Vertical Transport Sensor	Paper present	Paper not present
PC107		Take-Up	Tray 2 Paper Take-Up Sensor	Paper present	Paper not present
PC105		Upper Limit	Tray 2 Lift-Up Sensor	At raised position	Not at raised position
PC112-PF	Tray 3	Device Detection	Tray 3 Set Sensor	In position	Out of position
PC115-PF		Paper Empty	Tray 3 Paper Empty Sensor	Paper not present	Paper present
PC113-PF		Near Empty	Tray 3 Paper Near-Empty Sensor	Blocked	Unblocked
PC117-PF		Vertical Transport	Tray 3 Vertical Transport Sensor	Paper present	Paper not present
PC116-PF		Take-Up	Tray 3 Paper Take-Up Sensor	Paper present	Paper not present
PC114-PF		Upper Limit	Tray 3 Lift-Up Upper Limit Sensor	At raised position	Not at raised position
PC121-PF	Tray 4	Device Detection	Tray 4 Set Sensor	In position	Out of position
PC124-PF		Paper Empty	Tray 4 Paper Empty Sensor	Paper not present	Paper present
PC122-PF		Near Empty	Tray 4 Paper Near-Empty Sensor	Blocked	Unblocked
PC126-PF		Vertical Transport	Tray 4 Vertical Transport Sensor	Paper present	Paper not present
PC125-PF		Take-Up	Tray 4 Paper Take-Up Sensor	Paper present	Paper not present
PC123-PF		Upper Limit	Tray 4 Lift-Up Sensor	At raised position	Not at raised position

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PC111	Manual	Multi FD Size1	Bypass FD Paper Size Sensor/1	ON	OFF
PC112		Multi FD Size2	Bypass FD Paper Size Sensor/2	ON	OFF
PC113		Multi FD Size3	Bypass FD Paper Size Sensor/3	ON	OFF
PC114		Multi FD Size4	Bypass FD Paper Size Sensor/4	ON	OFF
PC115		Lift-Up Position Sensor	Bypass Lift-Up Sensor	At raised position	Not at raised position
PC110		Paper Empty	Bypass Paper Empty Sensor	Paper not present	Paper present
PC28	Paper Passage	Registration Roller	Registration Roller Sensor	Paper present	Paper not present
PC30		Exit	Exit Sensor	Paper present	Paper not present
PC27		OHP Detect	OHP Sensor	OHP	Not OHP
PC4		Fusing Loop Detect	Fusing Paper Loop Sensor	Loop present	Loop not present
PC10	PC Drive Detect	Color PC Drive Main Sensor	Color PC Drum Main Sensor	Blocked	Unblocked
PC35		Color PC Drive Sub Sensor	Color PC Drum Sub Sensor	Blocked	Unblocked
PC11		Black PC Drive Main Sensor	K PC Drum Main Sensor	Blocked	Unblocked
PC36		Black PC Drive Sub Sensor	K PC Drum Sub Sensor	Blocked	Unblocked

(2) Sensors 2 (Main Unit, PC-402)

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PC4-LCT	LCT	Lift-Up Upper	Tray Upper Limit Sensor	At raised position	Not at raised position
PC13-LCT		Lift-Up Lower	Tray Lower Position Sensor	At lower limit	Not at lower limit
PC12-LCT		Shift Tray Home	Shifter Home Position Sensor	At home	Out of home
PC11-LCT		Shift Tray Stop	Shifter Return Position Sensor	At stop position	Not at stop position
PC1-LCT		Take-Up	Paper Feed Sensor	Paper present	Paper not present
PC2-LCT		Vertical Transport	LCT Vertical Transport Sensor	Paper present	Paper not present
PWB-ELCT		Paper Empty	Paper Empty Board	Paper present	Paper not present
PC3-LCT		Main Tray Empty	Upper Paper Empty Sensor	Paper present	Paper not present
PC9-LCT		Shift Tray Empty	Shift Tray Paper Empty Sensor	Paper present	Paper not present
PC7-LCT		Lower Over Run	Lower Limit Sensor	Malfunction	Operational
UN1-LCT		Manual Button Down	Paper Descent Key	ON	OFF
PC14-LCT		Division Board Position	Shift Gate Home Position Sensor	At home	Out of home
PC6-LCT		Cassette Open	Tray Set Sensor	In position	Out of position
PC8-LCT		Shift Motor Pulse	Shift Motor Pulse Sensor	Blocked	Unblocked
PC10-LCT		Elevator Motor Pulse	Elevator Motor Pulse Sensor	Blocked	Unblocked
PI2-DU	Duplex	Set	Duplex Unit Door Set Sensor	Close	Open
PI1-DU		Paper Passage1	Duplex Unit Transport Sensor 1	Paper present	Paper not present
PC1-DU		Paper Passage2	Duplex Unit Transport Sensor 2	Paper present	Paper not present
PC1-HO	Horizontal Trans. Unit	Horizontal Transport	Paper Sensor	Paper not present	Paper present
PC6-HO		Paper Detect Reverse Sensor	Turnover Empty Sensor	Paper present	Paper not present

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PC17	Developing	C Toner Empty	Toner Near-Empty Sensor PQ/ C	Toner not present	Toner present
PC16		M Toner Empty	Toner Near-Empty Sensor PQ/ M	Toner not present	Toner present
PC15		Y Toner Empty	Toner Near-Empty Sensor PQ/ Y	Toner not present	Toner present
PC18		K Toner Empty	Toner Near-Empty Sensor PQ/ K	Toner not present	Toner present
PC19		C Toner Set	Toner Set Sensor/C	Out of position	In position
PC26		M Toner Set	Toner Set Sensor/M	Out of position	In position
PC25		Y Toner Set	Toner Set Sensor/Y	Out of position	In position
PC20		K Toner Set	Toner Set Sensor/K	Out of position	In position
PC29	2nd Transfer	Retraction	2nd Image Transfer Pressure/ Retraction Sensor	Not Retracted	Retracted
PC12	Transfer Belt	Retraction	1st Image Transfer Retraction Position Sensor	Not Retracted	Retracted
PC31	Waste Toner	Toner Full	Waste Toner Full Sensor	Blocked	Unblocked
PC32		Toner Box Set	Waste Toner Bottle Set Sensor	In position	Out of position
—	Fusing Unit	Set	Fusing Unit In-Position Detec- tion Signal	In position	Out of position
PC33		Fuser Roller Retraction	Fusing Pressure/Retraction Sensor	Not Retracted	Retracted

(3) Sensors 3 (FS-507, JS-601)

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display		
				1	0	
PC1-FN	Multi Staple Finisher	Exit (Non-sort1)	1st Tray Exit Sensor	Paper present	Paper not present	
PC19-FN		Exit (Non-sort3)	Job Tray Exit Sensor	Paper present	Paper not present	
PC3-FN		Exit (Finisher)	Storage Sensor	Paper present	Paper not present	
PC4-FN		Upper Paper Pass	Upper Entrance Sensor	Paper present	Paper not present	
PC2-FN		Transport Lower	Lower Entrance Sensor	Paper present	Paper not present	
PC6-FN		Full (Non-sort1)	1st Tray Full Sensor	Blocked	Unblocked	
PC20-FN		Full (Non-sort3)	Job Tray Full Sensor	Paper present	Paper not present	
PC7-FN		Full (Elev. Tray)	Elevator Tray Full Sensor	Blocked	Unblocked	
PC5-FN		Empty (Finisher)	Finisher Tray Paper Sensor	Paper present	Paper not present	
PWB-D FN		Surface (Elev.)	Elevator Tray Upper Limit Sensor	Paper present	Paper not present	
PC8-FN		Empty (Elev.)	Elevator Tray Paper Sensor	Blocked	Unblocked	
PC9-FN		Home (CD-Align)	CD Aligning Home Position Sensor	Blocked	Unblocked	
PC14-FN		Staple Standby	Staple Home Position Sensor	Blocked	Unblocked	
PC12-FN		Home (Store roller)	Storage Roller Home Position Sensor	Blocked	Unblocked	
PC13-FN		Home (Exit roller)	Exit Roller Home Position Sensor	Blocked	Unblocked	
			Punch2/3 Position SW			
			Punch Speed			
PC11-FN			Shift Speed	Shift Motor Pulse Sensor	Unblocked	Blocked
S2-FN S3-FN			Elevate Tray Raised/Lowered	Elevator Tray Upper Limit Switch Elevator Tray Lower Limit Switch	ON	OFF
PC10-FN		Home (Shift)	Shift Home Position Sensor	Blocked	Unblocked	
	Stapler 1					
—		Home	Staple Home 1	Unblocked	Blocked	
—		Staple Empty	Staple Empty 1	Unblocked	Blocked	
—		Self Priming	Staple Self Priming 1	Unblocked	Blocked	
	Stapler 2					
—		Home	Staple Home 2	Unblocked	Blocked	
—		Staple Empty	Staple Empty 2	Unblocked	Blocked	
—		Self Priming	Staple Self Priming 2	Unblocked	Blocked	

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Adjustment / Setting

(4) Sensors 4 (FS-603, PK-501)

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PI1-FN	Saddle Stitch Finisher	Entrance	Entrance Sensor	Paper present	Paper not present
PI2-FN		Paddle Home	Paddle Home Position Sensor	HP	
PI3-FN		Bundle Roller Home	Swing Guide Home Position Sensor	HP	
PI4-FN		Front Align	Front Aligning Plate Home Position Sensor	HP	
PI5-FN		Back Align	Rear Aligning Plate Home Position Sensor	HP	
PI6-FN		Alignment Tray	Finisher Tray Sensor	Paper present	Paper not present
PI7-FN		Home (Exit Belt)	Exit Belt Home Position Sen- sor	HP	
PI10-FN		Crease Position	Folding Position Sensor	Paper present	Paper not present
PI13-FN		Crease Tray	Saddle Tray Sensor	Paper present	Paper not present
PI11-FN		Crease Home	Folding Home Position Sen- sor	HP	
PI12-FN		Crease Roller Home	Folding Roller Home Position Sensor	HP	
PI14-FN		Crease Clock	Staple/Folding Motor Clock Sensor		
PI8-FN		Paper	Exit Tray Sensor	Paper present	Paper not present
PI9-FN		Paper Surface	Exit Tray Home Position Sen- sor	Paper surface detected	
PI15-FN		Lift Raised Position	Shift Upper Limit Sensor	Upper limit	
PI16-FN		Lift Lowered Position	Shift Lower Limit Sensor	Lower limit	
PI17-FN		Lift Clock	Shift Motor Clock Sensor		
—		Lift Middle	—	Paper full	
PI18-FN		Slide Home	Slide Home Position Sensor		HP
PI19-FN		Stapler Home	Staple Drive Home Position Sensor	HP	
PI20-FN	Staple	Staple Detecting Sensor	Staples loaded	No staple loaded	
—	Stapler Connect.	—		Stapler connection detected	
MS3-FN MS4-FN	Stapler Safety SW	Staple Safety Switch (Rear) Staple Safety Switch (Front)	Open		

Symbol	Panel Display		Part/Signal Name	Operation Characteristics/ Panel Display	
				1	0
PI21-FN	Saddle Stitch Finisher	Self Prime	Self-Priming Sensor		READY
PI22-FN		Front Door	Front Door Open Sensor		Open
PI23-FN		Upper Cover	Upper Cover Open Sensor		Open
MS1-FN		Front Door SW	Front Door Open Sensor		Open
—		Remain in Reverse Section	—		Paper horiz. side
MS2-FN		Joint SW	Joint Open Sensor		Open
—		Punch Unit	Punch Depth1	—	
—	Punch Depth2		—		
—	Punch Depth3		—		
—	Punch Depth4		—		
—	Punch Dust		—	Punch trash full	
—	Punch Timing		—		
PI3P-PK	Punch Motor Clock		Punch Motor Clock Sensor	Blocked	
PI1P-PK	Punch (Home)	Punch Home Position Sensor	HP		
PI2P-PK	Punch Depth Home	Side Registration Home Sen- sor	HP		
PC6-HO		Horizontal Transport Door	Horizontal Unit Door Sensor	Blocked	Unblocked

(5) Sensors 5 (Main Unit)

- Item on the Sensor 5 is not used.

17.12.2 Table Number

Functions	<ul style="list-style-type: none"> To display the Vg/Vdc output values calculated for the image density of the test pattern (amount of toner sticking) produced on the Transfer Belt during an AIDC detection sequence. Reference values: C, M, Y, K Vdc: around 390 V, Vg: around 550 V
Use	Used for troubleshooting of image problems.
Setting/ Procedure	<ul style="list-style-type: none"> If the value is high, correct so that the image density becomes low. If the value is low, correct so that the image density becomes high.

17.12.3 Level History1

Functions	<ul style="list-style-type: none"> To display TCR (T/C ratio), IDC/Regist Sensor output values, and fusing temperature.
Use	Used for troubleshooting of image problems.
Setting/ Procedure	<ul style="list-style-type: none"> TCR-C/-M/-Y/-K : Shows the T/C output reading taken last. IDC1/IDC2 : Shows the latest IDC data. Temp-Belt : Shows the latest Heating Roller temperature data. Temp-Press. : Shows the latest Fusing Pressure Roller temperature data. <p>“Reading taken last” means</p> <ul style="list-style-type: none"> Density of toner of the latest image When a test print is produced by pressing the Start key while Level History 1 is being displayed.

17.12.4 Level History2

Functions	<ul style="list-style-type: none"> IDC Sensor (Transfer Belt bare surface level) as adjusted through the image stabilization sequence and ATVC value.
Use	Used for troubleshooting of image problems.
Setting/ Procedure	<ul style="list-style-type: none"> IDC Sensor: Shows the intensity adjustment value (0 to 255) of the IDC Sensor. ATVC (C, M, Y, K) : Shows the first image transfer ATVC adjustment value (300 V to 3000 V). ATVC (2nd) : Shows the second image transfer ATVC adjustment value (300 V to 5000 V).

17.12.5 Temp. & Humidity

Functions	<ul style="list-style-type: none"> To display the temperature and humidity of a specific location (AIDC Sensor portion) inside the machine and fusing temperature.
Use	Used as reference information when a malfunction occurs.
Setting/ Procedure	<ul style="list-style-type: none"> Machine interior temperature : 0 to 100 °C in 1 °C increments Temperature on Fusing Belt side : 0 to 255 °C in 1 °C increments Temperature on fusing pressure side : 0 to 255 °C in 1 °C increments Machine interior humidity : 0 to 100 % in 1 % increments Absolute humidity : 0 to 100 in 1 increments

17.12.6 Memory / HDD Adj.**A. Memory Check**

Functions	<ul style="list-style-type: none"> To check correspondence of data written to and that read from memory through write/read check. <p>Rough Check</p> <ul style="list-style-type: none"> A check is made to see if the image data reading and writing are correctly made in a very limited area. <p>Detail Check</p> <ul style="list-style-type: none"> A check is made to see if the image data reading and writing are correctly made at the addresses and buses in all areas. The progress of the check sequence is displayed in percentage.
Use	<ul style="list-style-type: none"> If the copy image is faulty.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "State Confirmation" → "Memory / HDD Adj." → "Memory Check." Select the desired type of check, either Rough Check or Detail Check. Press the Start key to start the check procedure. When the check procedure is completed, the results are shown on the screen. If the check results are NG, check the memory for connection or replace the memory with a new one. <p>* Press the Stop key to interrupt the check sequence. (Only Rough Check)</p>

B. Compress / Decompression Check

Functions	<ul style="list-style-type: none"> To check whether compression and decompression are carried out properly.
Use	<ul style="list-style-type: none"> If the copy image is faulty.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "State Confirmation" → "Memory / HDD Adj." → "Compress / Decompression Check." Pressing the Start key will automatically start to complete a compression/decompression check sequence. The check result will be displayed. <p>* Press the Stop key to interrupt the check sequence.</p>

C. Work Memory In/Out Check

Functions	<ul style="list-style-type: none"> To check to see if input and output of image data of work memory are correctly performed.
Use	<ul style="list-style-type: none"> If the print image is faulty.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "State Confirmation" → "Memory / HDD Adj." → "Work Memory In/Out Check." Select either "Input Check," "Output Check," or both. Pressing the Start key will start the work memory input/output operation check sequence and be terminated automatically. The check result will be displayed, "OK" or "NG." <p>* Press the Stop key to interrupt the check sequence.</p>

D. HDD R/W Check

Functions	<ul style="list-style-type: none"> To check to see if the hard disk is connected properly, and if read/write operation of the hard disk is correctly performed.
Use	<ul style="list-style-type: none"> When the hard disk is mounted.
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "State Confirmation" → "Memory / HDD Adj." → "HDD R/W Check." Pressing the Start key will start the hard disk R/W check sequence and be terminated automatically. The check result will be displayed, "OK" or "NG." <p>* Press the Stop key to interrupt the check sequence.</p>

E. HDD Format

Functions	<ul style="list-style-type: none"> To format the hard disk The function proceeds in the order of Physical Format to Logical Format. If the hard disk is yet to be formatted, the trouble code "C-D010" will appear. Ignore this code and continue with the formatting procedure.
Use	<ul style="list-style-type: none"> When the hard disk is mounted. When the hard disk is to be initialized. (Physical Format to Logical Format)
Adjustment Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "State Confirmation" → "Memory / HDD Adj." → "HDD Format." <p>(1) Physical Format</p> <ol style="list-style-type: none"> Click "Physical Format." Press the Start key to start the formatting sequence. The sequence will be automatically terminated as it is completed. Turn OFF and ON the Main Power Switch. <p>(2) Logical Format (Only when initial is set up)</p> <ol style="list-style-type: none"> Click "Logical Format." Press the Start key to start the formatting sequence. The sequence will be automatically terminated as it is completed. Turn OFF and ON the Main Power Switch. <p>* Formatting the hard disk will erase all data contained in it.</p>

17.12.7 Memory/HDD State

Functions	<ul style="list-style-type: none"> To display the condition and amount of the memory and Hard disk. To display the mounting condition of the optional Encryption Board (Security Kit SC-503).
Use	<ul style="list-style-type: none"> Use to check the condition and amount of the memory and Hard disk. Use to setup the optional Security Kit SC-503.
Setting/ Procedure	<ul style="list-style-type: none"> When an add-on memory is mounted, the machine automatically recognizes it and displays its capacity. When the Encryption Board is mounted, the machine automatically recognizes it and displays [Set].

17.12.8 Color Regist

Functions	<ul style="list-style-type: none"> To check each of C, M, Y, and K for color shift amount. The data is updated after a color shift correction has been made or color shift adjustment has been completed.
Use	<ul style="list-style-type: none"> Use for check when color shift is evident.
Setting/ Procedure	<ul style="list-style-type: none"> For each of C, M, Y, and K, the color shift amount (in X and Y directions) at two locations (one at the front and the other in the rear) and the difference in color shift amount between the front and rear (X and Y directions) are displayed. Display unit: dots The shift amount is displayed with reference to K for C, M, and Y, and that for K is displayed with reference to an ideal position.

17.12.9 IU Lot No.

Functions	<ul style="list-style-type: none"> To display the 10-digit lot number for each of C, M, Y, and K IUs. The lot number data is stored in EEPROM of each IU.
Use	<ul style="list-style-type: none"> Use for checking the IU Lot No.
Setting/ Procedure	<ul style="list-style-type: none"> The IU lot number is displayed even with the Front Door opened; however, the display is blank, since the machine is unable to read the lot number when the Main Power Switch is turned ON with the Front Door open. Nonetheless, the lot number will be displayed when the Front Door is closed. (The engine obtains the IU lot number information when the Front Door is closed.)

17.12.10 LPH Status

Functions	<ul style="list-style-type: none"> To check various information on each of the C, M, Y, and K LPHs
Use	<ul style="list-style-type: none"> Use for checking the LPH Status.
Setting/ Procedure	<ul style="list-style-type: none"> LPH Lot No.: LPH lot number (8 digits) Average Exposure: Average light intensity X: Print width accuracy Y: Linearity accuracy Z: Focus accuracy FFT Rank: Print width rank LPH Rank: 0 to 5 If any one change is made from the default value as a result of LPH chip-to-chip corrections, an asterisk "*" is displayed beside the color identification (C, M, Y, and K) on the screen.

17.12.11 Adjustment Data List

Functions	<ul style="list-style-type: none"> To display the adjustment and setting value set in the main unit.
Use	<ul style="list-style-type: none"> Use to check the adjustment and setting value set in the main unit.

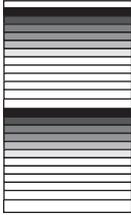
17.13 Test Mode

- To check the image on the printer side by letting the machine produce various types of test pattern. It also tests the printing operation in running mode, as well as the Fax transmission.
- The machine searches through the paper sources in the order of Tray 2, Tray 3, Tray 4, and Tray 1 for paper of the maximum size for printing.

17.13.1 Procedure for Test Pattern Output

1. Click "Test Mode" to display the Test Mode menu.
2. Click the desired test pattern key.
3. Set up the desired functions and press the Start key.

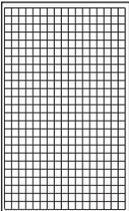
17.13.2 Gradation Pattern

Functions	<ul style="list-style-type: none"> • To produce a gradation pattern.
Use	<ul style="list-style-type: none"> • Used for checking gradation reproducibility.
Pattern	 <p>SINGLE HYPER Gradation Cyan</p>
Setting/ Procedure	<ul style="list-style-type: none"> • # of Print ("1" to 999) • Select "SINGLE" (single copy) or MULTI (multi copy). • Select FEET or "HYPER". • Select "Gradation" or Resolution if HYPERS has been selected. • Select the color mode. "Cyan", Magenta, Yellow, Black (4PC), CMYK, 8Color, 4Color, Black (1PC) • Black (4PC): Uses four colors. • Black (1PC): Uses one color of black.

17.13.3 Halftone Pattern

Functions	<ul style="list-style-type: none"> To produce a solid halftone pattern.
Use	<ul style="list-style-type: none"> Used for checking uneven density and pitch noise.
Pattern	 <p style="text-align: right;"> SINGLE HYPER Gradation Cyan Density: 255 </p> <p style="text-align: center; font-size: small;">4036163043c0</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected. Select the color mode. "Cyan", Magenta, Yellow, Black (4PC), Red, Green, Blue, CMYK, 3 Color, 4 Color, Black (1PC), MIX Type the density level (0 to "255").

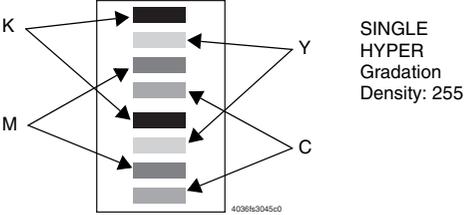
17.13.4 Lattice Pattern

Functions	<ul style="list-style-type: none"> To produce a lattice pattern.
Use	<ul style="list-style-type: none"> Used for checking fine line reproducibility and uneven density. A reverse pattern is also used to check for fine line reproducibility of white letters on a solid background.
Pattern	 <p style="text-align: right;"> SINGLE FEET Cyan CD Width: 5 FD Width: 5 Density: 255 Normal </p> <p style="text-align: center; font-size: small;">4036163044c0</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select "FEET" or HYPER. Select Gradation or Resolution. (Only select HYPER) Select the color mode. "Cyan", Magenta, Yellow, Black (4PC), Red, Green, Blue, CMYK, 3 Color, 4 Color, Black (1PC) Enter CD width and FD width (0 to 191 dots). Type the density level (0 to "255"). Select "Normal" or Reverse.

bizhub C450P

Adjustment / Setting

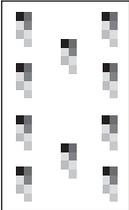
17.13.5 Solid Pattern

Functions	<ul style="list-style-type: none"> To produce each of the C, M, Y, and K solid patterns.
Use	<ul style="list-style-type: none"> Used for checking reproducibility of image density.
Pattern	 <p>SINGLE HYPER Gradation Density: 255</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected. Type the density level (0 to "255").

17.13.6 Color Sample

Functions	<ul style="list-style-type: none"> To produce a color sample.
Use	<ul style="list-style-type: none"> Used for checking reproducibility of each of the different colors.
Pattern	 <p>SINGLE HYPER Gradation</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected. Produce 12-gradation-level patches of C, M, Y, K, R, G, and B, and a patch of each of the 12 reference colors in the hue circle with lightness and saturation corrected.

17.13.7 8 Color Solid Pattern

Functions	<ul style="list-style-type: none"> To produce an 8-color solid pattern.
Use	<ul style="list-style-type: none"> Used for checking color reproducibility and uneven density of each color.
Pattern	 <p>SINGLE HYPER Gradation Density: 255</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected. Type the density level (0 to "255").

17.13.8 LPH Pattern

Functions	<ul style="list-style-type: none"> To produce an LPH pattern.
Use	<ul style="list-style-type: none"> Used for LPH chip-to-chip correction
Pattern	 <p>SINGLE HYPER Gradation Border: OFF</p>
Setting/ Procedure	<ul style="list-style-type: none"> # of Print ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected. Select to turn ON or "OFF" the Border Line.

17.13.9 Running Mode

Functions	<ul style="list-style-type: none"> To test the printing operation in Running Mode.
Use	<ul style="list-style-type: none"> Use to check the printing operation in Running Mode from each paper source.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Click these keys in this order: "Test Mode" → "Running Mode." Select the paper size (Tray 1, Bypass only). Select the paper type. Press the Start key to start the Running Mode. Pressing the Stop key will stop operation.

17.14 Finisher

For details on adjustment, see the Service Manual for Option FS-603.

Functions	<ul style="list-style-type: none"> To adjust the positions of center staple and folding for the Finisher.
Use	<ul style="list-style-type: none"> Use when the center staple and folding positions deviate from the correct ones in the Prints made using the Fold & Staple function.
Adjustment Specification	<ul style="list-style-type: none"> Center staple position: The adjustment range is -7.0 mm to +7.0 mm (in 1-mm increments). Fold position: The adjustment range is -7.0 mm to +7.0 mm (in 1-mm increments).

17.15 Internet ISW

- By using this setting, the Firmware stored in the Server can be downloaded over internet for upgrading.
- There are two ways for upgrading the Firmware via internet; to conduct on the control panel in this setting, and to conduct by using the CS Remote Care.
- When performing Internet ISW from the control panel of the machine, settings must be made in advance on the Jig software side.
- For details for upgrading the Firmware, refer to “Firmware upgrade” in the Maintenance section.

See P.49

17.15.1 Internet ISW Set

Functions	<ul style="list-style-type: none"> To set whether or not to enable each setting for Internet ISW.
Use	<ul style="list-style-type: none"> To use when upgrading the Firmware by Internet ISW. Each setting such as Server setting will be valid by setting this to “ON”. <p>NOTE</p> <ul style="list-style-type: none"> When the following setting is set to “ON”, this setting will automatically be set to “OFF” and cannot be changed. [Admin. Setting] → [Security Setting] → [Enhanced Security]
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">ON “OFF”</p>



17.15.2 HTTP Setting

- It will be displayed only when [Internet ISW Set] is set to "ON".

A. Data Input Setting

Functions	<ul style="list-style-type: none"> • To set whether or not to enable downloading using the HTTP Protocol.
Use	<ul style="list-style-type: none"> • To use when accessing the Server using the HTTP Protocol. • Setting on the Proxy Server will be valid when this setting is "ON".
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

B. Connect Proxy

Functions	<ul style="list-style-type: none"> • To set whether or not to connect via Proxy Server when accessing the Server.
Use	<ul style="list-style-type: none"> • To use when accessing the Server via Proxy Server.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

C. Proxy Server

Functions	<ul style="list-style-type: none"> • To set the Address and the Port Number for the Proxy Server.
Use	<ul style="list-style-type: none"> • To use when accessing the Server via Proxy Server.
Setting/ Procedure	<p><Server Address></p> <ul style="list-style-type: none"> • Enter the IP Address using the Version 4 method or FQDN method. <p><Port Number></p> <ul style="list-style-type: none"> • Enter the value between 1 and 65535 using the 10-key pad.

D. Proxy Authentication

Functions	<ul style="list-style-type: none"> • To set the Login name or Password when Authentication is necessary for accessing the Proxy Server.
Use	<ul style="list-style-type: none"> • To use when Authentication is necessary for accessing the Proxy Server.
Setting/ Procedure	<p><Authentication></p> <ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">ON "OFF"</p> <p><Log-in Name></p> <ul style="list-style-type: none"> • Enter the Login name (up to 32 one-byte characters) on the on-screen keyboard. <p><Password></p> <ul style="list-style-type: none"> • Enter the Password (up to 32 one-byte characters) on the on-screen keyboard.

E. Connection Time-Out

Functions	<ul style="list-style-type: none"> • To set the time for the Timeout for accessing the Server.
Use	<ul style="list-style-type: none"> • To use when changing the time for the Timeout for accessing the Server.
Setting/ Procedure	<ul style="list-style-type: none"> • Enter the value between 30 and 300 (sec.) using the 10-key pad.

17.15.3 FTP Setting

- It will be displayed only when [Internet ISW Set] is set to "ON".

A. Data Input Setting

Functions	<ul style="list-style-type: none"> • To set whether or not to enable downloading using FTP Protocol.
Use	<ul style="list-style-type: none"> • To use when accessing the Server with FTP Protocol. • Setting this to "ON" will enable the Proxy Server setting.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">"ON" OFF</p>

B. Connect Proxy

Functions	<ul style="list-style-type: none"> • To set whether or not to access the Server via Proxy Server.
Use	<ul style="list-style-type: none"> • To use when accessing the Server via Proxy Server.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

C. Proxy Server

Functions	<ul style="list-style-type: none"> • To set the Address and the Port No. of the Proxy Server.
Use	<ul style="list-style-type: none"> • To use when accessing the Server via Proxy Server.
Setting/ Procedure	<p><Server Address></p> <ul style="list-style-type: none"> • Enter the IP Address using the Version 4 method or FQDN method. <p><Port Number></p> <ul style="list-style-type: none"> • Enter the value between 1 and 65535 using the 10-key pad.

D. Connection Setting

Functions	<ul style="list-style-type: none"> • To set the Port No. and the time for Timeout when accessing the FTP Server, and also to set whether or not to enable PASV Mode.
Use	<ul style="list-style-type: none"> • To use when accessing the FTP Server. • To use when connecting by the PASV (passive) Mode (FTP Server side will inform the connection port before connecting).
Setting/ Procedure	<p><Port Number></p> <ul style="list-style-type: none"> • Enter the value between 1 and 65535 using the 10-key pad. <p><Connection Time Out></p> <ul style="list-style-type: none"> • Enter the value between 1 and 60 (min.) using the 10-key pad. <p><PASV Mode></p> <ul style="list-style-type: none"> • The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

17.15.4 Forwarding Access Setting

A. User ID

Functions	<ul style="list-style-type: none"> To register the User ID for accessing the Program Server where Firmware is to be stored.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Select [User ID]. Enter the User ID (up to 64 one-byte characters) on the on-screen keyboard.

B. Password

Functions	<ul style="list-style-type: none"> To register the Password for accessing the Program Server where Firmware is to be stored.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Select [Password]. Enter the Password (up to 64 characters) on the on-screen keyboard.

C. URL

Functions	<ul style="list-style-type: none"> To register the Address and Directory of the Program Server where the Firmware is to be stored in URL.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Select [URL]. Enter the URL (up to 256 one-byte characters) on the on-screen keyboard. <p>NOTE</p> <ul style="list-style-type: none"> Enter the URL which format suits the Protocol to be used. When connecting to http http:// (Host name or IP Address)/ Directory name or https:// (Host name or IP Address)/Directory name. When connecting to ftp ftp:// (Host name or IP Address) / Directory name.

D. FileName

Functions	<ul style="list-style-type: none"> To register the file name of the Firmware data to be downloaded.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Select [FileName]. Enter the File Name (up to 63 one-byte characters) on the on-screen keyboard.

NOTE

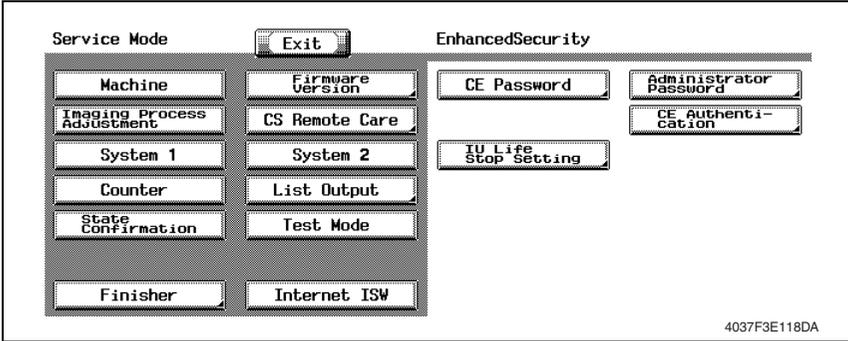
- It is not possible to set the start of downloading of Internet ISW from the Jig software. Set the start from the control panel of the machine.

18. Enhanced Security

18.1 Enhanced Security Function Setting Procedure

18.1.1 Procedure

1. Call the Service Mode to the screen.
2. Press the following keys in this order.
Stop → 0 → Clear
3. Enhanced Security menu will appear.



18.1.2 Exiting

- Click the "Exit" key.

18.2 Enhanced Security Function Tree

Service Mode	
Enhanced Security	CE Password
	Administrator Password
	CE Authentication
	IU Life Stop Setting

18.3.4 IU Life Stop Setting

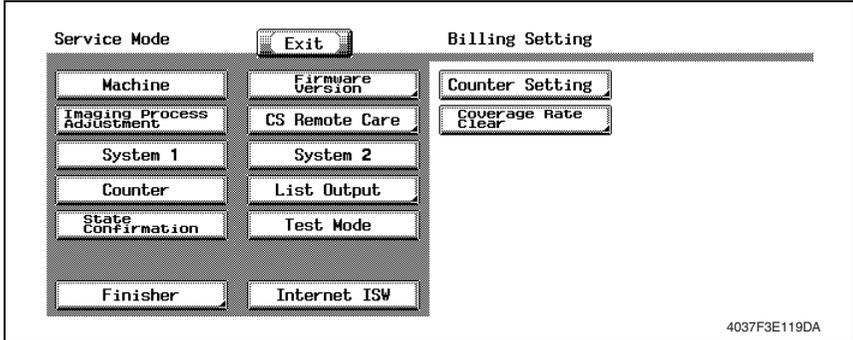
Functions	<ul style="list-style-type: none">To select whether or not to stop a print cycle when the IU reaches its service life
Use	<ul style="list-style-type: none">Use to select not to stop the print cycle when the IU reaches its service life.
Setting/ Procedure	The default setting is Stop. <p style="text-align: center;">"Stop" Not Stop</p>

19. Billing Setting

19.1 Billing Setting Function Setting Procedure

19.1.1 Procedure

1. Call the Service Mode to the screen.
2. Press the following keys in this order.
Stop → 9
3. Billing Setting menu will appear.



19.1.2 Exiting

- Click the "Exit" key.

19.2 Billing Setting Function Tree

Service Mode	
Billing Setting	Counter Setting
	Coverage Rate Clear

19.3 Settings in the Billing Setting

19.3.1 Counter Setting

Functions	<ul style="list-style-type: none"> To set the counting method for the Total Counter and Size Counter. 																																																														
Use	<ul style="list-style-type: none"> Use to change the counting method for the counters. 																																																														
Setting/ Procedure	<p>Total Counter</p> <p>Mode 1: 1 Count per 1 print cycle (Default: US, Others 4, Japan) Mode 2: Large Size is double counts (Default: Europe, Others 1, Others 2, Others 3)</p> <p>Size Counter</p> <ul style="list-style-type: none"> A3/11 × 17 : When it exceeds 279 mm in the main scan direction and 420 mm in the sub scan direction (exceeds 399 mm at FAX scan), it is regarded as the Large Size. A3/B4/11 × 17/8 1/2 × 14 : When it exceeds 215 mm in the main scan direction and 355 mm in the sub scan direction (exceeds 337 mm at FAX scan), it is regarded as the Large Size. A3/11 × 17/B4/8 1/2 × 14/Foolscap : When it exceeds 203 mm in the main scan direction and 330 mm in the sub scan direction (exceeds 313 mm at FAX scan), it is regarded as the Large Size (However the size in the main scan direction changes according to the Foolscap Size Setting.) <ul style="list-style-type: none"> Not counted (Default: US, Others 4, Japan) A3 and 11 × 17 A3, B4, 11 × 17, and 8 1/2 × 14 (Default: Europe, Others 1, Others 2, Others 3) A3, B4, Foolscap, 11 × 17, 11 × 14, and 8 1/2 × 14 <p>* Count-up Table</p> <table border="1"> <thead> <tr> <th rowspan="2">Printing</th> <th colspan="4">1-Sided</th> <th colspan="4">2-Sided</th> </tr> <tr> <th colspan="2">Sizes other than those specified</th> <th colspan="2">Specified sizes</th> <th colspan="2">Sizes other than those specified</th> <th colspan="2">Specified sizes</th> </tr> <tr> <th>Mode</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> </tr> <tr> <th>Type</th> <th>1</th> <th>2</th> <th>1</th> <th>2</th> <th>1</th> <th>2</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td>1</td> <td>1</td> <td>1</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>4</td> </tr> <tr> <td>Size</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> <td>2</td> <td>2</td> </tr> <tr> <td>2-sided Total</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <p>0: No count; 1: 1 count; 2: 2 counts; 3: 3 counts; 4: 4 counts</p> <p>Long Length Paper Counter Mode</p> <ul style="list-style-type: none"> When printing on the long paper (457.3 mm or over), the counting value will be the total of the value set by the total counter mode and the value by this setting. The default setting is Mode 4. <p>Mode 1: + 0 count Mode 2: + 1 count Mode 3: + 2 counts (457.3 to 915.0 mm will be + 1 count) Mode 4: + 3 counts (457.3 to 686.0 mm will be + 1 count, and 686.1 to 915.0 mm will be + 2 count)</p>	Printing	1-Sided				2-Sided				Sizes other than those specified		Specified sizes		Sizes other than those specified		Specified sizes		Mode	Mode		Mode		Mode		Mode		Type	1	2	1	2	1	2	1	2	Total	1	1	1	2	2	2	2	4	Size	0	0	1	1	0	0	2	2	2-sided Total	0	0	0	0	1	1	1	1
Printing	1-Sided				2-Sided																																																										
	Sizes other than those specified		Specified sizes		Sizes other than those specified		Specified sizes																																																								
Mode	Mode		Mode		Mode		Mode																																																								
Type	1	2	1	2	1	2	1	2																																																							
Total	1	1	1	2	2	2	2	4																																																							
Size	0	0	1	1	0	0	2	2																																																							
2-sided Total	0	0	0	0	1	1	1	1																																																							



20. Procedure for Resetting

20.1 Trouble resetting

Functions	<ul style="list-style-type: none"> If the trouble occurs and the status would not be cleared by turning main power switch OFF and ON again, or opening and closing the front door, clear the status of the machine.
Use	<ul style="list-style-type: none"> To be used when the status would not be cleared by turning power OFF and ON again, or opening and closing the front door in case of a trouble.
Setting/ Procedure	<ol style="list-style-type: none"> Turn main power switch OFF. Turn main power switch ON while pressing the Menu/Select key. Keep pressing the Menu/Select key until the LED turns OFF on the control Panel. Check to make sure that the "Trouble Reset" will be displayed on the control Panel after LED turns OFF. Pressing the Menu/Select key. Check to make sure that "OK" is displayed and the it has been reset. Turn main power switch OFF and ON again, and make sure that the machine properly starts.

20.2 Contents to be cleared by Reset function

Items for clearing		Front Door Open/Close	Main power switch Off/On	Trouble resetting	Initialization	
					System Error Clear	Data Clear
Contents to be cleared						
Jam display		○	-	-	○	○
Malfunction display	Rank A Fusing	-	-	○	○	-
	Rank B	-	○	-	-	-
	Rank C	-	○	-	-	-
Erratic operation / display		-	○	-	-	-
Utility Mode (Except items on Expert adjustment.)		-	-	-	-	○
Service Mode (System 1/2)		-	-	-	-	□ *1
Billing Setting	Counter Setting	-	-	-	-	○

○: Will be cleared (initialized)

-: Will not be cleared

□ *1: Items to be cleared	
System 1	Fooscap Size Setting
	Install Date
	No Sleep
System 2	HDD

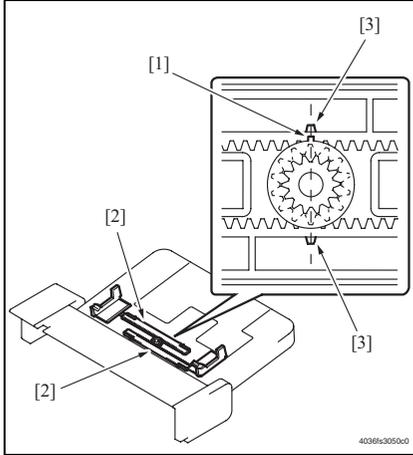
21. Mechanical adjustment

21.1 Mechanical adjustment of the bypass tray section

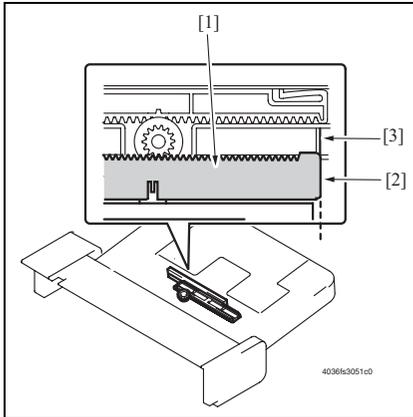
21.1.1 Adjustment of the Bypass Paper Size Unit

This adjustment must be made in the following case:

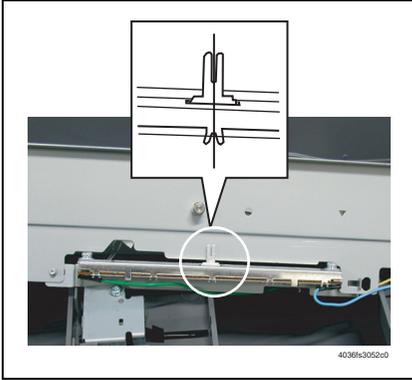
- The Bypass Paper Size Unit has been removed.



1. Install the gear so that the protrusion of the gear [1] and the mark [3] on the Bypass Guide Rack Gear [2] are aligned in a straight line.



2. Install the Bypass Unit Cover so that part A (edge) [2] of the Rack Gear [1] for the Bypass Paper Size Unit and part B [3] of the Bypass Unit Cover are aligned in a straight line.



3. When the Bypass Paper Size Unit base is mounted, align the lever position of the Bypass Paper Size Unit with the tab at the center in a straight line.

4. After the Bypass Paper Size Unit base has been mounted, check that the lever of the Bypass Paper Size Unit moves smoothly in a manner operatively connected to the Bypass Guide.
5. Call the Service Mode to the screen and select [Machine] → [Manual Bypass Tray Adjustment]. Then, carry out [Manual Bypass Tray Adjustment].

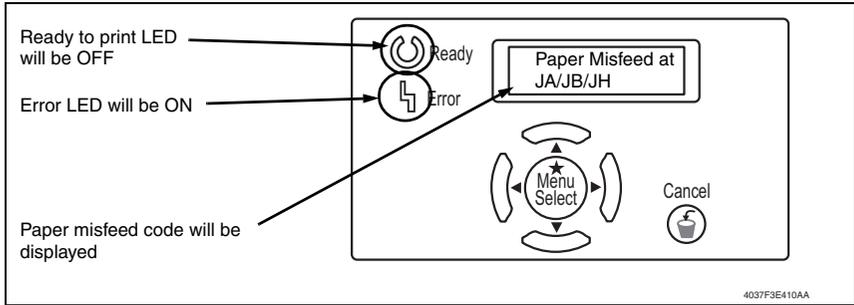
[See P.238](#)

Troubleshooting

22. Jam Display

22.1 Misfeed Display

- When the paper misfeed occurs, the error LED will be ON and the message will be displayed on the control panel.



Code *1	Code *2	Misfeed Location	Misfeed Processing Location
JA	1101	Tray 1 take-up	Right Door
JH	3001	2nd Image Transfer	
JB	1201	Tray 2 take-up	Tray 2 Right Door
JG	2001	Vertical Transport	
JE	1001	Manual Bypass take-up	Manual Bypass Slide Board
JC	1501	LCT take-up	LCT Right Door
JG	2001	Vertical Transport	
JI	9301	Duplex Unit transport	Duplex Unit Right Door
JF	9201	Duplex Unit pre-registration	
JC	1301	Tray 3 take-up	Paper Feed Unit Right Door
JG	2001	Vertical Transport	
JD	1401	Tray 4 take-up	
JG	2001	Vertical Transport	
JI	3201	Fusing, Exit	Right Door
JJ	7403	Horizontal transport	Horizontal transport cover
JJ	7401	Finisher: Transport Section	FS- 507 Finisher Door
JK	7402	Finisher: Stapler Section	
JL	7404	Finisher: Exit Section	
JT	7405	Finisher: Job Tray Exit Section	
JT	7406	Finisher: Job Tray Exit Section	
JJ	7401	Finisher: Turnover Section	Horizontal transport cover
JK	7403	Finisher: Stapler Section	
JQ	7404	Finisher: Punch Section	FS-603 Finisher Door
JR	7405	Finisher: Transport Section	
JR	7407	Finisher: Transport Section	
JS	7407	Finisher: Folding Position Section	

*1: Code displayed on the control panel

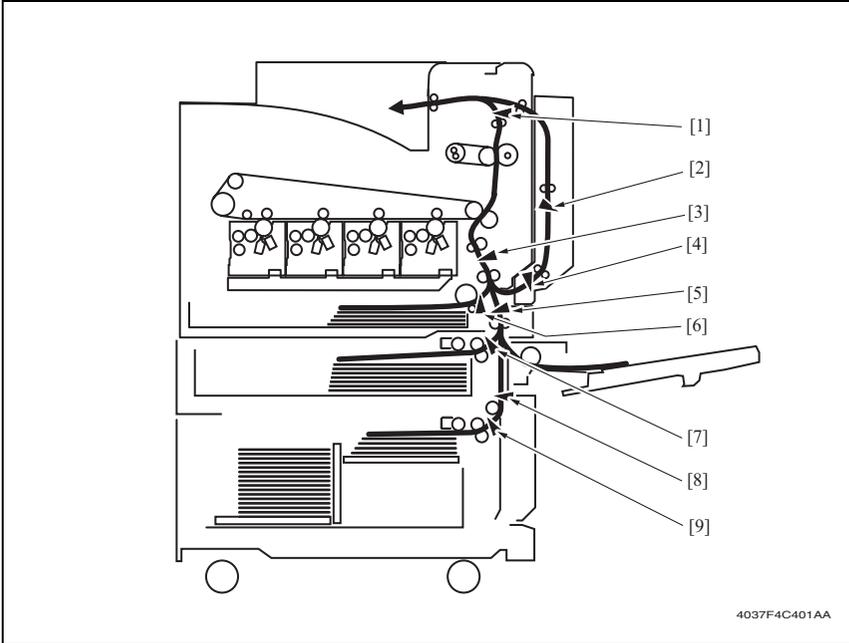
*2: Code displayed in time-series JAM of the Machine Management List

22.2 Misfeed Display Resetting Procedure

- Open the corresponding door, clear the sheet of paper misfeed, and close the door.

22.3 Sensor layout

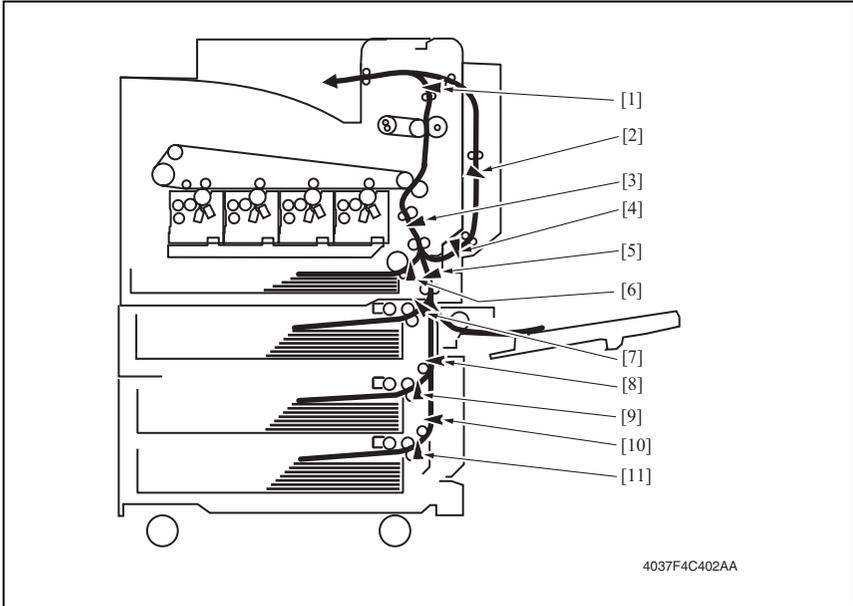
22.3.1 System Mounted with PC-402.



[1]	Exit Sensor	PC30	[5]	Tray 2 Vertical Transport Sensor	PC108
[2]	Duplex Unit Transport Sensor 1	PI1-DU	[6]	Tray 1 Double Feed Sensor	PC1
[3]*1	Registration Roller Sensor	PC28	[7]	Tray 2 Paper Take-Up Sensor	PC107
[3]*1	OHP Sensor	PC27	[8]	LCT Vertical Transport Sensor	PC2-LCT
[4]	Duplex Unit Transport Sensor 2	PC1-DU	[9]	LCT Paper Feed Sensor	PC1-LCT

*1: Two different types of sensors are located in the area near [3].

22.3.2 System Mounted with PC-202



[1]	Exit Sensor	PC30	[6]	Tray 1 Double Feed Sensor	PC1
[2]	Duplex Unit Transport Sensor 1	PI1-DU	[7]	Tray 2 Paper Take-Up Sensor	PC107
[3]*1	Registration Roller Sensor	PC28	[8]	Tray 3 Vertical Transport Sensor	PC117-PF
[3]*1	OHP Sensor	PC27	[9]	Tray 3 Paper Take-Up Sensor	PC116-PF
[4]	Duplex Unit Transport Sensor 2	PC1-DU	[10]	Tray 4 Vertical Transport Sensor	PC126-PF
[5]	Tray 2 Vertical Transport Sensor	PC108	[11]	Tray 4 Paper Take-Up Sensor	PC125-PF

*1: Two different types of sensors are located in the area near [3].

22.4 Solution

22.4.1 Initial Check Items

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

Check Item	Action
Does paper meet product specifications?	Change paper.
Is paper curled, wavy, or damp.	Change paper. Instruct user in correct paper storage.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean or change the paper path.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or change the defective Paper Separator Finger.
Are 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 paper?	Set as necessary.
Are actuators found operational as checked for correct operation?	Correct or change the defective actuator.

22.4.2 Tray 1 take-up, 2nd Image Transfer, Fusing Misfeed**A. Detection Timing**

Type	Description
2nd Image Transfer, Fusing misfeed detection	The leading edge of the paper does not block the Exit Sensor (PC30) even after the lapse of a given period of time after the Registration Roller Clutch has been energized.
	The Registration Roller Sensor (PC28) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper. (Except when feeding the paper from Tray 1)
Tray 1 take-up misfeed detection	The leading edge of the paper does not block the Registration Roller Sensor (PC28) even after the lapse of a given period of time after the Tray 1 Paper Feed Clutch (CL1) has been energized. (When the system speed is 60 mm/s or 165 mm/s)
	The leading edge of the paper does not block the OHP Sensor (PC27) after the lapse of a given period of time after the Tray 1 Paper Feed Clutch (CL1) has been energized. (When the system speed is 215 mm/s)
Misfeed detected as a result of delayed deactivation of sensor	The Registration Roller Sensor (PC28) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper. (When the system speed is 60 mm/s or 165 mm/s)
	The OHP sensor (PC27) is not unblocked even after the lapse of a given period of time after PC27 has been blocked by the paper. (When the system speed is 215 mm/s)
Detection of paper left in 2nd Image Transfer	The Registration Roller Sensor (PC28) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
	The OHP Sensor (PC27) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Detection of paper left in Tray 1	Tray 1 Double Feed Sensor (PC1) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Tray 1 Double Feed Sensor (PC1) Registration Roller Sensor (PC28) Exit Sensor (PC30) OHP Sensor (PC27)	Control Board (PWB-MC) Registration Roller Clutch (CL3) Tray 1 Paper Feed Clutch (CL1)

Step	Action
1	Initial check items
2	PC1 I/O check, Sensor check
3	PC28 I/O check, Sensor check
4	PC30 I/O check, Sensor check
5	PC27 I/O check, Sensor check
6	CL3 operation check
7	CL1 operation check
8	Change PWB-MC

22.4.3 Tray 2 take-up, Vertical Transport, Multiple Bypass take-up**A. Detection Timing**

Type	Description
Tray 2 take-up, Vertical Transport mis-feed detection	The leading edge of the paper does not block the Tray 2 Vertical Transport Sensor (PC108) even after the lapse of a given period of time after the Tray 2 Paper Feed Motor has been energized.
	The Registration Roller Sensor (PC28) is not blocked even after the lapse of a given period of time after the paper has blocked the Tray 2 Vertical Transport Sensor (PC108).
Misfeed detected at Bypass	The leading edge of the paper does not block the Tray 2 Vertical Transport Sensor (PC108) even after the lapse of a given period of time after the Bypass Paper Feed Clutch has been energized.
Paper left at Tray 2 or Bypass	Tray 2 Vertical Transport Sensor (PC108) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Paper left at Tray 2	Tray 2 Paper Take-Up Sensor (PC107) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Misfeed detected as a result of delayed deactivation of sensor	The Tray 2 Vertical Transport Sensor (PC108) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.

B. Action

Tray 2 take-up, Vertical Transport

Relevant Electrical Parts	
Tray 2 Paper Take-Up Sensor (PC107) Tray 2 Vertical Transport Sensor (PC108) Registration Roller Sensor (PC28) Tray 2 Paper Feed Motor (M102)	Tray 2 Board (PWB-Z)

Step	Action
1	Initial check items
2	PC107 I/O check, Sensor check
3	PC108 I/O check, Sensor check
4	PC28 I/O check, Sensor check
5	M102 operation check
6	Change PWB-Z

Manual Bypass take-up

Relevant Electrical Parts	
Tray 2 Vertical Transport Sensor (PC108) Bypass Paper Feed Clutch (CL101)	Tray 2 Board (PWB-Z)

Step	Action
1	Initial check items
2	PC108 I/O check, Sensor check
3	CL101 operation check
4	Change PWB-Z

22.4.4 LCT Take-up and Vertical Transport Misfeed (PC-402)**A. Detection Timing**

Type	Description
Misfeed detected at LCT take-up or Vertical Transport Section	The leading edge of the paper does not block the LCT Transport Roller Motor (PC2-LCT) even after the lapse of a given period of time after the Paper Feed Motor has been energized.
	The Tray 2 Vertical Transport Sensor (PC108) is not blocked even after the lapse of a given period of time after the paper has blocked the LCT Transport Roller Motor (PC2-LCT).
Paper left at LCT	The LCT Vertical Transport Sensor (PC2-LCT) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
	The Paper Feed Sensor (PC1-LCT) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Misfeed detected as a result of delayed deactivation of sensor	The Tray 2 Vertical Transport Sensor (PC108) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.

B. Action

Relevant Electrical Parts	
Paper Feed Sensor (PC1-LCT) LCT Vertical Transport Sensor (PC2-LCT) Tray 2 Vertical Transport Sensor (PC108) Paper Feed Motor (M1-LCT)	Main Control Board (PWB-C1 LCT)

Step	Action
1	Initial check items
2	PC1-LCT I/O check, Sensor check
3	PC2-LCT I/O check, Sensor check
4	PC108 I/O check, Sensor check
5	M1-LCT operation check
6	Change PWB-C1 LCT

22.4.5 Tray 3 Take-up and Vertical Transport Misfeed (PC-102/PC202)**A. Detection Timing**

Type	Description
Misfeed detected at Tray 3 take-up or Vertical Transport Section	The leading edge of the paper does not block the Tray 3 Vertical Transport Sensor (PC117-PF) even after the lapse of a given period of time after the Tray 3 Paper Feed Motor has been energized.
	The Tray 2 Vertical Transport Sensor (PC108) is not blocked even after the lapse of a given period of time after the paper has blocked the Tray 3 Vertical Transport Sensor (PC117-PF).
Paper left at Tray 3	The Tray 3 Vertical Transport Sensor (PC117-PF) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
	The Tray 3 Paper Take-Up Sensor (PC116-PF) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Misfeed detected as a result of delayed deactivation of sensor	The Tray 3 Vertical Transport Sensor (PC117-PF) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.

B. Action

Relevant Electrical Parts	
Tray 3 Paper Take-Up Sensor (PC116-PF) Tray 3 Vertical Transport Sensor (PC117-PF) Tray 2 Vertical Transport Sensor (PC108) Tray 3 Paper Feed Motor (M122-PF)	Main Control Board (PWB-C2 PF)

Step	Action
1	Initial check items
2	PC116-PF I/O check, Sensor check
3	PC117-PF I/O check, Sensor check
4	PC108 I/O check, Sensor check
5	M122-PF operation check
6	Change PWB-C2 PF

22.4.6 Tray 4 Take-up and Vertical Transport Misfeed (PC202)**A. Detection Timing**

Type	Description
Misfeed detected at Tray 4 take-up or Vertical Transport Section	The leading edge of the paper does not block the Tray 4 Vertical Transport Sensor (PC126-PF) even after the lapse of a given period of time after the Tray 4 Paper Feed Motor has been energized.
	The Tray 3 Vertical Transport Sensor (PC117-PF) is not blocked even after the lapse of a given period of time after the paper has blocked the Tray 4 Vertical Transport Sensor (PC126-PF).
Paper left at Tray 4	The Tray 4 Vertical Transport Sensor (PC126-PF) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
	The Tray 4 Paper Take-Up Sensor (PC125-PF) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
Misfeed detected as a result of delayed deactivation of sensor	The Tray 4 Paper Take-Up Sensor (PC125-PF) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.

