



Service Manual

Version A.1

This service manual includes the basic information about the KIP 7100 Multi-Function Printer, which is required when you during field service to maintain the product's quality and reliability.

Chapter 1 Introduction	Overview (Features, specifications, name of parts and etc.)
Chapter 2 Installation	Installation requirements, method of installation, connection with PC & printer
Chapter 3 Print / Scan Process	explanation for the steps of the print and scan process
Chapter 4 Electrical	Circuit diagrams, image process system, electric parts location and etc.
Chapter 5 Mechanical	Parts replacement and mechanical disassembly
Chapter 6 Maintenance	Field maintenance information
Chapter 7 Troubleshooting	Problem resolution
Chapter 8 Service Mode / Utility	Service Mode settings, Diagnosis and etc.
Chapter 9 Appendix	General Circuit Diagram

Some of the information included in this manual may be changed by product upgrades. Such information will be informed to you through Technical Bulletins or Engineering Change Orders. Read this service manual and these TBs / ECOs to understand the KIP 7100 correctly, and you will be able to maintain the product quality for a long period of time.

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For KIP authorized dealer only. All sections of the document are subject to change without notice.

Chapter 1

Introduction

1.	1			age - 2
1.				- 3
	1.			- 3
			The state of the s	- 4
	1.	2.	3 Scanner part1	- 6
1.	3		Specifications for Originals 1 Original - Standard	- 7
	1.	3.	1 Original - Standard 1	- 7
	1.	3.	2 Special Documents	- 7
	1.	3.	3 "Do Not Scan" Originals 1	- 7
1.	4		Appearance 1	- 8
	1.	4.		- 8
	1.	4.	2 Rear 1	- 9
1.	5		Specifications for Scan Original	-10
1.	6		Specifications for Printing Media	-13
	1.	6.	1 Papers not available to use	-13
	1.	6.		-14
			3 Treatment against environmental condition	
	-			

1.1 Features

- (1) The KIP 7100 is a single footprint Multi-Function Printer which can copy, scan and print. Advanced drivers and comprehensive print utilities make the KIP 7100 an advanced, easy to use system. (some functions may be optional)
- (2) KIP HDP technology generates no waste toner.
- (3) The combination of the KIP HDP Plus imaging system with mono-component minute toner produces high definition lines, distinctive greyscale and consistent blacks.
- (4) The maximum paper width is 36" (914mm) wide, and the minimum is 11" (279mm). The maximum paper length is 6m (with 36" paper) or, and the minimum is 8.5" (210mm).
- (5) Up to 600dpi print resolutions with an enhanced scanning system produces the highest quality images controlled by an advanced KIP Image Process System.
- (6) Easy access to USB port allows users to provide efficient productivity by using "File to Print" / "Scan to USB" (option).
- (7) 2-way print ejection (top / rear) suits the preference of the user's print handling.
- (8) Various media source; roll media feeding (2 rolls), cut sheet manual feeding, Paper Tray multiple cut sheet feeder (option)
- (9) Contactless IC card reader for more efficient accounting management (option)
- (10) User-friendly touch screen control panel with tilt / swivel

1-2 K124sm1e1

1. 2 Specifications

1. 2. 1 **General**

Subject	Specification				
Model	KIP 7100				
Configuration	Console				
Power consumption	1,440W (US model)				
(Maximum)	1,680W (EU / Asia model)				
	(scanner / controller included)				
Power consumption	30W or less				
(Low power mode)					
Acoustic noise	Idling ——Max. 60db				
	Printing ——Max. 65db				
	(impulse sound excluded) EN ISO 7779				
Ozone	Max. 0.05ppm (Measurement method under UL Standard)				
Dimensions	1346mm (Width) x 704mm (Depth) x 1105mm (Height)				
	(UI, Tray excluded)				
Weight	About 244kg (538lb)				
Environmental condition	(Temperature)				
for usage	10 to 32 degrees Centigrade / 50 to 89.6 F				
	(Humidity)				
	15 to 85% RH				
Interface	Network Interface (10 BASE-T / 100 BASE-TX / 1000 BASE-T)				
Rating Input Power	In the US : 120V plus/minus 10%, 50/60Hz, 12A				
	In Europe : 220-240V plus 6% or minus 10%, 50/60Hz, 7A				



The above specifications are subject to change without notice.

1-3 K124sm1e1

1. 2. 2. Printer part

Subject	Specification										
Printing method	LED Array Electro photography										
Photoreceptor	Organic Photoconductive Drum										
Print speed	80mm per second										
	(Metric) 3.3ppm/A0										
	(Inch) 3.4ppm/E										
Print head	LED Arra	ay									
Resolution of print head	600dpi x 600dpi										
Print width	Maximum 914mm or 36"										
	Minimum 297mm or 11" (Roll paper) 210mm or 8.5" (Cut sheet paper)										
			···· 21	0mm	or 8.	5" (Cu	ıt she	et pa	per)		
Print length	Maximur										
	(Standar	rd)									paper / bond)
			or	"5 x S	Stand	ard le	ngth"	(plair	n pape	er / bo	nd)
									pape	r / vell	um)
	(Ontion)			x Sta		ı ieng	tn" (fi	lm)			
	(Option)		20	0,000	111111						
	Minimun	n	···· 21	0mm	/ 8.5"	ı					
		NC) E	•							
										quality	or the
	reliability of paper feeding is not guaranteed.										
Deint sins											
Print size	ISO (mm)										
(Paper Tray, option)		Vidth									
	Length		594	420	297	210					
		420	Х	· ·	Х						
		297		Х		Х					
	ANSI (in	ch)									
	`	,									
	Length -	Vidth							_	1	İ
	-	18	24 X	22	18	17	12 X	11	9	8.5	
		17		Х			^	Х			
		12			Х				Х		
		11				Х				Х	
							•				
Marm up time	Shorter than 4 minutes 20 seconds										
Warm up time	Shorter than 4 minutes 30 seconds (At 23°C, 60%RH, the rated voltage, and plain paper is used)										
First print time	18 seconds (D Landscape)				o useuj						
I not print time	(At 23°C, 60%RH, the rated voltage, and plain paper is used)										
Fusing method	Heat and Pressure Rollers										
Development method	Dry type non-magnetic mono-component toner										
Development method	Dry type non-magnetic mono-component toner										

1-4 K124sm1e1

Subject	Specification			
Media source	2 Roll Decks			
	Manual Feeder (sing	le cut sheet)		
	Paper Tray (multiple	cut sheet, option)		
Media	(Recommended Med	dia)		
	US model:	·		
	Bond	64g/m ² to 80g/m ² , US Bond (PB-20)		
	Vellum	US Vellum (XV-20)		
	Film	4MIL (PF-4DDME)		
	Europe/Asia mode			
	Plain Paper 64g/m ² to 80g/m ² , Oce Red Label (75g/m			
	Tracing Paper Transparent Paper (80g/m²)			
	Film 3.5MIL			
Storage of consumables	(Toner cartridge)			
	Store the cartridge within the temperature range from 0 to			
	35 degrees Centigrade and within the humidity range from 35			
	to 85% RH.			



The above specifications are subject to change without notice.

K124sm1e1 1-5

1. 2. 3 Scanner part

Subject	Specification					
Scanning method	Contact Image Sensor (CIS)					
	(5 pieces of A4 sized CIS)					
Light source	LED (R/G/B)					
Setting of original	Face up					
Starting point of scan	Center					
Scan width	Max: 914.4mm					
	Min: 279.4mm					
Scan length	Max: 6,000mm (Including the margin area)					
	Min: 210mm (Including the margin area)					
Margin area	3mm from leading, trailing and both side edges					
Optical resolution	600dpi					
Digital resolution	200 / 300 / 400 / 600 dpi					
Original transportation	Sheet through type					
Transportable original	Max: 1.60mm					
thickness	Min: 0.05mm					
	▲ NOTE					
	If the original is thicker than 0.6mm, its image quality is not guaranteed.					
Scanning speed	60 mm per second (max)					



The above specifications are subject to change without notice.

1-6 K124sm1e1

1. 3 Specifications for Originals

1. 3. 1 Original Standards

- (1) The width of original must range from 11" to 36" (275.0mm to 914.4mm).
- (2) The length of original must range 8.5" (210mm) to 25,000mm
- (3) The thickness of original must range from 0.05mm to 0.65mm.
- (4) The shape of original must be square, and it must be standard sized.
- (5) The type of original must belong to any of the followings.

Plain paper

Coated paper (High or middle class plain paper is coated with the paint.)

Tracing paper

Pansy Trace Paper (Both sides of the film is sandwiched between Tracing paper.)

Film

Newspaper

Cardboard paper

1. 3. 2 Special Documents

The following kinds of originals are "special". It is possible to scan them, but the image quality and feed reliability are not guaranteed.

(1) The type of original is acceptable, but the thickness and type may not be:

Booklets

Original with a Hanger

Cut and Pasted originals

(2) These original may not damage the scanner, but these types are NOT recommended: following ones.

Cloth

Aluminium Kent Paper

1. 3. 3 "Do Not Scan" Originals

It is impossible to use the following types of originals because they are likely to damage the scanner.

- (1) Metal originals (The Scan Glass may damage)
- (2) Slippery originals which is difficult to transport
- (3) Irregularly shaped originals (Not square in shape)
- (4) Extremely curled originals (Diameter of curl is less than 50mm)
- (5) Extremely creased originals
- (6) Torn originals

1-7 K124sm1e1

1. 4 Appearance

1. 4. 1 Front



No.	Name	Function
1	Main Switch	You can turn on/off the KIP 7100.
2	Original Guides	Feed the original under the Scanner Unit along the Original
		Guides.
3	User Interface	This is a Touch Screen, and many kinds of user operation are
		available.
		PLEASE DO NOT push the LCD area too strong.
4	Emergent Stop Button	Press this button when you would like to stop copying or
		scanning emergently.
5	Scanner Unit	Read the original with this unit when you make scan or copy.
6	Toner Hatch	Open the Toner Hatch when you replace the Toner Cartridge.
	(Original Table)	Also put the original here and then feed it into the Scanner Unit
		when you make scan or copy.
7	Engine Unit Open Lever	Pull up these levers when you open the Engine Unit.
8	Bypass Feeder	Feed a cut sheet paper from the Bypass Feeder.
9	Roll Deck	Roll media can be loaded here.
10	Print Tray	These trays catch ejected prints.
11	Stylus	Use this to press buttons on the touch screen.
		PLEASE DO NOT use any other pointed object to tap on the UI.
12	USB Port	Your USB flash memory storage can be installed here.
		5VDC max.

1-8 K124sm1e1

1. 4. 2 Rear



No.	Name	Function
1	Exit Cover	Open the Exit Cover when you remove the paper misfed inside the Fuser Unit.
2	LAN Port	Connect the LAN Cable to connect the KIP 7100 to the network. (Do not connect a telephone line)
3	Dehumidify Heater Switch (Optional in the US)	Turn on the Dehumidify Heater with this switch when you would like to dry the paper in the humid season.
4	Breaker	It is possible to shut off supplying the AC power.
5	Inlet Socket	Connect the Power Cord here.
6	COM Port (Optional)	For an optional device (D-Sub Connector 9 pins: 12VDC max.)
7	USB Port	For an optional device Service Use. 5VDC max.

1-9 K124sm1e1

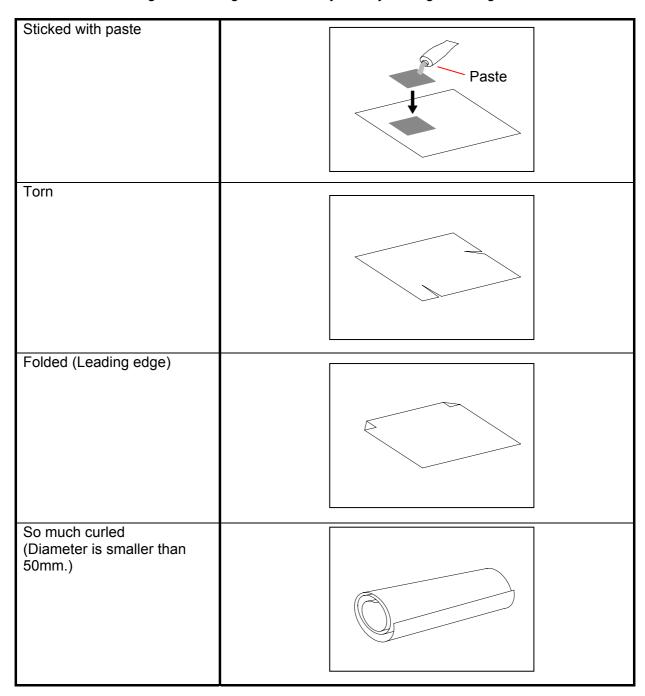
1. 5 Specifications for Scan Original

A scan original must satisfy the following specifications.

Thickness	0.05mm to 0.6mm
Width	279.4mm to 914.4mm
Length	210mm to 6,000mm

(If an original is thicker than 0.6mm, its image quality is not guaranteed even it is transported.)

Do not scan the following kinds of original, because you may damage the original or scanner itself!



1-10 K124sm1e1

Not square	
. Tot oqual o	
Wet image	
	Wet
Made of metal or fabric	Metal Fabric
Patched	
Clipped or stapled	Clipped Stapled

1-11 K124sm1e1

The following kinds of originals can be read with using a carrier sheet. Image quality or the reliability of paper feeding for them is not guaranteed.

Rough surface (Carbon paper for example)	Rough surface
Punched	00000000

1-12 K124sm1e1

1. 6 Specifications for Printing Media

1. 6. 1 Papers not available to use

Do not use the following kinds of printing paper because you may damage the print engine!

Excessively curled	
Excessively curled (a diameter of 50 mm or	
less)	
1633)	
Folded	
Cranad	
Creased	
Torn	
Punched	
i dilollod	
	2000
	00000000

1-13 K124sm1e1

Paper that has already been used for printing		
Extremely sticky		
Extremely thin and soft		
Extremely slippery	·	
OHP Film	•	

A CAUTION

Do not use the paper with staple, or do not use such conductive paper as aluminium foil and carbon paper.

Such paper may become cause for the fire.

♠ NOTE

- (1) Print image may become light if printed on a paper of rough surface.
- (2) Print image may become defective if the print paper is much curled.
- (3) It will become a cause for paper mis-feed, defective print image or crease of paper if you use a paper that does not satisfy the specification.
- (4) Do not use a paper of which surface is very special, such as thermal paper, art paper, aluminium foil, carbon paper and conductive paper.
- (5) Do not use papers with unpacked (exposed in high / low temperature & humidity) in a long period. Such papers may result in mis-feed, defective image or paper creasing.
- (6) Tracing paper exposed to air over a long period tends to defective printing. Removing one round on the surface of the tracing roll paper from the beginning is recommended.
- (7) Initial cut for the leading edge before making a long print is recommended.

1. 6. 2 Keeping the paper in the custody

Keep the paper in the custody taking care of the following matters.

- 1. Do not expose the paper to the direct sunlight.
- 2. Keep the paper away from high humidity. (It must be less than 70%)
- 3. Put the paper on a flat place
- 4. If you will keep the paper in the custody, which you have already unpacked, put it into the polyethylene bag to avoid the humidity.

K124sm1e1 1-14

1. 6. 3 Treatment against environmental condition

Humidity(%)	Possible problem	Necessary treatment
Low	"Void of image", "crease of paper" and other problems occurs when you print with plain paper and tracing paper.	 Install the humidifier in the room, and humidify the room air. Remove the paper from the machine right after the completion of print, and keep it in a polyethylene bag.
	"Void of image" occurs when you print with tracing paper.	If you will not make print soon, remove the tracing paper from the machine and keep it in a polyethylene bag.
40%		Remove the paper from the machine after everyday use, and keep it in a polyethylene bag.
70%	"Void of image" occurs when you print with plain paper and tracing paper.	If you will not make print soon, remove the tracing paper from the machine and keep it in a polyethylene bag.
\	"Void of image", "crease of paper" and other problems occurs when you print with plain paper and tracing paper.	Turn on the Dehumidify Heater. (if installed) Remove the paper from the machine right after the completion of print, and keep it in a polyethylene bag.
High		



- (1) KIP 7100 is equipped with the Dehumidify Heater (option for US model.) Using it in high humidity environment (65% or higher) is recommended.
- (2) "Void of image" and "crease of paper" will occur in case of extremely high or low humidity.

Normal Print



If the media is humidified;

Crease of paper



Normal Print



If the media is humidified;

Loss of image



1-15 K124sm1e1

Chapter 2

Installation

The machine had passed our strict inspection after careful adjustment in the factory, and then it was packaged and shipped. Installation is an important work to make the machine work at customer's site as same as it has passed our strict inspection before shipment. A service engineer has to understand machine's function very well. Install the machine in a good environmental place in a correct way, and then check that it works perfectly.

				Pag	е
2.	1		Installation Requirements	2-	1
	2 2. 2.	1	Unpacking Unpacking Confirmation of Accessories	2-	2
2.	3		Leveling KIP 7100	2-	5
2.	4		Setup of the Machine	2-	7
2.	5		Installing Monitor	2-1	3
2.	6		Installing Accessories	2-1	6
2.	7		Supplying Toner to Developer Unit	2-1	8
2.	8		Creating Backup	2-1	9

2. 1 Installation Requirements

The following conditions are required for the installation of the equipment.



- Power source should be rated as:
 U.S.A: 120V +/-10%, 50/60Hz, 15A or higher
 Europe and Asia: 220-240V+6% or -10%, 50/60Hz, 10A or higher
- 2. The equipment must be on a dedicated circuit.
- 3. The outlet must be near the equipment and easily accessible.



- 1. Make sure to connect this equipment to a properly grounded outlet.
- 2. The outlet shall be installed near the equipment and shall be easily accessible.

Site Environmental Conditions

Temperature Range 10 C to 32 C 50 F to 89.6 F Humidity Range 15% to 85% RH. (NON CONDENSING)

Keep the printer away from water sources, boilers, humidifiers or refrigerators.



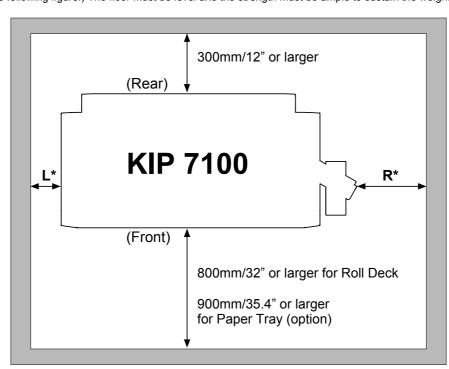
- 1. The installation site must not have any open flames, dust or ammonia gases.
- 2. The equipment must not be exposed to the air vents from heating/cooling systems.
- 3. The equipment should not be exposed to the direct sunlight. Please draw curtains to block any sunlight. When you open the printer (Upper Half), do not expose the Photoconductive Drum to strong (intense) light as this will damage the Drum.



Ozone will be generated while this equipment is in use, although the quantity generated is within all safe levels. (see certifications)

Ventilate the room, if so required.

Keep ample space around the equipment to ensure comfortable operation. (Refer to the following figure.) The floor must be level and the strength must be ample to sustain the weight of the equipment.



*L+R=350mm/14" or larger (R must be larger than L) (L=50mm/2" or larger recommended)

2-1 K124sm2e2

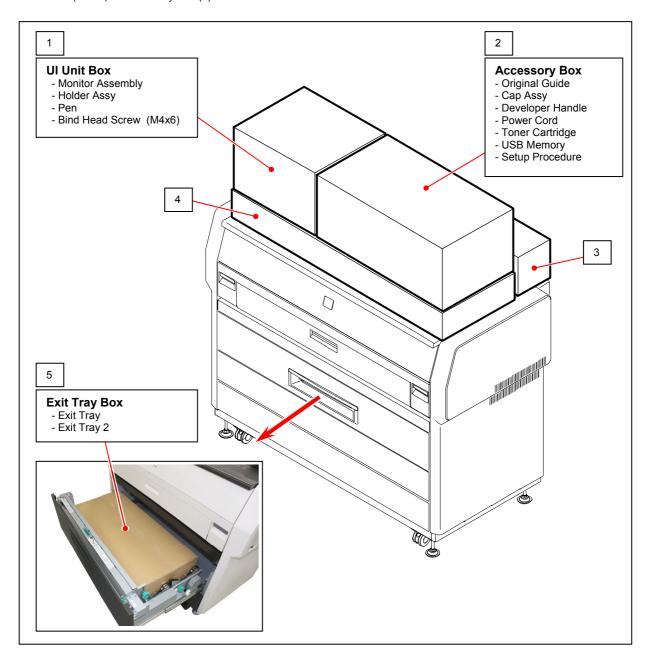
2. 2 Unpacking

2. 2. 1 Unpacking

1. Unwrap the machine. Put aside the following cardboard boxes.

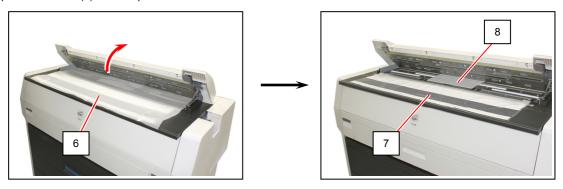
- Top : UI Unit Box (1), Accessory Box (2), empty Drum Box (3), Scanner Cover (4)

- Roll Deck (Inside) : Exit Tray Box (5)



Open the Scanner Unit. Remove the protection mat (6). Put aside Shading Sheet (7) for the scanner adjustment.
 DO NOT DISCARD THE SHEET. HANDLE WITH GREAT CARE.
 KEEP THE SHEET IN SAFE COSTODY FOR AVOIDING DAMAGE.

Remove the protection sheet (8) on the top rear of the machine. Close the Scanner Unit.



2-2 K124sm2e2

2. 2. 2 Confirmation of Accessories

Confirm the following parts are attached to the product.

Accessory Box

Item name	Picture	Number of article	Item name	Picture	Number of article
Original Guide 1 & 2		1 each	Power Cord		1
Toner Cartridge (300g)		4 (USA Model) 2 (Europe / Asia)	Setup Procedure	COUNTAL PRINTER KIP 7100 Hardware Schup Procedure ***********************************	1
Cap Assy		4	User's Manual CD		1

2-3 K124sm2e2

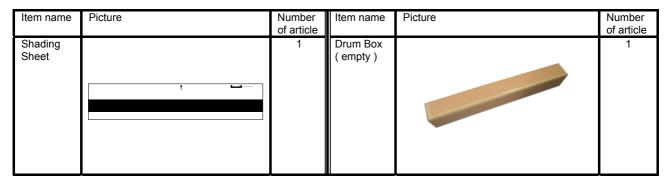
UI Unit Box

Item name	Picture	Number of article	Item name	Picture	Number of article
Monitor Assembly	00	1	Holder Assy		1
Pen		1	Bind Head Screw (M4x6)		5

Exit Tray Box

Item name	Picture	Number of article	Item name	Picture	Number of article
Exit Tray		2	Exit Tray 2		1

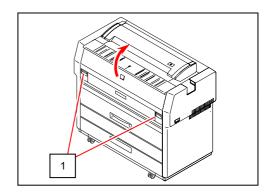
Others



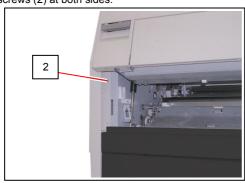
2-4 K124sm2e2

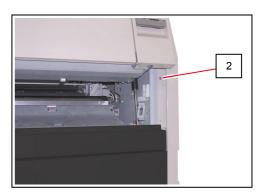
2. 3 Leveling KIP 7100

1. Pull up the Lever 2 (1) to open the Engine.

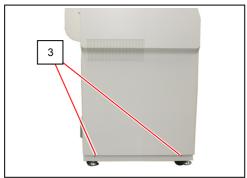


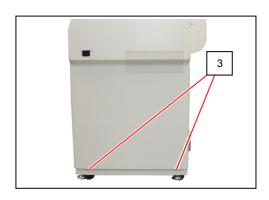
2. Remove the screws (2) at both sides.



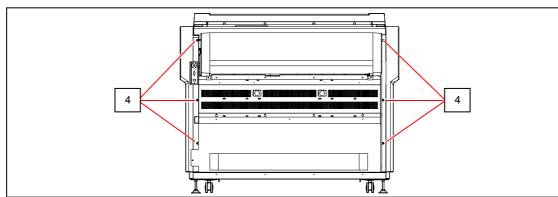


3. Remove 4 screws (3) at the bottom of both sides.

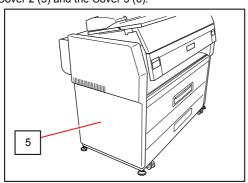


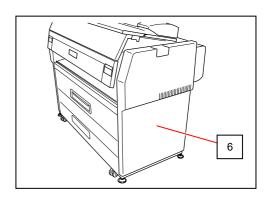


4. Remove 6 screws (4) at the back on both sides.



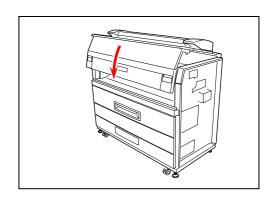
6. Remove the Cover 2 (5) and the Cover 3 (6).



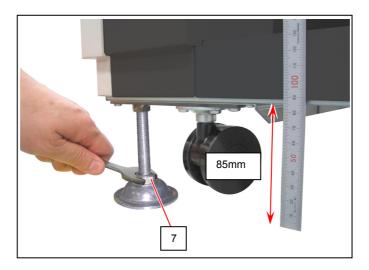


2-5 K124sm2e2

7. Close the Engine Unit.



8. Rotate 4 Leveling Bolts (7) on the bottom of the KIP 7100 with a wrench to bring up the KIP 7100 from the floor. Keep 85mm of distance between the bottom plate and the floor. (It is about 80mm before the adjustment.)

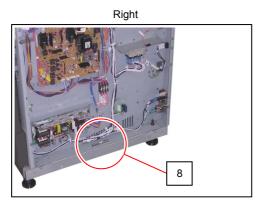


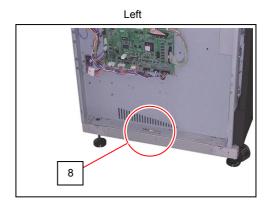
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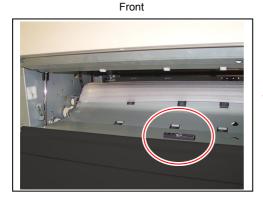
NOTE

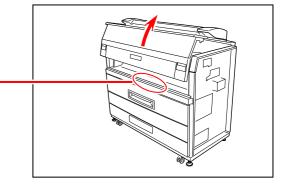
Do not rotate the Levelling Bolts too much. If the distance between the bottom plate and the floor becomes wider than 95mm, the Adjuster Bolt may be removed.

9. Put a level (8) on the specified positions shown to check the level of the KIP 7100. If not leveled, adjust by rotating the Adjustment Bolts.





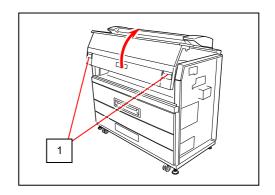




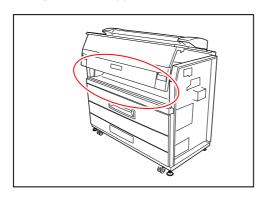
2-6 K124sm2e2

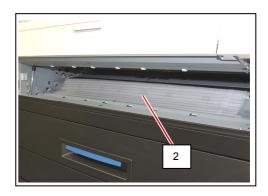
2. 4 Setup of the Machine

1. Pull up on the Levers (1) to open the Engine.

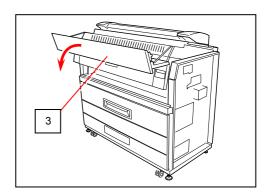


2. Carefully remove the protection mat (2) under the Drum.

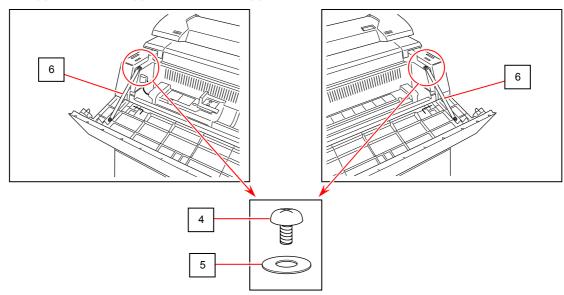




3. Open the Cover 4 (3).

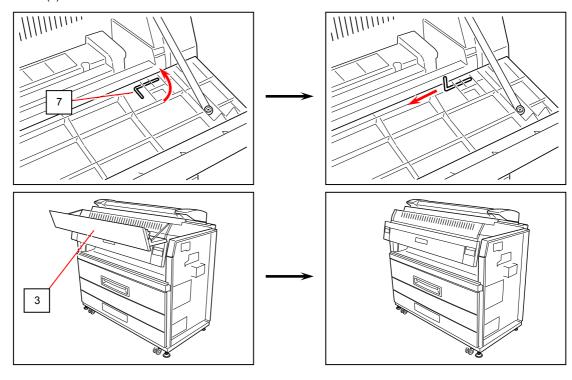


4. Remove the screws (4) and flat washers (5) to release the Bands (6) at both sides.

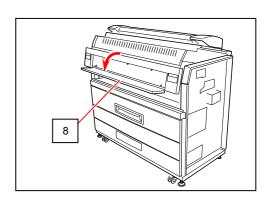


2-7 K124sm2e3

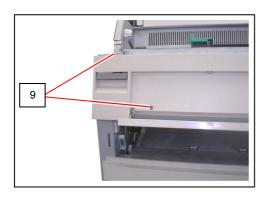
5. Rotate up the Pins (7) and move them to the inside to pull them out from the holes. Remove the Cover 4 (3).

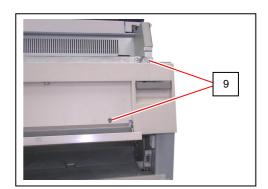


6. Open the Bypass Feeder (8).



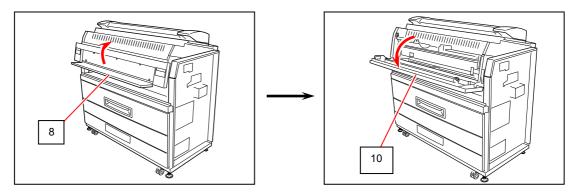
7. Remove 4 pieces of screw (9).



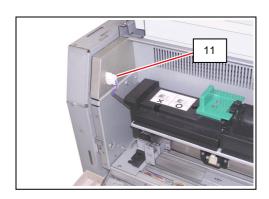


2-8 K124sm2e3

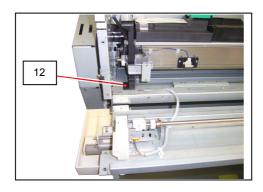
8. Close the Bypass Feeder (8). Open the Developer Press Unit (10).

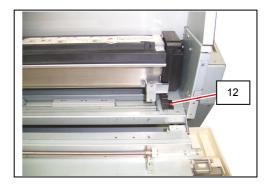


9. Disconnect the connector (11).

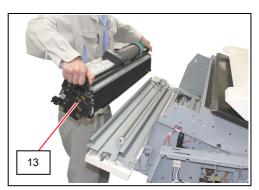


10. Remove 2 pieces of red screw (12) at both sides of the Developer Unit, which protect the Developer Unit from vibration during transportation. (They are no longer required.)



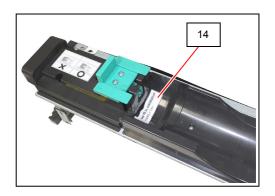


11. Holding both side plates firmly, slide the Developer Unit (13) out of the machine.

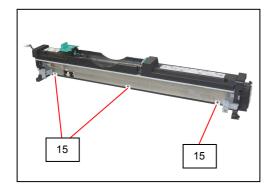


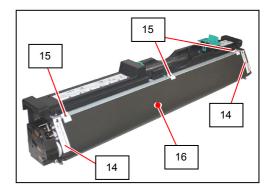
2-9 K124sm2e3

12. Remove 1 label (14) on the toner supply hole of Toner Hopper.

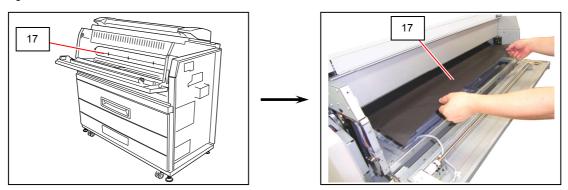


13. Remove 8 labels (14)(15) to remove wrapping sheet (16).

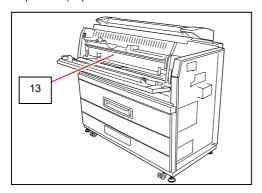


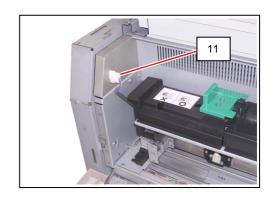


14. The process unit and toner cover should be open. The Photoconductive Drum is covered with a black sheet (21). **Gently** remove it pulling from the front.



15. Install the Developer Unit (13) to the machine. Connect the connector (11).

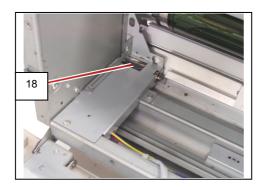


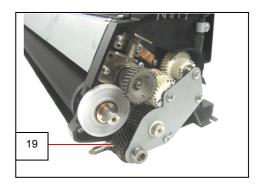


A

NOTE

Both the Gear Helical 20T (18) on machine side and the Gear Helical 28T (19) on Developer Unit side must be in gear firmly with each other, but they may not be in gear with each other by just installing the Developer Unit to the machine.

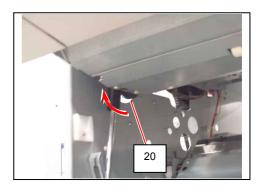




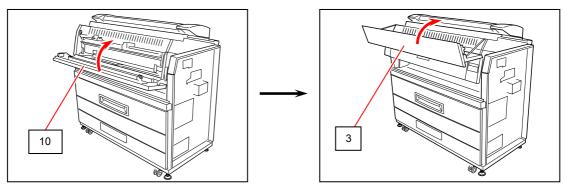
After installing the Developer Unit to the machine, rotate Gear Helical 34T (20: instead of Gear Helical 20T) by hand from under the Engine Unit.

Both gears will be in gear by this way.

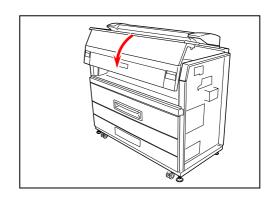




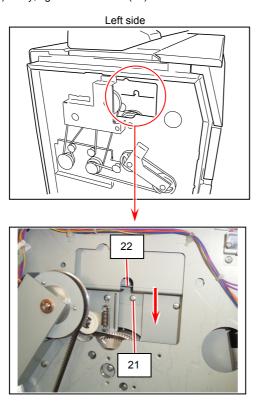
16. Close and fix the Developer Press Unit (10), and put back the Cover 4 (3).

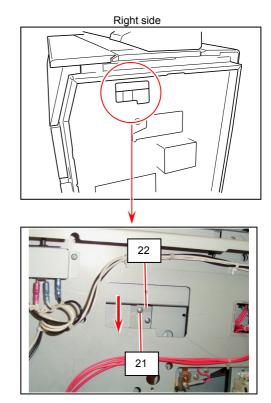


2-11 K124sm2e3



18. Both the LED Head and the Image Corona are locked with the screws (21) being separated from the Drum, not to be damaged during the transportation. Loosen the screws (21) to unlock the Fixing Brackets (22) at both sides. Pressing down the Fixing Brackets (22) firmly, tighten the screws (21).







NOTE

Please satisfy the following requirements before performing Step 18.

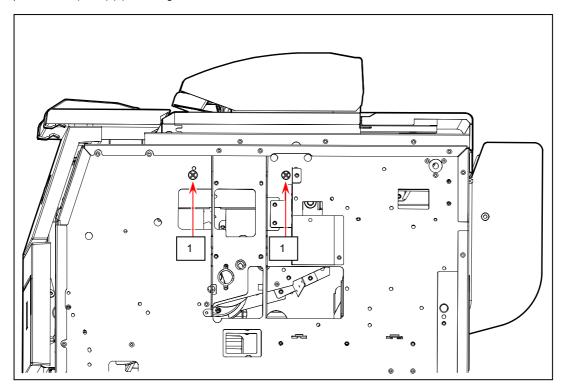
(1) The black sheet has been removed from the Drum. (See the former procedure 14.)

(2) The Engine Unit is closed firmly. (See the former procedure 17.)

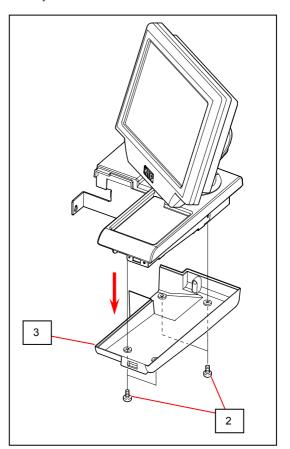
Otherwise a proper distance can not be kept between LED Head and Drum.

2. 5 Installing Monitor

1. Just put 2 screws (M4x6) (1) on the right side frame of the machine.

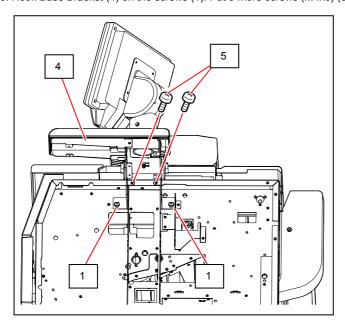


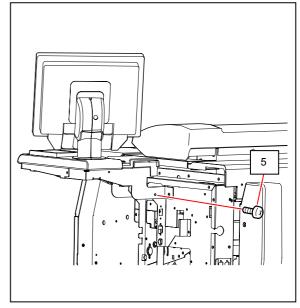
2. Remove 4 screws (M4x6) (2) to remove Cover 2 (3) from Monitor Assy.



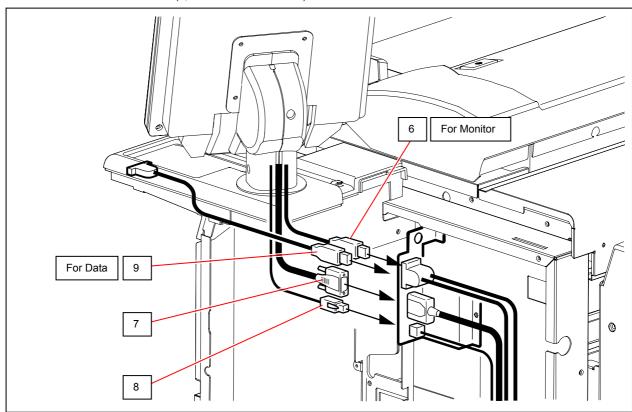
2-13 K124sm2e4

3. Hook Base Bracket (4) on the screws (1). Put 3 more screws (M4x6) (5) and tighten all the screws (1) (5).



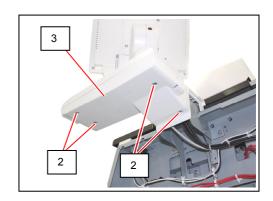


4. Connect USB Cable (6, for Monitor), VGA Cable (7) and Power Supply cable (8) to the concerning connectors of the machine frame. Then connect one more USB Cable (9, for external USB device).

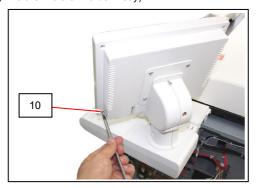


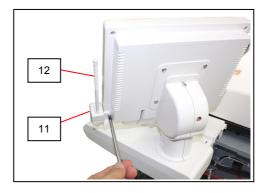


Be sure to insert the USB plug of the USB Cables (6) (9) to the correct receptacles. First connect the monitor USB Cable (6) to the back of the 2 connectors on the machine. (left as viewed from front) Then connect the external USB Cable (9) to the rest (front) connector. (right from front).



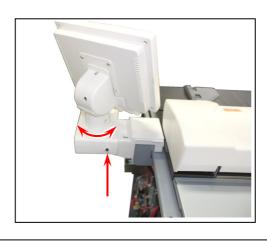
6. Remove the bottom left screw (10) on the back of Monitor Assy. Attach Holder Assy (11) and fix them together with the screw (10). (Put Pen (12) in either hole of Holder Assy)

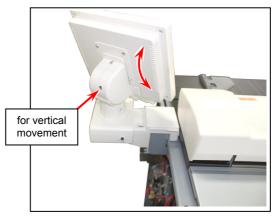




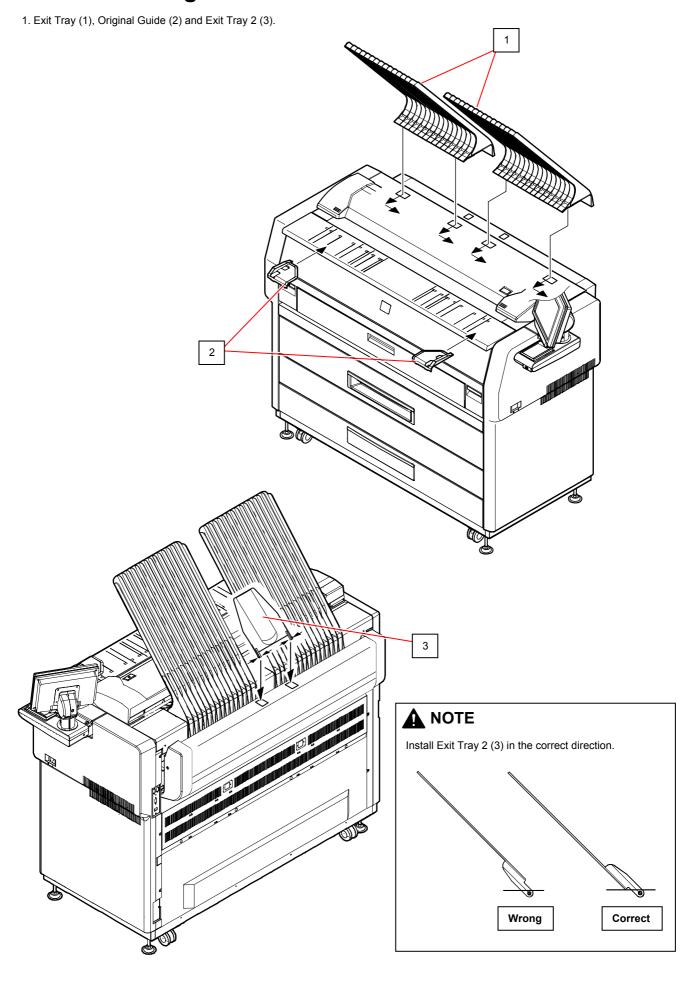
Reference

Monitor Assy can be turned up/down and right/left. Adjust the movement by the concerning screw.



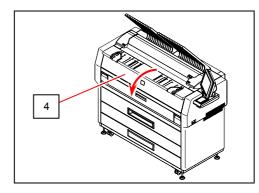


2. 6 Installing Accessories

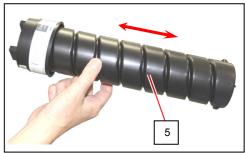


2-16 K124sm2e5

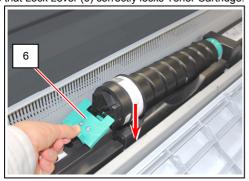
2. Open Cover 4 (4).

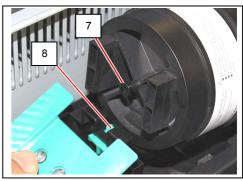


3. Shake Toner Cartridge (5) several times.

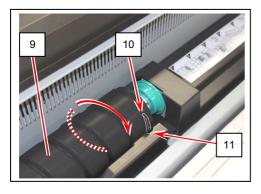


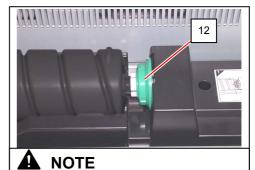
4. Pressing Lock Lever (6), locate the pin (7) on top of Toner Cartridge to the groove (8). Make sure that Lock Lever (6) correctly locks Toner Cartridge.





5. Turn Toner Cartridge body (9) in one revolution to the arrow direction to open the toner supply hole so that the tab (10) goes into the notch (11).

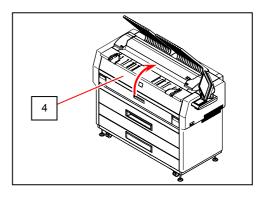




It is not necessary for the cartridge bottom to be locked by the lever (12).

That will be done at the machine's power on.

6. Close Cover 4 (4).



2-17 K124sm2e5

2. 7 Supplying Toner to Developer Unit

A

NOTE

- (1) Developer Unit should contain a certain amount of toner for printing, but does not at this time. (Only Toner Supply Roller holds a small amount.)
 - Follow the instruction below that shows "Toner Supply Mode" to supply adequate toner to Developer Unit.
- (2) You can start "Toner Supply Mode" while the printer is in warm up. You do not have to wait until ready.

Reference

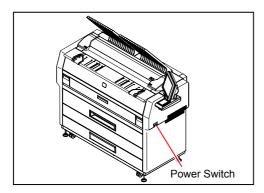
Toner Supply Mode is the utility to supply toner powder from an installed Toner Cartridge to Developer Roller, and evens the toner level in it.

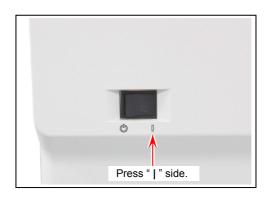
It takes approximately 20 minutes to complete. When finished, the printer gets ready.

The operation of Toner Supply Mode is suspended by accidental power off or door open. The operation will resume and ontinue in 20 minutes total.

- 1. Check that Toner Cartridge is set correctly.
- 2. Plug the printer.

Press " | " side to turn on the printer.





A

WARNING

- (1) Do not handle the Power Plug with wet hands, or you may receive an electrical shock.
- (2) Make sure to ground the machine for safety.
- (3) Do not plug the printer into a multi-wiring connector in which other devices are plugged. It may overheat the outlet and may result in a fire.
- (4) The outlet must satisfy the following conditions.

In U.S.A. : 120V plus/minus 10%, 50/60Hz and 15A

In Europe and Asia: 220-240V plus 6% or minus 10%, 50/60Hz and 10A

The UI screen shows "Setup Wizard". It will prompt you to enter several settings. Follow the instruction.

2-18 K124sm2e5

Creating Backup 2.8



A NOTE

The screenshot images may vary by your system configuration. They are shown with available options.

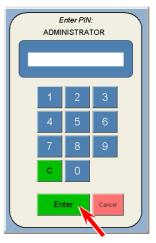
1. Press "? - Help" on Home screen.



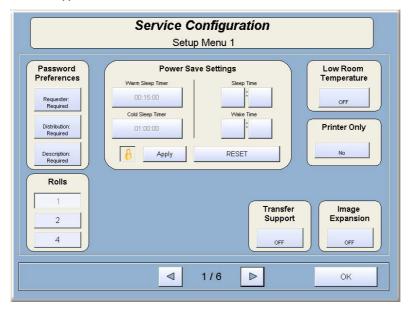
2. Press [Service].



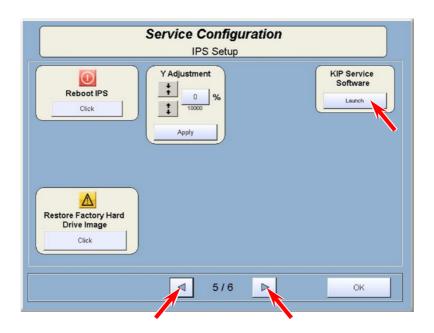
3. On-screen Keypad appears. Input "8495107" and press [Enter].



4. Service Configuration screen will appear.



5. Use the arrow keys to open [5/6 IPS Setup]. Press [Launch] in "KIP Service Software".



6. Press [Yes].



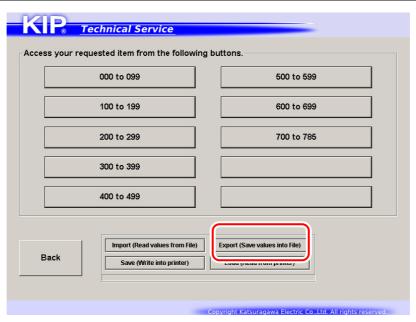
7. Press [Login] to log in Service Mode.



8. Press [Adjustment] in Service Mode Home.

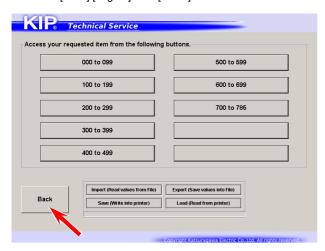


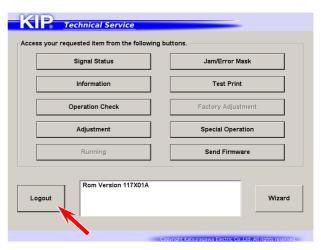
Press [Export].
 The current setting parameters are saved in a folder that is automatically created at this time.
 The created RAM file can be used as a backup of the initial configuration of this machine.



2-21 K124sm2e5

10. Press [Back] [Logout] then [Close] to cancel Service Mode.







11. UI screen will display Home screen after a short time.



2-22 K124sm2e5

Chapter 3

Print / Scan Process

3. 1 Print Pro	10000	Page 3- 2
	racteristic of toner	3- 2
3. 1. 2 Each	n step of the print process	3- 3
3. 1. 2. 1		
3. 1. 2. 2	Charge of Drum	
3. 1. 2. 3	Exposure	3- 7
3. 1. 2. 4	Exposure Development Transfer	3- 8
3. 1. 2. 5	Transfer	3-10
3. 1. 2. 6	Separation	3-11
3. 1. 2. 7	Drum Cleaning (Removal of remained toner)	3-12
3. 1. 2. 8	Drum Cleaning (Removal of remained toner) Fusing	3-13
3. 1. 3 Conf	trolling the movement of toner in the Developer Unit	3-14
3. 1. 4 Tone	er Collection Process	3-17
3. 1. 5 Dens	sity Compensation Process	3-20
3. 2 Scan Pro	ocess	3-21
3. 2. 1 Data	I flow in scan and copy	3-21
3. 2. 2 Posi	tioning process of Image Block	3-22

3-1 K124sm3e1

3. 1 Print Process

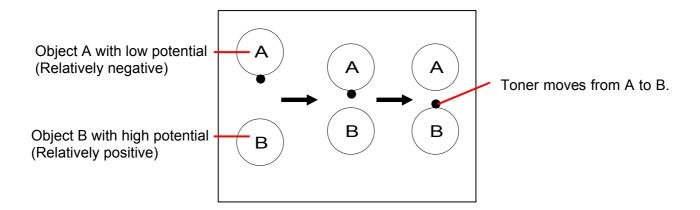
3. 1. 1 Characteristic of toner

The toner used for KIP 7100 has a characteristic to be charged "negative", which tends to be attracted to a more "positive" object.

Suppose that there are objects A and B, and the situation is as follows.

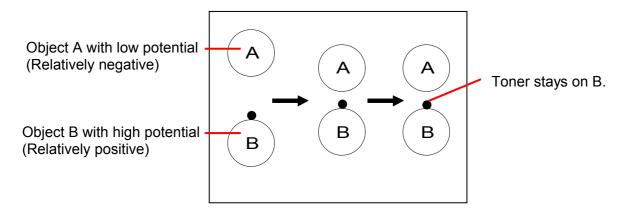
- 1. Electric potential of the object B is higher than that of object A.
- 2. Toner exists on the object A.

Comparing the potential of both objects, it can be said that the object B is relatively "positive" and the object A is "negative". (In another word, object B is more "positive" than the object A.) As the toner is "negative", it is attracted to the object B that is more "positive". If you move the object B close to the object A, therefore, the toner moves onto the object B.



On the contrary, suppose that the toner exists on the object B of which electric potential is higher than the object A.

Even if you move the object A close to the object B, the toner continues to stay on the object B because negative toner and relatively negative object A repel each other.



Thus, the toner has a characteristic to move from one place with a lower potential to another place with a higher potential.

If we control the electric potentials, it is possible to move the toner from one place to another as we intend, or it is also possible to remove the toner from an unwanted place.

KIP 7100 controls the electric potentials properly working each part as Drum, Corona Units, Lamps, Developer Unit and Cleaning Roller.

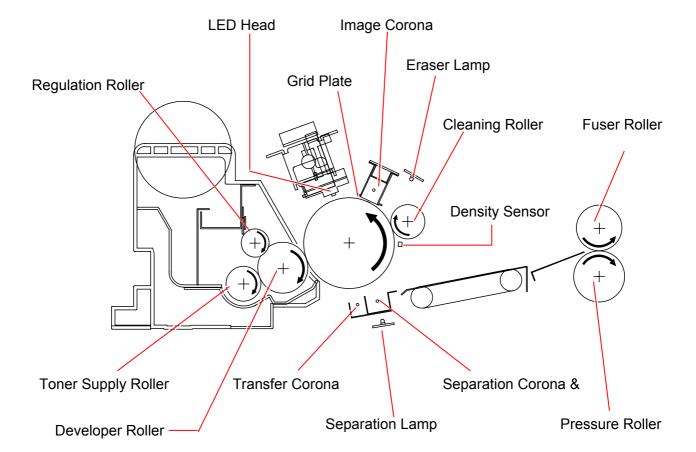
The movement of toner is controlled correctly and several processes as Development, Toner Transfer, Drum Cleaning and etc. are performed.

3-2 K124sm3e1

3. 1. 2 Each step of print process

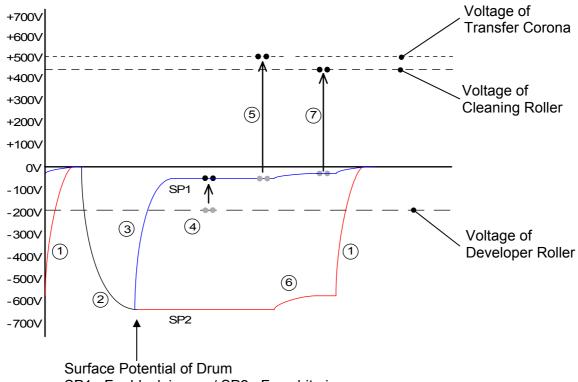
One cycle of print consists of the following 8 processes.

- 1. Erasing (Removal of negative electric charges)
- 2. Charge of Drum
- 3. Exposure
- 4. Development
- 5. Transfer
- 6. Separation
- 7. Drum Cleaning (Removal of remained toner)
- 8. Fusing



3-3 K124sm3e1

Processes from 1 to 8 are related with the control of the electric potentials. The following graphic shows the electric potential at each process and the movement of toner.



SP1 : For black image / SP2 : For white image

Name of part	Voltage (Current) during Print Cycle	Voltage during Toner Collection Process
Image Corona Wire	-1.3mA +/-0.05mA	-
Grid Plate	-620V +/-30V	-
Developer Roller	-180V +/-5V	+350V +/-5V
Regulation Roller (Center)	-80V +/-5V against the Developer Roller Bias	-80V +/-5V against the Developer Roller Bias
Regulation Roller (Both sides)	0V (Connected to the ground)	0V (Connected to the ground)
Toner Supply Roller	The same voltage with Developer Roller Bias	The same voltage with Developer Roller Bias
Transfer Corona	Plain Paper: +1.2mA +/-0.05mA Other Media: +1.0mA +/-0.05mA	-
Separation Corona	AC (5.0KV) + DC (-250V +/-5V)	-
Cleaning Roller	+450V +/-5V	-550V +/-5V

Reference

When the printer is going to stop after printing, or when the used Roll Deck is changed with other one, the KIP 7100 will take the "Toner Collection Process" to remove the remained toner and place back into the Developer Unit.

Refer to [3.1.4 Toner Collection Process] for the detail.

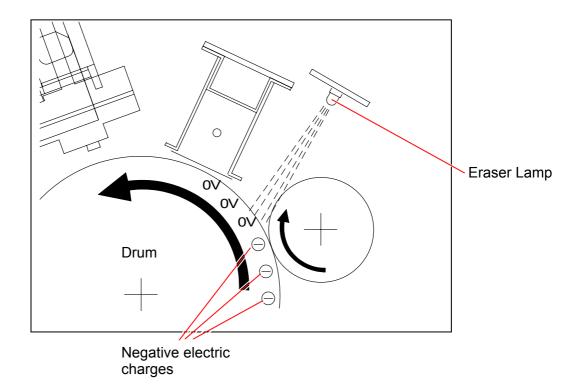
3-4 K124sm3e1

3. 1. 2. 1 Erasing (Removal of negative electric charges)

As the first step of print cycle, it is necessary to remove the negative electric charges from the Drum, which have remained there after the former print cycle.

The Drum has a characteristic to lose the negative electric charges if it is exposed to the light. So the Drum is rotated and evenly exposed to the light from the Eraser Lamp.

The electric potential on the Drum becomes 0V (residual potential) by this process.



3-5 K124sm3e1

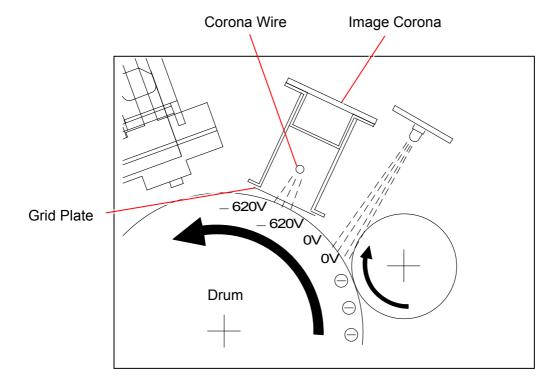
3. 1. 2 .2 Charge of Drum

The Image Corona discharges negative electric charges which are given to the Drum. The surface of Drum becomes about -620V evenly as a result, which corresponds to the white area of the printed image pattern.

The Grid Plate is also connected to the High Voltage Power Supply individually.

Current and Voltage supplied to the Image Corona Wire is as follows.

Corona Wire ---- -1.3mA +/-0.05mA



3-6 K124sm3e1

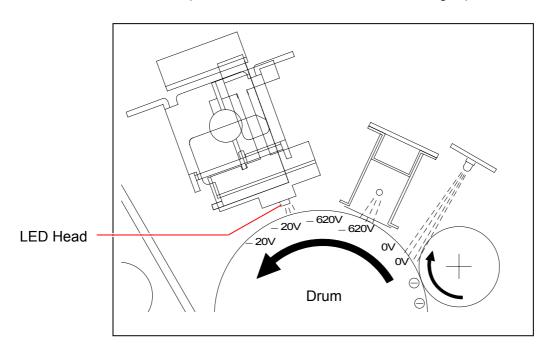
3. 1. 2. 3 Exposure

According to the printed image pattern, the LED Head throws the light (740nm) onto some part of Drum which corresponds to the black area of printed image pattern.

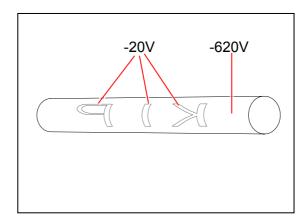
As the Drum has a characteristic to lose the negative electric charges if it is exposed to the light, this part of Drum surface loses the charges and its potential becomes about -20V. (This potential is not constant but is variable by the environment.)

