

Color Printer

d-Color MF201

SERVICE MANUAL

Code Y109660-1

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77, Via Jervis - 10015 Ivrea (TO)

Italy

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Revision history

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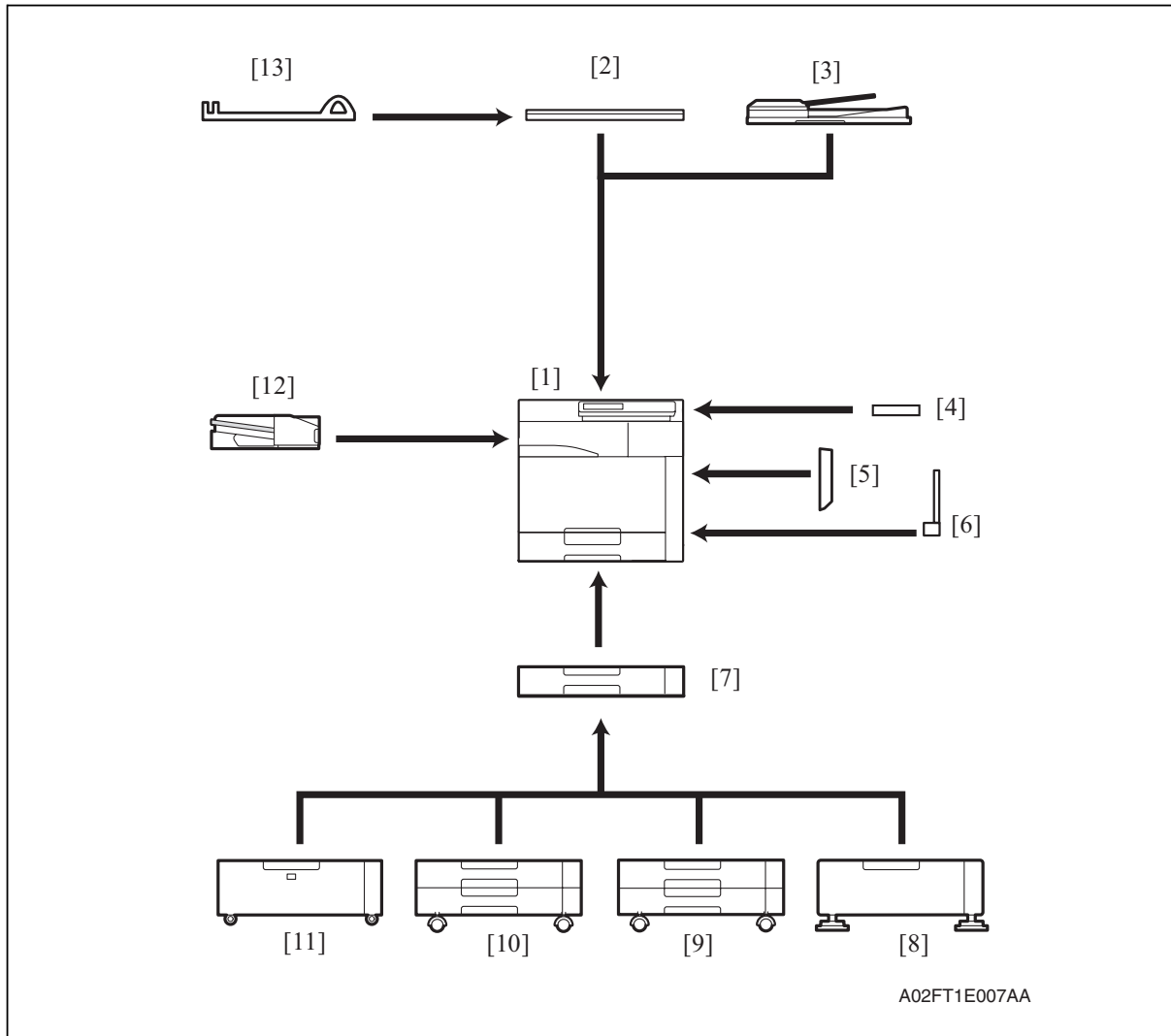
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Outline

1. System configuration

1/2 System front view



A02FT1E007AA

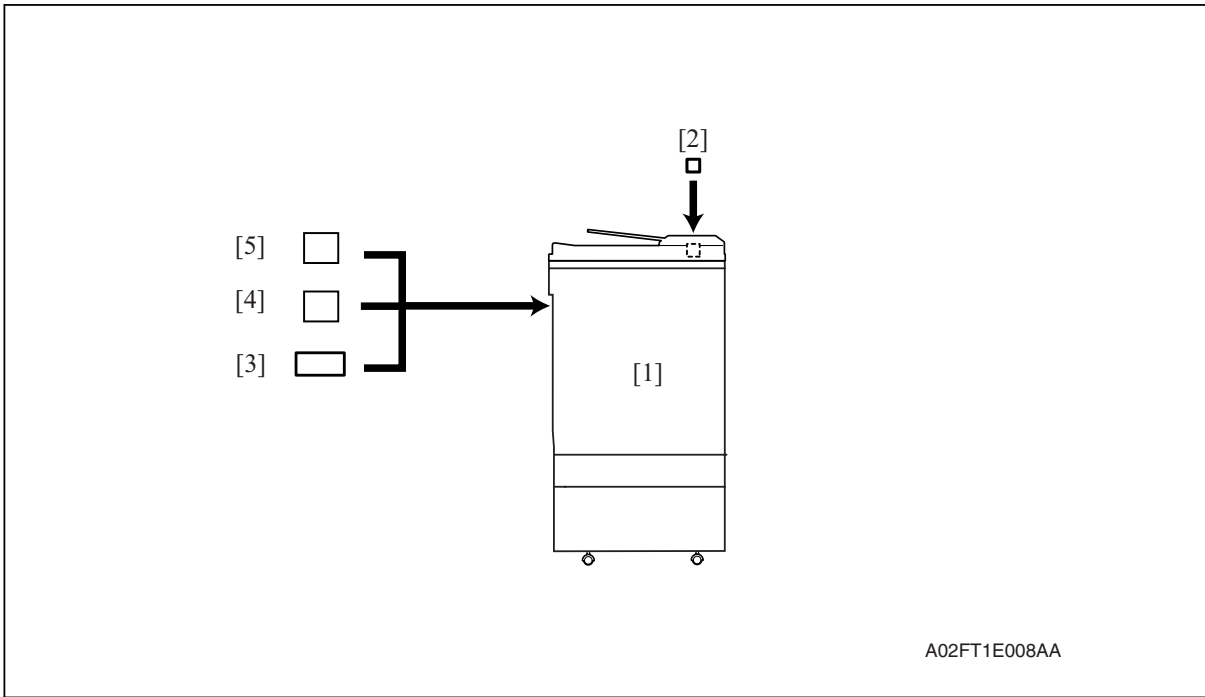
[1] Main body		[8] Desk	DK-504
[2] Original cover	OC-508	[9] Paper feed cabinet	PC-104
[3] Automatic document feeder	DF-612	[10] Paper feed cabinet	PC-204
[4] Working table	WT-503	[11] Paper feed cabinet	PC-405
[5] Automatic duplex unit	AD-505	[12] Job separator	JS-505
[6] Multi bypass tray	MB-502	[13] Assist handle	AH-101 *1
[7] Paper feed cabinet (2nd)	PC-105		

*1: Option of OC-508

d-Color MF201

Outline

2/2 System rear view



A02FT1E008AA

- | | | | |
|--------------------------|--------|--------------------|--------|
| [1] Main body | | [4] Fax multi line | ML-504 |
| [2] Stamp unit | SP-503 | [5] Fax kit | FK-507 |
| [3] Expanded memory unit | EM-310 | | |

2. Product specifications

A. Type

Type	Desktop/console *1 scanner/printer
Printing process	Laser electrostatic printing system
PC drum type	OPC drum: KM-12 (OPC with high mold releasability)
Scanning resolution	600 dpi
File memory	64 MB + 512 MB (Option)
Exposure lamp	White rare-gas fluorescent lamp
Platen	Stationary (Unit scan)
Original scanning	Unit scanning CCD optical system * Sheet through system when DF-612 is used
Registration	Rear left edge
Paper feeding separation system	Tray 1 : Small roller separation system with torque limiter
Exposure system	<ul style="list-style-type: none"> • Four-multi array PH unit system • Polygon mirror scan system
Exposure resolution	600 dpi × 600 dpi
Developing system	Dry 2 components developing method, HMT developing system
Charging system	DC comb electrode scorotron system
Neutralizing system	Red LED system
Image transfer system	Belt image transfer system (1st)/roller image transfer system (2nd)
Paper separating system	Combination of curvature, separating claws, and bias system
Fusing system	Belt fusing
Heating system	Halogen lamp

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

B. Functions

Types of original		Sheets, books, and three-dimensional objects	
Max. original size	Book scanner	A3 or 11 x 17	
Max. original weight	Book scanner	Max. 2 kg	
Multiple copies		1 to 999	
Warm-up time (at ambient temperature of 23 °C/73.4 °F and rated source voltage) *Without FK-507 and EM-310	When the sub power switch is turned ON at any timing while the main power switch remains ON for a predetermined period of time or more: 37 sec. or less (Monochrome print) 40 sec. or less (Color print)		
	When the sub power switch is turned ON immediately after the main power switch is turned ON: 90 sec. or less (Monochrome print and Color print)		
Image loss	Copy	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)	
	PC Print	Leading edge: 4.2 mm (3/16 inch), Trailing edge: 4.2 mm (3/16 inch), Rear edge: 4.2 mm (3/16 inch), Front edge: 4.2 mm (3/16 inch)	
First copy time (Tray1 A4 or 8 1/2 x 11, full size)	Monochrome print	10.0 sec. or less	
	Color print	13.5 sec. or less	
Processing speed	92.4 mm/s	Plain paper (monochrome, full color), OHP film	
	46.2 mm/s	Thick 1, Thick 2, Thick 3, Envelope, Label sheet	
Copying speed for multi-copy cycle	1-sided	20 copies/min (A4 or 8 1/2 x 11, plain paper)	
	2-sided	18 copies/min (A4 or 8 1/2 x 11, plain paper)	
Fixed zoom ratios	Full size	x1.000	
	Reduction	Metric area	x0.500, x0.707, x0.816, x0.866
		Inch area	x0.500, x0.647, x0.772, x0.785
	Enlargement	Metric area	x1.154, x1.224, x1.414, x2.000
		Inch area	x1.214, x1.294, x1.545, x2.000
Zoom ratios memory	3 memories		
Variable zoom ratios	x0.250 to x4.000	in 0.001 increments	
Paper size	Tray 1	Metric area	B6S, A5, A5S, B5, B5S, A4, A4S, A3, A3 Wide, 8K, 16K, 16KS, FLS, A6S (Thick paper only)
		Inch area	5-1/2 x 8-1/2, 5-1/2 x 8-1/2S, 7-1/4 x 10-1/2, 7-1/4 x 10-1/2S, 8-1/2 x 11, 8-1/2 x 11S, 8-1/2 x 14, A3 Wide (12 x 18) 4 x 6 (Thick paper only)
Copy exit tray capacity	Plain paper	250 sheets	
	Thick paper	10 sheets	
	OHP film	1 sheet	

C. Paper

Type		Paper source (maximum tray capacity)				
		Tray 1	Tray 2 (Option)	Multiple bypass (Option)		
Copy paper type	Plain paper (60 to 90 g/m ² / 16 to 24 lb)	250 sheets	500 sheets	100 sheets		
	Thick paper 1 (91 to 150 g/m ² / 24.2 to 40 lb)	20 sheets	150 sheets	20 sheets		
	Thick paper 2 (151 to 209 g/m ² / 40.2 to 55.6 lb)					
	Thick paper 3 (210 to 256 g/m ² / 55.9 to 68.1 lb) *1					
	OHP film (crosswise feeding only) *2					
	Label sheets					
	Envelopes				—	10 sheets
	Postcards				—	—
Translucent paper	—	—	—			
Copy paper dimensions	Width	90 to 311.1 mm 3.6 to 12.3 inch	139.7 to 297 mm 5.5 to 11.7 inch	90 to 311.1 mm 3.6 to 12.3 inch		
	Length	139.7 to 457.2 mm 5.5 to 18 inch	182 to 431.8 mm 7.2 to 17 inch	139.7 to 457.2 mm 5.5 to 18 inch		

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

*2: Monochrome print only.

Automatic duplex unit : Only the plain paper weighing 64 to 90 g/m² (17 to 24 lb) or thick paper weighing 91 to 256 g/m² (24.2 to 68 lb) are reliably fed.

D. Maintenance

No. of pages printed per month (average)	Color print	500 prints
	Monochrome print	2,300 prints
Standard copy mode	Color print	2 pages/job
	Monochrome print	2 pages/job
Standard original density	Color print	C, M, Y, K : 5%
	Monochrome print	K : 5%

E. Machine specifications

Power requirements	Voltage:	AC 100 V, 120 V, 220-240 V	
	Current:	100 V	12 A
		110 V	12 A
		120 V	11 A
		127 V	11 A
		230 V	6 A
Frequency:	50/60 Hz \pm 3 Hz		
Max power consumption	1,250 W or less		
Dimensions *2	620 *1 (W) x 688 (D) x 648 (H) mm 24.5 *1 (W) x 27.0 (D) x 25.5 (H) inch		
Space requirements	650 (W) x 688 (D) mm *2 25.6 (W) x 270 (D) inch *2 1117 (W) x 1061 (D) mm *3 44.0 (W) x 41.8 (D) inch *3		
Weight	Machine	Approx. 68 kg / 150 lb (without IU and TC)	
	IU and TC	Approx. 6.8 kg / 15 lb	

*1: Width when the manual bypass tray is closed

*2: Height up to the original glass

*3: The paper feed tray is slide out, and the upper right door is open.

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% (Relative humidity with a fluctuation of 10%/h)
Levelness	Difference between front and back, right and left should be 1 degree or under.

G. Print functions

Type	Built-in type controller	
Host interface	Ethernet (10Base-T or 100Base-TX), USB 2.0/1.1	
Print speed	20 prints/min (color/monochrome, A4, 1-sided)	
Resolution	600 dpi x 600 dpi	
Printer language	PCL5e/c emulation PCL XL Ver. 2.1 emulation PostScript 3 emulation (3015)	
Network protocol	TCP/IP, LPD	
Support OS	Server	Windows 2000/2003 Windows 2003server x64 Edition
	Client	Windows 2000, Windows XP, Windows Vista Windows XP x64 Edition, Windows Vista x64 Edition Macintosh OS 9.x, Macintosh OS X Ver. 10.2 or later, Macintosh Intel OS X 10.4 or later
Compatible paper size	Max. standard paper size A3 Wide	
Fonts	PCL	Latin 80 fonts
	PS	Latin 136 fonts

- When the optional automatic duplex unit AD-505 is mounted, the optional expanded memory unit EM-310 is required for duplex printing from the PC.

H. Scan functions

Type	Full-Colour Scanner	
Protocol	TCP/IP(SMTP)	
Output format	JPEG, PDF(V1.3 standards), TIFF	
Scan speed / DF-612	Monochrome (Resolution 300 dpi)	40 pages/min : A4 40 pages/min : 8 1/2 x 11
	Full color (Resolution 300 dpi)	20 pages/min : A4 20 pages/min : 8 1/2 x 11
Scannable range	Same as the copier (Max. A3)	
Functions	Scan to E-mail	
Resolution	200/300/400/600 dpi	

NOTE

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

Blank Page

Maintenance

3. Periodical check

3.1 Maintenance items

NOTE

- Cleaning/replacement cycle for each maintenance item of main body/options can be evaluated with each life counter value of [Service mode] → [Counter] → [Life].

3.1.1 Main body

A. Parts to be replaced by users (CRU)

No	Class	Parts to be replaced	Cycle	Clean	Replace	Descriptions
1	Processing sections	Imaging unit Y,M,C	45,000		●	*1
2		Imaging unit K	60,000		●	*1
3		Toner cartridge Y,M,C	18,500		●	*1
4		Toner cartridge K	24,000		●	*1
5	Image transfer section	Waste toner box	(50,000)		●	*1,2

*1: The parts can be replaced either by user or service engineer.

For details of setting, see [Unit Change] on “Adjustment/Setting.”
See P.251

*2: A waste toner full condition is detected with detecting the actual waste toner emissions.

B. Maintenance call (per 30,000-sheet scan)

No.	Class	Parts to be replaced	Qt.	Check	Clean	Replace	Lubri-cation	Descriptions
1	Overall	Paper feed and image conditions	—	●				
2		Appearance	—	●	●			
3	Scanner section	Original glass assy	—		●			

C. Maintenance call (per 60,000-print)

No.	Class	Parts to be replaced	Qt.	Check	Clean	Replace	Lubri-cation	Descriptions
1	Overall	Paper feed and image conditions	—	●				
2		Appearance	—	●	●			
3	Conveyance section	Timing roller	—		●			
4	Image transfer section	Around waste toner port	—		●			
5	AD-505	Duplex transport roller	—		●			

D. Periodical parts replacement/cleaning 2 (per 120,000-print/-sheet scan)

No.	Class	Parts to be replaced	Qt.	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper feed and image conditions	—	●				
2		Appearance	—	●	●			
3	Scanner section	Exposure lamp	—		●			
4		Each mirror and lens	—		●			
5	Image transfer section	Image transfer entrance guide	—		●			
6		IDC/registration sensor	—		●			
7		Transfer belt unit	1			●		
8		Transfer roller unit	1			●		
9	Processing sections	Ozone filter	1			●		

3.1.2 DF-612**A. Periodical parts replacement/cleaning 1 (per 30,000-original feed)**

No.	Class	Parts to be replaced	Qt.	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper feed and image conditions	—	●				
2		Appearance	—	●	●			
3	Feed section	Feed roller	—		●			
4		Separation roller	—		●			
5		Pick-up roller	—		●			
6	Transport section	Regist rollers	—		●			
7	Exit section	Exit rollers	—		●			

B. Periodical parts replacement/cleaning 2 (per 100,000-original feed)

No.	Class	Parts to be replaced	Qt.	Check	Clean	Replace	Lubri- cation	Descrip- tions
1	Overall	Paper feed and image conditions	—	●				
2		Appearance	—	●	●			
3	Feed section	Separation roller	1			●		

3.2 Maintenance parts

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

	Color	B/W
*Standard mode	2 pages per job	2 pages per job

3.2.1 Replacement parts

A. Main body

No.	Classification	Parts name	Qt.	Actual durable cycle *1	Parts No.	Descriptions	Ref. page
1	Processing section	Imaging unit Y	1	45,000	B0783		P.18
2		Imaging unit M	1	45,000	B0784		
3		Imaging unit C	1	45,000	B0785		
4		Imaging unit K	1	60,000	B0782		
5		Ozone filter	1	120,000	AVGR08540Y	*3	P.22
6		Toner cartridge Y	1	18,500	B0779		P.22
7		Toner cartridge M	1	18,500	B0780		
8		Toner cartridge C	1	18,500	B0781		
9		Toner cartridge K	1	24,000	B0778		
10	Image transfer section	Transfer roller unit	1	120,000 *4	AVGR08529Z		P.17
11		Transfer belt unit	1	120,000	AVGR09798C		P.24
12		Waste toner box	1	(50,000)	B07440	*2	P.16

- *1: Actual durable cycle is the life counter value.
- *2: A waste toner full condition is detected with detecting the actual waste toner emissions.
- *3: The ozone filter is furnished with the transfer belt unit so that all of them are replaced at one time.
- *4: Because there is no life-counter for the transfer roller unit, substitute it by the life-counter of the transfer belt unit.

B. Option

No.	Classification	Parts name	Qt.	Actual durable cycle *1	Parts No.	Descriptions	Ref. Page
1	DF-612	Separation roller	1	100,000	AVGR10042S		*2

- *1: Actual durable cycle is the life counter value.
- *2: See DF-612/SP-503/MS-501 service manual.

3.2.2 Cleaning parts

No.	Classification	Parts name	Actual cleaning cycle *1	Descriptions	Ref. Page
1	Scanner section	Original glass assy	30,000		P.27
2		Exposure lamp	120,000		P.28
3		Each mirror and lens	120,000		P.28
4	Conveyance section	Timing roller	Upon each call (60,000)		P.15
5	Image transfer section	Area around the waste toner collecting port	Upon each call (60,000)		P.15
6		Image transfer entrance guide	When transfer belt unit is replaced (120,000)		P.26
7		IDC/registration sensor			P.26
8	AD-505	Duplex transport roller	Upon each call (60,000)		*1
9	DF-612	Feed roller	30,000		*2
10		Separation roller	30,000		
11		Pick-up roller	30,000		
12		Regist rollers	30,000		
13		Exit rollers	30,000		

*1: See AD-505 service manual.

*2: See DF-612/SP-503/MS-501 service manual.

3.3 Concept of parts life

3.3.1 Life value of consumables and parts

- The life counter value of each materials and parts is available from [Service Mode] → [Counter] → [Life].
- Life specification value means an actual life terminated when prints are made under the conditions as defined in the next section, “Conditions for life specifications values.”
The actual life may vary greatly depending on how the machine has been used and other factors.

	Description	Life value (Specification value)	Max. life value
Waste toner box	The waste toner full sensor detects the amount of toner accumulated in the waste toner box and sends a signal that determines the end of the waste toner box life.	50,000 *1,2	–
Transfer belt unit	Comparing the number of printed pages *6 with the number of printed pages calculated based on how long the transfer belt has run, the machine detects the end of unit life when either of them reaches the set value shown on the right. (However, to detect whether the unit reaches the max. life value, the machine uses only the number of printed pages calculated based on how long the transfer belt has run.)	120,000	150,000 *3
Imaging unit C,M,Y	Comparing the PC drum rotation time with the PC drum rotation time calculated based on the number of printed pages *6, the machine detects the end of unit life when either of them reaches the set value shown in the table below. * The PC drum rotation is calculated based on the distance the PC drum has run.	See the imaging unit life values in the table below.	
Imaging unit K			

<Imaging unit life value *4>

	Life value (Specification value)		Max. life value	
	Normal *5	Long *5	Normal *5	Long *5
Y,M,C	7,042 M	10,563 M	7,355 M	11,033 M
K	6,947 M	10,421 M	7,178 M	10,767 M

- *1: A waste toner full condition is detected with detecting the actual waste toner emissions.
- *2: Once the toner-full is detected, it has to be replaced with the new waste toner box in order to reset.
- *3: The initiation of any new print cycle is inhibited when reaching the max. life value.
- *4: 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.
- *5: “Normal” and “Long” are the settings provided in [Service Mode] → [System Input] → [FWD] → [IU Life Setting].

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Maintenance

*6: The count condition is different according to the paper length of the sub scanning direction.

Paper length of sub scanning direction	Count value
Less than 216 mm	1 count
216 mm to 432 mm	2 counts
432 mm or more	3 counts

3.3.2 Conditions for life specifications values

Item		Description
Job type (standard mode)		Monochrome : Making 2 copies per job Color : Making 2 copies per job
Paper size		A4 or 8 1/2 x 11
PV/M		Black: 2,300 / Color: 500
Original density (Coverage)	Color	5 % for each color
	Monochrome	K 5 %
Low power mode		OFF
No. of operating days per month		20 days (main power switch turned ON and OFF 20 times per month)

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

- 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, transfer belt unit, imaging unit /C, imaging unit /M, imaging unit /Y, imaging unit /K

3.4 Maintenance procedure (periodical check parts)

NOTE

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

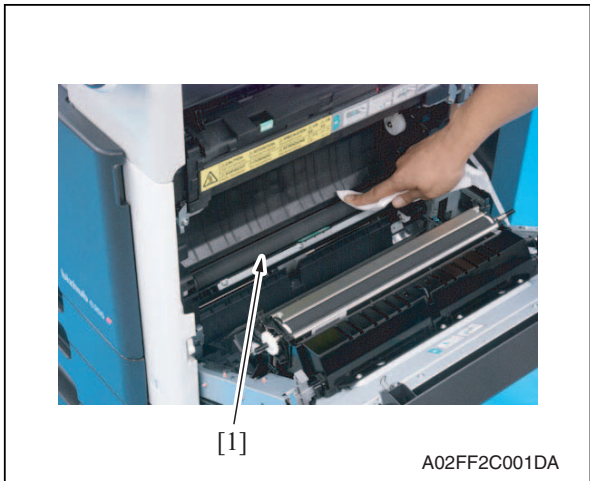
3.4.1 Cleaning of the timing roller

A. Periodically cleaning parts/cycle

- Timing roller: Every 60,000 prints (upon each call)

B. Procedure

1. Open the right door.



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

3.4.2 Cleaning of the area around the waste toner collecting port

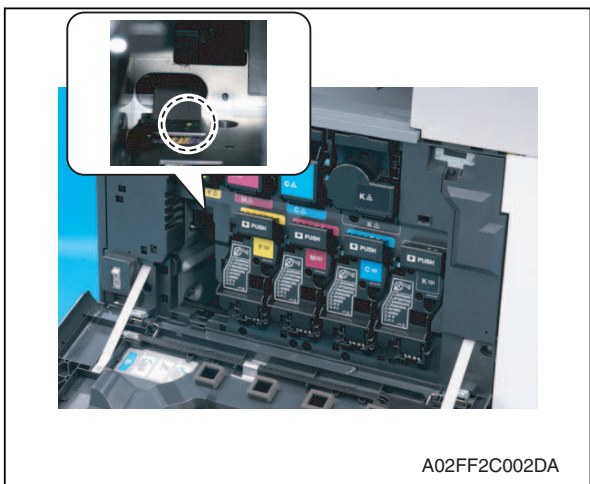
A. Periodically cleaning parts/cycle

- Area around the waste toner collecting port: Every 60,000 prints (upon each call)

B. Procedure

1. Remove the waste toner box.

[See P.16](#)



2. Wipe the areas around the waste toner collecting port clean of spilled toner and dirt using a cleaning pad with water or alcohol.

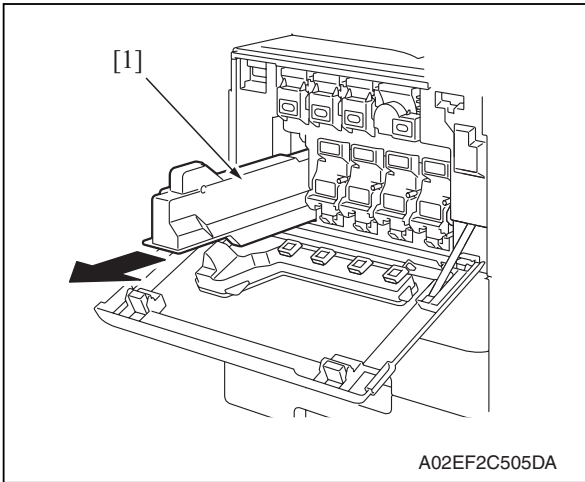
3.4.3 Replacing the waste toner box

A. Periodically replacing parts/cycle

- Waste toner box: Every 50,000 prints

B. Removal procedure

1. Open the front door.

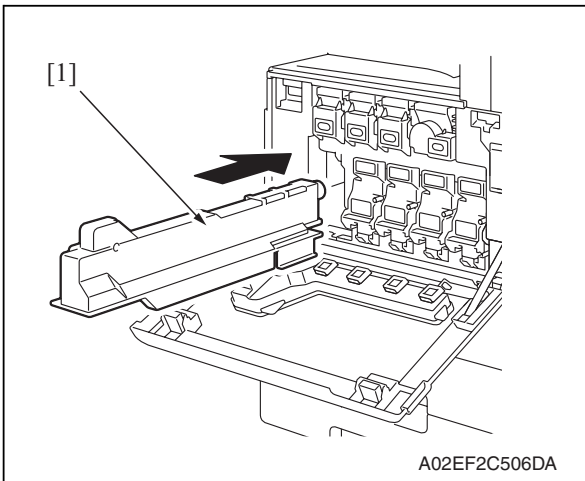


2. Raise the waste toner box [1] and remove it.

3. Clean the surface around the waste toner collecting port.

[See P.15](#)

C. Reinstall procedure



1. Remove a new waste toner box from its packaging and remove the packing material.
2. Place the waste toner box [1] in position.

3. Close the front door.

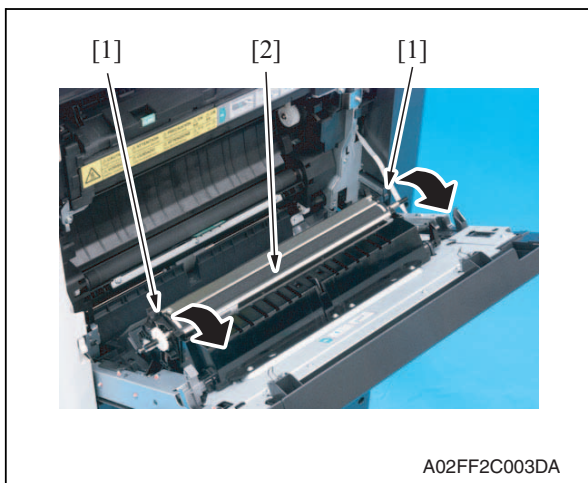
3.4.4 Replacing the transfer roller unit

A. Periodically replacing parts/cycle

- Transfer roller unit: Every 120,000 prints

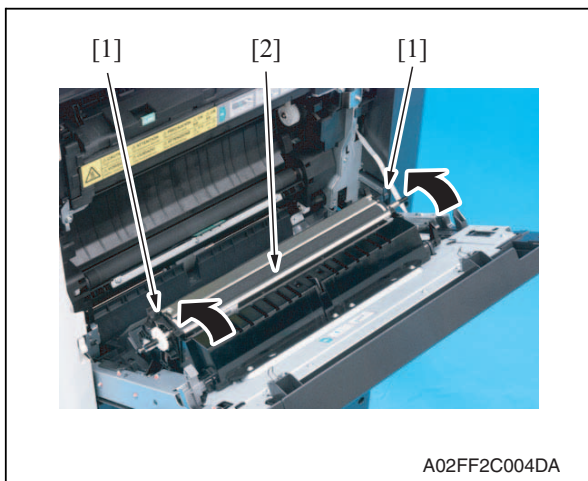
B. Removal procedure

1. Open the right door.



2. Unlock the lock levers [1] of the transfer roller unit (at two places).
3. Holding onto the lock levers [1] (at two places), remove the transfer roller unit [2].

C. Reinstall procedure



1. Holding onto the lock levers [1] (at two places), mount the new transfer roller unit [2].
2. Lock the lock levers [1] (at two places).

NOTE

- **Make sure that the levers are locked in position both at front and rear.**

3. Close the right door.

3.4.5 Replacing the imaging unit

A. Periodically replacing parts/cycle

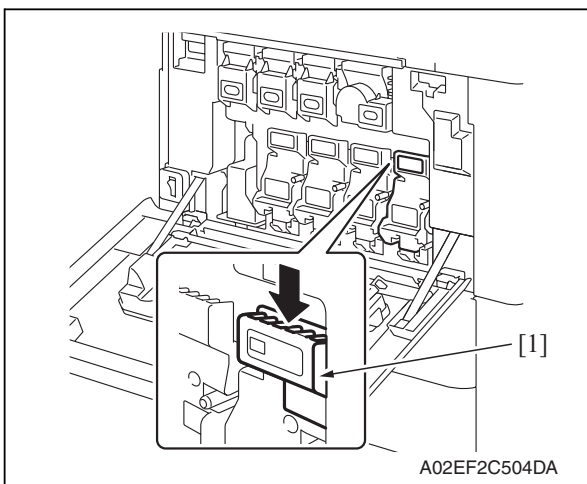
- Imaging unit Y,M,C : Every 45,000 prints
- Imaging unit K : Every 60,000 prints

NOTE

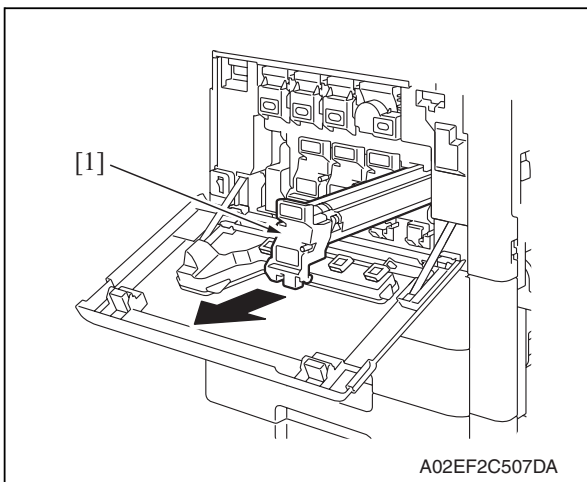
- Although the procedure shown below is for the replacement of the imaging unit K, use the same procedure to replace other imaging units Y,M,C.

B. Removal procedure

1. Open the front door.

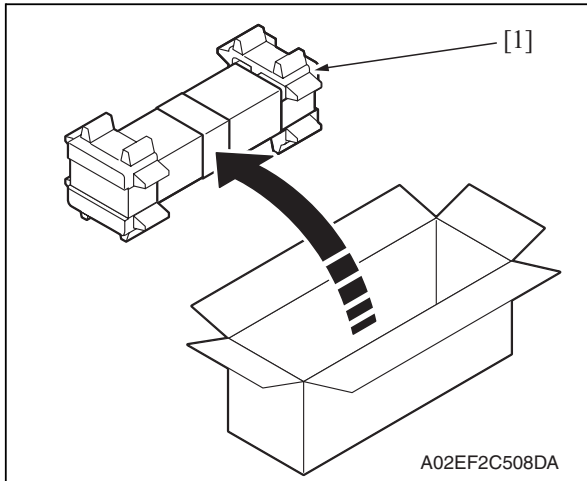


2. Press down to release the unlock lever [1] of the imaging unit to be replaced.

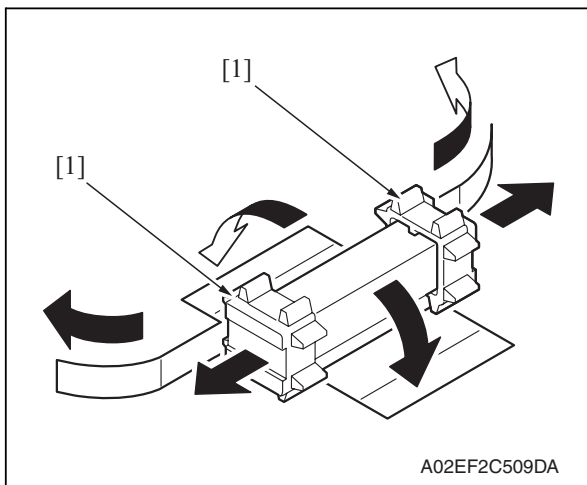


3. Remove the imaging unit [1].

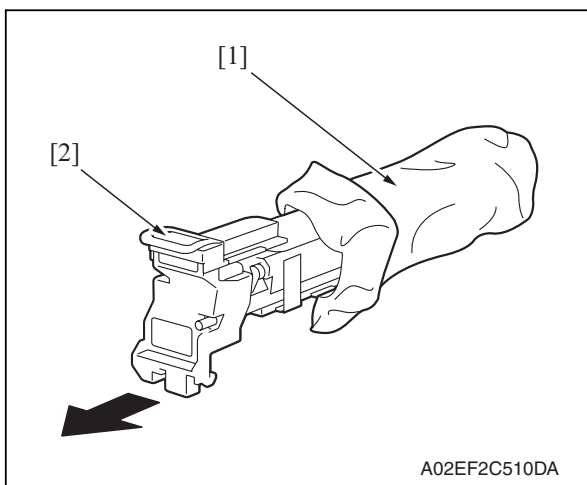
C. Reinstall procedure



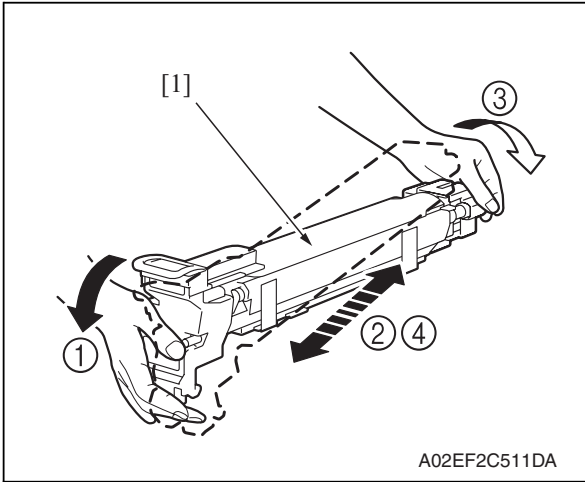
1. Remove the imaging unit [1] from its packaging.



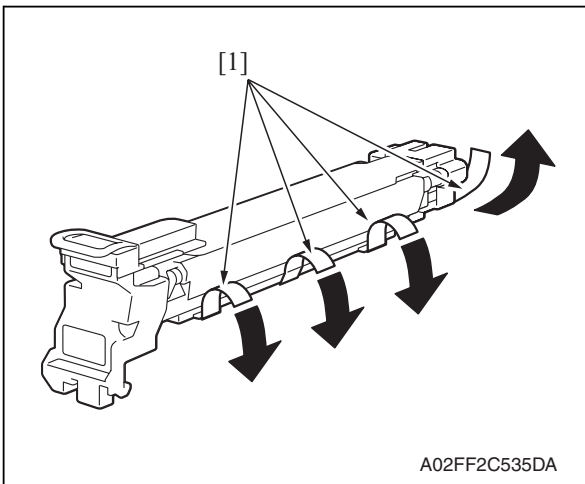
2. Peel off the tapes, and then remove the packing materials [1].



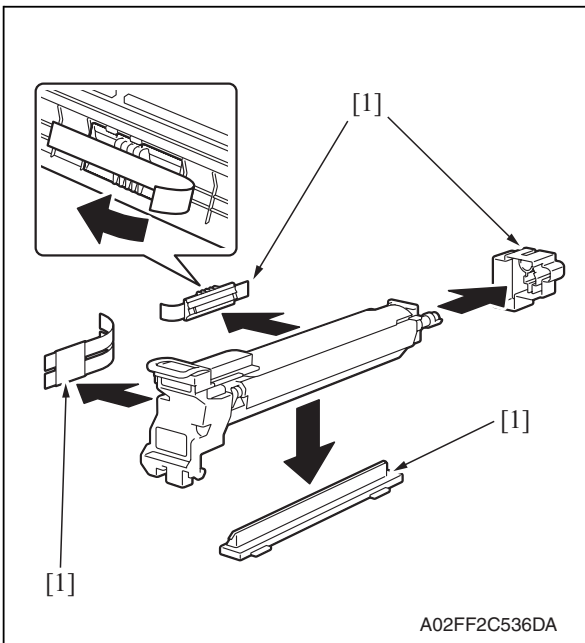
3. Remove the imaging unit [2] from the black protective bag [1].



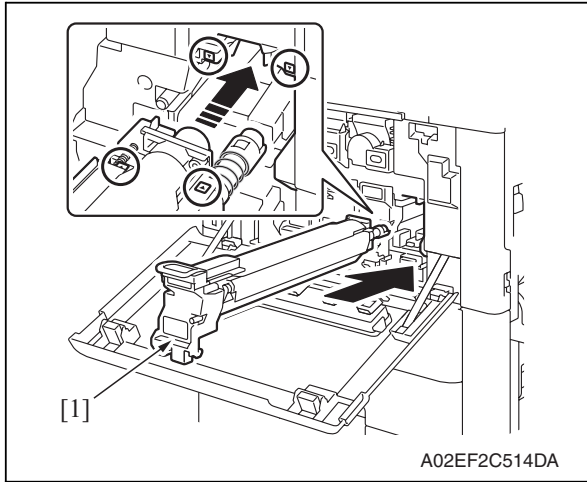
4. Tilt the imaging unit [1] to the left and shake it a little left to right twice. Then, tilt the imaging unit to the right and shake it a little right to left twice.



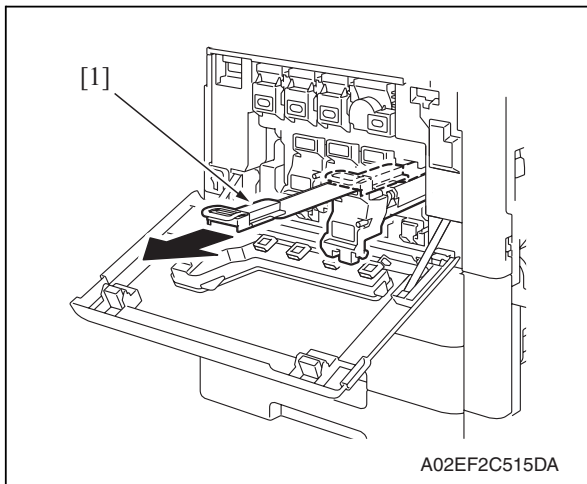
5. Peel off the tapes [1].



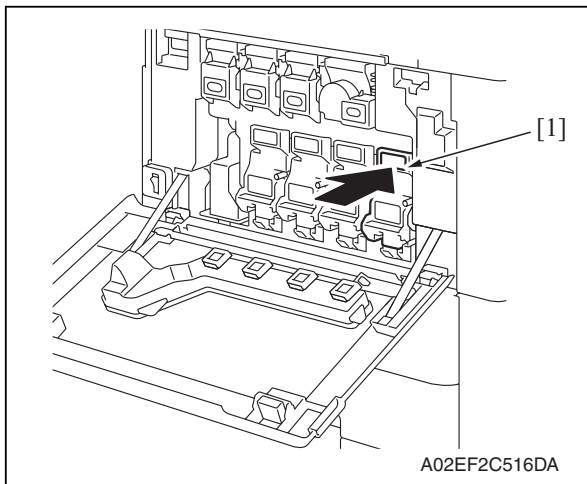
6. Remove the packing materials and securing materials [1].



7. Align the ▲ mark on the imaging unit with the ▼ mark on the main body. Install the imaging unit [1] into the main body.



8. To remove the protective sheet [1] which guards against PC drum damage, slowly pull its tab.



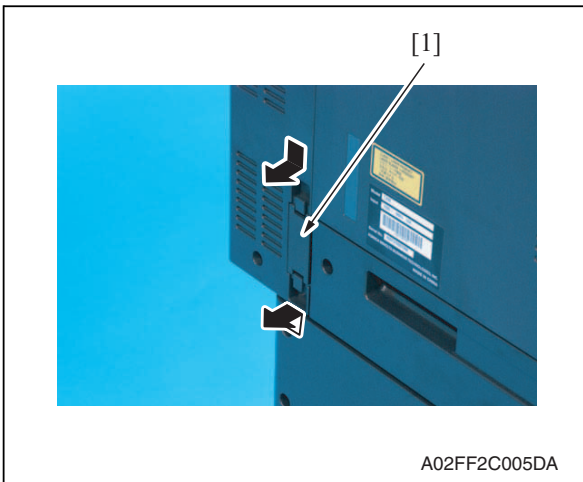
9. Insert the imaging unit [1] completely and close the front door.

3.4.6 Replacing the ozone filter

A. Periodically replacing parts/cycle

- Ozone filter: Every 120,000 prints

B. Procedure



1. Grip the handle on the ozone filter [1] and slide it out of the main body.

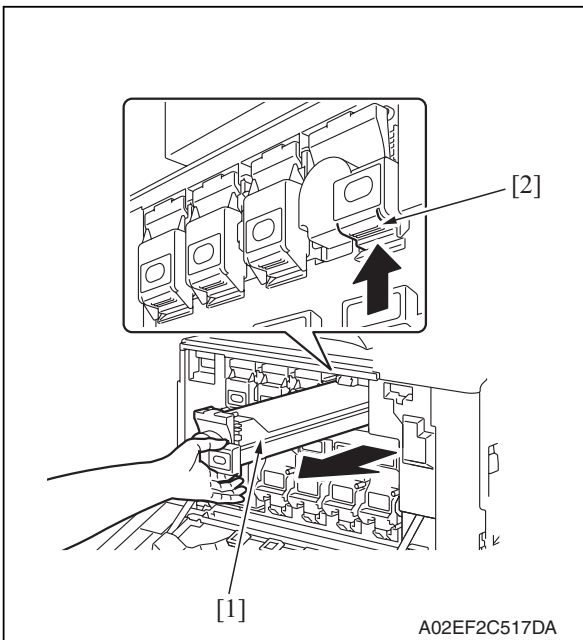
3.4.7 Replacing the toner cartridge

A. Periodically replacing parts/cycle

- Toner cartridge Y,M,C : Every 18,500 prints
- Toner cartridge K : Every 24,000 prints

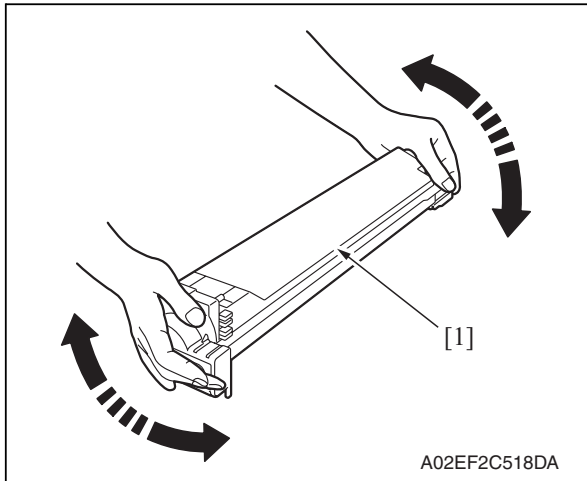
B. Removal procedure

1. Open the front door.

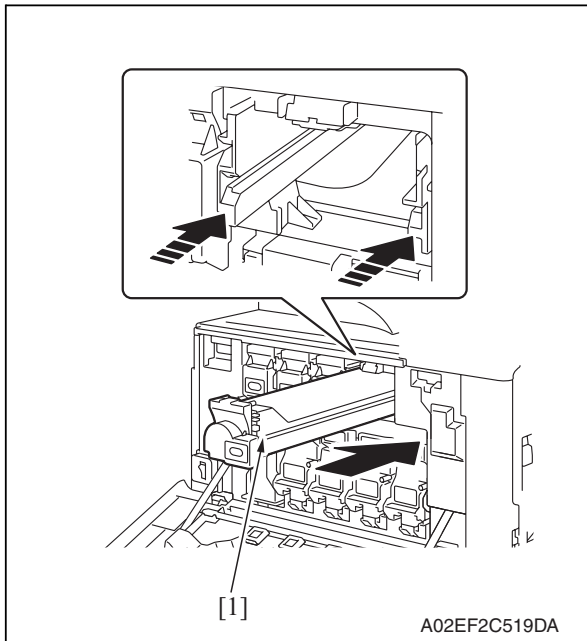


2. Pull up the locking tab [2] of the empty toner cartridge [1] to unlock it.
3. Pull out the toner cartridge [1] as far as possible, and then pull it up to remove it.

C. Reinstall procedure



1. Remove the new toner cartridge [1] from its packaging, and then shake the cartridge up and down 5 to 10 times.



2. Align the toner cartridge [1] with the slots in the machine, and then insert the cartridge until the locking tab locks into place.

3.4.8 Replacing the transfer belt unit

A. Periodically replacing parts/cycle

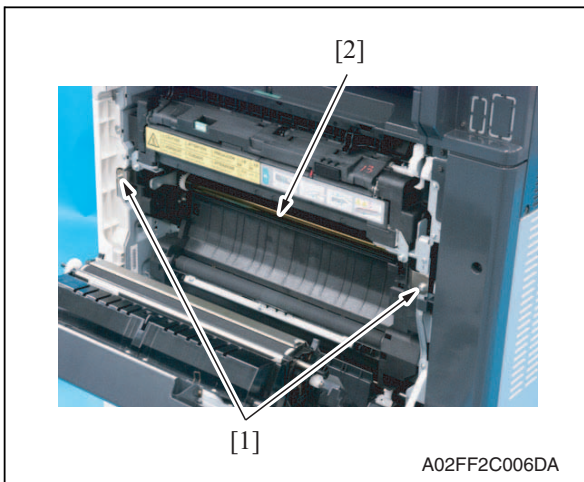
- Transfer belt unit: Every 120,000 prints

NOTE

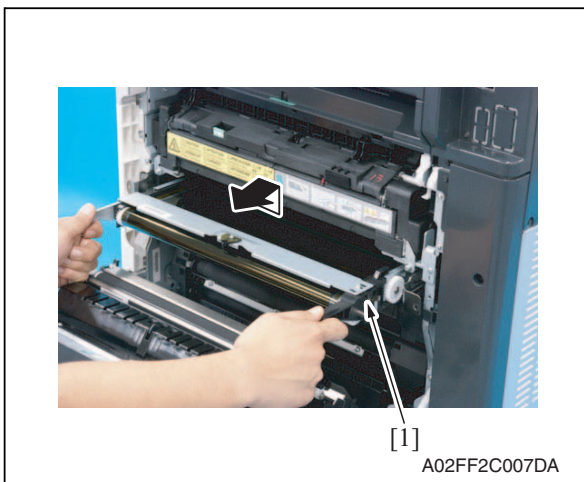
- Before replacement operations of the transfer belt unit, make sure to turn OFF the main power switch and the sub power switch.

B. Removal procedure

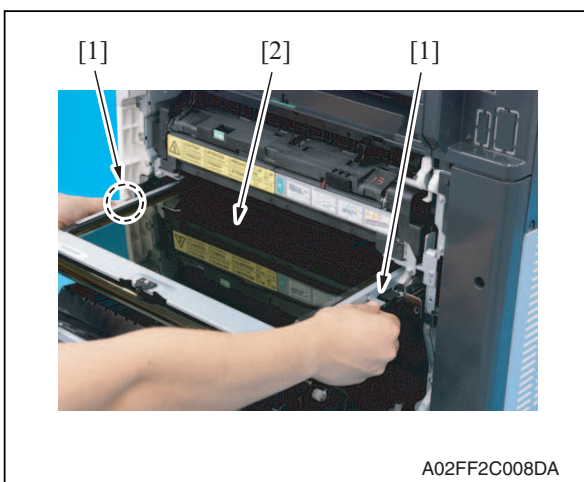
1. Turn OFF the main power switch and the sub power switch.
2. Open the right door.



3. Remove two screws [1] and release the lock of the transfer belt unit [2].



4. Hold the both sides and lift it to take out the transfer belt unit [1] a little.

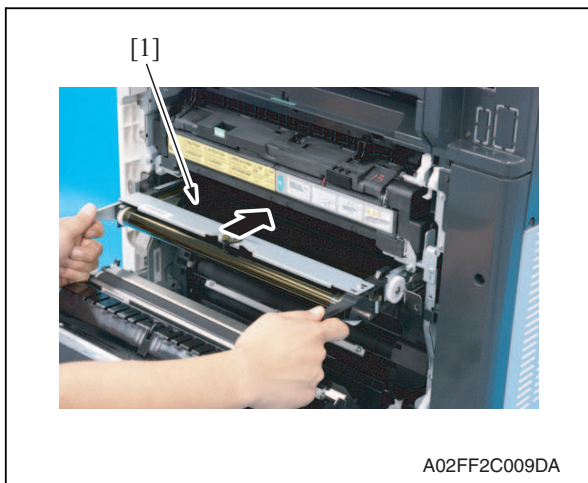


5. Hold the position [1] as shown in the left and remove the transfer belt unit [2].

NOTE

- Do not touch the surface of the Image transfer belt unit.
- Cover the image transfer belt unit with something such shade cloth to protect its surface from dust or foreign matter.

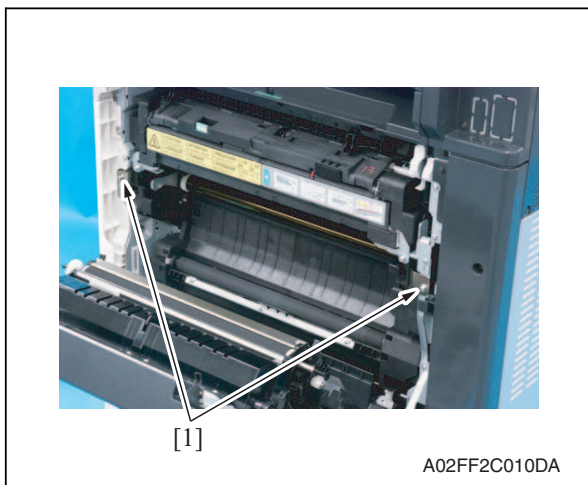
C. Reinstall procedure



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.
- Do not touch the surface of the image transfer belt unit.
- Cover the image transfer belt unit with something such shade cloth to protect its surface from dust or foreign matter.



2. Install the transfer belt unit with two screws [1].

NOTE

- Replace the ozone filter, which is supplied with the transfer belt unit, at the same time.

3. Close the right door.
4. Turn ON the main power switch.
5. Select [Service Mode] → [Imaging Process Adjustment] → [Gradation Adjust] and carry out gradation adjust.

[See P.164](#)

d-Color MF201

Maintenance

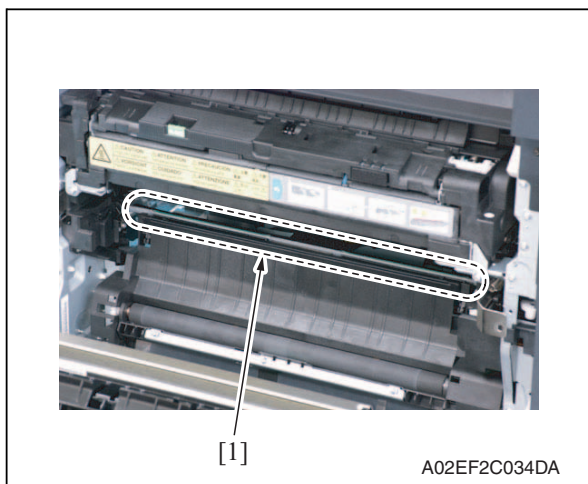
3.4.9 Cleaning of the image transfer entrance guide

A. Periodically cleaning parts/cycle

- Image transfer entrance guide: When the transfer belt unit is replaced (every 120,000 print)

B. Procedure

1. Remove the transfer belt unit.
See P.24



2. Wipe the image transfer entrance guide [1] clean of spilled toner and dirt using a cleaning pad with water or alcohol.

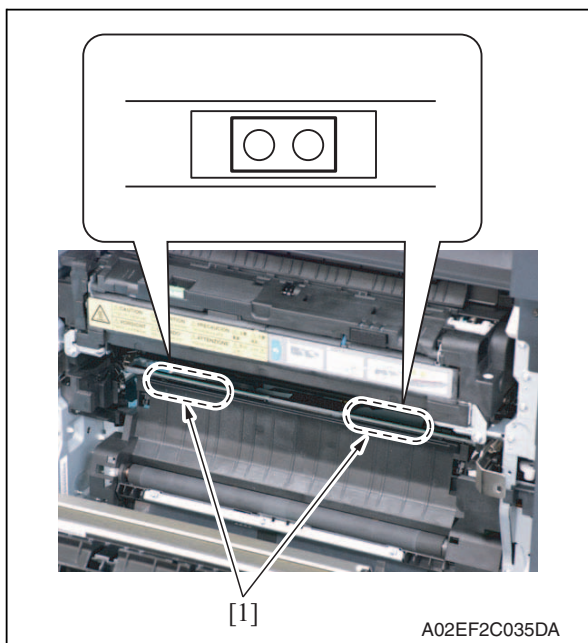
3.4.10 Cleaning of the IDC/registration sensor/MK,YC

A. Periodically cleaning parts/cycle

- IDC/registration sensor/MK,YC: When the transfer belt unit is replaced (every 120,000 print)

B. Procedure

1. Remove the transfer belt unit.
See P.24



2. Wipe the surface of the IDC/registration sensor/MK,YC [1] clean of spilled toner and dirt using a cotton bud.

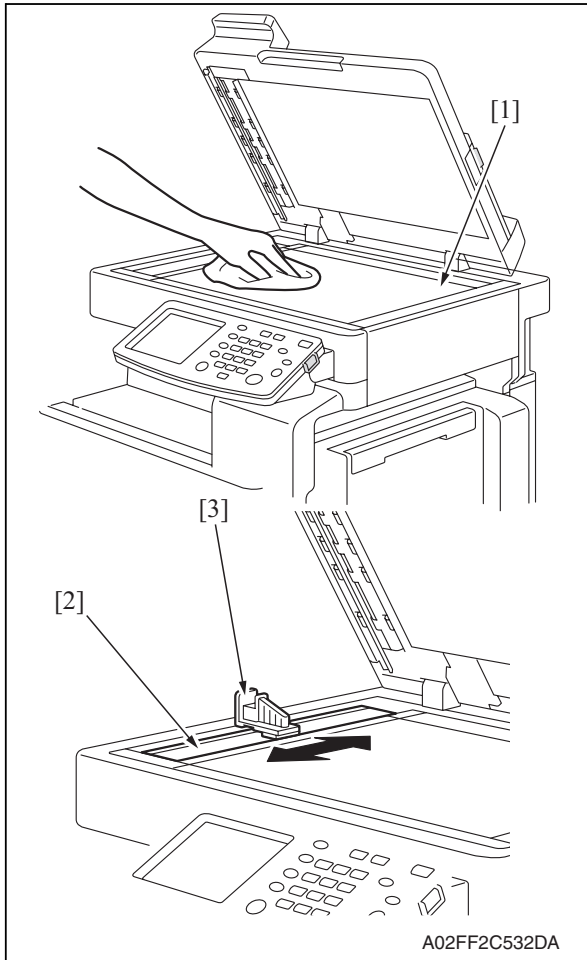
3.4.11 Cleaning of the original glass assy

A. Periodically cleaning parts/cycle

- original glass assy: Every 30,000 sheets scan

B. Procedure

1. Open the original cover or the ADF.



2. Clean the surface of the original glass [1] using a cleaning pad.
3. Clean the left partition glass [2] with the left partition glass cleaner [3].

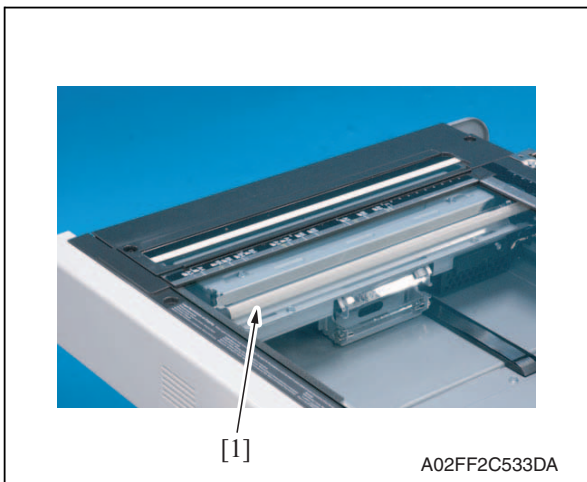
3.4.12 Cleaning of the exposure lamp

A. Periodically cleaning parts/cycle

- Exposure lamp: Every 120,000 sheets scan

B. Procedure

1. Remove the original glass assy.
See P.51



2. Wipe the exposure lamp [1] clean of dirt using a cleaning pad.

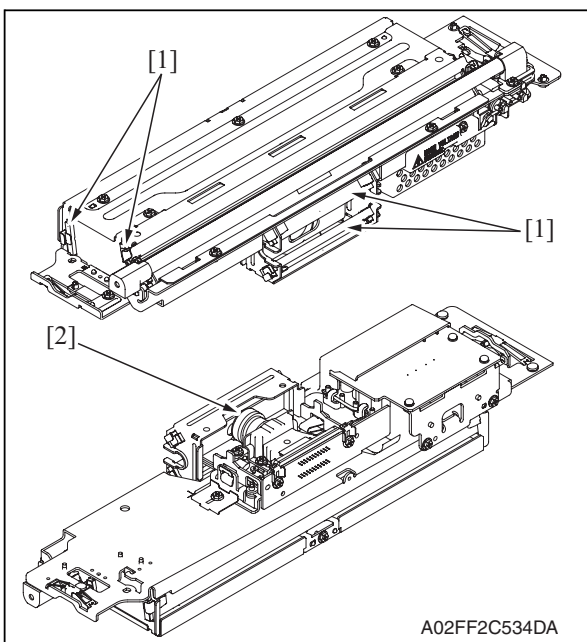
3.4.13 Cleaning of the each mirror and the lens

A. Periodically cleaning parts/cycle

- Each mirror and lens: Every 120,000 sheets scan

B. Procedure

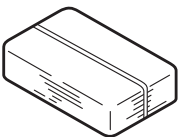

1. Remove the exposure unit.
See P.74



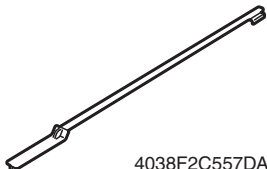
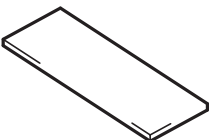
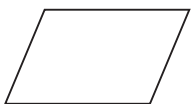
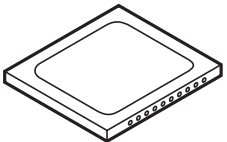
2. Wipe the each mirror [1] and the lens [2] clean of dirt using a cleaning pad.

4. Service tool

4.1 Service material list

Name	Shape	Material No.	Remarks
Cleaning pad	 A02EF2C526DA	_____	10pcs/1pack
Isopropyl alcohol	 A00KF2C506DA	—	

4.2 CE tool list

Tool name	Shape	Quantity	Parts No.	Remarks
PH window cleaning jig	 4038F2C557DA	1	AVGR05391U	
PH window cleaning jig pad	 4038F2C558DA	1	AVGR05417G	
Color chart	 A02EF2C520DA	1	AVGR06936D	A3
				11 x 17
Compact flash	 4037F2C601DA	1		*1

*1: Inquire of KMBT about the part number of compact flash in which the firmware data is written.

4.3 Copy materials

4.3.1 Imaging unit single parts (IU)

Parts name	Replacing period
Imaging unit K	60,000 prints
Imaging unit Y	45,000 prints
Imaging unit M	45,000 prints
Imaging unit C	45,000 prints

[See P.13](#)

4.3.2 Toner cartridge single parts (T/C)

Parts name	Replacing period
Toner cartridge K	24,000 prints
Toner cartridge Y	18,500 prints
Toner cartridge M	18,500 prints
Toner cartridge C	18,500 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

4.3.3 Waste toner box

Parts name	Replacing period *1
Waste toner box	50,000 prints *1

*1: A waste toner full condition is detected with detecting the actual waste toner emissions.

[See P.13](#)

4.3.4 Maintenance kit

There is no setting for the maintenance kit.

5. Firmware upgrade

5.1 Preparations for firmware rewriting

5.1.1 Items required

- Drive which enables writing/reading of compact flash
- Compact flash (service tool)

5.1.2 Writing data to compact flash

1. Prepare firmware data.
2. Format the compact flash on the PC.

NOTE

- **Use the FAT file format for formatting the compact flash.**
The machine does not recognize any compact flash that has been formatted in FAT32 or other format.
- 3. Copy the firmware data to the compact flash.

NOTE

- **When copying the data to the compact flash, directly copy the files contained in the folder, instead of copying the folder.**
- **Copy only the data to be rewritten.**
- **Note that no display is given on the control panel if wrong firmware is copied.**
- **Be sure to take note of the checksum value of the firmware data.**

5.1.3 Checking version

- Before rewriting firmware, check the current ROM version.
[See P.143](#)

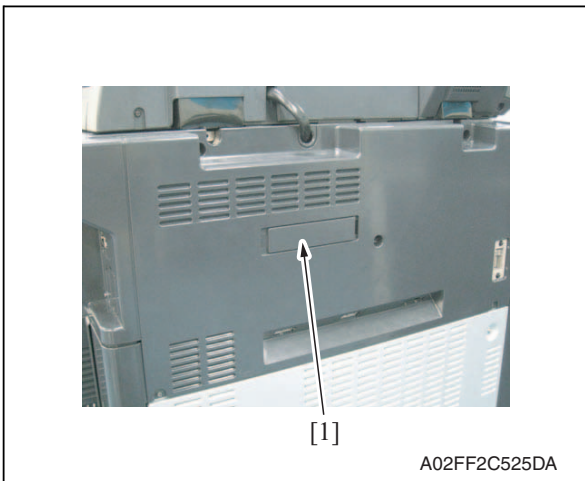
5.2 Firmware rewriting procedures

NOTE

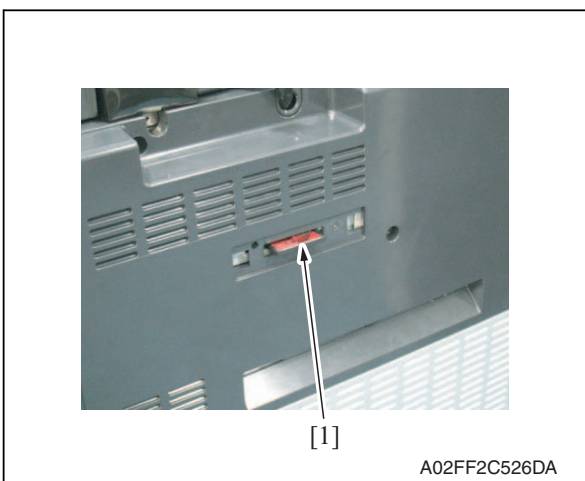
- **NEVER** remove or insert the compact flash card with the machine power turned ON.
- Confirm the current version before upgrading the firmware.
- Before upgrading the firmware, confirm that no jobs remain within the machine.

5.2.1 Controller

1. Turn OFF the main power switch.



2. Remove the cover [1] from the compact flash insertion slot.



3. Insert the compact flash [1], to which the controller files to be rewritten are copied, into the slot.

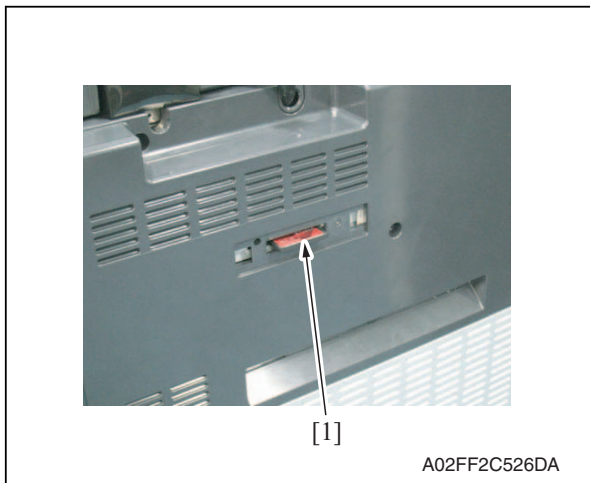
NOTE

- **Do not copy engine, job separator, and other firmware to the compact flash.**

4. Turn ON the main power switch and the sub power switch.
5. The Flash ROM Setup screen is displayed on the control panel display, and upgrading starts.
6. When "FINISH" is displayed at the bottom of the control panel, upgrading of the firmware is completed.
Turn OFF the main power switch.

NOTE

- **NEVER** turn OFF the main power switch until "FINISH" appears.



7. Remove the compact flash card [1] from the slot.

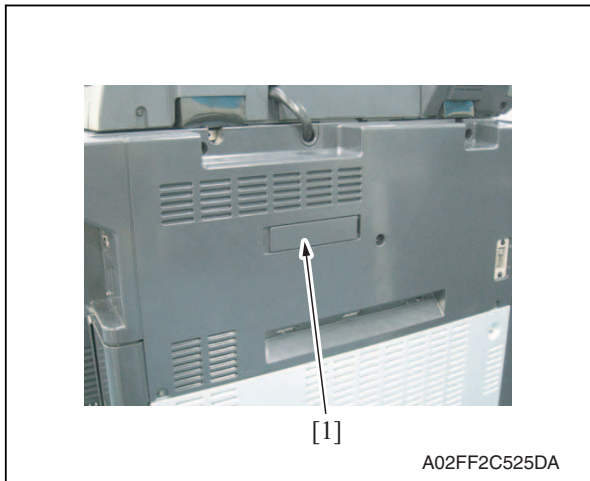
8. Reinstall the cover of the slot.
9. Turn ON the main power switch and the sub power switch.
10. Select [Admin.] → [Firmware Version].
11. Check that the firmware version has been updated.

5.2.2 Engine/job separator

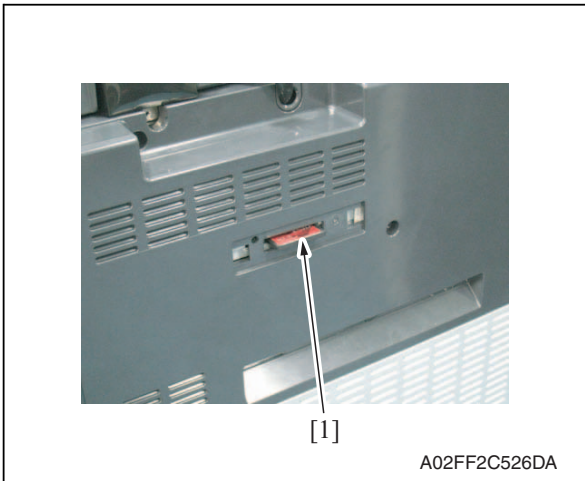
NOTE

- Make sure that the controller firmware is not copied to the compact flash.
- To rewrite both the engine and job separator firmware at the same time, copy both types of firmware to the compact flash.
- If wrong files are copied to the compact flash, no display is given on the control panel.

1. Turn OFF the main power switch.



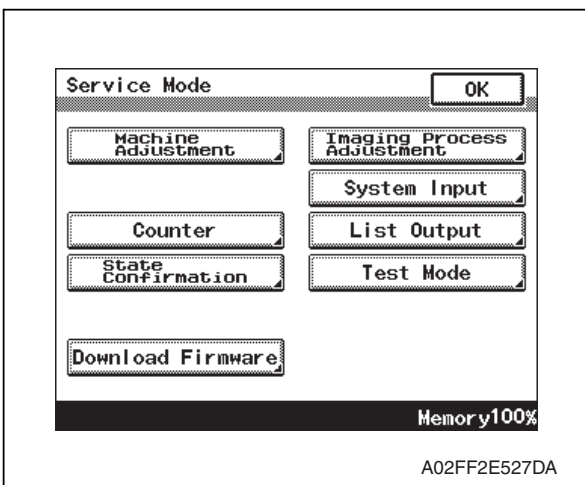
2. Remove the cover [1] from the compact flash insertion slot.



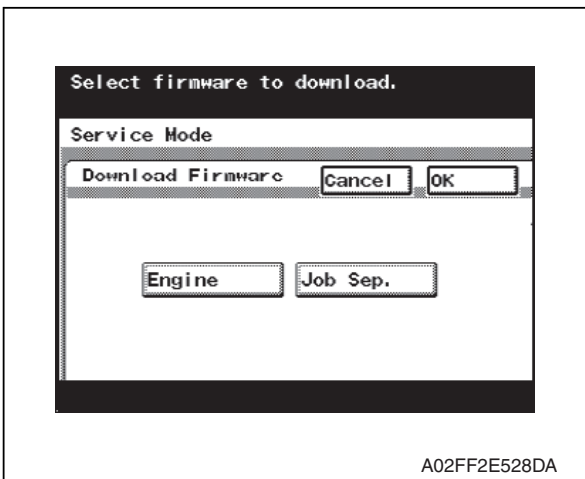
3. Insert the compact flash [1], to which the engine and job separator firmware data is copied, into the slot.

4. Turn ON the main power switch and the sub power switch.
5. Call the service mode to the screen.

See P.146



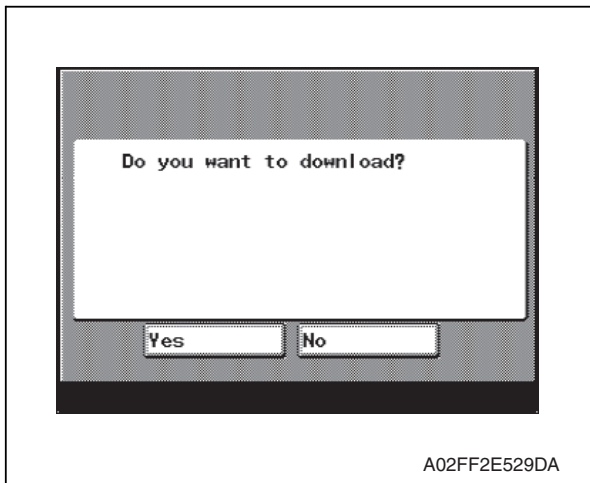
6. Touch [Download Firmware].



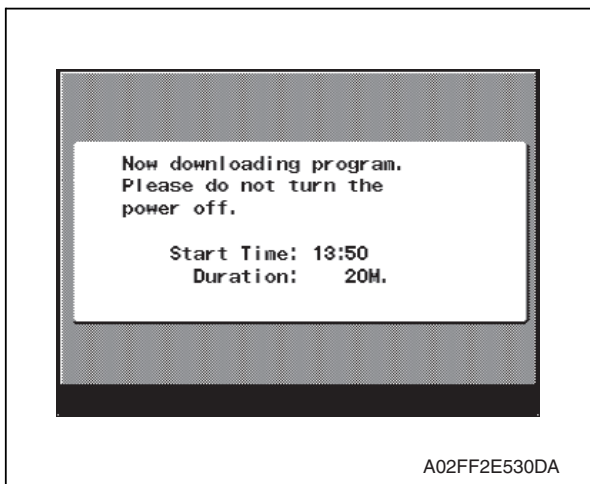
7. Select [Engine] and touch [OK].

NOTE

- Touch [Job Sep.] also if the job separator firmware data is also to be rewritten.



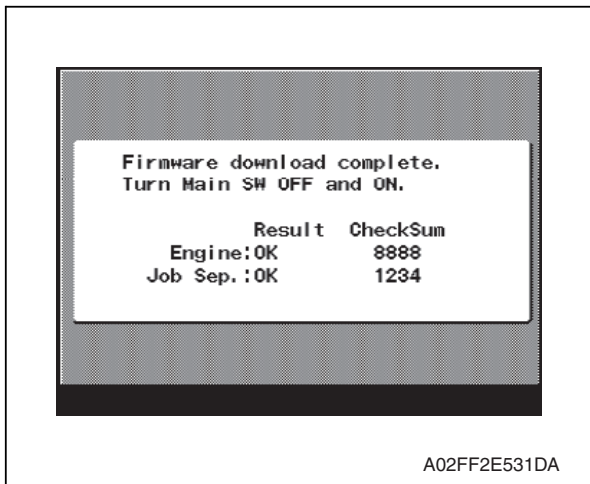
8. Check the message, then select [Yes].



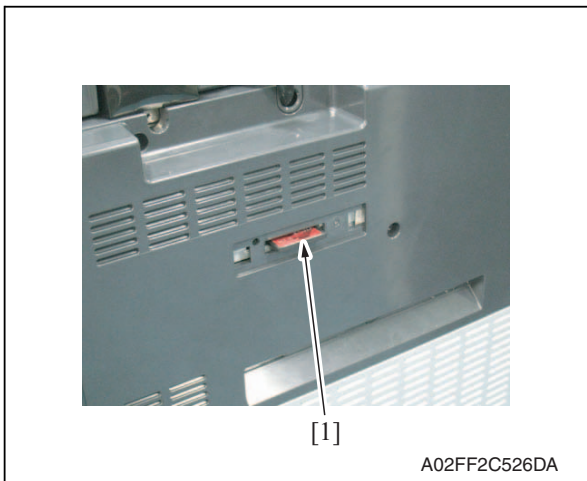
9. The screen on the left will appear as soon as downloading starts.

NOTE

- **While this screen is being displayed, which indicates that the firmware is being rewritten, never turn OFF the main power switch or sub power switch, unplug the power cord, open the cover, or otherwise perform action to hamper the rewriting procedure.**



10. The screen on the left appears when the rewriting sequence is completed.
11. Check the checksum value recorded against that shown on the screen and make sure that there is a match between the two values.
12. Turn OFF the main power switch.



13. Remove the compact flash card [1] from the slot.

14. Reinstall the cover of the slot.
15. Turn ON the main power switch.
16. Select [Admin.] → [Firmware Version].
17. Check that the firmware version has been updated.

6. Other

6.1 Disassembly/adjustment prohibited items

A. Paint-locked screws

NOTE

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

B. Red-painted screws

NOTE

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

C. Variable resistors on board

NOTE

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

D. Removal of PWBs

CAUTION

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

6.2 Disassembly/assembly/cleaning list (other parts)

6.2.1 Disassembly/assembly parts list

No.	Section	Part name	Ref. page
1	Exterior parts	Front door	P.40
2		Upper front cover	P.41
3		Right front cover	P.41
4		Left cover	P.42
5		Left shield cover	P.42
6		Rear left cover	P.43
7		Exit cover	P.43
8		IR rear cover	P.44
9		Paper exit rear cover	P.44
10		Rear cover	P.45
11		Rear right cover	P.45
12		Control panel assy	P.46
13		Exit tray	P.47
14		Tray 1	P.47
15		Front cover	P.48
16		IR upper front cover	P.50
17		IR left cover	P.50
18		IR right cover	P.51
19		Original glass assy	P.51
20		ADF glass assy	P.52
21	Rollers	Tray1 feed roller	P.52
22		Tray 1 separation roller assy	P.53
23	Units	Fusing unit	P.54
24		PH unit	P.55
25		Main drive unit	P.60
26		Transport drive unit	P.63
27		Fusing drive unit	P.67
28		Hopper drive unit (C/K, Y/M)	P.69
29		Right door assy	P.70
30		Scanner chassis	P.71
31		Exposure unit	P.74
32		Flat cable of the exposure unit	P.77
33	PWBs	PH relay board (REYB/PH)	P.79
34		DC power supply (DCPU)	P.81
35		Printer control board (PRCB)	P.82
36		Service EEPROM board (SVERB)	P.83
37		High voltage unit (HV)	P.85
38		Tray 1 paper FD size detect board (PSDTB/1)	P.85

No.	Section	Part name	Ref. page
39	PWBs	ADCU board (ADCUB)	P.86
40		MFBU board (MFBUB)	P.87
41		BCRU board (BCRUB)	P.89
42		Inverter board (INVB)	P.90
43	Motors	Transport motor (M1)	P.91
44		Color PC motor (M3)	P.92
45		Fusing motor (M2)	P.92
46		Fusing pressure roller retraction motor (M12)	P.93
47		Toner supply motor/CK (M7)	P.93
48		Toner supply motor/YM (M6)	P.94
49		Scanner motor (M201)	P.94
50	Clutches	Transfer belt pressure retraction clutch (CL3)	P.95
51		Developing clutch/K (CL4)	P.96
52		Tim. roller clutch (CL1)	P.97
53	etc.	IDC registration sensor/MK (IDCS/MK)	P.97
54		IDC registration sensor/YC (IDCS/YC)	P.97
55		Exposure lamp (FL201)	P.100
56		Scanner drive wires	P.102

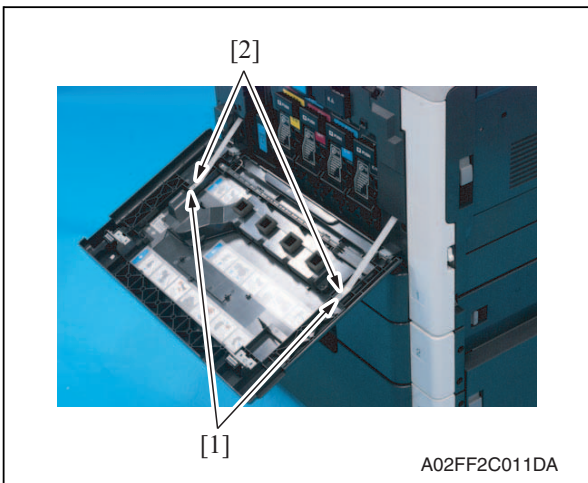
6.2.2 Cleaning parts list

No.	Section	Part name	Ref. page
1	Processing section	Transfer belt unit	P.107
2		PH window	P.107
3	Tray 1	Tray 1 feed roller	P.108
4		Tray 1 separation roller	P.108

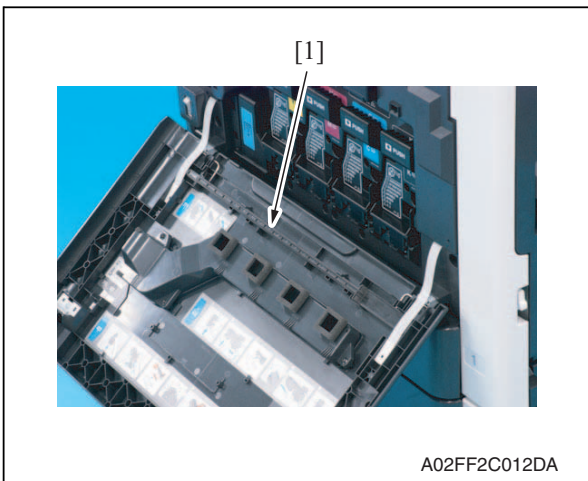
6.3 Disassembly/assembly procedure

6.3.1 Front door

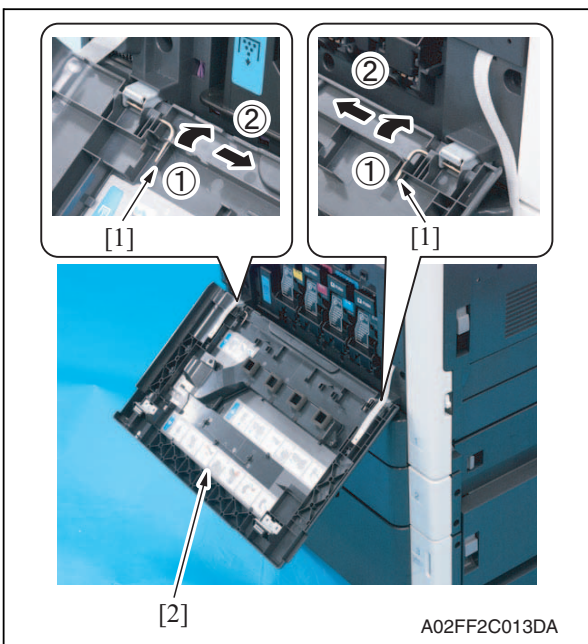
1. Open the front door.



2. Remove two screws [1] and the suppression plate [2].



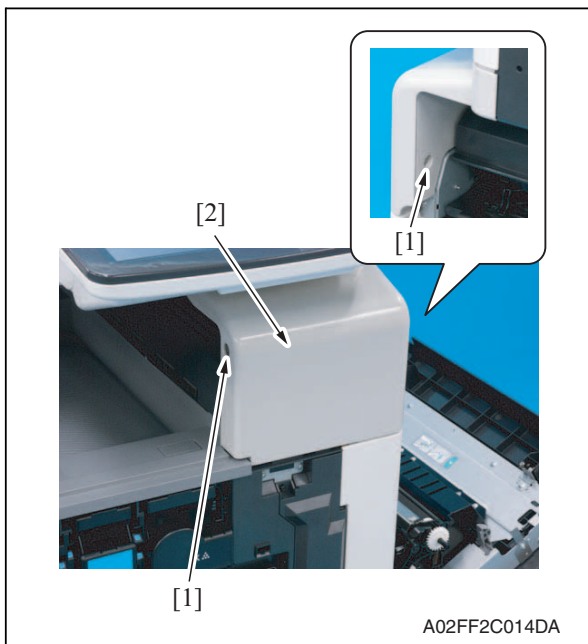
3. Remove the PH window cleaning jig [1].



4. Slide the pins [1] in the direction of the arrow and remove it.
 5. Remove the front door [2].

6.3.2 Upper front cover

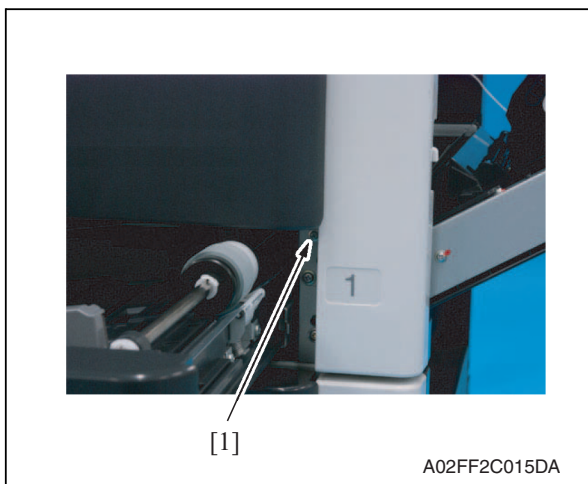
1. Open the front door.
2. Open the right door.



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

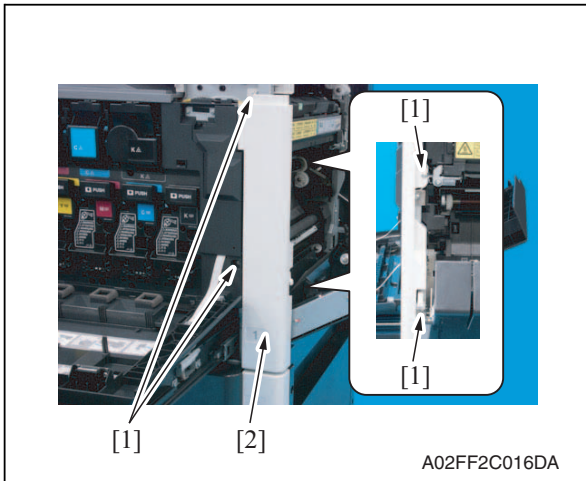
6.3.3 Right front cover

1. Remove the upper front cover.
[See P.41](#)
2. Slide out the tray 1.



3. Temporarily close the front door and remove the screw [1].

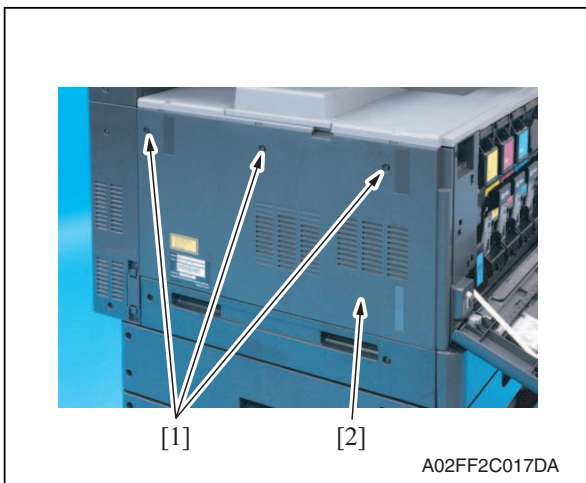
4. Open the front door again.



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

6.3.4 Left cover

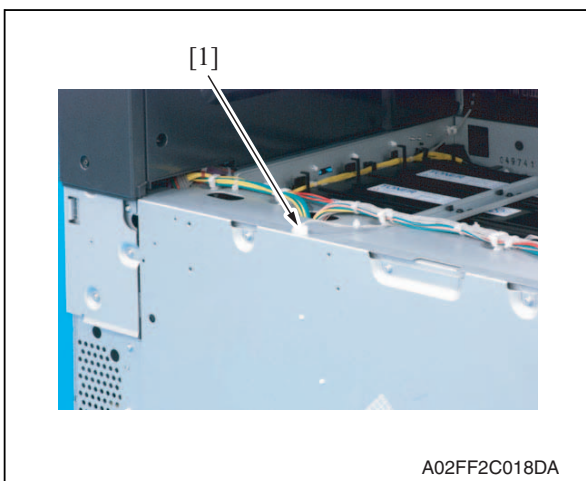
- Open the front door.



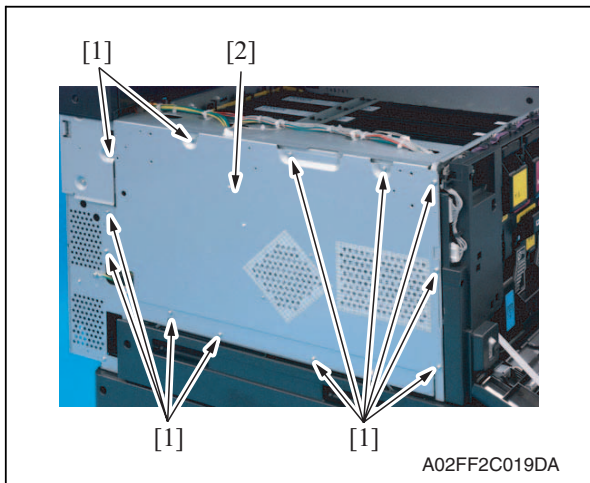
- Remove three screws [1], and remove the left cover [2].

6.3.5 Left shield cover

- Remove the exit tray.
[See P.47](#)
- Remove the rear left cover.
[See P.43](#)



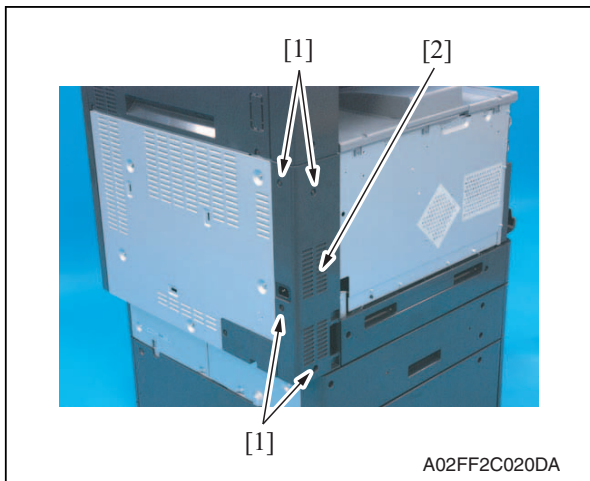
- Disconnect the connector [1].



4. Remove twelve screws [1], and remove the left shield cover [2].

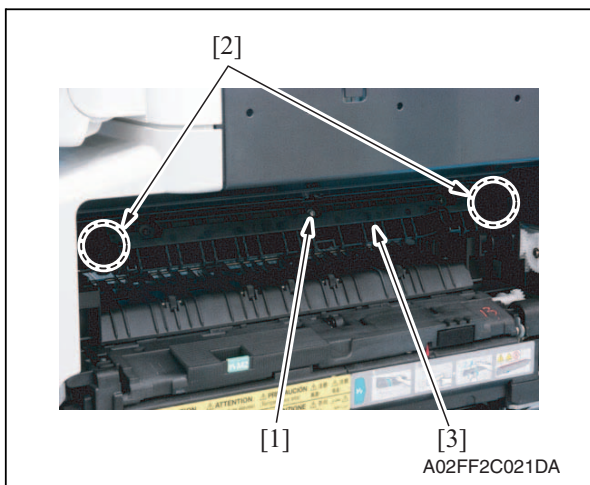
6.3.6 Rear left cover

1. Remove the ozone filter.
[See P.22](#)
2. Remove the left cover.
[See P.42](#)



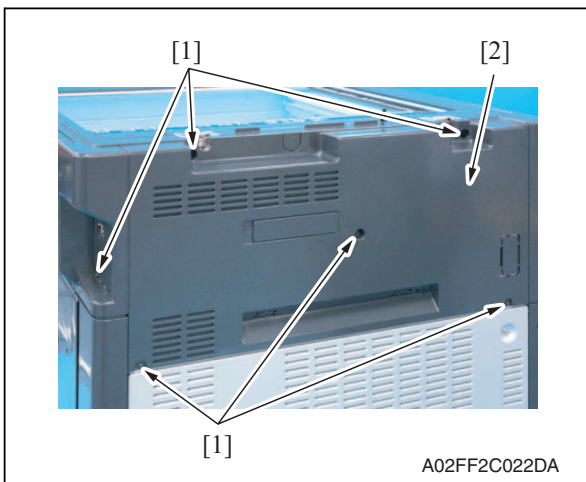
3. Remove four screws [1], and remove the rear left cover [2].