B. Action

Relevant Electrical Parts	
Tray 4 Paper Take-Up Sensor (PC125-PF) Tray 4 Vertical Transport Sensor (PC126-PF) Tray 3 Vertical Transport Sensor (PC117-PF) Tray 4 Paper Feed Motor (M123-PF)	Main Control Board (PWB-C2 PF)

Step	Action
1	Initial check items
2	PC125-PF I/O check, Sensor check
3	PC126-PF I/O check, Sensor check
4	PC117-PF I/O check, Sensor check
5	M123-PF operation check
6	Change PWB-C2 PF

22.4.7 Duplex Transport Misfeed

A. Detection Timing

Type	Description
Misfeed detected at Duplex Transport Section	The Registration Roller Sensor (PC28) is not blocked even after the lapse of a given period of time after a Duplex paper take-up sequence has been started.
	The Duplex Unit Transport Sensor 2 (PC1-DU) is not blocked even after the lapse of a given period of time after the paper has blocked the Duplex Unit Transport Sensor 1 (PI1-DU).
	The Duplex Unit Transport Sensor 1 (PI1-DU) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.
	The Duplex Unit Transport Sensor 2 (PC1-DU) is not unblocked even after the lapse of a given period of time after it has been blocked by the paper.
Paper left at Duplex Transport Section	Duplex Unit Transport Sensor 1 (PI1-DU) or Duplex Unit Transport Sensor 2 (PC1-DU) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Registration Roller Sensor (PC28) Duplex Unit Transport Sensor 1 (PI1-DU) Duplex Unit Transport Sensor 2 (PC1-DU) Switchback Motor (M1-DU) Duplex Unit Transport Motor (M2-DU)	Duplex Control Board (PWB-A DU) Control Board (PWB-MC)

Step	Action
1	Initial check items
2	PC28 I/O check, Sensor check
3	PI1-DU I/O check, Sensor check
4	PC1-DU I/O check, Sensor check
5	M1-DU operation check
6	M2-DU operation check
7	Change PWB-A DU
8	Change PWB-MC

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Troubleshooting

22.4.8 Fusing/Exit Misfeed**A. Detection Timing**

Type	Description
Misfeed detected at Fusing/Exit Section	PC30 is not unblocked even after the lapse of a given period of time after the paper has blocked the Exit Sensor (PC30).
	The Duplex Unit Transport Sensor 1 (PI1-DU) is not blocked even after the lapse of a given period of time after the Exit Sensor (PC30) has been unblocked by the paper during a switchback sequence.
Paper left at Exit Section	Exit Sensor (PC30) is blocked when the Main Power Switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

B. Action

Relevant Electrical Parts	
Exit Sensor (PC30) Duplex Unit Transport Sensor 1 (PI1-DU)	Control Board (PWB-MC)

Step	Action
1	Initial check items
2	PC30 I/O check, Sensor check
3	PI1 I/O check, Sensor check
4	Change PWB-MC

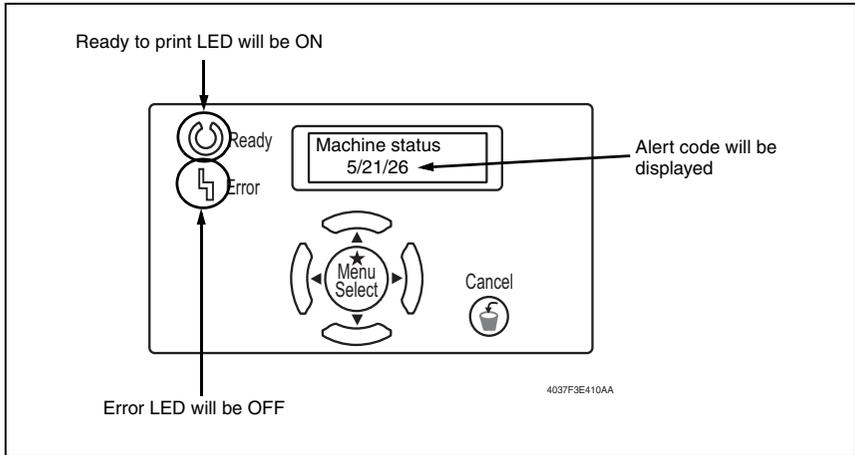
23. Malfunction code

23.1 Restarting

- This machine automatically performs a restarting sequence if a minor fault that would not damage the machine occurs during operation.
- No screen information is given for the restarting sequence.
- On completing the restarting sequence, the machine restores its operation to its ordinary condition.

23.2 Alert code (WP Code)

- Machine status will be self diagnosed by CPU circuit. The machine status will be displayed on the control panel when the warning is detected.



23.2.1 Alert list

- If an image stabilization fault occurs, the corresponding warning code appears.

Code	Item	Description
5	IDC Sensor (Front) failure	<ul style="list-style-type: none"> • The output from the photoreceiver of the IDC Sensor that takes a reading of a point of a bare surface on the Transfer Belt is 4.3 V or more during an adjustment of the IDC Sensor. • The output from the photoreceiver of the IDC Sensor that takes a reading of a point in a toner pattern on the Transfer Belt is 1.0 V or less after the adjustment has been completed.
28	IDC Sensor (Back) failure	
6	Cyan Imaging Unit failure	<ul style="list-style-type: none"> • All density readings taken from the density pattern produced on the Transfer Belt are 0.5 g/m² (IDC Sensor photoreceiver output) or less during max. density adjustment (Vg/Vdc adjustment).
7	Magenta Imaging Unit failure	
8	Yellow Imaging Unit failure	
9	Black Imaging Unit failure	
21	Color Shift Test Pattern failure	<ul style="list-style-type: none"> • The number of points detected in the main scan direction is more or less than the specified value during main scan direction registration correction. • The number of points detected in the Sub Scan Direction is more or less than the specified value during sub scan direction registration correction.
22	Color Shift Test Pattern failure	<ul style="list-style-type: none"> • The color shift amount is greater than the specified range during main scan direction registration correction. • The color shift amount is greater than the specified range during sub scan direction registration correction. • The skew correction amount is greater than the specified value.
26	ATVC (K) failure	<ul style="list-style-type: none"> • An abnormal average value is detected during an adjustment of the first image transfer ATVC value of Black.
27	ATVC (2nd) failure	<ul style="list-style-type: none"> • An abnormal average value is detected during an adjustment of the second image transfer ATVC value.
29	ATVC (color) failure	<ul style="list-style-type: none"> • An abnormal average value is detected during an adjustment of the first image transfer ATVC value of color.
30	Color PC Drum Main Sensor malfunction	<ul style="list-style-type: none"> • The output from the Color PC Drum Main and Sub Sensors remains unchanged for a continuous period of 1,000 ms while the Color PC Drum Motor is turning stably and the Lock signal is active (LOW-0).
31	K PC Drum Main Sensor malfunction	<ul style="list-style-type: none"> • The output from the Color PC Drum Main and Sub Sensors remains unchanged for a continuous period of 1,000 ms while the K PC Motor is turning stably and the Lock signal is active (LOW-0).

23.3 Solution

23.3.1 P-5: IDC Sensor (Front) failure

23.3.2 P-28 IDC Sensor (Back) failure

Relevant Electrical Parts	
IDC / Registration Sensor /1 (PC8)	Control Board (PWB-MC)
IDC / Registration Sensor /2 (PC9)	Image Transfer Belt Unit

Step	Action
1	Wipe clean the surface of the Transfer Belt with a soft cloth, if it is dirty
2	Change the Image Transfer Belt Unit if the Transfer Belt is damaged.
3	Reinstall or reconnect PC8 or PC9 if it is installed or connected improperly.
4	Clean PC8 or PC9 if it is dirty
5	Open and close the Left Door, run an image stabilization sequence, and select [State Confirmation] → [Level History 1] to check the IDC value. IDC1: PC8, IDC2: PC9 If the value is 1.0 V or less, change PC8 or PC9.
6	Change PWB-MC

23.3.3 P-6: Cyan Imaging Unit failure

23.3.4 P-7: Magenta Imaging Unit failure

23.3.5 P-8: Yellow Imaging Unit failure

23.3.6 P-9: Black Imaging Unit failure

Relevant Electrical Parts	
Imaging Unit C Imaging Unit M Imaging Unit Y Imaging Unit K	Image Transfer Belt Unit

Step	Action
1	Select [Image Process Adjustment] → [D Max Density] and, if the setting value is negative, readjust.
2	Check the drive transmission portion of the Imaging Unit and correct as necessary.
3	Clean the IDC Sensor window if dirty
4	Clean the contact of the Imaging Unit connector if dirty
5	Change Imaging Unit.
6	Change the Image Transfer Belt Unit.

23.3.7 P-21: Color Shift Test Pattern failure

Relevant Electrical Parts	
Image Transfer Belt Unit	
Step	Action
1	Wipe clean the surface of the Transfer Belt with a soft cloth, if it is dirty
2	Change the Image Transfer Belt Unit if the Transfer Belt is damaged.

23.3.8 P-22: Color Shift Adjust failure

Relevant Electrical Parts	
IDC / Registration Sensor /1 (PC8)	IDC / Registration Sensor /2 (PC9)
Step	Action
1	Check the LED retraction lever for locked position and, if there is any faulty condition evident, slide out the Imaging Unit and reinstall it in position.
2	Reinstall or reconnect PC8 or PC9 if it is installed or connected improperly.
3	Check the Vertical Transport Guide for installed position and correct as necessary.

23.3.9 P-26: 1st image transfer ATVC (Black) failure**23.3.10 P-27: 2nd image transfer ATVC failure****23.3.11 P-29: 1st image transfer ATVC (Color) failure**

Relevant Electrical Parts	
High Voltage Unit/1 (HV1)	Image Transfer Belt Unit
High Voltage Unit/2 (HV2)	
Control Board (PWB-MC)	
Step	Action
1	Check the contact of the Transfer Belt Unit and that of HV2 for connection and clean or correct the contact as necessary.
2	Change the Image Transfer Belt Unit.
3	Change HV2, HV1
4	Change PWB-MC.

23.3.12 P-30: Color PC Drum Sensor malfunction

Relevant Electrical Parts	
Color PC Drum Main Sensor (PC10)	Control Board (PWB-MC)
Color PC Drum Sub Sensor (PC35)	
Step	Action
1	Reinstall or reconnect PC10 or PC35 if it is installed or connected improperly.
2	Clean PC10 or PC35 if it is dirty
3	Open and close the Left Door to reset the fault.
4	If P-30 occurs again, change PC10 or PC35.
5	Change PWB-MC.

23.3.13 P-31: Black PC Drum Sensor malfunction

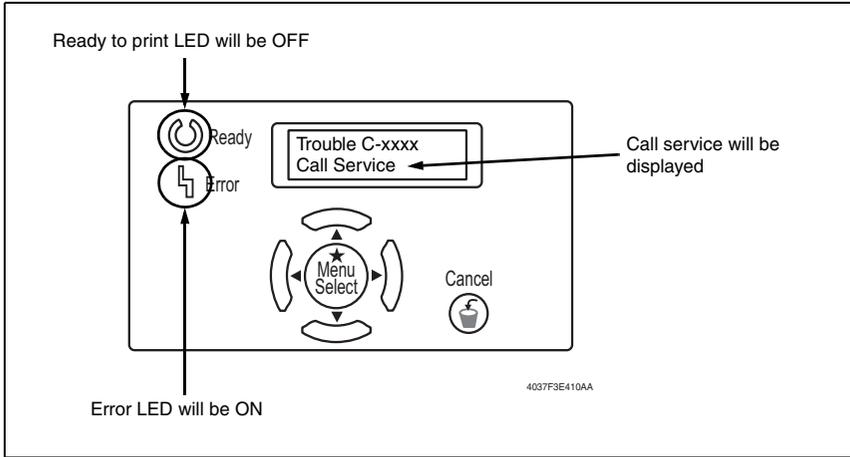
Relevant Electrical Parts	
K PC Drum Main Sensor (PC11) K PC Drum Sub Sensor (PC36)	Control Board (PWB-MC)
Step	Action
1	Perform the faulty sensor check procedure *1.
2	Check the sensor, for which a faulty condition has been checked, for installed position and proper connector connection.
3	Wipe the sensor, for which a faulty condition has been checked, clean of dirt if any.
4	If P-31 persists, change the sensor which was found faulty.
5	Change PWB-MC.

*1: How to check the error sensor

1. Set the Service Jig.
2. Turn the PC Power ON.
3. Turn the Printer Power ON while pressing the Menu/Select key on the control Panel.
4. Keep pressing the Menu/Select key until the LED turns OFF on the control Panel.
5. Check to make sure that the "Trouble Reset" will be displayed on the control Panel after LED turns OFF.
6. Start the Jig software and check to make sure the Start-up Dialog will be displayed.
7. Click the OK key in the dialogue.
8. Check to make sure that the Start screen will be displayed on the PC.
9. Check to make sure that the Start screen will change to the Panel screen.
10. Click the Utility key.
11. Click the Details key.
12. Click the keys below.
STOP → 0 → 0 → STOP → 0 → 1
13. Service mode will be displayed.
14. Display the Sensor check from the Service mode.
15. Close the front door to run "Stabilizer."
16. During the Stabilizer sequence, check if the values of the phase detection sensors (Color PC Drum Main/Sub and Bk PC Drum Main/Sub Sensors) change.
17. A sensor is faulty if its value does not change.

23.4 Call Service (Trouble code)

- Machine status will be self diagnosed by CPU circuit. The call service will be displayed on the control panel when the error is detected.



23.4.1 Call service list

- For the details of the call service of the options, see the Service Manual for the corresponding option.
- If any call service not listed on the trouble code list is displayed, inform Konica Minolta of the malfunction code displayed.

Code	Item	Description	Rank
C0001	LCT communications error	<ul style="list-style-type: none"> See PC-402 Service Manual. 	B
C0102	LCT Vertical Transport Motor malfunction		B
C0204	Tray 2 Elevator failure	<ul style="list-style-type: none"> The Lift-up Sensor is not blocked even after the lapse of a given period of time after the lifting motion has been started. 	B
C0206	Tray 3 Elevator failure	<ul style="list-style-type: none"> See PC-102/PC-202 Service Manual. 	B
C0208	Tray 4 Elevator failure		B
C0209	LCT Elevator Motor malfunction (Elevator malfunction)		B
C0210	LCT ascent motion failure	<ul style="list-style-type: none"> See PC-402 Service Manual. 	B
C0211	Bypass lifting motion failure		<ul style="list-style-type: none"> The Bypass Lift-up Sensor is not blocked even when the Tray 2 Vertical Transport Motor has turned for a given number of pulses after the sequence to move the Paper Lifting Plate from the standby position to the take-up position was started. The Bypass Lift-up Sensor is not unblocked even when the Tray 2 Vertical Transport Motor has turned for a given number of pulses after the sequence to move the Paper Lifting Plate from the take-up position to the standby position was started.

Code	Item	Description	Rank
C0212	LCT Shift Motor malfunction	<ul style="list-style-type: none"> • See PC-402 Service Manual. 	B
C0213	LCT shifting failure		B
C0214	LCT ejection failure		B
C0215	LCT Shift Gate malfunction		B
C0301	Suction Fan Motor's failure to turn	<ul style="list-style-type: none"> • The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary. 	B
C0351	Paper Cooling Fan Motor's failure to turn	<ul style="list-style-type: none"> • The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary. 	B
C1180	Finishing option transport system malfunction	<ul style="list-style-type: none"> • See FS-507 or FS-603 Service Manual. 	B
C1181	Finishing option Paddle Motor malfunction		B
C1182	Finishing option Shift Motor mechanism malfunction		B
C1183	Finishing option Elevator drive malfunction		B
C1190	Finishing option Aligning Bar moving mechanism malfunction		B
C1192	Finishing option Front Aligning Motor malfunction		B
C1193	Finishing option Rear Aligning Motor malfunction		B
C11A1	Finishing option Exit Roller pressure/retraction failure		B
C11A2	Finishing option Storage Roller pressure/retraction failure		B
C11A4	Finishing option Exit Motor malfunction		B
C11B0	Finishing option Stapler Unit CD drive failure		B
C11B1	Finishing option Stapler Unit Slide Motor malfunction		B
C11B2	Finishing option stapling mechanism malfunction 1		B
C11B3	Finishing option stapling mechanism malfunction 2		B
C11B4	Finishing option Staple/Folding Motor malfunction		B
C11C0	Punch Motor malfunction		B
C11C1	Finishing option Punch Cam Motor drive failure		C
C11C2	Finishing option Punch Unit Board malfunction		C
C11C3	Finishing option Punch Side Registration Motor malfunction		C

Code	Item	Description	Rank
C11C4	Finishing option Punch Motor malfunction	<ul style="list-style-type: none"> • See FS-507 or FS-603 Service Manual. 	C
C11C5	Finishing option Punch Sensor malfunction		C
C1401	Finishing option Backup RAM failure		B
C2151	2nd Image Transfer Roller pressure/retraction failure	<ul style="list-style-type: none"> • The 2nd Image Transfer Pressure Position Sensor is not activated (retracted position) within 2 sec. after the 2nd Image Transfer Pressure/ Retraction Motor has started turning during a sequence of the 2nd Image Transfer Roller's retracting motion. • The 2nd Image Transfer Pressure Position Sensor is not deactivated (pressed position) within 2 sec. after the 2nd Image Transfer Pressure/ Retraction Motor has started turning during a sequence of the 2nd Image Transfer Roller's pressing motion. 	B
C2152	Image Transfer Belt pressure/retraction failure	<ul style="list-style-type: none"> • The 1st Image Transfer Retraction Position Sensor is not activated (retracted position) within 5 sec. after the 1st Image Transfer Pressure/ Retraction Motor has started turning during a sequence of the Transfer Belt's retracting motion. • The 1st Image Transfer Retraction Position Sensor is not deactivated (pressed position) within 1 sec. after the 1st Image Transfer Pressure/ Retraction Motor has started turning during a sequence of the Transfer Belt's pressing motion. 	B
C2160	Cyan PC Drum Charge Corona malfunction	<ul style="list-style-type: none"> • An output is automatically produced from the PC Drum Charge Corona of each color when the malfunction resetting procedure is performed after C2164 (PC Drum Charge Corona malfunction) has been detected. The SCD signal is detected for a continuous 0.5-sec. period at this time. 	B
C2161	Magenta PC Drum Charge Corona malfunction		B
C2162	Yellow PC Drum Charge Corona malfunction		B
C2163	Black PC Drum Charge Corona malfunction		B
C2164	PC Drum Charge Corona malfunction	<ul style="list-style-type: none"> • The SCD signal is detected for a continuous 0.5-sec. period while the PC Drum Charge Corona is being energized. 	B
C2251	K PC Motor's failure to turn	<ul style="list-style-type: none"> • The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	B
C2252	K PC Motor's turning at abnormal timing	<ul style="list-style-type: none"> • The Motor Lock signal remains LOW for a pre-determined continuous period of time while the Motor remains stationary. 	B
C2253	Color PC Drum Motor's failure to turn	<ul style="list-style-type: none"> • The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	BB
C2254	Color PC Drum Motor's turning at abnormal timing	<ul style="list-style-type: none"> • The Motor Lock signal remains LOW for a pre-determined continuous period of time while the Motor remains stationary. 	B

Code	Item	Description	Rank
C2255	Color Developing Motor's failure to turn	<ul style="list-style-type: none"> The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	B
C2256	Color Developing Motor's turning at abnormal timing	<ul style="list-style-type: none"> The Motor Lock signal remains LOW for a pre-determined continuous period of time while the Motor remains stationary. 	B
C2257	Cleaning Brush Motor failure to turn	<ul style="list-style-type: none"> The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	B
C2258	Cleaning Brush Motor's turning at abnormal timing	<ul style="list-style-type: none"> The Motor Lock signal remains LOW for a pre-determined continuous period of time while the Motor remains stationary. 	B
C2351	Toner Suction Fan Motor/K's failure to turn	<ul style="list-style-type: none"> The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	B
C2352	Toner Suction Fan Motor's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B
C2451	New Transfer Belt Unit resetting failure	<ul style="list-style-type: none"> A new installation is not detected when a new Transfer Cleaner Unit (Image Transfer Belt Unit) is installed. 	B
C2551	Abnormally low toner density detected Cyan TCR Sensor	<ul style="list-style-type: none"> T/C 0.21 % or less is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2552	Abnormally high toner density detected Cyan TCR Sensor	<ul style="list-style-type: none"> T/C 15.5 % or more is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2553	Abnormally low toner density detected Magenta TCR Sensor	<ul style="list-style-type: none"> T/C 0.21 % or less is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2554	Abnormally high toner density detected Magenta TCR Sensor	<ul style="list-style-type: none"> T/C 15.5 % or more is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2555	Abnormally low toner density detected Yellow TCR Sensor	<ul style="list-style-type: none"> T/C 0.21 % or less is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2556	Abnormally high toner density detected Yellow TCR Sensor	<ul style="list-style-type: none"> T/C 15.5 % or more is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2557	Abnormally low toner density detected Black TCR Sensor	<ul style="list-style-type: none"> T/C 3 % or less is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B

Code	Item	Description	Rank
C2558	Abnormally high toner density detected Black TCR Sensor	<ul style="list-style-type: none"> T/C 12 % or more is detected ten consecutive times in the Developing Unit as validated through the toner replenishing amount determination control. 	B
C2559	Cyan TCR Sensor adjustment failure	<ul style="list-style-type: none"> TCR Sensor automatic adjustment does not function properly, failing to adjust to an appropriate value. 	B
C255A	Magenta TCR Sensor adjustment failure		B
C255B	Yellow TCR Sensor adjustment failure		B
C255C	Black TCR Sensor adjustment failure		B
C2651	Cyan Imaging Unit EEPROM access error	<ul style="list-style-type: none"> A condition of "EEPROM is not connected" or "There is an access error" is detected in EEPROM of the Imaging Unit. 	C
C2652	Magenta Imaging Unit EEPROM access error		C
C2653	Yellow Imaging Unit EEPROM access error		C
C2654	Black Imaging Unit EEPROM access error		C
C2655	Cyan LPH correction data download failure	<ul style="list-style-type: none"> An error is detected while the LPH correction data is being downloaded from EEPROM of LPH to PWB-MFPC when the Main Power Switch is turned ON. 	C
C2656	Magenta LPH correction data download failure		C
C2657	Yellow LPH correction data download failure		C
C2658	Black LPH correction data download failure		C
C3101	Fusing Pressure Roller pressure/retraction failure	<ul style="list-style-type: none"> No change is observed in the encoder sensor pulse even after the lapse of 0.5 sec. after the Fusing Pressure/Retraction Motor has started turning for a sequence of the Fusing Pressure Roller's retracting motion. No change is observed in the encoder sensor pulse even after the lapse of 0.5 sec. after the Fusing Pressure/Retraction Motor has started turning for a sequence of the Fusing Pressure Roller's pressing motion. The Fusing Pressure Position Sensor is not activated (pressed position) even when 30 encoder sensor pulses are counted after the Fusing Pressure/Retraction Motor has started turning for a sequence of the Fusing Pressure Roller's pressing motion. 	B
C3201	Fusing Drive Motor's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary. 	B
C3202	Fusing Drive Motor turning at abnormal timing	<ul style="list-style-type: none"> The Motor Lock signal remains LOW for a predetermined continuous period of time while the Motor remains stationary. 	B

Code	Item	Description	Rank
C3301	Fusing Cooling Fan Motor/1 failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary. 	B
C3302	Fusing Cooling Fan Motor/1 or Fusing Cooling Fan Motor/2 failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary. 	B
C3451	Heating Roller warm-up failure	<ul style="list-style-type: none"> The temperature of the Heating Roller does not reach 100 °C within 50 sec. after the Heating Roller Heater Lamp has been turned ON. The temperature of the Heating Roller does not reach 100 °C and that of the Fusing Pressure Roller does not reach 195 °C within 200 sec. after the Heating Roller Heater Lamp has been turned ON. The voltage of the Heating Roller Thermistor does not increase by five steps within 20 sec. after the Heating Roller Heater Lamp has been turned ON. No zero cross signal is detected even with the lapse of 1 sec. or more after the Heating Roller Heater Lamp has been turned ON. 	A
C3452	Fusing Pressure Roller warm-up failure	<ul style="list-style-type: none"> The voltage of the Fusing Pressure Roller Thermistor does not increase by five steps within 20 sec. after the predrive of the Fusing Roller has been started during a warm-up cycle. 	A
C3461	New Fusing Unit resetting failure	<ul style="list-style-type: none"> A new installation is not detected when a new Fusing Unit is installed. 	B
C3751	Heating Roller abnormally high temperature	<ul style="list-style-type: none"> A temperature of 225 °C or more of the Heating Roller is detected for 1 sec. or more. 	A
C3752	Fusing Pressure Roller abnormally high temperature	<ul style="list-style-type: none"> A temperature of 190 °C or more of the Fusing Pressure Roller is detected for 1 sec. or more before the start of the heater temperature control. A temperature of 215 °C or more of the Fusing Pressure Roller is detected for 1 sec. or more after the start of the heater temperature control. 	A
C3851	Heating Roller abnormally low temperature	<ul style="list-style-type: none"> No zero cross signal is detected even with the lapse of 1 sec. or more during a standby state, print cycle, or Power Save. A temperature of 120 °C or less of the Heating Roller is detected for 1 sec. or more during a standby state. A temperature of 120 °C or less of the Heating Roller is detected for 1 sec. or more during a print cycle. A temperature of 70 °C or less of the Heating Roller is detected for 1 sec. or more during Power Save. 	A

Code	Item	Description	Rank
C3852	Fusing Pressure Roller abnormally low temperature	<ul style="list-style-type: none"> A temperature of 80 °C or less of the Fusing Pressure Roller is detected for 1 sec. or more during a standby state. A temperature of 80 °C or less of the Fusing Pressure Roller is detected for 1 sec. or more during a print cycle. A temperature of 80 °C or less of the Fusing Pressure Roller is detected for 1 sec. or more during Power Save. 	A
C4705	Printer Time Out	<ul style="list-style-type: none"> No image data is output from the MFP Control Board (PWB-MFPC). 	C
C4761	Compression hardware timeout	<ul style="list-style-type: none"> The hardware involved with the compression function offered by the MFP Control Board (PWB-MFPC) does not respond. 	C
C4765	Extraction hardware timeout	<ul style="list-style-type: none"> The hardware involved with the extraction function offered by the MFP Control Board (PWB-MFPC) does not respond. 	C
C4770	JBIG0 Error	<ul style="list-style-type: none"> Memory of the MFP Control Board (PWB-MFPC) is faulty. 	C
C4771	JBIG1 Error		C
C4772	JBIG2 Error		C
C4773	JBIG3 Error		C
C4780	Compressor 0 command buffer stop failure	<ul style="list-style-type: none"> The MFP Control Board (PWB-MFPC) is faulty. 	C
C4781	Compressor 1 command buffer stop failure		C
C4782	Compressor 2 command buffer stop failure		C
C4783	Compressor 3 command buffer stop failure		C
C5102	Main Motor's failure to turn	<ul style="list-style-type: none"> The Motor Lock signal remains HIGH for a pre-determined continuous period of time while the Motor is turning. 	B
C5103	Main Motor turning at abnormal timing	<ul style="list-style-type: none"> The Motor Lock signal remains LOW for a pre-determined continuous period of time while the Motor remains stationary. 	B
C5351	Power Supply Cooling Fan Motor's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B
C5353	Cooling Fan Motor 2's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B
C5354	Ozone Ventilation Fan Motor's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B
C5355	Cooling Fan Motor 3's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B
C5356	Cooling Fan Motor 1's failure to turn	<ul style="list-style-type: none"> The Fan Lock signal remains HIGH for a pre-determined continuous period of time while the Motor remains stationary. 	B

Code	Item	Description	Rank	
C5370	MFP Control Board Cooling Fan Motor's failure to turn	• The Fan Lock signal remains HIGH for a predetermined continuous period of time while the Motor remains stationary.	C	
CA051	Standard controller configuration failure	• The controller of the MFP Control Board (PWB-MFPC) is faulty.	C	
CA052	Controller hardware error	• A controller hardware error is detected in the network I/F.	C	
CA053	Controller start failure	• A controller start failure is detected in the controller interface.	C	
CC151	ROM contents error upon startup (MSC)	• A fault is detected in a sequence of ROM contents check of the MSC (PWB-MFPC) during starting.	C	
CC153	ROM contents error upon startup (PRT)	• A fault is detected in a sequence of ROM contents check of the Control Board during starting.	C	
CC154	ROM contents error upon startup (LPH)	• A fault is detected in a sequence of ROM contents check of the LPH Board during starting.	C	
CC163	ROM contents error (PRT)	• The wrong model of firmware is detected in the engine during the initial connection to the engine is being checked.	C	
⚠ CD001	Hard disk initialization abnormality	• Abnormality of saved data (document information) is detected at data check in hard disk during starting.	C	
CD002	JOB RAM save error	• The error in save of JOB data to the Memory/ Hard Disk and its read error are detected.	C	
CD004	Hard disk access error	• Unable to communicate between the hard disk and MFP Control Board (PWB-MFPC).	C	
CD005	Hard Disk Error 1	• Hard disk is faulty.	C	
CD006	Hard Disk Error 2		C	
CD007	Hard Disk Error 3		C	
CD008	Hard Disk Error 4		C	
CD009	Hard Disk Error 5		C	
CD00A	Hard Disk Error 6		C	
CD00B	Hard Disk Error 7		C	
CD00C	Hard Disk Error 8		C	
CD00D	Hard Disk Error 9		C	
CD00E	Hard Disk Error A		C	
CD00F	Hard disk data transfer error		• Data transfer from the hard disk is faulty.	C
CD010	Hard disk unformat		• Unformatted hard disk is connected.	C
CD011	Hard disk specifications error	• A hard disk that falls outside the specifications is connected.	C	
⚠ CD020	Hard disk verify error	• The data abnormality is detected by the HDD verify check.	C	
⚠ CD201	File memory mounting error	• The file memory is not mounted. • The file has any abnormality.	C	

Code	Item	Description	Rank
 CD202	Memory capacity discrepancy	<ul style="list-style-type: none"> File memory capacity on the MFP Control Board (PWB-MFPC) is not enough. File memory capacity necessary for duplex printing is not enough during Duplex unit mounting. 	C
 CD203	Memory capacity discrepancy 2	<ul style="list-style-type: none"> File memory capacity on the MFP Control Board (PWB-MFPC) is not enough. 	C
 CD204	Expanded memory unit not mounted at JScribe able	<ul style="list-style-type: none"> The optional expanded memory unit is not mounted when JScribe is set able at Service Mode. 	C
 CD211	PCI-SDRAM DMA operation failure	<ul style="list-style-type: none"> Hardware related to the transfer of memory image of the MFP Control Board (PWB-MFPC) fails to respond. 	C
 CD212	Compression/extraction timeout detection	<ul style="list-style-type: none"> Hardware related to the BTC compression-function of the MFP Control Board (PWB-MFPC) fails to respond. 	C
 CD22#	Trouble related to Security	<ul style="list-style-type: none"> Contact the responsible people of KONIKA MINOTLTA before taking some countermeasures. 	-
 CD241	Encryption board setting error	<ul style="list-style-type: none"> Initialization error of the encrypted ASIC is detected during the machine is starting. 	C
 CD242	Encryption board mounting error	<ul style="list-style-type: none"> The faulty of the installation of encrypted ASIC is detected during the machine is starting. 	C
 CD3##	NVRAM Data error	<ul style="list-style-type: none"> Abnormality is detected by the abnormal check of each NVRAM Data. 	-
 CD370	NVRAM Data multiple errors	<ul style="list-style-type: none"> Multiple errors (Over 5) are detected by the abnormal check of each NVRAM data. 	-
 CDC##	Trouble related to Security	<ul style="list-style-type: none"> Contact the responsible people of KONIKA MINOTLTA before taking some countermeasures. 	-
CE002	Message and Method parameter failure	<ul style="list-style-type: none"> Unspecified data or parameter is detected. 	C
CEEE1	MSC undefined malfunction occurring	<ul style="list-style-type: none"> An undefined malfunction occurs in the MSC of the MFP Control Board (PWB-MFPC). 	C
 CEEE3	Engine Section undefined malfunction	<ul style="list-style-type: none"> An undefined malfunction occurs in the Engine Section (PWB-MC, etc.). 	A

- The machine displays an abort code (CFXXX) on the Touch Panel as it becomes unable to process tasks properly through its software control.
- When the system program is aborted, check the electrical component, unit, option, and connection relating to the specific type of the abort condition.



Code	Item	Relevant Electrical Components, Units, and Options	Rank	
CF001	CT_SingleList Table Abnormal	<ul style="list-style-type: none"> • MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C	
CF002	CT_DoubleList Table Abnormal		C	
CF003	CT_DoubleList Table Abnormal		C	
CF004	CT_Queue Full Abnormal		C	
CF011	ArrayLink Abnormal		C	
CF012	FAT Link Abnormal		C	
CF013	File Size Abnormal		C	
CF021	setDelayMessage Table OverFlow		C	
CF022	procSetBootParamTcpipAddress() injustice		C	
CF023	MsgQue OverFlow		C	
CF031	getJobPageToIPE() page number injustice		An exceptional instance occurred due to the unexpected Parameter in the System F/W.	C
CF032	getJobHDDPageToIPE() page number injustice			C
CF033	setDivTbl() limitation over			C
CF034	HDDQUEUE Over Flow			C
CF041	getAPPPtrFromAPPID() abnormal			C
CF042	getAPPIndexFromAPPID() abnormal			C
CF051	CC_InputPageEntry.operator[] page injustice			C
CF061	IdeCommand_Set() status Abnormal			C
CF062	IdeCommand_Set() parameter Abnormal			C
CF091	PCI ASIC1 ERROR			ASIC1 Error
CF092	PCI ASIC2 ERROR		ASIC2 Error	C
CF093	PCI ASIC4 ERROR		ASIC3 Error	C
CF101	SCAN TIME OUT		Image transfer Error between Electronic sorting Board and MFP Control Board	C
CF111	Compress TIME OUT	Compression function Error on Electronic sorting Board	C	
CF112	Compress Table OverFlow		C	
CF113	Compress Table check		C	
CF121	Expand TIME OUT		C	
CF122	Expand Table OverFlow		C	



Code	Item	Relevant Electrical Components, Units, and Options	Rank		
CF123	Expand ExpandLine Abnormal	Compression function Error on Electronic sorting Board	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C	
CF131	Print TIME OUT	Image transfer Error between Electronic sorting Board and MFP Control Board		C	
CF201	startIRReadAnd Compress()Sequence	An exceptional instance occurred due to the unexpected Parameter in the System F/W.		C	
CF202	startWorkSave()Sequence Abnormal			C	
CF203	convAPItoJCPParameter()page Abnormal			C	
CF204	calcCompressorUse()CmpExpID Abnormal			C	
CF211	setParameterBandColorPlane() Table OverFlow			C	
CF212	convAPItoJCPParameter()page Abnormal			C	
CF213	calcExpandUse() CmpExpID Abnormal			C	
CF221	startPrintOutput outputsize zero			C	
CF222	Next request comes during processing of startPrintOutput ()			C	
CF223	Next request comes during processing of startWorkLoadOutput ()			C	
CF300	IR Bus Check Timeout			Image transfer Error on IR Input Bus	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)
CF411	Parity error		Communication Error (between IR-Systems)	C	
CF421	Overrun error			C	
CF431	Parity error + Overrun error	C			
CF441	Framing error	C			
CF451	Parity error + Framing error	C			
CF461	Overrun error + Framing error	C			
CF471	Parity error + Overrun error + Framing error	C			
CF412	Parity error	C			
CF422	Overrun error	C			
CF432	Parity error + Overrun error	C			
CF442	Framing error	C			
CF452	Parity error + Framing error	C			
CF462	Overrun error + Framing error	C			
CF472	Parity error + Overrun error + Framing error	C			



Code	Item	Relevant Electrical Components, Units, and Options	Rank	
CF510	Parity error	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) 	C	
CF520	Framing error		C	
CF530	Parity error + Framing error		C	
CF540	Overrun error		C	
CF550	Parity error + Overrun error		C	
CF560	Overrun error + Framing error		C	
CF570	Parity error + Overrun error + Framing error		C	
CF580	Frame distortion of ADF		C	
CF600	Report receiving of print start that is out of sequence	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Engine 	C	
CF601	Report receiving of paper feeding that is out of sequence		C	
CF604	Outside IF/Command Queue	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) 	C	
CF614	"Output sequence" Queue		C	
CF624	Panel LCD date Queue		C	
CF704	Common data "Delete-waiting HDD accumulated job ID" Queue	An exceptional instance occurred due to the unexpected Parameter in the System F/W.	C	
CF714	IRC/Command Queue		<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) 	C
CF724	Engine/Command Queue		<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Engine 	C
CF734	Panel/Command Queue		<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Control Panel 	C
CF744	File Memory Transfer start-waiting Command Queue		<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C
CF754	File Memory Compression requesting Command Queue			C
CF764	Panel instruction delete job Queue		<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) 	C
CF774	Warning delete job Queue			C
CF784	Application instruction delete job Queue	C		
CF794	Output page information for Duplex back side Queue	C		
CF7A4	Paper feed completion output pate information Queue	C		
CF7B4	Exposure compaction output page information Queue	C		
CF7C4	Pre-discharge completion output page information Queue	C		
CF7D4	Touch panel coordinate data Queue	C		
CF7E4	Direct Key data Queue	C		

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Code	Item	Relevant Electrical Components, Units, and Options	Rank
CF802	SIO Sending Port...ENG	• MFP Control Board (PWB-MFPC)/Engine	C
CF806	SIO Sending Port...IRC	• MFP Control Board (PWB-MFPC)	C
CF810	SIO Sending Port...Jig software	• Jig software connection cable / MFP Control Board (PWB-MFPC)	C
CF812	SIO Sending Port...Fiery	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CF815	SIO Sending Port...PIC/PIC Terminal	• MFP Control Board (PWB-MFPC)	C
CF8ED	SIO Sending Port...EPNet		C
CF902	SIO Receiving Port...ENG	• MFP Control Board (PWB-MFPC)/Engine	C
CF906	SIO Receiving Port...IRC	• MFP Control Board (PWB-MFPC)	C
CF910	SIO Receiving Port...Jig software	• Jig software connection cable / MFP Control Board (PWB-MFPC)	C
CF912	SIO Receiving Port...Fiery	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CF915	SIO Receiving Port...PIC/PIC Terminal	• MFP Control Board (PWB-MFPC)	C
CF9ED	SIO Receiving Port...EPNet		C
CFA01	getOneImgTransInfoFromTh() No applied thread	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFA02	chkEnableAllocExec() default error		C
CFA03	setTransBandAndRepeatNum() error		C
CFA04	Application ID error		C
CFA05	Thread selection image processing mode error		C
CFA06	getOneImgIndexNumFromTh() No applied thread		C
CFA07	setBufBandFromOut() No applied thread		C
CFA08	chkStartOutput() No applied thread		C
CFA09	rptReleaseMemResultACS() No applied thread		C
CFA10	rptEndBandTrans() No applied thread		C
CFA11	cancelTransExec() No applied thread		C

An exceptional instance occurred due to the unexpected Parameter in the System F/W.



Code	Item	Relevant Electrical Components, Units, and Options	Rank	
CFA12	CC_ImgTransInfo:allocTransIndex	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C	
CFA13	CC_MultiThreadProfile:rptBuf2 MemClrEnd		C	
CFA21	Outside image input start		C	
CFA22	Inside image outside output start		C	
CFA23	Engine Input start		C	
CFA24	Buffer memory → File memory transfer Start		C	
CFA25	BTC compression/CMM start		C	
CFA26	Inside image PCIBridgeDMA input/output start		C	
CFA27	File memory → Buffer memory transfer Start		C	
CFA28	BTC extension start		C	
CFA29	JPEG compression start		C	
CFA30	JPEG extension start		C	
CFA31	Software resolution conversion start		C	
CFA32	Hardware resolution conversion start		C	
CFA33	Software rotating processing start		An exceptional instance occurred due to the unexpected Parameter in the System F/W.	C
CFA34	Other Sequence malfunction			C
CFA35	Buffer Array malfunction			C
CFA36	Thread Service malfunction			C
CFA37	Input image height 0			C
CFA38	Output image width 0			C
CFA41	pcbuf_exinput.cpp,h			C
CFA42	pcbuf_inout.cpp,h			C
CFA43	pcbuf_exoutput.cpp,h			C
CFA61	DMA A			C
CFA62	DMA B			C
CFA63	DMA C			C
CFA64	DMA D			C
CFA65	DMA E			C
CFA66	DMA F			C
CFA67	DMA G			C
CFA68	DMA H			C
CFA69	DMA I			C
CFA70	DMA J	C		
CFA71	Interruption	C		
CFA72	Common register setting	C		

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Code	Item		Relevant Electrical Components, Units, and Options	Rank
CFA73	PCIBridgeDMA	An exceptional instance occurred due to the unexpected Parameter in the System F/W.	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFA74	BTC compression/Extension device			C
CFA75	CMM			C
CFB52	DMA_A error interruption	Error concerning Data transmission Bus or hardware (IR Input system)	• MFP Control Board (PWB-MFPC)	C
CFB53	DMA_B error interruption	Error concerning Data transmission Bus or hardware (inside the Board)	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFB54	DMA_C error interruption			C
CFB55	DMA_D 0 error interruption	Error concerning Data transmission Bus or hardware (Engine output system)		• MFP Control Board (PWB-MFPC)/Engine
CFB56	DMA_D 1 error interruption			C
CFB57	DMA_D 2 error interruption			C
CFB58	DMA_D 3 error interruption			C
CFB59	DMA_E error interruption			Error concerning Data transmission Bus or hardware (inside the Board)
CFB5A	DMA_F error interruption	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C	
CFB5B	DMA_G error interruption	• MFP Control Board (PWB-MFPC)/External Control Interface Board	C	
CFB5C	DMA_H error interruption	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C	
CFB5D	DMA_I error interruption	• MFP Control Board (PWB-MFPC)	C	
CFB5E	DMA_J error interruption	• MFP Control Board (PWB-MFPC)/Engine	C	
CFB5F	Watch Dog Timer Error interruption	An exceptional instance occurred due to the unexpected Parameter in the System F/W.	• MFP Control Board (PWB-MFPC)	
CFB60	PCI slave error interruption		• MFP Control Board (PWB-MFPC)/Local I/F Board/ Electronic sorting Board (PWB-ES)	C
CFB61	Local bus error interruption	An exceptional instance occurred due to the unexpected Parameter in the System F/W.	• MFP Control Board (PWB-MFPC)	C



Code	Item	Relevant Electrical Components, Units, and Options	Rank	
CFB6E	Underrun at DMA_D 0 image output interface 1	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C	
CFB6F	Underrun at DMA_D 1 image output interface 1		C	
CFB70	Underrun at DMA_D 2 image output interface 1		C	
CFB71	Underrun at DMA_D 3 image output interface 1		C	
CFB72	Underrun at DMA_G image output interface 1		C	
CFB73	Overflow at DMA_A/B image output interface 1	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES) 	C	
CFB74	Underrun at DMA_F ASIC 1 image output interface		C	
CFB75	Overflow at DMA_C ASIC 1 image input interface		C	
CFB76	Target abort	<ul style="list-style-type: none"> MFP Control Board (PWB-MFPC) 	C	
CFB77	Master abort		C	
CFB78	Forced stoppage		C	
CFB79	Retry error detection of PCI master		C	
CFB7A	Master read data parity error		C	
CFB7B	Master write data parity error		C	
CFB7C	System error		C	
CFB7D	Slave read data parity error		C	
CFB7E	Slave write data parity error		C	
CFB7F	Address parity error		C	
CFC01	Color Number faulty		<ul style="list-style-type: none"> An exceptional instance occurred due to the unexpected Parameter in the System F/W. 	C
CFC02	Thread Sequence malfunction			C
CFC03	Thread Service Sequence malfunction	C		
CFC04	Thread Message Q malfunction	C		
CFC12	Output of output buffer 2 surpasses clear.	C		
CFC13	Image transfer control information acquisition malfunction	C		
CFD00	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_A0	C		
CFD01	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_A1	C		
CFD02	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_A2	C		
CFD03	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_B0	C		

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Code	Item	Relevant Electrical Components, Units, and Options	Rank
CFD04	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_B1	• MFP Control Board (PWB-MFPC)	C
CFD05	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_B2		C
CFD06	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_C	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFD07	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_D		C
CFD08	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_E	• MFP Control Board (PWB-MFPC)	C
CFD09	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_F	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFD0A	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_G	• MFP Control Board (PWB-MFPC)/External Control Interface Board	C
CFD0B	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_H0	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFD0C	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_H1		C
CFD0D	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_H2		C
CFD0E	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA-I	• MFP Control Board (PWB-MFPC)	C
CFD0F	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA-J	• MFP Control Board (PWB-MFPC)/Engine	C
CFD10	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA PCI Bridge	• MFP Control Board (PWB-MFPC)	C
CFD11	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA 19 ASIC1	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFD12	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA JPEG	• MFP Control Board (PWB-MFPC)	C
CFD13	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA NO		C
CFE00	ASIC10 Timeout Number of DMA under operation and transfer completion line=0: DMA_A0		C
CFE01	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_A1		C
CFE02	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_A2		C
CFE03	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_B0		C
CFE04	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_B1		C
CFE05	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_B2		C

▲	Code	Item	Relevant Electrical Components, Units, and Options	Rank
	CFE06	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_C	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
	CFE07	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_D		C
	CFE08	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_E	• MFP Control Board (PWB-MFPC)	C
	CFE09	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_F	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
	CFE0A	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_G	• MFP Control Board (PWB-MFPC)/External Control Interface Board	C
	CFE0B	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_H0	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
	CFE0C	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_H1		C
	CFE0D	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA_H2		C
	CFE0E	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA-I	• MFP Control Board (PWB-MFPC)	C
	CFE0F	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA-J	• MFP Control Board (PWB-MFPC)/Engine	C
	CFE10	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMAPCI Bridge	• MFP Control Board (PWB-MFPC)	C
	CFE11	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA19 ASIC1	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
	CFE12	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA JPEG	• MFP Control Board (PWB-MFPC)	C
	CFE13	ASIC10 Timeout Number of DMA under operation and transfer completion line≠0: DMA NO		C
	CFF00	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_A0		C
	CFF01	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_A1		C
	CFF02	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_A2		C
	CFF03	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_B0		C
	CFF04	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_B1		C
	CFF05	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_B2	C	
	CFF06	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_C	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
	CFF07	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_D		C



Code	Item	Relevant Electrical Components, Units, and Options	Rank
CFF08	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_E	• MFP Control Board (PWB-MFPC)	C
CFF09	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_F	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFF0A	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_G	• MFP Control Board (PWB-MFPC)/External Control Interface Board	C
CFF0B	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_H0	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFF0C	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_H1		C
CFF0D	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA_H2		C
CFF0E	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA-I	• MFP Control Board (PWB-MFPC)	C
CFF0F	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA-J	• MFP Control Board (PWB-MFPC)/Engine	C
CFF10	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA PCI Bridge	• MFP Control Board (PWB-MFPC)	C
CFF11	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA 19 ASIC1	• MFP Control Board (PWB-MFPC)/Electronic sorting Board (PWB-ES)	C
CFF12	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA JPEG	• MFP Control Board (PWB-MFPC)	C
CFF13	ASIC10 Timeout Waiting state of DMA band preparation register setting:DMA NO		C

23.5 How to reset

- Different malfunction resetting procedures apply depending on the rank of the trouble code.

* List of Malfunction Resetting Procedures

Trouble Code Rank	Resetting Procedures
Rank A	<ul style="list-style-type: none"> • Trouble Reset • For details of Trouble Reset, see Adjustment/Setting. See P.304
Rank B	<ul style="list-style-type: none"> • Opening/Closing the front door
Rank C	<ul style="list-style-type: none"> • Turning main power switch OFF/ON

23.6 Solution

23.6.1 C0204: Tray 2 Elevator failure

Relevant Electrical Parts	
Tray 2 Lift-Up Sensor (PC105) Tray 2 Lift-Up Motor (M101)	Tray 2 Board (PWB-Z)

Step	Action
1	Check the M101 connector for proper connection and correct as necessary.
2	Check the connector of M101 for proper drive coupling and correct as necessary.
3	PC115 I/O check
4	M101 operation check
5	Change PWB-Z.

23.6.2 C0211: Manual Bypass Paper Lifting Failure

Relevant Electrical Parts	
Bypass Lift-Up Sensor (PC115) Tray 2 Vertical Transport Motor (M103)	Tray 2 Board (PWB-Z)

Step	Action
1	Check the M103 connector for proper connection and correct as necessary.
2	Check the connector of M103 for proper drive coupling and correct as necessary.
3	PC115 I/O check
4	M103 operation check
5	Change PWB-Z.

23.6.3 C0301: Suction Fan Motor's failure to turn

Relevant Electrical Parts	
Suction Fan Motor (M12)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M12 operation check
4	Change PWB-MC

23.6.4 C0351: Paper Cooling Fan Motor's failure to turn

Relevant Electrical Parts	
Paper Cooling Fan Motor (M26)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M26 operation check
4	Change PWB-MC

23.6.5 C2151: 2nd Image Transfer Roller pressure/retraction failure

Relevant Electrical Parts	
2nd Image Transfer Pressure/Retraction Sensor (PC29)	Control Board (PWB-MC)
2nd Image Transfer Pressure/Retraction Motor (M13)	
Step	Action
1	Check the M13 connector for proper connection and correct as necessary.
2	PC29 I/O check
3	M13 operation check
4	Change PWB-MC

23.6.6 C2152: Image Transfer Belt pressure/retraction failure

Relevant Electrical Parts	
1st Image Transfer Retraction Position Sensor (PC12)	Control Board (PWB-MC)
1st Image Transfer Pressure/Retraction Motor (M11)	
Step	Action
1	Check the M11 connector for proper connection and correct as necessary.
2	PC12 I/O check
3	M11 operation check
4	Change PWB-MC

- 23.6.7 C2160: Cyan PC Drum Charge Corona malfunction**
23.6.8 C2161: Magenta PC Drum Charge Corona malfunction
23.6.9 C2162: Yellow PC Drum Charge Corona malfunction
23.6.10 C2163: Black PC Drum Charge Corona malfunction
23.6.11 C2164: PC Drum Charge Corona malfunction

Relevant Electrical Parts	
Imaging Unit /C Imaging Unit /M Imaging Unit /Y Imaging Unit /K	High Voltage Unit/1 (HV1) Control Board (PWB-MC)

Step	Action
1	Check the Imaging Unit contact and correct or clean as necessary.
2	Check the HV1 contact and correct or clean as necessary.
3	Change Imaging Unit.
4	Change HV1.
5	Change PWB-MC

23.6.12 C2251: K PC Motor's failure to turn

Relevant Electrical Parts	
K PC Motor (M7)	Control Board (PWB-MC)

Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the connector of motor for proper drive coupling and correct as necessary.
3	Check the PWB-MC connector for proper connection and correct as necessary.
4	M7 operation check
5	Change PWB-MC.

23.6.13 C2252: K PC Motor turning at abnormal timing

Relevant Electrical Parts	
K PC Motor (M7)	Control Board (PWB-MC)

Step	Action
1	M7 operation check
2	Change PWB-MC.

23.6.14 C2253: Color PC Motor's failure to turn

Relevant Electrical Parts	
Color PC Drum Motor (M5)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the connector of motor for proper drive coupling and correct as necessary.
3	Check the PWB-MC connector for proper connection and correct as necessary.
4	M5 operation check (C0018)
5	Change PWB-MC

23.6.15 C2254: Color PC Motor turning at abnormal timing

Relevant Electrical Parts	
Color PC Drum Motor (M5)	Control Board (PWB-MC)
Step	Action
1	M5 operation check
2	Change PWB-MC

23.6.16 C2255: Color Developing Motor's failure to turn

Relevant Electrical Parts	
Color Developing Motor (M6)	DC Power Supply (PU1)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the connector of motor for proper drive coupling and correct as necessary.
3	Check the PU-1 connector for proper connection and correct as necessary.
4	M6 operation check
5	Change PU-1

23.6.17 C2256: Color Developing Motor turning at abnormal timing

Relevant Electrical Parts	
Color Developing Motor (M6)	DC Power Supply (PU1)
Step	Action
1	M6 operation check
2	Change PWB-MC

23.6.18 C2257: Cleaning Brush Motor's failure to turn

Relevant Electrical Parts	
Cleaning Brush Motor (M22)	Control Board (PWB-MC)
Step	Action
1	Check the M22 connector for proper connection and correct as necessary.
2	Check M22 for proper drive coupling and correct as necessary.
3	Check the PWB-MC connector for proper connection and correct as necessary.
4	M22 operation check
5	Change PWB-MC.

23.6.19 C2258: Cleaning Brush Motor Turning at abnormal timing

Relevant Electrical Parts	
Cleaning Brush Motor (M22)	Control Board (PWB-MC)
Step	Action
1	M22 operation check
2	Change PWB-MC.

23.6.20 C2351: Toner Suction Fan Motor/K's failure to turn

Relevant Electrical Parts	
Toner Suction Fan Motor/K (M23)	Control Board (PWB-MC)
Step	Action
1	Check the M23 connector for proper connection and correct as necessary.
2	Check M23 for proper drive coupling and correct as necessary.
3	M23 operation check
4	Change PWB-MC.

23.6.21 C2352: Toner Suction Fan Motor's failure to turn

Relevant Electrical Parts	
Toner Suction Fan Motor (M20)	Control Board (PWB-MC)
Step	Action
1	Check the M20 connector for proper connection and correct as necessary.
2	Check M20 for proper drive coupling and correct as necessary.
3	M20 operation check
4	Change PWB-MC.

23.6.22 C2451: New Transfer Cleaner Unit resetting failure**23.6.23 C3461: New Fusing Unit resetting failure**

Relevant Electrical Parts	
Control Board (PWB-MC)	

Step	Action
1	Reinstall Unit
2	Change PWB-MC

23.6.24 C2551: Abnormally low toner density detected Cyan TCR Sensor**23.6.25 C2553: Abnormally low toner density detected Magenta TCR Sensor****23.6.26 C2555: Abnormally low toner density detected Yellow TCR Sensor**

Relevant Electrical Parts	
TCR Sensor/C (PWB-N3)	Control Board (PWB-MC)
TCR Sensor/M (PWB-N2)	MFP Control Board (PWB-MFPC)
TCR Sensor/Y (PWB-N1)	Imaging Unit /C
Toner Supply Motor C/K (M3)	Imaging Unit /M
Toner Supply Motor Y/M (M4)	Imaging Unit /Y

Step	Action
1	Perform image troubleshooting procedure if image density is low.
2	Clean the TCR Sensor window on the underside of the Imaging Unit if dirty
3	Correct the TCR Sensor spring moving part if faulty.
4	Clean the TCR Sensor LED if dirty
5	Change TCR Sensor C/M/Y.
6	M3, M4 operation check
7	Change Imaging Unit.
8	Change PWB-MC
9	Change PWB-MFPC.

23.6.27 C2552: Abnormally high toner density detected Cyan TCR Sensor**23.6.28 C2554: Abnormally high toner density detected Magenta TCR Sensor****23.6.29 C2556: Abnormally high toner density detected Yellow TCR Sensor**

Relevant Electrical Parts	
TCR Sensor/C (PWB-N3)	Control Board (PWB-MC)
TCR Sensor/M (PWB-N2)	MFP Control Board (PWB-MFPC)
TCR Sensor/Y (PWB-N1)	Imaging Unit /C
	Imaging Unit /M
	Imaging Unit /Y

Step	Action
1	Clean the TCR Sensor window on the underside of the Imaging Unit if dirty
2	Clean the TCR Sensor LED if dirty
3	Correct the contact and/or WIRING of the TCR Sensor if faulty.
4	Change TCR Sensor C/M/Y.
5	Change Imaging Unit.
6	Change PWB-MC
7	Change PWB-MFPC.

23.6.30 C2557: Abnormally low toner density detected Black TCR Sensor

Relevant Electrical Parts	
TCR Sensor/K (UN10)	Control Board (PWB-MC)
Toner Supply Motor C/K (M3)	MFP Control Board (PWB-MFPC)

Step	Action
1	Perform image troubleshooting procedure if image density is low.
2	M3 operation check
3	Change Imaging Unit.
4	Change PWB-MC
5	Change PWB-MFPC.

23.6.31 C2558: Abnormally high toner density detected Black TCR Sensor

Relevant Electrical Parts	
Imaging Unit /K	Control Board (PWB-MC)
TCR Sensor/K (PWB-N4)	MFP Control Board (PWB-MFPC)

Step	Action
1	Correct the TCR connection on the underside of the Imaging Unit if faulty.
2	Clean or correct each contact of the Imaging Unit if faulty.
3	Change Imaging Unit.
4	Change PWB-MC
5	Change PWB-MFPC.

23.6.32 C2559: Cyan TCR Sensor adjustment failure**23.6.33 C255A: Magenta TCR Sensor adjustment failure****23.6.34 C255B: Yellow TCR Sensor adjustment failure**

Relevant Electrical Parts	
TCR Sensor/C (PWB-N3)	Control Board (PWB-MC)
TCR Sensor/M (PWB-N2)	MFP Control Board (PWB-MFPC)
TCR Sensor/Y (PWB-N1)	Imaging Unit /C
Toner Supply Motor C/K (M3)	Imaging Unit /M
Toner Supply Motor Y/M (M4)	Imaging Unit /Y

Step	Action
1	Clean the TCR Sensor window on the underside of the Imaging Unit if dirty
2	Clean the TCR Sensor LED if dirty
3	Correct the contact and/or WIRING of the TCR Sensor if faulty.
4	Reinstall Imaging Unit C/M/Y.
5	M3, M4 operation check
6	Change Imaging Unit.
7	Change PWB-MC
8	Change PWB-MFPC.

23.6.35 C255C: Black TCR Sensor adjustment failure

Relevant Electrical Parts	
Imaging Unit /K	Control Board (PWB-MC) MFP Control Board (PWB-MFPC)

Step	Action
1	Correct the TCR connection on the underside of the Imaging Unit if faulty.
2	Clean or correct each contact of the Imaging Unit if faulty.
3	Change Imaging Unit.
4	Change PWB-MC
5	Change PWB-MFPC.