The other part of Drum surface, which was not exposed to the light from the LED Head, keeps -620V of potential which the Image Corona has given.

An invisible electric image pattern that consists of -620V area and the -20V area is formed on the surface of Drum as a result. (This is called "Electrostatic Latent Image".)



(Distribution of electric potentials after the Exposure)



Reference

Even if the toner remains on the Drum, it will not block the light from the LED Head as the diameter of toner (9 micrometers) is much smaller than that (42 micrometers) of 1 pixel of LED. The electric charges on the Drum are removed as needed.

3-7 K124sm3e1

3. 1. 2. 4 **Development**

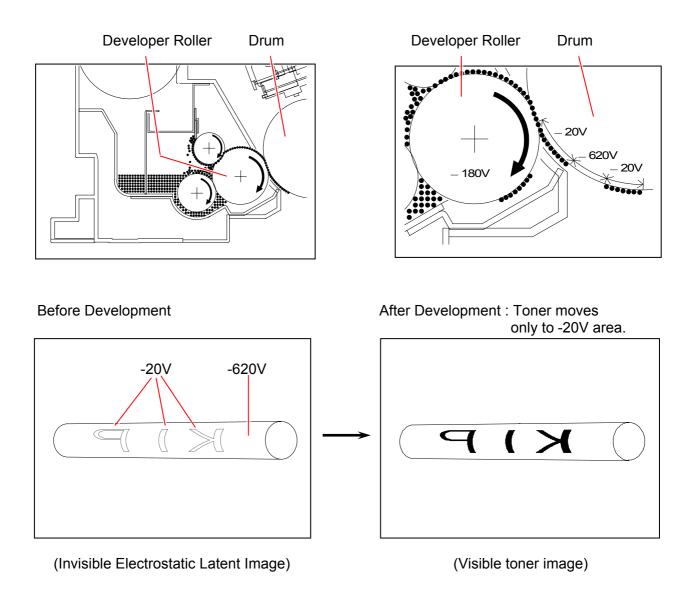
The Developer Roller, which is evenly covered with the toner, is contacted to the Drum because the Developer Unit is pressed to the Drum. (The width of contact point is about 5mm.) The Developer Roller is supplied with -180V (+/-5V) during the print cycle.

And both -620V area and -20V area exist on the Drum because the Electrostatic Latent Image has been formed in the former Exposure process.

Seen from the voltage of Developer Roller Bias (-180V), the -20V area on the Drum is relatively "positive". So the toner moves from the Developer Roller to the -20V area of Drum.

On the other hand, the -620V area is relatively "negative" seen from the Developer Roller. So the toner does not move to the -620V area but stays on the Developer Roller.

A visible toner image is formed on the Drum as a result.

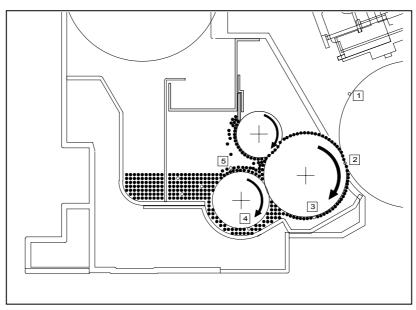


3-8 K124sm3e1

Even if some toner has not been removed by the Cleaning Roller but remained on the -620V area of Drum (It corresponds to the white area of the print) in the later [3.1.2.7 Drum Cleaning], this toner is removed at the time of Development because it moves to the Developer Roller of which potential (-180V) is higher than that of Drum (-620V).

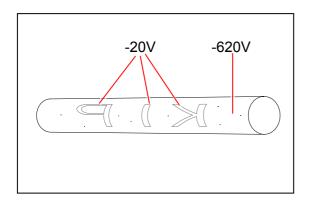
So there will be no case that unnecessary black spot is printed on the white area of the print. The remained toner that moved to the Developer Roller is carried into the Developer Unit and then reused.

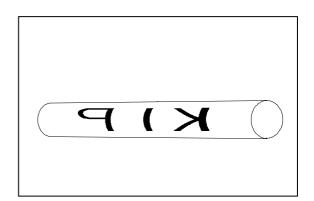
- 1. Toner remained on the Drum
- 2. Toner moves from the Drum to the Developer Roller.
- 3. Developer Roller carries the toner toward the Toner Supply Roller
- 4. Toner is shifted to the inside of the Developer Unit by the revolution of Toner Supply Roller.
- 5. Toner is reused.



Before Development (Toner is remaining on the white area.)

After Development (Toner is removed from the white area.)





Reference

The Developer Unit has not only the Developer Roller but also 2 more rollers inside which are also supplied with the individual voltages.

The Developer Unit controls the movement of toner in the unit taking advantage of the difference of potentials among these rollers, and covers the Developer Roller with the toner in the end.

Refer to [3.1.3 Controlling the Movement of Toner in the Developer Unit] to learn how the Developer Unit controls the movement.

3-9 K124sm3e1

3. 1. 2. 5 Transfer

The printing paper is charged positively as the Transfer Corona discharges positive electric charges from under the paper.

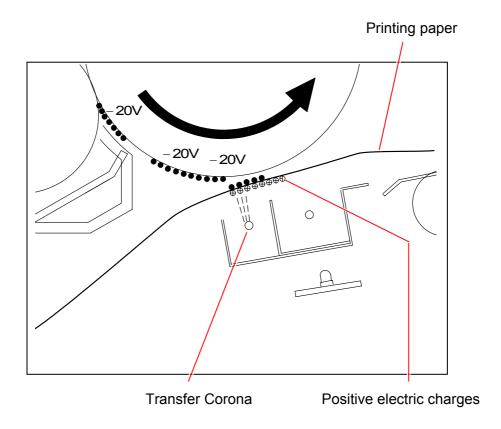
The toner existing on the -20V area on the Drum will move to the printing paper because the potential of the paper comes to be higher than the Drum by the Transfer Process.

The voltage supplied to the Transfer Corona Wire is as follows.

Transfer Corona Wire:

Plain Paper: +1.2mA +/-0.05mA Other Media: +1.0mA +/-0.05mA

(When the Insulated Drum is used.)



3-10 K124sm3e1

3. 1. 2. 6 Separation

The printing paper is attracted to the Drum after the Transfer because the potential of paper is positive and that of Drum is negative.

It is necessary for avoiding the jam to separate the paper from the Drum by removing the static force between them.

The Separation Corona takes AC discharge being supplied with the AC voltage and the DC voltage.

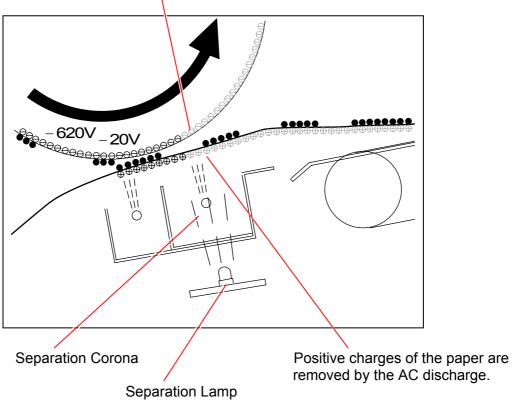
AC voltage: 5.0KV DC voltage: -250V

As the AC voltage is compensated by the negative DC voltage, the negative charges are generated more than positive ones, which mainly results in removing the positive charges of the printing paper.

On the other hand, the Separation Lamp throws light from under the Corona Wires to remove the negative charges of the Drum.

The static force between the printing paper and the Drum is reduced as a result, and the paper is separated from the Drum by its weight.

Negative charges of the Drum are removed by the light from the Separation Lamp.



3-11 K124sm3e1

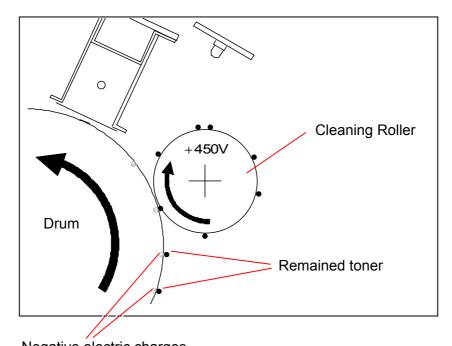
3. 1. 2. 7 Drum Cleaning (Removal of remained toner)

Some amount of toner that has not been transferred onto the printing paper is remaining on the Drum.

This remained toner will be removed by the Cleaning Roller.

The Cleaning Roller is supplied with +450V (+/-5V), and there are some negative electric charges on the Drum at this time.

As the Cleaning Roller is relatively "positive" and the Drum is "negative", the toner moves from the Drum to the Cleaning Roller.



Negative electric charges



▲ NOTE

If too much toner exists in a small area (like a trace of solid black image) the Cleaning Roller may not be able to remove all of them.

But this toner is removed from the Drum in the Development Process.

Refer to [3.1.2.4 Development].

K124sm3e1 3-12

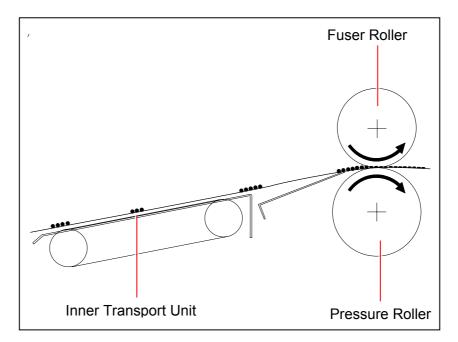
3. 1. 2. 8 Fusing

After Transfer / Separation Processes, the printing paper is transported to the Fuser Unit by the Inner Transport Unit.

The Fuser Unit mainly consists of the Fuser Roller and the Pressure Roller.

The Fuser Roller is very hot, and the Pressure Roller is strongly pressed to the Fuser Roller by the spring.

The toner is firmly fused onto the printing paper by the heat and the pressure when the paper passes through between these rollers.



3-13 K124sm3e1

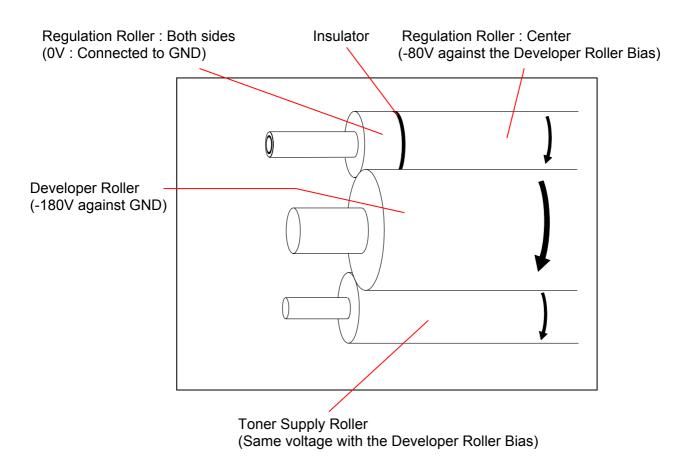
3. 1. 3 Controlling the movement of toner in the Developer Unit

There are 3 kinds of rollers called "Developer Roller", "Regulation Roller" and "Toner Supply Roller" in the Developer Unit.

Each roller is supplied with its own voltage.

In the following list, the voltage of the Developer Roller (-180V) is measured against the ground. The other voltages mean the difference against the voltage of Developer Roller Bias.

Name of roller	Supplied voltage		
Developer Roller	-180V +/-5V against the ground		
Regulation Roller (Center)	-80V +/-5V against the Developer Roller Bias		
Regulation Roller (Both sides)	0V (Connected to the ground)		
Toner Supply Roller	The same voltage with the Developer Roller Bias		
	(Developer Roller and Toner Supply Roller are short circuited		
	being connected with the plate.)		





The Regulation Roller is divided into central area and both side areas by the insulator, and individual voltage is supplied to each area.

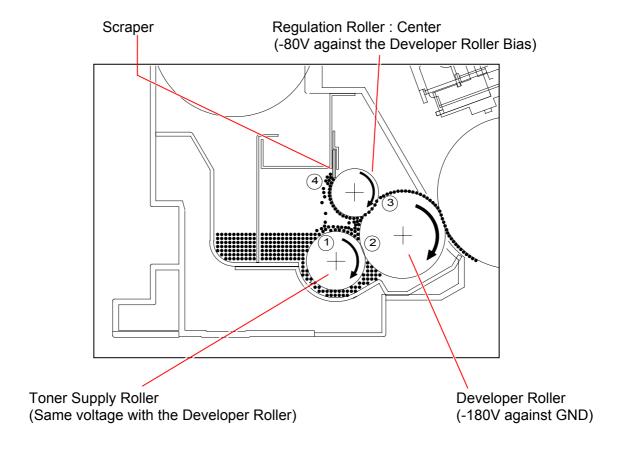
3-14 K124sm3e1

Taking advantage of the difference of potentials among these rollers, the movement of toner is controlled in the Developer Unit as follows.

- 1. The Toner Supply Roller carries the toner toward the Developer Roller.
- 2. When the toner reaches the contact point of these rollers, therefore, it moves onto the Developer Roller.

Then the Developer Roller carries the toner toward the Regulation Roller.

- 3. The Regulation Roller is strongly pressed to the Developer Roller by the spring, and these 2 rollers move to the opposite direction each other at the contact point. Even if the Developer Roller carries more toner than required, the Regulation Roller limits the amount of toner that can pass through between 2 rollers. So very small amount of toner can pass through between rollers and the rest is returned back to the inside. As the voltage of Developer Roller is 80V higher than that of Regulation Roller (Center), the toner which has passed through between rollers is firmly attracted to the Developer Roller. Very thin layer of toner is evenly formed on the surface of Developer Roller as a result.
- 4. Much toner sticks onto the Regulation Roller when it is returned back to the inside. This toner is scraped off by the Scraper which is contacted to the Regulation Roller.



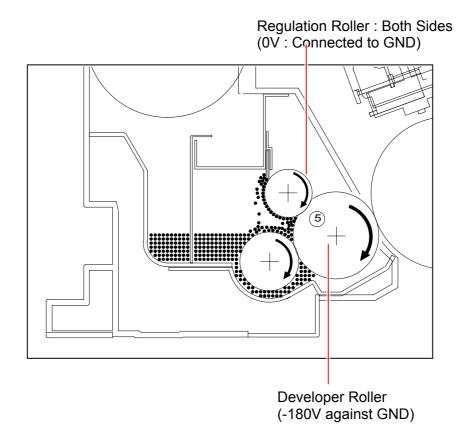
3-15 K124sm3e1

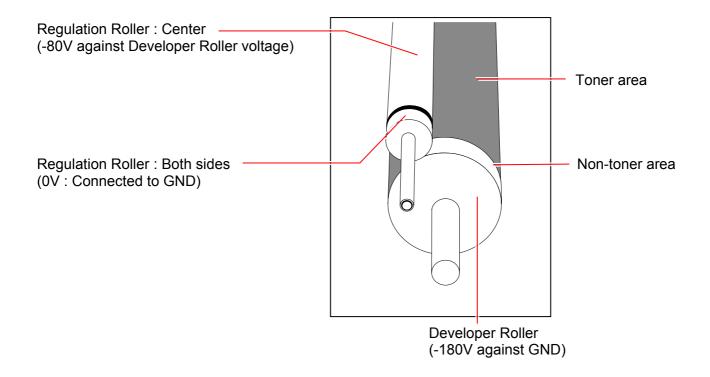
5. The voltage of both sides of Regulation Roller is 0V as these parts are connected to the ground.

It is higher than that of Developer Roller (-180V).

When the toner reaches the contact point of these rollers, therefore, it moves onto the Regulation Roller.

The side areas of the Developer Roller are not covered with the toner as a result, so it is possible to avoid the toner drops into the machine from the side.





3-16 K124sm3e1

3. 1. 4 Toner Collection Process

As explained in [3.1.2.7 Drum Cleaning], the Cleaning Roller is supplied with +450V to remove the remained toner from the Drum during the print cycle.

This toner gathered by the Cleaning Roller is returned to the Developer Unit in the following 3 cases.

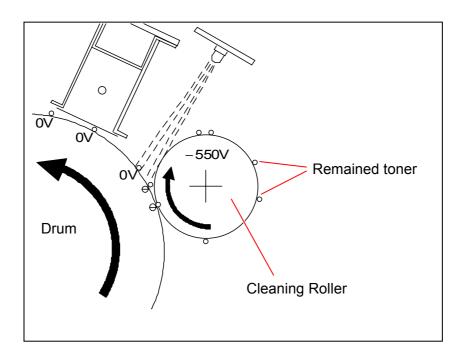
- (1) When the printer has finished printing out all the accumulated print jobs and then going to stop.
- (2) When the used roll paper is ended and changed with another one.
- (3) When the used roll paper is changed from one to another because the print size specified in the job is different.

This process to return the toner is called "Toner Collection Process".

When the trailing edge of the last sheet passes over the Separation Area, the printer will take the Toner Collection Process as follows rotating the Drum for 2 revolutions.

- 1. The Eraser Lamp throws light onto the Drum to remove the negative electric charges from the Drum. The potential of Drum becomes 0V.
- 2. The voltage supplied to the Cleaning Roller is changed to -550V in the Toner Collection Process.

As the potential of Drum becomes higher than that of Cleaning Roller, toner on the Cleaning Roller moves onto the Drum.

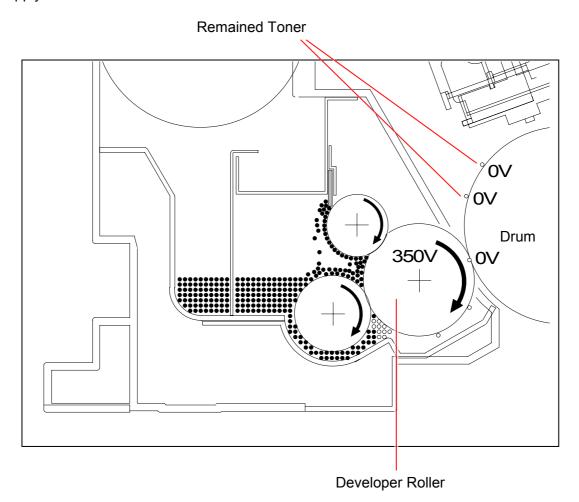


3-17 K124sm3e1

3. The voltage supplied to the Developer Roller is also changed to +350V (+/-5V) in the Toner Collection Process.

As the potential of Developer Roller becomes higher than that of Drum, toner on the Drum moves onto the Developer Roller.

Then the toner is carried into the Developer Unit by both the Developer Roller and the Toner Supply Roller.

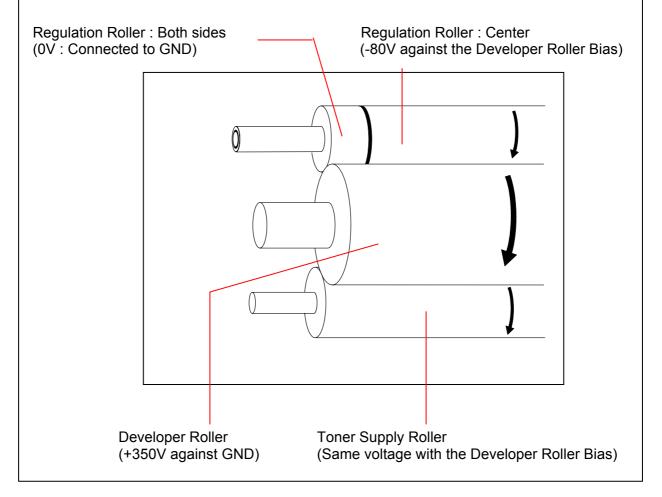


3-18 K124sm3e1

Reference

Voltages supplied to Regulation Roller and Toner Supply Roller are changed also as follows.

Name of roller	Supplied voltage
Developer Roller	+350V +/-5V against the ground
Regulation Roller (Center)	-80V +/-5V against the Developer Roller Bias
Regulation Roller (Both sides)	0V (Ground)
Toner Supply Roller	Same voltage with the Developer Roller Bias



3-19 K124sm3e1

3. 1. 5 Density Compensation Process

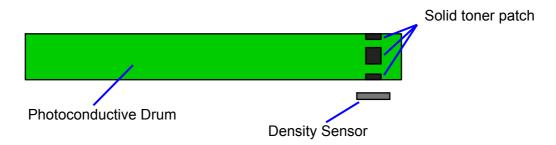
On rare occasion, loss of image density may occur under a special usage. KIP 7100 has the ability to reduce such loss of image density and this enables to maintain a satisfactory image quality regardless of the machine usage.

Density Compensation Process will adjust Developer / Regulation Bias according to their condition to reduce loss of image density in such situation.

In Density Compensation Process, toner density on the surface of Photoconductive Drum is measured by Density Sensor at regular time intervals. According to the result, Developer / Regulation Bias will be automatically adjusted to compensate image density.

Density Measure starts at regular intervals of 18 hours of Main Motor operating time, after the completion of the current print queue.

1. Several solid toner patches are created on the surface of Photoconductive Drum as follows.



- 2. Density of all the patches is measured by Density Sensor (Density Measure). The average of the patches (Density Value) is calculated.
- 3. If the Density Value does not meet Target Density, Developer / Regulation Bias will be automatically adjusted based on the current Adjustment Level.
 - If the current Density Value is judged "not enough" (lighter than required), the next level will be applied.
 - If the current Density Value is judged "adequate", the current level remains.
 - There is possibility for the Density Value to be judged "too much enough" (darker than required), then the previous level will be applied.

	Adjustment Level 0 (default)	Adjustment Level 1	Adjustment Level 2	Adjustment Level 3
Developer Bias (Negative)	-180V	-230V	-230V	-230V
Regulation Bias against Developer Bias	-80V	-80V	-120V	-160V

4. The adjustment allows image density to stabilize for a satisfactory image quality regardless of the machine usage.



NOTE

An applied Adjustment Level should be reset after replacing Developer / Regulation Roller. For further information, see [8.11 Special Operation Mode].

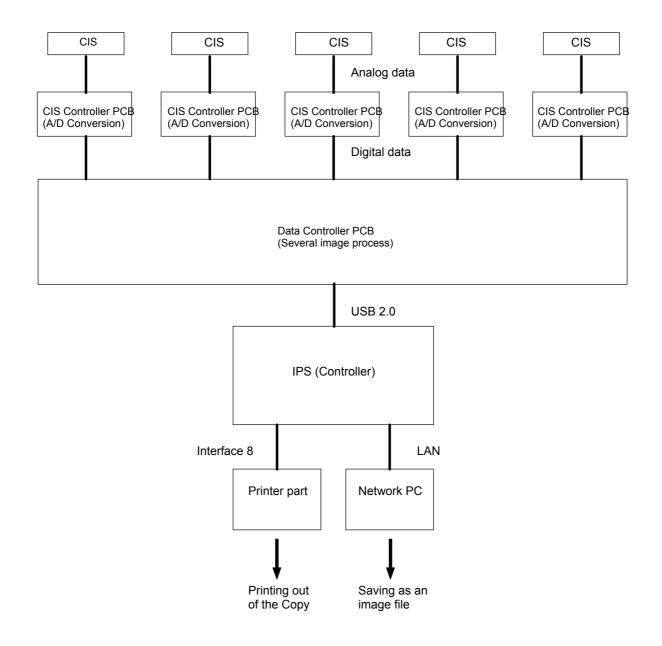
3-20 K124sm3e1

3. 2 Scan Process

3. 2. 1 Data flow in scan and copy

There are CIS Units, CIS Controller PCB (SVC CIS BD) and Data Controller PCB (SVC Main BD K) in the scanner unit, which take image reading and processes the data.

- 1. The CIS Units read the image pattern of original, and then send the analog data to the CIS Controller PCB.
- 2. The CIS Controller Boards converts the analog data into digital data, and then send to the Data Controller PCB.
- 3. The Data Controller PCB takes the correct image process according to the UI setting. Then it outputs the image data to the IPS through the USB 2.0.
- 4. The IPS output the image data to the printer part of KIP 7100 through the Interface 8 in case of "copy", or it outputs to the Network PC through the LAN cable in case of "scan to file".



3-21 K124sm3e1

3. 2. 2 Positioning process of Image Block

The scanner part of KIP 7100 reads the image of original with 5 - CIS (Contact Image Sensor). As these CIS are arranged in 2 rows, there occurs a vertical gap of image among the image blocks. So it is necessary to remove this gap by vertical positioning process (Y offset). Also the reading area of these 5 pieces of CIS overlaps each other some degree. It means some image pixels are commonly included in the neighboring two Image Blocks. It is very hard to recognize the image because many images are duplicated. To prevent this kind of problem, it is necessary to remove the duplication of image pixels by horizontal positioning process (X overlap). The Data Controller PCB performs these positioning processes.



NOTE

The KIP 7100 performs these positioning processes (X overlap & Y offset) according to the setting specified through KIP Scanner Utility.

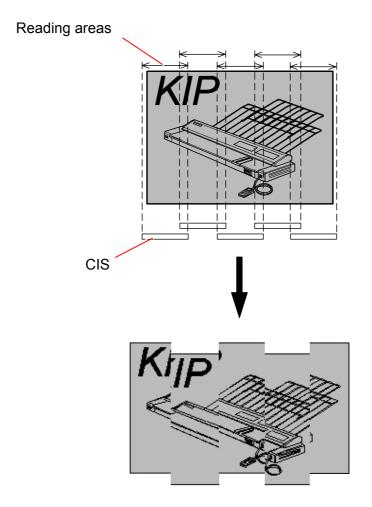
Please refer to [8.13.4.3 Position] for this setting.

[Explanation]

5 pieces of CIS are arranged in 2 rows as the following illustration, with some amount of their reading area overlapping each other.

So the reading data initially inputted to the Data Controller PCB is as follows.

- (1) There occurs a vertical gap of image among the image blocks.
- (2) Some image pixels are commonly included (duplicating) in the neighboring two Image Blocks.

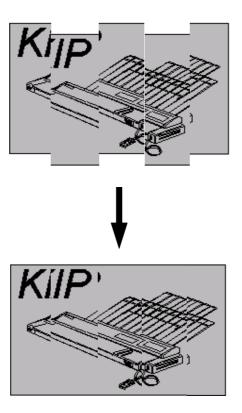


The image data before the positioning process

3-22 K124sm3e1

The Data Controller PCB removes the vertical gap among the Image Block according to the positioning setting (Y offset) specified through KIP Scanner Utility.

The image data before the positioning process

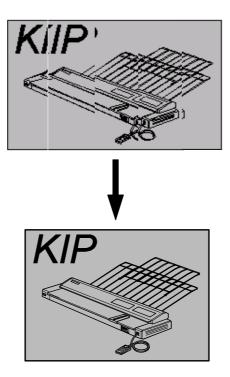


The image data after the positioning process (Y offset)

3-23 K124sm3e1

Also the Data Controller PCB removes the duplication of image pixels among the Image Blocks according to the positioning setting (X overlap) specified through KIP Scanner Utility.

The image data after the positioning process (Y offset)



The image data after the positioning process (X overlap)

3-24 K124sm3e1

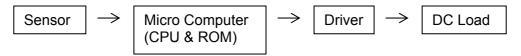
Chapter 4

Electrical

4.	1 Ge	eneral Information	Page 4- 2
4.	2 El	ectrical Components Location	4- 3
	4. 2. 1	Right side	4- 3
	4. 2. 2	Left side	4- 7
	4. 2. 3	Back side	4- 8
	4. 2. 5	LED Head Frame	
	4. 2. 6	Main Frame	
	4. 2. 7	Developer Unit	4-17
	4. 2. 8	Fuser Unit	4-18
	4. 2. 9	Roll Deck	4-20
	4. 2. 10		
	4. 2.11	Inner Transport Unit	4-24
	4. 2.12	Scanner Unit	4-25
4.	3 Ch	eck & Adjustment of Analog Output from HV Power Supply	4-28
	4. 3. 1	Situations necessary to check the analog output	4-28
	4. 3. 2	Analog Voltage to Image Corona	4-29
	4. 3. 3	Analog Voltage to Transfer Corona	4-31
	4. 3. 4	AC Component to Separation Corona	4-33
	4. 3. 5	DC Component to Separation Corona	4-35
	4. 3. 6	Negative Developer Bias to Developer Roller	4-37
	4. 3. 7	Positive Developer Bias to Developer Roller	4-39
	4. 3. 8	Bias gap between Developer Roller and Regulation Roller	4-41
	4. 3. 9	Positive Cleaning Roller Bias (Print Cycle)	4-43
	4. 3. 10		

General Information

This machine is mainly controlled by a microcomputer, which is located on DC Controller. This microcomputer reads input signals from sensors, and outputs the operation signals to motors, SSRs, solenoid, clutches and blowers on programmed timing.



DC Controller has an LED, meaning that 5VDC is applied on this DC Controller safely.

Generally the color of wiring is separated depends on the voltage.

0VDC Blue 5VDC Yellow Brown 12VDC 24VDC Orange Signal in to DC Controller (sensors) Purple Signal out from DC Controller Gray



CAUTION

There is a battery (CR2032) on the Motherboard of the controller.

Danger of explosion if battery is incorrectly replaced.

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

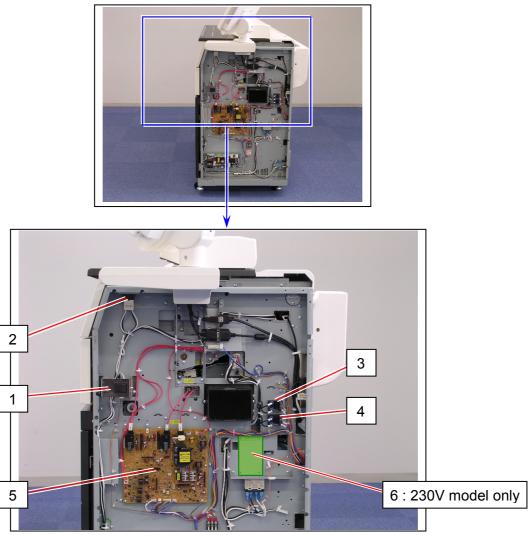
Dispose of used batteries according to the manufacturer's instructions.

As for the waste disposal of battery, dispose in accordance with local state and federal relations.

> K124sm4e2 4-2

4. 2 Electrical Components Location

4. 2. 1 Right Side



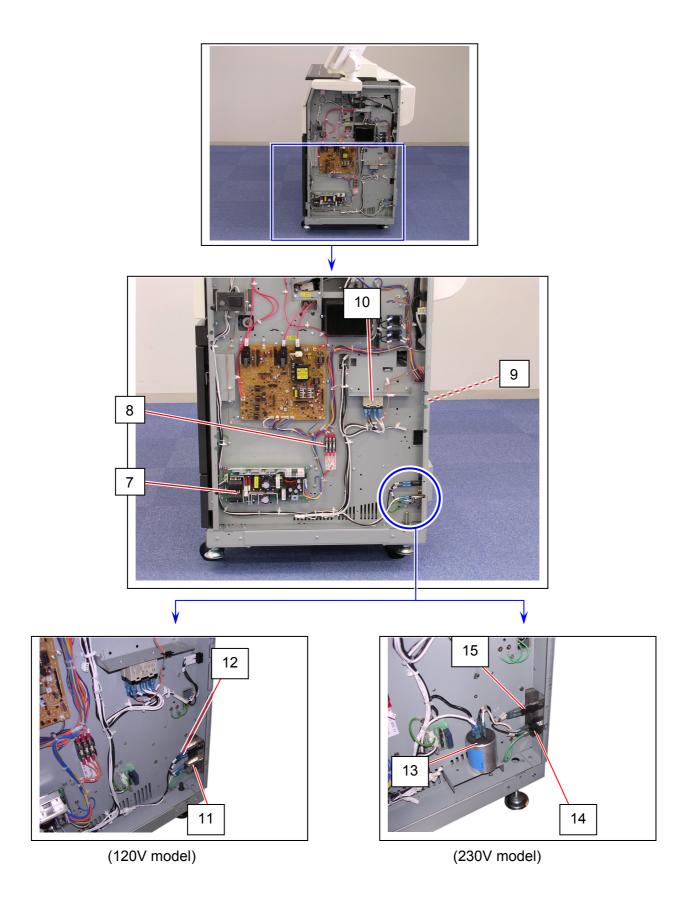
Item	Symbol	Signal name	Name	Type	Function
1	SW1	(POWER-OFF)	Switch	AJ8R2004BBCF	Turning on and off the machine
2	MS1		Switch	FA1L-AA22	Shuts off the AC power to the DCP1 when Toner Hatch or the
					right side of Engine Unit is opened
3	SSR1		Solid State Relay	AQJ416V (US)	ON / OFF control of the Fuser
				AQJ426V (EU)	
4	SSR2		Solid State Relay	AQJ416V (US)	ON / OFF control of the Fuser
				AQJ426V (EU)	
5	HV1	HV_IM	HV Power Supply	EUK1MGA60HA	Outputting the high voltage to each
	HV2	HV TR			of the following components.
	HV3	HV AC			(1) Image Corona (HV1)
	HVP4				(2) Transfer Corona (HV2)
	OUTPUT2	BIAS TRG			(3) Separation Corona (HV3)
	OUTPUT3	BIAS SW			(4) Developer Roller (OUTPUT2)
	OUTPUT5	Bi/ (0_0**)			(5) Regulation Roller (OUTPUT3)
	0011 013				(6) Cleaning Roller (OUTPUT5)
					(5) 5.55
6	PW5724B		Phase Control PCB	PW5724B	Flicker Reduction
					Used on 230V model only

4-3 K124sm4e2



Developer Bias (OUTPUT 2, 3) is outputted (or stopped) by the signal "BIAS_TRG". The polarity of Bias is decided by the signal "BIAS_SW"

4-4 K124sm4e2

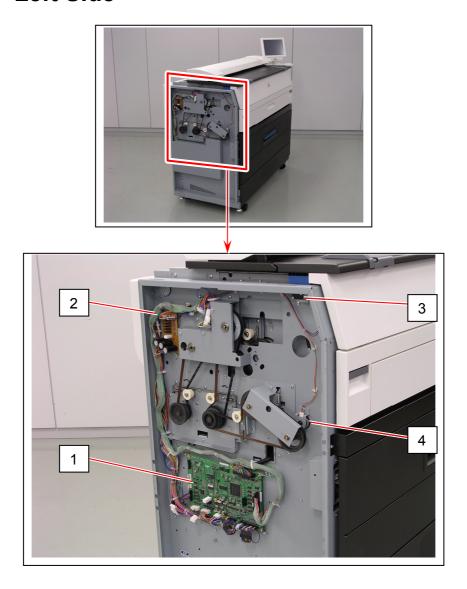


4-5 K124sm4e2

Item	Symbol	Signal name	Name	Туре	Function
7	DCP1	-	DC Power Supply	LEB225F- 0524-U	Outputting each 24VDC, 5VDC and 0VDC
8	F1 F2 F3	-	Fuse	Walter TSC3.15AH or LITTLE 0215 3.15MXP	Protecting the 24VDC from the over-current If you replace the fuses, make sure to use one listed left.
9	SW2	-	Switch (Option)	SDDJE1	Turning on and off the Dehumidify Heater
10	RY1	-	Relay	G7L-2A-TUB (DC24V)	Supplying the power to the Lamp (H1, H2). (It stops supplying the power to the Lamp when Switch (MS3) or Thermostat (TS1, TS2) is open.)
11	LF1	-	Noise Filter		Removing the noise from the AC line Used on 120V model
12	CB1	-	Breaker	X28-XQ1A-15	Protecting the AC line from the over-current Used on 120V model
13	LF1	-	Noise Filter	RG-208F2	Removing the noise from the AC line Used on 230V model
14	INLET	-	Inlet		Inputting the AC Power Used on 230V model
15	CB1	-	Breaker	X28-XQ1A-10	Protecting the AC line from the over-current Used on 230V model

4-6 K124sm4e2

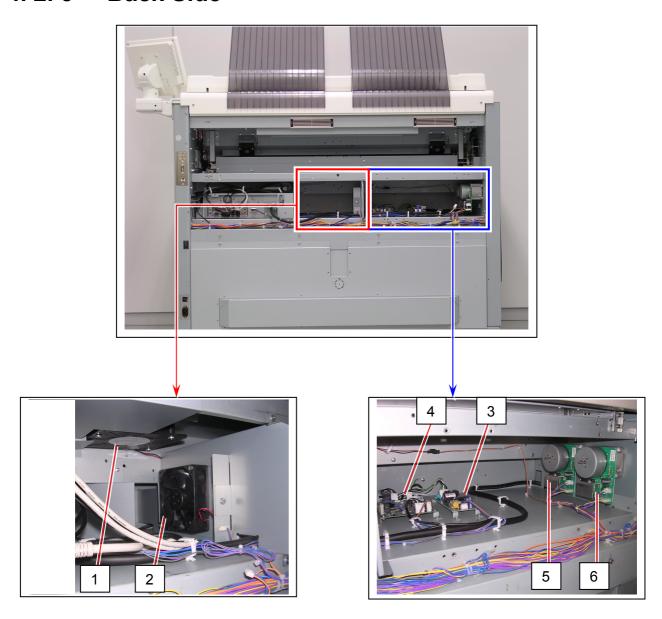
4. 2. 2 Left Side



Item	Symbol	Signal name	Name	Туре	Function
1	PW12420	-	PW12420 PCB Assy	PW12420	Overall sequence control
2	PW6654B	-	Driver PCB B	PW6654B	Driver for the motors, clutches and so on
3	MS4	'	Switch	V-162-1C25 10E	Detecting whether or not the Toner Hatch or the left side of Engine Unit is opened (The machine does not shut off the AC power even if the MS4 detects either of them is opened.)
4	CL1	REGIST_CL	Clutch	MIC5NE-45	Meeting the image head and leading edge of paper each other

4-7 K124sm4e2

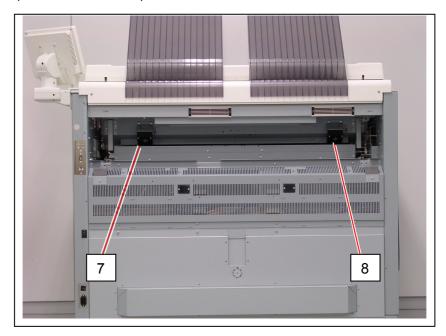
4. 2. 3 Back Side



Item	Symbol	Signal name	Name	Туре	Function
1	BL7	-	Blower	D12F-24BL 05	Assisting to transport the paper on the Inner Transport Unit
2	BL8	-	Fan	ASFN90372 □90	Cooling down the IPS Controller
3	DCP2	1	DC Power Supply	LDA15F-12	Supplying the DC power to both the UI and the PW10523
4	PW11723 (B)	-	PW11723 PCB ASSY	PW11723 (B)	 Lightning surge protector Shutting down the controller
5	M1	MAMTR	DC Motor	DRG-6236-226	Driving the Drum, Developer Unit and paper feeding section
6	M2	HEAT_M	DC Motor	DRG-6236- 226B	Driving the Fuser Unit

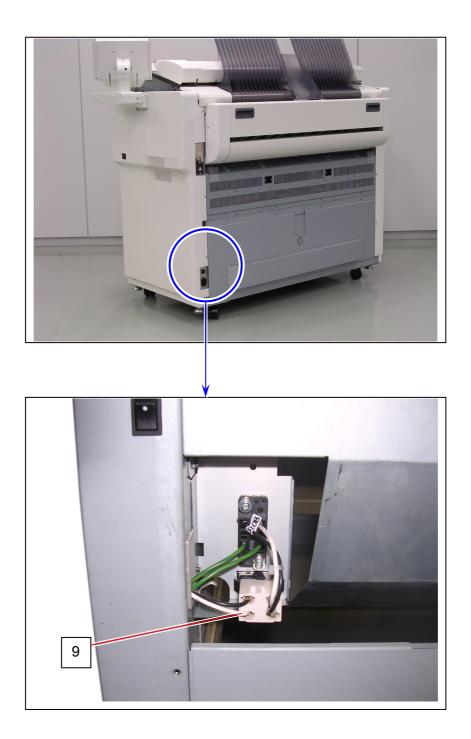
4-8 K124sm4e2

(Fuser Unit omitted)

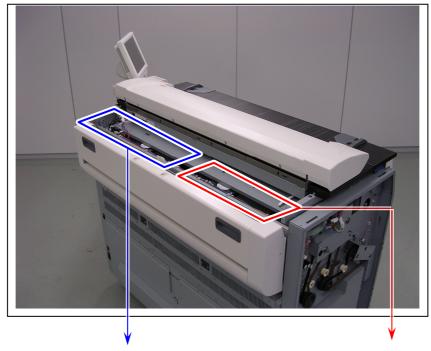


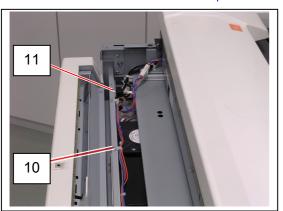
I	Item	Symbol	Signal name	Name	Type	Function
	7	BL5		Fan	ASFN60372	Supporting media feeding approach
	8	BL6		Fan	ASFN60372	Supporting media feeding approach

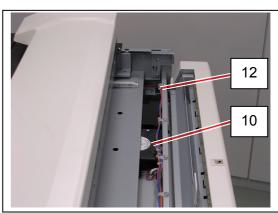
4-9 K124sm4e2



Item	Symbol	Signal name	Name	Туре	Function
9	MS8		Switch (Optional in USA)	FA2L-BA22	It stops supplying the AC power to the Dehumidify Heater when the Roll Deck is opened.



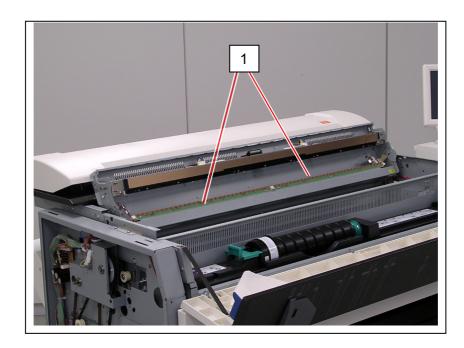




Item	Symbol	Signal name	Name	Туре	Function
10	BL3 & BL4	HEAT_BL_L HEAT_BL_R	Blower	D12F-24BL 05	Exhausting the inside air. (They are equipped with the Ozone Filter.)
11	MS2		Switch	FA1L-AA22	Shuts off the AC power to the DCP1 when the right side of Heater Hatch is opened.
12	MS3		Switch	V-162-1C25 10E	Detecting whether or not the left side of Heater Hatch is opened. (The machine does not shut off the AC power even if the MS3 detects the Heater Hatch is opened.)

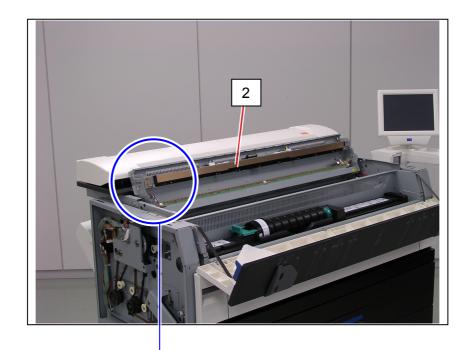
4-11 K124sm4e2

4. 2. 4 LED Head Frame

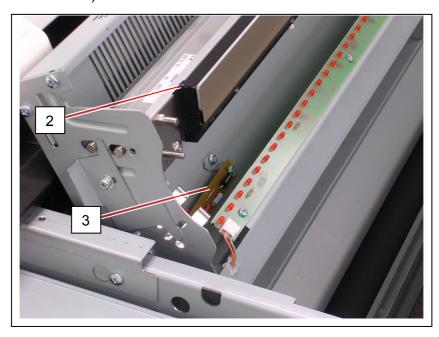


Item	Symbol	Signal name	Name	Туре	Function
1	PW6631	ER1	Eraser PCB A	PW6631	Removing the negative electric charges from the Drum at the beginning of the Print Process

4-12 K124sm4e2



(Image Corona Unit removed)

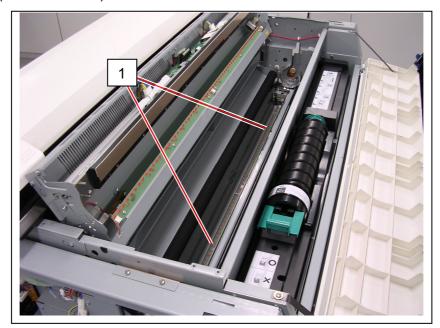


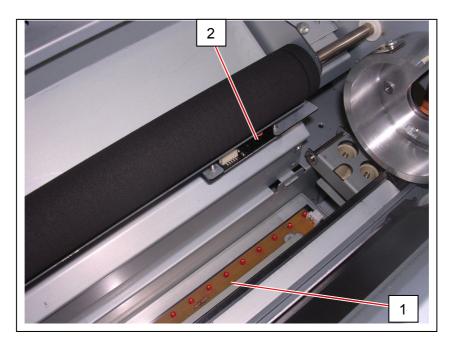
Item	Symbol	Signal name	Name	Туре	Function
2	LED HEAD		LED Head	LH6604	Creating latent Images on Drum
3	PW6693		HV-ZD Assy	PW6693	Keeping the Grid Voltage constant (Control of the surface potential)

4-13 K124sm4e2

4. 2. 5 Main Frame

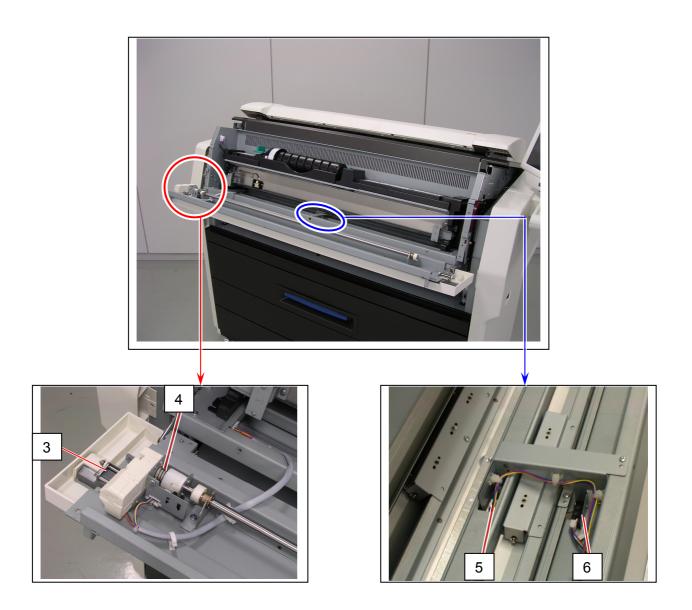
(Drum removed)





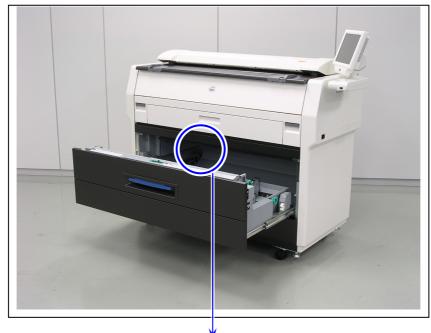
Item	Symbol	Signal name	Name	Туре	Function
1	PW6631	ER2	Eraser PCB A	PW6631	Assisting the paper separation by removing the electric charges from the Drum at the time of Separation Process
2	DENS-S	PH11	Toner Density Sensor	GP2Y40010K0 F	Detecting the toner density on the drum surface. Outputting analog voltage to PW12420

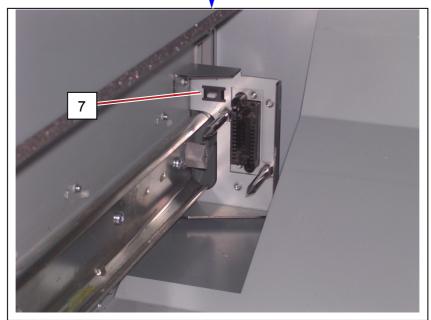
4-14 K124sm4e2



Item	Symbol	Signal name	Name	Туре	Function
3	M4	PRESS_M	DC Motor	DU2422-1	Pressing the Developer Unit to the Drum (Or keeping the Developer Unit away from the Drum)
4	PH4	PRESS_S	Sensor	GP1A73A000J	Detecting the Developer Unit is pressed or kept away
5	PH1	REGIST_S	Sensor	PS117ED1	Detecting the paper at the Registration Area Detecting the paper length of cut sheets
6	PH5	MAN_IN	Sensor	PS117ED1	Detecting the set of cut sheet paper

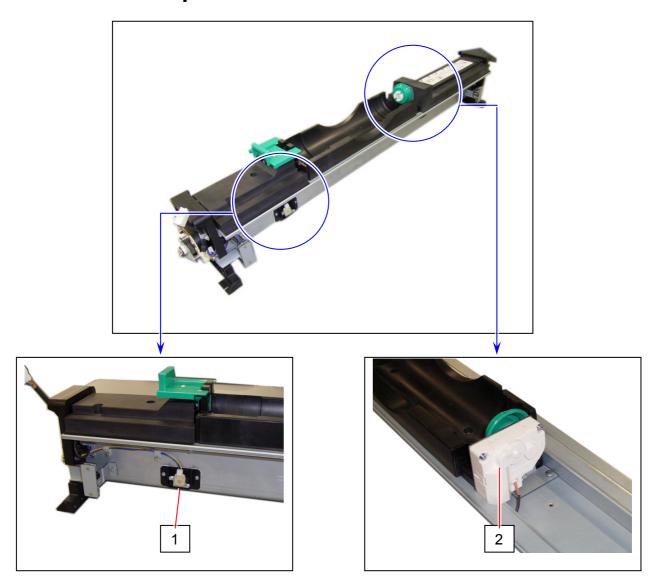
4-15 K124sm4e2





Item	Symbol	Signal name	Name	Туре	Function
7	MS5	DOOR- OPEN	Switch	CS1A-B2CA	Detecting the Roll Deck Open Error

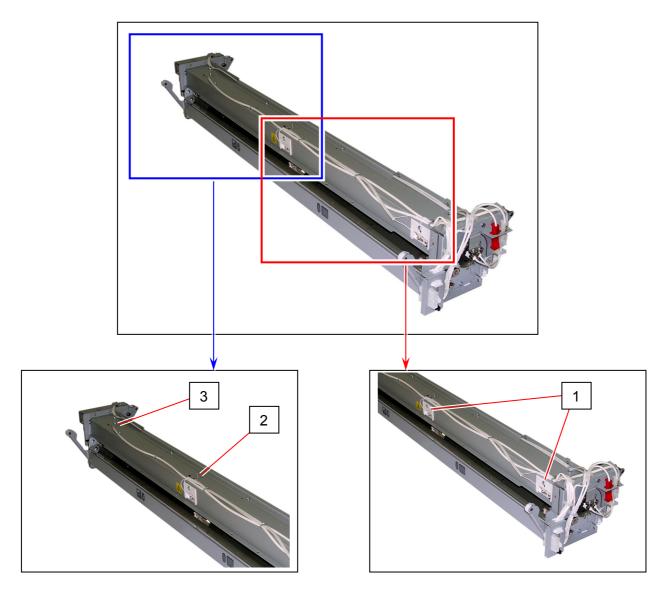
4. 2. 6 Developer Unit



Iten	Symbol	Signal name	Name	Туре	Function
1	TLS1	TONER_S	Sensor	TSP15DA10C- 01	Detecting whether or not the toner exists in the Developer Unit
2	M3	TONER_M	DC Motor	DU2431-2	Driving the Toner Hopper to supply the toner to the Developer Unit

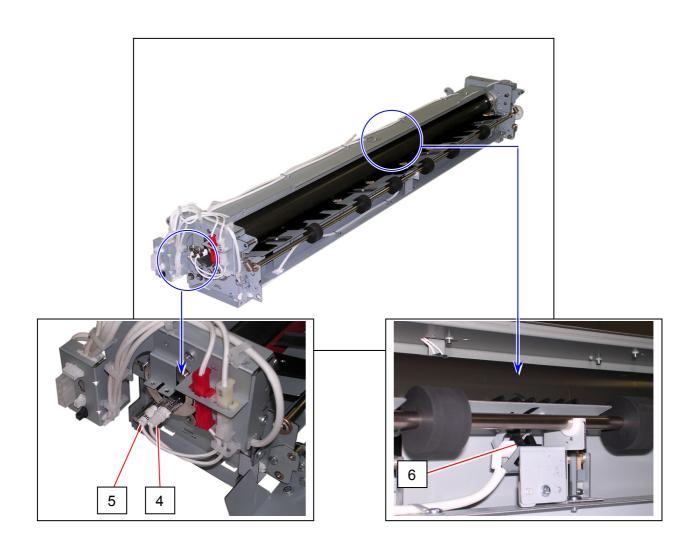
4-17 K124sm4e3

4. 2. 7 Fuser Unit



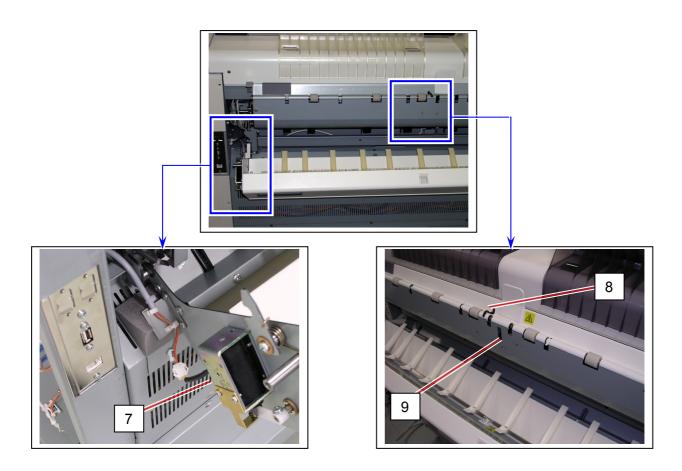
Item	Symbol	Signal name	Name	Туре	Function
1	TS1 TS2		Thermostat	CH-152-35- 170	Preventing over-heat
2	TH1	TH1	Thermistor	FS-K0113	Detecting the temperature on the central area of Fuser Roller
3	TH2	TH2	Thermistor 3	FS-K0115	Detecting the temperature on the driven side of Fuser Roller

4-18 K124sm4e3



Item	Symbol	Signal name	Name	Туре	Function
4	H1		Lamp 120V : Z166800001 230V : Z166800003		Heating up the central part of Fuser Roller
5	H2		Lamp 120V : Z166800002 230V : Z166800004		Heating up the right and the left part of Fuser Roller
6	PH3	HEAT_EXIT	Sensor	GP1A73A000J	Detecting the paper mis-feed at the exit area

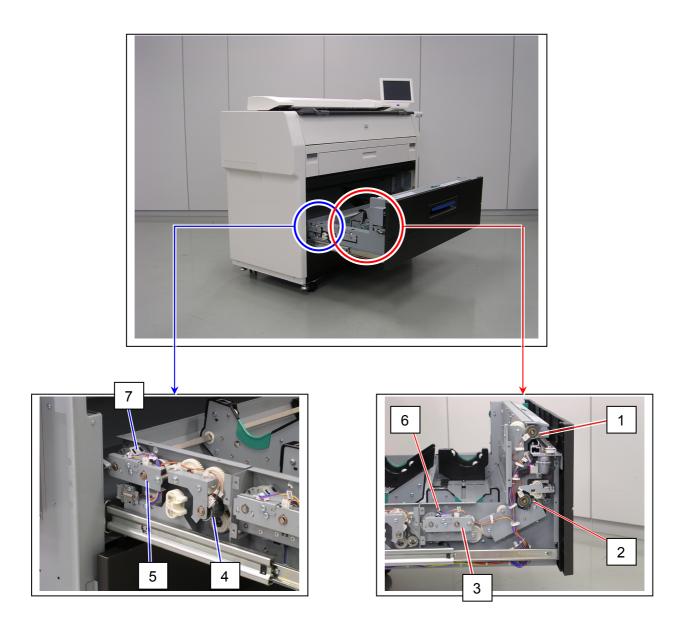
4-19 K124sm4e3



Item	Symbol	Signal name	Name	Туре	Function
7	SL1	STACK_SL	Solenoid		Deciding print path to either top /
					rear
8	PH15	STACK_S	Sensor		Detecting stacked prints
9			Sensor		Detecting the paper mis-feed
					after Fuser Unit

4-20 K124sm4e3

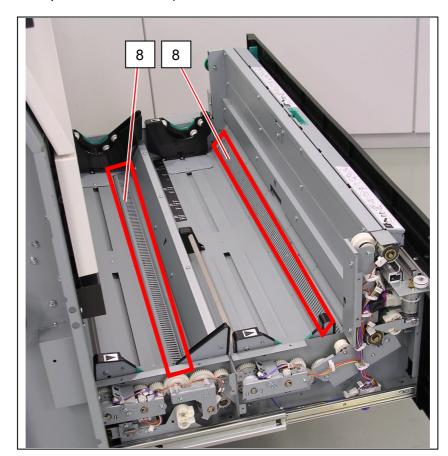
4. 2. 8 Roll Deck

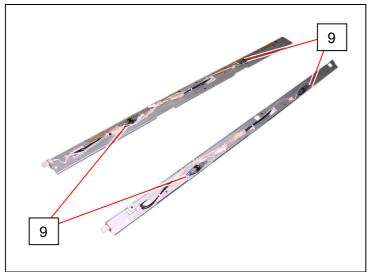


Item	Symbol	Signal name	Name	Туре	Function
1	CL3	FEED_CL	Clutch	MIC5NE-45	Feeding the roll paper from both Roll 1 and Roll 2
2	CL4	R1FD_CL	Clutch	MIC8NE-23	Feeding the Roll 1 forward
3	CL5	R1BK_CL	Clutch	MIC8NE-09	Rewinding the Roll 1
4	CL6	R2FD_CL	Clutch	MIC8NE-23	Feeding the Roll 2 forward
5	CL7	R2BK_CL	Clutch	MIC8NE-09	Rewinding the Roll 2
6	PH8	R1ENC_S	Sensor	GP1A73A000J	Detecting "paper end" of Roll 1
7	PH10	R2ENC_S	Sensor	GP1A73A000J	Detecting "paper end" of Roll 2

4-20 K124sm4e3

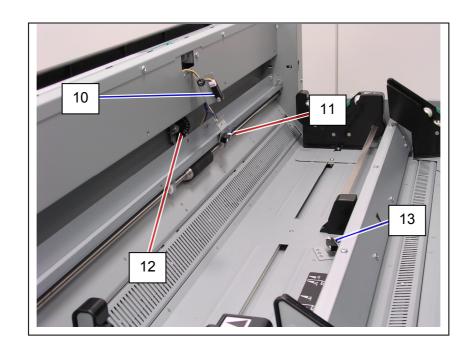
(Dehumidify Heater: option for US model)





Item	Symbol	Signal name	Name	Туре	Function
8	H3 H4 H5 H6		Resister	120V 1K 15W 230V 3.5K 15W	Dehumidifying the roll paper
9	TS3 TS4 TS5 TS6		Thermostat	2455RM-158- 37	Controlling the temperature of Resister (The Resisters turn on when the Thermostat detects some decided temperature, and they turn off when it detects another decided temperature.)