6.3.7 Exit cover



1. Remove the screw [1], unhook two tabs [2], and remove the paper exit cover [3].

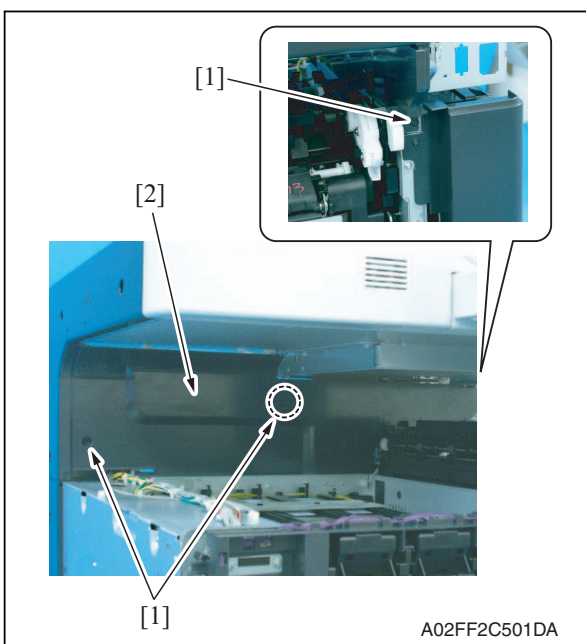
6.3.8 IR rear cover



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

6.3.9 Paper exit rear cover

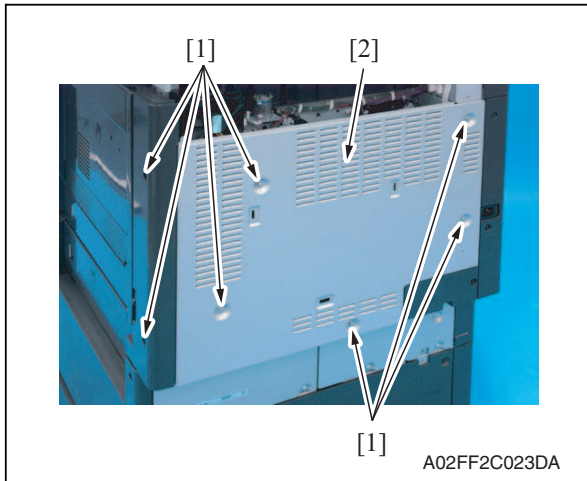
1. Remove the rear left cover.
[See P.43](#)
2. Remove the IR rear cover.
[See P.44](#)
3. Remove the exit tray.
[See P.47](#)
4. Remove the exit cover.
[See P.43](#)



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

6.3.10 Rear cover

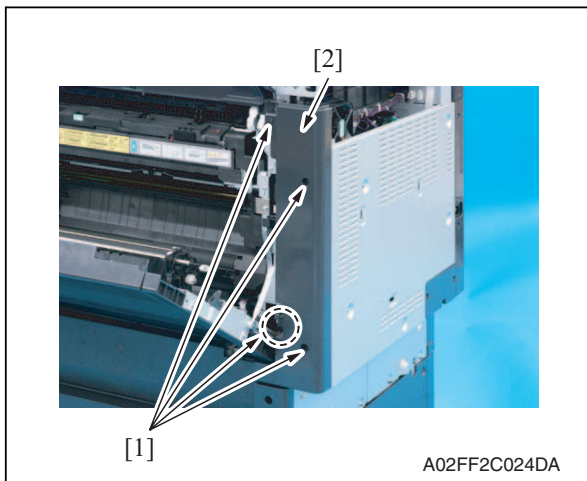
1. Remove the IR rear cover.
[See P.44](#)



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

6.3.11 Rear right cover

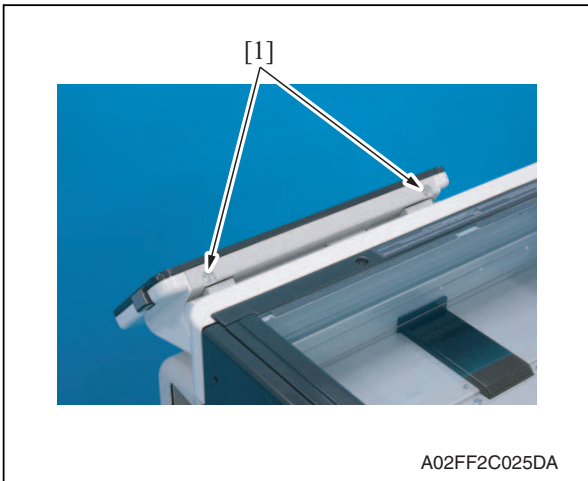
1. Open the right door.
2. Remove the IR rear cover.
[See P.44](#)



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

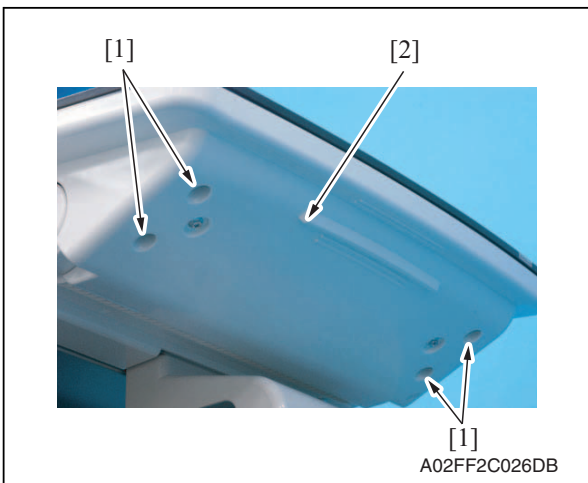
6.3.12 Control panel assy

1. Lower the control panel down to the bottommost position.

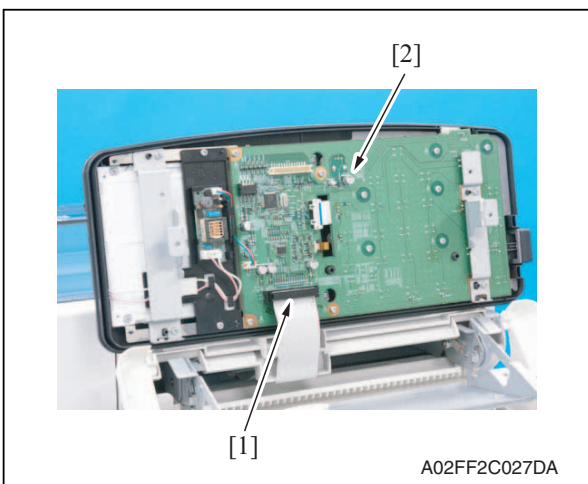


2. Remove two screws [1].

3. Raise the control panel to the topmost position.



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

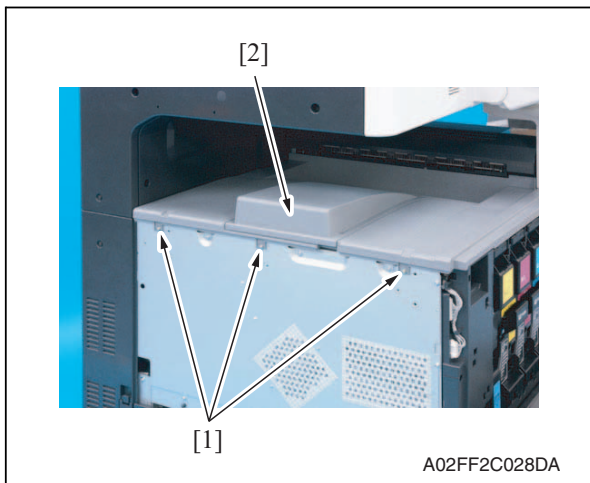


5. Disconnect the connector [1] of the flat cable, and remove the control panel assy [2].

6.3.13 Exit tray

1. Open the front door.
2. Remove the left cover.

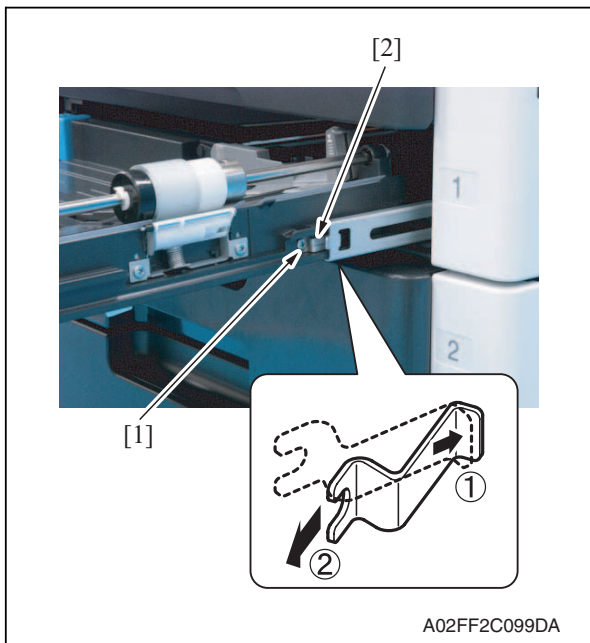
See P.42



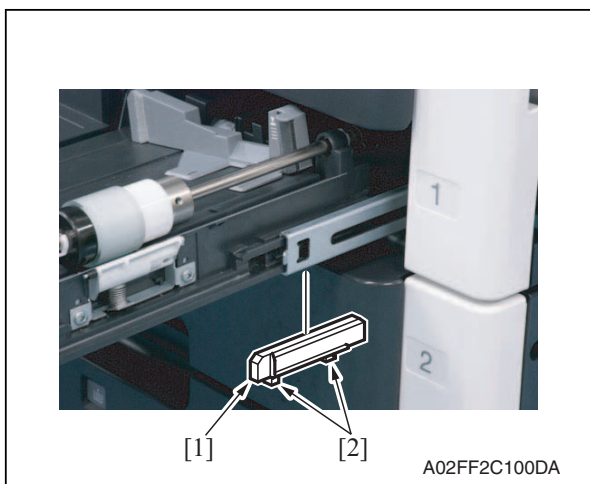
3. Remove three screws [1], and remove the exit tray [2].

6.3.14 Tray 1

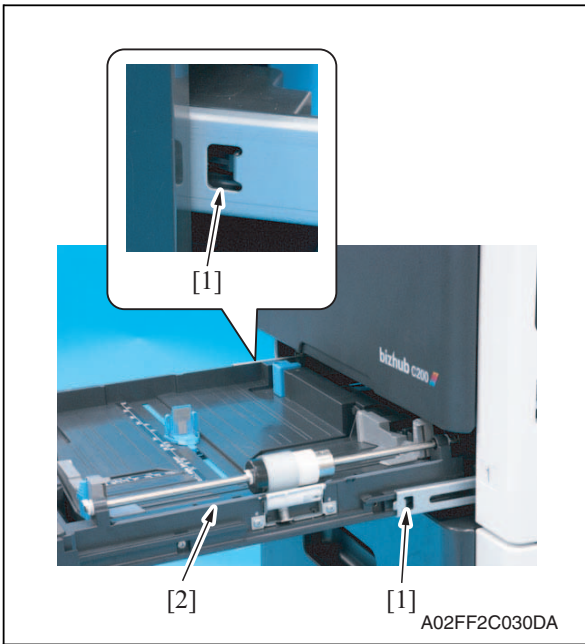
1. Slide out the tray 1.



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



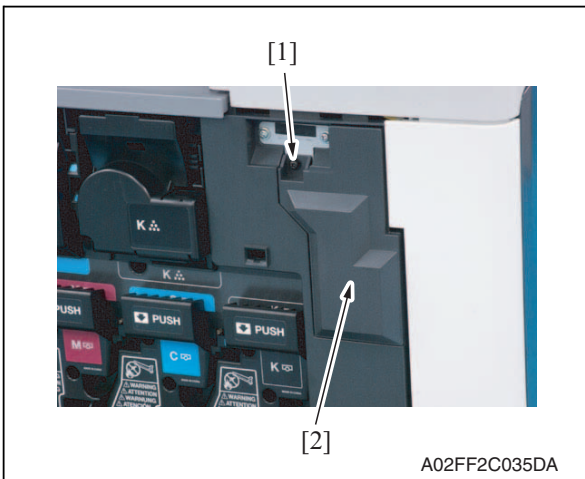
3. Hold two tabs [2], and remove the spacer [1].



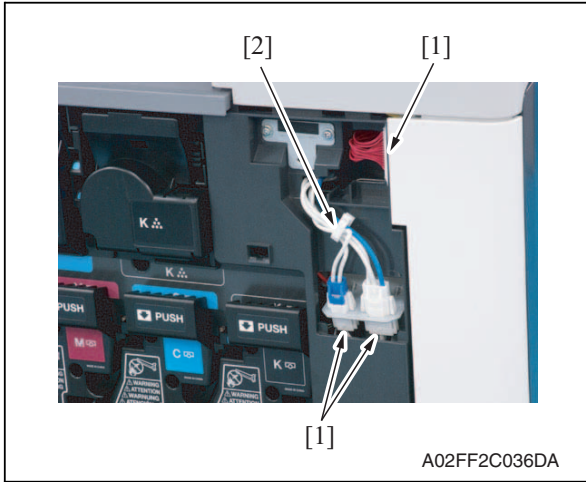
4. Pushing the slide locks [1] on both ends, remove the tray 1 [2].

6.3.15 Front cover

1. Slide out the tray 1.
2. Remove the front door.
[See P.40](#)
3. Remove the left cover.
[See P.42](#)
4. Remove the toner cartridges (C, M, Y, K).
[See P.22](#)
5. Remove the waste toner box.
[See P.16](#)
6. Remove the imaging units (C, M, Y, K).
[See P.18](#)

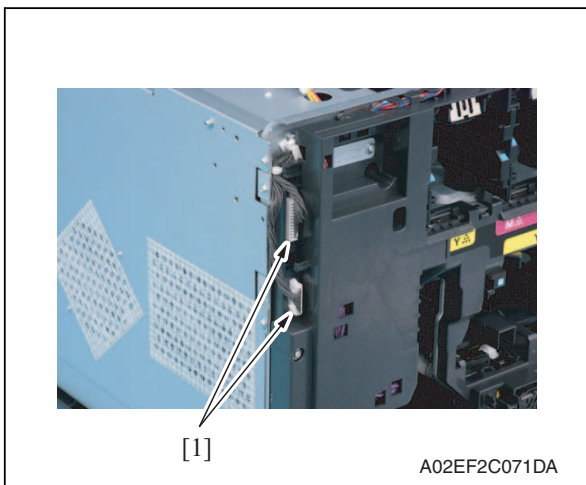


7. Remove the screw [1], and remove the connector protective cover [2].

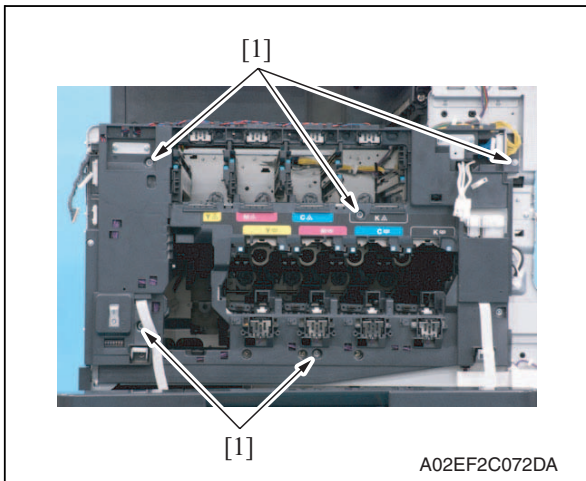


- 8. Disconnect three connectors [1], and remove the harness from the wire saddle [2].

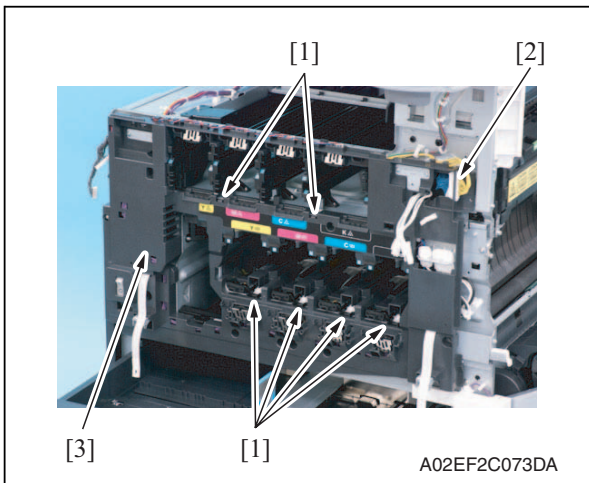
- 9. Remove the right front cover.
[See P.41](#)



- 10. Disconnect two connectors [1].

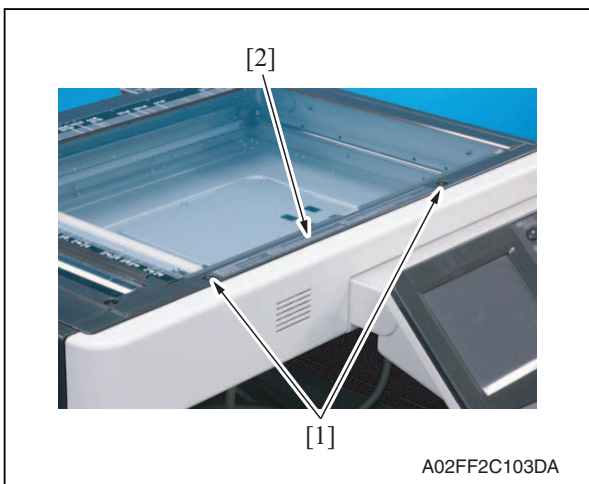


- 11. Remove five screws [1].



12. Unhook six tabs [1], and disconnect the connector [2] from the front cover.
13. Remove the front cover [3].

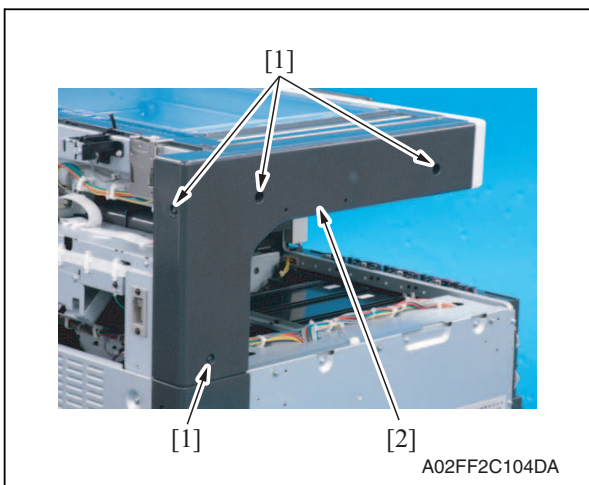
6.3.16 IR upper front cover



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

6.3.17 IR left cover

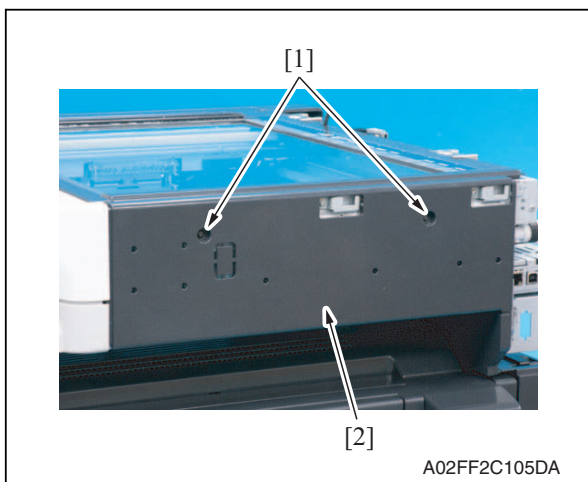
1. Remove the IR rear cover.
[See P.44](#)
2. Remove the exit tray.
[See P.47](#)



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

6.3.18 IR right cover

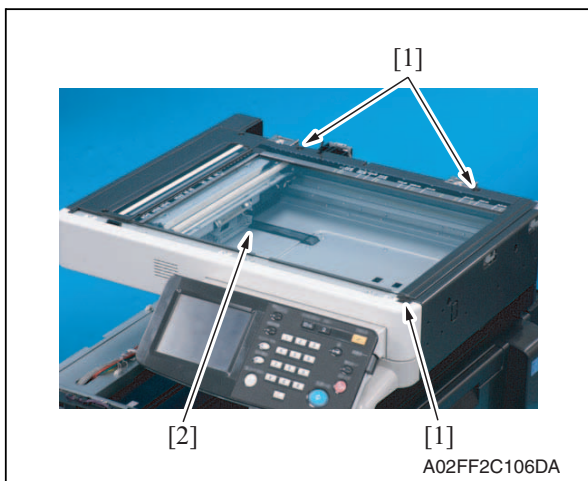
1. Remove the IR rear cover.
[See P.44](#)



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

6.3.19 Original glass assy

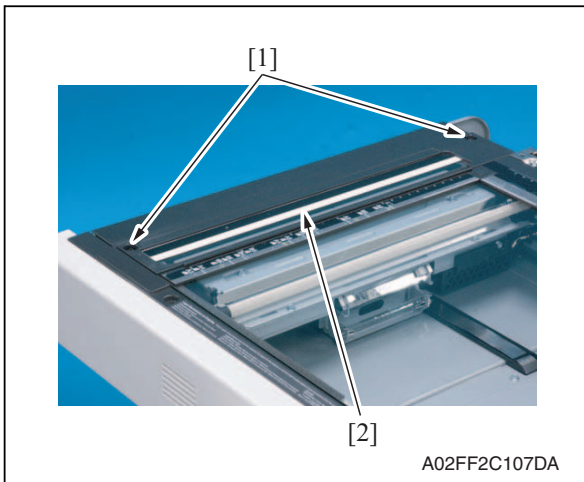
1. Remove the IR rear cover.
[See P.44](#)
2. Remove the IR upper front cover.
[See P.50](#)



3. Remove three screws [1], and remove the original glass assy [2].

6.3.20 ADF glass assy

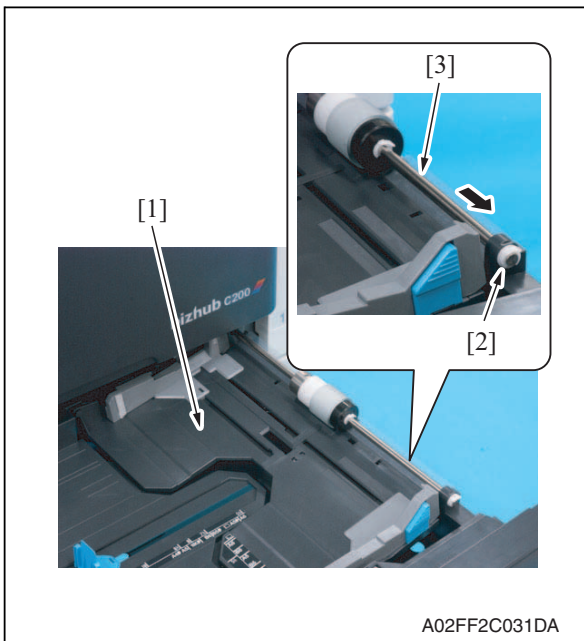
1. Remove the IR rear cover.
See P.44
2. Remove the IR left cover.
See P.50



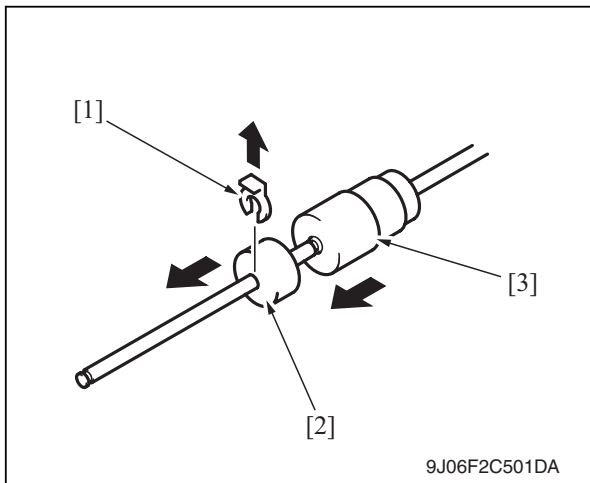
3. Remove two screws [1], and remove the ADF glass assy [2].

6.3.21 Tray 1 feed roller

1. Slide out the tray 1.



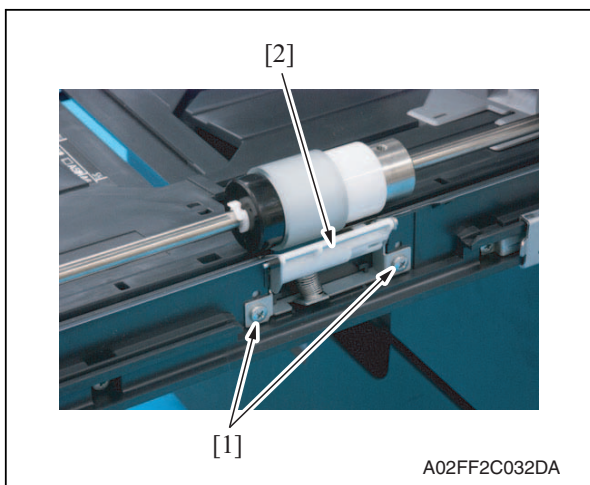
2. Lock the paper lifting plate [1] into position.
3. Snap off the C-clip [2].
4. Remove the shaft for the tray 1 feed roller assy [3] from the front bushing.



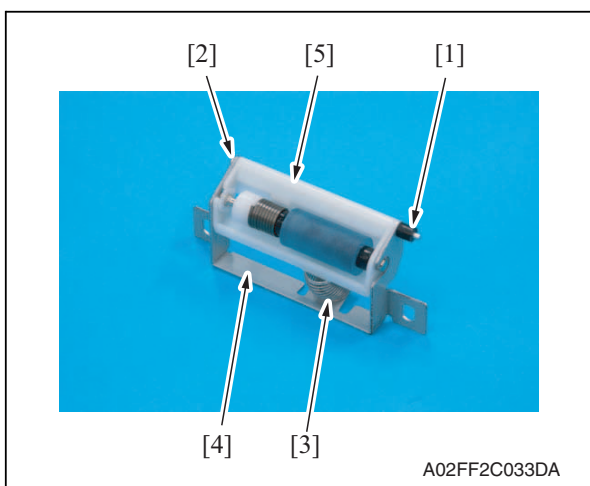
5. Remove two C-clips [1] and the collar [2], and remove the tray 1 feed roller [3].

6.3.22 Tray 1 separation roller assy

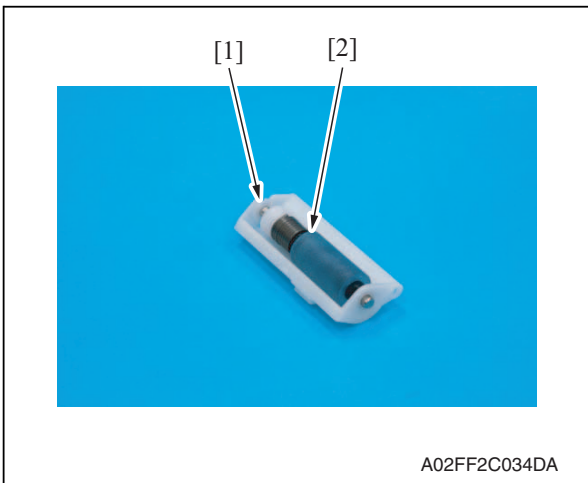
1. Slide out the tray 1.



2. Remove two screws [1], and remove the tray 1 separation roller fixing plate assy [2].



3. Take off the rubber stopper [1], shaft [2], spring [3], and guide plate [4] to remove the separation roller fixing bracket assy [5].



4. Snap off the E-ring [1] and the tray 1 separation roller assy [2].

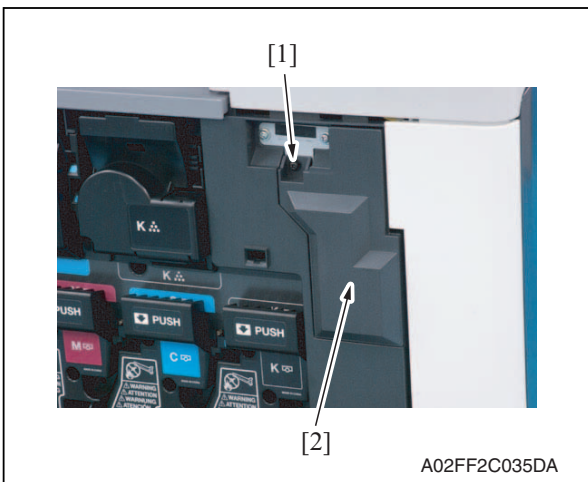
6.3.23 Fusing unit

CAUTION

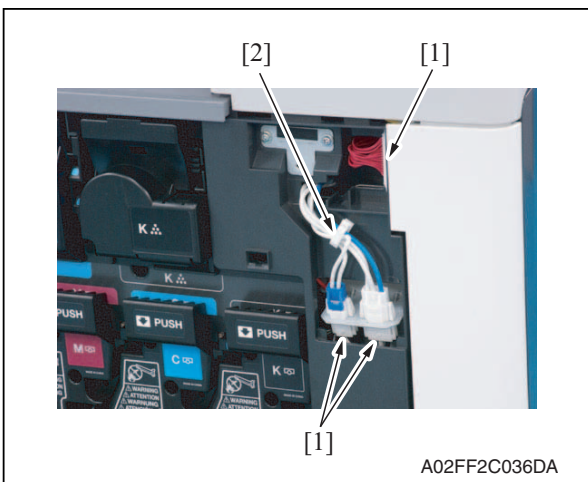


- The temperature gets high in the vicinity of the fusing unit. You may get burned when you come into contact with the area. Before replacement operations, make sure that more than 20 minutes have elapsed since the main and sub power switches were turned off.

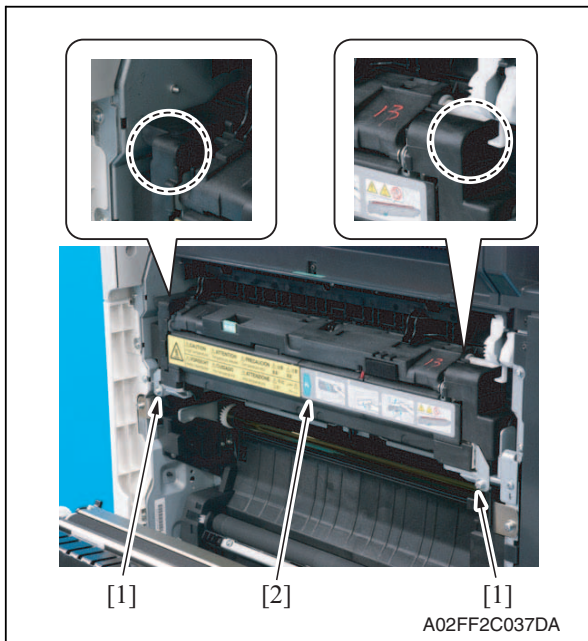
1. Open the front door.
2. Open the right door.



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



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






- Remove two screws [1], and remove the fusing unit [2].

NOTE

- When removing the fusing unit, hold the parts shown on the picture on the left so that it would not fall.

6.3.24 PH unit

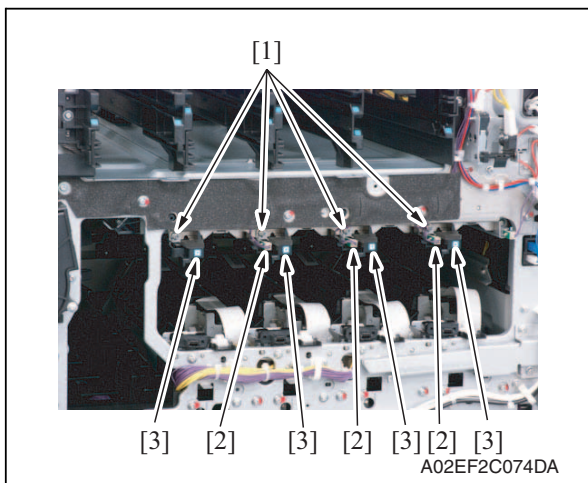
 CAUTION	
	<ul style="list-style-type: none"> Do not replace the printer head unit while the power is ON. Laser beam generated during the above mentioned activity may cause blindness.
	<ul style="list-style-type: none"> Do not disassemble or adjust the printer head unit. Laser beam generated during the above mentioned activity may cause blindness.

NOTE

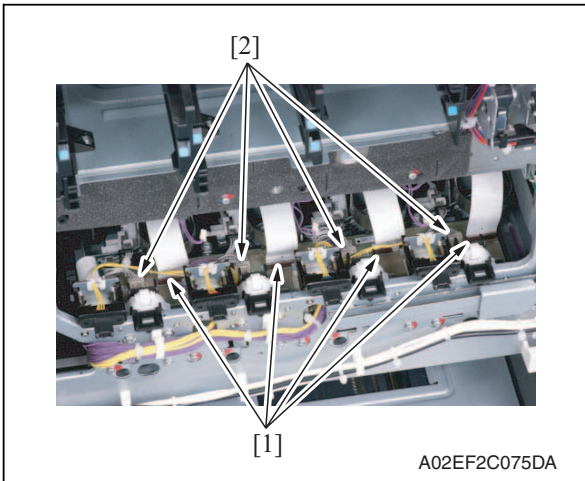
- When replace the PH unit, replace 4-color PH units at the same time.

A. Removal procedure

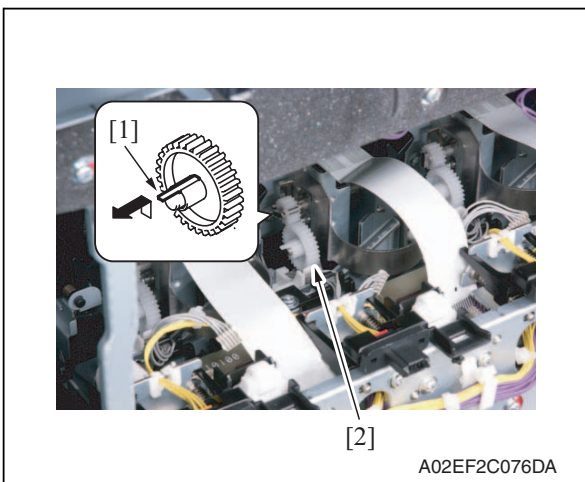
- Remove the front cover.
[See P.48](#)
- Remove the transfer belt unit.
[See P.24](#)



- Remove four screws [1] and disconnect three connectors [2], and remove four imaging unit guide rails [3].



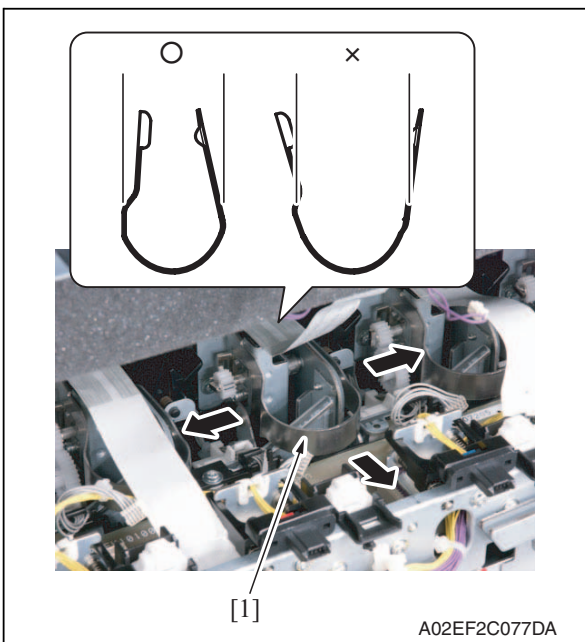
4. Disconnect four flat cables [1] and four connectors [2] of the PH unit.



5. Unhook the tab [1], and remove the gear [2] of the PH unit.

NOTE

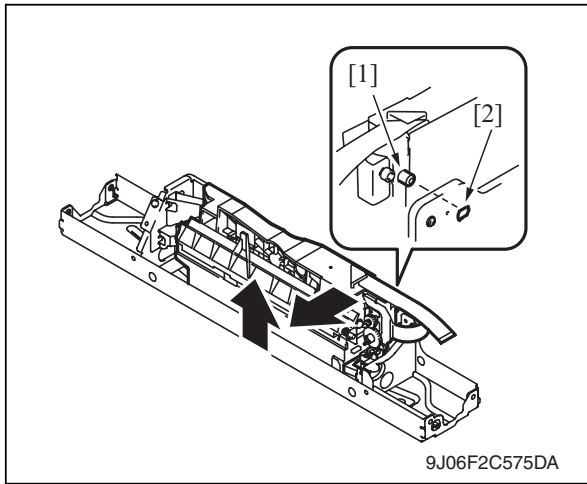
- This step is not needed when removing PH unit (Black) that does not have a gear.



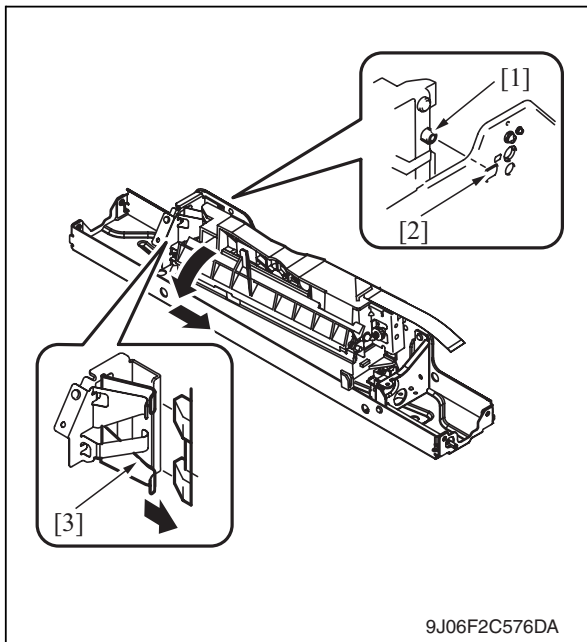
6. Remove the stopper [1] of the PH unit.

NOTE

- When removing the stopper, use care so that both ends of the stopper will not open but stay parallel as shown on the left. Keep using the stopper after once stretched out may cause uneven pitch or other image troubles.



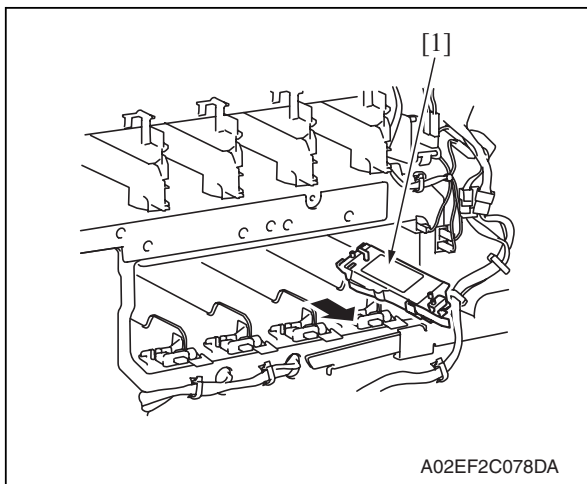
7. Remove the PH unit.
Move the front side of the PH unit to left a little, and remove the boss [1] from the locating hole [2]. Lift up the front side of the PH unit a little.



Remove the boss [1] at the rear side of the PH unit from the locating hole [2].

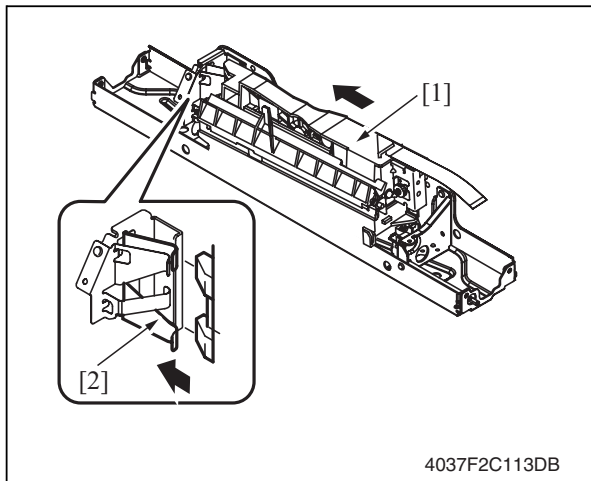
NOTE

- **Since the back of the PH unit is pushed to the right with the two plate springs [3], remove it by tilting the backside of the PH unit to the left as shown in the left illustration.**

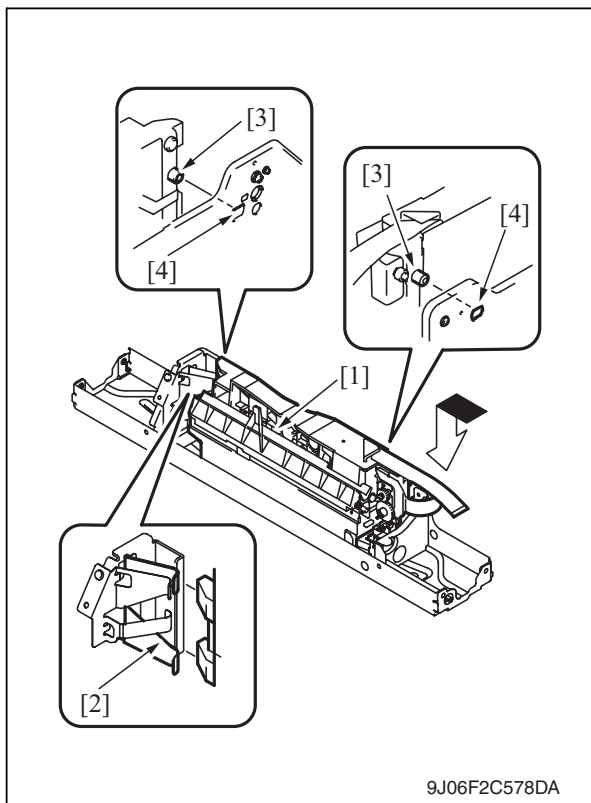


Remove the PH unit [1].
 8. Follow the same procedures to remove all PH units.

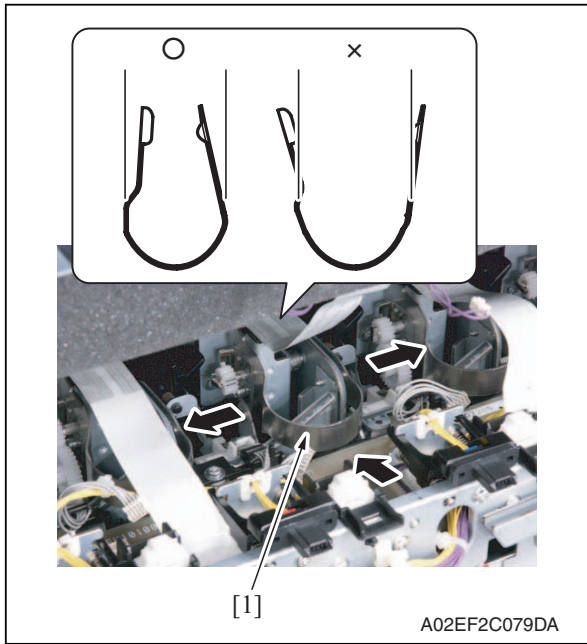
B. Reinstall procedure



1. Fit the back of the PH unit [1] into the plate spring [2] of installation plate.



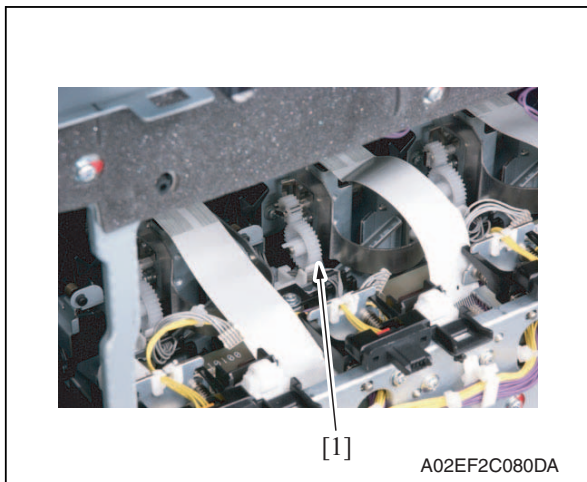
2. Push the PH unit [1] along the right side line of PH unit installation plate all the way and fit it into the plate spring [2].
3. Make sure that the two bosses [3] at front and rear side of the PH unit fit in the locating hole [4].



4. Reinstall the stopper [1].

NOTE

- When reinstalling the stopper, use care so that both ends of the stopper will not open but stay parallel as shown on the left. Keep using the stopper after once stretched out may cause uneven pitch or other image troubles.



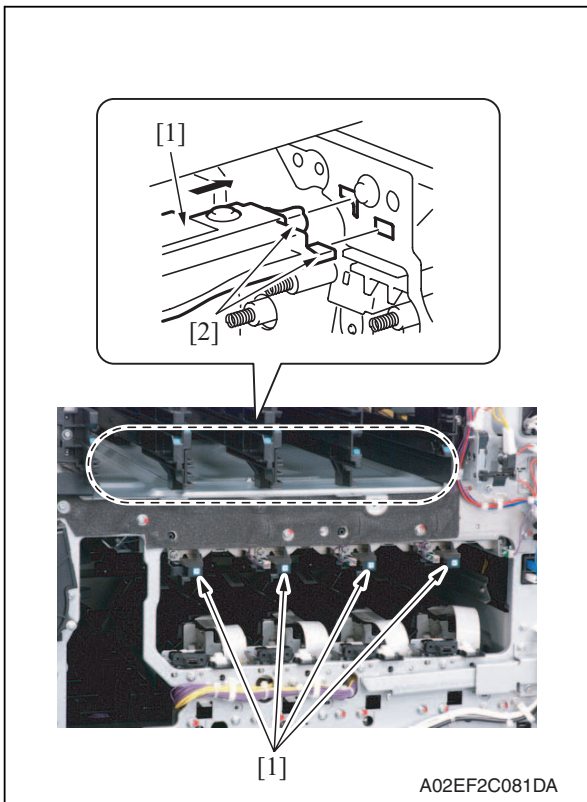
5. Reinstall the gear [1].

NOTE

- Make sure that the gear claw is fit in.
6. Connect the connector and the flat cable.

NOTE

- Make sure the harness is installed along with the harness guide.
7. Follow the same procedures to install all the PH units.



A02EF2C081DA

8. Install the imaging unit guide rails [1].

NOTE

- Make sure that the two claws [2] at rear end of the rail are fit in the locating hole on the main unit.

9. Reinstall the Image transfer belt unit.
10. Reinstall the front cover.
11. Make skew adjustment of the PH unit.

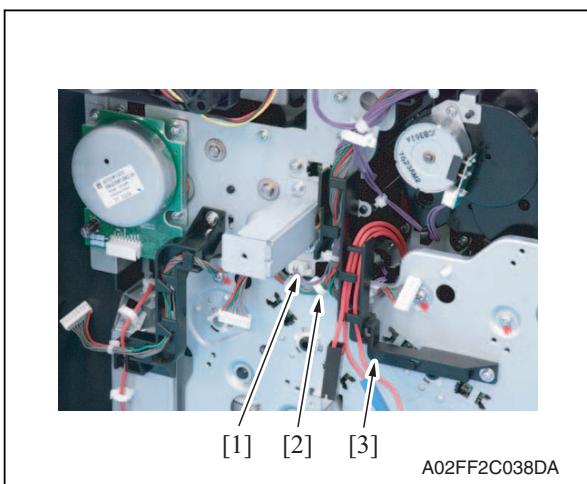
[See P.275](#)

NOTE

- When replacing the PH unit, make sure to conduct PH unit skew adjustment.

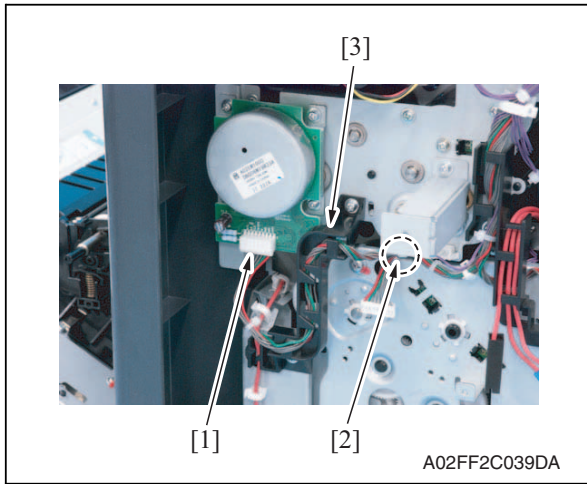
6.3.25 Main drive unit

1. Remove the transfer belt unit.
[See P.24](#)
2. Remove the high voltage unit.
[See P.85](#)
3. Remove the Color PC motor.
[See P.92](#)
4. Remove the transport motor.
[See P.91](#)

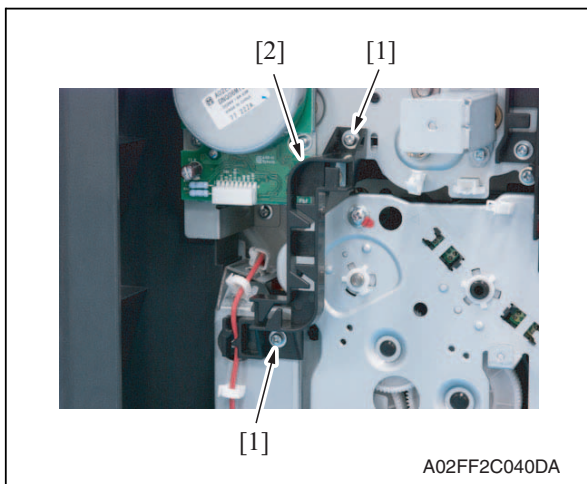


A02FF2C038DA

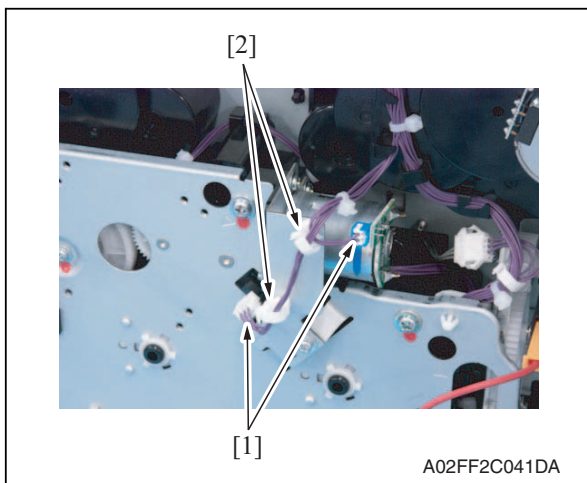
5. Disconnect the connector [1].
6. Remove the harness from the wire saddle [2] and the harness cover [3].



- 7. Disconnect the connector [1], and remove the harness from the wire saddle [2] and the harness guide [3].



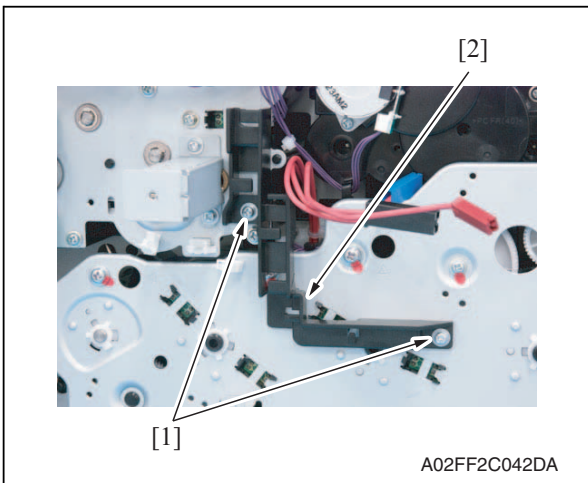
- 8. Remove two screws [1], and remove the harness guide [2].



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

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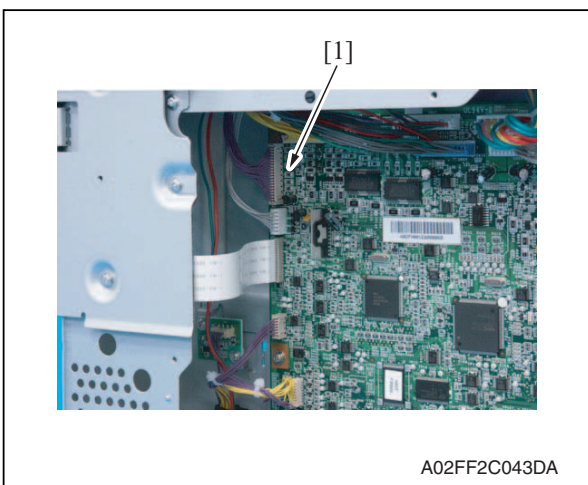
Maintenance



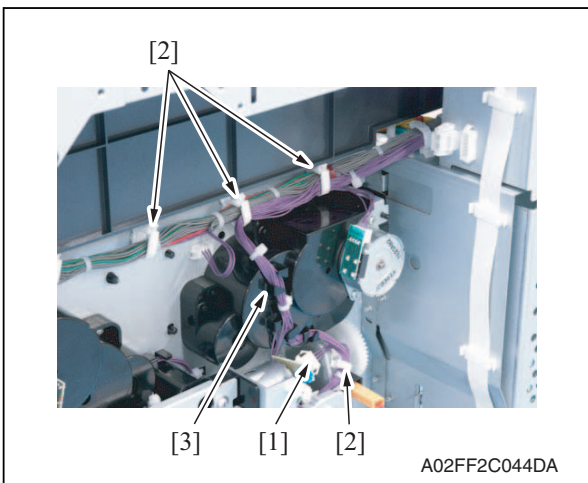
10. Remove two screws [1], and remove the harness guide [2].

11. Remove the left shield cover.

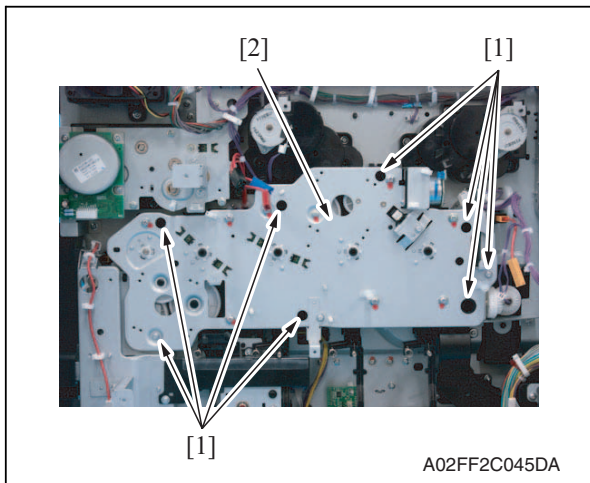
See P.42



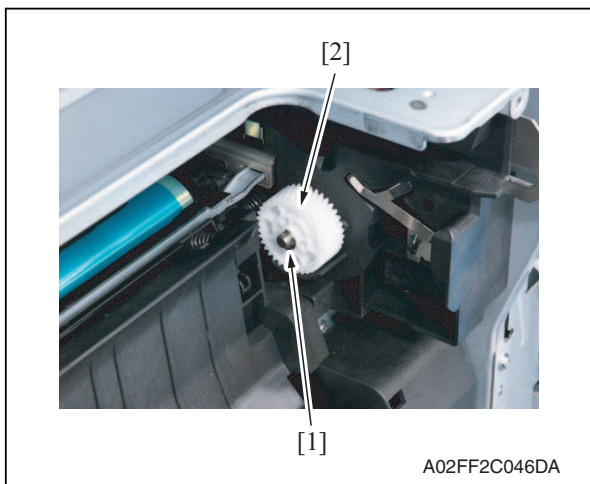
12. Disconnect the connector [1].



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



14. Remove eight screws [1], and slide out the main drive unit [2].



15. Remove the E-ring [1], and remove the gear [2].

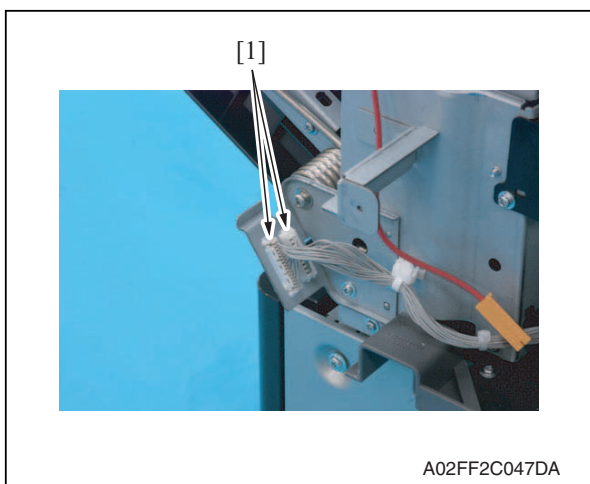
NOTE

- There is a pin, which fixes the gear to the shaft, installed inside the gear. Use care not to let the pin drop off during the removal of the gear.

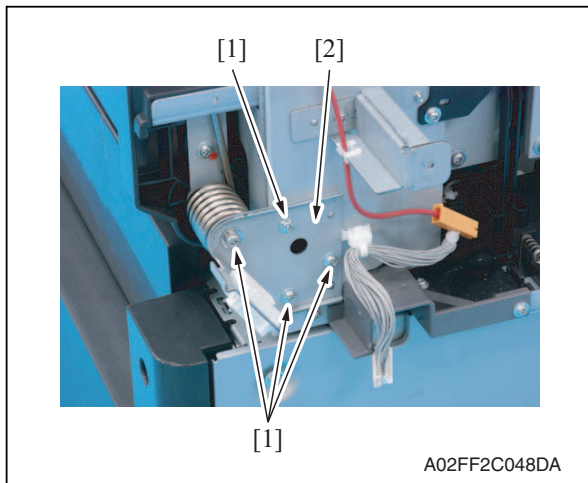
16. Remove the main drive unit.

6.3.26 Transport drive unit

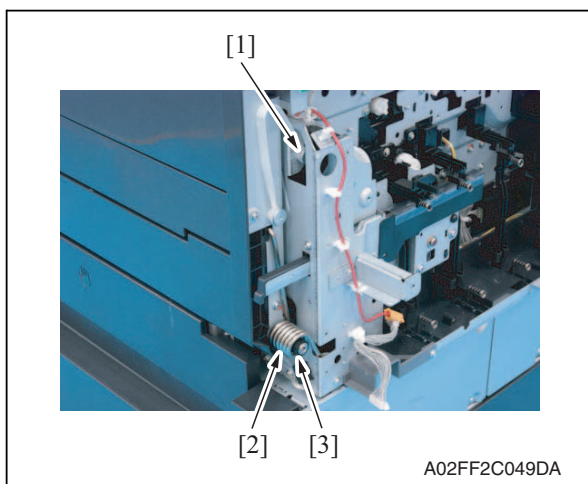
1. Remove the main drive unit.
[See P.60](#)
2. Remove the rear right cover.
[See P.45](#)



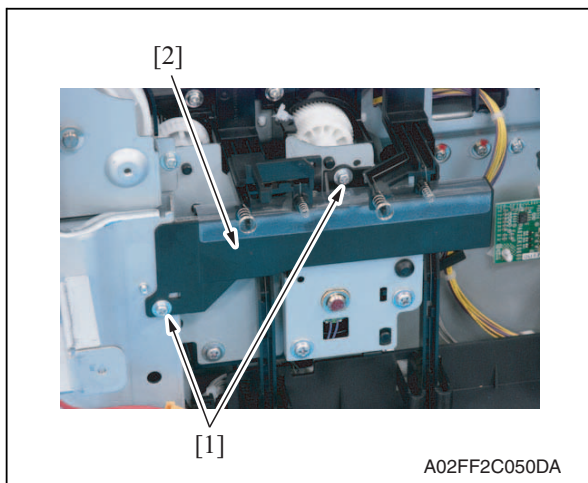
3. Disconnect two connectors [1].



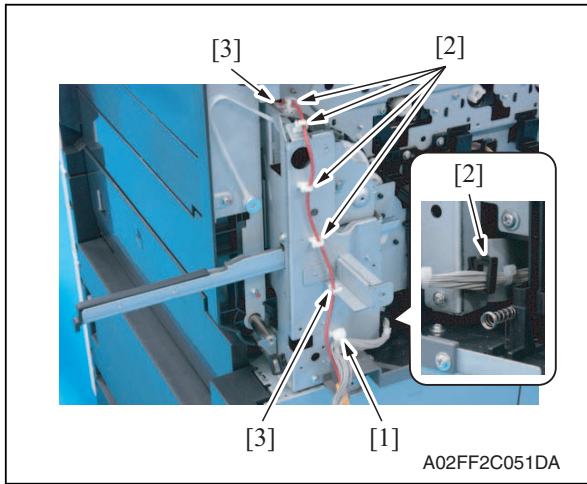
4. Close the right door.
5. Remove four screws [1], and remove the reinforcement plates [2] of the right door.



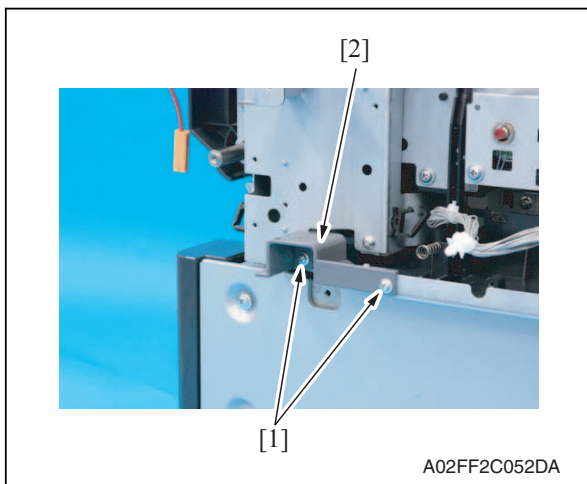
6. Remove the shoulder screw [1], the spring [2] and the collar [3].



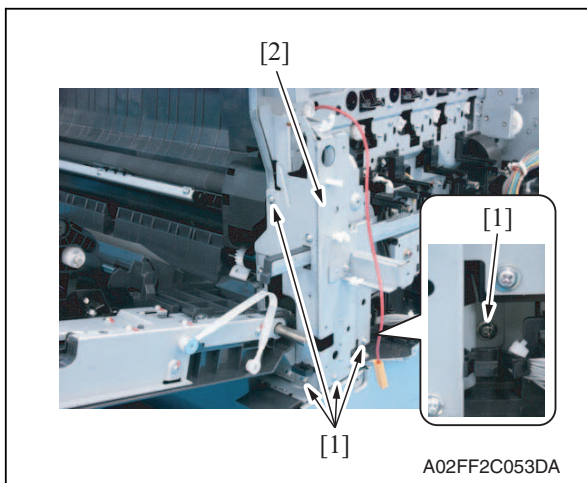
7. Remove two screws [1], and remove the rear handle cover [2].



- 8. Remove the wire saddle [1].
- 9. Remove the harness from five wire saddles [2] and two edge covers [3].



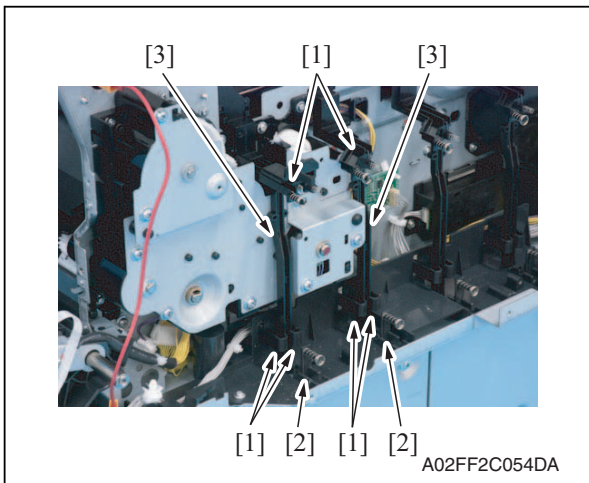
- 10. Remove two screws [1], and remove the cover [2].



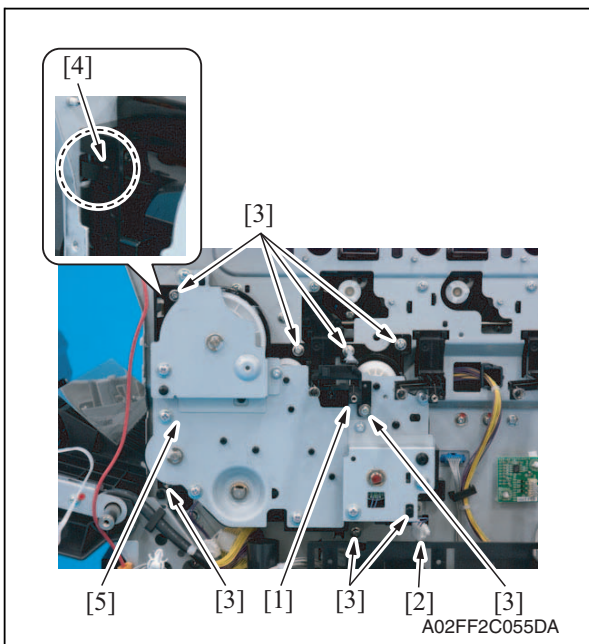
- 11. Remove five screws [1], and remove the rear handle assy [2].

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Maintenance



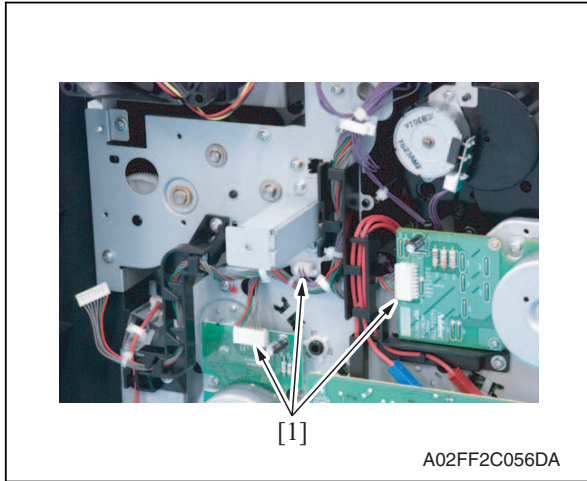
- 12. Remove each six tabs [1] and two hooks [2].
- 13. Remove two wire guides [3].



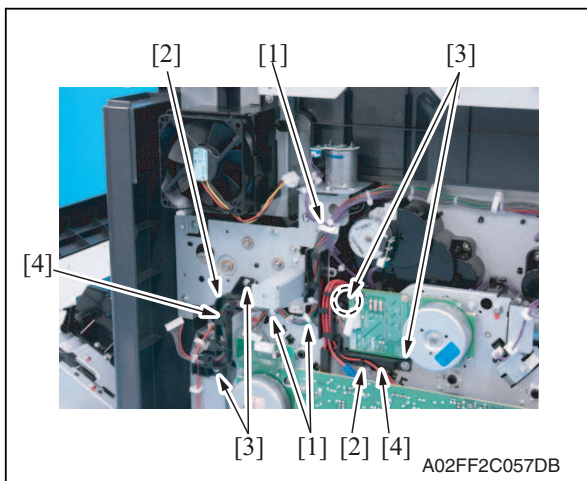
- 14. Remove the wire guide [1] and eight screws [3], and disconnect the connector [2].
- 15. Unhook the tab [4], and remove the transport drive unit [5].

6.3.27 Fusing drive unit

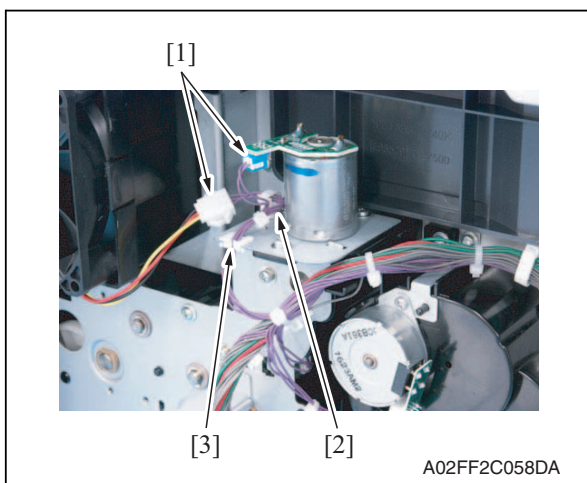
1. Remove the transfer belt unit.
[See P.24](#)
2. Remove the fusing unit.
[See P.54](#)
3. Remove the fusing motor.
[See P.92](#)



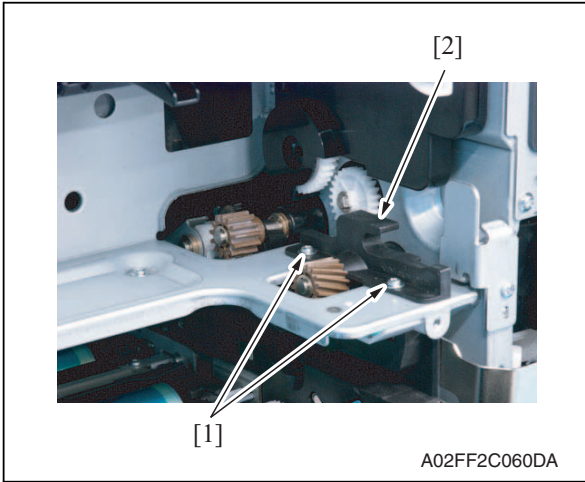
4. Disconnect three connectors [1].



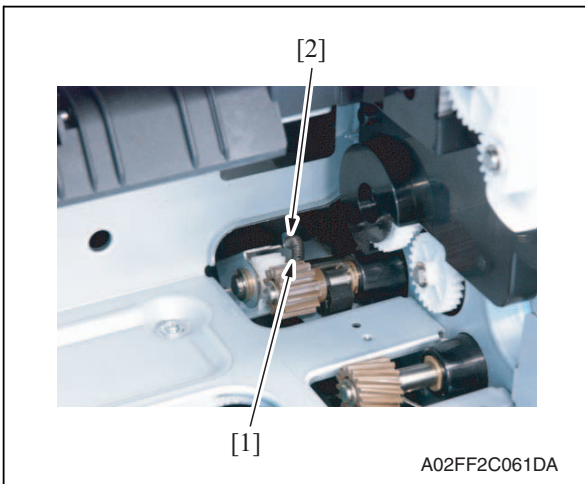
5. Remove the harness from three wire saddles [1] and two harness guides [2].
6. Remove four screws [3], and remove two harness guides [4].



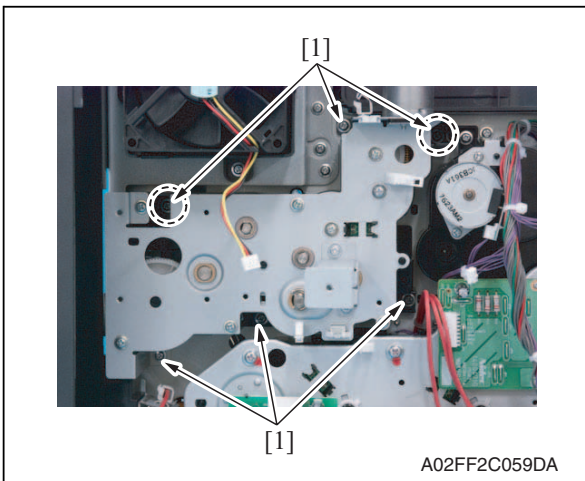
7. Disconnect two connectors [1], and remove the harness from the wire saddle [2].
8. Remove the harness from the edge cover [3].



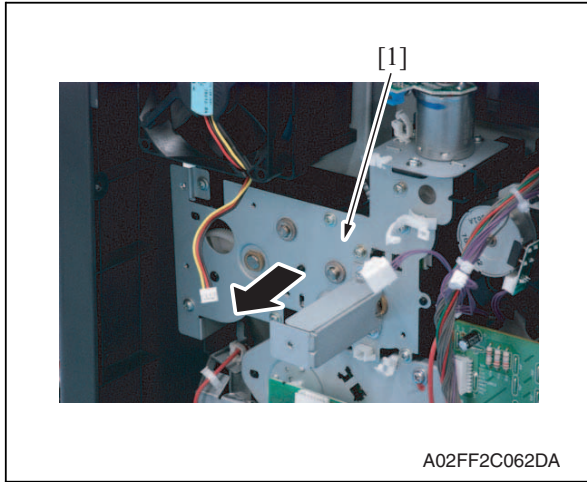
9. Remove two screws [1], and remove the fusing rear guide [2].



10. Remove the spring [1] from the protrusion [2].



11. Remove six screws [1] of the fusing drive unit.

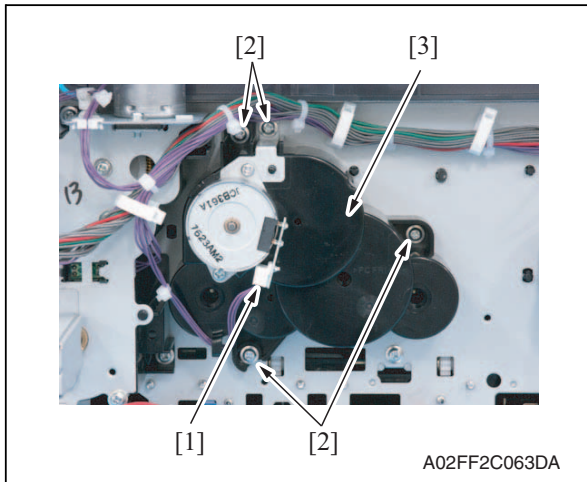


12. Pull the fusing drive unit [1] to the front and remove it.

6.3.28 Hopper drive unit (C/K, Y/M)

A. Hopper drive unit (C/K)

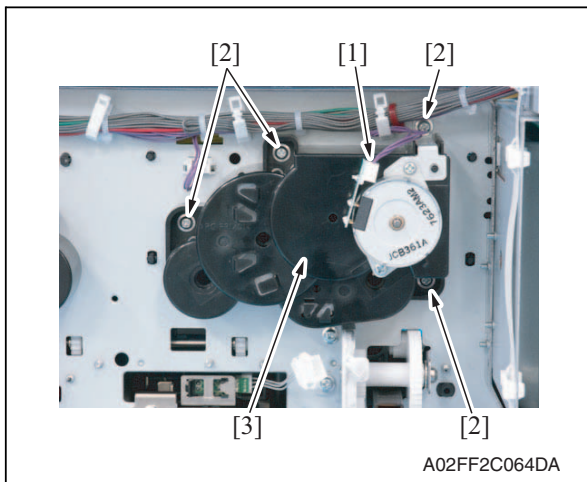
1. Remove the main drive unit.
See P.60



2. Disconnect the connector [1].
3. Remove four screws [2], and remove the hopper drive unit (C/K) [3].

B. Hopper drive unit (Y/M)

1. Remove the main drive unit.
See P.60



2. Disconnect the connector [1].
3. Remove four screws [2], and remove the hopper drive unit (Y/M) [3].

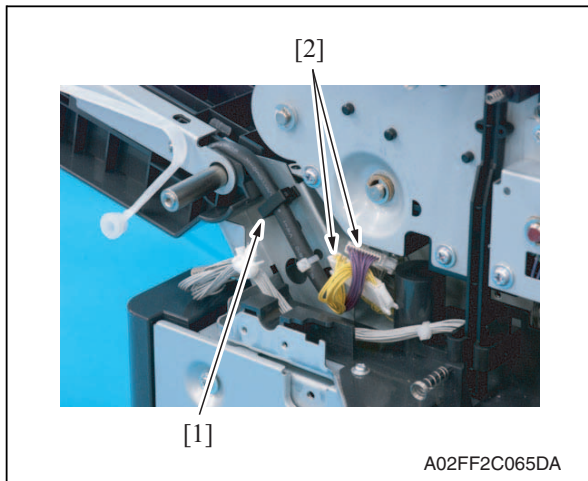
6.3.29 Right door assy

1. Remove the rear handle assy.
 - See removal procedures 1 through 11 for the transport drive unit.
(Do not, however, remove the main drive unit.)

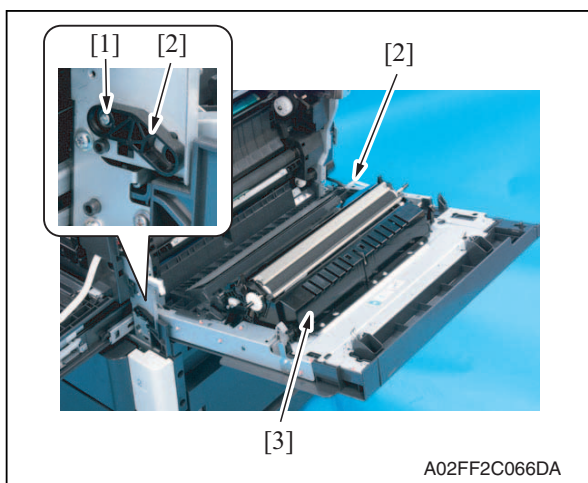
See P.63

2. Slide out the tray 1.
3. Remove the right front cover.

See P.41



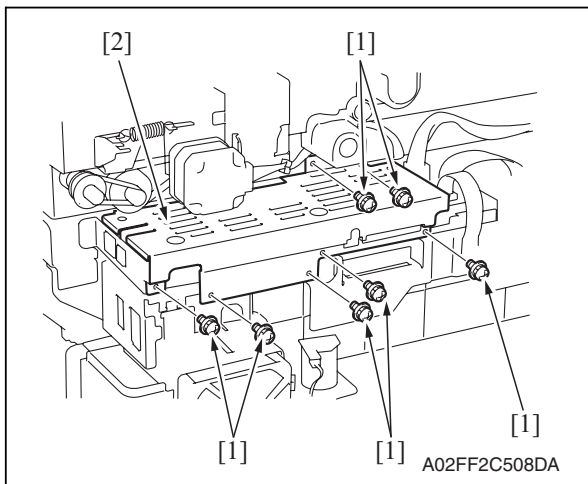
4. Remove the wire saddle [1] and two connectors [2].



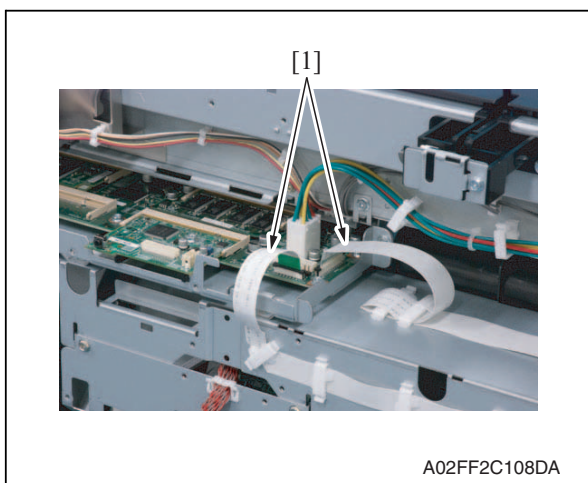
5. Remove the screw [1], and remove two shafts [2].
6. Remove the right door assy [3].

6.3.30 Scanner chassis

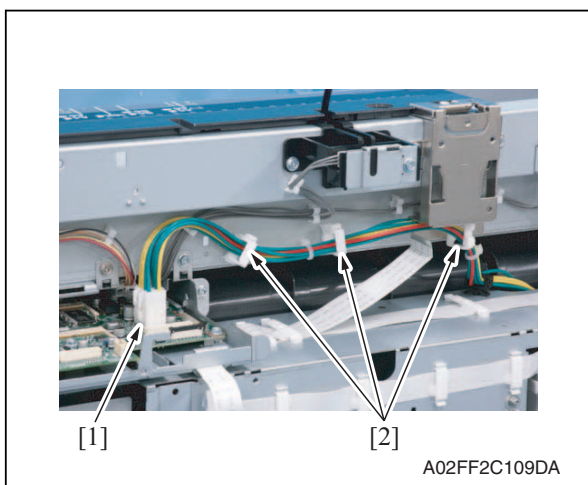
1. Remove the IR rear cover.
[See P.44](#)
2. Remove the IR left cover.
[See P.50](#)
3. Remove the IR right cover.
[See P.51](#)



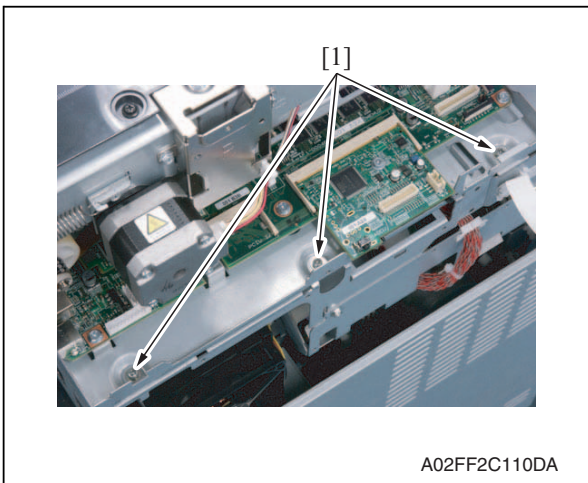
4. Remove seven screws [1], and remove the MFBU shield cover [2].



5. Disconnect two flat cables [1].

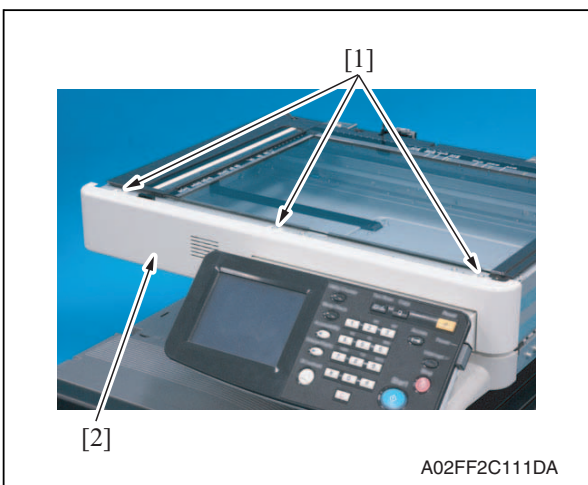


6. Disconnect the connector [1], and remove the harnesses from three wire saddles [2].

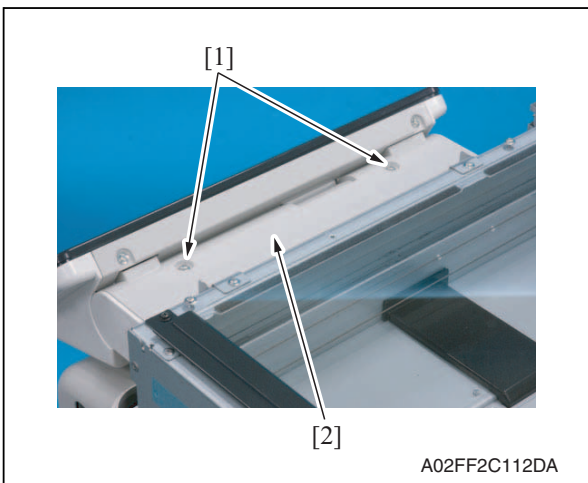


7. Remove three screws [1].

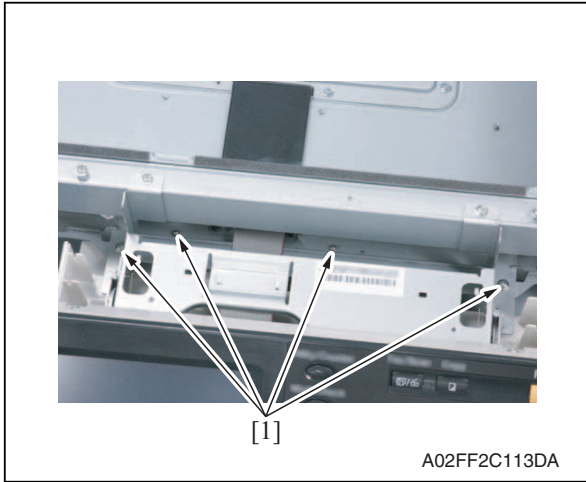
8. Remove the IR upper front cover.
See P.50



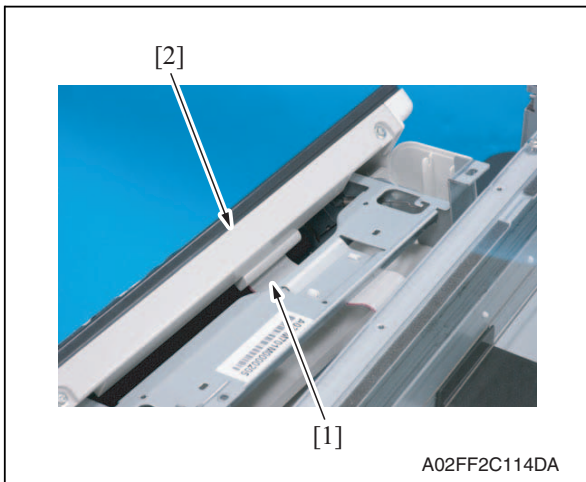
9. Remove three screws [1], and remove the IR front cover [2].



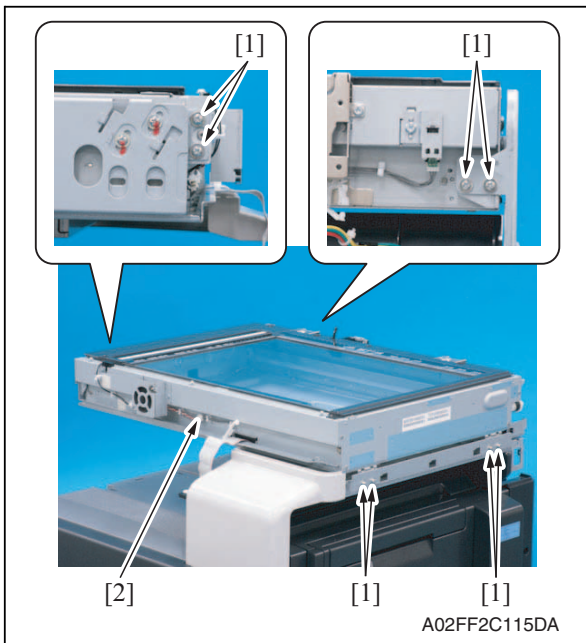
10. Remove two screws [1], and remove the control panel upper cover [2].



11. Remove four screws [1].



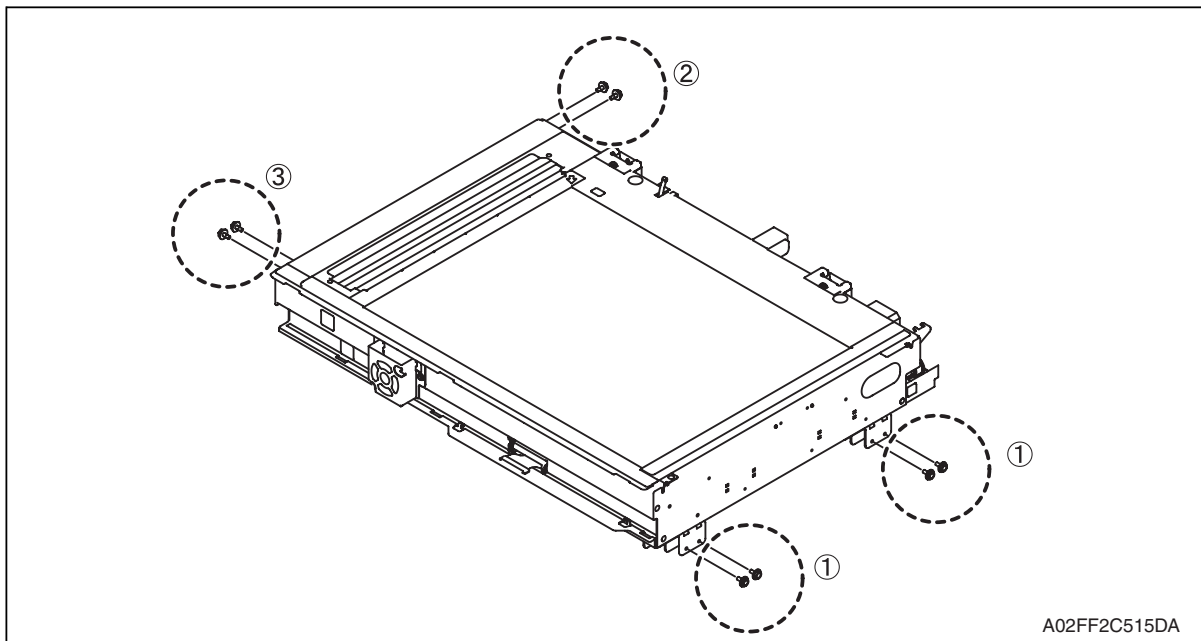
12. Disconnect the connector [1], and remove the control panel assy [2].



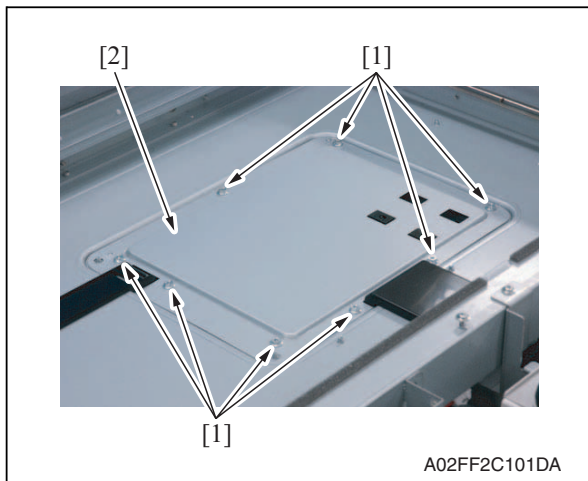
13. Remove eight screws [1], and remove the scanner chassis [2].

NOTE

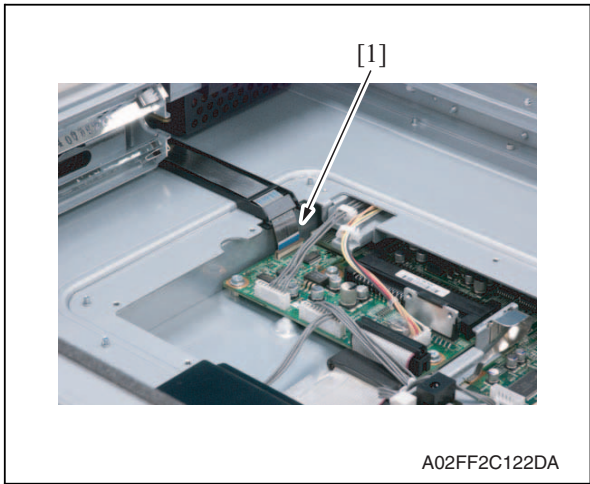
- When reinstalling the scanner chassis on the engine frame, tighten screws in the order shown below.
 1. Right side (4 screws)
 2. Rear side (2 screws)
 3. Left side (2 screws)

**6.3.31 Exposure unit**

1. Remove the original glass assy.
[See P.51.](#)
2. Remove the ADF glass assy.
[See P.52](#)

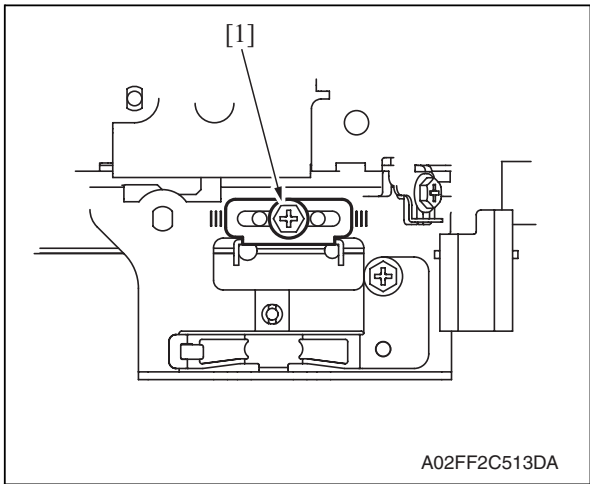


3. Remove eight screws [1], and remove the BCRU shield cover [2].

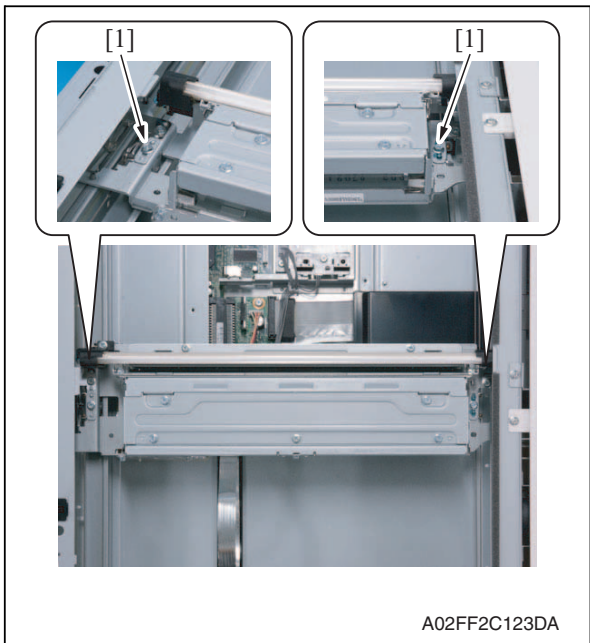


4. Disconnect the flat cable [1].

5. Move the exposure unit near the center of the scanner chassis.

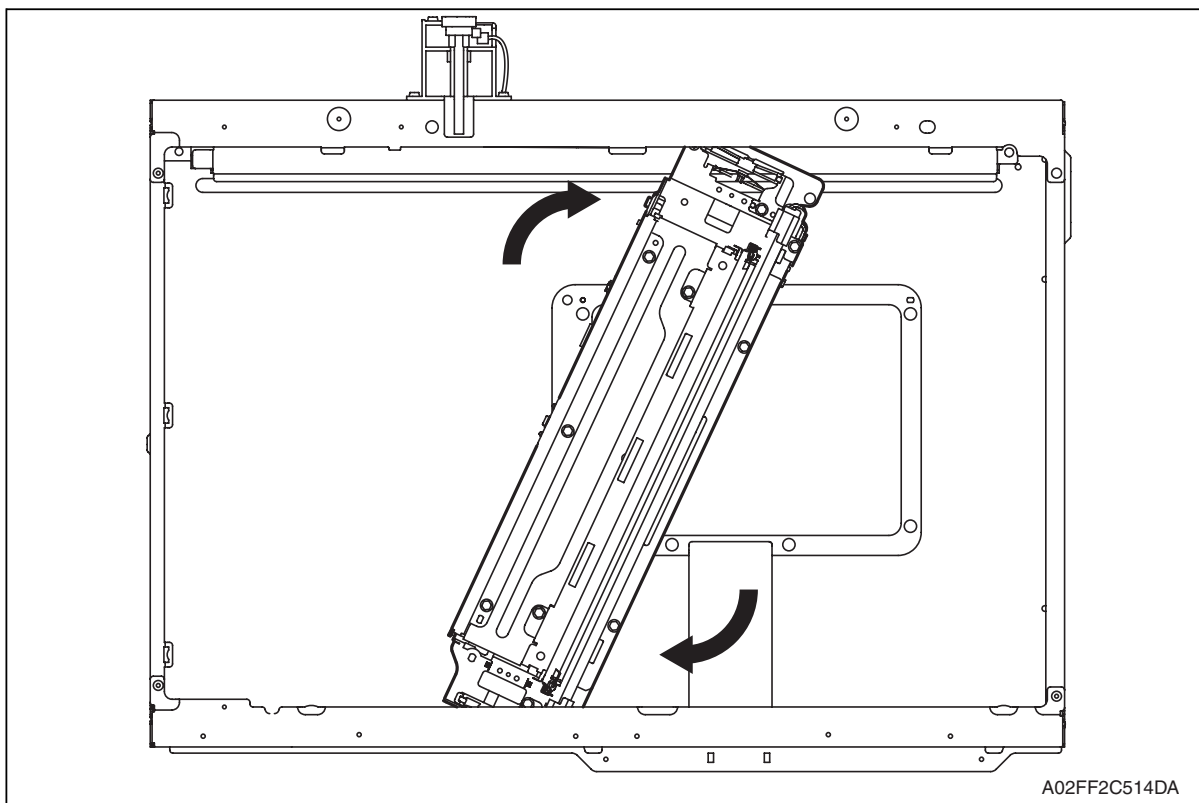


6. Confirm the fixing position [1] of the wire bracket at the front of the exposure unit.



7. Remove the screws [1] at the exposure unit rear/front, and lower the wire bracket to the bottom side of the exposure unit.