- 23.6.36 C2651: Cyan Imaging Unit EEPROM access error**
23.6.37 C2652: Magenta Imaging Unit EEPROM access error
23.6.38 C2653: Yellow Imaging Unit EEPROM access error
23.6.39 C2654: Black Imaging Unit EEPROM access error

Relevant Electrical Parts	
Imaging Unit /C Imaging Unit /M Imaging Unit /Y Imaging Unit /K	Control Board (PWB-MC)

Step	Action
1	Clean the connection between the Imaging Unit and the machine if dirty
2	Reinstall Imaging Unit C/M/Y/K.
3	Change Imaging Unit.
4	Change PWB-MC

- 23.6.40 C2655: Cyan LPH correction data download failure**
23.6.41 C2656: Yellow LPH correction data download failure
23.6.42 C2657: Magenta LPH correction data download failure
23.6.43 C2658: Black LPH correction data download failure

Relevant Electrical Parts	
LPH Assy/C LPH Assy/M LPH Assy/Y LPH Assy/K	LED Drive Board (PWB-LED) MFP Control Board (PWB-MFPC) Control Board (PWB-MC)

Step	Action
1	Correct the harness connection between LPH and PWB-LED if faulty.
2	Correct the harness connection between PWB-LED and PWB-MFPC if faulty.
3	Change LPH Assy.
4	Change PWB-LED.
5	Change PWB-MFPC.
6	Change PWB-MC

23.6.44 C3101: Fusing Pressure Roller pressure/retraction failure

Relevant Electrical Parts	
Fusing Pressure/Retraction Sensor (PC33)	Control Board (PWB-MC)
Fusing Pressure Roller Pressure/Retraction Motor (M19)	Fusing Unit
Step	Action
1	Check the M9 connector for proper connection and correct as necessary.
2	PC33 I/O check
3	PC33 operation check
4	M19 operation check
5	Change Fusing Unit
6	Change PWB-MC

23.6.45 C3201: Fusing Drive Motor's failure to turn

Relevant Electrical Parts	
Fusing Drive Motor (M2)	Control Board (PWB-MC)
Step	Action
1	Check the M2 connector for proper connection and correct as necessary.
2	Check the Fusing Unit drive for possible overload and correct as necessary.
3	Check the PWB-MC connector for proper connection and correct as necessary.
4	M2 operation check
5	Change PWB-MC

23.6.46 C3202: Fusing Drive Motor turning at abnormal timing

Relevant Electrical Parts	
Fusing Drive Motor (M2)	Control Board (PWB-MC)
Step	Action
1	M2 operation check
2	Change PWB-MC

23.6.47 C3301: Fusing Cooling Fan Motor /1's failure to turn

Relevant Electrical Parts	
Fusing Cooling Fan Motor/1 (M9)	DC Power Supply (PU1)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M9 operation check
4	Change PU-1

23.6.48 C3302: Fusing Cooling Fan Motor /2, /3's failure to turn

Relevant Electrical Parts	
Fusing Cooling Fan Motor/2 (M15) Fusing Cooling Fan Motor/3 (M16)	Control Board (PWB-MC)

Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M15, M16 operation check
4	Change PWB-MC

23.6.49 C3451: Heating Roller warm-up failure**23.6.50 C3452: Fusing Pressure Roller warm-up failure****23.6.51 C3751: Heating Roller abnormally high temperature****23.6.52 C3752: Fusing Pressure Roller abnormally high temperature****23.6.53 C3851: Heating Roller abnormally low temperature****23.6.54 C3852: Fusing Pressure Roller abnormally low temperature**

Relevant Electrical Parts	
Fusing Unit	DC Power Supply (PU1) Control Board (PWB-MC)

Step	Action
1	Check the Fusing Unit for correct installation (whether it is secured in position).
2	Check the Fusing Unit, PWB-MC and PU1 for proper connection and correct or change as necessary.
3	Change Fusing Unit.
4	Change PWB-MC
5	Change PU1.

23.6.55 C4705: Printer Time Out

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	
Step	Action
1	Select "Service Mode" → [State Confirmation] → [Memory/HDD Adj.] → [Memory Bus Check] → [Memory→PRT.]
2	Check the connectors on PWB-MFPC for proper connection and correct as necessary.
3	Change PWB-MFPC.

23.6.56 C4761: Compression hardware timeout**23.6.57 C4765: Extraction hardware timeout****23.6.58 C4770: JBIG0 Error****23.6.59 C4771: JBIG1 Error****23.6.60 C4772: JBIG2 Error****23.6.61 C4773: JBIG3 Error****23.6.62 C4780: Compressor 0 command buffer stop failure****23.6.63 C4781: Compressor 1 command buffer stop failure****23.6.64 C4782: Compressor 2 command buffer stop failure****23.6.65 C4783: Compressor 3 command buffer stop failure****23.6.66 CD211: PCI-SDRAM DMA operation failure****23.6.67 CD212: Compression/extraction timeout detection**

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	
Step	Action
1	Change PWB-MFPC.

23.6.68 C5102: Main Motor's failure to turn

Relevant Electrical Parts	
Main Motor (M1)	Control Board (PWB-MC) DC Power Supply (PU1)
Step	Action
1	Check the M1 connector for proper connection and correct as necessary.
2	Check M1 for proper drive coupling and correct as necessary.
3	Check the PWB-MC connector for proper connection and correct as necessary.
4	M1 operation check
5	Change PWB-MC.
6	Change PU1.

23.6.69 C5103: Main Motor Turning at abnormal timing

Relevant Electrical Parts	
Main Motor (M1)	Control Board (PWB-MC) DC Power Supply (PU1)
Step	Action
1	M1 operation check
2	Change PWB-MC.
3	Change PU1.

23.6.70 C5351: Power Supply Cooling Fan Motor's failure to turn

Relevant Electrical Parts	
Power Supply Cooling Fan Motor (M21)	DC Power Supply (PU1)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M21 operation check
4	Change PU-1

23.6.71 C5353: Cooling Fan Motor 2's failure to turn

Relevant Electrical Parts	
Cooling Fan Motor/2 (M10)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M10 operation check
4	Change PWB-MC

23.6.72 C5354: Ozone Ventilation Fan Motor's failure to turn

Relevant Electrical Parts	
Ozone Ventilation Fan Motor (M18)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M18 operation check
4	Change PWB-MC

23.6.73 C5355: Cooling Fan Motor/3's failure to turn

Relevant Electrical Parts	
Cooling Fan Motor/3 (M25)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M25 operation check
4	Change PWB-MC

23.6.74 C5356: Cooling Fan Motor/1's failure to turn

Relevant Electrical Parts	
Cooling Fan Motor/1 (M24)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M24 operation check
4	Change PWB-MC

23.6.75 C5370: MFP Control Board Cooling Fan Motor's failure to turn

Relevant Electrical Parts	
MFP Control Board Cooling Fan Motor (M27)	Control Board (PWB-MC)
Step	Action
1	Check the connector of motor for proper connection and correct as necessary.
2	Check the fan for possible overload and correct as necessary.
3	M27 operation check
4	Change PWB-MC

23.6.76 CA051: Standard Controller configuration failure

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	
Step	Action
1	Check to see if the following setting has been correctly made: [Tech. Rep. Mode] → [Image Controller Setting]. If the setting is changed, be sure to turn OFF and ON the Main Power Switch.
2	Check the connectors of the MFP Control Board (PWB-MFPC) for proper connection and correct as necessary.
3	Change PWB-MFPC.

23.6.77 CC151: ROM contents error upon startup (MSC)**23.6.78 CC153: ROM contents error upon startup (PRT)****23.6.79 CC154: ROM contents error upon startup (LPH)**

Step	Action
1	Check the ROM version.
2	Rewrite firmware using the Compact Flash card.

23.6.80 CC163: ROM contents error (PRT)

Step	Action
1	Check the ROM version.
2	Rewrite firmware using the Compact Flash card.

⚠ 23.6.81 CD001: Hard disk initialization abnormality**23.6.82 CD002: JOB RAM save error**

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	Hard Disk

Step	Action
1	Check the Hard Disk connector for proper connection and correct as necessary.
2	Format Hard Disk.
3	Change Hard Disk.
4	Change PWB-MFPC.

- 23.6.83 CD004: Hard disk access error**
- 23.6.84 CD005: Hard Disk Error 1**
- 23.6.85 CD006: Hard Disk Error 2**
- 23.6.86 CD007: Hard Disk Error 3**
- 23.6.87 CD008: Hard Disk Error 4**
- 23.6.88 CD009: Hard Disk Error 5**
- 23.6.89 CD00A: Hard Disk Error 6**
- 23.6.90 CD00B: Hard Disk Error 7**
- 23.6.91 CD00C: Hard Disk Error 8**
- 23.6.92 CD00D: Hard Disk Error 9**
- 23.6.93 CD00E: Hard Disk Error A**
- 23.6.94 CD00F: Hard disk data transfer error**
- 23.6.95 CD020: Hard disk verify error**



Relevant Electrical Parts	
MFP Control Board (PWB-MFPC) Electronic Sorting Board (PWB-ES)	Hard Disk

Step	Action
1	Check the Hard Disk connector for proper connection and correct as necessary.
2	Reinstall the Hard Disk.
3	Change Hard Disk.
4	Change PWB-ES.
5	Change PWB-MFPC.

23.6.96 CD010: Hard disk unformat

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	Hard Disk

Step	Action
1	Select [Tech. Rep. Mode] → [HDD Format].
2	Change Hard Disk.
3	Change PWB-MFPC.

23.6.97 CD011: Hard disk specifications error

Relevant Electrical Parts	
Hard Disk	

Step	Action
1	Check the Hard Disk specifications.
2	Change the Hard Disk.

- △ **23.6.98 CD201: File memory mounting error**
23.6.99 CD202: Memory capacity discrepancy
23.6.100 CD203: Memory capacity discrepancy 2

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	Work Memory (D_WORK0)
Step	Action
1	Check to see if the memory (D_WORK0) on PWB-MFPC is installed correctly.
2	Change the memory (D_WORK0) on PWB-MFPC.
3	Change PWB-MFPC.

- △ **23.6.101 CD204: Expanded memory unit not mounted at JScribe able**

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	Expanded Memory Unit EM-306 (option)
Step	Action
1	Check to see if JScribe is able or disable in the following setting. [Service Mode] → [System 1] → [Communication System Setting] * When JScribe function is not used, select "CS Remote Care". For details of setting, see "Adjustment/Setting." See P.267
2	Check to see if the optional expanded memory unit (EM-306) is installed correctly.
3	Change the optional expanded memory unit (EM-306).
3	Change PWB-MFPC.

- △ **23.6.102 CD211: PCI-SDRAM DMA operation failure**
23.6.103 CD212: Compression/extraction timeout detection

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	
Step	Action
1	Change PWB-MFPC.

- △ **23.6.104 CD241: Encryption board setting error**
23.6.105 CD242: Encryption board mounting error

Relevant Electrical Parts	
Encryption Board (SC-503)	
Step	Action
1	Check the Encryption Board connector for proper connection and correct as necessary.
2	Change Encryption Board.

23.6.106 CD3##: NVRAM Data error

- When the data stored due to the NVRAM trouble is lost, backup data can be used for restoration.
- △ Trouble code [C-D370] will be displayed when multiple errors (over 5) of NVRAM data are detected, which can be restored with one restoration command.
- Data backup will be automatically performed every hour. Backup can also be performed manually with the following setting.
[Tech. Rep. Mode] → [Data Backup]

[See P.202](#)

A. Recovery procedure from NVRAM data error

1. With the malfunction code displayed on the screen, press the following keys:
▼ → ► → ▼ → ► → ▼ → Menu/Select key
2. The message "Data restoration OK to Start?" appears on the control panel.
3. Press the Menu/Select key.
4. The message "Data restoration Now processing." appears on the control panel and data restoration sequence is carried out.

NOTE

- **When the restoration is performed in a short time, data restoration screen may not be displayed.**
5. When the message "Complete." appears on the control panel, turn OFF the Main Power Switch. Then, wait for 10 sec. or more before turning ON the Main Power Switch again.

NOTE

- **In case it failed to restore data, return to the trouble code screen.**

23.6.107 CE002: Message and Method parameter failure

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	Hard Disk
Step	Action
1	If it occurred after upgrading the Firmware, conduct the following setting. [Tech. Rep. Mode] → [Version Upgrade] → [HDD Ver. Upgrade] See P.198
2	Turn OFF the main power switch and turn it ON again, and conduct the following setting. [Tech. Rep. Mode] → [Initialization]. See P.195
3	Format Hard Disk.
4	Change Hard Disk.
5	Change PWB-MFPC.

23.6.108 CEEE1: MSC undefined malfunction occurring

Relevant Electrical Parts	
MFP Control Board (PWB-MFPC)	
Step	Action
1	Check the connectors on PWB-MFPC for proper connection and correct as necessary.
2	Change PWB-MFPC.

23.6.109 CEEE3: Engine Section undefined malfunction

Relevant Electrical Parts	
Control Board (PWB-MC)	
Step	Action
1	Check the PWB-MC connector for proper connection and correct as necessary.
2	Change PWB-MC

24. Power supply trouble

24.1 Machine is not Energized at All (PU1 Operation Check)

Relevant Electrical Parts	
Main Power Switch (SW1) Control Board (PWB-MC)	DC Power Supply (PU1)

Step	Check Item	Result	Action
1	Is a power voltage supplied across PJ1PU1-1 and 2 on PU1?	NO	Check WIRING between the wall outlet and PJ1PU1.
2	Are the fuses (F1 and F2) on PU1 conducting?	NO	Change PU1.
3	Is DC24 V being output from PJ5PU1-2 on PU1?	NO	Change PU1.
4	Is DC5 V being input to PJ7PU1-1 on PU1?	NO	Change PU1.
5	Is DC5 V being input to PJ1MC-7 on the Control Board? (LED on PWB-MC does not blink.)	NO	Change PU1.
		YES	Change PWB-MC

24.2 Control panel indicators do not light

Relevant Electrical Parts	
Control Panel (UN1)	DC Power Supply (PU1)

Step	Check Item	Result	Action
1	Is PJXSIF on PWB-SIF securely connected?	NO	Reconnect.
2	Is a power voltage being applied across PJ1PU1-1 and 2 on PU1?	NO	Check the WIRING from the wall outlet to SW1 PJ1PU1.
3	Is the fuse (F1,F2) on PU1 conducting?	NO	Change PU1.
4	Is DC5 V being output from PJ13PU1-1 on PU1 and DC24 V from PJ12PU1-1?	NO	Change PU1.
5	Is CN1 on UN1 securely connected?	NO	Reconnect.
		YES	Change UN1.

24.3 Fusing Heaters do not Operate

Relevant Electrical Parts	
Upper Right Door Switch (SW5) Fusing Unit	DC Power Supply (PU1)

Step	Check Item	Result	Action
1	Is the power source voltage applied across PJ4PU1-1 and 3 on PU1? During this time, the Right Door should be closed.	NO	Check wiring from power outlet to SW5 to PJ4PU1.
2	Is the power source voltage applied across CN44-1 and 3, or across 2 and 3?	YES	Fusing Unit
		NO	Change PU1.

24.4 Power is not Supplied to Duplex

Step	Check Item	Result	Action
1	Is DC24 V being output from CN42-1 on Duplex?	NO	Malfunction in Duplex.
2	Is DC24 V being output from PJ6PU1-1 on PU1?	NO	Check wiring from PU1 to Duplex.
3	Is the fuse (F203) on PU1 conducting?	YES	Change PU1.
		NO	Change F203. Malfunction in Duplex.

24.5 Power is not Supplied to Option

24.5.1 Optional Paper Feed Cabinet

Step	Check Item	Result	Action
1	Is DC24 V being applied to hookup connector CN28-1?	NO	Malfunction in Paper Feed Cabinet
2	Is DC24 V being output from PJ6PU1-2 on PU1?	NO	Check wiring from PU1 to CN48 to Paper Feed Cabinet.
3	Is the fuse (F204) on PU1 conducting?	YES	Change PU1.
		NO	Change F204. Malfunction in Paper Feed Cabinet

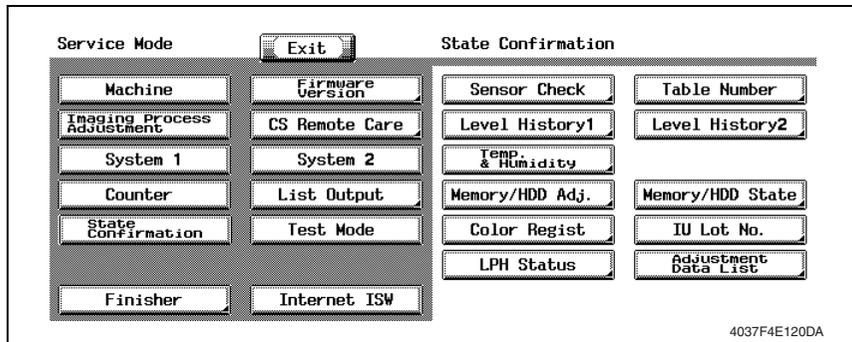
24.5.2 Finisher

Step	Check Item	Result	Action
1	Are DC24 V and DC5 V being applied to CN20-11 and CN20-1, respectively, of the Finisher?	NO	Malfunction in Finisher.
2	Are DC24 V and DC5 V being applied to PJ5PU1-9 and PJ10PU1-5 on PU1, respectively?	NO	Check wiring from PU1 to Finisher.
3	Are there continuity in the 24-V fuse (F202) and 5-V fuse (F205) on PU1?	YES	Change PU1.
		NO	Change F202, F205. Malfunction in Finisher.

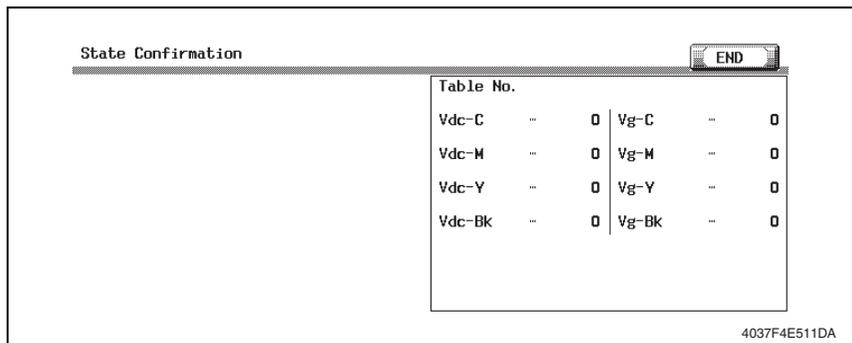
25. Image quality problem

25.1 How to read Element date

- The cause of the image quality problem is identified by using the numeric values of [State Confirmation] of Service Mode of the Jig software.



25.1.1 Table Number



Vdc-C Vdc-M Vdc-Y Vdc-K	<ul style="list-style-type: none"> Shows the developing bias value of each color of toner when an image is produced. Standard values: Around 390 V A correction is made to make the image lighter when the numeric value is greater. A correction is made to make the image darker when the numeric value is smaller. Relevant Components: Imaging Unit, High Voltage Unit (Developing Bias)
Vg-C Vg-M Vg-Y Vg-K	<ul style="list-style-type: none"> Shows the grid voltage value of each color of toner when an image is produced. Standard values: Around 500 V A correction is made to make the image lighter when the numeric value is greater. A correction is made to make the image darker when the numeric value is smaller. Relevant Components: Imaging Unit, High Voltage Unit (Developing Bias)

25.1.2 Level History 1

State Confirmation

END

Level History 1			
TCR-C	-	9.90%	IDC1 - 0.00V
TCR-M	-	10.00%	IDC2 - 0.00V
TCR-Y	-	9.99%	Temp-Belt - 0b
TCR-Bk	-	0.01%	Temp-Press. - 0b

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TCR-C TCR-M TCR-Y TCR-K	<ul style="list-style-type: none"> • Shows the T/C ratio (in 0.01 % increments). • Standard value: 7 ± 3 % • Relevant Components: LPH Unit, TCR Sensor K
IDC1 IDC2	<ul style="list-style-type: none"> • Shows the IDC bare surface output reading taken last (in 0.01 V increments). • It should normally be around 4.3 V. • The output range is 0 V to 5 V. • "Reading taken last" means: Latest toner density When the Start key is pressed, the output value is displayed while a test print is being produced. • Relevant Components: IDC Sensor, Transfer Belt Unit
Temp-Belt. Temp-Press.	<ul style="list-style-type: none"> • Shows the temperature of the Heating Roller (Temp-Belt) and the Fusing Pressure Roller (Temp-Press.) (in 5 °C increments). • Relevant Components: Fusing Unit

25.1.3 Level History 2

State Confirmation END

Level History 2

IDC Sensor Adjust1	...	0	ATVC-C	...	0
IDC Sensor Adjust2	...	0	ATVC-M	...	0
			ATVC-Y	...	0
			ATVC-Bk	...	0
			ATVC-2nd	...	0

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IDC Sensor Adjust 1 IDC Sensor Adjust 2	<ul style="list-style-type: none"> Shows the IDC intensity adjustment value. It should normally be around 40 and can range from 0 to 255. The value becomes greater as the Transfer Belt Unit has been used more. Relevant Components: IDC Sensor, Transfer Belt Unit
ATVC -C ATVC -M ATVC -Y ATVC -K ATVC -2nd	<ul style="list-style-type: none"> Shows the latest ATVC level (which varies according to the paper type). 300 V to 3000 V (ATVC-C/-M/-Y/-K) 300 V to 5000 V (ATVC-2nd) Relevant Components: Transfer Belt Unit, High Voltage Unit (Image Transfer, Neutralizing)

bizhub C450P

Troubleshooting

25.2 How to identify problematic part

- This chapter is divided into two parts: “Initial Check Items” and “Troubleshooting Procedure by a Particular Image Quality Problem.”
- When an image quality problem occurs, first go through the “Initial Check Items” and, if the cause is yet to be identified, go to “Troubleshooting Procedure by a Particular Image Quality Problem.”

25.2.1 Initial Check Items

A. Initial Check Items 1

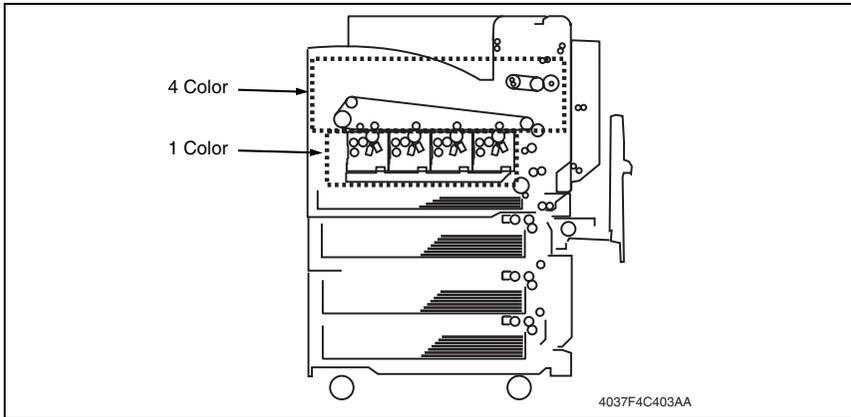
- The trouble will be distinguished whether it is on the Engine, or on the Controller.

* How to distinguish

Action	Result	Next Step
When transmitting the Print job to C450P, the Print job is displayed on the control panel on the Machine.	NO	See P.399 (Trouble on the controller)
When selecting “Demo page” from “Report output” which is available from “User setting”, image trouble occurs.	NO	<ul style="list-style-type: none"> • Check the connector connected to MFP. • Replace the MFP Board.
	YES	Initial Check Items 2

B. Initial Check Items 2

- If the printer is responsible for the image problem, let the machine produce a test print and determine whether the image problem occurs in a specific 1 color or 4 colors.



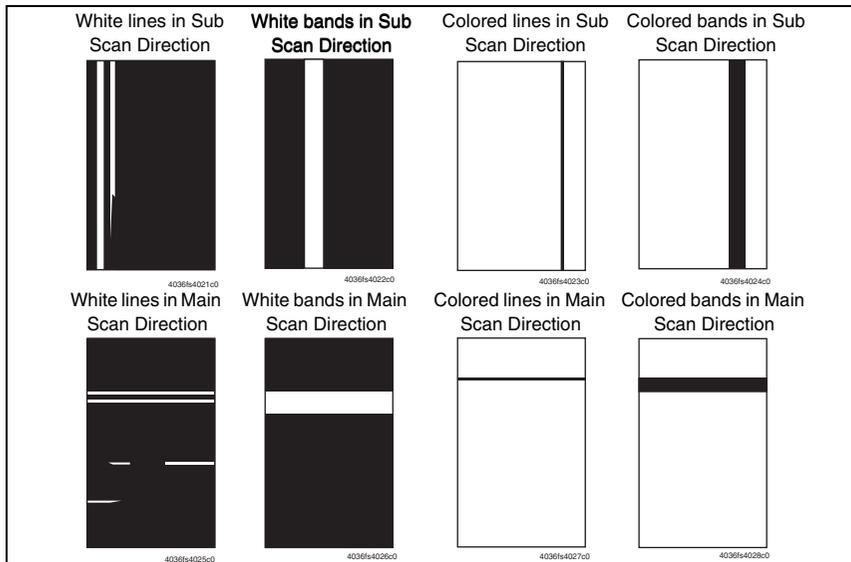
* How to distinguish

Image Problem	Action	Result	Cause
Lines, bands	When selecting “Demo page” from “Report output” which is available from “User setting”, all four colors have image troubles.	YES	Printer, 4 colors
		NO	Printer, 1 color

25.3 Solution

25.3.1 Printer Monocolor: white lines in Sub Scan Direction, white bands in Sub Scan Direction, colored lines colored bands in Sub Scan Direction, white lines in Main Scan Direction, white bands in Main Scan Direction, colored lines in Main Scan Direction, colored bands in Main Scan Direction

A. Typical Faulty Images

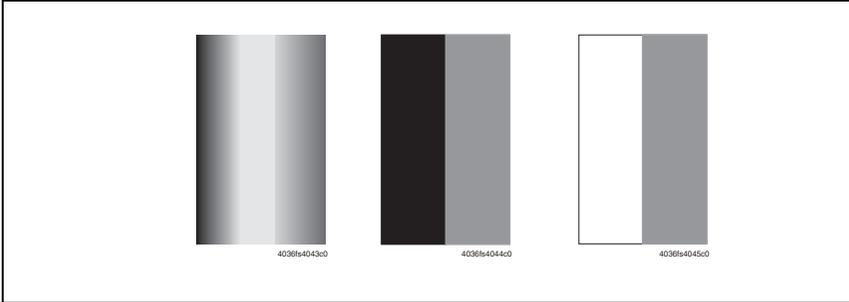


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image check	A white line or black line in sub scan direction is sharp.	YES	Select [Service Mode] → “[Machine] → [LPH Chip Adjust] and run [LPH Chip Adjust].
			NO	Clean the Comb Electrode by moving the Comb Electrode Cleaning Lever.
2	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
3	LPH Assy	The surface of the lens array is dirty.	YES	Clean with cleaning jig.
4	Imaging Unit	Dirty on the outside.	YES	Clean.
5		Connectors and contact terminals make good connection between each IU and LPH Assy.	NO	Clean contact terminals. Reconnect.
6		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
7	Image check	The problem has been eliminated through the checks of steps up to 6.	NO	Select [Service Mode] → [Machine] → [LPH Rank] and run [LPH Rank].
8		The problem has been eliminated through the checks of steps up to 7.	NO	Change Imaging Unit. → Change Image Transfer Belt Unit. → Change LPH Assy.

25.3.2 Printer Monocolor: uneven density in sub scan direction

A. Typical Faulty Images

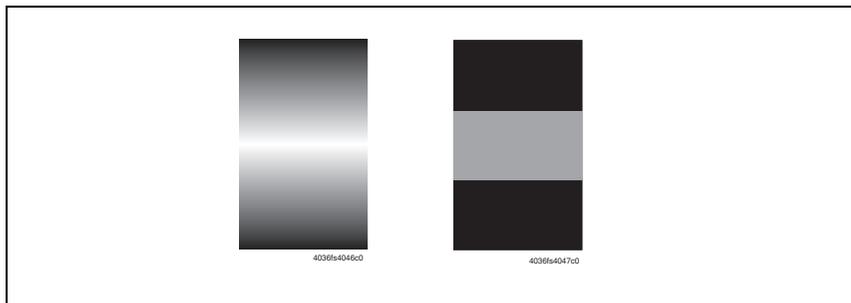


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image check	Uneven density of void area occurs.	YES	Check LPH Unit connector for proper connection. Check the LED Drive Board connectors for proper connection.
2	High image density original	Uneven density in Sub Scan Direction occurs at a pitch of 40 mm to 50 mm when a multi-copy cycle is run using an original with high image density (50% or more).	YES	Feed 10 to 20 blank sheets of paper with no originals placed, as the IU fails to keep up with a high demand for toner.
3	LPH Assy	LED retracting lever is locked in position.	NO	Slide out the IU and reinstall.
4	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
5		Dirty on the outside.	YES	Clean.
6	LPH Assy	LED surface is dirty.	YES	Clean using the LED Cleaning Jig.
7	Image check	Monocolor uneven image (uneven high density) occurs.	YES	Select [Service Mode] → [Machine] → [LPH Rank] and run [LPH Rank].
8	Image Transfer Belt Unit	Cam gear operates properly.	NO	Change Image Transfer Belt Unit.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change IU. → Change Image Transfer Belt Unit. → Change LPH Assy. → Change LED Drive Board → Change LPH Unit. → Change High Voltage Unit (Image Transfer, Neutralizing).

25.3.3 Printer Monocolor: uneven density in main scan direction

A. Typical Faulty Images

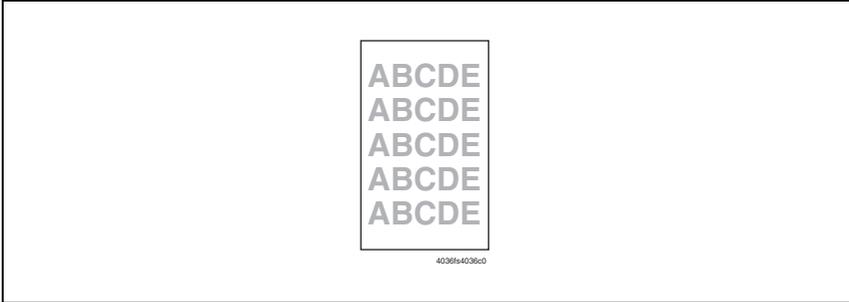


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
2		Dirty on the outside.	YES	Clean.
3	LPH Assy	The surface of the lens array is dirty.	YES	Clean with cleaning jig.
4	Image check	Monocolor uneven image (uneven high density) occurs.	YES	Select [Service Mode] → [Machine] → [LPH Rank] and run [LPH Rank].
5	Image Transfer Belt Unit	Image Transfer Belt Unit makes positive contact with plates on rails.	NO	Check and correct contacts.
6		Cam gear operates properly.	NO	Change Image Transfer Belt Unit.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change Imaging Unit. → Change Image Transfer Belt Unit. → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.4 Printer Monocolor: low image density

A. Typical Faulty Images



B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	State Confirm → Table Number (Service Mode)	Check data for Vg and Vdc. Color Vdc : Around 390 V Vg : Around 500 V Black Vdc : Around 390 V Vg : Around 500 V	NO	Go to next step.
2	State Confirmation → Level History 1 (Service Mode)	Check TCR data.	NO	Go to next step.
3	Level History data check results	IDC output value is around 4.3 V.	NO	Clean IDC Sensor. Check Image Transfer Belt for damage.
4	Level History data check results	Low TCR and low Vg and Vdc	YES	Go to step 8.
5		Low TCR and high Vg and Vdc	YES	Go to step 14.
6		TCR falling within specified range and low Vg and Vdc	YES	Go to step 8.
7		TCR falling within specified range and high Vg and Vdc	YES	Go to step 14.
8	LPH Assy	LED retracting lever is locked in position.	NO	Slide out the IU and reinstall.
9	Imaging Unit	Dirty on the outside.	YES	Clean.
10	LPH Assy	The surface of the lens array is dirty.	YES	Clean with cleaning jig.
11	TCR Sensor window	The color TCR Sensor window on the LED Assy is dirty.	YES	Clean.
12	Image Transfer Belt Unit	Image Transfer Belt Unit makes positive contact with plates on rails.	NO	Check and correct contacts.
13		Cam gear operates properly.	NO	Change Image Transfer Belt Unit.
14	Hopper Unit	Connectors are loose.	YES	Reconnect.
15		Gear is cracked.	YES	Change gear.
16		Toner empty lever and/or detecting switch are defective.	YES	Clean.

Step	Section	Check Item	Result	Action
17	Image Process Adjustment → TCR Toner Supply (Service Mode)	Toner is properly supplied when TCR Toner Supply is run.	NO	Go to next step.
18	Image Process Adjustment → TCR Level Setting (Service Mode)	The problem has been eliminated when T/C has been increased.	NO	Go to next step.
19	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through Gradation Adjust. Max: 0 ± 100 Highlight = 0 ± 60	YES	Go to step 23.
20	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max.	NO	Go to next step.
21	Image Process Adjustment → Stabilizer → Reset + Stabilizer (Service Mode)	After the Reset + Stabilizer sequence has been completed, run Gradation Adjust; if the problem persists, make adjustments of D Max Density.	NO	Go to next step.
22		The problem has been eliminated through the checks of steps up to 22.	NO	Change Imaging Unit. → Change Image Transfer Belt Unit. → Change LPH Assy. → Change LED Drive Board. → Change MFP Control Board → Change LPH Unit. → Change High Voltage Unit/ 2 (Developing Bias). → Change High Voltage Unit/ 1 (Image Transfer, Neutralizing).

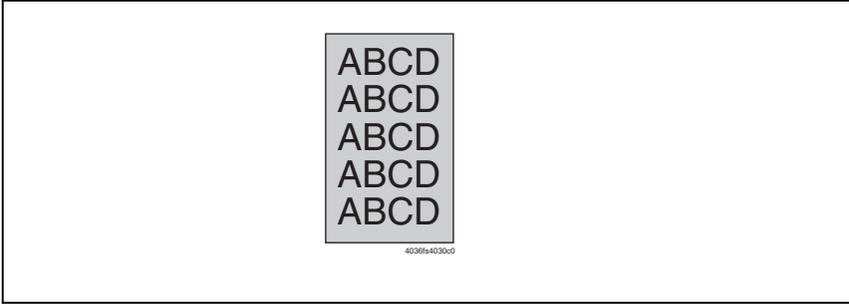
25.3.5 Printer Monocolor: gradation reproduction failure**A. Typical Faulty Images****B. Troubleshooting Procedure**

Step	Section	Check Item	Result	Action
1	Photo/Density	Original type and screen pattern are selected properly.	NO	Change screen pattern.
2	LPH Assy	LED retracting lever is locked in position.	YES	Slide out the Imaging Unit and reinstall.
3	Imaging Unit	Dirty on the outside.	YES	Clean.
4	LPH Assy	The surface of the lens array is dirty.	YES	Clean with cleaning jig.
5	TCR Sensor window	TCR Sensor window is dirty.	YES	Clean.
6	State Confirmation → Level History 1 (Service Mode)	IDC output value is around 4.3 V.	NO	Clean IDC Sensor. Check Image Transfer Belt for damage.
7	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through Gradation Adjust. Max: 0 ± 100 Highlight = 0 ± 60	YES	Go to step 11.
8	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max.	NO	Go to next step.
9	Image Process Adjustment → Stabilizer → Reset + Stabilizer (Service Mode)	After the Reset + Stabilizer sequence has been completed, run Gradation Adjust; if the problem persists, make adjustments of D Max Density.	NO	Go to next step.

Step	Section	Check Item	Result	Action
10		The problem has been eliminated through the checks of steps up to 9.	NO	Change Imaging Unit. → Change Image Transfer Belt Unit. → Change LPH Assy. → Change LED Drive Board. → Change MFP Control Board → Change LPH Unit. → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.6 Printer Monocolor: foggy background

A. Typical Faulty Images



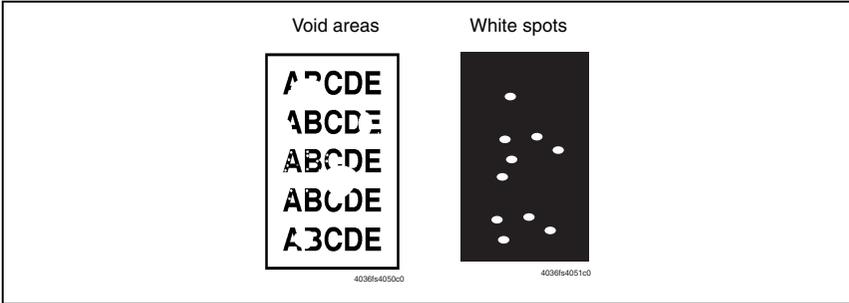
B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	State Confirmation → Table Number (Service Mode)	Check data for Vg and Vb. Color Vdc : Around 390 V Vg : Around 500 V Black Vdc : Around 390 V Vg : Around 500 V	NO	Go to next step.
2	State Confirmation → Level History 1 (Service Mode)	Check TCR data.	NO	Go to next step.
3	Level History data check results	IDC output value is around 4.3 V.	NO	Clean IDC Sensor. Check Transfer Belt for damage.
4	Level History data check results	Low TCR and low Vg and Vdc	YES	Go to step 8.
5		Low TCR and high Vg and Vdc	YES	Go to step 12.
6		TCR falling within specified range and low Vg and Vdc	YES	Go to step 8.
7		TCR falling within specified range and high Vg and Vdc	YES	Go to step 12.
8	LPH Assy	LED retracting lever is locked in position.	NO	Slide out the IU and reinstall.
9	Imaging Unit	Dirty on the outside.	YES	Clean.
10	LPH Assy	The surface of the lens array is dirty.	YES	Clean with cleaning jig.
11	TCR Sensor window	The color TCR Sensor window on the LED Assy is dirty.	YES	Clean.
12	Image Process Adjustment → Background Voltage Margin (Service Mode)	The problem is eliminated after Background Voltage Margin has been adjusted.	NO	Go to next step.
13	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through Gradation Adjust. Max: 0 ± 100 Highlight = 0 ± 60	YES	Go to step 17.

Step	Section	Check Item	Result	Action
14	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max.	NO	Go to next step.
15	Image Process Adjustment → Stabilizer → Reset + Stabilizer (Service Mode)	After the Reset + Stabilizer sequence has been completed, run Gradation Adjust; if the problem persists, make adjustments of D Max Density.	NO	Go to next step.
16		The problem has been eliminated through the checks of steps up to 15.	NO	Change Imaging Unit. → Change Image Transfer Belt Unit. → Change LPH Assy. → Change LED Drive Board. → Change MFP Control Board → Change LPH Unit. → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.7 Printer Monocolor: void areas, white spots

A. Typical Faulty Images

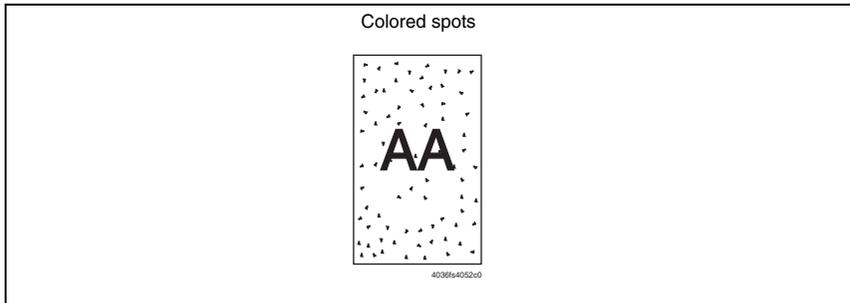


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image Check	There are void areas at the front side or high density section.	YES	See P.369
2		There is void area at the rear side section.	YES	Perform [Transfer Adjust] of [Image Process Adjustment] under [Service Mode].
3	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
4		Dirty on the outside.	YES	Clean.
5	Hopper Unit	Foreign matter or caked toner in the Toner Cartridge.	YES	Remove foreign matter.
6	Installation environment	Is the atmospheric pressure at the installation site low?	YES	Make the following adjustment: [Service Mode] → [Image Process Adjustment] → [Dev. Bias Choice].
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change Imaging Unit.

25.3.8 Printer Monocolor: colored spots

A. Typical Faulty Images

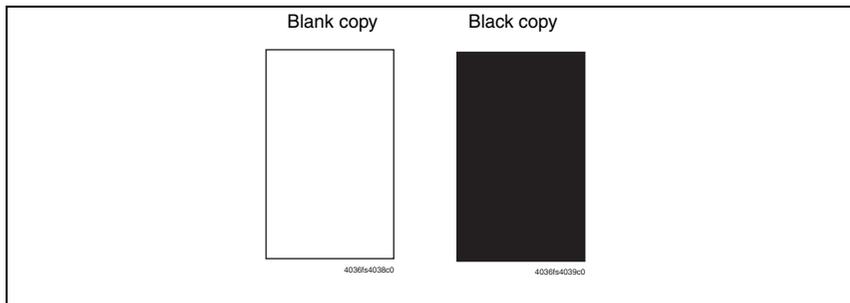


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Imaging Unit	Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
2		The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
3		Dirty on the outside.	YES	Clean.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Change Imaging Unit.

25.3.10 Printer Monocolor: blank copy, black copy

A. Typical Faulty Images



B. Troubleshooting Procedure

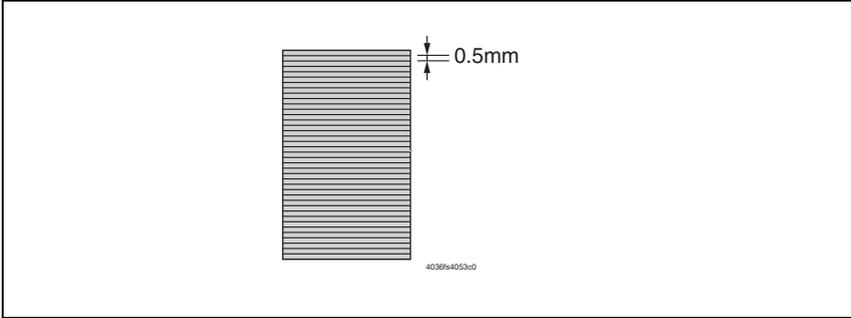
Step	Section	Check Item	Result	Action
1	Image Check	A blank copy occurs.	YES	Check LPH Unit connector for proper connection. Check the LED Drive Board connectors for proper connection.
2	Imaging Unit	Coupling of IU drive mechanism is installed properly.	NO	Check and correct drive transmitting coupling. Change IU.
3		The PC Drum Charge Corona voltage contact or PC Drum ground contact of the Imaging Unit is connected properly.	NO	Check, clean, or correct the contact.
4	High Voltage Unit/1 (Image Transfer, Neutralizing)	Connector is connected properly.	NO	Reconnect.
5		The problem has been eliminated through the check of step4.	NO	Change High Voltage Unit/1 (Image Transfer, Neutralizing). → Change MFP Control Board → Change LED Drive Board → Change LPH Unit.

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Troubleshooting

25.3.11 Printer Monocolor: 0.5-mm-pitch uneven image

A. Typical Faulty Images

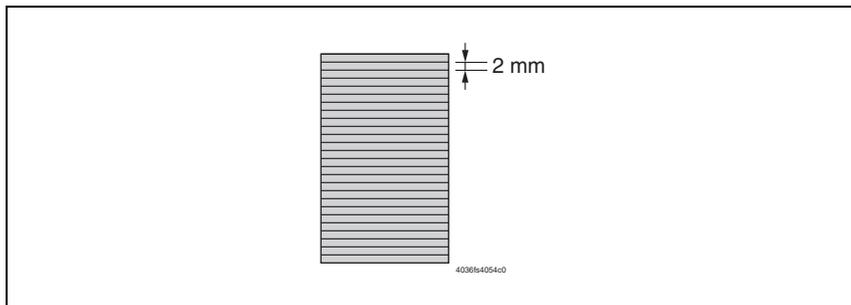


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	LPH Assy	LED retracting lever is locked in position.	NO	Slide out the IU and reinstall.
			YES	Change Imaging Unit.

25.3.12 Printer Monocolor: 2-mm-pitch uneven image

A. Typical Faulty Images

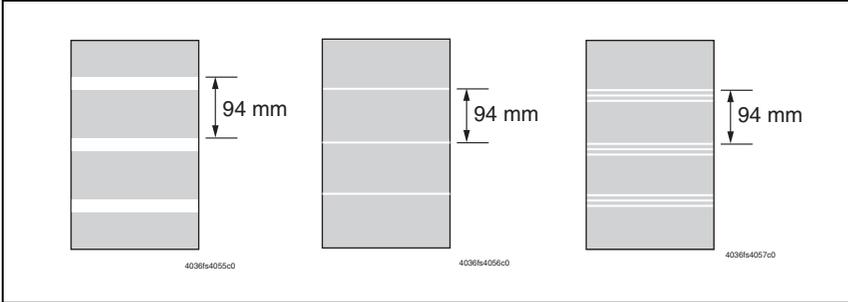


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Imaging Unit	The drive mechanisms for spent toner conveying and IU are dirty.	YES	Clean.
			NO	Change Imaging Unit.

25.3.13 Printer Monocolor: 94-mm-pitch uneven image

A. Typical Faulty Images

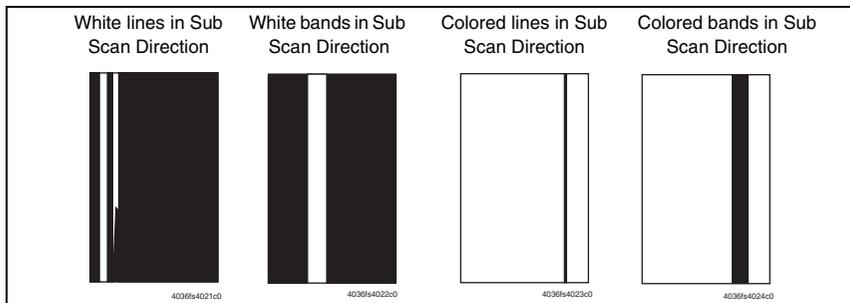


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
2		Coupling of IU drive mechanism is installed properly.	NO	Check and correct drive transmitting coupling. Change Imaging Unit.
3		There is play in the IU Motor.	YES	Reinstall or change the IU Motor.
4	Image Transfer Belt Unit	Image Transfer Belt Unit drive gear has chipped off.	YES	Correct. Change Image Transfer Belt Unit.
5	Image Transfer Roller Unit	Image Transfer Roller is damaged.	YES	Change Image Transfer Roller Unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change Imaging Unit.

25.3.14 Printer 4-Color: white lines in sub scan direction, white bands in sub scan direction, colored lines in sub scan direction, and colored bands in sub scan direction

A. Typical Faulty Images

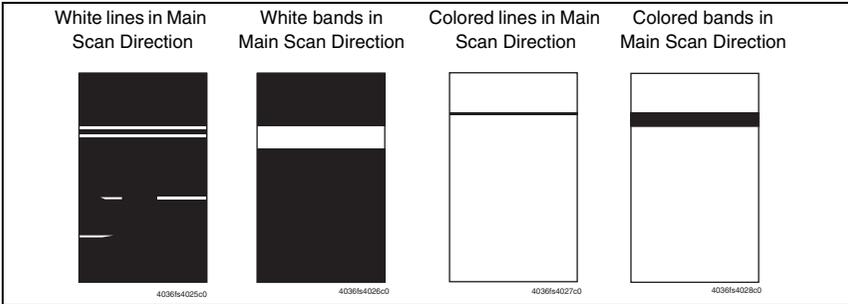


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image Check	A white line or colored line in sub scan direction.	YES	Clean the Comb Electrode by moving the Comb Electrode Cleaning Lever.
2	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
3		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
4		Cleaning Blade is not effective in removing toner completely.	YES	Clean Cleaning Blade. change Image Transfer Belt Unit.
5	Image Transfer Roller Unit	Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
6	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
7		Image Transfer Paper Separator Fingers are damaged or dirty.	YES	Clean or change.
8	Paper Dust Remover	Paper dust accumulates on Paper Dust Remover.	YES	Clean.
9	Fusing Unit	Fusing Entrance Guide Plate is dirty or damaged.	YES	Clean. Change Fusing Unit.
10		Fusing Paper Separator Fingers are dirty.	YES	Clean.
11		The problem has been eliminated through the checks of steps up to 10.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change MFP Control Board

25.3.15 Printer 4-Color: white lines in main scan direction, white bands in main scan direction, colored lines in main scan direction, and colored bands in main scan direction

A. Typical Faulty Images

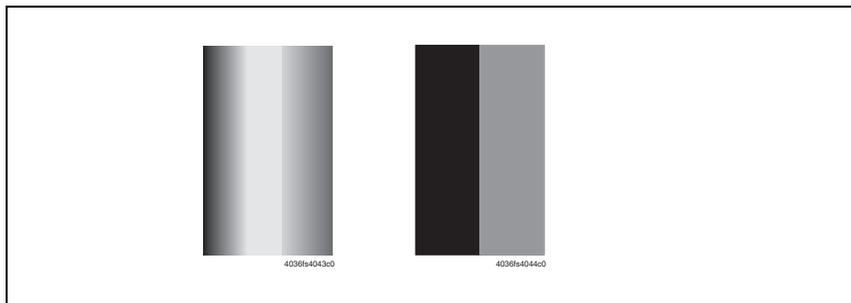


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
2		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
3		Cleaning Blade is not effective in removing toner completely.	YES	Clean Cleaning Blade. change Image Transfer Belt Unit.
4	Image Transfer Roller Unit	Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
5	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
6		Image Transfer Paper Separator Fingers are damaged or dirty.	YES	Clean or change.
7	Paper Dust Remover	Paper dust accumulates on Paper Dust Remover.	YES	Clean or change.
8	Fusing Unit	Fusing Entrance Guide Plate is dirty or damaged.	YES	Clean. Change Fusing Unit.
9		Fusing Paper Separator Fingers are dirty.	YES	Clean.
10		The problem has been eliminated through the checks of steps up to 9.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change MFP Control Board

25.3.16 Printer 4-Color: uneven density in sub scan direction

A. Typical Faulty Images

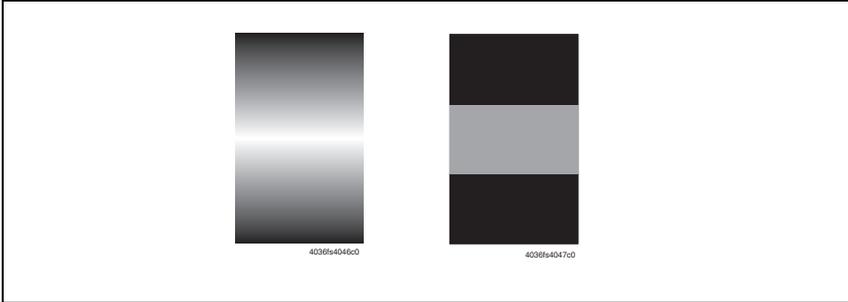


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
2		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
3		Terminal is dirty.	YES	Clean.
4	Image Transfer Roller Unit	Image Transfer Roller is installed properly.	NO	Reinstall.
5		Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change Image Transfer Roller Unit. Change Image Transfer Belt Unit.

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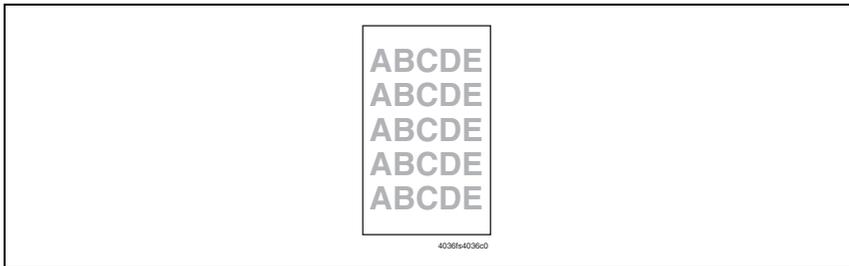
Troubleshooting

25.3.17 Printer 4-Color: uneven density in main scan direction**A. Typical Faulty Images****B. Troubleshooting Procedure**

Step	Section	Check Item	Result	Action
1	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
2		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
3		Terminal is dirty.	YES	Clean.
4	Image Transfer Roller Unit	Image Transfer Roller is installed properly.	NO	Reinstall.
5		Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

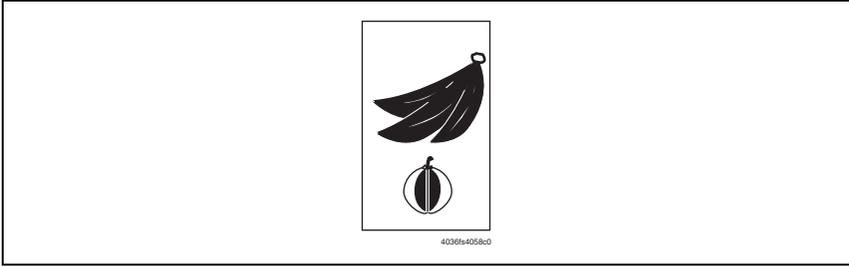
25.3.18 Printer 4-Color: low image density

A. Typical Faulty Images

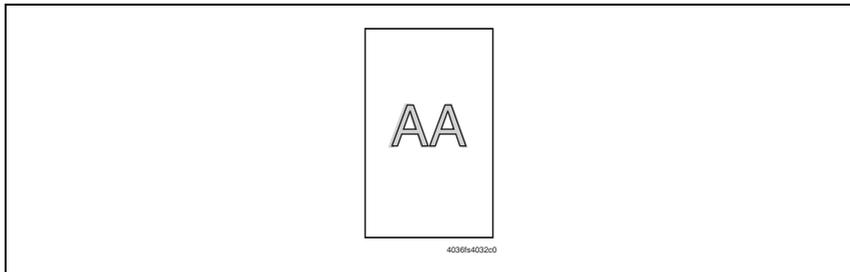


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package. Install Paper Dehumidifying Heater.
2	Image Transfer Belt Unit	Terminal is dirty.	YES	Clean.
3	Image Transfer Roller Unit	Image Transfer Roller is installed properly.	NO	Reinstall.
4		Image Transfer Roller is dirty or scratched.	NO	Change Image Transfer Roller Unit.
5	IDC Sensor	Sensor is dirty.	YES	Clean with blower brush.
6	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through Gradation Adjust. Max: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 10.
7	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max Density.	NO	Go to next step.
8	Image Process Adjustment → Stabilizer → Reset + Stabilizer (Service Mode)	After the Reset + Stabilizer sequence has been completed, run Gradation Adjust; if the problem persists, make adjustments of D Max Density.	NO	Go to next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change MFP Control Board → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.19 Printer 4-Color: poor color reproduction**A. Typical Faulty Images****B. Troubleshooting Procedure**

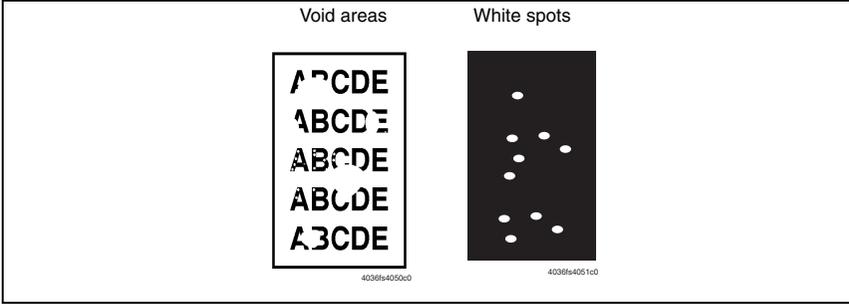
Step	Section	Check Item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package. Install Paper Dehumidifying Heater.
2	Image Transfer Belt Unit	Terminal is dirty.	YES	Clean.
3	Image Transfer Roller Unit	Image Transfer Roller is installed properly.	NO	Reinstall.
4		Image Transfer Roller is dirty or scratched.	NO	Change Image Transfer Roller Unit.
5	IDC Sensor	Sensor is dirty.	YES	Clean with blower brush.
6	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through Gradation Adjust. Max: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 10.
7	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max Density.	NO	Go to next step.
8	Image Process Adjustment → Stabilizer → Reset + Stabilizer (Service Mode)	After the Reset + Stabilizer sequence has been completed, run Gradation Adjust; if the problem persists, make adjustments of D Max Density.	NO	Go to next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change MFP Control Board → Change High Voltage Unit/2 (Developing Bias). → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.20 Printer 4-Color: incorrect color image registration**A. Typical Faulty Images****B. Troubleshooting Procedure**

Step	Section	Check Item	Result	Action
1	Warning display	The maintenance call mark is displayed on the panel.	YES	Take action according to the warning code shown on the State Confirm screen.
2	Machine condition	Vibration is given to the machine after main power switch has been turned ON.	YES	Turn OFF and ON Main Power Switch.
3	LPH Assy	LED retracting lever is locked in position.	NO	Slide out the IU and reinstall.
4	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
5		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
6		Drive coupling to the machine is dirty.	YES	Clean.
7	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
8	Image Transfer Roller Unit	Image Transfer Roller is installed properly.	NO	Reinstall.
9		Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
10	Machine → Fusing Transport Speed (Service Mode)	Brush effect or blurred image occurs.	YES	Readjust Fusing Transport Speed.
11	Machine → Color registration Adjustment (Service Mode)	Check the specific color in which color shift occurs.	YES	Perform [Color registration Adjustment]. If color shift is not corrected even with a correction of ± 1 dot, go to next step.
12		The problem has been eliminated through the checks of steps up to 11.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change MFP Control Board

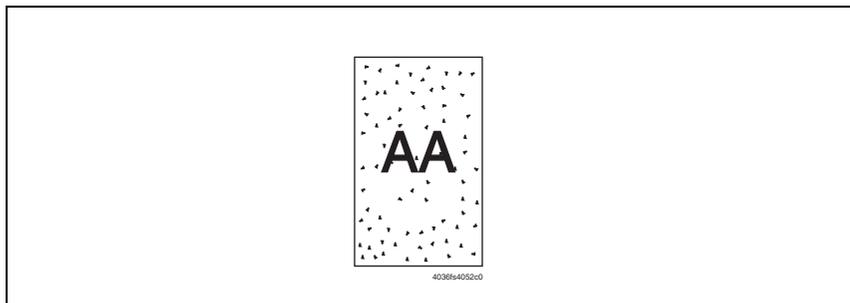
25.3.21 Printer 4-Color: void areas, white spots

A. Typical Faulty Images



B. Troubleshooting Procedure

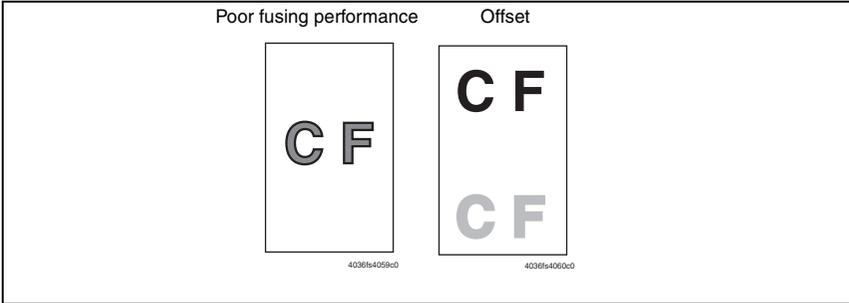
Step	Section	Check Item	Result	Action
1	Image Check	There are void areas at the front side or high density section.	YES	P.390
2		There are void areas in the trailing edge.	YES	Perform [Transfer Adjust] of [Image Process Adjustment] under [Service Mode].
3	Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
4		Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Transfer Belt Unit if belt is damaged.
5	Transfer Roller Unit	Transfer Roller is dirty or scratched.	YES	Change Transfer Roller Unit.
6		Charge Neutralizing Cloth is not separated and ground terminal is connected properly.	NO	Correct or change.
7	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
8		Pre-Image Transfer Guide Plate is damaged or dirty.	YES	Clean or change.
9	Paper Dust Remover	Paper dust accumulates on Paper Dust Remover.	YES	Clean or change.
10		The problem has been eliminated through the checks of steps up to 9.	NO	Change Image Transfer Roller Unit. Change Image Transfer Belt Unit.