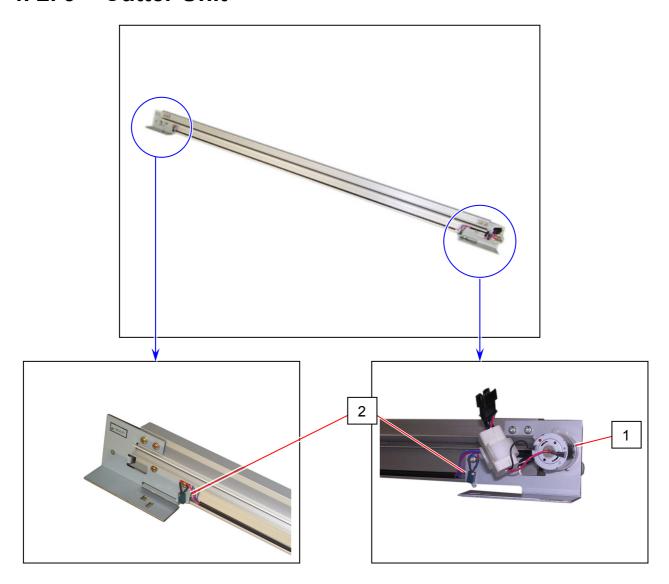
4-21 K124sm4e3



Item	Symbol	Signal name	Name	Туре	Function
10	PH6	R_EDGE	Sensor	PS117ED1	Detecting the trailing edge of the roll paper
11	PH7	R1SET_S	Sensor	PS117ED1	Detecting the set of Roll 1
12	PH12	FEED_ENC	Sensor	GP1A73A000J	Detecting the length of the proceeding paper to be cut
13	PH9	R2SET_S	Sensor	PS117ED1	Detecting the set of Roll 2

4-22 K124sm4e3

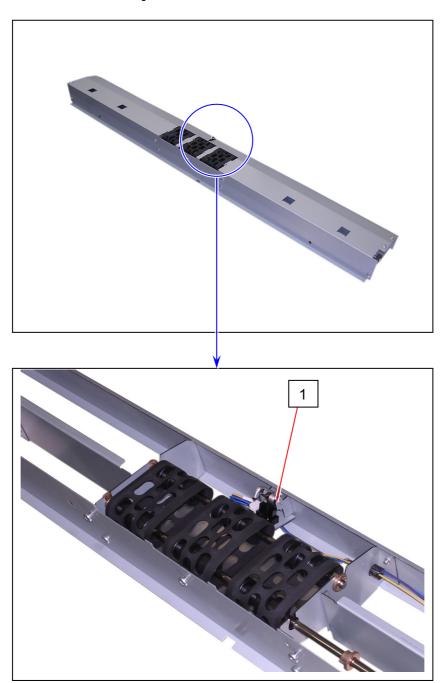
4. 2. 9 Cutter Unit



Item	Symbol	Signal name	Name	Type	Function
1	M5		Cutter Motor	-	Moving the Cutter Blade
2	MS6		Cutter Home Position	-	Detecting the Home Position of
	MS7		Sensor		Cutter Blade.

4-23 K124sm4e3

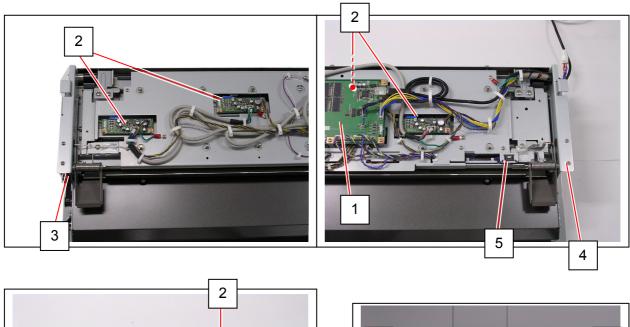
4. 2. 10 Inner Transport Unit

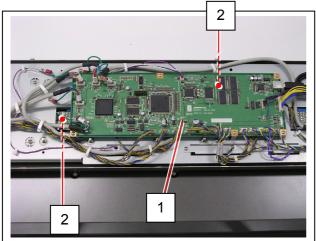


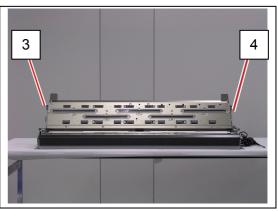
Item	Symbol	Signal name	Name	Туре	Function
1	PH2	STRIP_S	Sensor	GP1A73A000J	Detecting the paper mis-feed at
		_			the Separation Area

4-24 K124sm4e3

4. 2. 11 Scanner Unit



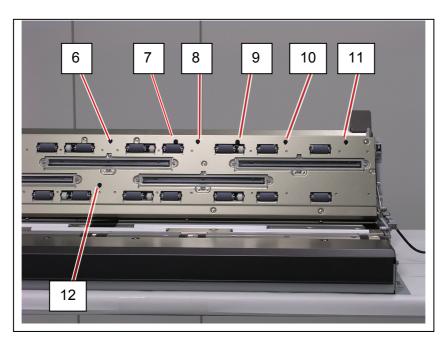




Item	Symbol	Signal name	Name	Туре	Function
1			SVC Main BD K (Data Controller)		SVC Main BD K makes image processes to the digital data sent from SVC CIS BD. And then it sends the processed image data to the controller.
2			SVC CIS BD (CIS Controller)		Converting the analog data read by the CIS to the digital data
3			Sensor	TLP1201A	Detecting whether or not the Scanner Upper Unit is opened.
4			Sensor	TLP1201A	Detecting whether or not the Scanner Upper Unit is opened.
5			Switch	CS1A-B2CA	Emergent stop button

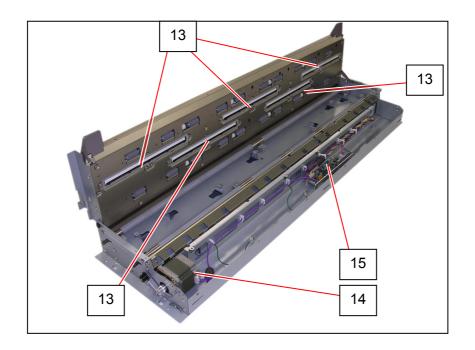
4-25 K124sm4e3





Item	Symbol	Signal name	Name	Туре	Function
6			Sensor	PS117ED1	It detects the insertion of original.
7			Sensor	PS117ED1	It detects original widths A4 (Landscape), A3, 11" and 12".
8			Sensor	PS117ED1	It detects original widths A2, 17" and 18".
9			Sensor	PS117ED1	It detects original widths A1, 22" and 24".
10			Sensor	PS117ED1	It detects original widths A0, and 30".
11			Sensor	PS117ED1	It detects original widths 34" and 36".
12			Sensor	PS117ED1	It detects the original mis-feed. It is also used to detect the leading edge when the original is returned.

4-26 K124sm4e3



Item	Symbol	Signal name	Name	Type	Function
13			CIS Unit	CIPS218CF601	CIS Units read the image of original, and then send the analog data to the SVC CIS BD.
14			Motor Assembly		Transporting the original.
15			SVC PWR BD (Power Supply)		Converts the +24V to each +12V, +5V and +3.3V. Also it is the Driver Circuit of the Motor.

4-27 K124sm4e3

4. 3 Check & Adjustment of Analog Output from HV Power Supply

4. 3. 1 Situations necessary to check the analog output

It is necessary to check the analog output from High Voltage Power Supply after replacing the following parts.

PW12420 PCB (DC Controller) HV Power Supply PCB (EUK1MGA60HA)

Please check the analog output for each of the following part, and please adjust if it is out of the specified range.

Each "Reference page" in the list shows how to check and adjust each item.

Check Item	Reference page
Analog Voltage to the Image Corona	4-29
Analog Voltage to the Transfer Corona	4-31
AC Component to the Separation Corona	4-33
DC Component to the Separation Corona	4-35
Negative Developer Bias to the Developer Roller	4-37
Positive Developer Bias to the Developer Roller	4-39
Bias gap between Developer Roller and Regulation Roller	4-41
Positive Cleaning Roller Bias (Print Cycle)	4-43
Negative Cleaning Roller Bias (Toner Collection Process)	4-45

Reference

Please try to replace the PW12420 PCB or HV Power Supply PCB if you have the following kinds of problem.

PW12420 PCB

- (1) When the UI indicates abnormal indication although the UI has no problem.
- (2) When the electric component such as motor or lamp does not work properly although such component has no problem.

HV Power Supply PCB (EUK1MGA60HA)

When the output to Image Corona / Transfer Corona / Separation Corona / Developer Roller / Toner Supply Roller / Regulation Roller / Cleaning Roller is abnormal.

4-28 K124sm4e4

4. 3. 2 Analog Voltage to Image Corona

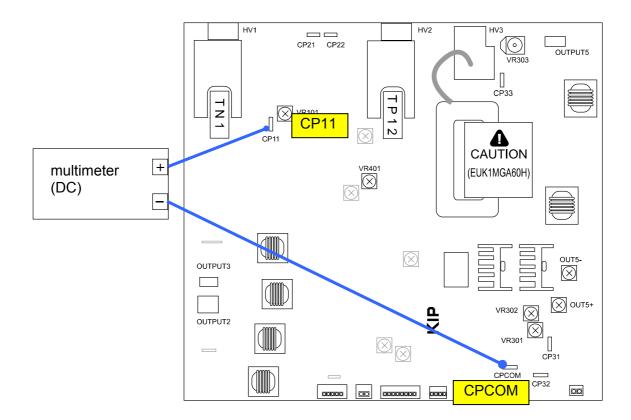
The standard value of the voltage outputted from the HV Power Supply PCB to the Image Corona is 1.30 +/-0.05V.

Check and adjust the output current in the following way.

1. Connect the "+" cable of the multi-meter to the "CP11" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the "CPCOM".

And then, select the DC volt range on the multi-meter.



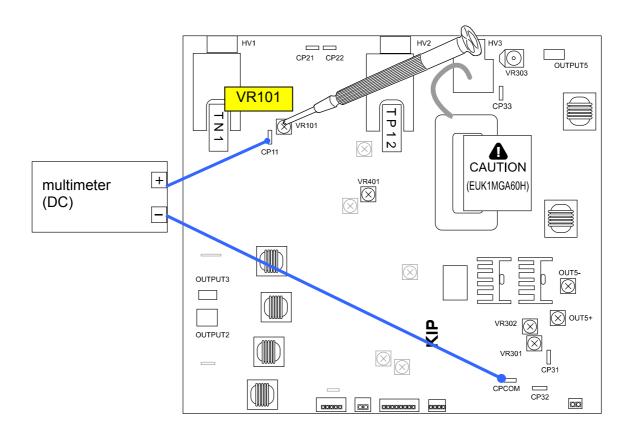
2. Make a Test Print making reference to [8. 9 Test Print Mode] .

As the high voltage is supplied to the Image Corona during the Test Print, check the voltage with the multi-meter.

Standard value of the output voltage to the Image Corona is 1.30 +/-0.05V.

4-29 K124sm4e4

3. Adjust the output voltage if it does not satisfy 1.30 +/-0.05V. To adjust it, rotate the VR101 with a screwdriver.



4-30 K124sm4e4

Analog Voltage to Transfer Corona 4. 3. 3

The standard value of the voltage outputted from the HV Power Supply PCB to the Transfer Corona is specified to each type of paper as follows.



Check and adjust the output current in the following way.



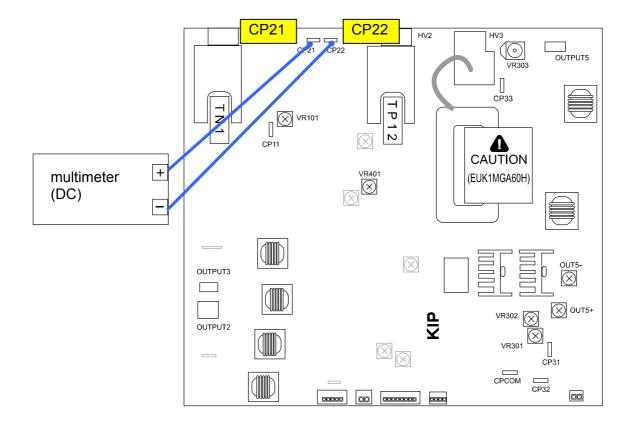
M NOTE

The above values are just the standard values we have adjusted at the time of shipment. Of course you may change these values according to the usage condition.

1. Connect the "+" cable of the multi-meter to the "CP21" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the "CP22" pin.

And then, select the DC volt range on the multi-meter.



K124sm4e4 4-31

2. Select the Test Print Mode, and make a test print using each type of paper (plain paper, tracing paper & Film) making reference to [8. 9 Test Print Mode].

As the high voltage is supplied to the Transfer Corona during the Test Print, check the voltage with the multi-meter.

Standard values of the output voltages to the Transfer Corona are:

Plain paper	1.20 +/-0.05V
Tracing paper	1.00 +/-0.05V
Film	1.00 +/-0.05V

3. Adjust the output voltage if it does not satisfy the above specifications. Select the Adjustment Mode, select each of following Sub Mode Numbers, and change the setting value so that the output voltage satisfies the above specifications. Refer to [8.6.3.15 Transfer Voltage (No.029 to 034)] for the detail.

Sub Mode No.	Contents
029	Transfer Voltage (Plain paper)
030	Transfer Voltage (Tracing paper)
031	Transfer Voltage (Film)
032	Transfer Voltage (Plain paper : Special)
033	Transfer Voltage (Tracing paper : Special)
034	Transfer Voltage (Film : Special)

4-32 K124sm4e4

4. 3. 4 AC Component to Separation Corona

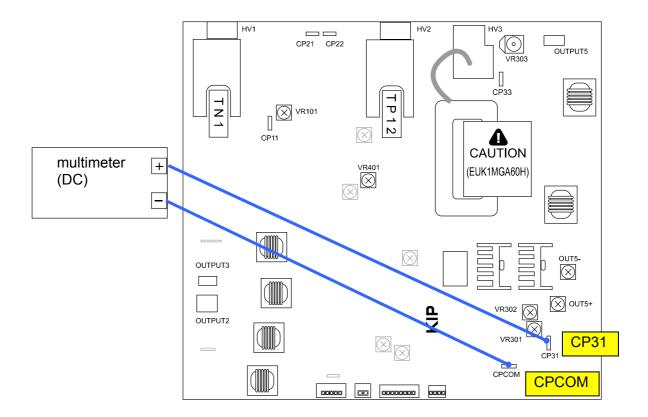
The standard value of the AC Component outputted from the HV Power Supply PCB to the Separation Corona is 5.00 +/-0.05V.

Check and adjust the AC Component in the following way.

1. Connect the "+" cable of the multi-meter to the "CP31" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the "CPCOM" pin.

And then, select the DC volt range on the multi-meter.

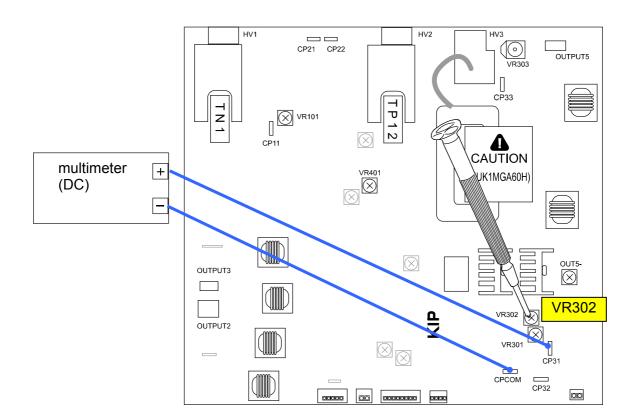


Make a Test Print making reference to [8. 9 Test Print Mode].
 As the high voltage is supplied to the Image Corona during the Test Print, check the voltage with the multi-meter.

Standard value of the AC Component to the Separation Corona is 5.00 +/-0.05V

4-33 K124sm4e4

3. Adjust the AC Component if it does not satisfy **5.00 +/-0.05V**. To adjust it, rotate the VR302 with a screwdriver.



4-34 K124sm4e4

4. 3. 5 DC Component to Separation Corona

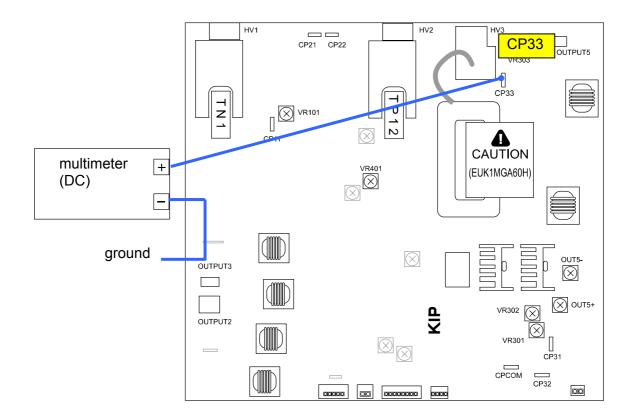
The standard value of the DC Component outputted from the HV Power Supply PCB to the Separation Corona is -250 +/-5V.

Check and adjust the DC Component in the following way.

1. Connect the "+" cable of the multi-meter to the "CP33" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the ground.

And then, select the DC volt range on the multi-meter.

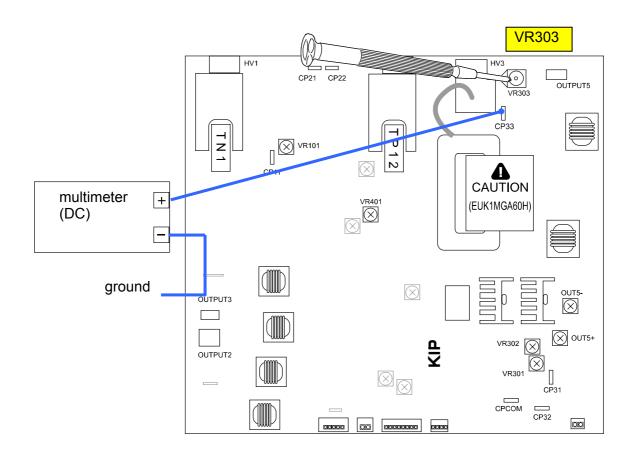


Make a Test Print making reference to [8. 9 Test Print Mode].
 As the high voltage is supplied to the Image Corona during the Test Print, check the voltage with the multi-meter.

Standard value of the DC Component to the Separation Corona is -250 +/-5V.

4-35 K124sm4e4

3. Adjust the DC Component if it does not satisfy -250 +/-5V. To adjust it, rotate the VR303 with a screwdriver.



4-36 K124sm4e4

4. 3. 6 Negative Developer Bias to Developer Roller

The Negative Developer Bias means the voltage supplied to the Developer Roller during the Print Cycle.

The standard value of the Negative Developer Bias is as follows for each type of paper.

Tracing paper -180 +/-5V against the ground -180 +/-5V against the ground Film -180 +/-5V against the ground

Check and adjust the Negative Developer Bias in the following way.



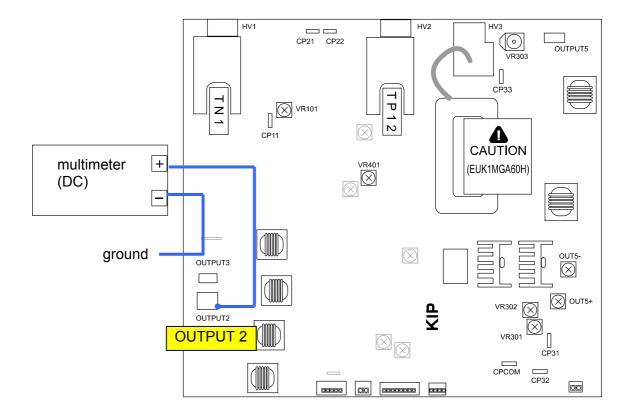
NOTE

The above values are just the standard values we have adjusted at the time of shipment. Of course you may change these values according to the usage condition.

1. Connect the "+" cable of the multi-meter to the "OUTPUT2" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the ground.

And then, select the DC volt range on the multi-meter.



4-37 K124sm4e4

Make a Test Print making reference to [8. 9 Test Print Mode].
 As the Negative Developer Bias is supplied to the Developer Roller during the Test Print, check the voltage with the multi-meter.

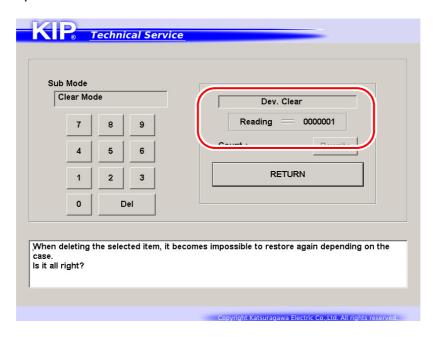
The standard value of the Negative Developer Bias for each type of media is:

Plain paper	-180 +/-5V against the ground
Tracing paper	-180 +/-5V against the ground
Film	-180 +/-5V against the ground

If the above values are not satisfied, go to the next step.

3. If the value (voltage) is <u>-230 +/- 5V</u>, Developer Bias may be automatically adjusted by Density Compensation Process.

Enter Special Operation Mode and then "0006 Bias3 Count".



The voltage "-230V +/- 5V" is correct when the above 7-digit value shows "0000001" / "0000002" / "0000003".

7 digits (current Auto	Supposed
Adjustment Level)	Developer Bias
00000 0	-180 +/-5V
0000001 / 0000002 / 0000003	-230 +/-5V

Refer to [8.11.3 Reset of Bias Adjustment by Density Compensation Process] for checking the current Auto Adjustment Level.

If not satisfied, go to the next step for manual Developer Bias adjustment.

Select the Adjustment Mode, select each of following Sub Mode Numbers, and change the setting value so that the output voltage satisfies -180 +/-5V against the ground. Refer to [8.6.3.13 Developer Bias (No.022 to 027)] for the detail.

Sub Mode No.	Contents
022	Developer Bias (Plain paper)
023	Developer Bias (Tracing paper)
024	Developer Bias (Film)
025	Developer Bias (Plain paper : Special)
026	Developer Bias (Tracing paper : Special)
027	Developer Bias (Film : Special)

4-38 K124sm4e4

4. 3. 7 Positive Developer Bias to Developer Roller

The Positive Developer Bias means the voltage supplied to the Developer Roller during the Cleaning Cycle.

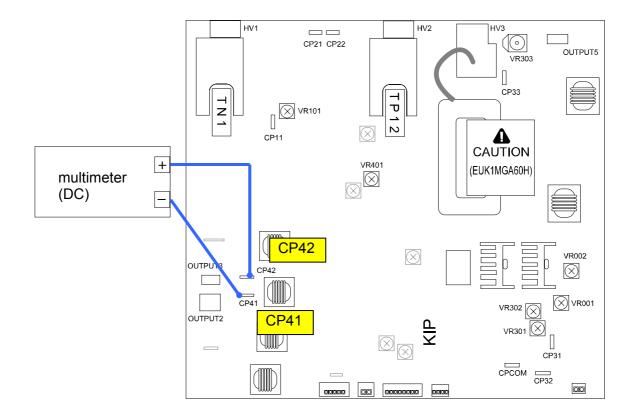
The standard value of the Positive Developer Bias is 0.350 +/-0.005V against the CP42.

Check and adjust the Negative Developer Bias in the following way.

1. Connect the "+" cable of the multi-meter to "CP41" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to "CP42".

And then, select the DC volt range on the multi-meter.

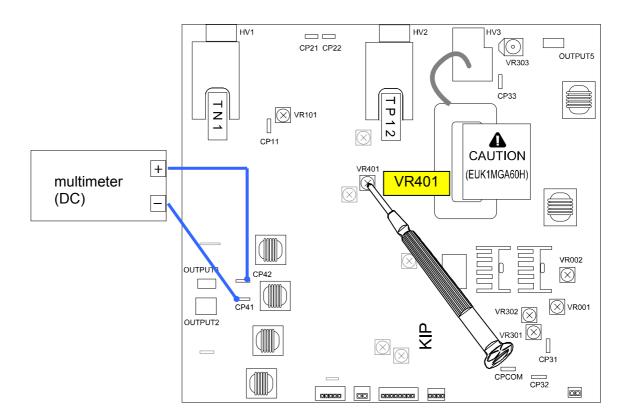


4-39 K124sm4e4

Make a Test Print making reference to [8. 9 Test Print Mode].
 The Positive Developer Bias is supplied to the Developer Roller for some seconds after the printed paper has been ejected.
 Check the voltage with the multi-meter during that period.

The standard value of the Positive Developer Bias is 0.350 +/-0.005V against the CP42. If this is not satisfied, go to the next step for the adjustment.

3. Adjust the Positive Developer Bias rotating the VR401, so that it should satisfy 0.350 +/-0.005V against the CP42.



4-40 K124sm4e4

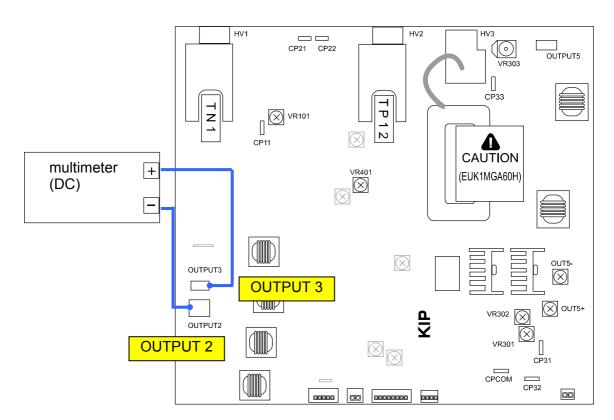
4. 3. 8 Bias gap between Developer Roller and Regulation Roller

The standard value of the Bias gap between Developer Roller and Regulation Roller is 80 +/-5V. Check and adjust it in the following way.

1. Connect the "+" cable of the multi-meter to the "OUTPUT3" pin on the HV Power Supply PCB (EUK1MGA60HA).

Also connect the "-" one to the "OUTPUT2" pin.

And then, select the DC volt range on the multi-meter.



2. Make a Test Print making reference to [8. 9 Test Print Mode]. As the Bias is supplied to both the Developer Roller and the Regulation Roller, check the Bias gap between them with the multi-meter.

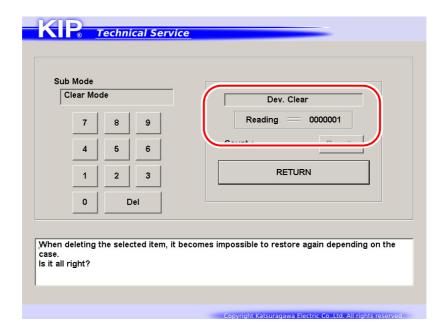
The standard value of the Bias gap between Developer Roller and Regulation Roller is **80 +/-5V**.

If the above value is not satisfied, go to the next step 3 for the adjustment.

4-41 K124sm4e4

3. If the value (voltage) is "120 +/-5V" or "160 +/- 5V", Regulation Bias may be automatically adjusted by Density Compensation Process.

Enter Special Operation Mode and then "0006 Bias3 Count".



The voltage "120V +/- 5V" is correct when the above 7-digit value shows "0000002". The voltage "160V +/- 5V" is correct when the above 7-digit value shows "0000003".

7 digits (current Auto Adjustment Level)	Supposed Bias Gap
00000 0 / 000000 1	80 +/-5V
000000 2	120 +/-5V
000000 3	160 +/-5V

Refer to [8.11.3 Reset of Bias Adjustment by Density Compensation Process] for checking the current Auto Adjustment Level.

If not satisfied, go to the next step for manual Regulation Bias adjustment.

Select the Adjustment Mode, select Sub Mode No. 622, and change the value so that the output voltage satisfies 80 +/-5V.
 Refer to [8.6.3.102 Regulation Bias (No.622)] for the detail.

4-42 K124sm4e4

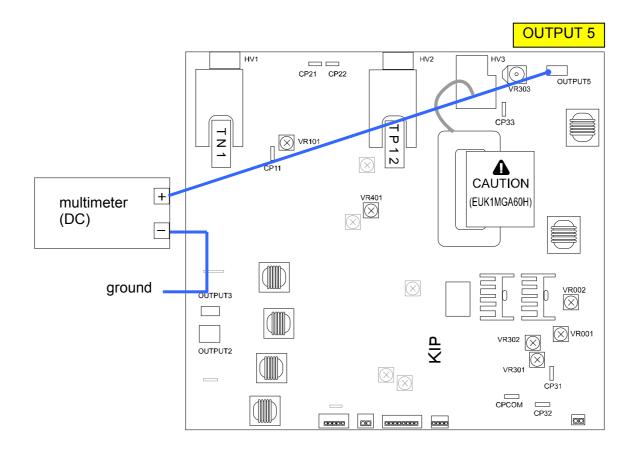
4. 3. 9 Positive Cleaning Roller Bias (Print Cycle)

The Positive Cleaning Roller Bias means the voltage supplied to the Cleaning Roller during the Print Process.

The standard value of the Positive Cleaning Roller Bias is +450 +/-5V. Check and adjust it in the following way.

1. Connect the "+" cable of the multi-meter to the "OUTPUT 5" pin on the HV Power Supply PCB Also connect the "-" one to the ground.

And then, select the DC volt range on the multi-meter.



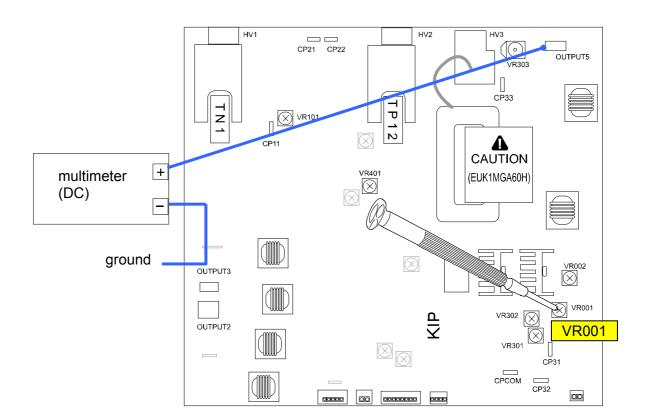
2. Make a Test Print making reference to [8. 9 Test Print Mode].

As the Positive Cleaning Roller Bias is supplied during the Test Print, check the voltage value with the multi-meter.

Standard value of the Positive Cleaning Roller Bias is +450 +/-5V.

4-43 K124sm4e4

3. Adjust the Positive Cleaning Roller Bias if it does not satisfy +450 +/-5V. To adjust it, rotate the VR001 with a screwdriver.



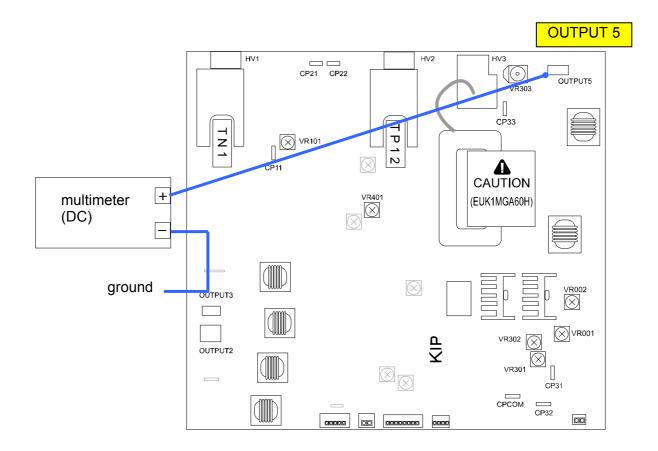
4-44 K124sm4e4

4. 3.10 Negative Cleaning Roller Bias (Toner Collection Process)

The Negative Cleaning Roller Bias means the voltage supplied to the Cleaning Roller during the Toner Collection Process, which is done after the completion of Print Process. The standard value of the Negative Cleaning Roller Bias is -550 +/-5V. Check and adjust it in the following way.

1. Connect the "+" cable of the multi-meter to the "OUTPUT 5" pin on the HV Power Supply PCB Also connect the "-" one to the ground.

And then, select the DC volt range on the multi-meter.



2. Make a Test Print making reference to [8. 9 Test Print Mode].

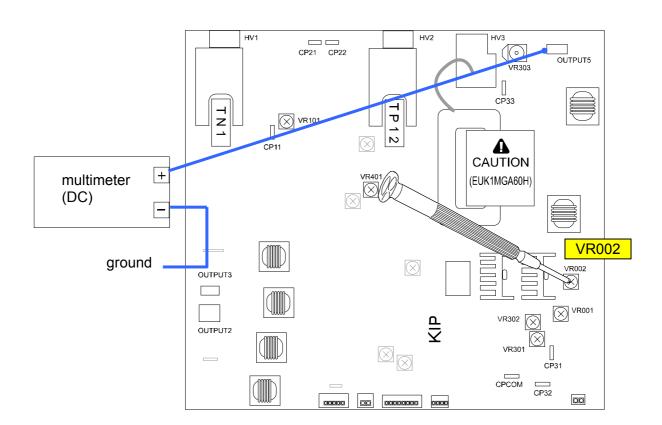
The Toner Collection Process works for some seconds after the printed paper has been ejected.

Check the voltage value with the multi-meter during that period.

Standard value of the Negative Cleaning Roller Bias is -550 +/-5V.

4-45 K124sm4e4

3. Adjust the Negative Cleaning Roller Bias if it does not satisfy -550 +/-5V. To adjust it, rotate the VR002 with a screwdriver.



4-46 K124sm4e4

Chapter 5

Mechanical

			page
5.		uter Covers	
	5. 1. 1		
	5. 1. 2		
	5. 1. 3	Removal of Cover 14	5- 3
5.	2 D	eveloper Unit	
	5. 2. 1		
	5. 2. 2		5- 8
	5. 2. 3	Replacement of Roller Supply	5-35
	5. 2. 4	Replacement of Screw Assy	5-38
	5. 2. 5		
	5. 2. 6	Replacement of Sensor (TLS1)	5-47
	5. 2. 7	Adjustment of the space between gears	
		(Necessary to adjust after replacing the Developer Unit)	5-48
	5. 2. 8	Readjustment of the pressure of Regulation Roller	5-54
5.	3 F	user Unit	5-70
	5. 3. 1	Removal of Fuser Unit	
	5. 3. 2		
	5. 3. 3		
	5. 3. 4		
	5. 3. 5	·	
	5. 3. 6		
	5. 3. 7	· · · · · · · · · · · · · · · · · · ·	
	5. 3. 8	·	
5	4 R	oll Deck	5-107
٠.	5. 4. 1		
	5. 4. 2	·	
	5. 4. 3	·	5-112
	5. 4. 4		5-114
	5. 4. 5	·	
	5. 4. 6	·	
	5. 4. 7	·	
	5. 4. 8		
	5. 4. 9	·	
	5. 4.10	•	
	5. 4.1	·	
5.	5 P	hotoconductive Drum	5-227
٠.	5. 5. 1		
	5. 5. 2		
		. 2. 1 Fixing Block with Drum Block Fix Tool	
		. 2. 2 Fixing Block by hand (w/o Drum Block Fix Tool)	
	5. 5. 3		5-247
	5. 5. 4		5-248

5. 6 LEI) Head	
5. 6. 1		···· 5-249
5. 6. 2	LED focus adjustment	···· 5-257
	2. 1 Check of the Test Pattern Image	···· 5-257
5. 6.	2. 2 Positioning of the Aluminum Blocks	
5. 6.	2. 3 Focus Adjustment with Spacers	···· 5-274
5. 7 Ima	ge Corona	····· 5-280
5. 7. 1		
5. 7. 2		
5. 8 Tra	nsfer / Separation Corona	····· 5-292
5. 8. 1		···· 5-292
5. 8. 2		
5. 9 Eng	gine Frame	5-296
5. 9. 1	Replacement of DC Motor (M4) and Developer Press Sensor (PH4)	
5. 9. 2	Replacement of Manual Set Sensor (PH5) & Registration Sensor (PH1)	5-300
5. 9. 3	Replacement of Fans (BL5, BL6)	
5. 9. 4	Replacement of Blowers (BL3, BL4)	···· 5-303
5.10 Inne	er Transport Unit	5-305
5.10. 1		
5.10. 2	Replacement of Sensor (PH2) & Belt	5-306
5.11 Maiı	n Frame	5-309
5.11. 1	Replacement of DC Motors (M1, M2), Belt8, Belt9, Belt 7	5-309
5.11. 2	Replacement of Clutch (CL1)	
5.11. 3	Replacement of Blower (BL7)	···· 5-321
5.11. 4	Replacement of Fan (BL8)	5-322
5.12 Sca	inner Unit	5-323
5.12. 1	Removal of the Scanner Unit	
5.12. 2	Replacement of Belt	
5.12. 3	Replacement of Motor Assy	
5.12. 4	Replacement of Feed Roller	
5.12. 5	Replacement of Pinch Roller Assy	···· 5-342
5.12. 6	Replacement of CIS	5-349
5.12. 7	Replacement of Scan Glass Assy	···· 5-353

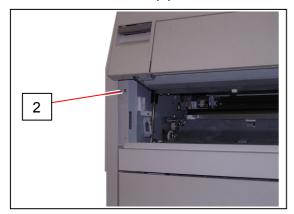
5. 1 Outer Covers

5. 1. 1 Removal of Side Covers

1. Pull up the Lever 2 (1) to open the Engine Unit.

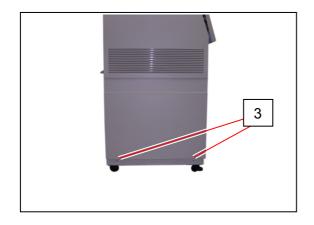


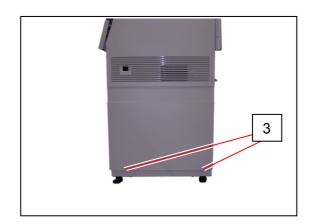
2. Remove the screws (2) at both sides.





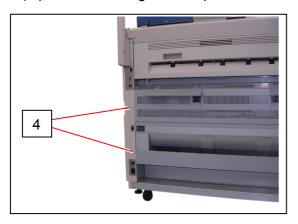
3. Remove 4 pieces of screw (3) at both sides.

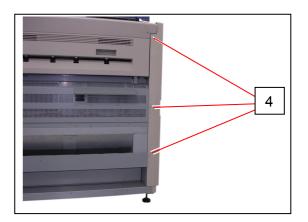




5-1 K124sm5e2

4. Remove 5 pieces of screw (4) at both sides.(2 pieces on the right and 3 pieces on the left)





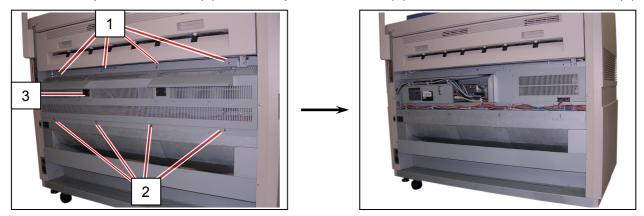
5. Remove both Cover 2 (5) and Cover 3 (6).





5. 1. 2 Removal of Cover 15

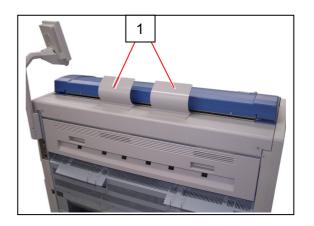
1. Remove 4 pieces of screw (1), loosen 4 pieces of screw (2), and then remove the Cover 15 (3).



5-2 K124sm5e2

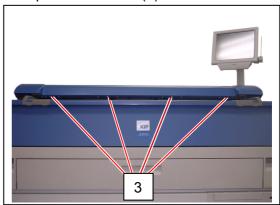
5. 1. 3 Removal of Cover 14

1. Remove 2 pieces of Guide 3 (1).



2. Loosen 4 pieces of screw (2) on the back, and remove 4 pieces of screw (3) on the front.



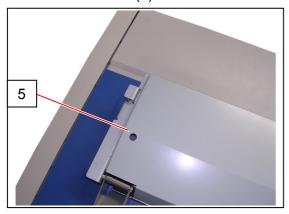


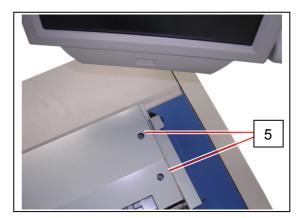
3. Remove Cover 14 (4).



5-3 K124sm5e2

4. Remove 3 screws (5).





5. Remove Shield Cover N (6).

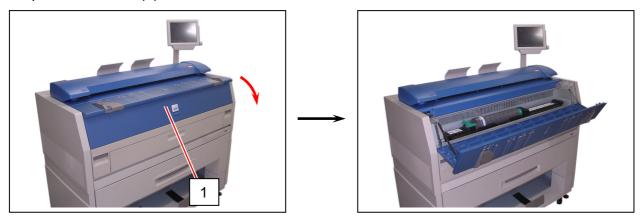


5-4 K124sm5e2

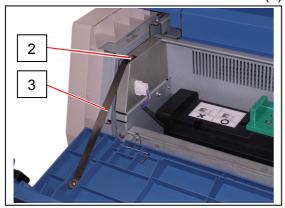
5. 2 Developer Unit

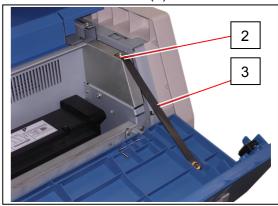
5. 2. 1 Removal of the Developer Unit

1. Open the Cover 4 (1).

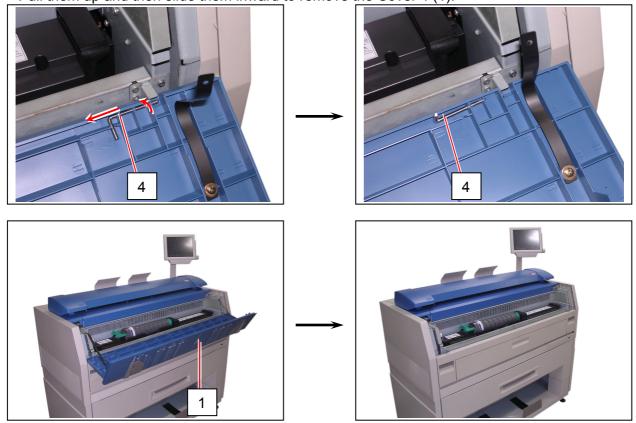


2. Remove the 4x6 screws and washers (2) at both sides to make the Bands (3) free.



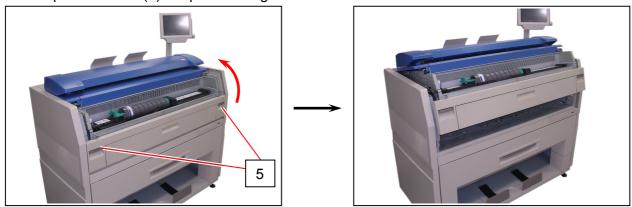


3. There are Pins (4) at both sides.
Pull them up and then slide them inward to remove the Cover 4 (1)



5-5 K124sm5e3

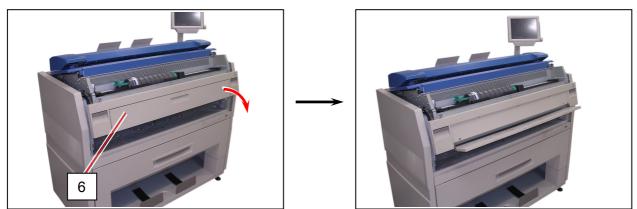
4. Pull up the Lever 2 (5) to open the Engine Unit.



▲ NOTE

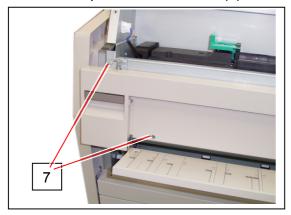
It is impossible to remove the Developer Unit if the Engine Unit is closed, because the driving gears are firmly locked when closed.

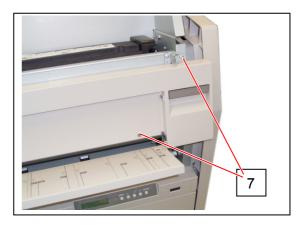
5. Open the Bypass Feeder (6).



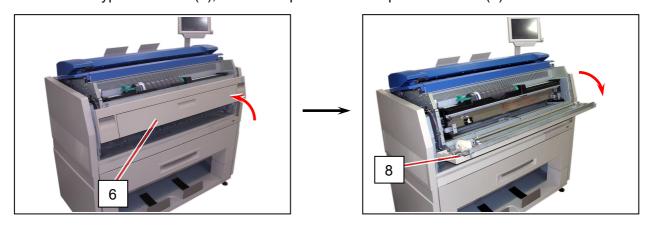
K124sm5e3 5-6

6. Remove 4 pieces of 4x8 screw (7).

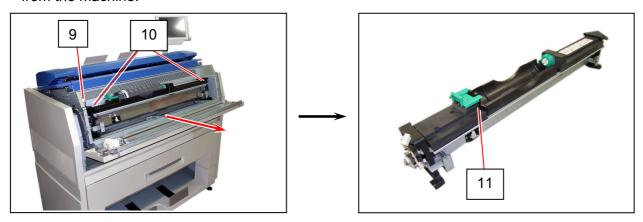




7. Close the Bypass Feeder (6), and then open the Developer Press Unit (8).



8. Disconnect the connector (9). Holding both Side Plates (10), remove the Developer Unit (11) from the machine.





If you replace the whole Developer Unit, it is necessary to adjust the space between developer driving gears.

Refer to [5.2.7 Adjustment of the space between gears (Necessary to adjust after replacing the Developer Unit)].

> K124sm5e3 5-7

5. 2. 2 Replacement of Recommended Periodic Replacement Parts

A

NOTE

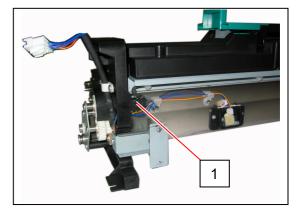
(1) A periodic replacement for the following parts is recommended. This section shows how to replace all of them in one sequent operation. Refer to this section as well for replacement individual part listed below.

Item	Number of article	Remarks
Scraper	1	All of these parts are contained in
Sheet	2	"Developer Maintenance Kit A"
Sheet 2	2	(Z160980020).
Roller Developer	1	
Sheet 3	2	
Sheet 4	2	
Blade Roller	1	
Seal R2 Assy	1	
Seal L2 Assy	1	
Seal 1	2	
Seal 23	2	
Seal 3	2	
Seal 4	2	

- (2) Remove all the toner from Developer Unit before replacing the above parts.
- (3) After replacing Developer / Blade Rollers, an applied Bias Adjustment should be reset manually with using Service Mode Clear Mode.
- Remove the Developer Unit from the machine making reference to [5.2.1 Removal of the Developer Unit].

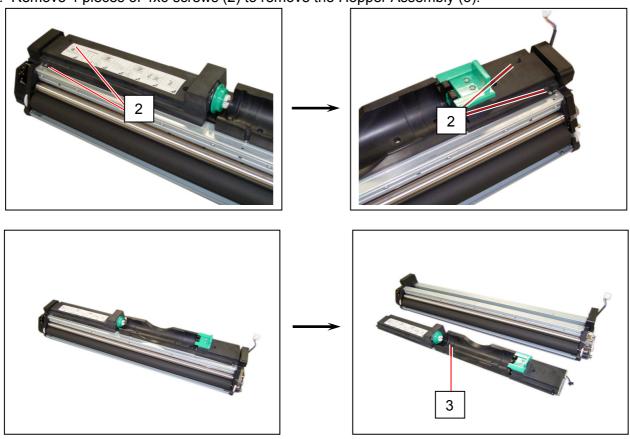


2. Disconnect the connector (1).

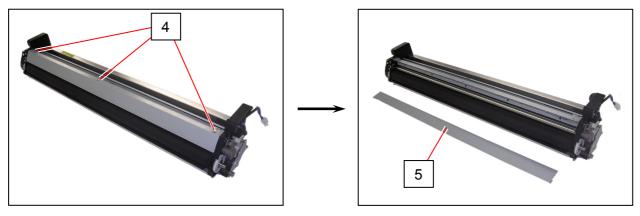


5-8 K124sm5e3

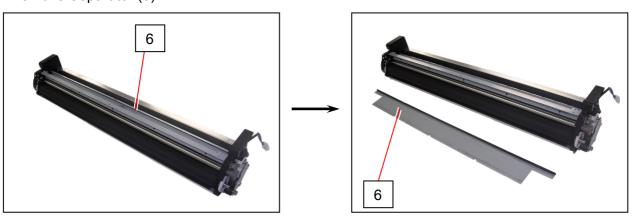
3. Remove 4 pieces of 4x6 screws (2) to remove the Hopper Assembly (3).



4. Remove 3 pieces of M4x6 screws (4) to remove Cover (5).

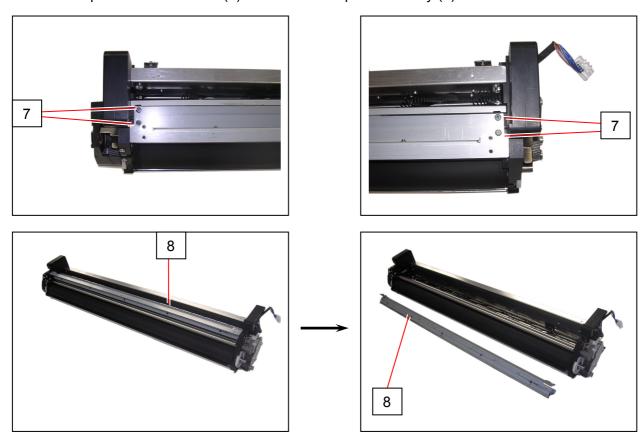


5. Remove Separator (6).

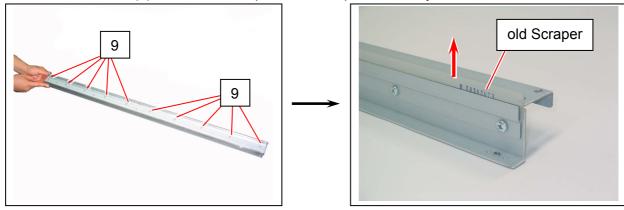


5-9 K124sm5e3

6. Remove 4 pieces of 4x6 screw (7) to remove Scraper Assembly (8).



7. Loosen 10 screws (9) to remove Scraper from Scraper Assembly.

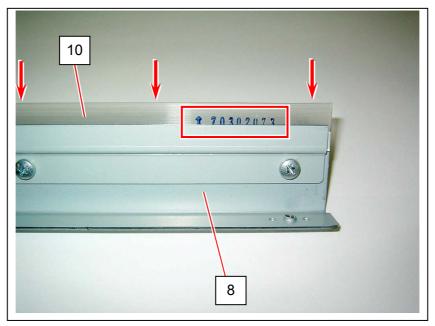


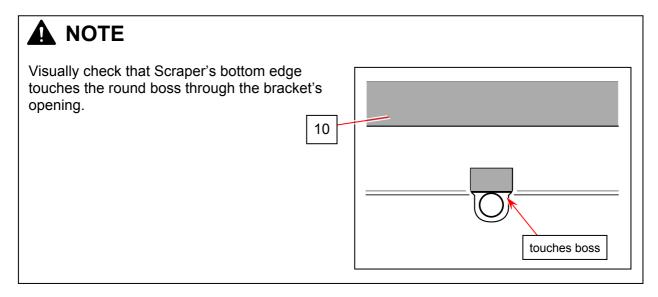
▲ NOTE

Just loosen the screws as little as possible to remove Scraper. Doing so will reduce the new Scraper's wave.

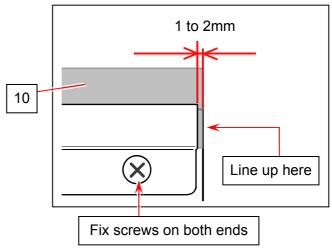
5-10 K124sm5e3

8. Put Scraper (10) in Scraper Assembly (8) and push Scraper's edge to the inside. Scraper (10) should be placed that the numbers printed on one side face can be read in correct orientation.



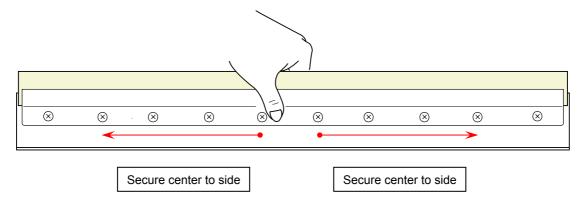


9. Adjust Scraper so that its side edges stick out in 1 to 2mm from the side rim of the bracket. Then temporarily tighten the screws on both ends.



5-11 K124sm5e3

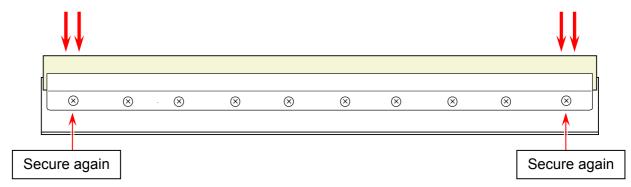
10. Tighten the screws from the center to the sides with holding around each screw on the bracket.



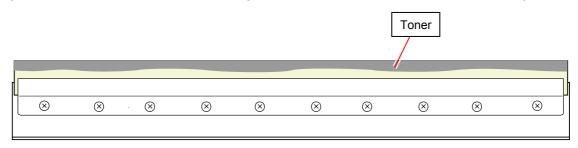
♠ NOTE

Be sure to check for wave on Scraper's edge. If there is, go back to step 7 to install Scraper again.

11. Slightly loosen the screws on both ends. With pushing the edge inside, tighten the screws.



- 12. Hold both ends of Scraper Assembly and turn it upside down so that the Scraper's edge direct the floor. If Scraper falls or has a slip, apply Seal 5 (Z054601260) to the bracket's inside to reduce the gap.
- 13. Again check for wave on Scraper's edge. If it is OK, rub toner powders on the edge.



⚠ NOTE

- (1) Toner powders on the edge reduce friction between the edge and the Drum's surface. If there is no toner on the edge, Scraper may flip up or damage.
- (2) The edge must be straight. Otherwise the toner will not be scraped off properly.

K124sm5e3 5-12

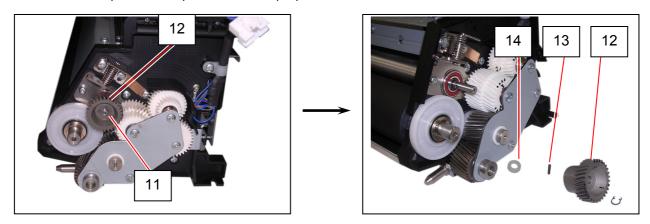
14. Remove all the toner from Developer Unit.



▲ NOTE

Do not reuse the removed toner.

15. On the driving side, remove Retaining Ring-C (11: C6) to remove Gear Helical 30T (12), Parallel Pin (13: 2.5x10) and Collar 3 (14) from Blade Roller shaft.

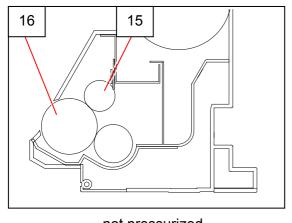




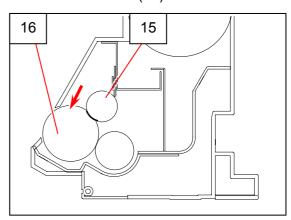
NOTE

Blade Roller (15) is pressed onto / released from Developer Roller (16) by Bracket 4 (17) (on the driving side) and Bracket 5 (18) (on the electrode plate side).

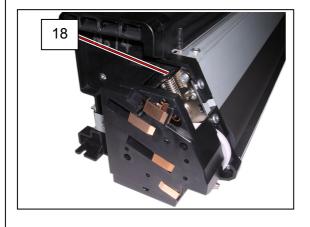
When reassembling, Blade Roller (15) should be pressed onto Roller Developer (16). Pressurizing will be required prior to reinstallation of Gear Helical 30T (12).



not pressurized



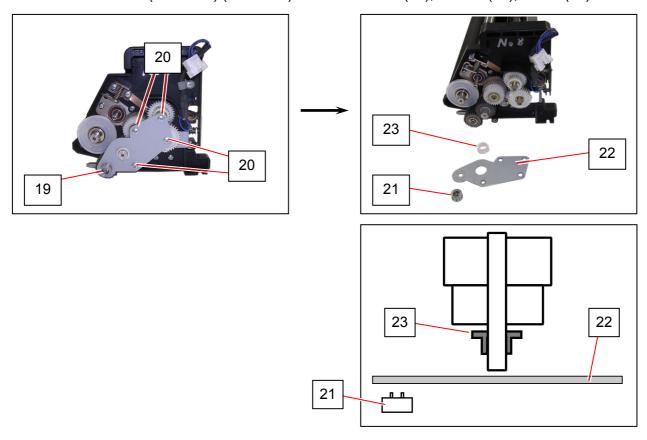
pressurized



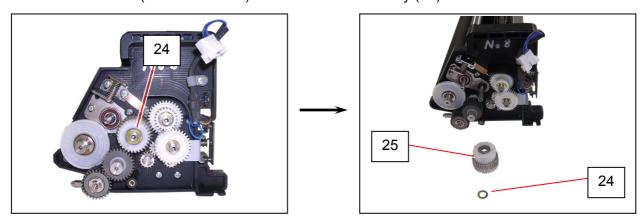
Pressurize without Gear Helical 30T (12)

K124sm5e3 5-13

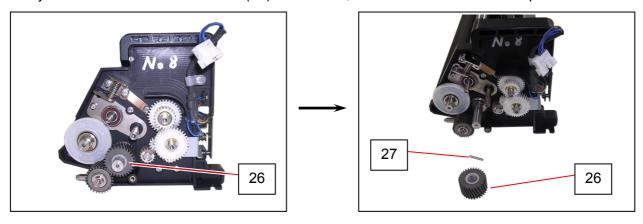
16. Remove 5 screws (19: M4x8) (20: M4x6) to remove Pin 4 (21), Plate 9 (22), Collar (23).



17. Remove Washer (24: 8.1x14x0.5t) and Gear 29T-34T Assy (25)

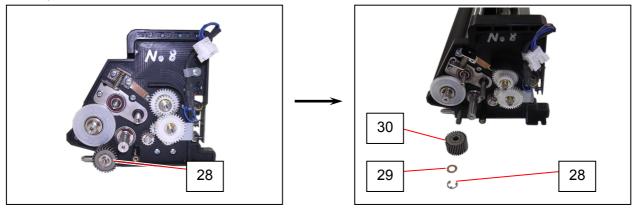


18. Remove Gear Helical 30T (26) and Parallel Pin (27: 3x20) from Toner Supply Roller shaft. If you cannot remove Parallel Pin (27) at this time, remove it after the later step 15.