8. Move the exposure unit rightward, and remove the wire bracket from the exposure unit.
9. Rotate the exposure unit center clockwise toward the center, and remove from the scanner chassis.

**NOTE**

- Take care not to damage or bend the flat cable while working.

10. To reinstall, reverse the order of removal.

NOTE

- When fixing the wire bracket at the unit front, align with the memory position when removing.

11. After mounting, while taking copy images, adjust the wire bracket fixing position at the exposure unit front so as to prevent tilting.

12. After tilt adjustment, attach the screw lock to the wire bracket (front), and fix it.

13. If the leading edge or zoom ratio deviates, perform the following settings.

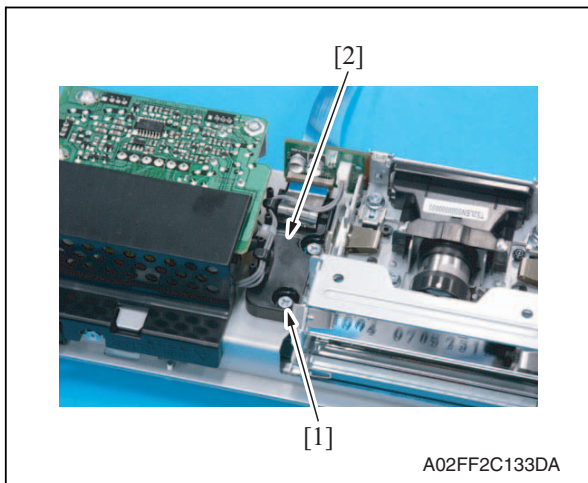
[Service Mode] → [Machine Adjustment] → [Scan Area] → [BK-S Adjustment]

6.3.32 Flat cable of the exposure unit

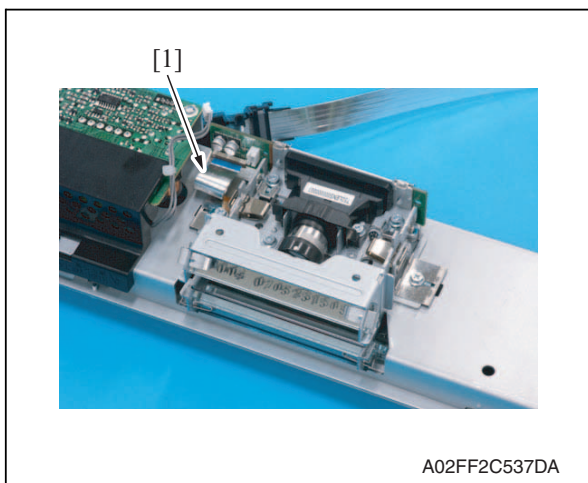
A. Removal procedure

1. Remove the exposure unit.

See P.74

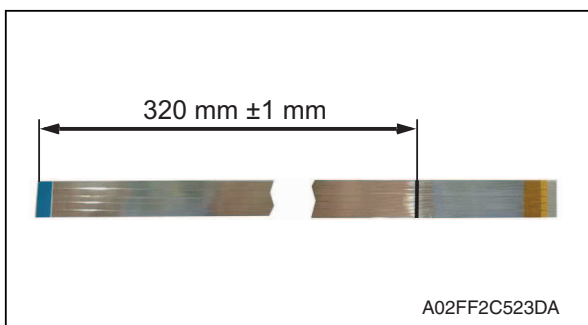


2. Remove the screw [1], and remove the cable guide [2].



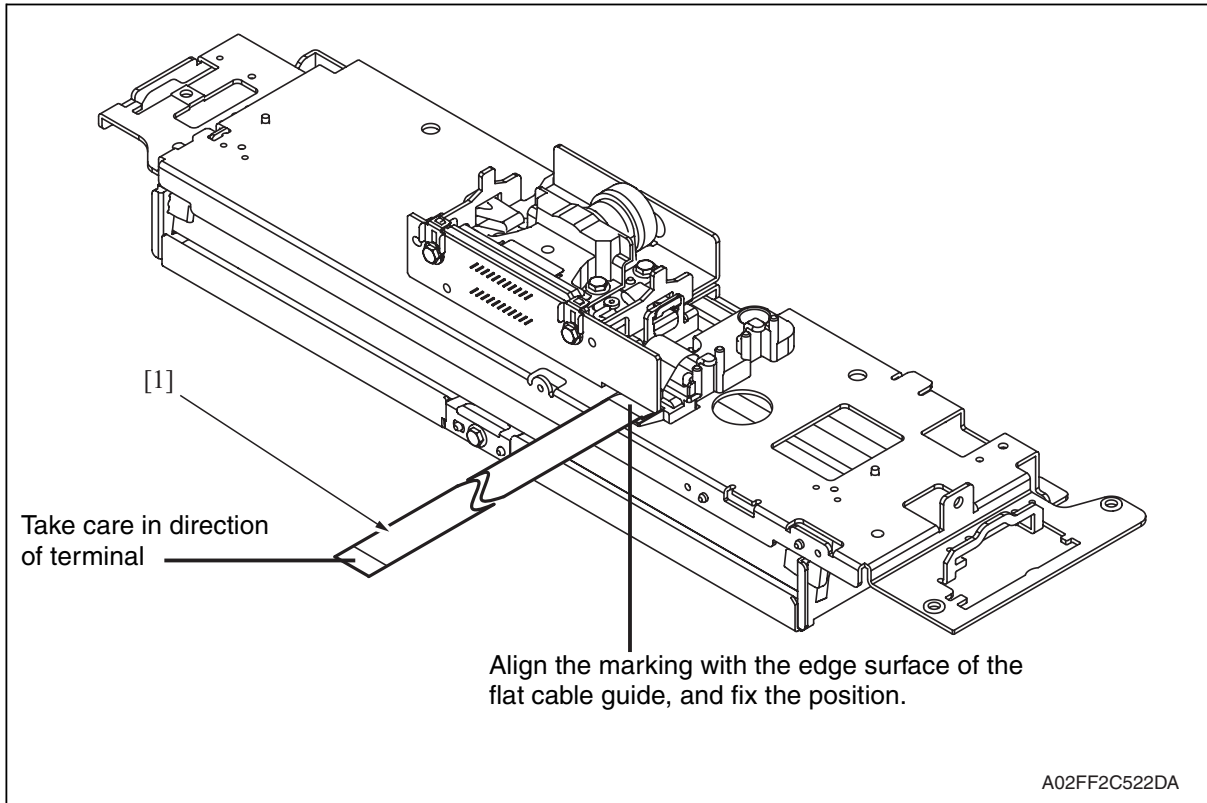
3. Disconnect the flat cable [1].

B. Reinstall procedure



1. Mark the flat cable at the position as shown in the left illustration.

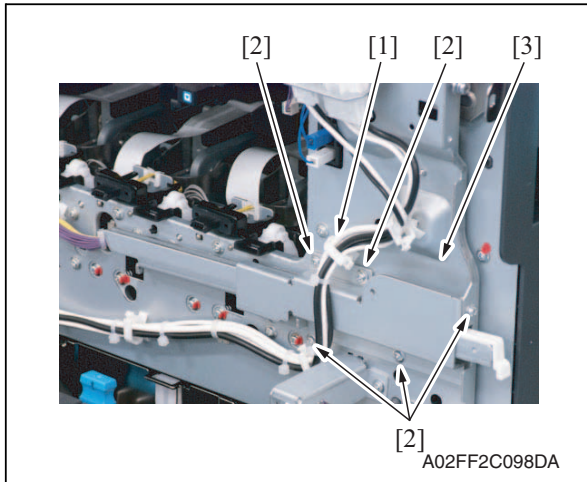
2. Connect the flat cable [1] to the exposure unit.
(Refer to the following illustration for the cable routing.)



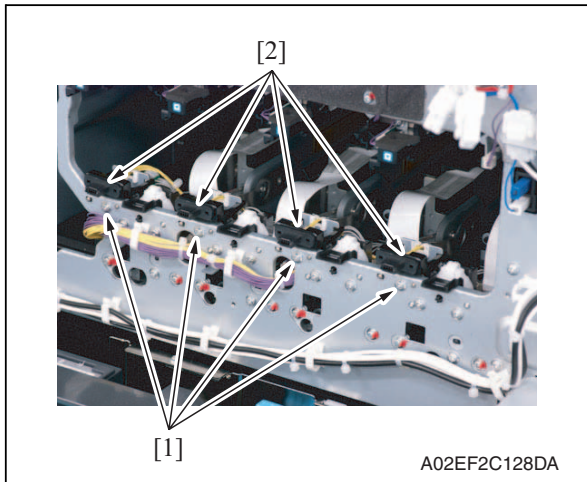
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6.3.33 PH relay board (REYBPH)

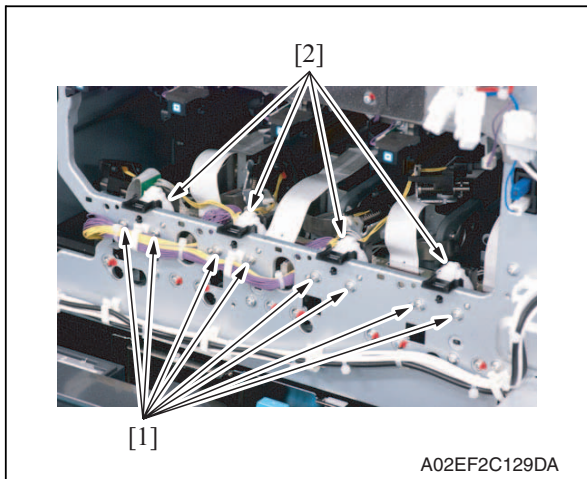
1. Remove the front cover.
See P.48
2. Remove the transfer belt unit.
See P.24



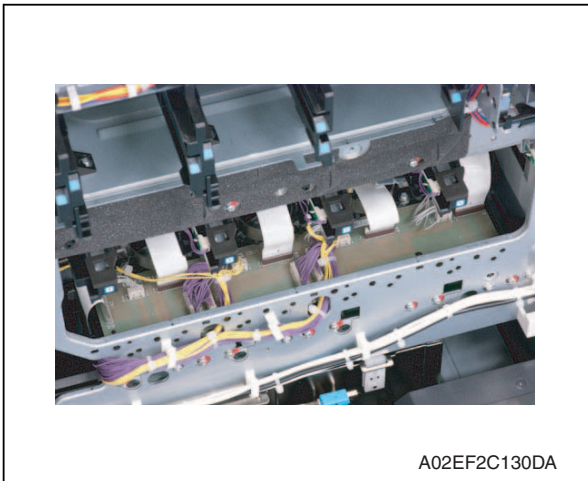
3. Remove the harness from the wire saddle [1].
4. Remove five screws [2], and remove the front handle assy [3].



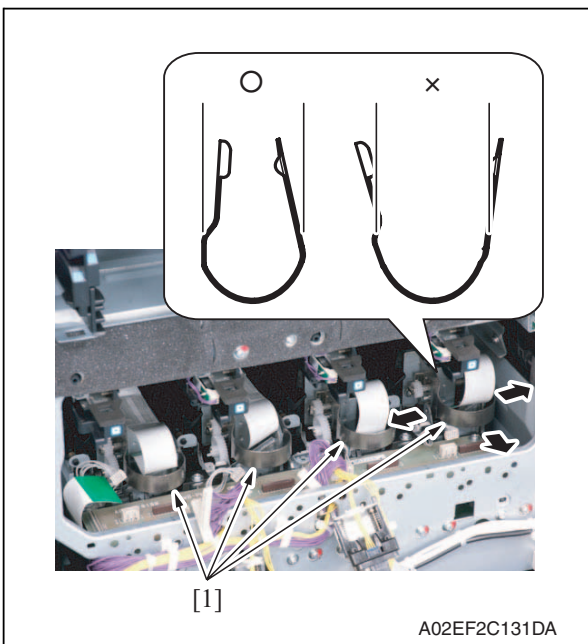
5. Remove the screw [1] each, and remove the imaging unit contact assy [2] of each color.



6. Remove two screws [1] each, and remove the imaging unit roll assy [2] of each color.



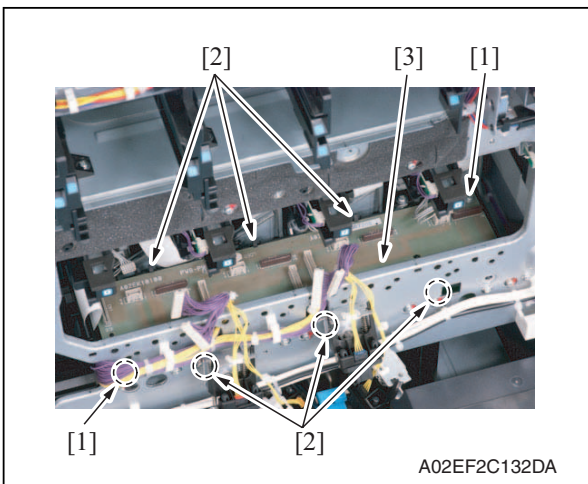
7. Remove all the connectors and the flat cables on the PH relay board.



8. Remove the stopper [1] of the PH unit.

NOTE

- When removing the stopper, use care so that both ends of the stopper will not open but stay parallel as shown on the left. Keep using the stopper after once stretched out may cause uneven pitch or other image troubles.



9. Remove two screws [1] and six tabs [2], and remove the PH relay board [3].

6.3.34 DC power supply (DCPU)

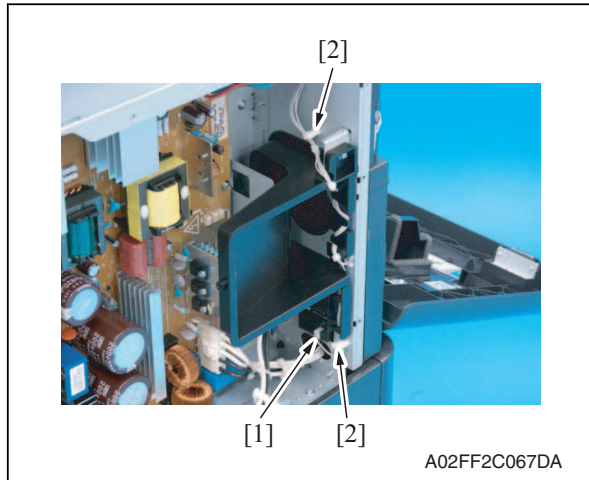
CAUTION



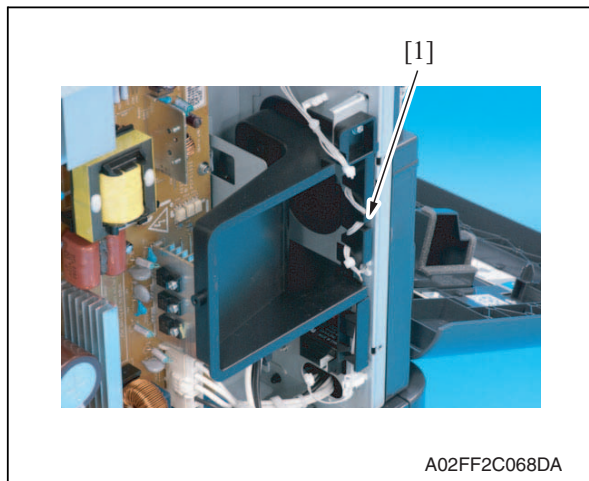
- Remove the DC power supply after six minutes or more have passed since the power plug was disconnected.

1. Remove the left shield cover.

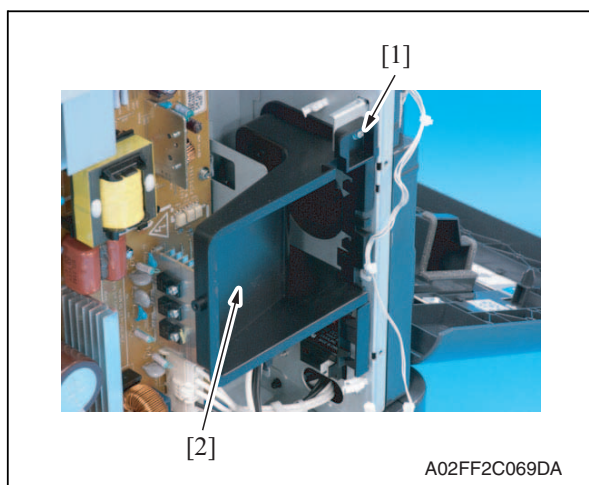
See P.42



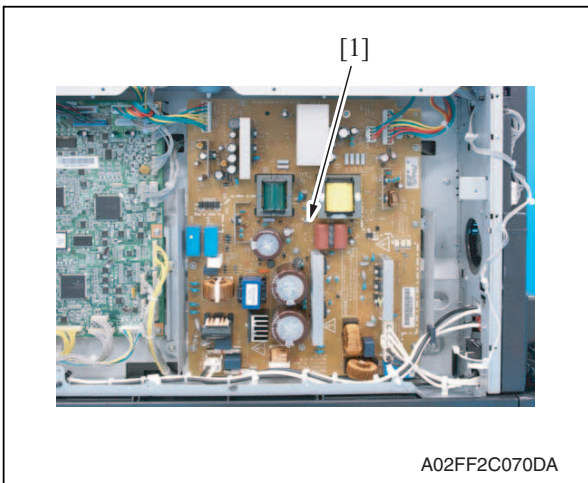
2. Disconnect the connector [1], and remove the harness from two wire saddles [2].



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

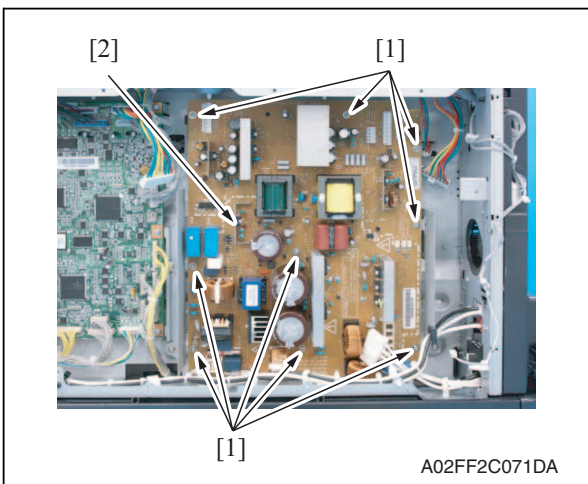


4. Remove the screw [1], and remove the duct [2] while moving it toward front.



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5. Remove all the connectors on the DC power supply [1].

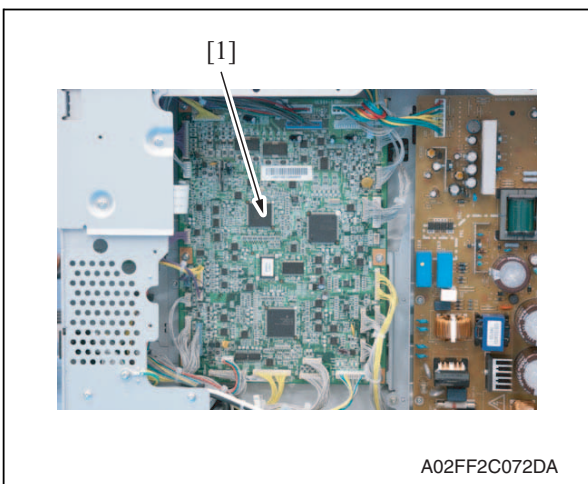


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6. Remove nine screws [1], and remove the DC power supply [2].

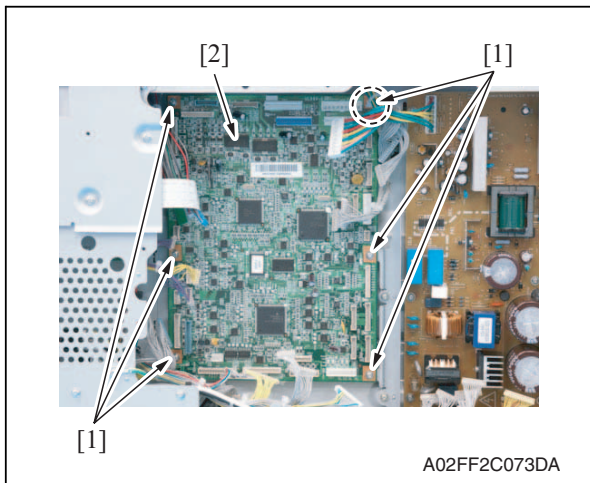
6.3.35 Printer control board (PRCB)

1. Remove the left shield cover.
[See P.42](#)



A02FF2C072DA

2. Remove all the connectors on the printer control board [1].



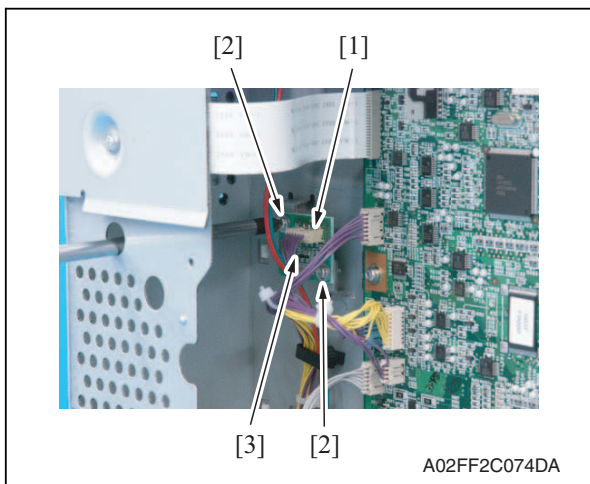
3. Remove six screws [1], and remove the printer control board [2].

NOTE

- When the printer control board is to be replaced, rewriting the firmware to the latest one.

6.3.36 Service EEPROM board (SVERB)

1. Remove the left shield cover.
See P.42



2. Remove two screws [2] and the connector [1], and take out the service EEPROM board [3].

NOTE

After replacing the service EEPROM board, all parts shown below are required to be replaced with new ones.

- Imaging unit Y/M/C/K
- Toner cartridge Y/M/C/K
- Image transfer belt unit
- Fusing unit

NOTE

- When Service EEPROM is replaced, data of all adjustment settings stored in EEPROM disappear and the adjustment settings are returned to the default ones. After replacing the service EEPROM board, take the following steps to make readjustments.

3. Open the front door and turn OFF and ON the main power switch and sub power switch.

- Enter the Service mode. Make individual adjustments shown in the following table in the order listed, using the machine maintenance list and the adjustment lists that were output at the time of main body installation and maintenance.

NOTE

- At this time, a front door must be an open state.

Order	Items that require readjustment in the Service mode		Ref. page
1	Machine	Color Reg. Adjustment	Cyan
2			Magenta
3			Yellow
4	Imaging Process Adjustment	Background Voltage Margin	
5		D Max Density	
6		Dev. Bias Choice	
7	Machine	Exhaust Fan Stop Delay	
8	System	IU Life Setting	

NOTE

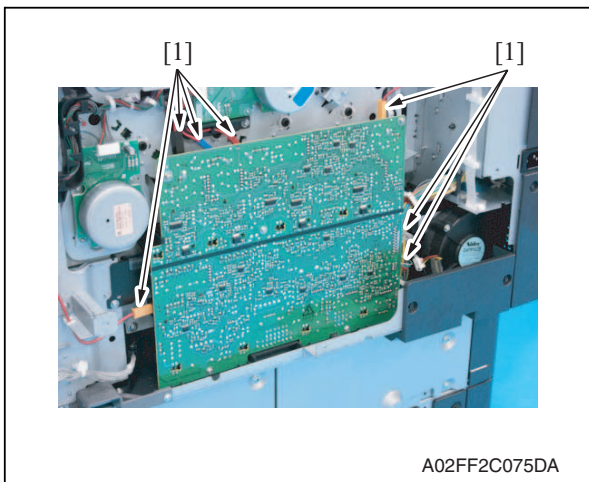
- After replacing the service EEPROM board, be sure to make the above listed adjustments before the first warm-up is made.

- Turn OFF the main power switch and sub power switch.
- Close the front door and turn ON the main power switch and sub power switch. Check to see that warm-up and image stabilization operations are completed normally.
- Enter the Service mode again. Make individual adjustments shown in the following table in the order listed, using the machine management list and the adjustment lists that were output at the time of main body installation and maintenance.

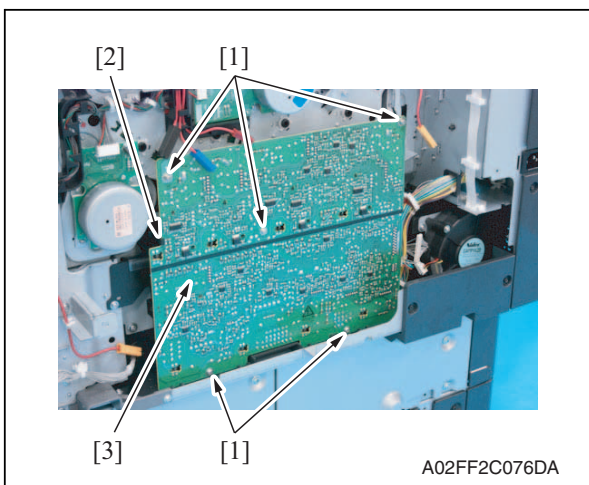
Order	Items that require readjustment in the Service mode		Ref. page	
1	Machine	Manual Bypass Tray Adjustment		
2		Printer Resist Loop		
3		Fusing Temperature		
4		Printer Area	Paper Feed Direction Adj.	
5		Fusing Transport Speed		
6		Printer Area	Centering	
7			Centering (Duplex 2nd Side)	
8			Leading Edge Adjustment	
9	Imaging Process Adjustment	Transfer Output Fine Adjustment	Secondary transfer adj.	
10			Primary transfer adj.	

6.3.37 High voltage unit (HV)

1. Remove the rear cover.
[See P.45](#)



2. Disconnect seven connectors [1].



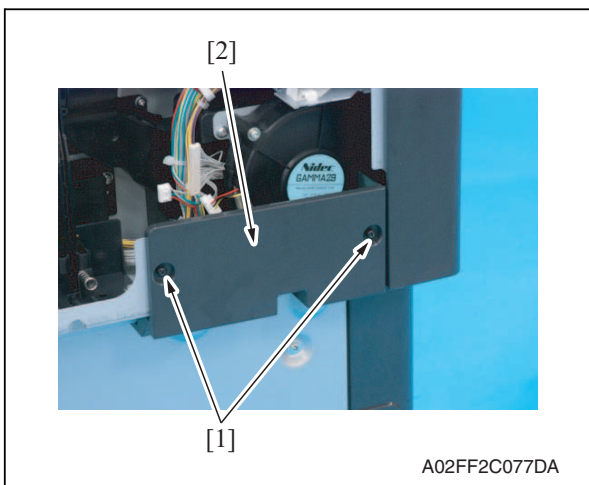
3. Remove five screws [1] and the tab [2], and remove the high voltage unit [3].

NOTE

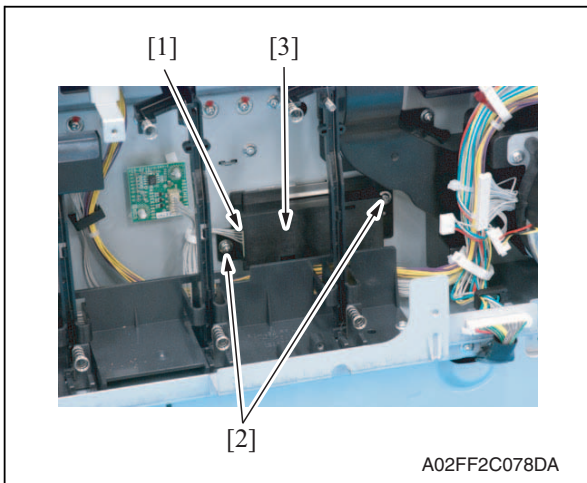
- When reinstalling the high voltage unit, make sure that the terminal end surely contacts.

6.3.38 Tray 1 FD paper size detect board (PSDTB/1)

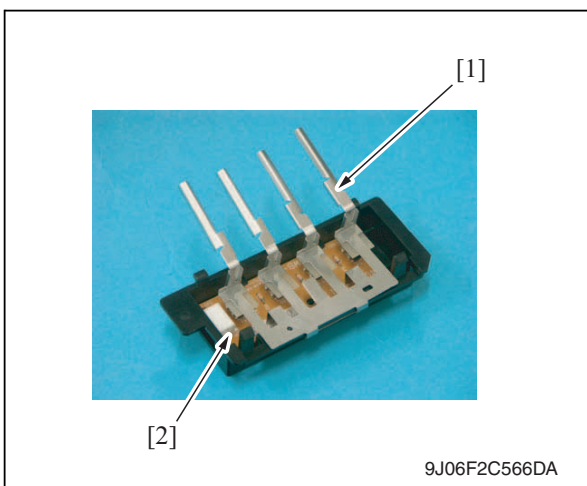
1. Slide out the tray 1.
2. Remove the high voltage unit.
[See P.85](#)



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



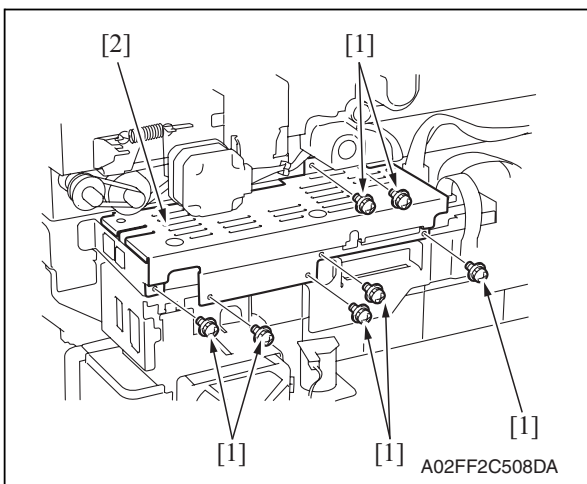
4. Disconnect the connector [1].
5. Remove two screws [2], and remove the tray 1 FD paper size detect board assy [3].



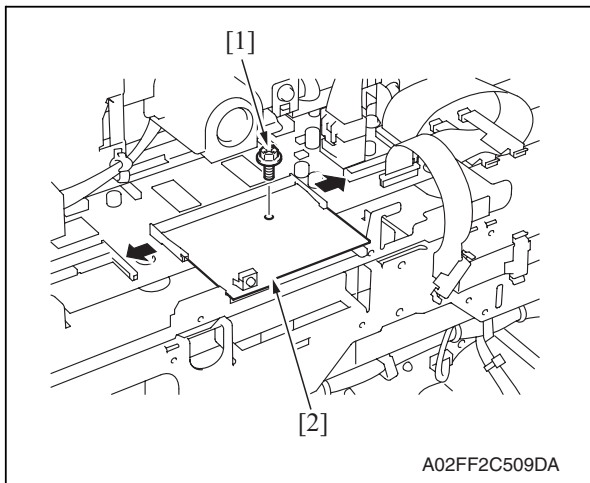
6. Remove the lever [1], and remove the tray 1 FD paper size detect board [2].

6.3.39 ADCU board (ADCUB)

1. Remove the IR rear cover.
[See P.44](#)



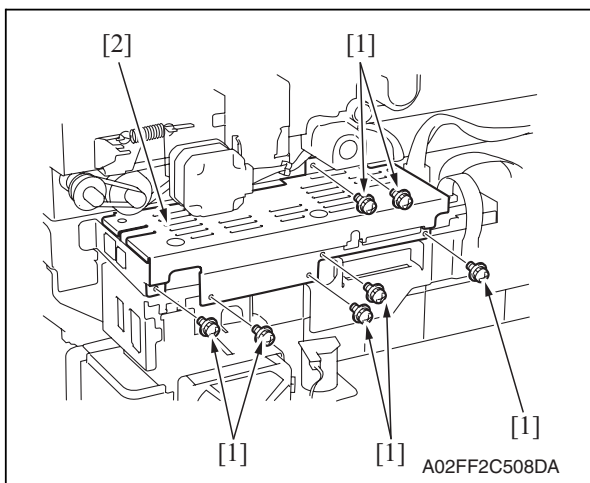
2. Remove seven screws [1], and remove the MFBU shield cover [2].



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

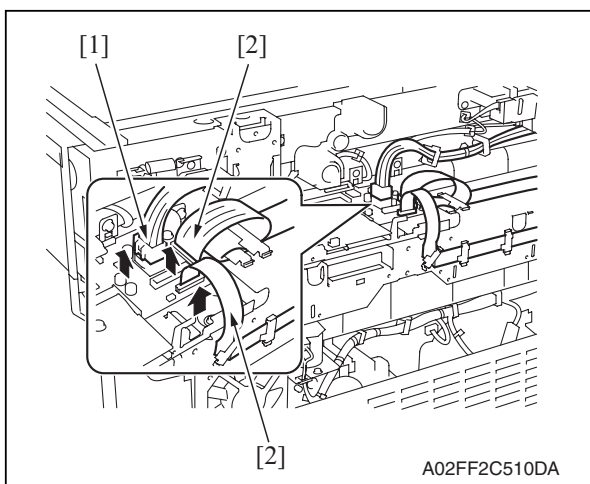
6.3.40 MFBU board (MFBUB)

1. Remove the IR rear cover.
[See P.44](#)

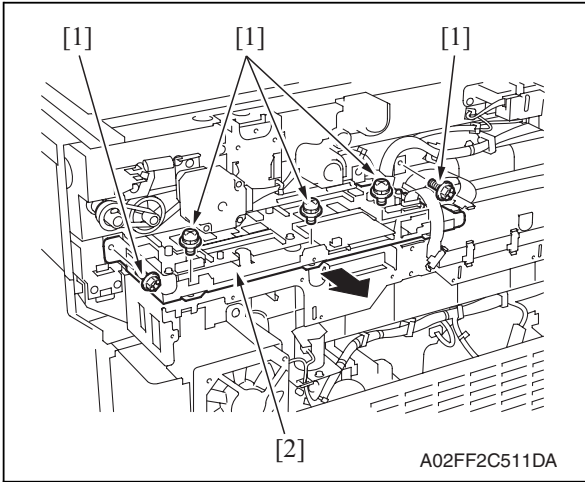


2. Remove seven screws [1], and remove the MFBU shield cover [2].

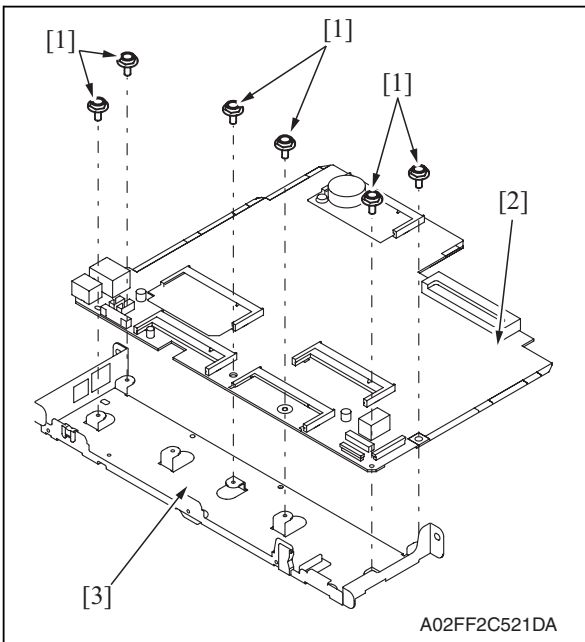
3. Remove the ADCU board.
[See P.86](#)



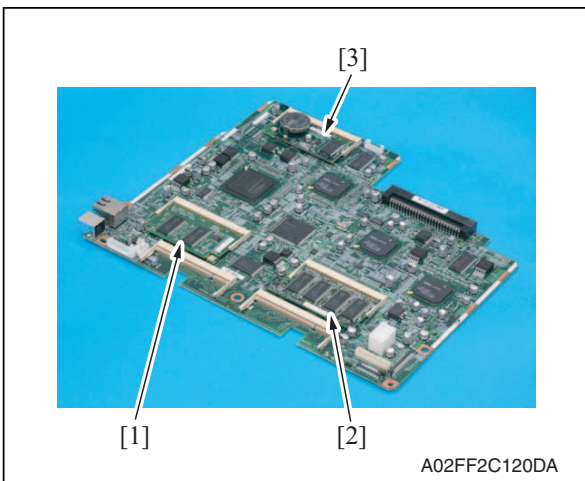
4. Disconnect the connector [1] and two flat cables [2].



- Remove five screws [1], and remove the MFBU board assy [2].



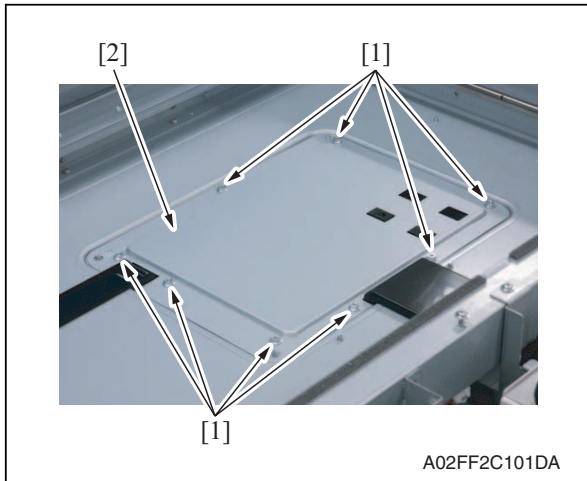
- Remove six screws [1], and remove the MFBU board [2] from the MFBU bracket [3].



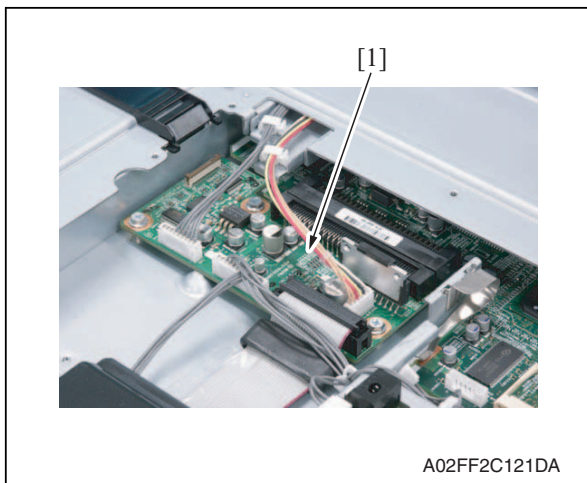
- Remove the MEMU/1 [1], MEMU/2 [2] and RAMU board [3] on the MFBU board.

6.3.41 BCRU board (BCRUB)

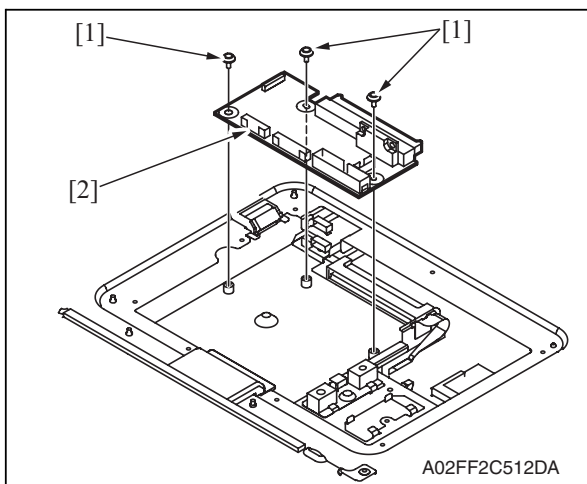
1. Remove the original glass assy.
See P.51



2. Remove eight screws [1], and remove the BCRU shield cover [2].



3. Disconnect all connectors and flat cables on the BCRU board [1].



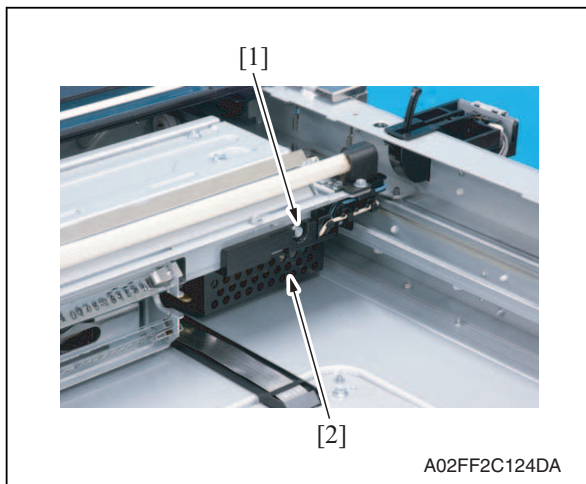
4. Remove three screws [1], and remove the BCRU board [2].

6.3.42 Inverter board (INVB)

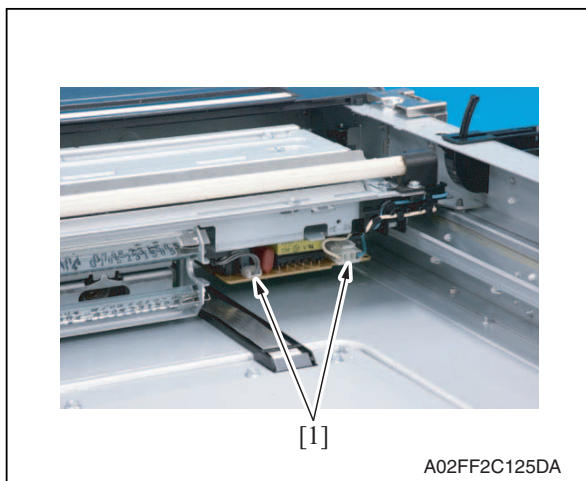
 **CAUTION**


- Always turn off the main power switch and disconnect the power code from an AC outlet when you remove the inverter board or exposure lamp.
- High voltage will be applied to inverter board while scanning a document. Never touch it while scanning to avoid electrical shocks.
- The exposure lamp may be very hot. Care should be taken not to burn your skin.

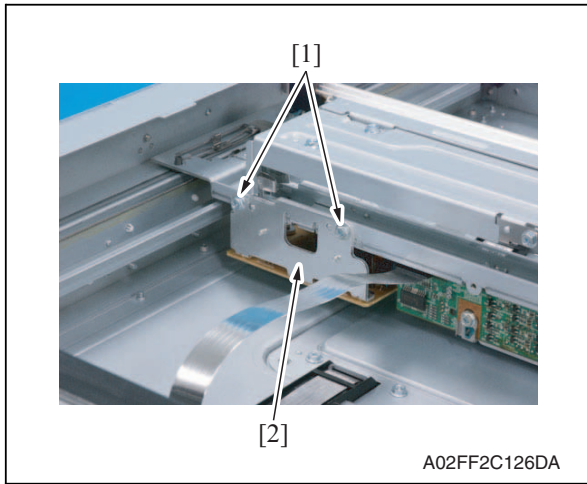
1. Access [Carriage Move] in the following order and then, using [Carriage Move], move the exposure unit to a location, at which the subsequent steps can be performed: [Service Mode] → [Machine Adjustment] → [Scan Area] → [BK-S Adjustment] → [Carriage Move].
2. Turn OFF the main power switch.
3. Remove the original glass assy.
See P.51



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

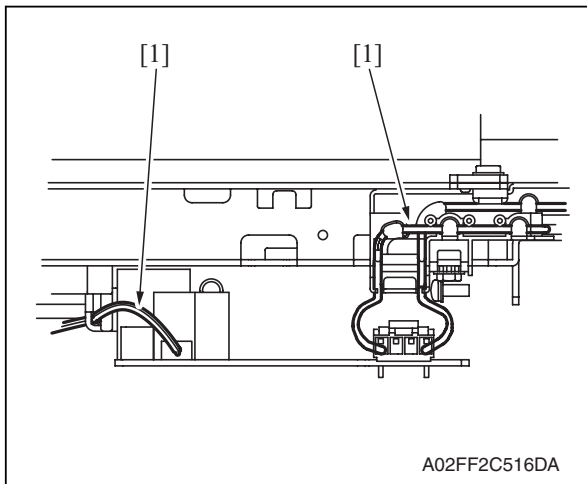


5. Disconnect two connectors [1].



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6. Remove two screws [1], and remove the inverter board [2].



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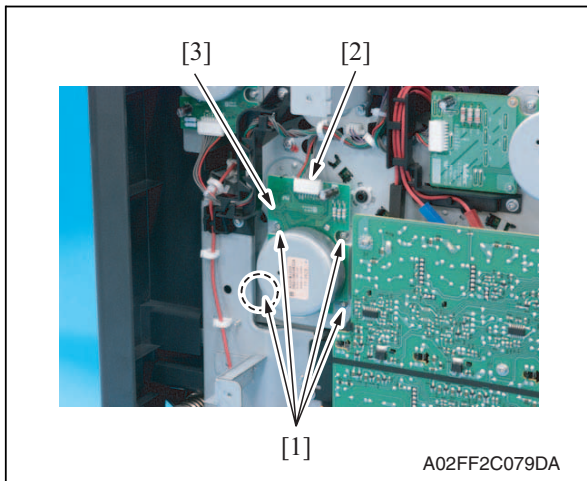
7. To reinstall, reverse the order of removal.

NOTE

- Take note of the housing method of the two cables [1] of the inverter board.

6.3.43 Transport motor (M1)

1. Remove the rear cover.
See P.45

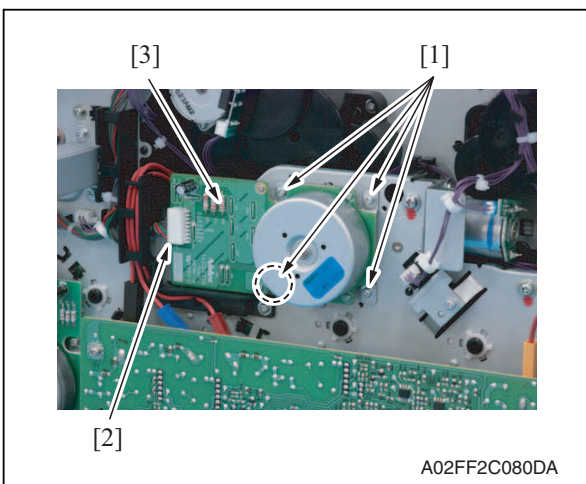


A02FF2C079DA

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

6.3.44 Color PC motor (M3)

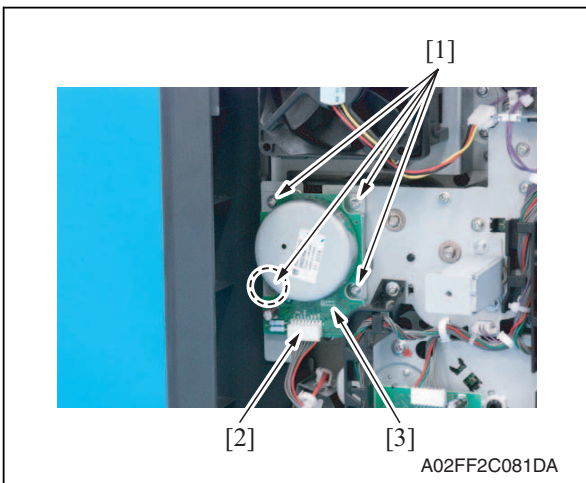
1. Remove the rear cover.
[See P.45](#)



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

6.3.45 Fusing motor (M2)

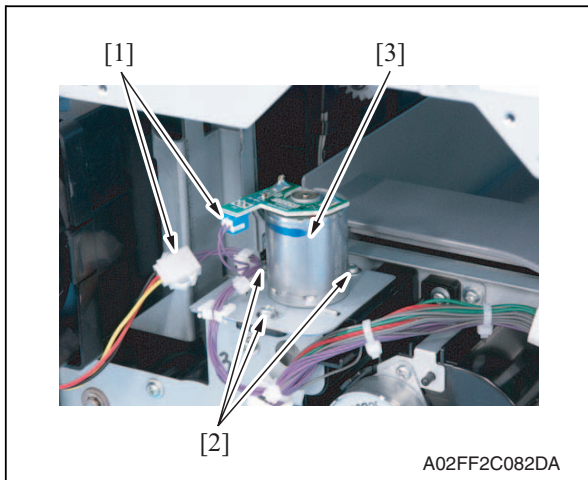
1. Remove the rear cover.
[See P.45](#)



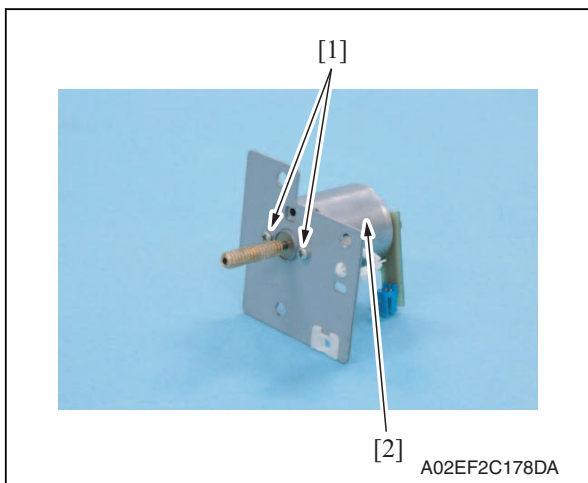
2. Remove four screws [1], disconnect the connector [2], and remove the fusing motor [3].

6.3.46 Fusing pressure roller retraction motor (M12)

1. Remove the paper exit rear cover.
[See P.44](#)
2. Remove the rear cover.
[See P.45](#)



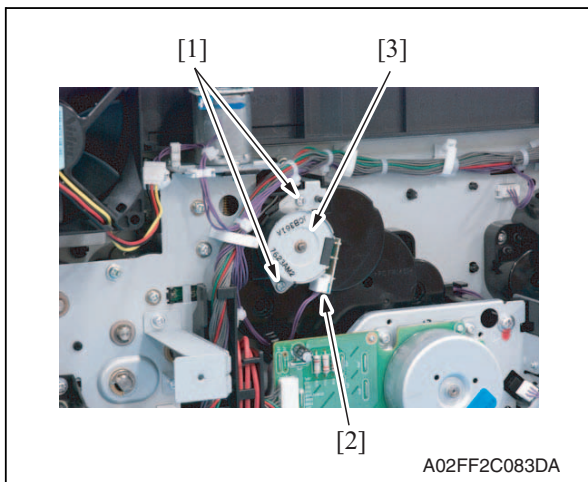
3. Disconnect two connectors [1].
4. Remove three screws [2], and remove the fusing pressure roller retraction motor assy [3].



5. Remove two screws [1], and remove the fusing pressure roller retraction motor [2].

6.3.47 Toner supply motor/CK (M7)

1. Remove the rear cover.
[See P.45](#)

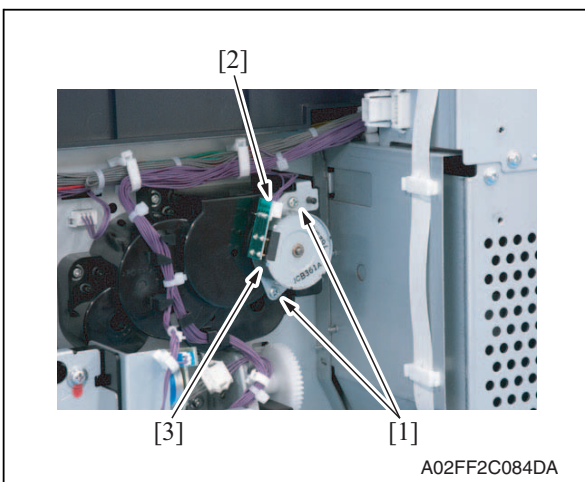


2. Disconnect the connector [2], remove two screws [1], and remove the toner supply motor/CK [3].

6.3.48 Toner supply motor/YM (M6)

1. Remove the rear cover.

See P.45

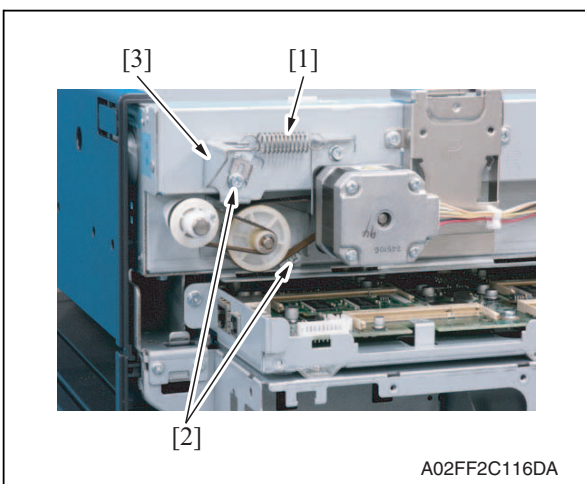


2. Disconnect the connector [2], remove two screws [1], and remove the toner supply motor/YM [3].

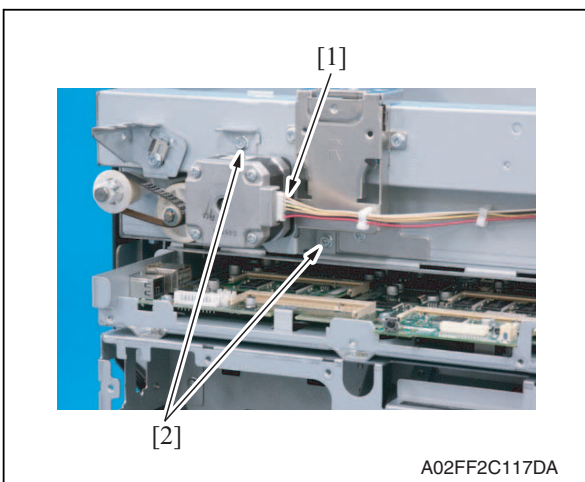
6.3.49 Scanner motor (M201)

1. Remove the IR rear cover.

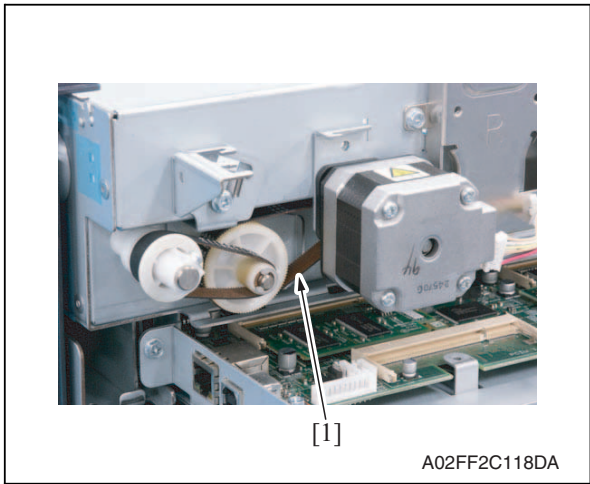
See P.44



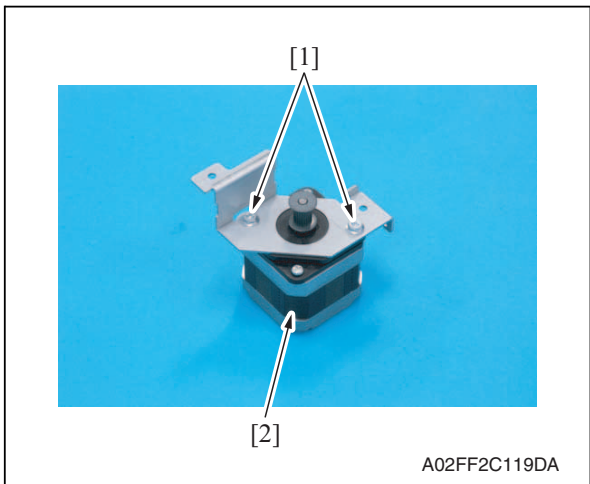
2. Remove the motor spring [1].
3. Loosen two screws [2] of the tension bracket [3].



4. Pull out the cable connector [1] connecting to the motor.
5. Remove two screws [2] which fix the motor bracket.



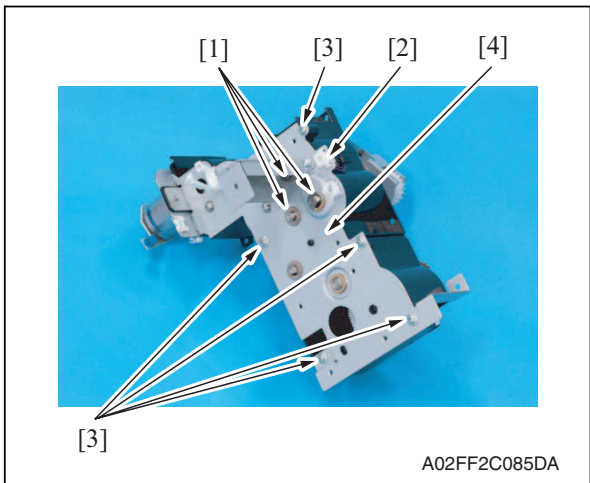
6. Remove the belt [1] hanging on the motor.



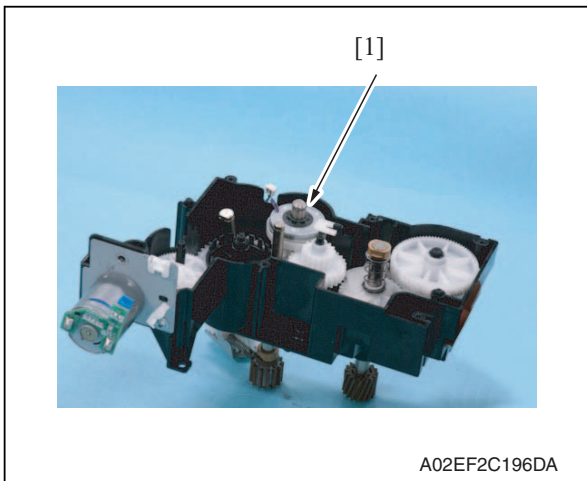
7. Remove two screws [1], and remove the scanner motor [2].

6.3.50 Transfer belt pressure retraction clutch (CL3)

1. Remove the fusing drive unit.
[See P.67](#)



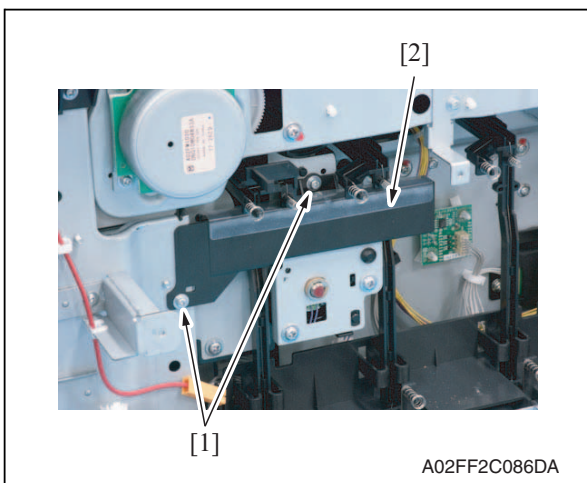
2. Disconnect the connector [2], remove three E-rings [1] and five screws [3], and remove the metal plate [4].



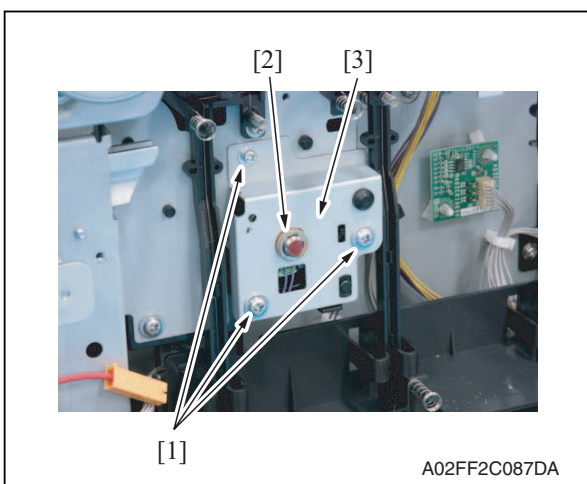
3. Remove the transfer belt pressure retraction clutch [1].

6.3.51 Developing clutch/K (CL4)

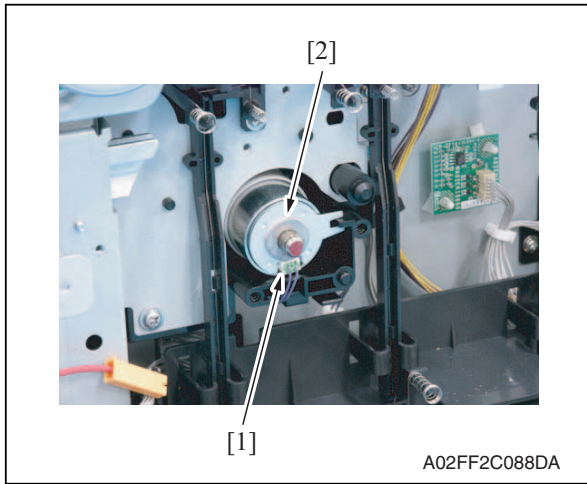
1. Remove the high voltage unit.
See P.85



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



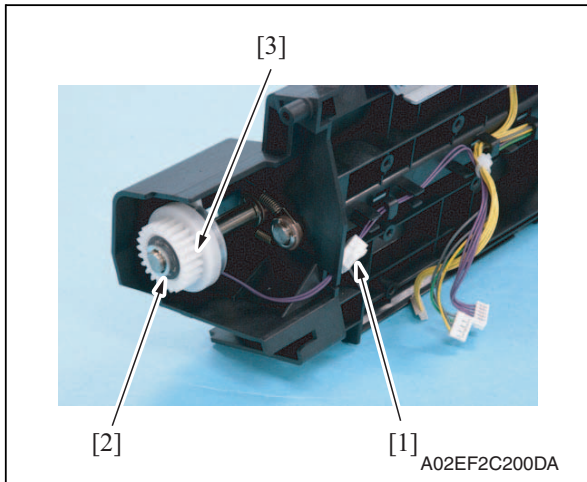
3. Remove three screws [1] and the E-ring [2], and remove the developing clutch/K cover [3].



4. Disconnect the connector [1], and remove the developing clutch/K [2].

6.3.52 Tim. roller clutch (CL1)

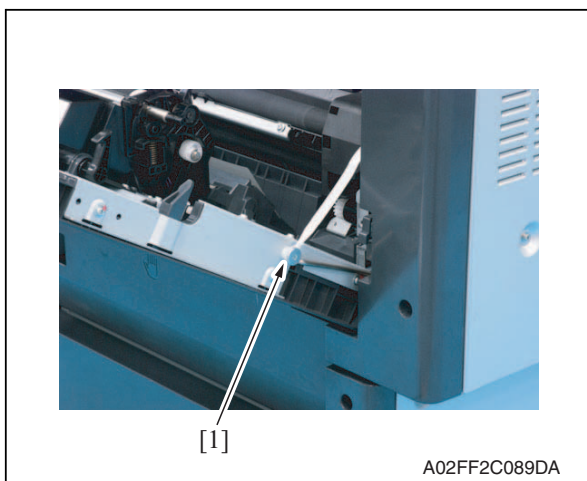
1. Remove the vertical transport unit.
[See the steps 1 to 7 of IDC registration sensor removing procedure.](#)
[See P.97](#)



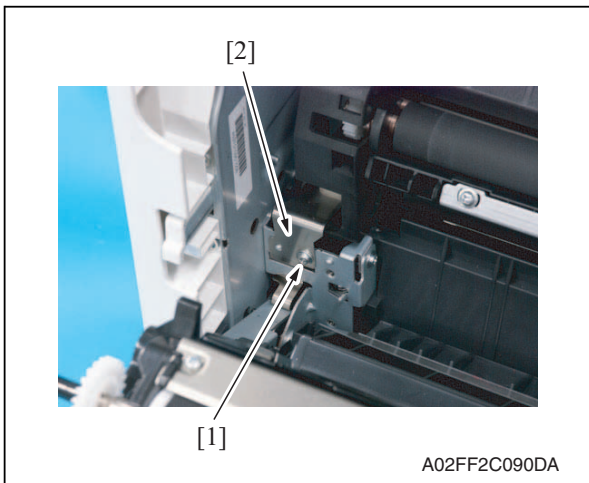
2. Disconnect the connector [1], remove the E-ring [2], and remove the tim. roller clutch [3].

**6.3.53 IDC registration sensor/MK (IDCS/MK),
 IDC registration sensor/YC (IDCS/YC)**

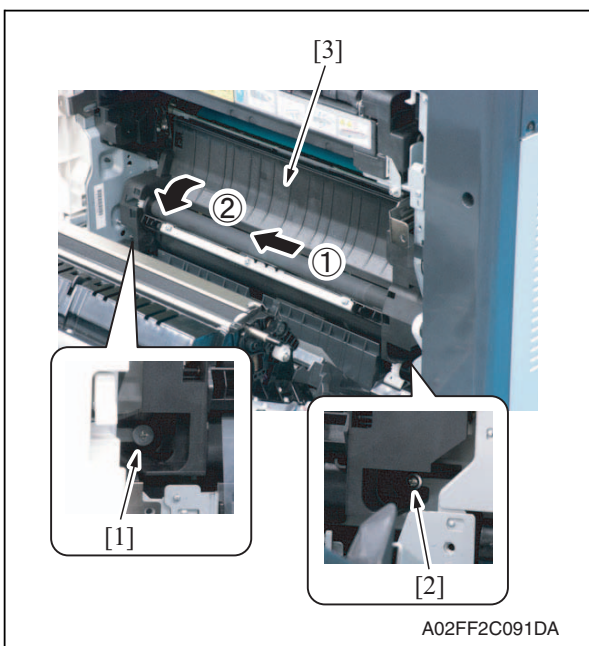
1. Remove the transfer belt unit.
[See P.24](#)



2. Remove the shoulder screw [1].



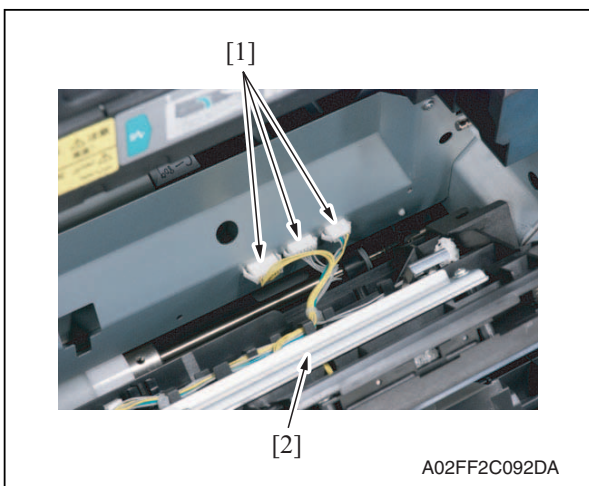
3. Remove the screw [1], and remove the plate spring [2].



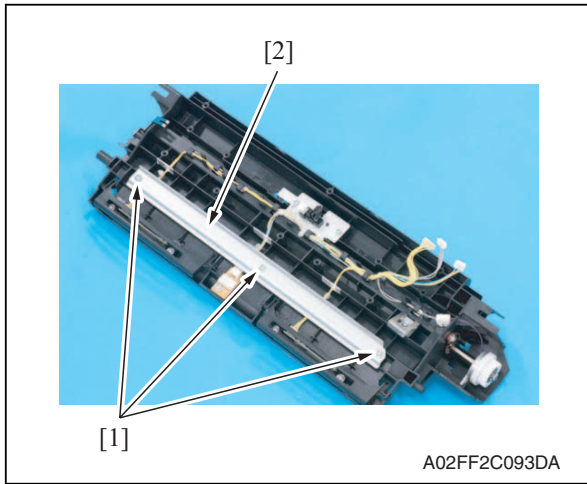
4. Remove the shoulder screw [1] and the screw [2].
5. Remove the vertical transport unit [3] as shown in the left illustration.

NOTE

- **Since multiple connectors are connected to the backside of the vertical transport assy, do not pull it by force.**



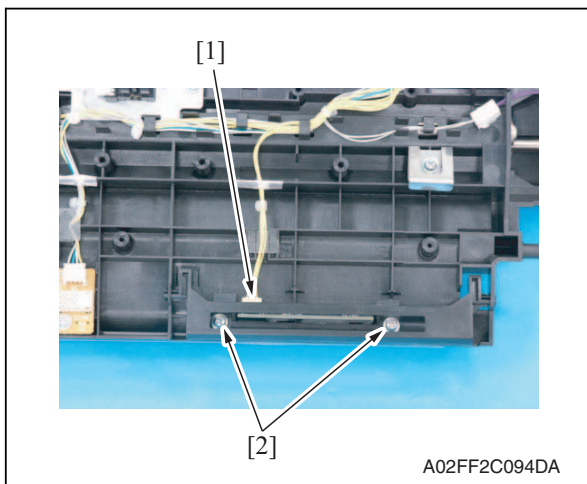
6. Disconnect three connectors [1], and remove the vertical transport unit [2].



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

NOTE

- Both end screws has a spacer. Remove the screws, being careful not to drop the spacers.



8. Disconnect the connector [1], remove two screws [2], and remove the IDC registration sensor/MK.
9. Repeat step 8 to remove IDC registration sensor/YC.

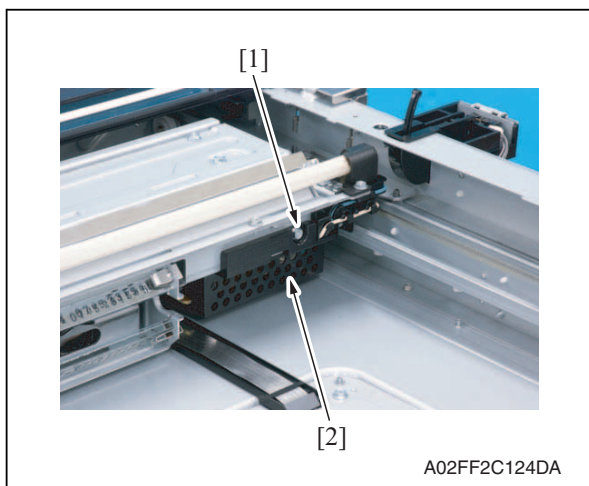
6.3.54 Exposure lamp (FL201)

⚠ CAUTION

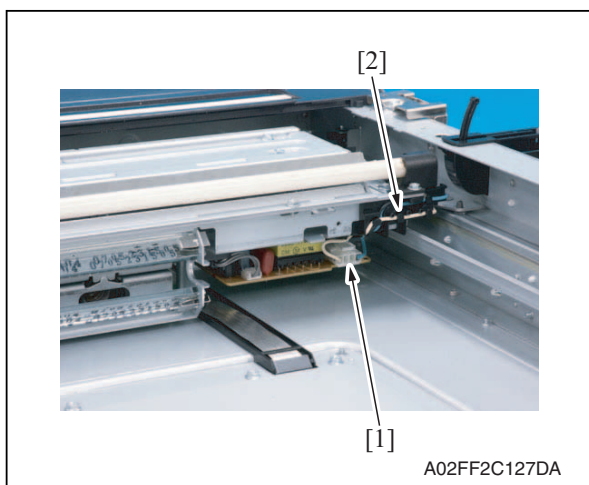


- Always turn off the main power switch and disconnect the power code from an AC outlet when you remove the inverter board or exposure lamp.
- High voltage will be applied to inverter board while scanning a document. Never touch it while scanning to avoid electrical shocks.
- The exposure lamp may be very hot. Care should be taken not to burn your skin.

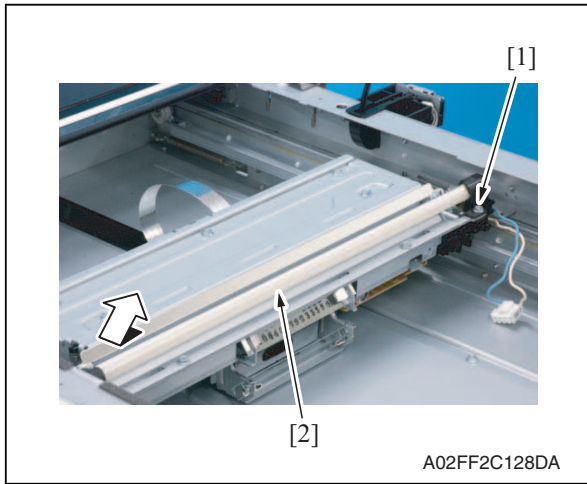
1. Access [Carriage Move] in the following order and then, using [Carriage Move], move the exposure unit to a location, at which the subsequent steps can be performed: [Service Mode] → [Machine Adjustment] → [Scan Area] → [BK-S Adjustment] → [Carriage Move].
2. Turn OFF the main power switch.
3. Remove the original glass assy.
[See P.51](#)



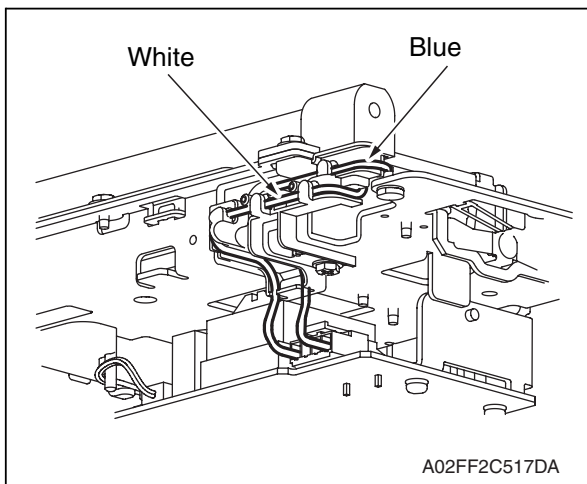
4. Remove the screw [1], and remove the inverter cover [2].



5. Disconnect the connector [1], and remove the harnesses from the harness guide [2].



6. Remove the screw [1], and remove the exposure lamp [2].



7. To reinstall, reverse the order of removal.

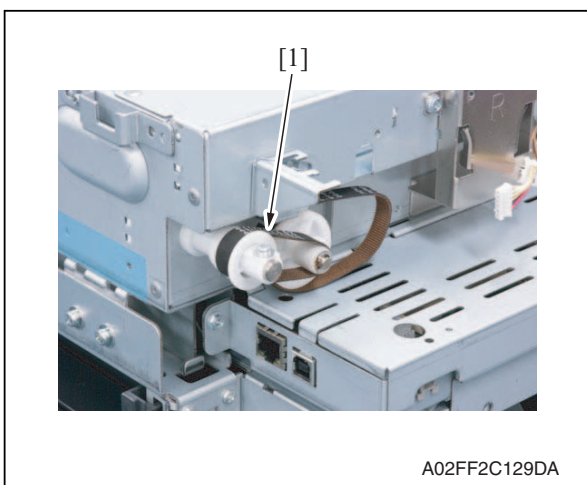
NOTE

- Take care so as not to mistake the blue and white routing of the lamp cables.

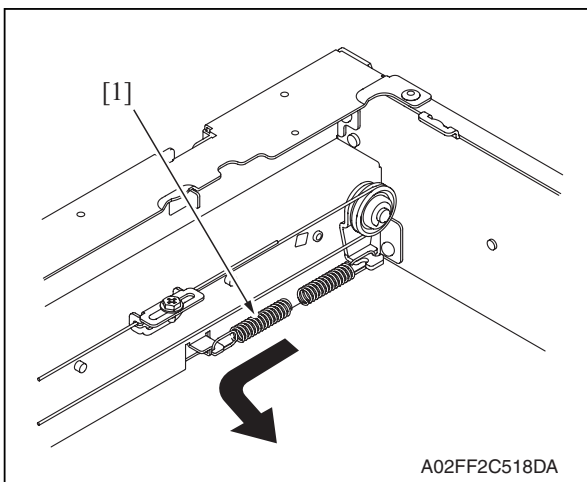
6.3.55 Scanner drive wires

A. Removal procedure

1. Remove the original glass assy.
[See P.51](#)
2. Remove the ADF glass assy.
[See P.52](#)
3. Remove the IR rear cover.
[See P.44](#)
4. Remove the IR left cover.
[See P.50](#)
5. Remove the IR right cover.
[See P.51](#)
6. Remove the exposure unit.
[See P.74](#)
7. Remove the scanner motor.
[See P.94](#)

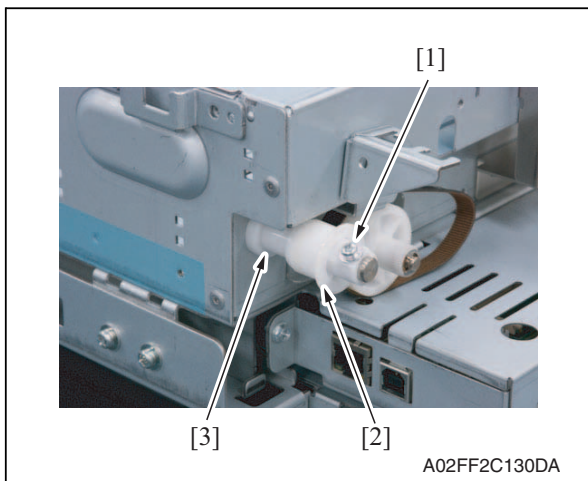


8. Remove the timing belt [1].

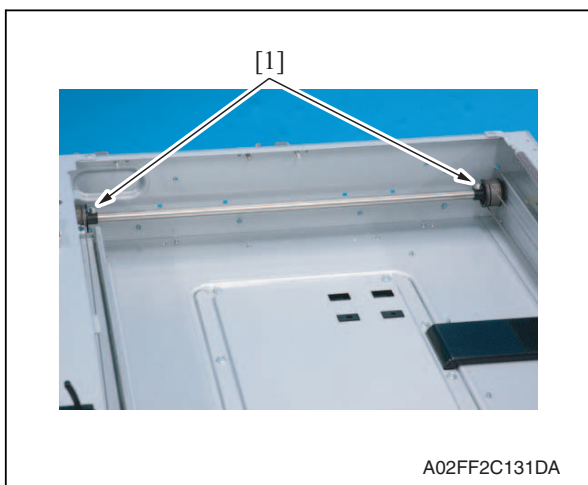


9. Remove the pulley springs [1] of the drive pulley (both front and rear).
10. Remove the scanner drive wires along the route.

B. Reinstall procedure

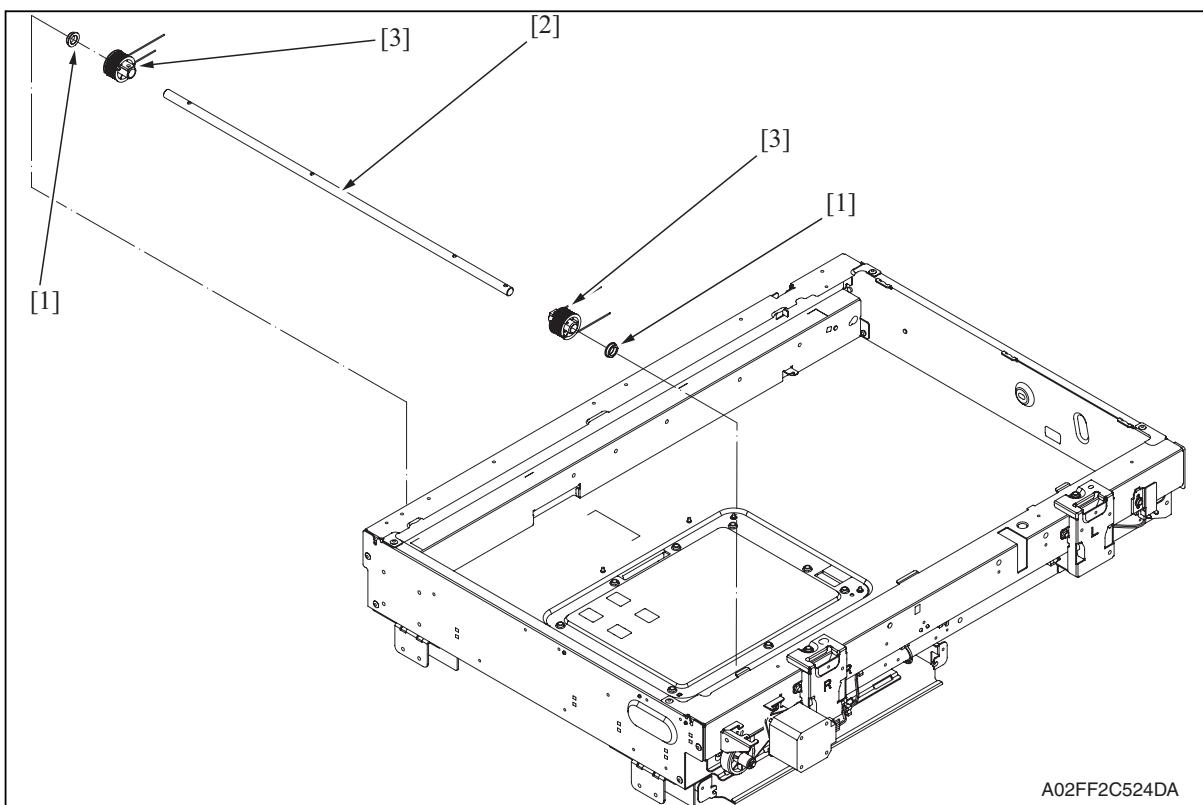


- Remove the pulleys and a pulley shaft before winding the scanner drive wires.
1. Remove the screw [1], and remove the pulley [2] and the spacer [3].



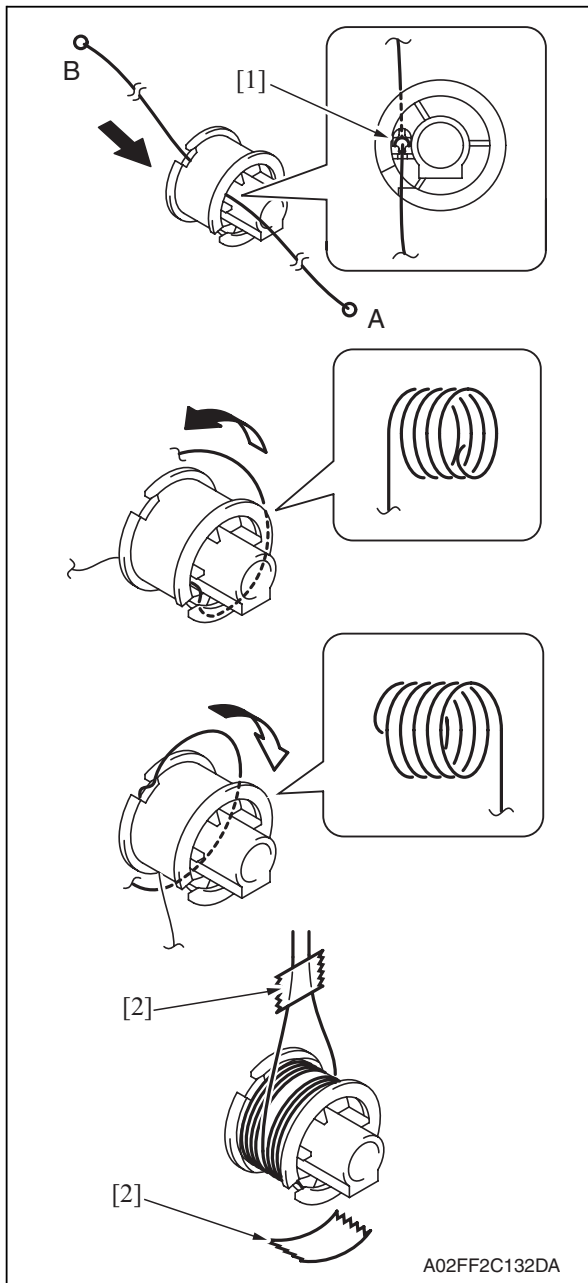
2. Remove two screws [1] fixing the pulley shaft.

3. Remove bearings [1] in the front and rear, pull out the pulley shaft [2], and pull out pulleys [3] and pulley shaft [2] from the inside of the scanner.



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Maintenance



4. Insert the shorter side (A) of the scanner drive wire from the opposite of the pulley screw.
5. Then, fit the mid clamp [1] to the groove.
6. Wind a wire five turns from the outer rim of the pulley.

NOTE

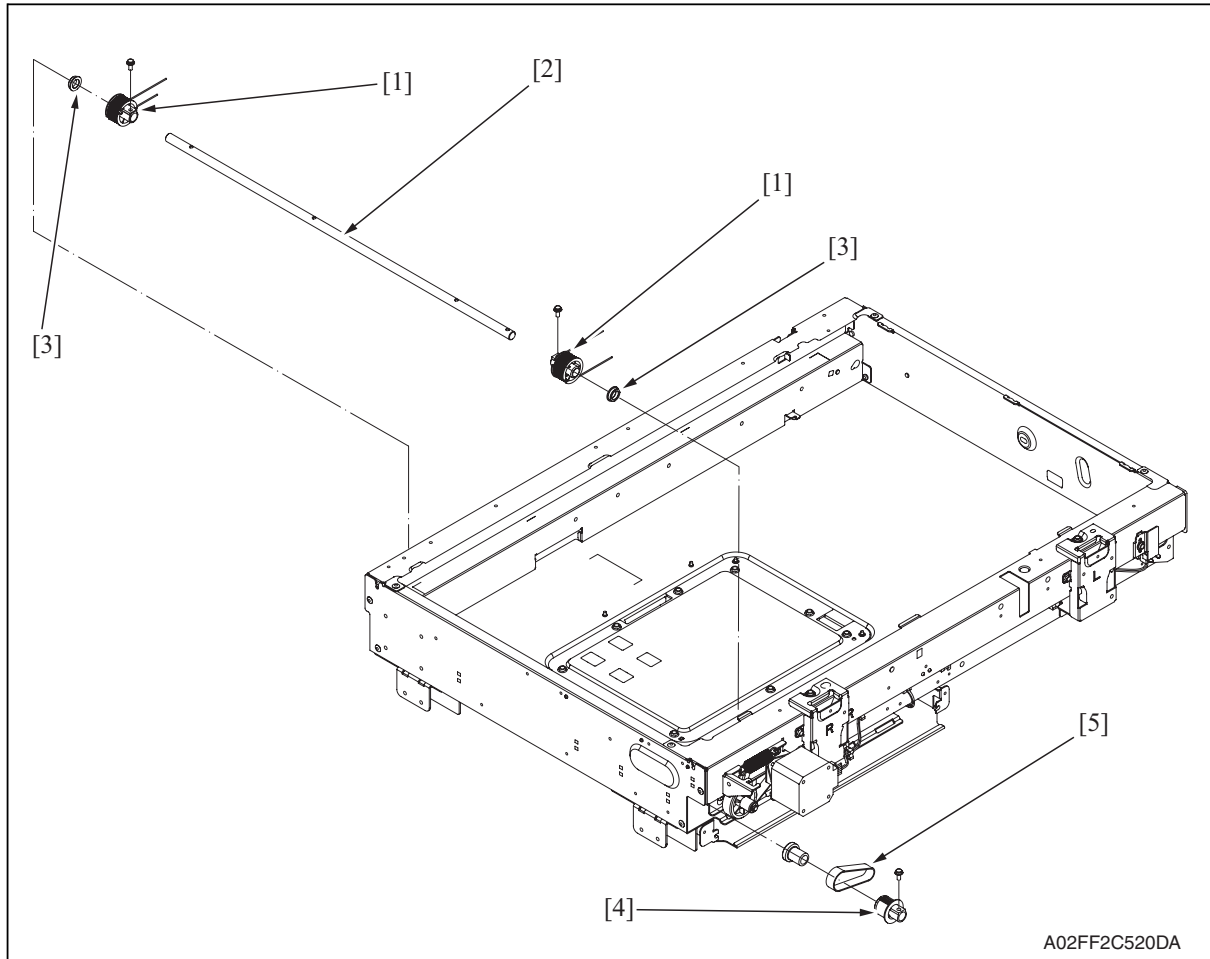
- Perform the above steps both for the front and rear pulleys.
- After winding the scanner drive wire, fix it temporarily by drafting tape [2] so as not to break up.

7. Insert the pulleys [1] around which the scanner drive wire was wound to the pulley shaft [2], and fix them with one screw each.

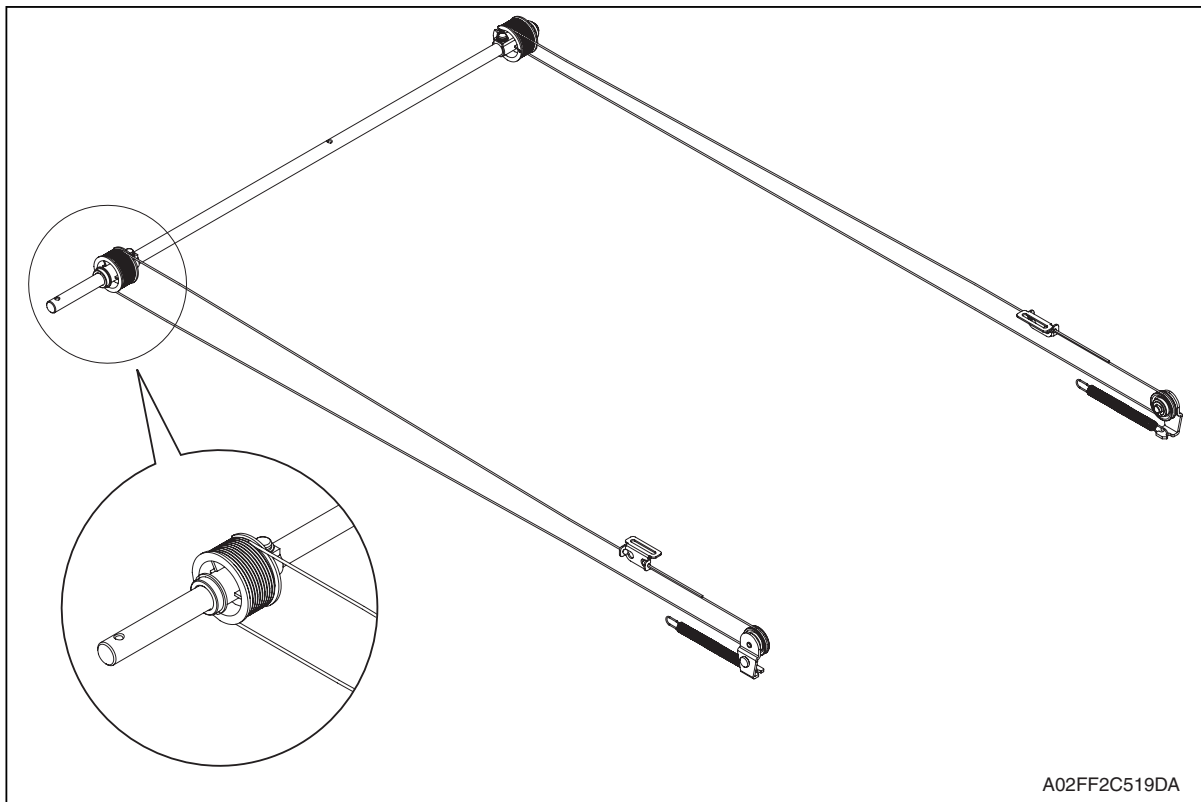
NOTE

- Place the pulley marked (F) on the machine front and the pulley marked (R) on the machine rear.

8. Insert a pulley shaft assy into the scanner and put bearings [3] on the edge. Reinstall pulley [4] and timing belt [5] in the reverse order of dismounting.



9. Route wires as shown below.



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10. Reinstall the exposure unit.