25.3.22 Printer 4-Color: colored spots**A. Typical Faulty Images****B. Troubleshooting Procedure**

Step	Section	Check Item	Result	Action
1	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
2	Image Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Image Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
3		Image Transfer Belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change Image Transfer Belt Unit if belt is damaged.
4	Image Transfer Roller Unit	Image Transfer Roller is dirty or scratched.	YES	Change Image Transfer Roller Unit.
5	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
6	Paper Dust Remover	Paper dust accumulates on Paper Dust Remover.	YES	Clean or change.
7	Fusing Unit	Fusing Belt is dirty or scratched.	YES	Change Fusing Unit.
8		The problem has been eliminated through the checks of steps up to 7.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change Fusing Unit.

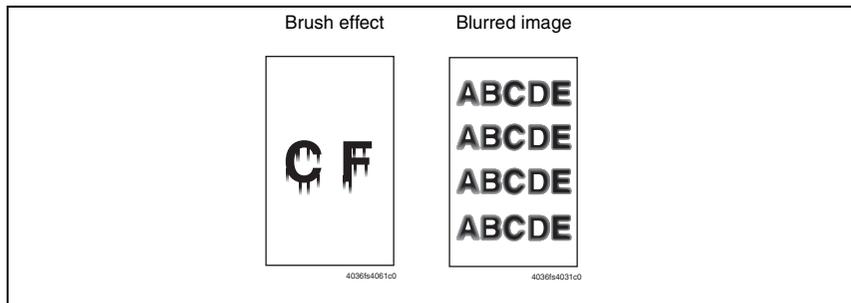
25.3.23 Printer 4-Color: poor fusing performance, offset

A. Typical Faulty Images



B. Troubleshooting Procedure

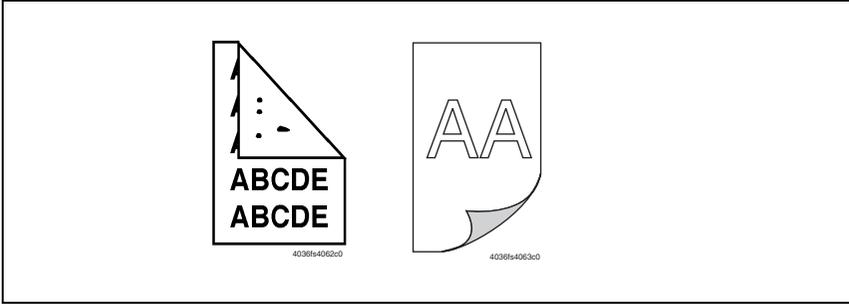
Step	Section	Check Item	Result	Action
1	Paper	Paper type does not match.	YES	Change the setting.
2	Machine → Fusing Temperature (Service Mode)	Changing fusing temperature eliminates the problem of poor fusing performance and offset.	YES	Readjust Fusing Temperature.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change Fusing Unit.

25.3.24 Printer 4-Color: brush effect, blurred image**A. Typical Faulty Images****B. Troubleshooting Procedure**

Step	Section	Check Item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package. Install Paper Dehumidifying Heater.
2		Paper type does not match.	YES	Change the setting.
3	Fusing Unit	Fusing Entrance Guide Plate is dirty.	YES	Clean.
4		Fusing Belt is dirty or scratched.	YES	Change Fusing Unit.
5	Machine → Fusing Transport Speed (Service Mode)	Changing fusing speed eliminates the problem of brush effect and blurred image.	YES	Readjust Fusing Transport Speed.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change Fusing Unit.

25.3.25 Printer 4-Color: back marking

A. Typical Faulty Images

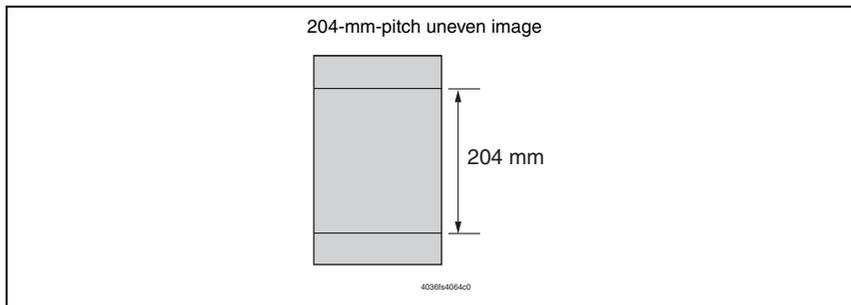


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Image Transfer Roller Unit	Image Transfer Roller is scratched or dirty.	YES	Change Image Transfer Roller Unit.
2	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
3	Fusing Unit	Fusing Entrance Guide Plate is scratched or dirty.	YES	Clean or change.
4		Lower Fusing Roller is scratched or dirty.	YES	Change Fusing Unit.
5	Transfer Belt Unit	Fingerprints, oil, or other foreign matter is evident on the Transfer Belt.	YES	Clean with specified solvent. (See Maintenance.)
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change Image Transfer Roller Unit. → Change Image Transfer Belt Unit. → Change Fusing Unit. → Change High Voltage Unit/1 (Image Transfer, Neutralizing).

25.3.26 Printer 4-Color: 204-mm-pitch uneven image

A. Typical Faulty Images

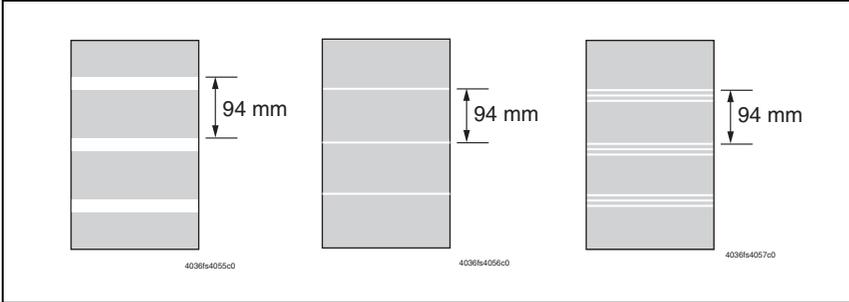


B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Fusing Unit	The Fusing Belt is scratchy.	YES	Change Fusing Unit.

25.3.27 Printer 4-Color: 94-mm-pitch uneven image

A. Typical Faulty Images



B. Troubleshooting Procedure

Step	Section	Check Item	Result	Action
1	Imaging Unit	The surface of the PC Drum is scratched.	YES	Change Imaging Unit.
2	Image Transfer Belt Unit	The Image Transfer Belt Unit drive gear is intact.	NO	Correct. Change Image Transfer Belt Unit.
3	Image Transfer Roller Unit	Image Transfer Roller is damaged.	YES	Change Image Transfer Roller Unit.

26. Controller trouble

26.1 Unable to print over the network

26.1.1 The print job is displayed on the machine control panel.

Step	Check	Result	Action
1	An error on machine side (Paper running out, toner running out, etc.)	Yes	Correct the error.
2	Waiting its turn	Yes	Check the machine control panel for jobs in print queue. Priority may be changed as necessary
3	The job is locked.	Yes	Enter the password to unlock the job.
4	The correct division ID has not been entered.	Yes	Enter the correct division ID in the printer driver and try re-transmitting the job again.(account code)

26.1.2 The print job is not displayed on the machine control panel.

Step	Check	Result	Action
1	The response of Ping sent from the PC to the machine.	No	Go to item 5.
2	The print destination port setting is wrong.	Yes	Set the correct port.
3	PC operates erratically temporarily.	Yes	Restart the PC
4	Printer driver incorrectly installed.	No	Uninstall the printer driver through the proper steps and then reinstall it properly.
5	The main power on the Machine turns OFF/ON and operates normally.	Yes	No process is necessary. Only a temporarily malfunction.
6	Network cable is disconnected or a relay device is faulty.	No	Reconnect the cable and restart or change the faulty relay device.
7	IP address and/or subnet mask incorrectly set.	No	Set the correct IP address and subnet mask.

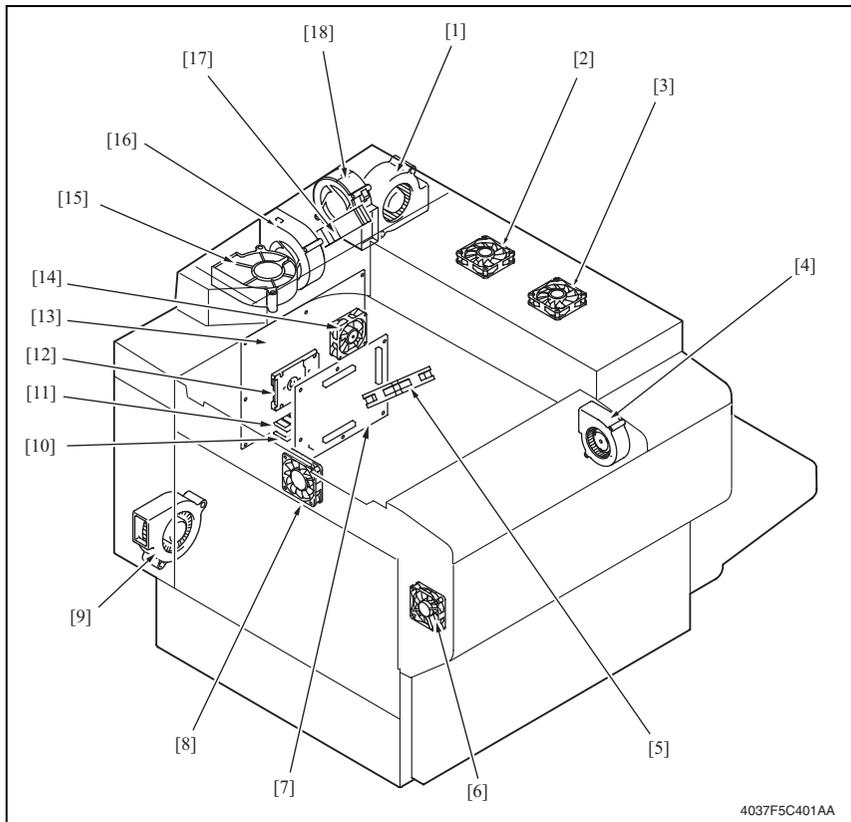
Blank Page

Appendix

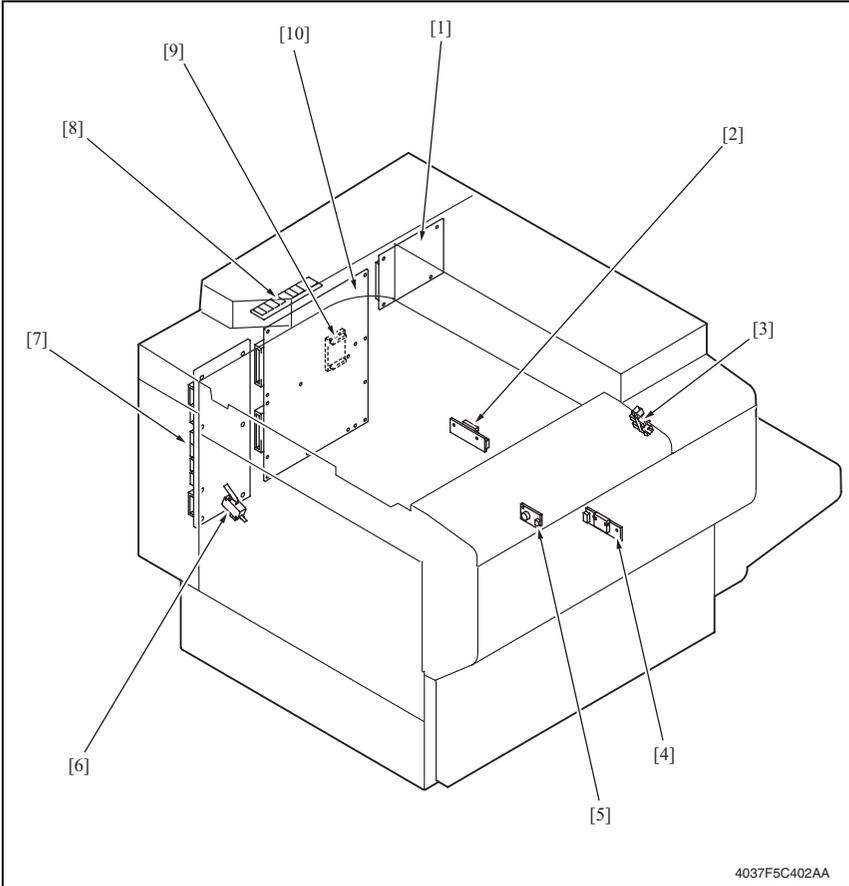
27. Parts layout drawing

27.1 Main unit

27.1.1 Engine section

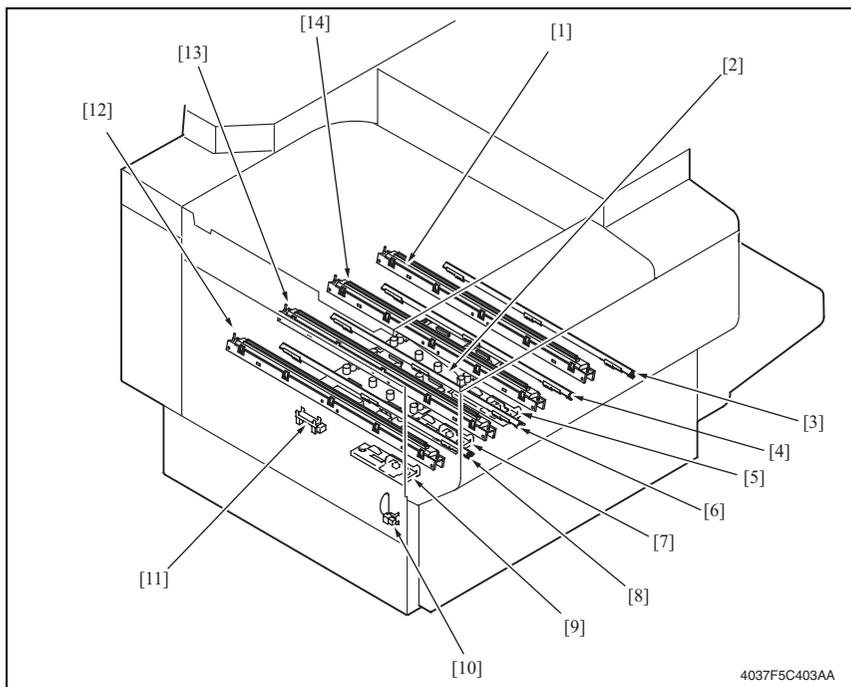


- | | |
|--|--|
| [1] Fusing Cooling Fan Motor/1 (M9) | [10] Standard Memory (D_FILE0) |
| [2] Fusing Cooling Fan Motor/2 (M15) | [11] Standard Memory (D_FILE0) |
| [3] Fusing Cooling Fan Motor/3 (M16) | [12] Hard Disk Drive (HDD) |
| [4] Suction Fan Motor (M12) | [13] Control Board (PWB-MC) |
| [5] Cooling Fan Motor/1 (M24) | [14] MFP Control Board Cooling Fan Motor (M27) |
| [6] Cooling Fan Motor/3 (M25) | [15] Toner Suction Fan Motor (M20) |
| [7] Electronic sorting Board (PWB-ES) | [16] Toner Suction Fan Motor/K (M23) |
| [8] Power Supply Cooling Fan Motor (M21) | [17] Cooling Fan Motor/2 (M10) |
| [9] Ozone Ventilation Fan Motor (M18) | [18] Paper Cooling Fan Motor (M26) |

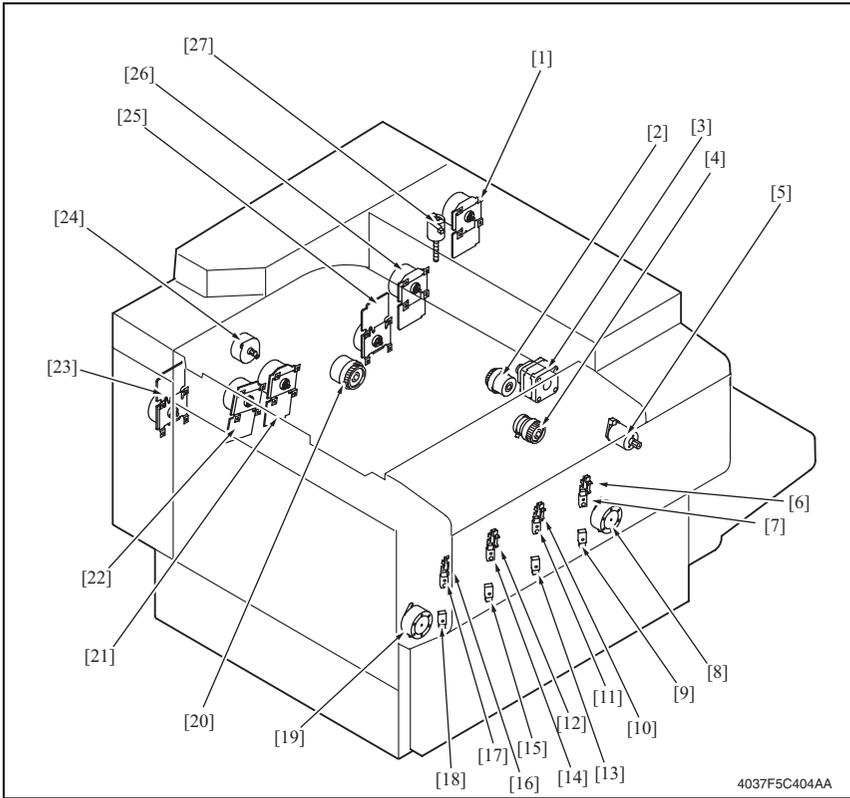


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- | | |
|--|-------------------------------------|
| [1] LAN Board (PWB-LAN) | [6] Left Door Switch (SW3) |
| [2] IDC/Registration Sensor/2 (PC9) | [7] Slide Interface Board (PWB-SIF) |
| [3] Fusing Pressure/Retraction Sensor (PC33) | [8] Work Memory (D_WORK0) |
| [4] IDC/Registration Sensor/1 (PC8) | [9] NVRAM Board (PWB-NVR) |
| [5] Temperature/humidity Sensor (PC7) | [10] MFP Control Board (PWB-MFPC) |

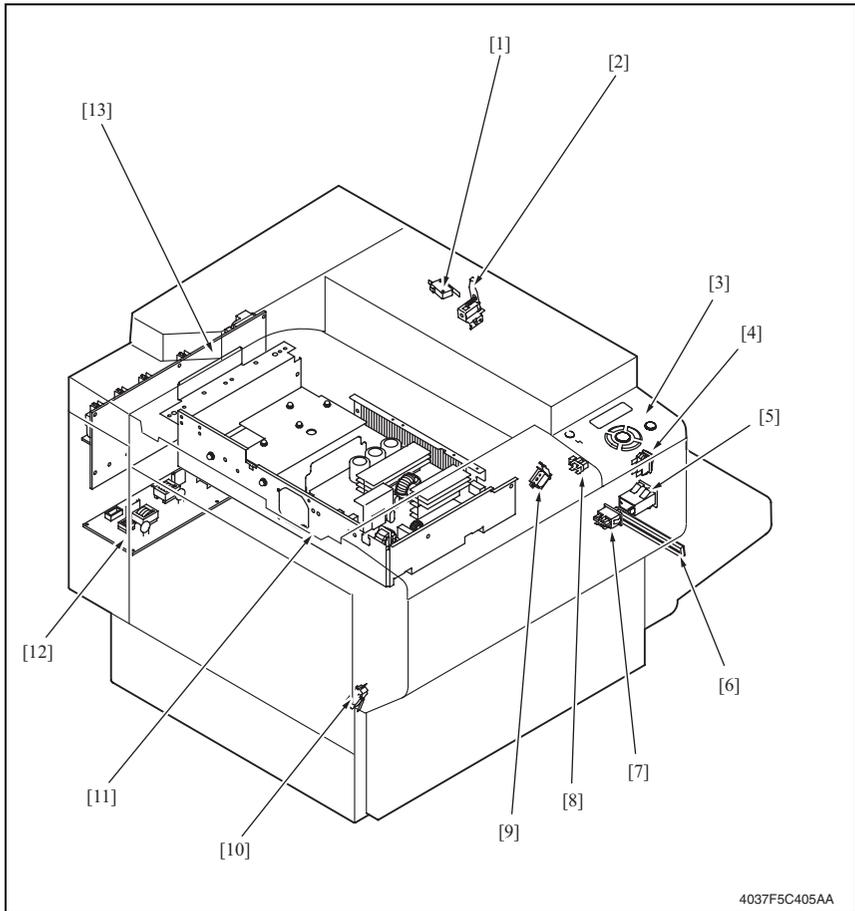


- | | |
|-------------------------------|---|
| [1] LPH Assy/K (LPH K) | [8] Main Erase Lamp/Y (LA1) |
| [2] LED Drive Board (PWB-LED) | [9] ATDC Sensor/Y (PWB-N1) |
| [3] Main Erase Lamp/K (LA4) | [10] Waste Toner Bottle Set Sensor (PC32) |
| [4] Main Erase Lamp/C (LA3) | [11] Waste Toner Full Sensor (PC31) |
| [5] ATDC Sensor/C (PWB-N3) | [12] LPH Assy/Y (LPH Y) |
| [6] Main Erase Lamp/M (LA2) | [13] LPH Assy/M (LPH M) |
| [7] ATDC Sensor/M (PWB-N2) | [14] LPH Assy/C (LPH C) |

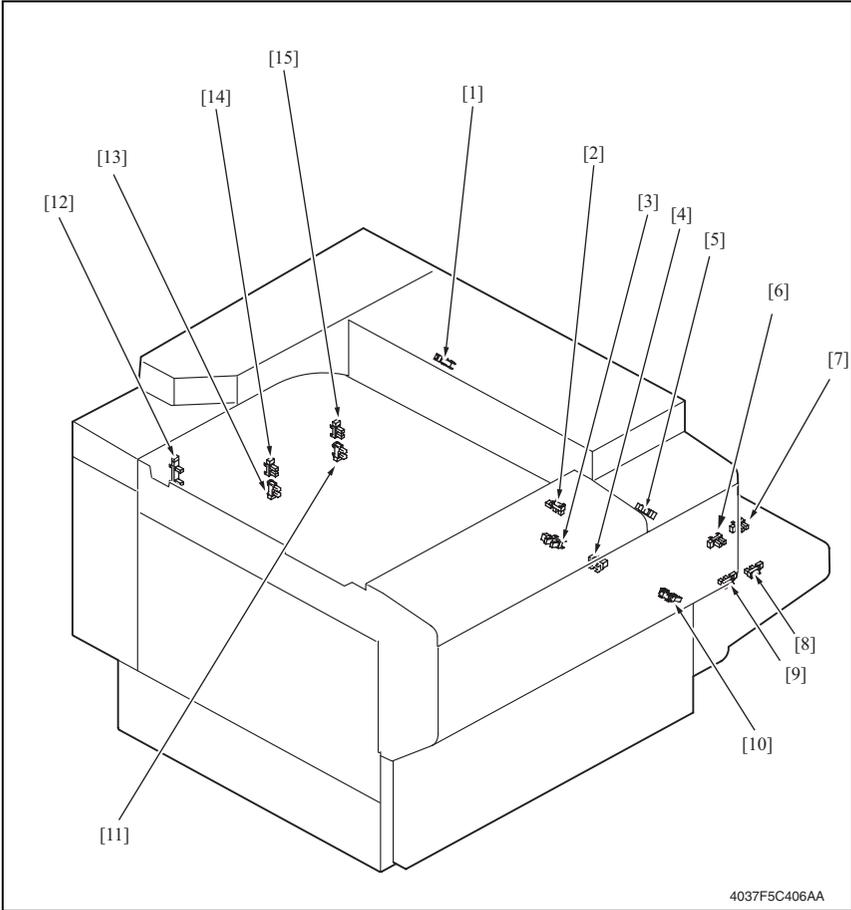


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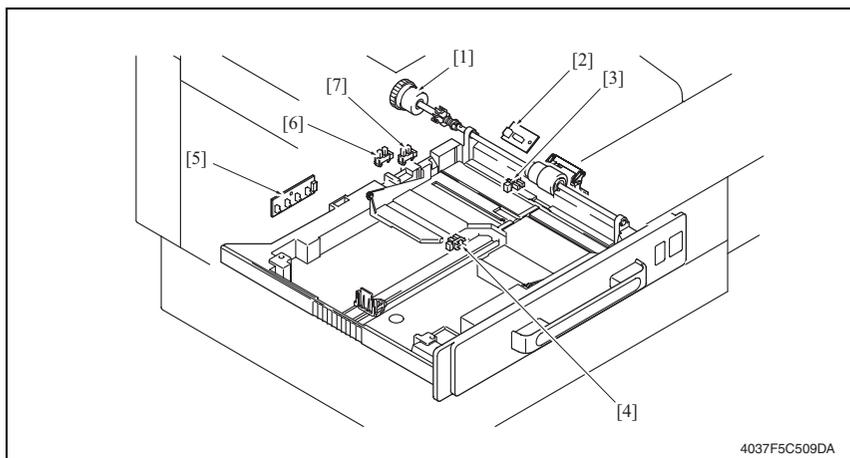
- | | |
|--|---|
| [1] Fusing Drive Motor (M2) | [15] Toner Near-Empty Sensor PQ/M (PC16) |
| [2] Registration Roller Clutch (CL3) | [16] Toner Set Sensor/Y (PC25) |
| [3] Intermediate Transport Motor (M14) | [17] Toner Near-Empty Sensor LED/Y (PC21) |
| [4] Bypass Paper Feed Clutch (CL101) | [18] Toner Near-Empty Sensor PQ/Y (PC15) |
| [5] 2nd Image Transfer Pressure/Retraction Motor (M13) | [19] Toner Supply Motor Y/M (M4) |
| [6] Toner Set Sensor/K (PC20) | [20] Developing Clutch/K (CL2) |
| [7] Toner Near-Empty Sensor LED/K (PC24) | [21] Color PC Drum Motor (M5) |
| [8] Toner Supply Motor C/K (M3) | [22] Color Developing Motor (M6) |
| [9] Toner Near-Empty Sensor PQ/K (PC18) | [23] Cleaning Brush Motor (M22) |
| [10] Toner Set Sensor/C (PC19) | [24] 1st Image Transfer Pressure/Retraction Motor (M11) |
| [11] Toner Near-Empty Sensor LED/C (PC23) | [25] K PC Motor (M7) |
| [12] Toner Set Sensor/M (PC26) | [26] Main Motor (M1) |
| [13] Toner Near-Empty Sensor PQ/C (PC17) | [27] Fusing Pressure Roller Pressure/Retraction Motor (M19) |
| [14] Toner Near-Empty Sensor LED/M (PC22) | |



- | | |
|--|--|
| [1] Right Door Switch (SW2) | [8] Fusing Paper Loop Sensor (PC4) |
| [2] Fusing Paper Loop Control Solenoid (SL1) | [9] Bypass Paper Pick-Up Solenoid (SL101) |
| [3] Control Panel (UN201) | [10] Front Door Switch (SW4) |
| [4] Main Power Switch (SW1) | [11] DC Power Supply (PU1) |
| [5] Counter/K (CNT1) | [12] High Voltage Unit/2 (HV2) |
| [6] Bypass Paper Size Unit (VR1) | [13] High Voltage Unit/1 (HV1) |
| [7] Upper Right Door Switch (SW5) | [14] Flickerless Resistor (R2)
(220-240 V areas only) |

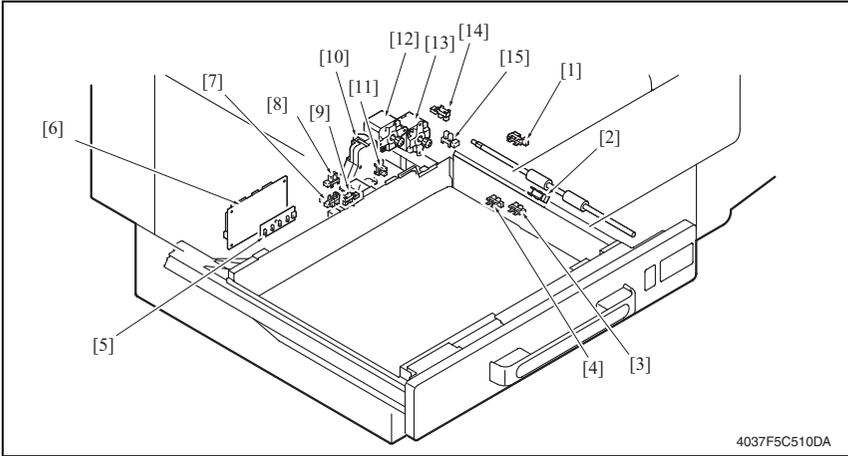


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|---|---|
| [1] Fusing Retraction Position Sensor (PC34) | [9] Bypass FD Paper Size Sensor/2 (PC112) |
| [2] Registration Roller Sensor (PC28) | [10] Bypass Paper Empty Sensor (PC110) |
| [3] 2nd Image Transfer Pressure /Retraction Sensor (PC29) | [11] K PC Drum Main Sensor (PC11) |
| [4] OHP Sensor (PC27) | [12] 1st Image Transfer Retraction (PC12) |
| [5] Exit Sensor (PC30) | [13] Color PC Drum Main Sensor (PC10) |
| [6] Bypass FD Paper Size Sensor/4 (PC114) | [14] Color PC Drum Sub Sensor (PC35) |
| [7] Bypass FD Paper Size Sensor/3 (PC113) | [15] K PC Drum Sub Sensor (PC36) |
| [8] Bypass FD Paper Size Sensor/1 (PC111) | |

27.1.2 Tray 1

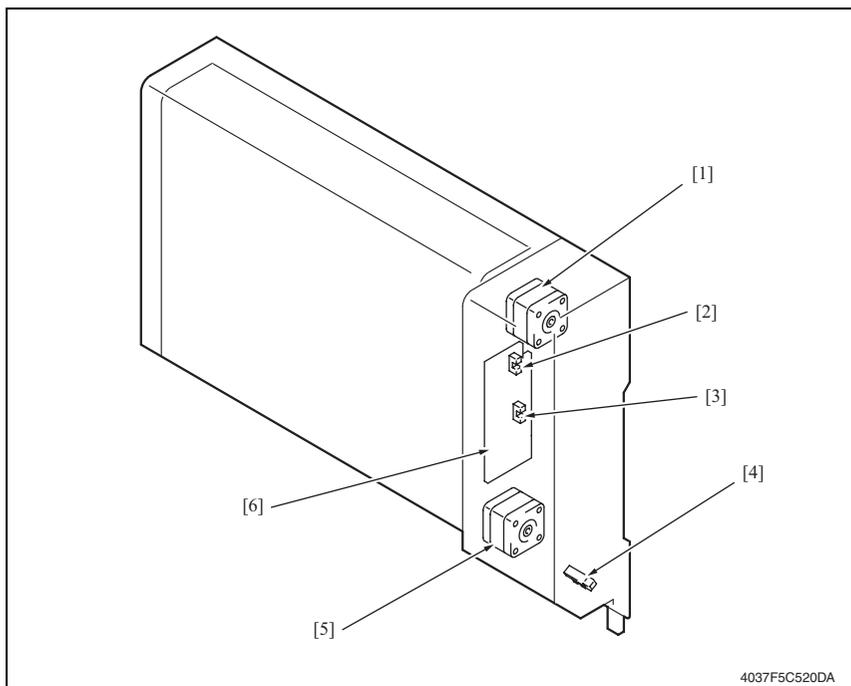
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|---------------------------------------|---|
| [1] Tray 1 Paper Feed Clutch (CL1) | [5] Tray 1 Paper Size Board (PWB-I1) |
| [2] Tray 1 Double Feed Sensor (PC1) | [6] Tray 1 Paper Near-Empty Sensor (PC13) |
| [3] Tray 1 Paper Empty Sensor (PC2) | [7] Tray 1 Set Sensor (PC14) |
| [4] Tray 1 CD Paper size Sensor (PC3) | |

27.1.3 Tray 2



- | | |
|--|---|
| [1] Tray 2 Vertical Transport Sensor (PC108) | [9] Tray 2 CD Paper Size Sensor/S (PC101) |
| [2] Tray 2 Paper Take-Up Sensor (PC107) | [10] Tray 2 Lift-Up Motor (M101) |
| [3] Tray 2 Paper Empty Sensor (PC106) | [11] Tray 2 Paper Near-Empty Sensor (PC104) |
| [4] Tray 2 Lift-Up Sensor (PC105) | [12] Tray 2 Paper Feed Motor (M102) |
| [5] Tray 2 Paper Size Board (PWB-I2) | [13] Tray 2 Vertical Transport Motor (M103) |
| [6] Tray 2 Board (PWB-Z) | [14] Bypass Lift-Up Sensor (PC115) |
| [7] Tray 2 CD Paper Size Sensor/L (PC102) | [15] Tray 2 Door Set sensor (PC109) |
| [8] Tray 2 Set Sensor (PC103) | |

27.1.4 Duplex section

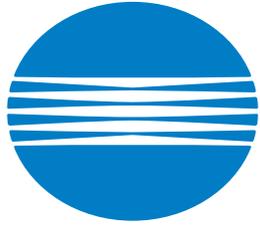


- | | |
|--|---|
| [1] Switchback Motor (M1-DU) | [4] Duplex Unit Transport Sensor 2 (PC1-DU) |
| [2] Duplex Unit Door Set Sensor (in PWB-A) (PI2-DU) | [5] Duplex Unit Transport Motor (M2-DU) |
| [3] Duplex Unit Transport Sensor 1 (in PWB-A) (PI1-DU) | [6] Duplex Control Board (PWB-A DU) |

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KONICA MINOLTA



KONICA MINOLTA

PARTS GUIDE MANUAL

JUNE 2006

bizhub C450P
4037001

INFORMATION FOR PARTS GUIDE MANUAL

To find correct Parts No., refer to the "HOW TO MAKE THE BEST USE OF THIS MANUAL" in the following page.

HOW TO MAKE THE BEST USE OF THIS MANUAL

- 1 When you order, please check the proper figures beforehand that are on Our Parts Guide Manual, and order with the appropriate figures.
- 2 For screws, Nuts, Washers, retaining rings and Pins which are used in this model, one letter is shown on the Standard parts column of Parts list and exploded diagrams.
- 3 In order to maintain safety of the product, some specific parts composed of this product are set up as "essential safety parts".
- 4 The assigned parts number for the "essential safety parts" is indicated as "SP00-****".
When replacing these parts, follow precautions for disassembling and installing which are listed in the Service Manual.
Do not use any parts that are not set up as
- 5 ♣ means that there are exclusive parts for each destination.
Please check the appropriate destination when you order.
- 6 Revision Mark
Marked as ▲ on the illustration shows that the revision has been made.
- 7 All rights reserved. (any reprints or quotations are prohibited.)
Use of this parts guide manual should be strictly supervised to avoid disclosure of confidential information.

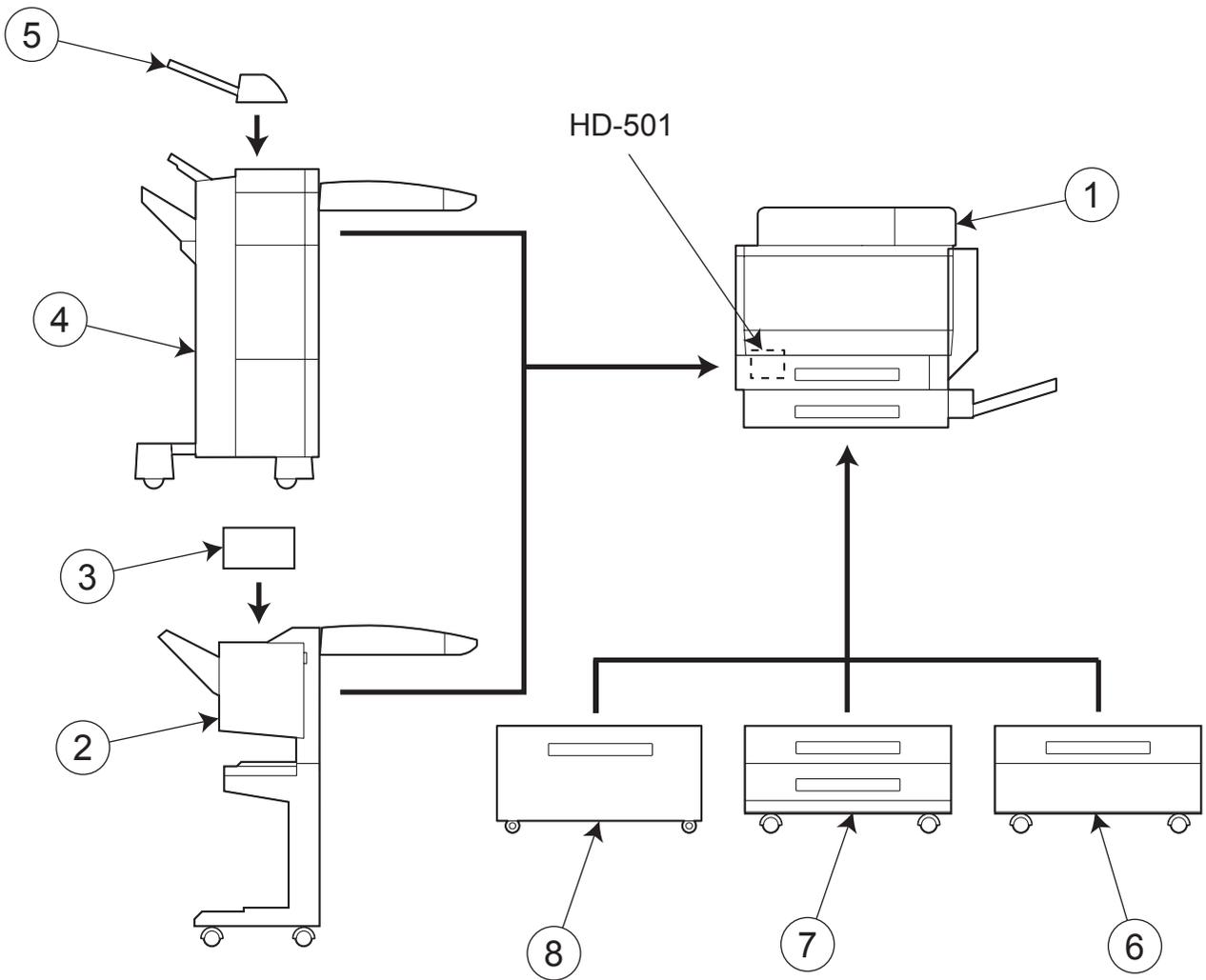
パーツガイドマニュアルのご案内

サービス部品をご発注の際には、下記に示す“パーツガイドマニュアルの活用にあたって”をご参照の上、正しい部品番号にてお願い致します。

パーツガイドマニュアルの活用にあたって

- 1 部品発注の際には、掲載されている部品番号の桁数を確認し、掲載されている桁数で発注願います。
- 2 この製品に使用されているネジ、ナット、ワッシャー、止め輪、ピンなどは、リストの右側の Standard parts 欄に a,b,c,……で表示し、イラストにも a,b,c,……表示してあります。
- 3 製品の安全性を維持する為に、製品に使用される特定の部品を「重要保安部品」として設定しています。
- 4 重要保安部品の部品番号は、“SP00-****”と記載されていますので、部品交換時は、サービスマニュアル記載の分解・組み立ての注意事項に従って作業をして下さい。
また、指定以外の部品は一切使用しないで下さい。
- 5 本文に ♣ が表示されている部品は、仕向け地毎に専用部品がある事を意味しています。
オーダーされる時は、仕向け地を確認して下さい。
- 6 改訂記号について
イラスト上に▲印が表示されている部分は、改訂された事を表します。
- 7 著作権所有（無断転載及び無断引用の禁止）
本パーツガイドマニュアルについては、機密保持等その扱いには十分注意して下さい。万一取り扱いを誤った場合には、法律で処罰されることがあります。

SYSTEM OUTLINE



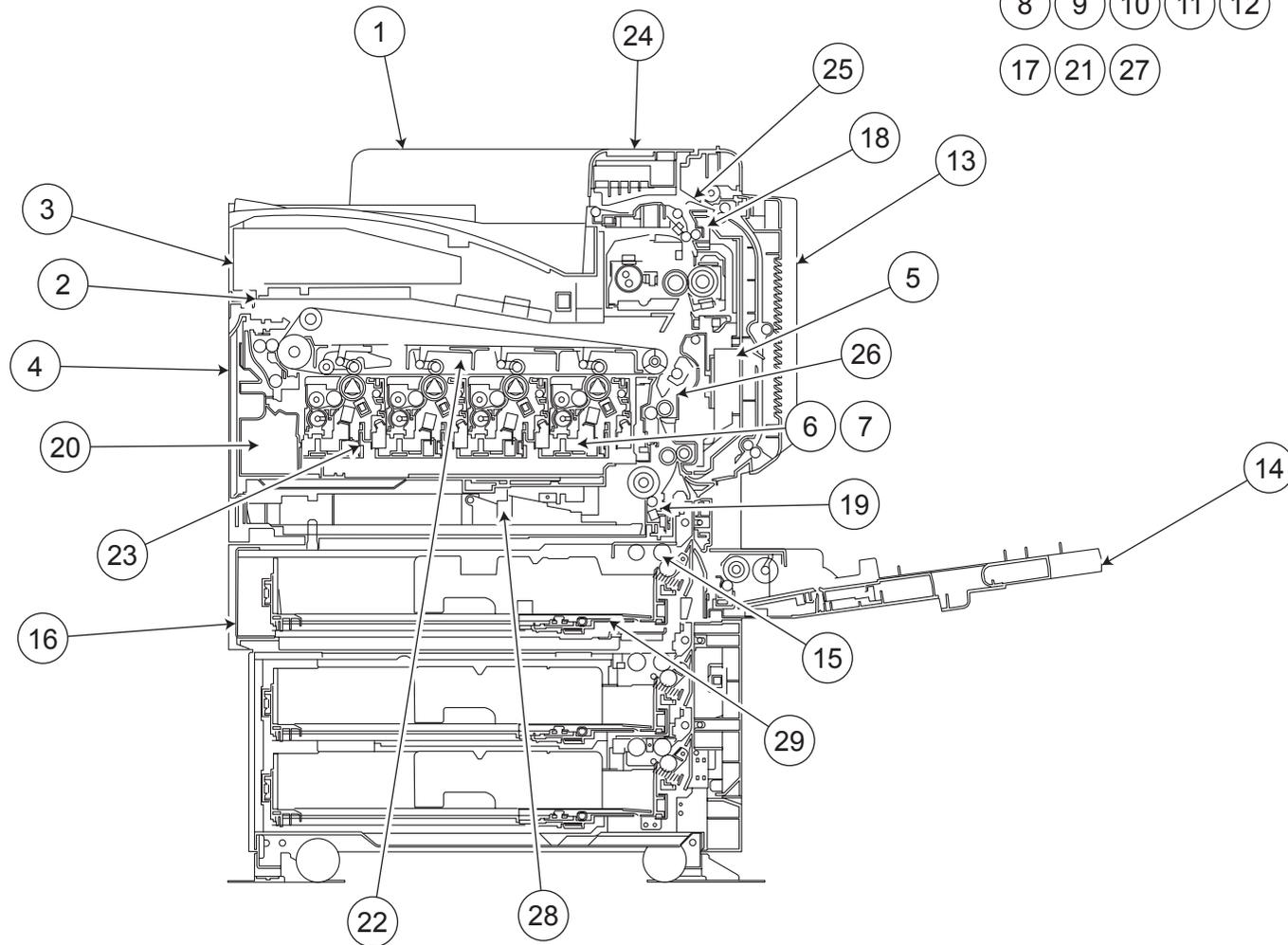
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3	PUNCH UNIT	PK-501/PK-4/PK131
4	SORTER/FINISHER	FS-507
5	STACKER	JS-601
6	PAPER FEEDER	PC-102
7	PAPER FEEDER	PC-202
8	PAPER FEEDER	PC-402

DIAGRAMS OF MAIN PARTS SECTION

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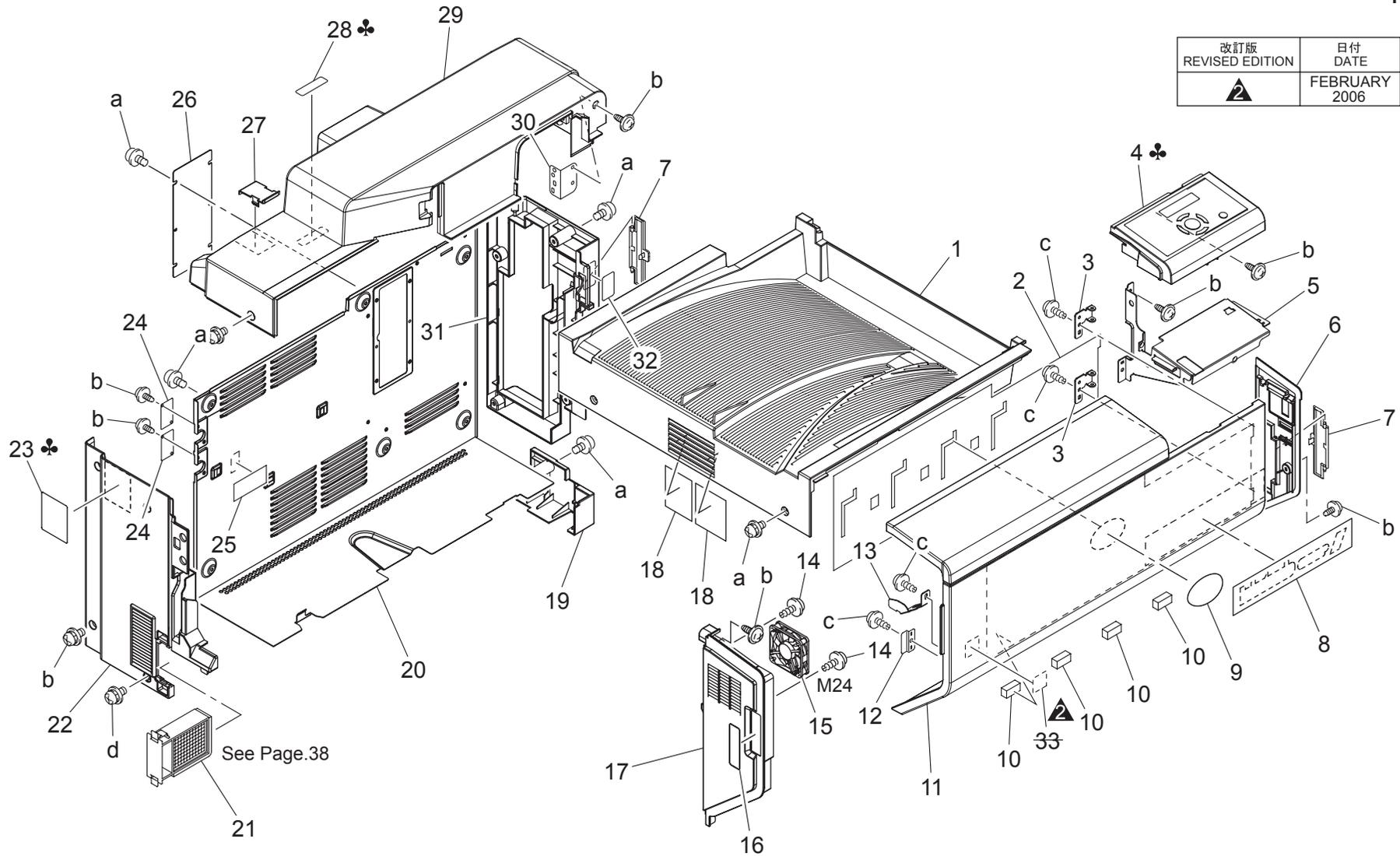
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4037 7803 03	42-34	4131 4128 01	19-23	4535 3705 03	15-1	4658 3049 01	46-4	9372 1300 12	27-12
4037 M200 00	13-19	4131 4623 03	17-22	4535 3706 02	16-18	4658 3140 02	23-11	9372 5400 11	27-15
4037 R701 01	52-27	4134 3106 01	43-3	4535 3707 02	16-19	4658 3517 01	19-22	9381 4101 31	53-6
4037 R703 00	25-29	4134 3579 03	4-18	4535 3709 01	53-4	4687 3281 01	18-8	9383 2510 21	3-14
4037 R707 00	43-38	4163 5293 01	21-9	4535 3710 01	16-10	9312 1200 31	24-12	9383 5000 11	3-17
4037 R709 00	38-4	4163 5293 01	43-23	4535 3711 01	16-6	9313 1000 61	3-20	9384 1000 51	52-1
4037 R710 00	14-21	4348 0202 01	24-2	4535 3724 01	16-17	9313 1000 72	9-21	9384 1100 31	52-24
4037 R711 00	36-27	4348 2016 01	23-2	4535 3729 01	16-7	9313 1300 41	1-15	9384 1100 91	52-2
4037 R717 00	7-22	4348 2021 01	23-12	4535 3731 01	16-15	9313 1300 41	34-7	9384 1110 61	52-7
4037 R718 00	7-22	4348 2037 02	23-7	4535 3732 01	15-11	9313 1300 41	2-1	9384 1211 01	52-6
4037 R719 00	7-22	4348 2038 02	23-8	4535 3752 01	15-2	9313 1400 31	42-28	9384 1300 61	52-15
4040 0156 02	45-14	4348 2040 01	23-28	4555 0558 05	31-34	9313 1400 41	9-30	9384 1300 71	52-3
4040 7304 01	45-8	4348 2041 02	23-18	4555 0559 05	31-34	9313 1910 61	36-18	9384 1310 11	52-9
4040 M200 00	19-25	4348 2042 01	23-4	4555 0563 02	32-1	9314 1001 04	15-14	9384 1310 81	52-10
4040 R705 00	19-30	4348 2044 01	23-17	4555 0564 02	32-1	9314 1100 72	10-3	9384 1311 01	52-8
4049 111	28-27	4348 3011 04	21-13	4581 7901 02	52-30	9314 1300 21	8-12	9384 1311 11	52-23
4049 212	30-22	4348 3028 01	21-21	4643 4605 01	36-6	9314 1300 31	39-1	9384 1521 51	52-22
4049 411	39-22	4348 3029 01	20-29	4657 0202 01	16-9	9314 1300 61	24-1	9384 1610 11	42-30
4049 521	25-27	4348 3030 01	24-3	4657 3708 02	16-16	9314 2300 21	12-19	9384 1621 21	13-24
4049 522	25-27	4348 3031 01	21-16	4657 3709 01	16-5	9314 2300 31	11-44	9384 1621 21	11-35

Parts No.	Page No.
9384 1621 21	24-16
9384 1621 21	10-7
9384 1621 21	15-18
9384 1700 24	53-5
9384 1811 01	52-16
9384 1820 31	52-11
9384 1900 55	10-21
9384 1900 56	15-17
9384 1921 01	52-4
9384 1921 11	52-12
9384 1921 21	52-5
9384 2010 21	52-19
9384 2910 21	52-17
9384 2910 31	52-18
9450 1806 01	3-3
9454 4076 02	27-18
9J03 M100 00	9-31
9J06 2101 00	13-25

EXTERNAL PARTS

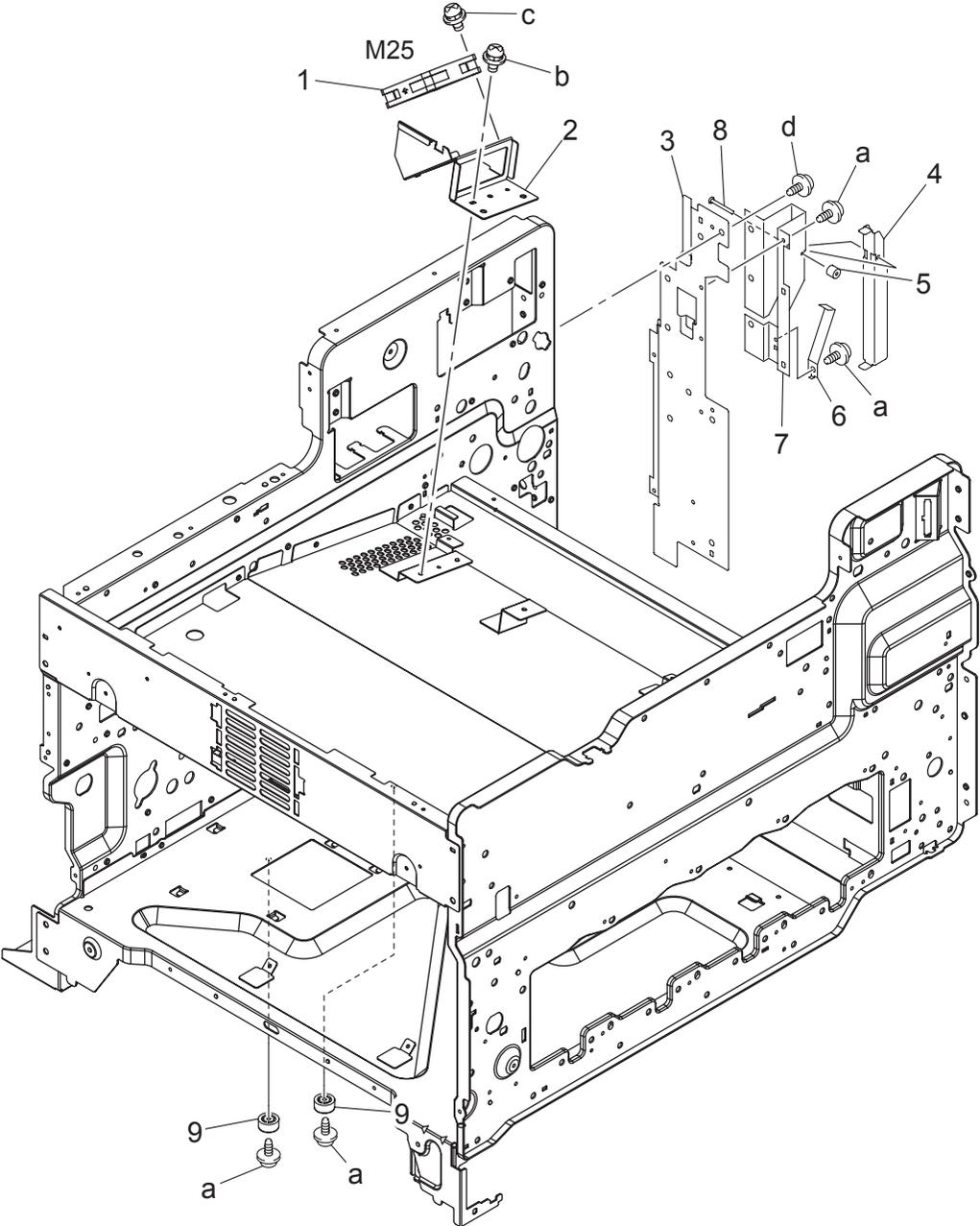
改訂版 REVISED EDITION	日付 DATE
	FEBRUARY 2006