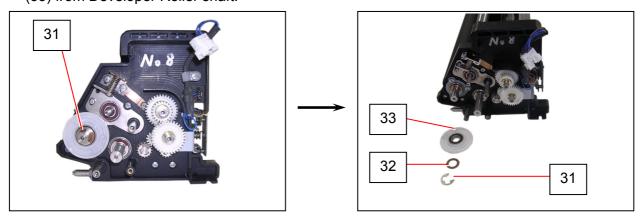


5-14 K124sm5e3

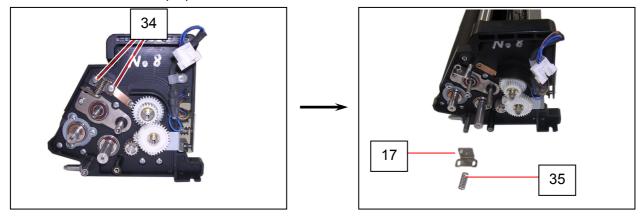
19. Remove Retaining Ring-E (28: E7) to remove Washer (29: 8.1x12x0.2t) and Gear Helical 28T Assy (30).



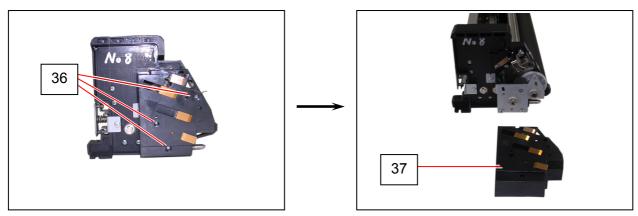
20. Remove Retaining Ring-E (31: E10) to remove Washer (32: 12.2x20x0.5t) and Counter Roller (33) from Developer Roller shaft.



21. Remove 2 screws (34: M4x8) to remove Bracket 4 (17) and Spring (35). At this time, Blade Roller on the driving side will be released from Roller Developer by unsecured Bracket 4 (17).

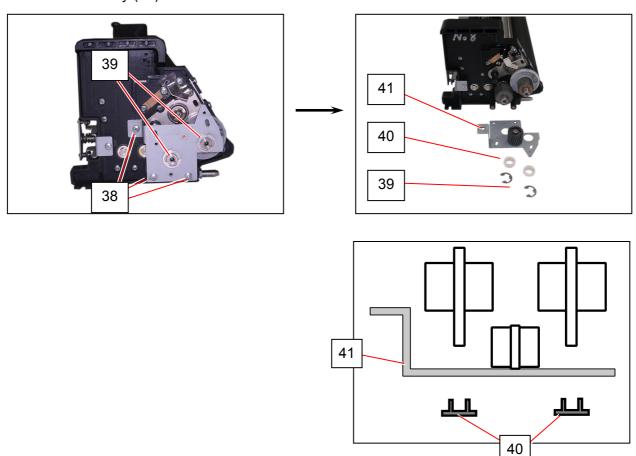


22. On the electrode plate side, remove 3 screws (36) to remove Holder 2 Assy (37).

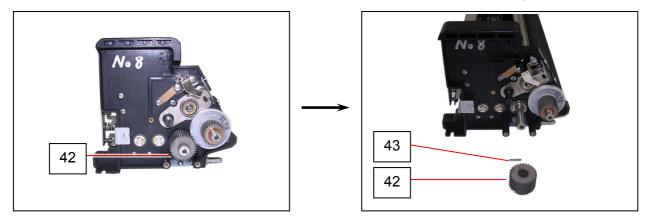


5-15 K124sm5e3

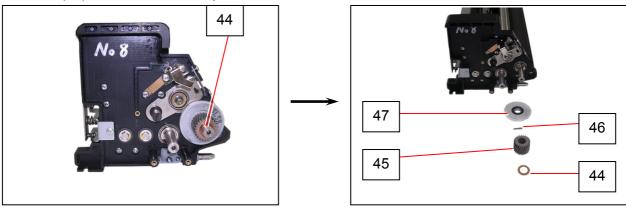
23. Remove 3 screws (38: M4x6) and 2 Retaining Ring-E (39: E10) to remove Collar (40) and Bracket 10 Assy (41).



24. Remove Gear Helical 30T (42) and Parallel Pin (43: 3x16) from Toner Supply Roller shaft.

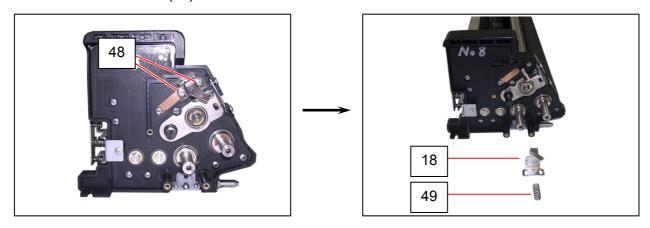


25. Remove Washer (44: 12.1x20x0.2t), Gear Helical 25T (45), Parallel Pin (46: 3x16), Counter Roller (47) from Roller Developer shaft.

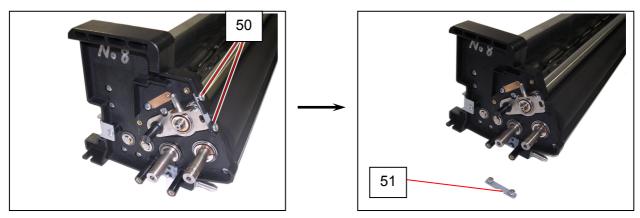


5-16 K124sm5e3

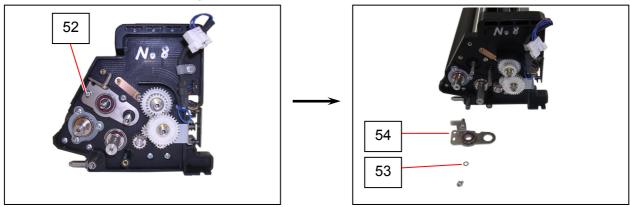
26. Remove 2 screws (48: M4x6) to remove Bracket 5 (18) and Spring (49). At this time, Blade Roller on the electrode plate side will be released from Roller Developer by unsecured Bracket 5 (18).



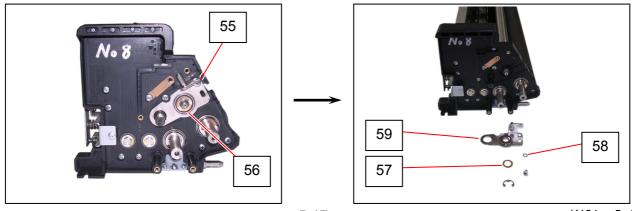
27. Loosen 2 screws (50) to remove Bracket 19 (51).



28. On the driving side, remove 1 pan head screw (52: M4x8 W/ SW FW) to remove 1 flat washer (53: M4) and Bracket 6 Assy (54).

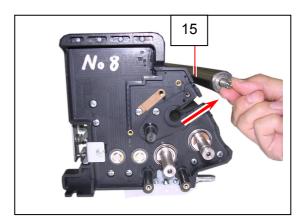


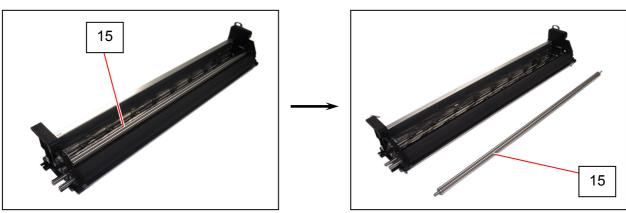
29. On the electrode plate side, remove 1 pan head screw (55: M4x8 W/ SW FW) and Retaining Ring-E (56: E8) to remove Washer (57: 10.1x16x0.5t), Flat Washer (58: M4), Bracket 7 Assy (59).



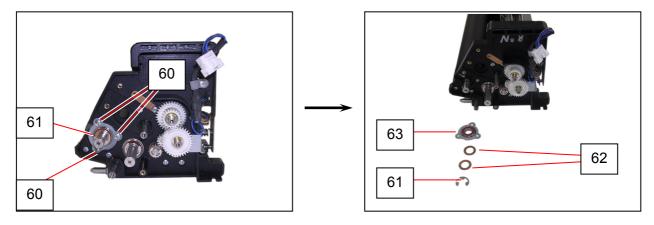
5-17 K124sm5e4

30. Remove Blade Roller (15) from Developer Unit. Do not install the new Blade Roller at this time.

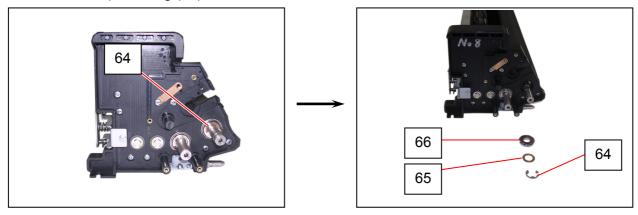




31. On the driving side, remove 3 screws (60: M4x6) and Retaining Ring-E (61: E10) to remove Washers (62: 12.2 x 20 x 0.5t), Bracket 8 Assy (63).



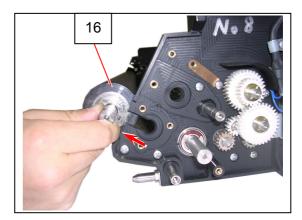
32. On the electrode plate side, remove Retaining Ring-E (64: E10) to remove Washer (65: 12.2x20x0.5t), Bearing (66).

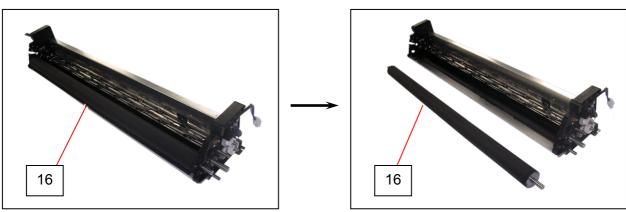


5-18 K124sm5e4

33. Remove Roller Developer (16).

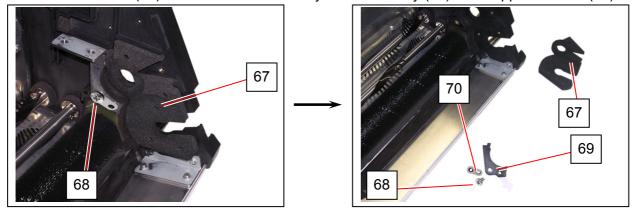
Do not install the new Roller Developer at this time.





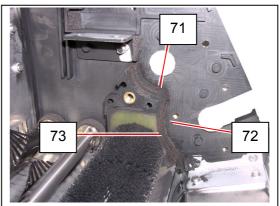
34. On each side, remove Seal 1 (67).

Remove 1 screw (68) to remove Seal R2 Assy / Seal L2 Assy (69) and Support Bracket(70).



5-19 K124sm5e4

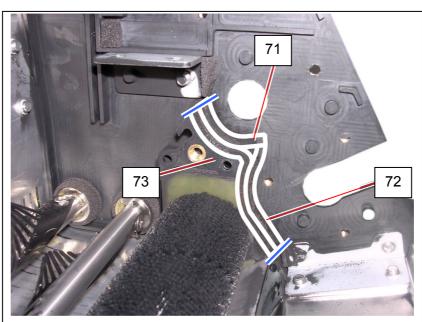
35. On each side, remove Seal 23 (71: upper), Seal 4 (72: lower), Seal 3 (73: under). Replace Seal 23, Seal 4 and Seal 3 with new ones.



A

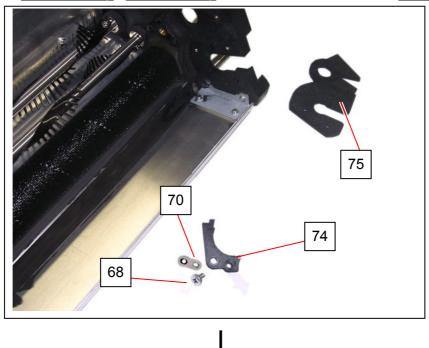
NOTE

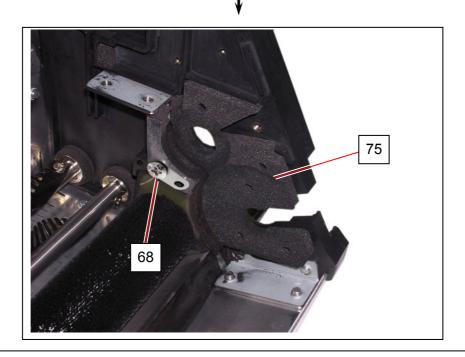
Align the bottom end of Seal 3 (73) to the rib inside the side plate. Align the far ends of Seal 23 (71) and Seal 4 (72) to the top and bottom ends of Seal 3 (73) respectively.



5-20 K124sm5e4

36. Install the new Seal R2 Assy / Seal L2 Assy (74), Support Bracket (70), Seal 1 (75).





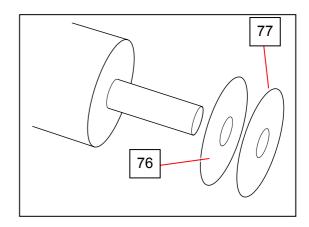


NOTE

- (1) Fit the positioning boss to the longer hole on Support Bracket (70).
- (2) Do not tighten the screws (68) so much as the seals (74) will be transformed.

5-21 K124sm5e4

37. Apply the new **Sheet 3** (76), **Steet 4** (77) to both sides of the new Developer Roller. Keep water or grease away from between the sheets.

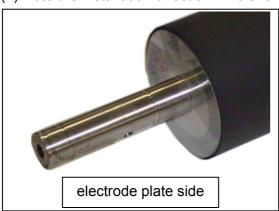


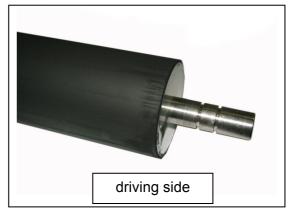
38. Install the new **Developer Roller** to Developer Unit and fix it with the bearings.



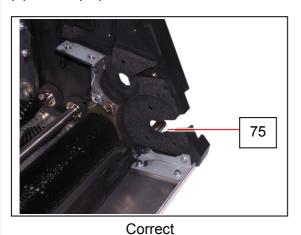
NOTE

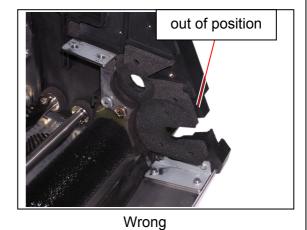
(1) Note the installation direction. The shorter shaft should be placed to the driving side.





(2) Seal 1 (75) on each side should be seated in position along the bosses.



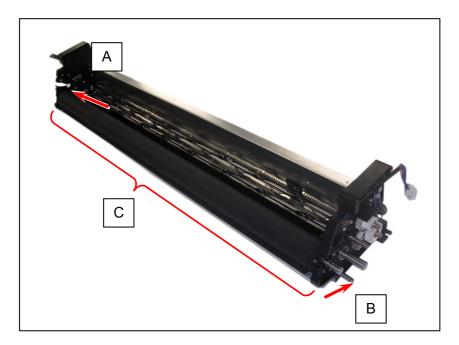


(continued on the next page)

5-22 K124sm5e4

▲ NOTE

(3) Push Roller Developer against Seal 1 on the electrode plate side (A) to hold and keep its original position when reassembling.



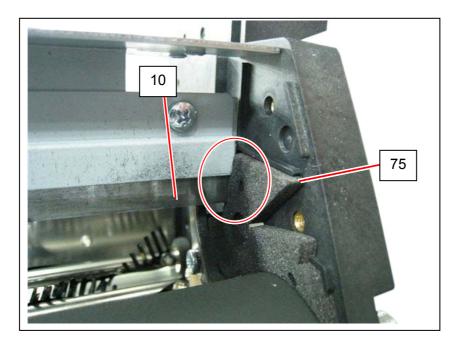
- (4) While installing toward (A) then (B), be careful not to damage Sheet 3 and Sheet 4 on Roller Developer shaft.
- (5) Do not bump Roller Developer on the frame rim (C).

5-23 K124sm5e4

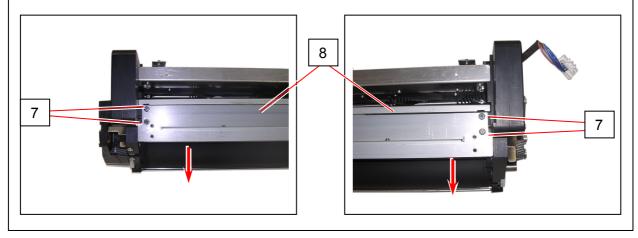
A

NOTE

- (1) For Scraper Assembly and Blade Roller, please reinstall Scraper Assembly first and then locate Blade Roller in position later. This will avoid making Scraper's edge waving.
- (2) After reinstalling Scraper Assembly, check that neither Scraper (10) nor Seal 1 (75) flips up on both sides.

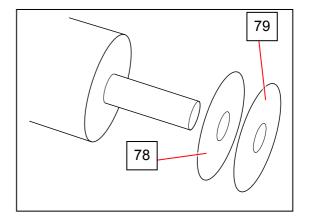


(3) Tighten the screws (7) with pushing Scraper Assembly (8) to the arrow direction to be close to Blade Roller.



40. Apply the new **Sheet** (78), **Sheet 2** (79) to both sides of the new Blade Roller.

Keep water or grease away from between the sheets.



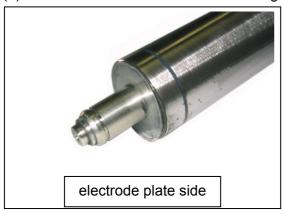
5-24 K124sm5e4

41. Install the new **Blade Roller** to Developer Unit and fix it with the brackets.



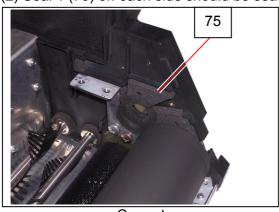
▲ NOTE

(1) Note the installation direction. The longer shaft should be placed to the driving side.





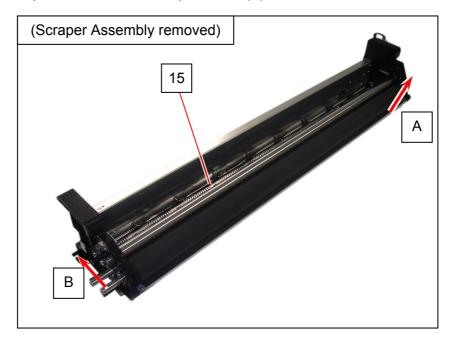
(2) Seal 1 (75) on each side should be seated in position along the bosses.





Correct Wrong

(3) Push Blade Roller (15) against Seal 1 (A) on the driving side to hold and keep its original position, then push on the electrode plate side (B).



(4) During installing toward (A) then (B), be careful not to damage Sheet (78) and Sheet 2 (79) on Blade Roller shaft.

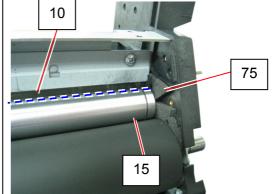
(continued on the next page)

5-25 K124sm5e4

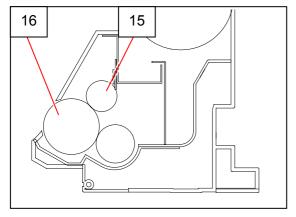
A

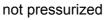
NOTE

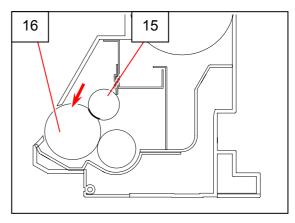
- (5) After installing, check that Seal 1 (75), Sheet (78), Sheet 2 (79) are not damaged or deformed.
- (6) After locating, check that Scraper (10) is not wavy.



(7) Blade Roller (15) is pressed onto / released from Developer Roller (16) by Bracket 4 (on the driving side) and Bracket 5 (on the electrode plate side). Now Blade Roller (15) has been located in position, it should be pressed onto Roller Developer (16) at the later step.





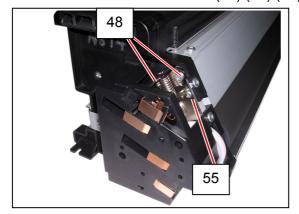


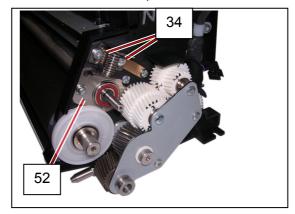
pressurized

42. Replace all the components except Gear Helical 30T (12), Separator (4) and Hopper Assy (3) in position.



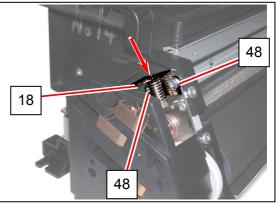
43. Make sure that the 6 screws (48) (55) (34) (52) are installed loose. If not, loosen them.





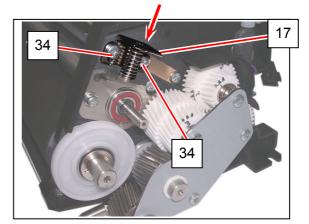
44. On the electrode plate side, fully press down the top of Bracket 5 (18). With pressing, tighten 2

screws (48) to secure Bracket 5 (18).



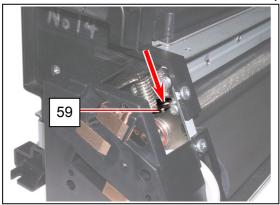
45. On the driving side, fully press down the top of Bracket 4 (17). With pressing, tighten 2 screws

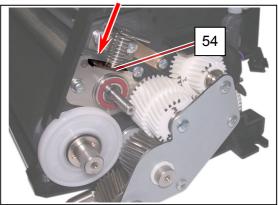
(34) to secure Bracket 4 (17).



5-27 K124sm5e4

46. Press down the top of Bracket 7 Assy (59) and Bracket 6 Assy (54) at a time. This will allow Blade Roller to be seated in the correct position.

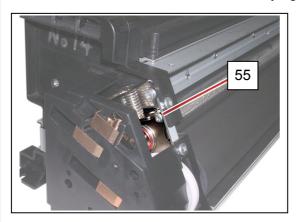


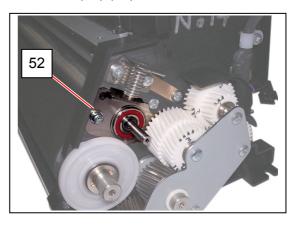


A

NOTE

- (1) Press down both Bracket 7 Assy and Bracket 6 Assy at the same time. Pressing only one side may lose the correct pressure balance between the electrode plate side and the gear side.
- (2) Do not turn the screws (55) (52) for Bracket 7 Assy / Bracket 6 Assy at this point. Follow the later instruction to correctly tighten the screws (55) (52).



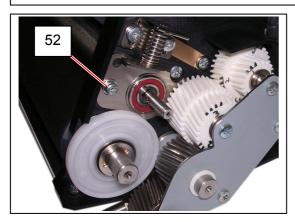


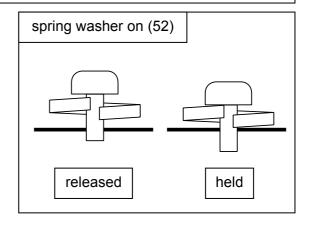
47. Turn the screw (52) in just enough revolution so that its spring washer is held in the gap.



NOTE

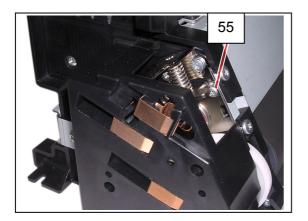
Do not tighten the screw (52) (55) firmly at this point of time. Otherwise proper and even pressurization of Blade Roller between left/right may fail, and this will make the toner layer on Roller Developer get thicker than required.

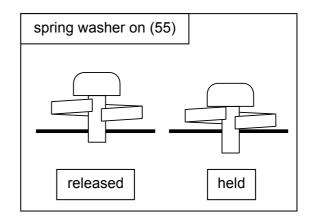




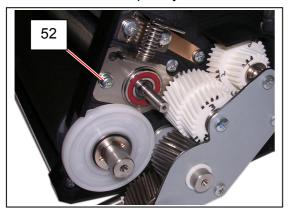
5-28 K124sm5e4

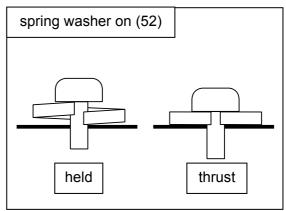
48. Turn the screw (55) in just enough revolution so that its spring washer is held in the gap.



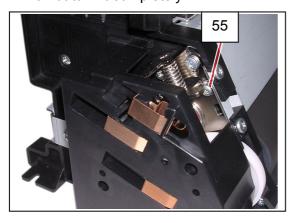


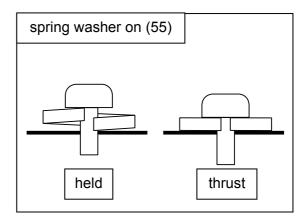
49. Turn the screw (52) in just enough revolution so that its spring washer is thrust in the gap. Do not turn it completely.





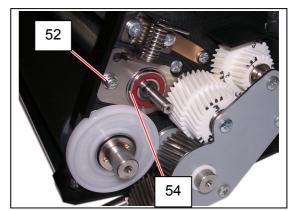
50. Turn the screw (55) in just enough revolution so that its spring washer is thrust in the gap. Do not turn it completely.





5-29 K124sm5e4

51. Slowly tighten the screw (52) to secure Bracket 6 Assy (54).

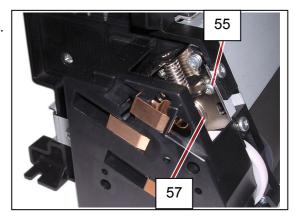


A

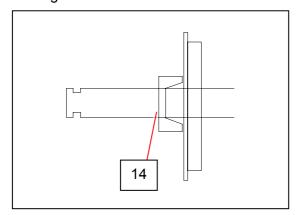
NOTE

Do not tighten the screw (52) (55) <u>quickly</u> at this point of time. Otherwise proper and even pressurization of Blade Roller between left/right may fail, and this will make the toner layer on Roller Developer get thicker than required.

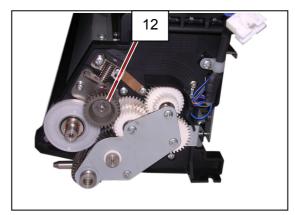
52. <u>Slowly</u> tighten the screw (55) to secure Bracket 7 Assy (57) in the same way with the previous step.

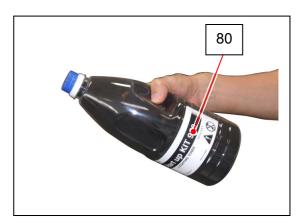


53. On the driving side, reinstall Collar 3 (14), Parallel Pin, Gear Helical 30T (12) and Retaining Ring-E to Blade Roller shaft.



54. Shake the Starting Toner Bottle (80) well, and evenly add the toner to Developer Unit.

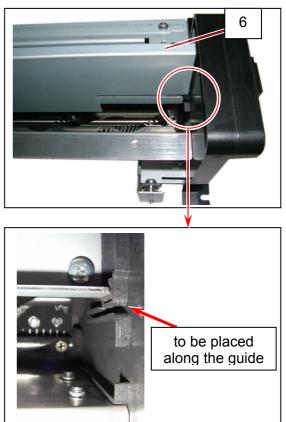




5-30 K124sm5e4

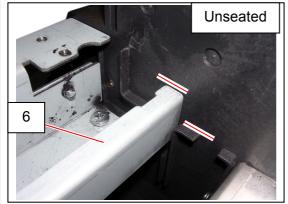
55. Along the guide on the side plates, gently place Separator (6) on the added toner. **Do not push it in.**



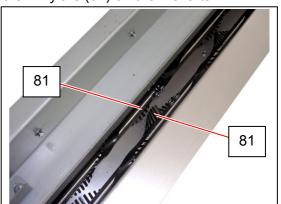


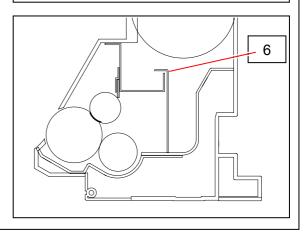


(1) Just put Separator (6) on the toner. It will be placed unseated. Do not push it completely at this time. Doing so may damage the plastic screw mylars (81) on the 2 shafts



(2) Be careful of the direction of Separator (6). Do not install it in the wrong direction.

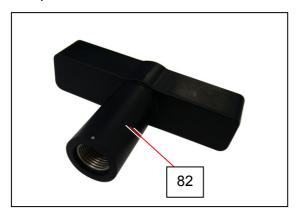


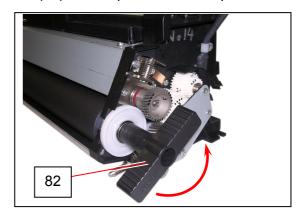


5-31 K124sm5e4

56. Insert Developer Handle (82) to the shaft of Roller Developer, and gently turn Developer Handle (82).

Separator will sink in the toner. Turn Developer Handle (82) until Separator sinks in position.

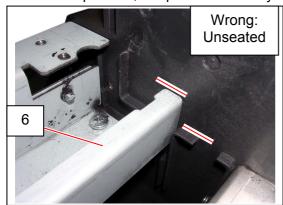


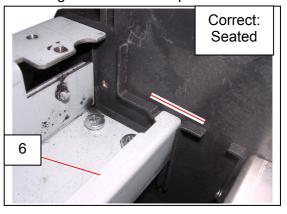


M NOTE

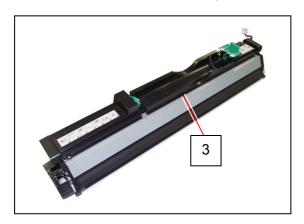
- (1) Slowly turn Developer Handle. Otherwise the toner may spill out.
- (2) Make sure that Separator (6) completely sinks in position by a 1/2 or more rotation of Developer Handle.

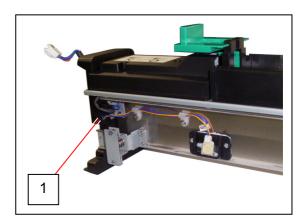
If not in position, the plastic screw mylars may be damaged at the next step.





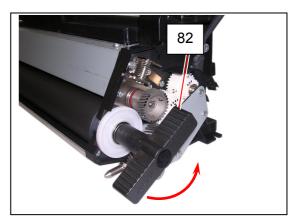
57. Replace the Hopper Assembly (3) and connect the connector (1).





5-32 K124sm5e4

58. Install Developer Handle (82) to Roller Developer shaft. Rotate Roller Developer several times so that the roller surface is covered with the toner.



A

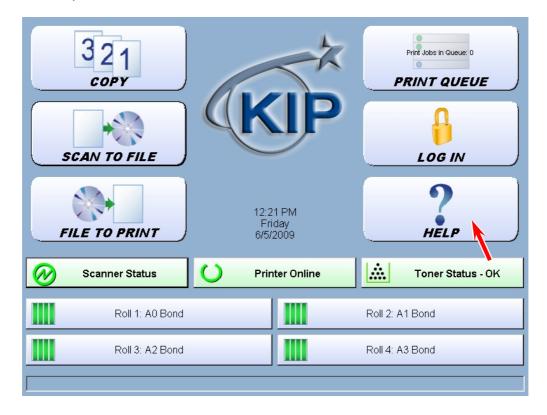
NOTE

If the pressures of Blade Roller on either or both sides are weaker than required, the toner layer on the Developer Unit will be much thicker than required when you rotate the Roller Developer in the above procedure 53.

Pressurize the Blade Roller in the correct way in this case.

Refer to [5.2.8 Readjustment of the Pressure of Regulation Roller].

- 59. Reinstall Developer Unit to the machine.
- 60. Turn on the machine.
- 61. Press "? Help" on Home screen.



5-33 K124sm5e4

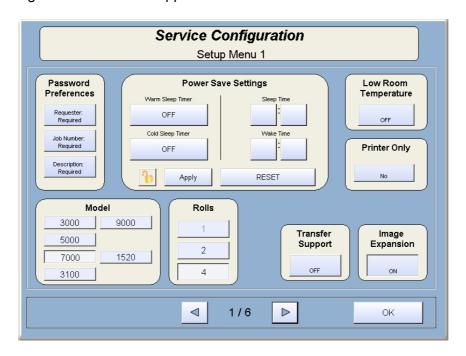
62. Press [Service].



63. On-screen Keypad appears. Input "8495107" and press [Enter].

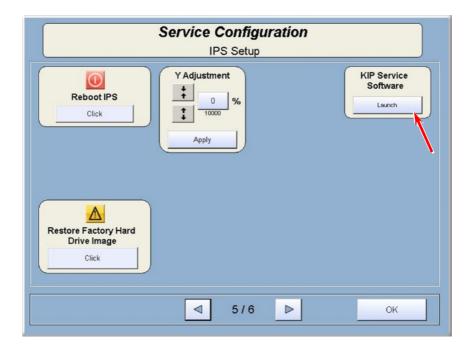


64. Service Configuration screen will appear.



5-34 K124sm5e4

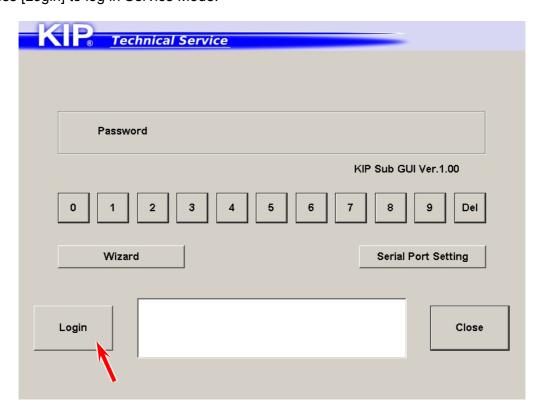
65. Use the arrow keys to open [5/6 IPS Setup]. Press [Launch] in "KIP Service Software".



66. Press [Yes].

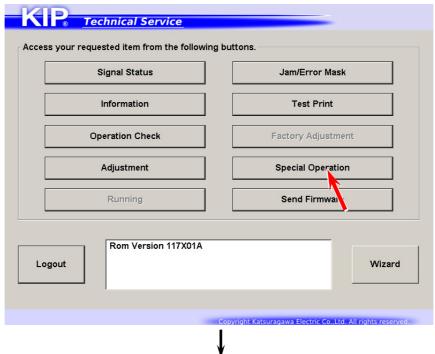


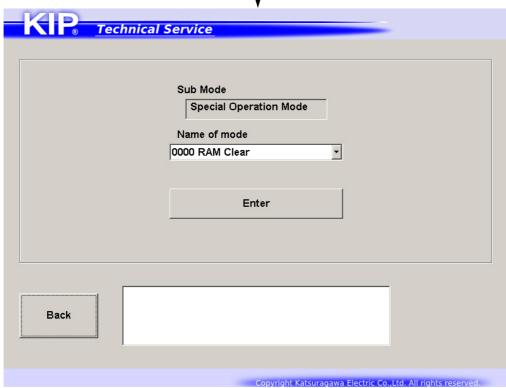
67. Press [Login] to log in Service Mode.



5-35 K124sm5e4

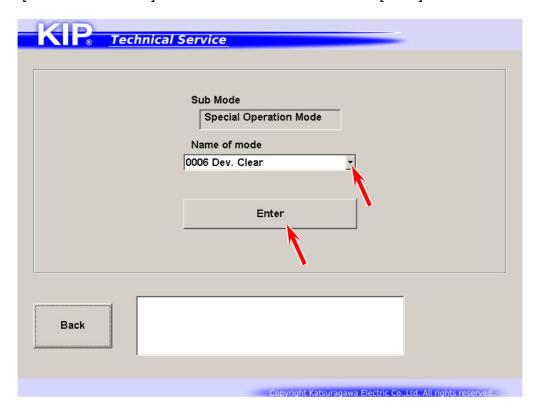
68. Press [Special Operation] in Service Mode Home. Operation Target screen appears.





5-36 K124sm5e4

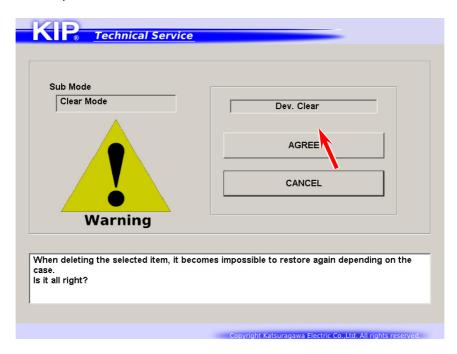
69. Select [0006 Bias3 Count] from Name of mode menu. Press [Enter].



0006	Bias3 Count	Initializes Developer / Regulation Bias adjusted with
		Density Compensation Process

70. Confirmation screen appears.

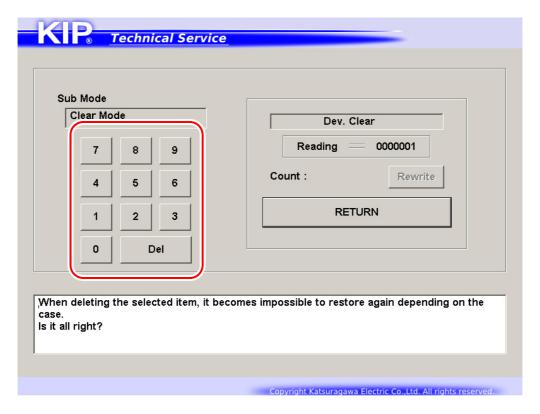
Press [Agree] to reset Bias Adjustment by Density Compensation Process. Then the system starts recalculation of the possible best Developer/Regulation Bias. (This will take time.)



5-37 K124sm5e4

71. Input screen appears.

Input "000000" with On-screen Keypad.





NOTE

The required value for the KIP 7100 to reset Bias Adjustment by Density Compensation Process is 000000.

"0000000" to "0000003" correspond to the <u>adjustment level</u> in Density Compensation Process.

For example, if you interchange the Developer Unit with your spare unit, you can manually set a certain adjustment level that would be suitable for your spare unit.

72. The value is displayed in "Count" area.

Once you input a seven digit value, [Rewrite] will be activated.

Press [Rewrite] to apply the new value to the printer.

The value in "Reading" area will be changed to the new value.



NOTE

After replacing Developer Roller / toner refreshment, you must reset bias adjustment by Density Compensation Process.

Otherwise a darker image appears because the adjusted values are too high voltage for the refreshed Developer Unit.

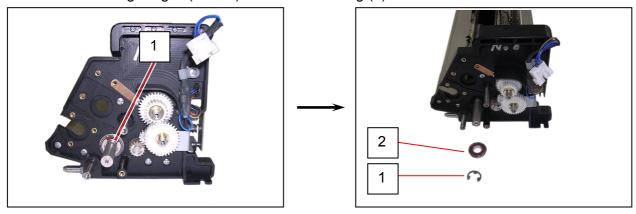
5-38 K124sm5e4

5. 2. 3 Replacement of Roller Supply

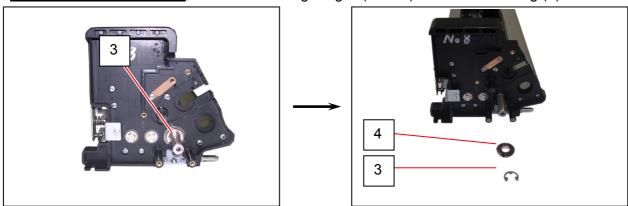
 Remove Blade Roller and Roller Developer from Developer Unit making reference to [5. 2. 2 Replacement of Developer Unit Components] on the page 5-8.



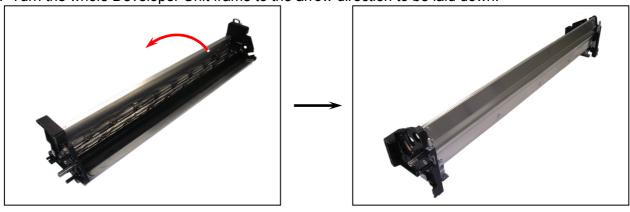
2. Remove Retaining Ring-E (1: E10) to remove Bearing (2).



3. On the electrode plate side, remove Retaining Ring-E (3: E10) to remove Bearing (4).

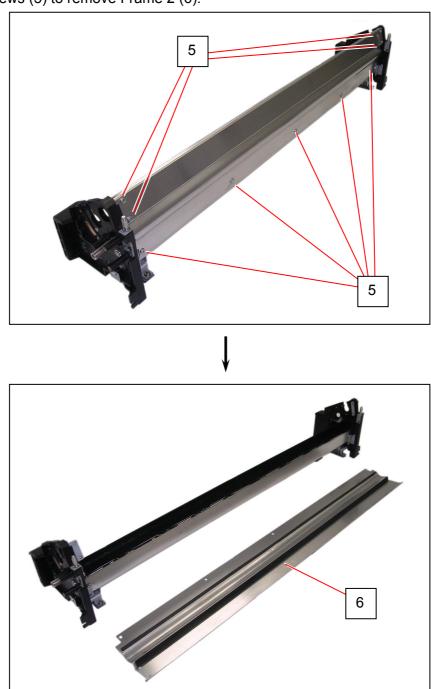


4. Turn the whole Developer Unit frame to the arrow direction to be laid down.

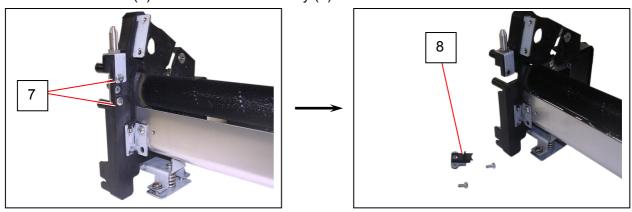


5-35 K124sm5e5

5. Remove 9 screws (5) to remove Frame 2 (6).

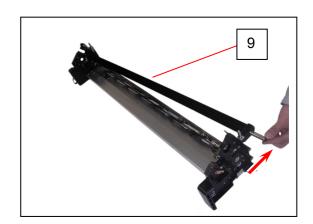


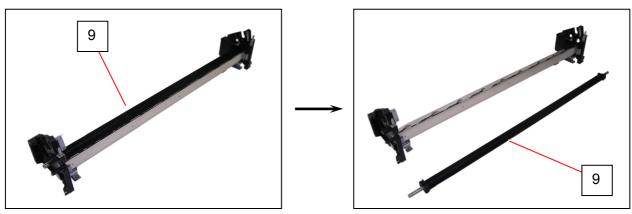
6. Remove 2 screws (7) to remove Bracket Assy (8).



5-36 K124sm5e5

7. Remove Toner Supply Roller (9).



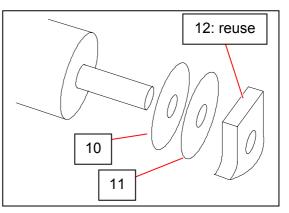


A NOTE

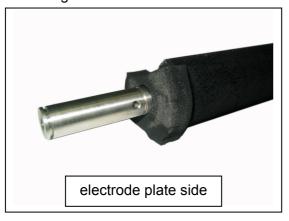
(1) Sheet 6 (10), Sheet 5 (11), Seal R Assy or Seal L Assy (12) are attached on each side shaft of Roller Supply.

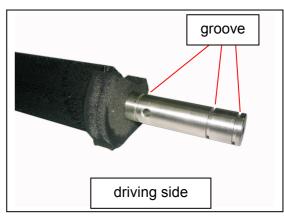
Remove them from the old Roller Supply and then install them to the new Roller Supply. (Be careful not to dispose them.)

Keep water or grease away from between the sheets.



(2) Note the installation direction. The shaft with three grooves should be placed to the driving side.

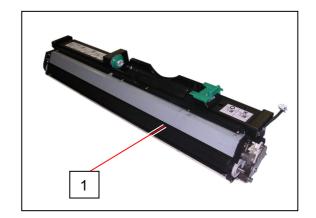




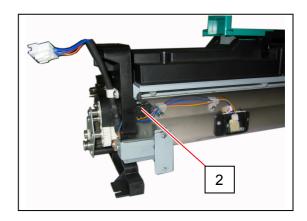
5-37 K124sm5e5

5. 2. 4 Replacement of Screw Assy

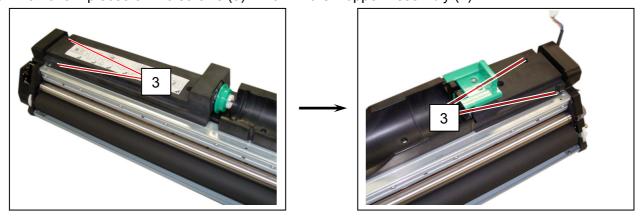
1. Remove the Developer Unit (1) from the machine making reference to [5. 2. 1 Removal of the Developer Unit] on the page 5-5.



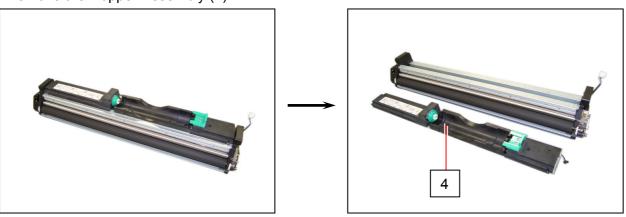
2. Disconnect the connector (2).



3. Remove 4 pieces of 4x6 screws (3) which fix the Hopper Assembly (4).

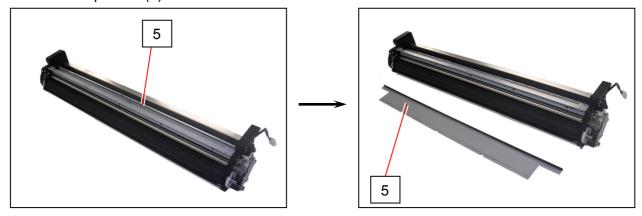


4. Remove the Hopper Assembly (4).



5-38 K124sm5e5

5. Remove Separator (5).

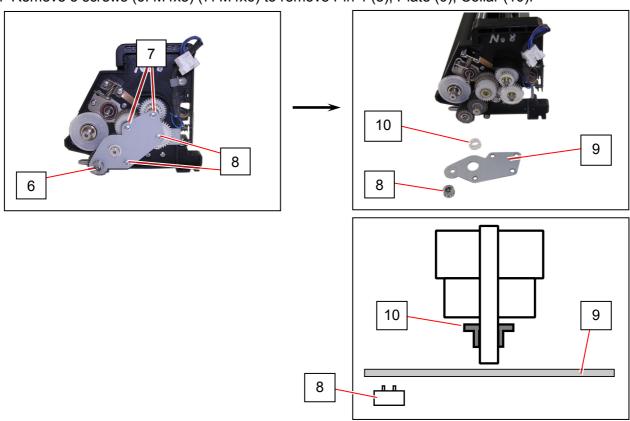


6. Remove all the toner from Developer Unit.

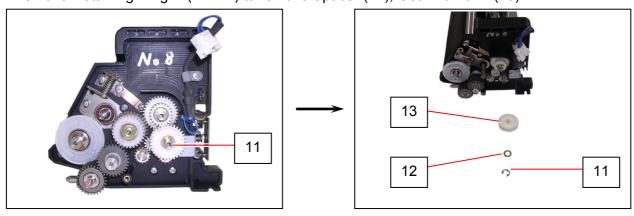


Do not reuse the removed toner.

7. Remove 5 screws (6: M4x8) (7: M4x6) to remove Pin 4 (8), Plate (9), Collar (10).

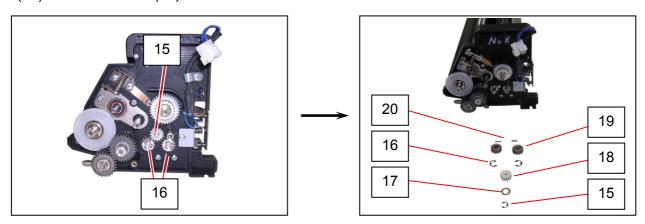


8. Remove Retaining Ring-E (11: E7) to remove Spacer (12), Gear 16T-34T (13).

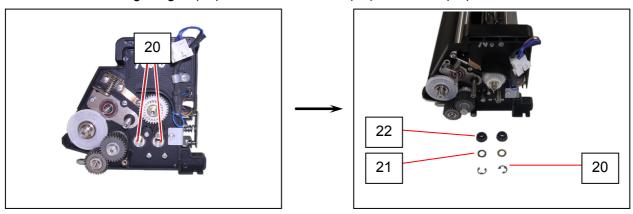


K124sm5e5 5-39

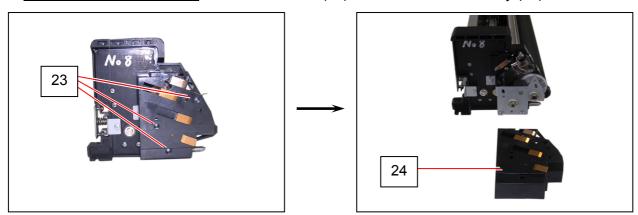
9. Remove Retaining Ring-E (14: E5) (15: E7) to remove Washer (16), Gear 15T (17), Gear 16T (18) and Parallel Pin (19).



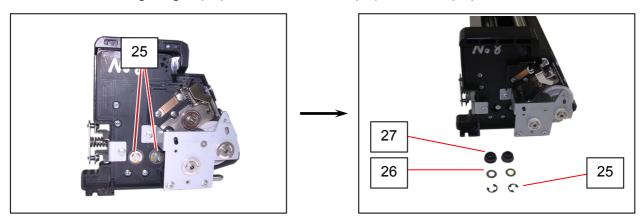
10. Remove Retaining Ring-E (20) to remove Washer (21) and Bush (22).



11. On the electrode plate side, remove 3 screws (23) to remove Holder 2 Assy (24).

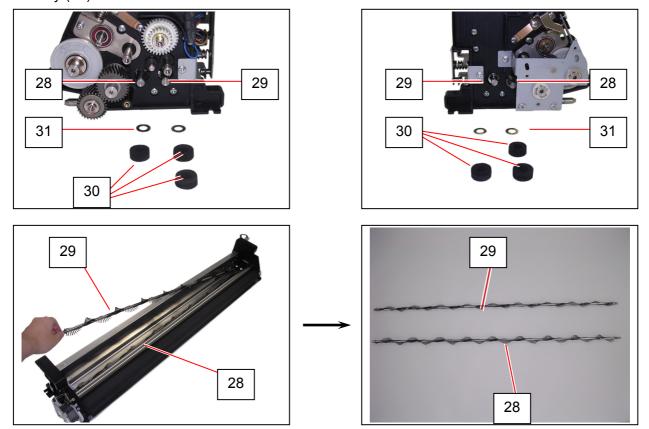


12. Remove Retaining Ring-E (25) to remove Washer (26) and Bush (27).



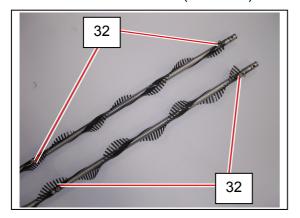
5-40 K124sm5e5

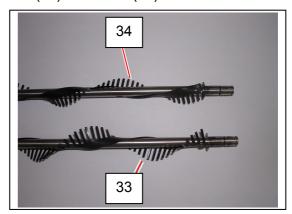
13. Remove Screw A Assy (28: near Roller Supply), Screw B Assy (29: far from Roller Supply). Remove Side Seal (30) and Washer (31) on both ends of Screw A Assy (28) and Screw B Assy (29).



5-41 K124sm5e5

14. Remove each 2 screws (32: M3x5) to remove Screw A (33) / Screw B (34).



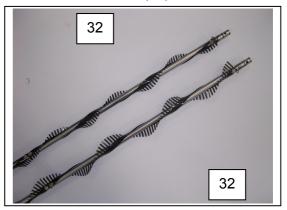


A

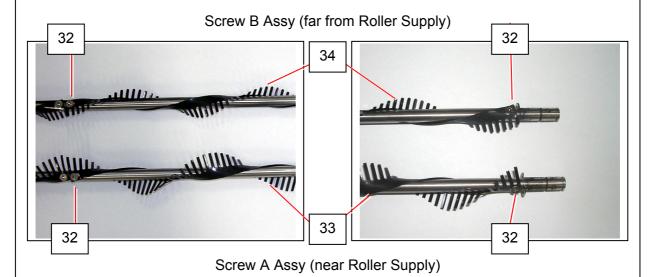
NOTE

When replacing Screw A (33) / Screw B (34), please note the followings.

- (1) Note the twisting direction around the shaft.
- (2) Each Screw A (33) / Screw B (34) has a 3 twist between the screws (32).



(3) Screw A (33) / Screw B (34) are fragile. Gently turn the screws (32) to fix Screw A (33) / Screw B (34).

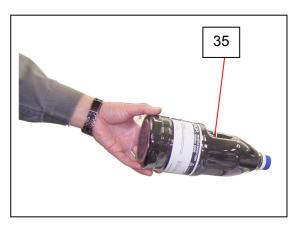


5-42 K124sm5e5

15. Replace all the components except Separator (5) and Hopper Assy (4) in position.



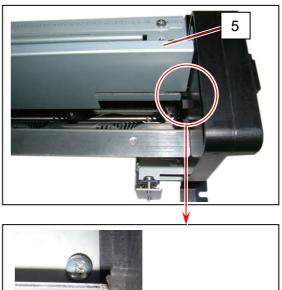
16. Shake the Starting Toner Bottle (35) well, and evenly add the toner to Developer Unit.

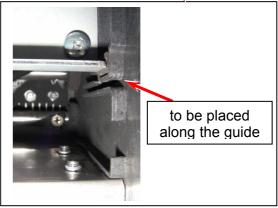


5-43 K124sm5e5

17. Along the guide on the side plates, gently place Separator (5) on the added toner. Do not push it in.

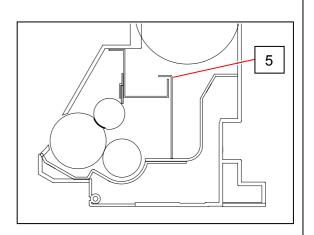




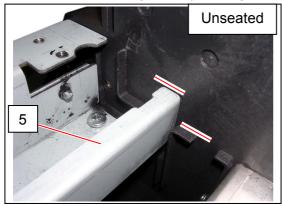


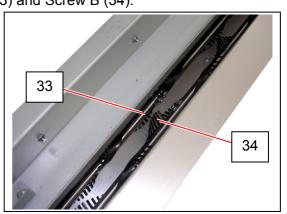
A NOTE

(1) Be careful of the direction of Separator (5). Do not install it in the wrong direction.



(2) Just put Separator (5) on the toner. It will be placed unseated. Do not push it completely at this time. Doing so may damage Screw A (33) and Screw B (34).

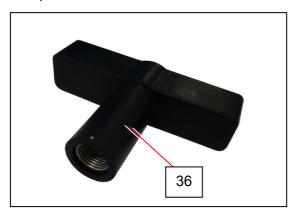


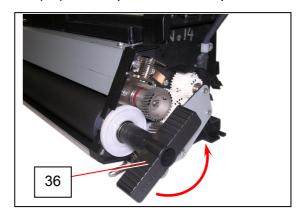


5-44 K124sm5e5

18. Insert Developer Handle (36) to the shaft of Roller Developer, and gently turn Developer Handle (36).

Separator will sink in the toner. Turn Developer Handle (36) until Separator sinks in position.

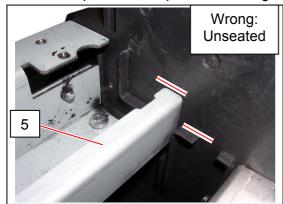


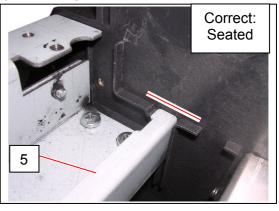


M NOTE

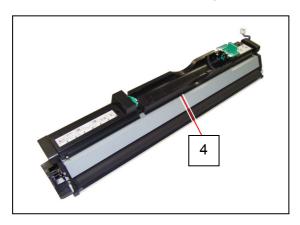
- (1) Slowly turn Developer Handle. Otherwise the toner may spill out.
- (2) Make sure that Separator (5) completely sinks in position by a 1/2 or more rotation of Developer Handle.

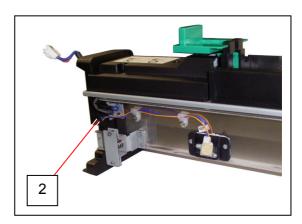
If not in position, the plastic screwing sheets may be damaged at the next step.





19. Replace the Hopper Assembly (4) and connect the connector (2).

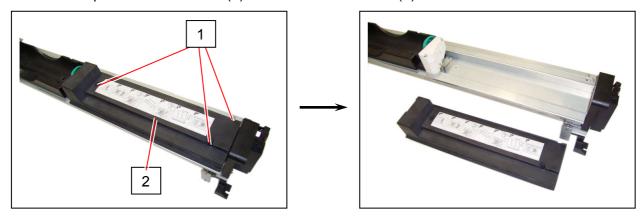




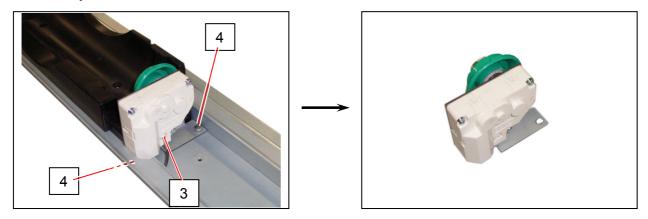
5-45 K124sm5e5

5. 2. 5 Replacement of DC Motor

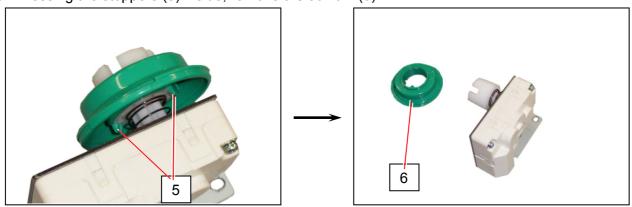
1. Remove 3 pieces of 4x6 screw (1) to remove the Cover 2 (2).



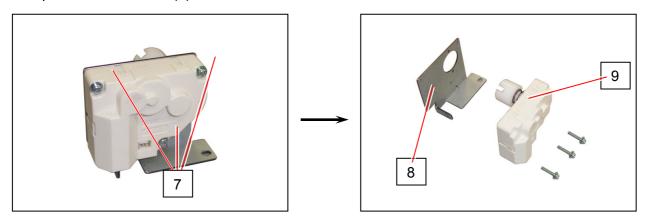
2. Disconnect the connector (3), remove 2 pieces of 4x6 screw (4), and then remove the motor assembly.



3. Pressing the stoppers (5) inside, remove the Joint R (6).



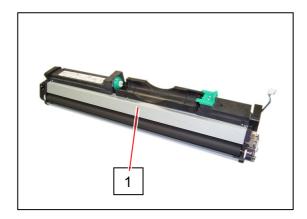
4. Remove 3 pieces of 3x20 screw (7) to remove the Bracket 19 (8). Replace the DC Motor (9) with the new one.