NOTE

- **When fixing the wire bracket at the exposure unit front, align with the memory position when removing.**

11. After mounting, while taking copy images, adjust the wire bracket fixing position at the exposure unit front so as to prevent tilting.
12. After tilt adjustment, attach the screw lock to the wire bracket (front), and fix it.
13. If the leading edge or zoom ratio deviates, perform the following settings.
[Service Mode] → [Machine Adjustment] → [Scan Area] → [BK-S Adjustment]

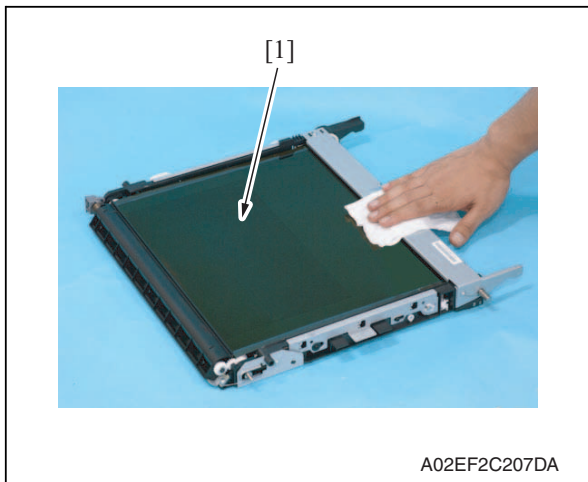
6.4 Cleaning procedure

NOTE

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

6.4.1 Transfer belt unit

1. Remove the transfer belt unit.
See P.24



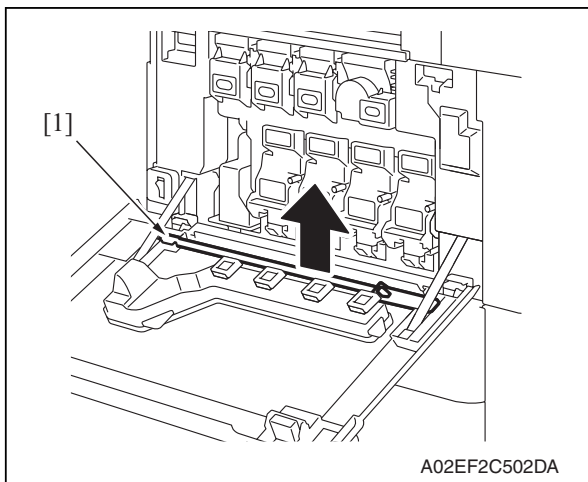
2. Using a cleaning pad, wipe the transfer belt [1].

NOTE

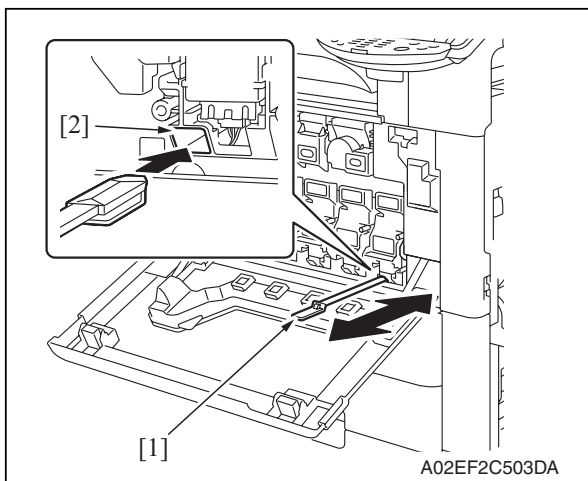
- Do not wipe out with water.
- Do not wipe out with any solvents.

6.4.2 PH window Y,M,C,K

1. Open the front door.



2. Remove the PH window cleaning jig [1] from the front door.



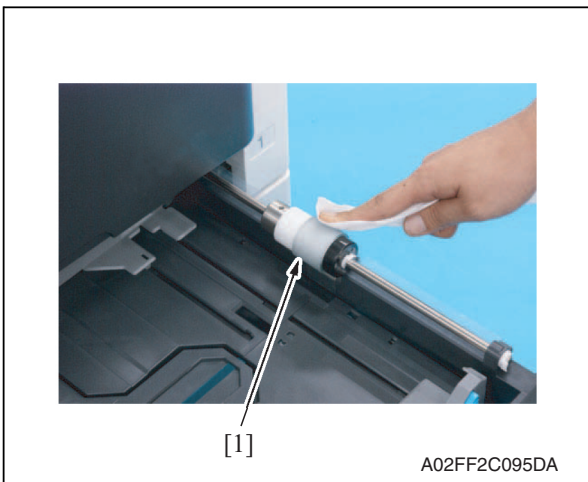
3. Insert the PH window cleaning jig [1] to the cleaning port [2] and clean it by putting the jig back and forth a couple times.

NOTE

- Clean every PH window of Y,M,C,K.

6.4.3 Tray 1 feed roller

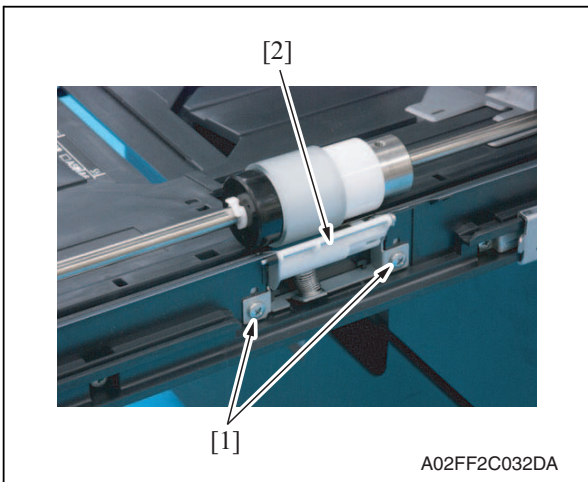
1. Slide out the tray 1.



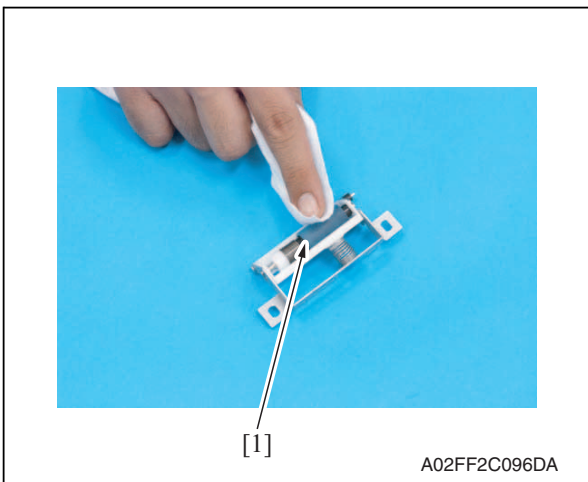
2. Using a cleaning pad dampened with alcohol, wipe the tray 1 feed roller [1] clean of dirt.

6.4.4 Tray 1 separation roller

1. Slide out the tray 1.



2. Remove two screws [1], and remove the tray 1 separation roller fixing plate assy [2].

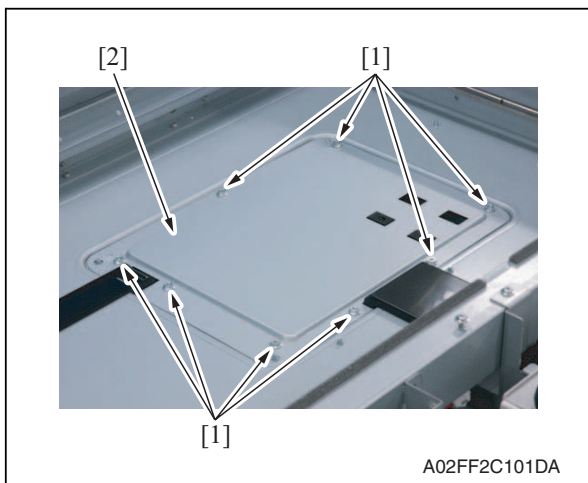


3. Using a cleaning pad dampened with alcohol, wipe the tray 1 separation roller [1] clean of dirt.

6.5 Mount the original size detection sensor/2 (PS204)

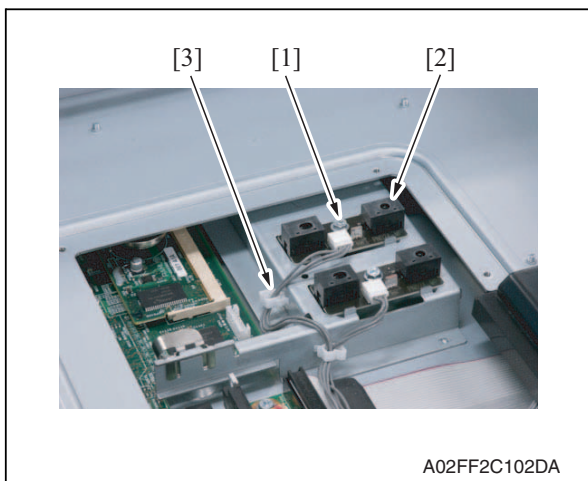
1. Remove the original glass assy.

See P.51



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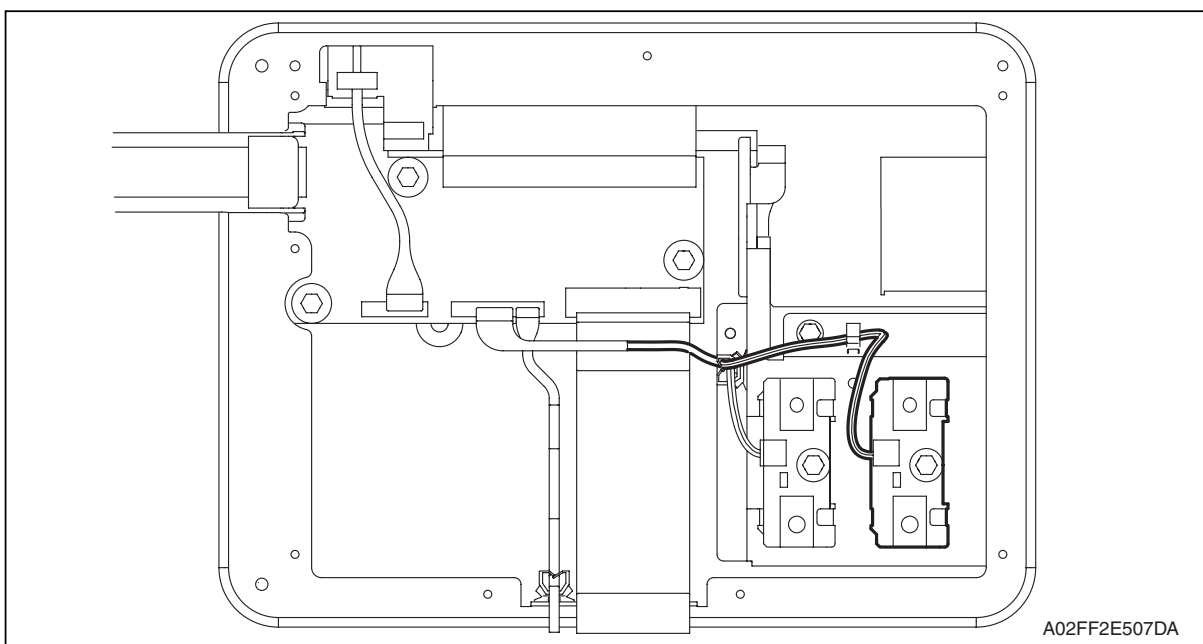
2. Remove eight screws [1], and remove the BCRU board protective shield [2].



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3. Using the screw [1], mount the original size detection sensor/2 (PS204) [2] and fix it.
4. Remove the option cable [3] from the clamp, and connect it to the original size detection sensor/2 [2].
5. Reverse the order of removal procedure.

<How to set the harness>



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6. Call the service mode to the screen, and set “Bit 3 of Mode 423” of the soft switch to “0”.
7. Select [Service Mode] → [State Confirmation] → [Sensor Check (Scan)] → [Scanner], and check the state of the original size detection sensor/2 (Original Size Detection Opt.).

Adjustment/Setting

7. How to use the adjustment section

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

Advance checks

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

CAUTION

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

8. Utility Mode

8.1 Utility Mode function tree

* The function tree is shown to comply with the format displayed on the screen.

NOTE

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

Utility			Ref. page	
User Settings	System Settings	Language Selection		P.117
		Measurement Unit Setting		P.117
		Paper Tray Setting	Priority Tray	P.117
			Auto Tray Switch ON/OFF	P.117
			No Matching Paper in Tray Setting	P.117
			Paper Type/Size Setting	P.118
		Auto Color Level Adjustment		P.118
	Dehumidify Scanner		P.118	
	Display Settings	Default Screen		P.118
		Default E-Mail Screen		P.118
	Default Settings	Copy		P.119
		Fax/Scan	Default Scan/Fax Settings	P.119
			IP Relay Dest. Selection	P.119
	File Type		P.120	
	Copier Settings	Small Originals		P.120
		Auto Zoom for Combine		P.120
		Auto Sort/Group Selection		P.120
	Printer Settings	Basic Settings	PDL Setting	P.121
			Number of Copies	P.121
			Original Direction	P.121
			A4/A3 <--> LTR/LGR Auto Switch	P.121
			Document Hold Time	P.121
		Paper Settings	Paper Tray	P.122
			Paper Size	P.122
			2-Sided Print	P.122
			Bind Position	P.122
		PCL Settings	Font #	P.122
			Symbol Set	P.123
			Font Size	P.123
			Line/Page	P.123
			CR/LF Mapping	P.123
		Print Reports	Configuration Page	P.123
			PCL Demo Page	
PCL Font List				
PS Font List				

Utility			Ref. page	
User Management	Confirmation Beep		P.124	
	Alarm Volume		P.124	
	Line Monitor Sound		P.124	
	Job Complete Beep		P.124	
	Panel Cleaning		P.124	
	Dehumidify		P.124	
	POP3 RX		P.125	
	Memory RX ON/OFF		P.125	
One-Touch/ Box Reg.	One-Touch		P.125	
	Index		P.125	
	Domain Name		P.125	
	Bulletin		P.125	
Admin.	System Settings	Power Save Settings	Auto Reset	P.126
			Low Power Mode Settings	P.126
			Sleep Mode Settings	P.126
			LCD Back-Light OFF	P.126
			Enter Power Save Mode	P.127
	Output Settings	Print/Fax Output Setting	Printer	P.127
			Fax/E-Mail	
		Output Tray Setting	Copy	P.127
			Printer	
			Network	
			Fax (Port 1)	
			Fax (Port 2)	
	Language (I/O)		P.127	
	Date & Time Setting	Date & Time Setting		P.128
		Time Zone		P.128
		Daylight Saving Time		P.128
	Expert Adjustment	AE Level Adjustment		P.128
		Density Adjustment	Thick Paper Image Density -Yellow	P.129
			Thick Paper Image Density -Magenta	
			Thick Paper Image Density -Cyan	
Thick Paper Image Density -Black				
Black Image Density				

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Adjustment / Setting

Utility					Ref. page	
Admin.	System Settings	Expert Adjustment	Image Stabilization	Initialize + Stabilization	P.129	
				Image Stabilization	P.130	
			Color Reg. Adjustment	Cyan	P.131	
				Magenta		
		Yellow				
		Gradation Adjustment	Copy	P.132		
			Printer (Gradation)			
			Printer (Resolution)			
		Paper Size/Type Counter		P.132		
		Administrator Settings	Administrator Password			P.132
	Activity Report E-Mail TX			P.133		
	Account Track	Authentication Settings	Account Track		P.133	
			Allow Print Without Auth.		P.133	
		Account Track Settings	Account Track Registration		P.133	
			All Counter Clear		P.133	
	Document Management	TX Forwarding			P.134	
		RX Document				
	Printer Settings	Timeout			P.134	
	Fax Settings	Self-ID			P.134	
		RX Functions	Reception Mode			
			Number of RX Call Rings			
Password Communication						
Self-Telephone # Information		Self-Telephone # 1				
		PBX Connect Mode 1				
		Dialing Method 1				
Self-Telephone # Information 2		Self-Telephone # Info 2				
		PBX Connect Mode 2				
		Dialing Method 2				
TX Settings	TSI Registration			P.134		
	Redial	Number of Redials				
		redial Interval				
RX Settings	Memory RX Timer Setting	Memory RX Time		P.134		
		Memory Lock Password				
	Delete User Box					
Report Settings	TX Report			P.134		
	Activity Report					
Print Lists	Setting List			P.134		

Utility				Ref. page	
Admin.	Network Settings	Basic Settings	DHCP	P.135	
			IP Address	P.135	
			Subnet Mask	P.135	
			Gateway	P.135	
			Network Board Set	P.135	
		DNS Settings			P.136
		Machine Name			P.136
		SMTP TX Settings			P.136
		SMTP RX Settings			P.137
		POP3 Settings			P.138
		Scanner Settings	Activity Report	P.139	
			RX Doc. Header Print	P.139	
			E-Mail Header Text	P.139	
			Subject Registration	P.139	
			Division Settings	P.139	
			Gateway TX	P.140	
		IP Relay Settings			P.140
		RAW Port Number Settings			P.140
		Software Switch Setting			P.141
		Ping			P.143
Firmware Version			P.143		
Security Settings	Function Mgmt Settings	Maximum Job Allowance	P.143		
Check Details	Copy			—	
	Print			—	
	Scan			—	
	Others			—	
Coverage Rate	Application			—	
	Total			—	

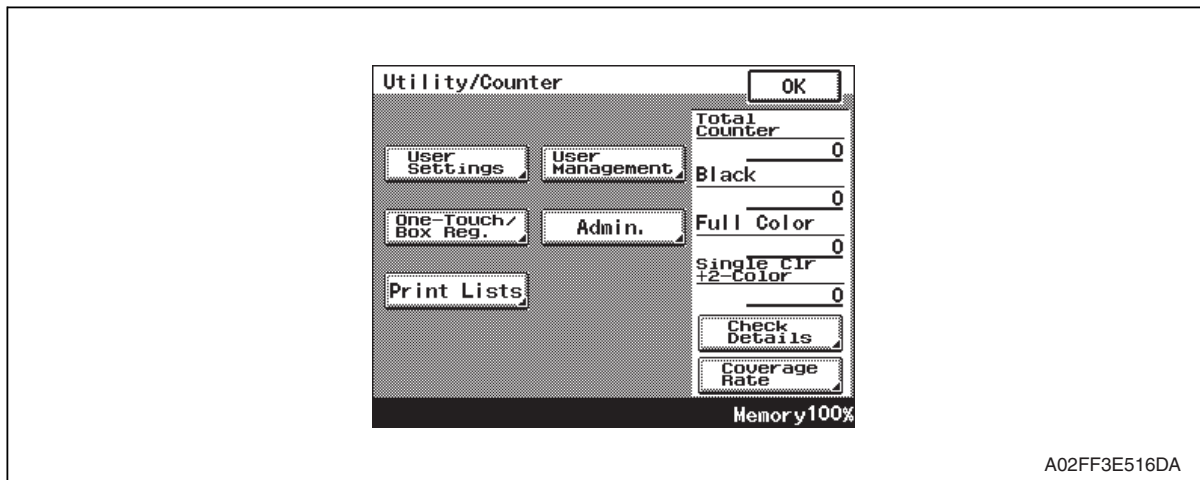
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Adjustment / Setting

8.2 Utility Mode function setting procedure

8.2.1 Procedure

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



8.2.2 Exiting

- Touch the [OK] key.

8.2.3 Changing the setting value in Utility Mode functions

- Use the [+] / [-] key to enter or change the setting value.
- Use the 10-key pad to enter the setting value.
(To change the setting value, first press the Clear key before making an entry.)

8.3 User Settings

8.3.1 System Settings

A. Language Selection

Functions	• To select the language on the LCD display.
Use	• To change the language on the control panel to another language.
Setting/ Procedure	• The language options depend on the marketing area.

B. Measurement Unit Setting

Functions	• To select the unit displayed on the LCD display.
Use	• To change the unit displayed on the control panel.
Setting/ Procedure	• The default setting varies depending on the marketing area. mm inch (Num. Value) inch (Fraction)

C. Paper Tray Setting

(1) Priority Tray

Functions	• To set the tray for automatic selection when APS is being set.
Use	• To specify the tray to be used when APS is being set.
Setting/ Procedure	• Select the tray on the tray select screen.

(2) Auto Tray Switch ON/OFF

Functions	• To set whether to automatically switch to another tray with same size paper when the paper feed tray runs out of paper during printing.
Use	• To switch the paper feed tray automatically.
Setting/ Procedure	• The default setting is Restrict. Allow “Restrict”

(3) No Matching Paper in Tray Setting

Functions	• To set whether to switch to another tray automatically when the specified tray runs out of paper during printing. Tray Fixed : It stops printing when the specified tray runs out of paper. Tray Priority : To switch to another tray with the specified paper and print when the tray is out of paper
Use	
Setting/ Procedure	• The default setting is Tray Fixed. “Tray Fixed” Tray Priority

(4) Paper Type/Size Setting

- It is displayed only when the setting does not allow the copy function to be used by Software DIPSW (Mode 403).

Functions	<ul style="list-style-type: none"> • To set the paper type/size for each paper feed tray when the copy function is invalid. Sets the paper type/size for each paper feed tray.
Use	<ul style="list-style-type: none"> • To change the paper type/size when the copy function is invalid and they cannot be changed on the copy operation screen.
Setting/ Procedure	<ol style="list-style-type: none"> 1. Select the key for the paper feed tray to be set. 2. Touch [Change Settings]. 3. Set the paper type and the size according to the instruction on the screen.

D. Auto Color Level Adjustment

Functions	<ul style="list-style-type: none"> • To set the criterion level to discriminate between a colored original and a black-and-white original in the auto color mode. 												
Use	<ul style="list-style-type: none"> • To change the criterion level for the partly colored image to be taken as a black-and-white original. 												
Setting/ Procedure	<ul style="list-style-type: none"> • Five levels are available to choose from and the default setting is 3. <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 10px;">Black</td> <td style="padding: 0 10px;">Standard</td> <td style="padding: 0 10px;">Full Color</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> <tr> <td style="padding: 0 10px;"></td> <td style="padding: 0 10px;"></td> <td style="padding: 0 10px;">4</td> </tr> <tr> <td style="padding: 0 10px;"></td> <td style="padding: 0 10px;"></td> <td style="padding: 0 10px;">5</td> </tr> </table>	Black	Standard	Full Color	1	2	3			4			5
Black	Standard	Full Color											
1	2	3											
		4											
		5											

E. Dehumidify Scanner

Functions	<ul style="list-style-type: none"> • To set the time to dehumidify the scanner.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Hour] and [Minute], and set the time using the 10-key pad.

8.3.2 Display Settings

A. Default Screen

Functions	<ul style="list-style-type: none"> • To set the screen which is preferentially displayed when being switched to the default screen such as when turning power ON or automatically resetting. 		
Use			
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Copy. <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 40px;">“Copy”</td> <td style="padding: 0 40px;">Fax/Scan</td> </tr> </table>	“Copy”	Fax/Scan
“Copy”	Fax/Scan		

B. Default E-Mail Screen (Default Fax Screen)

- When the optional FAX kit (FK-507) is mounted, [Default Fax Screen] will be displayed.

Functions	<ul style="list-style-type: none"> • To set the screen which is preferentially displayed when in scan mode. 				
Use					
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is One-Touch. <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 0 20px;">“One-Touch”</td> <td style="padding: 0 20px;">Search</td> <td style="padding: 0 20px;">Direct Input</td> <td style="padding: 0 20px;">Index</td> </tr> </table>	“One-Touch”	Search	Direct Input	Index
“One-Touch”	Search	Direct Input	Index		

8.3.3 Default Settings

A. Copy

Functions	<ul style="list-style-type: none"> To make default settings for the copy mode. <p>* The machine is initialized at the following timings:</p> <ul style="list-style-type: none"> The main power switch is turned ON. Panel is reset. In an Interrupt mode. Auto Reset The password entry screen for account track is changed.
Use	<ul style="list-style-type: none"> To change the Initial mode setting to meet the user's need.
Setting/ Procedure	<p><Current Setting></p> <ul style="list-style-type: none"> The settings made on the control panel before entering the setting menu screens are registered as the default settings of copy functions. <p><Factory Default></p> <ul style="list-style-type: none"> The settings made at the time of shipment from the factory are registered as the default settings of copy functions.

B. Fax/Scan

(1) Default Scan/Fax Settings

Functions	<ul style="list-style-type: none"> To make default settings for the fax/scan mode. <p>* The machine is initialized at the following timings:</p> <ul style="list-style-type: none"> The main power switch is turned ON. Panel is reset. In an Interrupt mode. Auto Reset The password entry screen for account track is changed.
Use	<ul style="list-style-type: none"> To change the Initial mode setting to meet the user's need.
Setting/ Procedure	<p><Current Setting></p> <ul style="list-style-type: none"> The settings made on the control panel before entering the setting menu screens are registered as the default settings of fax/scan functions. <p><Factory Default></p> <ul style="list-style-type: none"> The settings made at the time of shipment from the factory are registered as the default settings of fax/scan functions.

(2) IP Relay Dest. Selection

Functions	<ul style="list-style-type: none"> To set the priority for the relay destiny when several IP relay destinies are registered.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> Select the relay destiny which priority should be changed, and change the priority using ↑ and ↓ keys.

(3) File Type

Functions	<ul style="list-style-type: none"> To set the file type which has the priority for each color mode when in fax/scan mode.
Use	
Setting/ Procedure	
	<ul style="list-style-type: none"> The default setting is "PDF" for all modes. <p>Full Color : "PDF" JPEG</p> <p>Gray Scale : "PDF" JPEG</p> <p>Black : TIFF "PDF"</p>

8.3.4 Copier Settings

A. Small Originals

Functions	<ul style="list-style-type: none"> To make the copy setting when the paper is undetectably small, or no original is being set.
Use	<ul style="list-style-type: none"> To copy the original such as business cards with which the original detection is not effective. <p>Copy : Forces to print. Size of the original here is recognized by the size selected with the priority tray.</p> <p>Prohibit Copy: Pressing the start key warns and displays the paper selection screen. Waits for the user to select the paper before printing.</p>
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Prohibit Copy. <p>Copy "Prohibit Copy"</p>

B. Auto Zoom for Combine

Functions	<ul style="list-style-type: none"> To set whether to simultaneously use suggested zoom ratio or not when selecting 2 in 1 or 4 in 1 copy.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Recall. <p>"Recall" Do Not Recall</p>

C. Auto Sort/Group Selection

Functions	<ul style="list-style-type: none"> Selects whether to use the auto sort/group selection function when a job has output of two or more sheets. <p>Yes : Automatically disables the auto sort/group selection when a sheet of original is placed on the ADF and the start key is pressed. Automatically enables the Auto sort/group selection when two or more sheets of originals are placed on the ADF and the start key is pressed.</p> <p>No : Disable the auto sort/group selection.</p>
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ON. <p>"ON" OFF</p>

8.3.5 Printer Settings

A. Basic Settings

(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. <p style="text-align: center;"> “Auto” PCL PS </p>

(2) Number of Copies

Functions	<ul style="list-style-type: none"> To set the number to be copied 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>

(3) Original Direction

Functions	<ul style="list-style-type: none"> To set the default setting for the direction of the original during PC printing.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Portrait. <p style="text-align: center;"> “Portrait” Landscape </p>

(4) A4/A3 ↔ LTR/LGR Auto Switch

Functions	<ul style="list-style-type: none"> To set whether to switch between A4 and Letter (8 1/2 x 11) size paper, and A3 and Ledger (11 x 17) size paper in reading.
Use	<ul style="list-style-type: none"> To output Letter (8 1/2 x 11) size document to A4 size, and Ledger (11 x 17) size document to A3 size. To output A4 size document to Letter (8 1/2 x 11) size, and A3 size document to Ledger (11 x 17) size. <p>NOTE</p> <ul style="list-style-type: none"> When switching the size, the image will be printed in the same magnification. The image will not be reduced when there is image deficiency.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is ON. <p style="text-align: center;"> “ON” OFF </p>

(5) Document Hold Time

Functions	<ul style="list-style-type: none"> To set the period of time until it deletes the corresponding data when the memory exceeds its capacity while spooling printed data.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 5 minute. <p style="text-align: center;">“5M.” (0 to 30M.)</p>

B. Paper Settings

(1) Paper Tray

Functions	<ul style="list-style-type: none"> To set the paper feed tray when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when paper feed 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 Paper.

(2) Paper Size

Functions	<ul style="list-style-type: none"> To set the paper size when not specified by the printer driver during printing.
Use	<ul style="list-style-type: none"> To use when the paper size cannot be specified by the printer driver during printing from Windows DOS, etc.

(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 Position

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 Top Bind. <p style="text-align: center;">"Top Bind" Left Bind Right Bind</p>

C. PCL Settings

(1) Font #

Functions	<ul style="list-style-type: none"> To set the font 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 the font during printing from Windows DOS, etc. To set the arbitrary font number according to the PCL font list.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 0.

(2) Symbol Set

Functions	<ul style="list-style-type: none"> To set the font symbol set when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To use when the font symbol set cannot be specified by the printer driver during printing from Windows DOS, etc. To set the arbitrary symbol set number according to the PCL font list.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is PC-8, Code Page 437.

(3) Font Size

Functions	<ul style="list-style-type: none"> To set the font size when not specified by the printer driver during PC printing.
Use	<ul style="list-style-type: none"> To set the font size when it cannot be specified by the printer driver during printing from Windows DOS, etc. To set scalable font (: Point) and bitmap font (: Pitch) respectively.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Scalable Font : 12.00 points Bitmap Font : 10.00 pitch

(4) Line/Page

Functions	<ul style="list-style-type: none"> To set the number of lines per page for printing the text data.
Use	<ul style="list-style-type: none"> To change the number of lines per page for printing the text data.
Setting/ Procedure	<ul style="list-style-type: none"> Default setting value differs depending on the values by the following two different settings. “60 or 64 lines” (5 to 128)

(5) CR/LF Mapping

Functions	<ul style="list-style-type: none"> To set the mode for replacing data when printing the text data.
Use	<ul style="list-style-type: none"> To change the mode for replacing data when printing the text data. Mode 1 : CR → CR-LF LF=LF FF=FF Mode 2 : CR=CR LF→CR-LF FF→CR-FF Mode 3 : CR→CR-LF LF→CR-LF FF→CR-FF OFF : Does not replace
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. Mode 1 Mode 2 Mode 3 “OFF”

D. Print Reports

Functions	<ul style="list-style-type: none"> To output the report or demo page concerning the print setting.
Use	<ul style="list-style-type: none"> To check the setting concerning the printer. The types of report available for output are as follows. Configuration Page : The list of printer setting will be output. PCL Demo Page : The test page will be output. PCL Font List : PCL font list will be output. PS Font List : PS font list will be output.
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [User Setting] → [Printer Setting] → [Print Reports]. 2. Select the report to be output. 3. Select the feed tray. 4. Select simplex or duplex print, and touch the Start key.

8.4 User Management

8.4.1 Confirmation Beep

Functions	<ul style="list-style-type: none"> To set the sound when pressing the key on the control panel.
Use	<ul style="list-style-type: none"> To change the volume of the key sound or to make no sound.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 3. <p style="text-align: right;">0 to 5</p>

8.4.2 Alarm Volume

Functions	<ul style="list-style-type: none"> To set the volume of the sound when alarm occurs or when the key operation is prohibited.
Use	<ul style="list-style-type: none"> To change the volume of the alarm or to make no sound.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 3. <p style="text-align: right;">0 to 5</p>

8.4.3 Line Monitor Sound

See [P.15 of the FK-507 service manual](#).

8.4.4 Job Complete Beep

Functions	<ul style="list-style-type: none"> To set the volume of the beep when the job is complete.
Use	<ul style="list-style-type: none"> To change the volume of the beep for complete or to make no sound.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 3. <p style="text-align: right;">0 to 5</p>

8.4.5 Panel Cleaning

Functions	<ul style="list-style-type: none"> To temporarily invalid the key operation on the panel when cleaning the control panel. Enlarge Display key will stay valid.
Use	<ul style="list-style-type: none"> To clean the control panel.
Setting/ Procedure	<ul style="list-style-type: none"> Pressing [Reset] key cancels the panel cleaning screen.

8.4.6 Dehumidify

- It is not displayed when bit1 for the mode 478 is set to "0" by the following setting: [Service Mode] → [System] → [Software Switch Setting].

Functions	<ul style="list-style-type: none"> To turn on the scanner exposure lamp for the set period of time (five minutes) to dehumidify the scanner.
Use	<ul style="list-style-type: none"> To keep the image quality even when the scanner builds up condensation due to rapid temperature change or high humidity.
Setting/ Procedure	<ul style="list-style-type: none"> Pressing [Dehumidify] button turns on the scanner exposure lamp to start dehumidifying.

8.4.7 POP3 RX

Functions	<ul style="list-style-type: none"> To manually receive the internet fax.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> Pressing [POP3 RX] accesses to the server to receive an e-mail.

8.4.8 Memory RX ON/OFF

See P.15 of the FK-507 service manual.

8.5 One-Touch/Box Reg.

8.5.1 One-Touch

Functions	<ul style="list-style-type: none"> To register an address for fax, etc. to one-touch.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch the One-Touch key into which an address is to be registered. Set One-Touch Name, Com.Mode, Destination, and the KeyWord.

8.5.2 Index

Functions	<ul style="list-style-type: none"> To register the index which is displayed on the One-Touch screen for fax. There are twenty indexes, and up to fifteen one-touches can be registered to each index.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch the index key into which the index is to be registered. Enter the index name.

8.5.3 Domain Name

Functions	<ul style="list-style-type: none"> To register the part of the address (domain name) as a character string in order to make address input easy. Up to six character strings can be registered.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch the key into which address is to be registered. Enter the character string (domain name) to be registered.

8.5.4 Bulletin

Functions	<ul style="list-style-type: none"> To register the bulletin.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch the key into which the bulletin is to be registered. Set the Title, F-Code, F-Code Password, Remote Input Check, and the Remote Output Check.

8.6 Admin. (Administrator Management)

- The Admin. setting will be available by entering the administrator password (8 digits) set by the Admin. setting or Service Mode.
(The administrator password is initially set to "12345678.")

8.6.1 System Settings

A. Power Save Settings

(1) Auto Reset

Functions	<ul style="list-style-type: none"> To set the period of time until auto reset function starts after finished operating with keys.
Use	<ul style="list-style-type: none"> To change the period of time until auto reset function starts. Auto reset during alarm resets the setting value for the current operation. Alarm status as well as alarm display stay.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 1 min. <p style="text-align: center;">OFF 30 second "1" to 240 M.</p>

(2) Low Power Mode Settings

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"> Use the 10-key pad for setting. The default setting is 10 min. <p style="text-align: center;">"10 M." (1 to 240 M.)</p>

(3) Sleep Mode Settings

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"> Use the 10-key pad for setting. The default setting is 20 min. <p style="text-align: center;">"20 M." (1 to 240 M.) / OFF</p>

(4) LCD Back-Light OFF

Functions	<ul style="list-style-type: none"> To set the period of time until the control panel turns off when operation with keys is finished.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 1 min. <p style="text-align: center;">"1 M." (1 to 240 M.)</p>

(5) Enter Power Save Mode

Functions	<ul style="list-style-type: none"> To set whether to immediately switch to the power save mode after printing in case of receiving the fax during power save mode.
Use	<ul style="list-style-type: none"> To immediately switch to the power save mode after printing in case of receiving the fax during power save mode. <ul style="list-style-type: none"> Normal : Switches to the power save mode according to the normal power save mode after the printing. Immediately : Switches to the power save mode immediately after the printing.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "Immediately." <p style="text-align: center;">Normal "Immediately"</p>

B. Output Settings

(1) Print/Fax Output Settings

Functions	<ul style="list-style-type: none"> To set the timing for printing for the PC print job or fax received.
Use	<p>Batch Print : Starts printing when all data are received</p> <p>Page Print : Starts printing every time data for each page are received</p>
Setting/ Procedure	<p><Printer></p> <ul style="list-style-type: none"> The default setting is Batch Print. <p><Fax/E-Mail></p> <ul style="list-style-type: none"> The default setting is Page Print. <p>NOTE</p> <ul style="list-style-type: none"> [Fax/E-Mail] will be displayed only when the optional expanded memory unit (EM-310) is mounted.

(2) Output Tray Settings

Functions	<ul style="list-style-type: none"> To set the priority output tray for each application (Copy print, Printer, Fax and Print Reports).
Use	<ul style="list-style-type: none"> To change the prior output tray according to the application.
Setting/ Procedure	<ul style="list-style-type: none"> The default settings are as follows. <ul style="list-style-type: none"> Copy : Tray 1 Printer : Tray 1 Network : Tray 2 Fax (Port 1) : Tray 2 Fax (Port 2) : Tray 2

C. Language (I/O)

Functions	<ul style="list-style-type: none"> To set the language for input/output when entering letters on the touch panel.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The language options depend on the marketing area.

D. Date & Time Settings

(1) Date & Time Setting

Functions	<ul style="list-style-type: none"> To set Year, Month, Day, Hour, and Minute.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch Year, Month, Day, Hour, and Minute key to enter the values. Touch [OK] to finish setting.

(2) Time Zone

Functions	<ul style="list-style-type: none"> To set the time zone.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> For time zone, set the time difference with the world standard time. Setting range for the time zone: -12:00 to +13:00 (by 30 minutes)

(3) Daylight Saving Time

Functions	<ul style="list-style-type: none"> To set the timing to switch to the summer time.
Use	<ul style="list-style-type: none"> To set the summer time. <p>TYPE A: Sets the timing to start/finish summer time with month/date/hour. TYPE B: Sets the timing to start/finish summer time with month/day of the week/date/hour.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Type A] or [TYPE B] to set the timing to start/finish summer time. Touch [OK] to complete setting.



E. Expert Adjustment

(1) AE Level Adjustment



Functions	<ul style="list-style-type: none"> To set the default setting for AE (Auto Exposure) the larger the value becomes the more emphasized the background will be.
Use	To make the background level foggier : Increase the setting value To make the background level less foggy : Decrease the setting value
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 2. <p style="text-align: center;">“2” (0 to 4)</p>

(2) Density Adjustment

<Thick Paper Image Density-Yellow, Magenta, Cyan, Black>

Functions	<ul style="list-style-type: none"> To fine-adjust density of printed images of each color for thick paper and OHP film. (Only black color adjustable for OHP film)
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	-5 to +5
Adjustment Instructions	Light color: Increase the setting value Dark color: Decrease the setting value
Adjustment Procedure	<ol style="list-style-type: none"> Call the Admin. to the screen. Touch [System Settings] → [Expert Adjustment] → [Density Adjustment]. Select a color that need to be adjusted. Touch the  /  key to correct the image density.

<Black Image Density>

Functions	<ul style="list-style-type: none"> To fine-adjust the density of the printed image for a black copy
Use	<ul style="list-style-type: none"> To vary the density of the printed image of a black copy
Adjustment Range	-2 to +2
Adjustment Instructions	The black is light : Increase the setting value The black is dark : Decrease the setting value
Setting/ Procedure	<ol style="list-style-type: none"> Call the Admin. to the screen. Touch [System Settings] → [Expert Adjustment] → [Density Adjustment] → [Black Image Density]. Touch the  /  key to correct the image density.

(3) Image Stabilization

<Initialize+Stabilization>

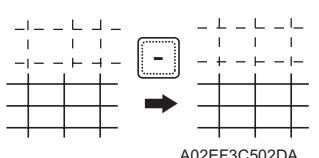
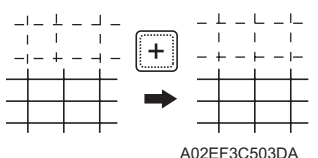
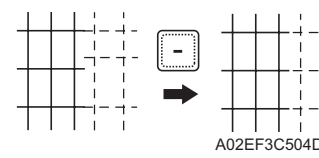
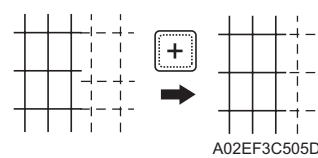
Functions	<ul style="list-style-type: none"> To carry out an image stabilization sequence after the historical data of image stabilization control has been initialized.
Use	<ul style="list-style-type: none"> Use if an image problem persists even after [Gradation Adjustment] has been executed. Use if tone reproduction and maximum density are faulty even after image stabilization has been executed.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Admin. to the screen. Touch [System Settings] → [Expert Adjustment] → [Image Stabilization] → [Initialize+Stabilization]. Press the Start key to start image stabilization. The Start key turns red and stays lit up red during the image stabilization sequence. Image stabilization is completed when the Start key turns blue.

<Image Stabilization>

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.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Admin. to the screen. Touch [System Settings] → [Expert Adjustment] → [Image Stabilization] → [Image Stabilization]. Press the Start key to start image stabilization. The Start key turns red and stays lit up red during the image stabilization sequence. Image stabilization is completed when the Start key turns blue.

(4) Color Reg. Adjustment

<Color Reg. Adjustment (Yellow, Magenta, Cyan)>

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.
Use	<ul style="list-style-type: none"> To correct any color shift. Able to make an individual adjustment for each paper type of plain paper, thick 1, thick 2 and thick 3.
Adjustment Range	<p>“0” (-6 to +6 dot)</p>
Adjustment Instructions	<p>If the cross deviates in the direction of A, increase the setting. If the cross deviates in the direction of B, decrease the setting.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Admin. to the screen. Touch [System Settings] → [Expert Adjustment] → [Color Reg. Adjustment]. Load tray 1 with A3/11x17 or A4/8 1/2 x11 normal paper. 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 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 Check point X, Y</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Adjustment for X direction: Check point X</p> <p>Direction of A</p>  <p>A02EF3C502DA</p> </div> <div style="text-align: center;"> <p>If the cross deviates in the direction of A, increase the setting. If the cross deviates in the direction of B, decrease the setting.</p> <p>Direction of B</p>  <p>A02EF3C503DA</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;"> <p>Adjustment for Y direction: Check point Y</p> <p>Direction of A</p>  <p>A02EF3C504DA</p> </div> <div style="text-align: center;"> <p>If the cross deviates in the direction of A, increase the setting. If the cross deviates in the direction of B, decrease the setting.</p> <p>Direction of B</p>  <p>A02EF3C505DA</p> </div> </div>

d-Color MF201

Adjustment / Setting

(5) Gradation Adjustment

- It will not be displayed when the following setting is set to “ON.”
 [Service Mode] → [Imaging Process Adjustment] → [Dev. Bias Choice]

Functions	<ul style="list-style-type: none"> • To make an automatic adjustment of gradation based on the test pattern produced and the readings taken by the scanner.
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. • Printer (Gradation) : It gives the highest priority to gradation performance of the image as it adjusts. • Printer (Resolution) : It gives the highest priority to reproduction performance of letters and lines as it adjusts. • Copy : It gives the highest priority to increasing the number of images to be stored in the memory as it adjusts.
Adjustment Procedure	<ol style="list-style-type: none"> 1. Perform image stabilization. <p>NOTE</p> <ul style="list-style-type: none"> • Before executing gradation adjust, be sure to perform Image Stabilization. <ol style="list-style-type: none"> 2. Call the Admin. to the screen. 3. Touch [System Settings] → [Expert Adjustment] → [Gradation Adjustment]. 4. Select the appropriate mode for the gradation adjustment. 5. Press the Start key to let the machine produce a test pattern. 6. Place the test pattern produced on the original glass. 7. Place ten blank sheets of A3/11 x 17 paper on the test pattern and lower the original cover. 8. Press the Start key. (The machine will then start scanning the test pattern.) 9. Touch [OK] and repeat steps from 2 through 7 twice (a total of three times). <ul style="list-style-type: none"> • If the image is faulty, perform the troubleshooting procedures for image problems.

F. Paper Size/Type Counter

Functions	<ul style="list-style-type: none"> • To register the combination of the specific paper size and the type, and set the count. Also to display the count value for each combination which has been set.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch a key out of 1 to 10 registration keys. 2. Touch [Change Settings]. 3. Set the Paper Size/Paper Type, and touch [OK].

8.6.2 Administrator Settings

A. Administrator Password

Functions	<ul style="list-style-type: none"> • To set/change the administrator password.
Use	<ul style="list-style-type: none"> • To change the administrator password.
Setting/ Procedure	<ul style="list-style-type: none"> • Enter the administrator password on the on-screen keyboard. <p>Current Password : Enter the current administrator password New Password : Enter the new administrator password to be used Re-Input Password : Re-enter the new administrator password</p>

B. Activity Report E-Mail TX

Functions	<ul style="list-style-type: none"> To set the e-mail address for sending activity report e-mail for this machine.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Admin.] → [Activity Report E-Mail TX]. Enter the e-mail address on the screen keyboard.

8.6.3 Account Track

A. Authentication Settings

(1) Account Track

Functions	<ul style="list-style-type: none"> To set whether to enable the account track function or not.
Use	<ul style="list-style-type: none"> To enable the account track function.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">"OFF" ON</p>

(2) Allow Print Without Auth.

Functions	<ul style="list-style-type: none"> To set whether to allow or restrict the print which account is not specified.
Use	<ul style="list-style-type: none"> To allow or restrict printing which account is not specified. When Allow is selected, pages printed by unidentified users are counted and included in the count of the public user.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Restrict. <p style="text-align: center;">Allow "Restrict"</p>

B. Account Track Settings

- The settings are available only when carrying out the account track.

(1) Account Track Registration

Functions	<ul style="list-style-type: none"> To register and change the account. To display the counter value of each account selected.
Use	<ul style="list-style-type: none"> To register, change or delete the account for account track. To check the status of each account.
Setting/ Procedure	<ol style="list-style-type: none"> Select account (000 to 049) and touch the key with the corresponding number. Enter the [Account Name] and [password].

(2) All Counter Clear

Functions	<ul style="list-style-type: none"> To clear the counter for all accounts registered.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Admin.] → [Account Track] → [Account Track Settings] → [All Counter Clear]. Touch [Yes] to clear counter data.

8.6.4 Document Management

See [P.16 of the FK-507 service manual](#).

8.6.5 Printer Settings

A. Timeout

Functions	<ul style="list-style-type: none"> To set a period of time that elapses before input and output timeouts of communication are activated.
Use	<ul style="list-style-type: none"> To set a period of time that elapses before input and output timeouts of communication are activated.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 60 seconds. "60 S" (10 to 1000 S)

8.6.6 Fax Settings

See [P.17 of the FK-507 service manual](#).

8.6.7 TX Settings

See [P.18 of the FK-507 service manual](#).

8.6.8 RX Settings

See [P.18 of the FK-507 service manual](#).

8.6.9 Report Settings

See [P.19 of the FK-507 service manual](#).

8.6.10 Print Lists

A. Setting List

Functions	<ul style="list-style-type: none"> The list of machine settings can be printed.
Use	<ul style="list-style-type: none"> To output the list of setting values of this machine to check it.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Admin.] → [Print List] → [Setting List]. Setting list is output.

8.6.11 Network Settings

A. Basic Settings

NOTE

- When the settings are changed, turn off the main power switch and turn it on again more than 10 seconds after.

(1) DHCP

Functions	<ul style="list-style-type: none"> • To set whether to automatically acquire IP address or not by DHCP function.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Auto Input. <p style="text-align: center;">“Auto Input” IP Input</p>

(2) IP Address

- This setting is available only when the following setting is in “IP Input” :
[Admin.] → [Network Settings] → [Basic Settings] → [DHCP].

Functions	<ul style="list-style-type: none"> • To set the IP address of this machine.
Use	<ul style="list-style-type: none"> • Used to enter IP address when IP address is not automatically acquired by DHCP.
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [Basic Settings] → [IP Address]. 2. Enter the IP address using the 10-key pad.

(3) Subnet Mask

- This setting is available only when the following setting is in “IP Input” :
[Admin.] → [Network Settings] → [Basic Settings] → [DHCP].

Functions	<ul style="list-style-type: none"> • To set the subnet mask of this machine.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [Basic Settings] → [Subnet Mask]. 2. Enter the subnet mask using the 10-key pad.

(4) Gateway

- This setting is available only when the following setting is in “IP Input” :
[Admin.] → [Network Settings] → [Basic Settings] → [DHCP].

Functions	<ul style="list-style-type: none"> • To set the gateway address.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [Basic Settings] → [Gateway]. 2. Enter the gateway address using the 10-key pad.

(5) Network Board Set

Functions	<ul style="list-style-type: none"> • To set the network board and to display the current operating status.
Use	<ul style="list-style-type: none"> • To change the network board setting to suit the network environment.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Auto. <p style="text-align: center;">“Auto” 100M-Full 100M-Half 10M-Full 10M-Half</p>

B. DNS Settings

Functions	<ul style="list-style-type: none"> To set whether to use DNS function or not.
Use	<ul style="list-style-type: none"> To set DNS host name, domain name, and the server address when set to "YES."
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is NO. <p style="text-align: center;">YES "NO"</p>

(1) Host Name

Functions	<ul style="list-style-type: none"> To set the DNS host name.
Use	<ul style="list-style-type: none"> To enter the DNS host name.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [DNS Settings] → [Host Name]. Enter the DNS host name on the screen key board or 10-key pad, and touch [OK].

(2) Domain Name

Functions	<ul style="list-style-type: none"> To set the DNS domain name.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [DNS Settings] → [Domain Name]. Enter DNS domain name on the 10-key pad or screen keyboard, and press [OK].

(3) Server Address

Functions	<ul style="list-style-type: none"> To set the DNS server address.
Use	<ul style="list-style-type: none"> Three server addresses (priority sever, substitute server 1 and 2) are available of setting.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [DNS Settings] → [Server Address]. Touch one of the keys from DNS server address (1 to 3). Enter the DNS server address using 10-key pad, and touch [OK].

C. Machine Name

Functions	<ul style="list-style-type: none"> Register the unit name of the main machine.
Use	<ul style="list-style-type: none"> Registered machine name is used as the part of the title when communicating with internet fax or e-mails.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [Machine Name]. Enter the unit name (with up to 16 English one-byte characters) on the 10-key pad or screen keyboard, and press [OK].

D. SMTP TX Settings**(1) SMTP Server Address**

Functions	<ul style="list-style-type: none"> To set the SMTP server address.
Use	<ul style="list-style-type: none"> To enter the SMTP server address.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP TX Settings] → [SMTP Server Address]. Enter the SMTP server address using 10-key pad. Touch [Port], and set the port number.

(2) E-Mail Address

Functions	<ul style="list-style-type: none"> To set the e-mail address to be used for this machine.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP TX Settings] → [E-Mail Address]. Enter the E-mail address on the screen key board or 10-key pad, and touch [OK].

(3) SMTP Authentication User Name

Functions	<ul style="list-style-type: none"> To set the user name for authentication with SMTP server.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP TX Settings] → [SMTP Authentication User Name]. Enter the user name on the screen key board or 10-key pad, and touch [OK].

(4) SMTP Authentication Password

Functions	<ul style="list-style-type: none"> To set the password for authentication with SMTP server.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP TX Settings] → [SMTP Authentication Password]. Touch [New Password]. Enter the new password on the 10-key pad or screen keyboard, and touch [OK]. Touch [Confirm New Password], and enter the password again for confirmation.

E. SMTP RX Settings

(1) Self-Domain Name

Functions	<ul style="list-style-type: none"> To set the domain name for this machine.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP RX Settings] → [Self-Domain Name]. Set the domain name on the 10-key pad or the screen keyboard, and touch [OK].

(2) SMTP Authentication User Name

Functions	<ul style="list-style-type: none"> To set the SMTP authentication user name when using SMTP authentication function.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [SMTP RX Settings] → [SMTP Authentication User Name]. Set the user name on the 10-key pad or the screen keyboard, and touch [OK].

(3) SMTP Authentication Password

Functions	<ul style="list-style-type: none"> • Sets the SMTP authentication password when using SMTP authentication function.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [SMTP RX Settings] → [SMTP Authentication Password]. 2. Set the password on the 10-key pad or the screen keyboard, and touch [OK].

(4) Exception Setting

Functions	<ul style="list-style-type: none"> • To set the IP address area which is exceptionally not authenticated for SMTP authentication.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [SMTP RX Settings] → [Exception Setting]. 2. Touch [1]. (When more than one exceptional settings are to be made, they can be set to [2] and [3].) 3. Enter the IP address for start and finish using the 10-key pad, and touch [OK].

F. POP3 Settings**(1) POP3 Server Address**

Functions	<ul style="list-style-type: none"> • To set the POP server address.
Use	<ul style="list-style-type: none"> • To enter the POP server address.
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [POP3 Settings] → [POP3 Server Address]. 2. Enter the POP server address using 10-key pad. 3. Touch [Port], and set the port number.

(2) POP3 User Name

Functions	<ul style="list-style-type: none"> • To set the user name for authentication with POP3 server.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [POP3 Settings] → [POP3 User Name]. 2. Enter the user name on the screen key board or 10-key pad, and touch [OK].

(3) POP3 Password

Functions	<ul style="list-style-type: none"> • To set the password for authentication with POP3 server.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> 1. Touch [Network Settings] → [POP3 Settings] → [POP3 Password]. 2. Touch [New Password]. 3. Enter the new password using the 10-key pad or the screen keyboard, and touch [OK]. 4. Touch [Confirm New Password], and enter the password again for confirmation.

(4) Auto-RX Check

Functions	<ul style="list-style-type: none"> • To set the intervals for auto checking on receiving e-mails with POP3.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Check OFF. "Check OFF", 1 to 99 M.

G. Scanner Settings

(1) Activity Report

Functions	<ul style="list-style-type: none"> To set whether to inform the receiving result for internet fax or not.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is On. <p style="text-align: center;">“On” Off</p>

(2) RX Doc. Header Print

Functions	<ul style="list-style-type: none"> To set whether to print the e-mail header on the first page or not when printing the document received by the internet fax.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Off. <p style="text-align: center;">On “Off”</p>

(3) E-Mail Header Text

Functions	<ul style="list-style-type: none"> To set to insert text as the main text when sending e-mails or internet fax. Fixed Text : Inserts a fixed text stored in the main machine. Custom Text : Inserts the text which can be set as desired. Off : Does not enter text.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Fixed Text. <p style="text-align: center;">“Fixed Text” Custom Text Off</p>

(4) Subject Registration

Functions	<ul style="list-style-type: none"> To register the title when sending an e-mail or internet fax. Up to four titles can be registered to suit each content.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [Scanner Settings] → [Subject Registration]. Touch the title number to be registered or changed. Enter the title using the 10-key pad or the screen keyboard.

(5) Division Setting

Functions	<ul style="list-style-type: none"> To set whether to divide the mail to send it or not. Binary Division : Select [On] when dividing a mail to send it. Binary Division Size : Sets the size to divide it into when selecting [On] with Binary Division. <p>NOTE</p> <ul style="list-style-type: none"> This function may not be available with some mail software of the receiver.
Use	
Setting/ Procedure	<p><Binary Division></p> <ul style="list-style-type: none"> The default setting is Off. <p style="text-align: center;">On “Off”</p> <p><Binary Division Size></p> <p style="text-align: center;">16 to 2000 (KB)</p>

(6) Gateway TX

Functions	<ul style="list-style-type: none"> To set items concerning Gateway TX.
Use	<ul style="list-style-type: none"> To set to [Allow] when using the main machine as the relay unit for IP relay, and set to [Restrict] when not using it as the relay unit for IP relay.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Allow. <p style="text-align: center;">“Allow” Restrict</p>

H. IP Relay Settings**(1) IP Relay Settings**

Functions	<ul style="list-style-type: none"> To set whether to use the IP relay function or not.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is Yes. <p style="text-align: center;">“Yes” No</p>

(2) IP Relay Destination Registration

Functions	<ul style="list-style-type: none"> Registers the address for IP relay destination.
Use	<ul style="list-style-type: none"> To enter self-domain name of the relay unit as the domain name when restricting receiving by the domain name at the time of IP relay.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [IP Relay Settings] → [IP Relay Destination Registration]. Touch the number into which relay destination is to be registered. Touch [IP Relay Address]. Enter the address for IP relay destination, and touch [OK]. Touch [Domain Name]. Enter the domain name for IP relay destination, and touch [OK].

(3) Relay Result Port

Functions	<ul style="list-style-type: none"> Sets the port number for receiving communication result for IP relay.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [IP Relay Settings] → [Relay Result Port]. Enter the port number using the 10-key pad, and touch [OK].

I. RAW Port Number Settings

Functions	<ul style="list-style-type: none"> Change the raw port number.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Network Settings] → [RAW Port Number Settings]. Enter the port number using the 10-key pad, and touch [OK]. Touch [Default] to default the port number.

8.6.12 Software Switch Setting

Functions	<ul style="list-style-type: none"> To specify the value (mode, bit, HEX) for software DIPSW to suit the purpose of the use, and to change the machine status. Only software DIPSW available of setting by the user (administrator) are described here. For details of the software DIPSW as well as software DIPSW which can be set by CE, refer to the "Service mode" section or FK-507 service manual.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Software Switch Setting]. Touch [Mode Selection], and enter the mode number (three digit number) using the 10-key pad. Touch [Bit Selection]. Set the cursor using the [←] or [→] key to specify the bit with 0 or 1 on the 10-key pad. (When setting in hexadecimal, press [HEX Selection] to enter using the 10-key pad or A to F key.) Touch [Apply]. Touch [OK].

A. List of the software switch settings for administrator

(1) For network settings

Mode	Setting item
356	• Specifying settings concerning the SMTP transmission timeout
357	• Specifying settings concerning the SMTP reception timeout
358	• Specifying settings concerning the POP3 reception timeout
361	• Specifying settings concerning Assistant tool for MF201, SMTP transmission/reception and POP3 reception
364	• Specifying the setting for the POP Before SMTP time
367	• Specifying settings concerning the timeout for a DNS inquiry
372	• Specifying settings concerning the transmission interval for divided e-mail messages
380	• Specifying security settings for e-mail transmissions
383	• Specifying security settings for e-mail receptions
384	• Specifying settings concerning the network protocol
389	• Specifying settings concerning the encryption method for SSL
470	• Specifying settings concerning Assistant tool for MF201

(2) For scan/fax settings

Mode	Setting item
000	• Specifying settings concerning the position of the transmission source information and concerning password communications
001	• Specifying settings for inserting the recipient's name in the original
002	• Specifying printing of the memory clear report and the report for a broadcast transmission
004	• Specifying the storage time for failed transmission documents
016	• Specifying whether or not a received date report is added and its format
023	• Specifying settings for the image in the results report
024	• Specifying settings for administrator forwarding
025	• Specifying settings concerning transmission if the memory becomes full

Mode	Setting item
028	• Specifying the maximum number of copies allowed with remote copying
030	• Specifying settings for fax reception functions
037	• Specifying the settings for selecting paper trays when faxes are received
043	• Specifying settings for general subscriber lines
249	• Specifying settings for the number of rings until automatic reception (port 2)
301	• Specifying settings for receiving long documents
302	• Specifying the setting for selecting paper when printing received documents
350	• Specifying settings concerning Internet faxing
351	• Specifying transmission source information for IP address fax transmissions and IP relay operations
352	• Specifying whether transmission source information is added when performing a IP relay operation, or when forwarding received documents
363	• Specifying settings concerning the from address in MDN/DSN reports
366	• Specifying the default address input screen
368	• Specifying settings concerning IP relay operations appearing in the activity report
373	• Specifying settings concerning full mode functions with Internet faxing
381	• Specifying the default setting for the coding method
382	• Specifying settings concerning the communication results of IP relay operations
391	• Specifying the PDF coding method for IP address fax transmissions
473	• Specifying the Job list screen given priority
476	• Specifying settings concerning the direct input tab and broadcast transmissions
477	• Specifying settings for the confirmation screen for broadcast transmissions
478	• Specifying settings concerning the use of the button for deleting, the display when a one-touch dial button is touched, and the default communication mode
804	• Specifying settings for checked receiver transmissions

(3) For printer settings

Mode	Setting item
304	• Specifying the storage time for confidential documents

(4) For copy settings

Mode	Setting item
402	• Specifying settings for the main application
403	• Specifying settings for using copy mode operations
417	• Specifying whether or not the number of copies are limited
471	• Specifying how the screen for selecting an account appears in administrator mode
478	• Specifying the setting concerning the use of the button for deleting
501	• Specifying settings for enlarge display mode
835	• Specifying the setting concerning public accounts

8.6.13 Ping

Functions	<ul style="list-style-type: none"> To set the TCP/IP network diagnosis by Ping.
Use	<ul style="list-style-type: none"> To check the condition of TCP/IP network.
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Ping]. Select the destination to send the Ping. (When selecting [Ping IP Address], enter the IP address of the destination server.) Press the start key, and check that it is connected.

8.6.14 Firmware Version

Functions	<ul style="list-style-type: none"> To display the firmware version of this machine.
Use	<ul style="list-style-type: none"> To check the firmware version when trouble occurs while updating the firmware. Types of firmware displayed are as follows. MAIN, Printer, LCT, Job Sep., Fax (Europe only)
Setting/ Procedure	<ol style="list-style-type: none"> Touch [Firmware Version]. Confirm the firmware version.

8.6.15 Security Settings

A. Function Mgmt Settings

(1) Maximum Job Allowance

Functions	<ul style="list-style-type: none"> To set the upper limit of the number of copy or PC print when management function has been set.
Use	
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. "OFF", 1 to 999

9. Adjustment item list

Replacement part/Service job			No	Replace paper feed roller	Replace separation roller assy	Change marketing area	Install LCT	Replace IU	Replace PH unit
Adjustment/setting items			No						
Service Mode	Machine	Printer Area	Leading Edge Adjustment	1					(2)
			Centering	2			(2)		(3)
			Feed Direction Adjustment	3			(1)		
	Machine	Scan Area	ADF Adjustment: Zoom	4					
			ADF Adjustment: Feed	5					
			BK-S Adjustment: Zoom	6					
			BK-S Adjustment: Feed	7					
	Touch Panel Adjust			8					
	State Confirmation	Table Number		9					
	System	Re-entry of setting values		10					
		Serial Number		11					
	Counter	Life	Counter Clear	12	○	○			
	Image Process Adjustment		Gradation Adjust	13				○	
Admin.	Firmware Version		14						
Re-entry of Utility settings			15						
Re-entry of Security Settings settings			16						
Positioning exposure unit			17						
PH skew adjustment			18					(1)	
F/W upgrading			19			○			
Remounting of RAMU board to the MFBU board			20						
Replace transfer belt unit			21						

- 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	Wind scanner drive wires	Replace scanner motor	Replace exposure unit	Replace scanner home sensor	Replace printer control board	Replace MFBU board	Replace BCRU board	Replace original glass	Replace IDC/registration sensor/F,R	Execute memory clear	Execute add. option	Execute F/W update	Add fax board
1													
2													
3													
4			(4)										
5			(5)	○									
6	(2)		(2)					(2)					
7		○	(3)					(1)					
8										(6)			
9										(2)			
10										(4)			
11										(3)			
12													
13						(3)							
14											○	○	
15										(1)			
16										(5)			
17	(1)		(1)										
18													
19					○	(2)	○						○
20						(1)							
21									○				

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Adjustment / Setting

10. Service Mode

10.1 Service Mode function setting procedure

NOTE

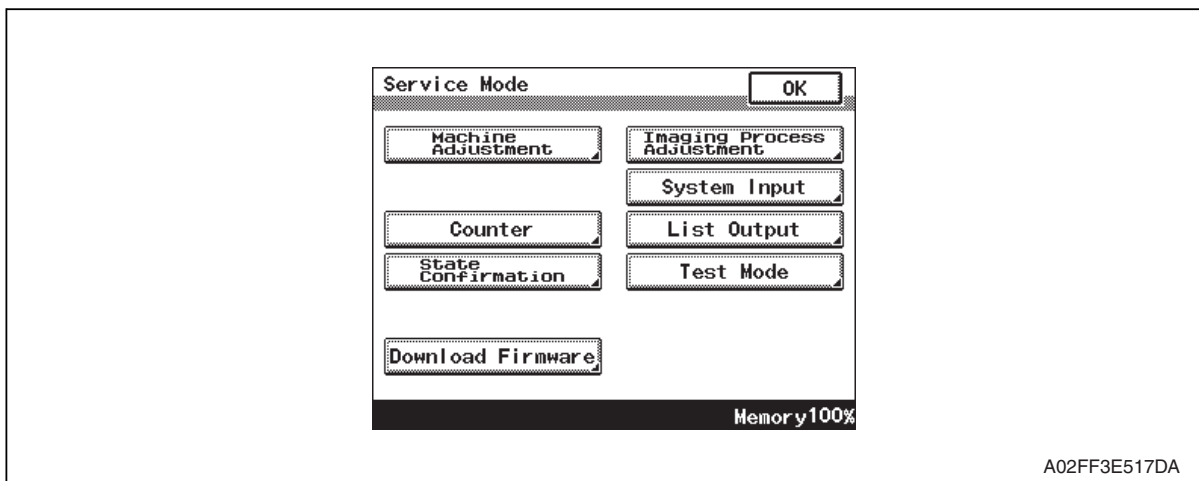
- Ensure appropriate security for Service Mode function setting procedures. They should NEVER be shown to any unauthorized person not involved with service jobs.

A. Procedure

1. Press the Utility/Counter key.
2. Touch [Check Details].
3. Press the following keys in this order; Stop → 0 → 0 → Stop → 0 → 1

NOTE

- When selecting [CE Authentication] under [Security Settings] available from Service Mode, authentication by CE password is necessary. Enter the 8 digits CE password, and touch [END]. (The initial setting for CE password is “92729272.”)
 - NEVER forget the CE password. When forgetting the CE password, it becomes necessary to replace the RAMU board with a new one and call responsible person of KMBT.
 - The service code entered is displayed as “*.”
4. The Service Mode menu will appear.



NOTE

- Be sure to change the CE password from its default value.
- For the procedure to change the CE password, see the Security Settings.
See P.268

B. Exiting

- Touch the [OK] key.

NOTE

- When changing the setting value in service mode, make sure to turn main power switch off once and turn it on again.

C. Changing the setting value in Service Mode functions

- Use the [+] / [-] key to enter or change the setting value.
- Use the 10-key pad to enter the setting value. (To change the setting value, first press the Clear key before making an entry.)

10.2 Service Mode function tree

* The function tree is shown to comply with the format displayed on the screen.

Service Mode			Ref. page	
Machine Adjustment	Fusing Temperature	Heater Roller	P.150	
		Pressure		
	Fusing Transport Speed		P.151	
	Printer Area	Leading Edge Adjustment		P.152
		Centering		P.153
		Centering (Duplex 2nd Side)		P.154
		Feed Direction Adjustment		P.155
		Test Copy		P.155
	Scan Area	ADF Adjustment	Zoom	P.156
			Feed	
			Regist Loop	
			Erasure Width	
			Paper Passage	
		BK-S Adjustment	Zoom	P.156
			Feed	P.158
			Erasure Width	P.159
			Carriage Move	P.160
Shading Position		P.160		
Test Copy		P.160		
Printer Regist Loop			P.161	
Color Reg. Adjustment	Cyan		P.162	
	Magenta			
	Yellow			
Manual Bypass Tray Adjustment			P.163	
Lead Edge Erase Adjustment			P.163	
Touch Panel Adjustment			P.163	
Imaging Process Adjustment	Gradation Adjustment	Gradation	P.164	
		Resolution		
		High Compression Mode		
	D Max Density			P.165
	Background Voltage Margin			P.165
	Transfer Output Fine Adjustment	Secondary transfer adj.		P.166
		Primary transfer adj.		P.166
	Image Stabilization	Initialize + Image Stabilization		P.167
		Stabilization Only		P.167
	Thick Paper Density Adjustment			P.167
	Toner Supply			P.168
	Monochrome Density Adjustment			P.168
	Dev. Bias Choice			P.168

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Adjustment / Setting

Service Mode		Ref. page	
System Input	Marketing Area	P.169	
	Exhaust Fan Stop Delay	P.169	
	Serial Number	P.170	
	No Sleep	P.170	
	Foolscap Size Setting	P.170	
	Install Date	P.170	
	Change Fixed Zoom	P.171	
	File Display	P.171	
	Memory Clear	System Data	P.171
		System Error	P.171
		Image Data	P.171
		Own Setting	P.172
		Fax dest.	P.172
		Activity	P.172
		Soft SW	P.172
	Software Switch Setting	P.173	
	Consumable Life Reminder	P.251	
	Unit Change	P.251	
	Option Settings	P.251	
	Center Erase Width	P.252	
IU Life Setting	P.252		
Counter	Life	P.253	
	Jam	P.254	
	Service Call Counter	P.254	
	Warning	P.254	
	Maintenance	P.254	
	Service Total	P.254	
	Service Call History (Data)	P.255	
	ADF Paper Pages	P.255	
	Paper Jam History	P.255	
	Fax Connection Error	P.255	
List Output	Service Call Report	P.255	
	Protocol Trace	P.255	
	File Dump	P.256	
State Confirmation	Sensor Check (Printer)	P.256	
	Sensor Check (Scan)		
	Table Number	P.262	
	Level History	P.262	
	Temp. & Humidity	P.262	
	Color Regist.	P.263	
	IU Lot No.	P.263	
	Machine Configuration	P.263	

Service Mode		Ref. page
Test Mode	Gradation Pattern	P.264
	Halftone Pattern	P.265
	Lattice Pattern	P.265
	Color Reproduction	P.266
	Running Mode	P.266
Fax Settings	Self-Telephone #	P.266
Download Firmware	Engine	P.266
	Job Sep.	

10.3 Machine Adjustment

10.3.1 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. 																					
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. Use when the curling of the paper due to the paper type or environmental change occurred, or when the paper jam, as well as stapling or folding position error occurred due to the curling of the paper. By setting the temperature higher (+), gloss of print can be improved. By setting the temperature lower (-), exit roller mark can be reduced. 																					
Adjustment Range	<table border="1"> <thead> <tr> <th>Paper type</th> <th>Setting range</th> <th>step</th> </tr> </thead> <tbody> <tr> <td>Plain</td> <td>-20 °C to +5 °C</td> <td>5 °C</td> </tr> <tr> <td>Transparency</td> <td>-20 °C to +5 °C</td> <td>5 °C</td> </tr> <tr> <td>Thick 1</td> <td>-20 °C to +5 °C</td> <td>5 °C</td> </tr> <tr> <td>Thick 2</td> <td>-20 °C to +5 °C</td> <td>5 °C</td> </tr> <tr> <td>Thick 3</td> <td>-20 °C to +5 °C</td> <td>5 °C</td> </tr> <tr> <td>Enve.</td> <td>-5 °C to +5 °C</td> <td>5 °C</td> </tr> </tbody> </table>	Paper type	Setting range	step	Plain	-20 °C to +5 °C	5 °C	Transparency	-20 °C to +5 °C	5 °C	Thick 1	-20 °C to +5 °C	5 °C	Thick 2	-20 °C to +5 °C	5 °C	Thick 3	-20 °C to +5 °C	5 °C	Enve.	-5 °C to +5 °C	5 °C
Paper type	Setting range	step																				
Plain	-20 °C to +5 °C	5 °C																				
Transparency	-20 °C to +5 °C	5 °C																				
Thick 1	-20 °C to +5 °C	5 °C																				
Thick 2	-20 °C to +5 °C	5 °C																				
Thick 3	-20 °C to +5 °C	5 °C																				
Enve.	-5 °C to +5 °C	5 °C																				
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. If curling of the paper occurs, decrease the setting.</p>																					
Setting/ Procedure	<p>NOTE</p> <ul style="list-style-type: none"> To adjust the fusing temperature, adjust on the “Heater Roller” first. If the further adjustment is necessary, adjust on the “Pressure.” <ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Machine Adjustment] → [Fusing Temperature] → [Heater Roller]. Select the paper type. Enter the new setting from the  /  keys. Touch [OK] to validate the adjustment value. Return to the basic screen. Output two or three test printing and check to see whether the image has any problem. Make the adjustment for each type of paper. 																					

10.3.2 Fusing Transport Speed

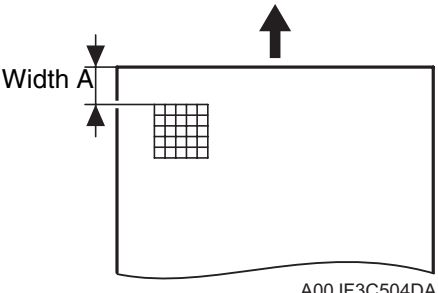


Functions	<ul style="list-style-type: none"> To adjust the speed of the fusing drive motor so as to match the fusing speed with transport speed. 						
Use	<ul style="list-style-type: none"> Brush effect or blurred image is evident as a result of changes in environmental conditions or degraded durability. 						
Variable Range	-2.0 % to +2.0 % (in 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>						
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Machine Adjustment] → [Fusing Transport Speed]. Select the transport speed, at which the brush effect or blurred image has occurred. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Transport speed</th> <th>Paper Setting</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">92 mm/s</td> <td>Plain paper: color/monochrome, OHF film</td> </tr> <tr> <td style="text-align: center;">46 mm/s</td> <td>Thick 1, Thick 2, Thick 3, envelope, postcard: monochrome/color</td> </tr> </tbody> </table> <ol style="list-style-type: none"> Enter the new setting from the [+]/[-] keys. Touch [OK] to validate the adjustment value. Return to the basic screen. Output two or three test printing and check to see whether the image has any problem. 	Transport speed	Paper Setting	92 mm/s	Plain paper: color/monochrome, OHF film	46 mm/s	Thick 1, Thick 2, Thick 3, envelope, postcard: monochrome/color
Transport speed	Paper Setting						
92 mm/s	Plain paper: color/monochrome, OHF film						
46 mm/s	Thick 1, Thick 2, Thick 3, envelope, postcard: monochrome/color						

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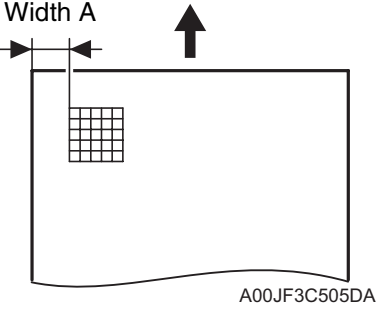


Adjustment / Setting

10.3.3 Printer Area

A. Leading Edge Adjustment

Functions	<ul style="list-style-type: none"> To change and adjust the position to start printing in sub scan direction per paper type or per front or back page on the tray 1. (To adjust the timing where paper is sent out from the timing roller)
Use	<ul style="list-style-type: none"> The PH 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. This setting can be made independently for plain paper, thick 1, thick 2, thick 3, OHP film, and envelopes.
Adjustment Specification	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Width A on the test pattern produced should fall within the following range.</p> <p>Specifications: 4.2 ± 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>
Setting/ Procedure	<ol style="list-style-type: none"> Place A3 or 11 x 17 paper on the tray1. Call the Service Mode to the screen. Touch [Machine Adjustment] → [Printer Area] → [Leading Edge Adjustment]. 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  /  keys. 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 is outside the specified range, change the setting again and make a check again. If width A falls within the specified range, touch [OK]. Following the same procedure, adjust for thick 1 to 3, OHP film, and envelope.

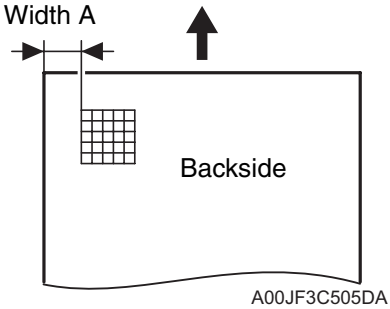


B. Centering

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 PH 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 ± 1.0 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>
Setting/ Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Touch [Machine] → [Printer Area] → [Centering]. 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  /  keys. 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, touch [OK]. 11. Following the same procedure, adjust for all other paper sources.

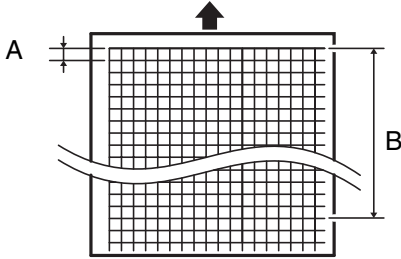
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Adjustment / Setting

C. Centering (Duplex 2nd Side)

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;">  </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 ± 2.0 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.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Printer Area] → [Centering (Duplex 2nd Side)]. 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  /  keys. 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, touch [OK]. Following the same procedure, adjust for all other paper sources.

D. Feed Direction Adjustment

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 print image on the copy distorts (stretched, shrunk). When the print image on the copy is stretched in the sub scan direction. This setting can be made independently for plain paper, thick 1, thick 2 and thick 3.
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. 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: -7 to +7</p> </div> </div> <p style="text-align: center; font-size: small;">A00JF3C506DA</p>
Adjustment Instructions	<p>If width A or B is longer than the specifications, make the setting value smaller than the current one. If width A or B is shorter than the specifications, make the setting value greater than the current one.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Place A3 or 11 x 17 paper on the tray¹. Call the Service Mode to the screen. Touch [Test Mode] → [Lattice Pattern], and press the Start key to let the machine produce a test pattern. <p>NOTE</p> <ul style="list-style-type: none"> Do not adjust with the test pattern which can be output under the following setting: [Machine Adjustment] → [Printer Area] → [Feed Direction Adjustment]. <ol style="list-style-type: none"> Check width A (equivalent to one grid) and width B (equivalent to 48 grids) on the test pattern. Touch these keys in this order: [Machine] → [Printer Area] → [Feed Direction Adjustment]. If width of A or B falls outside the specified range, change the setting using the [+]/[-] keys. Press the Start key to let the machine produce a test pattern again. 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, touch [OK]. Following the same procedure, adjust for thick paper.

E. Test Copy

Functions	<ul style="list-style-type: none"> To carry out test copy used for adjustment.
Use	<ul style="list-style-type: none"> To check the current status, effect, etc, when adjusting printer area.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Printer Area] → [Test Copy]. Select proper item for Paper, Simplex/Duplex, Color and Mixed Original, and press the start key. Test copy is output.

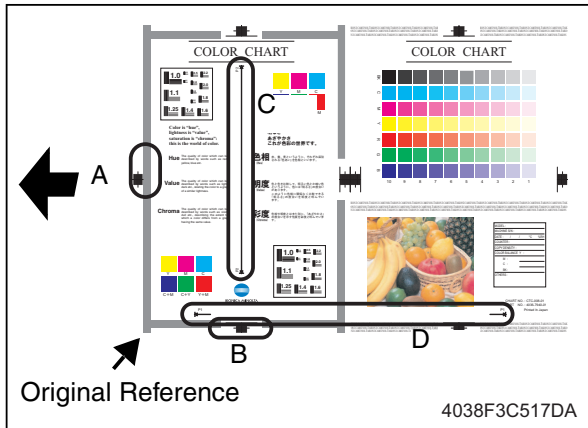
10.3.4 Scan Area

A. ADF Adjustment

See P.34 of the DF-612/SP-503/MS-501 service manual.

B. BK-S Adjustment

- Use the following color chart for the adjustment of the scanner section.
- If the color chart is not available, a scale may be used instead.



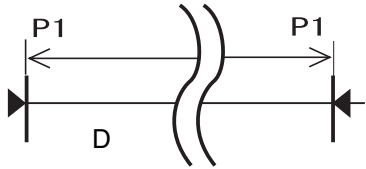
- A: Feed: Leading Edge
- B: Feed: Centering
- C: Zoom: Cross Direction Adjustment
- D: Zoom: Feed Direction Adjustment

(1) Zoom

- Cross Direction Adjustment

Functions	<ul style="list-style-type: none"> • To adjust the zoom ratio in the main scan direction for the scanner section.
Use	<ul style="list-style-type: none"> • The exposure unit is replaced.
Adjustment Specification	<p>4038F3C516DA</p> <ul style="list-style-type: none"> • Measure C width on the color chart and on the sample copy, and adjust the gap to be within the following specification. • An adjustment must have been completed correctly of “Paper Feed Direction Adj.” of [Printer Area]. <p>Specifications C: ± 1.0 mm</p> <p>Setting range 0.990 to 1.010 (in 0.001 increments)</p> <p>* When using a scale: Standard dimension: 200.0 mm</p>
Adjustment Instructions	<p>If the C width on the copy sample is less than one on color chart, increase the setting. If the C width on the copy sample exceeds one on color chart, decrease the setting.</p>
Setting/ Procedure	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Touch these keys in this order: [Machine] → [Scan Area] → [BK-S Adjustment] → [Zoom] → [Cross Direction Adjustment]. 3. Position the color chart correctly so that the original reference point is aligned with the scale. 4. Press the Start key to make a copy. 5. Check the C width on the image of the copy. 6. If the image falls outside the specified range, change the setting value. 7. Press the Start key to make another copy. 8. Check the image on the copy to see if the specifications are met. 9. Make adjustments until the specifications are met.

• Feed Direction Adjustment

Functions	<ul style="list-style-type: none"> To adjust the zoom ratio in the sub scan direction for the scanner section.
Use	<ul style="list-style-type: none"> The exposure unit is replaced. The scanner drive wires or the scanner drive wire pulley is replaced.
Adjustment Specification	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <ul style="list-style-type: none"> Measure D width on the color chart and on the sample copy, and adjust the gap to be within the following specification. An adjustment must have been completed correctly of "Paper Feed Direction Adj." of [Printer Area]. <p>Specifications D: ± 1.5 mm</p> <p>Setting range 0.990 to 1.010 (in 0.001 increments)</p> <p>* When using a scale: Standard dimension: 300.0 mm</p> </div> </div> <p style="text-align: center; margin-top: 10px;">4038F3C518DA</p>
Adjustment Instructions	<p>If the D width on the copy sample is less than one on color chart, increase the setting. If the D width on the copy sample exceeds one on color chart, decrease the setting.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Machine] → [Scan Area] → [BK-S Adjustment] → [Zoom] → [Feed Direction Adjustment]. Position the color chart correctly so that the original reference point is aligned with the scale. Press the Start key to make a copy. Check the D width on the image of the copy. If the image falls outside the specified range, change the setting value. Press the Start key to make another copy. Check the image on the copy to see if the specifications are met. Make adjustments until the specifications are met.

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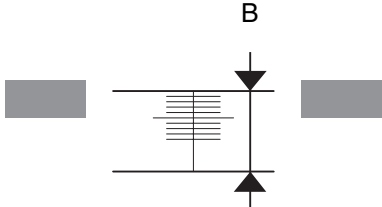
Adjustment / Setting

(2) Feed

- Leading Edge

<p>Functions</p>	<ul style="list-style-type: none"> • To adjust variations in mounting accuracy and sensitivity of the scanner home sensor and in mounting accuracy of the original width scale by varying the scan start position in the main scan direction.
<p>Use</p>	<ul style="list-style-type: none"> • When the original glass is replaced. • When the original width scale is replaced. • When the exposure unit is replaced.
<p>Adjustment Specification</p>	<div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="flex: 2;"> <ul style="list-style-type: none"> •B width on the color chart and one on the copy sample are measured and adjusted so that the difference of A width satisfies the specifications shown below. •An adjustment must have been completed correctly of [Leading Edge Adjustment] of [Printer Area]. <p>Specifications A: ± 0.5 mm (10 ± 0.5 mm if a scale is used)</p> <p>Setting range -72 to +72 dot (in 1 dot increments)</p> </div> </div>
<p>Adjustment Instructions</p>	<p>If the copy image is less than the specified length, increase the setting value. If the copy image exceeds the specified length, decrease the setting value.</p>
<p>Setting/ Procedure</p>	<ol style="list-style-type: none"> 1. Call the Service Mode to the screen. 2. Touch these keys in this order: [Machine] → [Scan Area] → [BK-S Adjustment] → [Feed] → [Leading Edge]. 3. Position the color chart correctly so that the original reference point is aligned with the scale. 4. Press the Start key to make a copy. 5. Check point A on the image of the copy. 6. If width A on the copy falls outside the specified range, change the setting value. 7. Press the Start key to make another copy. 8. Check the image on the copy to see if the specifications are met. 9. Make adjustments until the specifications are met.

• Centering

Functions	<ul style="list-style-type: none"> To adjust part-to-part variations in accuracy of IR parts and their mounting accuracy by varying the scan start position in the main scan direction.
Use	<ul style="list-style-type: none"> When the original glass is replaced. When the original FD scale is replaced.
Adjustment Specification	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <ul style="list-style-type: none"> A width on the color chart and one on the copy sample are measured and adjusted so that the difference of B width satisfies the specifications shown below. An adjustment must have been completed correctly of [Centering] of [Printer Area]. <p>Specifications B: ± 1.0 mm</p> <p>Setting range -72 to +72 dot (in 1 dot increments)</p> </div> </div> <p style="text-align: center; margin-top: 10px;">A00JF3C508DA</p>
Adjustment Instructions	<p>If the copy image is less than the specified length, increase the setting value. If the copy image exceeds the specified length, decrease the setting value.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Machine] → [Scan Area] → [BK-S Adjustment] → [Feed] → [Centering]. Position the color chart correctly so that the original reference point is aligned with the scale. Press the Start key to make a copy. Check point B on the image of the copy. If the image falls outside the specified range, change the setting value. Press the Start key to make a copy. Check point B of the image on the copy to see if the specifications are met. Make adjustments until the specifications are met.

(3) Erasure Width

Functions	<ul style="list-style-type: none"> To set the erasure width of the original when BS scanning.
Use	<ul style="list-style-type: none"> To change and adjust the erasure width in order to erase the shade, etc, around the original created at BS scanning.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is 1 mm. <p style="text-align: center;">“1 mm” (0 to 3 mm : 1 mm increments)</p>

(4) Carriage Move

Functions	<ul style="list-style-type: none"> To move the exposure unit to the arbitrary position.
Use	<ul style="list-style-type: none"> Used for scanner operation test. Used when locking the scanner for transporting the main body.
Adjustment Specification	<p><Absolute Position></p> <ul style="list-style-type: none"> Enter the shift distance (with unit of line) with home position sensor as reference to move the exposure unit. +838 to -10748 line (1 line increments) <p>* Home position of the exposure unit is [-827 line].</p> <p><Relative Position></p> <ul style="list-style-type: none"> Enter the shift distance (with unit of line) with the current exposure unit position as reference to move the exposure unit. -9999 to -9999 line (1 line increments) <p>* It protects to avoid the exposure unit from collision when the result calculated by the current position and the entered value exceeds the absolute position area.</p> <p><Lock Posi.> Pressing the [Lock Posi.] key moves the exposure unit to the lock position.</p>
Adjustment Instructions	<p>Enter the + value when moving to the left. Enter the - value when moving to the right.</p>
Adjustment Procedure	<ol style="list-style-type: none"> Call the service mode to the screen. Touch these keys in this order: [Machine] → [Scan Area] → [BK-S Adjustment] → [Carriage Move]. Select the function and enter the arbitrary shift distance if necessary, and press the start key. The exposure unit moves.

C. Shading Position

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

D. Test Copy

Functions	<ul style="list-style-type: none"> To carry out test copy for adjustment.
Use	<ul style="list-style-type: none"> To check the current status, effect, etc, when adjusting scanner area.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Scan Area] → [Test Copy]. Select the proper item for Paper, Simplex/Duplex, Color and Mixed Original, and press the start key. The test copy is output.

10.3.5 Printer Resist Loop

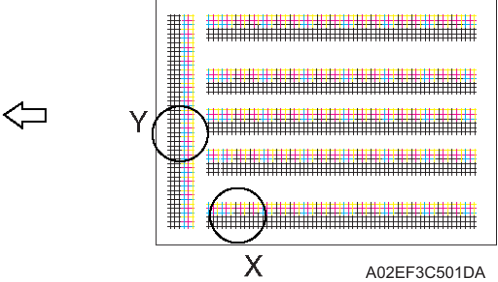
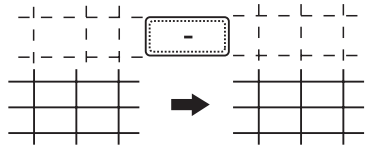
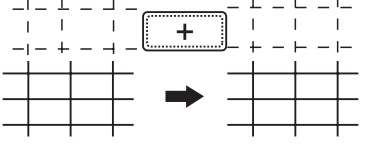
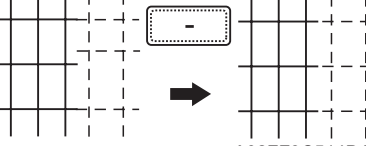
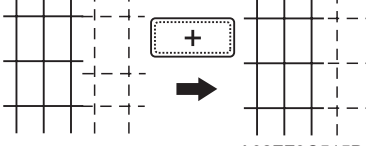
Functions	<ul style="list-style-type: none"> To set the correction value of the paper loop length for each process speed of tray 1, tray 2 to tray 4 / LCT, bypass, and duplex. To adjust the length of the loop formed in paper before the registration rollers. Use "Paper Passage" for paper passage check. 															
Use	<p>When a paper skew occurs.</p> <p>When a paper misfeed occurs.</p>															
Adjustment Instructions	<p>To decrease the loop amount: Decrease the setting value</p> <p>To increase the loop amount: Increase the setting value</p>															
Adjustment Range	<ul style="list-style-type: none"> The adjustable range is different depending on paper source and processing speed. <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>Tray 1</th> <th>Tray 2/3/4 LCT</th> <th>Manual</th> <th>Duplex</th> </tr> </thead> <tbody> <tr> <td>92 mm/sec</td> <td>-10 to +10</td> <td>-10 to +10</td> <td>-10 to +10</td> <td>-10 to +10</td> </tr> <tr> <td>46 mm/sec</td> <td>-15 to +15</td> <td>-15 to +15</td> <td>-15 to +15</td> <td>-8 to +8</td> </tr> </tbody> </table>		Tray 1	Tray 2/3/4 LCT	Manual	Duplex	92 mm/sec	-10 to +10	-10 to +10	-10 to +10	-10 to +10	46 mm/sec	-15 to +15	-15 to +15	-15 to +15	-8 to +8
	Tray 1	Tray 2/3/4 LCT	Manual	Duplex												
92 mm/sec	-10 to +10	-10 to +10	-10 to +10	-10 to +10												
46 mm/sec	-15 to +15	-15 to +15	-15 to +15	-8 to +8												
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Printer Resist Loop]. Select a paper source and a processing speed where the settings are made by touching the corresponding keys. Enter the new setting from the [+] / [-] keys and touch [OK]. 															

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Adjustment / Setting

10.3.6 Color Reg. Adjustment

A. 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.
Use	<ul style="list-style-type: none"> To correct any color shift. This setting can be made independently for plain paper, thick 1, thick 2, and thick 3. Compensation for the main scan direction is made only for the plain paper.
Adjustment Range	"0" (-6 to +6 dot)
Adjustment Instructions	<p>If the cross deviates in the direction of A, increase the setting. If the cross deviates in the direction of B, decrease the setting.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Color Reg. Adjustment]. Set the paper with the paper type to be adjusted to the paper feed tray. 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 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> <p>Direction of A</p>  <p>A02FF3C512DA</p> <p>Direction of B</p>  <p>A02FF3C513DA</p> <p>Adjustment for Y direction: Check point Y</p> <p>Direction of A</p>  <p>A02FF3C514DA</p> <p>Direction of B</p>  <p>A02FF3C515DA</p>

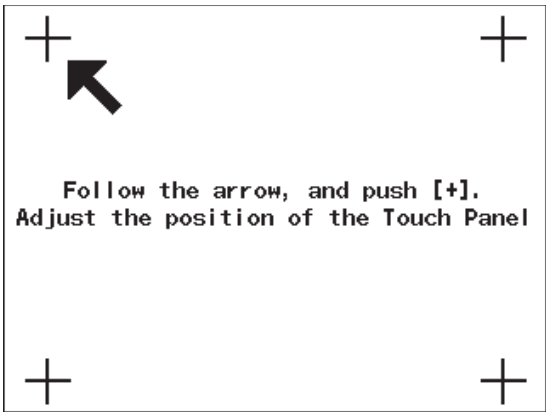
10.3.7 Manual Bypass Tray Adjustment

See P.17 of the MB-502 service manual.

10.3.8 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"> Upon user requests, it is possible to specify the void area where image is not printed along the leading edge.
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> <p>NOTE</p> <ul style="list-style-type: none"> When “4 mm” is selected, 4.2 mm is the actual amount to be erased in print based on the control system of the machine.

10.3.9 Touch Panel Adjustment

Functions	<ul style="list-style-type: none"> To adjust the position of the touch panel display
Use	<ul style="list-style-type: none"> Make this adjustment if the touch panel is slow to respond to a pressing action. Use during the setup procedure.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch [Machine Adjustment] → [Touch panel Adjustment]. Press four [+] keys displayed on the screen with pen, etc, according to the arrow shown on the screen. <ul style="list-style-type: none"> Use care not to damage the screen surface with the tip of the pen. <div style="text-align: center;">  <p style="text-align: right;">A02FF3E524DA</p> </div> <p>NOTE</p> <ul style="list-style-type: none"> When interrupting touch panel adjustment, press the Reset key or the Stop key before pressing four [+] keys. Interrupting adjustment returns the screen to the previous one without adjusting the position.

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Adjustment / Setting

10.4 Imaging Process Adjustment

10.4.1 Gradation Adjust

- It will not be displayed when the following setting is set to "ON".
[Service Mode] → [Image Process Adjustment] → [Dev. Bias Choice]

Functions	<ul style="list-style-type: none"> To make an automatic adjustment of gradation based on the test pattern produced and the readings taken by the scanner.
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. Stablizer : Before gradation adjust, perform image stabilization. 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. High Compression Mode : It gives the highest priority to increasing the number of images to be stored in the memory as it adjusts.
Adjustment Specification	<p>Dark : 0 ± 100</p> <p>Highlight: 0 ± 60</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Carry out image stabilization by touching [Image Process Adjustment] → [Image stabilization]. <p>NOTE</p> <ul style="list-style-type: none"> Before executing Gradation adjust, be sure to perform Stabilizer. <ol style="list-style-type: none"> Touch these keys in this order: [Image Process Adjustment] → [Gradation Adjust]. Select the appropriate mode for the gradation adjustment. Press the Start key to let the machine produce a test pattern. <p>NOTE</p> <ul style="list-style-type: none"> When the image stabilization performed in step 2 is NG, the Start key stops functioning. <ol style="list-style-type: none"> Place the test pattern produced on the original glass. Place ten blank sheets of A3/11x17 paper on the test pattern and lower the original cover. Press the Start key. (The machine will then start scanning the test pattern.) Touch [OK] and repeat steps from 5 through 8 twice (a total of three times). <ul style="list-style-type: none"> If a fault is detected, NG message will be displayed. In that case, after turning off the main power switch, turn it on again more than 10 seconds after and then make the gradation adjustment again. If the image is faulty, perform the troubleshooting procedures for image problems.