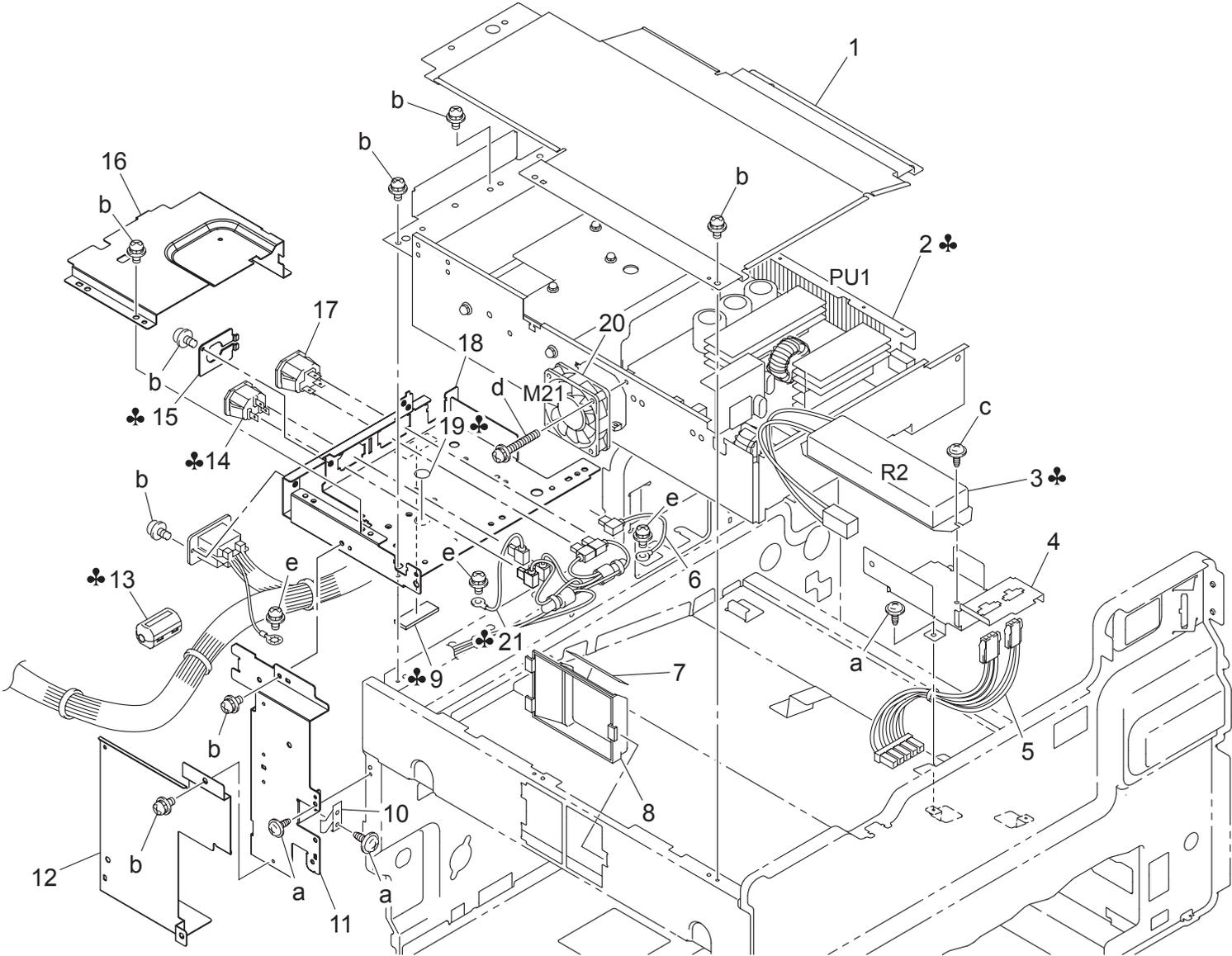
EXTERNAL PARTS

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 1028 03	TOP COVER		C	1	a-9646 0308 14 b-9735 0308 14 c-9739 0408 14 d-9735 0408 14
2	4036 7302 01	LABEL TC.IC CLEAN		C	1	
3	4036 1024 02	HINGE		C	2	
4	4037 6055 05	CONTROL PANEL ASSY		I	1	
4	4037 6056 05	CONTROL PANEL ASSY	A	I	1	
4	4037 6057 05	CONTROL PANEL ASSY	B,G2	I	1	
5	4036 1034 02	BRACKET	C	I	1	
6	4036 1004 02	RIGHT COVER F		D	1	
7	4036 1035 01	LID		D	1	
8	4037 7336 01	LABEL bizhub C450P		C	2	
9	4030 7500 01	LABEL LOGO MARK		D	1	
10	4025 1018 01	SEAL		C	1	
11	4037 1001 01	FRONT COVER		C	4	
12	4036 1026 01	SUCTION PLATE		D	1	
13	4004 1031 03	GUIDE PLATE		D	1	
14	4036 5966 01	SCREW		C	1	
15	9313 1300 41	FAN MOTOR		C	2	
16	4036 7340 02	LABEL TONER		C	1	
17	4037 1027 02	LEFT COVER F		C	1	
18	4025 2285 02	FILTER		C	2	
19	4036 1033 01	RIGHT COVER LOWER		C	1	
20	4037 1009 03	REAR COVER		D	1	
21	1483 0757 00	OZONE FILTER		C	1	
22	4037 1007 02	LEFT COVER REAR		C	1	
23	4037 7406 01	LABEL EARTH CAUTION		C	1	
24	4036 1048 01	COVER	C	C	2	
25	4025 1011 01	FILM		D	1	
26	4037 1006 01	COVER		C	1	
27	4037 1084 02	LID		C	1	
28	4037 7403 01	LABEL OUTLET		C	1	
28	4037 7407 01	LABEL OUTLET	A,B,G2	C	1	
29	4037 1080 03	TOP COVER	C	C	1	
30	4037 1085 01	BRACKET		D	1	
31	4037 1008 02	RIGHT COVER REAR		C	1	
32	4036 7330 01	LABEL M3		C	1	

MAIN FRAME



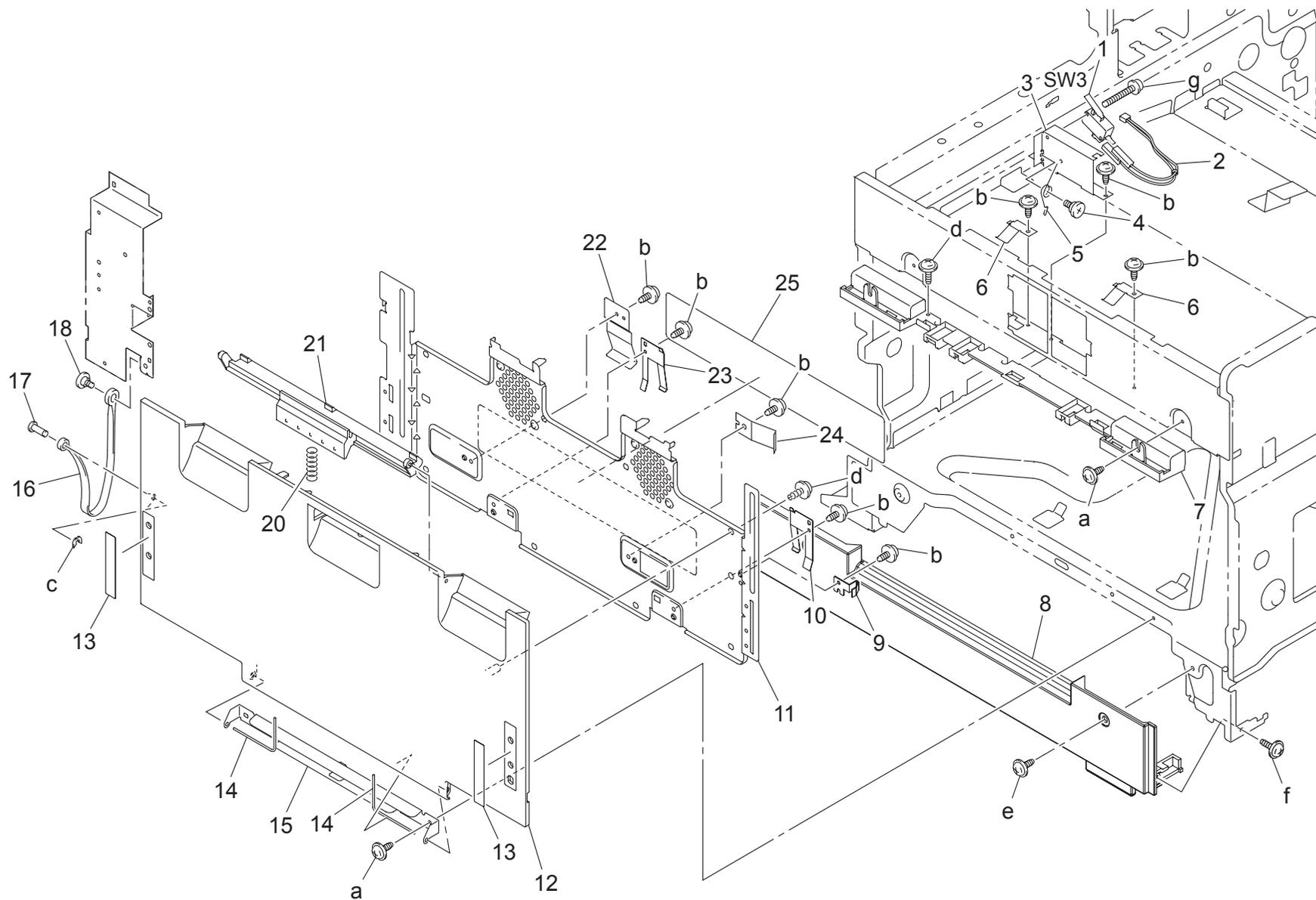
POWER UNIT



POWER UNIT

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2211 03	SHIELD	シールド	D	1	a-9735 0308 14 b-9646 0308 14 c-9735 0408 14 d-9646 0320 14 e-9646 0408 14
2	4037 6211 05	POWER SUPPLY	直流安定化電源	I	1	
2	4037 6212 02	POWER SUPPLY	直流安定化電源	I	1	
3	9450 1806 01	RESISTOR	その他固定抵抗器	C	1	
4	4036 2216 02	BRACKET	取付板	D	1	
5	4036 6827 02	WIRE HARNESS ASSY	ハーネス A S S Y	D	1	
6	4025 6805 01	WIRE HARNESS ASSY	ハーネス A S S Y	D	1	
7	4004 2258 01	SEAL	シール	D	1	
8	4004 2257 01	DUCT	ダクト	D	1	
9	4037 6751 01	ELECTRICALLY CONDUCTIVE MATERIAL	導電材料	C,B,G2	1	
10	4004 1069 02	PLATE SPRING	板ばね	D	1	
11	4037 2205 01	BRACKET	取付板	D	1	
12	4037 2256 01	SHIELD	シールド	D	1	
13	9326 1810 21	FERRITE CORE	フェライトコア	C,B,G2	1	
14	9383 2510 21	HOLDER	ホルダー	C,B,G2	1	
15	4037 2239 02	BRACKET	取付板	A	1	
16	4037 2208 02	SHIELD	シールド	D	1	
17	9383 5000 11	JACK	ジャック	D	1	
18	4037 2231 02	BRACKET	取付板	D	1	
19	1500 2320 02	LABEL EARTH	ラベル アース	A	1	
20	9313 1000 61	FAN MOTOR	ファンモータ	C	1	
21	4025 6805 01	WIRE HARNESS ASSY	ハーネス A S S Y	C,B,G2	1	

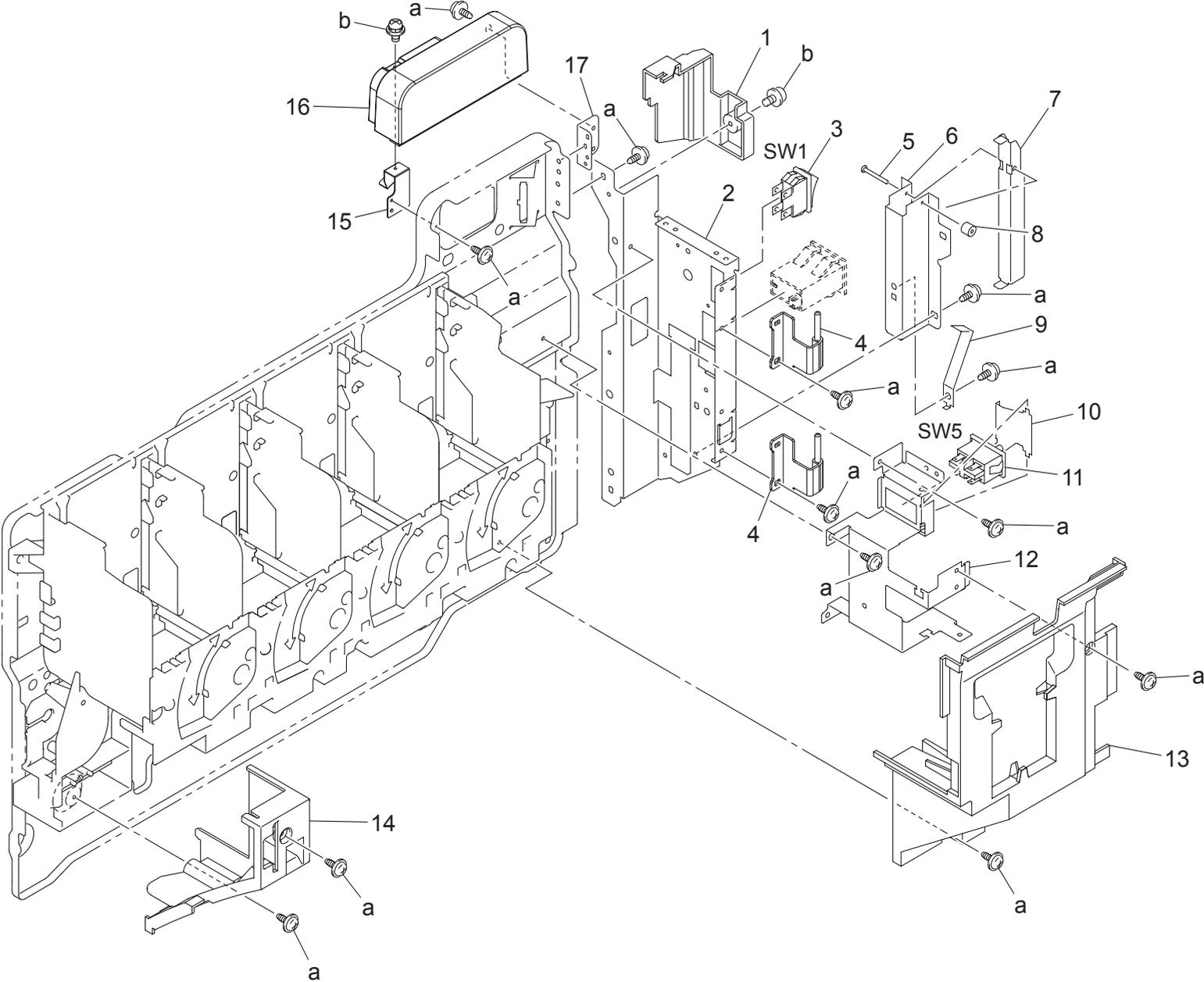
LEFT SIDE DOOR



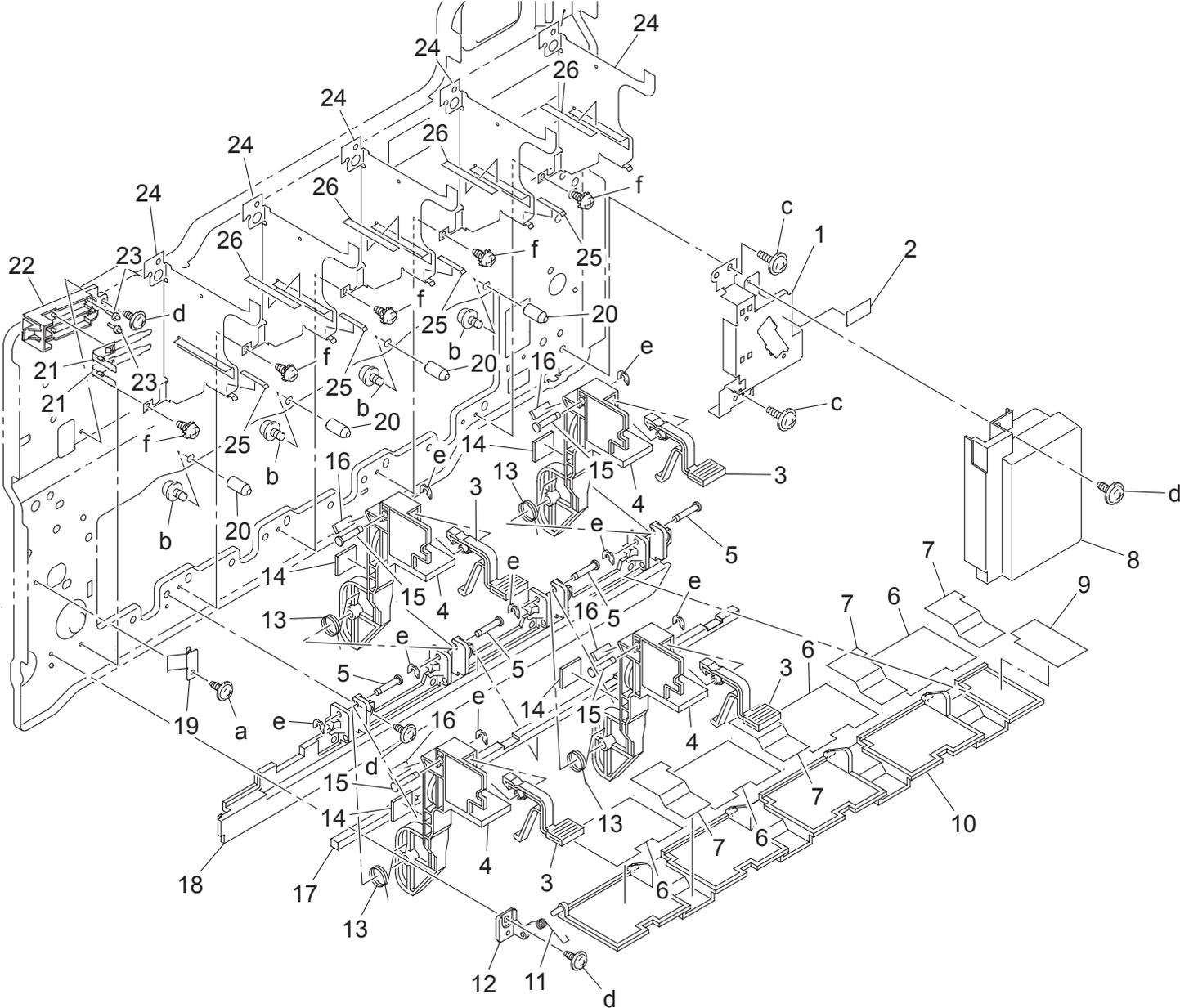
LEFT SIDE DOOR

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	9331 2200 21	MICRO-SWITCH		C	1	a-9735 0308 14
2	4025 6814 01	WIRE HARNESS ASSY		D	1	b-9735 0306 14
3	4004 2255 02	BRACKET		D	1	c-4425 3002 01
4	4036 2257 01	SHOULDER SCREW		C	1	d-9739 0306 14
5	4004 2239 03	TORSION SPRING		C	1	e-9735 0408 14
6	4004 2254 01	PLATE SPRING		D	2	f-9739 0408 14
7	4036 2024 01	HANDLE		D	1	g-9646 0316 14
8	4036 2101 02	RAIL		D	1	
9	4004 1072 01	BRACKET		D	1	
10	4004 1067 02	PLATE SPRING		D	1	
11	4036 1010 02	REINFORCE PLATE		D	1	
12	4036 1005 03	COVER		C	1	
13	4036 1011 01	LABEL HIDE		C	2	
14	4036 1042 01	PIN		D	2	
15	4036 1015 01	BRACKET		D	1	
16	4036 1039 01	STOPPER		D	1	
17	4036 1040 01	PIN		D	1	
18	4134 3579 03	SHOULDER SCREW		C	1	
20	4004 1014 01	PRESSURE SPRING		C	1	
21	4036 1013 01	HANDLE		C	1	
22	4025 1012 01	PLATE SPRING		D	1	
23	4004 1066 03	PLATE SPRING		D	1	
24	4004 1012 02	PLATE SPRING		D	1	
25	4036 7303 01	LABEL TONER BOX		D	1	

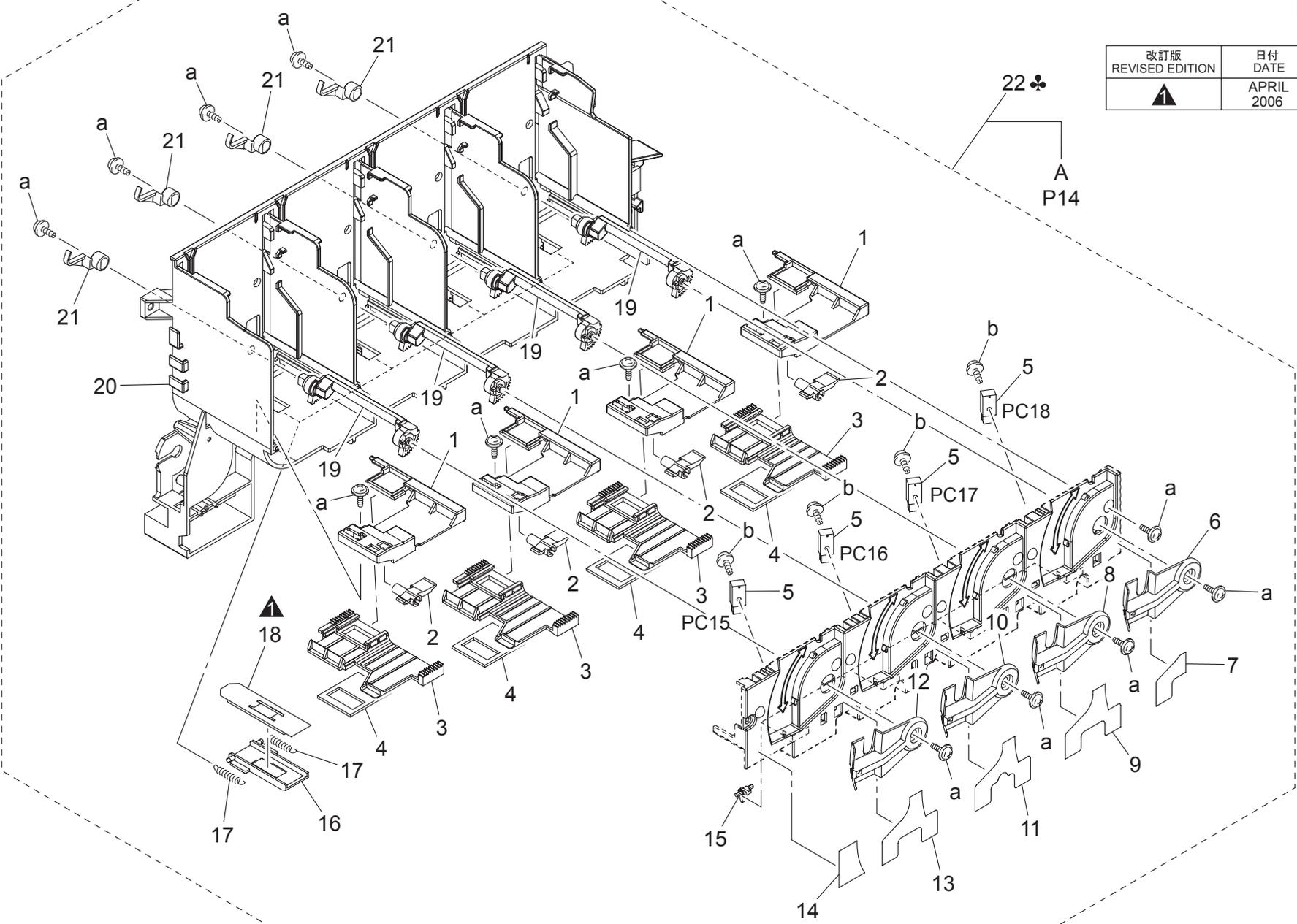
MAIN SWITCH SECTION



PAPER SELECT SWITCH & LED LOCK



HOPPER SECTION

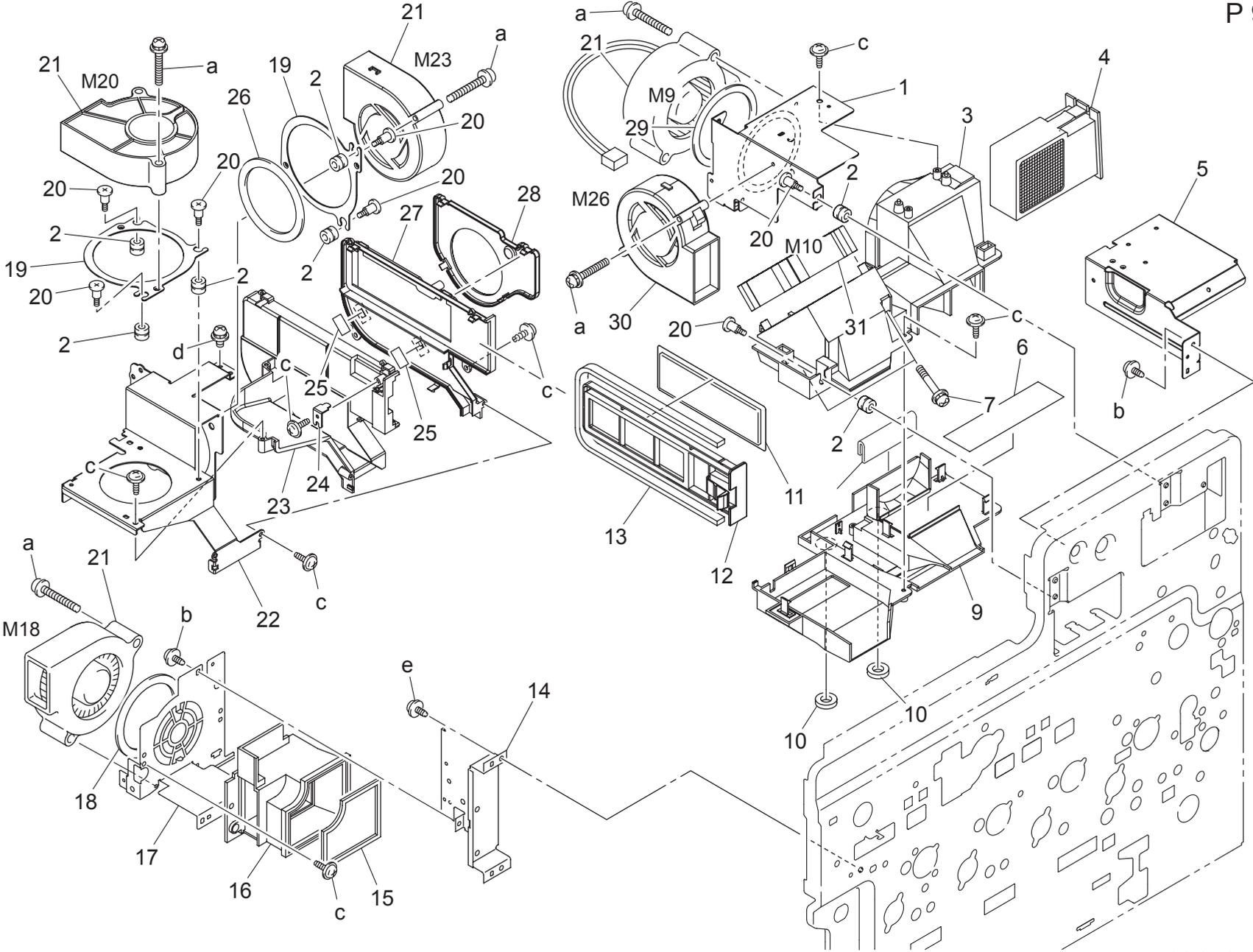


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	APRIL 2006

HOPPER SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 5413 01	GUIDE		D	4	a-9739 0308 14 b-9739 0314 14
2	4036 5419 01	LEVER		D	4	
3	4036 5411 01	SHUTTER		D	4	
4	4025 5412 01	SEAL		D	4	
5	9335 1401 21	SOLID STATE SWITCH		C	4	
6	4025 5422 01	LEVER		C	1	
7	4036 7319 01	LABEL IU BLACK		D	1	
8	4025 5421 01	LEVER		C	1	
9	4036 7318 01	LABEL IU CYAN		D	1	
10	4025 5420 01	LEVER		C	1	
11	4036 7317 02	LABEL IU MAGENTA		D	1	
12	4025 5417 01	LEVER		C	1	
13	4036 7316 01	LABEL IU YELLOW		D	1	
14	4036 7315 01	LABEL LOCK RELEASE		D	1	
15	4036 5325 02	PAWL		D	4	
16	4036 5347 02	SHUTTER		D	4	
17	4036 5348 01	TENSION SPRING		C	8	
18	4036 5349 03	SEAL		D	4	
19	4036 5414 01	SHAFT		D	4	
20	4036 5301 03	HOUSING		D	1	
21	4025 5442 02	LEVER		D	4	
22	4037 R717 00	HOPPER	A	S	1	
22	4037 R718 00	HOPPER	B,G2	S	1	
22	4037 R719 00	HOPPER	C	S	1	

OZONE FAN SECTION

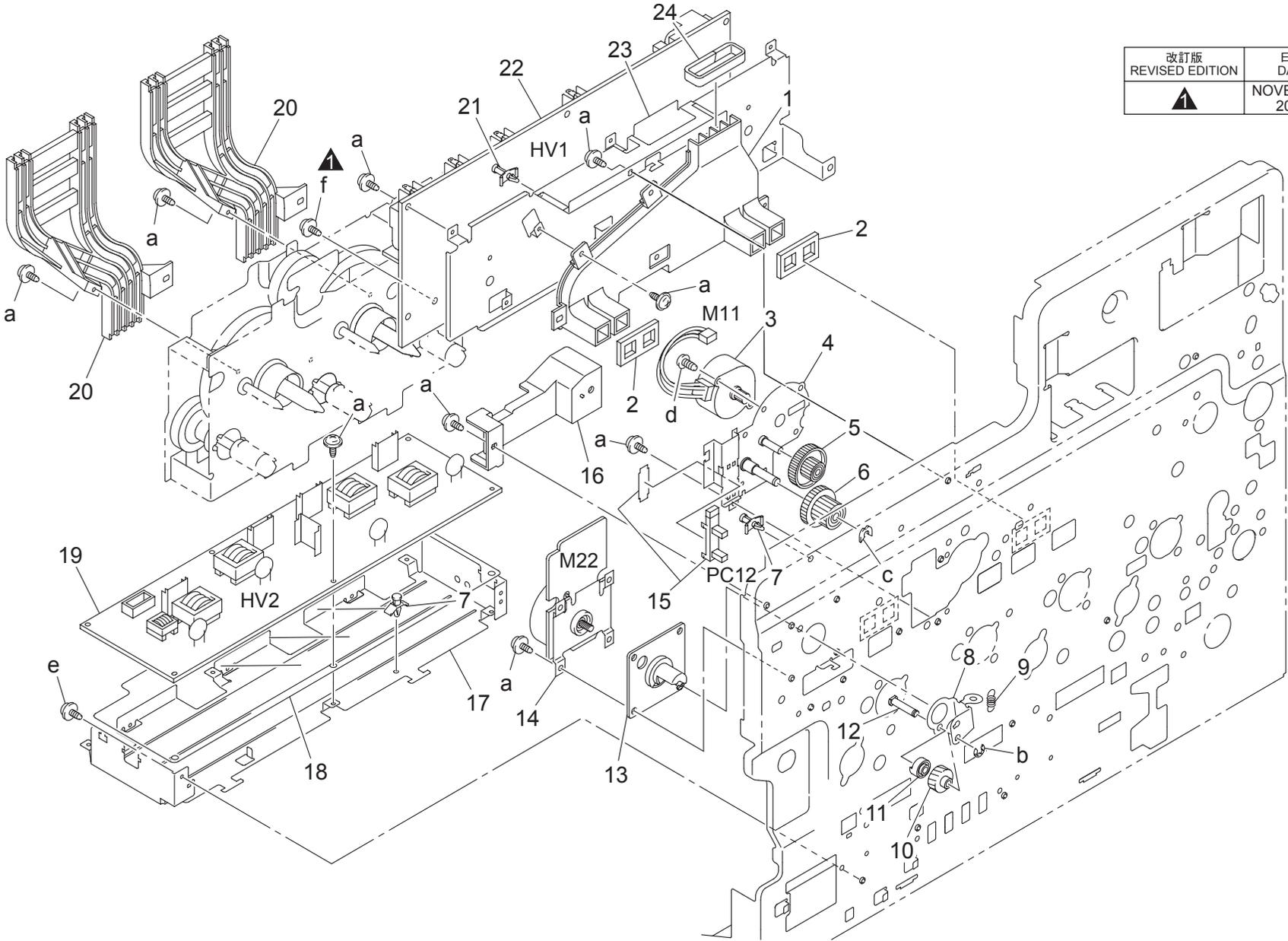


OZONE FAN SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2459 02	BRACKET		D	1	a-9646 0440 14 b-9735 0308 14 c-9739 0308 14 d-9646 0308 14 e-9735 0306 14 f-9646 0320 14
2	4025 2294 01	BUSHING		C	8	
3	4037 2452 02	DUCT		D	1	
4	4053 0151 01	DEODORANT FILTER		A	1	
5	4037 2463 02	BRACKET		D	1	
6	4025 2458 01	SEAL		C	1	
7	4120 4614 01	SCREW		C	2	
8	4025 2466 01	SEAL		C	1	
9	4037 2453 03	DUCT		D	1	
10	4025 2468 01	SEAL		C	2	
11	4037 2491 01	DUST FILTER		C	1	
12	4037 2490 02	HOLDER		C	1	
13	4037 2493 02	SEAL		C	1	
14	4004 2230 03	BRACKET		D	1	
15	4004 2142 01	SEAL		C	1	
16	4004 2141 01	DUCT		D	1	
17	4036 2146 02	BRACKET		D	1	
18	4004 2148 01	SEAL		C	1	
19	4037 2486 01	BRACKET		D	2	
20	4036 2487 01	SHOULDER SCREW		C	8	
21	9313 1000 72	FAN MOTOR		C	4	
22	4037 2484 01	BRACKET		D	1	
23	4037 2483 04	DUCT		D	1	
24	4037 2494 01	GUIDE		D	1	
25	4037 2492 01	FILM		D	2	
26	4036 2485 01	SEAL		C	2	
27	4037 2488 03	DUCT		D	1	
28	4037 2489 02	DUCT		D	1	
29	4025 2465 01	SEAL		C	1	
30	9313 1400 41	FAN MOTOR		C	1	
31	9J03 M100 00	FAN MOTOR		B	1	

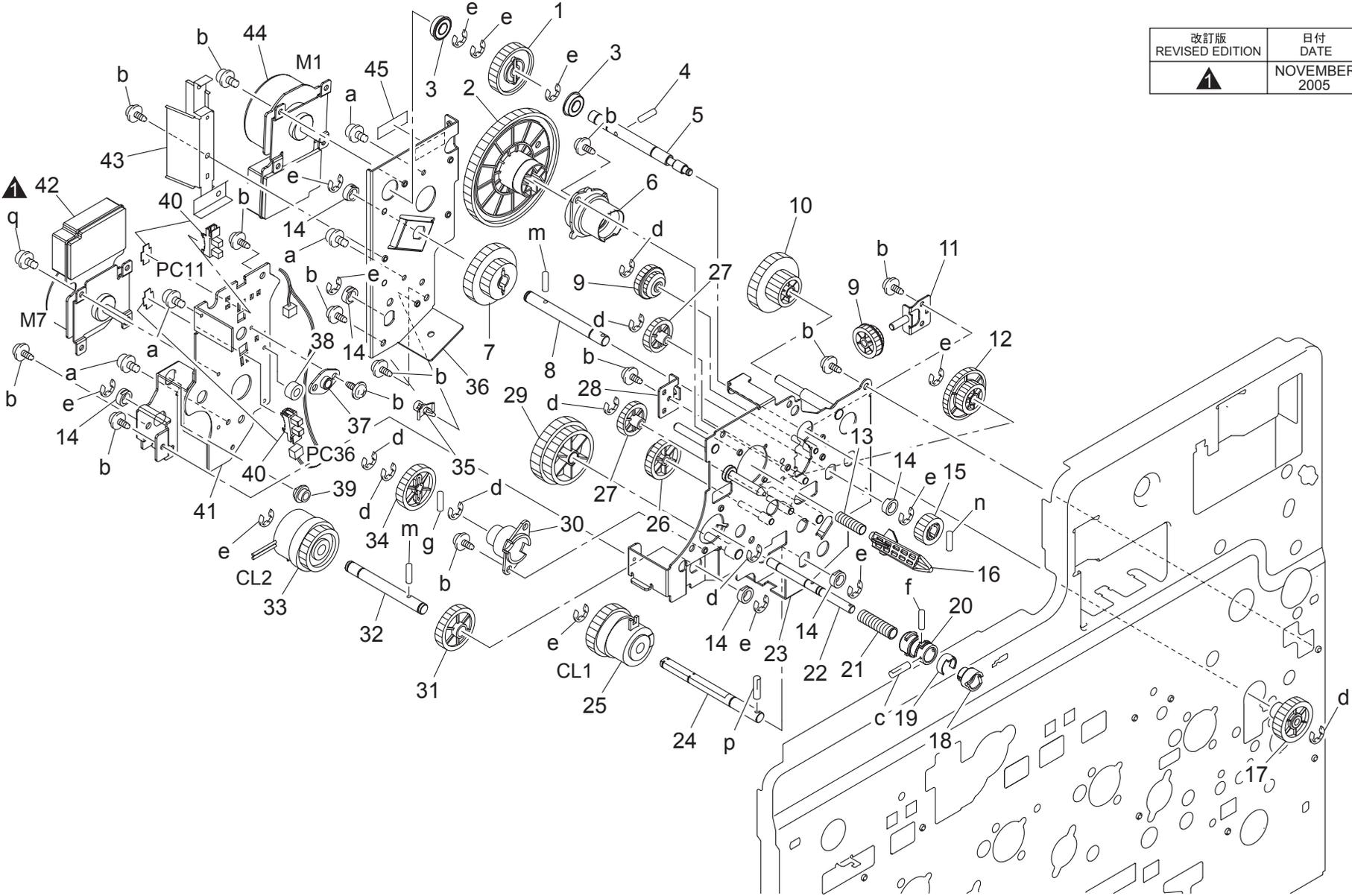
PC DRIVE SECTION

改訂版 REVISED EDITION	日付 DATE
	NOVEMBER 2005



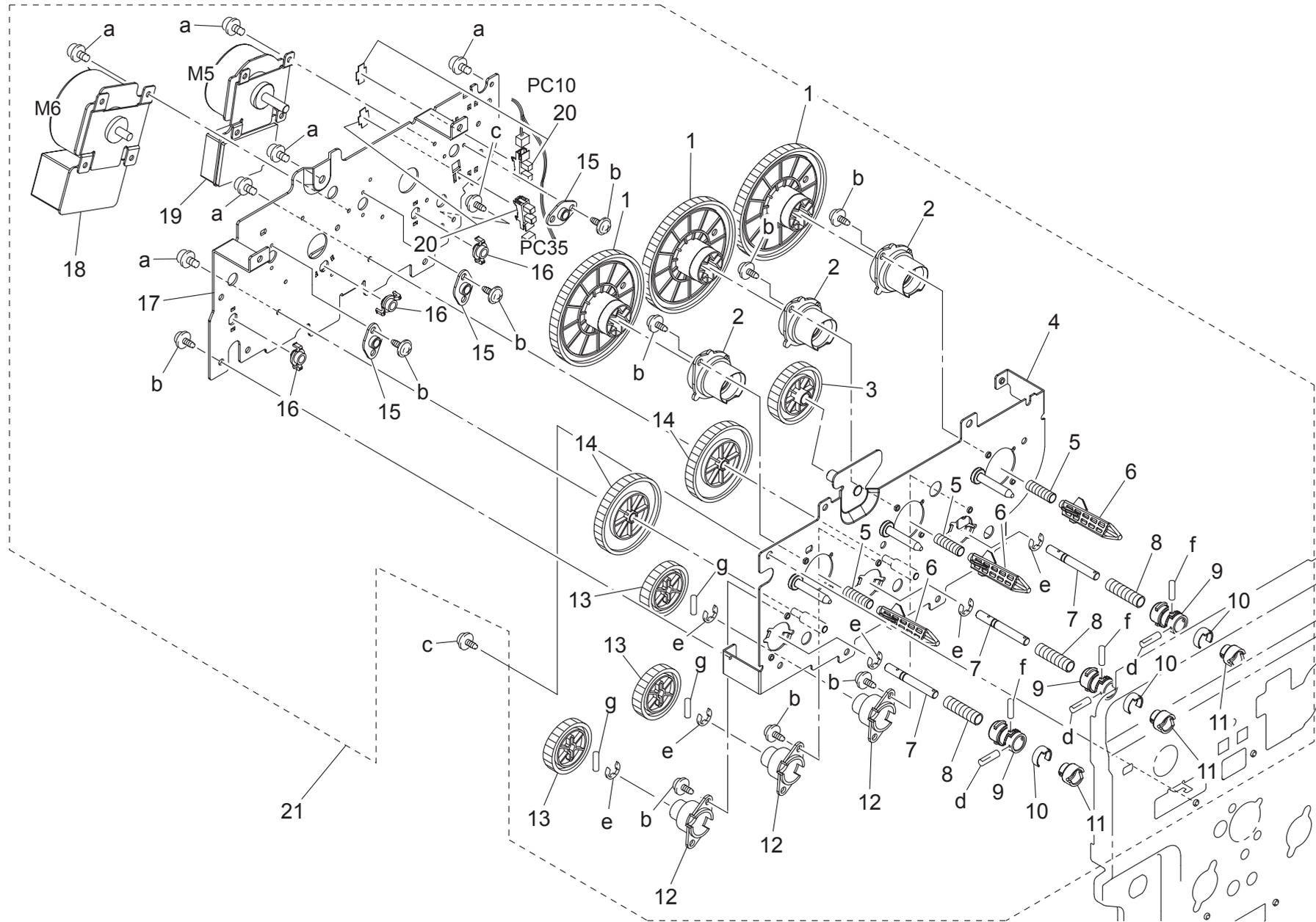
DRIVE SECTION

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▲	NOVEMBER 2005



Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4004 2540 01	GEAR 88T	ギヤ 88 T	C	1	a-9646 0306 14
2	4036 2754 02	GEAR 208T	ギヤ 208 T	C	1	b-9735 0306 14
3	1300 4342 07	BALL BEARING	ボールベアリング	C	2	c-9754 2016 08
4	4004 2547 01	PIN	ピン	D	1	d-9721 0400 01
5	4036 2541 01	SHAFT	シャフト	D	1	e-9721 0600 01
6	4036 2767 01	BUSHING	軸受	C	1	f-1144 5200 01
7	4036 2513 01	GEAR 53/83T	ギヤ 53/83 T	C	1	g-9752 2016 50
8	4036 2512 01	SHAFT	シャフト	D	1	k-9735 0308 14
9	4004 2545 01	GEAR 18/30T	ギヤ 18/30 T	C	2	m-4036 2549 01
10	4036 2538 01	GEAR 44/80T	ギヤ 44/80 T	C	1	n-9752 3012 50
11	4004 2546 01	BRACKET	取付板	D	1	p-9754 3022 08
12	4036 2515 01	GEAR 27/91T	ギヤ 27/91 T	C	1	q-9646 0305 07
13	4036 2769 01	PRESSURE SPRING	圧縮コイルばね	D	1	
14	4036 2524 01	BUSHING	軸受	C	6	
15	4036 2514 01	GEAR 19T	ギヤ 19 T	C	1	
16	4036 2766 02	JOINT	ジョイント	C	1	
17	4037 2542 01	GEAR 13/39T	ギヤ 13/39 T	C	1	
18	4004 2509 01	JOINT	ジョイント	C	1	
19	4036 2775 01	CAP	キャップ	D	1	
20	4036 2774 01	JOINT	ジョイント	C	1	
21	4004 2503 01	PRESSURE SPRING	圧縮コイルばね	C	1	
22	4036 2520 01	SHAFT	シャフト	D	1	
23	4036 0208 01	BRACKET ASSY	取付板 ASSY	D	1	
24	4036 2531 01	SHAFT	シャフト	D	1	
25	9322 1300 31	CLUTCH	クラッチ	C	1	
26	4036 2544 01	GEAR 21/36T	ギヤ 21/36 T	C	1	
27	4036 2543 01	GEAR 32T	ギヤ 32 T	C	2	
28	4036 2537 01	BRACKET	取付板	D	1	
29	4036 2517 01	GEAR 52/114T	ギヤ 52/114 T	C	1	
30	4036 2752 01	HOLDER	ホルダ	D	1	
31	4036 2521 01	GEAR 40T	ギヤ 40 T	C	1	
32	4036 2764 01	SHAFT	シャフト	D	1	
33	9322 1300 41	CLUTCH	クラッチ	C	1	
34	4036 2519 01	GEAR 40T	ギヤ 40 T	C	1	
35	9384 1621 21	PWB SUPPORT 6.4H	キハンスupport	D	1	
36	4036 2511 01	FRAME	フレーム	D	1	
37	4036 2768 01	BUSHING	軸受	C	1	
38	1154 4670 01	PROTECTION	保護材	C	1	
39	4036 2762 01	BUSHING	軸受	C	1	
40	4037 0903 01	PHOTO INTERRUPTER	フォトインタラプター	B	2	
41	4036 2772 02	BRACKET	取付板	D	1	
42	9314 2400 21	MOTOR	ブラシレスモータ	B	1	
43	4036 2237 01	GUIDE	ガイド	D	1	
44	9314 2300 31	MOTOR	ブラシレスモータ	B	1	
45	1129 7303 01	LABEL HI-VOL CAUTION	ラベル 高圧注意	D	1	

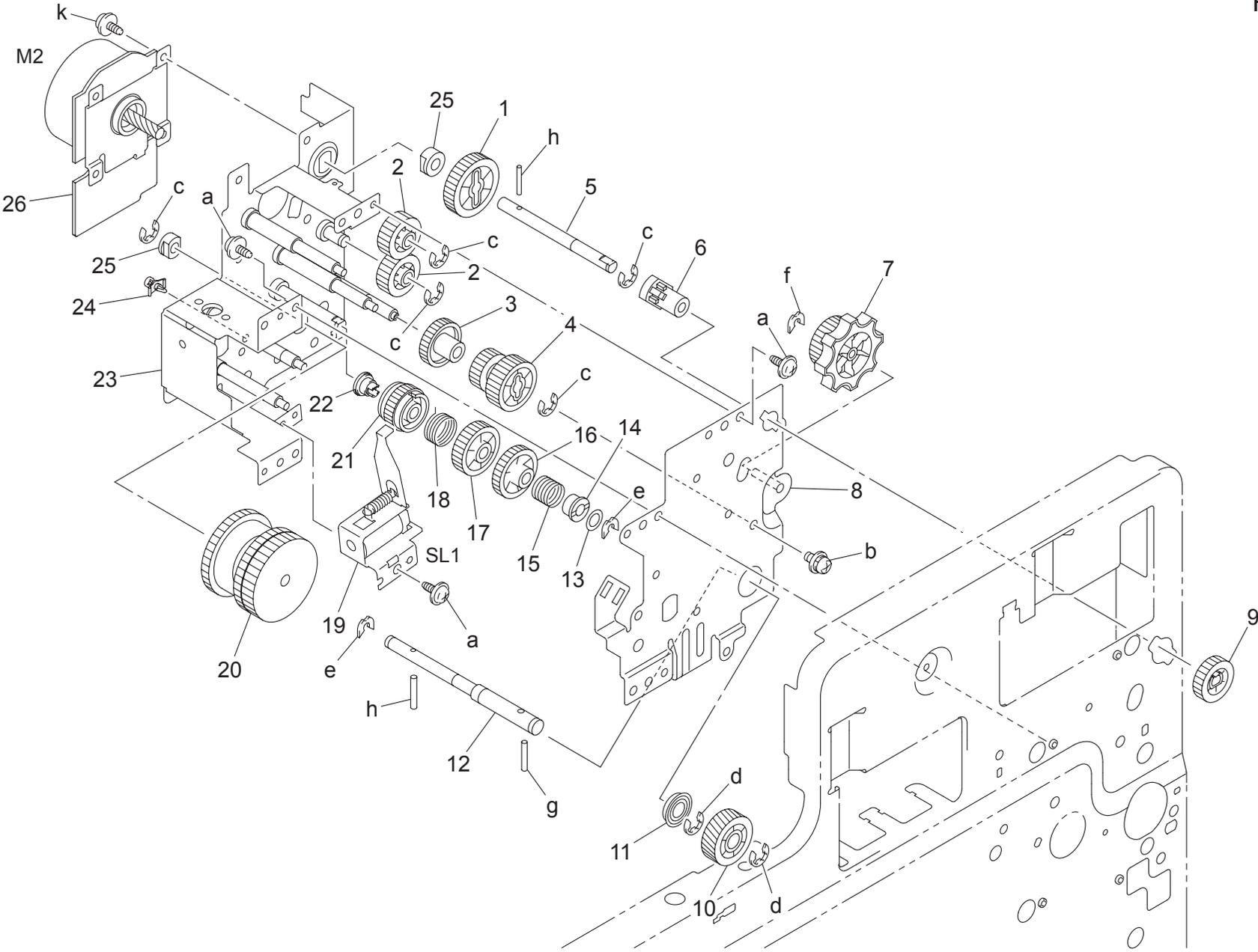
YMC DRIVE SECTION



YMC DRIVE SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2754 02	GEAR 208T		C	3	a-9646 0306 14 b-9735 0306 14 c-9735 0308 14 d-9754 2016 08 e-9721 0400 01 f-1144 5200 01 g-9752 2016 50
2	4036 2767 01	BUSHING		C	3	
3	4036 2758 01	GEAR 106T		C	1	
4	4036 0207 03	BRACKET ASSY		D	1	
5	4036 2769 01	PRESSURE SPRING		D	3	
6	4036 2766 02	JOINT		C	3	
7	4036 2751 01	SHAFT		D	3	
8	4004 2503 01	PRESSURE SPRING		C	3	
9	4036 2774 01	JOINT		C	3	
10	4036 2775 01	CAP		D	3	
11	4004 2509 01	JOINT		C	3	
12	4036 2752 01	HOLDER		D	3	
13	4036 2761 01	GEAR 75T		C	3	
14	4036 2760 01	GEAR 113T		C	2	
15	4036 2768 01	BUSHING		C	3	
16	4036 2753 01	BUSHING		C	3	
17	4036 2757 01	FRAME		D	1	
18	9314 2300 41	MOTOR		B	1	
19	9314 2300 21	MOTOR		B	1	
20	4037 0903 01	PHOTO INTERRUPTER		B	2	
21	1483 R700 00	YMC DRIVE ASSY		S	1	

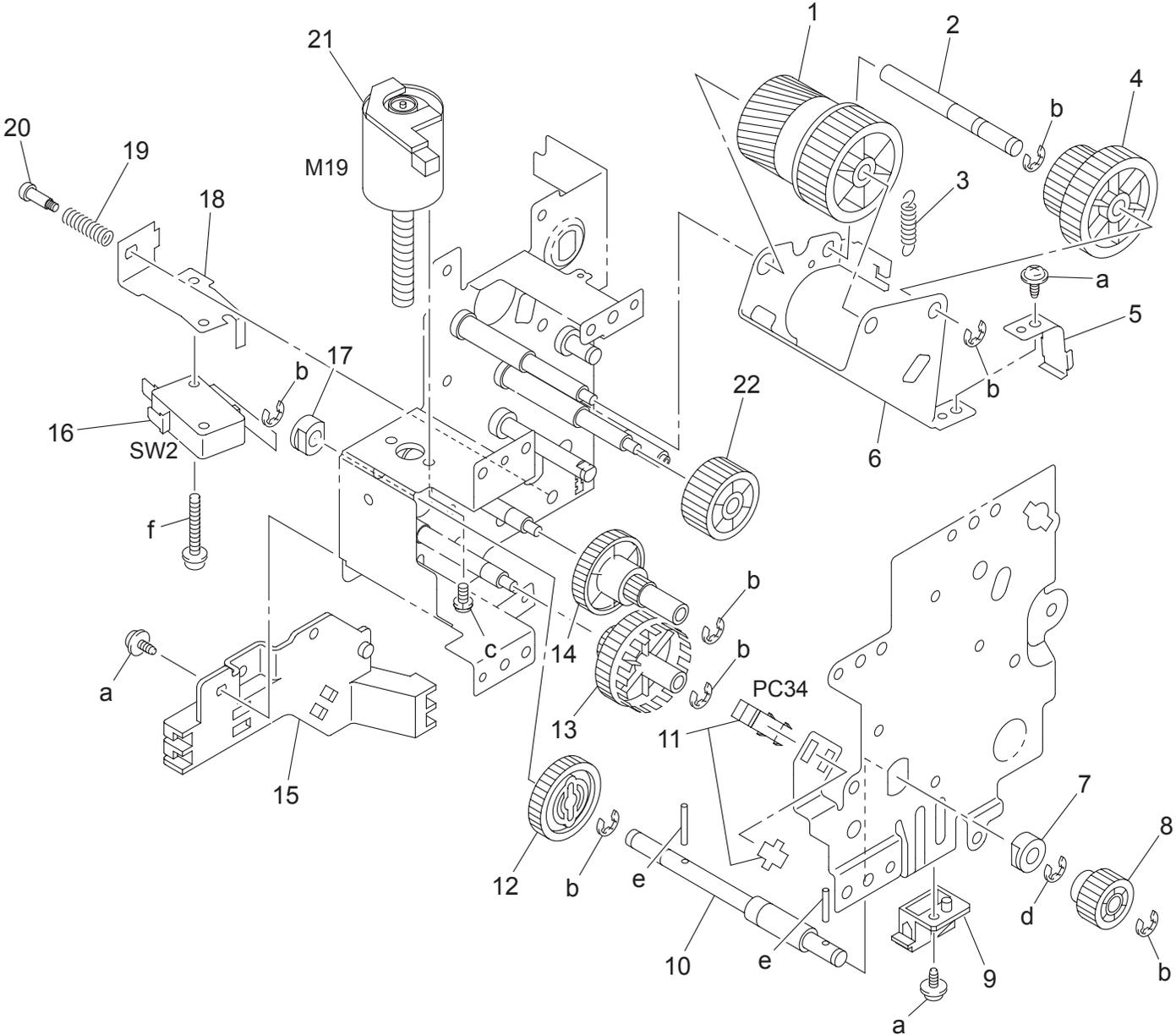
FUSING DRIVE SECTION



FUSING DRIVE SECTION

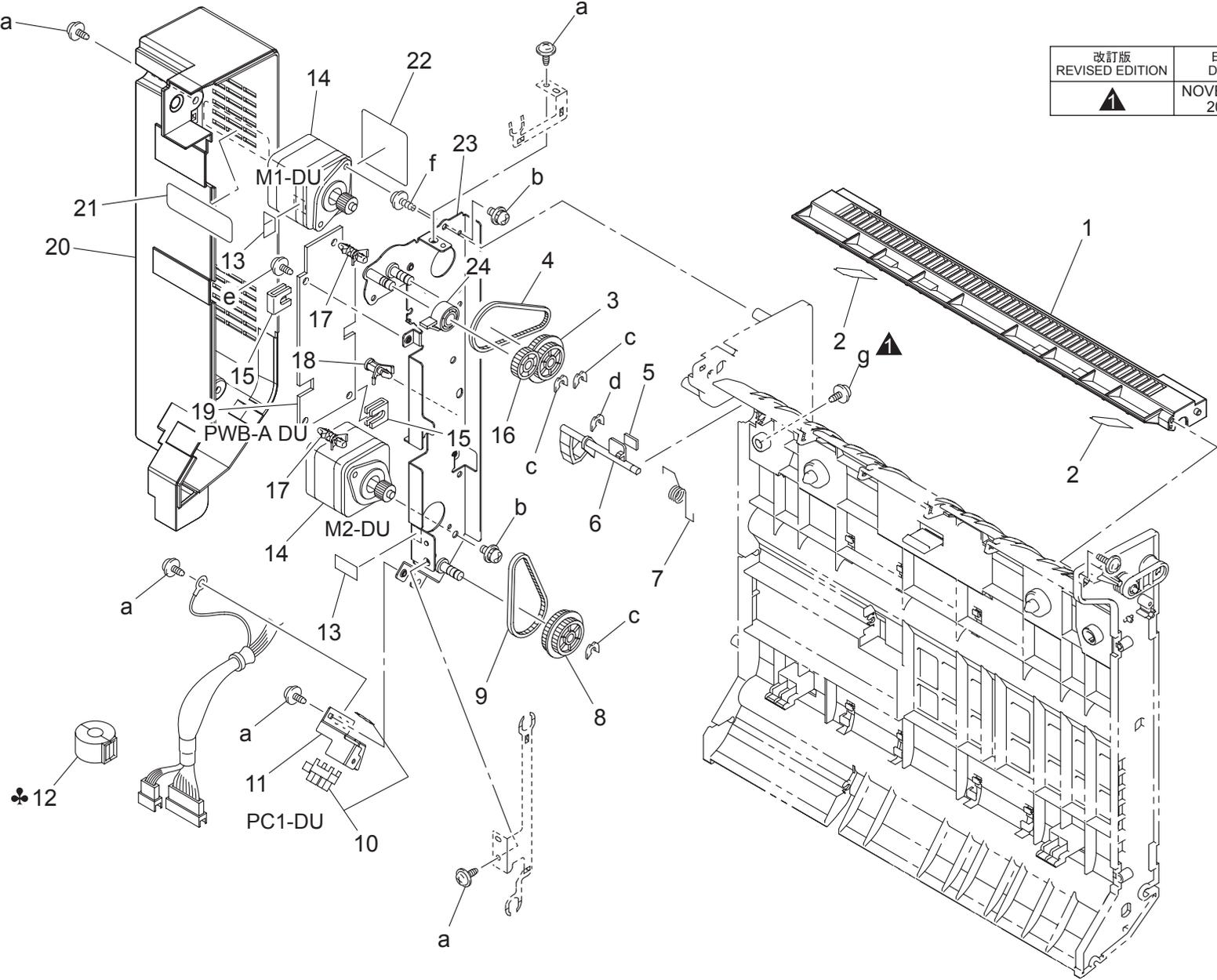
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2561 01	GEAR 29T		C	1	a-9735 0308 14
2	4036 2567 01	GEAR 18T		C	2	b-9646 0308 14
3	4036 2560 01	GEAR 19T		C	1	c-9721 0400 01
4	4131 2571 01	GEAR 17/23T		C	1	d-9721 0600 01
5	4036 2563 01	SHAFT		D	1	e-4425 3001 01
6	4036 2565 01	BUSHING		C	1	f-4425 3002 01
7	4036 2585 01	KNOB		C	1	g-4036 2549 01
8	4036 0217 01	BRACKET ASSY		D	1	h-9752 2016 50
9	4036 2564 01	GEAR 26T		C	1	k-9735 0306 14
10	4036 2555 01	GEAR 23T		C	1	
11	1300 4342 07	BALL BEARING		C	1	
12	4036 2559 01	SHAFT		D	1	
13	4131 4128 01	WASHER		C	1	
14	4131 2590 01	DRUM		C	1	
15	4131 2591 01	TORSION SPRING		B	1	
16	4131 2577 01	GEAR 23T		C	1	
17	4131 2576 01	GEAR 23T		C	1	
18	4131 2579 03	TORSION SPRING		B	1	
19	4037 M200 00	SOLENOID		D	1	
20	4036 0153 01	DRIVING ASSY		C	1	
21	4131 2578 01	RATCHET		C	1	
22	4131 2575 01	DRUM		C	1	
23	4036 0209 01	BRACKET ASSY		D	1	
24	9384 1621 21	PWB SUPPORT 6.4H		D	1	
25	9J06 2101 00	BUSHING		C	2	
26	9314 2300 31	MOTOR		B	1	