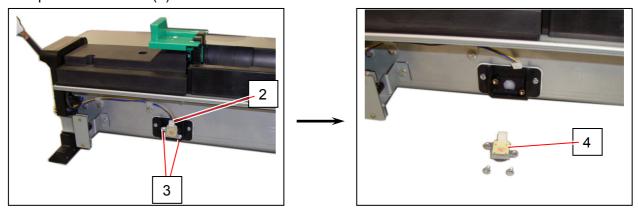
5-46 K124sm5e6

5. 2. 6 Replacement of Sensor (TLS1)

1. Remove the Developer Unit (1) from the machine making reference to [5. 2. 1 Removal of the Developer Unit] on the page 5-5.



2. Disconnect the connector (2), and remove 2 pieces of 3x6 screw (3) to remove the Sensor (4). Replace the Sensor (4) with the new one.



5-47 K124sm5e6

5. 2. 7 Adjustment of the space between gears (Necessary to adjust after replacing the **Developer Unit)**

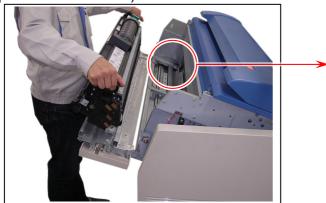
A NOTE

You do not have to adjust the space between gears basically as it has been adjusted in the

But please do it only when you replace the whole Developer Unit.

The Developer Unit is driven by the Gear Helical 20T on the machine and the Gear Helical 28T on the Developer Unit.

There must be a little mechanical play between these gears. (In another word there must be a little space between them.)







If there is no space between these gears, the gear may be broken. In this case it is necessary to add Adjustment Plates to keep a space.

> Not correct Correct

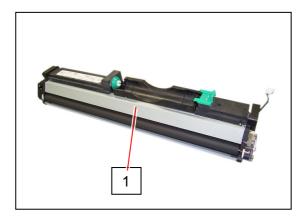
> > Add Adjustment Plates.

There is not enough space between gears. (Gears may be broken) Some space is kept between gears.

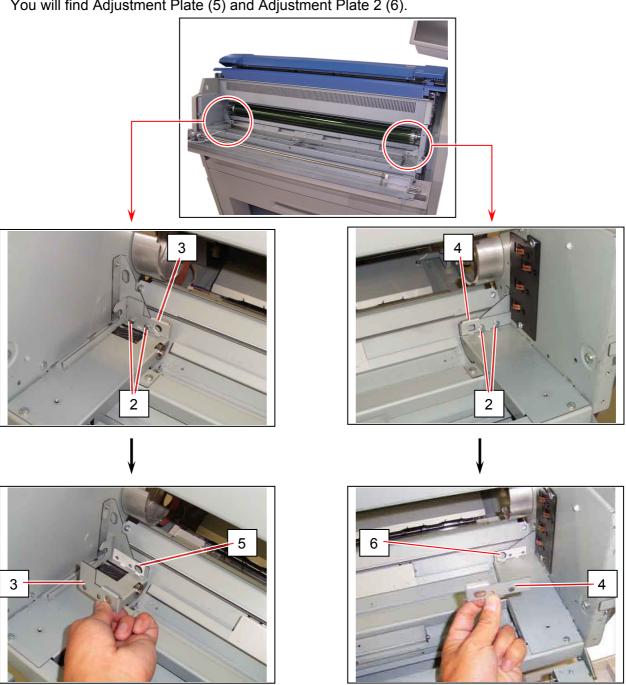
Refer to the next page how to add the Adjustment Plates.

K124sm5e6 5-48

1. Remove the Developer Unit (1) from the machine making reference to [5. 2. 1 Removal of the Developer Unit] on the page 5-5.

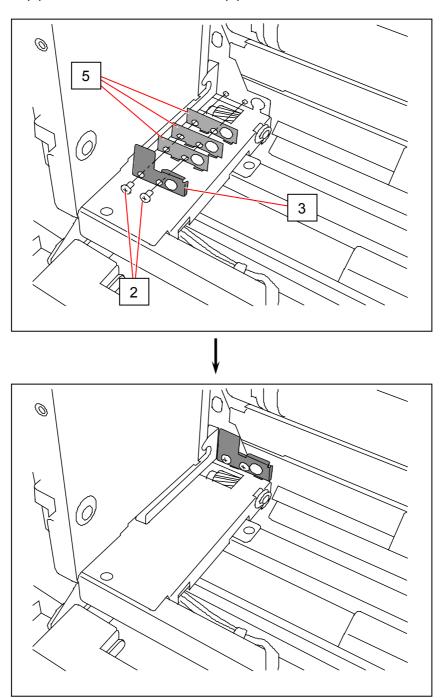


2. Remove 2 screws (2) to remove each Bracket 32 (3) on the left and Bracket 33 (4) on the right. You will find Adjustment Plate (5) and Adjustment Plate 2 (6).



5-49 K124sm5e6

3. On the left side, add (or remove) as many Adjustment Plate (5) as required, cover them with the Bracket 32 (3), and then fix with 2 screws (2).



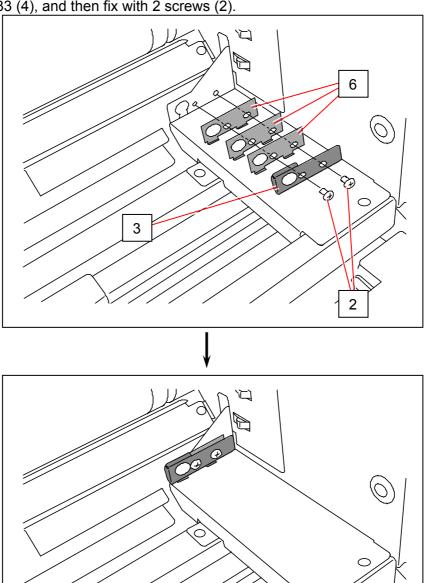


The following 3 kinds of Spacers are used on the left side of the machine.

Spacer Z053101200 (thickness is 0.05mm)
Spacer 5 Z053101350 (0.1mm) Spacer 3 Z053101330 (0.2mm)

> 5-50 K124sm5e6

4. On the right side, add (or remove) as many Adjustment Plate 2 (6) as required, cover them with the Bracket 33 (4), and then fix with 2 screws (2).





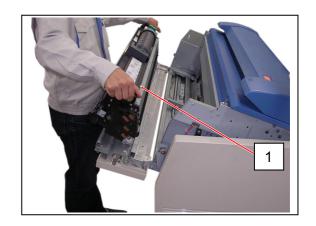
The following 3 kinds of Spacers are used on the left side of the machine.

Z053101210 (thickness is 0.05mm) Spacer 2 Z053101360 (0.1mm) Spacer 6

Z053101340 (0.2mm) Spacer 4

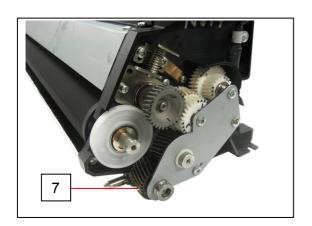
> K124sm5e6 5-51

5. Put back the Developer Unit (1) to the machine.

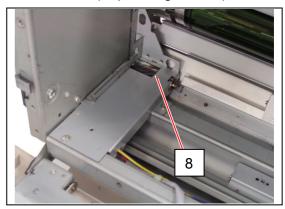


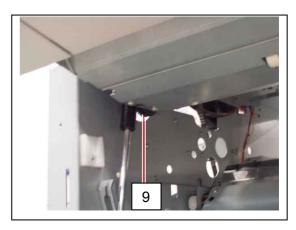
6. There is Gear Helical 28T (7) on Developer Unit side. There is Gear Helical 20T (8) on Engine Unit, and also there is Gear Helical 34T (9) on Engine Unit.

Gear Helical 28T (7) and Gear Helical 20T (8) are contacted each other when the Developer Unit is on the machine. Gear Helical 34T (9) drives Gear Helical 20T (8).



(Top of Engine Unit)





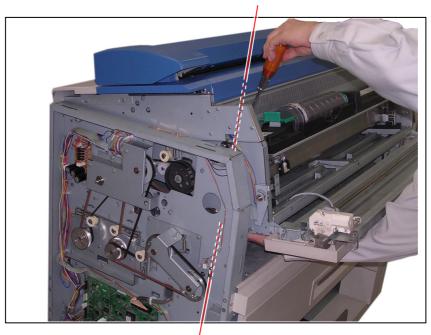
(Bottom of Engine Unit)

(continued on the next page)

5-52 K124sm5e6

Holding the Gear Helical 28T (7) firmly with one hand, move the Gear Helical 34T (9) with another hand whether there is any mechanical play between Gear Helical 28T (7) and Gear Helical 20T (8).

Hold the Gear Helical 28T with one hand.



Move Gear Helical 34T (instead of Gear Helical 20T) with another hand.

7. There must be a little mechanical play between Gear Helical 28T (7) and Gear Helical 20T (8). (In another word there must be a little space between them.)

If the gear could not be moved at all when you check them on the former procedure 6, it means there is not enough space between gears. **The gear may be broken in this case.** In this case, add more Adjustment Plates by the way instructed at the procedures 3 and 4.

Add Adjustment Plates

There is not enough space between gears. (Gears are not movable)

The space between gears becomes wider. (Gears become movable)

5-53 K124sm5e6

5. 2. 8 Readjustment of the Pressure of Regulation Roller

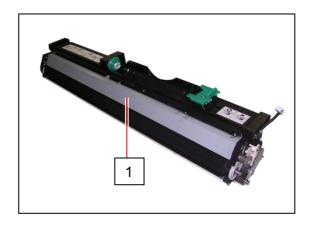
If the pressure of Blade Roller is weak, the toner layer on the Developer Unit will be much thicker than required when you rotate the Developer Roller.

Pressurize the Blade Roller in the correct way as shown below in this case.

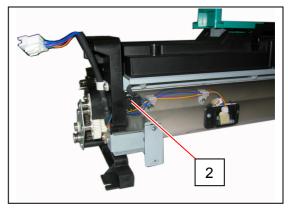
(You will not be able to pressurize it successfully by the usual way of pressurization once a too thick toner layer is created.)

To correct the pressure of Blade Roller against Developer Roller, remove the thicker toner layer on the contact point between Blade Roller and Developer Roller.

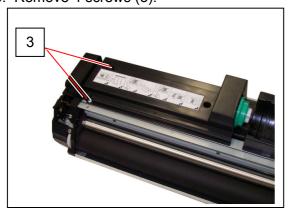
1. Remove the Developer Unit (1) from the machine making reference to [5. 2. 1 Removal of the Developer Unit] on the page 5-5.

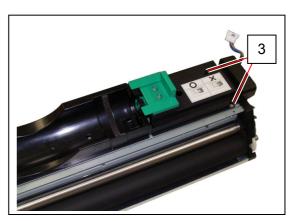


2. Disconnect the connector (2).



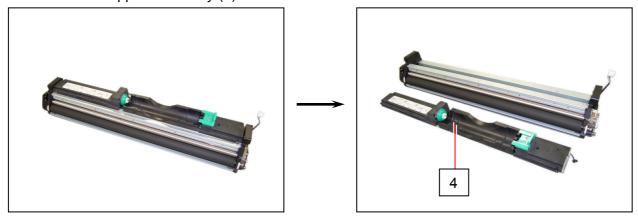
3. Remove 4 screws (3).



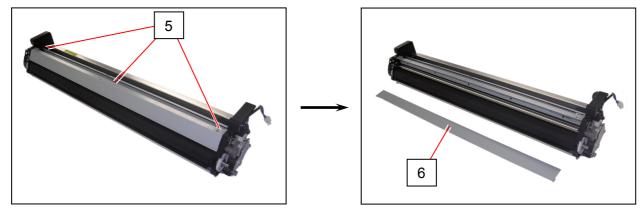


5-54 K124sm5e7

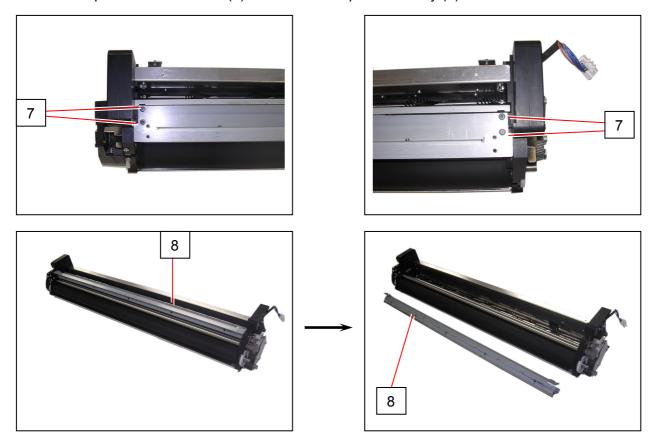
4. Remove the Hopper Assembly (4).



5. Remove 3 pieces of M4x6 screws (5) to remove Cover (6).

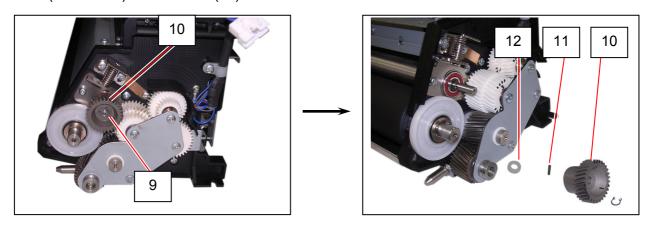


6. Remove 4 pieces of 4x6 screw (7) to remove Scraper Assembly (8).



5-55 K124sm5e7

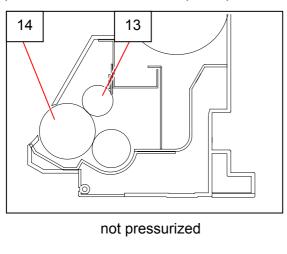
7. On the driving side, remove Retaining Ring-C (9: C6) to remove Gear Helical 30T (10), Parallel Pin (11: 2.5x10) and Collar 3 (12) from Blade Roller shaft.

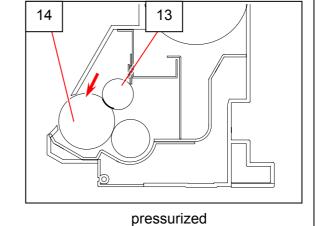


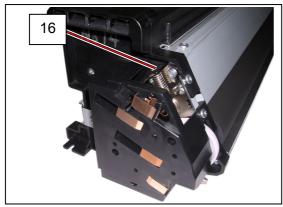


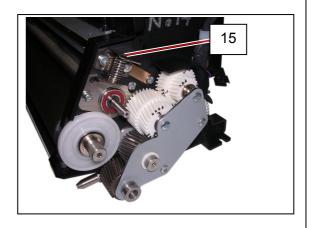
NOTE

Blade Roller (13) is pressed onto / released from Developer Roller (14) by Bracket 4 (15) on the driving side, by Bracket 5 (16) on the electrode plate side. When reassembling, repressurization should be required prior to reinstallation of Gear Helical 30T (10).



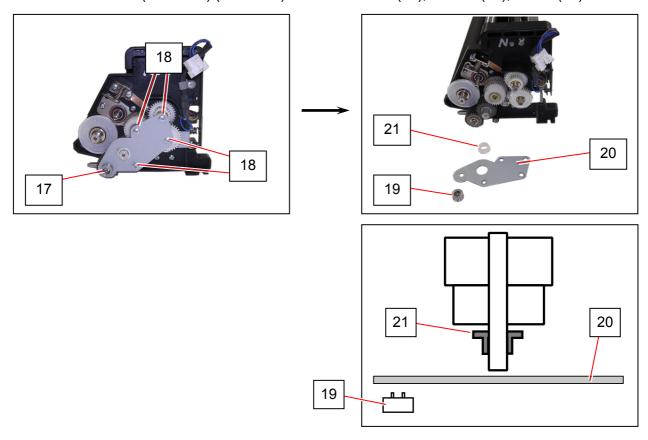




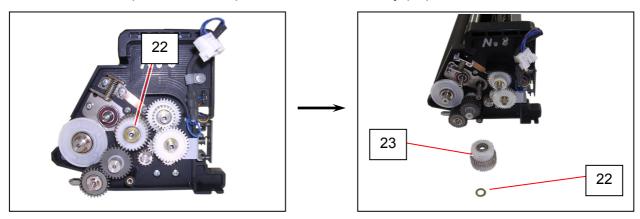


5-56 K124sm5e7

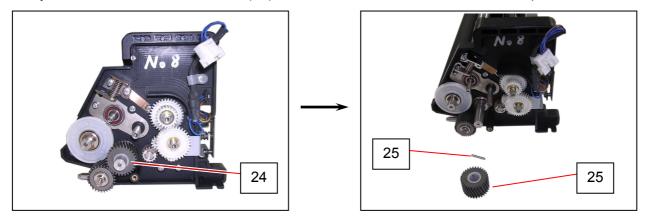
8. Remove 5 screws (17: M4x8) (18: M4x6) to remove Pin 4 (19), Plate 9 (20), Collar (21).



9. Remove Washer (22: 8.1x14x0.5t) and Gear 29T-34T Assy (23)

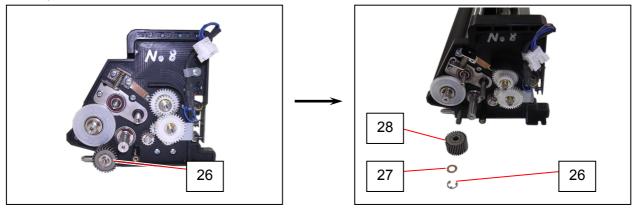


10. Remove Helical 30T (24) and Parallel Pin (25: 3x20) from Toner Supply Roller shaft. If you cannot remove Parallel Pin (25) at this time, remove it after the later step 12.

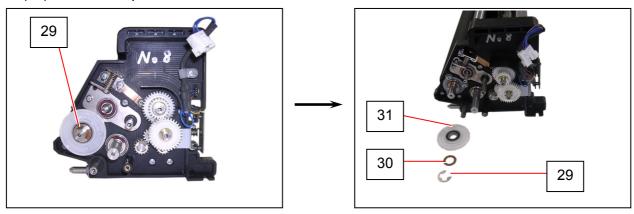


5-57 K124sm5e7

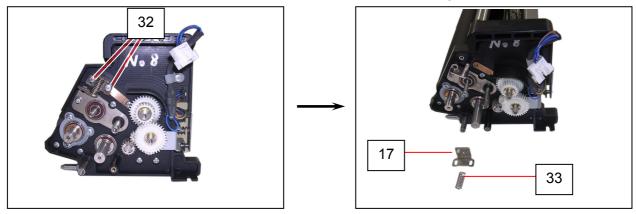
11. Remove Retaining Ring-E (26: E7) to remove Washer (27: 8.1x12x0.2t) and Gear Helical 28T Assy (28).



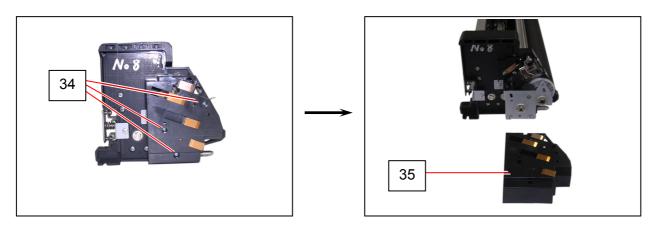
12. Remove Retaining Ring-E (29: E10) to remove Washer (30: 12.2x20x0.5t) and Counter Roller (31) from Developer Roller shaft.



13. Remove 2 screws (32: M4x8) to remove Bracket 4 (15) and Spring (33).

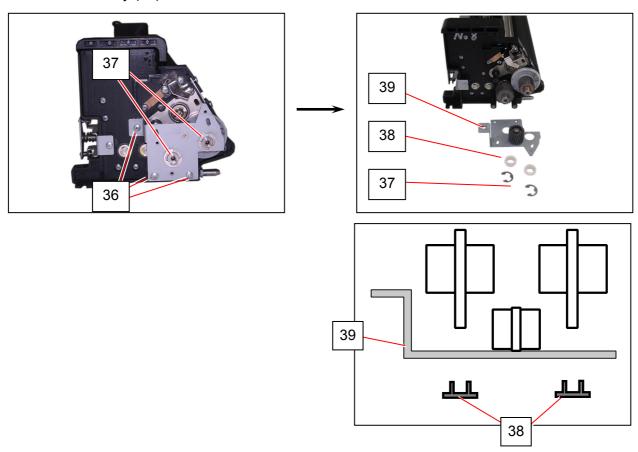


14. On the electrode plate side, remove 3 screws (34) to remove Holder 2 Assy (35).

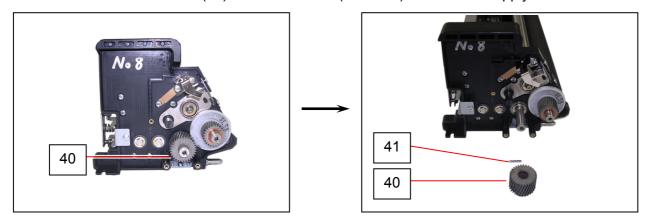


5-58 K124sm5e7

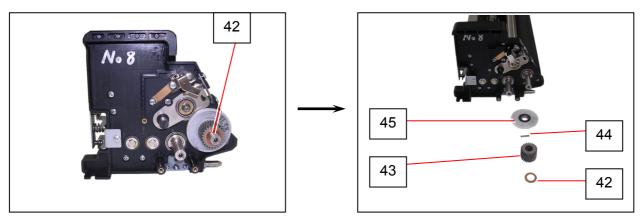
15. Remove 3 screws (36: M4x6) and 2 Retaining Ring-E (37: E10) to remove Collar (38) and Bracket 10 Assy (39).



16. Remove Gear Helical 30T (40) and Parallel Pin (41: 3x16) from Toner Supply Roller shaft.

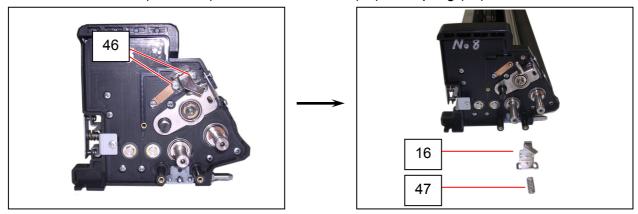


17. Remove Washer (42: 12.1x20x0.2t), Gear Helical 25T (43), Parallel Pin (44: 3x16), Counter Roller (45) from Developer Roller shaft.

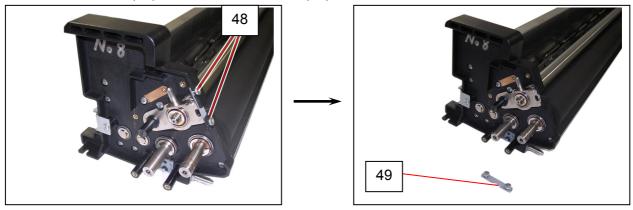


5-59 K124sm5e7

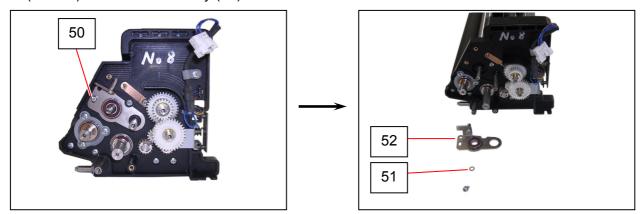
18. Remove 2 screws (46: M4x6) to remove Bracket 5 (16) and Spring (47).



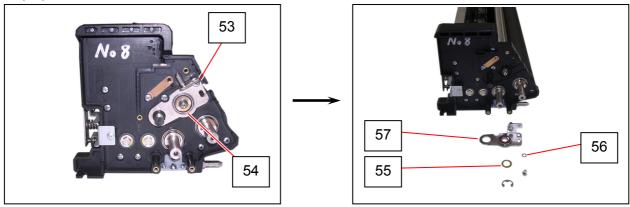
19. Loosen 2 screws (48) to remove Bracket 19 (49).



20. On the driving side, remove 1 pan head screw (50: M4x8 W/ SW FW) to remove 1 flat washer (51: M4) and Bracket 6 Assy (52).

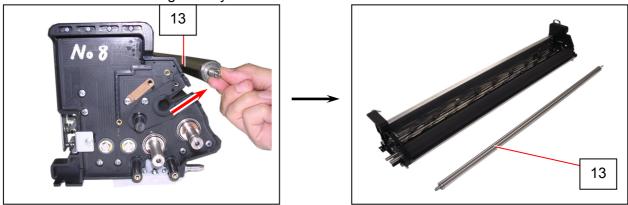


21. On the electrode plate side, remove 1 pan head screw (53: M4x8 W/ SW FW) and Retaining Ring-E (54: E8) to remove Washer (55: 10.1x16x0.5t), Flat Washer (56: M4), Bracket 7 Assy (59).



5-60 K124sm5e7

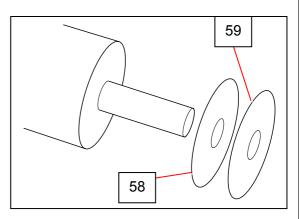
22. Remove Blade Roller (13) from Developer Unit. Clean Blade Roller if it gets dirty.



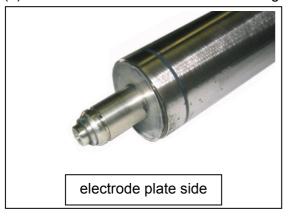
A

NOTE

(1) Be careful not to damage Sheet (58) and Sheet 2 (59) on Blade Roller shaft.

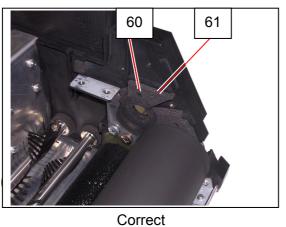


(2) Note the installation direction. The longer shaft should be placed to the driving side.





(3) Seal 1 (60) on each side should be seated in position along the boss (61).

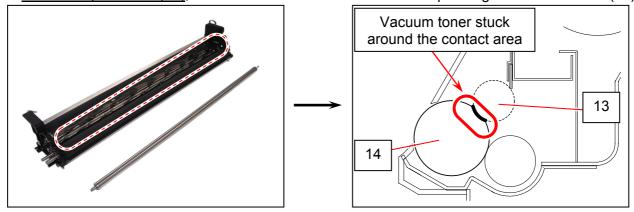




ect Wrong

5-61 K124sm5e7

23. On Developer Roller (14), vacuum the toner around the contact point against Blade Roller (13).



A

NOTE

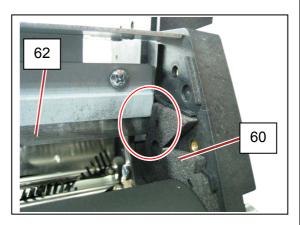
If some toner remains on the surface of Roller Developer, the toner will cushion the pressure by Blade Roller. This will prevent a proper pressurization.

24. Reinstall Scraper Assembly (8).

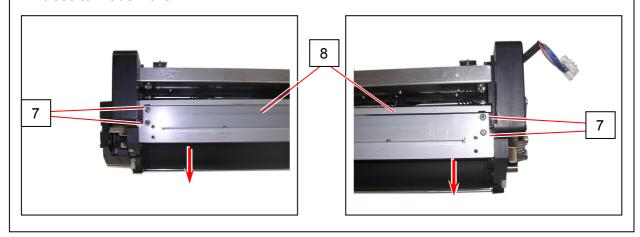


NOTE

- (1) For Scraper Assembly and Blade Roller, please reinstall Scraper Assembly first and then locate Blade Roller in position later. This will avoid making Scraper's edge waving.
- (2) After reinstalling Scraper Assembly, check that neither Scraper (62) nor Seal 1 (60) flips up on both sides.



(3) Tighten the screws (7) with pushing Scraper Assembly (8) to the arrow direction to be close to Blade Roller.

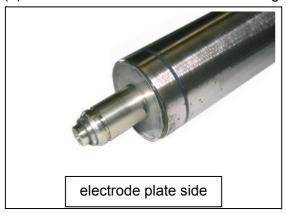


5-62 K124sm5e7



NOTE

(1) Note the installation direction. The longer shaft should be placed to the driving side.





(2) Seal 1 (59) on each side should be seated in position along the bosses.

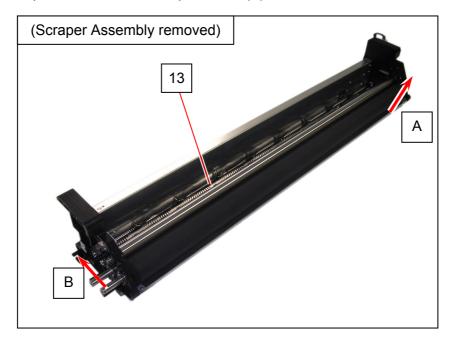




out of position

Correct Wrong

(3) Push Blade Roller (13) against Seal 1 (A) on the driving side to hold and keep its original position, then push on the electrode plate side (B).



(4) During installing toward (A) then (B), be careful not to damage Sheet (78) and Sheet 2 (79) on Blade Roller shaft.

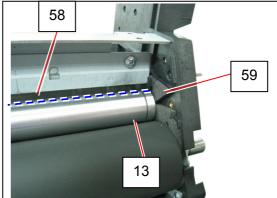
(continued on the next page)

5-63 K124sm5e7

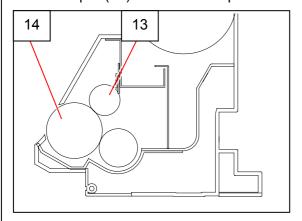
▲ NOTE

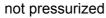
(5) After installing, check that Seal 1 (59), Sheet / Sheet 2 (on Blade Roller shaft) are not damaged or deformed.

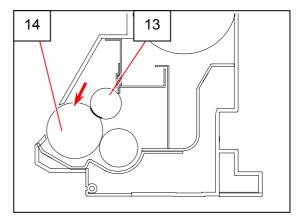
(6) After locating, check that Scraper (58) is not wavy.



(7) Blade Roller (13) is pressed onto / released from Developer Roller (14) by Bracket 4 (on the driving side) and Bracket 5 (on the electrode plate side). Now Blade Roller (13) has been located in position, it should be pressed onto Roller Developer (14) at the later step.

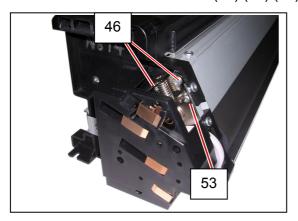


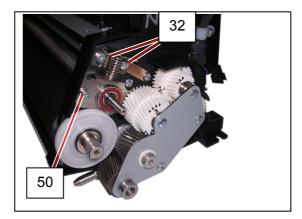




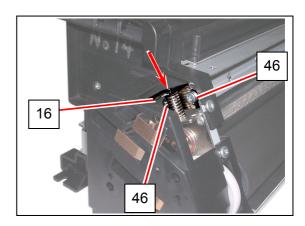
pressurized

- 26. Replace all the components except Gear Helical 30T (10) and Hopper Assy (4) in position.
- 27. Make sure that the 6 screws (46) (53) (32) (50) are installed loose.

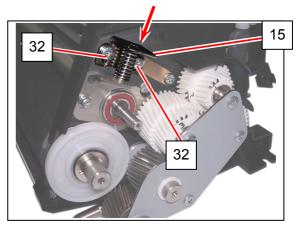




28. On the electrode plate side, fully press down the top of Bracket 5 (16). With pressing, tighten 2 screws (46) to secure Bracket 5 (16).

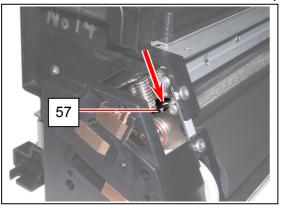


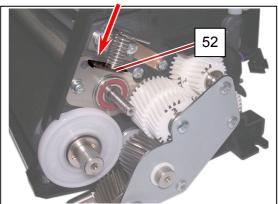
29. On the driving side, fully press down the top of Bracket 4 (15). With pressing, tighten 2 screws (32) to secure Bracket 4 (15).



5-65 K124sm5e7

30. Press down the top of Bracket 7 Assy (57) and Bracket 6 Assy (52) at a time. This will allow Blade Roller to be seated in the correct position.

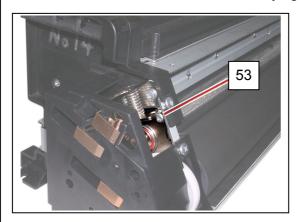


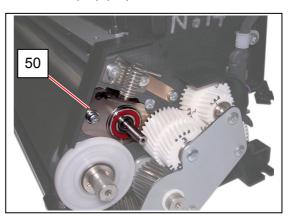


A

NOTE

- (1) Press down both Bracket 7 Assy and Bracket 6 Assy at the same time. Pressing only one side may lose the correct pressure balance between the electrode plate side and the gear side.
- (2) Do not turn the screws (53) (50) for Bracket 7 Assy / Bracket 6 Assy at this point. Follow the later instruction to correctly tighten the screws (53) (50).



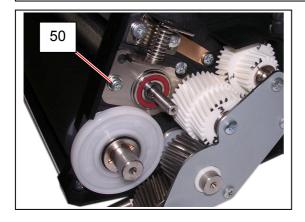


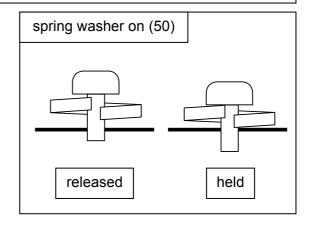
31. Turn the screw (50) in just enough revolution so that its spring washer is held in the gap.



NOTE

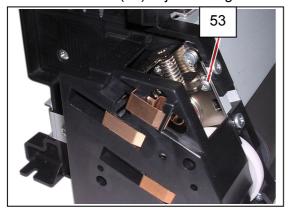
Do not tighten the screw (50) (53) firmly at this point of time. Otherwise proper and even pressurization of Blade Roller between left/right may fail, and this will make the toner layer on Roller Developer get thicker than required.

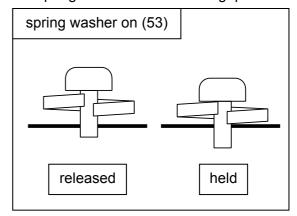




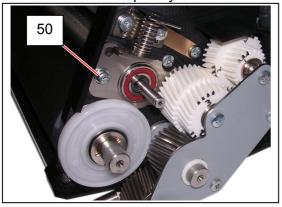
5-66 K124sm5e7

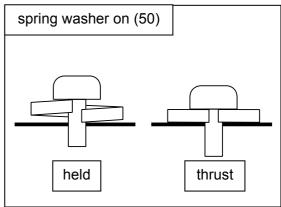
32. Turn the screw (53) in just enough revolution so that its spring washer is held in the gap.



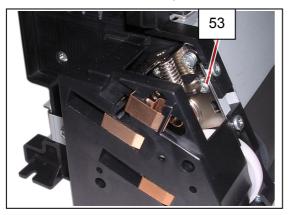


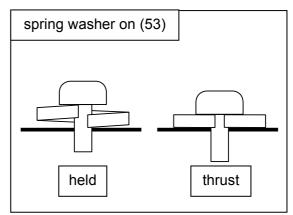
33. Turn the screw (50) in just enough revolution so that its spring washer is thrust in the gap. Do not turn it completely.





34. Turn the screw (53) in just enough revolution so that its spring washer is thrust in the gap. Do not turn it completely.





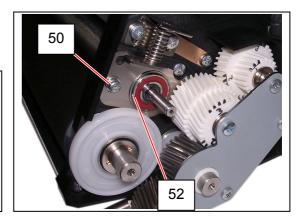
5-67 K124sm5e7

35. Slowly tighten the screw (50) to secure Bracket 6 Assy (52).



NOTE

Do not tighten the screw (50) <u>quickly</u> at this time. Otherwise proper and even pressurization of Blade Roller between both the sides may be failed, and this will make the toner layer on Developer Roller get thicker than required.

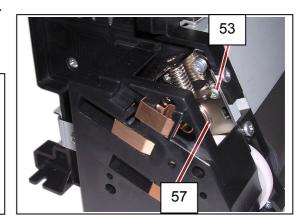


36. <u>Slowly</u> tighten the screw (53) to secure Bracket 7 Assy (57).

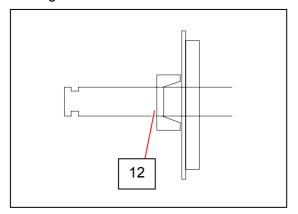


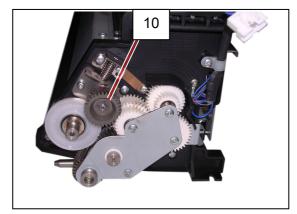
NOTE

Do not tighten the screw (53) <u>quickly</u> at this time. Otherwise proper and even pressurization of Blade Roller between both the sides may be failed, and this will make the toner layer on Developer Roller get thicker than required.



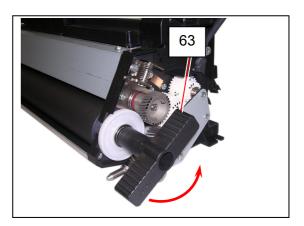
37. On the driving side, reinstall Collar 3 (12), Parallel Pin, Gear Helical 30T (10) and Retaining Ring-E to Blade Roller shaft.





5-68 K124sm5e7

38. Install Developer Handle (63) to Developer Roller shaft. Rotate Developer Roller several times so that the roller surface is covered with the toner.



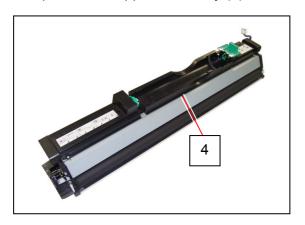
A

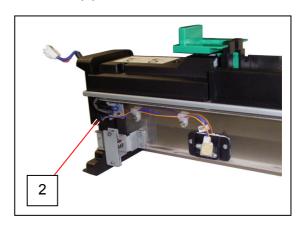
NOTE

If the pressures of Blade Roller on either or both sides are weaker than required, the toner layer on the Developer Unit will be much thicker than required when you rotate the Roller Developer.

Retry to pressurize the Blade Roller in the correct way in this case.

39. Replace the Hopper Assembly (4) and connect the connector (2).



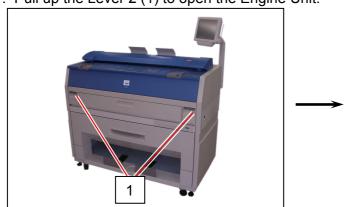


5-69 K124sm5e7

5. 3 Fuser Unit

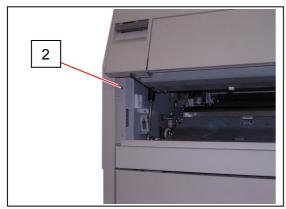
5. 3. 1 Removal of Fuser Unit

1. Pull up the Lever 2 (1) to open the Engine Unit.



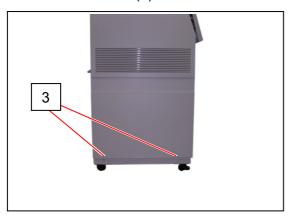


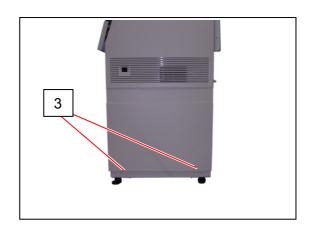
2. Remove 2 screws (2).



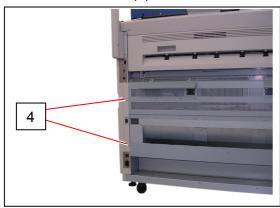


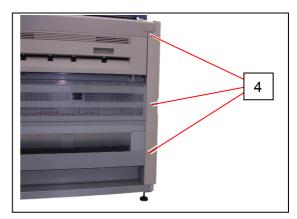
3. Remove 4 screws (3).





4. Remove 5 screws (4).





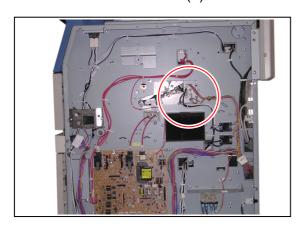
5-70 K124sm5e8

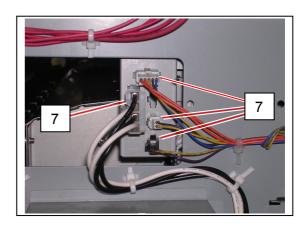
5. Remove Cover 2 (5) and Cover 3 (6).



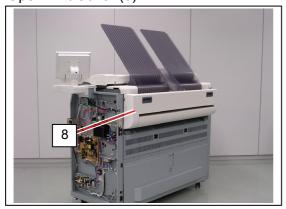


6. Disconnect 4 connectors (7).





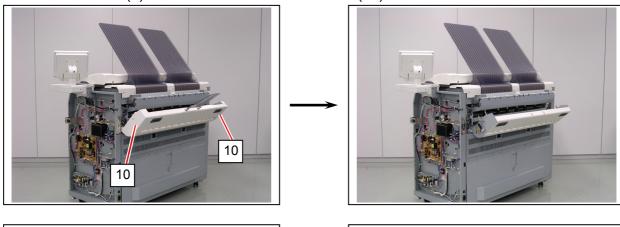
7. Open Exit Cover (8).

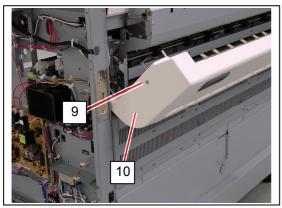


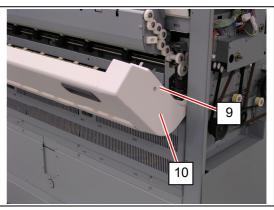


5-71 K124sm5e8

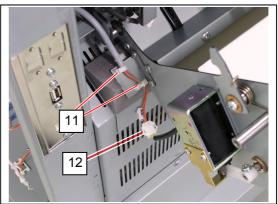
8. Remove 2 screws (9) to remove Exit Side Cover R / L (10).



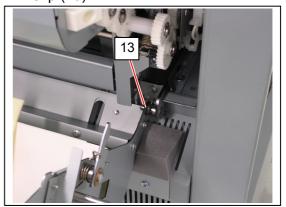




9. Open 2 clamps (11) and disconnect 1 connector (12).

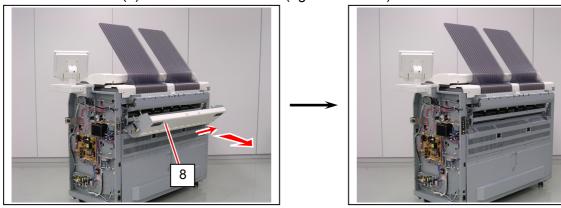


10. On the left side (your right hand), remove 1 piece of KL Clip (13).

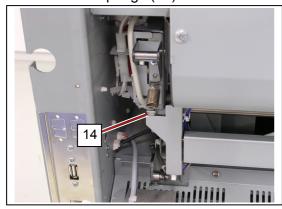


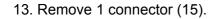
5-72 K124sm5e8

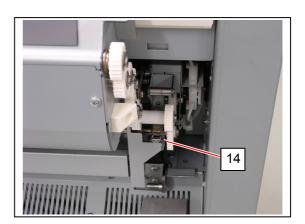
11. Slide Exit Cover (8) to the arrow direction (right hand side) to remove it from the machine.

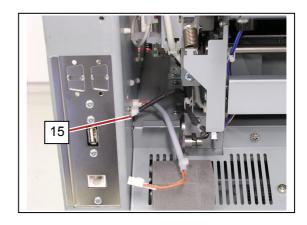


12. Release the springs (14) on both sides.



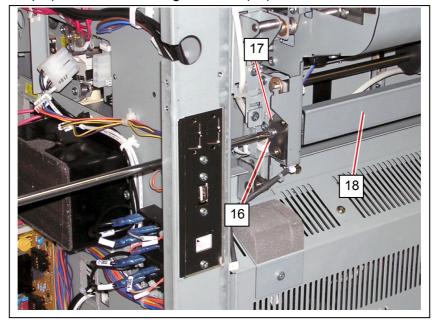




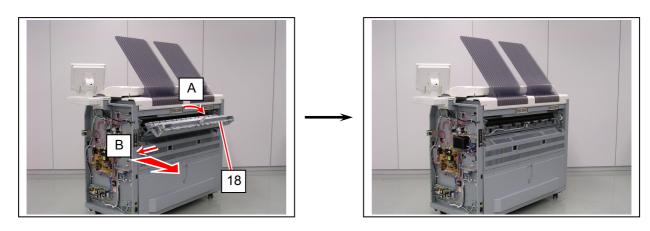


5-73 K124sm5e8

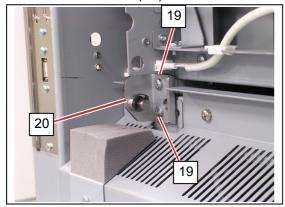
14. Remove 1 screw (16) to release the hinge bracket (17).

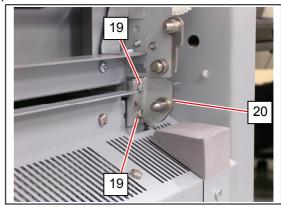


15. Firmly hold Fuser Cover (18). Slightly open it (A) and remove the hinge bracket (17). Slide Fuser Cover (18) to the arrow direction (left hand side) (B) to remove it from the machine.



15. Remove 4 screws (19) to remove Bracket R / L (20).



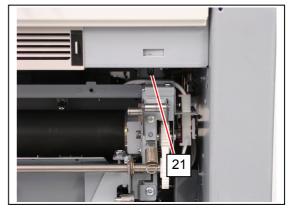


5-74 K124sm5e8

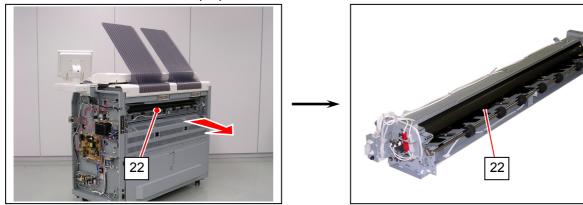
16. Open the Engine Unit.

17. Loosen 1 screw (21) to release the drive side of Fuser Unit.





18. Pull and remove Fuser Unit (22) from the machine.



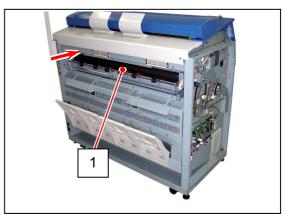
5-75 K124sm5e8

5. 3. 2 Reinstallation of Fuser Unit

Reference

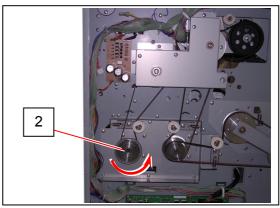
This section shows Fuser Unit with Paper Exit Assy removed for clarification.

1. With Engine Unit open, fully mount Fuser Unit (1) to the machine



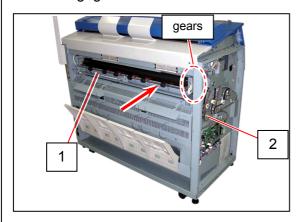
2. On the left side of the machine, rotate Pulley (2) counterclockwise to check the gear engagement between Fuser Unit and the machine.

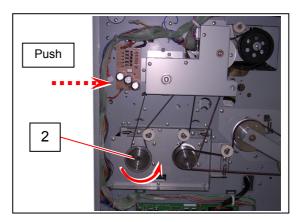




A NOTE

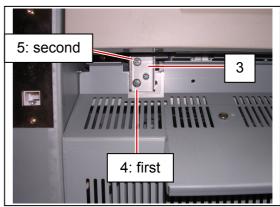
If the gears on Fuser Unit and Pulley (2) do not move together, the engagement may fail. With pushing Fuser Unit (1) to the machine inside, rotate Pulley (2) again to obtain the correct engagement.





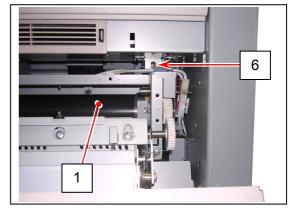
5-76 K124sm5e8

3. Install the brackets (3) with the screws (4) (5). Tighten the lower one (4) and then the upper one (5).

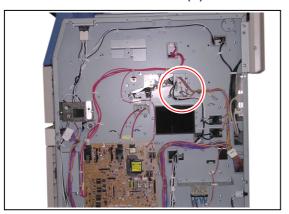


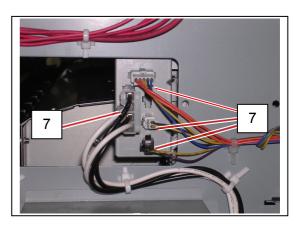
4. Tighten the screw (6) to fix Fuser Unit (1) to the machine.





5. Reconnect the connectors (7).





- 6. Reinstall Paper Exit Assy (if removed), Cover 2 and Cover 3.
- 7. Close Engine Unit.

5-77 K124sm5e8

5. 3. 3 Replacement of Recommended Periodic **Replacement Parts**

A NOTE

A periodic replacement for them is recommended.

This section shows how to replace all of them in one sequent operation.

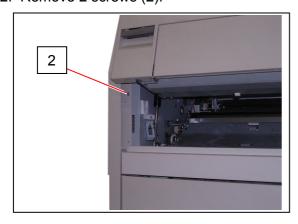
Item	Number	Remarks
	of article	
Roller Fusing	1	All of these parts are contained in
Bush	2	"Fuser Maintenance Kit" (Z160980040)
Nail Stripping (Upper)	13	
Nail Lower	6	

1. Pull up the Lever 2 (1) to open the Engine Unit.



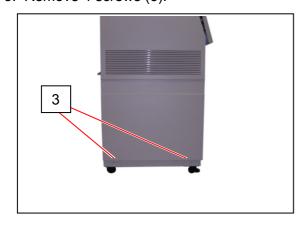


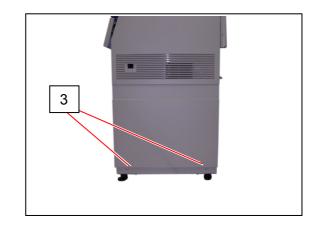
2. Remove 2 screws (2).





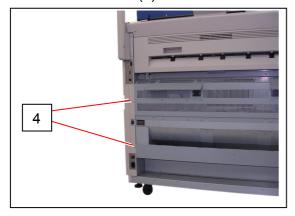
3. Remove 4 screws (3).

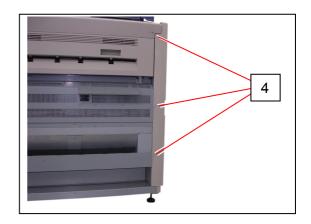




K124sm5e8 5-78

4. Remove 5 screws (4).



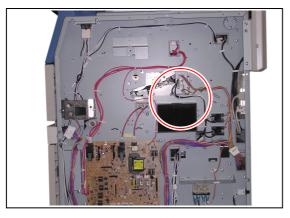


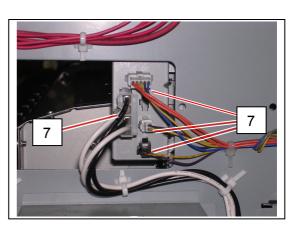
5. Remove Cover 2 (5) and Cover 3 (6).



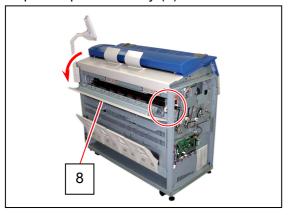


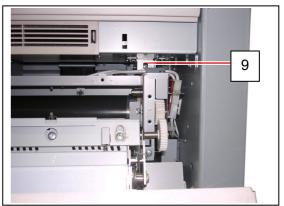
6. Disconnect 4 connectors (7).





7. Open Paper Exit Assy (8). Loosen 1 screw (9) fixing Fuser Unit inside the machine.

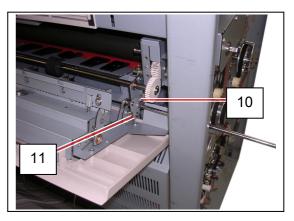




5-79 K124sm5e8

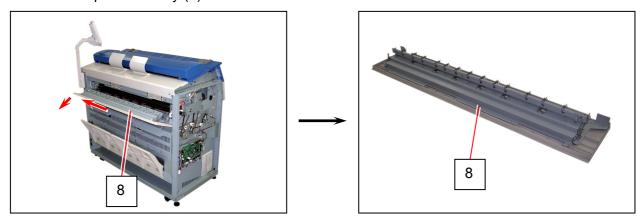
8. Remove 1 screw (10: M4x6) to remove Plate (11) on the left side.



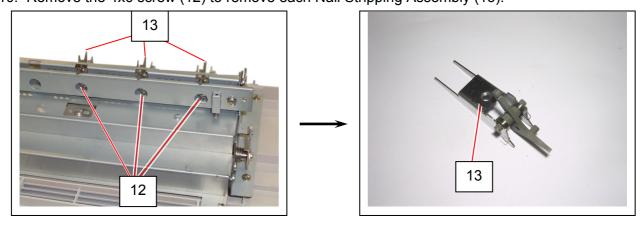


A NOTE

- (1) Please remove the Plate (11) with holding Paper Exit Assy (8). Otherwise you may drop Paper Exit Assy.
- (2) There is the Plate 2 on the right side of machine, which is a symmetric part of Plate (11). You may remove it instead of Plate (11).
- 9. Remove Paper Exit Assy (8).



10. Remove the 4x6 screw (12) to remove each Nail Stripping Assembly (13).

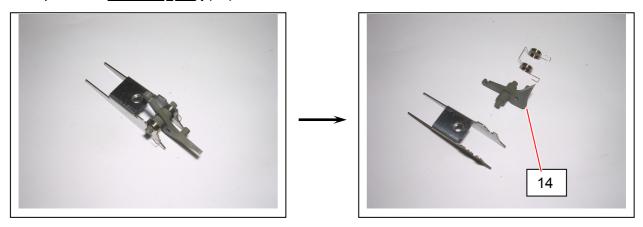


A NOTE

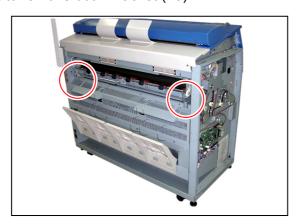
When reassembling, fix Nail Stripping Assembly with the screw while holding Nail Stripping Assembly down. This will allow Nail Stripping Assembly to be installed correctly (just upright).

5-80 K124sm5e8

11. Disassemble the Nail Stripping Assembly as the following photo. Replace the Nail Stripping (14) with the new one.

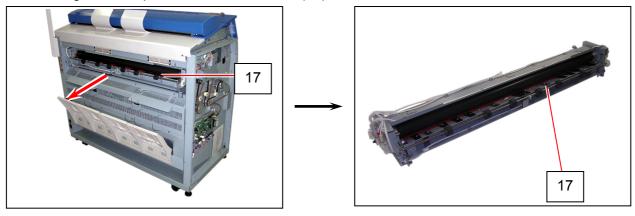


12. There are 2 pieces of the bracket (15) on the back of the machine. Remove the screws (16) to remove both Bracket (15).





13. With Engine Unit open, remove Fuser Unit (17).



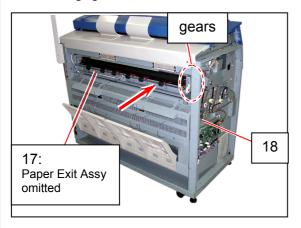
5-81 K124sm5e8

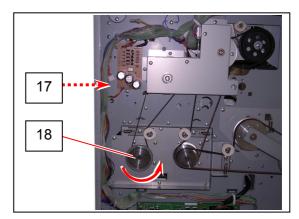
A NOTE

To reinstall Fuser Unit, follow the instruction below.

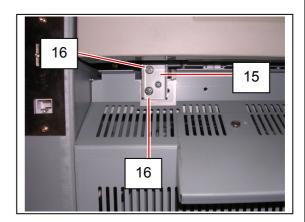
- (1) With Engine Unit open, fully mount Fuser Unit (17) to the machine.
- (2) On the left side of the machine, rotate Pulley (18) counterclockwise to check the gear engagement between Fuser Unit and the machine.

If the gears on Fuser Unit and Pulley (18) do not move together, the engagement may fail. With pushing Fuser Unit (17) to the machine inside, rotate Pulley (18) again to obtain the correct engagement.

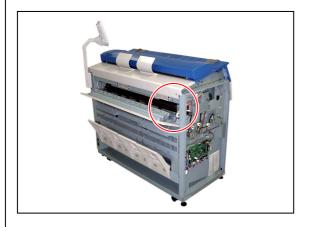


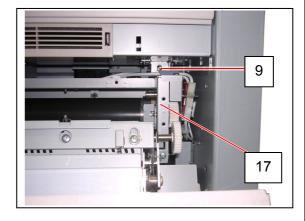


(3) Install Bracket (15) with the screws (16). Tighten the lower screw and then the upper.



(4) Tighten the screw (9) to fix Fuser Unit (17) to the machine.

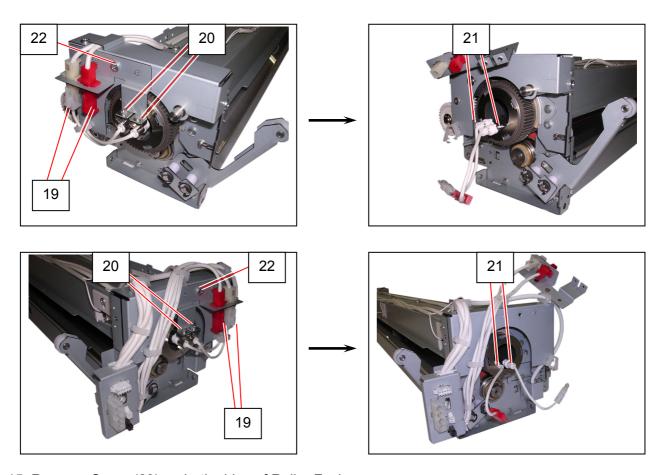




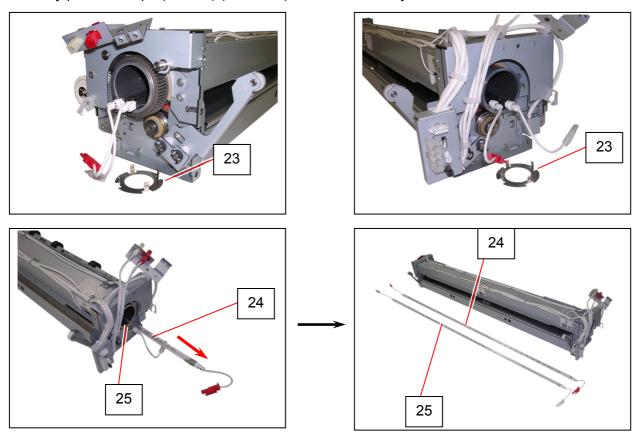
(5) Replace Paper Exit Assy (8), the connectors (7), Cover 2 (5) and Cover 3 (6). Close Engine Unit.

5-82 K124sm5e8

14. Disconnect the connectors (19). Remove 4 screws (20) to release IR Lamps (21). Remove 2 screws (22) to release the connector brackets.