10.4.2 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	<ul style="list-style-type: none"> The default setting is 0. -10 to +10 (step: 1 *) <p>*: 1 step corresponds to 0.03 in density difference.</p>
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.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch 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 or [+]/[-] key. Touch [OK] to return to the [Imaging Process Adjustment] menu screen. Touch [Image Stabilization]. Touch [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.

10.4.3 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	<ul style="list-style-type: none"> The default setting is 0. -5 to +5 (step: 1)
Adjustment Instructions	To make the background level foggier, decrease the setting value. To make the background level less foggy, increase the setting value.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch 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 or [+]/[-] key. Touch [OK] to return to the [Imaging Process Adjustment] menu screen. Touch [Image Stabilization]. Touch [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.

10.4.4 Transfer Output Fine Adjustment

A. Secondary transfer adj.

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	<ul style="list-style-type: none"> The default setting is 0. -8 to +7 (step: 1)
Adjustment Instructions	<p>To increase the ATVC value (in the direction of a foggier image), increase the setting value. To decrease the ATVC value (in the direction of a less foggy image), decrease the setting value.</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [Transfer Output Fine Adjustment]. Select [Secondary transfer adj.]. Select the paper type and the side of the image (1st side or 2nd side), on which the transfer failure occurs. <p>NOTE</p> <ul style="list-style-type: none"> For envelopes, only first side can be selected. <ol style="list-style-type: none"> Enter the new setting from the [+] / [-] keys. Touch [OK] to validate the adjustment value. Check the print image for any image problem.

B. Primary transfer adj.

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	<ul style="list-style-type: none"> The default setting is 0. -8 to +7 (step: 1)
Adjustment Instructions	<p>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</p>
Setting/ 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.265 When the test pattern image has white spots, adjust with the following procedure. Touch these keys in this order: [Imaging Process Adjustment] → [Transfer Output Fine Adjustment]. Select [Primary transfer adj.]. Select the color. Change the setting value using the [+] / [-] keys. Touch [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 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.

10.4.5 Image Stabilization

A. Initialize+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. When color shift correction is needed again after the machine maintenance.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [Image Stabilization]. Touch [Initialize+Stabilization]. Press the Start key to start image stabilization. The Start key turns red and stays lit up red during the image stabilization sequence. Image stabilization is completed when the Start key turns blue.

B. 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"> Used before gradation adjustment. 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.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [Image Stabilization]. Touch [Stabilization Only]. Press the Start key to start image stabilization. The Start key turns red and stays lit up red during the image stabilization sequence. Image stabilization is completed when the Start key turns blue.

10.4.6 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. (Only black color adjustable for 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 default setting is 0. -5 to +5 (step: 1)
Adjustment Instructions	<p>Light color: Touch [+]. Dark color: Touch [-].</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [Thick Paper Density Adjustment]. Select the color. Change the setting value using the [+] / [-] keys.

10.4.7 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.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [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.

10.4.8 Monochrome Density Adjustment

Functions	<ul style="list-style-type: none"> To fine-adjust the density of the printed image for a black print.
Use	<ul style="list-style-type: none"> To vary the density of the printed image of a black print.
Adjustment Range	<ul style="list-style-type: none"> The default setting is 0. <p style="text-align: center;">-2 to +2 (step: 1)</p>
Adjustment Instructions	<p>If the black is light, touch [+].</p> <p>If the black is dark, touch [-].</p>
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode to the screen. Touch these keys in this order: [Imaging Process Adjustment] → [Monochrome Density Adjustment]. Change the setting value using the [+]/ [-] keys.

10.4.9 Dev. Bias Choice

Functions	<ul style="list-style-type: none"> To change the setting of the developing bias voltage. When this function is turned ON, it decreases the developing bias voltage, thereby preventing voltage leak from occurring.
Use	<ul style="list-style-type: none"> Use when patches of white occur in the image in an ambience of low atmospheric pressure, such as in high altitudes. If ON is set, the screen doesn't display [Service Mode] → [Imaging Process Adjustment] → [Gradation Adjust] and the Gradation Adjust is not allowed.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

10.5 System Input

10.5.1 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 touch [END] to set the marketing area. Depending on an installed firmware, the displayed choices are different. <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="margin-left: 40px;"> <tr> <td>Japan</td> <td>English, Japanese</td> </tr> <tr> <td>US</td> <td>English, Japanese, German, French, Italian, Spanish, Simplified Chinese, Korean, Dutch, Portuguese,</td> </tr> <tr> <td>Europe</td> <td>Danish, Norwegian, Swedish, Finnish, Greek, Slovak,</td> </tr> <tr> <td>Others1</td> <td>Czech, Turkish, Hungarian, Polish, Romanian,</td> </tr> <tr> <td>Others2</td> <td>Russian</td> </tr> <tr> <td>Others3</td> <td></td> </tr> <tr> <td>Others4</td> <td></td> </tr> </table> <p><Fax Target></p> <ol style="list-style-type: none"> Touch the [Fax Target]. Select the applicable marketing area, and touch [OK]. 	Japan	English, Japanese	US	English, Japanese, German, French, Italian, Spanish, Simplified Chinese, Korean, Dutch, Portuguese,	Europe	Danish, Norwegian, Swedish, Finnish, Greek, Slovak,	Others1	Czech, Turkish, Hungarian, Polish, Romanian,	Others2	Russian	Others3		Others4	
Japan	English, Japanese														
US	English, Japanese, German, French, Italian, Spanish, Simplified Chinese, Korean, Dutch, Portuguese,														
Europe	Danish, Norwegian, Swedish, Finnish, Greek, Slovak,														
Others1	Czech, Turkish, Hungarian, Polish, Romanian,														
Others2	Russian														
Others3															
Others4															

10.5.2 Exhaust Fan Stop Delay

Functions	<ul style="list-style-type: none"> To set the period of time before the exhaust fan motor stops.
Use	<ul style="list-style-type: none"> At the completion of a print job/image stabilization or at jam/malfunction, the fan motor rotating at full speed comes to a stop. The period of time before the fan motor stops can be delayed so that ozone left around the PC drum can be discharged.
Setting/ Procedure	<ul style="list-style-type: none"> 0 to 15 (minutes) can be entered with the ten-key pad. (Default is 0.) <p>NOTE</p> <ul style="list-style-type: none"> When this setting is set to 0 (minute), the fan motor runs for 5 seconds before it stops.

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Adjustment / Setting

10.5.3 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. <p>NOTE</p> <ul style="list-style-type: none"> When main power switch was turned ON while the serial No. was not entered, the message to require entering the serial No. will be displayed. Do not change the serial number registered in the machine. If memory data is lost and entering the serial number is required, enter the original correct serial number. <p>Be careful to enter the correct serial number since characters other than alphanumeric can be also entered.</p>
Setting/ Procedure	<ul style="list-style-type: none"> Type the serial numbers. <p>Printer, ADF, LCT, Printout Opt, Duplex, Option Tray, Bypass Tray</p>

10.5.4 No Sleep

Functions	<ul style="list-style-type: none"> To display the option of "OFF" for the sleep mode setting screen available from Admin. 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 "Restrict." <p style="text-align: center;">Allow "Restrict"</p>

10.5.5 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 x 330 mm 8¹/₂ x 13 8¹/₄ x 13 8¹/₈ x 13¹/₄ 8 x 13</p>

10.5.6 Install Date

Functions	<ul style="list-style-type: none"> To register the date the main body 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. Touch [System Input] → [Install Date]. Enter the date (Year 4 digit, Month 2 digit, Day 2 digit) from the 10-key pad. Touch [OK] to set the date of installation.

10.5.7 Change Fixed Zoom

Functions	<ul style="list-style-type: none"> To change the fixed zoom.
Use	<ul style="list-style-type: none"> To change the fixed zoom from the default setting to the arbitrary value when necessary.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Change Fixed Zoom]. Touch the key of which zoom is to be changed. Press the Clear key and enter the setting value using the 10-key pad. Press [Register], and set the fixed zoom.

10.5.8 File Display

Functions	<ul style="list-style-type: none"> To specify and display the analysis file which can be output in the controller.
Use	<ul style="list-style-type: none"> To be used to analyze troubles.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [File Display]. Enter the file name to be displayed. Press [ON] to display the file.

10.5.9 Memory Clear

A. System Data

Functions	<ul style="list-style-type: none"> To clear the information on troubles, etc.
Use	<ul style="list-style-type: none"> To default administration information or account information for the controller such as copy and fax, as well as to reset troubles, and to default size/media error. It automatically restarts after default.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [System Data]. Press [OK] to clear the system data.

B. System Error

Functions	<ul style="list-style-type: none"> To default back up information for the printer engine, as well as trouble information, or size/media error, in case the engine side stays in error status due to I/F mismatch between the printer engine and the controller.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [System Error]. Press [OK] to clear the system error.

C. Image Data

Functions	<ul style="list-style-type: none"> To default image information stored in the file memory. It automatically restarts after defaulting.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [Image Data]. Press [OK] to clear the image data.

D. Own Setting

Functions	<ul style="list-style-type: none"> To default information (except destination address information) of the own unit registered to the unit.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [Own Setting]. Press [OK] to clear data of the own station.

E. Fax dest.

Functions	<ul style="list-style-type: none"> To default information concerning fax address (One-Touch, Program, Index).
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [Fax dest.]. Press [OK] to clear the fax destination address.

F. Activity

Functions	<ul style="list-style-type: none"> To default information on administration for sending/receiving document, as well as on sending administration report, and on receiving administration report. It automatically restarts after defaulting.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [Activity]. Press [OK] to clear the information on communication administration.

G. Soft SW

Functions	<ul style="list-style-type: none"> To default the soft switch to the setting same as that of at shipping.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Memory Clear]. Select [Soft SW]. Press [OK] to default the soft switch.

10.5.10 Software Switch Setting

Functions	<ul style="list-style-type: none"> To change the status of each function by setting values (mode, bit, HEX) for soft switch of the machine as necessary. Refer to the corresponding item on [Admin.] for the list of the soft switches available of setting by the user (administrator). See P.141 For details of the software switch for fax settings, refer to the FK-507 service manual. See P.20 of the FK-507 service manual.
Use	
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [System Input] → [Software Switch Setting]. Touch [Mode Selection], and enter the mode number (three digit number) using the 10-key pad. Touch [Bit Selection]. Set the cursor using [←] or [→] key, and set the bit with 0 or 1 on the 10-key pad. (When setting in hexadecimal, press [HEX Selection], and enter on the 10-key pad or A to F keys.) Touch [Apply]. Touch [OK].

A. Software Switch

Mode	<ul style="list-style-type: none"> Each parameter is expressed as a three-digit number. Use the keypad to type in the value.
Bit	<ul style="list-style-type: none"> The bits are the eight numbers that represent the parameter status. By specifying a binary number (0 or 1) for each of the bits (0 through 7), settings for each parameter can be specified.
HEX	<ul style="list-style-type: none"> Specify a setting for each mode as a hexadecimal number (0 through 9 and A through F). Bit setting “0011 0000” is expressed as the hexadecimal setting “30.” Specify the status of each parameter by using either bits or hexadecimal values.

B. List of the software switch settings

Mode	Setting item	Ref. page
000	• TSI, password, memory TX	—
001	• Dest. insert	—
002	• Report	—
003	• Broadcast TX result report	—
004	• Memory time	—
005	• Default country setting	—
006	(Not used)	—
007	• G3-1 non-selectable cassette	—
008	• G3-2 non-selectable cassette	—
009	• Network non-selectable cassette	—
010	• Report non-selectable cassette	—
011	(Not used)	—
012	(Not used)	—
013	• Automatically switch destinations, operation when INBOX forward fails	—

Mode	Setting item	Ref. page
014	(Not used)	—
015	• Color, resolution, quality	—
016	• FLS-Legal switching, reception date printing	—
017	• Select initial value of TSI	—
018	• Density setting, background adjustment	—
019	(Not used)	—
020	• Display reports	—
021	• Continue communication after continuous TX error	—
022	• Batch TX, zoom ratio for TX	—
023	• TWAIN operation lock time, set merge for report image	P.183
024	• Forward function button, display caller ID, no receiving by other users	—
025	• Processing when memory overflow occurs	—
026	(Not used)	—
027	• Display ID, confidential comm., F-code, 2in1 TX	—
028	• Remote copy protocol, # of remote multi-copies	—
029	(Not used)	—
030	• Rotate TX, rotate print, 2-in-1 RX, print paper selection restriction	—
031	• Merge for multi-sheet report image, merge for output format of report image, binding for duplex TX	—
032	(Not used)	—
033	• 2-sided TX setting	—
034	• Overlap printing	—
035	• RX by memory	—
036	(Not used)	—
037	• Select FAX print paper cassette	—
038	(Not used)	—
039	(Not used)	—
040	• Binary coding, T.6 coding, JBIG, V34JBIG, external telephone	—
041	• ECM, Audio response	—
042	• Redialing interval	—
043	• # of resending doc., redialing non-answered call, No. of rings, TSI/CSI registration, PSTN port automatic selection, line type	—
044	• RTN sending error trace threshold, TX special processing, T4 timer, action against abnormal overseas communications, RTN reception processing, V.34 control channel retrain	—
045	• Number of redialing times	—
046	• Priority detection for DP automatic detection, PB/DP automatic detection priority order, line holding guard timer, symbol rate display, EQM value monitoring, probing information monitoring	—
047	• V.34 fallback tolerance	—
048	• Set up MODEM standard, redial interval for broadcast TX	—
049	• Transmission speed upper limit (TX)	—
050	• Transmission speed upper limit (RX)	—
051	• Declare RX print paper size	—

Mode	Setting item	Ref. page
052	(Not used)	—
053	• Document processing when F-CODE reception fails	—
054	• Silence detection time, history control of V.34 auto dialing, demodulation method	—
055	• Silence detection, silence detection level	—
056	• Select sending time of ANSam	—
057	• Time that ANSam TX starts after line is blocked	—
058	• Modem power-saving (sleep) start time (least significant bits)	—
059	• Modem power-saving (sleep) start time (most significant bits)	—
060 : 069	(Not used)	—
070	• Pseudo-ringer sound	—
071 : 076	(Not used)	—
077	• Hook monitoring adjustment times during ringer	—
078	(Not used)	—
079	(Not used)	—
080	• Line connection time (PSTN1)	—
081	(Not used)	—
082	• Detect busy tone, line monitoring, detect line disconnection (PSTN1)	—
083	• Hook monitoring cycle, hook detection voltage (PSTN1)	—
084	• PB sending level (PSTN1)	—
085	• TX level (PSTN1)	—
086	• RX attenuator (PSTN1), DP speed, PB/DP switching, internal/external line switching	—
087	• Detect continuous ringer, ringer detection frequency (PSTN1)	—
088	• Process to be carried out when 2nd dialing tone timeout is detected, 1,300 Hz reception sensitivity switching (PSTN1)	—
089	• Posed insertion, prefix # (PSTN1)	—
090	(Not used)	—
091	(Not used)	—
092	• Sending echo protection tone, switch carrier frequency (PSTN1)	—
093	• CED, Receive command echo (PSTN1)	—
094	• AGC lock (PSTN1)	—
095	• Digital TX/RX cable equalizer (PSTN1)	—
096	• CI signal sending time (PSTN1)	—
097	• TCF/NTCF sending level down (PSTN1)	—
098	• CM signal sending start time, EQM threshold value (PSTN1)	—
099	• V.34 symbol rate threshold value (PSTN1)	—
100 : 109	(Not used)	—

Mode	Setting item	Ref. page
110	• Line connection time (PSTN2)	—
111	(Not used)	—
112	• Detect busy tone, line monitoring, detect line disconnection (PSTN2)	—
113	(Not used)	—
114	• PB sending level (PSTN2)	—
115	• TX level (PSTN2)	—
116	• RX attenuator, DP speed, PB/DP switching, internal/external line switching (PSTN2)	—
117	• Detect continuous ringer, ringer detection frequency (PSTN2)	—
118	• Process to be carried out when 2nd dialing tone timeout is detected, 1,300 Hz reception sensitivity switching (PSTN2)	—
119	• Posed insertion, prefix # (PSTN2)	—
120	(Not used)	—
121	(Not used)	—
122	• Sending echo protection tone, switch carrier frequency (PSTN2)	—
123	• CED, Receive command echo (PSTN2)	—
124	• AGC lock (PSTN2)	—
125	• Digital TX/RX cable equalizer (PSTN2)	—
126	• CI signal sending time (PSTN2)	—
127	• TCF/NTCF sending level down, V.34 symbol rate (PSTN2)	—
128	• CM signal sending start time, EQM threshold value (PSTN2)	—
129	• V.34 symbol rate threshold value (PSTN2)	—
130 : 211	(Not used)	—
212	• DP make ratio (PSTN1)	—
213 : 248	(Not used)	—
249	• Ringer detection counts (PSTN2)	—
250 : 287	(Not used)	—
288	• Insert dummy data before PIX	—
289 : 299	(Not used)	—
300	• Stamp, Trim print paper leading edge, Remote copy print order	P.184
301	• Print image reduction, division	—
302	• Print paper selection	—
303	(Not used)	—
304	• Confidential document holding time, print lamp lighting, etc.	P.185
305	• ADF density adjustment, Output pin	P.186
306	(Not used)	—
307	(Not used)	—

Mode	Setting item	Ref. page
308	• Specify Imaging unit life stop, Normal stabilization, Specify next print color mode operation, Take data for image stabilization	P.187
309	• Output tray setting	P.187
310	(Not used)	—
311	(Not used)	—
312	• Setting printing area for ADF front side leading edge 1 (A)	P.188
313	• Setting printing area for ADF front side leading edge 2 (B)	P.188
314	• Setting printing area for ADF front side posterior end 1 (C)	P.188
315	• Setting printing area for ADF front side posterior end 2 (D)	P.189
316	• ACS parameter setting for ADF front side leading edge (2)	P.189
317	• ACS parameter setting for ADF front side posterior end (3)	P.190
318	• ACS parameter setting (1) for ADF front side center (1)	P.190
319	• Setting printing area for ADF back side leading edge 1 (A)	P.191
320	• Setting printing area for ADF back side leading edge 2 (B)	P.191
321	• Setting printing area for ADF back side posterior end 1 (C)	P.191
322	• Setting printing area for ADF back side posterior end 2 (D)	P.192
323	• ACS parameter setting for ADF back side leading edge (2)	P.192
324	• ACS parameter setting for ADF back side posterior end (3)	P.193
325	• ACS parameter setting for ADF back side center (1)	P.193
326	• ACS Parameter setting for the book scanner	P.194
327	• Main scan direction size detection threshold	P.195
328	• Wait time after lamp lights until main scan direction size detection starts	P.195
329	• Main scan direction size detection threshold	P.195
330	• Wait time after cover closes until main scan direction size detection starts	P.196
331	• Scan minimum value when cover is closed	P.196
332	• Scan maximum value when cover is opened	P.196
333	• Re-shading interval (first time)	P.197
334	• Re-shading interval (since the second times)	P.197
335 : 349	(Not used)	—
350	• POP3 before SMTP TX, document width/line density upper limit	P.198
351	• Gateway transmission, IP address fax reception, SMTP reception	P.198
352	• Notification of result, add TSI for Gateway TX and forwarding	P.199
353	• Text insertion, header printing	P.200
354	• Time zone	P.200
355	• Switch 10M/100M, switch full-duplex/half-duplex, DHCP	P.201
356	• SMTP TX timeout	P.201
357	• SMTP receive timeout	P.202
358	• POP3 receiving timeout	P.202
359	• Set re-trials for forwarding RX docs, forced priority TX	P.203
360	• Coding method	P.204
361	• DNS function	P.204

Mode	Setting item	Ref. page
362	• Intervals for calling on the network	P.205
363	• SMTP expansion prohibited, specify from address for DNS report	P.205
364	• POP before SMTP time	P.206
365	(Not used)	—
366	• Priority address input for scan, anonymous e-mail countermeasure, e-mail file name character restrict, file name year digit quantity	P.206
367	• Time of DNS inquiry timeout	P.206
368	• Activity report, activity report for scanner TX (TX), RX result management for IP relay sending machine	P.207
369	(Not used)	—
370	• Additional # of TX re-trials	P.207
371	• Interval of retrials to be set for additional # of TX re-trials, binary division, page division	P.207
372	• Transmission interval of size-divided e-mail file data	P.208
373	• Full mode function, MDN correspondence	P.208
374	• NOTIFY setting	P.209
375 : 378	(Not used)	—
379	• Edit data when forwarding received documents	P.209
380	• APOP authentication, SMTP authentication, HTTP server, SSL	P.210
381	• IP relay function	P.211
382	• IP relay result timeout processing, default station	P.211
383	• SMTP authentication reception	P.212
384	• TCP/IP, LPD, RAW port, FTP, SNMP	P.212
385	(Not used)	—
386	(Not used)	—
387	• LDAP	P.213
388	• Ethernet frame type	P.213
389	• Coding method, allow write, allow discovery user	P.214
390	• Read security level, write security level, PDF profile reception limitation, JPEG compression method	P.214
391	• File format, coding format	P.215
392 : 399	(Not used)	—
400	• Priority doc. mixed mode, priority auto color level, priority color	P.215
401	• 2 colors, mono color	P.216
402	• Average density, priority copy mode, automatic function priority mode, priority application, Neg./Pos. reverse	P.217
403	• Draft print zoom ratio, sorting, AMS setting for tray selection, copy function use	P.218
404	• Background adjustment, glossy copy	P.218
405	• Character reproduction	P.219
407	(Not used)	—

Mode	Setting item	Ref. page
408	• Default tray (print paper)	P.219
409	• Default 4-in-1 print order, priority document quality, non-matching specified feed trays	P.220
410	(Not used)	—
411	(Not used)	—
412	• Priority sort mode, sort/group	P.220
413	• Copy density	P.221
414 : 416	(Not used)	—
417	• Set max # of copies	P.221
418 : 423	(Not used)	—
424	• Small doc.	P.221
425	• Select FLS size	P.222
427	• Brightness for color quality adjustment	P.222
428	• Contrast for color quality adjustment	P.222
429	• Saturation for color quality adjustment	P.223
430	• Red for color quality adjustment	P.223
431	• Green for color quality adjustment	P.223
432	• Blue for color quality adjustment	P.224
433	• Yellow for color quality adjustment	P.224
434	• Magenta for color quality adjustment	P.224
435	• Cyan for color quality adjustment	P.225
436	• Black for color quality adjustment	P.225
437	• Sharpness for color quality adjustment	P.225
438	(Not used)	—
439	(Not used)	—
440	• Set PCL, paper size	P.226
441	• Paper tray, paper orientation	P.227
442	• # of copies (least significant 8 bits)	P.227
443	• Printing method, # of copies (most significant 2 bits)	P.228
444	• Language code	P.228
445	• Symbol set	P.231
446	• # of lines	P.232
447	• Unit of font size	P.232
448	• Font size (Scalable) (least significant 8 bits)	P.233
449	• Font size (Scalable) (most significant 4 bits)	P.233
450	• Font size (Bitmap) (least significant 8 bits)	P.233
451	• Font size (Bitmap) (most significant 6 bits)	P.234
452	• Switch A4/Letter	P.234
453	• Set PostScript error print	P.234

Mode	Setting item	Ref. page
454	(Not used)	—
455	• Timeout set (least significant 8 bits)	P.235
456	• Timeout set (most significant 2 bits)	P.235
457	• Memory overflow waiting time	P.235
458	• PC print job deletion operation, PC-FAX job deletion operation	P.236
459 : 469	(Not used)	—
470	• Set export extension, simple format, PSDA use, auto logout time	P.236
471	• Set user's list screen display and default screen	P.237
472	(Not used)	—
473	• Set priority job list screen, use of # for destination entry	P.237
474	(Not used)	—
475	(Not used)	—
476	• Destination display screen, specify full-dial TX, specify broadcast TX	P.238
477	• Fax registration restriction and destination display, setting confirmation screen for broadcast TX	P.238
478	• Specify delete key operation, display when pressing one-touch, Comm. mode initial value, antidew processing, PB/DP auto detection key	P.239
479	(Not used)	—
480	• Display file forwarding key, sound patterns for alarm buzzer	P.239
481 : 484	(Not used)	—
485	• Year/Month/Day display order	P.240
486	• Daylight saving time activation switch	P.240
487	• No sleep	P.240
488	• Auto reset	P.240
489	• Low power mode	P.241
490	• Sleep mode	P.241
491	• LCD back-light OFF	P.241
492	• Sound volume setting (buzzer sound, alarm sound)	P.242
493	• Sound volume setting (monitor sound), priority application screen	P.242
494	• Sound volume setting (completion sound)	P.243
495 : 499	(Not used)	—
500	• Enlarge sound volume	P.243
501	• Screen reverse, next screen display for enlarge display	P.243
502	• Key repeat starting time	P.244
503	• Key repeat interval	P.244
504	• Reservation completion screen display	P.244
505	• Buzzer sound	P.245
506	• Extend auto reset time	P.245

Mode	Setting item	Ref. page
507 : 511	(Not used)	—
512	• Dial tone detection	—
513 : 517	(Not used)	—
518	• Setting the voice message	—
519	• Setting to allow/prohibit fax operation when detecting an error during voice message	—
520	• Counter number for the linger detection (PSTN1)	—
521 : 767	(Not used)	—
768	• Soft time adjustment value (V.17, V.27tar)	—
769	• Soft time adjustment value (V.29)	—
770	• CFR-PIX interval	—
771	• T1 timer for auto-TX	—
772	• T1 timer for auto-RX	—
773	• T1 timer for manual TX	—
774	• T1 timer for manual RX	—
775	• T1 timer for auto-TX of polling	—
776	• T1 timer for manual TX of polling	—
777	• PIX-post command interval	—
778 : 803	(Not used)	—
804	• SF/SSF communication, destination machine confirmation TX	—
805	• Special characters for destination machine confirmation TX	—
806 : 819	(Not used)	—
820	• Language code (for display)	P.246
821	• Language code (for input/output)	P.247
822	(Not used)	—
823	• Language code (for input)	P.248
824 : 829	(Not used)	—
830	• Total counter count mode, Paper size considered as the large size	P.249
831 : 834	(Not used)	—
835	• Public account	P.249

Mode	Setting item	Ref. page
836 : 879	(Not used)	—
880	• Unit change, consumable life reminder	P.249
881	(Not used)	—
882	• Warm-up mode	P.250
883	• Power save setting, LCT paper size, optional original size detection (book scanner)	P.250
884	• Fan control for the low-temperature warm-up	P.251
885 : 999	(Not used)	—

C. Soft switch details

NOTE

- Specifications for soft switches other than fax are described here.
For specifications on soft switch for the fax, refer to the FK-507 service manual.
- The items without direction are prohibited to be set. Do not change the initial setting.
- The parts in gray are initial settings.

Mode	Default value		
023	Bit	7654 3210	HEX: 38
	State	0011 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	Specify TWAIN operation lock time	0000		30 sec.
		0001		60 sec.
		0010		90 sec.
		0011		120 sec.
		0100		150 sec.
		0101		180 sec.
		0110		210 sec.
		0111		240 sec.
		1000		270 sec.
		1001		300 sec.
		others		Not available
3	Set merge for report image	No	Yes	Sets whether to merge the report with image merger.

d-Color MF201

Adjustment / Setting

Mode	Default value		
300	Bit	7654 3210	HEX: 41
	State	0100 0001	

Bit	Setting item	Setting value		Description	
		0	1		
7	Specify whether TX Stamp returns to ON or OFF after completing operations.	OFF	ON		
6	Select position of TX Stamp.	Top & Bottom of doc.	Bottom of doc.		
4-1	Select cut-off length of image data at leading edge of printing paper.	0000		0 mm	
		0001		2 mm	
		0010		4 mm	
		0011		6 mm	
		0100		8 mm	
		0101		10 mm	
		0110		12 mm	
		0111		14 mm	
		1000		16 mm	
		1001		18 mm	
		1010		20 mm	
		others	Not available	This switch is valid while RX printing.	
0	Specify RX (remote copy) print order.	Start printing after receiving first page.	Start printing after receiving all pages.		

Mode	Default value		
304	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Secure Print document hold time	00000		Not delete
		00001		1 hour
		00010		2 hours
		00011		3 hours
		00100		4 hours
		00101		5 hours
		00110		6 hours
		00111		7 hours
		01000		8 hours
		01001		9 hours
		01010		10 hours
		01011		11 hours
		01100		12 hours
		01101		13 hours
		01110		14 hours
		01111		15 hours
		10000		16 hours
		10001		17 hours
		10010		18 hours
		10011		19 hours
		10100		20 hours
		10101		21 hours
		10110		22 hours
		10111		23 hours
11000		24 hours		
1	Turn on print lamp when out-of-paper.	On when all cassettes are out of paper	On when at least one cassette is out of paper	
0	Sets the reduction ratio when reading 11x17 → 8 1/2 x 11.	64.7 %	77.2 %	

d-Color MF201

Adjustment / Setting

Mode	Default value		
305	Bit	7654 3210	HEX: 05
	State	0000 0101	

Bit	Setting item	Setting value		Description
		0	1	
7-4	ADF density adjustment	0000		0
		0001		+1
		0010		+2
		0011		+3
		0100		+4
		0101		+5
		0110		+6
		0111		+7
		1000		Not available
		1001		-1
		1010		-2
		1011		-3
		1100		-4
		1101		-5
1110		-6		
1111		-7		
2	Select copy output bin	tray 1	tray 2	Specify a bin to where copied document is delivered when the job separator has been attached.
1	Select FAX (G3-1) output bin.	tray 1	tray 2	Specify a bin to where faxed (G3-1) document is delivered when the job separator has been attached.
0	Select PC print output bin.	tray 1	tray 2	Specify a bin to where PC print is delivered when the job separator has been attached.

Mode	Default value		
308	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
4	Stop when the lifetime of imaging unit ends.	Stop	Not stop	Specify whether to stop or not stop print operation when the lifetime of drum cartridge ends.
2	Normal stabilization *: In order to make this setting valid, main power switch needs to be turned off and on twice.	Normal stabilization (short)	Normal stabilization	Automatically stabilize for opening/closing the front cover when power is ON, according to the requests from the engine.
1	Specify next print color mode operation	Black priority	Color priority	During engine printing, select the function, prioritizing cost or speed.
0	Collect data for image stabilization	OFF	ON	Sets whether to automatically collect data necessary for calculating image stabilization or not.

Mode	Default value		
309	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
1	Select a fax (G3-2) output bin.	tray 1	tray 2	Specify a bin to where a Fax (G3-2) document is delivered when the job separator has been attached.
0	Select a fax (network) output bin.	tray 1	tray 2	Specify a bin to where a fax (network) document is delivered when the job separator has been attached.

NOTE

- For details on setting for ACS between [312] and [326], refer to [Setting the software switches on ACS].

See P.194

Mode	Default value		
312	Bit	7654 3210	HEX: 20
	State	0010 0000	

Bit	Setting item	Setting value		Description
		0	1	
5-0	Setting printing area for ADF front side leading edge 1 (A). Set so that the total with the value in mode 313 bit [5-0] becomes 80mm or under.	000000		0 mm
		000001		1 mm
		:		
		100000		32 mm
		:		
		111111		63 mm

Mode	Default value		
313	Bit	7654 3210	HEX: 07
	State	0000 0111	

Bit	Setting item	Setting value		Description
		0	1	
5-0	Setting printing area for ADF front side leading edge 2 (B). Set so that the total with the value in mode 312 bit [5-0] becomes 80mm or under.	000000		0 mm
		:		
		000111		7 mm
		:		
		111111		63 mm

Mode	Default value		
314	Bit	7654 3210	HEX: 21
	State	0010 0001	

Bit	Setting item	Setting value		Description
		0	1	
6-0	Setting printing area for ADF front side posterior end 1 (C). Set so that the value is the same as that in mode 315 bit [6-0] or over.	0000000		0 mm
		0000001		1 mm
		:		
		0100001		33 mm
		:		
		1000010		66 mm
		others		Not available

Mode	Default value		
315	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
6-0	Setting printing area for ADF front side posterior end 2 (D). Set so that the value is the same as that on mode 314 bit [6-0] or under.	0000000		0 mm
		0000001		1 mm
		:		
		1000010		66 mm
		others		Not available

Mode	Default value		
316	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	ACS parameter setting for ADF front side leading edge (2).	00		Parameter for center (closer to the full color)
		01		Parameter 1 closer to black
		10		Parameter 2 closer to black
		11		Parameter 3 closer to black (closer to black)

Mode	Default value		
317	Bit	7654 3210	HEX: 10
	State	0001 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	ACS parameter setting for ADF front side posterior end (3).	0000		Parameter for specifically detecting red (vermillion seal)
		0001		Parameter for specifically detecting bright red and blue
		0010		Parameter for specifically detecting green
		0011		Parameter for specifically detecting blue
		0100		Parameter for specifically detecting cyan
		0101		Parameter for specifically detecting magenta
		0110		Parameter for specifically detecting yellow
		0111		Parameter for center (closer to the full color)
		1000		Parameter 1 closer to black
		1001		Parameter 2 closer to black
		1010		Parameter 3 closer to black (closer to black)
		others		Not available

Mode	Default value		
318	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	ACS parameter setting for ADF front face center (1).	00		Parameter for center (closer to the full color)
		01		Parameter 1 closer to black
		10		Parameter 2 closer to black
		11		Parameter 3 closer to black (closer to black)

Mode	Default value		
319	Bit	7654 3210	HEX: 20
	State	0010 0000	

Bit	Setting item	Setting value		Description
		0	1	
5-0	Setting printing area for ADF back side leading edge 1 (A). Set so that the total of the value with mode 320 bit [5-0] becomes 80mm or under.	000000		0 mm
		000001		1 mm
		:		
		100000		32 mm
		:		
		111111		63 mm

Mode	Default value		
320	Bit	7654 3210	HEX: 07
	State	0000 0111	

Bit	Setting item	Setting value		Description
		0	1	
5-0	Setting printing area for ADF back side leading edge 2 (B). Set so that the total of the value with mode 312 bit [5-0] becomes 80mm or under.	000000		0 mm
		:		
		000111		7 mm
		:		
		111111		63 mm

Mode	Default value		
321	Bit	7654 3210	HEX: 21
	State	0010 0001	

Bit	Setting item	Setting value		Description
		0	1	
6-0	Setting printing area for ADF back side posterior end 1 (C). Set so that the value is same as that of mode 322 bit [6-0] or over.	0000000		0 mm
		0000001		1 mm
		:		
		0100001		33 mm
		:		
		1000010		66 mm
		others		Not available

Mode	Default value		
322	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
6-0	Setting printing area for ADF back side posterior end 2 (D). Set so that the value is less than that on mode 321 bit [6-0].	0000000		0 mm
		0000001		1 mm
		:		
		1000010		66 mm
		others		Not available

Mode	Default value		
323	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	ACS parameter setting for ADF back side leading edge (2).	00		Parameter for center (closer to the full color)
		01		Parameter 1 closer to black
		10		Parameter 2 closer to black
		11		Parameter 3 closer to black (closer to black)

Mode	Default value		
324	Bit	7654 3210	HEX: 10
	State	0001 0000	

Bit	Setting item	Setting value		Description	
		0	1		
7-4	ACS parameter setting for ADF back side posterior end (3).	0000		Parameter for specifically detecting red (vermilion seal)	
		0001		Parameter for specifically detecting bright red and blue	
		0010		Parameter for specifically detecting green	
		0011		Parameter for specifically detecting blue	
		0100		Parameter for specifically detecting cyan	
		0101		Parameter for specifically detecting magenta	
		0110		Parameter for specifically detecting yellow	
		0111		Parameter for center (closer to the full color)	
		1000		Parameter 1 closer to black	
		1001		Parameter 2 closer to black	
		1010		Parameter 3 closer to black (closer to black)	
		others		Not available	

Mode	Default value		
325	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	ACS parameter setting for ADF back side center (1).	00		Parameter for center (closer to the full color)
		01		Parameter 1 closer to black
		10		Parameter 2 closer to black
		11		Parameter 3 closer to black (closer to black)

Mode	Default value		
326	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	ACS parameter setting for the book scanner.	00		Parameter for center (closer to the full color)
		01		Parameter 1 closer to black
		10		Parameter 2 closer to black
		11		Parameter 3 closer to black (closer to black)

(1) Setting the software switches for ACS

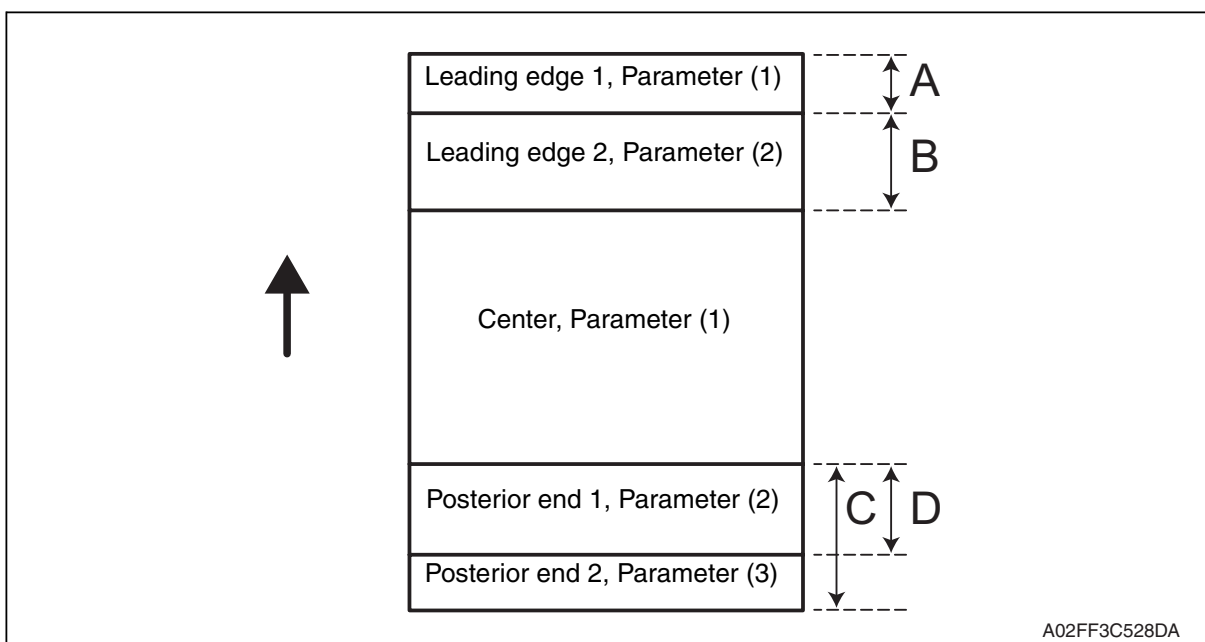
- When reading the original, misjudge in ACS mode may occur due to pitch unevenness, etc, caused by variation of reading characteristics for reading each area.
- With setting for software switch mode [312] to [336], printing area is set for each area, and the characteristic (to judge how far it is judged as black) is changed in order to prevent misjudgment.

<Definition for Area>

- With software switch mode [312] to [315], as well as [319] to [332], reading area is set. (A) to (D) which is applied to each setting item name corresponds to the area A to D shown below.

<Definition for ACS Parameter>

- With software switch mode [316] to [318] and [323] to [326], the reading characteristic parameter for each reading area is set.
- (1) to (3) applied to each setting item name corresponds to the area (1) to (3) shown below.



Mode	Default value		
327	Bit	7654 3210	HEX: 64
	State	0110 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Main scan direction size detection value (when detecting difference)	00000000	0	
		00000001	10 gradations	
		:		
		01100100	1000 gradations	
		:		
		11111010	2500 gradations	
		others	Not available	

Mode	Default value		
328	Bit	7654 3210	HEX: 03
	State	0000 0011	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Wait time from when lamp lights until main scan direction size detection starts	00000000	0	
		00000001	10 msec	
		:		
		00000011	30 msec	
		:		
		01011010	90 msec	
		others	Not available	

Mode	Default value		
329	Bit	7654 3210	HEX: 19
	State	0001 1001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Set main scan direction size detection value (for edge) for book scanner document size detection adjustment	00000000	0	
		00000001	1 gradation	
		:		
		00011001	19 gradations	
		:		
		11111111	255 gradations	

Mode	Default value		
330	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Wait time from when cover is closed until main scan direction size detection starts	00000000	0	
		00000001	200 msec	
		00000010	400 msec	
		00000011	800 msec	
		others	Not available	

Mode	Default value		
331	Bit	7654 3210	HEX: 60
	State	0110 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-0	To prevent mis-detection: Minimum value for scanning when closing cover	00000000	0	
		00000001	1 gradation	
		:		
		01100000	96 gradations	
		:		
		11111111	255 gradations	

Mode	Default value		
332	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-0	To prevent mis-detection: Maximum value for scanning when opening cover	00000000	0	
		00000001	1 gradation	
		:		
		10000000	128 gradations	
		:		
		11111111	255 gradations	

Mode	Default value		
333	Bit	7654 3210	HEX: 1E
	State	0001 1110	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Re-shading interval (first time)	00000000	0	
		00000001	1 sec.	
		:		
		00011110	30 sec.	
		:		
		11111111	255 sec.	

Mode	Default value		
334	Bit	7654 3210	HEX: 3C
	State	0011 1100	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Re-shading interval (Since the second time)	00000000	0	
		00000001	1 sec.	
		:		
		00111100	60 sec.	
		:		
		11111111	255 sec.	

Mode	Default value		
350	Bit	7654 3210	HEX: 28
	State	0010 1000	

Bit	Setting item	Setting value		Description	
		0	1		
6	POP3 before SMTP	No	Yes		
5-4	Maximum width of document to be transmitted when the fax capability of the receiver is set to [Advanced] (Network function)	00	A4	Default value of maximum width of document to be transmitted	
		01	B4		
		10	A3		
		11	Not available		
3-2	Maximum resolution to be used when the fax capability of the receiver is set to [Advanced] (Network function)	00	200 x 200 dpi	Default value of maximum resolution to be used	
		01	400 x 400 dpi		
		10	600 x 600 dpi		
		11	Not available		

Mode	Default value		
351	Bit	7654 3210	HEX: 1C
	State	0001 1100	

Bit	Setting item	Setting value		Description
		0	1	
7	Gateway transmission (Network function)	Not allowed	Allowed	Specify allowed or not allowed for sending e-mail using gateway communications. If "Not allowed", SMTP reception is executed, however gateway transmission is not executed, and received data is printed.
6-5	Outgoing port for gateway transmission (Network function) Specify an outgoing port for fax transfer (fax transfer of received e-mail file) through gateway transmission. (valid for G3 multi-port only) [See note.]	00	G3-1	
		11	G3-2	
		others	Not available	
3	Gateway TSI	Normally not add	Normally add	

Bit	Setting item	Setting value		Description
		0	1	
2	Disable SMTP reception	Enable	Disable	Specify allowed or not allowed for SMTP reception. (for Internet fax(IP-TX), SIPFAX, Internet fax (IP relay) reception)
1	TSI information for SMTP reception Specify whether to describe the machine name (or IP address (or destination SIP-FAX number for SIP-FAX) if none) of the TSI in subject or to prioritize the IP address (or destination SIP-FAX number for SIP-FAX) when forwarding documents received by Internet FAX (IP-TX) or SIP-FAX. This setting is applied also for the priority order of display of destination name information of the RX activity report for Internet FAX (IP-TX) reception, SIP-FAX reception, and IP relay reception.	Machine name priority	IIP address priority	

NOTE

- For actually calling ports G3-1 and G3-2, see “Select PSTN port automatically (MODE 043 Bit 1)”.

Mode	Default value		
352	Bit	7654 3210	HEX: D0
	State	1101 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Notification of result (Network function)	No	Yes	Specify whether a communication error message is returned to the sender when a communication error occurs with code E6xxxx when e-mail is received.
6	Position for adding Gateway TSI	Outside of document	Inside of document	Specify where to add the TSI when forwarding through gateway transmission (IP relay).
5	Specify whether to add TSI when forwarding	Not add	Add	Specify whether to add TSI when forwarding received documents.
4	Position for adding TSI when forwarding	Outside of document	Inside of document	Select where to add the TSI when forwarding received documents.

Mode	Default value		
353	Bit	7654 3210	
	State	1000 0000 (for Europe) 1000 1000 (for U.S)	HEX: 80 (for Europe) HEX: 88 (for U.S)

Bit	Setting item	Setting value		Description
		0	1	
7	Text insertion into document to send (Network function)	No	Yes	Specify whether to insert a preset text message at the head of a stored document image to be transmitted by e-mail. (not available for Scan to e-mail)
6	Header printing on received document (Network function)	No	Yes	Specify whether to print a header on documents received via e-mail.
4	Insert arbitrary text message	No	Yes	
3	Display arbitrary text message screen	No	Yes	

Mode	Default value		
354	Bit	7654 3210	
	State	0110 0000 (for Europe) 0011 1000 (for U.S)	HEX: 60 (for Europe) HEX: 38 (for U.S)

Bit	Setting item	Setting value		Description
		0	1	
7-2	Time zone settings: Set time zone for the date field of transmitted E-mail header (Network function)	000000	GMT-12:00 (-1200)	
		000001	GMT-11:30 (-1130)	
		:		
		011000	GMT	
		:		
		101010	GMT+09:00 (+0900)	
		:		
		101111	GMT+11:30 (+1130)	
		110000	GMT+12:00 (+1200)	
		110001	GMT+12:30 (+1230)	
		110010	GMT+13:00 (+1300)	
	others	Not available		

Mode	Default value		
355	Bit	7654 3210	HEX: 30
	State	0011 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	Switch 10M and 100M: Select communication rate of LAN adaptor (Network function)	00		Autonegotiation
		01		Set to 100M
		10		Set to 10M
		11		Not available
5	Switch full-duplex and half-duplex: Select packet transmit/receive when connecting to switching hub. (Network function)	Full-duplex	Half-duplex	This switch is valid when MODE 355 Bit 7 to 6 is set to "Set to 100M" or "Set to 10M." • Full-duplex: Packets can be sent and received simultaneously. • Half-duplex: Packets can be sent or received separately. Valid after the power is turned off and on.
4	Automatically obtain IP address (DHCP)	No	Yes	

Mode	Default value		
356	Bit	7654 3210	HEX: 20
	State	0010 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	SMTP transmission timeout (Network function) * Valid after turning main power off and turning it on again.	0001		30 sec.
		0010		60 sec.
		0011		90 sec.
		0100		120 sec.
		0101		150 sec.
		0110		180 sec.
		0111		210 sec.
		1000		240 sec.
		1001		270 sec.
		1010		300 sec.

Mode	Default value		
357	Bit	7654 3210	HEX: A0
	State	1010 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	SMTP transmission timeout (Network function) * Valid after turning main power off and turning it on again.	0001		30 sec.
		0010		60 sec.
		0011		90 sec.
		0100		120 sec.
		0101		150 sec.
		0110		180 sec.
		0111		210 sec.
		1000		240 sec.
		1001		270 sec.
		1010		300 sec.

Mode	Default value		
358	Bit	7654 3210	HEX: 20
	State	0010 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	POP3 receive timeout (Network function) * Valid after turning main power off and turning it on again.	0001		30 sec.
		0010		60 sec.
		0011		90 sec.
		0100		120 sec.
		0101		150 sec.
		0110		180 sec.
		0111		210 sec.
		1000		240 sec.
		1001		270 sec.
		1010		300 sec.

Mode	Default value		
359	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Number of times to retry when forwarding received documents (Network function) This function is available for only PC (e-mail), PC (scanner), and Internet FAX (IP-TX) communication modes when forwarding. When this switch is set to "Additional retry", retry e-mail transmission according to MODE 370, 371 after retrying the number of times specified by the user.	Normal	Additional retry	
6-4	Scanner mode Transmission coding system when specifying extension (TIFF)	000	MH	Specifies the default for the coding system at the time of scanner transmission.
		001	MR	
		010	MMR	
		011	JBIG	
		others	Not available	
0	Forced priority transmission (Network function)	OFF	ON	Specify whether to forcibly perform priority transmission for awaiting documents.

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Adjustment / Setting

Mode	Default value		
360	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	E-mail reception (Network function)	Prohibited	Permitted	Select either [Prohibited] or [Permitted] for E-mail reception (SMTP/POP3).
6-4	Coding method for the receiver internet fax capability (Network function, mail mode)	000		MH
		001		MR
		010		MMR
		others		Not available

Mode	Default value		
361	Bit	7654 3210	HEX: F8
	State	1111 1000	

Bit	Setting item	Setting value		Description
		0	1	
0	DNS function	Not available	Available	Sets valid/invalid of DNS function.

Mode	Default value		
362	Bit	7654 3210	HEX: 8A
	State	1000 1010	

Bit	Setting item	Setting value		Description
		0	1	
5-1	Intervals for calling during network communication Applicable communication mode is PC (e-mail), one-touch document scan, IP address fax, internet fax, and IP relay (forwarding command).	00000	Not available	It is for network communication. Only the interval between the end of a communication and the end of the following communication is shortened.
		00001	1 sec.	
		:		
		00101	5 sec.	
		:		
		01010	10 sec.	
	others	Not available		

Mode	Default value		
363	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
6	SMTP expansion prohibited (Network function)	Permitted	Prohibited	Select either "Permitted" or "Prohibited" for SMTP expansion protocol. Valid after the power is turned off and on.
5	Specify From address for DSN report transmission (Network function)	Address specified	Address not specified	Chain mail can be prevented by specifying an address for DSN report on some systems.

Mode	Default value		
364	Bit	7654 3210	HEX: 05
	State	0000 0101	

Bit	Setting item	Setting value		Description
		0	1	
5-0	POP before SMTP duration	000000	0	
		000001	1 sec.	
		:		
		000101	5 sec.	
		:		
		111100	60 sec.	

Mode	Default value		
366	Bit	7654 3210	HEX: 08
	State	0000 1000	

Bit	Setting item	Setting value		Description
		0	1	
6	Priority address input screen for preset scan	IP address input screen	Domain name input screen	
5	Anonymous E-mail counter measure	Enable	Disable	
4	Limit the number of characters to be used for E-mail file name	No	Yes	
3	Number of digits of the year of a file name	Last 2 digits	4 digits	

Mode	Default value		
367	Bit	7654 3210	HEX: 20
	State	0010 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	DNS inquiry timeout	00001	20 sec.	
		00010	40 sec.	
		00011	80 sec.	
		00100	160 sec.	
		00101	320 sec.	
		00110	640 sec.	
		others	Not available	

Mode	Default value		
368	Bit	7654 3210	HEX: 82
	State	1000 0010	

Bit	Setting item	Setting value		Description
		0	1	
7	Communication management report CSV output	Not out-put	Output	
1	Communication log (TX) for scanner transmission	Not print	Print	Sets whether to print logs in TX report, activity report.
0	Result of communication received from an IP Relay sending fax	Not print	Print	

Mode	Default value		
370	Bit	7654 3210	HEX: FF
	State	1111 1111	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Additional number of times to retry transmission (Network function) Specify additional retrial times after retrying the number of times specified by the user. "0" indicates no additional retrial following the current number of times specified by the user.	0000 0000	0	
		0000 0001	1	
		:		
		1111 1111	255	

Mode	Default value		
371	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-5	Retry interval for "additional number of times to retry transmission" (Network function)	000	10 min.	
		001	15 min.	
		010	20 min.	
		011	25 min.	
		100	30 min.	
		others	Not available	
1	Binary division	No	Yes	Sets Yes/No for binary division during scan to e-mail.
0	Page division	No	Yes	Sets Yes/No for page division during Internet fax (e-mail), scan to e-mail.

Mode	Default value		
372	Bit	7654 3210	HEX: 0F
	State	0000 1111	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Specify transmission interval of size-divided e-mail file data	0000 0000		Not available
		0000 0001		1 sec.
		:		
		0000 1111		15 sec.
		:		
		1111 1111		255 sec.

Mode	Default value		
373	Bit	7654 3210	HEX: 08
	State	0000 1000	

Bit	Setting item	Setting value		Description
		0	1	
7	Full-mode function *: When sending internet fax, it requests MDN/DSN in order to receive notice on communication result and receiving ability (paper size, resolution, encoding, etc.).	Not available	Available	Sets whether to use full-mode function* or not.
6	Output of MDN/DSN text	No	Yes	Sets whether to add the mail message on MDN/DSN response report to be output or not when receiving it.
3-0	Wait time for MDN response	0000		0 min.
		0001		5 min.
		0010		10 min.
		0011		15 min.
		0100		20 min.
		0101		30 min.
		0110		50 min.
		1000		1 hour
		1001		2 hours
		1010		3 hours
		1011		4 hours
		1100		5 hours
1101		6 hours		
1110		7 hours		
1111		8 hours		
				When sending an internet fax including a result notification request (MDN request), sets the time to wait for the result notification (MDN) to be returned from the machine receiving the request. Set this to 0 min when immediately outputting a TX report.

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Mode	Default value		
374	Bit	7654 3210	HEX: 50
	State	0101 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	NOTIFY (SUCCESS)	Not send	Send	Used when the mail server processed normally.
6	NOTIFY (FAILURE)	Not send	Send	Used when the mail server detected an error. Specifies DSN return transmission.
5	NOTIFY (DELAY)	Not send	Send	Used when the mail server cannot process immediately after receiving mail file. Specifies DSN return transmission.
4	Response to MDN request when receiving SMTP data	Response	No response	Sets whether to return MDN to the e-mail received with MDN request.

Mode	Default value		
379	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
3-2	Specify position for cutting off data when forwarding received documents Specify position for cutting off data for the main scan size from the original size to sending size when forwarding received documents.	00		Center
		01		Left side
		10		Not available
		11		Right side
1-0	Specify image editing when forwarding Specify whether to set the main scan width of received data to regular width or leave the stored data width as is when forwarding received documents.	00		Edit to regular size and forward
		01		Forward stored data as is
		others		Not available

Adjustment / Setting

Mode	Default value		
380	Bit	7654 3210	HEX: 3A
	State	0011 1010	

Bit	Setting item	Setting value		Description
		0	1	
7	Enable APOP authentication function	Not enable	Enable	Specify whether to enable the APOP function.
6	Enable SMTP authentication function	Not enable	Enable	Specify whether to enable the SMTP authentication function. (*1)
5	SMTP authentication: Allow CRAMMD5 authentication function	Allowed	Not allowed	Specify whether to enable the CRAM-MD5 authentication function for SMTP authentication. (*2)
4	SMTP authentication: Allow LOGIN authentication function	Allowed	Not allowed	Specify whether to enable the LOGIN authentication function for SMTP authentication. (*2)
3	SMTP authentication: Allow PLAIN authentication function	Allowed	Not allowed	Specify whether to enable the PLAIN authentication function for SMTP authentication. (*2)
2	Separate SMTP authentication ID/password and POP3 information	Not separate	Separate	Specify whether to share the SMTP authentication ID/password with POP3 information.
0	Set to use SSL/TLS with HTTP	Not use	Use	Set whether to use SSL/TLS with HTTP.

NOTE

(*1) The SMTP authentication function is valid under the following conditions.

- **MODE 380 Bit 6 is set to “1.”**
- **When the SMTP authentication user name and SMTP authentication password share the POP3 user name and POP3 password, and MODE 380 Bit 2 is set to “0.” When the SMTP authentication user name and SMTP authentication password do not share the POP3 user name and POP3 password, MODE 380 Bit 2 is set to “1”, and “SMTP AUTH User Name” and “SMTP AUTH Password” are set in Network Settings.**
- **MODE 380 Bit 5, 4, or 3 is set to “0.”**

(*2) When all mail authentication functions are validated (MODE 380 Bits 5, 4, and 3 all are set to “0”), they are prioritized in the order “CRAM-MD5 authentication (Bit 5)” → “LOGIN authentication (Bit 4)” → “PLAIN authentication (Bit 3).”

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Mode	Default value		
381	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Use IP relay function	Disable	Enable	
2-0	Set transmission coding method for IP relay/ internet fax (IP-TX)/SIP-FAX transmission	000		MH
		001		MR
		010		MMR
		others		Not available

Mode	Default value		
382	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description	
		0	1		
7	IP Relay Process result timeout	Communication error	Communication completed	Specify the communication result when a timeout occurs for IP relay result waiting (sending machine).	
6-3	IP relay set result timeout	0000		0 min.	Specify the period of a timeout of IP relay result waiting (sending machine).
		0001		5 min.	
		0010		10 min.	
		0011		15 min.	
		0100		20 min.	
		0101		30 min.	
		0110		40 min.	
		0111		50 min.	
		1000		1 hour	
		1001		2 hours	
		1010		3 hours	
		1011		4 hours	
		1100		5 hours	
1101		6 hours			
1110		7 hours			
1111		8 hours			

Adjustment / Setting

Bit	Setting item	Setting value		Description
		0	1	
2-0	Set default relay station for IP relay Set the default relay sending machine for IP relay (sending machine).	000		Relay station 1
		001		Relay station 2
		010		Relay station 3
		011		Relay station 4
		100		Relay station 5
		101		Relay station 6
		110		Relay station 7
		111		Relay station 8

Mode	Default value		
383	Bit	7654 3210	HEX: 38
	State	0011 1000	

Bit	Setting item	Setting value		Description
		0	1	
6	Mail RX authentication (SMTP).	Disable	Enable	(*1)
5	Restrict mail authentication (CRAM-MD5).	No	Yes	(*2)
4	Restrict mail authentication (LOGIN).	No	Yes	(*2)
3	Restrict mail authentication (PLAIN).	No	Yes	(*2)

NOTE

(*1) SMTP authentication is valid when the following conditions are met:

- MODE 383 Bit 6 is set to “1.”
- One of MODE 383 Bit 5, 4, 3 is set to “0.”

(*2) When all the mail authentications are enabled (Bit 5 to 3 are all “0”), priority is set as CRAM-MD5 (Bit 5) → LOGIN (Bit 4) → PLAIN (Bit 3)

Mode	Default value		
384	Bit	7654 3210	HEX: FF
	State	1111 1111	

Bit	Setting item	Setting value		Description
		0	1	
7	Set TCP/IP	Not use	Use	Specifies whether to use TCP/IP.
6	Set LPD	Not use	Use	Specifies whether to use LPD.
5	Set port (RAW port)	Not use	Use	Specifies whether to use RAW port.

Mode	Default value		
387	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
6	Set LDAP	Not use	Use	Set whether to enable LDAP searching.
5-3	Select default LDAP server Specify the default server for LDAP searching.	000		LDAP server 1
		001		LDAP server 2
		010		LDAP server 3
		011		LDAP server 4
		100		LDAP server 5
		others		Not available

Mode	Default value		
388	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
6	Select ethernet frame type	000		Auto detection
		001		Ethernet-II
		010		802.2
		011		802.3
		100		802.2SNAP
		others		Not available

Mode	Default value		
389	Bit	7654 3210	HEX: 0C
	State	0000 1100	

Bit	Setting item	Setting value		Description
		0	1	
5-4	Specify coding format Selects the coding method for SSL/TLS.	00		3DES_168bits/RC4_128 bits/DES_56 bits or RC4_40 bits
		01		RC4_128 bits/DES_56 bits or RC4_40 bits
		10		DES_56 bits or RC4_40 bits
		11		Not available
3	Enable Write function	Disable	Enable	Specifies whether to enable the Write function.
2	Enable Discovery User	Disable	Enable	Specifies whether to enable Discovery User.

Mode	Default value		
390	Bit	7654 3210	HEX: A4
	State	1010 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-6	Read security level Selects the security level for Read User authentication.	00		Not authenticate
		01		auth-password
		10		auth-password/priv-pass- word
		11		Not available
5-4	Write security level Selects the security level for Write User authentication.	00		Not authenticate
		01		auth-password
		10		auth-password/priv-pass- word
		11		Not available
2	PDF profile reception restriction	Disable	Enable	Sets whether to receive no Profile, or Profile 4 or later.
1-0	JPEG compression method	00		Standard compression
		01		Low compression
		10		High compression
		11		Not available

Mode	Default value		
391	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-6	File format (Full Color) Specifies the default file format for full color graphic images.	00		PDF
		01		Compact PDF
		10		JPEG
		00		Not available
5	File format (Gray Scale)	PDF	JPEG	Specifies the default file format for gray-scale graphic images.
4	File format (Black)	PDF	TIFF	Specifies the default file format for black-and-white documents.
3	PDF coding method for network PC	MH	MMR	Specifies the PDF coding for network PCs.
2	TIFF coding method for network PC	MH	MMR	Specifies the TIFF coding for network PCs.

Mode	Default value		
400	Bit	7654 3210	HEX: 10
	State	0001 0000	

Bit	Setting item	Setting value		Description	
		0	1		
6	Set priority doc mixed mode (Copy).	No	Yes	Selects priority doc mixed mode when power source is turned ON and panel reset key is ON.	
5-3	Priority auto color level	000		1	Sets the level for distinguishing color documents and mono-chrome documents.
		001		2	
		010		3	
		011		4	
		100		5	
		others		Not available	
2-0	Priority color	000		Auto color	Specifies the default color value for copying.
		001		Full color	
		010		Mono-chrome	
		011		1 color	
		100		Single color	
		others		Not available	

Mode	Default value		
401	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description	
		0	1		
7-5	2 colors	000		Red	Sets the default setting for two colors.
		001		Yellow	
		010		Green	
		011		Blue	
		100		Magenta	
		101		Cyan	
		others		Not available	
4-0	1 color	00000		Red	Sets the default setting for mono-color.
		00001		Emerald	
		00010		Blue	
		00011		Vermilion	
		00100		Green	
		00101		Violet	
		00110		Orange	
		00111		Yellow green	
		01000		Purple	
		01001		Camel	
		01010		Moss-green	
		01011		Wine red	
		01100		Brown	
		01101		Marine blue	
		01110		Pink	
		01111		Yellow	
		10000		Cyan	
		10001		Magenta	
		10010		Copper red	
		10011		Sepia 1	
10100		Sepia 2			
others		Not available			

Mode	Default value		
402	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
7	Average density (Copy) Relative luminosity • Difference of the color on original (visual difference) and the gray level are shown as monochromic density when copied. It can clearly copy the color of the marker, blue lines on graph paper, and red seals. Average density • Only gradation level is shown as monochromic density when copied regardless of the color on the original. It is useful when using monochromic color for magazine, newspaper, etc, which are printed with tones, or when removing the yellowing on the original.	Disable	Enable	Specifies average density / Relative luminous efficiency function.
6-5	Priority copy mode (Copy)	00		Simplex → Simplex
		01		Simplex → Duplex
		10		Duplex → Simplex
		11		Duplex → Duplex
4-3	Priority auto mode (Copy)	00		APS
		01		AMS
		10		Not available
		11		Manual
2	Primary application	Copying	Printing	Specifies the primary use of the machine.
1	Neg./Pos. reverse	Disable	Enable	Specifies the default value for Neg./Pos. reverse.

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Adjustment / Setting

Mode	Default value		
403	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Auto zoom for combine (Copy) Specifies either arbitrary or fixed magnification for printing options, "2 in 1", "4 in 1", and "2 in 1 two-page separation."	Arbitrary ratio	Fixed ratio	
2	Sorting (Copy)	Disable	Enable	
1	Auto cassette switching (Copy)	Disable	Enable	
0	Use copy function	Enable	Disable	Enables/Disables copy function.

Mode	Default value		
404	Bit	7654 3210	HEX: 4C
	State	0100 1100	

Bit	Setting item	Setting value		Description
		0	1	
7-5	Auto background adjustment (AE mode)	000	1 (Light)	
		001	2	
		010	3 (Standard)	
		011	4	
		100	5 (Dark)	
		others	Not available	
		others	Not available	
4-1	Manual background adjustment	0000	-6 (Light)	
		:		
		0110	0 (Standard)	
		:		
		1000	+2 (Dark)	
		1001	Auto	
		others	Not available	
0	Glossy copying	Enable	Disable	Enables/Disables glossy copy function.

Mode	Default value		
405	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	Character reproduction	0000		-4 (Lighter text)
		:		
		0100		0 (Standard)
		:		
		1000		+4 (Darker text)
		others		Not available

Mode	Default value		
408	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description	
		0	1		
7-4	Select feeder tray. (Paper)	0000		1st tray	Selects the priority feeder tray used when APS (auto paper select mode) or manual mode is selected.
		0001		2nd tray	
		0010		3rd tray	
		0011		4th tray	
		1010		Bypass tray	
		others		Not available	

Mode	Default value		
409	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
7	Priority 4in1 page order (Copy)	Horizontal	Vertical	Sets the layout order of four pages printed on one sheet of paper.
6	2in1/4in1 Copy	Disable	Enable	Enables/Disables to copy multiple pages onto one sheet of paper.
5	2in1/4in1 Copy type	2in1	4in1	Specifies either "2 in 1" or "4 in 1" when the above feature is enabled.
4-2	Priority document quality (Copy)	000		Text
		001		Text/Photo
		010		Photo
		011		Map
		100		Dot Matrix
		others		Not available
0	No matching paper in tray (Copy)	Tray Fixed	Tray Priority	Sets whether to switch paper trays when there is no matching paper in the specified paper tray.

Mode	Default value		
412	Bit	7654 3210	HEX: 08
	State	0000 1000	

Bit	Setting item	Setting value		Description
		0	1	
7	Select auto sort mode. (Copy)	Group	Sort	
3	Select sort on/off auto switch. (Copy)	No	Yes	Determines whether to switch "sort on → sort off" or "sort off → sort on" according to # of documents or the operation.

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Mode	Default value		
413	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Copy density	00000		-9 (Lighter)
		:		
		01001		0 (Standard)
		:		
		10010		+9 (Darker)
		others		Not available

Mode	Default value		
417	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Restrict # of sheets of paper. (Copy)	No	Yes	Specifies whether to restrict # of copies.

Mode	Default value		
424	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
3	Print small size document. (Copy) Specifies whether to generate a warning when a document smaller than that detectable by document size sensors is loaded.	No	Yes	

Adjustment / Setting

Mode	Default value		
425	Bit	7654 3210	HEX: 10
	State	0001 0000	

Bit	Setting item	Setting value		Description
		0	1	
6-4	Select FLS size. (Copy)	000		210 x 330
		001		203 x 330
		010		216 x 330
		011		220 x 330
		100		206 x 337
		others		Not available

Mode	Default value		
427	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Brightness for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
428	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Contrast for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
429	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Saturation for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
430	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Red color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
431	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Green color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
432	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Blue color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
	others	Not available		

Mode	Default value		
433	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Yellow color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
	others	Not available		

Mode	Default value		
434	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Magenta color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
	others	Not available		

Mode	Default value		
435	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Cyan color for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
436	Bit	7654 3210	HEX: 48
	State	0100 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-3	Black for color quality adjustment	00000		-3 (-9)
		:		
		01001		0
		:		
		10010		+3 (+9)
		others		Not available

Mode	Default value		
437	Bit	7654 3210	HEX: 60
	State	0110 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-5	Sharpness for color quality adjustment	000		-3
		:		
		011		0
		:		
		110		+3
		others		Not available

Mode	Default value		
440	Bit	7654 3210	
	State	0000 0001 (for Europe) 0000 1011 (for U.S)	HEX: 01 (for Europe) HEX: 0B (for U.S)

Bit	Setting item	Setting value		Description
		0	1	
7-6	Set PCL (PC Printer)	00		Auto
		01		PCL
		10		PS
		11		Others
5-0	Set paper size (PC Printer)	000000		A3
		000001		A4
		000010		A5
		000011		A6
		000100		B4
		000101		B5
		000110		B6
		000111		12 x 18
		001000		12 1/4 x 18
		001001		11 x 17
		001010		8 1/2 x 14
		001011		8 1/2 x 11
		001100		8 x 13
		001101		8 1/2 x 13
		001110		8 1/4 x 13
		001111		8 1/8 x 13 1/4
		010000		7 1/4 x 10 1/2
		010001		5 1/2 x 8 1/2
		010010		220 x 330
		010011		8K
		010100		16K
		010101		Envelope B5
		010110		Envelope C5
		010111		Envelope DL
011000		Monarch Envelope		
011001		Commercial #10		
011010		J-POST (Hagaki)		
011011		4 x 6 Postcard		
011100		A3 Wide		
011101		A4 Wide		
011110		A5 Wide		

Bit	Setting item	Setting value		Description
		0	1	
5-0	Set paper size (PC Printer)	011111		B4 Wide
		100000		B5 Wide
		100001		11 x 17 Wide
		100010		8 1/2 x 11 Wide
		100011		5 1/2 x 8 1/2 Wide
		others		Not available

Mode	Default value		
441	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-4	Select a paper feeder cassette (PC printer function)	0000		1st cassette
		0001		2nd cassette
		0010		3rd cassette
		0011		4th cassette
		1000		Auto
		1010		Bypass
		1100		LCT
		others		Not available
3-2	Select a paper orientation (PC printer function)	00		Portrait
		01		Landscape
		others		Not available

Mode	Default value		
442	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select # (last 8 bits) of copies (PC printer) Specify the number with bits 1-0 of Mode 443 and bits 7-0 of Mode 442.	0000 0000		Not available
		0000 0001		1
		:		
		1110 0111		999
		:		
		1111 1111		

Mode	Default value		
443	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Set print method (Duplex/Simplex) (PC Printer)	Simplex	Duplex	
6-5	Set print method (binding direction) (PC Printer)	00		Top binding
		01		Left binding
		10		Right binding
		11		Not available
1-0	Select # (first 2 bits) of copies (PC printer)	00		1
		:		
		11		999

Mode	Default value		
444	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-1	Select a font # (PC printer function) Set font size when it is not specified for PCL printing.	0000000		Courier
		0000001		CG Times
		0000010		CG Times Bold
		0000011		CG Times Italic
		0000100		CG Times Bold Italic
		0000101		CG Omega
		0000110		CG Omega Bold
		0000111		CG Omega Italic
		0001000		CG Omega Bold Italic
		0001001		Coronet
		0001010		Clarendon Condensed
		0001011		Univers Medium
		0001100		Univers Bold
		0001101		Univers Medium Italic
		0001110		Univers Bold Italic
		0001111		Univers Condensed Medium
0010000		Univers Condensed Bold		
0010001		Univers Condensed Medium Italic		
0010010		Univers Condensed Bold Italic		

Bit	Setting item	Setting value		Description
		0	1	
7-1	Select a font # (PC printer function) Set font size when it is not specified for PCL printing.	0010011		Antique Olive
		0010100		Antique Olive Bold
		0010101		Antique Olive Italic
		0010110		Garamond Antiqua
		0010111		Garamond Halbfett
		0011000		Garamond Kursiv
		0011001		Garamond Kursiv Halbfett
		0011010		Marigold
		0011011		Albertus Medium
		0011100		Albertus Extra Bold
		0011101		Arial
		0011110		Arial Bold
		0011111		Arial Italic
		0100000		Arial Bold Italic
		0100001		Times New Roman
		0100010		Times New Roman Bold
		0100011		Times New Roman Italic
		0100100		Times New Roman Bold Italic
		0100101		Helvetica
		0100110		Helvetica Bold
		0100111		Helvetica Oblique
		0101000		Helvetica Bold Oblique
		0101001		Helvetica Narrow
		0101010		Helvetica Narrow Bold
		0101011		Helvetica Narrow Oblique
		0101100		Helvetica Narrow Bold Oblique
		0101101		Palatino Roman
		0101110		Palatino Bold
		0101111		Palatino Italic
		0110000		Palatino Bold Italic
		0110001		ITC Avant Garde Gothic Book
		0110010		ITC Avant Garde Gothic Demi
0110011		ITC Avant Garde Gothic Book Oblique		
0110100		ITC Avant Garde Gothic Demi Oblique		
0110101		ITC Bookman Light		
0110110		ITC Bookman Demi		
0110111		ITC Bookman Light Italic		

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Bit	Setting item	Setting value		Description
		0	1	
7-1	Select a font # (PC printer function) Set font size when it is not specified for PCL printing.	0111000		ITC Bookman Demi Italic
		0111001		New Century Schoolbook Roman
		0111010		New Century Schoolbook Bold
		0111011		New Century Schoolbook Italic
		0111100		New Century Schoolbook Bold Italic
		0111101		Times Roman
		0111110		Times Bold
		0111111		Times Italic
		1000000		Times Bold Italic
		1000001		ITC Zapf Chancery
		1000010		Symbol
		1000011		SymbolPS
		1000100		Wingdings
		1000101		ITC Zapf Dingbats
		1000110		Courier Bold
		1000111		Courier Italic
		1001000		Courier Bold Italic
		1001001		Letter Gothic
		1001010		Letter Gothic Bold
		1001011		Letter Gothic Italic
1001100		CourierPS		
1001101		CourierPS Bold		
1001110		CourierPS Oblique		
1001111		CourierPS Bold Oblique		
1010000		Line Printer		
others		Not available		

Mode	Default value		
445	Bit	7654 3210	
	State	0100 1100 (for Europe) 0111 1000 (for U.S)	HEX: 4C (for Europe) HEX: 78 (For U.S)

Bit	Setting item	Setting value		Description
		0	1	
7-2	Select a font symbol set (PC Printer)	000000		DESKTOP
	Set font symbol set when it is not specified for PCL printing.	000001		ISO4
		000010		ISO6
		000011		ISO11
		000100		ISO15
		000101		ISO17
		000110		ISO21
		000111		ISO60
		001000		ISO69
		001001		ISOL1
		001010		ISOL2
		001011		ISOL5
		001100		ISOL6
		001101		ISOL9
		001110		LEGAL
		001111		MATH8
		010000		MCTEXT
		010001		MSPUBL
		010010		PC775
		010011		PC8
		010100		PC850
		010101		PC852
		010110		PC858
		010111		PC866
		011000		PC8TK
		011001		PC8DN
		011010		PC1004
		011011		PIFONT
		011100		PSMATH
		011101		PSTEXT
011110		ROMAN8		
011111		WIN30		
100000		WINBALT		
100001		WINL1		
100010		WINL2		
100011		WINL5		
100100		VNINTL		

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Bit	Setting item	Setting value		Description
		0	1	
7-2	Select a font symbol set (PC Printer) Set font symbol set when it is not specified for PCL printing.	100101		VNMATH
		100110		VNUS
		100111		WIN31J
		101000		Greek-8
		101001		PC-8 Greek
		101010		PC-851 Latin/Greek
		101011		ISO8859/7 Latin/Greek
		101100		Windows Latin/Greek
		101101		CP-862 Latin/Hebrew
		101110		HP Hebrew-7
		101111		HP Hebrew-8
		110000		ISO8859/8 Latin/Hebrew
		others		Not available

Mode	Default value		
446	Bit	7654 3210	HEX: 40 (for Europe) HEX: 3C (For U.S)
	State	0100 0000 (for Europe) 0011 1100 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select # of lines (PC printer function)	0000 0101		5
		:		
		0100 0000		64
		:		
		1000 0000		128
others		Not available		

Mode	Default value		
447	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Select the unit of font size (PC printer function)	Pitch	Point	Specifies the default font-size unit for printing in PCL mode.

Mode	Default value		
448	Bit	7654 3210	HEX: 30
	State	0011 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select font size (Scalable font size) (Last 8 bits) (PC printer function) Set font size when it is not specified for PCL printing. (Scalable font) Specify the font size together with Mode 449 bits 3-0. (Least significant 8 bits) Size cannot be set larger than 999.75 (3999).	0000 0000		
		0001 0000		4.00 (16)
		:		
		0011 0000		12.00 (48)
		:		
		1111 1111		

Mode	Default value		
449	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
3-0	Select a font size (Scalable font size) (First 4 bits) (PC printer function) Set font size when it is not specified for PCL printing. (Scalable font) Specify the font size together with Mode 448 bits 7-0. (Most significant 4 bits) Size cannot be set larger than 999.75 (3999).	0000		
		:		
		1111		999.75 (3999)

Mode	Default value		
450	Bit	7654 3210	HEX: E8
	State	1110 1000	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select font size (Bitmap font size) (Last 8 bits) (PC printer function) Set font size when it is not specified for PCL printing. (Bitmap font) Specify the font size together with Mode 451. (Least significant 8 bits) Size cannot be set larger than 99.00 (9900).	0000 0000		
		0010 1100		0.44 (44)
		:		
		1110 1000		10.00 (1000)
		:		
		1010 1100		99.00 (9900)
		1111 1111		

Mode	Default value		
451	Bit	7654 3210	HEX: 03
	State	0000 0011	

Bit	Setting item	Setting value		Description
		0	1	
5-0	Select font size (Bitmap font size) (First 6 bits) (PC printer function) Set font size when it is not specified for PCL printing. (Bitmap font) Specify the font size together with Mode 450. (Most significant 6 bits) Size cannot be set larger than 99.00 (9900).	000000		
		:		
		000011	10.00 (1000)	
		:		
		100110	99.0 (9900)	

Mode	Default value		
452	Bit	7654 3210	HEX: 80
	State	1000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Change between A4 and Letter size (PC printer)	Not change	Change	Specifies whether to enable automatic switch- ing between A4 and Letter media sizes.

Mode	Default value		
453	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Set OFF or ON of PostScript error printing (PC printer function)	OFF	ON	Specify whether to print error information when an error occurs during PS printing.

Mode	Default value		
455	Bit	7654 3210	HEX: 3C
	State	0011 1100	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select timeout timer (last 8 bits) (PC printer) Specify together with Mode 456 bits 1-0. (Least significant 8 bits.) Value cannot be set larger than 1000 sec.)	0000	1010	10 sec.
		:		
		0000	1111	15 sec.
		:		
		0011	1100	60 sec.
		:		
		1111	1000	1000 sec.
others		Not available		

Mode	Default value		
456	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
1-0	Select timeout timer (first 2 bits) (PC printer) Specify together with Mode 455. (Most significant 2 bits.) Value cannot be set larger than 1000 sec.	00	0 sec	
		01	300 sec.	
		:		
		11	1000 sec.	

Mode	Default value		
457	Bit	7654 3210	HEX: 05
	State	0000 0101	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Wait time (M) at full memory of PC print (Set range: 0, 1 to 30 minutes (1-minute steps) PC print job is deleted when the wait time at full memory expires. Specifies the time that the PC printer will wait before deleting print job files from the mem- ory when it is full. The DMA transfer is tempo- rarily suspended during the time. When the waiting time is over, a message of "full memory" is announced and the spooled print job files are deleted.	0000	0000	Immediately delete
		0000	0001	1 min.
		0000	0010	2 min.
		0000	0011	3 min.
		0000	0100	4 min.
		0000	0101	5 min.
		:		
		0001	1110	30 min.
others		Not available		

Mode	Default value		
458	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
3	PC print job deletion operation If a job is disposed of when printing a PC Print job, set whether to cut off the session with the PC or to read and delete the PDL data.	Read and delete	Suspend	
2	PC-FAX job deletion operation If a job is disposed of when printing a PC-FAX job, set whether to cut off the session with the PC or to read and delete the PDL data.	Read and delete	Suspend	

Mode	Default value		
470	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Set export extension Set the export file extension for the MFP Agent export function to CSV or TXT.	TXT	CSV	
3-1	Auto logout time	000		5 min.
		001		10 min.
		010		20 min.
		011		40 min.
		100		60 min.
		others		Not available

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Mode	Default value		
471	Bit	7654 3210	HEX: 00 (for Europe) HEX: 01 (for U.S)
	State	0000 0000 (for Europe) 0000 0001 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
2-1	Set whether to display the account list screen by default	00		Not display list screen
		01		Not available
	10		Not available	
	11		Display list screen by default	
0	Display default for specifying scan range	mm	inch	

Mode	Default value		
473	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Set priority job list screen	Display by status	Display by print order	Set whether to prioritize the print order display.
6	Specify treatment of # when entering destination Specifies the use of the pound key (#). Logic 0: Not used for abbreviated dialing. Merely used as a symbol key. Logic 1: Used for abbreviated dialing.	Use as # for full dialing	Use as abbreviated dialing	

Adjustment / Setting

Mode	Default value		
476	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
5-4	Select destination screen: Displays screen of destination when document is loaded in FAX mode.	00		One-touch 1st screen
		01		Not available
		10		Not available
		11		Not available
3	Specify full-dial sending By linking with Mode 477 bit 6, you can set so that data can be sent with only pre-decided one-touch keys.	Allowed	Not allowed	
2	Set broadcast transmission Enables/Disables broadcast transmission. This option is provided to avoid unintended fax transmission.	Enable	Disable	

Mode	Default value		
477	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
6	Set fax registration restriction and destination display Fax registration /report output restriction "Administrator only": Fax registration and report output buttons move to the Admin. management menu.	Allow user	Administrator only	
5	Destination display Destination display "Display one-touch name": Display registered onetouch names for destinations specified for onetouch keys, job list, destination names of result reports, and activity report (TX). (Do not display the tel. no./address of the destination.)	Display Tel. No./Address	Display one-touch name	
1-0	Broadcast transmission setting confirmation window Specifies whether to display broadcast transmission setting confirmation window when the Start key is pressed to initiate fax transmission.	00		Not display
		01		Confirms settings at broadcast transmission
		10		Confirms settings (single destination/all destinations)
		11		Not available

Mode	Default value		
478	Bit	7654 3210	HEX: 02 (for Europe) HEX: 82 (for U.S)
	State	0000 0010 (for Europe) 1000 0010 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
6	Display when touching One-touch Specifies whether destination name or additional information (such as phone number and email address) is displayed when a one-touch button is touched.	Destina- tion infor- mation	One- touch name	
5-2	Communication mode default value Specifies the initial communication mode to which the machine is reset after each job. Some options require the use of optional components.	0000		G3-1
		0001		G3-2
		0010		Internet fax (E-mail)
		0011		Internet fax (IP-TX)
		0100		IP relay
		0101		Not available
		0110		PC Mail
		0111		Not available
		others		Not available
1	Anti-dew processing Enables/Disables dehumidifying operation from the touch panel. When this feature is disabled, neither manual nor automatic operation is available.	Disable	Enable	

Mode	Default value		
480	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
5	Select alarm buzzer pattern.	Pattern 0	Pattern 1	Specifies the alarm sound. Pattern 0: Three sets of combination tones of 2 kHz (0.5 sec) and 1 kHz (0.5 sec). Pattern 1: Three discontinuous beeps of 2 kHz (0.5 sec).

Mode	Default value		
485	Bit	7654 3210	HEX: 00 (for Europe) HEX: C0 (for U.S)
	State	0000 0000 (for Europe) 1100 0000 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
7-6	Select order of displaying year to date. (Corresponding to each region) Order of displaying date in operation panel display	00		Year-Month-Date
		01		Not available
		10		Date-month-year
		11		Month-date-year

Mode	Default value		
486	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
6	Enables/Disables summer time mode.	Disable	Enable	

Mode	Default value		
487	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
1	Set "No sleep"	No	Yes	

Mode	Default value		
488	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Auto reset Select whether to carry out auto reset if there is no operation for a certain time, after copy or other operation. Also, select its time. Every 1 min.	0000 0000		0
		0000 0001		1 min.
		:		
		1111 0000		240 min.
		:		
		1111 1111		30 sec.
		others		Not available

Mode	Default value		
489	Bit	7654 3210	HEX: 0A
	State	0000 1010	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select low power time. Select when to carry out low power if there is no operation for a certain time, after printing or other operation. Every 1 min.	0000 0000		Not available
		0000 0001		1 min.
		:		
		0000 1010		10 min.
		:		
		1111 0000		240 min.
	others		Not available	

Mode	Default value		
490	Bit	7654 3210	HEX: 14
	State	0001 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Select sleep time.	0000 0000		Disable
		0000 0001		1 min.
		0000 1111		15 min.
		0001 0100		20 min.
		0001 1110		30 min.
		1111 0000		240 min.
		others		Not available
			Select the time to wait until "Sleep" is executed.	

Mode	Default value		
491	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Set time before activating LCD Backlight Off. Select "LCD Back-light Off" period if no operation is executed for certain time after operation ends.	0000 0001		1 min.
		:		
		1111 0000		240 min.
	others		Not available	

Mode	Default value		
492	Bit	7654 3210	
	State	0110 1100	
HEX: 6C			

Bit	Setting item	Setting value		Description
		0	1	
7-5	Select sound volume 1. (Buzzer) (Key)	000		0 (No sound)
	6 stage adjustment of key buzzer	001		1
		010		2
		011		3
		100		4
		101		5
		others		Not available
4-2	Select sound volume 2. (Alarm)	000		0 (No sound)
	6 stage adjustment of key buzzer	001		1
		010		2
		011		3
		100		4
		101		5
		others		Not available

Mode	Default value		
493	Bit	7654 3210	
	State	0110 1000 (for Europe) 0110 0100 (for U.S)	
HEX: 68 (for Europe) HEX: 64 (for U.S)			

Bit	Setting item	Setting value		Description
		0	1	
7-5	Monitor sound volume	000		0 (No sound)
	6 stage adjustment of line monitor	001		1
		010		2
		011		3
		100		4
		101		5
		others		Not available
1-0	Select priority application. (after auto clear and panel reset)	00		Copy
	Selects initial screen (Copy or Fax/Scan).	01		Fax/Scan
		others		Not available

Mode	Default value		
494	Bit	7654 3210	HEX: 0C
	State	0000 1100	

Bit	Setting item	Setting value		Description
		0	1	
4-2	Sound volume setting 3 (Completion) 6 step adjustment Set the Completion sound volume.	000	0 (No sound)	
		001	1	
		010	2	
		011	3	
		100	4	
		101	5	
		others	Not available	

Mode	Default value		
500	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Increase of sound level	Normal sound level mode	Increased sound level mode	Specifies either 5-level alarm volume (standard mode) or additional higher level.

Mode	Default value		
501	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7	Invert screen Specifies either black text on white background ("normal") or white text on black background ("inverted").	Normal	Inverted	
6	Displaying next screen when using enlarge display Specifies whether to retain the display magnification in zoom mode when moving to the next screen. Logic 0: Not retain. The magnification ratio is reset to 100%. Logic 1: Retains the magnification ratio to the next screen.	Wait for specification	Display upper-left screen	

Mode	Default value		
502	Bit	7654 3210	HEX: 03
	State	0000 0011	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Key repeat delay	0000 0001		1 x 100 ms
		:		
		0000 0011		3 x 100 ms
		:		
		0001 1110		30 x 100 ms
		others		Not available

Mode	Default value		
503	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Key repeat rate	0000 0001		1 x 100 ms
		:		
		0001 1110		30 x 100 ms
		others		Not available

Mode	Default value		
504	Bit	7654 3210	HEX: 03
	State	0000 0011	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Reception complete screen display time Specifies the display time of the transmission/ copy completion message including docu- ment number and job ID. (The touch-sensitive panel provides only three options: 3, 10 and 60 sec)	0000 0000		Not disappear automati- cally
		0000 0001		1 sec.
		:		
		0000 0011		3 sec.
		:		
		1111 1111		255 sec.

Mode	Default value		
505	Bit	7654 3210	HEX: 40
	State	0100 0000	

Bit	Setting item	Setting value		Description
		0	1	
6-5	Sound level of buzzer	00		Low
		01		Normal
		10		High
		11		Not available

Mode	Default value		
506	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
7-0	Auto reset extension time Sets the period of time for the screen for checking to be displayed when reaching to the auto reset.	0000 0000		OFF
		0000 0011		30 sec.
		0000 0110		60 sec.
		0000 1001		90 sec.
		0000 1100		120 sec.
		others		Not available

Mode	Default value		
820	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-2	Language code (for display) <ul style="list-style-type: none"> Selects the language for displaying operation panel/report. 	000000		Japanese
		000001		English
		000010		German
		000011		French
		000100		Italian
		000101		Spanish
		000110		Chinese (simplified)
		000111		Korean
		001000		Taiwanese (Cantonese)
		001001		Dutch
		001010		Portuguese
		001011		Danish
		001100		Norwegian
		001101		Swedish
		001110		Finnish
		001111		Arabic
		010000		Not available
		010001		Ukrainian
		010010		Estonian
		010011		Greek
		010100		Croatian
		010101		Slovakian
		010110		Thai
		010111		Czech
		011000		Turkish
		011001		Hungarian
		011010		Polish
		011011		Not available
		011100		Latvian
		011101		Lithuanian
011110		Romanian		
011111		Russian		
100000		Slovene		
100001		Persian		
100010		Hebrew		
100011		(Reserved)		
others		Not available		

Mode	Default value		
821	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-2	Language code (for input/output) <ul style="list-style-type: none"> • Sets the language for import/export. • Internet fax, IP address fax, SIP-FAX and IP relay are switched with this language. This language code is also used for sending the file for communication administration data. 	000000		Japanese
		000001		English
		000010		German
		000011		French
		000100		Italian
		000101		Spanish
		000110		Chinese (simplified)
		000111		Korean
		001000		Taiwanese (Cantonese)
		001001		Dutch
		001010		Portuguese
		001011		Danish
		001100		Norwegian
		001101		Swedish
		001110		Finnish
		001111		Arabic
		010000		Not available
		010001		Ukrainian
		010010		Estonian
		010011		Greek
		010100		Croatian
		010101		Slovakian
		010110		Thai
		010111		Czech
		011000		Turkish
		011001		Hungarian
		011010		Polish
		011011		Not available
		011100		Latvian
		011101		Lithuanian
011110		Romanian		
011111		Russian		
100000		Slovene		
100001		Persian		
100010		Hebrew		
100011		(Reserved)		
others		Not available		

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Mode	Default value		
823	Bit	7654 3210	HEX: 04
	State	0000 0100	

Bit	Setting item	Setting value		Description
		0	1	
7-2	<p>Language code (for input)</p> <ul style="list-style-type: none"> Selects the keyboard and input letters for operation panel. Language code (for display) is linked with this switch. When changing the language code (for display), this switch should also be set to the same language. For languages other than Japanese, English, German, French, Italian, Spanish, Chinese (simplified characters), Korean, and Taiwanese (Cantonese), English is selected for their language codes (for input) since there is no keyboard for input. 	000000		Japanese
		000001		English
		000010		German
		000011		French
		000100		Italian
		000101		Spanish
		000110		Chinese (simplified)
		000111		Korean
		001000		Taiwanese (Cantonese)
		001001		Dutch
		001010		Portuguese
		001011		Danish
		001100		Norwegian
		001101		Swedish
		001110		Finnish
		001111		Arabic
		010000		Not available
		010001		Ukrainian
		010010		Estonian
		010011		Greek
		010100		Croatian
		010101		Slovakian
		010110		Thai
		010111		Czech
		011000		Turkish
		011001		Hungarian
		011010		Polish
		011011		Not available
		011100		Latvian
		011101		Lithuanian
011110		Romanian		
011111		Russian		
100000		Slovene		
100001		Persian		
100010		Hebrew		
100011		(Reserved)		
others		Not available		

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Mode	Default value		
830	Bit	7654 3210	HEX: 60 (for Europe) HEX: 50 (for U.S)
	State	0110 0000 (for Europe) 0101 0000 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
6	Total counter count mode	Mode 1	Mode 2	
5-4	Paper size which is considered to be a large size	00		No count
		01		A3/11 x 17
		10		A3/B4/11 x 17/8 ¹ / ₂ x 14
		11		A3/11 x 17/B4/8 ¹ / ₂ x 14/ Foolscap
3-2	Copy kit counter mode	00		Mode 1
		01		Mode 2
		10		Mode 3
		11		Mode 4

Mode	Default value		
835	Bit	7654 3210	HEX: 00
	State	0000 0000	

Bit	Setting item	Setting value		Description
		0	1	
2	Public account	Disable	Enable	Sets whether to allow the Public category or not when administrating the account track.

Mode	Default value		
880	Bit	7654 3210	HEX: 10 (for Europe) HEX: 70 (for U.S)
	State	0001 0000 (for Europe) 0111 0000 (for U.S)	

Bit	Setting item	Setting value		Description
		0	1	
7	Unit change (Toner cartridge)	User	Service	Selects the one which unit is to be replaced.
6	Unit change (Imaging unit)	User	Service	
5	Unit change (Waste toner box)	User	Service	
4	Consumable life reminder	No	Yes	Sets whether to show alarm on the whole screen when the specific unit reaches its life.

Adjustment / Setting

Mode	Default value		
882	Bit	7654 3210	
	State	1110 0000	
HEX: E0			

Bit	Setting item	Setting value		Description
		0	1	
6	Color → B/W fallback function	OFF	ON	
5	Color Reception	Not allowed	Allowed	Sets whether to receive color data or not.
4	Test scan	Disable	Enable	
3	Calling port at the time of G3 fall back	G3-1	G3-2	
1-0	Warm-up mode *: In order to make this setting valid, main power switch needs to be turned off and on again twice.	00		Mode 1
		01		Mode 2
		10		Mode 3
		11		Mode 4

Mode	Default value		
883	Bit	7654 3210	
	State	0000 0000 (for Europe) 0000 0100 (for U.S)	
HEX: 00 (for Europe) HEX: 04 (for U.S)			

Bit	Setting item	Setting value		Description
		0	1	
3	Power save setting	Immediately	Normal	Sets the method for shifting to the power save mode when operation is complete, in the case of recovering from lower power or sleep mode with recovering condition of no unit operation.
2	LCT paper size	A4	8 1/2x11	Sets the LCT paper size.
0	Optional original size detection sensor (BS)	No	Yes	Sets whether there is an optional original size detection sensor or not.