FUSING DRIVE SECTION



DUPLEX UNIT

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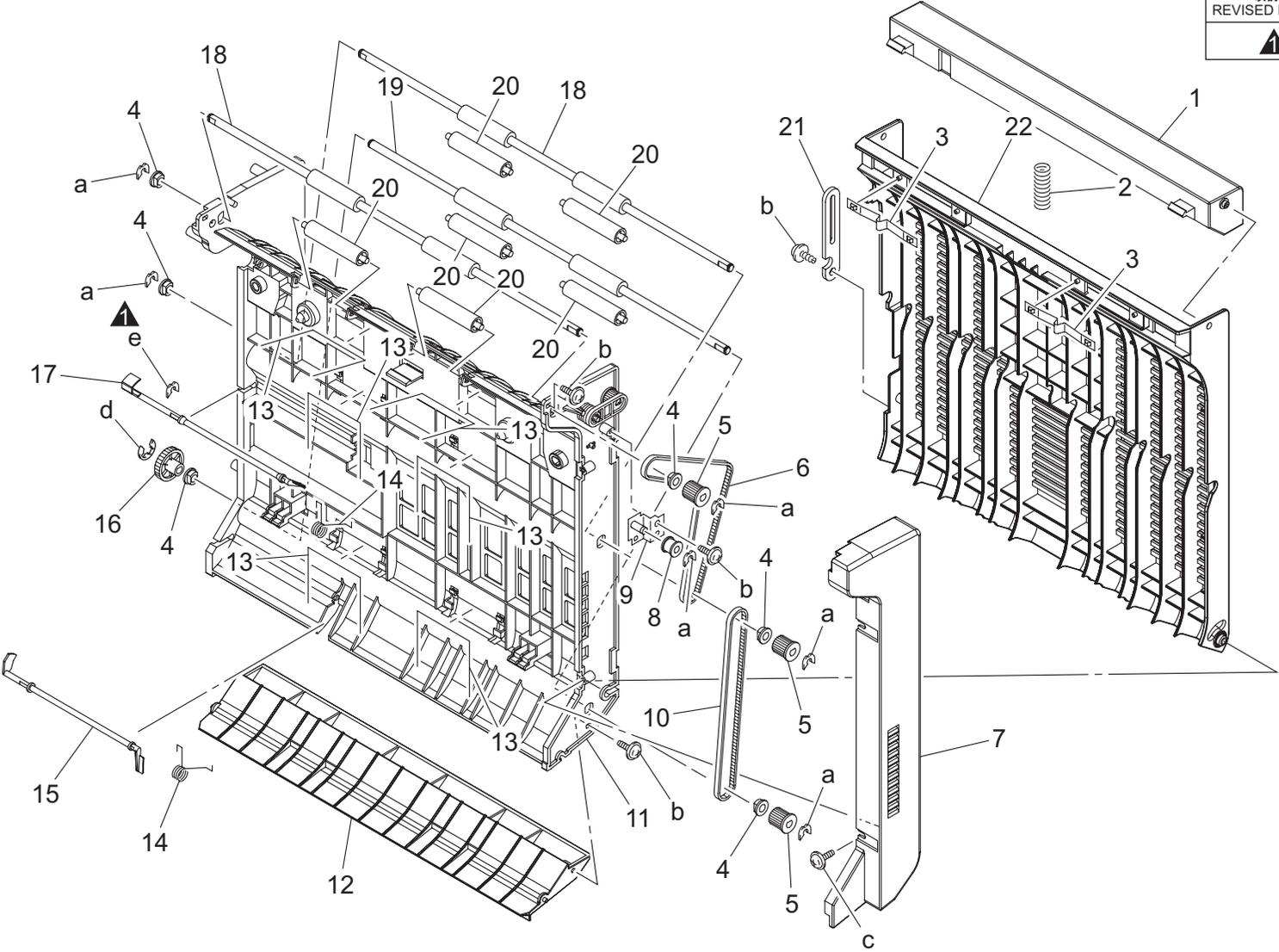


DUPLEX UNIT

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4535 3705 03	COVER		C	1	a-9735 0308 14 b-9646 0306 14 c-4425 3001 01 d-4425 3002 01 e-9735 0310 14 f-9739 0308 14 g-9646 0416 14
2	4535 3752 01	SLIDER		D	2	
3	4657 3745 01	GEAR 25/49T		C	1	
4	4657 3746 01	TIMING BELT 168L		C	1	
5	4657 3722 01	CUSHION		D	1	
6	4657 3730 02	ACTUATOR		C	1	
7	4657 3734 01	TORSION SPRING		C	1	
8	4657 3747 01	GEAR 25/33T		C	1	
9	4657 3743 01	TIMING BELT 134L		C	1	
10	4037 0903 01	PHOTO INTERRUPTER		B	1	
11	4535 3732 01	BRACKET		D	1	
12	9326 1410 31	FERRITE CORE	C,B,G2	D	1	
13	4004 2266 01	TAPE		D	2	
14	9314 1001 04	MOTOR		B	2	
15	4657 3749 01	SPACER		D	2	
16	4657 3721 01	GEAR 18T		C	1	
17	9384 1900 56	PWB SUPPORT 6.35H		D	2	
18	9384 1621 21	PWB SUPPORT 6.4H		D	1	
19	4037 0107 01	PWB-A		I	1	
20	4535 3704 03	REAR COVER		C	1	
21	4037 3750 01	SEAL		C	1	
22	4657 3750 01	SEAL		C	1	
23	4535 0201 01	BRACKET ASSY		D	1	
24	4657 3723 02	RING		D	1	

DUPLEX UNIT

改訂版 REVISED EDITION	日付 DATE
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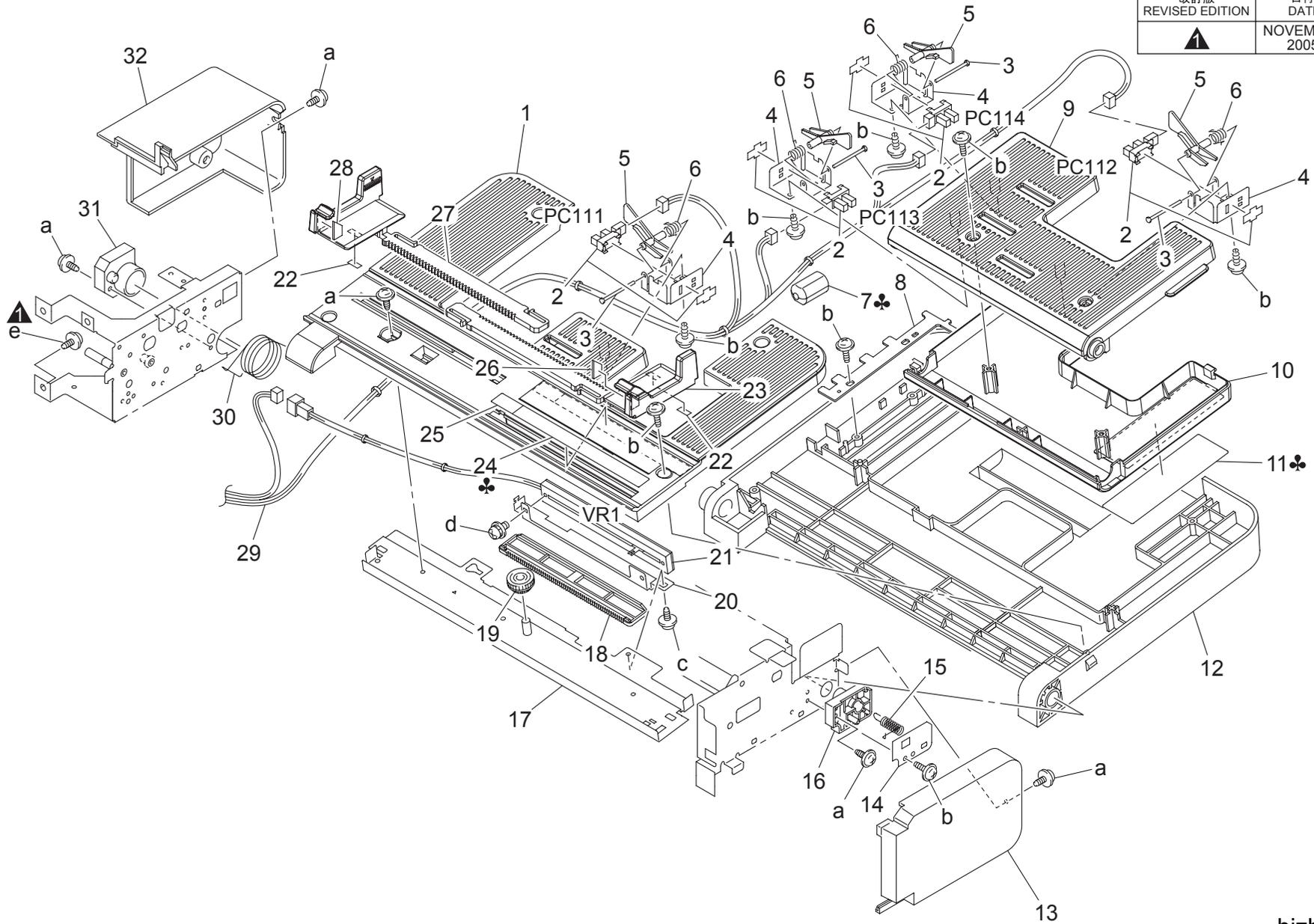


DUPLEX UNIT

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4535 3105 01	LEVER		C	1	a-4425 3001 01 b-9739 0308 14 c-9739 0310 14 d-9721 0400 01 e-4425 3002 01
2	4497 3106 03	PRESSURE SPRING		C	1	
3	4657 3736 01	PLATE SPRING		C	2	
4	1274 2611 01	BUSHING		C	6	
5	4657 3709 01	PULLEY 22T		C	3	
6	4535 3711 01	TIMING BELT 386L	タイミングベルト 386 L	C	1	
7	4535 3729 01	FRONT COVER	前カバー	C	1	
8	4657 3714 01	ROLL	ころ	C	1	
9	4657 0202 01	BRACKET ASSY	取付板 ASSY	D	1	
10	4535 3710 01	TIMING BELT 328L	タイミングベルト 328 L	C	1	
11	1484 0751 00	FRAME ASSY	フレーム ASSY	C	1	
12	4535 3703 02	COVER	カバー	C	1	
13	4497 3114 01	MEMBER	押え材	C	6	
14	4657 3735 01	TORSION SPRING	ねじりコイルばね	C	2	
15	4535 3731 01	ACTUATOR	アクチュエータ	C	1	
16	4657 3708 02	GEAR 25T	ギヤ 25 T	C	1	
17	4535 3724 01	ACTUATOR	アクチュエータ	C	1	
18	4535 3706 02	ROLLER	ローラ	C	2	
19	4535 3707 02	ROLLER	ローラ	C	1	
20	4497 3116 01	ROLL	ころ	C	6	
21	4497 3109 02	STOPPER	ストッパー	D	1	
22	4535 3702 01	COVER	カバー	D	1	

MULTI MANUAL FEED SECTION

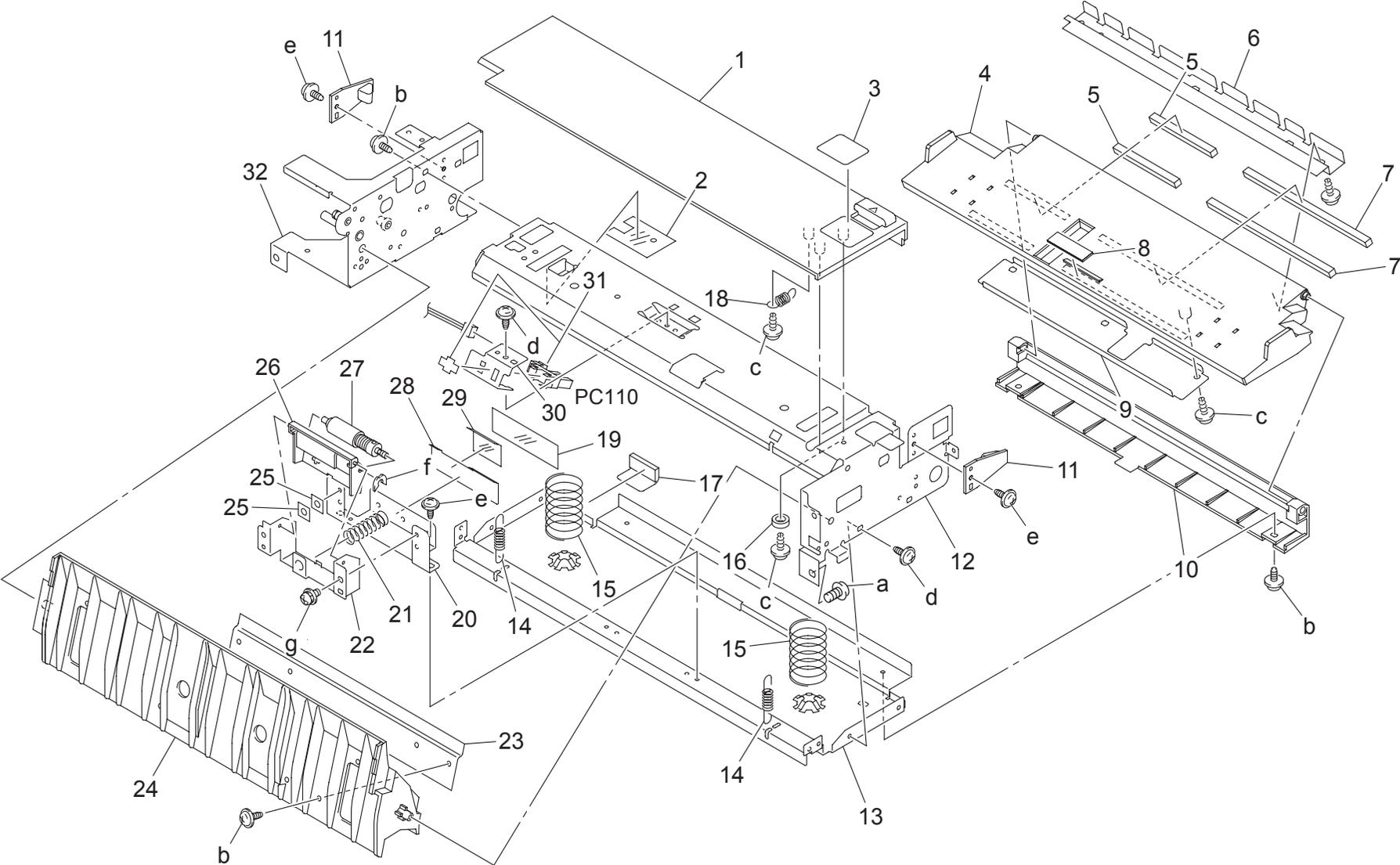
改訂版 REVISED EDITION	日付 DATE
▲	NOVEMBER 2005



MULTI MANUAL FEED SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4030 3466 02	COVER		C	1	a-9735 0308 14 b-9739 0308 14 c-9735 0306 14 d-9646 0306 14 e-9743 0408 14
2	4037 0906 01	PHOTO INTERRUPTER		B	4	
3	1134 3042 02	SHAFT		D	4	
4	4030 3414 01	BRACKET		D	4	
5	4030 3415 02	ACTUATOR		C	4	
6	4030 3446 01	TORSION SPRING		C	4	
7	9326 1200 61	FERRITE CORE	C,B,G2	D	1	
8	4030 3461 01	MEMBER		D	1	
9	4030 3423 03	TRAY		C	1	
10	4030 3459 02	COVER		C	1	
11	4030 7305 01	LABEL	A	C	1	
11	4030 7309 02	LABEL TRAY CAUTION	C,B,G2	C	1	
12	4030 3408 03	TRAY		C	1	
13	4036 3860 02	FRONT COVER		C	1	
14	4030 3437 01	BRACKET		D	1	
15	4030 3435 01	TORSION SPRING		C	1	
16	4030 3473 02	HOLDER		D	1	
17	4030 0216 05	BRACKET ASSY		D	1	
18	4030 3460 02	RACK		C	1	
19	4030 3412 01	GEAR 13/18T		C	1	
20	4030 3455 02	BRACKET		D	1	
21	4037 6899 01	RESISTOR		D	1	
22	4131 4623 03	CLEANING PAD		C	2	
23	4030 3410 03	REGULATING PLATE		C	1	
24	4036 7311 01	SCALE INCH	B,G2	C	1	
24	4036 7312 01	SCALE METRIC	A,C	C	1	
25	4036 7341 01	LABEL MANU FEED		C	1	
26	4030 3486 01	BRAKE		C	1	
27	4030 3411 03	REGULATING PLATE		C	1	
28	4030 3487 01	BRAKE		C	1	
29	4030 6814 03	WIRE HARNESS ASSY		D	1	
30	4030 3436 01	TORSION SPRING		C	1	
31	4030 3472 01	HOLDER		D	1	
32	4036 3856 02	REAR COVER		C	1	

MULTI MANUAL FEED SECTION

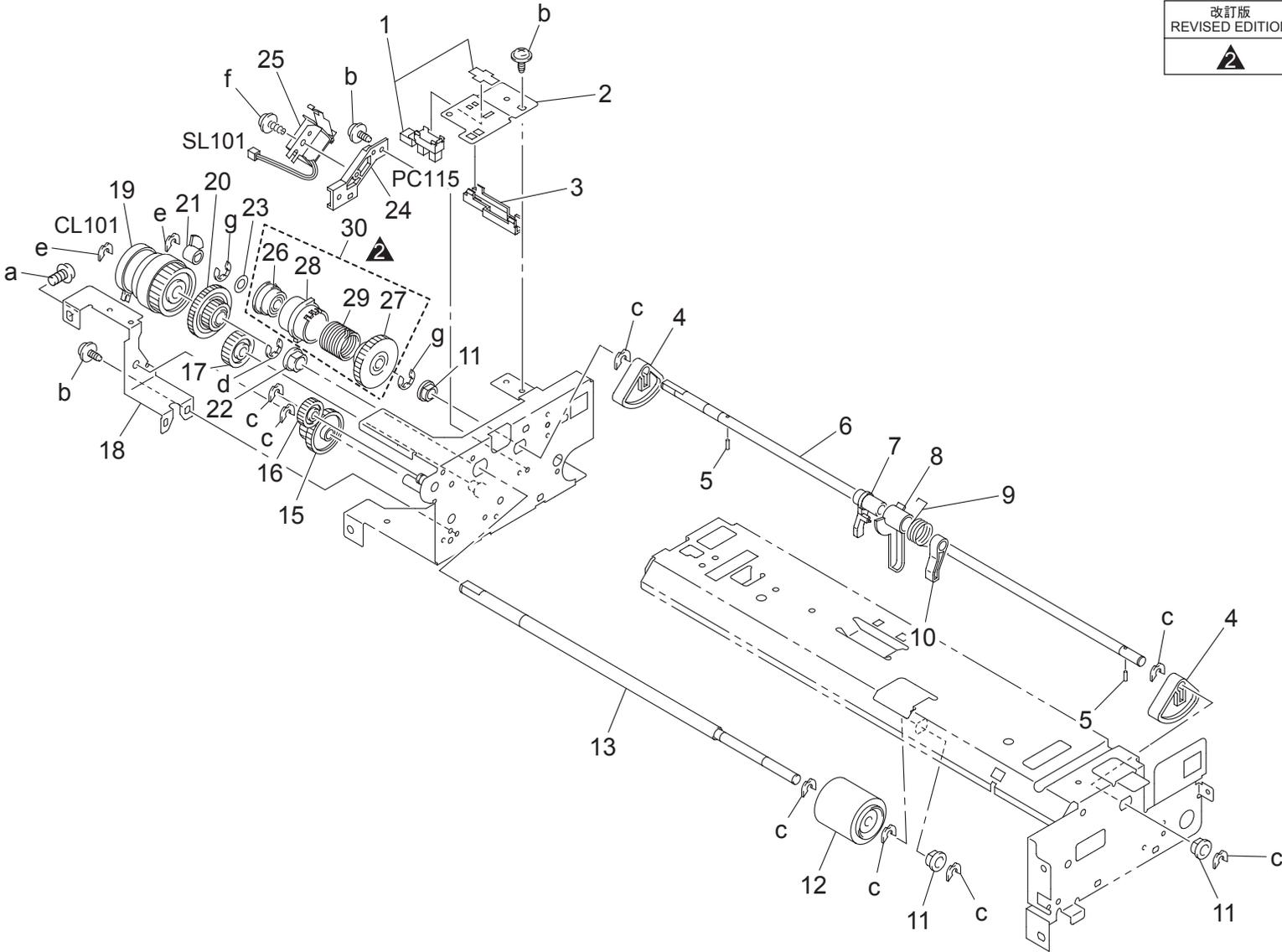


MULTI MANUAL FEED SECTION

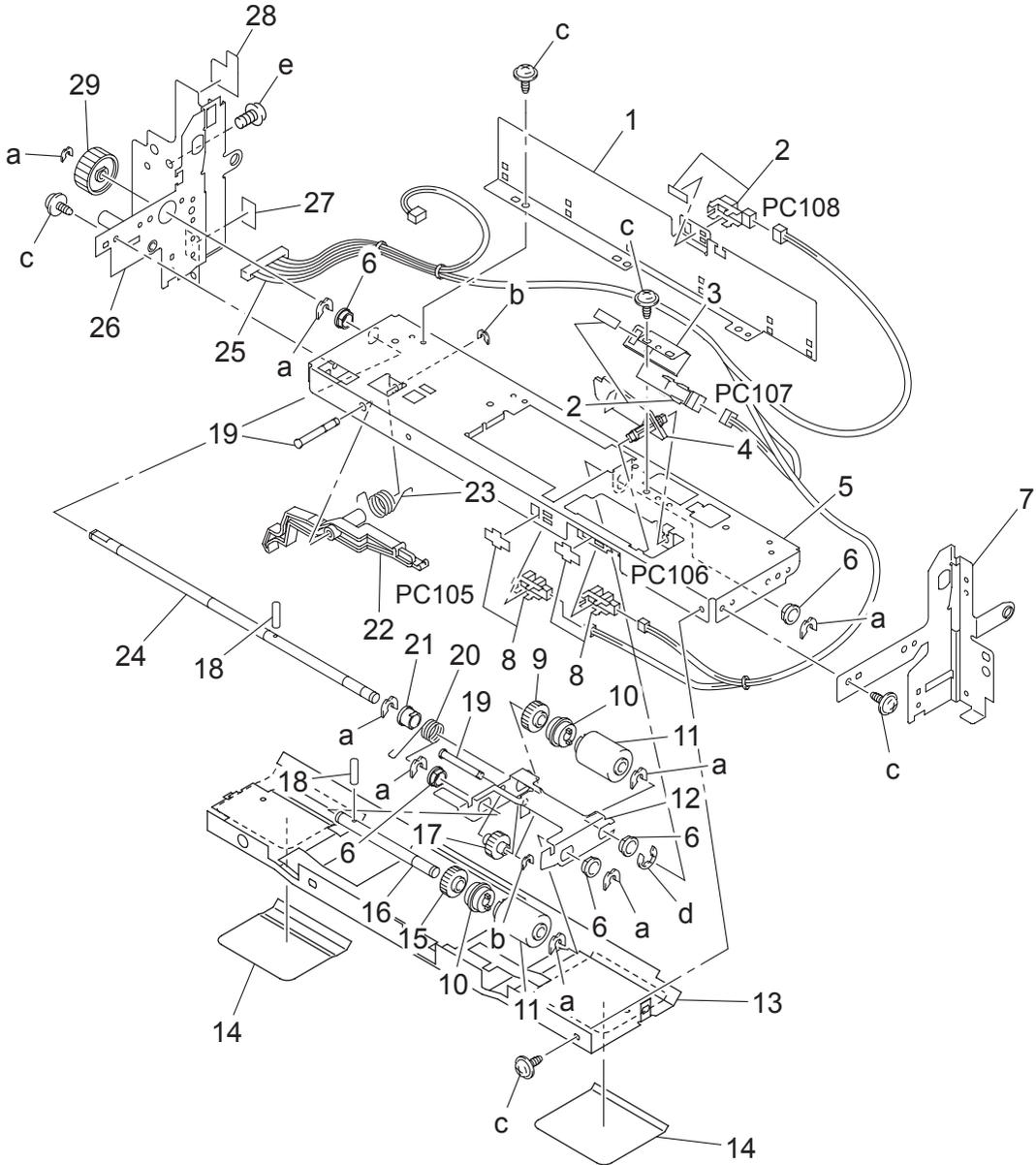
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 3857 01	COVER		D	1	a-9743 0408 14 b-9735 0308 14 c-9739 0308 14 d-9735 0306 14 e-4154 3804 01 f-4425 3002 01 g-9646 0306 14
2	4030 3447 01	GUIDE		C	1	
3	4030 3754 01	LABEL		C	1	
4	4030 3409 14	LIFTING PLATE		D	1	
5	4030 3476 01	SEAL		C	2	
6	4030 3484 01	WEIGHT		D	1	
7	4030 3477 01	SEAL		C	2	
8	4687 3281 01	FRICTION SHEET		C	1	
9	4030 3456 01	REINFORCE PLATE		D	1	
10	4030 3425 01	HOLDER		D	1	
11	4030 3430 01	LEVER		C	2	
12	4030 3432 07	BRACKET		D	1	
13	4030 3424 01	BRACKET		D	1	
14	4030 3428 01	TENSION SPRING		C	2	
15	4030 3457 03	PRESSURE SPRING		C	2	
16	4030 3481 01	COLLAR		C	2	
17	4030 3448 01	CUSHION		C	1	
18	4030 3438 01	TENSION SPRING		C	1	
19	4030 3489 01	SEAL		C	1	
20	4030 3474 01	BRACKET		D	1	
21	4030 3475 01	PRESSURE SPRING		C	1	
22	4030 3404 01	BRACKET		D	1	
23	4030 3427 01	REINFORCE PLATE		D	1	
24	4030 3401 13	HOLDER		D	1	
25	4030 3492 01	SPACER		C	2	
26	4131 3053 02	HOLDER		D	1	
27	4034 0151 01	SEPARATION ROLLER		A	1	
28	4030 3402 01	GUIDE PLATE		C	1	
29	4030 3403 01	GUIDE		C	1	
30	4030 3443 02	BRACKET		D	1	
31	4037 0906 01	PHOTO INTERRUPTER		B	1	
32	4036 0240 02	FRAME ASSY		D	1	

MULTI MANUAL FEED SECTION

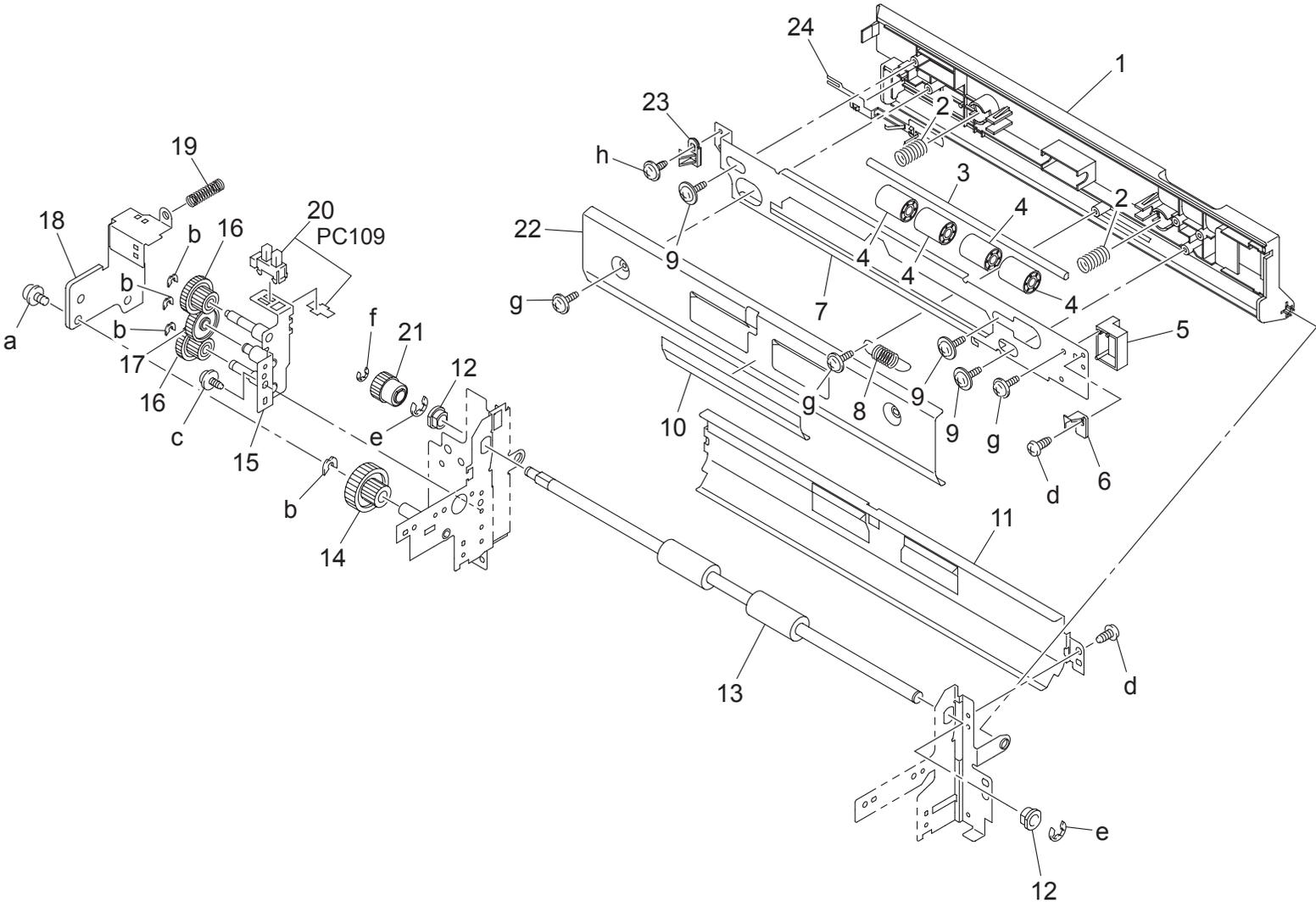
改訂版 REVISED EDITION	日付 DATE
	DECEMBER 2005



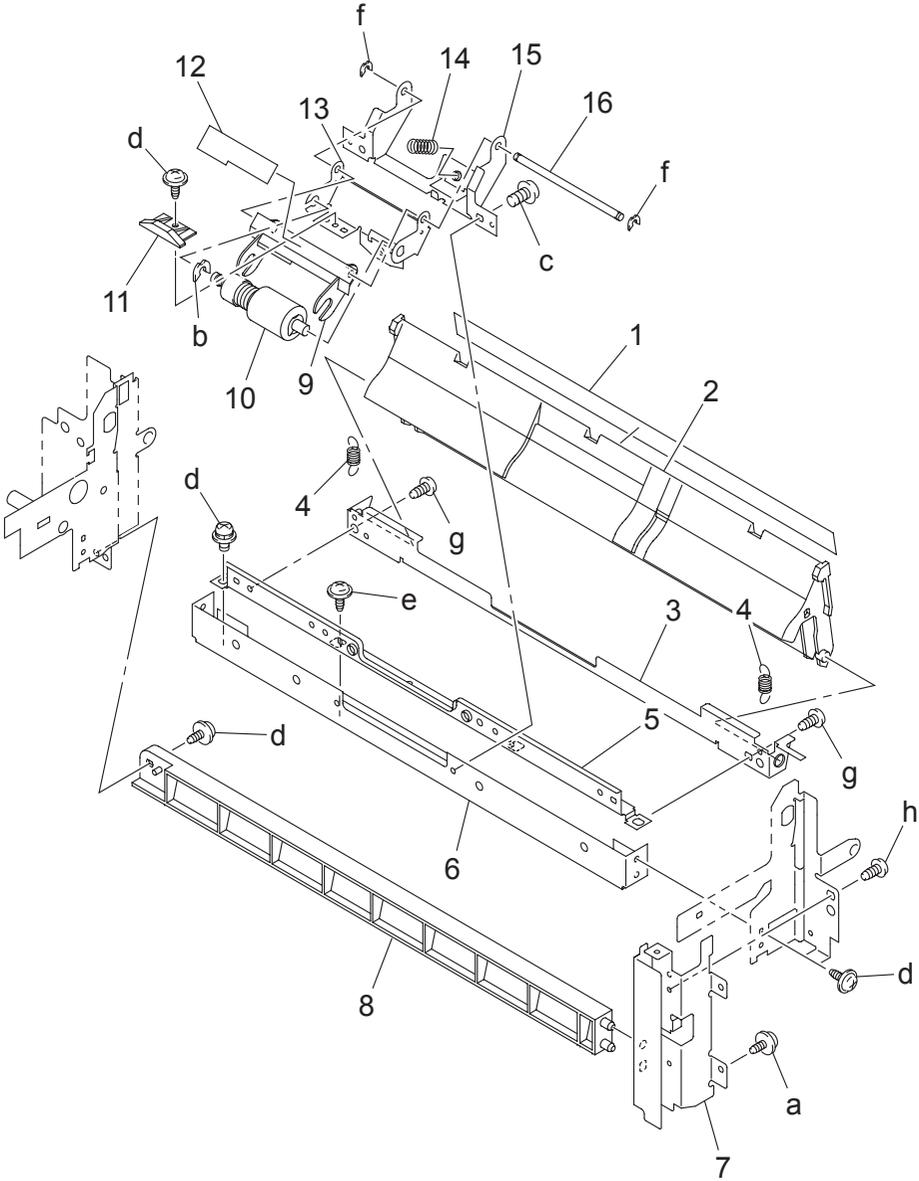
PAPER TAKE-UP SECTION



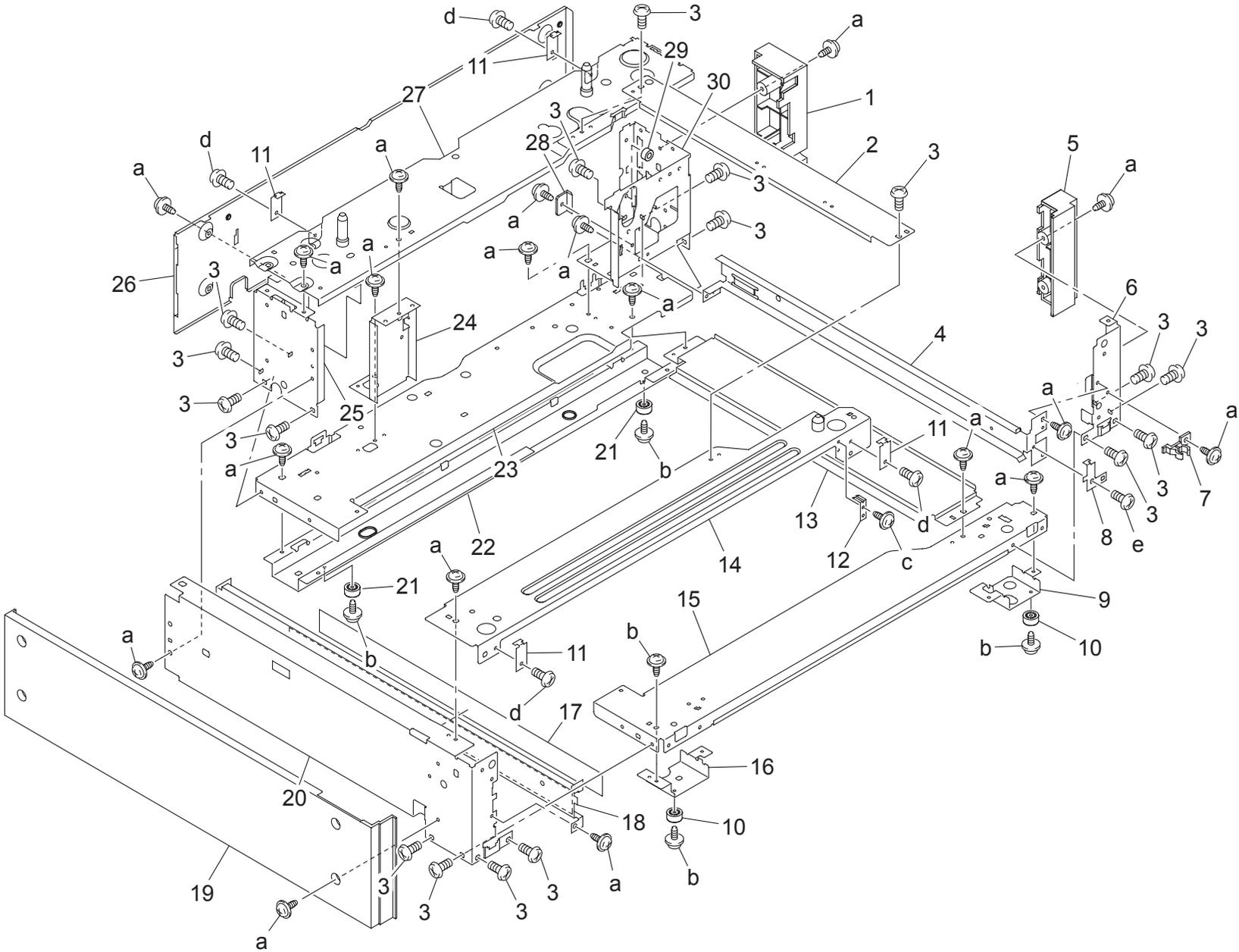
PAPER TAKE-UP SECTION



PAPER TAKE-UP SECTION



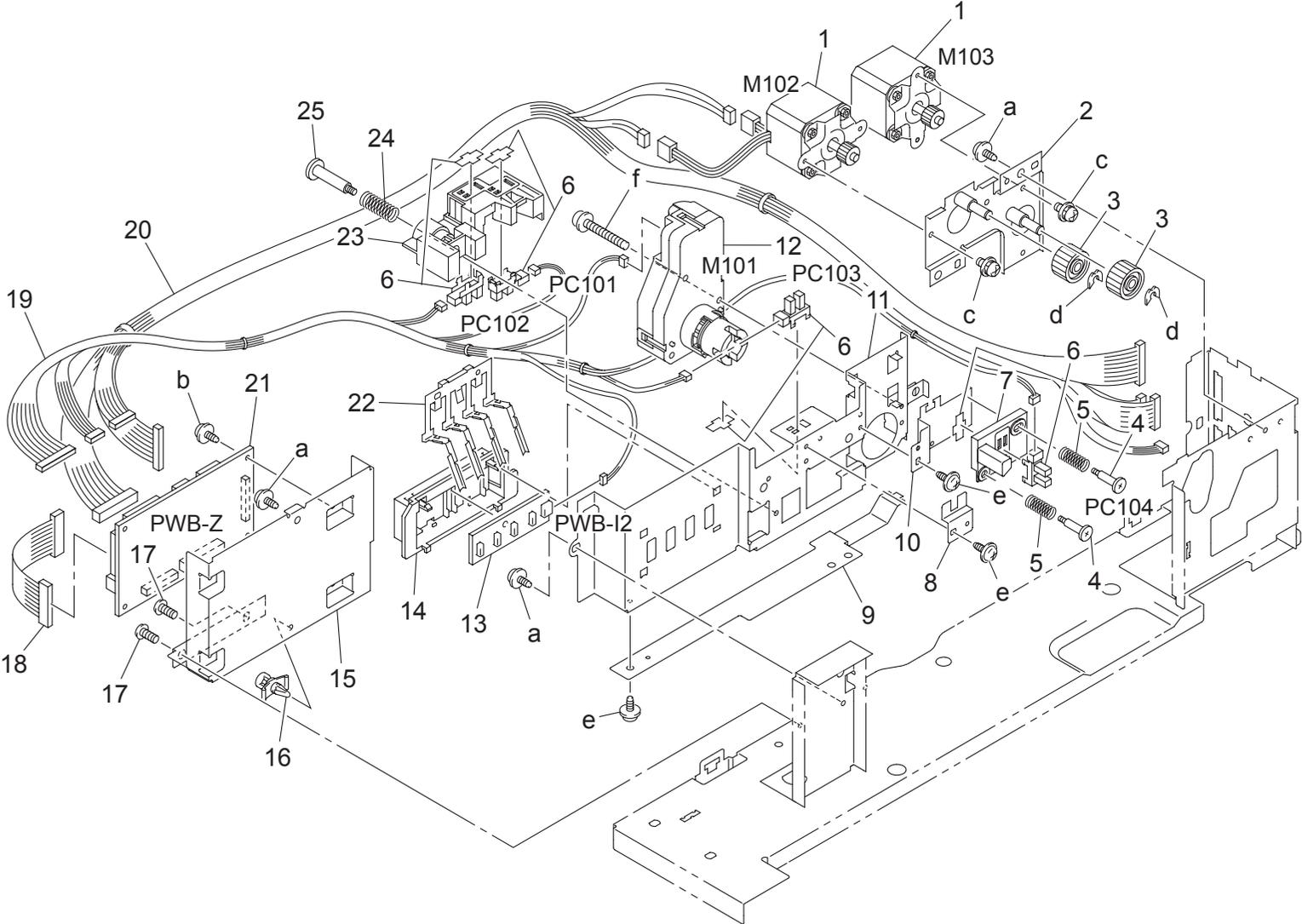
CASSETTE FRAME



CASSETTE FRAME

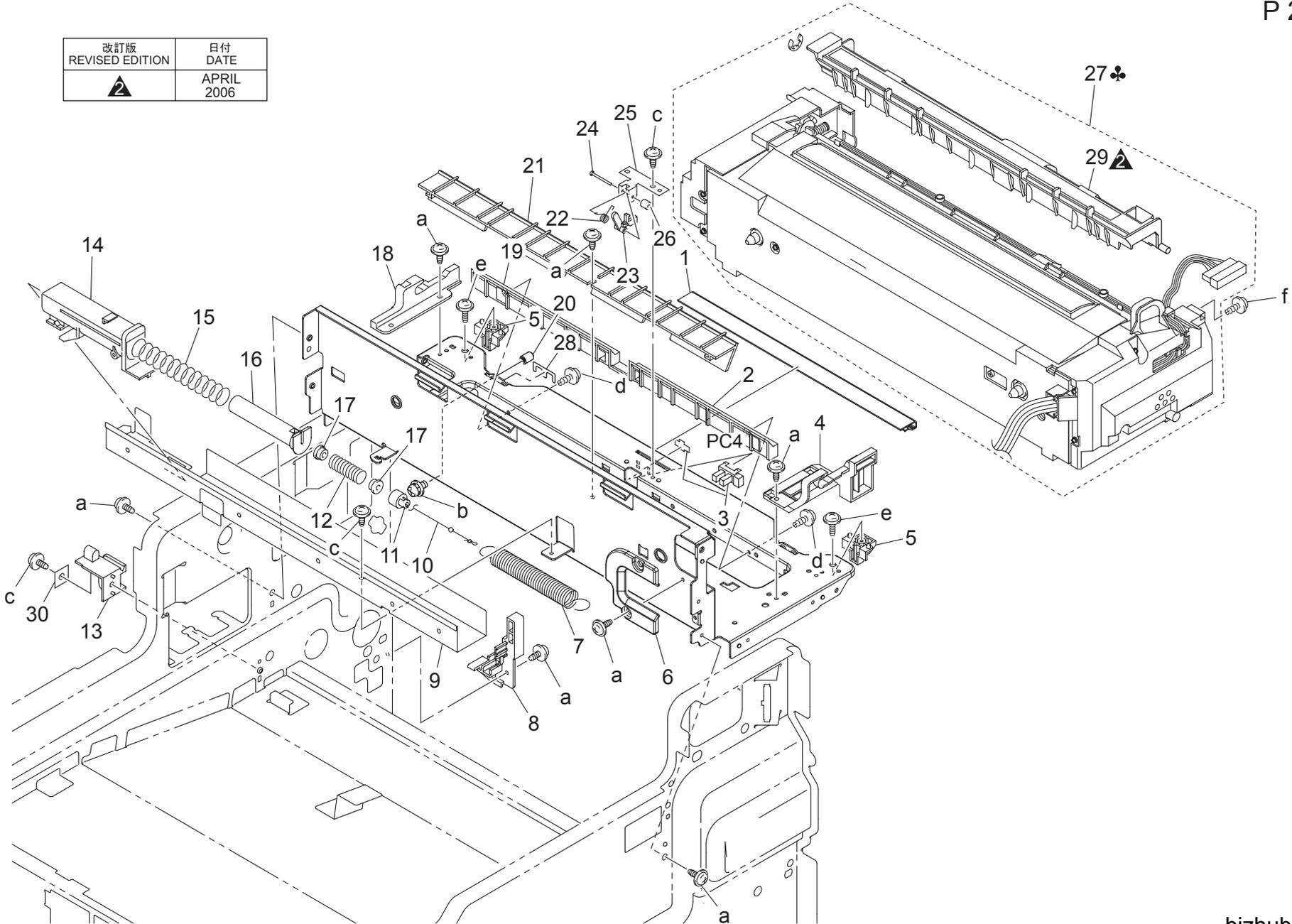
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 3803 02	COVER		C	1	a-9735 0408 14 b-9735 0308 14 c-9735 0306 14 d-9654 0408 14 e-9654 0308 14
2	4348 2016 01	REINFORCE PLATE		D	1	
3	4002 2581 01	SCREW		C	17	
4	4348 2042 01	BRACKET		D	1	
5	4036 3802 01	COVER		C	1	
6	4036 3808 03	STAY		D	1	
7	4348 2037 02	HOLDER		D	1	
8	4348 2038 02	BRACKET		D	1	
9	4036 3843 02	BRACKET		D	1	
10	0996 3055 01	RUBBER FOOT		C	2	
11	4658 3140 02	STOP PLATE		C	4	
12	4348 2021 01	PLATE SPRING		C	1	
13	4036 3849 01	REINFORCE PLATE		D	1	
14	4036 0235 01	PLATE ASSY		D	1	
15	4036 3814 01	BASE FRAME		D	1	
16	4036 3828 02	BRACKET		D	1	
17	4348 2044 01	GUIDE		C	1	
18	4348 2041 02	BRACKET		D	1	
19	4036 3805 02	COVER		C	1	
20	4036 3807 01	STAY		D	1	
21	4030 2080 01	RUBBER FOOT		D	2	
22	4036 3845 02	BRACKET		D	1	
23	4036 3806 03	BASE FRAME		D	1	
24	4036 3811 01	BRACKET		D	1	
25	4036 3809 01	STAY		D	1	
26	4036 3801 02	COVER		D	1	
27	4036 0236 01	PLATE ASSY		D	1	
28	4348 2040 01	SPACER		D	1	
29	1154 4670 01	PROTECTION		C	1	
30	4036 3810 03	STAY		D	1	

CASSETTE DRIVE SECTION



FUSING SECTION

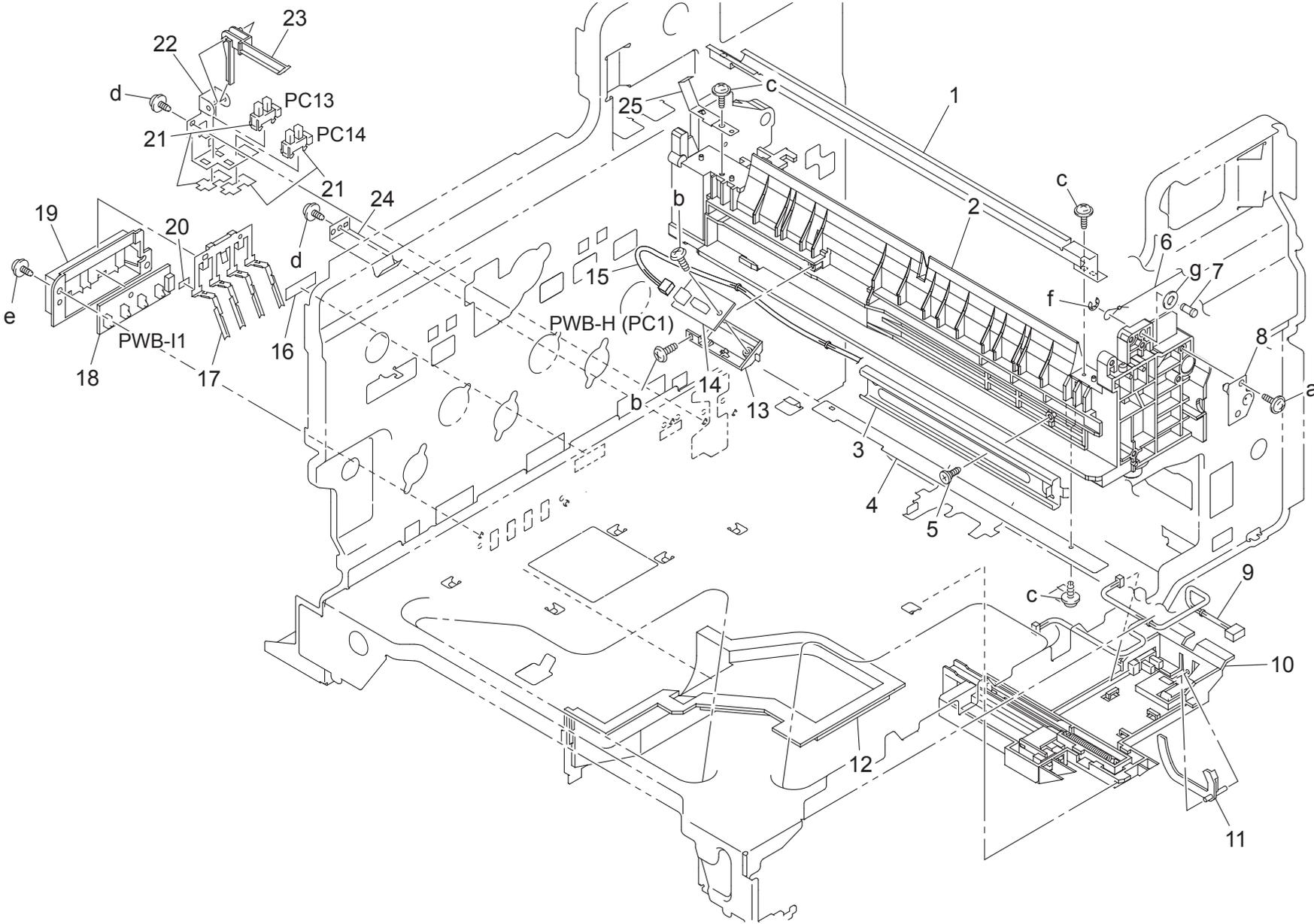
改訂版 REVISED EDITION	日付 DATE
	APRIL 2006



FUSING SECTION

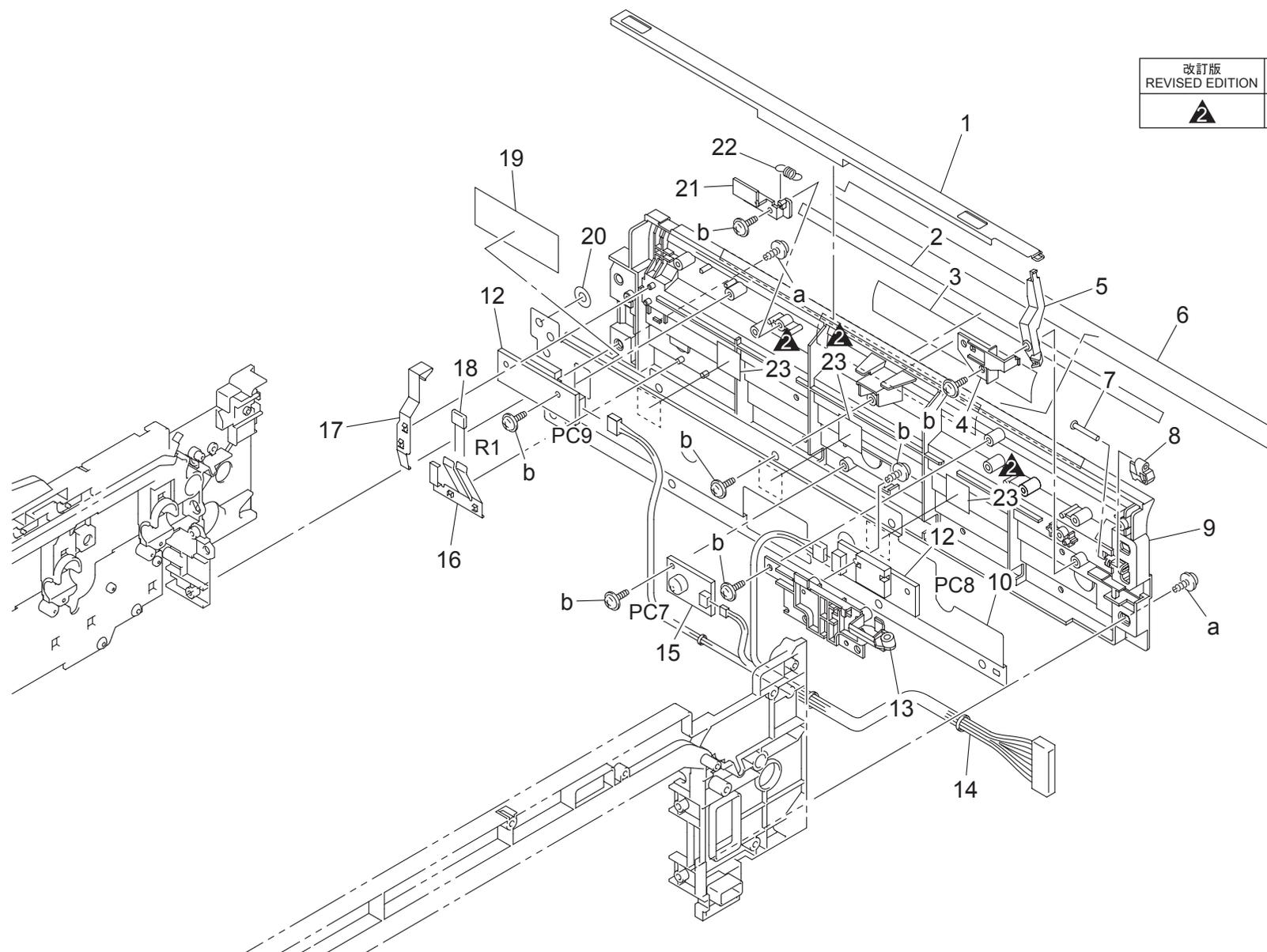
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2009 01	SEAL		D	1	a-9735 0308 14 b-9646 0308 14 c-9735 0306 14 d-9739 0306 14 e-9739 0308 14 f-9646 0408 14
2	4036 3667 02	GUIDE		D	1	
3	4037 0903 01	PHOTO INTERRUPTER		B	1	
4	4036 2070 01	GUIDE		D	1	
5	4036 3656 01	PAWL		D	2	
6	4036 2008 01	GUIDE		D	1	
7	4036 3583 01	TENSION SPRING		C	1	
8	4036 3518 02	GUIDE		D	1	
9	4036 3530 02	BRACKET		D	1	
10	4036 3511 01	WIRE		C	1	
11	4004 3512 02	FLANGE		D	1	
12	4036 3682 01	PRESSURE SPRING		D	1	
13	4004 3516 03	GUIDE		D	1	
14	1164 2047 03	FLANGE		D	1	
15	4036 3658 01	PRESSURE SPRING		D	1	
16	1164 2046 01	FLANGE		D	1	
17	4036 3681 01	COLLAR		C	2	
18	4036 2071 01	GUIDE		D	1	
19	4036 3663 02	GUIDE		D	1	
20	4037 2010 01	SHAFT		D	1	
21	4036 3668 01	GUIDE		D	1	
22	4036 3664 01	TORSION SPRING		C	1	
23	4036 3661 02	ACTUATOR		C	1	
24	4036 3632 02	SHAFT		D	1	
25	4036 3662 02	HOLDER		D	1	
26	1200 2105 07	COLLAR		D	1	
27	4049 521	FUSING UNIT 100V	A	A	1	
27	4049 522	FUSING UNIT 220-240V	C	A	1	
27	4049 523	FUSING UNIT 120-127V	B,G2	A	1	
28	4037 2011 01	SPACER		D	1	
29	4037 R703 00	GUIDE ASSY		D	1	
30	1053 3103 01	SET PLATE		C	1	