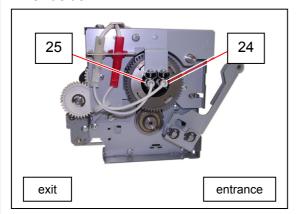
15. Remove Cover (23) on both sides of Roller Fusing.
Gently pull IR Lamps (24: red) (25: white) toward either way to remove them.

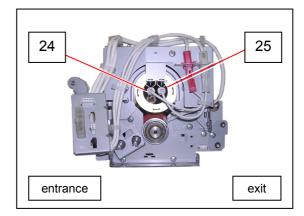


5-83 K124sm5e8



- (1) Do not touch the glass part of the Lamp with a bare hand.
- (2) Do not interchange the IR Lamps (24) (25). One with red connectors (24) should be installed to the media entrance side and the other with white connectors (25) to the media exit side.

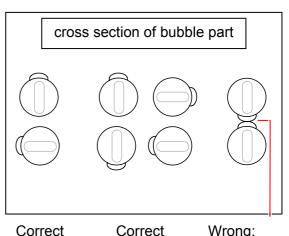




(3) There is a bubble (projection) on the glass part of IR Lamp. If the bubbles of both IR Lamps touch each other, IR Lamps will be broken because of vibration or heat.

Make sure not to face the bubbles each other. Install the IR Lamps so that the bubbles will be located far from each other.



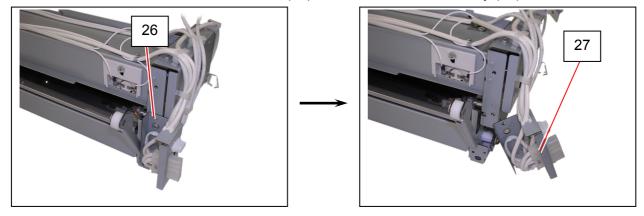


Correct

Wrong: touching

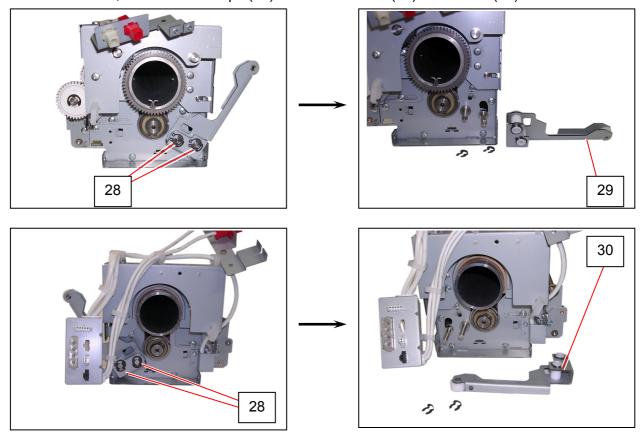
(4) IR Lamps can be installed to Fuser Unit in either way.

16. On the connector side, remove 1 screw (26) to release Bracket 10 Assy (27).

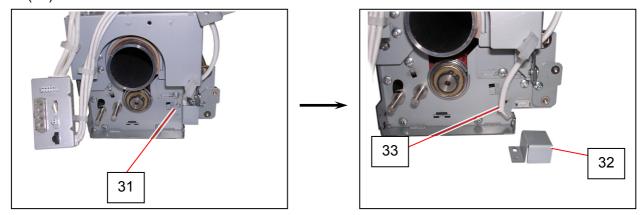


K124sm5e8 5-84

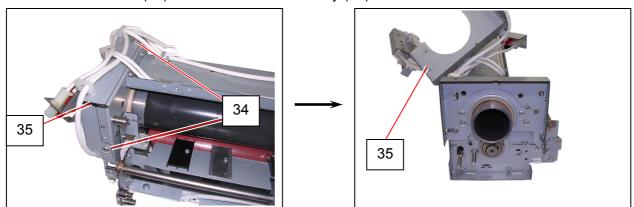
17. On both sides, remove 4 KL Clips (28) to remove Arm 4 (29) and Arm 3 (30).



18. On the connector side, remove 1 screw (31) to remove Cover 2 (32). Disconnect the harness (33).

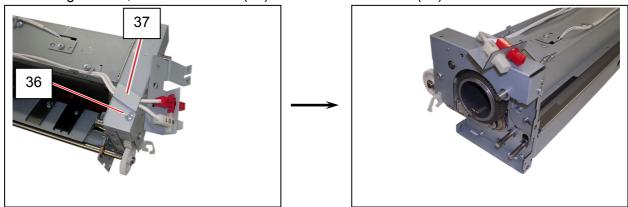


19. Remove 2 screws (34) to remove Bracket 6 Assy (35).

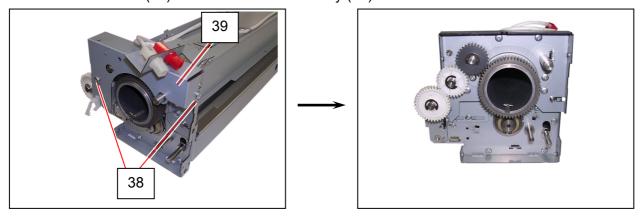


5-82 K124sm5e9

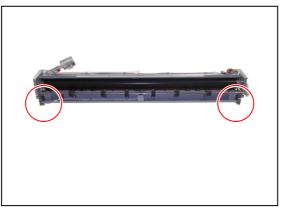
20. On the gear side, remove 1 screw (36) to remove Bracket 20 (37).

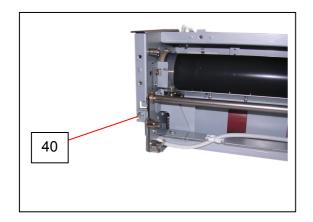


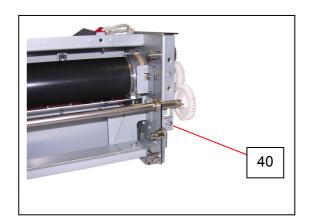
21. Remove 2 screws (38) to remove Bracket 7 Assy (39).



22. Remove 2 screws (40) on the media exit side.

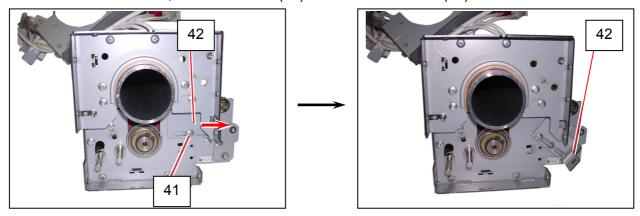




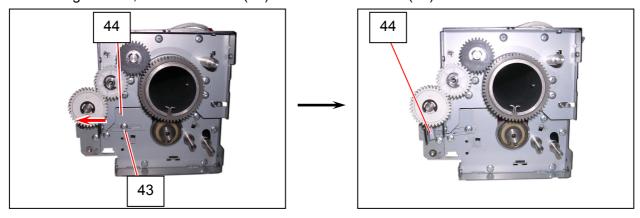


5-83 K124sm5e9

23. On the connector side, loosen 1 screw (41) to release Bracket 2 (42).



24. On the gear side, loosen 1 screw (43) to release Bracket 3 (44).

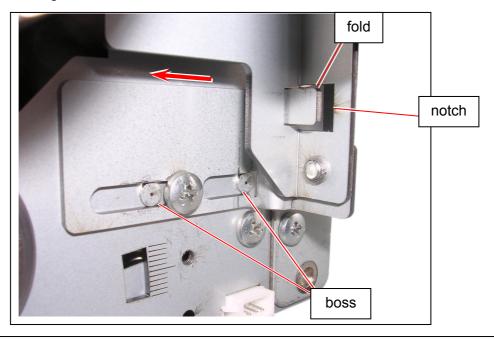


A 1

NOTE

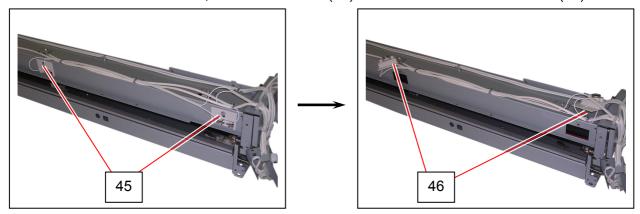
Reinstall Bracket 2 (42) and Bracket 3 (44) in the correct position.

- (1) Fully push to slide the bracket to the arrow direction so that the fold portion on the bracket will fit into the notch on Fuser Upper Unit.
- (2) The 2 positioning bosses locate the bracket. The bracket should not ride over them.

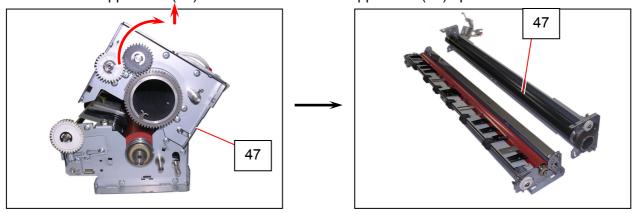


5-84 K124sm5e9

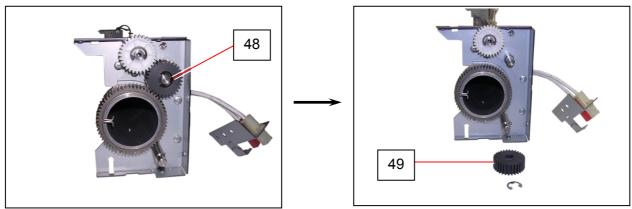
25. On the media entrance side, remove 2 screws (45) to release Thermostat Bracket (46).



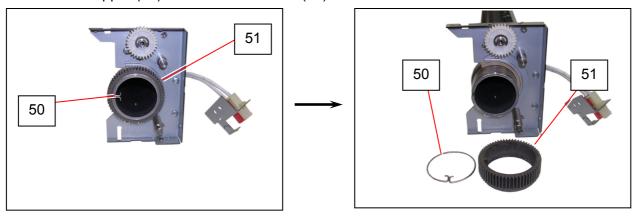
26. Turn Fuser Upper Unit (47) to the back. Lift Fuser Upper Unit (47) upward to remove it.



27. On the gear side of Fuser Upper Unit, remove Retaining Ring-E (48) to remove Gear 30T (49).

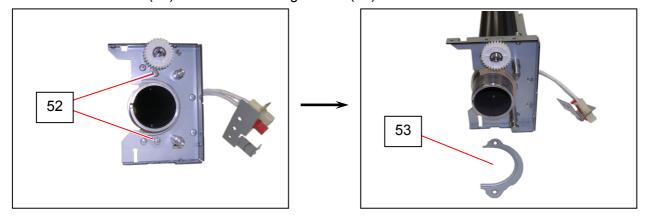


28. Remove Stopper (50) to remove Gear 60T (51).

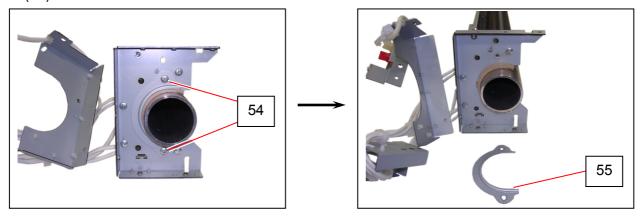


5-85 K124sm5e9

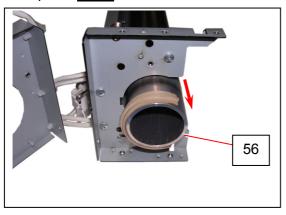
29. Remove 2 screws (52) to remove Bearing Holder (53).

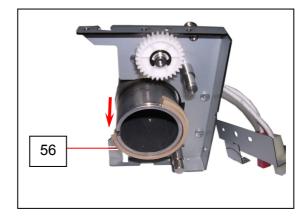


30. On the connector side of Fuser Upper Unit, remove 2 screws (54) to remove Bearing Holder (55).



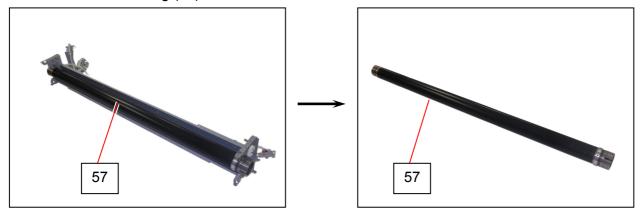
31. On both sides, remove Bush (56). Replace **Bush** with new ones.

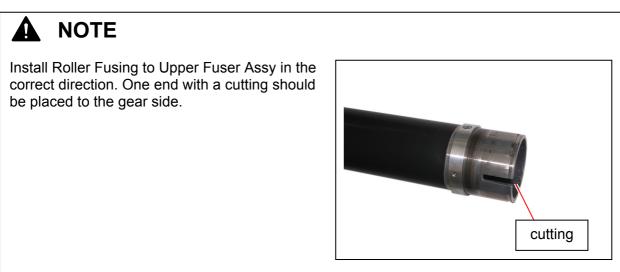




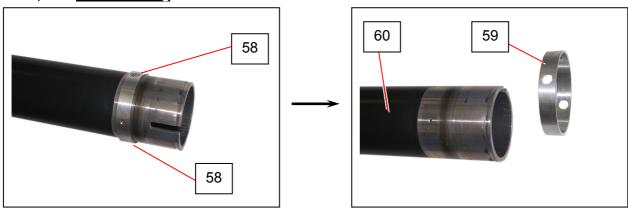
5-86 K124sm5e9

32. Remove Roller Fusing (57).



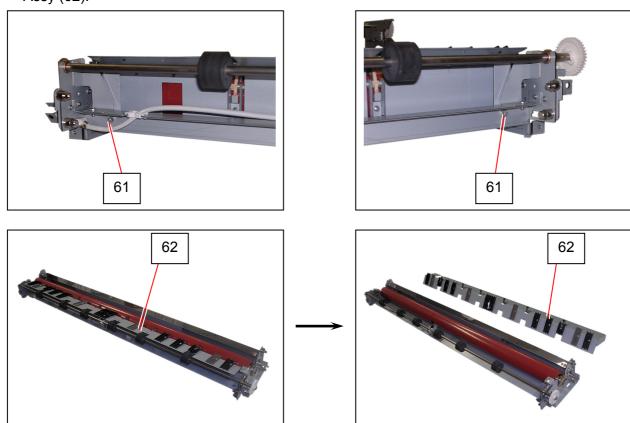


33. Remove 2 screws (58) to remove Collar (59) from Roller Fusing (60). Replace Roller Fusing with a new one.

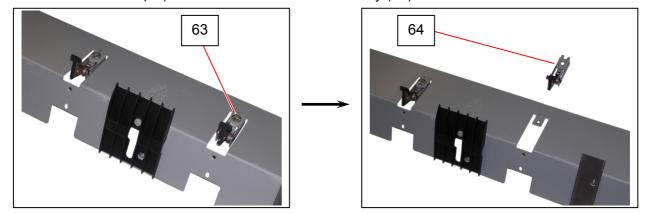


5-87 K124sm5e9

34. On the media exit side of Fuser Lower Unit, remove 2 screws (61) to remove Guide Plate 2 Assy (62).

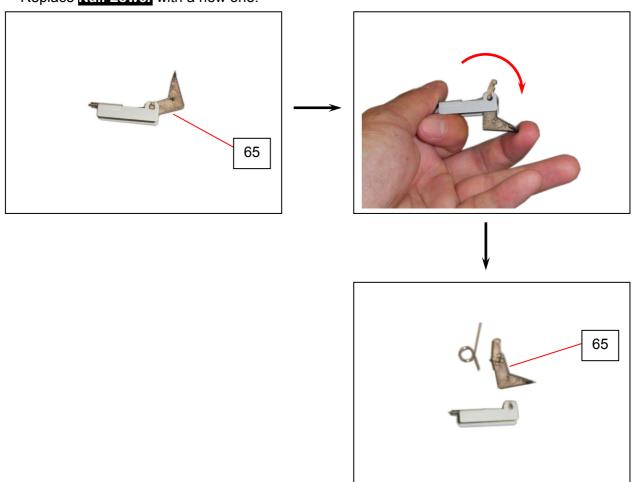


35. Remove 1 screw (63) to remove each Nail Lower Assy (64).



5-88 K124sm5e9

36. Turn Nail Lower (65) to remove it from the bracket. Replace Nail Lower with a new one.



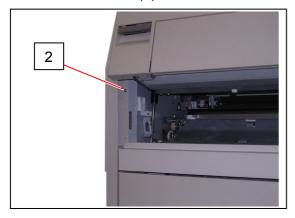
5-89 K124sm5e9

5. 3. 4 Replacement of Roller Pressure

1. Pull up the Lever 2 (1) to open the Engine Unit.

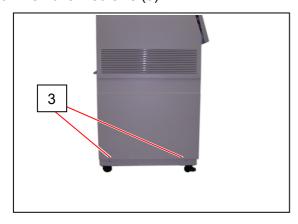


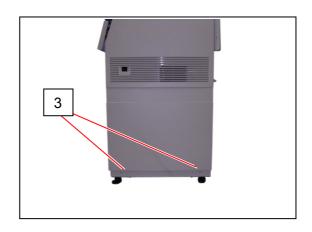
2. Remove 2 screws (2).



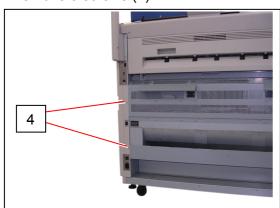


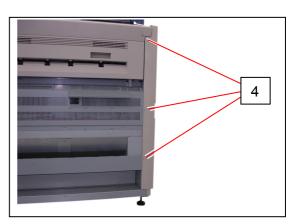
3. Remove 4 screws (3).





4. Remove 5 screws (4).





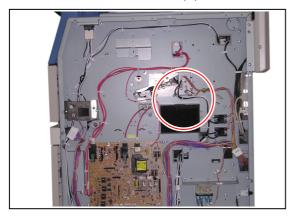
5-90 K124sm5eA

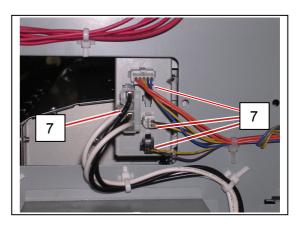
5. Remove Cover 2 (5) and Cover 3 (6).



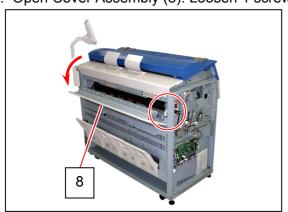


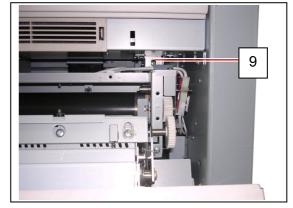
6. Disconnect 4 connectors (7).





7. Open Cover Assembly (8). Loosen 1 screw (9) fixing Fuser Unit inside the machine.

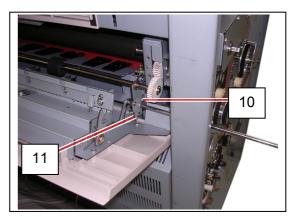




5-91 K124sm5eA

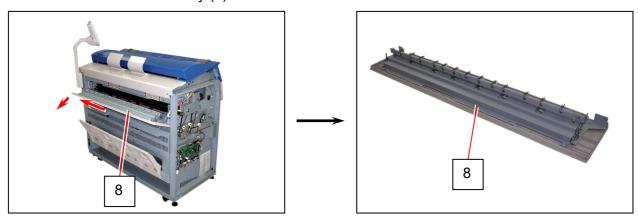
8. Remove 1 screw (10: M4x6) to remove Plate (11) on the left side.





M NOTE

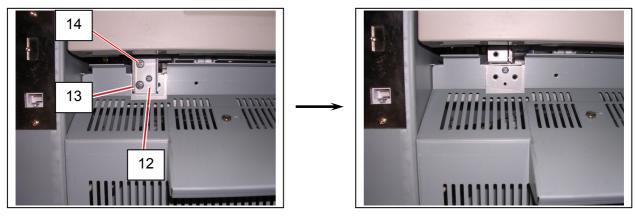
- (1) Please remove the Plate (11) while holding Cover Assembly (8). Otherwise you may drop the Cover Assembly.
- (2) There is the Plate 2 on the right side of machine, which is a symmetric part of Plate (11). You may remove it instead of Plate (11).
- 9. Remove the Cover Assembly (8).



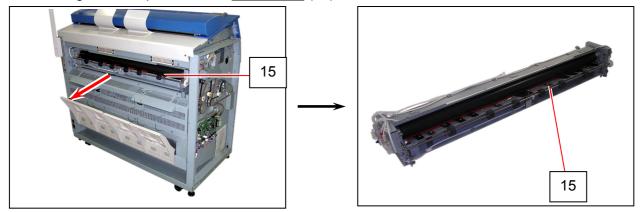
5-92 K124sm5eA

10. There are 2 pieces of the brackets (12) on the back of the machine. Remove the screws (13) (14) to remove both Bracket (12).





11. With Engine Unit open, remove Fuser Unit (15).



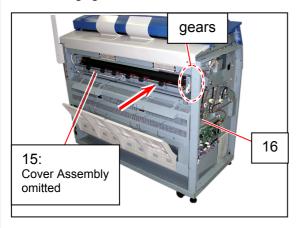
5-93 K124sm5eA

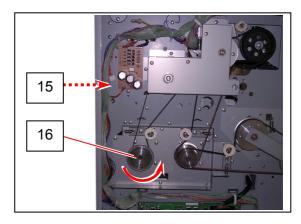
A NOTE

To reinstall Fuser Unit, follow the instruction below.

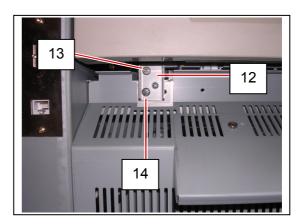
- (1) With Engine Unit open, fully mount Fuser Unit (15) to the machine.
- (2) On the left side of the machine, rotate Pulley (16) counterclockwise to check the gear engagement between Fuser Unit and the machine.

If the gears on Fuser Unit and Pulley (16) do not move together, the engagement may fail. With pushing Fuser Unit (15) to the machine inside, rotate Pulley (16) again to obtain the correct engagement.



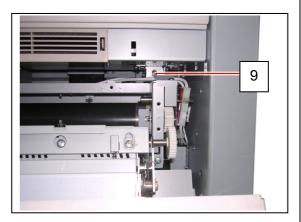


(3) Install Bracket (12) with the screws (13) (14). Tighten the lower screw (14) and then the upper (13).



(4) Tighten the screw (9) to fix Fuser Unit to the machine.

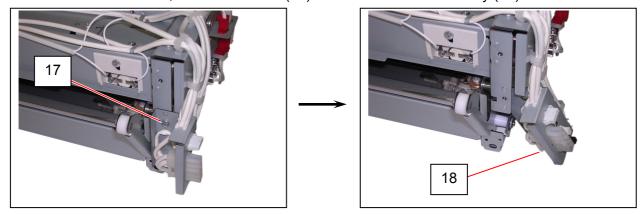




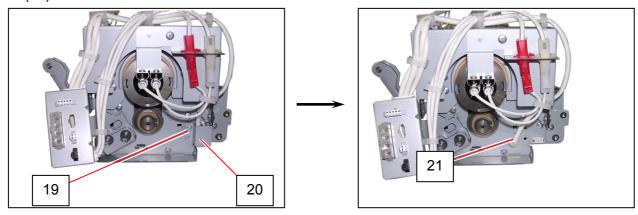
(5) Replace Cover Assembly (8), the connectors (7), Cover 2 (5) and Cover 3 (6). Close Engine Unit.

5-94 K124sm5eA

12. On the connector side, remove 1 screw (17) to release Bracket 10 Assy (18).

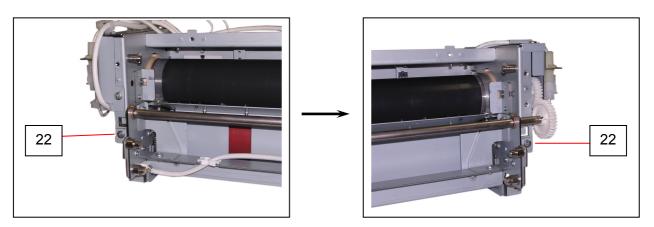


13. On the connector side, remove 1 screw (19) to remove Cover 2 (20). Disconnect the harness (21).



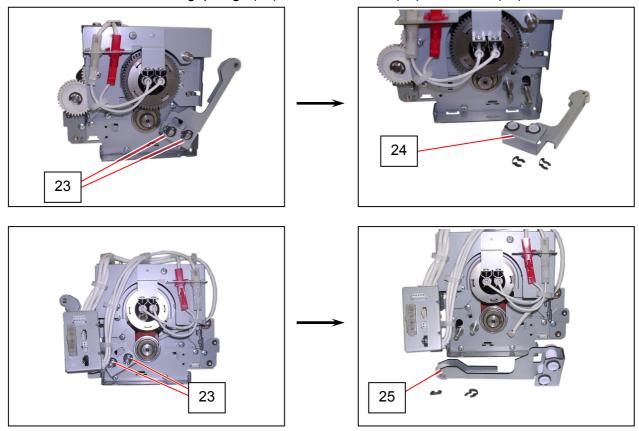
14. Remove 2 screws (22) on the media exit side.



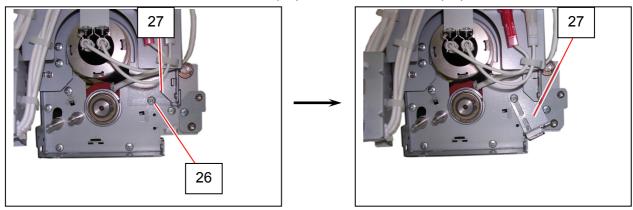


5-95 K124sm5eA

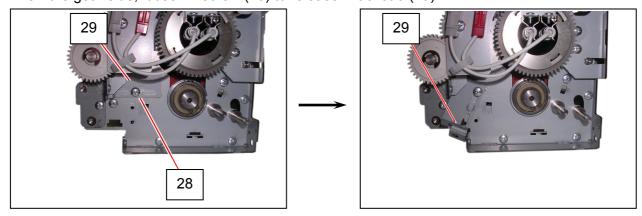
15. On both sides, remove 4 grip rings (23) to remove Arm 4 (24) and Arm 3 (25).



16. On the connector side, loosen 1 screw (26) to release Bracket 2 (27).



17. On the gear side, loosen 1 screw (28) to release Bracket 3 (29).



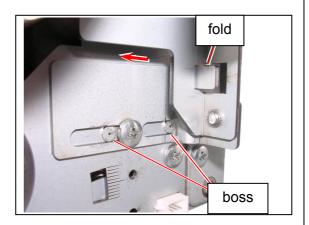
5-96 K124sm5eA

A

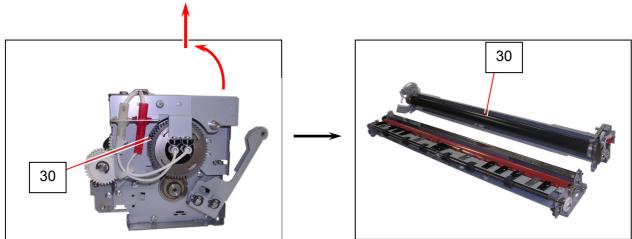
NOTE

Reinstall Bracket 2 (27) and Bracket 3 (29) in the correct position.

- (1) Fully push the bracket to the arrow direction so that the fold portion on the bracket will fit into the notch on Fuser Upper Unit.
- (2) The 2 positioning bosses locate the bracket. The bracket should not ride over them.

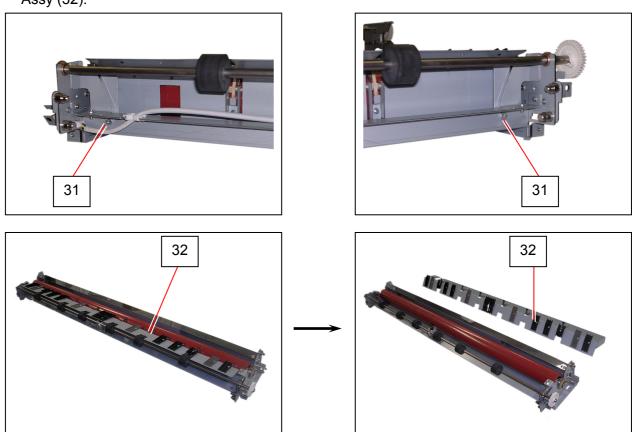


18. Turn Fuser Upper Unit (30) to the back. Lift Fuser Upper Unit upward to remove it.

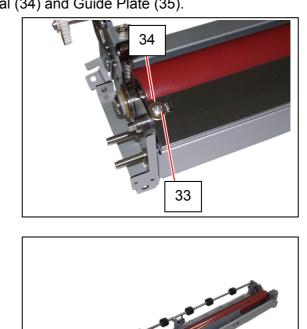


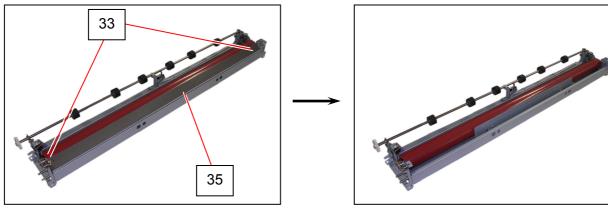
5-97 K124sm5eA

19. On the media exit side of Fuser Lower Unit, remove 2 screws (31) to remove Guide Plate 2 Assy (32).



20. Remove 2 screws (33) to remove Washer Special (34) and Guide Plate (35).





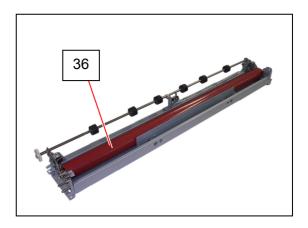
A

NOTE

When reassembling, make sure that the holes of Guide Plate fit the bosses on the bracket on both side. Guide Plate should not ride over the bosses.

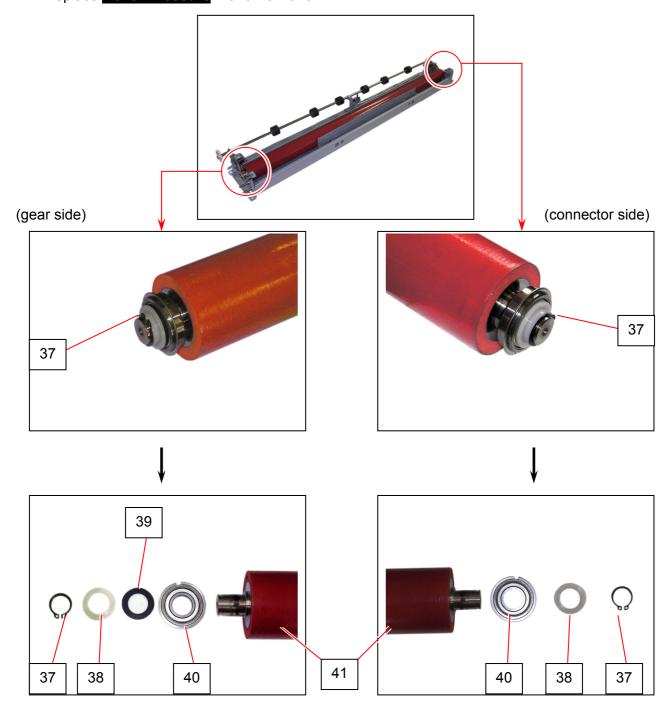
5-98 K124sm5eA

21. Remove Pressure Roller (36) from the unit.



22. Remove Retaining Ring-C (37) to remove Collar (38) (39: only on the gear side), Bearing (40) from each shaft end of Roller Pressure (41).

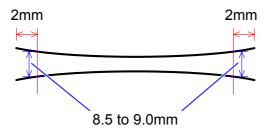
Replace Roller Pressure with a new one.



5-99 K124sm5eA

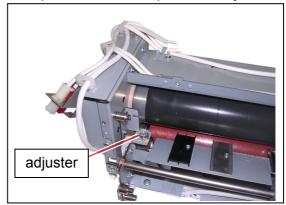
5. 3. 5 Fuser Pressure Adjustment (NIP width check)

- 1. Load a tracing paper roll in 36"/A0 width into any available Roll Deck.
- 2. Make a test print in pattern No.2 S(0) with the roll in 297mm length.
- 3. When the test print's leading edge appears within 50mm at the exit cover, stop the print process by opening any cover. At this point, the black area on the print will be nipped between Fuser Roller and Pressure Roller.
- 4. Leave the print there in 10 seconds. After that, remove the test print from the machine.
- 5. The test print has a shiny band on its printing surface, which has been created by pressure between Fuser Roller and Pressure Roller.
 - Check that the nip widths at the reference points meet the following specification.
 - Within 2mm inside from the side edges: 8.5 to 9.0mm

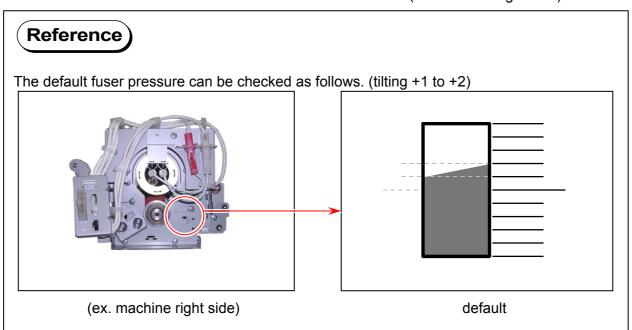


6. If the nip width at any point is not proper, adjust the fuser pressure with the pressure adjuster.





(ex. machine right side)

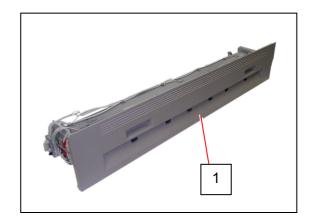


7. Make another test print and check the nip widths until they meet the specification.

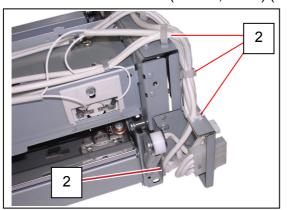
5-100 K124sm5eA

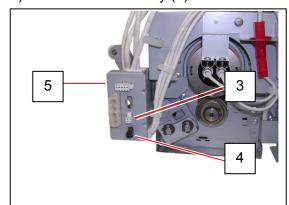
5. 3. 6 Replacement of Thermistor (TH1, TH2)

1. Remove the Fuser Unit (1) from the machine making reference to [5. 3. 1 Removal of the Fuser Unit] on the page 5-70.

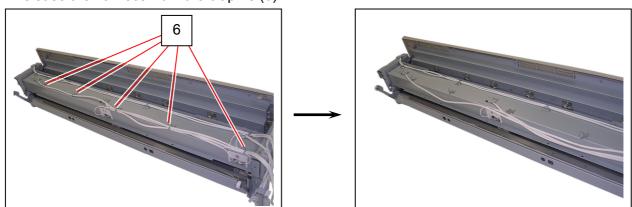


2. Release the harness from the clamps (2). Remove the connectors (3: TH1, white) (4: TH2, black) from Bracket 10 Assy (5).



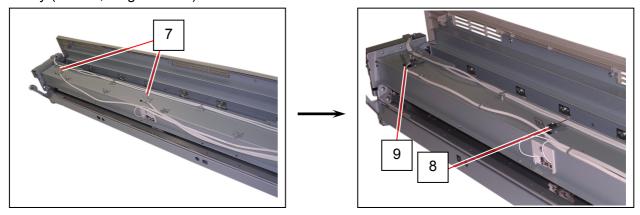


3. Release the harness from the clapms (6).

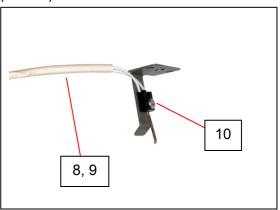


5-101 K124sm5eB

4. Remove each 1 screw (7) to release Thermistor Assy (8: TH1, short harness) and Thermistor 3 Assy (9: TH3, long harness).



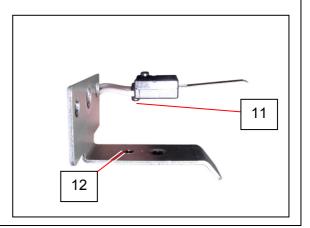
5. Remove 1 screw (10) to replace Thermistor (8: TH1) (9: TH2) with a new one.



▲ NOTE

Be careful of the direction of Thermistor when reassembling.

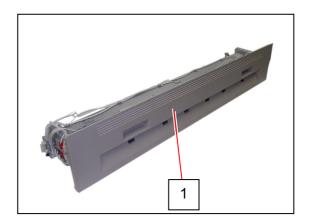
The projection (11) nearer to the harness should be inserted to the positioning hole (12).



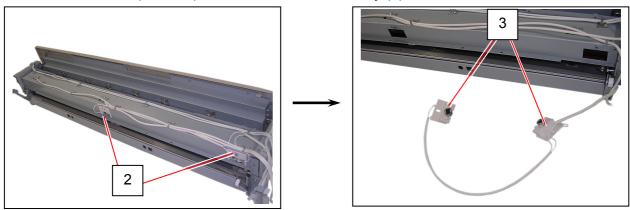
5-102 K124sm5eB

5. 3. 7 Replacement of Thermostat (TS1, TS2)

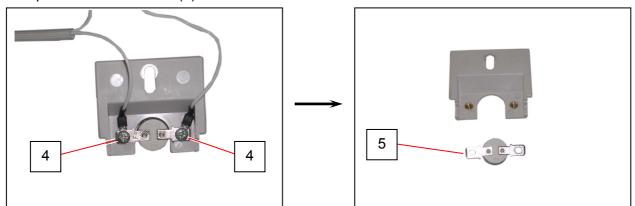
1. Remove the Fuser Unit (1) from the machine making reference to [5. 3. 1 Removal of the Fuser Unit] on the page 5-70.



2. Remove 2 screws (2: M4x6) to remove Thermostat Assy (3).



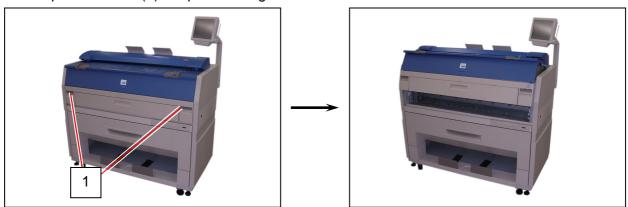
3. Remove 2 screws (4: M3x4) to remove the Thermostat (5). Replace the Thermostat (5) with the new one.



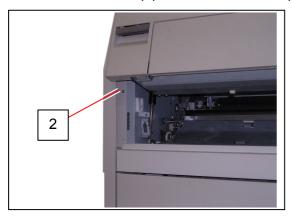
5-103 K124sm5eB

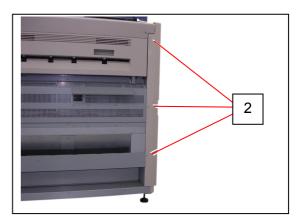
5. 3. 8 Replacement of Exit Sensor (PH3)

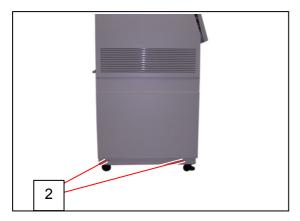
1. Pull up the Lever 2 (1) to open the Engine Unit.



2. Remove 6 screws (2) to remove Cover 2 (3).





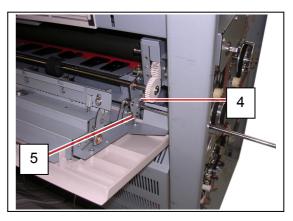




5-104 K124sm5eB

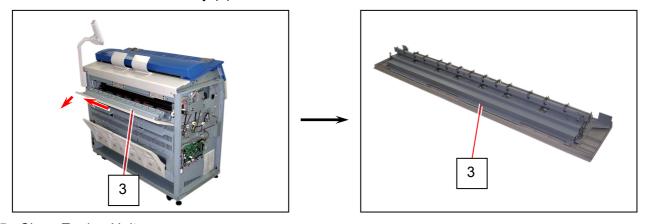
3. Remove 1 screw (4: M4x6) to remove Plate (5) on the left side.





▲ NOTE

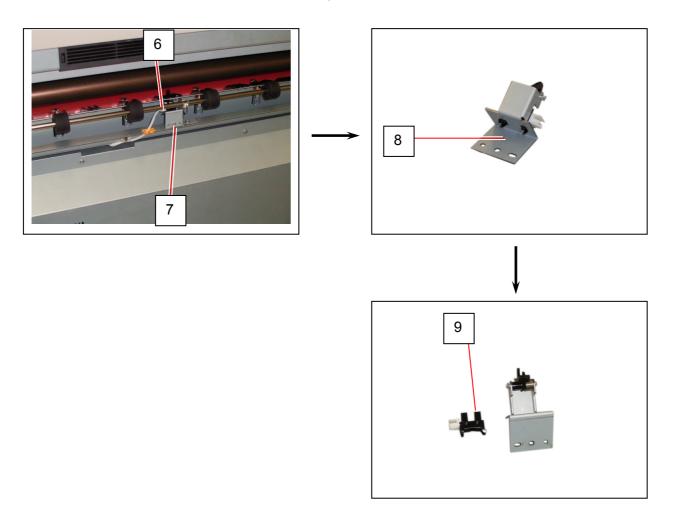
- (1) Please remove the Plate (5) while holding Cover Assembly (3). Otherwise you may drop the Cover Assembly.
- (2) There is the Plate 2 on the right side of machine, which is a symmetric part of Plate (5). You may remove it instead of Plate (5).
- 4. Remove the Cover Assembly (3).



5. Close Engine Unit.

5-105 K124sm5eB

6. Remove the harness (6) and remove the screw (7) to remove Exit Sensor Assy (8). Remove Exit Sensor (9) form Exit Sensor Assy (8). Replace Exit Sensor with a new one.

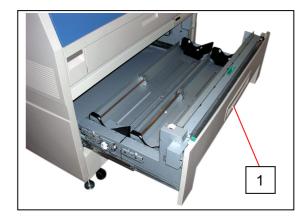


5-106 K124sm5eB

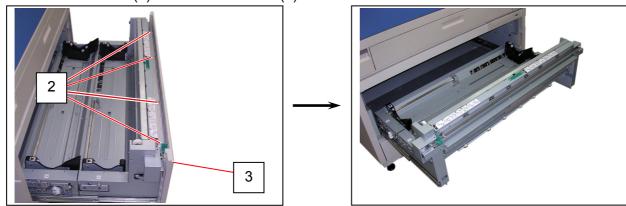
5.4 Roll Deck

5. 4. 1 Replacement of Cutter Assembly

1. Draw out the Roll Deck (1).

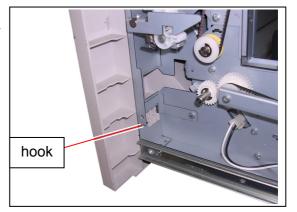


2. Remove 4 screws (2) to remove Cover 1 (3).



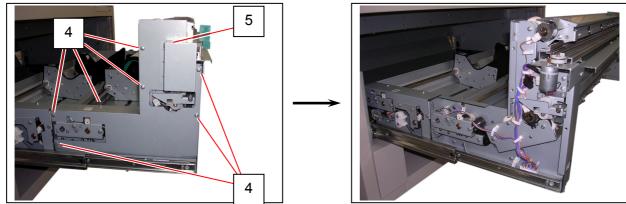


Make sure to insert the hooking part to the slit as the following photo when you put back the Cover 1 (3).



5-107 K124sm5eC

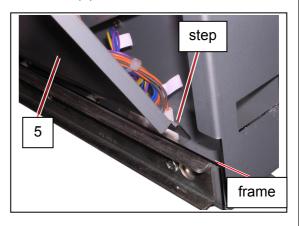
3. Remove 7 screws (4) to remove Cover 14 (5).



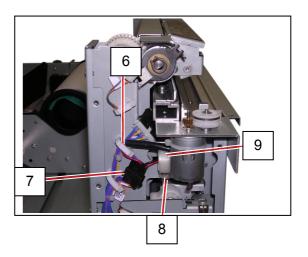


NOTE

Make sure that the step part on the bottom side of Cover 14 (5) is inside the bottom frame.

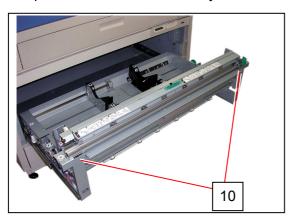


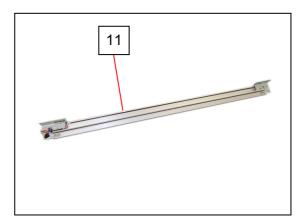
4. Open the wire saddle (6) and disconnect the connector (7) to release the harness. Remove 1 screw (8) and remove the clamp (9) to release the core.



5-108 K124sm5eC

5. Remove 2 screws on the front (10) to remove Cutter Assy (11). Replace the whole Cutter Assy with a new one.

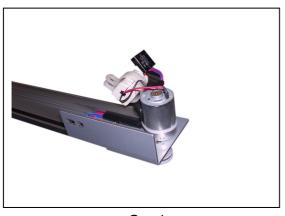


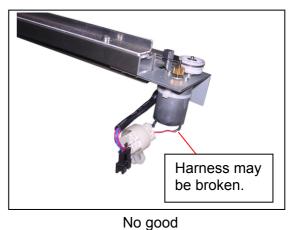


A NOTE

- (1) Reuse the clamp (9) and the core for a new Cutter Assembly.
- (2) Put the Cutter Assembly with the Cutter Motor up.

 If you put it with the Cutter Motor down, you will break the Cutter Motor Harness.

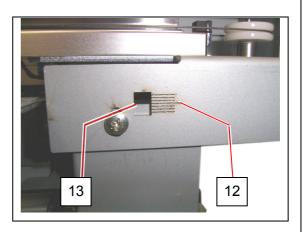




Good

(3) There is the Height Guide (12) on the right side.
Please fix the Cutter Assembly aligning the plate (13) and the central line of Height Guide (12) each other.





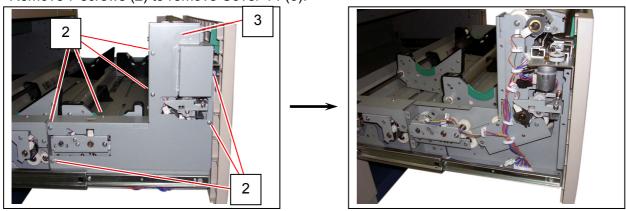
5-109 K124sm5eC

5. 4. 2 Replacement of Clutches (CL3, CL4, CL5) of Roll 1

1. Draw out the Roll Deck (1).

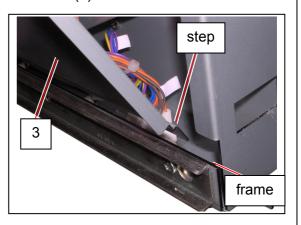


2. Remove 7 screws (2) to remove Cover 14 (3).



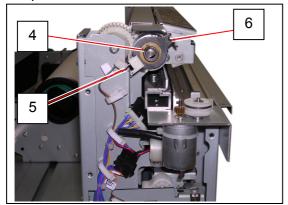
A NOTE

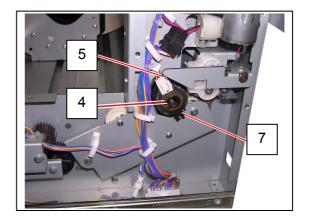
Make sure that the step part on the bottom side of Cover 14 (3) is inside the bottom frame.

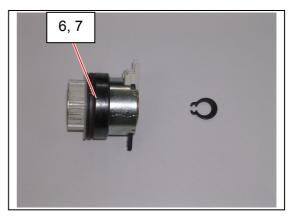


5-110 K124sm5eC

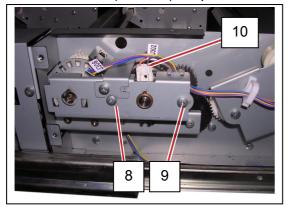
3. Remove Retaining Ring-C (4) and disconnect the harness (5) to remove each Clutch (6: CL3) or Clutch (7: CL4). Replace Clutch with a new one.

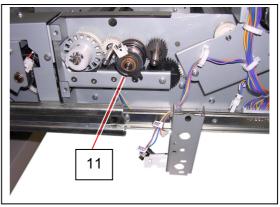


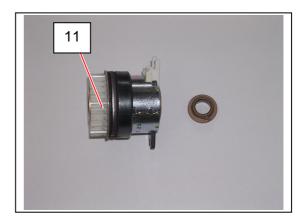




4. Remove 1 Bind Head Screw (8) and 1 Pan Head Screw (9), disconnect the harness (10) to remove Clutch (11: CL5). Replace Clutch with a new one.







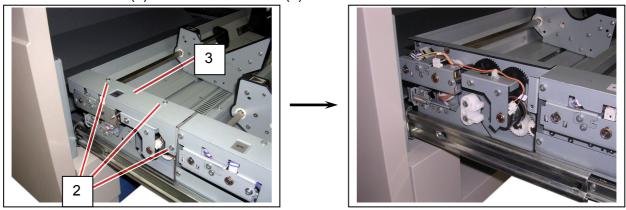
K124sm5eC 5-111

5. 4. 3 Replacement of Clutches (CL6, CL7) of Roll 2

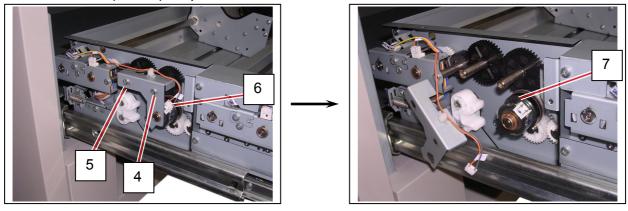
1. Draw out the Roll Deck (1).

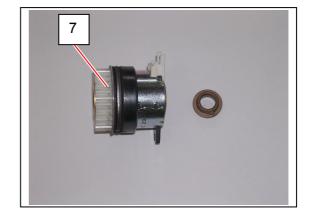


2. Remove 3 screws (2) to remove Cover 16 (3).



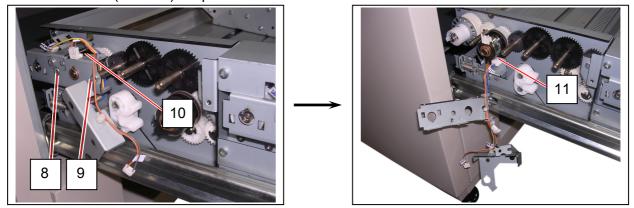
3. Remove 1 Bind Head Screw (4) and 1 Pan Head Screw (5), disconnect the harness (6) to remove Clutch (7: CL6). Replace Clutch with a new one.

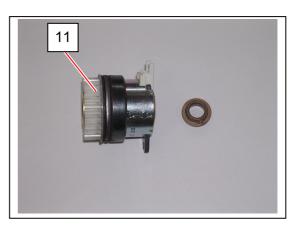




5-112 K124sm5eC

4. Remove 1 Bind Head Screw (8) and 1 Pan Head Screw (9), disconnect the harness (10) to remove Clutch (11: CL7). Replace Clutch with a new one.

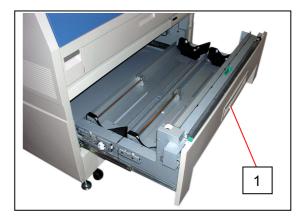




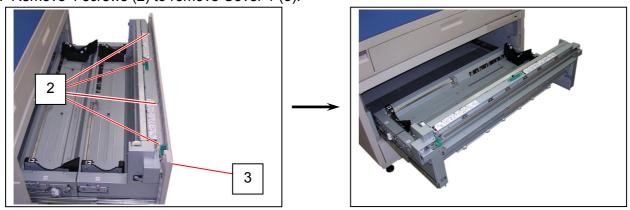
5-113 K124sm5eC

5. 4. 4 Replacement of Timing Belt 633

1. Draw out the Roll Deck (1).

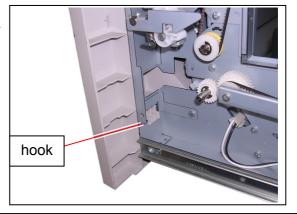


2. Remove 4 screws (2) to remove Cover 1 (3).



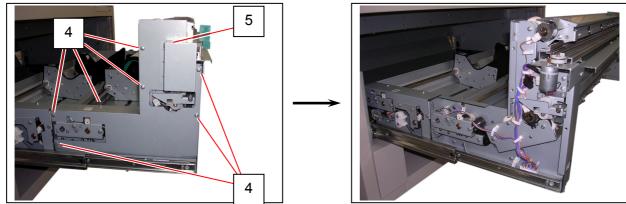
M NOTE

Make sure to insert the hooking part to the slit as the following photo when you put back the Cover 1 (3).



5-114 K124sm5eC

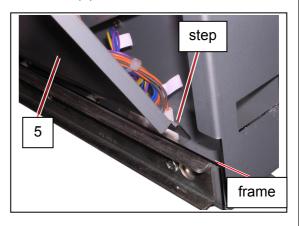
3. Remove 7 screws (4) to remove Cover 14 (5).



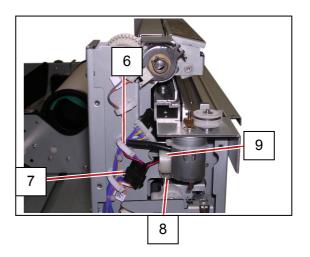
A

NOTE

Make sure that the step part on the bottom side of Cover 14 (5) is inside the bottom frame.

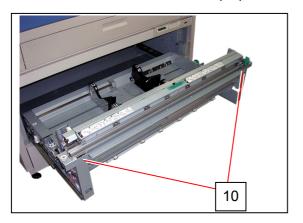


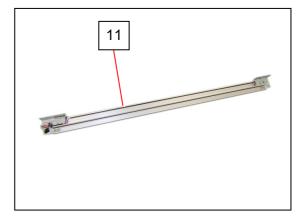
4. Open the wire saddle (6) and disconnect the connector (7) to release the harness. Remove 1 screw (8) and remove the clamp (9) to release the core.



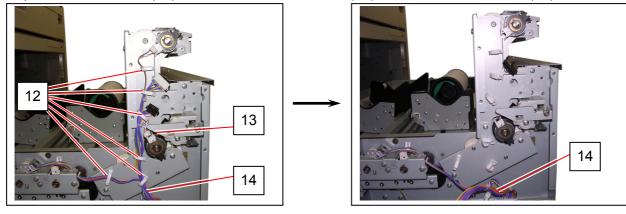
5-115 K124sm5eC

5. Remove 2 screws on the front (10) to remove Cutter Assy (11).

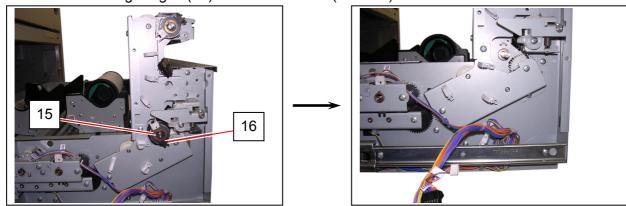




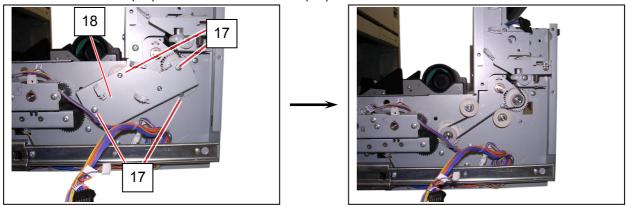
6. Open 6 wire saddles (12) and release 3 connectors (13) to release the harness (14).



7. Remove Retaining Ring-C (15) to remove Clutch (16: CL4).

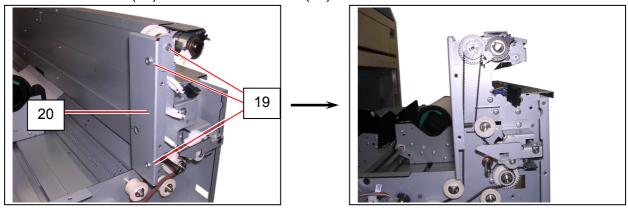


8. Remove 4 screws (17) to remove Bracket 33 (18).

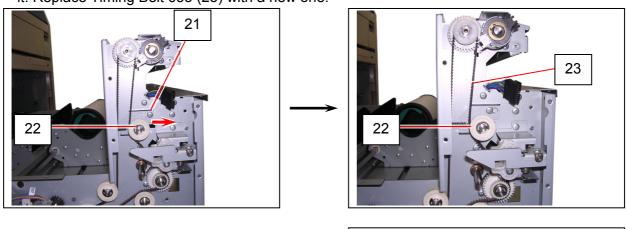


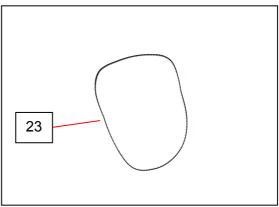
5-116 K124sm5eC

9. Remove 3 screws (19) to remove Bracket 32 (20).



10. Loosen 1 screw (21) to release Pulley 3 (22). Push Pulley 3 (22) to the arrow direction and fix it. Replace Timing Belt 633 (23) with a new one.



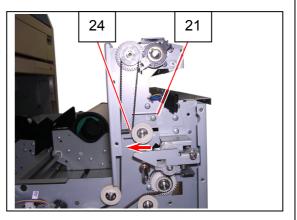




You do not have to adjust the belt tension.

Replace Bracket 32 (20) first and then tighten the screw (21). The Spring Coil 12 (24) gives a proper tension to the Timing Belt.

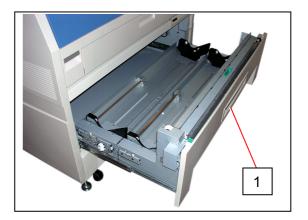
(Bracket 32 removed in the picture for easy understanding.)



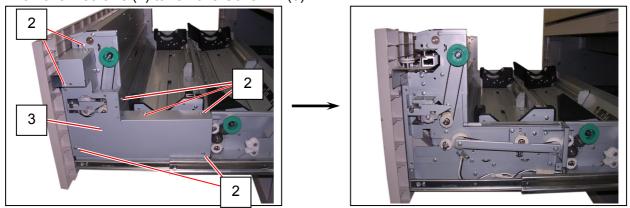
5-117 K124sm5eC

5. 4. 5 Replacement of Timing Belt 453

1. Draw out the Roll Deck (1).

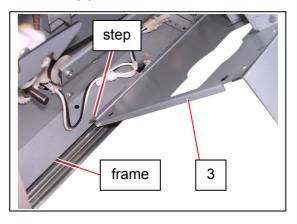


2. Remove 7 screws (2) to remove Cover 22 (3).



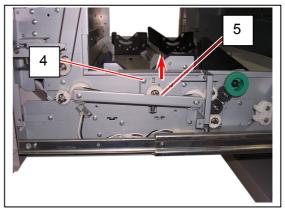
A NOTE

Make sure that the step part on the bottom side of Cover 22 (3) is inside the bottom frame.