Mode	Default value		
884	Bit	7654 3210	HEX: 01
	State	0000 0001	

Bit	Setting item	Setting value		Description
		0	1	
0	Fan control for the low-temperature warm-up *: In order to make this setting valid, main power switch needs to be turned off and on twice.	Valid	Invalid	Sets the valid/invalid of the fan control function which further prevents the waviness of the paper when printing immediately after the warm-up in low temperature.

10.5.11 Consumable Life Reminder

Functions	<ul style="list-style-type: none"> To select whether or not to give the display of PM parts lifetime PM parts lifetime display: An entire screen warning is given when the service life of a specific unit has been reached, prompting the user to replace the part. Applicable units: Transfer belt unit, fusing unit, imaging unit (C, M, Y, K)
Use	<ul style="list-style-type: none"> Use to select not to give the display of PM parts lifetime.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "Yes." <p style="text-align: center;">"Yes" No</p>

10.5.12 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 : Printing is inhibited. When "Service" is selected: Life warning. 												
Use	<ul style="list-style-type: none"> Upon setup 												
Setting/ Procedure	<p><Unit Change></p> <ul style="list-style-type: none"> The following are the default settings: <table style="width: 100%; border: none;"> <tr> <td></td> <td style="text-align: center;">US, Japan, Others 2</td> <td style="text-align: center;">Europe, Others1,3,4</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> </table>		US, Japan, Others 2	Europe, Others1,3,4	Toner Cartridge	: "User" Service	"User" Service	Imaging Unit	: User "Service"	"User" Service	Waste Toner Box	: User "Service"	"User" Service
	US, Japan, Others 2	Europe, Others1,3,4											
Toner Cartridge	: "User" Service	"User" Service											
Imaging Unit	: User "Service"	"User" Service											
Waste Toner Box	: User "Service"	"User" Service											

10.5.13 Option Settings

Functions	<ul style="list-style-type: none"> To set the status for the optional stamp unit SP-503.
Use	<ul style="list-style-type: none"> To be used for setting up the stamp unit SP-503.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is "No." <p style="text-align: center;">Yes "No"</p>

10.5.14 Center Erase Width

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

10.5.15 IU Life Setting

Functions	<ul style="list-style-type: none"> • To set the life threshold for imaging units.
Use	<ul style="list-style-type: none"> • Use this setting when a gap appears between the actual life value of imaging unit and the life specification value due to the way * a machine is used. • Comparing the PC drum rotation time with the PC drum rotation time calculated based on the number of printed pages, the machine detects the end of unit life using the one that reaches the life specification value earlier. This setting aims to extend the life threshold for the PC drum rotation time and achieve a longer imaging unit life. <p style="margin-left: 40px;">Normal : detects the end of life when the life specification value is reached. Long : detects the end of life when a value greater (longer) than the life specification value is reached.</p> <p>*The product specification value is determined based on what types of printing are made on the machine. If the types of printing made on the machine are different from the specified printing conditions, the life value of the imaging unit tends to be different from the life specification value. See conditions for life specification values in the service manual "Maintenance" for more information on printing conditions. See P.13</p> <p>NOTE</p> <ul style="list-style-type: none"> • When "Long" is selected, images printed after the life specification value is out of guarantee. The life counter value of imaging unit is accessed from [Service Mode] → [Counter] → [Life]. • Before making this setting, be sure to check that the machine does not display any message that warns each of imaging units, fusing unit, or image transfer belt unit reaches their life value.
Setting/ Procedure	<ul style="list-style-type: none"> • The default setting is Normal. <p style="text-align: center;">"Normal" Long</p> <p>NOTE</p> <ul style="list-style-type: none"> • When the setting has been changed, turn off the sub power switch and turn it on again.

10.6 Counter

- The counter displays the counts of various counters to allow the technical representative to check or set as necessary.

10.6.1 Procedure

A. Checking the counter

1. Call the Service Mode to the screen.
2. Touch [Counter].
3. Touch [Check], and touch the key of the counter to be checked.

B. Clearing the individual counter

1. Call the Service Mode to the screen.
2. Touch [Counter].
3. Touch [Counter Reset], and select the key for the counter to be cleared.
4. Touch [Execute] to clear the counter value.

C. Collectively clearing the counter

1. Call the Service Mode to the screen.
2. Touch [Counter].
3. Select the key for the counter to be cleared, and press the Clear key.
When clearing by mistake, press the interrupt key to recover.

10.6.2 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"> • 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 transfer belt unit and imaging unit, which are provided with a new unit detection function. <p><1/3></p> <ul style="list-style-type: none"> • Fusing Unit : Number of times a sheet of paper is fed through • Transfer Unit : 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 Tray : Number of sheets of paper fed from the bypass <p><2/3></p> <ul style="list-style-type: none"> • Imaging Unit (C) : Period of time over which the cyan imaging unit has been used. • Imaging Unit (M) : Period of time over which the magenta imaging unit has been used. • Imaging Unit (Y) : Period of time over which the yellow imaging unit has been used. • Imaging Unit (K) : Period of time over which the black imaging unit has been used. • LCT Parts : Number of sheets of paper fed from the LCT • ADF Feed : Number of sheets of paper fed through the take-up section of the ADF • ADF Reverse : Number of sheets of paper fed through the turnover unit of the ADF <p><3/3></p> <ul style="list-style-type: none"> • Printout Opt : Number of times a sheet of paper is fed through

10.6.3 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.

10.6.4 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.

10.6.5 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"> When a warning condition occurs, an oil mark appears at the lower left corner of the basic screen. Touching the maintenance key will display the warning code screen.

10.6.6 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. The default setting is "0." <p style="text-align: center;">0 to 999999</p> <p>Maint.-Count</p> <ul style="list-style-type: none"> Counts up when a sheet of paper is fed through the machine. A warning message appears if the count reaches a preset value.

10.6.7 Service Total**A. Total**

Functions	<ul style="list-style-type: none"> To display the count value for the service total counter.
Use	<ul style="list-style-type: none"> Use to check the total No. of printed pages including the ones printed by the Service Mode.
Setting/ Procedure	<p>Service Total : No. of pages printed by user mode and Service Mode.</p> <p>Service Total (Duplex) : No. of pages printed by user mode and Service Mode in duplex.</p>

B. Paper Size

Functions	<ul style="list-style-type: none"> To display the count value for service total counter of each paper size.
Use	<ul style="list-style-type: none"> To check the total number of printed pages including the one at Service Mode according to each paper size.

10.6.8 Service Call History (Data)

Functions	<ul style="list-style-type: none"> To display the trouble history in chronological order.
Use	<ul style="list-style-type: none"> Use to check the trouble history in chronological order.

10.6.9 ADF Paper Pages

Functions	<ul style="list-style-type: none"> To display the No. of pages fed to the automatic document feeder.
Use	<ul style="list-style-type: none"> Use to check the No. of pages fed to the automatic document feeder.

10.6.10 Paper Jam History

Functions	<ul style="list-style-type: none"> To display the jam history in chronological order.
Use	<ul style="list-style-type: none"> Use to check the jam history in chronological order. <p>NOTE</p> <ul style="list-style-type: none"> [Code] displayed on the screen of JAM history indicates JAM code. For details of JAM code, see “Trouble shooting.” <p>See P.277</p>

10.6.11 Fax Connection Error

Functions	<ul style="list-style-type: none"> To display the No. of fax transmission errors occurred.
Use	<ul style="list-style-type: none"> Use to check the No. of fax transmission errors occurred.

10.7 List Output

10.7.1 Service Call Report

Functions	<ul style="list-style-type: none"> To print the service report such as on troubles occurred, unit types (options), or soft switch information, which are stored in the main machine.
Use	<ul style="list-style-type: none"> To be used to see the status of the machine, and for the troubleshooting, etc.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [List Output] → [Service Call Report]. Press the start key to print the report.

10.7.2 Protocol Trace

[See P.25 of the FK-507 service manual.](#)

10.7.3 File Dump

Functions	<ul style="list-style-type: none"> To specify the file for analysis which can be output inside the controller, and print it.
Use	<ul style="list-style-type: none"> To analyze troubles.
Setting/ Procedure	<ol style="list-style-type: none"> Call the Service Mode on the screen. Touch [List Output] → [File Dump]. Enter the file name of the file to be printed. Press the start key to print the file.

10.8 State Confirmation

10.8.1 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 door is open.

A. Electrical components check procedure through input data check

- When a paper misfeed occurs in the paper feed section of the machine, the sensor in front of tim. roller 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 sensor in front of tim. roller. For the sensor in front of tim. roller, you check the data of "Timing Roller."
 - Call the Service Mode to the screen.
 - Touch [State Confirmation] → [Sensor Check (Printer)] in this order, and select the sensor check screen which includes "Timing Roller."
 - Check that the data for "Timing Roller" is "0" (sensor blocked).
 - Move the actuator to unblock the sensor in front of tim. roller.
 - Check that the data for "Timing Roller" changes from "0" to "1" on the screen.
 - If the input data is "0," change the sensor.

10.8.2 Sensor check screens

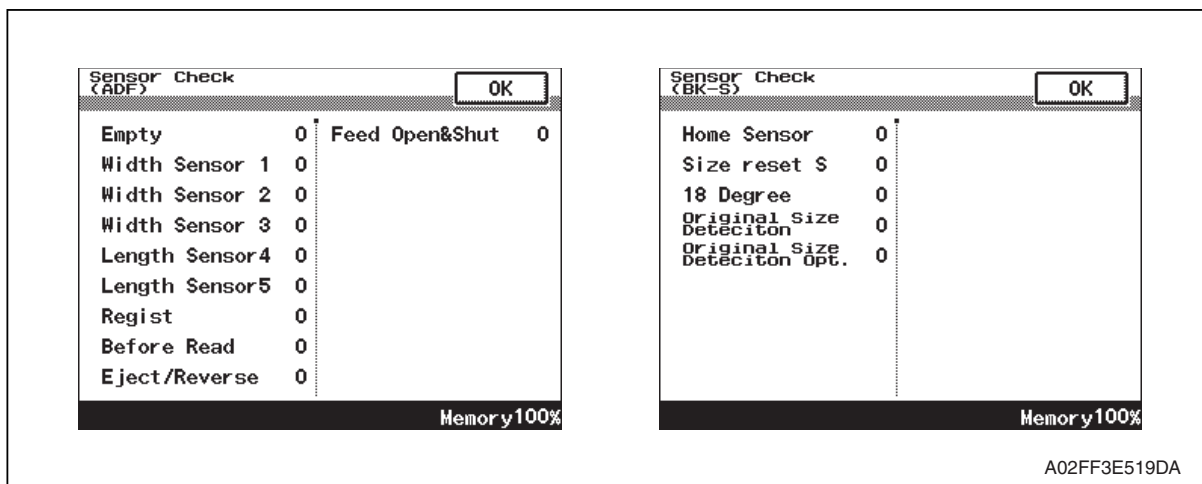
- These are only typical screens which may be different from what are shown on each individual machine.

A. Sensor Check (Printer)

<p>Sensor Check (Printer) Fwd OK</p> <table border="0"> <tr><td>Paper feed tray1</td><td>Feed</td><td>0</td></tr> <tr><td>Device detection</td><td>0</td><td>Raised(Lift-Up) 0</td></tr> <tr><td>Paper Empty</td><td>0</td><td>Paper feed tray3</td></tr> <tr><td>Paper Near Empty</td><td>0</td><td>Device detection</td><td>0</td></tr> <tr><td>Paper feed tray2</td><td>Paper Empty</td><td>0</td></tr> <tr><td>Device detection</td><td>0</td><td>Paper Near Empty</td><td>0</td></tr> <tr><td>Paper Empty</td><td>0</td><td>Vertical Transport</td><td>0</td></tr> <tr><td>Paper Near Empty</td><td>0</td><td>Feed</td><td>0</td></tr> <tr><td>Vertical Transport</td><td>0</td><td>Raised(Lift-Up)</td><td>0</td></tr> </table> <p style="text-align: right;">Memory100%</p>	Paper feed tray1	Feed	0	Device detection	0	Raised(Lift-Up) 0	Paper Empty	0	Paper feed tray3	Paper Near Empty	0	Device detection	0	Paper feed tray2	Paper Empty	0	Device detection	0	Paper Near Empty	0	Paper Empty	0	Vertical Transport	0	Paper Near Empty	0	Feed	0	Vertical Transport	0	Raised(Lift-Up)	0	<p>Sensor Check (Printer) Prev. Fwd OK</p> <table border="0"> <tr><td>Paper feed tray4</td><td>Multi FD size 2</td><td>0</td></tr> <tr><td>Device detection</td><td>0</td><td>Multi FD size 3</td><td>0</td></tr> <tr><td>Paper Empty</td><td>0</td><td>Lift-Up Position Sensor</td><td>0</td></tr> <tr><td>Paper Near Empty</td><td>0</td><td>Paper Empty</td><td>0</td></tr> <tr><td>Vertical Transport</td><td>0</td><td>Paper Path</td><td></td></tr> <tr><td>Feed</td><td>0</td><td>Timing Roller</td><td>0</td></tr> <tr><td>Raised(Lift-Up)</td><td>0</td><td>Exit</td><td>0</td></tr> <tr><td>Bypass Tray</td><td></td><td>Fusing Loop detect</td><td>0</td></tr> <tr><td>Multi FD size 1</td><td>0</td><td></td><td></td></tr> </table> <p style="text-align: right;">Memory100%</p>	Paper feed tray4	Multi FD size 2	0	Device detection	0	Multi FD size 3	0	Paper Empty	0	Lift-Up Position Sensor	0	Paper Near Empty	0	Paper Empty	0	Vertical Transport	0	Paper Path		Feed	0	Timing Roller	0	Raised(Lift-Up)	0	Exit	0	Bypass Tray		Fusing Loop detect	0	Multi FD size 1	0					
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B. Sensor Check (Scan)



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10.8.3 Sensor check list

A. Sensor Check

Symbol	Panel display	Part/signal name	Operation characteristics/ panel display	
			1	0
Paper feed tray 1				
PS12	Device detection	Tray 1 device detection sensor	In position	Out of position
PS10	Paper Empty	Tray 1 paper empty sensor	Paper not present	Paper present
PS11	Paper Near Empty	Tray 1 near empty sensor	Near empty	Unblocked
Paper feed tray 2				
PS2	Device detection	See P.24 of the PC-105 service manual.		
PS6	Paper Empty			
PS1	Paper Near Empty			
PS8	Vertical Transport			
PS9	Feed			
PS7	Raised (Lift-Up)			
Paper feed tray 3				
PS112	Device detection	See P.19 of the PC-104/204 service manual.		
PS115	Paper Empty			
PS113	Paper Near Empty			
PS117	Vertical Transport			
PS116	Feed			
PS114	Raised (Lift-Up)			

Symbol	Panel display	Part/signal name	Operation characteristics/ panel display	
			1	0
Paper feed tray 4				
PS121	Device detection	See P.19 of the PC-104/204 service manual.		
PS124	Paper Empty			
PS122	Paper Near Empty			
PS126	Vertical Transport			
PS125	Feed			
PS123	Raised (Lift-Up)			
Bypass Tray				
PS20	Multi FD size 1	See P.12 of the MB-502 service manual.		
PS21	Multi FD size 2			
PS22	Multi FD size 3			
PS14	Lift-Up Position Sensor			
PS13	Paper Empty			
Paper Path				
PS1	Timing Roller	Sensor in front of tim. Roller	Paper present	Paper not present
PS2	Exit	Paper exit sensor	Paper present	Paper not present
PS3	Fusing Loop Detect	Fusing loop detect sensor	Loop present	Loop not present
PC Drive Detect				
PS15	Color PC Drive Main Sensor	Color PC drive main sensor	Blocked	Unblocked
PS17	Color PC Drive Sub Sensor	Color PC drive sub sensor	Blocked	Unblocked
PS16	Black PC Drive Main Sensor	Black PC drive main sensor	Blocked	Unblocked
PS18	Black PC Drive Sub Sensor	Black PC drive sub sensor	Blocked	Unblocked
LCT				
PS4	Raised (Lift-Up)	See P.23 of the PC-405 service manual.		
PS13	Lowered (Lift UP)			
PS12	Shift Tray Home			
PS11	Shift Tray Stop			
PS1	Feed			
PS2	Vertical Transport			
PS3	Paper Empty			
MTPEB	Main Tray Empty			
PS9	Shift Tray Empty			
PS7	Lower Overrun			
MDCB	Manual Button Down			
PS14	Dividing Position			

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Adjustment / Setting

Symbol	Panel display	Part/signal name	Operation characteristics/ panel display	
			1	0
PS5	Cassette Open	See P.23 of the PC-405 service manual.		
PS8	Shift Mtr Pulse			
PS10	Elev. Mtr Pulse			
Duplex				
PS1	Set	See P.12 of the AD-505 service manual.		
—	Paper passage 1			
—	Paper passage 2			
Secondary transfer				
PS36	Pressure welding alienation	2nd image transfer pressure welding alienation sensor	Not Retracted	Retracted
Color Dev. Unit engaged position				
PS19	Clr Dev. Unit engaged position	Color dev. unit engaged position sensor	Engaged	Not engaged
Transfer Belt				
PS6	Pressure welding alienation	Transfer belt retraction sensor	Not Retracted	Retracted
Waste Toner				
PS8	Waste Toner full	Waste toner full sensor	Blocked	Unblocked
Fusing Unit				
PS37	Roller Retraction	Fusing pressure retraction sensor	Not Retracted	Retracted
Job Sep.				
PS1	Exit (Non-sort 1)	See P.18 of the JS-505 service manual.		
PS2	Exit (Non-sort 2)			
T1FDT B/LED	Full (Non-sort 1)			
T2FDT B/LED	Full (Non-sort 2)			
PS3	Front Cover			
PS4	Route Change home			
PS5	Retraction Home			
PS6	Home (Shift)			

B. Sensor Check (Scanner)

Symbol	Panel display	Part/signal name	Operation characteristics/ panel display	
			1	0
	ADF			
PS1	Empty	See P.39 of the DF-612/SP-503/MS-501 service manual.		
PS2	Width Sensor 1			
PS3	Width Sensor 2			
PS4	Width Sensor 3			
PS5	Length Sensor 4			
PS6	Length Sensor 5			
PS8	Regist			
PS7	Before Read			
PS9	Eject/Reverse			
PS10	Feed Open&Shut			
	BS			
PS201	Home Sensor	Home position sensor	Out of home	At home
PS205	Size reset S	Original cover sensor	Lowered	Raised
PS202	18 degree	18 degree sensor	Less than 18 degree	18 degree or more
PS203	Original Size Detection	Original size detection sensor/1	Original not loaded	Original loaded
PS204	Original Size Detection Opt.	Original size detection sensor/2	Original not loaded	Original loaded

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Adjustment / Setting

10.8.4 Table Number

Functions	<ul style="list-style-type: none"> When IDC is detected, for plain paper, Thick, and Black, the machine independently displays each Vg/Vdc output value that is calculated based on the density (toner amount stuck on the belt) of the test pattern created on the transfer belt. Reference values: C, M, Y K Vdc: around 400 V, Vg: around 500 V
Use	<ul style="list-style-type: none"> 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.

10.8.5 Level History

Functions	<ul style="list-style-type: none"> To display TCR (T/C ratio), IDC/registration sensor output values, and fusing temperature.
Use	<ul style="list-style-type: none"> 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-Heat : Displays the latest temperature of the heating roller. Temp-Press : Displays the latest temperature of the pressure roller. IDC Sensor Adjust 1/2 : Shows the intensity adjustment value (0 to 255) of the IDC sensor. ATVC-C, -M, -Y, -K : Shows the first image transfer electric current adjustment value (5 to 40 μA). ATVC-2nd : Shows the second image transfer ATVC adjustment value (300 to 4800 V). <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.

10.8.6 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	<ul style="list-style-type: none"> Used as reference information when a malfunction occurs.
Setting/ Procedure	<ul style="list-style-type: none"> Temp-Inside : 0 to 100 °C in 1 °C increments Temp-Heater : 0 to 260 °C in 1 °C increments Temp-press. : 0 to 260 °C in 1 °C increments Humidity : 0 to 100 % in 1 % increments Absolute Humidity : 0 to 100 in 1 increments

10.8.7 Color Regist

Functions	<ul style="list-style-type: none"> To check each of C, M, and Y 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. Use for adjustment of PH skew.
Setting/ Procedure	<ul style="list-style-type: none"> For each of C, M, and Y, 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 amounts is displayed with reference to K for C, M and Y, and that for K is displayed with reference to an ideal position.

10.8.8 IU Lot No.

Functions	<ul style="list-style-type: none"> To display the 10-digit lot number for each of Cyan, Magenta, Yellow, and Black 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.

10.8.9 Machine Configuration

Functions	<ul style="list-style-type: none"> To display unit configuration information such as options on the main machine, etc.
Use	<ul style="list-style-type: none"> To be used when checking the unit configuration information such as options on the main machine, etc.


10.9 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.
- The machine searches through the paper sources in the order of tray 1, tray 2, tray 3, and tray 4 for paper of the maximum size for printing.

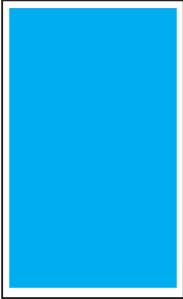
10.9.1 Procedure for test pattern output

1. Touch [Test Mode] to display the test mode menu.
2. Touch the desired test pattern key.
3. Set up the desired functions and press the Start key.

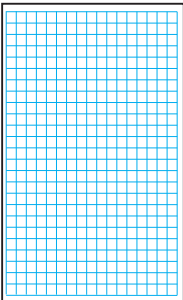
10.9.2 Gradation Pattern

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	<div style="text-align: center;">  </div> <p style="text-align: right;">SINGLE HYPER Gradation Cyan</p> <p style="text-align: right;">A02EF3C510DA</p>
Setting/ Procedure	<ul style="list-style-type: none"> • Copies ("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), Black (1PC), CMYK, 8 Color • Black (4PC): Uses four colors. • Black (1PC): Uses one color of black.

10.9.3 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	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>SINGLE HYPER Gradation Cyan Density: 255</p> <p>A02EF3C519DA</p> </div> </div>
Setting/ Procedure	<ul style="list-style-type: none"> Copies ("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").

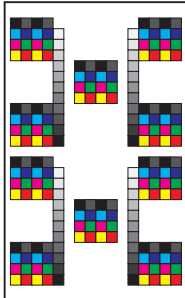
10.9.4 Lattice Pattern

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	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>SINGLE FEET Cyan CD Width: 5 FD Width: 5 Density: 255 Normal</p> <p>A02EF3C511DA</p> </div> </div>
Setting/ Procedure	<ul style="list-style-type: none"> Copies ("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.

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Adjustment / Setting

10.9.5 Color Reproduction

Functions	<ul style="list-style-type: none"> To produce a color reproduction pattern.
Use	<ul style="list-style-type: none"> To be used to check the color reproduction.
Pattern	 <p>SINGLE HYPER Gradation Density: 255</p> <p>A02FF3C525DA</p>
Setting/ Procedure	<ul style="list-style-type: none"> Copies ("1" to 999) Select "SINGLE" (single copy) or MULTI (multi copy). Select FEET or "HYPER." Select "Gradation" or Resolution if HYPER has been selected.

10.9.6 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. Touch [Test Mode] → [Running Mode]. Select the paper tray. Select the paper type. Press the Start key to start the running mode. Pressing the Stop key will stop operation.

10.10 Fax Settings

10.10.1 Self-Telephone

- It is displayed only when bit2 for the mode 043 is set to "1" by the following setting:
[Service Mode] → [System] → [Software Switch Setting].
[See P.25 of the FK-507 service manual.](#)

10.11 Download Firmware

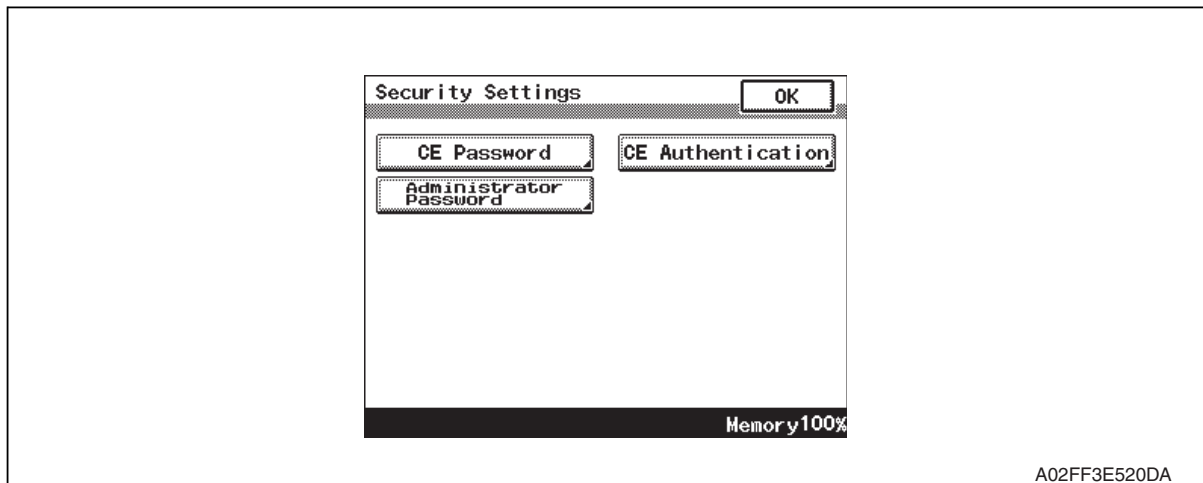
Functions	<ul style="list-style-type: none"> To download and rewrite the engine firmware data.
Use	<ul style="list-style-type: none"> Use to download and rewrite the engine firmware data of the main body or the job separator.
Setting/ Procedure	See P.31

11. Security Settings

11.1 Security settings function setting procedure

11.1.1 Procedure

1. Call the Service Mode to the screen.
2. Press the following keys in this order.
Stop → 0 → Clear
3. security Settings menu will appear.



11.1.2 Exiting

- Touch the [OK].

11.2 Security Settings function tree

Service Mode		Ref. Page
Security Settings	CE Password	P.268
	CE Authentication	P.268
	Administrator Password	P.268

11.3 Settings in the Security Settings

11.3.1 CE Password

Functions	<ul style="list-style-type: none"> To set and change the CE password.
Use	<ul style="list-style-type: none"> Use to change the CE password.
Setting/ Procedure	<ul style="list-style-type: none"> Enter the CE password (8 digits) on the on-screen keyboard. The initial setting is "92729272." <p style="margin-left: 40px;">Current Password : Enter the currently using CE password. New Password : Enter the new CE password. Re-Input Password : Enter the new CE password again.</p> <p>NOTE</p> <ul style="list-style-type: none"> NEVER forget the CE password. When forgetting the CE password, it becomes necessary to replace the RAMU board with a new one and call responsible person of KMBT.

11.3.2 CE Authentication

Functions	<ul style="list-style-type: none"> To determine whether or not to authenticate CE password as entering Service Mode.
Use	<ul style="list-style-type: none"> Use when authenticating CE password as entering Service Mode.
Setting/ Procedure	<ul style="list-style-type: none"> The default setting is OFF. <p style="text-align: center;">ON "OFF"</p>

11.3.3 Administrator Password

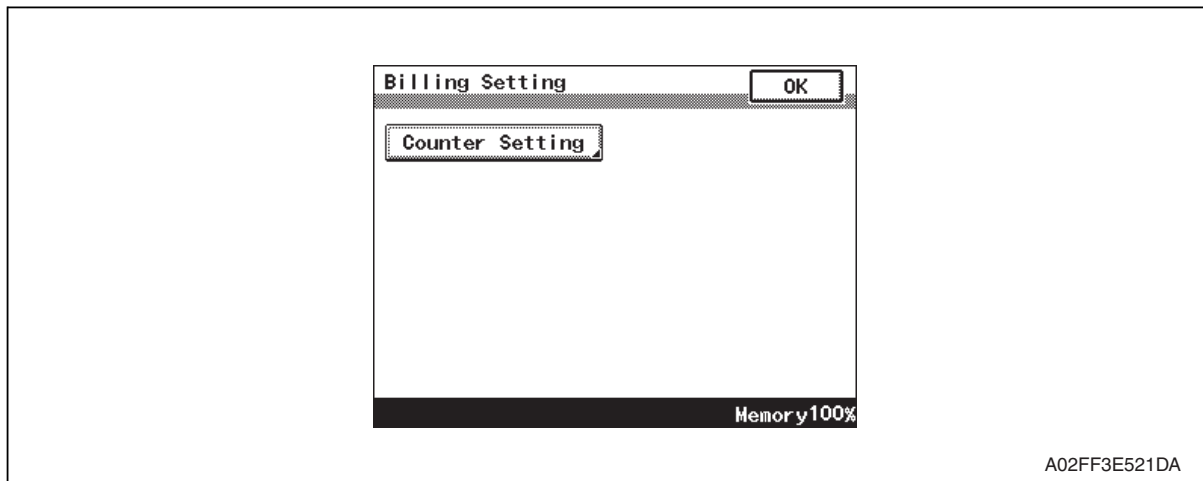
Functions	<ul style="list-style-type: none"> To set and change the administrator password.
Use	<ul style="list-style-type: none"> Use to change the administrator password. Use this function when the administrator forget the administrator password because a new password can be set without entering the 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. Re-Input Password : Enter the new administrator password again.</p>

12. Billing Setting

12.1 Billing Setting function setting procedure

12.1.1 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.



12.1.2 Exiting

- Touch the [OK].

12.2 Billing Setting function tree

Service Mode		Ref. Page
Billing Setting	Counter Setting	P.270

12.3 Settings in the Billing Setting

12.3.1 Counter Setting

Functions	<ul style="list-style-type: none"> To set the counting method for the total counter and size counter. To set the size regarded as the large size (2 counts.) 																																																													
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 copy cycle (Default: Japan)</p> <p>Mode 2: Large size is double counts (Default: US, Europe, Others1, Others2, Others3, Others4)</p> <p>NOTE</p> <ul style="list-style-type: none"> The content of this setting is reflected in the count method with the key counter. <p>Size Counter</p> <ul style="list-style-type: none"> A3/11 x 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 x 17/8 1/2 x 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 x 17/B4/8 1/2 x 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: Japan) A3 and 11 x 17 (Default: US) A3, B4, 11 x 17, and 8 1/2 x 14 (Default: Europe, Others 1, Others 2, Others 3, Others 4) A3, B4, Foolscap, 11 x 17, 11 x 14, and 8 1/2 x 14 <p>* Count-up table</p> <table border="1"> <thead> <tr> <th rowspan="2">Copying</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 rowspan="2">Size</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> <th colspan="2">Mode</th> </tr> <tr> <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>	Copying	1-Sided				2-Sided				Sizes other than those specified		Specified sizes		Sizes other than those specified		Specified sizes		Size	Mode		Mode		Mode		Mode		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
Copying	1-Sided				2-Sided																																																									
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Size	0	0	1	1	0	0	2	2																																																						
2-sided Total	0	0	0	0	1	1	1	1																																																						

13. Procedure for resetting

13.1 Trouble resetting

Functions	<ul style="list-style-type: none"> If the all troubles occur 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 main power switch OFF and ON again, or opening and closing the front door in case of a trouble.
Setting/ Procedure	<ol style="list-style-type: none"> Call the initial mode to the screen. See P.272 Touch [Memory Clear] → [Trouble Reset]. Touch [OK] to reset troubles. After turning off the main power switch, turn it on again more than 10 seconds after and check if the machine starts correctly.

13.2 Contents to be cleared by reset function

Items for clearing	Door open/close	Main power S/W OFF/ON	Memory Clear								
			Trouble Reset	System Error	System Data	Image Data	Own Setting	Fax dest.	Activity	Soft SW	
Contents to be cleared											
Jam display	○	—	—	○	○	—	—	—	—	—	—
Malfunction display	Rank A	—	—	○	○	○	—	—	—	—	—
	Rank B	○	—	○	○	○	—	—	—	—	—
	Rank C	—	○	○	○	○	—	—	—	—	—
Erratic operation / display	—	○	—	○	○	—	—	—	—	—	—
Setting information of the machine (fax/network)	—	—	—	—	○	—	○	—	—	—	—
Setting information of the machine stored in the MFBUB (Except for fax/network)	—	—	—	—	○	—	—	—	—	—	—
Password information	—	—	—	—	○	—	○	—	—	—	—
Destination information	—	—	—	—	—	—	—	○	—	—	—
Activity management information	—	—	—	—	—	—	□	—	—	○	—
Software switch setting	—	—	—	—	—	—	—	—	—	—	○
Counter information	—	—	—	—	—	—	—	—	—	—	—

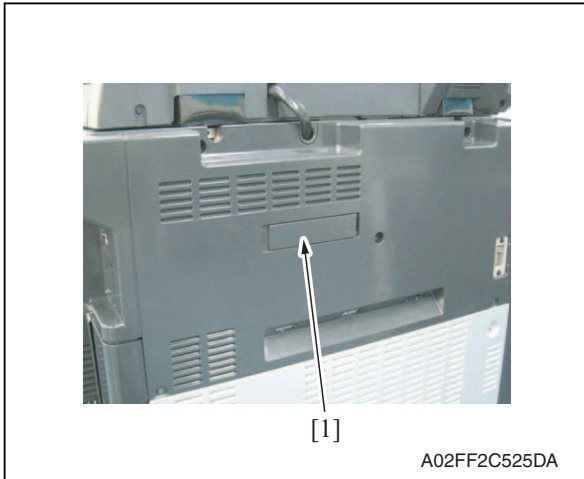
- : Will be cleared (initialized)
- : Some information will be cleared
- : Will not be cleared

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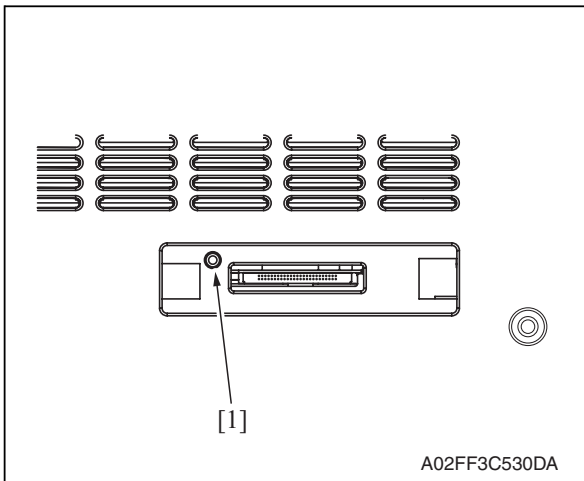
Adjustment / Setting

14. Initial mode

14.1 Initial mode function setting procedure



1. Remove the cover [1] from the compact flash insertion slot.

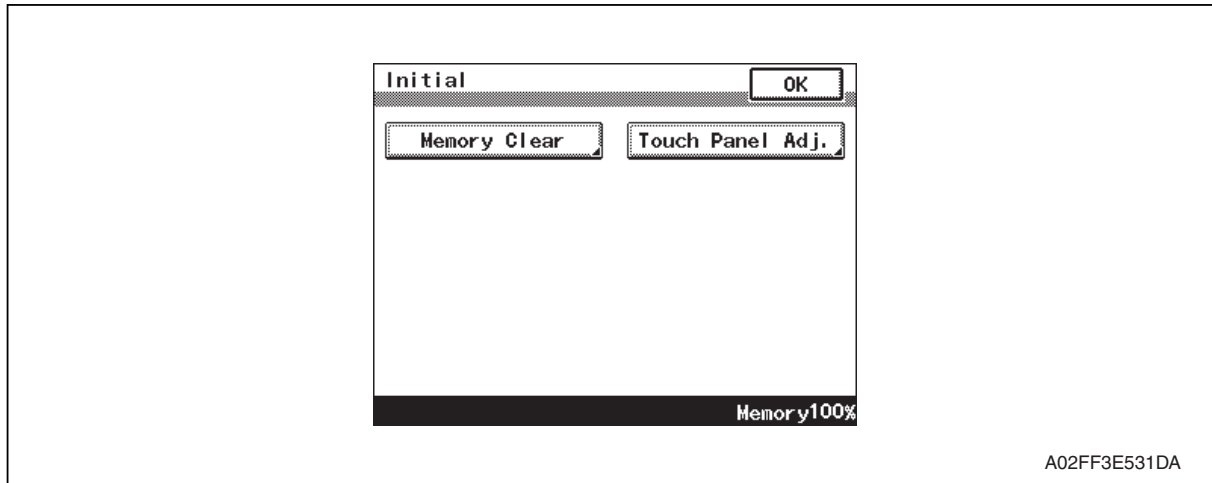


2. Press the warm-restart switch [1].



3. Enter "3" on the 10-key pad with "●" at the left center of the screen.

4. Initial mode screen will appear.



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14.2 Initial mode function tree

Initial mode		Ref. Page
Memory Clear	System Data	P.273
	System Error	
	Image Data	
	Own Setting	
	Fax dest.	
	Activity	
	Soft SW	
	Trouble Reset	
Touch Panel Adj.	P.274	

14.3 Settings in the initial mode

14.3.1 Memory Clear

A. System Data

See P.171

B. System Error

See P.171

C. Image Data

See P.171

D. Own Setting

See P.172

E. Fax dest.

See P.172

F. Activity

See P.172

G. Soft SW[See P.172](#)**H. Trouble Reset**

Functions	<ul style="list-style-type: none"> To default trouble information when the engine is in an error status due to I/F mismatch between the printer engine and the controller.
Use	<ul style="list-style-type: none"> To release "A" rank trouble status.
Setting/ Procedure	<ol style="list-style-type: none"> Call the initial mode to the screen. Touch [Memory Clear]. Select [Trouble Reset]. Touch [OK] to reset troubles.

14.3.2 Touch Panel Adj.[See P.163](#)

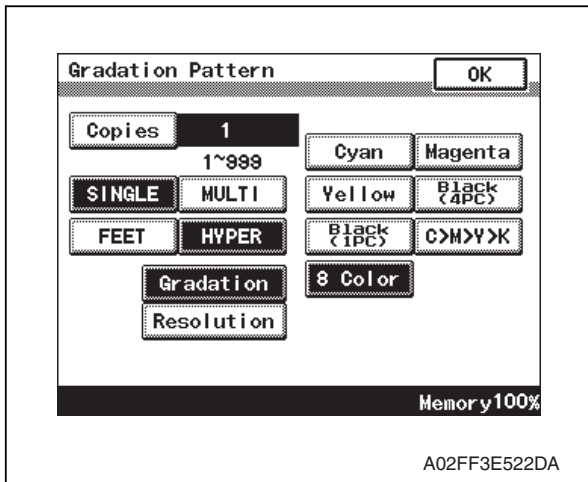
15. Mechanical adjustment

15.1 PH unit mechanical adjustment

15.1.1 Skew adjustment

This adjustment must be made in the following case:

- When PH unit is replaced.



1. Turn ON the main power switch.
2. Select [Service Mode] → [Test Mode] → [Gradation Pattern] and output the test pattern with the following conditions.

Conditions: SINGLE, HYPER, Gradation, 8 Color

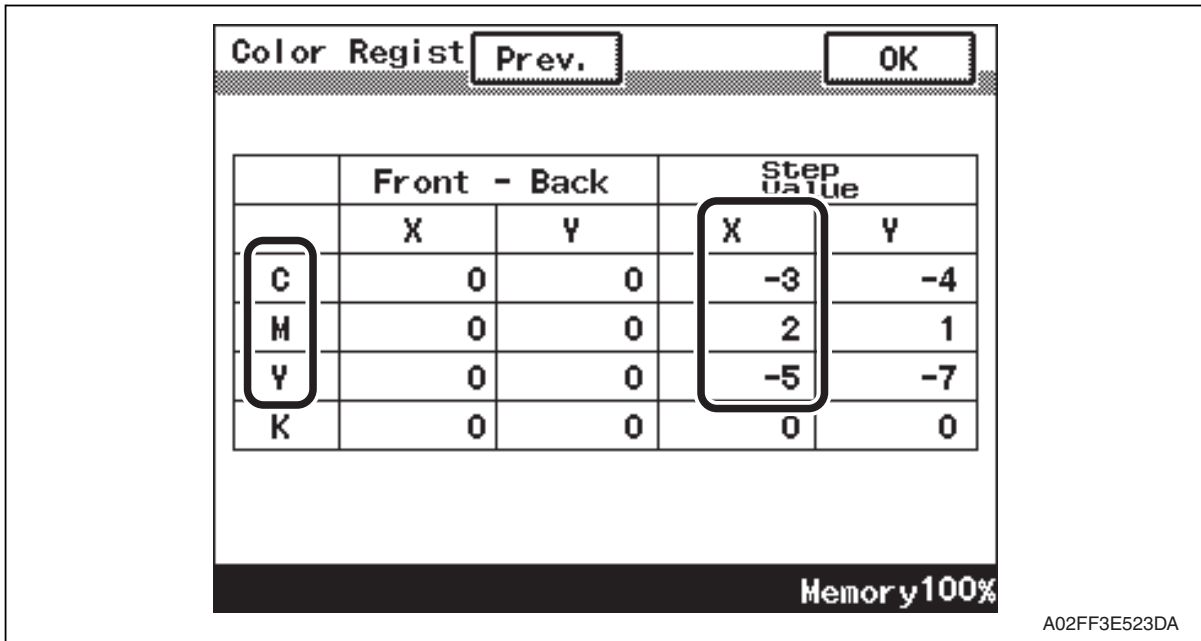
3. Using the output test pattern, check if each color of CMYK is printed in correct pattern.

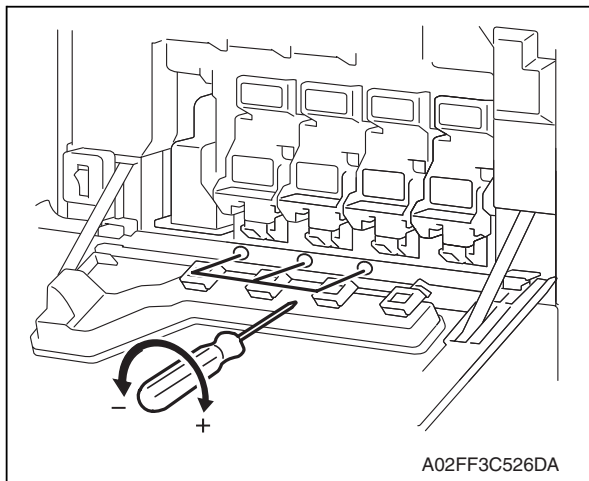
If the pattern is not correct, any troubles such as connecting failure in PH unit of the corresponding color may occur, which should be modified.

If there is not any problem, proceed to step 4.

4. Touch [Service Mode] → [Imaging Process Adjustment] → [Stabilizer] → [Initialize + Image Stabilization].
5. After image stabilization is completed, display [Service Mode] → [State Confirmation] → [Color Regist] → [FWD] and check if the Step Value: X of each color C, M, Y, is within the specification.

Specification: within ± 4





- If either value is out of the specification, follow the procedures shown below to adjust it to satisfy the specification.
 - If the value of all color, C, M, Y satisfy the specification, proceed to step 10.
6. Open the front door.
 7. Turn the skew adjustment dial of the corresponding PH with flathead screwdriver.
 - To the left : When the step value goes - direction
 - To the right : When the step value goes + direction

<Adjustment sample>

If the yellow value, among the step values confirmed in step 5, is [-5], which means out of the specification, turn the skew adjustment dial of PH (yellow) to the left (- direction) for 5 clicks.

NOTE

- Do not execute the skew adjustment of black PH unit.

8. Close the front door and touch [Imaging Process Adjustment] → [Stabilizer] → [Initialize + Image Stabilization].
9. After image stabilization is completed, display [Service mode] → [State Confirmation] → [Color Regist] → [FWD] again and check if the step value: X of each color C, M, Y is within the specification.

NOTE

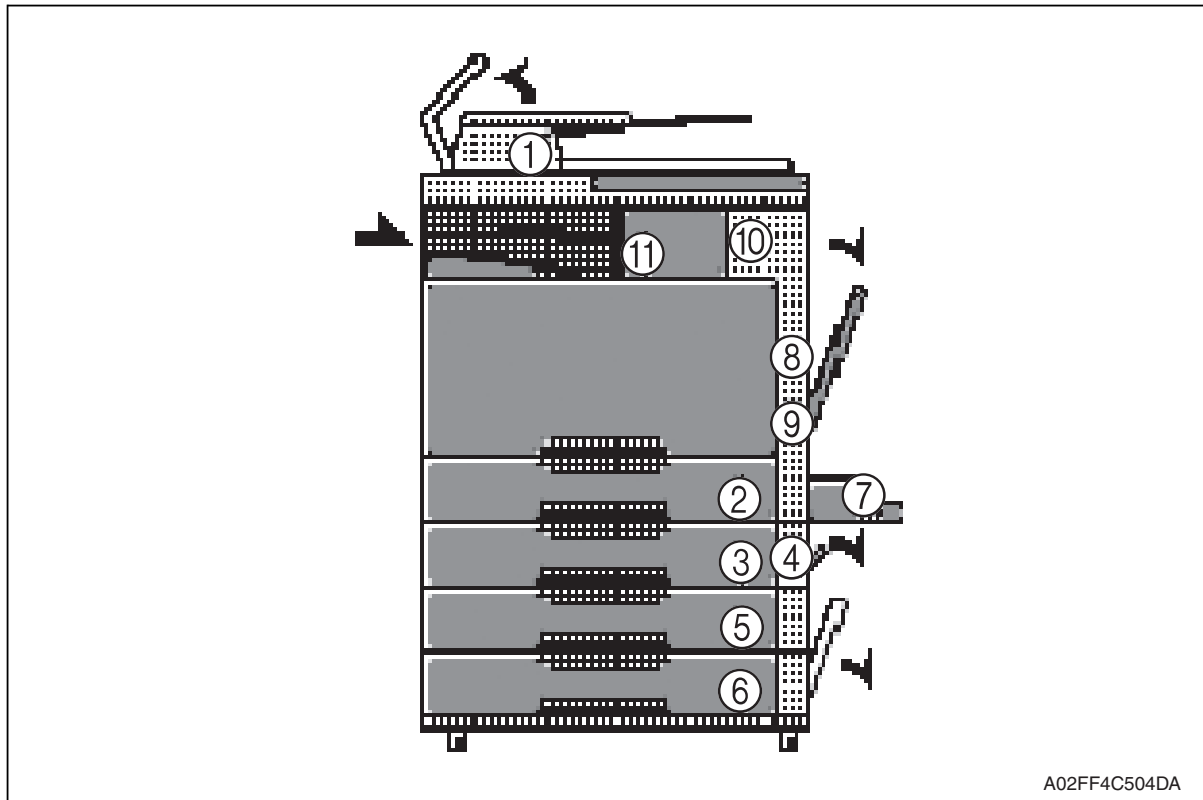
- Each color's step value displayed on [Color Regist] changes every time the image stabilization is conducted. Therefore the value may change even if skew adjustment is not made.
 - If either value is out of the specification, repeat step 6 to 9 to continue the adjustment until all C, M, Y colors satisfy the specification.
10. Exit the Service Mode.

Troubleshooting

16. Jam display

16.1 Misfeed display

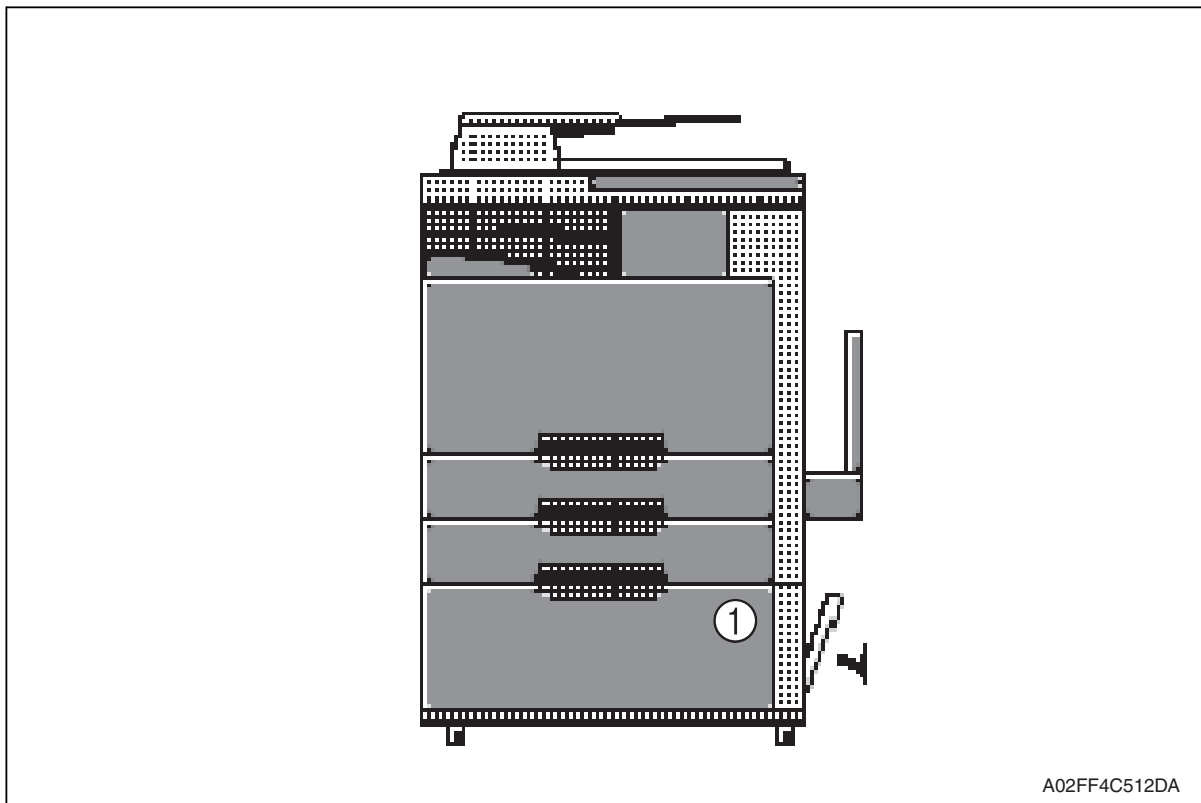
- When a paper misfeed occurs, the misfeed message, misfeed location, and paper location are displayed on the control panel of the machine.



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Display	Code *1	Jam type	Misfeed processing location	Action
[1]	6601	See P.43 of the DF-612/SP-503/MS-501 service manual.		
[1]	6602			
[1]	6603			
[1]	6604			
[1]	6605			
[2]	1101	Misfeed at tray 1 feed section	Right door	P.281
[3]	1201	See P.29 of the PC-105 service manual.		
[4]	2001			
[5]	1301	See P.23 of the PC-104/204 service manual.		
[4]	2001			
[6]	1401			
[7]	1001	See P.21 of the MB-502 service manual.		
[8]	9201			
[8]	9301	See P.15 of the AD-505 service manual.		
[9]	3001			
[10]	3201	Misfeed at exit section	Right door	P.283
[11]	7216	See P.19 of the JS-505 service manual.		
—	9901	Controller jam	—	P.284

*1: JAM code is displayed at [Paper Jam History] under [Counter] available from Service Mode.
 Regarding jam at paper exit options, jam codes are available by selecting [Service Mode] → [Counter] → [JAM]. To identify misfeed locations, use the jam codes and refer to the above list.



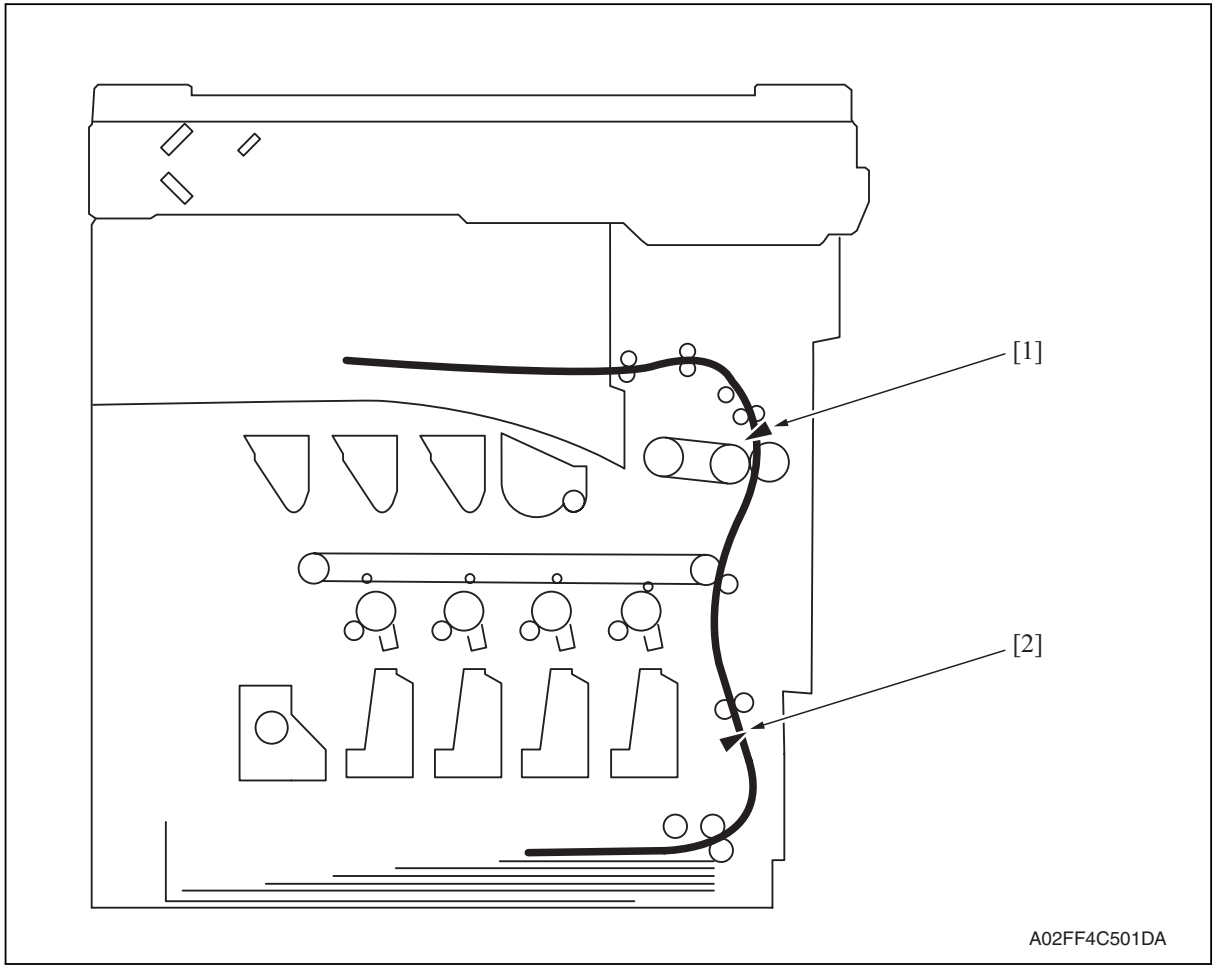
Display	Code *1	Jam type	Misfeed processing location	Action
[1]	1501	See P.29 of the PC-405 service manual.		
	2001			

*1: JAM code is displayed at [Paper Jam History] under [Counter] available from Service Mode.
 Regarding jam at paper exit options, jam codes are available by selecting [Service Mode] → [Counter] → [JAM]. To identify misfeed locations, use the jam codes and refer to the above list.

16.1.1 Misfeed display resetting procedure

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

16.2 Sensor layout



[1] Paper exit sensor (PS2)

[2] Sensor in front of tim. roller (PS1)

16.3 Solution

16.3.1 Initial check items

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

Check item	Action
Does paper meet product specifications?	Replace paper.
Is the paper curled, wavy, or damp?	Replace paper.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean the paper path and replace if necessary.
Are rolls/rollers dirty, deformed, or worn?	Clean or replace the defective roll/roller.
Are the edge guide and trailing edge stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators operating correctly?	Correct or replace the defective actuator.

16.3.2 Solution when paper curl occurs

Step	Check items/actions		
1	Turn over the stacked paper in the paper tray.	OK	—
		NG	Go to step 2.
2	Does paper curl occur just after a warm-up has been completed or the sleep mode has been turned OFF?	YES	Go to step 3.
	Does paper curl occur under normal conditions (under conditions other than those mentioned above)?	YES	Go to step 5.
3	1. Call the Service Mode to the screen. 2. Touch [System] → [Software Switch Setting]. 3. Touch [Mode Selection], enter the mode number “882” using 10-key pad. 4. Touch [Bit Selection], and change the setting to [Mode 3]. See P.250 5. Touch [Apply]. 6. Touch [OK].	OK	—
		NG	Go to step 4.
4	1. Call the Service Mode to the screen. 2. Touch [System] → [Software Switch Setting]. 3. Touch [Mode Selection], enter the mode number “882” using 10-key pad. 4. Touch [Bit Selection], and change the setting to [Mode 4]. See P.250 5. Touch [Apply]. 6. Touch [OK].	—	—
5	1. Call the Service Mode to the screen. 2. Select [Machine Adjustment] → [Fusing Temperature] → [Heater Roller]. 3. Select a paper type. 4. Change the temperature of Heater Roller to [-10 °C]. See P.150	OK	—
		NG	Go to step 6
6	1. Call the Service Mode to the screen. 2. Select [Machine Adjustment] → [Fusing Temperature] → [Pressure]. 3. Select a paper type. 4. Change the temperature of Heater Roller to [-20 °C]. See P.150	—	—

16.3.3 Misfeed at tray 1 feed section

A. Detection timing

Type	Description
Detection of misfeed at tray 1 feed section	<ul style="list-style-type: none"> The leading edge of the paper does not turn ON the sensor in front of tim. roller (PS1) even after the lapse of a given period of time after the tray 1 starts to feed paper.
Tray 1 feed section loop registration reversing jam	<ul style="list-style-type: none"> For paper fed from the tray 1, due to a delay in paper arrival, loop forming in front of the timing roller is not complete before the rise timing of the transport motor (M1).
Tray 1 feed section image write start signal permit waiting jam	<ul style="list-style-type: none"> For paper fed from the tray1, the image write start signal permit continues to be disabled for a predetermined period of time after the timing of the image write start signal output.

B. Action

Relevant parts	
Transport motor (M1) Tray 1 paper feed clutch (CL2) Sensor in front of tim. roller (PS1)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Initial check items	—	—
2	PS1 I/O check, sensor check	PRCB CN1-3 (ON)	C to D-19
3	CL2 operation check	PRCB CN5-18 (REM)	C to D-5
4	M1 operation check	PRCB CN27-14 (REM) PRCB CN28-2 (LOCK)	C to D-23
5	Change PRCB	—	—

16.3.4 Misfeed at 2nd image transfer section

A. Detection timing

Type	Description
Detection of misfeed at 2nd image transfer section	<ul style="list-style-type: none"> A sheet of paper does not turn OFF the sensor in front of tim. roller (PS1) after a predetermined period of time has elapsed since the sheet has turned ON the PS1. A sheet of paper does not turned ON the paper exit sensor (PS2) after a predetermined period of time has elapsed since the sheet has turned ON the sensor in front of tim. roller (PS1).
Detection of paper left in 2nd image transfer section	<ul style="list-style-type: none"> The sensor in front of tim. roller (PS1) is turned ON when the main power switch is turned ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
2nd image transfer section loop registration reversing jam	<ul style="list-style-type: none"> For paper fed from the tray, loop forming has not been complete before a sheet enters the timing roller because the rise timing of load to perform registration is earlier than the rise timing of load to form a loop.

B. Action

Relevant parts	
Transport motor (M1) Fusing motor (M2) Tim. roller clutch (CL1) Sensor in front of tim. roller (PS1) Paper exit sensor (PS2)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Initial check items	—	—
2	PS1 I/O check, sensor check	PRCB CN1-3 (ON)	C to D-19
3	PS2 I/O check, sensor check	—	—
4	CL1 operation check	PRCB CN1-5 (ON)	C to D-18
5	M1 operation check	PRCB CN27-14 (REM) PRCB CN28-2 (LOCK)	C to D-23
6	M2 operation check	PRCB CN27-4 (REM) PRCB CN27-7 (LOCK)	C to D-22
7	Change PRCB	—	—

16.3.5 Misfeed at exit section

A. Detection timing

Type	Description
Detection of misfeed at exit section	<ul style="list-style-type: none"> The paper exit sensor (PS2) is not turned OFF even after the lapse of a given period of time after the paper has turned ON the PS2. The paper exit sensor (PS2) is not turned ON even after the lapse of a given period of time after the switchback sequence is started. The duplex paper passage sensor/1 is not turned ON even after the lapse of a given period of time after the switchback sequence is started.
Detection of paper left in exit section	<ul style="list-style-type: none"> The paper exit sensor (PS2) is turned ON 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 parts	
Transport motor (M1) Fusing motor (M2) Duplex unit transport motor (M2) Paper exit sensor (PS2) Duplex paper passage sensor/1	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Initial check items	—	—
2	PS2 I/O check, sensor check	—	—
3	Duplex paper passage sensor/1 I/O check, sensor check	—	E-3 (AD-505)
4	M1 operation check	PRCB CN27-14 (REM) PRCB CN28-2 (LOCK)	C to D-23
5	Fusing motor (M2) operation check	PRCB CN27-4 (REM) PRCB CN27-7 (LOCK)	C to D-22
6	Duplex unit transport motor (M2) operation check	DCB CN4-1 to 4	F-5 (AD-505)
7	Change PRCB	—	—

16.3.6 Controller jam

A. Detection timing

Type	Description
Controller jam	• A control erratic operation as it relates to the duplex unit occurs.
	• A stop command (a command to effect a forced stop) is received.
	• A media error (wrong type or size of paper) occurs during a 2-sided print cycle.

B. Action

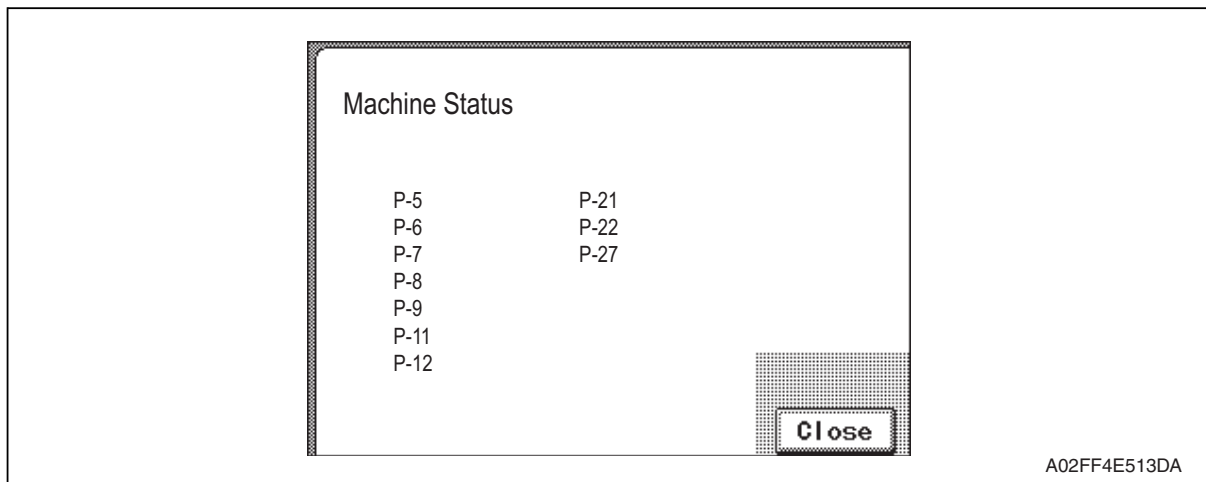
Relevant parts	
MFBU board (MFBUB)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Initial check items	—	—
2	Check for the paper left in the machine.	—	—
3	Check to see if the size or type of the paper specified on the control panel or printer driver coincides with that of the paper actually loaded.	—	—
4	One possible cause is a control erratic operation. So, turn OFF and ON the main power switch and run the print cycle again.	—	—
5	Upgrade the firmware.	—	—
6	Change PRCB	—	—
7	Change MFBUB	—	—

17. Malfunction code

17.1 Alert code

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



17.1.1 Alert code list

- If an image stabilization fault occurs, the corresponding warning code appears.

Code	Item	Description
P-5	IDC sensor (front) failure	<ul style="list-style-type: none"> When adjusting the IDC sensor, output voltage detected for all sample patterns are specified value or more. When adjustment is complete, sensor's output voltage with selected light intensity is specified value or under. During image stabilization (gamma correction control), detected output value for IDC sensor did not go below threshold (half the value of what is detected by IDC sensor on the belt surface) for three consecutive times (position of the pattern end is not detected). During image stabilization (gamma correction control), sensor's output value of each color for hyper 0 gradation after the primary approximation is half the detection level on the belt surface or under
P-28	IDC sensor (rear) failure	
P-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 1.0 g/m² (IDC sensor photo receiver output) or less during max. density adjustment (Vg/Vdc adjustment).
P-7	Magenta imaging unit failure	
P-8	Yellow imaging unit failure	
P-9	Black imaging unit failure	
P-11	Color PC drive sensor malfunction	<ul style="list-style-type: none"> The output from the color PC drive main and sub sensors remains unchanged for a continuous period of 1,000 ms while the color PC motor is turning stably and the lock signal is active (LOW-0).
P-12	Black PC drive sensor malfunction	<ul style="list-style-type: none"> The output from the black PC drive main and sub sensors remains unchanged for a continuous period of 1,000 ms while the transport motor is turning stably and the lock signal is active (LOW-0).

Code	Item	Description
P-21	Color regist 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.
P-22	Color regist adjust 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. On the color shift test pattern, the maximum and minimum deviations detected in the main and sub scan directions go over the predetermined value.
P-27	Secondary transfer ATVC failure	<ul style="list-style-type: none"> An abnormal average value is detected during an adjustment of the second image transfer ATVC value.

17.2 Solution

17.2.1 P-5: IDC sensor (front) failure

17.2.2 P-28 IDC sensor (rear) failure

Relevant parts	
IDC registration sensor/MK (IDCS/MK) IDC registration sensor/YC (IDCS/YC)	Printer control board (PRCB) High voltage unit (HV) 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 IDCS/MK or IDCS/YC, sensor shutter or connector, if it is installed or connected improperly.
4	Clean IDCS/MK or IDCS/YC if it is dirty.
5	Check the HV connector for proper connection and correct as necessary.
6	Open/close the front door, run an image stabilization sequence, and select [State Confirmation] → [Level History] to check the IDC value. IDC1: IDCS/MK, IDC2: IDCS/CY If the value is 1.0 V or less, change IDCS/MK or IDCS/CY.
7	Change PRCB.

- 17.2.3 P-6: Cyan imaging unit failure**
- 17.2.4 P-7: Magenta imaging unit failure**
- 17.2.5 P-8: Yellow imaging unit failure**
- 17.2.6 P-9: Black imaging unit failure**

Relevant parts	
Imaging unit /C Imaging unit /M Imaging unit /Y Imaging unit /K	Transfer belt unit High voltage unit (HV) Printer control board (PRCB)

Step	Action
1	Select [Imaging 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 registration sensor/MK (IDCS/MK) or IDC registration sensor/CY (IDCS/CY) window if dirty.
4	Clean the contact of the imaging unit connector if dirty.
5	Check the HV connector for proper connection and correct as necessary.
6	Check the flat cable for proper connection and correct as necessary.
7	Change imaging unit.
8	Change the transfer belt unit.
9	Change PRCB.

17.2.7 P-11: Color PC drive sensor malfunction

Relevant electrical parts	
Color PC drive main sensor (PS15) Color PC drive sub sensor (PS17)	Main drive unit Printer control board (PRCB)

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-11 occurs again, change the main drive unit.
5	Change PRCB.

*1: Faulty sensor check procedure

1. Open the front door and turn ON the main power switch of the machine.
2. Call the [Sensor Check] screen to the screen by way of Service Mode.
[For details how to display, see "Adjustment /Setting."](#)
[See P.256](#)
3. Close the front door and start [Stabilization].
4. During the stabilization sequence, check to see if the values of the phase detection sensors (color PC drive main/sub sensors) change.
5. A sensor is faulty if its value does not change.

17.2.8 P-12: Black PC drive sensor malfunction

Relevant parts	
Black PC drive main sensor (PS16)	Main drive unit
Black PC drive sub sensor (PS18)	Printer control board (PRCB)

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-12 persists, change the main drive unit.
5	Change PRCB.

***1: Faulty sensor check procedure**

1. Open the front door and turn ON the main power switch of the machine.
2. Call the [Sensor Check] screen to the screen by way of Service Mode.
For details how to display, see "Adjustment /Setting."
See P.256
3. Close the front door and start [Stabilization].
4. During the stabilization sequence, check to see if the values of the phase detection sensors (black PC drive main/sub sensors) change.
5. A sensor is faulty if its value does not change.

17.2.9 P-21: Color regist test pattern failure

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

Step	Action
1	Check the flat cable for proper connection and correct as necessary.
2	Wipe clean the surface of the transfer belt with a soft cloth, if it is dirty.
3	Change the image transfer belt unit if the transfer belt is damaged.
4	Change the PH unit.
5	Change PRCB.

17.2.10 P-22: Color regist adjust failure

Relevant parts	
IDC registration sensor /MK (IDCS/MK) IDC registration sensor/CY (IDCS/CY)	Printer control board (PRCB)

Step	Action
1	Slide out the imaging unit and reinstall it in position.
2	Reinstall or reconnect IDCS/MK or IDCS/CY if it is installed or connected improperly.
3	Check the vertical transport guide for installed position and correct as necessary.
4	Change PRCB.

17.2.11 P-27: Secondary transfer ATVC failure

Relevant parts	
High voltage unit (HV) Printer control board (PRCB)	Image transfer entrance guide 2nd image transfer assy Transfer belt unit

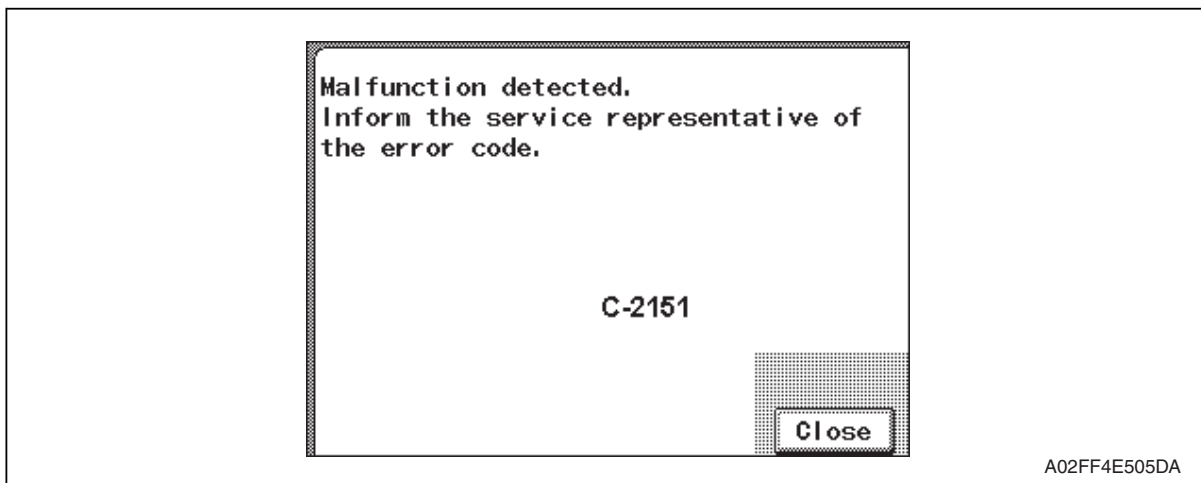
Step	Action
1	Check roller opposed to the 2nd image transfer roller is grounded. Clean the joint or correct if necessary.
2	Check the image transfer entrance guide for proper installation and correct if necessary.
3	Check that the spring does not come off during the pressure operation of the 2nd transfer roller and correct if necessary.
4	Check the contact at the joint of the 2nd image transfer assy and HV. Clean the joint or correct if necessary.
5	Change the transfer belt unit.
6	Change HV.
7	Change PRCB.

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Troubleshooting

17.3 Trouble code

- The machine's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code on the control panel.



17.3.1 Trouble code list

* For the details of the malfunction codes of the options, see the Service Manual for the corresponding option.

Code	Item	Detection timing	Rank
C0001	LCT connection failed	See P.33 of the PC-405 service manual.	C
C0204	Tray 2 feeder up/down abnormality	See P.33 of the PC-105 service manual.	B
C0206	Tray 3 feeder up/down abnormality	See P.28 of the PC-104/204 service manual.	B
C0208	Tray 4 feeder up/down abnormality		B
C0209	LCT elevator motor malfunction	See P.33 of the PC-405 service manual.	B
C0210	LCT ascent motion failure		B
C0211	Manual feed up/down abnormality	See P.24 of the MB-502 service manual.	B
C0212	LCT ejection failure	See P.33 of the PC-405 service manual.	B
C0213	LCT shift gate malfunction		B
C0214	LCT shifting failure		B
C0215	LCT shift motor 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.
C1004	FNS communication error	See P.23 of the JS-505 service manual.	C
C1182	Shift motor mechanism failure		B
C11A1	Finishing option exit roller pressure/retraction failure		B
C11E0	Route switch malfunction		B

Code	Item	Detection timing	Rank
C2151	Secondary transfer roller pressure welding alienation	<ul style="list-style-type: none"> • During a retraction operation of the 2nd image transfer roller, the 2nd image transfer welding alienation sensor cannot detect the 2nd image transfer roller at its retracted position within a predetermined period of time after the 2nd image transfer retraction motor starts rotating. • During a pressure operation of the 2nd image transfer roller, the 2nd image transfer welding alienation sensor cannot detect the 2nd image transfer roller at its pressed position within a predetermined period of time after the 2nd image transfer retraction motor starts rotating. 	B
C2152	Transfer belt pressure welding alienation	<ul style="list-style-type: none"> • During a retraction operation of the transfer belt, the transfer belt retraction sensor cannot detect the transfer belt at its retracted position within a predetermined period of time after the transfer belt retraction clutch is turned ON. • During a pressure operation of the transfer belt, the transfer belt retraction sensor cannot detect the transfer belt at its pressed position within a predetermined period of time after the transfer belt clutch is turned ON. 	B
C2164	PC charge malfunction	<ul style="list-style-type: none"> • When electrostatic charge output is ON, electrostatic charge leak detection system continues to detect leaks for a predetermined period of time. 	B
C2253	Color PC motor's failure to turn	<ul style="list-style-type: none"> • The motor lock signal remains HIGH for a predetermined continuous period of time while the motor is turning. 	B
C2254	Color PC motor's 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
C225D	Color dev. unit engagement/disengagement failure	<ul style="list-style-type: none"> • The gears remain disengaged after the lapse of a predetermined period of time after the engagement operation is started by the color dev. unit engaged motor. • The gears remain engaged after the lapse of a predetermined period of time after the disengagement operation is started by the color dev. unit engaged motor. 	B
C2451	Release new transfer belt unit	<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"> • TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 4 % or less for a given number of times consecutively. 	B
C2552	Abnormally high toner density detected cyan TCR sensor	<ul style="list-style-type: none"> • TC ratio in the developing machine, which is determined by Toner replenishing amount control mechanism, is 11 % or more for a given number of times consecutively. • When the connector of the TCR sensor is disconnected. 	B

Code	Item	Detection timing	Rank
C2553	Abnormally low toner density detected magenta TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 4 % or less for a given number of times consecutively. 	B
C2554	Abnormally high toner density detected magenta TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 11 % or more for a given number of times consecutively. When the connector of the TCR sensor is disconnected. 	B
C2555	Abnormally low toner density detected yellow TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 4 % or less for a given number of times consecutively. 	B
C2556	Abnormally high toner density detected yellow TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 11 % or more for a given number of times consecutively. When the connector of the TCR sensor is disconnected. 	B
C2557	Abnormally low toner density detected black TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 4 % or less for a given number of times consecutively. 	B
C2558	Abnormally high toner density detected black TCR sensor	<ul style="list-style-type: none"> TC ratio in the developing machine, which is determined by toner replenishing amount control mechanism, is 11 % or more for a given number of times consecutively. When the connector of the TCR sensor is disconnected. 	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
C2650	Main backup media access error	<ul style="list-style-type: none"> The re-written data, which has been read out, checked and founded as error, is read out again and found as error. The error was found when reading out the counter value. The machine detects that the service EEPROM board is not loaded in position. 	C
C2651	EEPROM access error (IU C)	<ul style="list-style-type: none"> An error was found when reading or writing data. The error was found when reading out the counter value. 	C
C2652	EEPROM access error (IU M)		C
C2653	EEPROM access error (IU Y)		C
C2654	EEPROM access error (IU K)		C

Code	Item	Detection timing	Rank
C2A01	EEPROM access error (TC C)	<ul style="list-style-type: none"> An error was found when reading or writing data. The error was found when reading out the counter value. 	C
C2A02	EEPROM access error (TC M)		C
C2A03	EEPROM access error (TC Y)		C
C2A04	EEPROM access error (TC K)		C
C3101	Fusing roller separation failure	<ul style="list-style-type: none"> With the fusing roller being retracted, the pulse of the fusing roller retraction sensor does not change even after the specified period of time has passed after the fusing retraction motor started rotating. With the fusing roller being pressed, the pulse of the roller retraction sensor does not change even after the specified period of time has passed after the fusing retraction motor started rotating. During a pressure operation of the fusing roller, the fusing roller is not at the pressed position even after the roller retraction sensor counts the specified number of pulses after the fusing retraction motor starts rotating. 	B
C3201	Fusing motor failure to turn	<ul style="list-style-type: none"> The motor lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary. 	B
C3202	Fusing 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
C3301	Fusing cooling fan motor/1 failure to turn	<ul style="list-style-type: none"> The fan motor lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary. 	B
C3302	Fusing cooling fan motor/2,3 failure to turn	<ul style="list-style-type: none"> The fan motor lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary. 	B
C3421	Fusing heaters trouble (heating side)	<ul style="list-style-type: none"> The temperature detected by the heating roller thermistor/C does not reach a predetermined level after the lapse of a predetermined period of time after the heating roller fusing heater lamp lights up. The difference between the maximum and minimum temperatures detected by the heating roller thermistor/C within a predetermined period of time after the start of a warm-up cycle is below or above a predetermined value. The temperature detected after a pressure level correction remains under a predetermined level even after the lapse of a predetermined period of time after the start of the temperature detection. During a warm-up, a zero cross signal cannot be detected after the lapse of a predetermined period of time after the fusing heater is turned ON or OFF. 	A
C3423	Fusing heaters trouble (pressurizing side)	<ul style="list-style-type: none"> After warm-up operation starts, the fusing pressure roller thermistor does not detect a temperature as high as a predetermined one though a predetermined period of time has elapsed. The temperature of the pressure roller remains lower than a predetermined level even after the lapse of a predetermined period of time after a temperature correction. 	A

Code	Item	Detection timing	Rank
C3721	Fusing abnormally high temperature detection (heating side)	<ul style="list-style-type: none"> The heating roller thermistor continues to detect a temperature higher than a predetermined one for a predetermined period of time. Hard protection signal L is detected continuously over a predetermined period of time. 	A
C3723	Fusing abnormally high temperature detection (pressurizing side)	<ul style="list-style-type: none"> The temperature of the pressure roller continues to be higher than a predetermined level for a predetermined period of time after a temperature correction. 	A
C3821	Fusing abnormally low temperature detection (heating side)	<ul style="list-style-type: none"> The heating roller thermistor continues to detect a temperature lower than a predetermined one for a predetermined period of time. In the states other than a warm-up operation, a zero cross signal cannot be detected after the lapse of a predetermined period of time after the fusing heater is turned ON or OFF. The power supply frequency cannot be detected. 	A
C3823	Fusing abnormally low temperature detection (pressurizing side)	<ul style="list-style-type: none"> The temperature of the pressure roller continues to be lower than a predetermined level for a predetermined period of time after a temperature correction. 	A
C4151	Polygon motor rotation trouble (C)	<ul style="list-style-type: none"> The polygon motor fails to turn stably even after the lapse of a given period of time after activating the polygon motor. Motor lock signal detects HIGH for a given period time consecutively during the polygon motor is rotating. 	B
C4152	Polygon motor rotation trouble (M)		B
C4153	Polygon motor rotation trouble (Y)		B
C4154	Polygon motor rotation trouble (K)		B
C4551	Laser malfunction (C)	<ul style="list-style-type: none"> SOS signal is not detected even after the lapse of a given period of time after starting the laser output. SOS signal is not detected for a given period of time during printing or image stabilization adjustment. 	B
C4552	Laser malfunction (M)		B
C4553	Laser malfunction (Y)		B
C4554	Laser malfunction (K)		B
C5102	Transport motor's failure to turn	<ul style="list-style-type: none"> The motor lock signal remains HIGH for a predetermined continuous period of time while the motor remains stationary. 	B
C5103	Transport motor's 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
C5351	Power supply cooling fan motor/1'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
C5354	Exhaust 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
C5357	Cooling fan motor/1'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
C6102	Drive system home sensor malfunction	<ul style="list-style-type: none"> The home position sensor (PS201) is defective or the exposure unit operates erratically. 	B
C6401	Other troubles of scanner	<ul style="list-style-type: none"> The scan operation was terminated abnormally because of a reason except defined trouble. 	B

Code	Item	Detection timing	Rank
C6704	Image input time out	<ul style="list-style-type: none"> The scan motion is not completed even after the lapse of a predetermined period of time because of a hardware failure or other reason. 	C
C6751	CCD clamp/gain adjustment failure	<ul style="list-style-type: none"> The automatic gain control fails to converge when the main unit is started or a scan motion is started (the exposure unit does not move to the white reference position, or the automatic gain control is not properly completed as a result of a hardware failure). 	B
C8001	<ul style="list-style-type: none"> Not used. 		
CC151	ROM contents error upon start-up	<ul style="list-style-type: none"> A fault detected in a sequence of ROM contents check of the orinter control board during starting. 	C
CC155	Finisher ROM error	See P.23 of the JS-505 service manual.	C

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Troubleshooting

- The machine displays an abort code on the control panel as it becomes unable to process tasks properly through its software control.
- When the system program is aborted, the machine attempts to restart it automatically. If it fails to restart the program, check or replace the electrical components, units, options, and connections related to the specific type of abort condition.

Code	Item	Relevant electrical components, units, and options
0x00000000 to 0x000fffff	OS processing system failure	• MFBUB
0x00100000 to 0x001fffff	Device control system failure	• MFBUB, FAXUB, MEMU/1, MEMU/2, job separator
0x00200000 to 0x002fffff	Copy control system failure	• MFBUB
0x00300000 to 0x003fffff	Operation system failure	• MFBUB, control panel
0x00500000 to 0x005fffff	Conversion processing system failure	• MFBUB
0x00600000 to 0x006fffff	Encoding processing system failure	• MFBUB, MEMU/1, MEMU/2
0x00700000 to 0x007fffff	File control system failure	• MFBUB, MEMU/1, MEMU/2
0x00800000 to 0x008fffff	G3 protocol processing system failure	• MFBUB, FAXUB, MEMU/1, MEMU/2
0x00900000 to 0x009fffff	G3 device control system failure	• MFBUB, FAXUB, MEMU/1, MEMU/2
0x00c00000 to 0x00c0ffff	Scanner control system failure	• MFBUB, BCRUB, INVB, ADF
0x00c10000 to 0x00c2ffff	Scanner control system failure	• MFBUB, BCRUB, INVB, ADF
0x00c30000 to 0x00c4ffff	Scanner control system failure	• MFBUB, BCRUB, INVB, ADF
0x00c50000 to 0x00c5ffff	Scanner control system failure	• MFBUB, BCRUB, INVB, ADF
0x00d00000 to 0x00d3ffff	Scanner device control system failure	• MFBUB, BCRUB, INVB
0x00d80000 to 0x00dbffff	Scanner device control system failure	• MFBUB, BCRUB, INVB, ADF
0x00dc0000 to 0x00dfffff	Scanner device control system failure	• MFBUB, home position sensor, scanner drive system, BCRUB
0x00e00000 to 0x00e000ff	Printer sequence system failure	• MFBUB, MEMU/1, MEMU/2
0x00e00100 to 0x00e001ff	Printer sequence system failure	• MFBUB, MEMU/1, MEMU/2
0x00e00200 to 0x00e002ff	Printer sequence system failure	• MFBUB, MEMU/1, MEMU/2
0x00e00300 to 0x00e003ff	Printer sequence system failure	• MFBUB, MEMU/1, MEMU/2
0x00e00400 to 0x00e004ff	Printer sequence system failure	• MFBUB, MEMU/1, MEMU/2
0x00f00000 to 0x00f0ffff	Printer system failure	• MFBUB, MEMU/1, MEMU/2
0x00f20000 to 0x00f2ffff	Counter sequence system failure	• MFBUB
0x01100000 to 0x011000ff	Other failures	• MFBUB
0x01100100 to 0x011001ff	Copy sequence system failure	• MFBUB
0x01100400 to 0x011004ff	Function sequence system failure	• MFBUB
0x02000000 to 0x020fffff	OS message processing system failure	• MFBUB, MEMU/1, MEMU/2
0x03000000 to 0x030fffff	Network processing system failure	• MFBUB, MEMU/1, MEMU/2

17.4 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.271
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

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17.5 Solution

17.5.1 C0301: Suction fan motor's failure to turn

Relevant parts	
Suction fan motor (FM10)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM10 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM10 operation check	PRCB CN6-8 (REM) PRCB CN6-9 (LOCK)	C to D-8
4	Change the right door assy	—	—
5	Change PRCB	—	—

17.5.2 C2151: Secondary transfer roller pressure welding alienation

Relevant parts	
2nd image transfer pressure retraction motor (M5) 2nd image transfer welding alienation sensor (PS36)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M5 connector for proper connection and correct as necessary.	—	—
2	Check the connector of M5 for proper drive coupling and correct as necessary.	—	—
3	PS36 I/O check, sensor check	PRCB CN6-15 (ON)	C to D-9
4	Change the right door assy	—	—
5	Change PRCB	—	—

17.5.3 C2152: Transfer belt pressure welding alienation

Relevant parts	
Fusing motor (M2) Transfer belt pressure retraction clutch (CL3) Transfer belt retraction sensor (PS6)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M5 connector for proper connection and correct as necessary.	—	—
2	PS6 I/O check, sensor check	PRCB CN33-15 (ON)	C to D-10
3	CL3 operation check	PRCB CN30-10 (ON)	C to D-24 to 25
4	M2 operation check	PRCB CN27-4 (REM) PRCB CN27-7 (LOCK)	C to D-22
5	Change CL3	—	—
6	Change M2	—	—
7	Change PRCB	—	—

17.5.4 C2164: PC charge malfunction

Relevant parts	
Imaging unit	High voltage unit (HV) Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the imaging unit for proper connection and correct as necessary.	—	—
2	Check the HV connector for proper connection and correct as necessary.	—	—
3	Check the PRCB connector for proper connection and correct as necessary.	—	—
4	Change IU	—	—
5	Change HV	—	—
6	Change PRCB	—	—

17.5.5 C2253: Color PC motor's failure to turn**17.5.6 C2254: Color PC motor's turning at abnormal timing**

Relevant parts	
Color PC motor (M3)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M3 connector for proper connection and correct as necessary.	—	—
2	Check the M3 connector for proper drive coupling and correct as necessary.	—	—
3	Check the PRCB connector for proper connection and correct as necessary.	—	—
4	M3 operation check	PRCB CN28-9 (REM) PRCB CN28-11 (LOCK)	C to D-23 to 24
5	Change M2	—	—
6	Change PRCB	—	—

17.5.7 C225D: Color dev. unit engagement/disengagement failure

Relevant parts	
Color dev. unit engaged motor (M4) Color dev. unit engaged position sensor (PS19)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M4 connector for proper connection and correct as necessary.	—	—
2	Check the M4 connector for proper drive coupling and correct as necessary.	—	—
3	Check the PRCB connector for proper connection and correct as necessary.	—	—
4	PS19 I/O check, sensor check	PRCB CN33-18 (ON)	C to D-10
5	M4 operation check	PRCB CN33-20 (REM)	C to D-10
6	Change M4	—	—
7	Change PRCB	—	—

17.5.8 C2451: Release new transfer belt unit

Relevant parts			
Transfer belt unit		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall unit	—	—
2	Check there is a short circuit in the fuse of the transfer belt unit.	—	—
3	Check the PRCB connector for proper connection and correct as necessary.	—	—
4	Change PRCB	—	—

17.5.9 C2551: Abnormally low toner density detected cyan TCR sensor

17.5.10 C2553: Abnormally low toner density detected magenta TCR sensor

17.5.11 C2555: Abnormally low toner density detected yellow TCR sensor

Relevant parts			
Imaging unit /C Imaging unit /M Imaging unit /Y Toner cartridge /C Toner cartridge /M Toner cartridge /Y		Toner supply motor/CK (M7) Toner supply motor/YM (M6) Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall imaging unit	—	—
2	Reinstall toner cartridge	—	—
3	M6 operation check (At this time, IU must be non-installation.)	PRCB CN30-5 to 8	C to D-24
4	M7 operation check (At this time, IU must be non-installation.)	PRCB CN30-1 to 4	C to D-24
5	Change imaging unit	—	—
6	Change PRCB.	—	—

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17.5.12 C2552: Abnormally high toner density detected cyan TCR sensor**17.5.13 C2554: Abnormally high toner density detected magenta TCR sensor****17.5.14 C2556: Abnormally high toner density detected yellow TCR sensor**

Relevant parts	
Imaging unit /C Imaging unit /M Imaging unit /Y Toner cartridge /C Toner cartridge /M Toner cartridge /Y	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall imaging unit	—	—
2	Reinstall toner cartridge	—	—
3	Change imaging unit	—	—
4	Change PRCB	—	—

17.5.15 C2557: Abnormally low toner density detected black TCR sensor

Relevant parts	
Imaging unit /K Toner cartridge /K	Toner supply motor/CK (M7) Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	M7 operation check (At this time, IU must be non-installation.)	PRCB CN30-1 to 4	C to D-24
2	Reinstall imaging unit	—	—
3	Reinstall toner cartridge	—	—
4	Change imaging unit /K	—	—
5	Change PRCB.	—	—

17.5.16 C2558: Abnormally high toner density detected black TCR sensor

Relevant parts	
Imaging unit /K Toner cartridge /K	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall imaging unit	—	—
2	Reinstall toner cartridge	—	—
3	Change imaging unit/K	—	—
4	Change PRCB	—	—

17.5.17 C2559: Cyan TCR sensor adjustment failure

17.5.18 C255A: Magenta TCR sensor adjustment failure

17.5.19 C255B: Yellow TCR sensor adjustment failure

Relevant parts	
Imaging unit /C Imaging unit /M Imaging unit /Y	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall imaging unit	—	—
2	Change imaging unit	—	—
3	Change PRCB	—	—

17.5.20 C255C: Black TCR sensor adjustment failure

Relevant parts	
Imaging unit /K	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Reinstall imaging unit /K	—	—
2	Change imaging unit /K	—	—
3	Change PRCB	—	—

17.5.21 C2650: Main backup media access error

Relevant parts			
Service EEPROM board (SVERB)		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the connector (CN36) on PRCB, the connector (CN1) on SVERB, and the harness between the boards for proper connection and correct as necessary.	—	—
2	<p>Change PRCB</p> <ol style="list-style-type: none"> 1. Turn OFF the main power switch and replace the current PRCB with a new one. (When using a PRCB of another machine in service, be sure to use a PRCB installed in the same model.) <p>See P.82</p> <ol style="list-style-type: none"> 2. Update the PRCB firmware. 3. After completing the firmware update, turn OFF and ON the main power switch and check to see that warm-up is started. Make sure that malfunction codes other than C2650 or improper IU/TC placement is not detected. 4. When the trouble cannot be solved, reinstall the removed PRCB to the original board. <p>NOTE</p> <ul style="list-style-type: none"> • When taking the above steps, check whether PRCB is defective or not without replacing the SVERB. 	—	—
3	<p>Change SVERB</p> <ol style="list-style-type: none"> 1. Replace the current SVERB with a new one. <p>See P.83</p> <ol style="list-style-type: none"> 2. Turn ON the main power switch and check to see that warm-up is started. (One minute is spent to prepare the new SVERB for use. During the period, the control panel backlight stays off.) Make sure that malfunction codes other than C2650 or improper IU/TC placement is not detected. 3. Make the specified readjustments. <p>See P.83</p>	—	—
4	If the above actions do not solve the problem, contact KMBT.	—	—

- 17.5.22 C2651: EEPROM access error (IU C)**
- 17.5.23 C2652: EEPROM access error (IU M)**
- 17.5.24 C2653: EEPROM access error (IU Y)**
- 17.5.25 C2654: EEPROM access error (IU K)**

Relevant parts	
Imaging unit /C Imaging unit /M Imaging unit /Y Imaging unit /K	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Clean the connection between the imaging unit and the machine if dirty	—	—
2	Reinstall imaging unit	—	—
3	Check the harness for proper connection and correct as necessary.	—	—
4	Change imaging unit	—	—
5	Change PRCB	—	—

- 17.5.26 C2A01: EEPROM access error (TC C)**
- 17.5.27 C2A02: EEPROM access error (TC M)**
- 17.5.28 C2A03: EEPROM access error (TC Y)**
- 17.5.29 C2A04: EEPROM access error (TC K)**

Relevant parts	
Toner cartridge /C Toner cartridge /M Toner cartridge /Y Toner cartridge /K	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Clean the connection between the toner cartridge and the machine if dirty.	—	—
2	Reinstall toner cartridge	—	—
3	Check the harness for proper connection and correct as necessary.	—	—
4	Change toner cartridge	—	—
5	Change PRCB	—	—

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Troubleshooting

17.5.30 C3101: Fusing roller separation failure

Relevant parts	
Fusing pressure roller retraction motor (M12) Fusing pressure home sensor (PS38)	Printer control board (PRCB) Fusing unit

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M12 connector for proper connection and correct as necessary.	—	—
2	PS38 I/O check, sensor check	PRCB CN30-13 (ON)	C to D-25
3	M12 operation check	PRCB CN31-1 to 2	C to D-25
4	Change M12	—	—
5	Change fusing unit	—	—
6	Change PRCB	—	—

17.5.31 C3201: Fusing motor failure to turn**17.5.32 C3202: Fusing motor turning at abnormal timing**

Relevant parts	
Fusing motor (M2)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M2 connector for proper connection and correct as necessary.	—	—
2	Check the loading status of the fusing unit drive, and correct the error as necessary.	—	—
3	Check the fusing unit, PRCB for proper connection and correct or change as necessary.	—	—
4	M2 operation check	PRCB CN27-4 (REM) PRCB CN27-7 (LOCK)	C to D-22
5	Change M2	—	—
6	Change PRCB	—	—

17.5.33 C3301: Fusing cooling fan motor/ 1 failure to turn

Relevant parts			
Fusing cooling fan motor (FM13)		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM13 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM13 operation check	PRCB CN31-4 (REM) PRCB CN31-5 (LOCK)	C to D-26
4	Change FM13	—	—
5	Change PRCB	—	—

17.5.34 C3302: Fusing cooling fan motor/ 2,3 failure to turn

Relevant parts			
Fusing cover cooling fan motor (FM11)		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM11 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM11 operation check	PRCB CN31-7 (REM) PRCB CN31-8 (LOCK)	C to D-26
4	Change FM11	—	—
5	Change PRCB	—	—

17.5.35 C3421: Fusing heaters trouble (heating side)**17.5.36 C3423: Fusing heaters trouble (pressurizing side)**

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

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the fusing unit for correct installation (whether it is secured in position).	—	—
2	Check the open/close operation of the upper right door.	—	—
3	Check the fusing unit, PRCB and DCPU for proper connection and correct or change as necessary.	—	—
4	Change fusing unit	—	—
5	Change PRCB	—	—
6	Change DCPU	—	—

17.5.37 C3721: Fusing abnormally high temperature detection (heating side)**17.5.38 C3723: Fusing abnormally high temperature detection (pressurizing side)**

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

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the fusing unit for correct installation (whether it is secured in position).	—	—
2	Check the open/close operation of the upper right door.	—	—
3	Check the fusing unit, PRCB and DCPU for proper connection and correct or change as necessary.	—	—
4	Change fusing unit	—	—
5	Change PRCB	—	—
6	Change DCPU	—	—

17.5.39 C3821: Fusing abnormally low temperature detection (heating side)

17.5.40 C3823: Fusing abnormally low temperature detection (pressurizing side)

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

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the fusing unit for correct installation (whether it is secured in position).	—	—
2	Check the open/close operation of the upper right door.	—	—
3	Check the fusing unit, PRCB and DCPU for proper connection and correct or change as necessary.	—	—
4	Change fusing unit	—	—
5	Change PRCB	—	—
6	Change DCPU	—	—

17.5.41 C4151: Polygon motor rotation trouble (C)

17.5.42 C4152: Polygon motor rotation trouble (M)

17.5.43 C4153: Polygon motor rotation trouble (Y)

17.5.44 C4154: Polygon motor rotation trouble (K)

Relevant parts	
PH unit	PH relay board (REYBPH) Printer control board (PRCB)

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

17.5.45 C4551: Laser malfunction (C)**17.5.46 C4552: Laser malfunction (M)****17.5.47 C4553: Laser malfunction (Y)****17.5.48 C4554: Laser malfunction (K)**

Relevant parts	
PH unit	PH relay board (REYBPH) Printer control board (PRCB)

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

17.5.49 C5102: Transport motor's failure to turn**17.5.50 C5103: Transport motor's turning at abnormal timing**

Relevant parts	
Transport motor (M1)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the M1 connector for proper connection and correct as necessary.	—	—
2	Check M1 for proper drive coupling and correct as necessary.	—	—
3	Check the PRCB connector for proper connection and correct as necessary.	—	—
4	M1 operation check	PRCB CN27-14 (REM) PRCB CN28-2 (LOCK)	C to D-23
5	Change M1	—	—
6	Change PRCB	—	—

17.5.51 C5351: Power supply cooling fan motor's failure to turn

Relevant parts			
Power supply cooling fan motor (FM8)		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM8 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM8 operation check	PRCB CN22-8 (ON) PRCB CN22-9 (LOCK)	K-8
4	Change FM8	—	—
5	Change DCPU	—	—
6	Change PRCB	—	—

17.5.52 C5354: Exhaust fan motor's failure to turn

Relevant parts			
Exhaust fan motor (FM14)		Printer control board (PRCB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM14 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM14 operation check	PRCB CN5-1 (REM) PRCB CN5-3 (LOCK)	C to D-3
4	Change FM14	—	—
5	Change PRCB	—	—

17.5.53 C5357: Cooling fan motor/1's failure to turn

Relevant parts	
Cooling fan motor/1 (FM16)	Printer control board (PRCB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the FM16 connector for proper connection and correct as necessary.	—	—
2	Check the fan for possible overload and correct as necessary.	—	—
3	FM16 operation check	PRCB CN22-4 (ON) PRCB CN22-6 (LOCK)	K-7
4	Change FM16	—	—
5	Change PRCB	—	—

17.5.54 C6102: Drive system home sensor malfunction

Relevant parts	
Home position sensor (PS201) Scanner motor (M201)	BCRU board (BCRUB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Correct or change the scanner drive (wire, pulley, gear, belt) if it is faulty.	—	—
2	Correct the scanner motor set screw if loose.	—	—
3	Check the PS201, M201 and BCRUB connector for proper connection and correct as necessary.	—	—
4	PS201 I/O check, sensor check	BCRUB CN6-5 (CRG1SNS)	U-20 to 21
5	M201 operation check	BCRUB CN4-1 to 4	U-21
6	Change M201.	—	—
7	Change BCRUB.	—	—

17.5.55 C6401: Other troubles of scanner

Relevant parts			
BCRU board (BCRUB) Exposure unit		MFBU board (MFBUB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the connectors between BCRUB and MFBUB for proper connection and correct as necessary.	—	—
2	Change BCRUB	—	—
3	Change MFBUB	—	—
4	Change exposure unit	—	—

17.5.56 C6704: Image input time out

Relevant parts			
BCRU board (BCRUB) Exposure unit		MFBU board (MFBUB)	
Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Check the connectors between BCRUB and MFBUB for proper connection and correct as necessary.	—	—
2	Change BCRUB	—	—
3	Change MFBUB	—	—
4	Change exposure unit	—	—

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17.5.57 C6751: CCD clamp/gain adjustment failure

Relevant parts	
Exposure unit	CCDU board (CCDUB) BCRU board (BCRUB)

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Correct the harness connection between CCDUB and BCRUB if faulty.	—	—
2	Check for possible extraneous light and correct as necessary.	—	—
3	Clean the lens, mirrors, CCD surface, and shading sheet if dirty	—	—
4	Correct reflective mirror of the scanner if faulty, or change scanner.	—	—
5	Change BCRUB	—	—
6	Change exposure unit	—	—

17.5.58 CC151: ROM contents error upon start-up

Step	Action	WIRING DIAGRAM	
		Control signal	Location (Electrical component)
1	Restart the machine.	—	—
2	Check the ROM version.	—	—
3	Rewrite the firmware.	—	—
4	Change PRCB	—	—

18. Power supply trouble

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

Relevant parts	
Main power switch (SW1) Front door switch/1 (MS3) Front door switch/2 (MS4) Printer control board (PRCB)	DC power supply (DCPU)

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is a power voltage supplied across CN1_INP-1 and 2 on DCPU?	T-3	NO	Check the wiring from the wall outlet to SW1 to CN1_INP.
2	Are the fuses on DCPU conducting?	—	NO	Change DCPU.
3	Is DC24 V being output from CN_SIG-1 on DCPU?	R-3 to 4	NO	Change DCPU.
4	Is DC5 V being input to CN_MCB-5 and 7 on DCPU?	R-4 to 5	NO	Change DCPU.
5	Is DC5 V being input to CN26-4 on PRCB? (LED on PRCB does not blink.)	H to I-3 to 4	NO	Change DCPU.
			YES	Change PRCB.