PAPER DETECT SECTION



PAPER DETECT SECTION

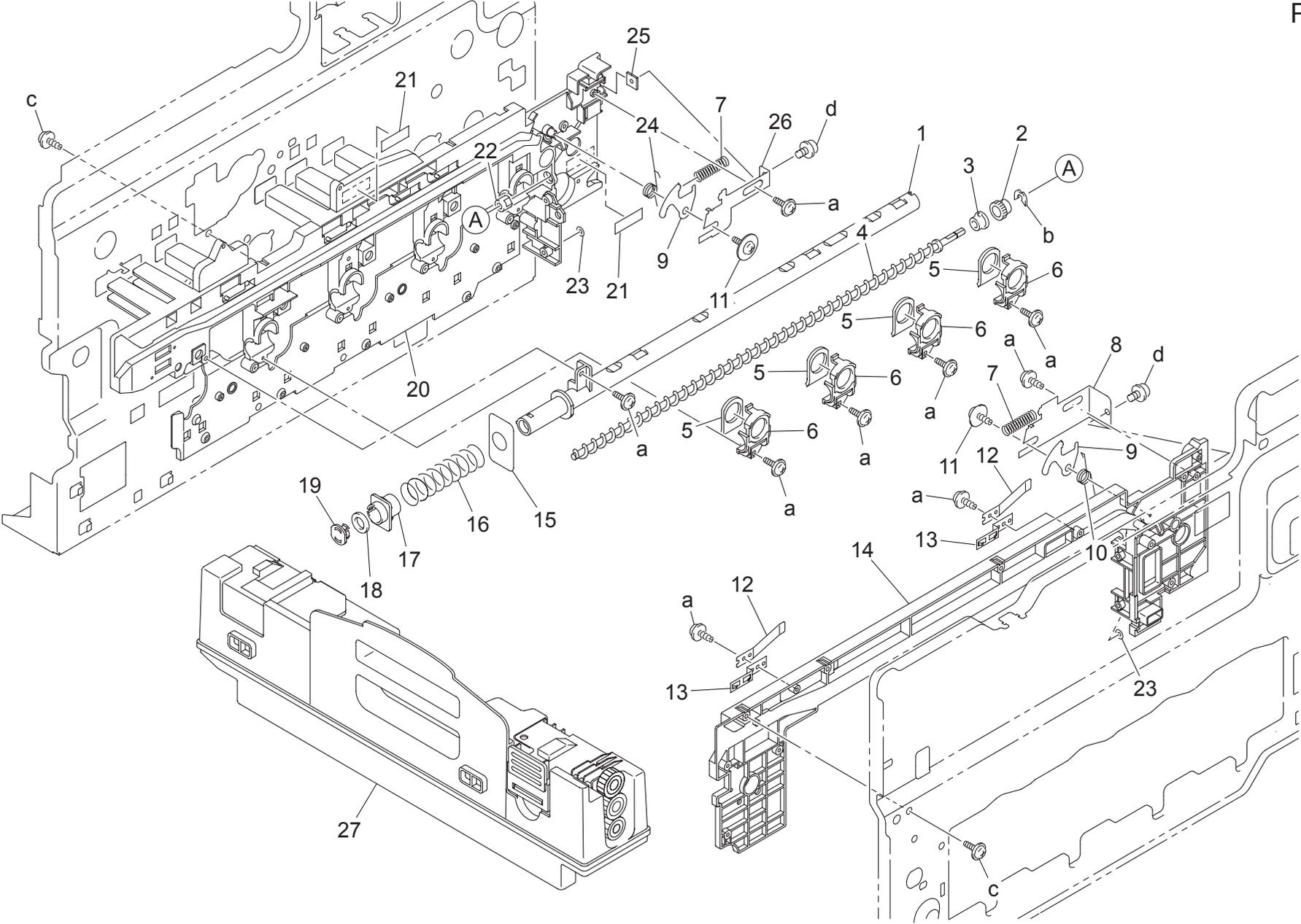
改訂版 REVISED EDITION	日付 DATE
	NOVEMBER 2005



PAPER DETECT SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 3555 01	SHUTTER		D	1	a-9739 0408 14 b-9739 0308 14
2	4036 3643 01	SEAL		D	1	
3	4036 3531 01	SEAL		D	1	
4	4025 3674 02	HOLD PLATE		D	1	
5	4025 3558 01	LEVER		C	1	
6	4025 3533 02	SEAL		D	1	
7	4025 3676 01	PIN		D	1	
8	4036 3673 01	LEVER		C	1	
9	4036 3507 04	GUIDE		D	1	
10	4036 3587 01	SHIELD		D	1	
12	9372 1300 12	PHOTO SENSING ELEMENT	光電変換素子	B	2	
13	4036 3540 01	COVER	カバー	D	1	
14	4037 6813 01	WIRE HARNESS ASSY	ハーネス ASSY	D	1	
15	9372 5400 11	HUMIDITY CONVERSION EL.	湿度変換素子	C	1	
16	4036 3641 02	CONTACT	接点	D	1	
17	4025 3642 01	CONTACT	接点	C	1	
18	9454 4076 02	RESISTOR	固定抵抗器	D	1	
19	4036 3645 01	COVER	カバー	D	1	
20	4036 3649 01	SPACER	スペーサ	D	1	
21	4036 3557 01	STOPPER	ストッパ	D	1	
22	4025 3556 01	TENSION SPRING	引張コイルばね	C	1	
23	4037 7001 00	SPACER	スペーサ	C	3	

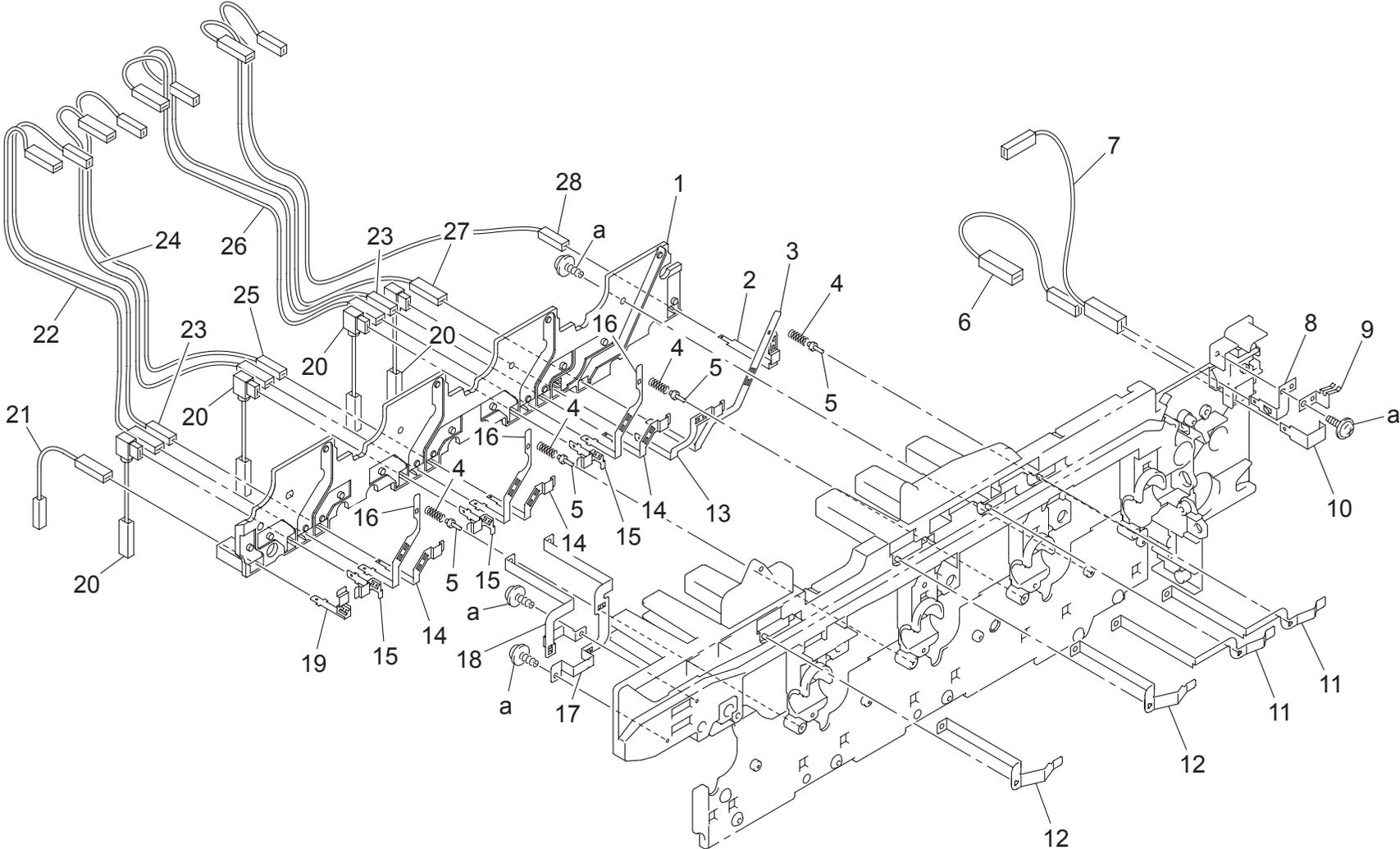
TRANSFER SECTION



TRANSFER SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4004 5601 02	PIPE		D	1	a-9739 0308 14 b-4425 3001 01 c-9739 0408 14 d-9646 0408 14
2	4036 5612 01	GEAR 18T	ギヤ 18 T	C	1	
3	4004 5607 02	BUSHING	軸受	C	1	
4	4036 5606 01	SCREW	搬送羽根	D	1	
5	4004 5605 01	SEAL	シール	C	4	
6	4004 5604 01	JOINT	ジョイント	D	4	
7	4004 4546 02	PRESSURE SPRING	圧縮コイルばね	C	2	
8	4036 4904 01	BRACKET	取付板	D	1	
9	4036 4543 01	LEVER	レバー	C	2	
10	4004 4544 02	TORSION SPRING	ねじりコイルばね	C	1	
11	4036 5966 01	SCREW	ねじ	C	2	
12	4004 4553 01	PLATE SPRING	板ばね	D	2	
13	4036 4550 01	CONTACT	接点	D	2	
14	4036 4541 01	RAIL	レール	D	1	
15	4025 5614 01	SEAL	シール	C	1	
16	4004 5610 01	PRESSURE SPRING	圧縮コイルばね	C	1	
17	4004 5609 01	SHUTTER	シャッター	D	1	
18	4004 5613 01	SEAL	シール	C	1	
19	4004 5611 01	LID	蓋	D	1	
20	4036 4542 01	RAIL	レール	D	1	
21	1129 7303 01	LABEL HI-VOL CAUTION	ラベル 高圧注意	D	2	
22	4036 5615 01	BUSHING	軸受	C	1	
23	4036 3672 01	SPACER	スペーサ	C	2	
24	4004 4555 02	TORSION SPRING	ねじりコイルばね	C	1	
25	4036 4909 01	PLATE NUT	板ナット	D	1	
26	4036 4545 01	BRACKET	取付板	D	1	
27	4049 111	WASTE TONER BOTTLE	廃棄トナーボトル	A	1	

TRANSFER FRAME



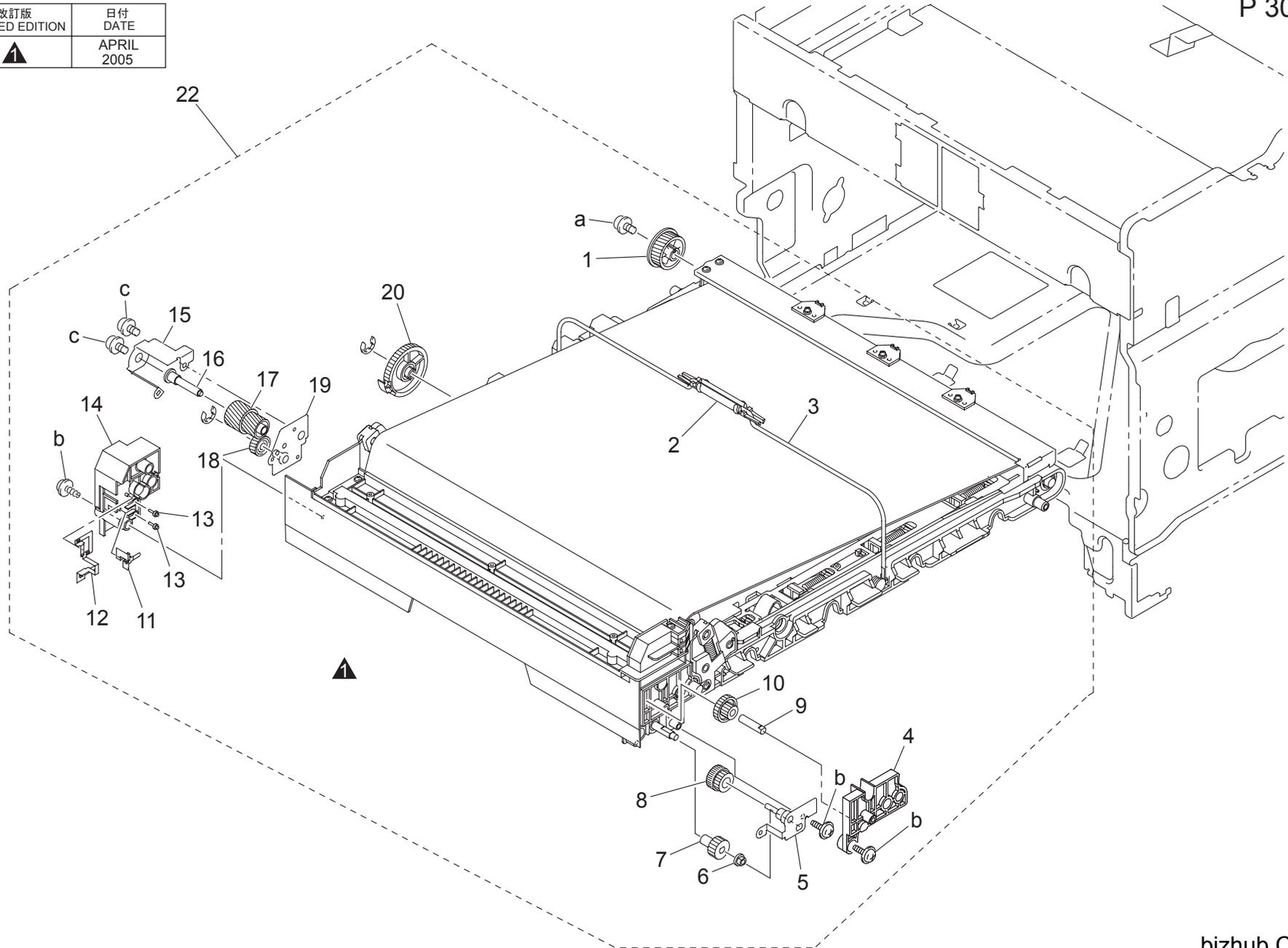
TRANSFER FRAME

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2301 02	GUIDE		D	1	a-9739 0308 14
2	4036 2303 01	CONTACT		D	1	
3	4036 2304 01	CONTACT		D	1	
4	4004 2317 01	PRESSURE SPRING		C	4	
5	4036 2311 01	PIN		D	4	
6	4036 6828 01	WIRE HARNESS ASSY		D	1	
7	4036 6820 01	WIRE HARNESS ASSY		D	1	
8	4036 3526 01	CONTACT		D	1	
9	4004 3538 01	CONTACT		C	1	
10	4004 3525 01	CONTACT		D	1	
11	4036 4549 01	CONTACT		D	2	
12	4036 4560 01	CONTACT		D	2	
13	4036 2305 01	CONTACT		D	1	
14	4036 2306 01	CONTACT		D	3	
15	4036 2308 01	CONTACT		D	3	
16	4036 2307 01	CONTACT		D	3	
17	4036 4902 01	CONTACT		D	1	
18	4036 4903 01	CONTACT		D	1	
19	4036 2309 01	CONTACT		D	1	
20	4036 6821 01	WIRE HARNESS ASSY		D	4	
21	4036 6822 01	WIRE HARNESS ASSY		D	1	
22	4036 6811 01	WIRE HARNESS ASSY		D	1	
23	4036 6815 02	WIRE HARNESS ASSY		D	2	
24	4036 6812 01	WIRE HARNESS ASSY		D	1	
25	4036 6816 02	WIRE HARNESS ASSY		D	1	
26	4036 6813 01	WIRE HARNESS ASSY		D	1	
27	4036 6814 01	WIRE HARNESS ASSY		D	1	
28	4036 6818 01	WIRE HARNESS ASSY		D	1	

TRANSFER BELT UNIT

改訂版 REVISED EDITION	日付 DATE
	APRIL 2005

P 30

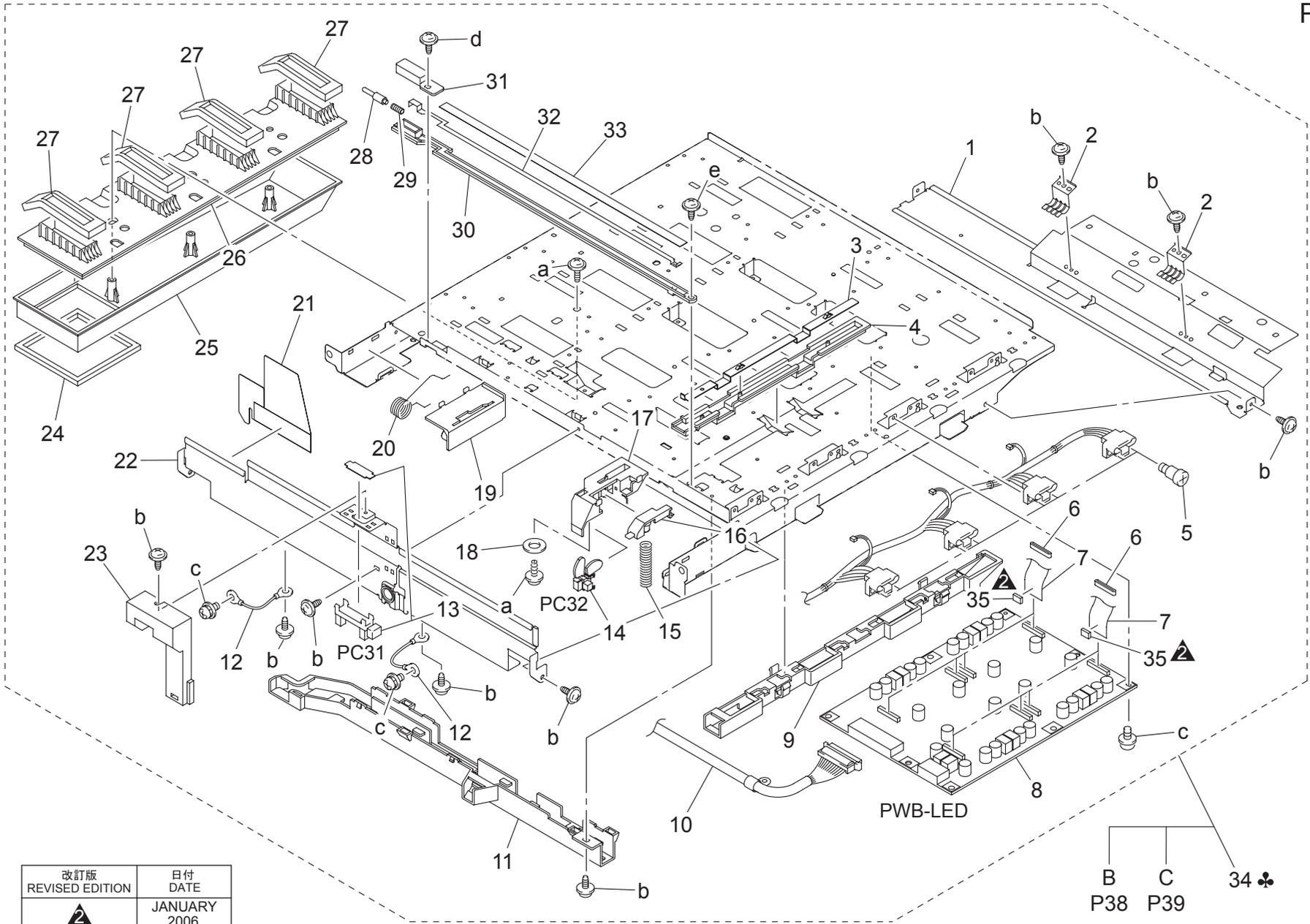


bizhub C450P

TRANSFER BELT UNIT

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 4510 01	GEAR 29/39T		C	1	a-9646 0308 14 b-9739 0308 14 c-9646 0306 14
2	1154 5158 01	HANDLE		C	1	
3	4036 4515 01	HANDLE		D	1	
4	4036 4679 02	FRAME		D	1	
5	4036 4626 01	BRACKET		D	1	
6	4036 4636 01	BUSHING		D	1	
7	4036 4692 01	GEAR 15T		D	1	
8	4036 4622 01	GEAR 15/30T		D	1	
9	4036 4635 01	SHAFT		D	1	
10	4036 4621 01	GEAR 18/36T		D	1	
11	4036 4617 03	CONTACT		D	1	
12	4036 4618 02	CONTACT		D	1	
13	4036 2311 01	PIN		D	2	
14	4036 4680 15	FRAME		D	1	
15	4036 4849 12	BRACKET		D	1	
16	4036 4845 12	SHAFT		D	1	
17	4036 4846 01	GEAR 26/40T		D	1	
18	4036 4847 01	GEAR 26T		D	1	
19	4036 0213 01	BRACKET ASSY		D	1	
20	4004 4527 02	GEAR 42T		C	1	
22	4049 212	TRANSFER BELT UNIT		A	1	

LED UNIT

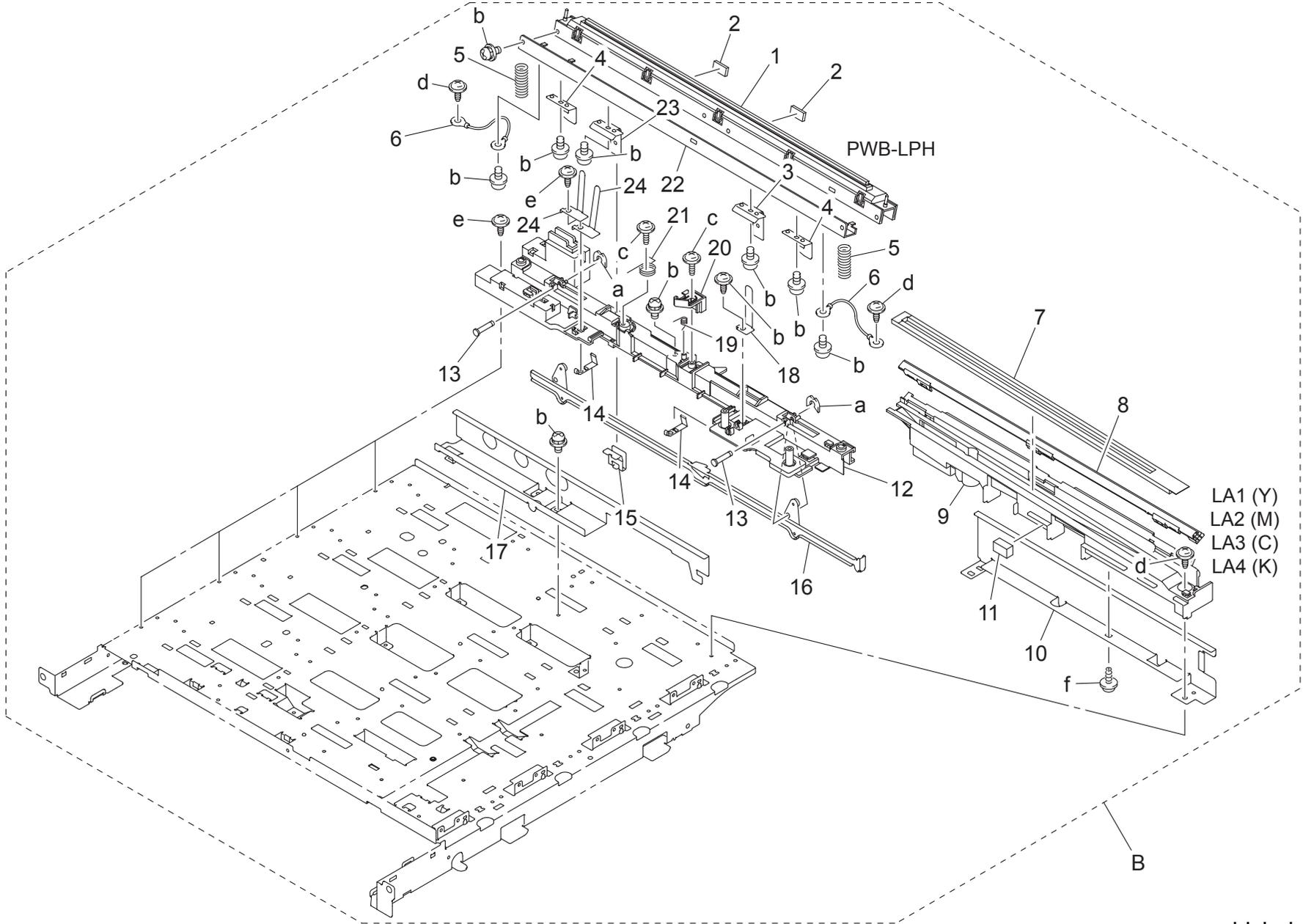


改訂版 REVISED EDITION	日付 DATE
	JANUARY 2006

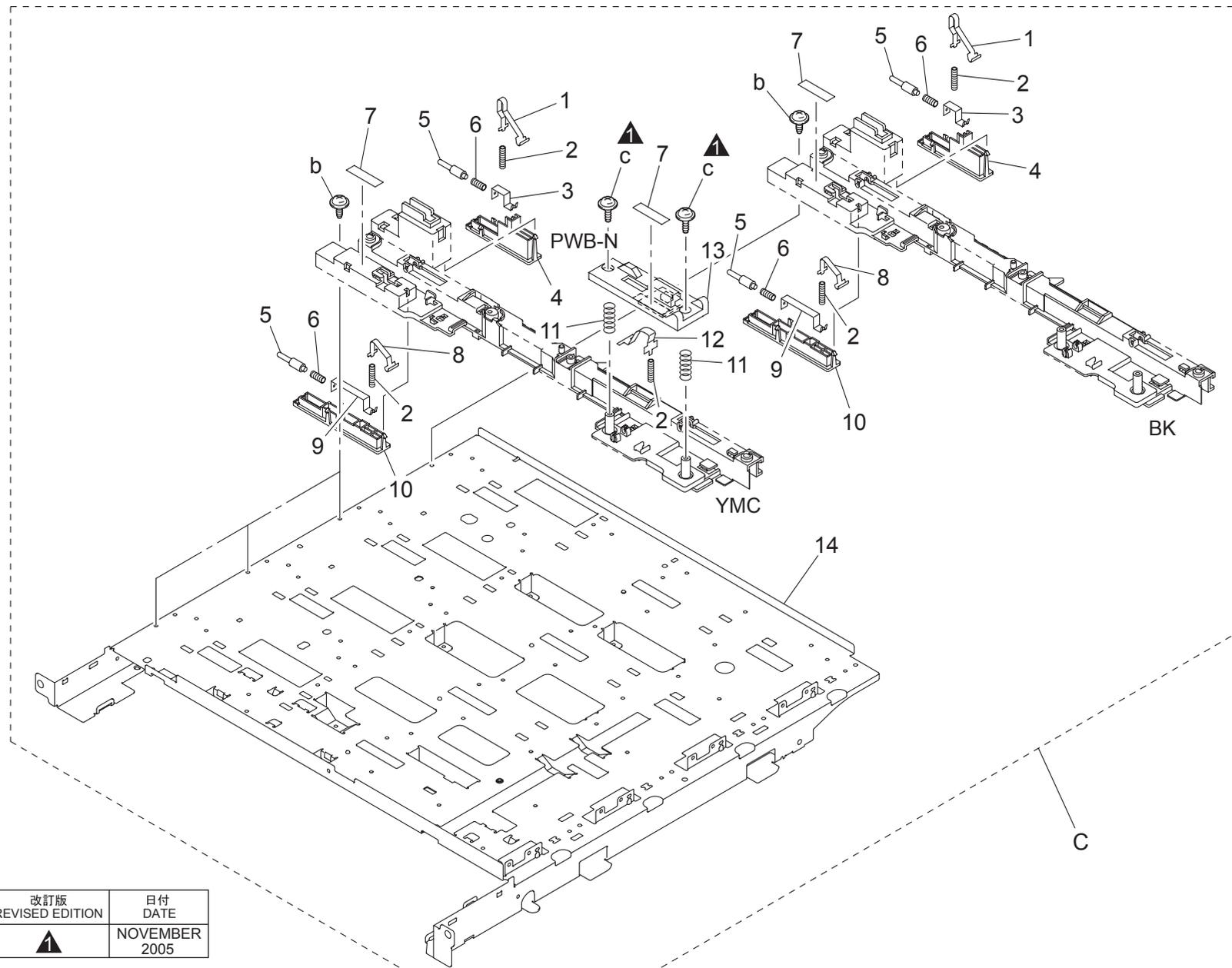
B P38
C P39
34 ♣

LED UNIT

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 2224 02	BASE FRAME		D	1	a-9739 0306 14 b-9735 0306 14 c-9646 0306 14 d-9735 0308 14 e-9739 0308 14
2	4004 2234 01	EARTH GROUND		D	2	
3	4025 5290 01	CONTACT		D	1	
4	4025 5294 01	HOLDER		D	1	
5	1079 2219 01	SHOULDER SCREW		C	8	
6	9326 1200 21	FERRITE CORE		D	8	
7	4037 6817 01	WIRE HARNESS ASSY		D	8	
8	4037 0105 03	PWB-LED		C	1	
9	4025 1840 01	GUIDE		D	1	
10	4037 6823 01	WIRE HARNESS ASSY		D	1	
11	4025 1841 01	GUIDE		D	1	
12	4004 6854 01	WIRE HARNESS ASSY		D	2	
13	4037 0901 01	PHOTO INTERRUPTER		B	1	
14	9332 1910 21	PUSHBUTTON SWITCH		C	1	
15	4025 2273 01	PRESSURE SPRING		C	1	
16	4025 2272 01	LIFTING PLATE		D	1	
17	4025 2221 01	COVER		D	1	
18	4004 2222 01	WASHER		C	1	
19	4025 2228 01	COVER		D	1	
20	4025 2274 01	TORSION SPRING		D	1	
21	4025 2250 01	SEAL		D	1	
22	4036 2226 01 Old	BRACKET		D	1	
22	4036 2226 12	BRACKET		D	1	
23	4004 2227 04	COVER		D	1	
24	4004 2144 01	SEAL		D	1	
25	4025 2147 01	DUCT		D	1	
26	4025 2150 01	DUCT		D	1	
27	4025 1812 01	SEAL		C	4	
28	4036 2425 01	PIN		D	1	
29	4004 2317 01	PRESSURE SPRING		C	1	
30	4036 5291 01	HOLDER		D	1	
31	4036 2426 01	HOLDER		D	1	
32	4036 5288 01	CONTACT		D	1	
33	4004 2155 01	SEAL		D	1	
34	4555 0558 05	LED UNIT		I	1	
34	4555 0559 05	LED UNIT	A,B,G2	I	1	
35	4025 2175 01	CUSHION	C	C	8	



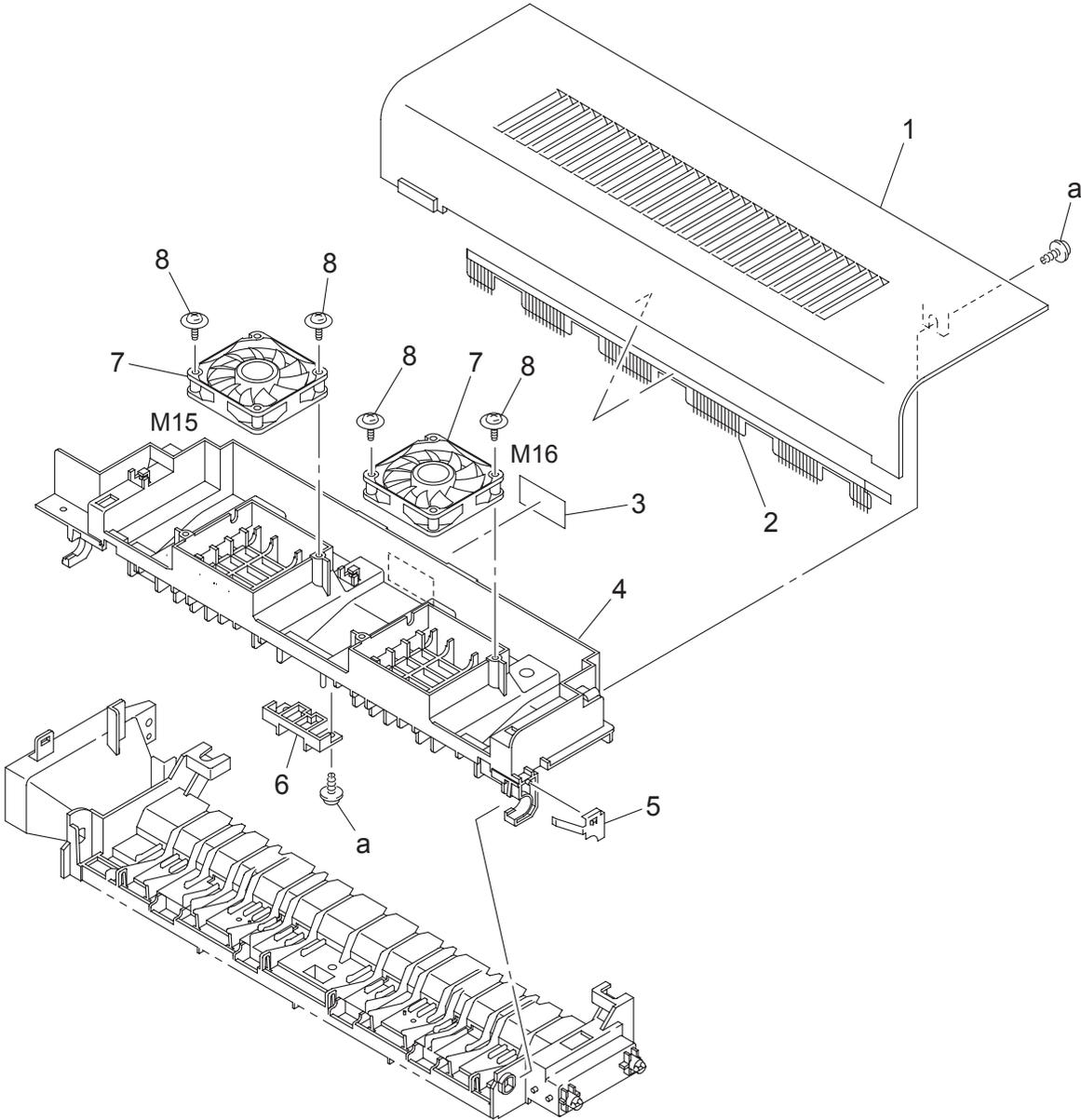
LED UNIT



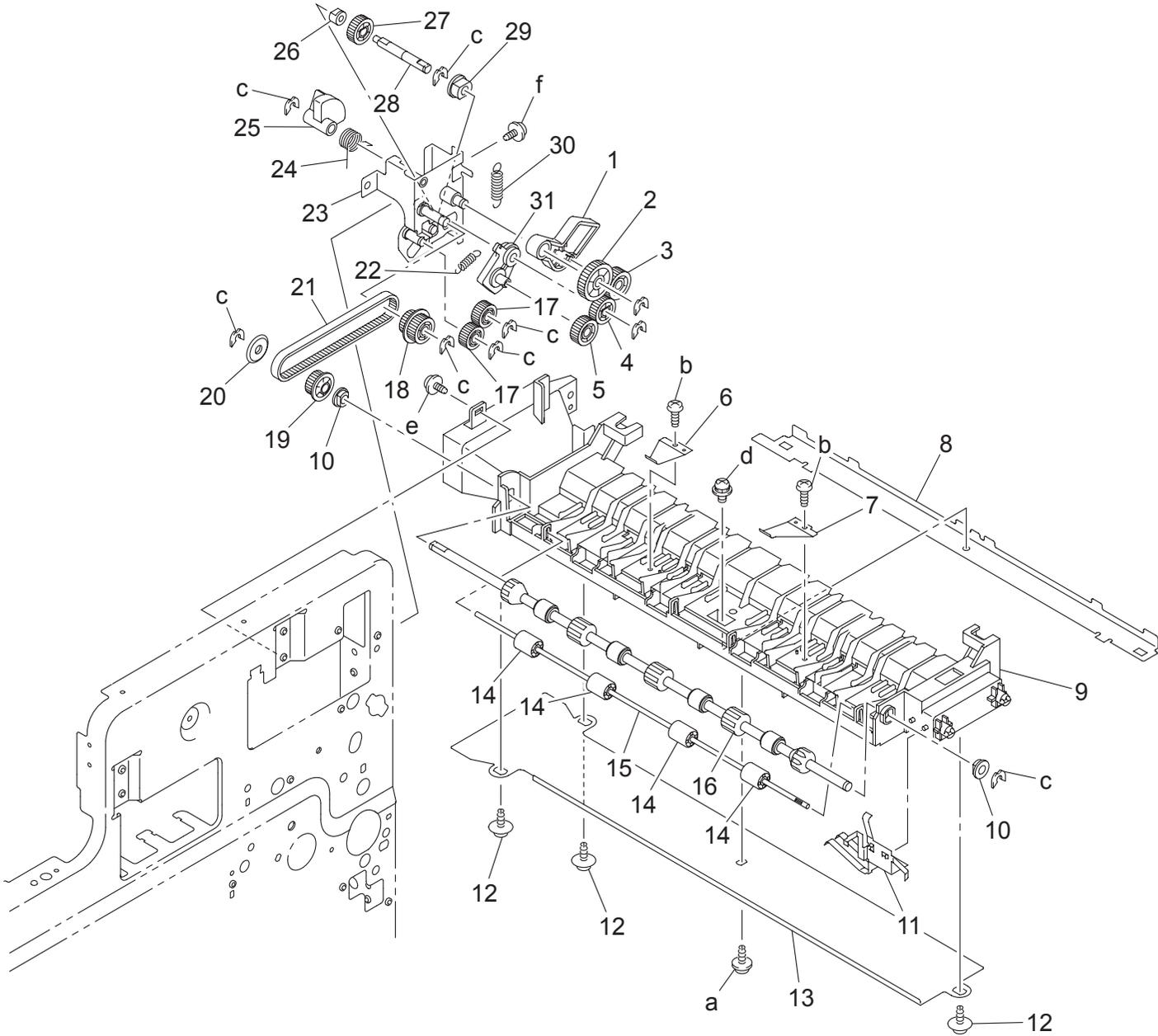
改訂版 REVISED EDITION	日付 DATE
	NOVEMBER 2005

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4025 2422 01	CONTACT		C	4	a-9739 0306 14 b-9735 0308 14 c-9739 0308 14
2	4004 5283 01	PRESSURE SPRING		C	11	
3	4036 2424 01	CONTACT		D	4	
4	4036 2406 01	HOLDER		D	4	
5	4036 2425 01	PIN		D	8	
6	4004 2317 01	PRESSURE SPRING		C	8	
7	1129 7303 01	LABEL HI-VOL CAUTION		D	7	
8	4004 2401 01	CONTACT		C	4	
9	4036 2404 01	CONTACT		D	4	
10	4036 2405 01	HOLDER		D	4	
11	4004 5282 01	PRESSURE SPRING		C	6	
12	4004 5287 01	CONTACT		D	3	
13	4004 0105 07	PWB-N		C	3	
14	4036 2223 01	BASE FRAME		D	1	

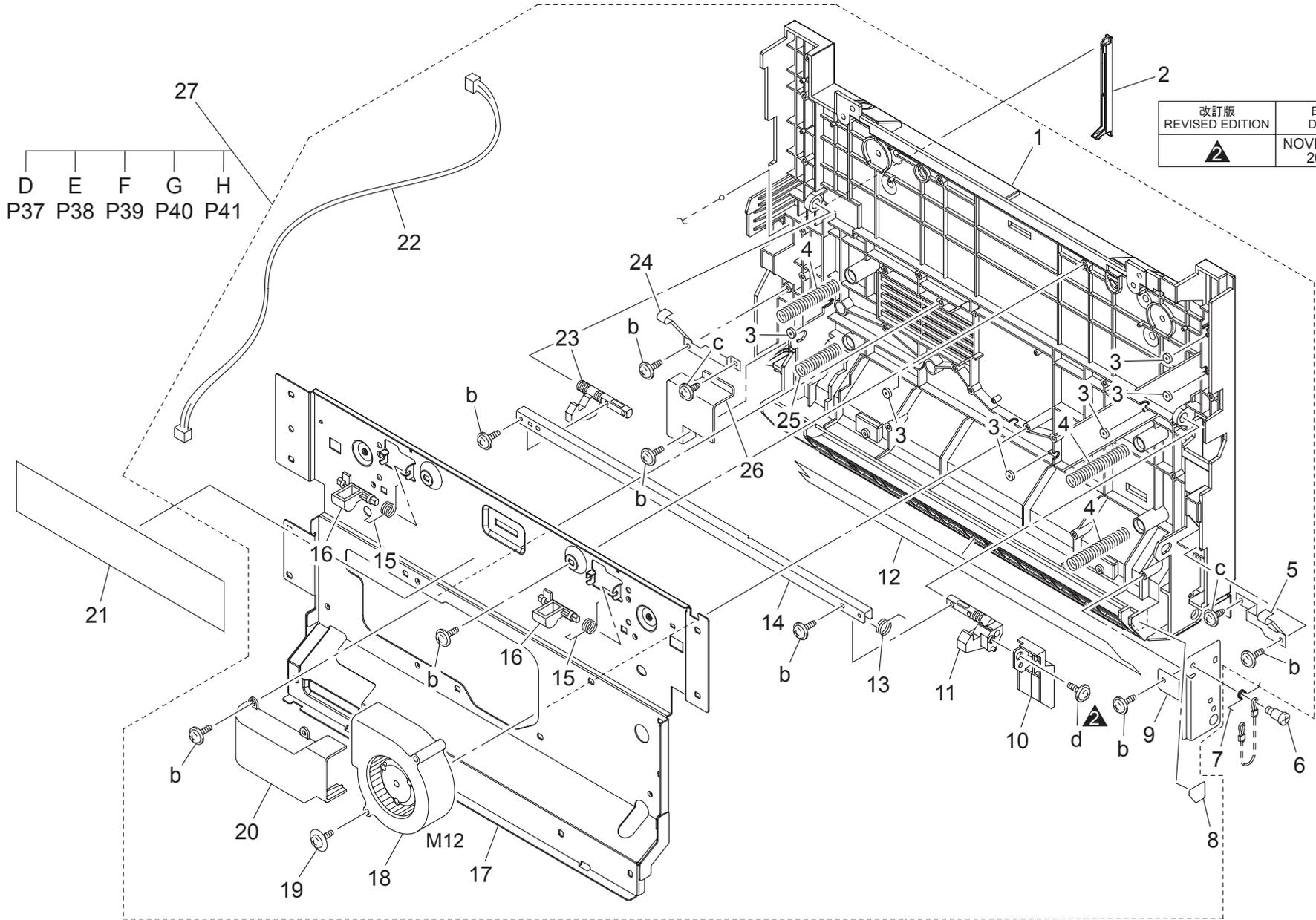
FUSING COOL SECTION



PAPER EXIT DRIVE SECTION



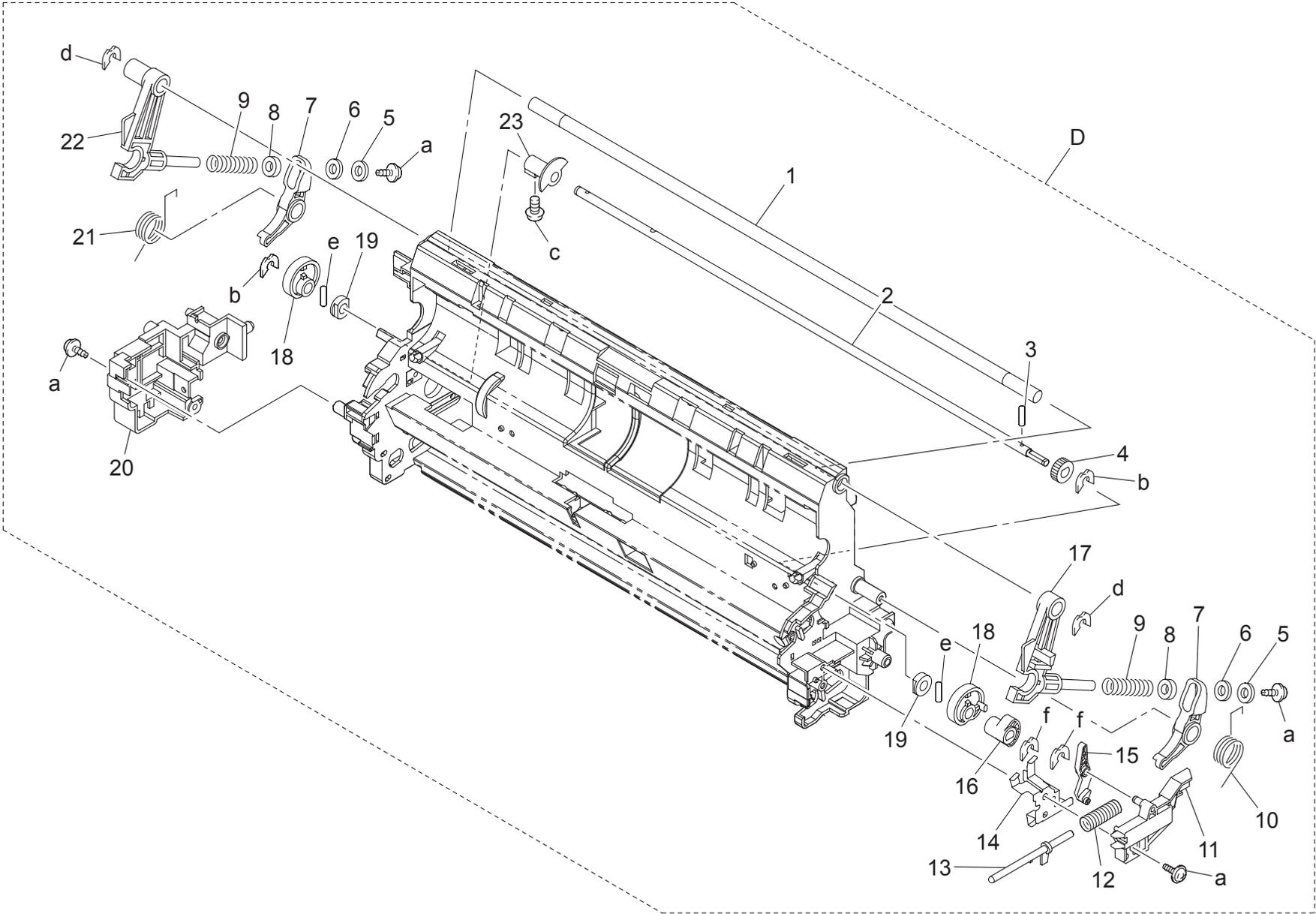
PAPER TRANSPORT SECTION



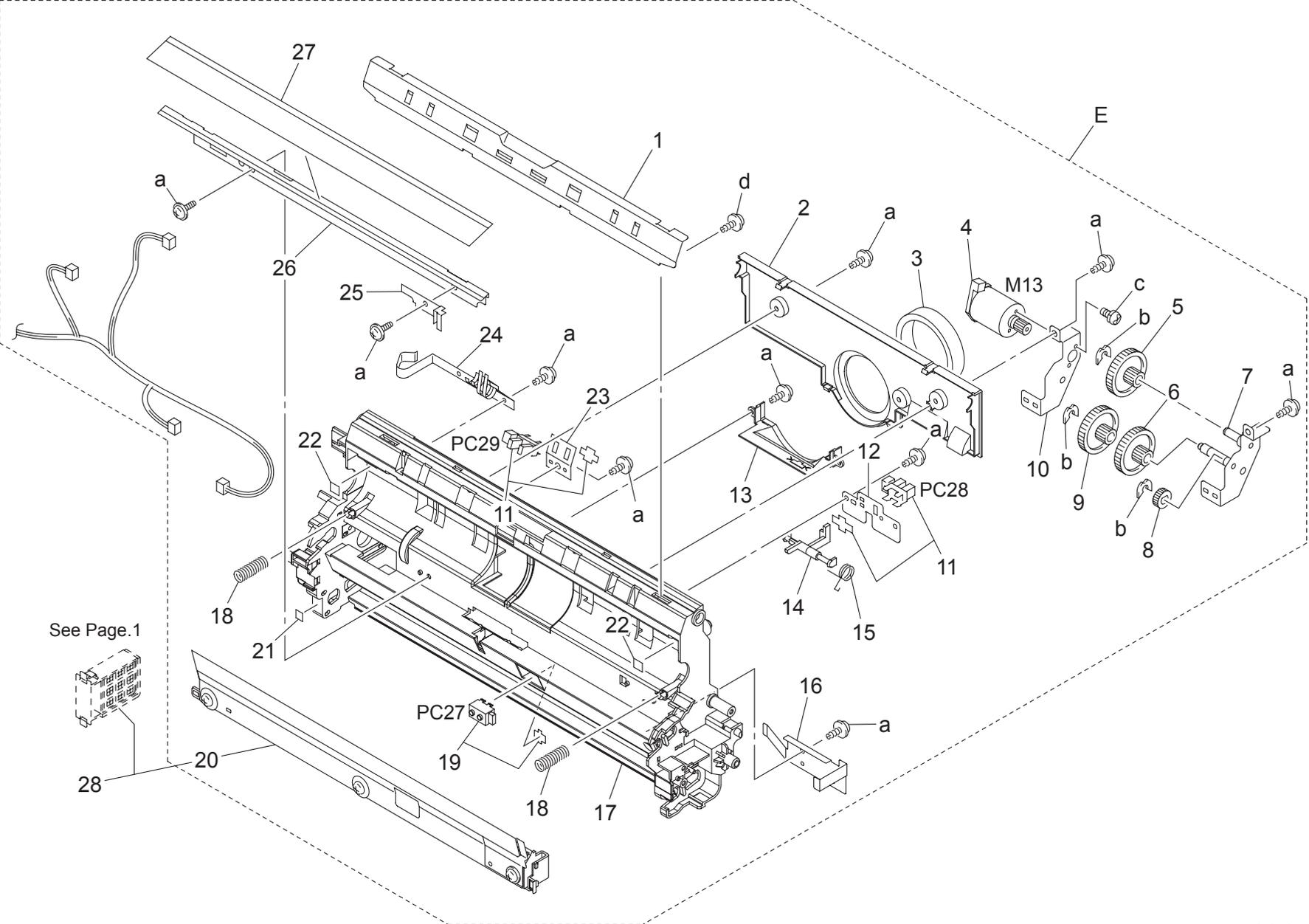
PAPER TRANSPORT SECTION

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 3505 03	COVER		D	1	b-9739 0306 14 c-9735 0306 14 d-9739 0306 14
2	4036 3597 01	HOLDER		D	1	
3	4036 3659 01	COLLAR		D	6	
4	4025 3534 01	PRESSURE SPRING		D	3	
5	4004 3581 01	CONTACT		D	1	
6	4643 4605 01	SHOULDER SCREW		C	1	
7	4036 3683 01	TORSION SPRING		D	1	
8	4036 7304 01	LABEL M1		D	1	
9	4036 3653 01	REINFORCE PLATE		D	1	
10	4036 3542 01	LEVER		C	1	
11	4036 3519 01	LEVER		C	1	
12	4025 3616 01	GUIDE		D	1	
13	4036 3590 02	TORSION SPRING		D	1	
14	4004 3521 02	BRACKET		D	1	
15	4036 3666 01	TORSION SPRING		D	2	
16	4036 3665 01	LEVER		C	2	
17	4036 3528 01	BRACKET		D	1	
18	9313 1910 61	FAN MOTOR		C	1	
19	4036 5785 01	SCREW		D	1	
20	4004 3547 01	DUCT		D	1	
21	4037 7305 01	LABEL JAM		D	1	
22	4036 6809 02	WIRE HARNESS ASSY		D	1	
23	4036 3520 01	LEVER		C	1	
24	4004 3582 01	CONTACT		D	1	
25	4025 3610 01	PRESSURE SPRING		D	1	
26	4036 3550 01	COVER		D	1	
27	4037 R711 00	TRANSPORT UNIT		S	1	