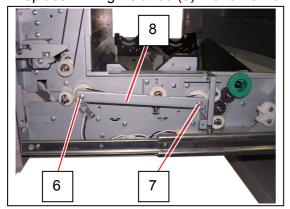


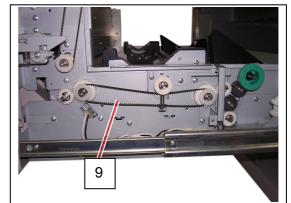
5-118 K124sm5eC

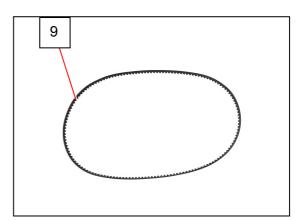
3. Loosen 1 screw (4) to release Pulley 3 (5). Move Pulley 3 (5) upward and fix it the screw (4) to release Timing Belt 453.



4. Remove 1 Bind Head Screw (6) and 1 Pan Head Screw (7) to remove Bracket 12 (8). Replace Timing Belt 453 (9) with a new one.



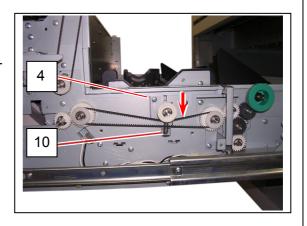






You do not have to adjust the belt tension.

Replace Bracket 12 (8) and then tighten the screw (4) The Spring Coil 11 (10) gives a proper tension to the Timing Belt 480.



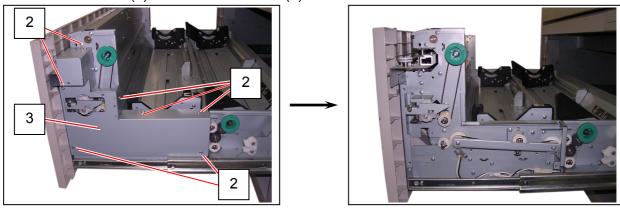
5-119 K124sm5eC

5. 4. 6 Replacement of Timing Belt 330

1. Draw out the Roll Deck (1).

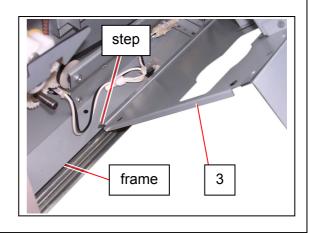


2. Remove 7 screws (2) to remove Cover 22 (3).

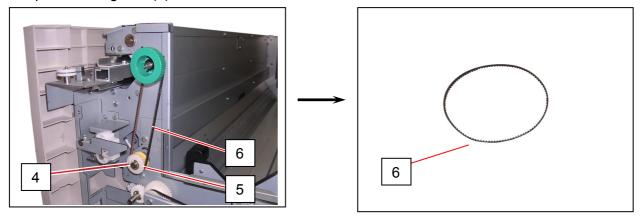




Make sure that the step part on the bottom side of Cover 22 (3) is inside the bottom frame.

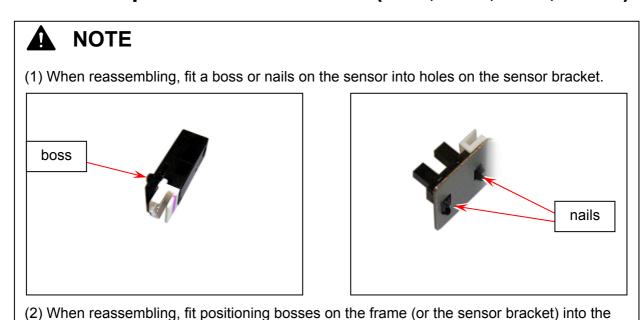


3. Remove Retaining Ring-E (4) to remove Collar (5). Replace Timing Belt (6) with a new one.



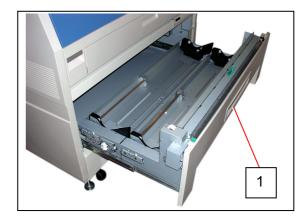
5-120 K124sm5eC

5. 4. 7 Replacement of Sensor (PH6, PH7, PH9, PH12)

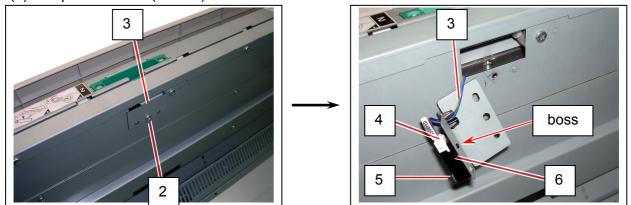


Draw out the Roll Deck (1).
 Remove a roll media if mounted.

corresponding holes.

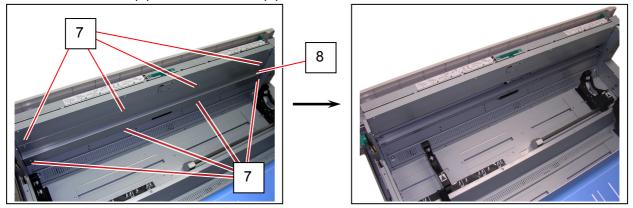


2. Remove 1 screw (2) to release the sensor bracket (3). Remove the connector (4) and 1 screw (5) to replace Sensor (3: PH6) with a new one.



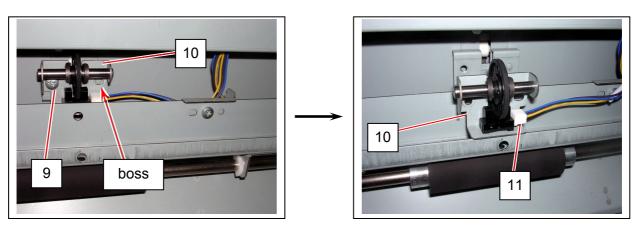
5-121 K124sm5eD

3. Remove 8 screws (7) to remove Plate (8).

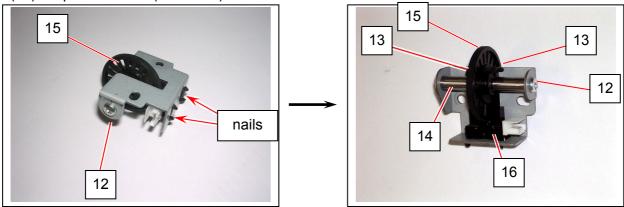


4. Remove 1 screw (9) to release the sensor bracket (10). Remove the connector (11) to remove the bracket (10).



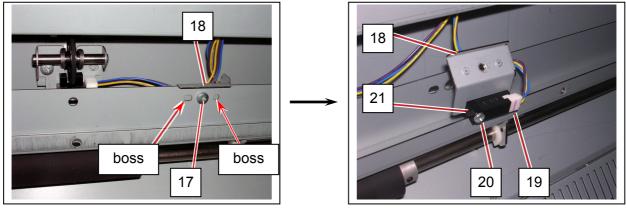


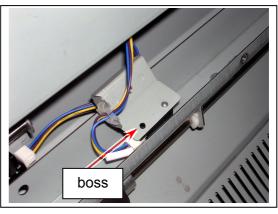
5. Remove 1 screw (12: M3x6) and 2 KL Clips (13) to remove Shaft 4 (14) and Encoder 2 Assy (15). Replace Sensor (16: PH12) with a new one.



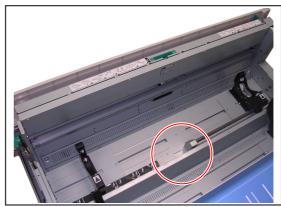
5-122 K124sm5eD

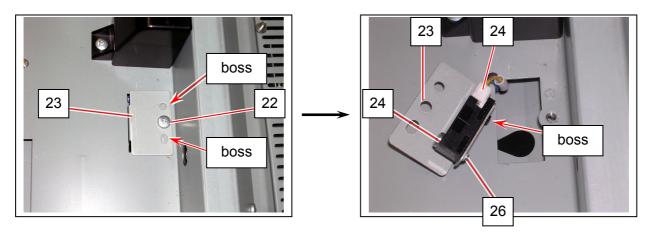
6. Remove 1 screw (17) to release the sensor bracket (18). Remove the connector (19) and 1 screw (20) to replace Sensor (21: PH7) with a new one.





7. Remove 1 screw (22) to release the sensor bracket (23). Remove the connector (24) and t1 screw (25) to replace Sensor (26: PH9) with a new one.

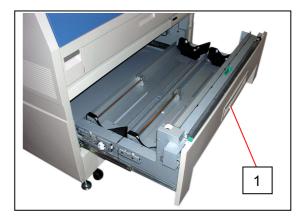




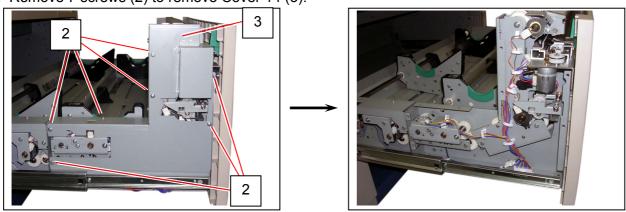
5-123 K124sm5eD

5. 4. 8 Replacement of Sensor (PH8)

1. Draw out the Roll Deck (1).

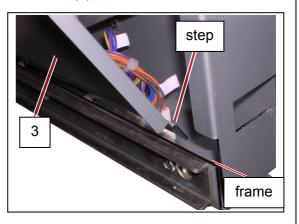


2. Remove 7 screws (2) to remove Cover 14 (3).



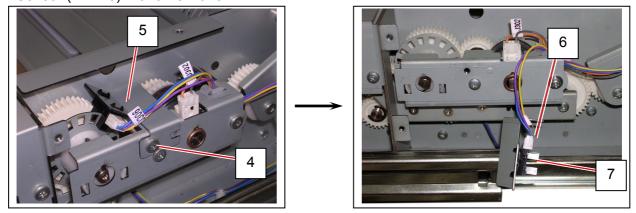
A NOTE

Make sure that the step part on the bottom side of Cover 14 (3) is inside the bottom frame.



5-124 K124sm5eD

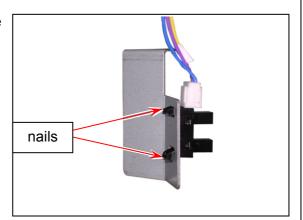
3. Remove 1 screw (4) to release the sensor bracket (5). Remove 1 connector (6) to replace Sensor (7: PH8) with a new one.



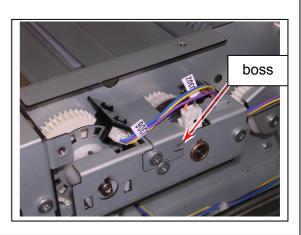
A

NOTE

(1) When reassembling, fit a boss or nails on the sensor into holes on the sensor bracket.



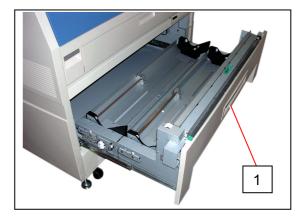
(2) When reassembling, fit the positioning boss on the frame into the notch on the bracket.



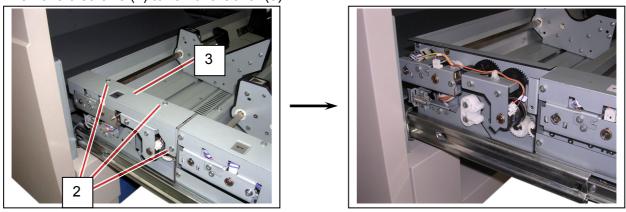
5-125 K124sm5eD

5. 4. 9 Replacement of Sensor (PH10)

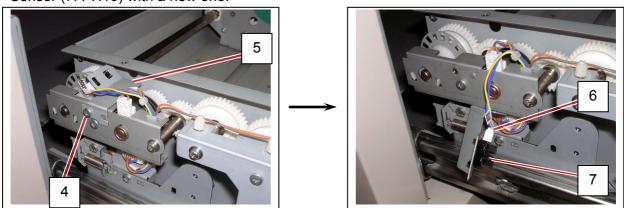
1. Draw out the Roll Deck (1).



2. Remove 3 screws (2) to remove Cover (3).



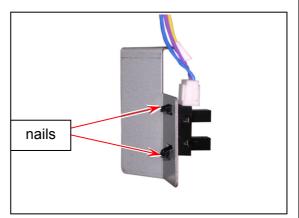
3. Remove 1 screw (4) to release the sensor bracket (5). Remove 1 connector (6) to replace Sensor (7: PH10) with a new one.



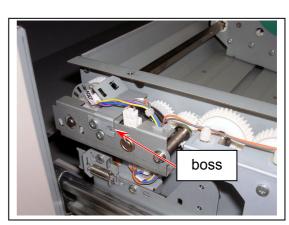
5-126 K124sm5eD

▲ NOTE

(1) When reassembling, fit a boss or nails on the sensor into holes on the sensor bracket.



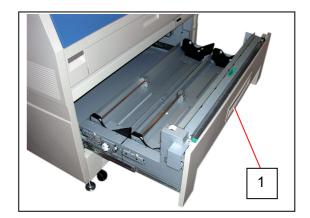
(2) When reassembling, fit the positioning boss on the frame into the notch on the bracket.



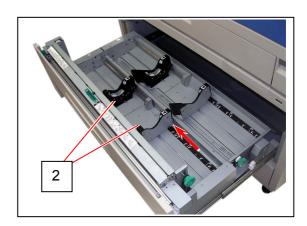
K124sm5eD 5-127

5. 4. 10 Replacement of Dehumidify Heater (Roll 1)

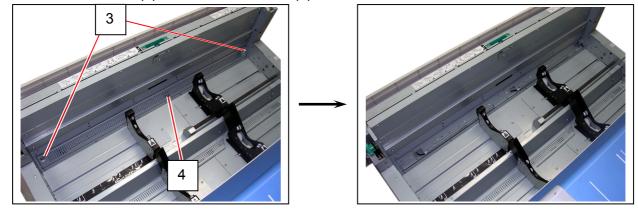
1. Draw out the Roll Deck (1). Remove a roll media if mounted.



2. Move Slide Guide (2) toward the middle.

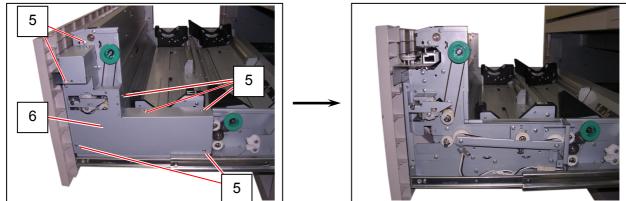


3. Remove 2 screws (3) to remove Cover 15 (4).



5-128 K124sm5eD

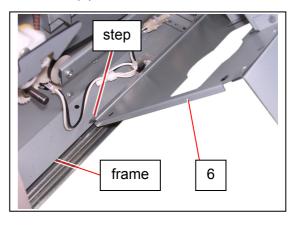
4. Remove 7 screws (5) to remove Cover 22 (6).



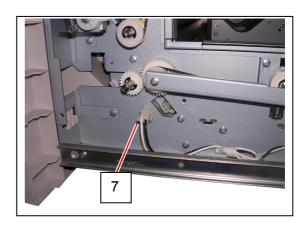
A

NOTE

Make sure that the step part on the bottom side of Cover 22 (6) is inside the bottom frame.

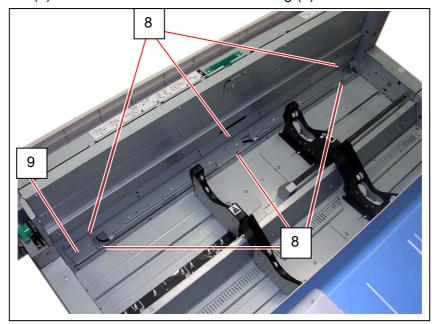


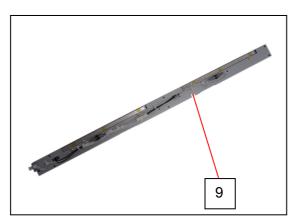
5. Disconnect 1 connector (7).



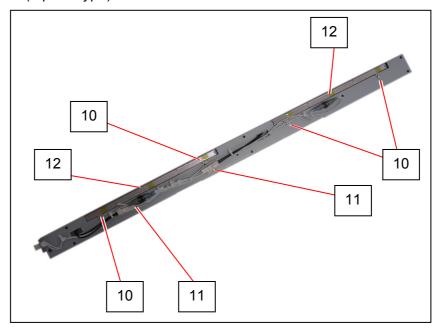
5-129 K124sm5eD

6. Remove 6 screws (8) to remove Roll 1 dehumidifier casing (9).





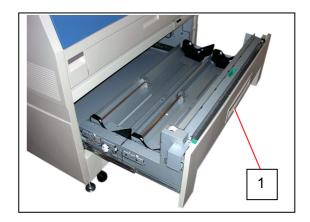
7. Remove 2 screws (10) and 1 connector (11) from each Resistor (12). Replace Resistor (square type) with a new one.



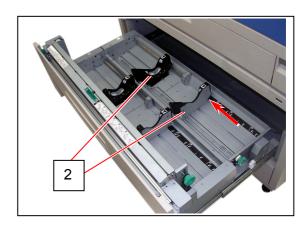
5-130 K124sm5eD

5. 4. 11 Replacement of Dehumidify Heater (Roll 2)

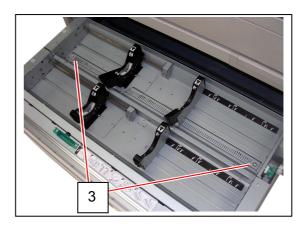
1. Draw out the Roll Deck (1). Remove a roll media if mounted.



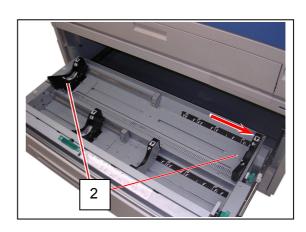
2. Move Slide Guide (2) toward the middle.



3. Remove 2 screws (3).

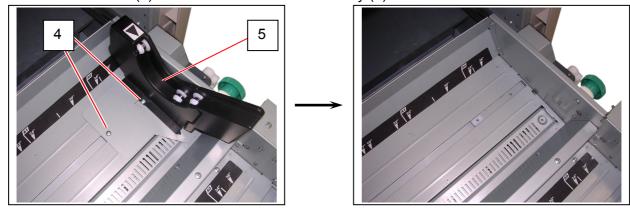


4. Move Slide Guide (2) toward the far end.

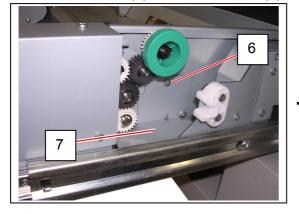


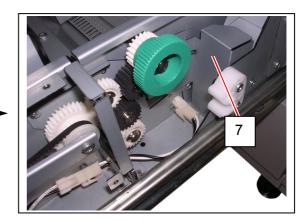
5-131 K124sm5eD

5. Remove 2 screws (4) to remove Slide Guide 2 R Assy (5).

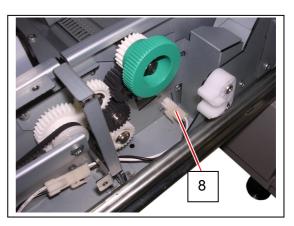


6. Remove 1 screw (6) to move Cover 7 (7).



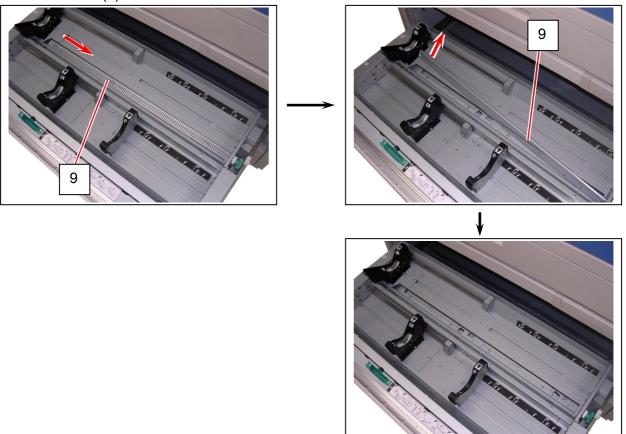


7. Disconnect 1 connector (8).

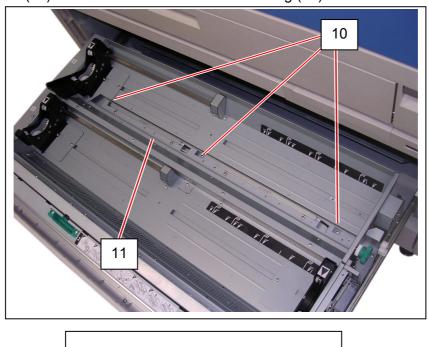


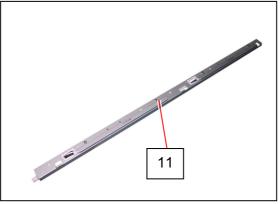
5-132 K124sm5eD

8. Move Cover 4 (9) to the arrow direction to remove it.



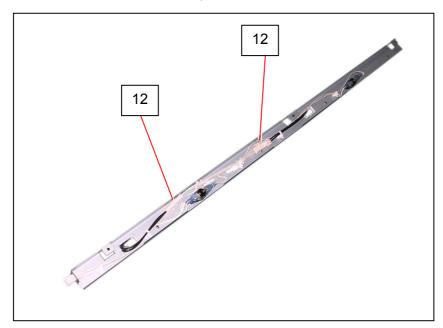
9. Remove 3 screws (10) to remove Roll 2 dehumidifier casing (11).

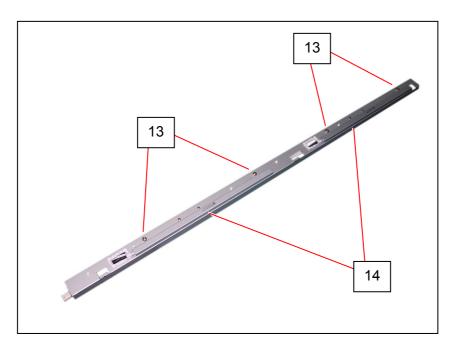




5-133 K124sm5eD

10. Disconnect 1 connector (12). Remove 2 screws (13). Remove and replace Resistor (square type) (14) with a new one.





5-134 K124sm5eD

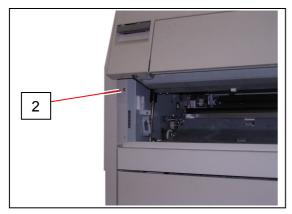
5. 5 Photoconductive Drum

5. 5. 1 Replacement of the Photoconductive Drum

1. Pull up the Lever 2 (1) to open the Engine Unit.

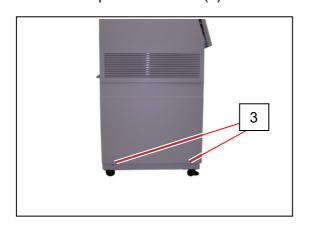


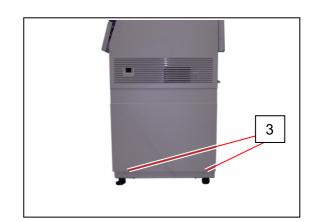
2. Remove the screws (2) at both sides.





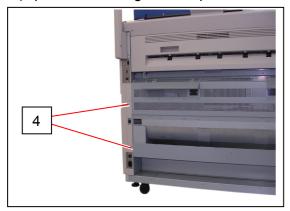
3. Remove 4 pieces of screw (3) at both sides.

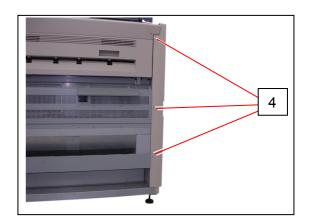




5-227 K124sm5eH

4. Remove 5 pieces of screw (4) at both sides. (2 pieces on the right and 3 pieces on the left)





5. Remove both Cover 2 (5) and Cover 3 (6).

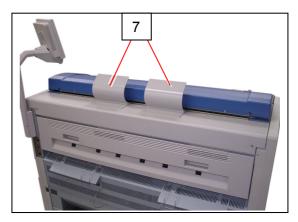




6. Close the Engine Unit.

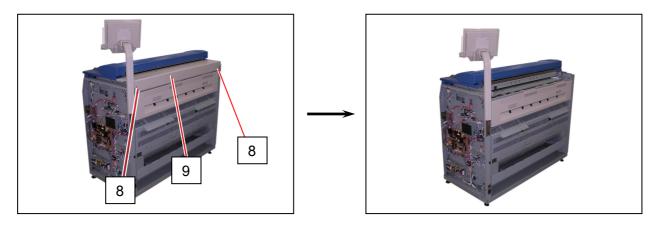


7. Remove the Guides 3 (7).

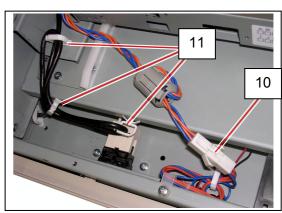


5-228 K124sm5eH

8. Remove 2 pieces of 4x6 screw (8) to remove the Cover 10 (9).



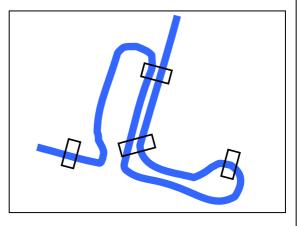
9. Disconnect the connector (10), and open the wire saddles (11) to release the harness.



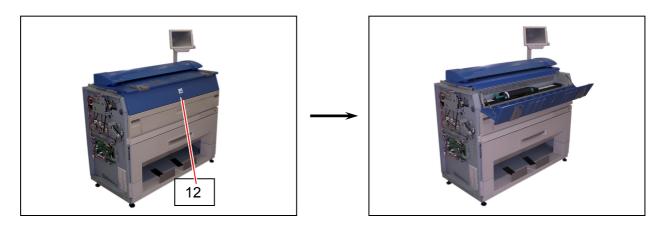


NOTE

Wind excessive length of the USB Cable with the wire saddles (11) when reassembling. Do not bundle the 2 cables in any of the wire saddles (11) together.

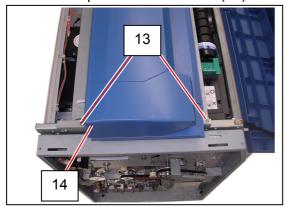


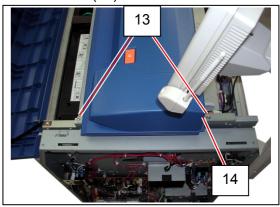
10. Open the Cover 4 (12).



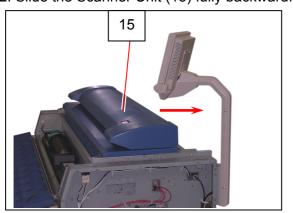
5-229 K124sm5eH

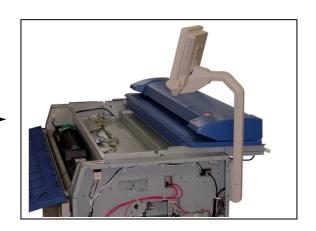
11. Remove 4 pieces of 4x6 screw (13) and 2 pieces of washer screw (14).





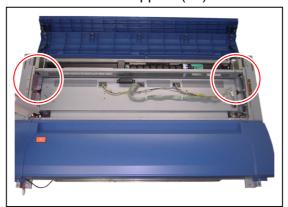
12. Slide the Scanner Unit (15) fully backward.





13. There are 2 pieces of Stopper (16) at both sides, which lock the LED Head Frame.

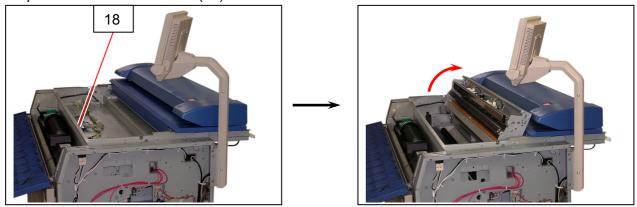
Loosen the screw (17) and then slide the Stoppers (16) outside to unlock the LED Head Frame.





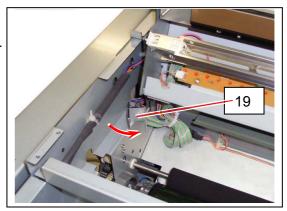
5-230 K124sm5eH

14. Open the LED Head Frame (18).

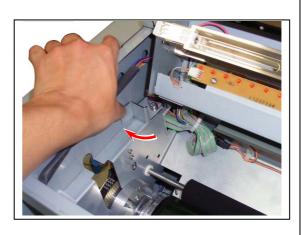


M NOTE

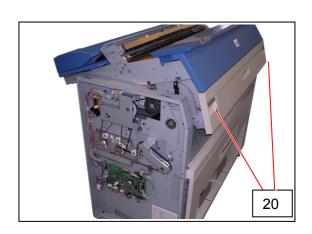
The Stopper 2 (19) comes out automatically to prevent the LED Head Frame from falling down.



Press the Stopper 2 as the right photo if you will close the LED Head Frame.



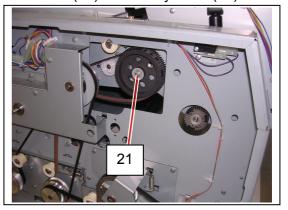
15. Pull up the Lever 2 (20) to open the Engine Unit.

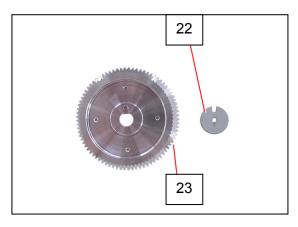


5-231 K124sm5eH

16. Remove 1 tooth washer screw (21: M4x8), and remove Plate 2 (22) and Pulley Gear (23).



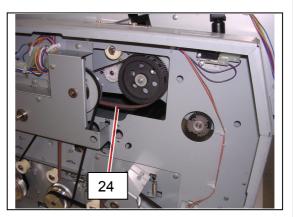




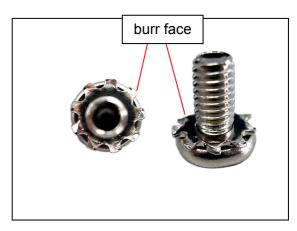
A NOTE

(1) Belt 4 (24) is automatically loosed with Engine Unit open.

It will be strained with Engine Unit closed.

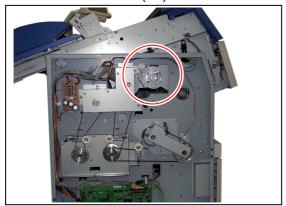


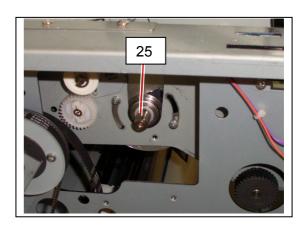
(2) The tooth washer screw (21) has a tooth washer of which burr face meets the composition surface.



5-232 K124sm5eH

17. Remove the Collar (25) from the left Drum Shaft.

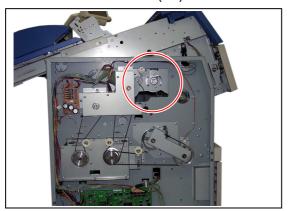


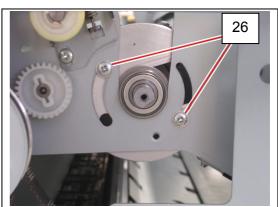


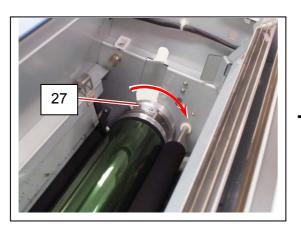
A NOTE

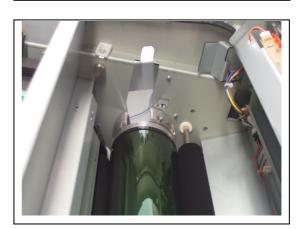
The new (spare) Drum Assembly does not include the Collar (25). So please reuse it.

18. There are 2 pieces of screw (26) on the left which fix the Block (27). Loosen these screws (26) and rotate the Block (27) as the arrow marks.



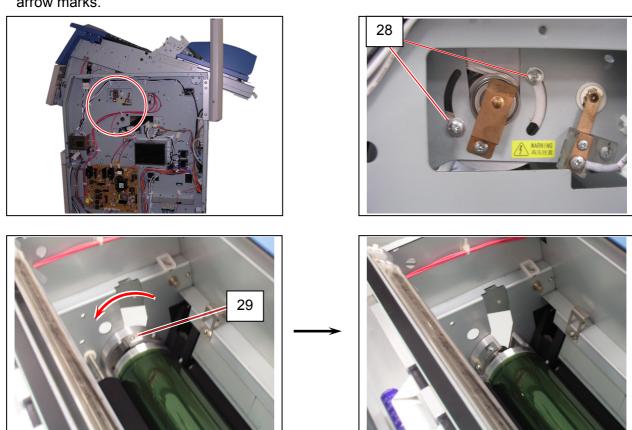




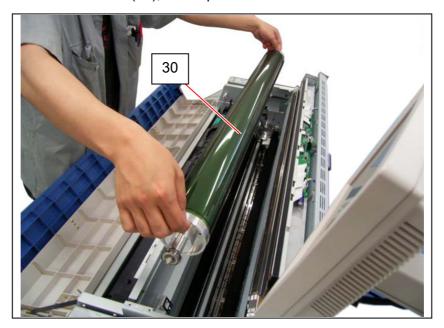


5-233 K124sm5eH

19. Similarly loosen 2 pieces of screw (28) on the right and rotate the Block 2 (29) as the arrow marks.



20. Remove Photoconductive Drum (30), and replace it with the new one.



M NOTE

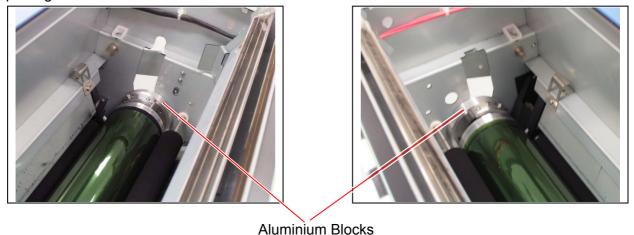
The Aluminium Block (27) and (29) maintain the focus of the LED Head. Therefore it is necessary to re-position them correctly after replacing the Photoconductive Drum.

Please fix them making reference to [5.5.2 How to fix the Aluminium Blocks] on page 5-235.

5-234 K124sm5eH

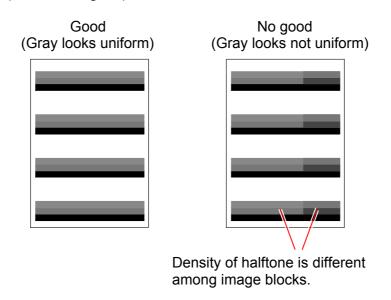
5. 5. 2 How to fix the Aluminium Blocks

There are Aluminium Blocks at both sides of the Drum Shaft. As they maintain the focus of LED Head, it is necessary to re-position them correctly after replacing the Photoconductive Drum.



Print out the Test Pattern No.3 to check if the Aluminium Blocks are fixed at the correct position. The density of halftone is uniform as the following left image if the Aluminium Blocks are fixed at the correct positions (focus is good).

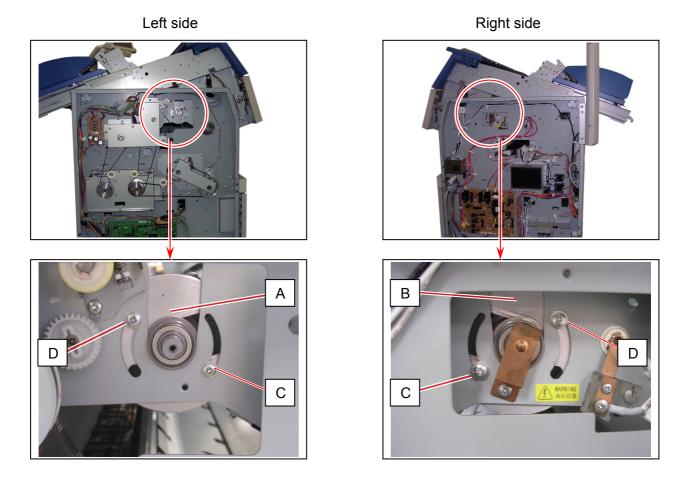
But the density of halftone is different among image blocks as the following right image if blocks are not fixed correctly (focus is not good).



If the focus of LED Head is not good, fix the Aluminium Blocks properly making reference to the next page.

5-235 K124sm5eH

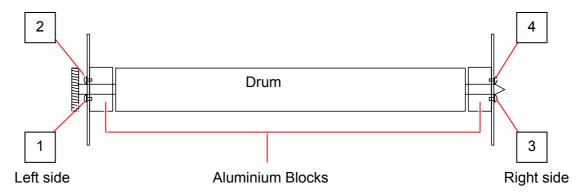
There are Aluminium Blocks (A) (B) at both sides, and each of them is fixed with 2 screws (C) (D).



Do as follows to fix the Aluminium Blocks correctly.

- a) Always fix the Aluminium Block of the left (A) first and then right (B).
- b) When you tighten 2 screws (C) (D) to fix each Aluminium Block, always tighten the lower one (C) first and then the upper one (D).

The following picture shows the order to tighten the screws. **Tighten in the order as 1 to 4 necessarily**.





The focus of LED Head will become defective if you do not satisfy the above requirements. Refer to the later pages for greater details.

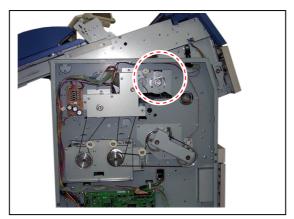
Using Drum Block Fix Tool (P/N Z168580040) is recommended.

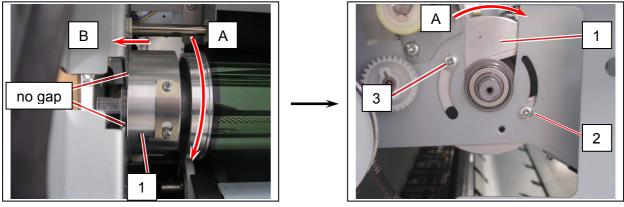
5-236 K124sm5eH

5. 5. 2. 1 Fixing Block with Drum Block Fix Tool

1. Rotate the left Block (1) fully to the arrow direction (A: to front) and also press it to the arrow direction (B: to outside). This will remove any gap between Block (1) and the side frame of the machine.

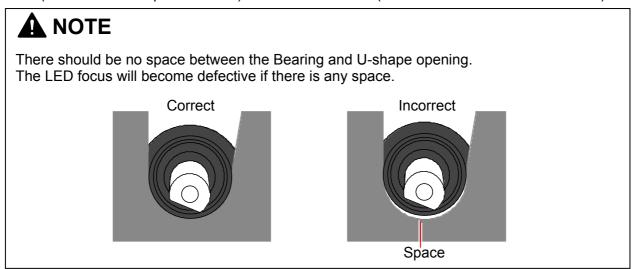
With holding Block (1), tighten the screws (2) (3) just enough turn to fix Block (1) temporarily.





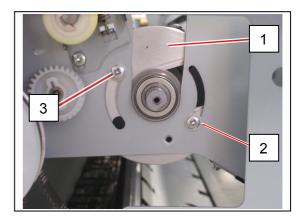
(Seen from the top of machine)

(Seen from the outside of machine)



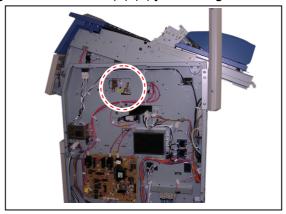
5-237 K124sm5eH

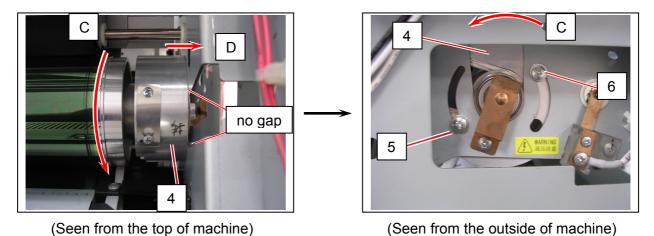
2. Loosen the screws (2) (3) in a (approximately) quarter turn to release Block (1). Check that no excessive backlash to sideways appears.



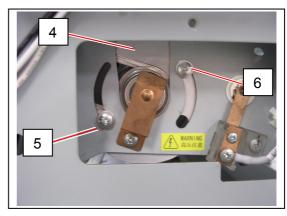
3. Similarly to step 1, rotate the right Block (4) fully to the arrow direction (C: to front) and also press it to the arrow direction (D: to outside). This will remove any gap between Block (4) and the side frame of the machine.

With holding Block (4), tighten the screws (5) (6) just enough turn to fix Block (6) temporarily.





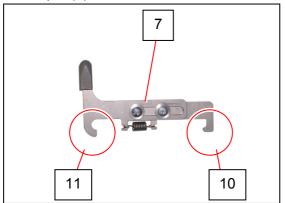
4. Loosen the screws (5) (6) in a (approximately) quarter turn to release Block (4). Check that no excessive backlash to sideways appears.

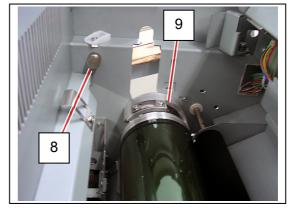


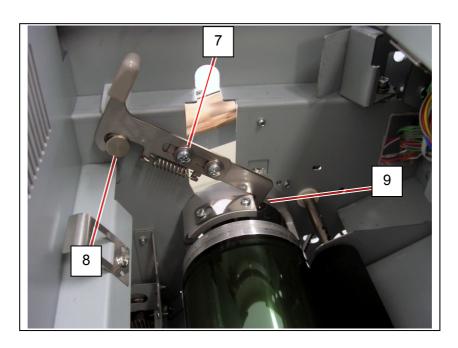
5-238 K124sm5eH

5. On the left side, hook Drum Block Fix Tool (7) on between the pin (8) on the frame and the U-shape opening (9) of Block (1).

Hook the rear hook (10) the rim of the U-shape opening (9) and the front hook (11) in the groove of the pin (8).



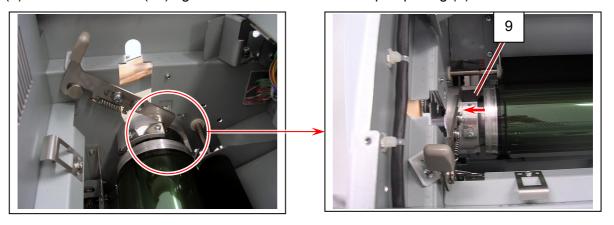




Λ

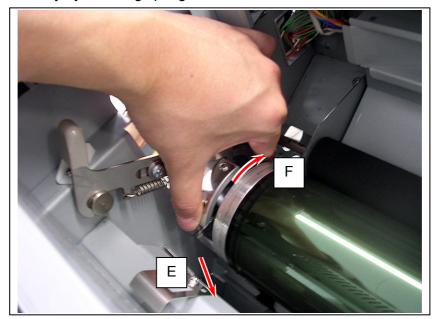
NOTE

- (1) Handle Drum Block Fix Tool with care. Be sure not to damage Drum or any other components when removing/attaching it.
- (2) Set the rear hook (10) against the corner rim of U-shape opening (9).

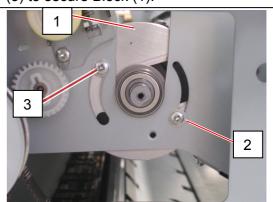


5-239 K124sm5eH

6. With pressing Block (1) down (E), slightly turn Block to the arrow direction (F) and release it to locate Block correctly by restoring spring.

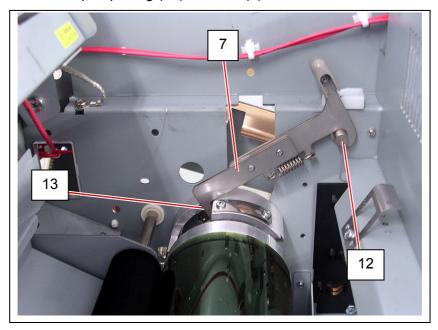


7. Tighten the lower screw (2) and then the upper screw (3) to secure Block (1).



5-240 K124sm5eH

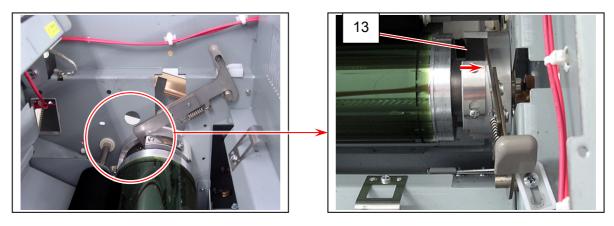
8. Similarly to step 5, on the right side, hook Drum Block Fix Tool (7) on between the pin (12) on the frame and the U-shape opening (13) of Block (4).



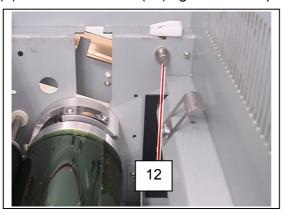
A

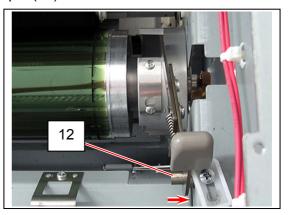
NOTE

- (1) Handle Drum Block Fix Tool with care. Be sure not to damage Drum or any other components when removing/attaching it.
- (2) Set the rear hook (10) against the corner rim of U-shape opening (13).



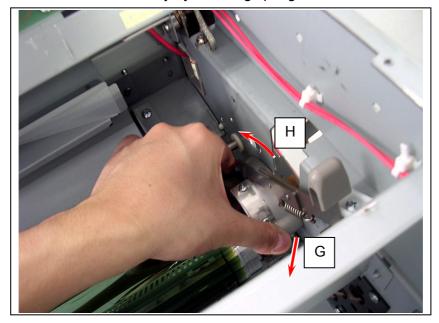
(3) Set the front hook (11) against the step on the pin (12).



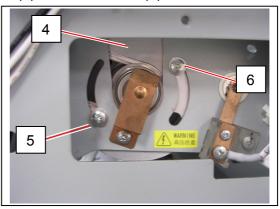


5-241 K124sm5eH

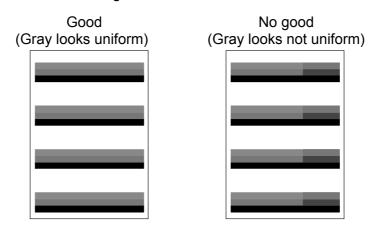
9. Similarly to step 6, with pressing Block (4) down (G), slightly turn Block to the arrow direction (H) and release it to locate Block correctly by restoring spring.



10. Tighten the lower screw (5) and then the upper screw (6) to secure Block (4).



- 11. Remove Drum Block Fix Tool. Replace all the parts in position and turn on the machine.
- 12. Print out the Test Pattern No.3, and confirm that the density of halftone is uniform. If it is still not uniform, fix Blocks again.



A NOTE

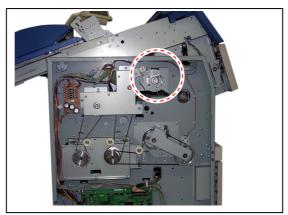
Only reseating Drum may lose LED Head focus on rare occasion even Blocks have been fixed properly. in such case please refer to [5.6.2.3 Focus Adjustment with Spacers] on page 5-274.

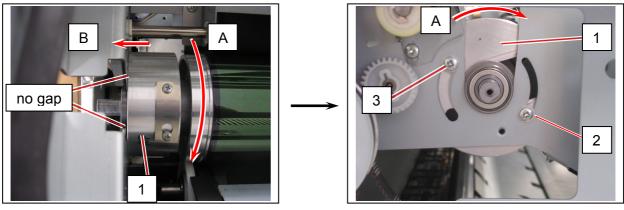
5-242 K124sm5eH

5. 5. 2. 2 Fixing Block by hand (w/o Drum Block Fix Tool)

1. Rotate the left Block (1) fully to the arrow direction (A: to front) and also press it to the arrow direction (B: to outside). This will remove any gap between Block (1) and the side frame of the machine.

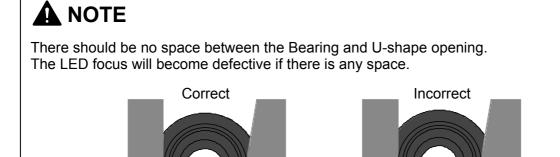
With holding Block (1), tighten the screws (2) (3) just enough turn to fix Block (1) temporarily.



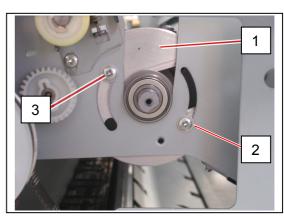


(Seen from the top of machine)

(Seen from the outside of machine)



2. Loosen the screws (2) (3) in a (approximately) quarter turn to release Block (1). Check that no excessive backlash to sideways appears.



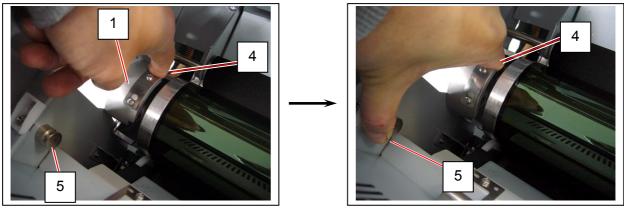
Space

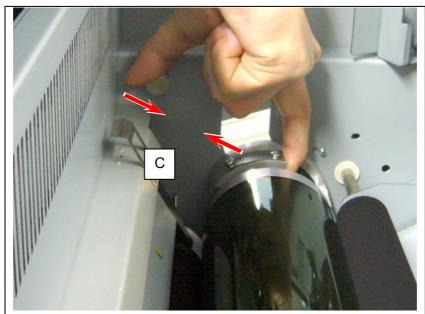
5-243 K124sm5eH

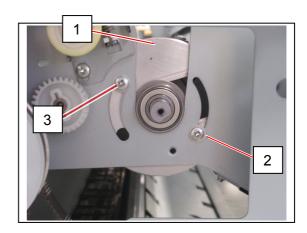
3. Put your finger inside the U-shape opening (4) of Block (1). Put the other finger on the pin (5) of the frame.

Push the fingers toward each other (C: inside). Note that the entire Block (1) is shifted towards the pin (5) by the finger at the U-shape opening (4).

While pushing and holding, tighten the lower screw (2) and then the upper screw (3) to secure Block (1).



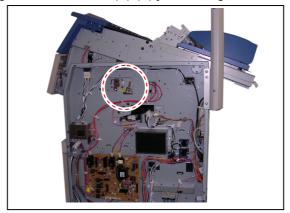


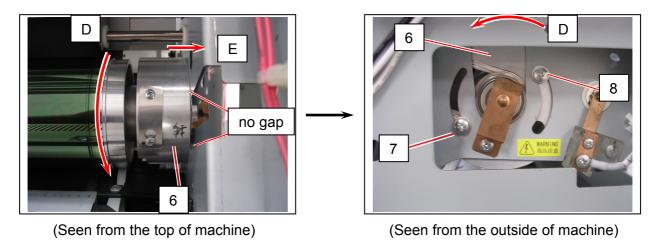


5-244 K124sm5eH

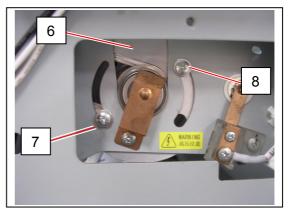
4. Similarly to step 1, rotate the right Block (6) fully to the arrow direction (D: to front) and also press it to the arrow direction (E: to outside). This will remove any gap between Block (6) and the side frame of the machine.

With holding Block (6), tighten the screws (7) (8) just enough turn to fix Block (6) temporarily.





5. Loosen the screws (7) (8) in a (approximately) quarter turn to release Block (6). Check that no excessive backlash to sideways appears.

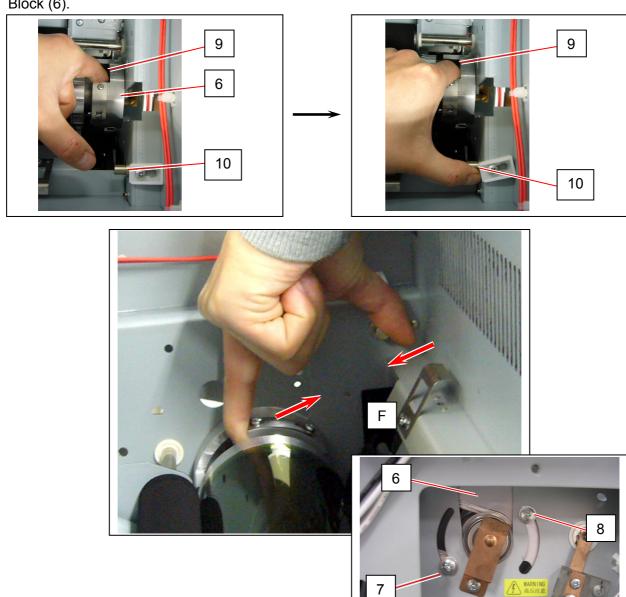


5-245 K124sm5eH

6. Similarly to step 3, put your finger inside the U-shape opening (9) of Block (6) and put the other finger on the pin (10) of the frame.

Push the fingers toward each other (F: inside). Note that the entire Block (6) is shifted towards the pin (10) by the finger at the U-shape opening (9).

While pushing and holding, tighten the lower screw (7) and then the upper screw (8) to secure Block (6).



7. Print out the Test Pattern No.3, and confirm that the density of halftone is uniform. If it is still not uniform, fix Blocks again.



5-246 K124sm5eH

5. 5. 3 Cleaning of Photoconductive Drum

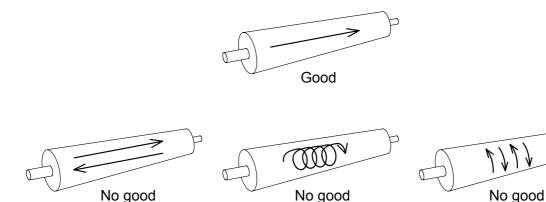
1. Remove the Photoconductive Drum from the machine making reference to [5. 5. 1 Replacement of the Photoconductive Drum] on the page 5-227.



- 2. Wipe the surface of Photoconductive Drum with a dry cloth.
- 3. If the toner strongly sticks on the surface and it is impossible to remove it, wipe with the cloth impregnated with the alcohol.
- 4. After using the alcohol, wipe all surface of Drum with a cloth impregnated with water so that there should be no unevenness of cleaning.
- 5. Wipe all surface of Drum with a dry cloth, and dry the Drum leaving in a dark place for about 10 minutes.
- 6. Put back the Drum to the machine.

▲ NOTE

- (1) A defective image may be printed right after the cleaning (about 10 to 20 sheets of A0), but it will be fixed naturally as the time passes.
- (2) Wipe the surface always to one direction. You will damage the Drum if you wipe in other ways.



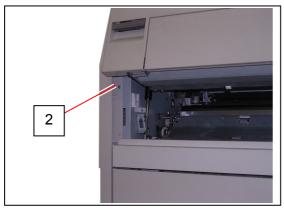
5-247 K124sm5eH

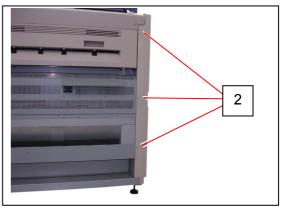
5. 5. 4 Replacement of Belt 4

1. Pull up the Lever 2 (1) to open the Engine Unit.



2. Remove 6 screws (2) to remove Cover 2 (3).



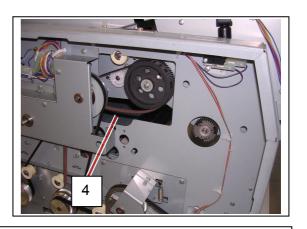






3. Remove Belt 4 (4).







Belt 4 is automatically unfastened if only you open the Engine Unit.

5-248 K124sm5eH

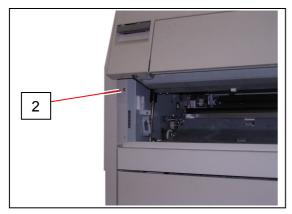
5. 6 LED Head

5. 6. 1 Replacement of the LED Head Unit

1. Pull up the Lever 2 (1) to open the Engine Unit.

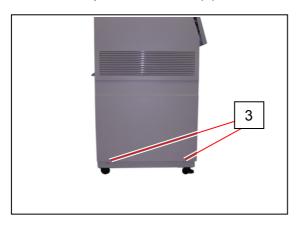


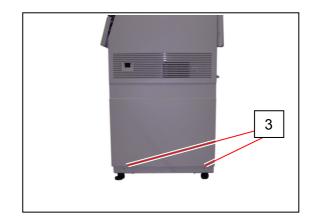
2. Remove the screws (2) at both sides.





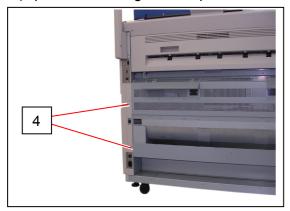
3. Remove 4 pieces of screw (3) at both sides.

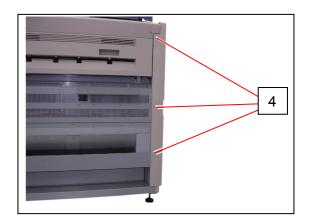




5-249 K124sm5el

4. Remove 5 pieces of screw (4) at both sides. (2 pieces on the right and 3 pieces on the left)





5. Remove both Cover 2 (5) and Cover 3 (6).

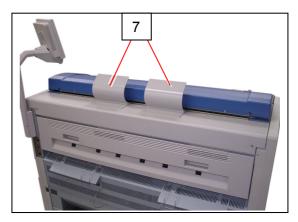




6. Close the Engine Unit.

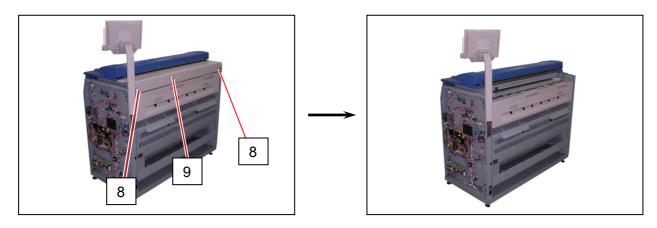


7. Remove the Guides 3 (7).

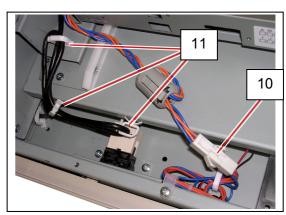


5-250 K124sm5el

8. Remove 2 pieces of 4x6 screw (8) to remove the Cover 10 (9).



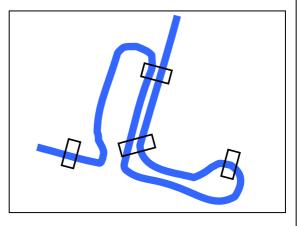
9. Disconnect the connector (10), and open the wire saddles (11) to release the harness.