18.2 Control panel indicators do not light.

Relevant parts	
BCRU board (BCRUB) OPEU board (OPEUB) LCD board (LCDB) LCD_INV board (LCDINVB)	MFBU board (MFBUB) DC power supply (DCPU)

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is the I/F cable between the scanner and engine connected properly?	—	NO	Reconnect or change the I/F cable.
2	Is a power voltage being applied across CN_SCN1-8 on DCPU?	R-3	NO	Check the wiring from the wall outlet to SW1 to CN_SCN1.
3	Is the fuse on DCPU conducting?	—	NO	Change DCPU.
4	Is CN12 on MFBUB to CN2 on BCRUB securely connected?	V-6 W-19	NO	Reconnect.
5	Is CN3 on BCRUB to CN1 on OPEUB securely connected?	W-17 to 18 U to V-17 to 18	NO	Reconnect.

18.3 Fusing heaters do not operate

Relevant parts	
Main power switch (SW1) Right door switch (MS5) Fusing unit	DC power supply (DCPU)

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is the power source voltage applied across CN_MCB-4 on DCPU? During this time, the right door should be closed.	R-4 to 5	NO	Check wiring from power outlet to SW1 to CN_MCB-4 to MS5.
2	Is the power source voltage applied across CN1FIX-1 to 3 or CN1FIX-2 to 3?	D-21	YES	Fusing unit
			NO	Change DCPU.

18.4 Power is not supplied to option

18.4.1 DF-612

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is CN13 on MFBUB to CN1 on DF-612 securely connected?	U to V-7 to 9	NO	Reconnect.
2	Is the fuse on DCPU conducting?	—	YES	Malfunction in DF-612.
			NO	Change DCPU.

18.4.2 PC-105/104/204/405

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Is DC24 V being applied to hookup connector CN79-14?	K-22	NO	Malfunction in paper feed cabinet
2	Is DC24 V being output from CN_OPN-2 on DCPU?	R-5	NO	Check wiring from DCPU to CN_OPN to paper feed cabinet.
3	Is the fuse on DCPU conducting?	—	YES	Malfunction in paper feed cabinet
			NO	Change DCPU.

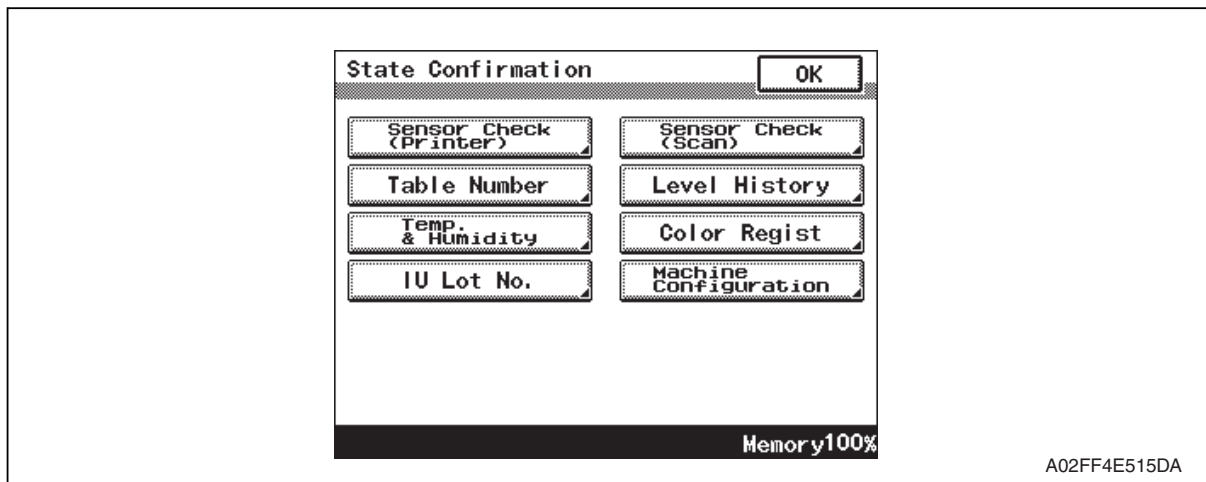
18.4.3 JS-505

Step	Check item	WIRING DIAGRAM (Location)	Result	Action
1	Are DC24 V being applied to CN86-1?	K-25	NO	Malfunction in JS-505.
2	Is DC24 V being output from CN_OPN-1 on DCPU?	R-5	NO	Check wiring from DCPU to JS-505.
3	Is the fuse on DCPU conducting?	—	YES	Malfunction in JS-505.
			NO	Change DCPU.

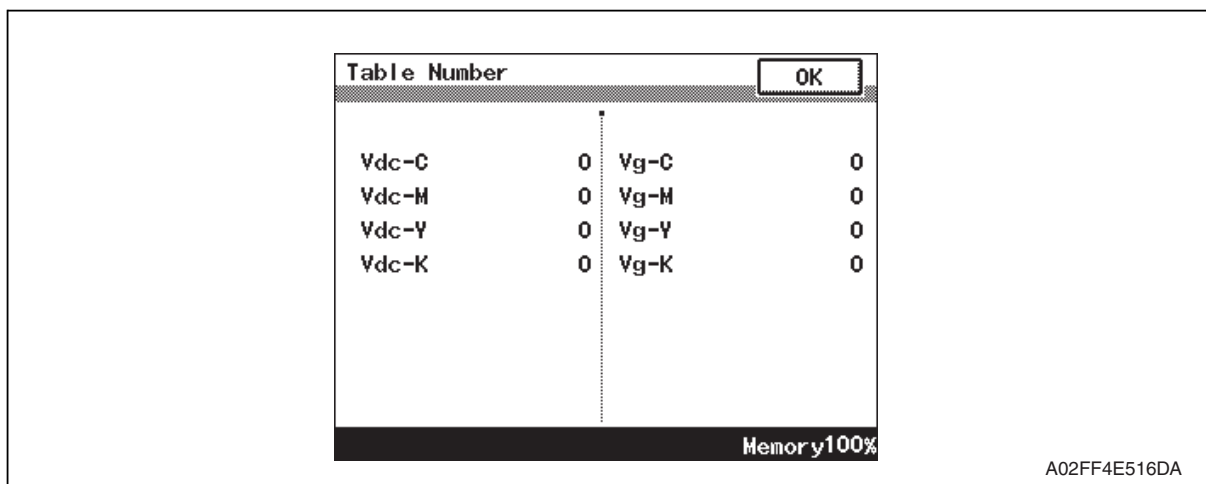
19. Image quality problem

19.1 How to read element date

- As part of troubleshooting procedures, the numeric values set for “State Confirmation” available from “Service Mode” can be used to isolate the cause of the image problem.

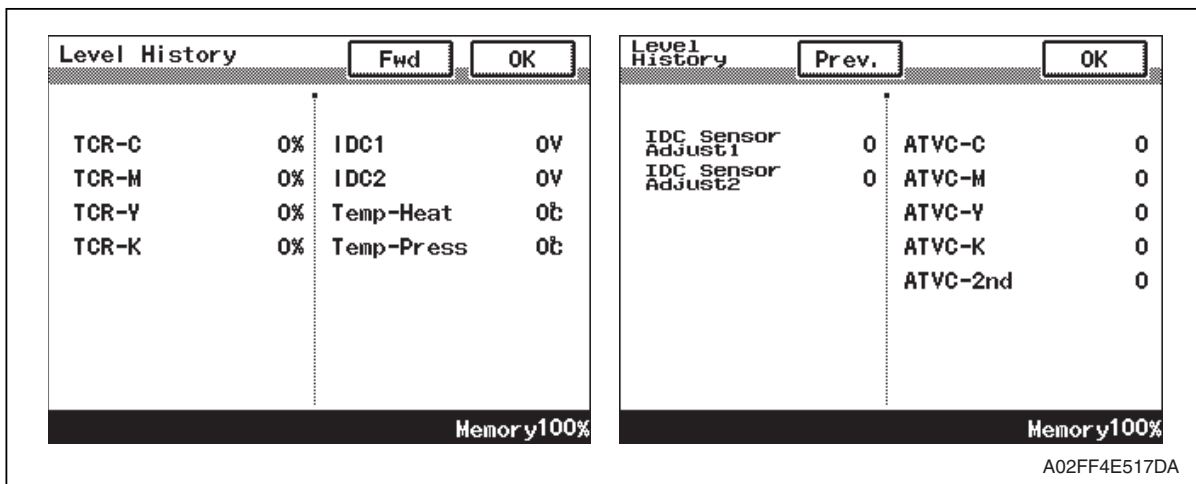


19.1.1 Table number



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 100 to 800 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 (HV)
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 300 to 1100 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 (HV)

19.1.2 Level history



A02FF4E517DA

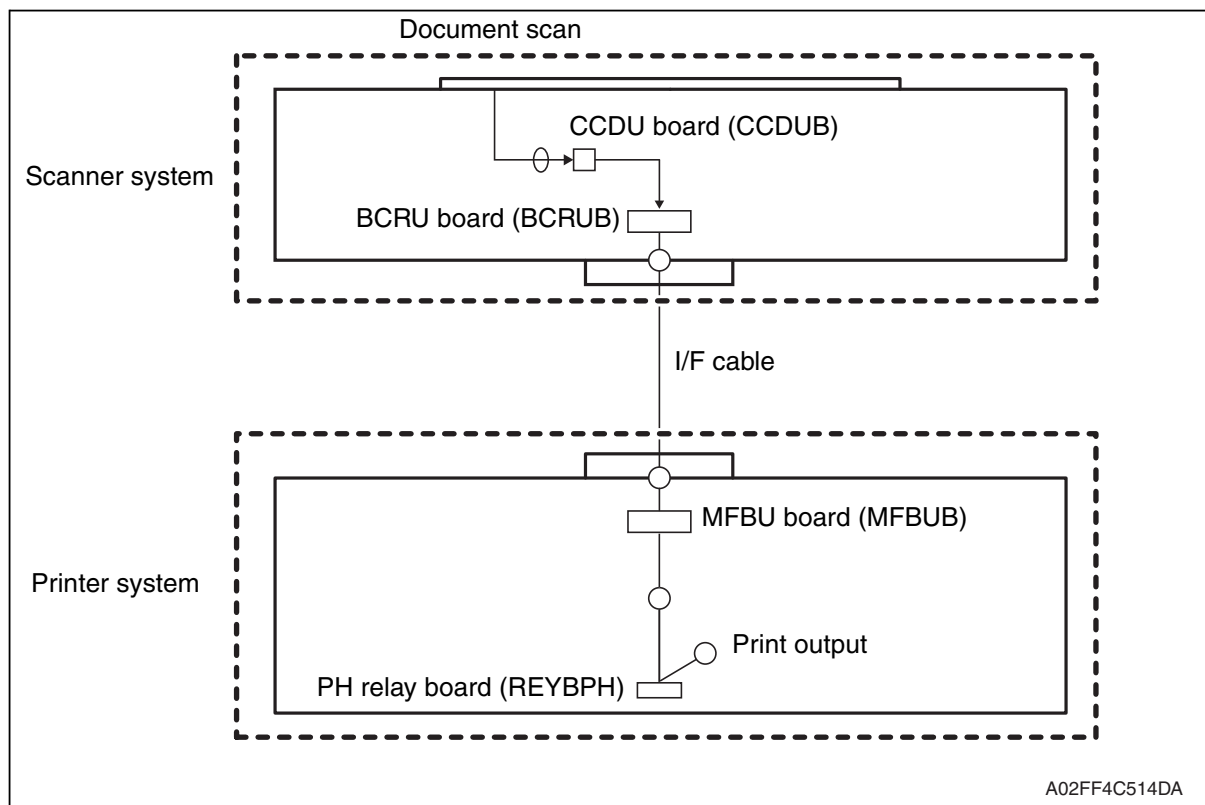
TCR-C TCR-M TCR-Y TCR-K	<ul style="list-style-type: none"> Shows the T/C ratio reading taken last (in 0.01 % increments). Standard value: 6 to 8 % Relevant components: TCR sensor “Reading taken last” means: Latest value When the Start key is pressed, the output value is displayed while a test print is being produced.
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: Present value Relevant components: IDC sensor, transfer belt unit
Temp-Heat Temp-Press	<ul style="list-style-type: none"> Shows the temperature of the each part of the fusing unit (in 1 °C increments). Relevant components: Fusing unit
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). 5 μA to 40 μA (ATVC-C/-M/-Y/-K) 300 V to 4800 V (ATVC-2nd) Relevant components: Transfer belt unit, High voltage unit (HV), 2nd transfer assy

19.2 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.”

19.2.1 Initial check items 1

- Let the machine produce a test print and determine whether the image problem is attributable to the scanner or printer system.

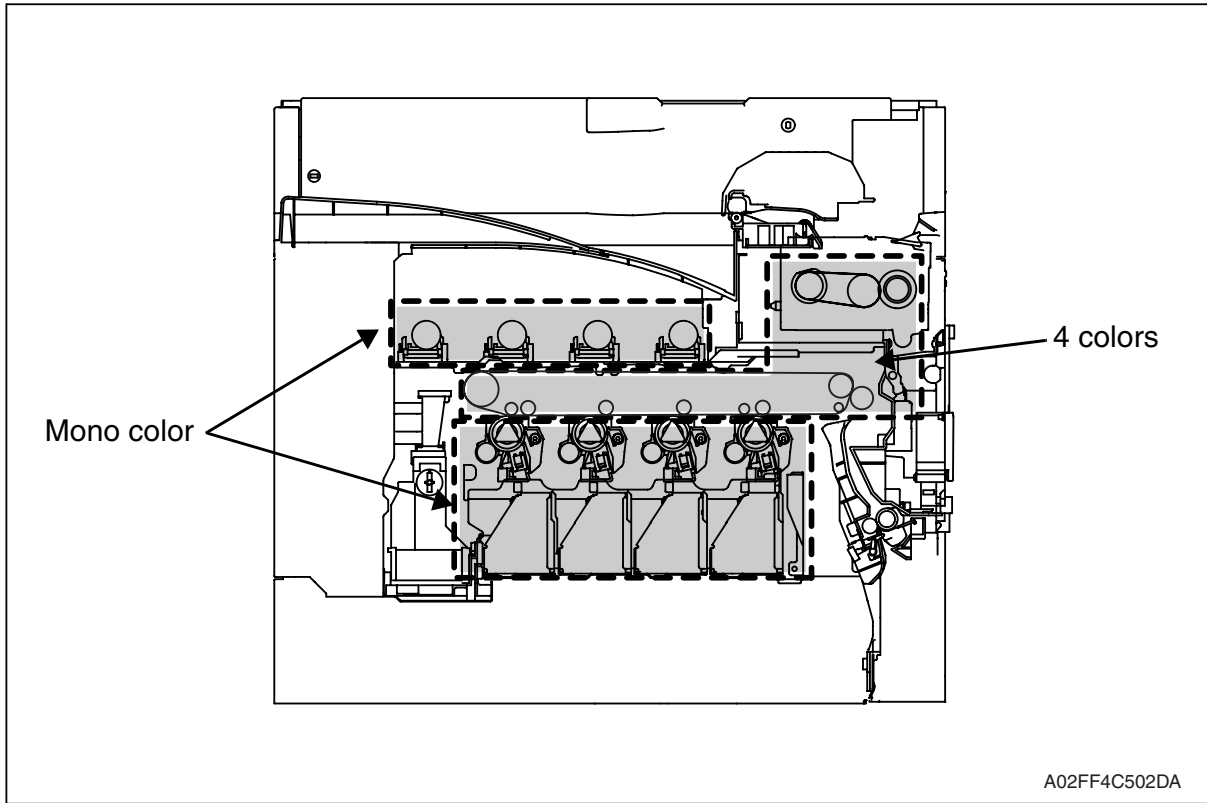


- Evaluation procedure

Image problem	Action	Result	Cause	Next step
Lines, bands	From [Service Mode], select [Test Mode] → [Halftone Pattern] → [SINGLE] → [HYPER] → [Gradation] → [Density 64] → [FWD] → [C→M→Y→K], and produce a test print. Is image problem evident?	YES	Printer	Initial check items 2
		NO	Scanner	P.321

A. 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 single color or four colors.



- Evaluation procedure

Image problem	Action	Result	Cause	Next step
Lines, bands	From [Service Mode], select [Test Mode] → [Halftone Pattern] → [SINGLE] → [HYPER] → [Gradation] → [Density 64] → [FWD] → [C→M→Y→K], and produce a test print. Is image problem evident in each of all four colors?	YES	Printer, 4 colors	P.350
		NO	Printer, single color	P.336

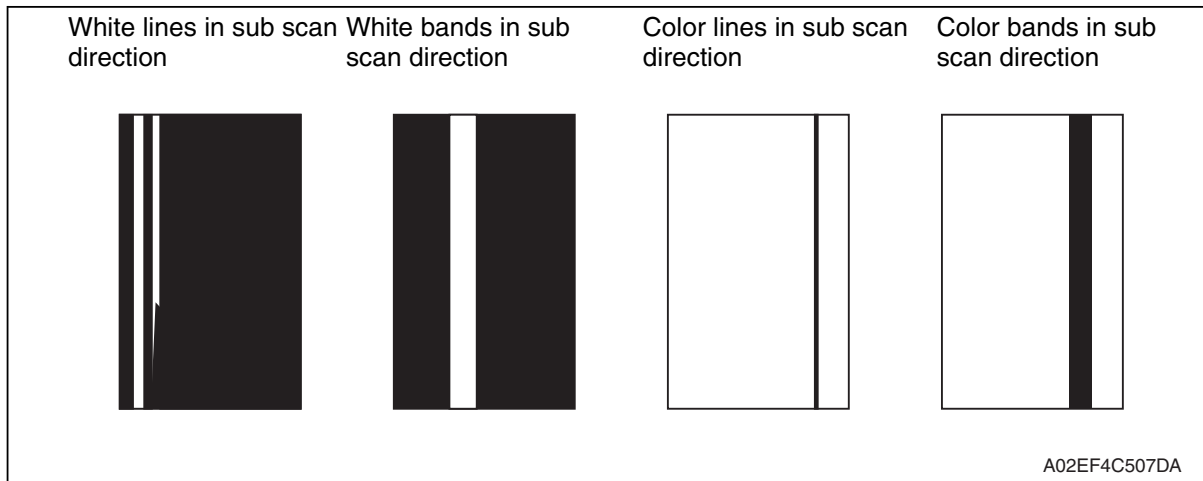
19.3 Solution

NOTE

- Typical faulty image samples shown in the following are all printed with A4S setting.

19.3.1 Scanner system: 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

(1) When the original glass is used

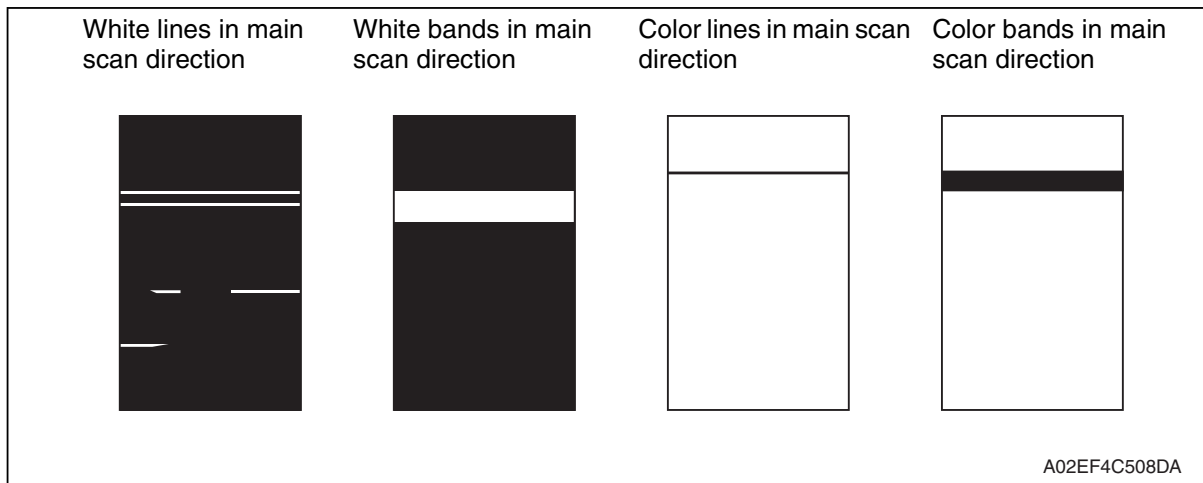
Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	Original cover	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
4	Shading sheet	Shading sheet is dirty.	YES	Wipe the surface clean with a soft cloth.
5	Mirror, lens, exposure lamp, and reflectors	Mirror is dirty	YES	Clean.
		Lens is dirty	YES	Clean.
		Exposure lamp is dirty	YES	Clean.
		Reflectors are dirty	YES	Clean.
6	Machine Adjustment → Scan Area → Feed adjustment (Service Mode)	The adjustment value for [Feed] falls within the specified range.	NO	Readjust.
7		The white lines/bands or colored lines/bands are blurry.	YES	Change exposure unit.

(2) When the ADF is used

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF reading section	Glass is dirty.	YES	Clean.
3	Shading sheet	Shading sheet is dirty.	YES	Wipe the surface clean with a soft cloth.
4	Mirror, lens, exposure lamp, and reflectors	Mirror is dirty	YES	Clean.
		Lens is dirty	YES	Clean.
		Exposure lamp is dirty	YES	Clean.
		Reflectors are dirty	YES	Clean.
5	Machine Adjustment → Scan Area → Feed adjustment (Service Mode)	The adjustment value for [Feed] falls within the specified range.	NO	Readjust.
6		The white lines/bands or colored lines/bands are blurry.	YES	Change exposure unit.

19.3.2 Scanner system: 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

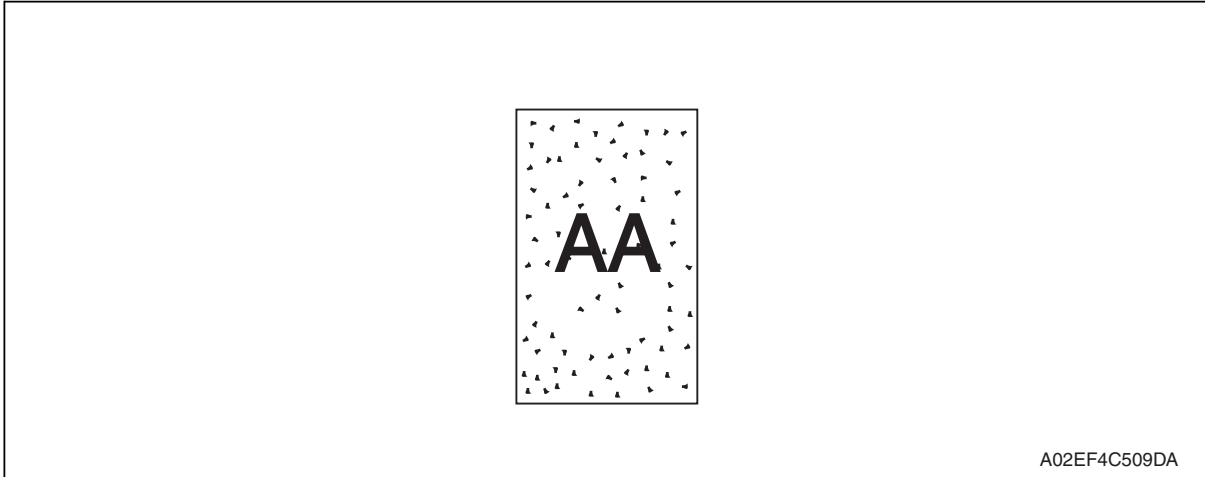


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
4	Machine Adjustment → Scan Area → Feed adjustment (Service Mode)	The adjustment value for [Feed] falls within the specified range.	NO	Readjust.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Change exposure unit.

19.3.3 Scanner system: color spots

A. Typical faulty images

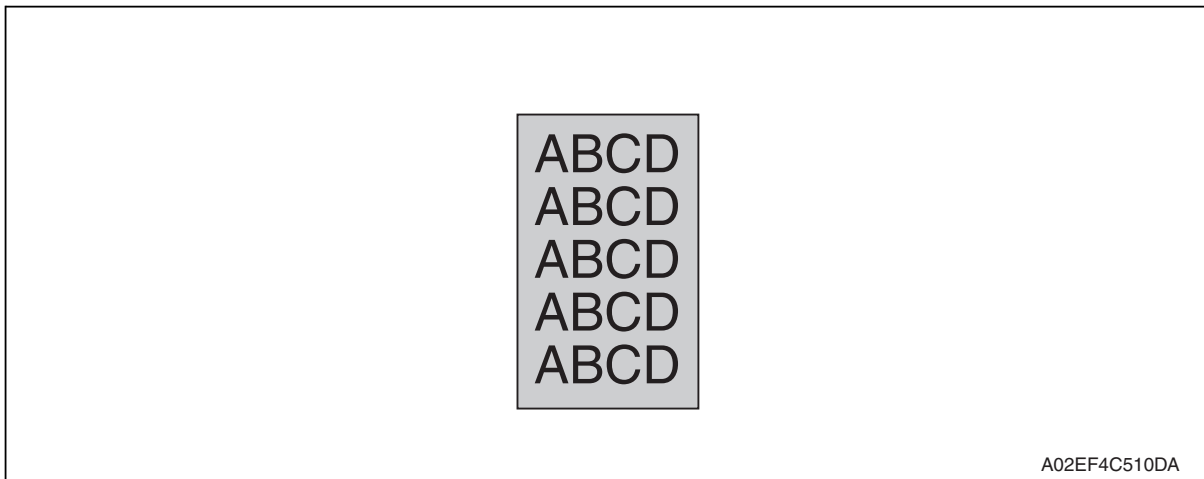


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Change exposure unit.

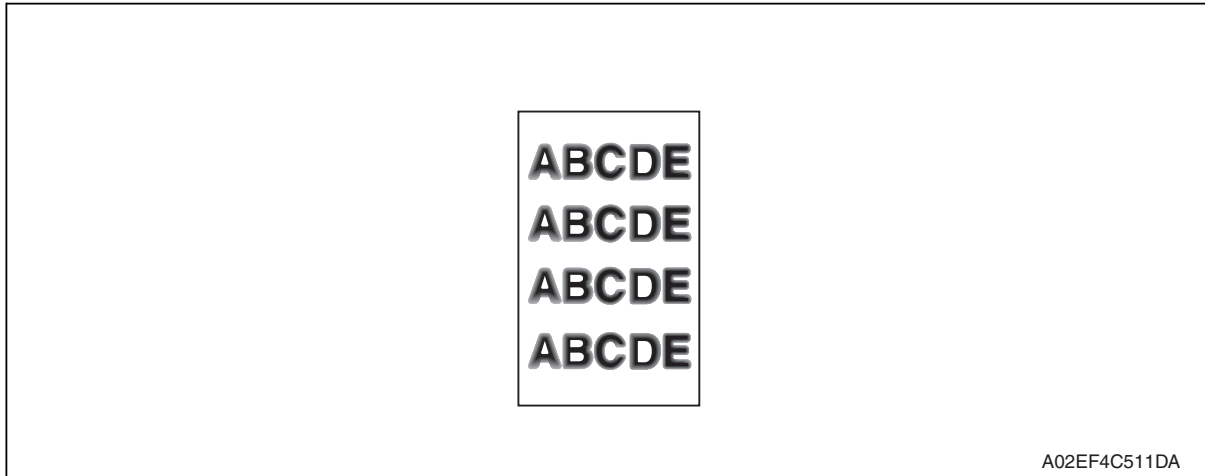
19.3.4 Scanner system: fog

A. Typical faulty images



B. Troubleshooting procedure

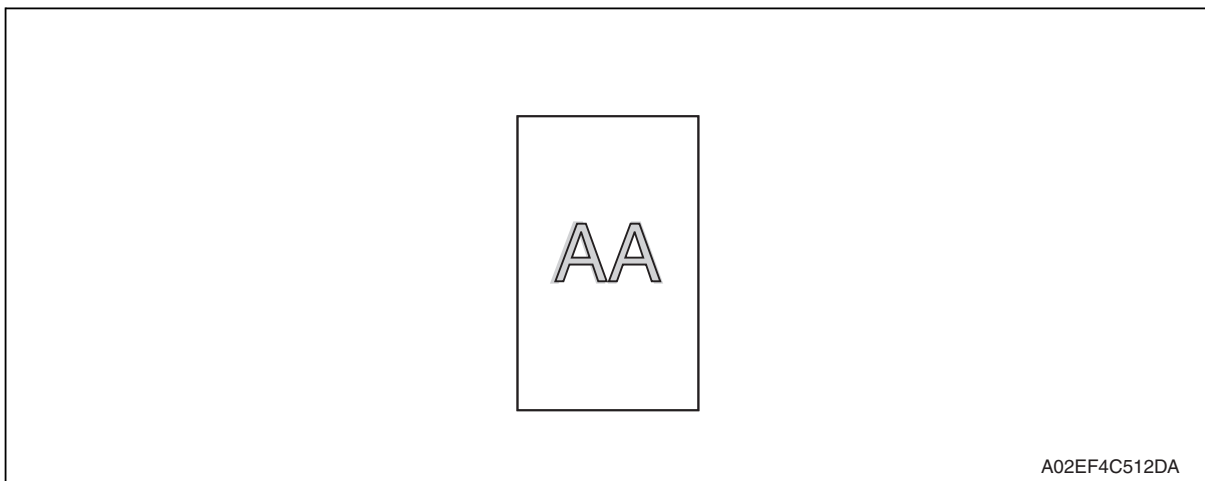
Step	Section	Check item	Result	Action
1	Original	Original is damaged or dirty.	YES	Change original.
2	ADF	Original pad is dirty.	YES	Clean.
3		ADF does not lie flat.	YES	Change ADF if it is deformed or hinges are broken.
4	Original glass	Original glass is dirty.	YES	Wipe the surface clean with a soft cloth.
5	Shading sheet	Shading sheet is dirty.	YES	Wipe the surface clean with a soft cloth.
6	Mirror, lens, exposure lamp, and reflectors	Mirror is dirty.	YES	Clean.
7		Lens is dirty.	YES	Clean.
8		Exposure lamp is dirty.	YES	Clean.
9		Reflectors are dirty.	YES	Clean.
10	Basic screen Quality/Density	The problem is eliminated when the image is produced in the manual exposure setting.	NO	Try another exposure level in manual.
11		The problem has been eliminated through the checks of steps up to 10.	NO	Change exposure unit.

19.3.5 Scanner system: blurred image, blotchy image**A. Typical faulty images****B. Troubleshooting procedure**

Step	Section	Check item	Result	Action
1	Original	Original does not lie flat.	YES	Change original.
2	ADF	ADF does not lie flat.	YES	Change ADF if it is deformed or hinges are broken.
3	Original glass	Original glass tilts.	YES	Position original glass correctly. Check original loading position.
4	Exposure unit	Exposure unit is not installed precisely.	YES	Reinstall.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Change exposure unit.

19.3.6 Scanner system: incorrect color image registration, sync shift (lines in main scan direction)

A. Typical faulty images

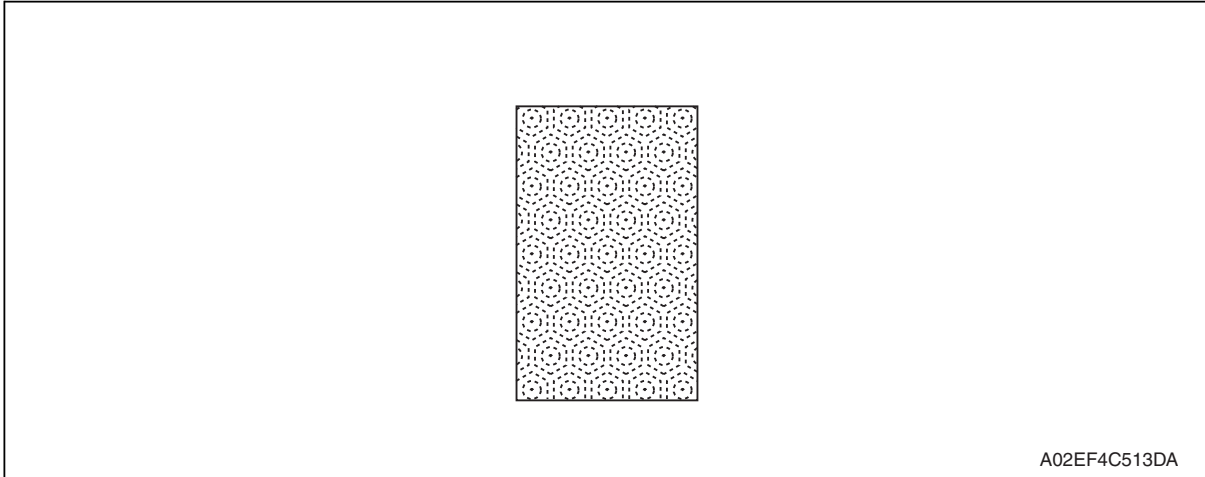


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original does not lie flat.	YES	Change original.
2	ADF	ADF does not lie flat.	YES	Change ADF if it is deformed or hinges are broken.
3	Scanner rails	Foreign matter on rails.	YES	Clean and apply lubricant.
4	Scanner drive wires	Wire kinks or is damaged.	YES	Correct or change.
5	Exposure unit	Exposure unit moves smoothly.	NO	Adjust the scanner motor timing belt. → Change scanner motor. → Change BCRUB.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change exposure unit.

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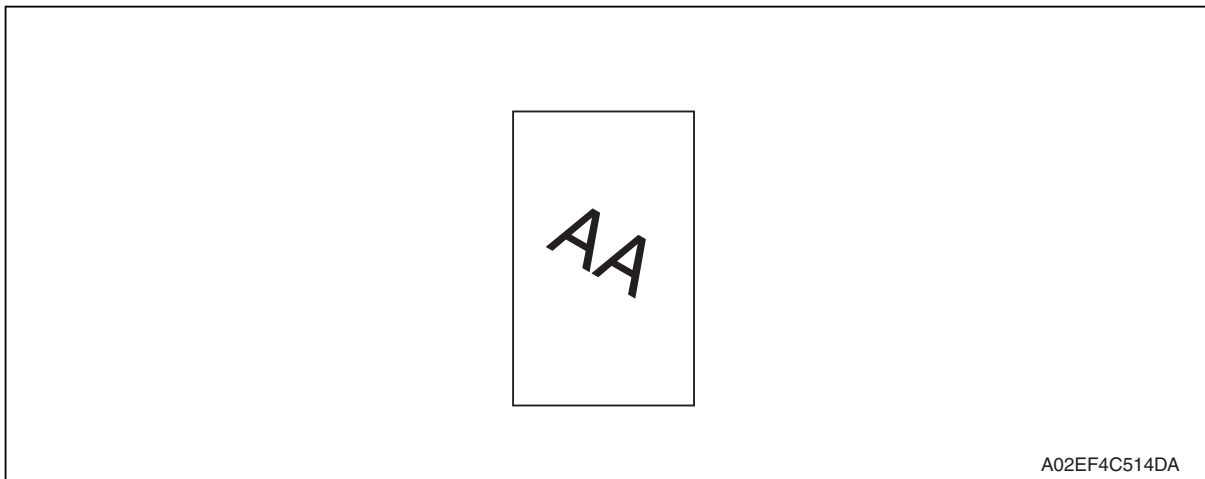
Troubleshooting

19.3.7 Scanner system: moire**A. Typical faulty images****B. Troubleshooting procedure**

Step	Section	Check item	Result	Action
1	Original	Moire distortions recur even after the orientation of original has been changed.	NO	Change the original mode (select one other than that resulted in moire).
2	Basic screen Quality/Density	Moire distortions recur even after the original mode has been changed.	YES	Select "Text Mode" or "Photo Mode".
3	Basic screen zoom	The problem has been eliminated through the checks of steps up to 2.	NO	Change the zoom ratio.

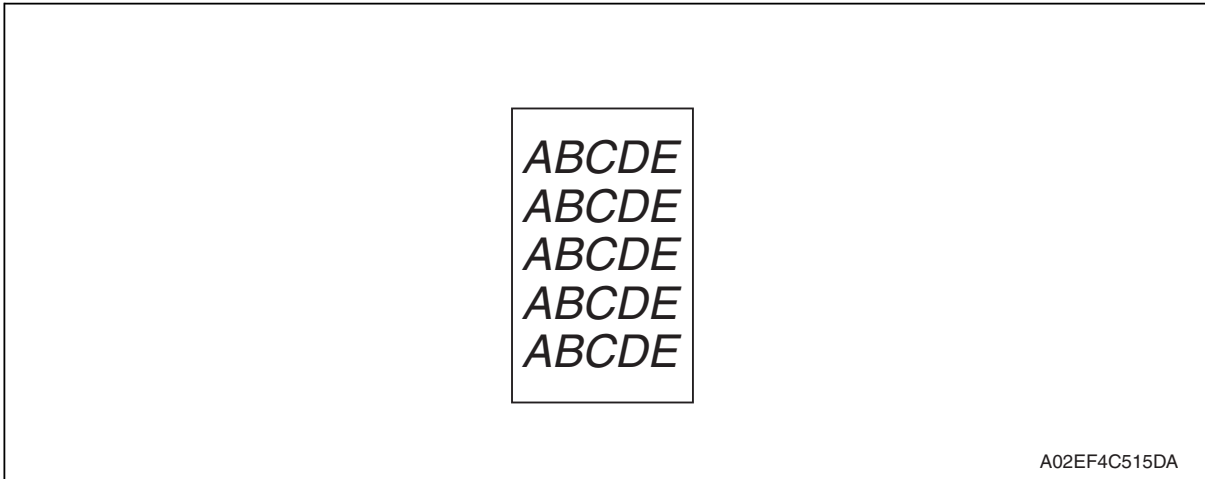
19.3.8 Scanner system: skewed image

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Original	Original is skew.	YES	Reposition original.
2	Original glass	Original glass is in positive contact with the flat spring without being tilt.	NO	Reinstall the glass. Check the original loading position.
3	Exposure unit	Exposure unit is not installed precisely.	YES	Reinstall.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Change exposure unit.

19.3.9 Scanner system: distorted image**A. Typical faulty images****B. Troubleshooting procedure**

Step	Section	Check item	Result	Action
1	Installation	Machine is installed on a level surface.	NO	Reinstall.
2	Exposure unit	Exposure unit is not installed precisely.	YES	Reinstall.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change exposure unit.

19.3.10 Scanner system: low image density, rough image

A. Typical faulty images



B. Troubleshooting procedure

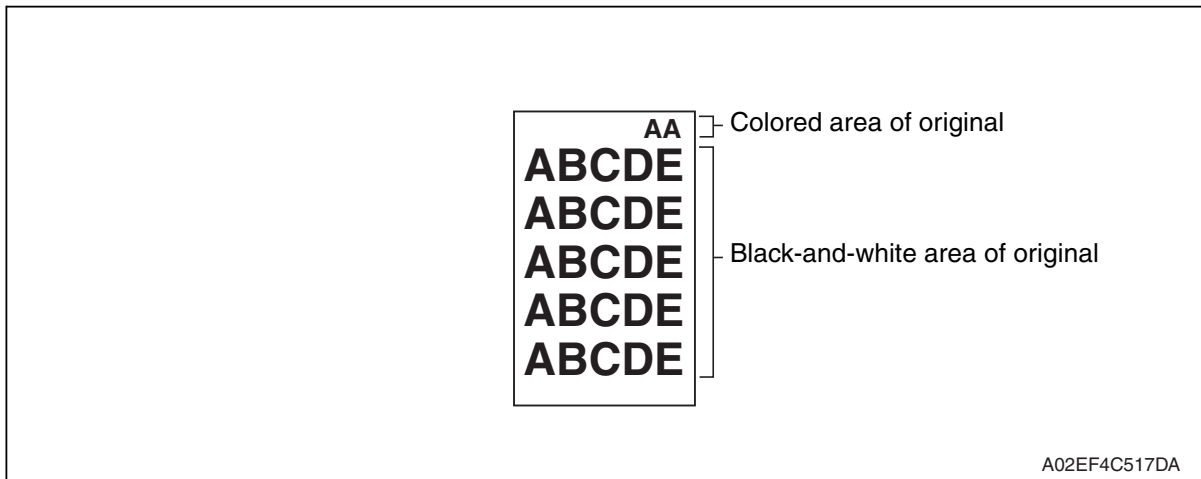
Step	Section	Check item	Result	Action
1	Original glass	Original Glass is dirty.	YES	Wipe the surface clean with a soft cloth.
2	Shading sheet	Shading sheet is dirty.	YES	Wipe the surface clean with a soft cloth.
3	Mirror, lens, exposure lamp, and reflectors	Mirror is dirty.	YES	Clean.
4		Lens is dirty.	YES	Clean.
5		Exposure lamp is dirty.	YES	Clean.
6		Reflectors are dirty.	YES	Clean.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Clean exposure lamp. → Change exposure unit.

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Troubleshooting

19.3.11 Scanner system: defective ACS

A. Typical faulty images

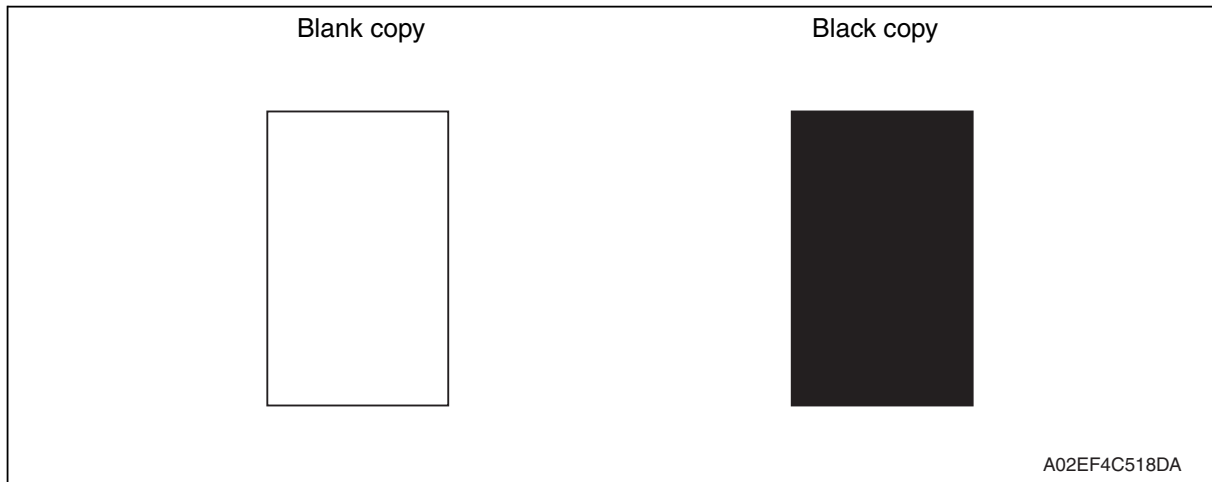


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Auto color level adjustment [Utility]	The problem persists even after the ACS determination level adjust function has been changed.	YES	Change the original loading direction. Make manual settings according to the type of original. (If the original contains a colored area in one of its corners, the machine may fail to properly detect the colored area.)

19.3.12 Scanner system: blank copy, black copy

A. Typical faulty images

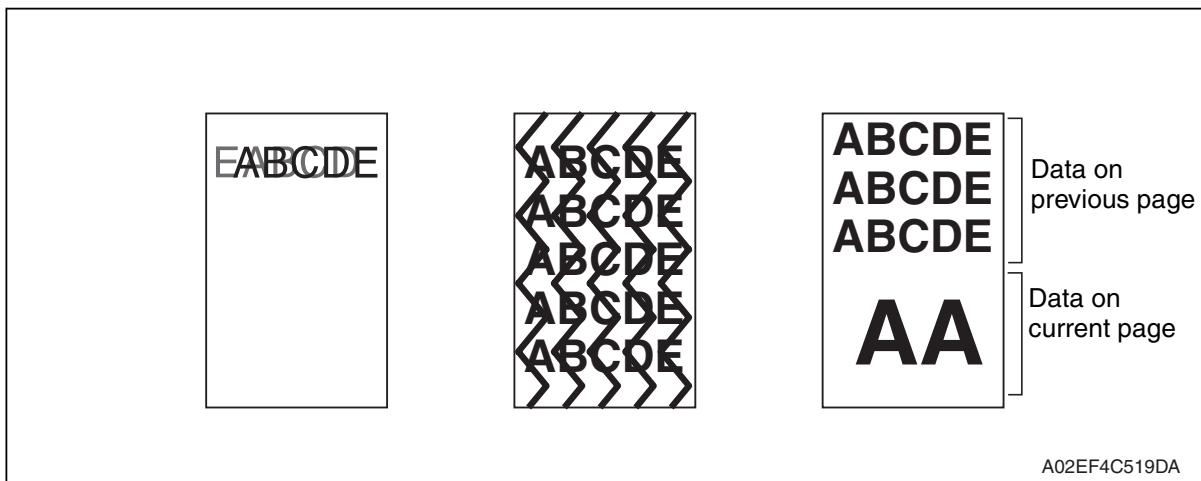


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Cable connecting scanner and printer	Connector is connected properly with no pins bent.	NO	Reconnect.
2	BCRU board (BCRUB)	Connectors on the BCRU board are connected properly.	NO	Reconnect.
3	CCDU board (CCDUB)	Connectors of the CCDU board are connected properly.	NO	Reconnect.
4	Test Mode [Service Mode]	The problem is eliminated as checked with the image on a test pattern produced.	NO	Change I/F connection cable.
5	BCRU board (BCRUB)	The problem is eliminated after the I/F connection cable has been changed.	NO	Change BCRUB.

19.3.13 Scanner system: abnormal image

A. Typical faulty images

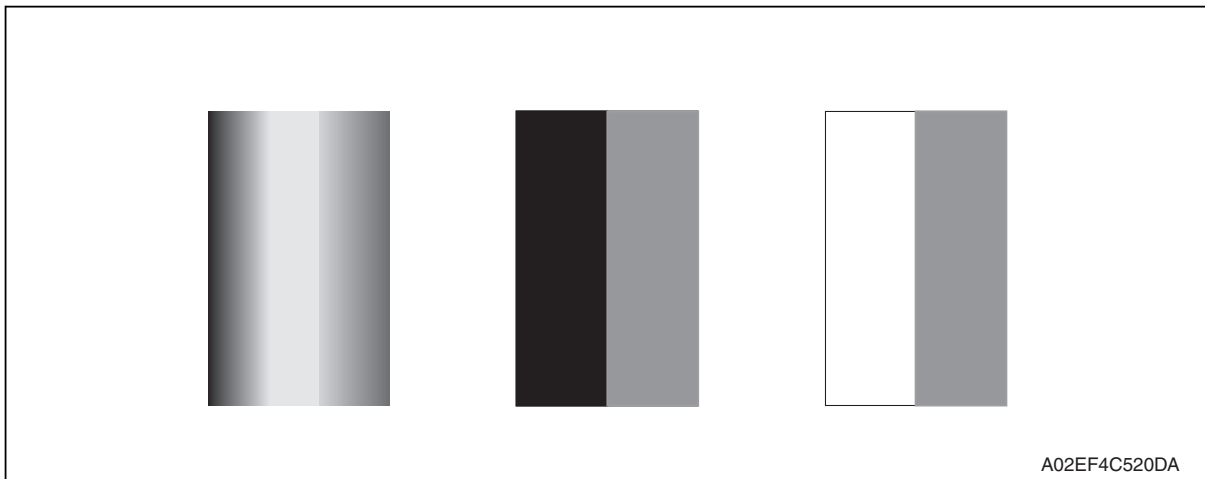


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Cable connecting scanner and printer	Connector is connected properly with no pins bent.	NO	Reconnect.
2	BCRU board (BCRUB)	Connectors on the BCRU board are connected properly.	NO	Reconnect.
3	MFBU board (MFBUB)	Data on previous page is mixed with data on current page.	NO	Reinstall the memory.
4	Test Mode [Service Mode]	The problem is eliminated as checked with the image on a test pattern produced.	NO	Change interface connection cable.
5	BCRU board (BCRUB)	The problem is eliminated after the interface connection cable has been changed.	NO	Change BCRUB.
6	Printer control board (PRCB) PH relay board (REYB/PH)	Check the connection of connectors, harness, and flat cables between PRCB and REYB/PH, and correct if necessary.	NO	Change printer control board. Change PH relay board.
7	MFBU board (MFBUB)	The problem has been eliminated through the checks of steps up to 6.	NO	Change MFBUB.

19.3.14 Scanner system: uneven density

A. Typical faulty images



B. Troubleshooting procedure

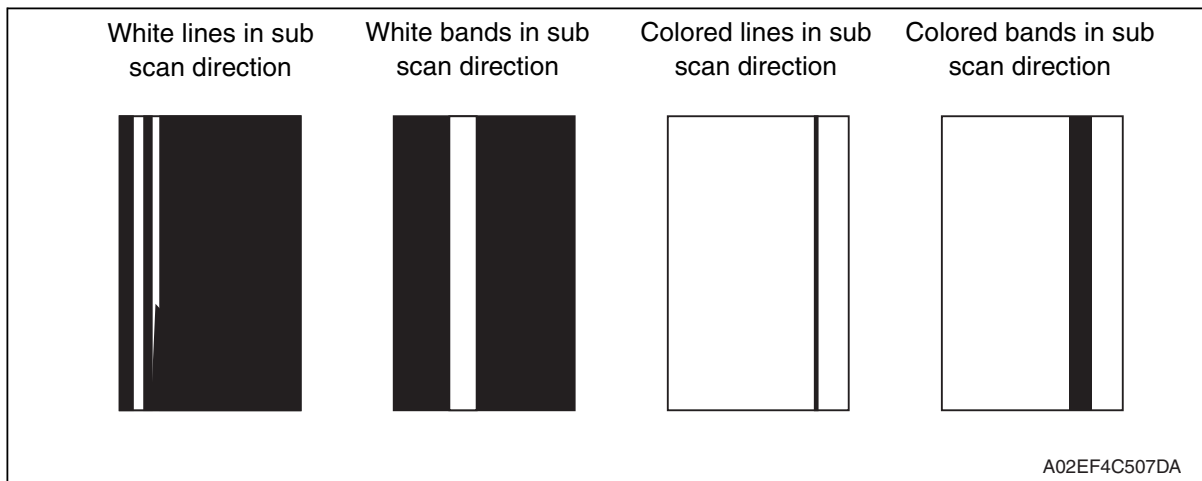
Step	Section	Check item	Result	Action
1	Exposure unit	Exposure unit is not installed precisely.	YES	Reinstall.
2	Scanner motor	Scanner motor turns smoothly.	NO	Change timing belt. Change scanner motor.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change exposure unit.

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Troubleshooting

19.3.15 Printer monochrome: white lines in sub scan direction, white bands in sub scan direction, colored lines colored bands in sub scan direction

A. Typical faulty images

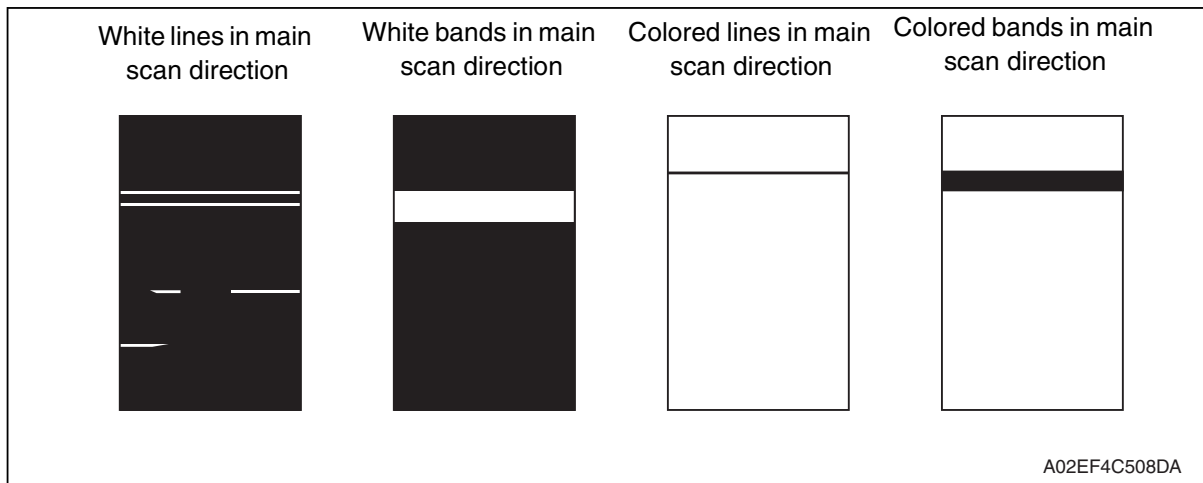


B. Troubleshooting procedure

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		Contact terminals make good connection between each IU and machine.	NO	Clean contact terminals.
4		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
5	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change imaging unit. → Change transfer belt unit. → Change PH unit.

19.3.16 Printer monochrome: 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

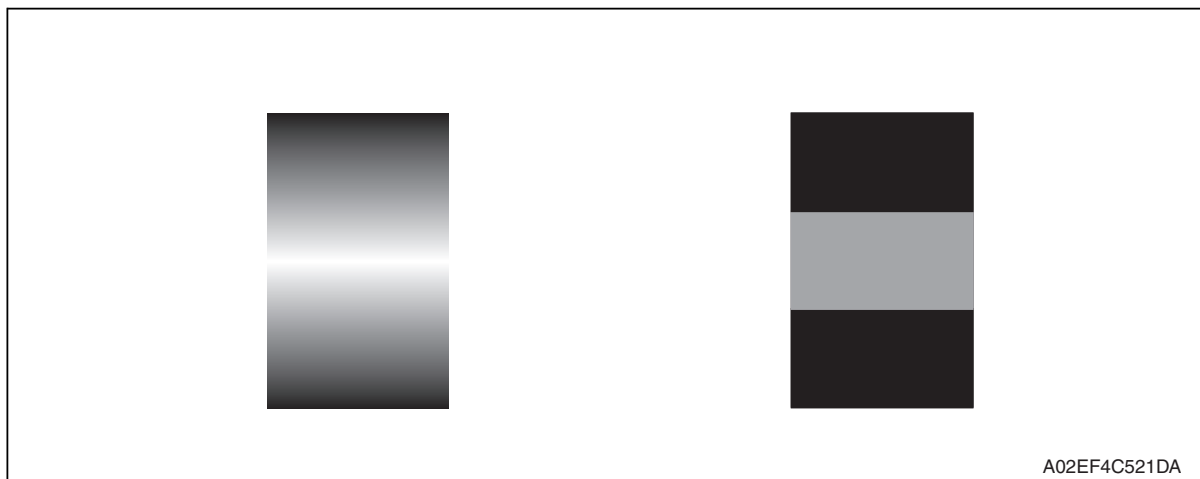


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
2		Dirty on the outside.	YES	Clean.
3		Contact terminals make good connection between each IU and machine.	NO	Clean contact terminals.
4		Developing bias contact terminal makes good connection.	NO	Clean contact terminal and check terminal position.
5	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change imaging unit. → Change transfer belt unit. → Change PH unit.

19.3.17 Printer monochrome: uneven density in sub scan direction

A. Typical faulty images

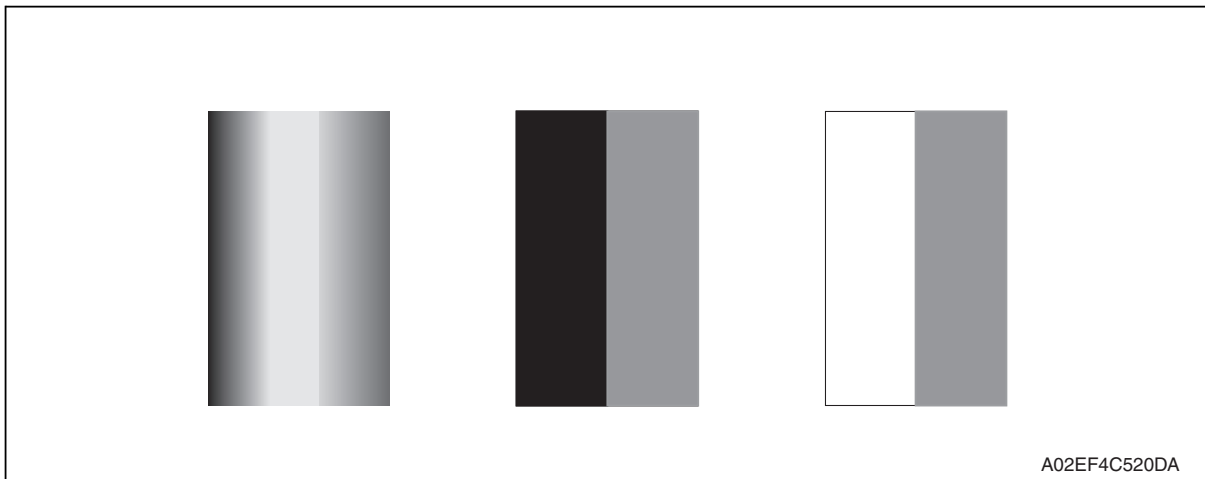


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	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.
2	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
3		Dirty on the outside.	YES	Clean.
4	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
5	Image transfer belt unit	Is abnormality found in the cam gear?	YES	Change transfer belt unit.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change IU. → Change PH unit. → Change printer control board → Change high voltage unit.

19.3.18 Printer monochrome: uneven density in main scan direction

A. Typical faulty images



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B. Troubleshooting procedure

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

Troubleshooting

19.3.19 Printer monochrome: low image density

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	State Confirmation → Table Number (Service Mode)	Check data for Vg and Vdc. Color Vdc: around 400 V Vg : around 500 V Black Vdc: around 400 V Vg : around 500 V	—	Go to next step.
3	State Confirmation → Level History 1 (Service Mode)	Check TCR data. (specified rang: 6 to 8 %)	NO	Go to next step.
4		IDC output value is around 4.3 V.	NO	Clean IDC sensor and execute the image stabilization. Check image transfer belt for damage and correct as necessary.
5	Level history data check results	Low TCR and low Vg and Vdc	YES	Go to step 10.
6		Low TCR and high Vg and Vdc	YES	Go to step 14.
7		TCR falling within specified range and low Vg and Vdc	YES	Go to step 10.
8		TCR falling within specified range and high Vg and Vdc	YES	Go to step 14.
9		The situations other than the above-mentioned.	YES	Go to step 10.
10	Imaging unit	Dirty on the outside.	YES	Clean.
11	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
12	Transfer belt unit	Transfer belt unit makes positive contact with plates on rails.	NO	Check and correct contacts.
13		Is abnormality found in the cam gear?	YES	Change transfer belt unit.

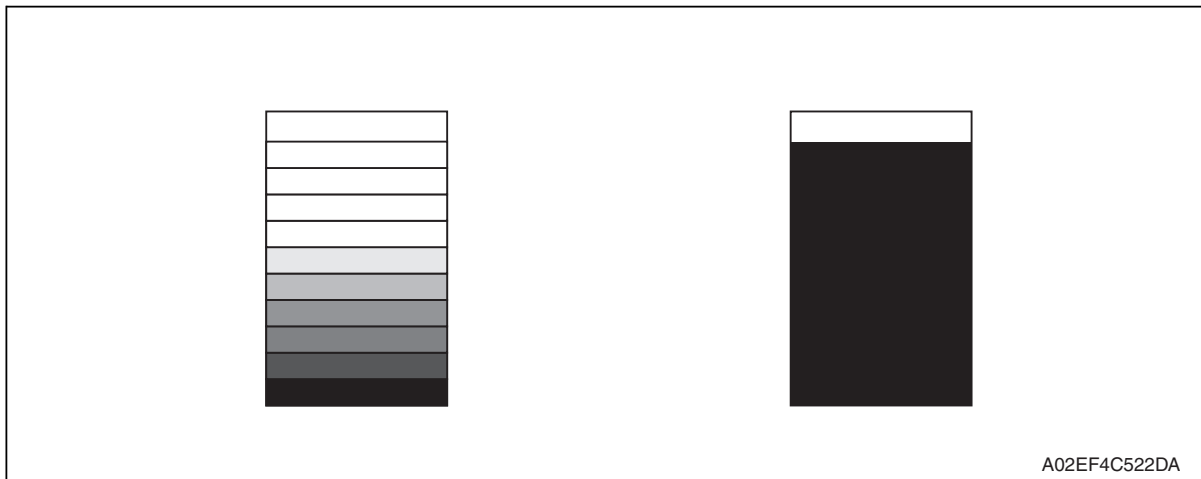
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Troubleshooting

Step	Section	Check item	Result	Action
14	Hopper unit	Connectors are loose.	YES	Reconnect.
15		Gear is cracked.	YES	Change gear.
16	Image Process Adjustment → Toner Supply (Service Mode)	Toner is properly supplied when toner supply is run.	NO	Go to next step.
17	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 20.
18	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max.	NO	Go to next step.
19	Image Process Adjustment → Image Stabilization → Initialize + Image Stabilization (Service Mode)	After the Initialize + Image Stabilization sequence has been completed, run gradation adjust.	NO	Go to next step.
20		The problem has been eliminated through the checks of steps up to 19.	NO	Change imaging unit. → Change printer control board → Change PH unit. → Change high voltage unit.

19.3.20 Printer monochrome: gradation reproduction failure

A. Typical faulty images



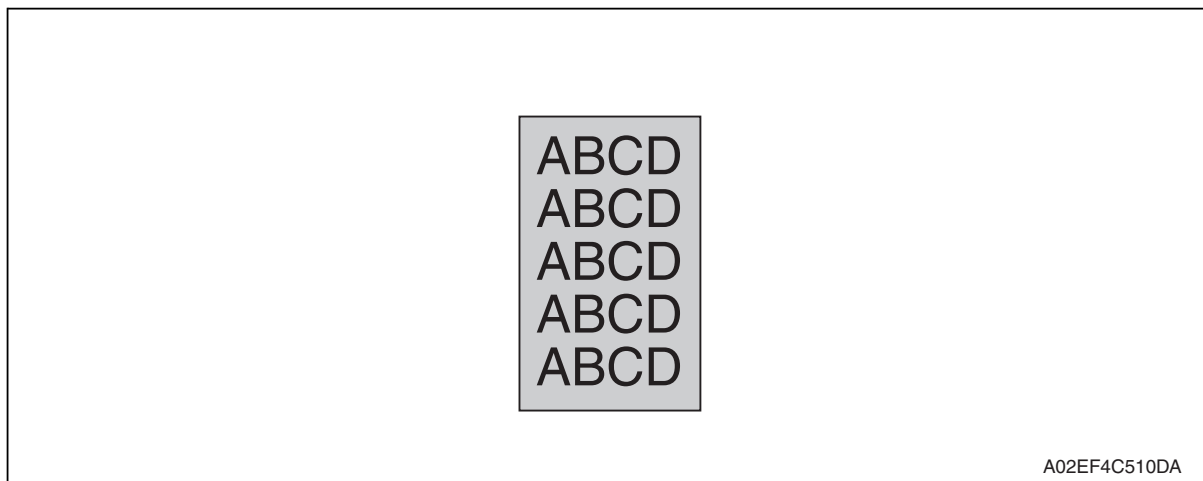
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B. Troubleshooting procedure

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	Photo/density	Original type and screen pattern are selected properly.	NO	Change screen pattern.
3	Imaging unit	Dirty on the outside.	YES	Clean.
4	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
5	State Confirmation → Level History 1 (Service Mode)	IDC output value is around 4.3 V.	NO	Clean IDC sensor and execute the image stabilization. Check transfer belt for damage and correct as necessary.
6	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 9.
7	Image Process Adjustment → D Max Density (Service Mode)	The problem has been eliminated through the adjust of D Max.	NO	Go to next step.
8	Image Process Adjustment → Image Stabilization → Initialize + Image Stabilization (Service Mode)	After the Initialize + Image Stabilization sequence has been completed, run gradation adjust;	NO	Go to next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change imaging unit. → Change printer control board → Change PH unit. → Change high voltage unit.

19.3.21 Printer monochrome: foggy background

A. Typical faulty images



d-Color MF201

B. Troubleshooting procedure

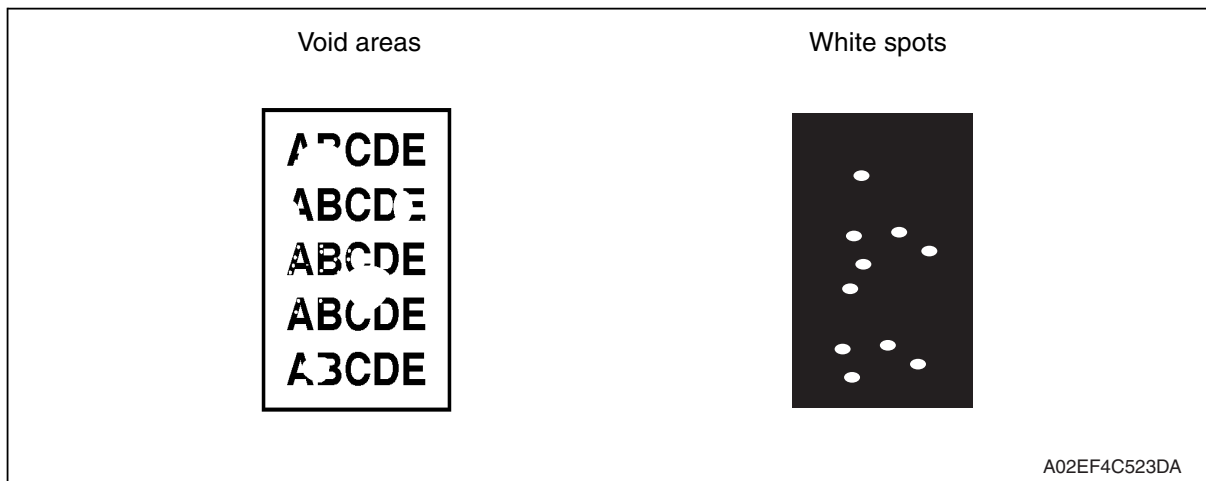
Step	Section	Check item	Result	Action
1	Warning display	The maintenance call mark is displayed on the panel.	YES	Take action according to the warning code shown on the state confirm screen.
2	State Confirmation → Table Number (Service Mode)	Color Vdc: around 400 V Vg : around 500 V Black Vdc: around 400 V Vg : around 500 V	NO	Go to next step.
3	State Confirmation → Level History 1 (Service Mode)	Check TCR data. (specified rang: 6 to 8 %)	NO	Go to next step.
4		IDC output value is around 4.3 V.	NO	Clean IDC sensor and execute the image stabilization. Check transfer belt for damage and correct as necessary.
5	Level history data check results	Low TCR and low Vg and Vdc	YES	Go to step 10.
6		Low TCR and high Vg and Vdc	YES	Go to step 12.
7		TCR falling within specified range and low Vg and Vdc	YES	Go to step 10.
8		TCR falling within specified range and high Vg and Vdc	YES	Go to step 12.
9		The situations other than the above-mentioned.	YES	Go to step 10.
10	Imaging unit	Dirty on the outside.	YES	Clean.
11	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
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.

Troubleshooting

Step	Section	Check item	Result	Action
13	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 17.
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 → Image Stabilization → Initialize + Image Stabilization (Service Mode)	After the Initialize + Image Stabilization sequence has been completed, run gradation adjust.	NO	Go to next step.
16	Printer control board (PRCB) PH relay board (REYB/PH)	Check the connection of connectors, harness, and flat cables between PRCB and REYB/PH, and correct if necessary.	NO	Change printer control board. Change PH relay board.
17		The problem has been eliminated through the checks of steps up to 16.	NO	Change imaging unit. → Change PH unit. → Change high voltage unit.

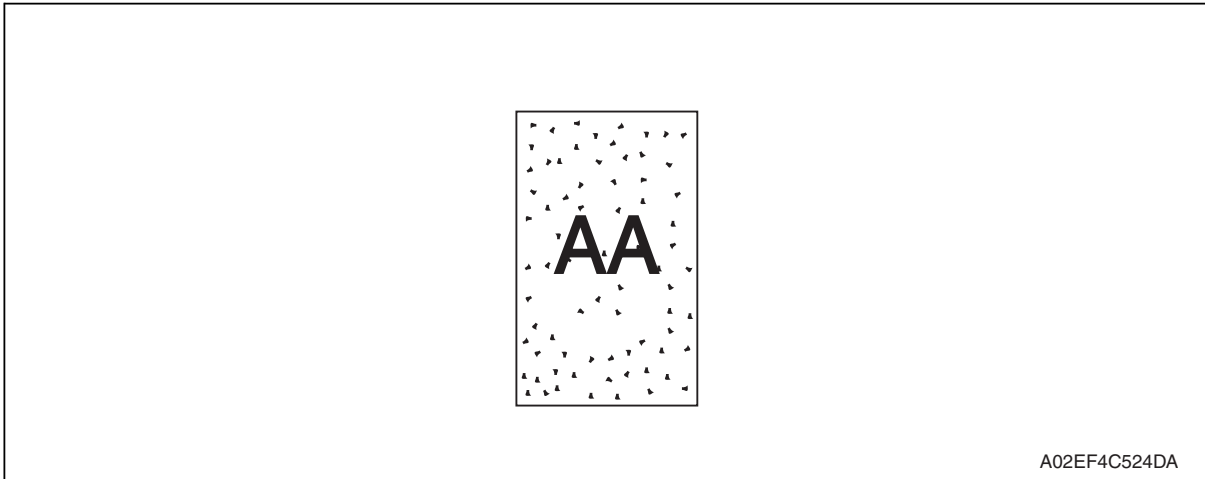
19.3.22 Printer monochrome: void areas, white spots

A. Typical faulty images

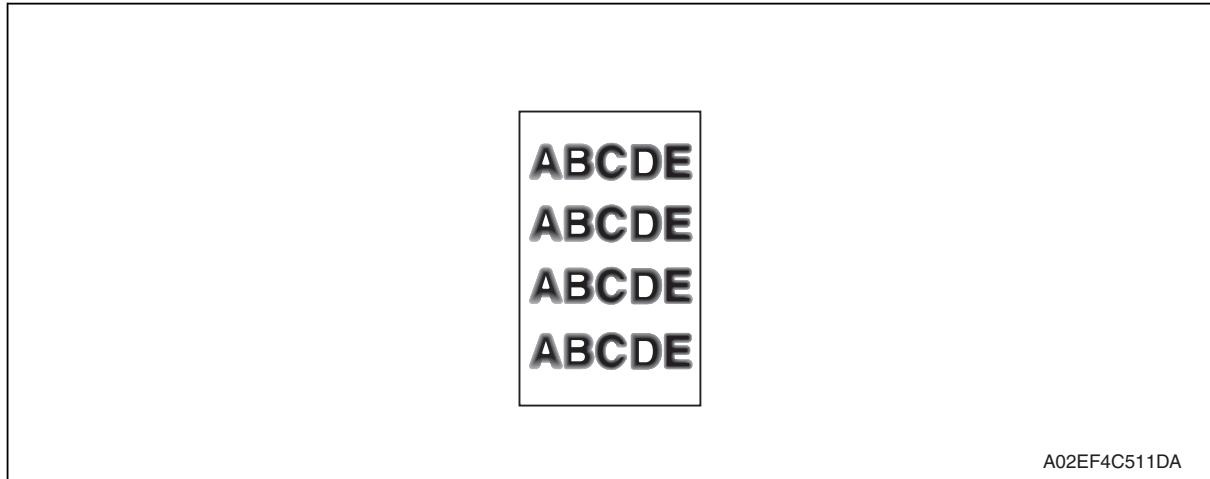


B. Troubleshooting procedure

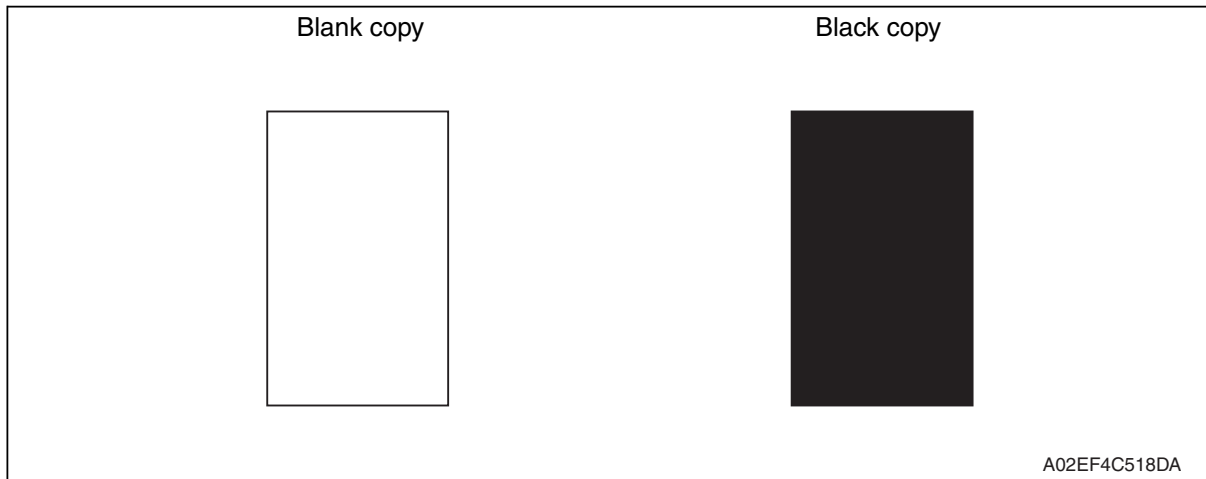
Step	Section	Check item	Result	Action
1	Image Check	There are void areas at the front side or high density section.	YES	See P.340
2		There is void area at the rear side section.	YES	Perform [Transfer Adjust] of [Image Process Adjustment] under Service Mode.
3	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
4		Dirty on the outside.	YES	Clean.
5	Toner cartridge	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].

19.3.23 Printer monochrome: 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.

19.3.24 Printer monochrome: blurred image**A. Typical faulty images****B. Troubleshooting procedure**

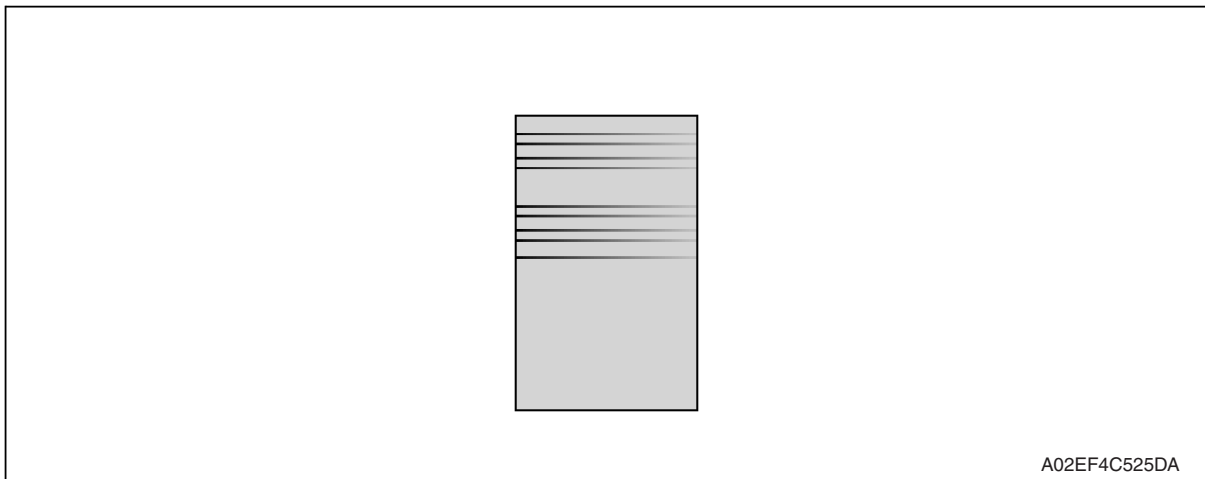
Step	Section	Check item	Result	Action
1	PH unit	The surface of the PH window is dirty.	YES	Clean with cleaning jig.
2	Imaging unit	Dirty on the outside.	YES	Clean.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Change imaging unit. → Change PH unit.

19.3.25 Printer monochrome: blank copy, black copy**A. Typical faulty images****B. Troubleshooting procedure**

Step	Section	Check item	Result	Action
1	Image check	A blank copy occurs.	YES	Check PH unit connector for proper connection.
2	Imaging unit	Coupling of 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	Connector is connected properly.	NO	Reconnect.
5		The problem has been eliminated through the check of step 4.	NO	Change high voltage unit. → Change printer control board → Change PH unit.

19.3.26 Printer monochrome: uneven image

A. Typical faulty images

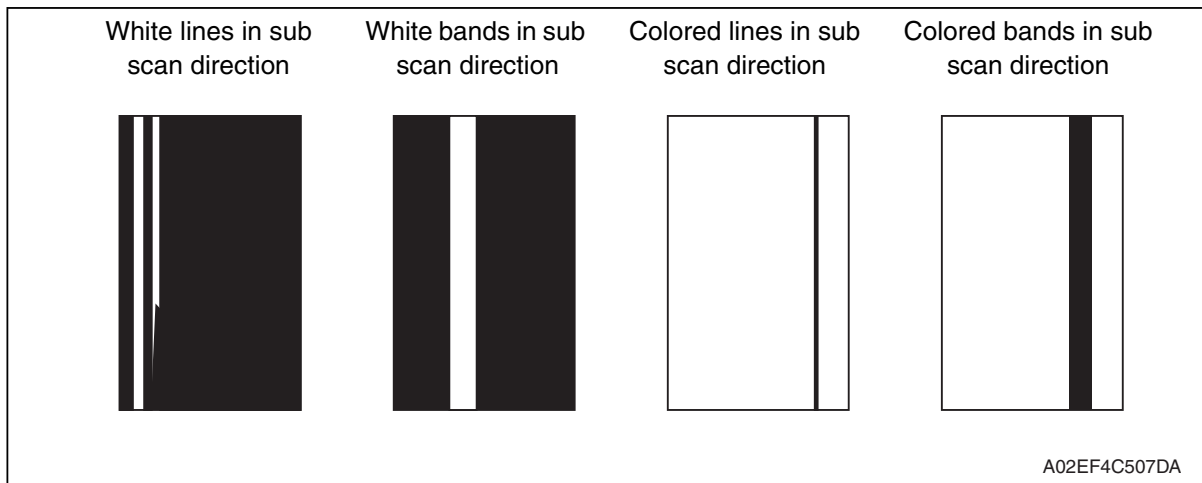


B. Troubleshooting procedure

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

19.3.27 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

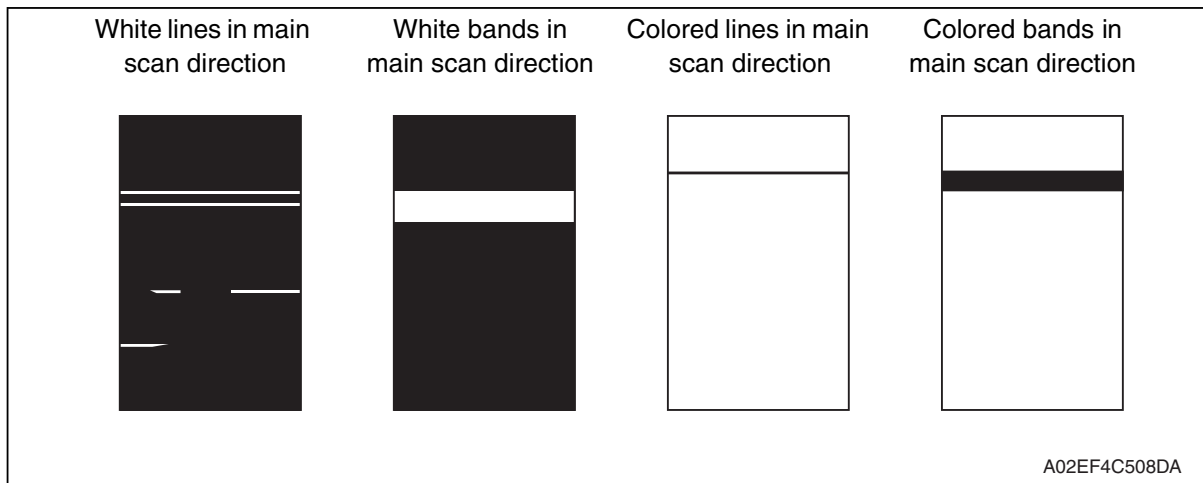


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean.
2		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
3		Cleaning blade is not effective in removing toner completely.	YES	Clean cleaning blade. Change transfer belt unit.
4	Transfer roller unit	Transfer roller is dirty or scratched.	YES	Change transfer roller unit.
5	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
6		Image transfer paper separator fingers are damaged or dirty.	YES	Clean or change.
7	Fusing unit	Fusing entrance guide plate is dirty or damaged.	YES	Clean. Change fusing unit.
8		Fusing paper separator fingers are dirty.	YES	Clean.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change printer control board

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

d-Color MF201

Troubleshooting

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

A. Typical faulty images

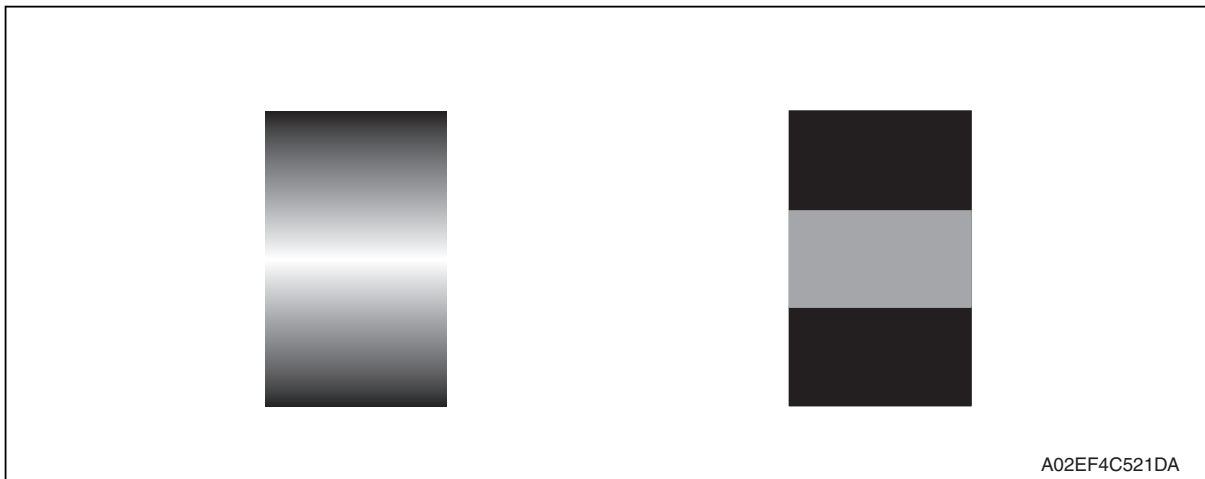


B. Troubleshooting procedure

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

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

A. Typical faulty images



B. Troubleshooting procedure

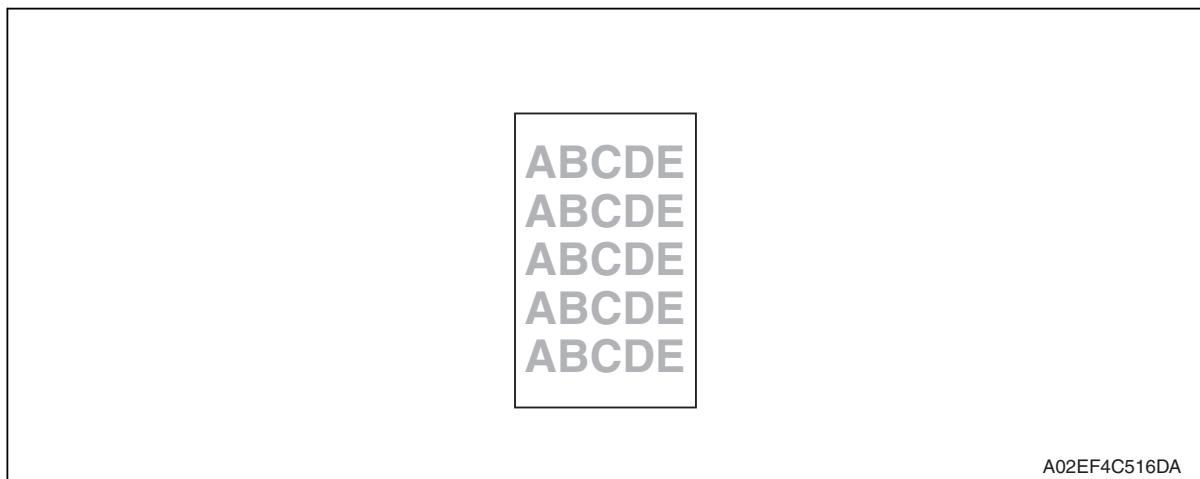
Step	Section	Check item	Result	Action
1	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean.
2		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
3		Terminal is dirty.	YES	Clean.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

d-Color MF201

Troubleshooting

19.3.31 Printer 4-color: low image density

A. Typical faulty images

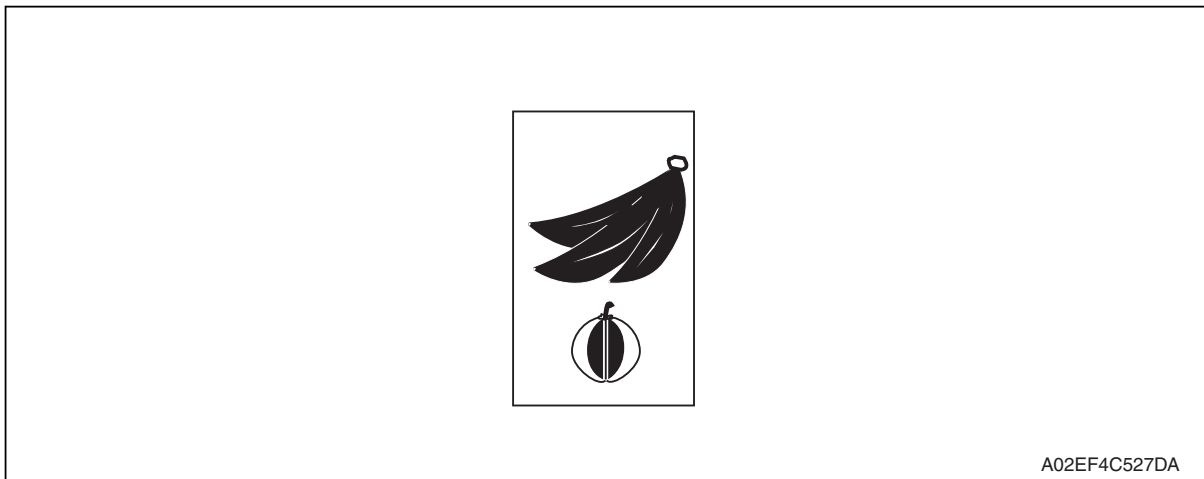


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2	Transfer belt unit	Terminal is dirty.	YES	Clean.
3	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
4		Transfer roller is dirty or scratched.	NO	Change transfer roller unit.
5	IDC sensor	Sensor is dirty.	YES	Clean IDC sensor and execute the image stabilization.
6	Image Process Adjustment → Gradation Adjust (Service Mode)	"Conv. Value" falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 9.
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 → Image Stabilization → Initialize + Image Stabilization (Service Mode)	After the Initialize + Image Stabilization sequence has been completed, run gradation adjust.	NO	Go to next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change image transfer belt unit. → Change printer control board → Change high voltage unit.