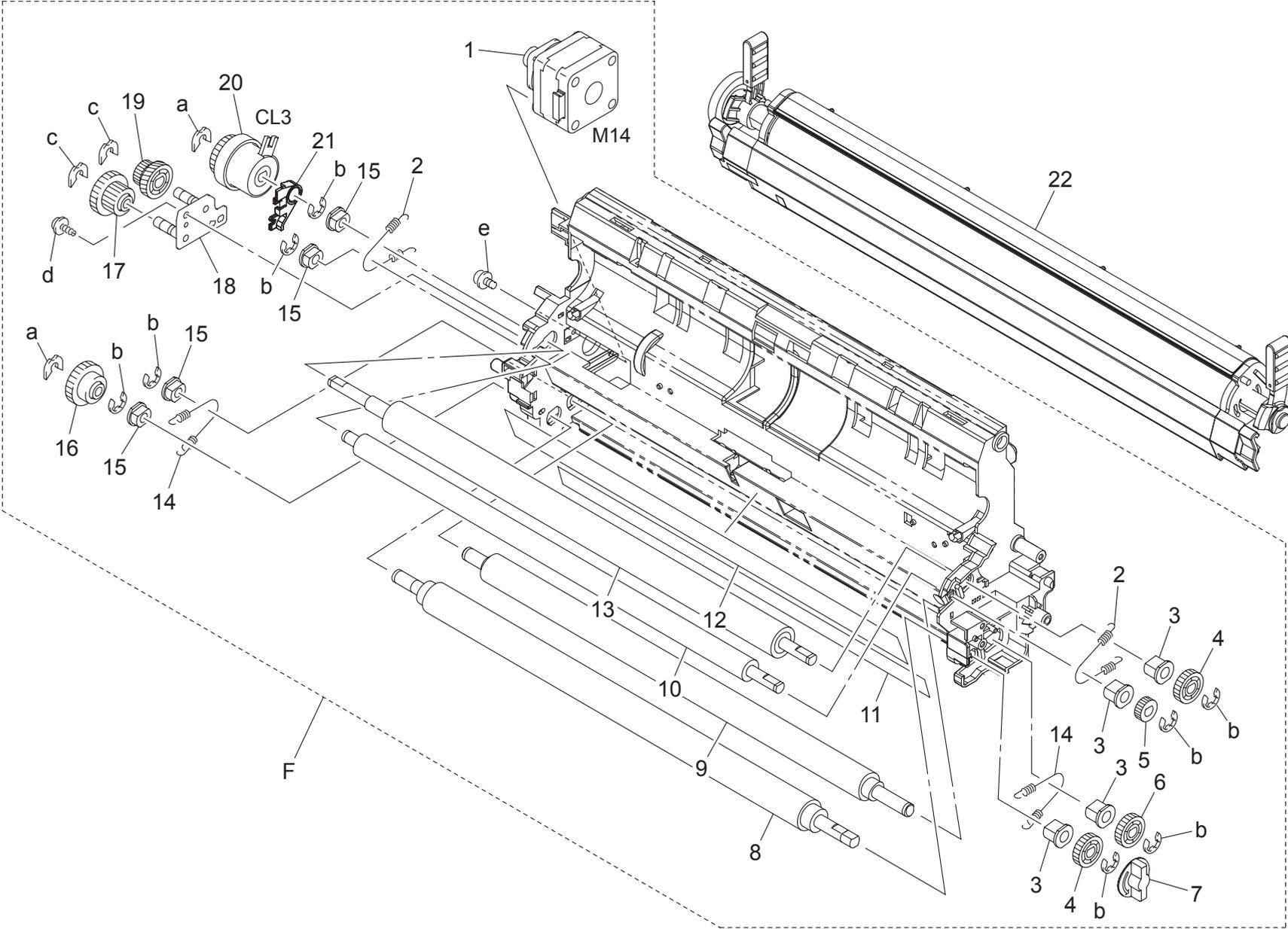
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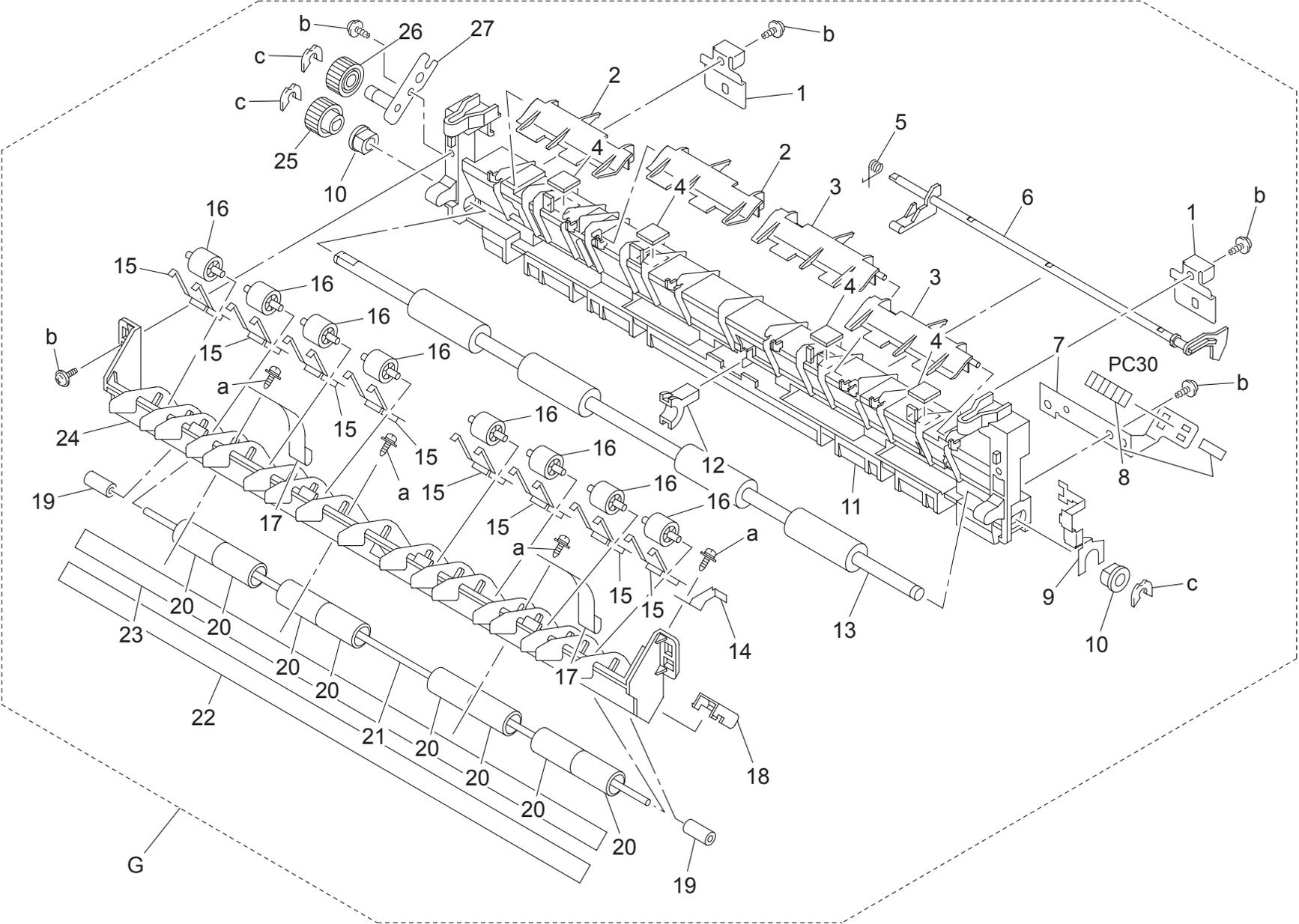
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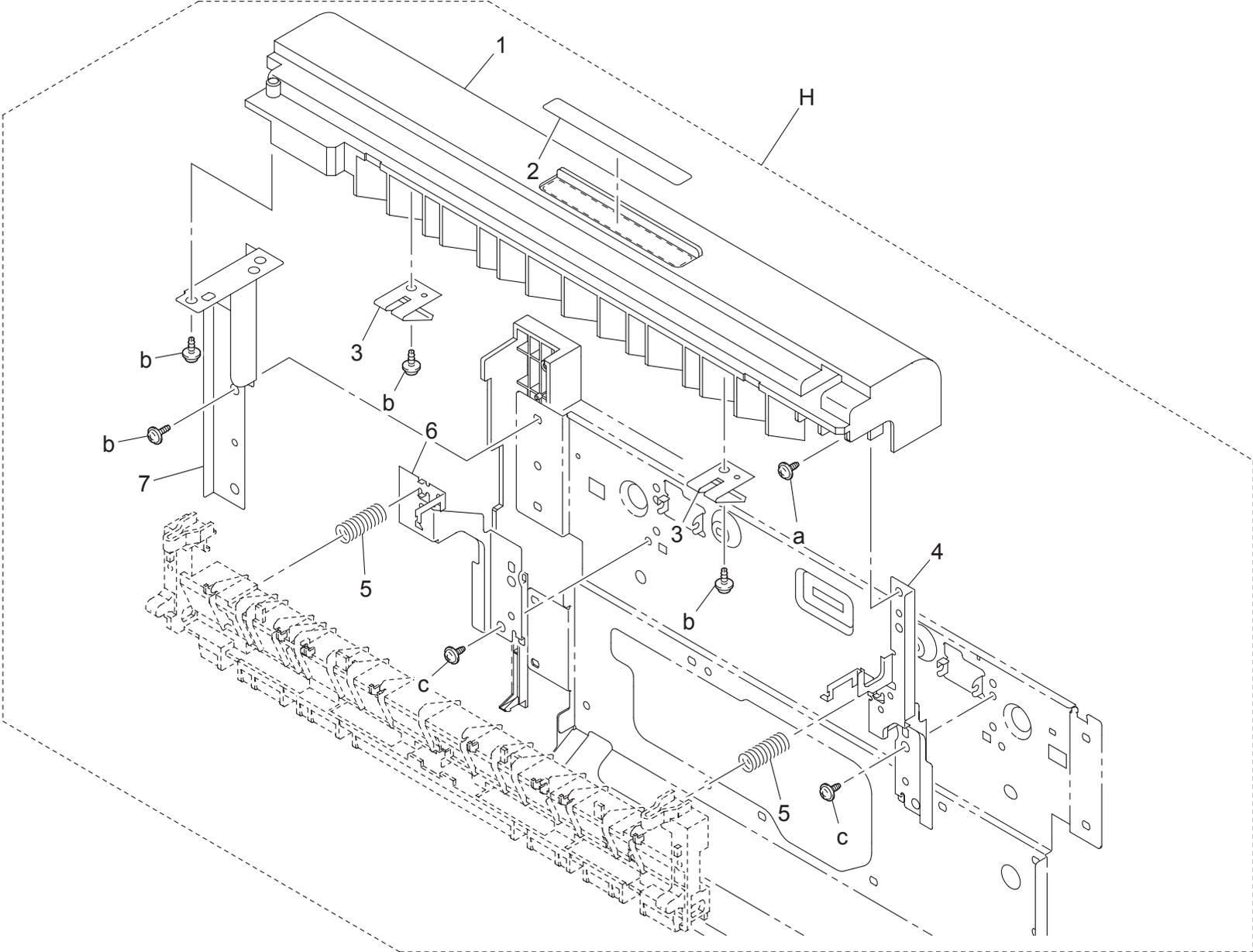
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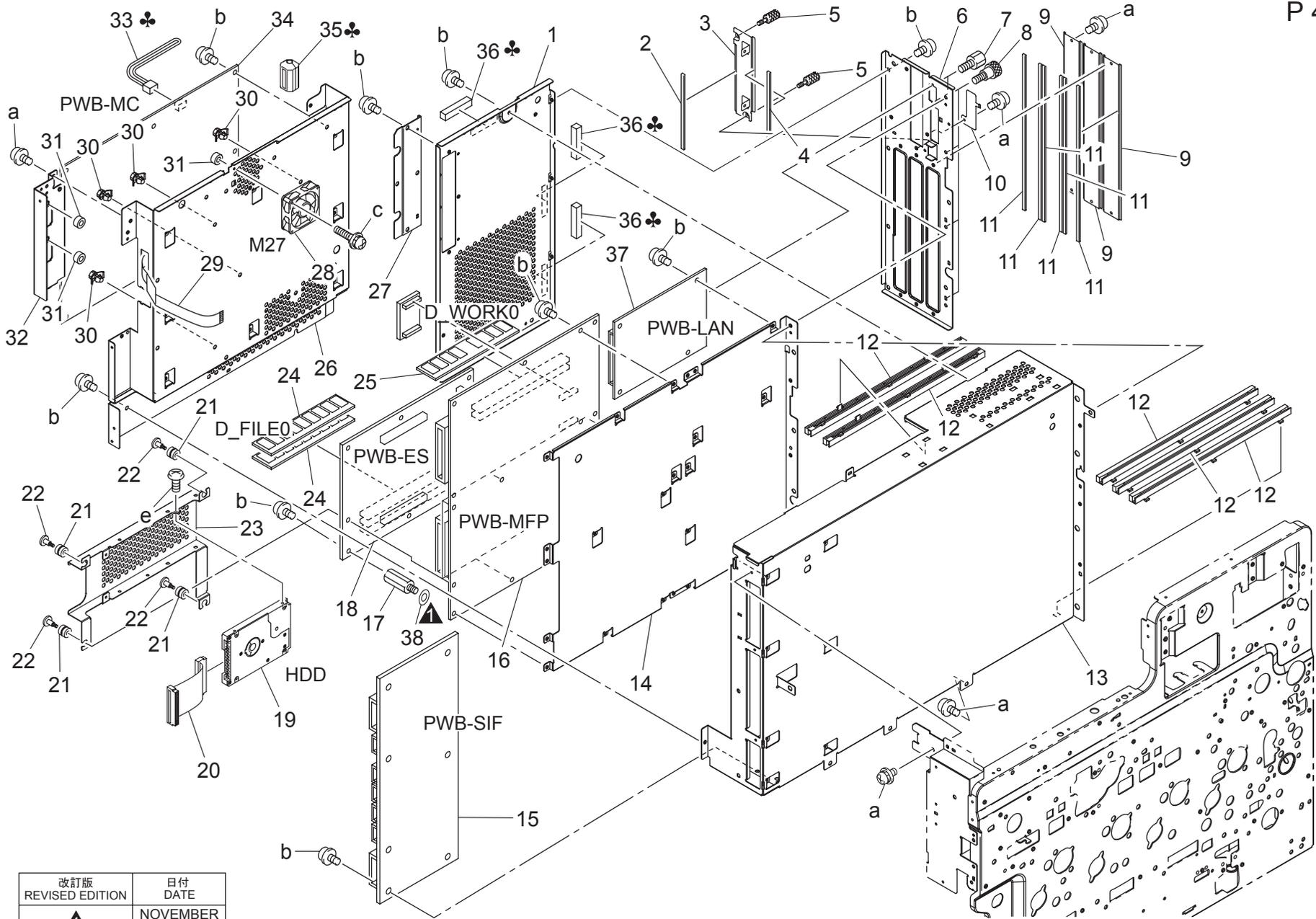
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PAPER TRANSPORT SECTION



ELECTRICAL COMPONENTS

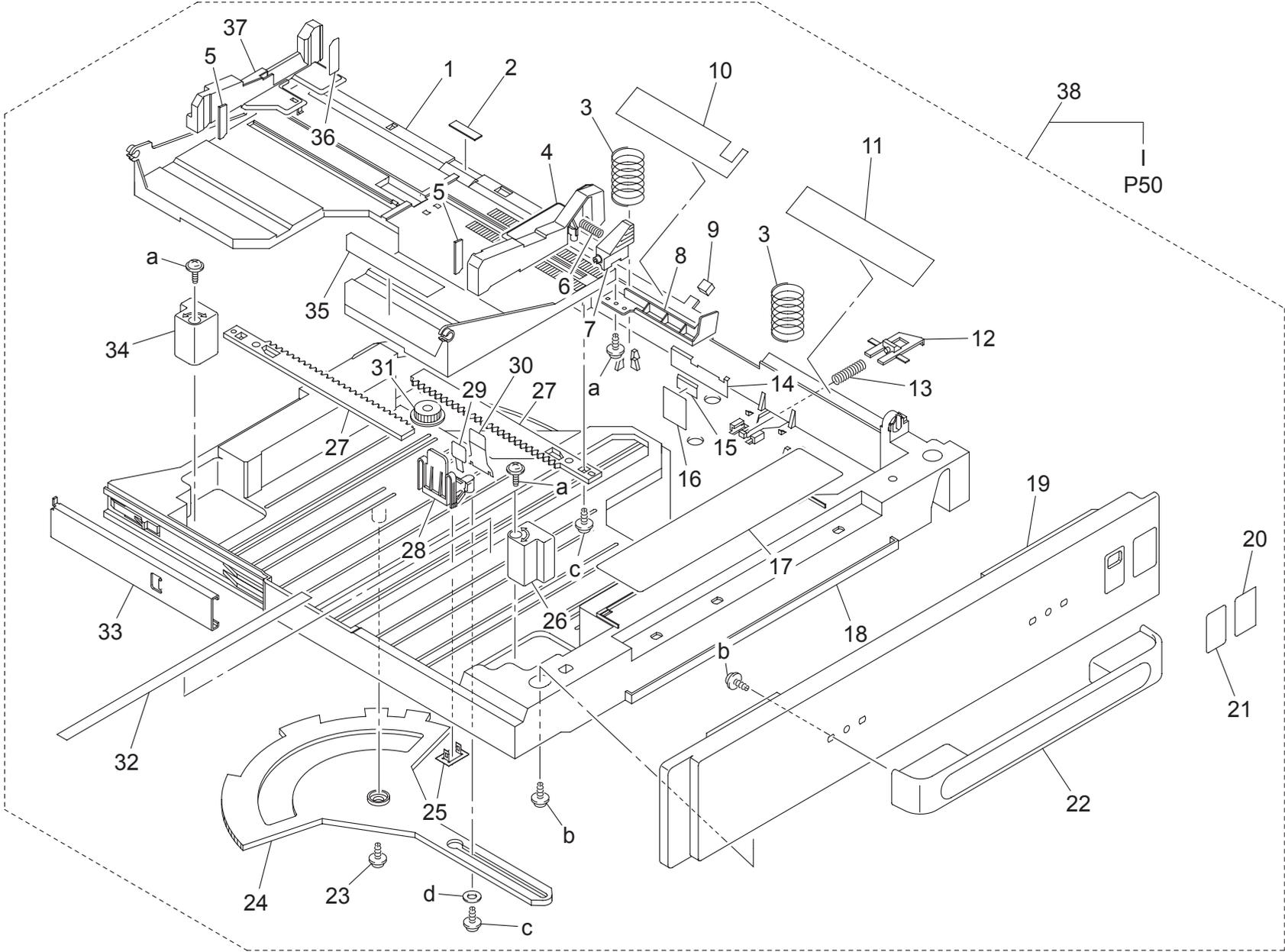


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ELECTRICAL COMPONENTS

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4037 2202 03	SHIELD BOX	シールドボックス	D	1	a-9646 0306 14 b-9646 0308 14 c-9646 0316 14 d-9654 0306 14 e-9654 0304 14
2	4037 6777 01	ELECTRICALLY CONDUCTIVE MATERIAL	導電材料	D	1	
3	4037 2219 02	BRACKET	取付板	D	1	
4	4037 6778 02	ELECTRICALLY CONDUCTIVE MATERIAL	導電材料	D	1	
5	4037 2220 02	SHOULDER SCREW	段ねじ	C	2	
6	4037 2207 03	SHIELD BOX	シールドボックス	D	1	
7	4025 2283 01	SCREW	ねじ	D	2	
8	4110 2311 01	SCREW	ねじ	C	4	
9	4037 2247 01	COVER	カバー	D	3	
10	4037 2242 01	COVER	カバー	D	1	
11	4037 6776 01	ELECTRICALLY CONDUCTIVE MATERIAL	導電材料	D	6	
12	4004 2203 01	GUIDE	ガイド	D	5	
13	4037 2201 03	SHIELD BOX	シールドボックス	D	1	
14	4037 2260 02	BRACKET	取付板	D	1	
15	4037 0130 06	PWB-SIF	PWB?S I F	I	1	
16	4037 0131 15	PWB-MFP	PWB?M F P	I	1	
17	4037 2283 01	SHOULDER SCREW	段ねじ	C	7	
18	4037 0132 04	PWB-ES	PWB?E S	C	1	
19	4037 6095 01	HARD DISK DRIVE	ハードディスクドライブ	I	1	
20	4036 6870 01	WIRE HARNESS ASSY	ハーネス A S S Y	D	1	
21	4025 2294 01	BUSHING	ブッシュ	(OPTION HD-501) C	4	
22	4036 2487 01	SHOULDER SCREW	段ねじ	(OPTION HD-501) C	4	
23	4037 2234 01	BRACKET	取付板	(OPTION HD-501) D	1	
24	4037 6076 01	DIMMO	D I M M O	C	2	
25	4037 6081 01	PWB-D_WORK0	PWB?D _ W O R K 0	C	1	
26	4037 2206 02	BRACKET	取付板	D	1	
27	4037 2244 01	COVER	カバー	D	1	
28	9313 1400 31	FAN MOTOR	ファンモータ	C	1	
29	4037 6818 01	WIRE HARNESS ASSY	ハーネス A S S Y	D	1	
30	9384 1610 11	PWB SUPPORT	キバンサポート	D	4	
31	1154 4670 01	PROTECTION	保護材	C	3	
32	4037 2246 02	BRACKET	取付板	D	1	
33	4036 6831 01	WIRE HARNESS ASSY	ハーネス A S S Y	A,B,G2 D	1	
34	4037 7803 03	PWB-MC	PWB?M C	I	1	
35	9326 1200 61	FERRITE CORE	フェライトコア	C,B,G2 D	1	
36	4037 6779 01	ELECTRICALLY CONDUCTIVE MATERIAL	導電材料	C,B,G2 D	3	
37	4037 0133 04	PWB-LAN	PWB?L A N	C	1	
38	0957 1497 01	WASHER	W A S H E R B	C	1	

MULTIPURPOSE CASSETTE

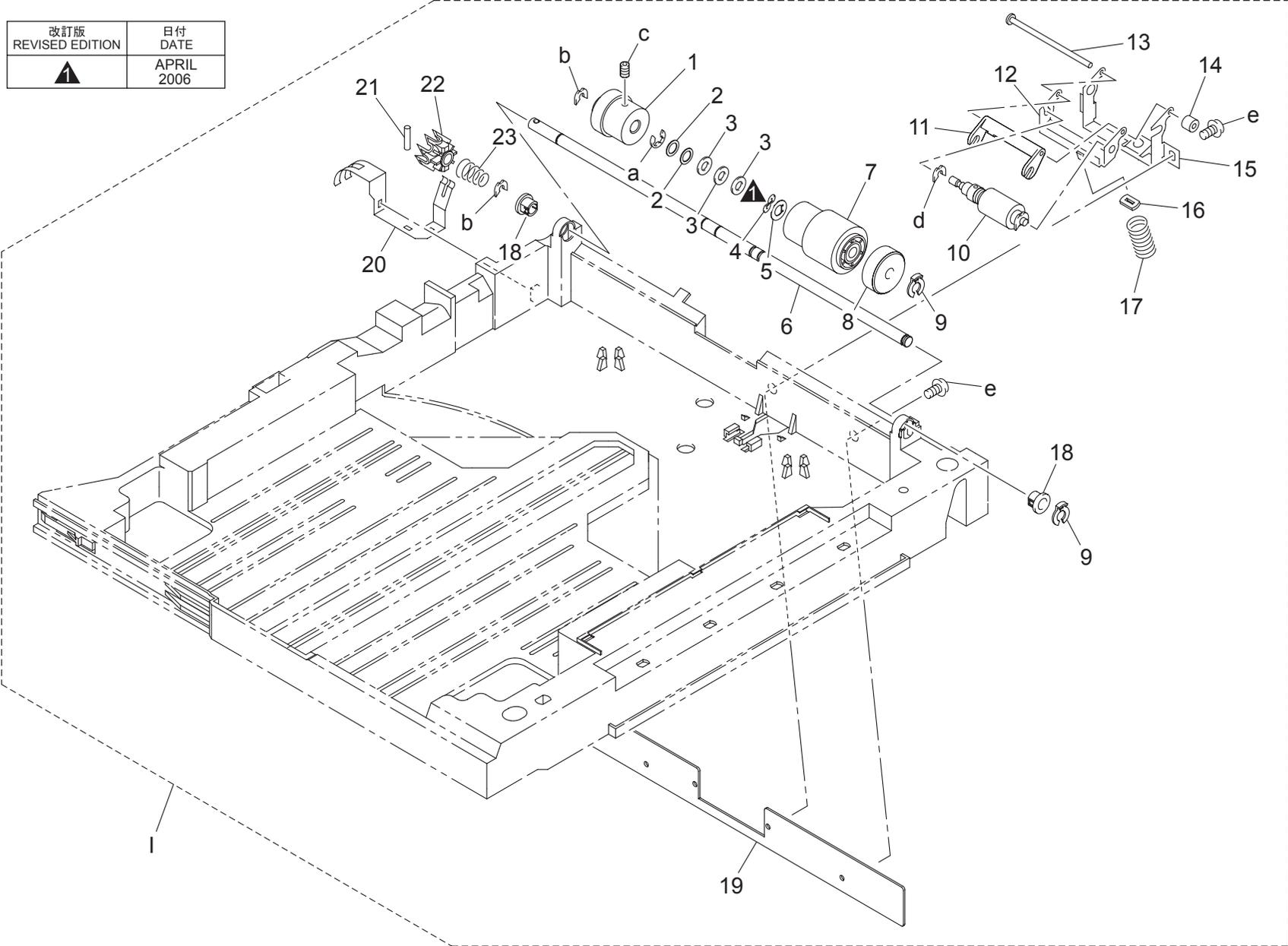


MULTIPURPOSE CASSETTE

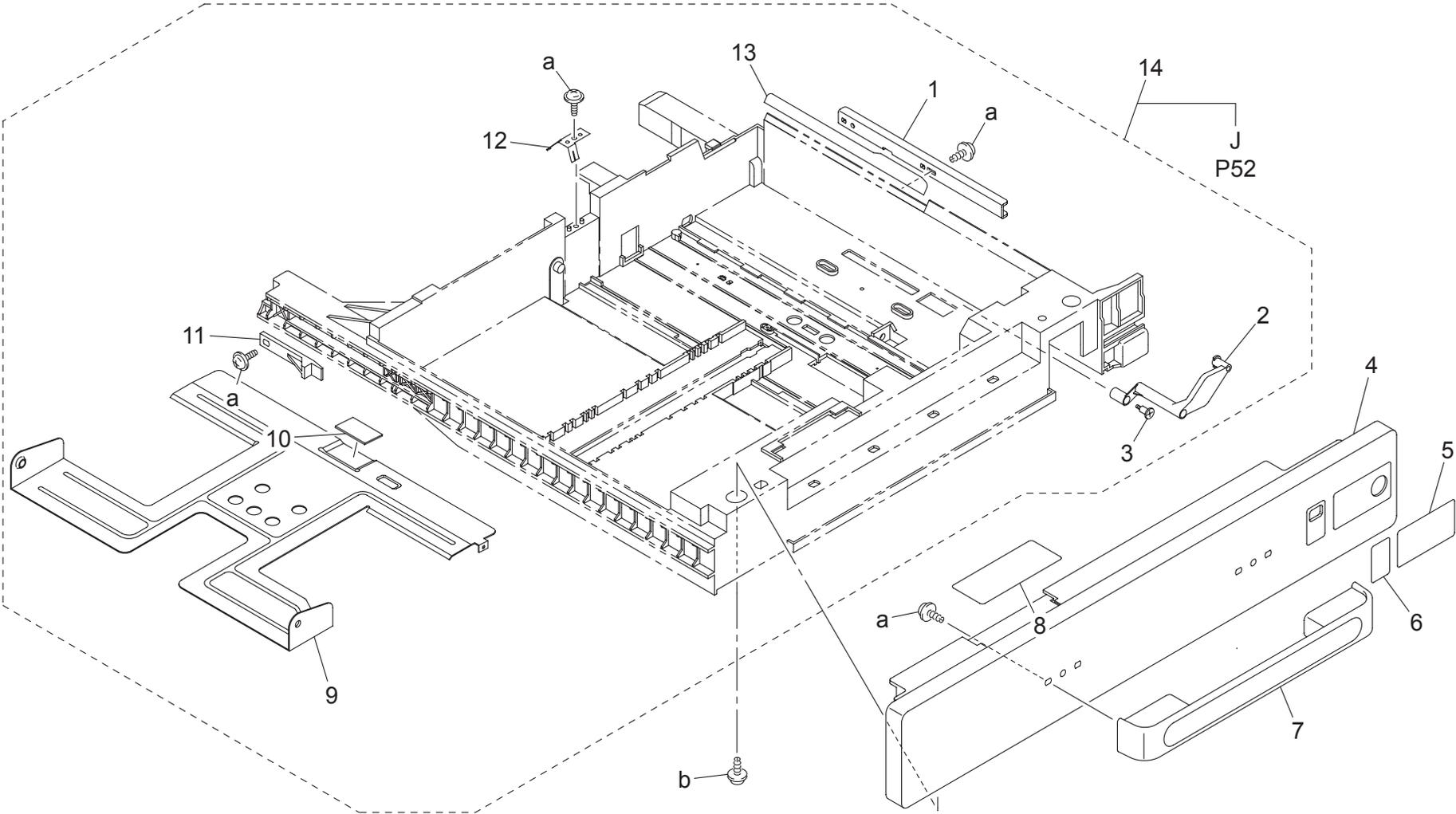
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4036 3022 01	LIFTING PLATE		D	1	a-9739 0308 14 b-9739 0410 14 c-9739 0310 14 d-9716 0300 01
2	1164 3064 01	FRICITION SHEET		C	1	
3	4134 3106 01	PRESSURE SPRING		C	2	
4	4036 3008 01	REGULATING PLATE		C	1	
5	4036 3086 01	BRAKE		D	2	
6	4011 3011 01	PRESSURE SPRING		C	1	
7	4037 3210 01	LEVER		C	1	
8	4036 3019 01	LEVER		D	1	
9	1164 3009 01	CLANING MATERIAL		C	1	
10	4004 3040 02	GUIDE		C	1	
11	4004 3024 01	GUIDE		C	1	
12	1164 3061 01	LEVER		C	1	
13	1164 3062 01	PRESSURE SPRING		C	1	
14	4004 3033 01	GUIDE PLATE		D	1	
15	4004 3038 01	GUIDE		C	1	
16	4004 3008 01	SEAL		C	1	
17	4037 7306 12	LABEL PAPER SUPPLY		C	1	
18	4036 3021 02	CASSETTE		D	1	
19	4036 3020 02	MPC COVER		C	1	
20	4036 7307 01	LABEL CASSETTE CNT		C	1	
21	4030 7301 02	LABEL NEAR EMPTY		C	1	
22	4036 3025 01	HANDLE		C	1	
23	4163 5293 01	SCREW		C	1	
24	4004 3051 02	LEVER		C	1	
25	4004 3031 01	BRACKET		D	1	
26	4037 3226 01	SPACER		D	1	
27	4004 3032 01	RACK		C	2	
28	4004 3023 01 Old	REGULATING PLATE		D	1	
28	4037 3223 01	REGULATING PLATE		C	1	
29	4021 3036 01	GUIDE		C	1	
30	4004 3042 01	GUIDE		C	1	
31	1164 3045 01	GEAR 20T		C	1	
32	4036 7313 01	LABEL MP FD		D	1	
33	4004 3030 01	RAIL		D	1	
34	4037 3227 01	SPACER		D	1	
35	4036 7314 01	LABEL MP CD		D	1	
36	4004 7324 01	LABEL CAPACITY		C	1	
37	4036 3028 01	REGULATING PLATE		C	1	
38	4037 R707 00	MULPIPURPOSE CASSETTE		S	1	

MULTIPURPOSE CASSETTE

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	APRIL 2006



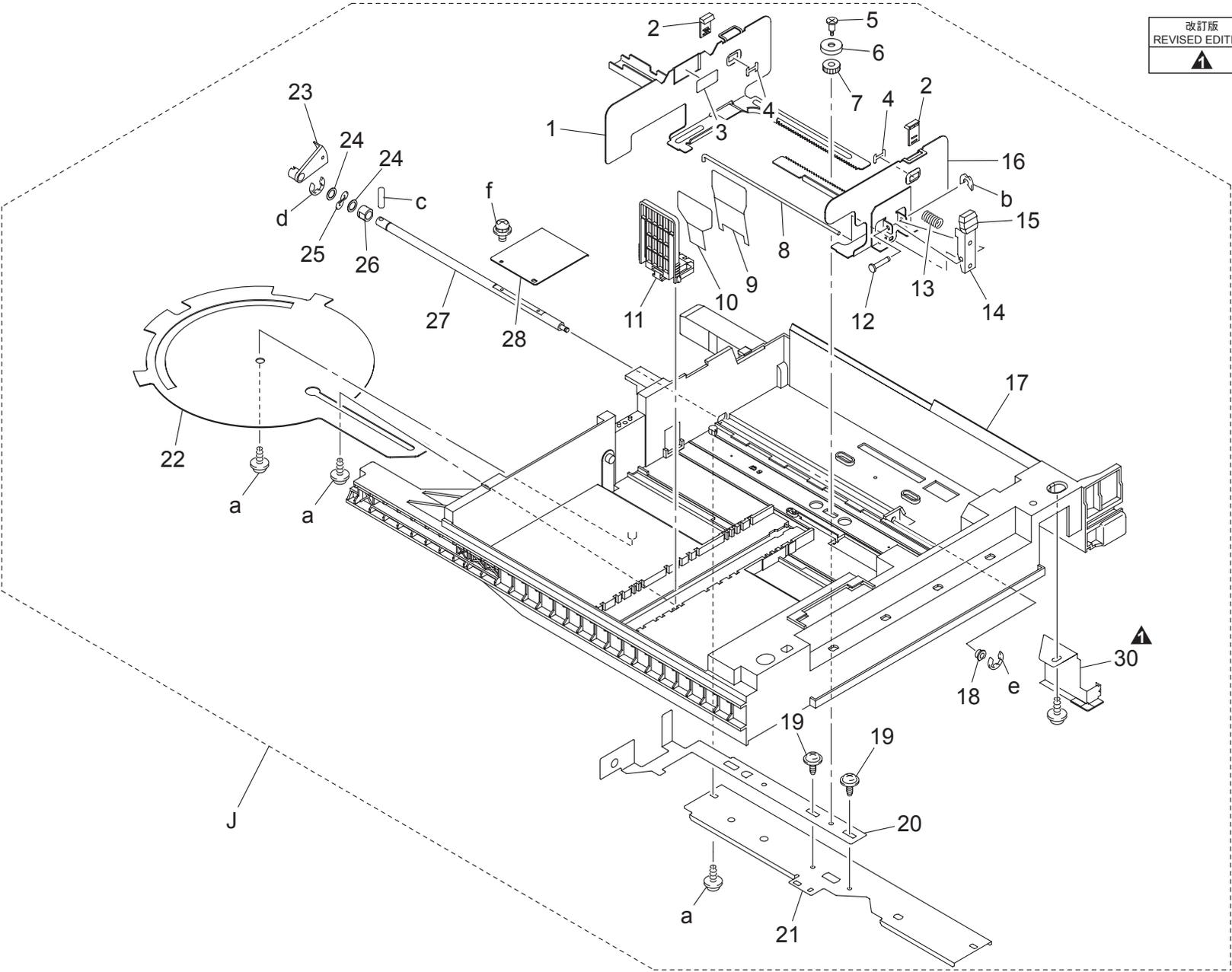
UNIVERSAL CASSETTE



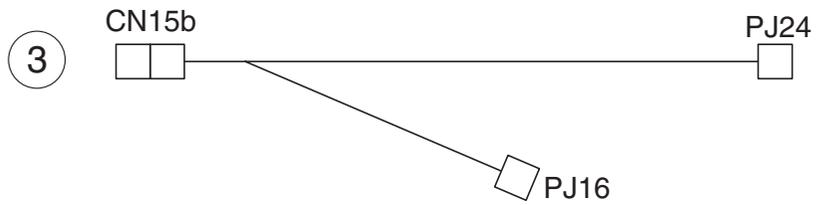
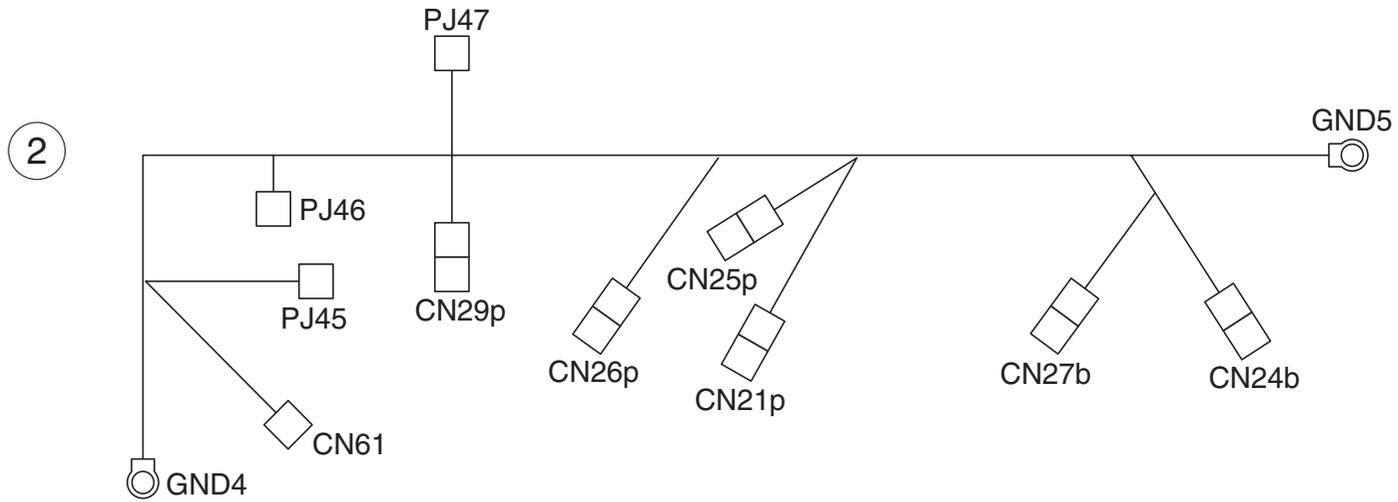
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4030 3229 02	REINFORCE PLATE		D	1	a-9739 0308 14 b-9739 0410 14
2	4030 3221 01	LEVER		C	1	
3	4030 3224 02	SHOULDER SCREW		C	1	
4	4030 3202 02	FRONT COVER CASSETTE		C	1	
5	4030 7303 02	LABEL CASSETTE CNT 2		C	1	
6	4030 7301 02	LABEL NEAR EMPTY		C	1	
7	4036 3025 01	HANDLE		C	1	
8	4040 7304 01	LABEL PAPER SUPPLY		C	1	
9	4030 3203 01	LIFTING PLATE		D	1	
10	4030 3226 01	FRICTION SHEET		C	1	
11	4498 3469 01	STOPPER		D	1	
12	4030 3223 02	EARTH GROUND		C	1	
13	4030 3222 03	GUIDE		C	1	
14	4040 0156 02	CASSETTE ASSY		S	1	

UNIVERSAL CASSETTE

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	JUNE 2006

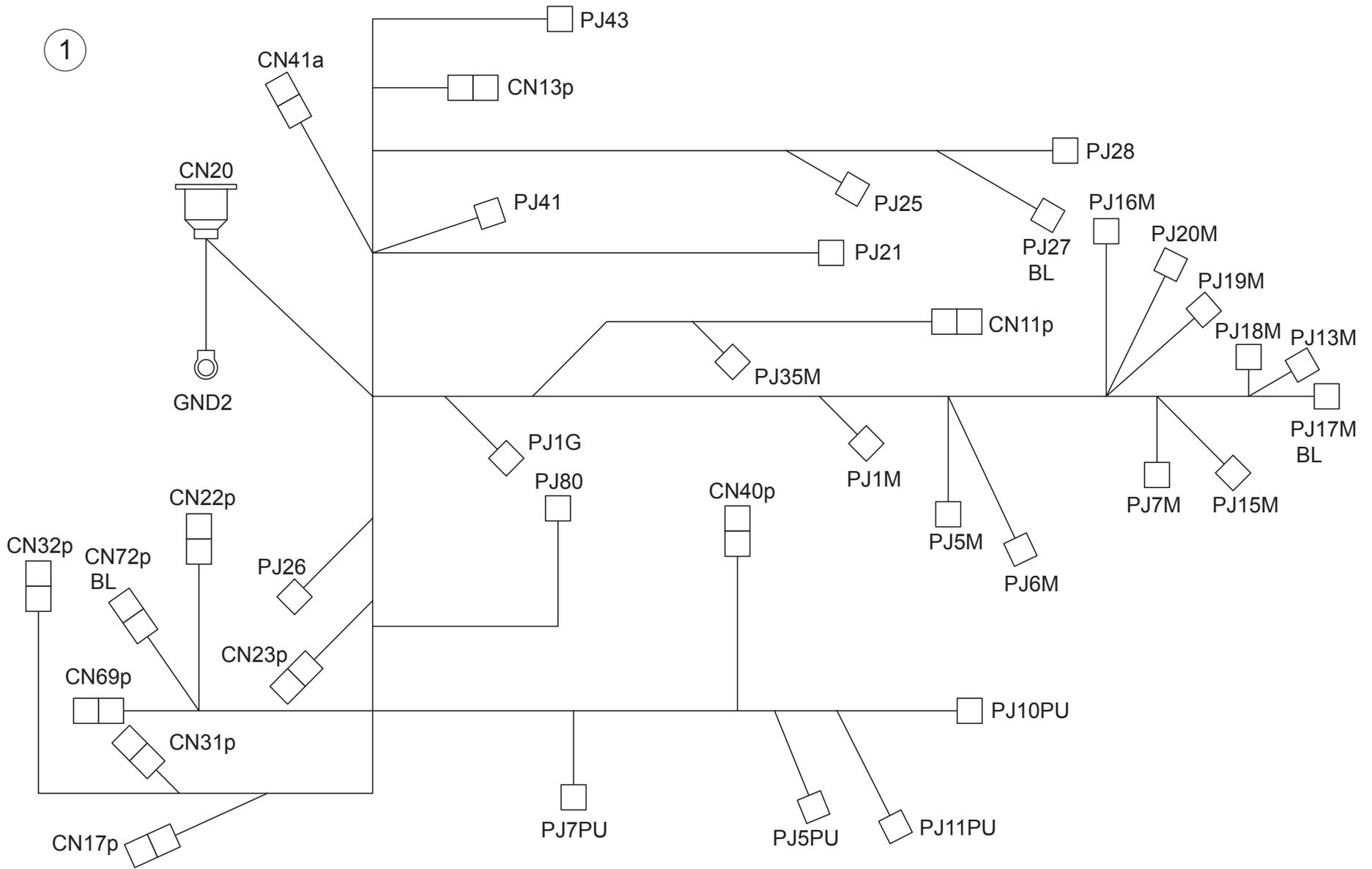


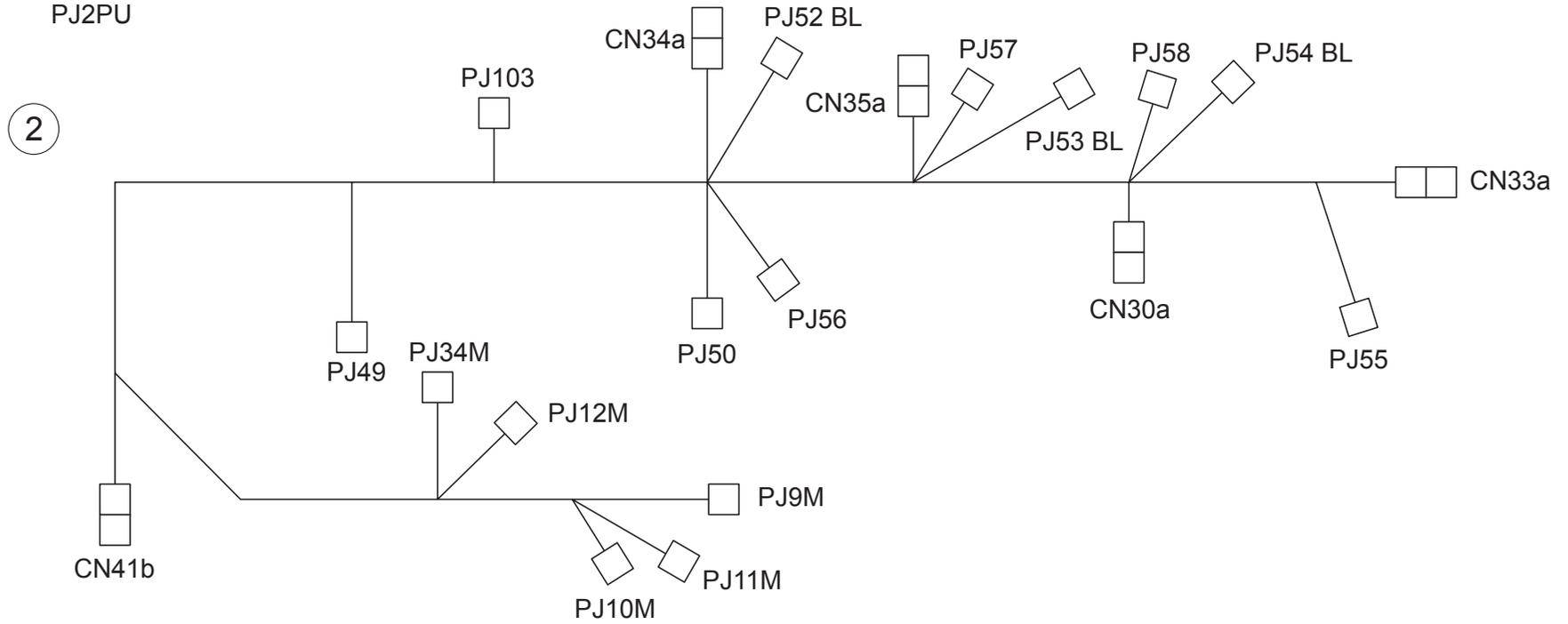
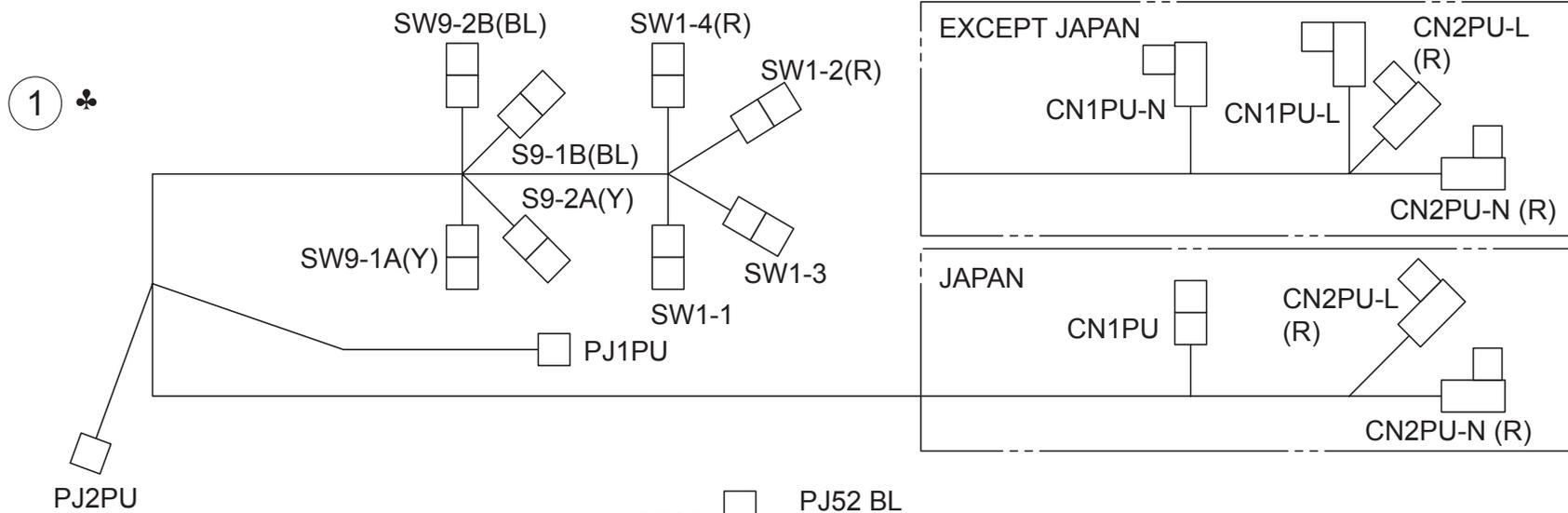
Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4030 3212 01	REGULATING PLATE		C	1	a-9739 0308 14 b-4425 3002 01 c-9754 3025 08 d-9721 0600 01 e-9721 0300 01 f-9646 0308 14
2	4658 3048 01	GUIDE		C	2	
3	4002 7306 01	LABEL CARRYING CAPACITY		C	1	
4	4658 3049 01	STOPPER		C	2	
5	4030 3214 02	SHOULDER SCREW		C	1	
6	4030 3215 01	GUIDE		D	1	
7	4658 3012 01	GEAR 14T		C	1	
8	4030 3217 01	SHAFT		D	1	
9	4030 3228 01 Old	GUIDE		C	1	
9	4030 3228 12	GUIDE		C	1	
10	4030 3227 01	GUIDE		C	1	
11	4037 3213 01 Old	REGULATING PLATE		C	1	
11	4037 3213 12	REGULATING PLATE		C	1	
12	4498 3826 01	SHAFT		D	1	
13	4498 3825 01	PRESSURE SPRING		C	1	
14	4128 3823 01	LEVER		C	1	
15	4037 3204 01	KNOB		C	1	
16	4030 3211 02	REGULATING PLATE		C	1	
17	4030 3201 06	CASSETTE		D	1	
18	0992 3014 01	BUSHING		C	1	
19	4498 3834 01	SCREW		C	2	
20	4030 3216 01	BRACKET		D	1	
21	4030 3218 01	BRACKET		D	1	
22	4002 3108 01	LEVER		C	1	
23	4030 3207 01	ACTUATOR		C	1	
24	1200 1462 01	WASHER		C	2	
25	4011 3020 01	WASHER		C	1	
26	1274 3603 01	BUSHING		C	1	
27	4030 3205 01	SHAFT		D	1	
28	4030 3206 01	LEVER		D	1	
30	4030 P001 00	REINFORCE PLATE		D	1	



WIRING

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4030 6818 01	WIRE HARNESS ASSY		D	1	
2	4036 6805 03	WIRE HARNESS ASSY		D	1	
3	4036 6810 02	WIRE HARNESS ASSY		D	2	

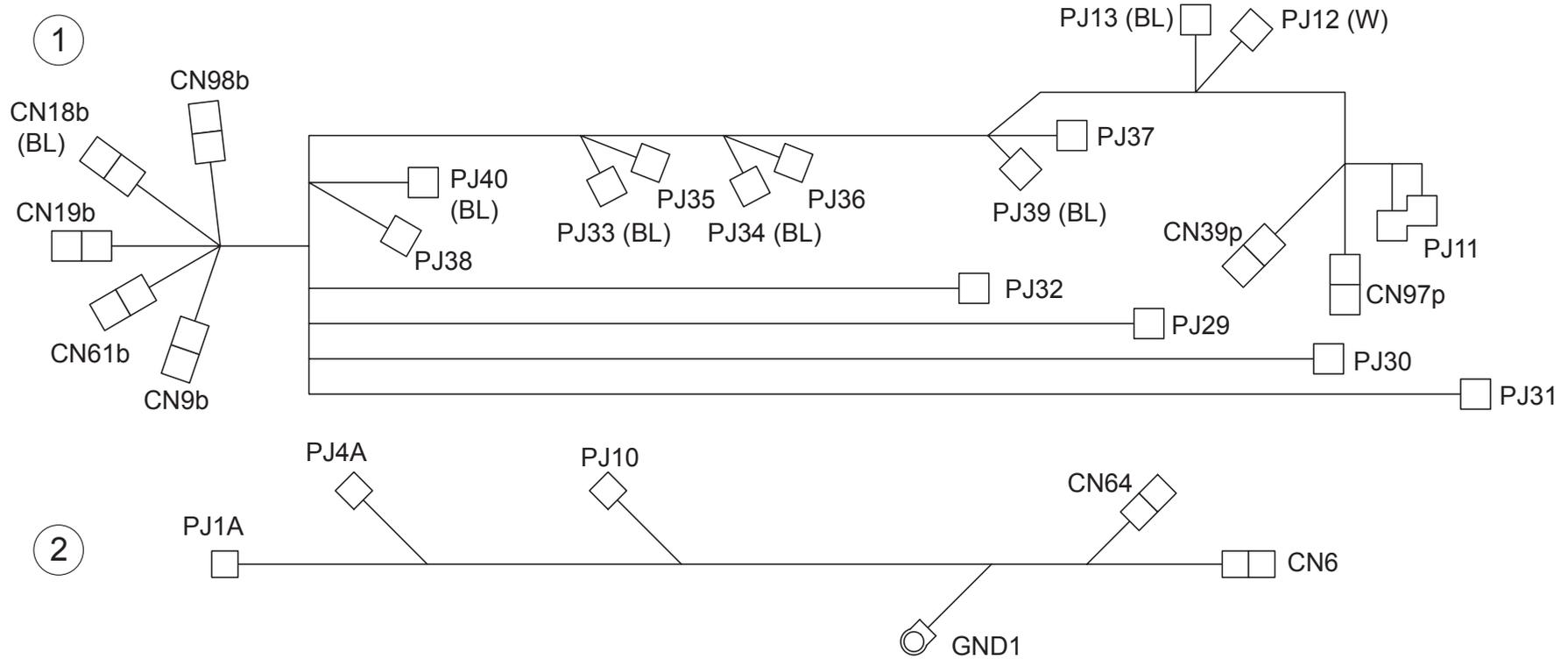




WIRING

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4037 6803 01	WIRE HARNESS ASSY		D	1	
1	4037 6805 01	WIRE HARNESS ASSY	A	D	1	
2	4037 6804 02	WIRE HARNESS ASSY	C,B,G2	D	1	

WIRING



WIRING

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	4037 6814 02	WIRE HARNESS ASSY		D	1	
2	4657 6801 05	WIRE HARNESS ASSY		D	1	

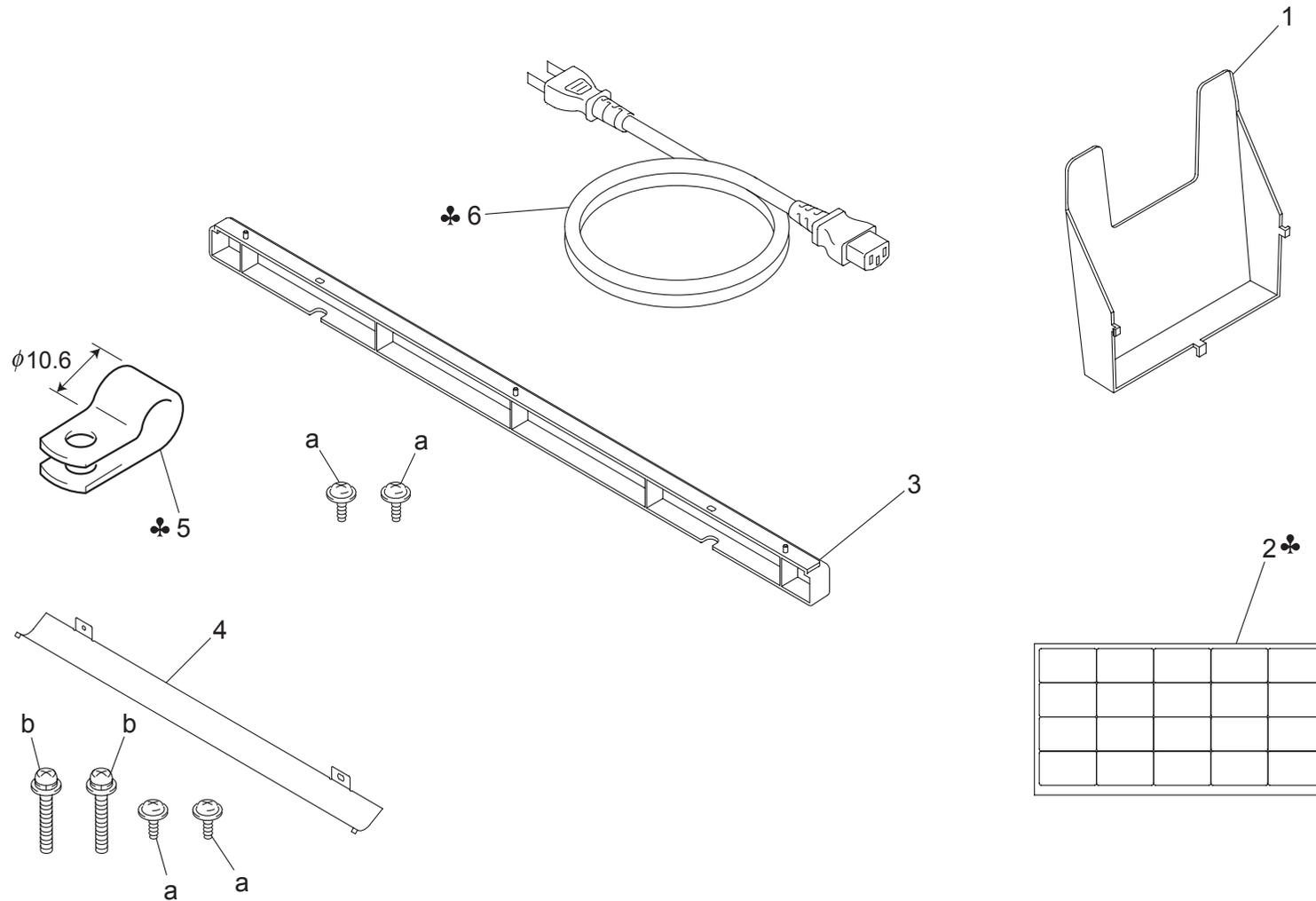
WIRING ACCESSORIES AND JIGS

1 	6 	11♣ 	16 	21 	26 	31	36
2 	7 	12 	17 	22♣ 	27 	32	37
3♣ 	8 	13 	18 	23 	28 	33	38
4 	9 	14 	19 	24 	29 	34	39
5 	10 	15 	20 	25 	30 	35	40

WIRING ACCESSORIES AND JIGS

Key	Part No.	Description	Destinations	Class	QTY	Standard parts
1	9384 1000 51	WIRING SADDLE		D	6	
2	9384 1100 91	WIRING SADDLE		D	41	
3	9384 1300 71	WIRING SADDLE	C	D	1	
4	9384 1921 01	WIRING SADDLE 14.4H		D	3	
5	9384 1921 21	WIRING SADDLE 15.2H		D	4	
6	9384 1211 01	WIRING SADDLE 19.2H		D	23	
7	9384 1110 61	WIRING SADDLE 21.5H		D	6	
8	9384 1311 01	WIRING SADDLE 27H		D	10	
9	9384 1310 11	WIRING SADDLE 5.2H		D	26	
10	9384 1310 81	WIRING SADDLE 6.4H		D	10	
11	9384 1820 31	WIRING SADDLE 8.0H	C	D	1	
12	9384 1921 11	WIRING SADDLE 9.2H		D	6	
13	1053 4812 01	CORD CLAMP		D	3	
14	1065 5872 02	CORD CLAMP		D	8	
15	9384 1300 61	CORD CLAMP		D	2	
16	9384 1811 01	CORD CLAMP		D	1	
17	9384 2910 21	EDGE COVER		D	5	
18	9384 2910 31	EDGE COVER		D	8	
19	9384 2010 21	EDGE COVER 8.5H		D	33	
20	1050 4805 01	INSULATING MEMBER		D	2	
21	1052 4301 01	GROMMET		D	1	
22	9384 1521 51	CORD BUSHING	A	D	1	
23	9384 1311 11	CABLE TIE 104L		D	15	
24	9384 1100 31	RETAINER		D	1	
25	4004 7502 01	CLANING MATERIAL		S	1	
26	4004 7503 12	CLEANING PAD		S	1	
27	4037 R701 01	JIG MEMORY CARD		S	1	
28	1174 7901 01	JIG		S	1	
29	4025 7901 01	JIG		S	2	
30	4581 7901 02	JIG		S	2	

ACCESSORY PARTS



MAINTENANCE LIST

● The items with no Page/Key numbers are not handled as spare parts.

No.	Section	PM Parts Description	Maintenance Cycle (K=1,000)		Parts No.	Destinations	Page/Key	Note
			QTY	Replace				
1	Tray 1	Paper Take-up Roller	1	200K	4021301201		P44-7	
2		Separation Roller Assy	1	200K	4034015101		P44-10	
3	Bypass	Paper Take-up Roller	1	200K	4131300101		P19-12	
4		Separation Roller Assy	1	200K	4034015101		P18-27	
5	Tray 2	Pick-up Roller	1	300K	4030300501		P20-11	
6		Paper Take-up Roller	1	300K	4030300501		P20-11	
7		Separation Roller Assy	1	300K	4030015101		P22-10	
8	Transport section	Paper Dust Remover	1	150K	1483076200		P38-20	
9		2nd Image Transfer Roller Unit	1	150K	4049411		P39-22	
10	Fusing section	Fusing Unit	1	300K	4049521	A	P25-27	
10	Fusing section	Fusing Unit	1	300K	4049522	C	P25-27	
10	Fusing section	Fusing Unit	1	300K	4049523	B G2	P25-27	
11	EP section	Imaging Unit C/M/Y	1	50K	1483075700		P1-21	Dust filter *2 P.9-11 Deodorant filter *3 P.9-4
12		Imaging Unit K	1	100K				
13		Ozone Filter	1	150K				
14		Toner Cartridge (YMCK)	1	11.5K				
15	Image transfer section	Image Transfer Belt Unit	1	300K	4049212		P30-22	
16		Waste Toner Box	1	30K	4049111		P28-27	

*1: Actual durable cycle is the Life counter value.

*2: Also replace the Deodorant filter/2 packed in the black imaging unit at the same time when 100K is reached.

*3: Also replace the Deodorant filter/1 packed in the black toner cartridge at the same time when 11.5K is reached.

メンテナンスリスト

● ページ / キーナンバーのないものは、アフターサービス部品ではありません。

No.	区分	PM 部品名称	サイクル (K=1,000)		部品番号	仕向地	頁 / キー	備考
			員数	交換				
1	トレイ 1	給紙ローラ	1	200K	4021301201		P44-7	
2		分離ローラ A s s y	1	200K	4034015101		P44-10	
3	手差し	給紙ローラ	1	200K	4131300101		P19-12	
4		分離ローラ A s s y	1	200K	4034015101		P18-27	
5	トレイ 2	ピックアップローラ	1	300K	4030300501		P20-11	
6		給紙ローラ	1	300K	4030300501		P20-11	
7		分離ローラ A s s y	1	300K	4030015101		P22-10	
8	搬送部	紙紛除去クリーナ	1	150K	1483076200		P38-20	
9		2次転写ローラユニット	1	150K	4049411		P39-22	
10	定着部	定着ユニット	1	300K	4049521	A	P25-27	
10	定着部	定着ユニット	1	300K	4049522	C	P25-27	
10	定着部	定着ユニット	1	300K	4049523	B G2	P25-27	
11	EP 部	イメージングユニット (YMC)	1	50K				
12		イメージングユニット (K)	1	100K				防塵フィルタ *2
13		オゾンフィルタ	1	150K	1483075700		P1-21	
14		トナーカートリッジ (YMCK)	1	11.5K				消臭フィルタ *3
15	転写部	転写ベルトユニット	1	300K	4049212		P30-22	
16		廃棄トナーボックス	1	30K	4049111		P28-27	

*1: 実質交換サイクルの数値は、ライフカウンタの値である。

*2: 防塵フィルタは、黒のイメージングユニットに同梱され、100K で同時交換する。

*3: 消臭フィルタは、黒のトナーカートリッジに同梱され、11.5K で同時交換する。

DESTINATION

Destination No.		Destinations		V	Hz	Model No.
A	A1	JAPAN		100	50/60	4037-001
	A2	JAPAN				
B		USA, CANADA		120	60	4037-301
C		EUROPEAN TYPE		220-240	50/60	4037-201
D	D1	S.E ASIA TYPE	THAILAND, SRI LANKA, SINGAPORE, MALAYSIA, HONG KONG, PAKISTAN, INDIA, BANGLADESH, INDONESIA			
	D3	OCEANIA TYPE	AUSTRALIA, NEW ZEALAND			
E		PHILIPPINES				
F	F1	SAUDI ARABIA				
	F2	SAUDI ARABIA				
G	G1	C.S AMERICA				
	G2	C.S AMERICA		120	60	4037-301
H		TAIWAN				
I		JORDAN, LEBANON, SYRIA, SOUTH AFRICA, IRAQ, IRAN, N.YEMEN, CAMEROON, UAE, BAHRAIN, OMAN, QATAR, KUWAIT, KENYA, TUNISIA, IVORY COAST, MOROCCO				
J		CHINA				
K		KOREA				