19.3.32 Printer 4-color: poor color reproduction

A. Typical faulty images



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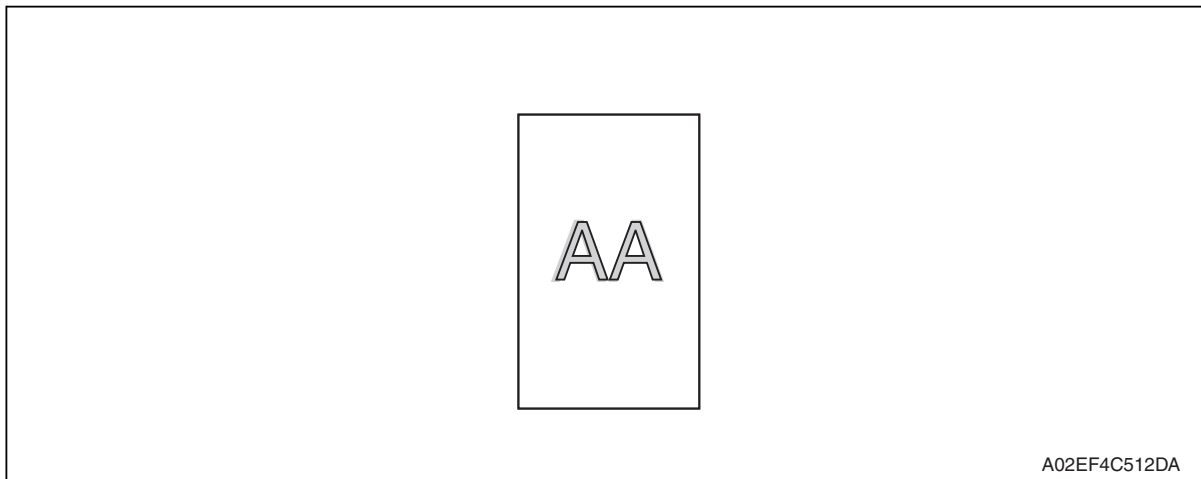
B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2	Transfer belt unit	Terminal is dirty.	YES	Clean.
3	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
4		Transfer roller is dirty or scratched.	NO	Change transfer roller unit.
5	IDC sensor	Sensor is dirty.	YES	Clean IDC sensor and execute the image stabilization.
6	Image Process Adjustment → Gradation Adjust (Service Mode)	“Conv. Value” falls within the specified range as checked through gradation adjust. Dark: 0 ± 100 Highlight: 0 ± 60	YES	Go to step 9.
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 → Image Stabilization → Initialize + Image Stabilization (Service Mode)	After the Initialize + Image Stabilization sequence has been completed, run gradation adjust.	NO	Go to next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Change image transfer belt unit. → Change printer control board → Change high voltage unit.

Troubleshooting

19.3.33 Printer 4-color: incorrect color image registration

A. Typical faulty images

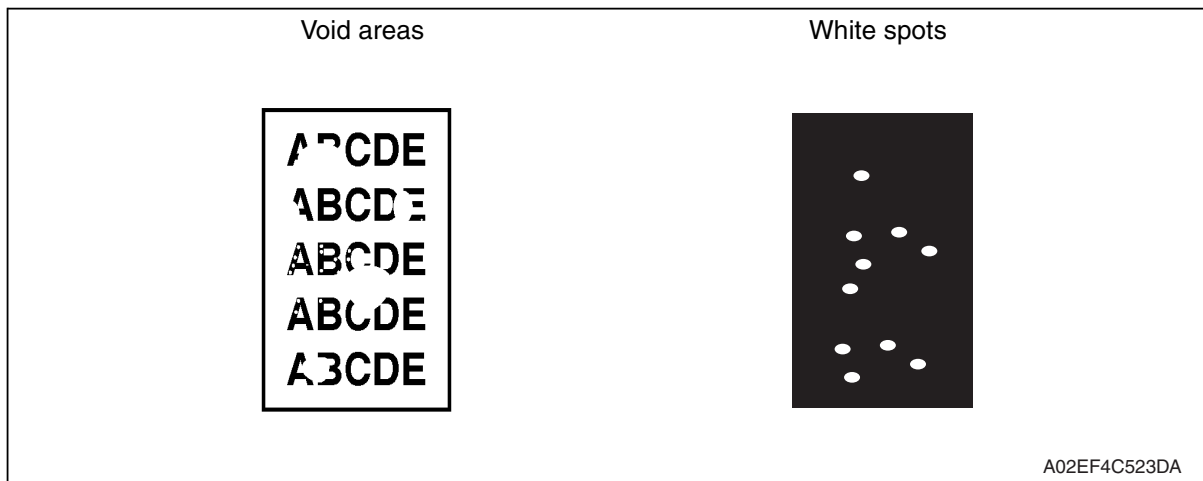


B. Troubleshooting procedure

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 the main power switch and turn it on again more than 10 seconds after.
3	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the transfer belt.	YES	Clean.
4		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
5		Drive coupling to the machine is dirty.	YES	Clean.
6	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
7	Transfer roller unit	Transfer roller is installed properly.	NO	Reinstall.
8		Transfer roller is dirty or scratched.	YES	Change transfer roller unit.
9	Machine → Fusing Transport Speed (Service Mode)	Brush effect or blurred image occurs.	YES	Readjust fusing transport speed.
10	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.
11		The problem has been eliminated through the checks of steps up to 10.	NO	Change transfer belt unit. → Change printer control board

19.3.34 Printer 4-color: void areas, white spots

A. Typical faulty images

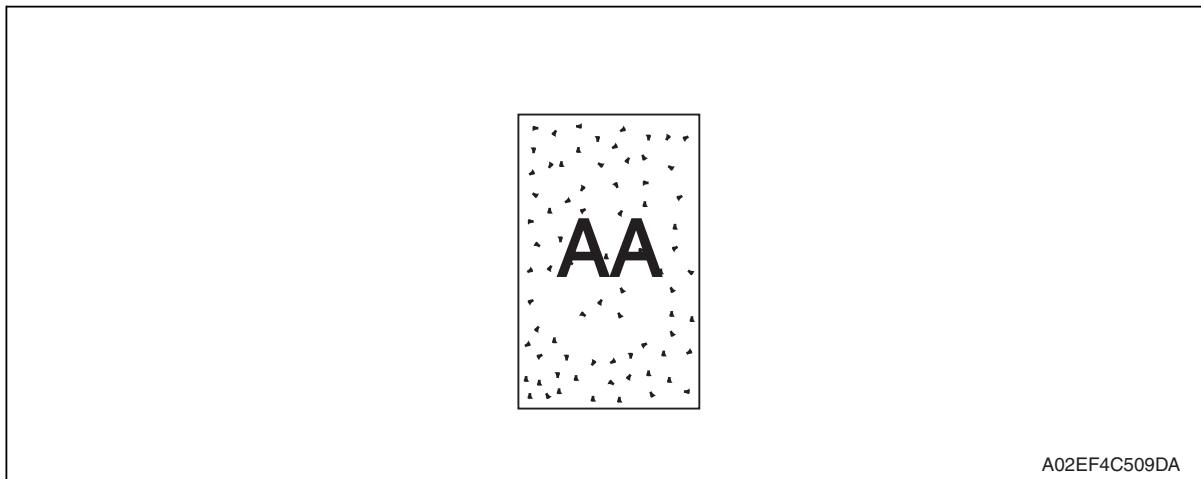


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Image check	There are void areas at the front side or high density section.	YES	P.355
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.
4		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
5	Transfer roller unit	Transfer roller is dirty or scratched.	YES	Change 2nd image transfer roller unit.
6		Charge neutralizing 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		The problem has been eliminated through the checks of steps up to 8.	NO	Change transfer belt unit.

19.3.35 Printer 4-color: colored spots

A. Typical faulty images

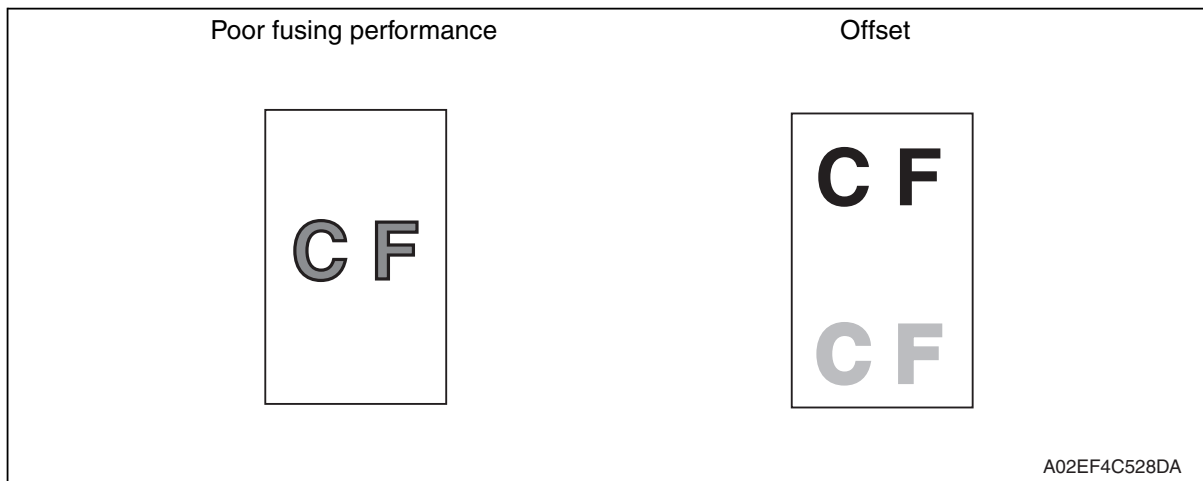


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Imaging unit	The surface of the PC drum is scratched.	YES	Change imaging unit.
2	Transfer belt unit	Fingerprints, oil, or other foreign matter is evident on the image transfer belt.	YES	Clean.
3		Transfer belt is dirty or scratched.	YES	Clean dirty belt with a soft cloth. Change transfer belt unit if belt is damaged.
4	Transfer roller unit	Transfer roller is dirty or scratched.	YES	Change transfer roller unit.
5	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
6	Fusing unit	Fusing belt is dirty or scratched.	YES	Change fusing unit.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Change transfer belt unit.

19.3.36 Printer 4-color: poor fusing performance, offset

A. Typical faulty images



B. Troubleshooting procedure

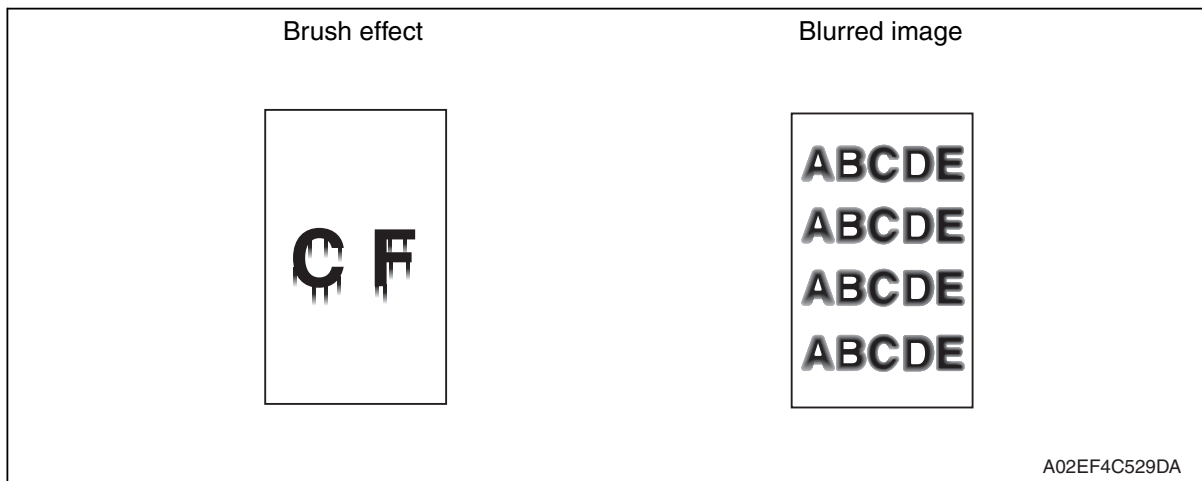
Step	Section	Check item	Result	Action
1	Paper	Paper type does not match.	YES	Change the setting.
2	Machine→ Fusing Temperature (Service Mode)	Changing fusing temperature eliminates the problem of poor fusing performance and offset.	YES	Readjust fusing temperature.
3		The problem has been eliminated through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

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Troubleshooting

19.3.37 Printer 4-color: brush effect, blurred image

A. Typical faulty images

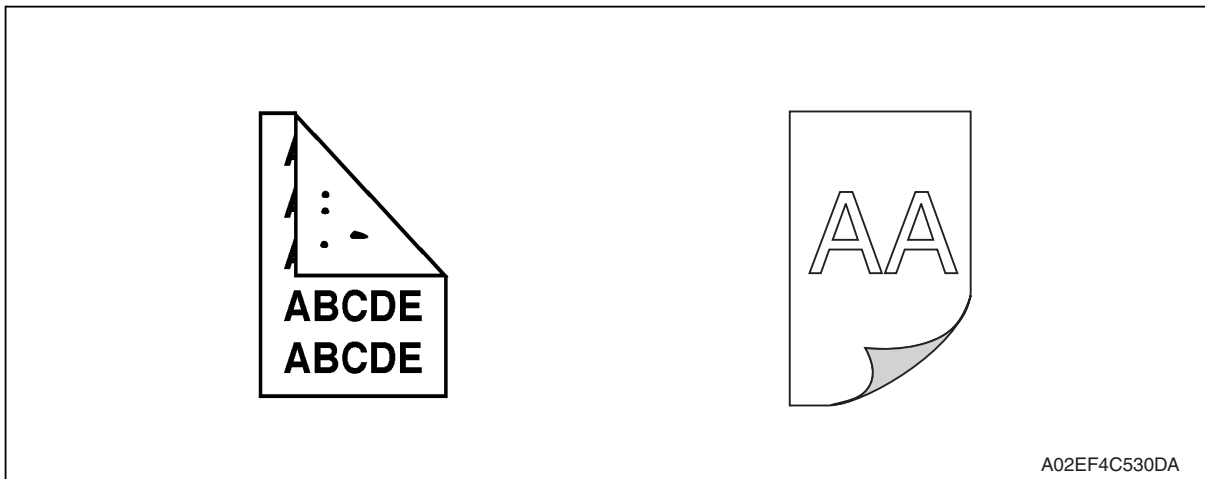


B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	Paper	Paper is damp.	YES	Change paper to one just unwrapped from its package.
2		Paper type does not match.	YES	Change the setting.
3	Fusing unit	Fusing unit is installed properly.	NO	Reinstall.
4		Fusing entrance guide plate is dirty.	YES	Clean.
5		Fusing belt is dirty or scratched.	YES	Change fusing unit.
6	Machine → Fusing Transport Speed (Service Mode)	Changing fusing speed eliminates the problem of brush effect and blurred image.	YES	Readjust fusing transport speed.

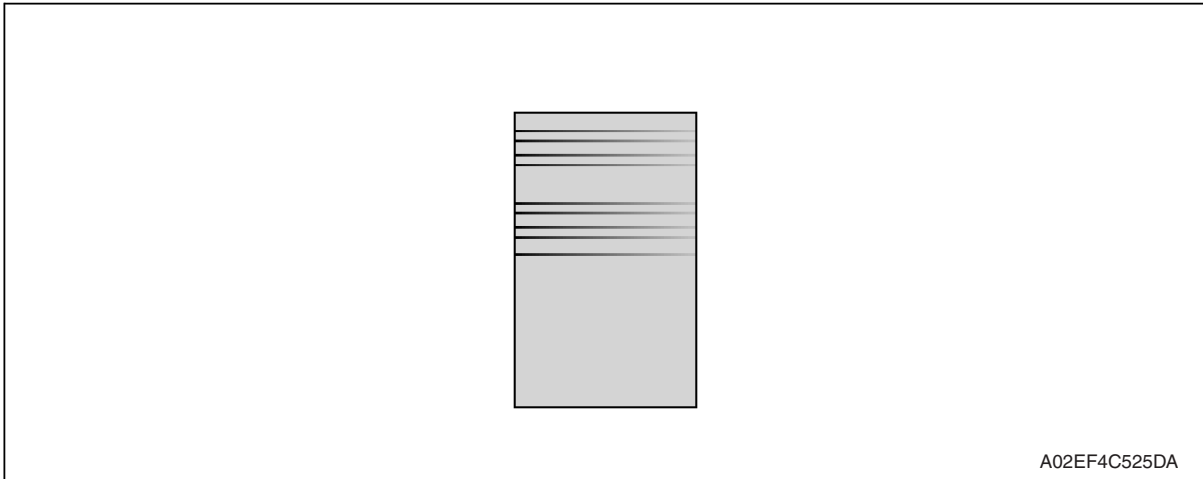
19.3.38 Printer 4-color: back marking

A. Typical faulty images



B. Troubleshooting procedure

Step	Section	Check item	Result	Action
1	2nd image transfer roller unit	Image transfer roller is scratched or dirty.	YES	Change transfer roller unit.
2	Paper path	There is foreign matter on paper path.	YES	Remove foreign matter.
3	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.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Change transfer belt unit. → Change high voltage unit.

19.3.39 Printer 4-color: uneven image**A. Typical faulty images****B. Troubleshooting procedure**

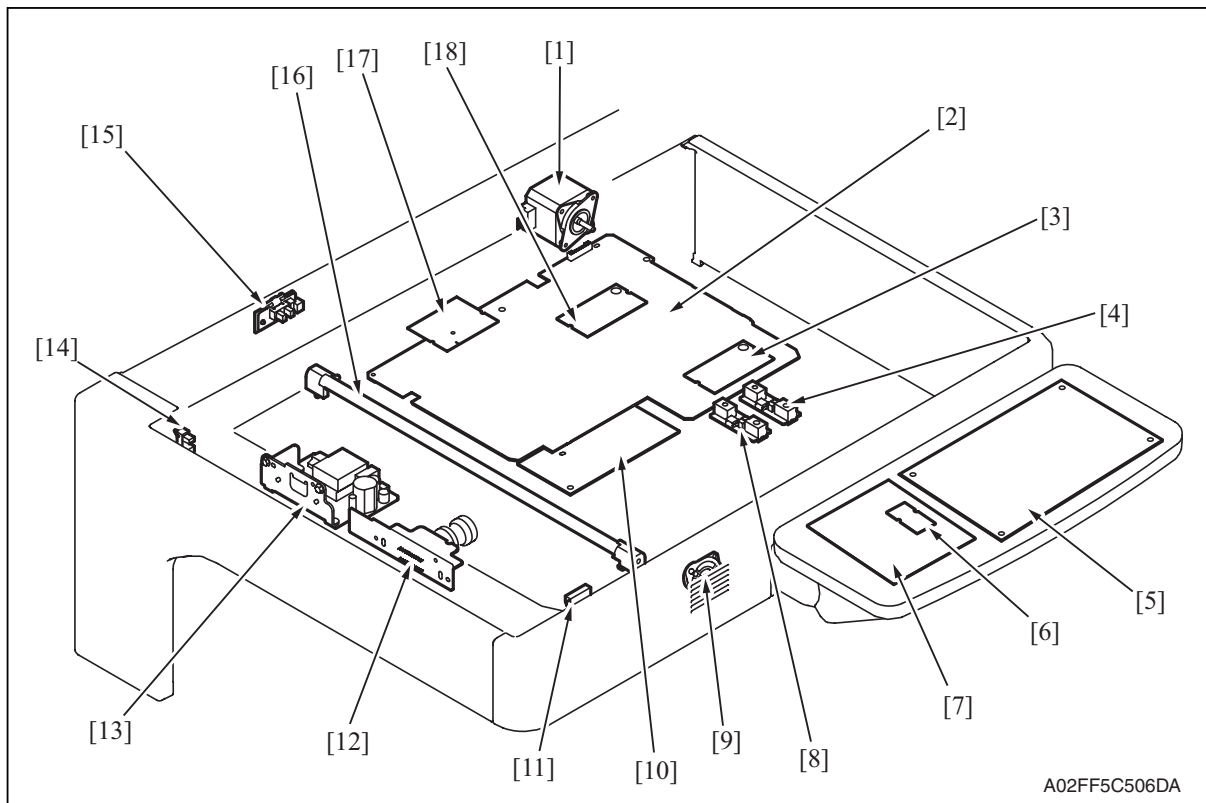
Step	Section	Check item	Result	Action
1	Toner cartridge	The toner cartridge of every color is surely installed.	NO	Re-install it.
2	PH unit	The PH unit is surely installed.	NO	Re-install it.
3	Toner cartridge	There is any stain or breakage on the drive section of the toner cartridge.	YES	Clean/replace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

Appendix

20. Parts layout drawing

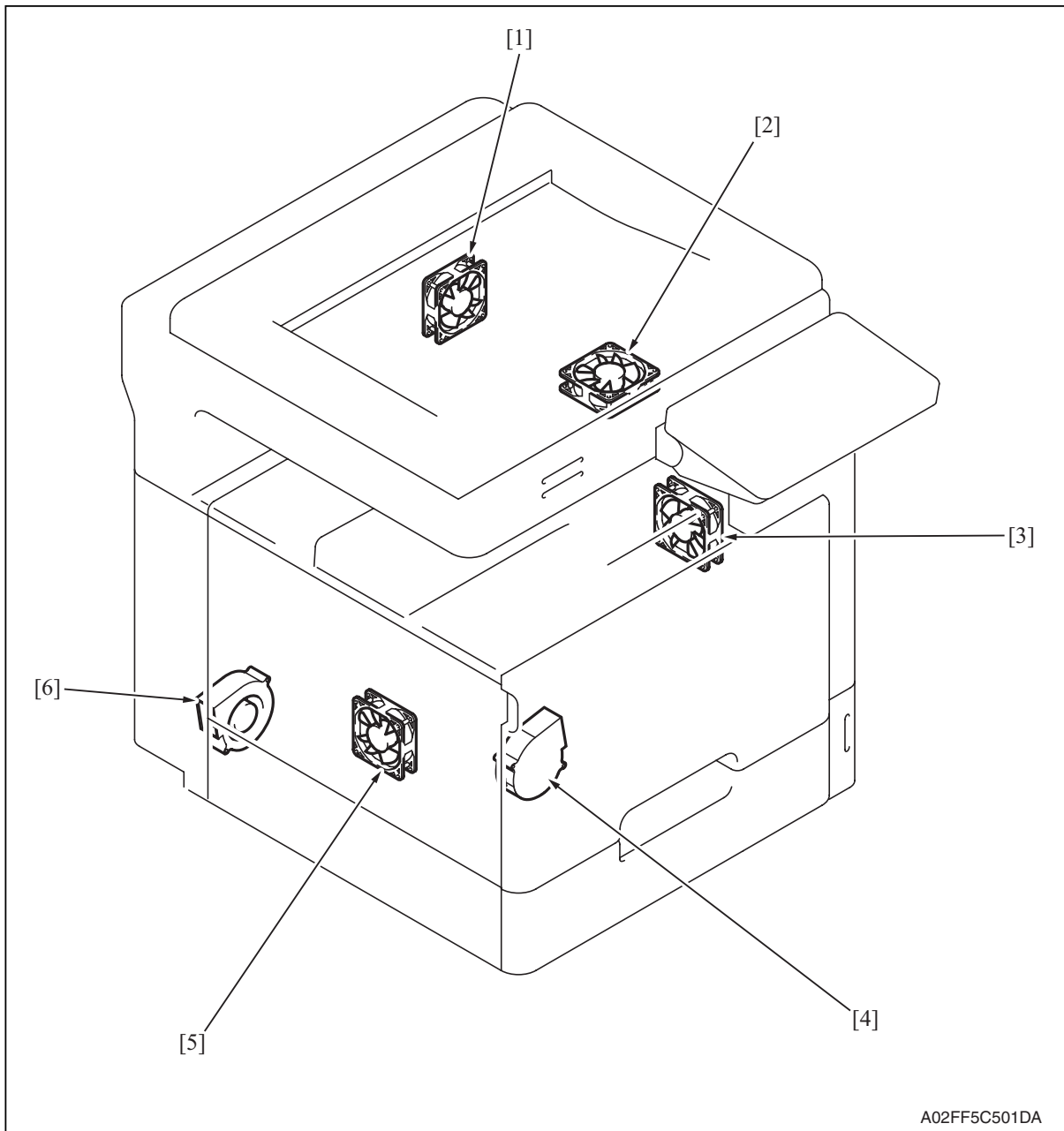
20.1 Main body

20.1.1 Scanner section



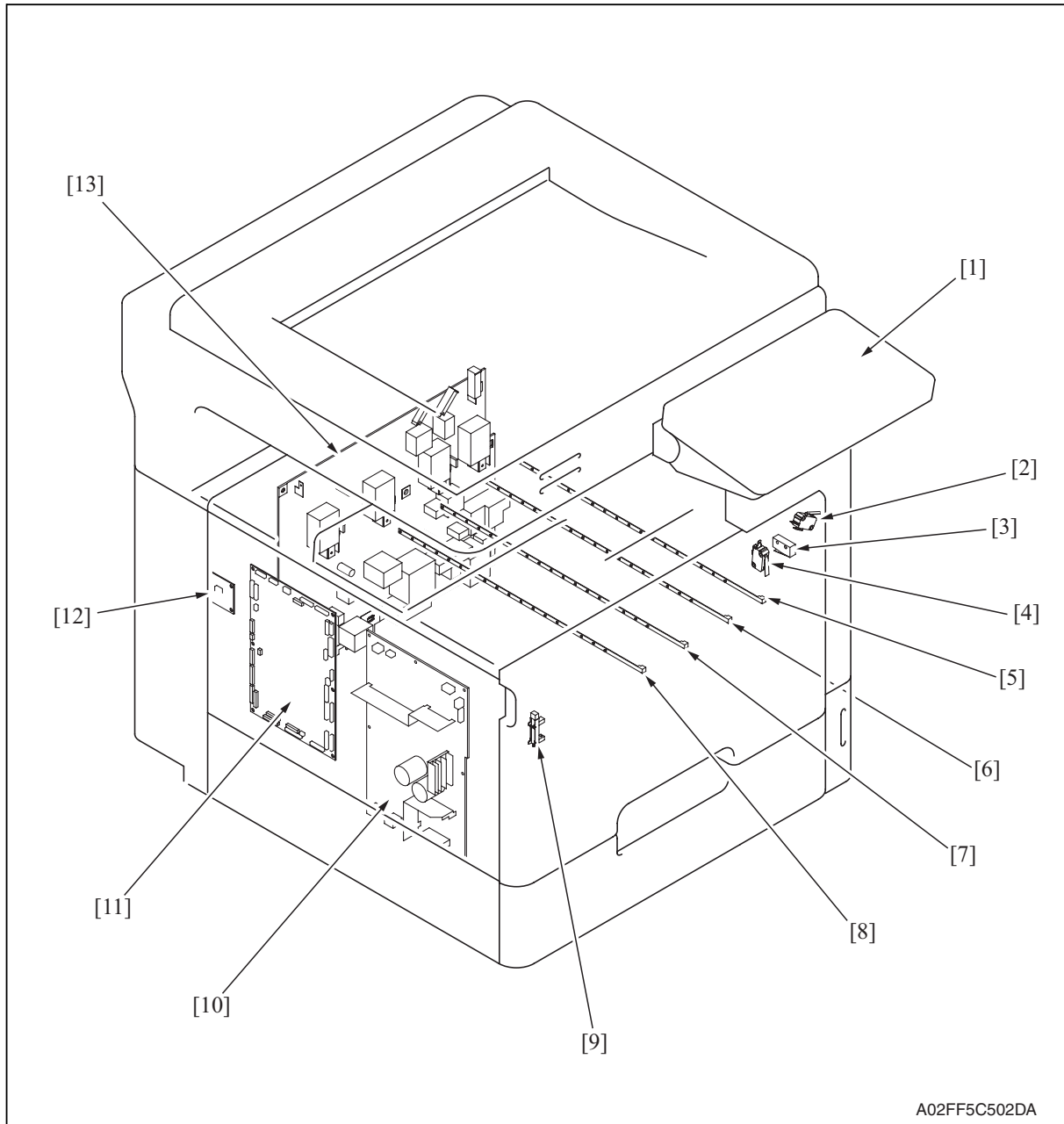
- | | |
|--|------------------------------------|
| [1] Scanner motor (M201) | [10] BCRU board (BCRUB) |
| [2] MFBU board (MFBUB) | [11] Original cover sensor (PS205) |
| [3] RAMU board (RAMUB) | [12] CCDU board (CCDUB) |
| [4] Original size detection sensor/2 (PS204) | [13] Inverter board (INVB) |
| [5] OPEU board (OPEUB) | [14] Home position sensor (PS201) |
| [6] LCD_INV board (LCDINVB) | [15] 18 degree sensor (PS202) |
| [7] LCD board (LCDB) | [16] Exposure lamp (FL201) |
| [8] Original size detection sensor/1 (PS203) | [17] ADCU board (ADCUB) |
| [9] Speaker (SP) | [18] MEMU/1 (MEMU/1) |

20.1.2 Engine section

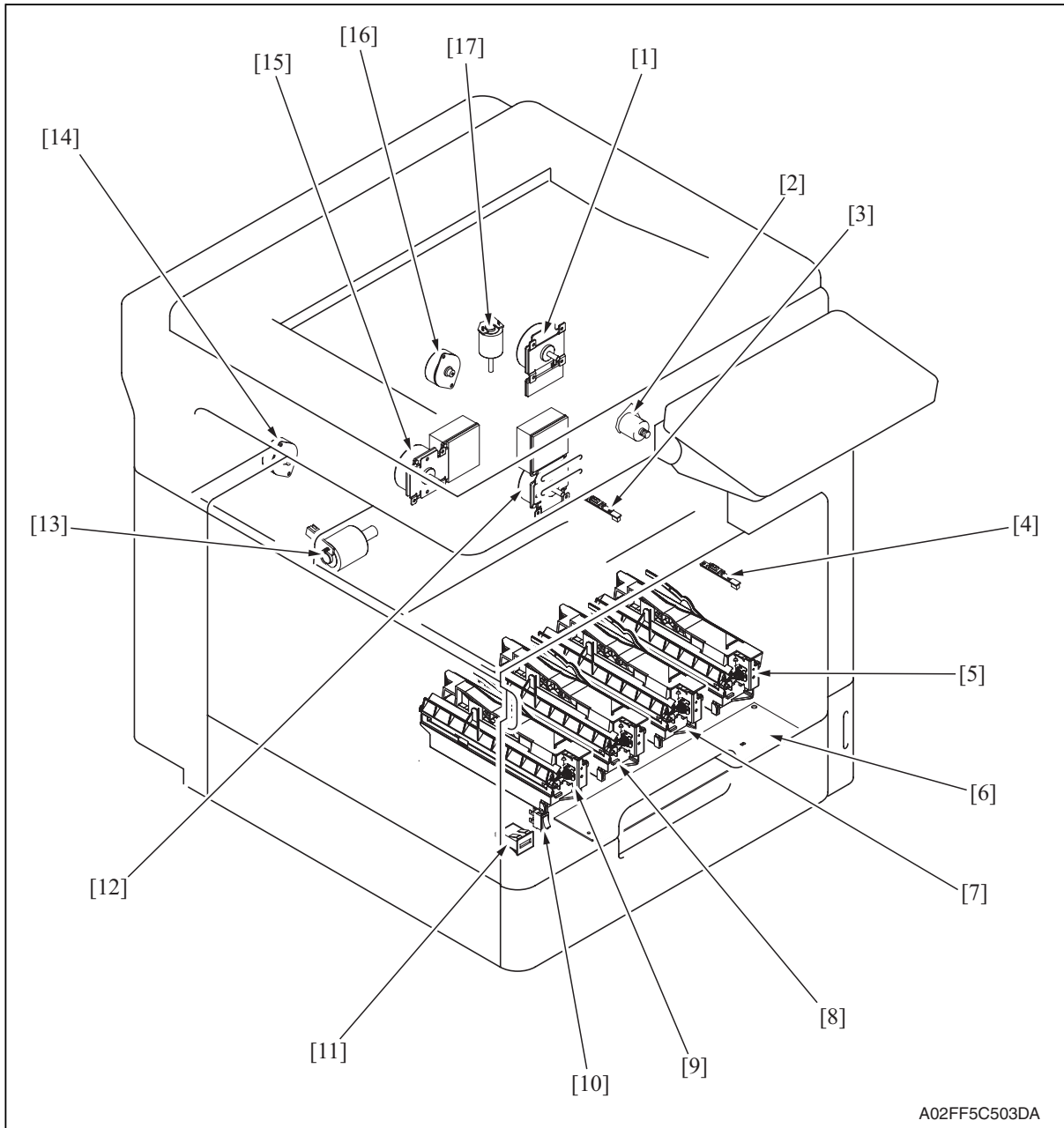


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- | | |
|---|--|
| [1] Fusing cooling fan motor (FM13) | [4] Cooling fan motor/1 (FM16) |
| [2] Fusing cover cooling fan motor (FM11) | [5] Power supply cooling fan motor (FM8) |
| [3] Suction fan motor (FM10) | [6] Exhaust fan motor (FM14) |

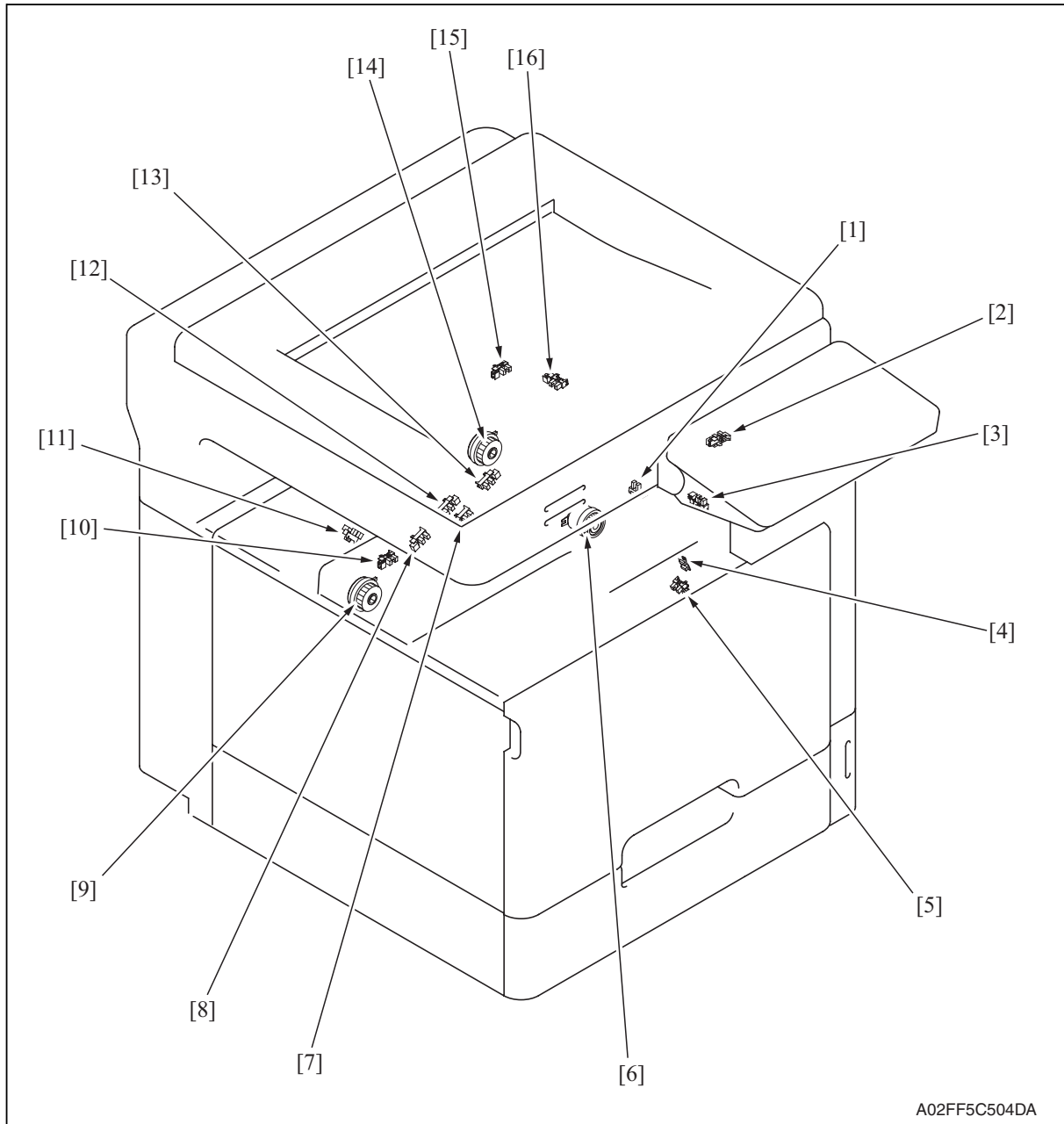


- | | |
|-------------------------------|-----------------------------------|
| [1] Control panel | [8] Erase lamp/Y (EL/Y) |
| [2] Right door switch (MS5) | [9] Waste toner full sensor (PS8) |
| [3] Front door switch/1 (MS3) | [10] DC power supply (DCPU) |
| [4] Front door switch/2 (MS4) | [11] Printer control board (PRCB) |
| [5] Erase lamp/K (EL/K) | [12] Service EEPROM board (SVERB) |
| [6] Erase lamp/C (EL/C) | [13] High voltage unit (HV) |
| [7] Erase lamp/M (EL/M) | |



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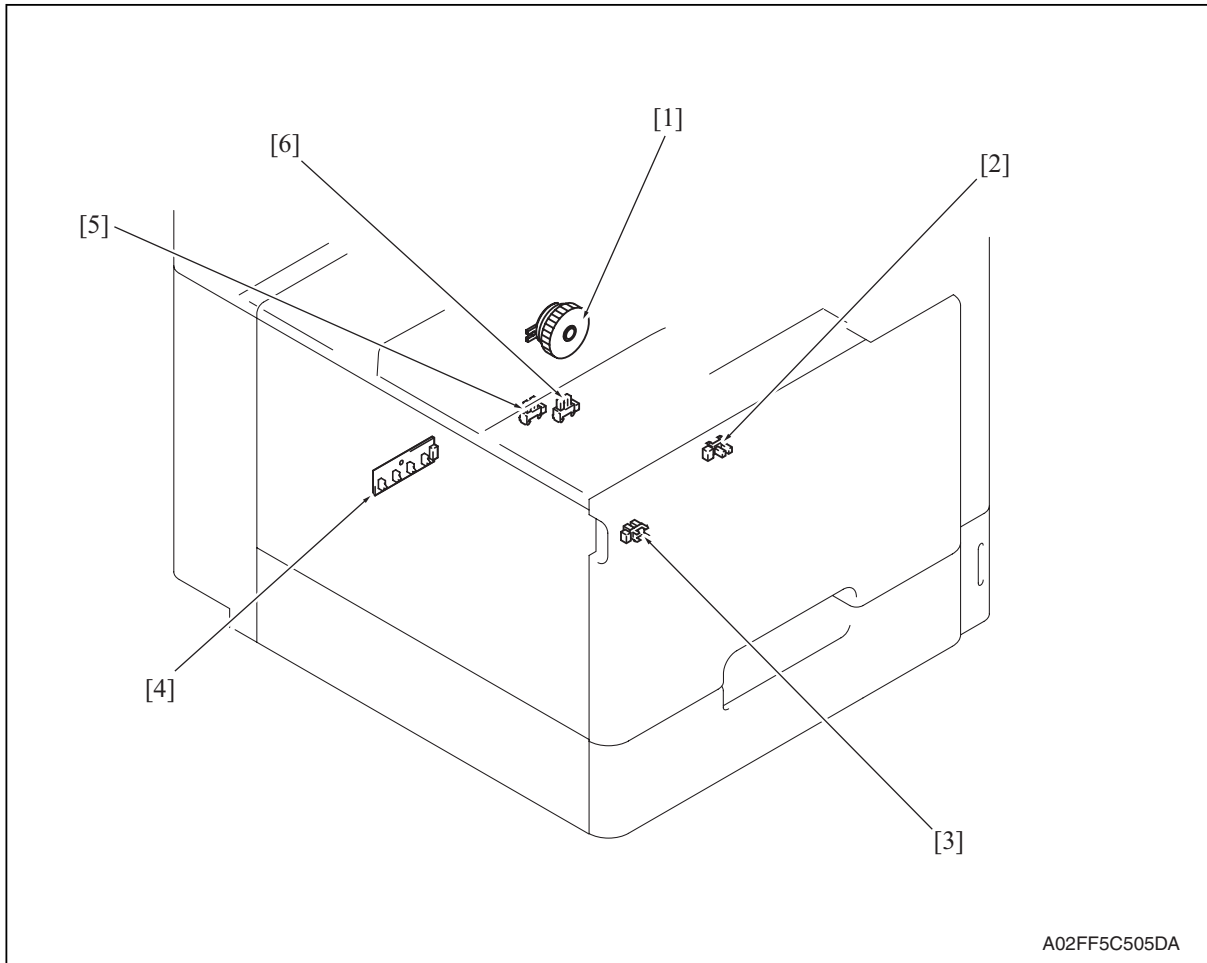
- | | |
|---|--|
| [1] Fusing motor (M2) | [10] Main power switch (SW1) |
| [2] 2nd image transfer pressure retraction motor (M5) | [11] Total counter (TCT) |
| [3] IDC registration sensor/YC (IDCS/YC) | [12] Transport motor (M1) |
| [4] IDC registration sensor/MK (IDCS/MK) | [13] Color dev. unit engaged motor (M4) |
| [5] PH unit/K | [14] Toner supply motor/YM (M6) |
| [6] PH relay board (REYBPH) | [15] Color PC motor (M3) |
| [7] PH unit/C | [16] Toner supply motor/CK (M7) |
| [8] PH unit/M | [17] Fusing pressure roller retraction motor (M12) |
| [9] PH unit/Y | |



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- | | |
|---|---|
| [1] 2nd image transfer welding alienation sensor (PS36) | [9] Transfer belt pressure retraction clutch (CL3) |
| [2] Fusing pressure retraction sensor (PS37) | [10] Transfer belt retraction sensor (PS6) |
| [3] Fusing loop detect sensor (PS3) | [11] Color dev. unit engaged position sensor (PS19) |
| [4] Temperature/humidity sensor (TEM/HUM) | [12] Color PC drive sub sensor (PS17) |
| [5] Sensor in front of tim. roller (PS1) | [13] Black PC drive sub sensor (PS18) |
| [6] Developing clutch/K (CL4) | [14] Tim. roller clutch (CL1) |
| [7] Black PC drive main sensor (PS16) | [15] Fusing pressure home sensor (PS38) |
| [8] Color PC drive main sensor (PS15) | [16] Paper exit sensor (PS2) |

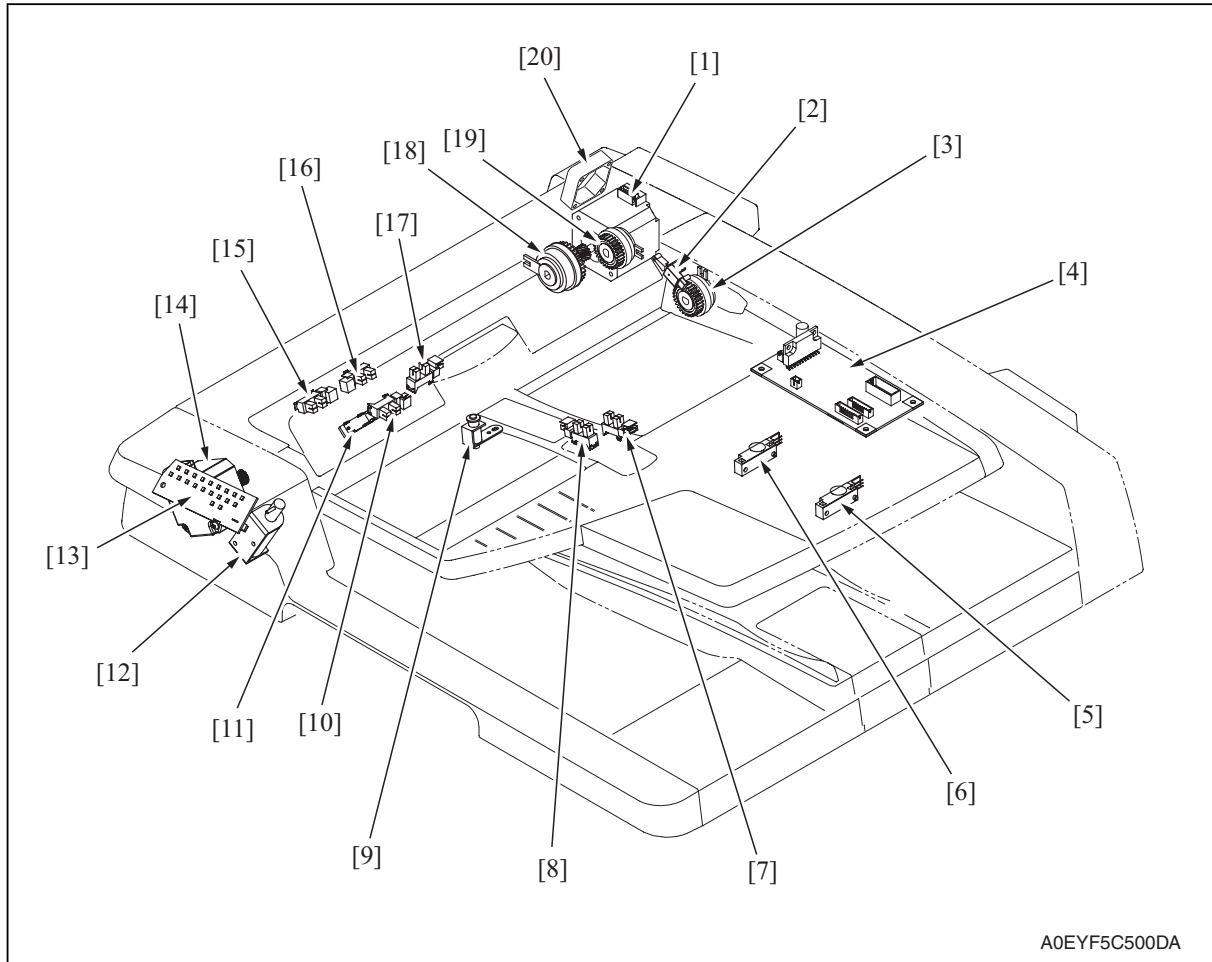
20.1.3 Tray 1



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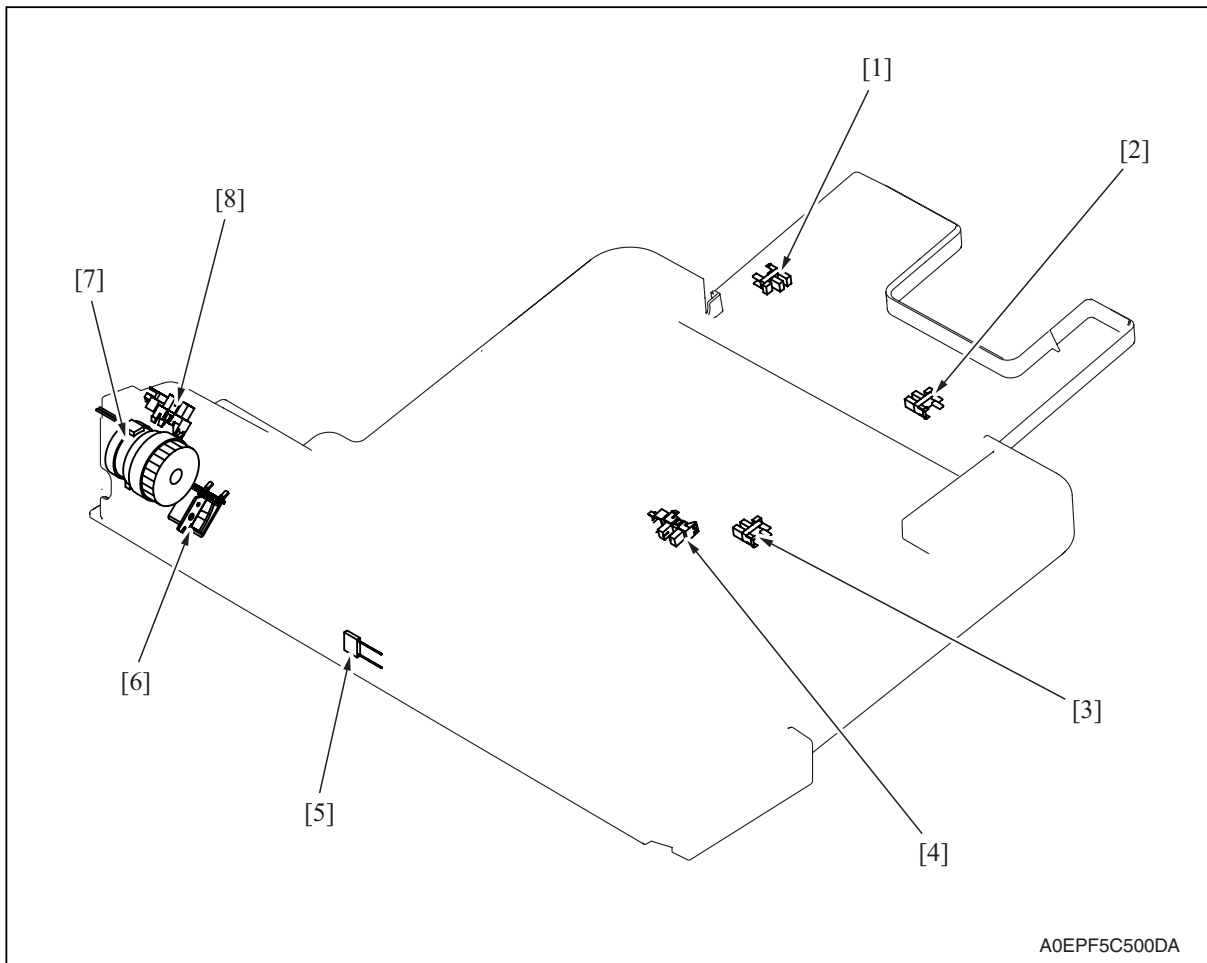
- | | |
|--|---|
| [1] Tray 1 paper feed clutch (CL2) | [4] Tray 1 FD paper size detect board (PSDTB/1) |
| [2] Tray 1 paper empty sensor (PS10) | [5] Tray 1 near empty sensor (PS11) |
| [3] Tray 1 CD size detect sensor (PS9) | [6] Tray 1 device detection sensor (PS12) |

20.2 DF-612 (option)



- | | |
|------------------------------------|--|
| [1] Take-up motor (M1) | [11] Registration sensor (PS8) |
| [2] Door open/close sensor (PS10) | [12] Exit roller retraction solenoid (SD1) |
| [3] Exit/turnover clutch (CL3) | [13] Print lamp board (PLB) |
| [4] DF control board (DFCB) | [14] Transport motor (M2) |
| [5] Document length sensor/2 (PS6) | [15] Document width sensor/1 (PS2) |
| [6] Document length sensor/1 (PS5) | [16] Document empty sensor (PS1) |
| [7] Document width sensor/3 (PS4) | [17] Transport sensor (PS7) |
| [8] Document width sensor/2 (PS3) | [18] Registration clutch (CL2) |
| [9] Stamp solenoid (SD2) | [19] Take-up clutch (CL1) |
| [10] Exit/turnover sensor (PS9) | [20] Cooling fan (FM1) |

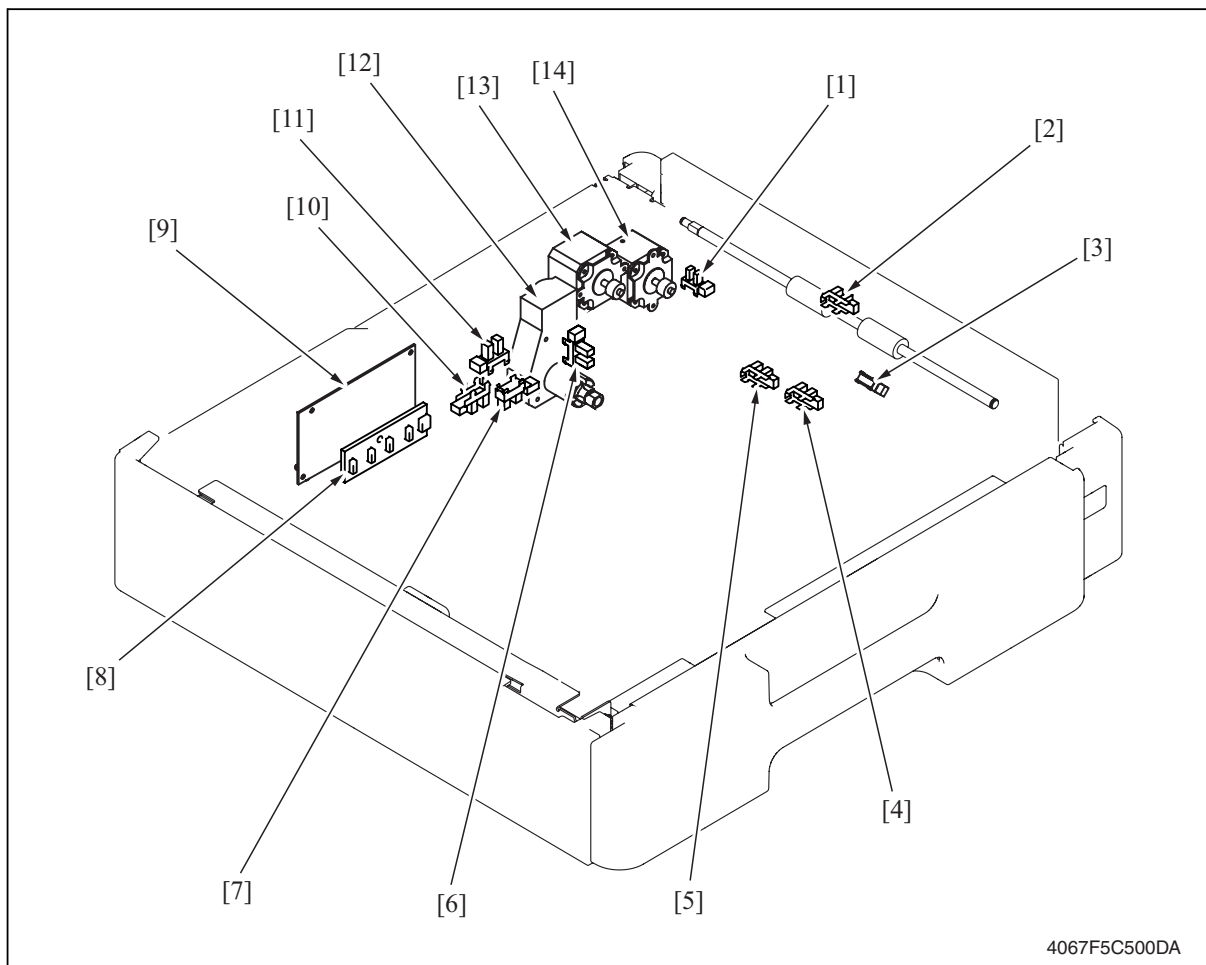
20.3 MB-502 (option)



- [1] FD size sensor/3 (PS22)
- [2] FD size sensor/2 (PS21)
- [3] FD size sensor/1 (PS20)
- [4] Paper empty sensor (PS13)

- [5] Paper width detection resistor (VR1)
- [6] Manual pick-up solenoid (SD2)
- [7] Paper feed clutch (CL5)
- [8] Lift-up position sensor (PS14)

20.4 PC-105 (option)

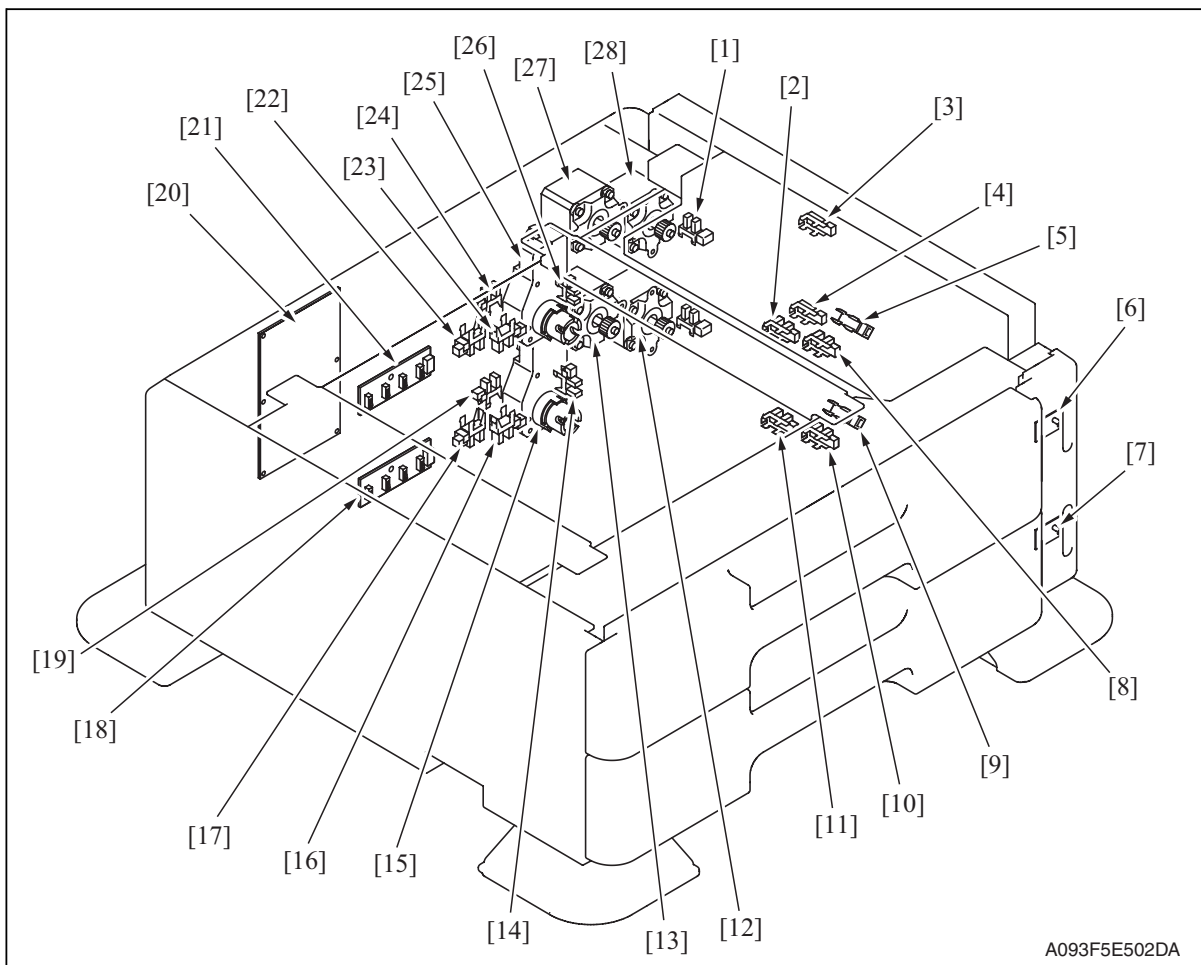


- | | |
|-------------------------------------|-------------------------------------|
| [1] Door set sensor (PS5) | [8] Paper size detect board (PSDTB) |
| [2] Vertical transport sensor (PS8) | [9] PC control board (PCCB) |
| [3] Paper take-up sensor (PS9) | [10] CD size detect sensor/2 (PS3) |
| [4] Paper empty sensor (PS6) | [11] Set sensor (PS2) |
| [5] Lift-up limit sensor (PS7) | [12] Lift-up motor (M3) |
| [6] Paper near-empty sensor (PS1) | [13] Paper feed motor (M1) |
| [7] CD size detect sensor/1 (PS4) | [14] Vertical transport motor (M2) |

d-Color MF201

Appendix

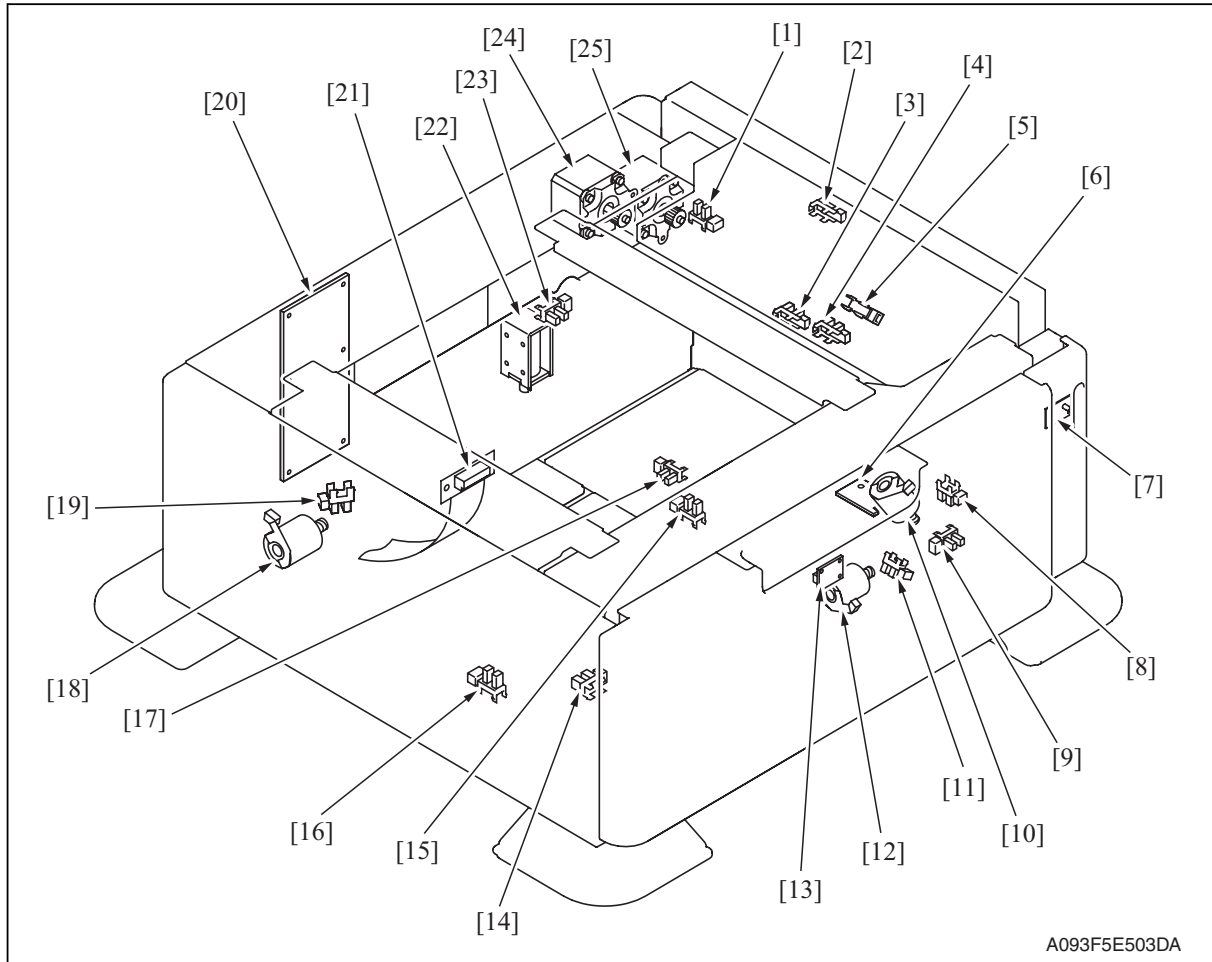
20.5 PC-104/204 (option)



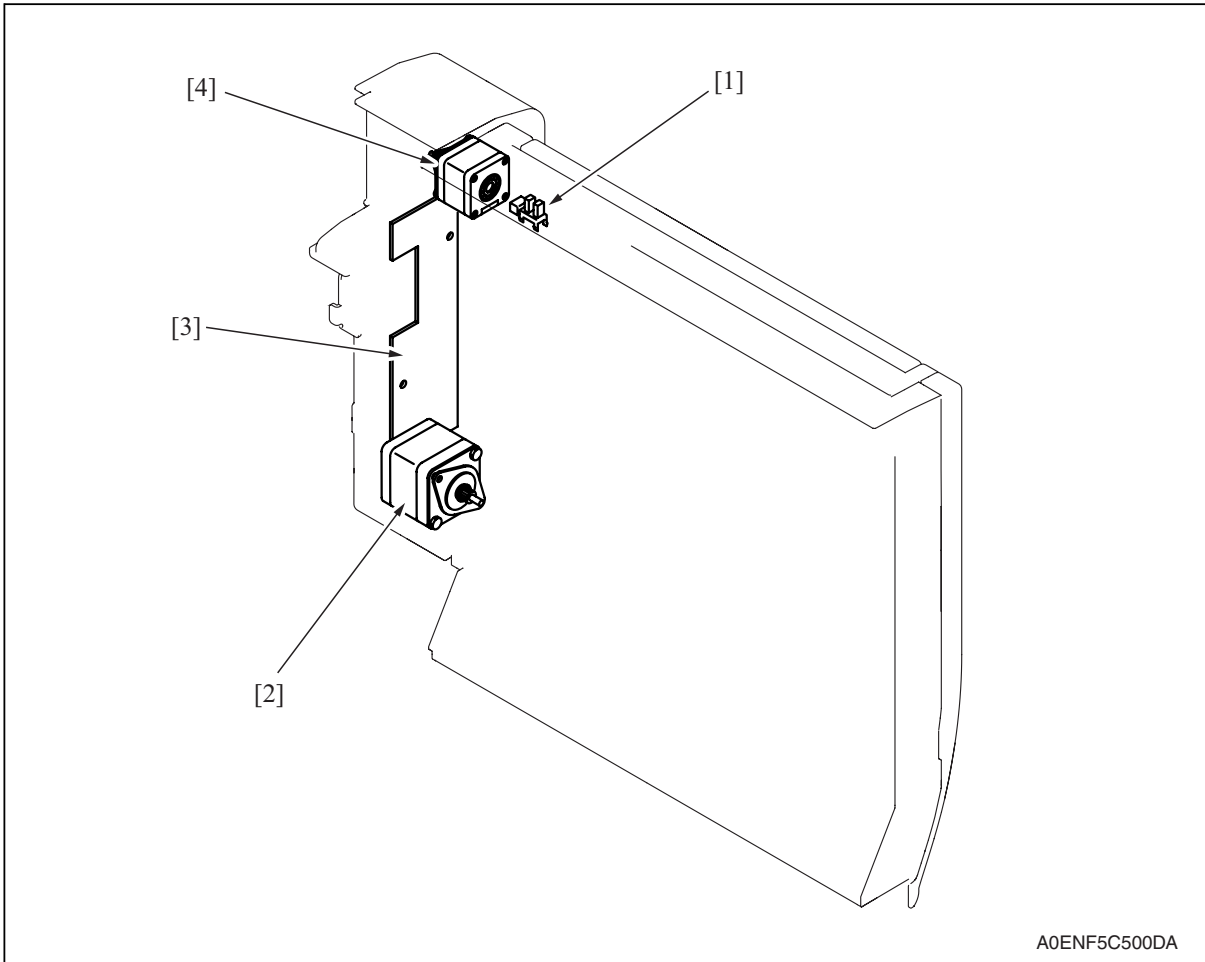
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- | | |
|---|--|
| [1] Tray3 door set sensor (PS111) | [15] Tray4 lift-up motor (M125) |
| [2] Tray3 upper limit sensor (PS114) | [16] Tray4 CD paper size sensor/2 (PS128) |
| [3] Tray3 vertical transport sensor (PS117) | [17] Tray4 CD paper size sensor/1 (PS127) |
| [4] Tray4 vertical transport sensor (PS126) | [18] Tray4 paper size detect board/2 (PSDTB/2) |
| [5] Tray3 paper feed sensor (PS116) | [19] Tray4 device detection sensor (PS121) |
| [6] Paper feed tray3 paper empty indicator board (PEIB/1) | [20] PC Control board (PCCB) |
| [7] Paper feed tray4 paper empty indicator board (PEIB/2) | [21] Tray3 paper size detect board/1 (PSDTB/1) |
| [8] Tray3 empty sensor (PS115) | [22] Tray3 CD paper size sensor/1 (PS118) |
| [9] Tray4 paper feed sensor (PS125) | [23] Tray3 CD paper size sensor/2 (PS119) |
| [10] Tray4 empty sensor (PS124) | [24] Tray3 device detection sensor (PS112) |
| [11] Tray4 upper limit sensor (PS123) | [25] Tray3 lift-up motor (M124) |
| [12] Tray4 vertical transport motor (M121) | [26] Tray3 near empty sensor (PS113) |
| [13] Tray4 paper feed motor (M123) | [27] Tray3 paper feed motor (M122) |
| [14] Tray4 near empty sensor (PS122) | [28] Tray3 vertical transport motor (M120) |

20.6 PC-405 (option)



- | | |
|---|--|
| [1] Door sensor (PS5) | [14] Shift tray empty sensor (PS9) |
| [2] Vertical transport sensor (PS2) | [15] Shift tray stop sensor (PS11) |
| [3] Lift-up upper sensor (PS4) | [16] Shift tray home sensor (PS12) |
| [4] Paper empty sensor (PS3) | [17] Lift-up lower sensor (PS13) |
| [5] Paper feed sensor (PS1) | [18] Division board position motor (M3) |
| [6] Main tray paper empty board (MTPEB) | [19] Division board position sensor (PS14) |
| [7] Paper feed tray3 paper empty indicator board (PEIB/1) | [20] PC control board (PCCB) |
| [8] Elevator motor pulse sensor (PS10) | [21] Relay board (REYB) |
| [9] Lower over run sensor (PS7) | [22] Tray lock solenoid (SD1) |
| [10] Elevator motor (M5) | [23] Cassette open sensor (PS6) |
| [11] Shift motor pulse sensor (PS8) | [24] Paper feed motor (M1) |
| [12] Shift motor (M4) | [25] Vertical transport motor (M2) |
| [13] Manual down control board (MDCB) | |

20.7 AD-505

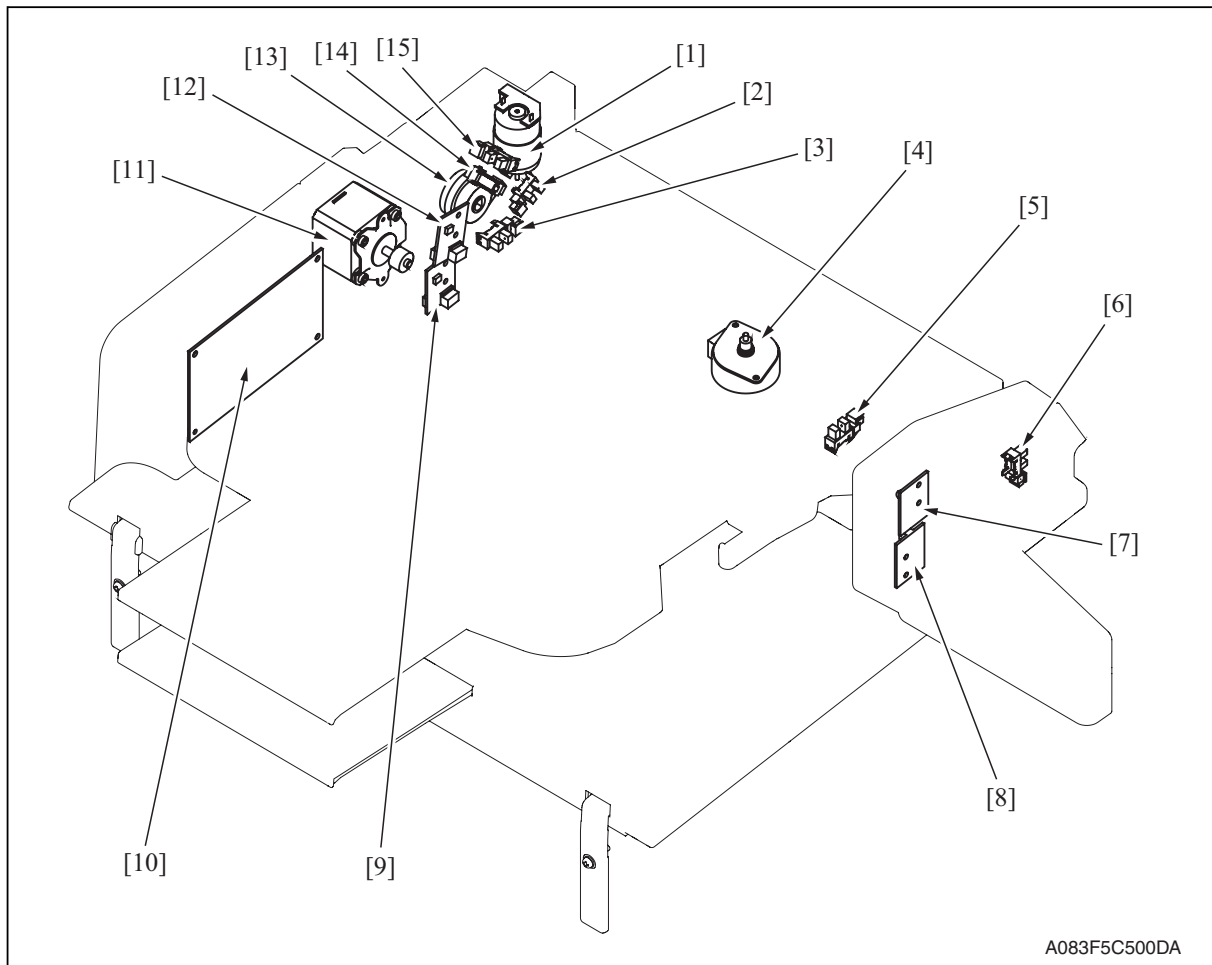
[1] Duplex unit set sensor (PS1)

[3] Duplex unit control board (DCB)

[2] Duplex unit transport motor (M2)

[4] Switchback motor (M1)

20.8 JS-505 (option)



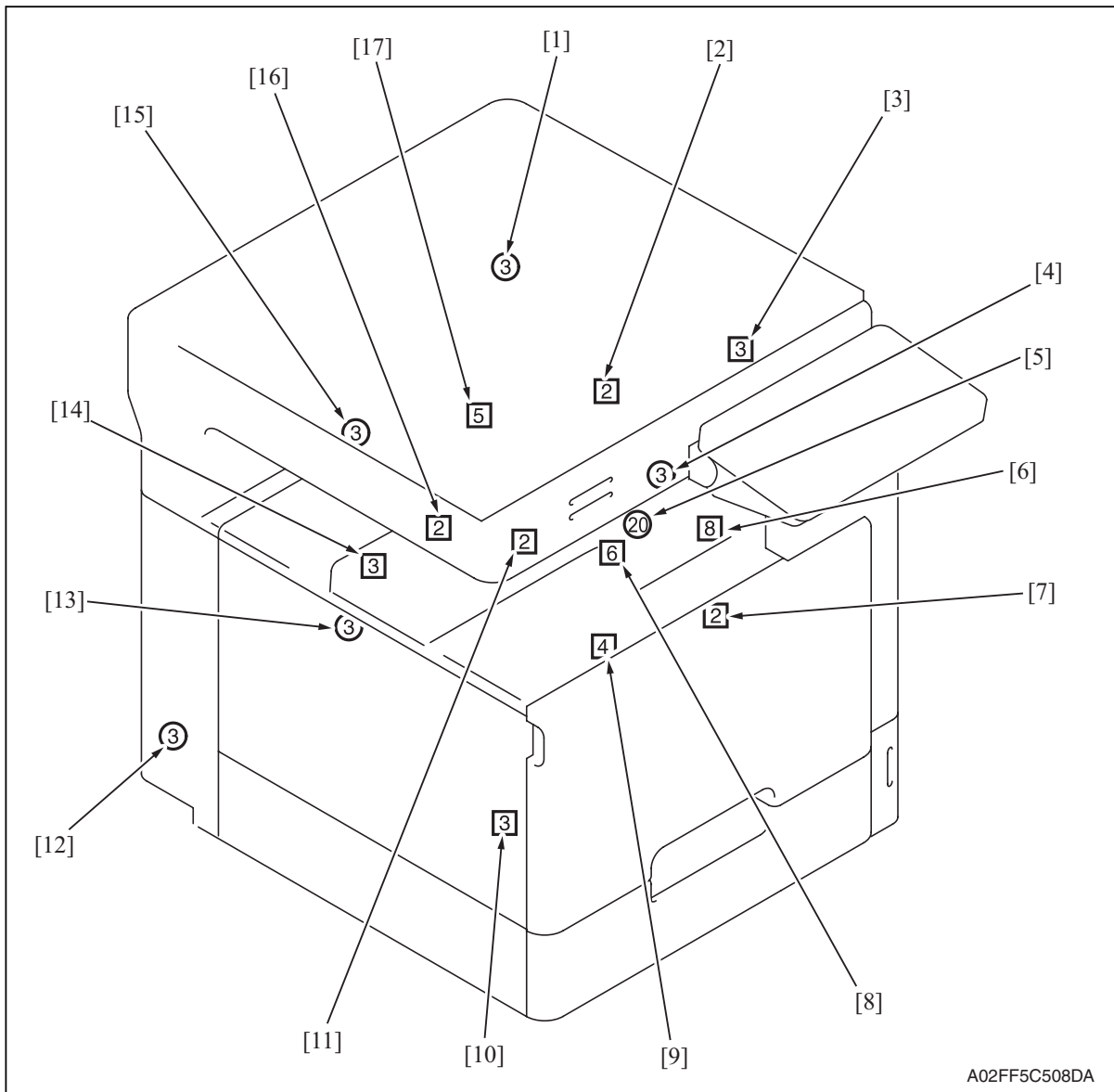
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- | | |
|---|--|
| [1] Route change motor (M3) | [9] Lower tray paper full detect board/PR (T1FDTB/PR) |
| [2] Route change home sensor (PS4) | [10] JS control board (JSCB) |
| [3] Pressure/retraction home sensor (PS5) | [11] Transport Motor (M1) |
| [4] Shift motor (M2) | [12] Upper tray paper full detect board/PR (T2FDTB/PR) |
| [5] Shift home sensor (PS6) | [13] Roller pressure/retraction clutch (CL1) |
| [6] Front door sensor (PS3) | [14] Lower tray exit sensor (PS1) |
| [7] Upper tray paper full detect board/LED (T2FDTB/LED) | [15] Upper tray exit sensor (PS2) |
| [8] Lower tray paper full detect board/LED (T1FDTB/LED) | |

21. Connector layout drawing

Description

- Number of pin → ① Possible to confirm by removing external cover.
 → ② Not possible to confirm by removing external cover.



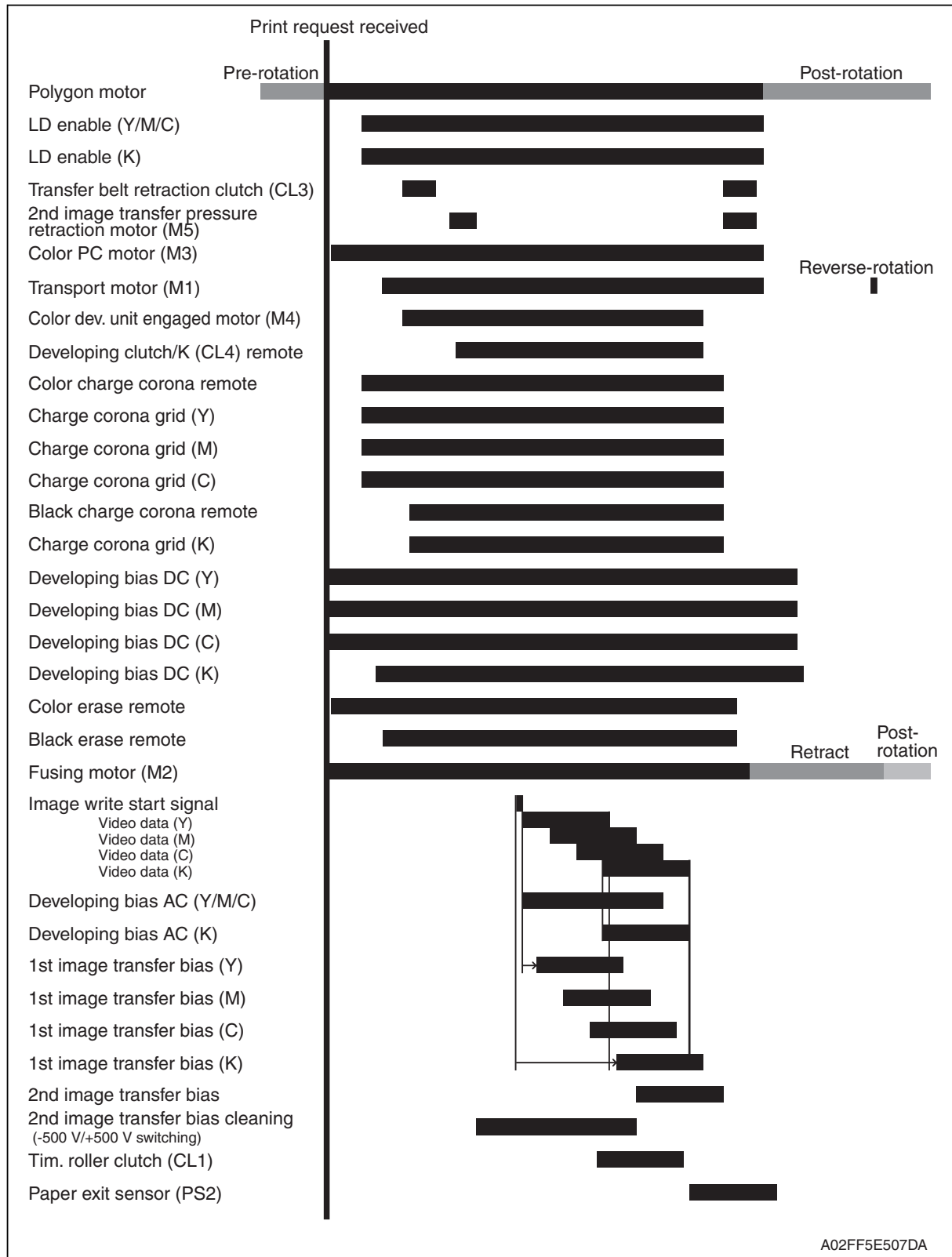
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No.	CN No.	Location	No.	CN No.	Location
[1]	CN34	D-26	[10]	CN72	J-7
[2]	CN7	E-5	[11]	CN8	E-5
[3]	CN36	D-26	[12]	CN3	D-3
[4]	CN21	D-8	[13]	CN135	J-8
[5]	CN82	J-21 to 22	[14]	CN87	D-10
[6]	CN141	D-19	[15]	CN35	E-26
[7]	CN74	D-18	[16]	CN47	D-25
[8]	CN73	E-3	[17]	CN69	D-18
[9]	CN75	D-20			

22. Timing chart

22.1 Main body

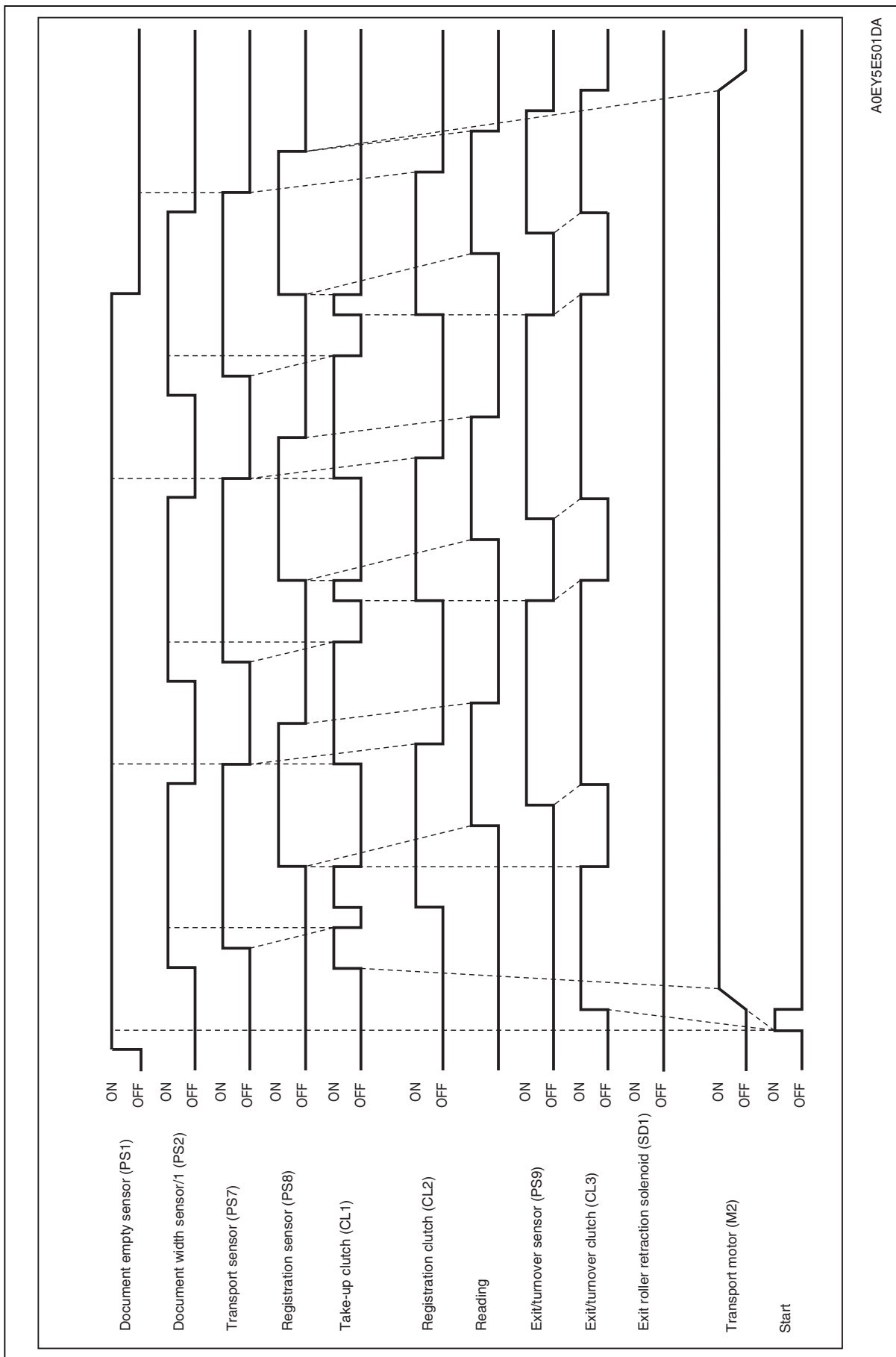
Color mode/A4 or 8 1/2 x 11/tray1



22.2 DF-612

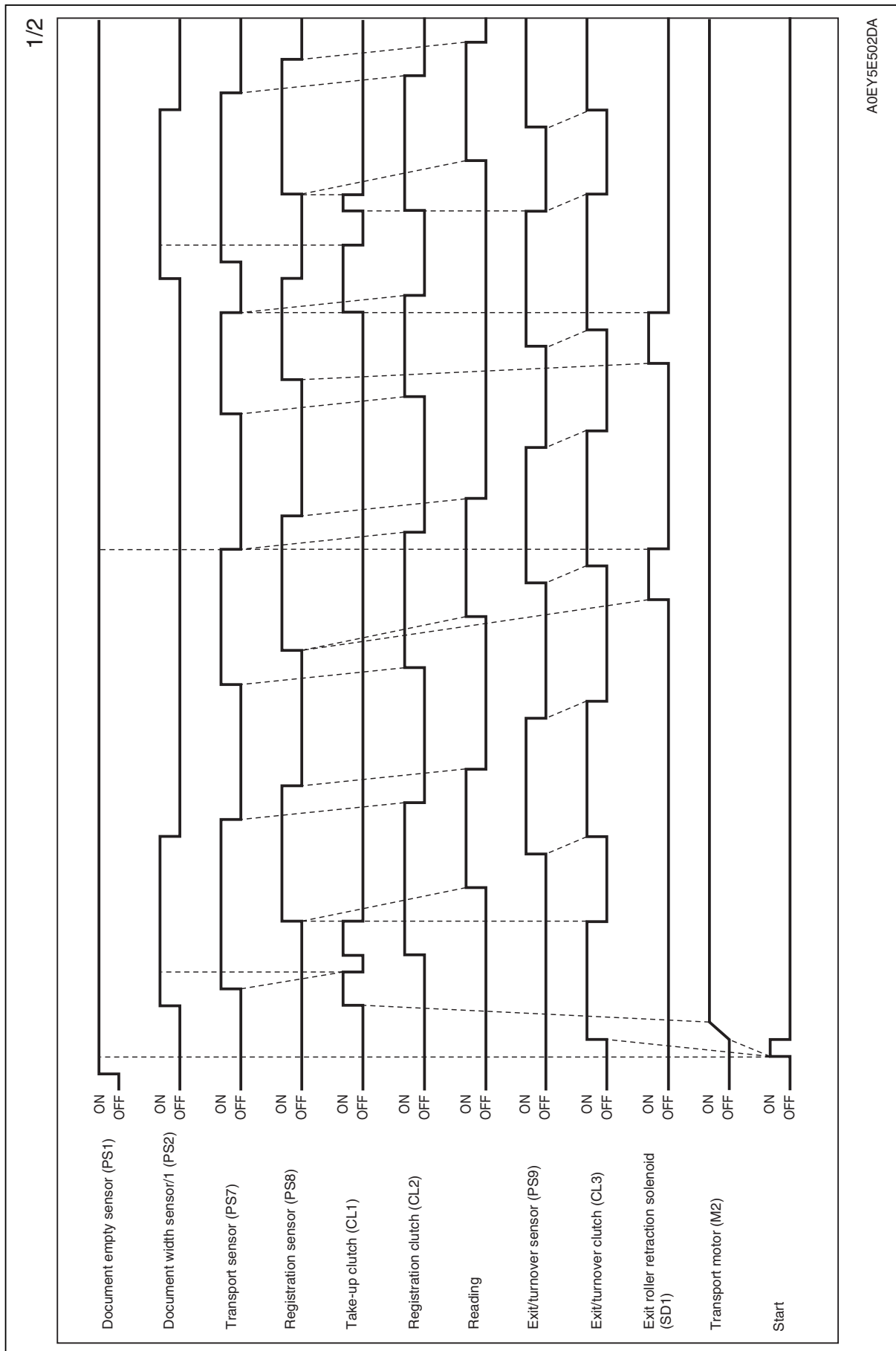
22.2.1 1-sided mode (A4 three sheets feeding)

d-Color MF201



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22.2.2 2-sided mode (A4 three sheets feeding)



2/2

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