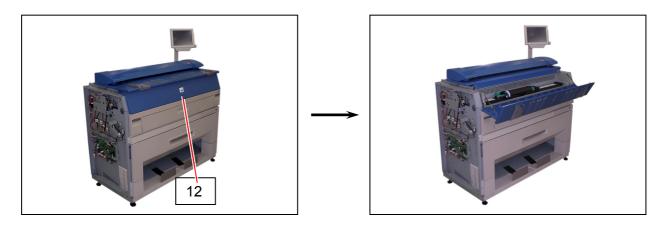


NOTE

Wind excessive length of the USB Cable with the wire saddles (11) when reassembling. Do not bundle the 2 cables in any of the wire saddles (11) together.

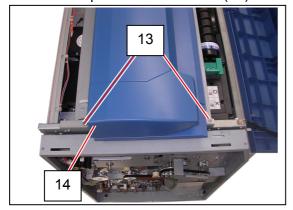


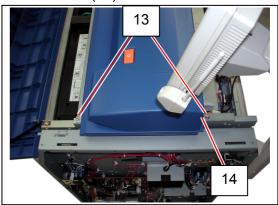
10. Open the Cover 4 (12).



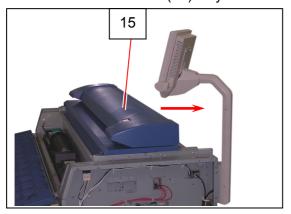
5-251 K124sm5el

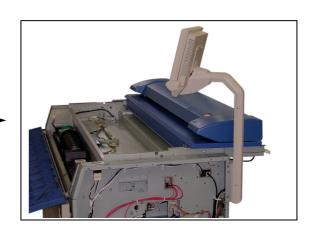
11. Remove 4 pieces of 4x6 screw (13) and 2 pieces of washer screw (14).





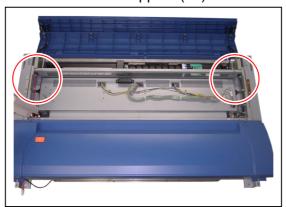
12. Slide the Scanner Unit (15) fully backward.

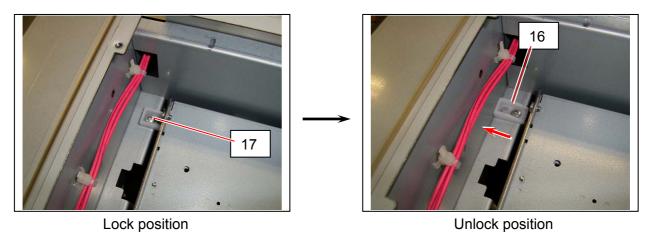




13. There are 2 pieces of Stopper (16) at both sides, which lock the LED Head Frame.

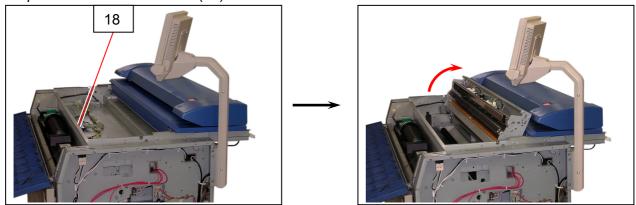
Loosen the screw (17) and then slide the Stoppers (16) outside to unlock the LED Head Frame.





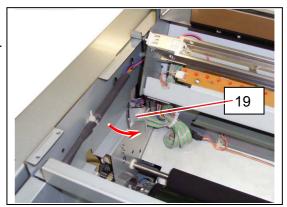
5-252 K124sm5el

14. Open the LED Head Frame (18).

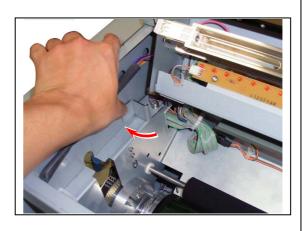


M NOTE

The Stopper 2 (19) comes out automatically to prevent the LED Head Frame from falling down.

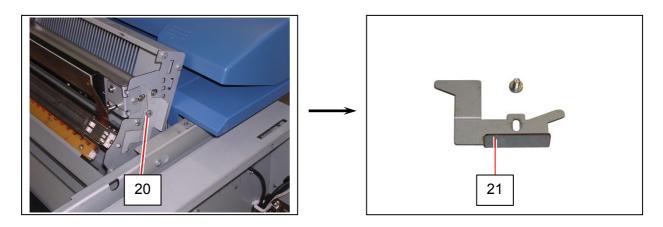


Press the Stopper 2 as the right photo if you will close the LED Head Frame.



5-253 K124sm5el

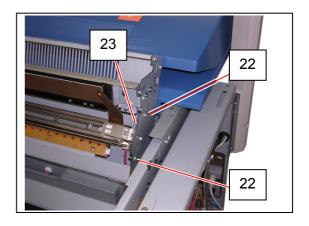
15. Remove the 4x6 screw (20) to remove the Fixing Bracket (21) on the right.



M NOTE

You do not have to put back the Fixing Bracket (21) at the time of reassembly, because it is a part required only before the delivery of machine.

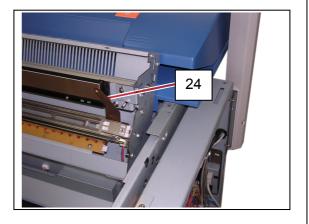
16. Loosen 2 pieces of 4x10 screw (22) to make the Plate (23) enough movable.



▲ NOTE

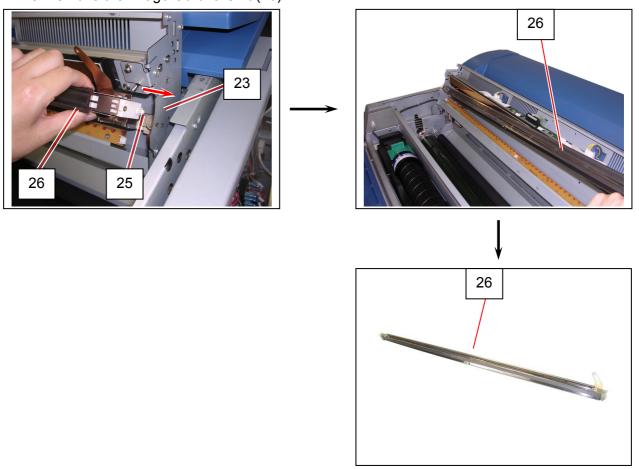
Be careful not to damage/deform/stretch Leaf Spring 2 (24).

Doing so may damage LED Head Unit.

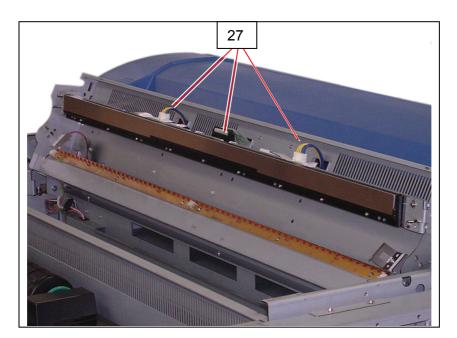


5-254 K124sm5el

17. Move the Plate (23) to the right to release the pin (25) of Corona Block. Then remove the Image Corona Unit (26).

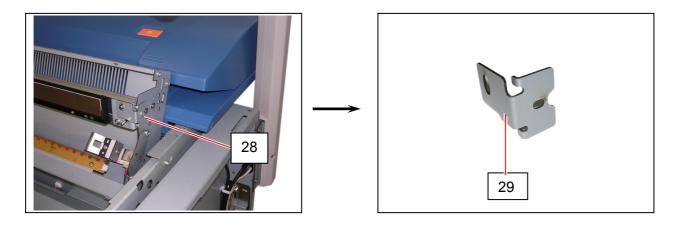


18. Disconnect 3 connectors (27).



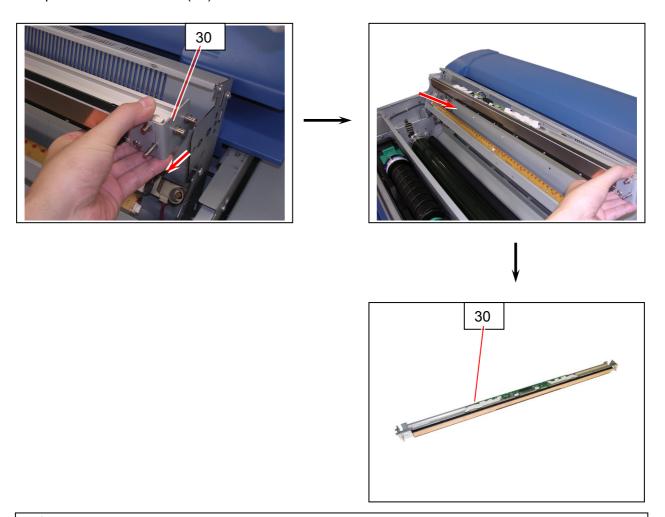
5-255 K124sm5el

19. Remove the screw (28) to remove the Bracket 2 (29).



20. Move the right end of LED Head (30) a little to the front side, and then slide the whole unit to the right.

Replace LED Head Unit (30) with the new one.



▲ NOTE

It is necessary to check and adjust the focus of LED Head after its replacement. Refer to [5. 6. 2 LED focus adjustment] on the next page.

5-256 K124sm5el

5. 6. 2 LED focus adjustment

Please adjust the focus of LED Head after the replacement of LED Head. Also adjust it if you have lost the correct focus by some reason.

Adjust the focus by the following 3 steps.

- (1) Check of the Test Pattern Image
- (2) Positioning of the Aluminium Blocks
- (3) Focus Adjustment with Spacers

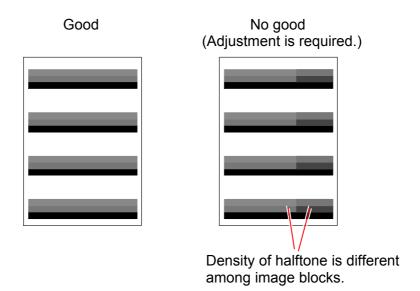
5. 6. 2. 1 Check of the Test Pattern Image

Print out the Test Pattern No.3 in the Service Mode, and check its halftone image.

If the density of halftone is uniform as the following left image, you do not have to make anything because the focus is correctly adjusted.

But it is different among image blocks as the following right image, it is necessary to adjust the focus.

Go to [5. 6. 2. 2 Positioning of the Aluminium Blocks] on the next page in this case.

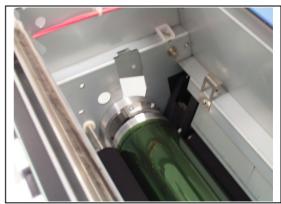


5-257 K124sm5el

5. 6. 2. 2 Positioning of the Aluminium Blocks

There are Aluminium Blocks at both sides of the Drum, which adjust the distance between LED Head and Drum. If the LED focus is not correct, at first it is necessary to place them at the correct positions in the following way.





A

NOTE

Using Drum Block Fix Tool is recommended.

Blocks can be fix properly without Drum Block Fix Tool, in such case please follow the later step 23 for further information.

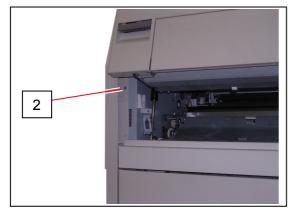


1. Pull up the Lever 2 (1) to open the Engine Unit.





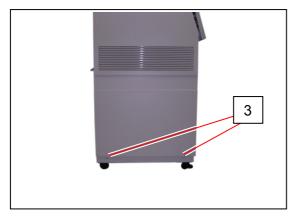
2. Remove the screws (2) at both sides.



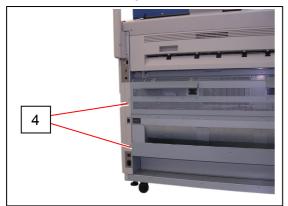


5-258 K124sm5el

3. Remove 4 pieces of screw (3) at both sides.



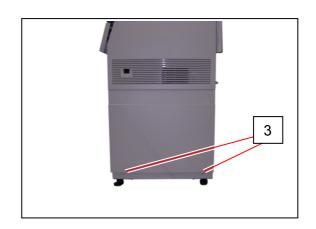
4. Remove 5 pieces of screw (4) at both sides. (2 pieces on the right and 3 pieces on the left)

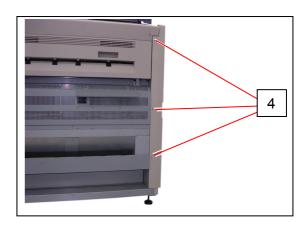


5. Remove both Cover 2 (5) and Cover 3 (6).



6. Close the Engine Unit.



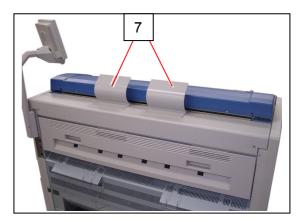




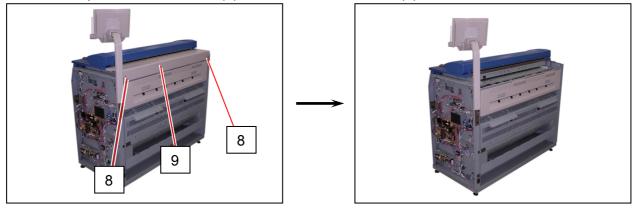


5-259 K124sm5el

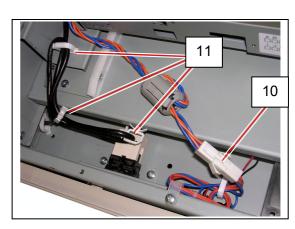
7. Remove the Guides 3 (7).



8. Remove 2 pieces of 4x6 screw (8) to remove the Cover 10 (9).



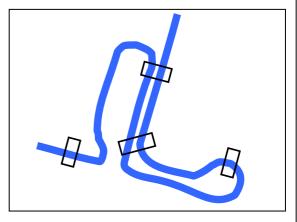
9. Disconnect the connector (10), and open the wire saddles (11) to release the harness.





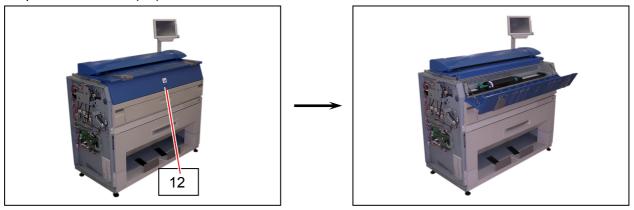
NOTE

Wind excessive length of the USB Cable with the wire saddles (11) when reassembling. Do not bundle the 2 cables in any of the wire saddles (11) together.

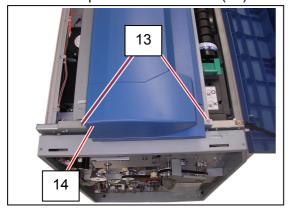


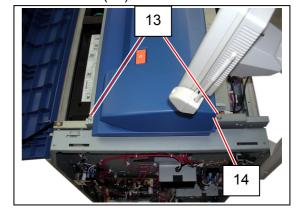
5-260 K124sm5el

10. Open the Cover 4 (12).

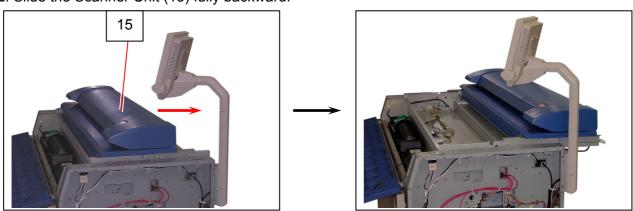


11. Remove 4 pieces of 4x6 screw (13) and 2 pieces of washer screw (14).



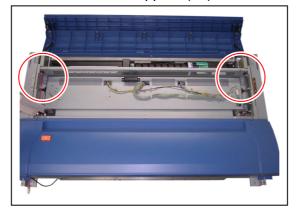


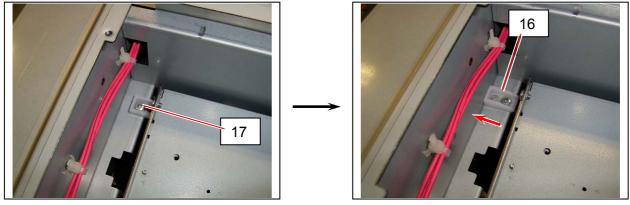
12. Slide the Scanner Unit (15) fully backward.



5-261 K124sm5el

13. There are 2 pieces of Stopper (16) at both sides, which lock the LED Head Frame. Loosen the screw (17) and then slide the Stoppers (16) outside to unlock the LED Head Frame.

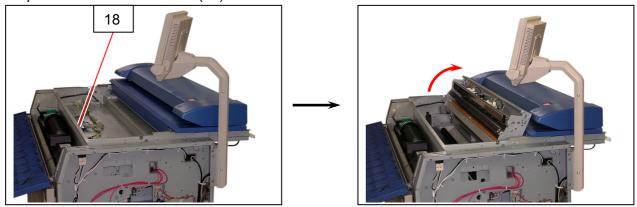




Lock position Unlock position

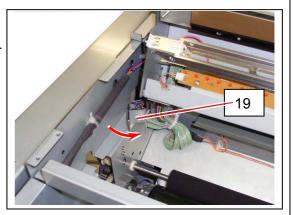
5-262 K124sm5el

14. Open the LED Head Frame (18).

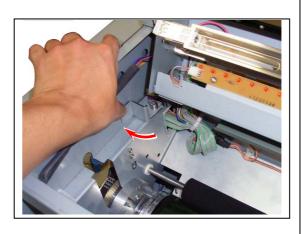


M NOTE

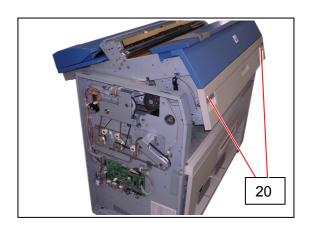
The Stopper 2 (19) comes out automatically to prevent the LED Head Frame from falling down.



Press the Stopper 2 as the right photo if you will close the LED Head Frame.



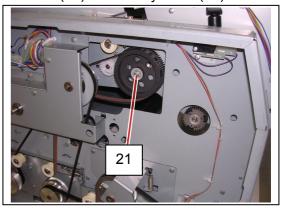
15. Pull up the Lever 2 (20) to open the Engine Unit.

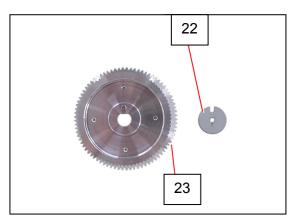


5-263 K124sm5el

16. Remove 1 tooth washer screw (21: M4x8), and remove Plate (22) and Pulley Gear (23).



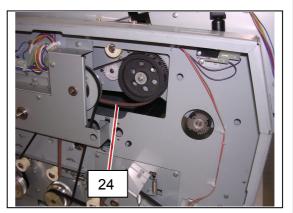




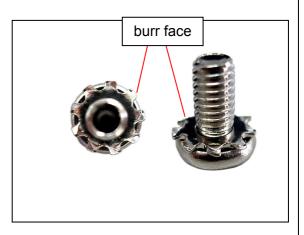
A NOTE

(1) Belt 4 (24) is automatically loosed with Engine Unit open.

It will be strained with Engine Unit closed.

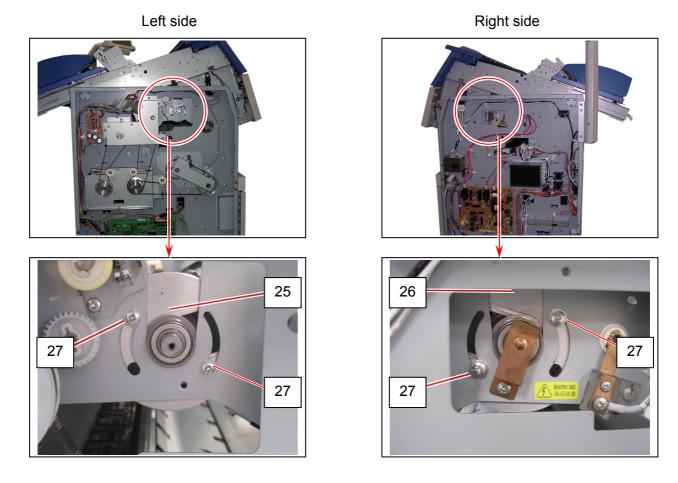


(2) The tooth washer screw (21) has a tooth washer of which burr face meets the composition surface.



5-264 K124sm5el

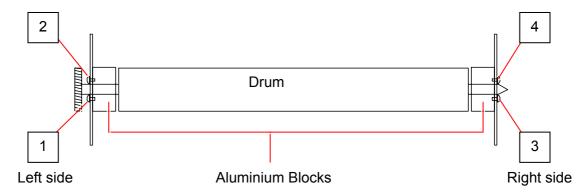
17. There are Aluminium Block (25: left) (26: right) and each of them is fixed with 2 screws (27).



Do as follows to fix the Aluminium Blocks correctly.

- a) Always fix the Aluminium Block of the left (25) first and then right (26).
- b) When you tighten 2 screws (C) (D) to fix each Aluminium Block, always tighten the lower one (C) first and then the upper one (D).

The following picture shows the order to tighten the screws. **Tighten in the order as 1 to 4 necessarily**.





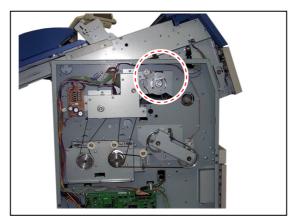
The focus of LED Head will become defective if you do not satisfy the above requirements. Refer to the later pages for greater details.

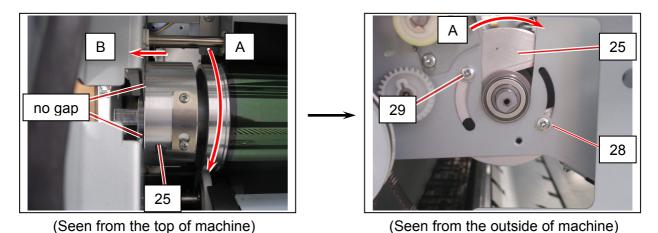
5-265 K124sm5el

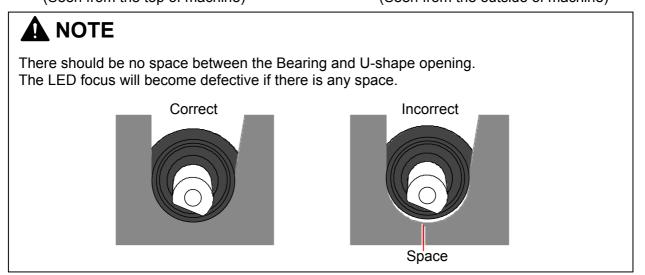
18. Rotate the left Block (25) fully to the arrow direction (A: to front) and also press it to the arrow direction (B: to outside). This will remove any gap between Block (25) and the side frame of the machine.

With holding Block (25), tighten the screws (28) (29) just enough turn to fix Block (25)

temporarily.

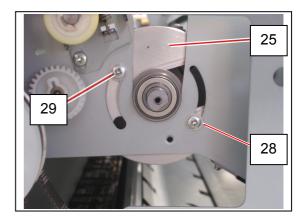






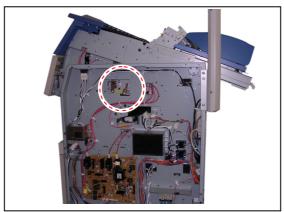
5-266 K124sm5el

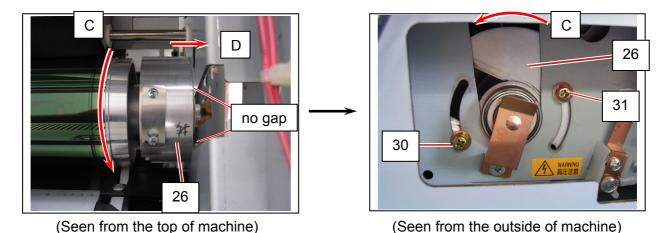
19. Loosen the screws (28) (29) in a (approximately) quarter turn to release Block (25). Check that no excessive backlash to sideways appears.



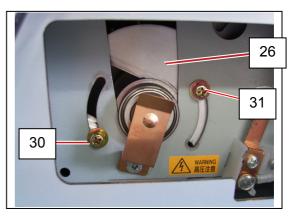
20. Similarly to step 18, rotate the right Block (26) fully to the arrow direction (C: to front) and also press it to the arrow direction (D: to outside). This will remove any gap between Block (26) and the side frame of the machine.

With holding Block (26), tighten the screws (30) (31) just enough turn to fix Block (26) temporarily.





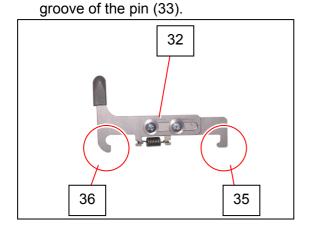
21. Loosen the screws (30) (31) in a (approximately) quarter turn to release Block (4). Check that no excessive backlash to sideways appears.

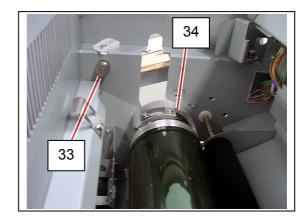


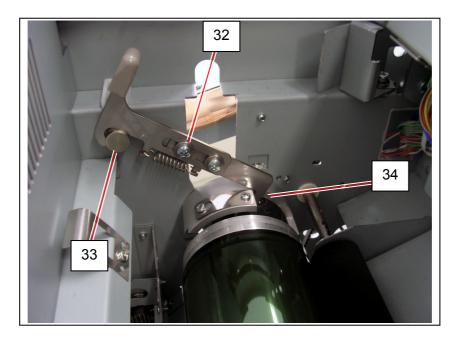
5-267 K124sm5el

- 22. Fix Blocks with Drum Block Fix Tool (or by hand). Go to step 22-1 for using Drum Block Fix Tool. Go to step 23 for without Drum Block Fix Tool.
- 22-1. On the left side, hook Drum Block Fix Tool (32) on between the pin (33) on the frame and the U-shape opening (34) of Block (25).

 Hook the rear hook (35) the rim of the U-shape opening (34) and the front hook (36) in the



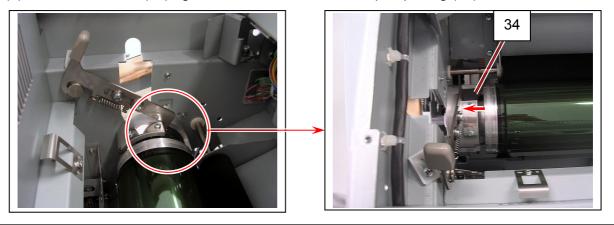




A

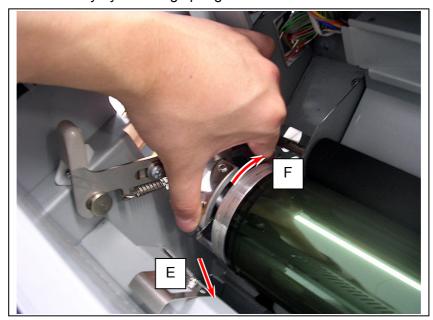
NOTE

- (1) Handle Drum Block Fix Tool with care. Be sure not to damage Drum or any other components when removing/attaching it.
- (2) Set the rear hook (35) against the corner rim of U-shape opening (34).

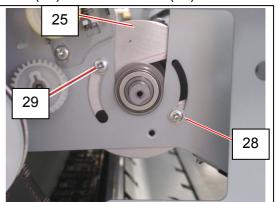


5-268 K124sm5el

22-2. With pressing Block (25) down (E), slightly turn Block to the arrow direction (F) and release it to locate Block correctly by restoring spring.

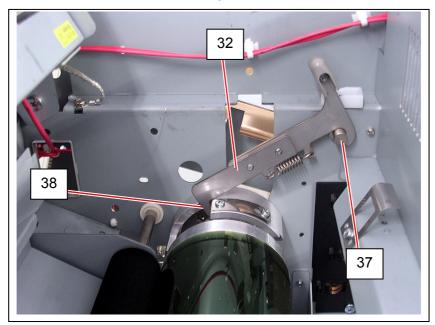


22-3. Tighten the lower screw (28) and then the upper screw (29) to secure Block (25).



5-269 K124sm5el

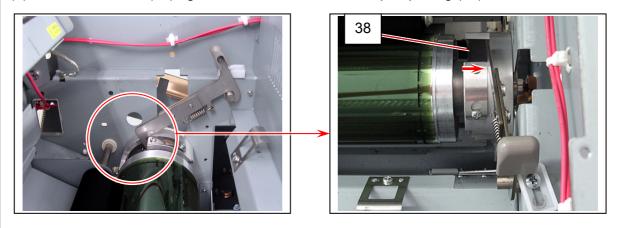
22-4. Similarly to step 22-2, on the right side, hook Drum Block Fix Tool (32) on between the pin (37) on the frame and the U-shape opening (38) of Block (26).



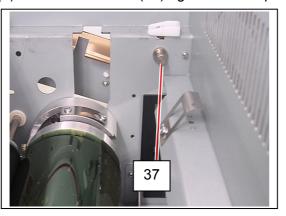
A

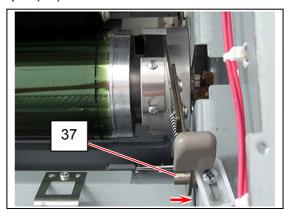
NOTE

- (1) Handle Drum Block Fix Tool with care. Be sure not to damage Drum or any other components when removing/attaching it.
- (2) Set the rear hook (35) against the corner rim of U-shape opening (38).



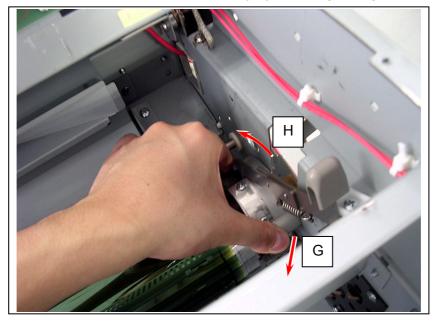
(3) Set the front hook (36) against the step on the pin (37).



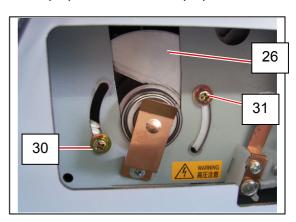


5-270 K124sm5el

22-5. Similarly to step 22-2, with pressing Block (26) down (G), slightly turn Block to the arrow direction (H) and release it to locate Block correctly by restoring spring.



22-6. Tighten the lower screw (30) and then the upper screw (31) to secure Block (26).



- 22-7. Remove Drum Block Fix Tool. Replace all the parts in position.
- 22-8. Print out the Test Pattern No.3, and confirm that the density of halftone is uniform. If it is still not uniform, fix Blocks again.



If it is still not uniform although you have fixed the Aluminium Blocks correctly, it is necessary to make focus adjustment with Spacers.

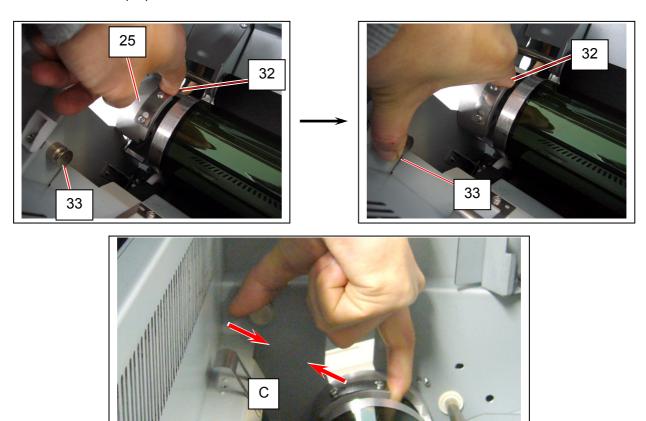
Go to [5. 6. 2. 3 Focus Adjustment with Spacers].

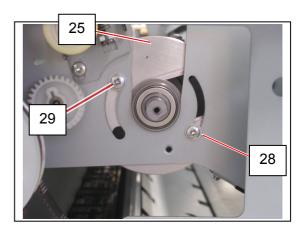
5-271 K124sm5el

- 23. Follow the instruction below to fix Blocks without Drum Block Fix Tool.
- 23-1. Put your finger inside the U-shape opening (32) of Block (25). Put the other finger on the pin (33) of the frame.

Push the fingers toward each other (C: inside). Note that the entire Block (25) is shifted towards the pin (33) by the finger at the U-shape opening (32).

While pushing and holding, tighten the lower screw (28) and then the upper screw (29) to secure Block (25).



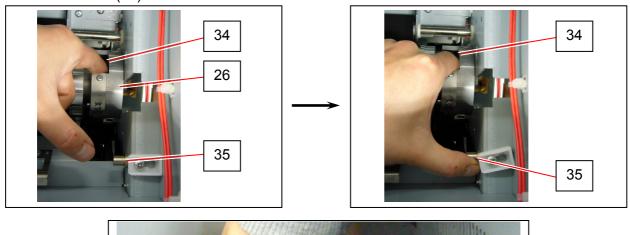


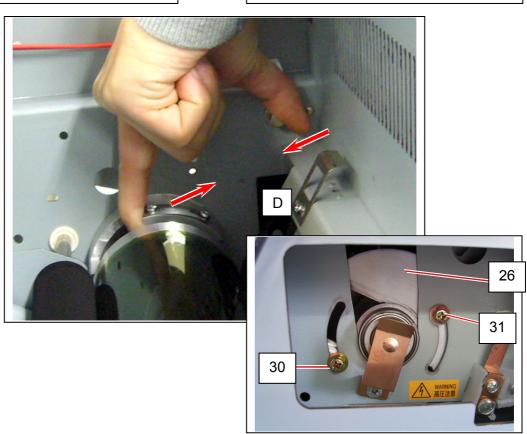
5-272 K124sm5el

23-2. Similarly to step 23-1, put your finger inside the U-shape opening (34) of Block (26) and put the other finger on the pin (35) of the frame.

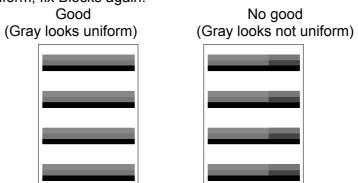
Push the fingers toward each other (D: inside). Note that the entire Block (26) is shifted towards the pin (35) by the finger at the U-shape opening (34).

While pushing and holding, tighten the lower screw (30) and then the upper screw (31) to secure Block (26).





23-3. Print out the Test Pattern No.3, and confirm that the density of halftone is uniform. If it is still not uniform, fix Blocks again.



If it is still not uniform although you have fixed the Aluminium Blocks correctly, it is necessary to make focus adjustment with Spacers.

Go to [5. 6. 2. 3 Focus Adjustment with Spacers].

5-273 K124sm5el

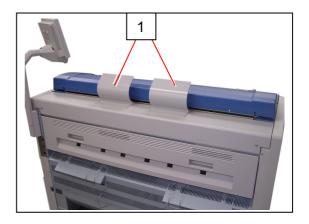
5. 6. 2. 3 Focus Adjustment with Spacers

There may be the case that the focus of LED is not correct even if you have placed the Aluminium Blocks at both sides of the Drum Shaft correctly.

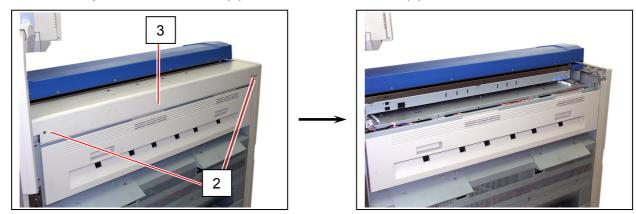
This is because the height of the LED is mechanically different between left and right by some reason.

In this case adjust the height by adding or removing the Spacers.

1. Remove the Guides 3 (1).

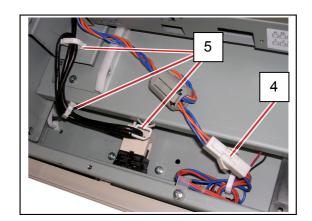


2. Remove 2 pieces of 4x6 screw (2) to remove the Cover 10 (3).



5-274 K124sm5el

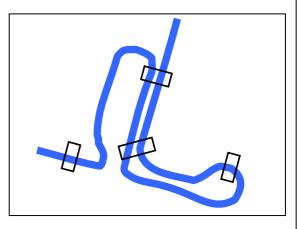
3. Disconnect the connector (4), and open the wire saddles (5) to release the harness.



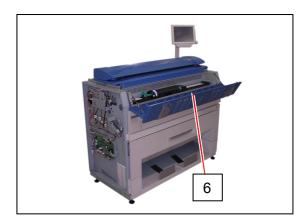
A

NOTE

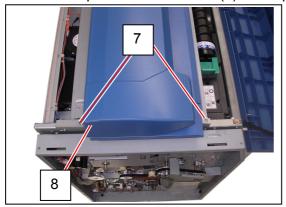
Wind excessive length of the USB Cable with the wire saddles (5) when reassembling. Do not bundle the 2 cables in any of the wire saddles (5) together.

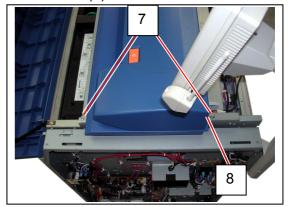


4. Open the Cover 4 (6).



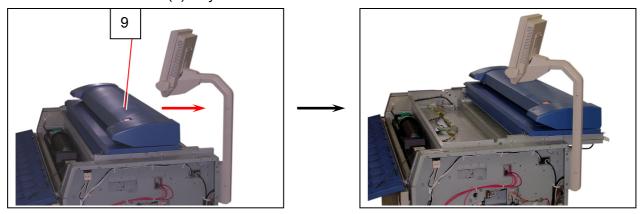
5. Remove 4 pieces of 4x6 screw (7) and 2 pieces of washer screw (8).



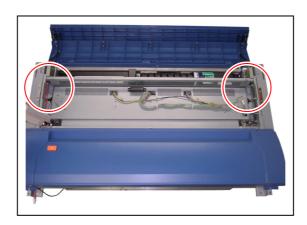


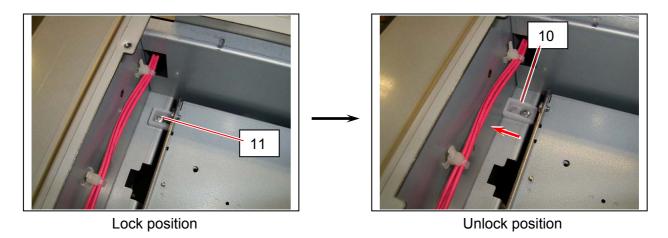
5-275 K124sm5el

6. Slide the Scanner Unit (9) fully backward.



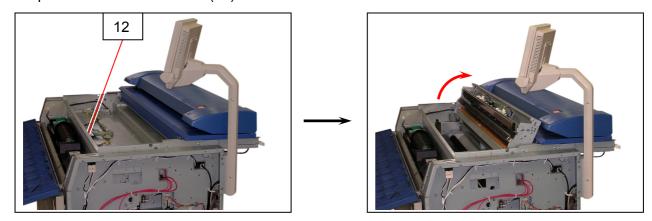
7. There are 2 pieces of Stopper (10) at both sides, which lock the LED Head Frame. Loosen the screw (11) and then slide the Stoppers (10) outside to unlock the LED Head Frame.





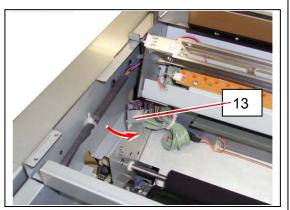
5-276 K124sm5el

8. Open the LED Head Frame (12).

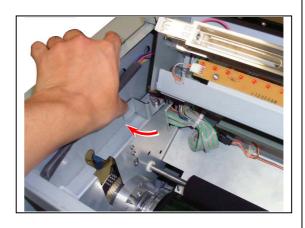


A NOTE

The Stopper 2 (13) comes out automatically to prevent the LED Head Frame from falling down.



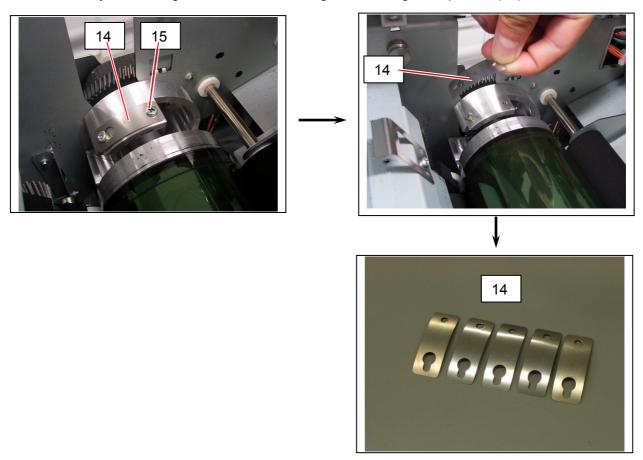
Press the Stopper 2 as the right photo if you will close the LED Head Frame.



5-277 K124sm5el

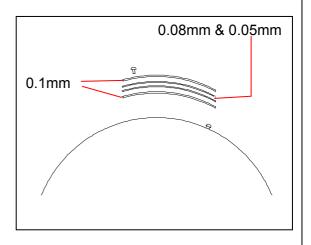
There are Spacers (14) on each Aluminium Block at both sides.
 The height of the LED Head can be adjusted by adding more Spacer or removing some of them.

Remove the screw (15), and remove all Spacers (14) at first. And then adjust the height of LED Head adding or removing the Spacers (14).



A NOTE

- (1) The number of Spacers initially installed is individually different machine to machine.
- (2) There are 3 kinds of spacers such as "0.1mm", "0.08mm" and "0.05mm" in thickness. Please find the best combination by making several times of trial.
- (3) Basically thinner Spacers (0.08mm & 0.05mm ones) must be held between the 0.1mm Spacer as the right picture.



5-278 K124sm5el

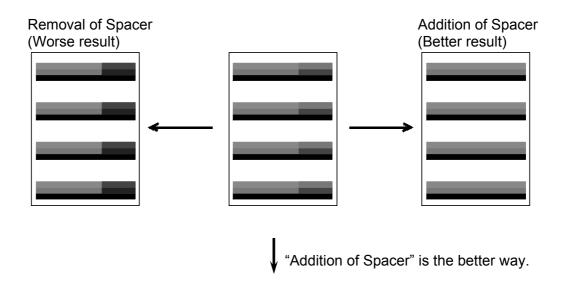


(4) It is quite not clear which of "addition" or "removal" of Spacer is effective to solve the focus problem.

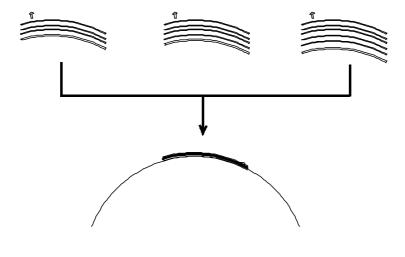
(Even if the defective image caused by the focus problem looks same, for example, it is fixed by "addition" in some case but in another case it is fixed by "removal".

Only the way to find the best focus is just "trial".

Please try both "removal" and "addition" to find which way the image becomes better. After finding the better way, try several combinations of Spacers to find the best height.



Try several combinations of Spacers by adding the Spacers gradually.



5-279 K124sm5el

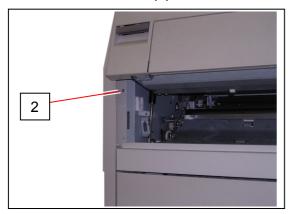
5. 7 Image Corona

5. 7. 1 Removal of the Image Corona Unit

1. Pull up the Lever 2 (1) to open the Engine Unit.

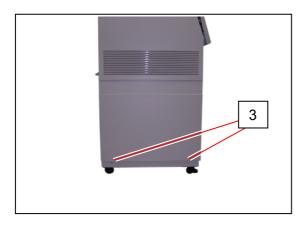


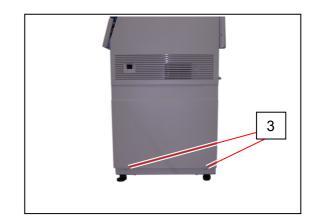
2. Remove the screws (2) at both sides.





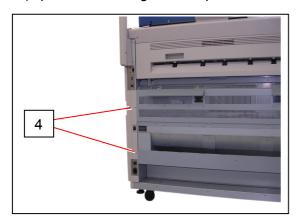
3. Remove 4 pieces of screw (3) at both sides.

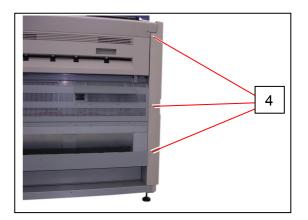




5-280 K124sm5eJ

4. Remove 5 pieces of screw (4) at both sides. (2 pieces on the right and 3 pieces on the left)





5. Remove both Cover 2 (5) and Cover 3 (6).

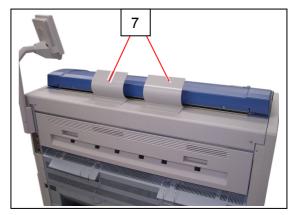




6. Close the Engine Unit.

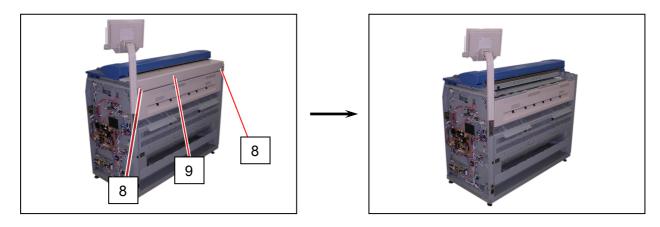


7. Remove the Guides 3 (7).

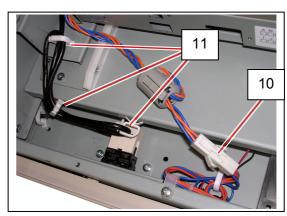


5-281 K124sm5eJ

8. Remove 2 pieces of 4x6 screw (8) to remove the Cover 10 (9).



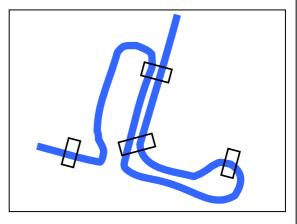
9. Disconnect the connector (10), and open the wire saddles (11) to release the harness.



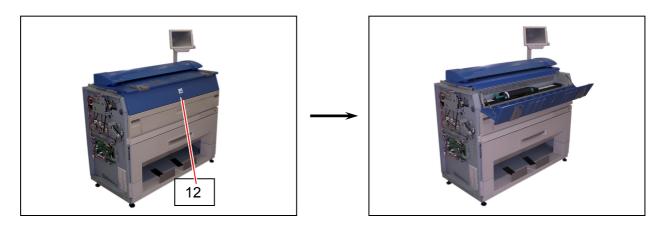


NOTE

Wind excessive length of the USB Cable with the wire saddles (11) when reassembling. Do not bundle the 2 cables in any of the wire saddles (11) together.

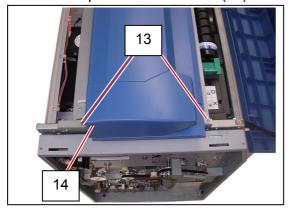


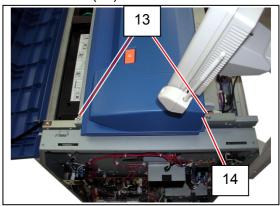
10. Open the Cover 4 (12).



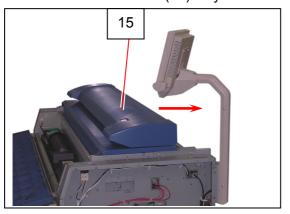
5-282 K124sm5eJ

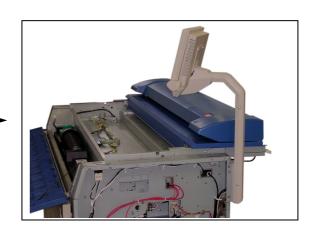
11. Remove 4 pieces of 4x6 screw (13) and 2 pieces of washer screw (14).





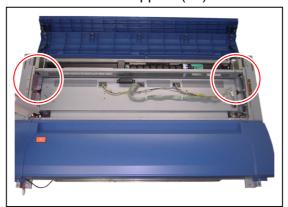
12. Slide the Scanner Unit (15) fully backward.

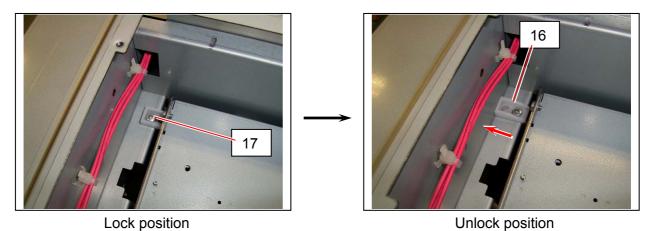




13. There are 2 pieces of Stopper (16) at both sides, which lock the LED Head Frame.

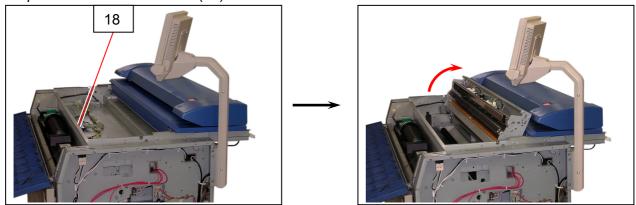
Loosen the screw (17) and then slide the Stoppers (16) outside to unlock the LED Head Frame.





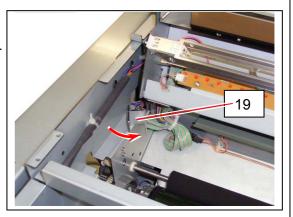
5-283 K124sm5eJ

14. Open the LED Head Frame (18).

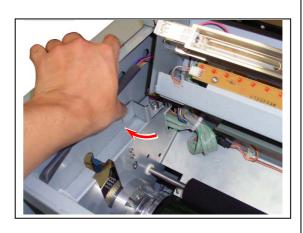


A NOTE

The Stopper 2 (19) comes out automatically to prevent the LED Head Frame from falling down.

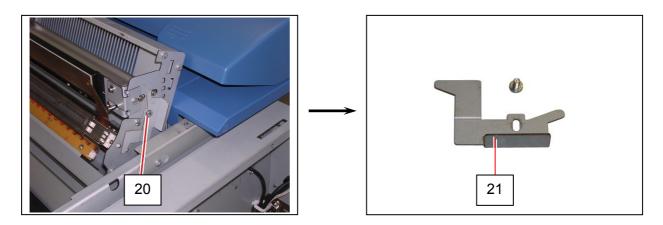


Press the Stopper 2 as the right photo if you will close the LED Head Frame.



5-284 K124sm5eJ

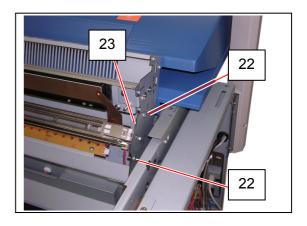
15. Remove the 4x6 screw (20) to remove the Fixing Bracket (21) on the right.



A NOTE

You do not have to put back the Fixing Bracket (21) at the time of reassembly, because it is a part required only before the delivery of machine.

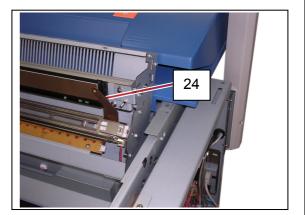
16. Loosen 2 pieces of 4x10 screw (22) to make the Plate (23) enough movable.



A NOTE

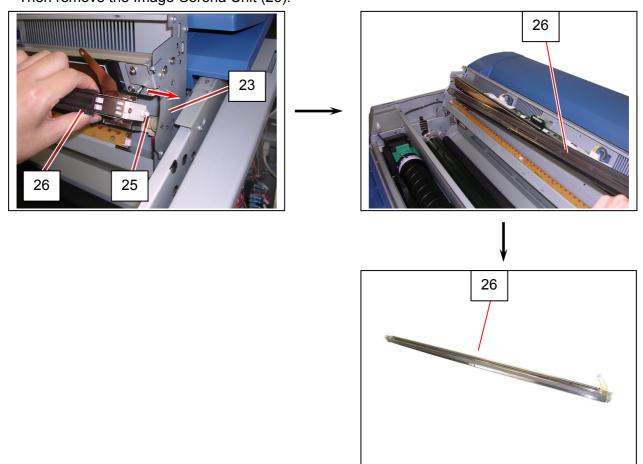
Be careful not to damage/deform/stretch Leaf Spring 2 (24).

Doing so may damage LED Head Unit.



5-285 K124sm5eJ

17. Move the Plate (23) to the right to release the pin (25) of Corona Block. Then remove the Image Corona Unit (26).



5-286 K124sm5eJ

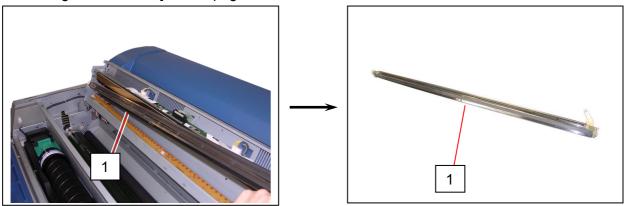
5. 7. 2 Replacement of the Corona Wire

▲ NOTE

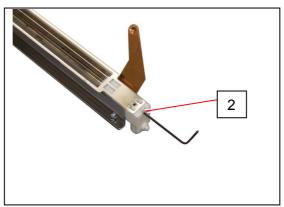
A periodic replacement for the following parts is recommended.

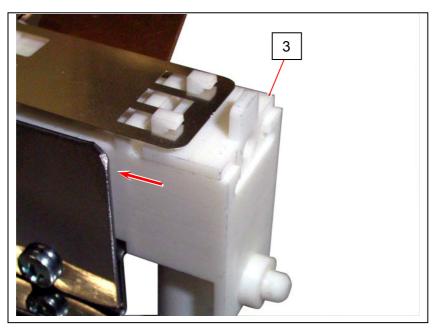
Item	Number of article	Remarks
Corona Wire (1) Assy	1	All of these parts are contained in
Spring 2	1	"Corona Wire Kit" (Z160980200)

1. Remove the Image Corona Unit (1) from the machine making reference to [5. 7. 1 Removal of the Image Corona Unit] on the page 5-280.



2. Loosen the Set Screw (2) with hexagon wrench.
The Block 3 (3) moves to the arrow mark and the Grid Plate is unfastened.





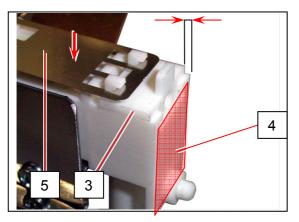
5-287 K124sm5eJ

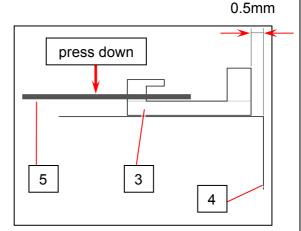


Check the following when reassembling.

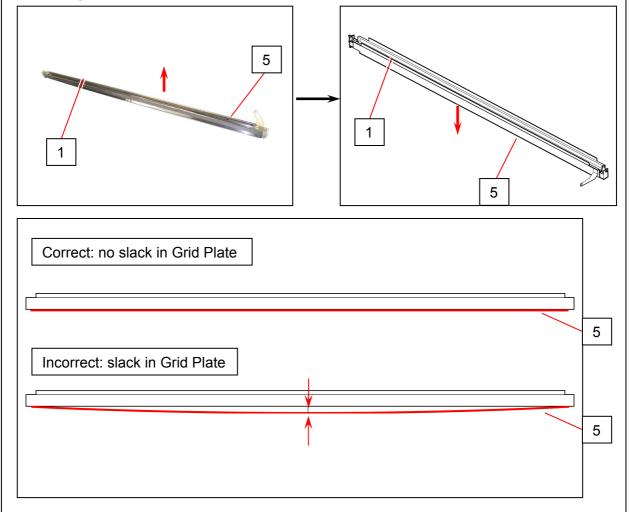
(1) The side edge of Block 3 (3) should stop at 0.5mm short of the side face (4) of the corona block for a proper tension.

Rotate a hexagon wrench in either direction with pressing down Grid Plate (5). 0.5mm

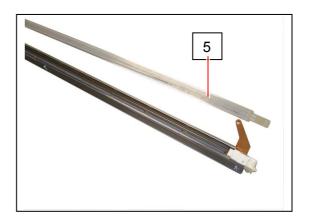




(2) Carry Image Corona Unit (1) by both corona blocks so that Grid Plate (5) faces the floor. Make sure that Grid Plate (5) has no excess slack (in less than 1mm) on the middle of the housing.



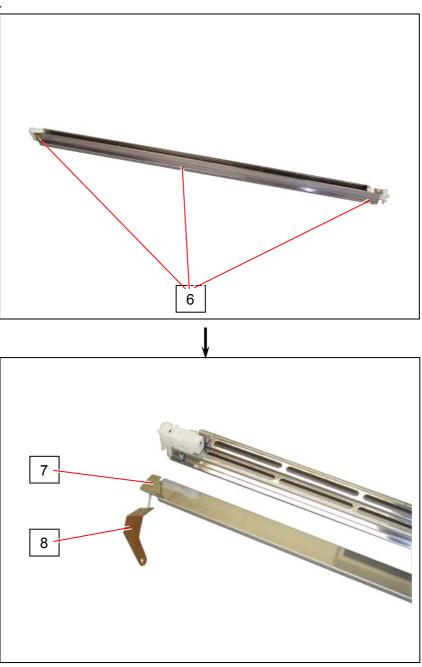
3. Remove the Grid Plate (5).



M NOTE

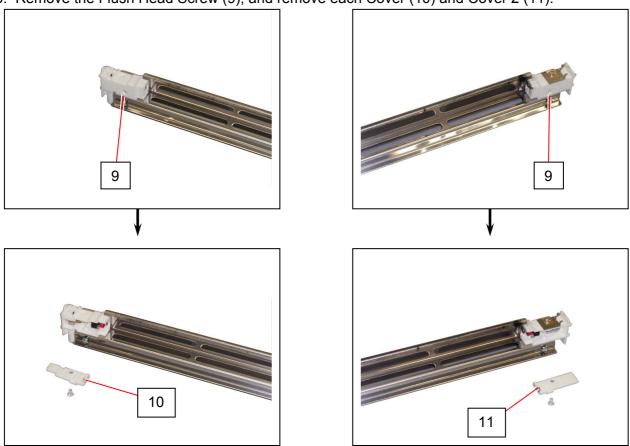
If Grid Plate is dirty, wash it with the neutral detergent and then with water. Dry it well after washing.

4. Loosen 3 pieces of 3x6 screw (6), and then remove Corona Housing (7) and Plate Electrode (8).

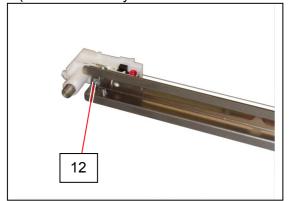


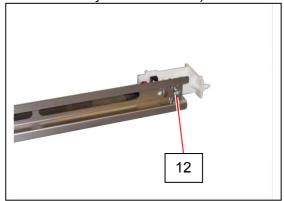
K124sm5eJ 5-289

5. Remove the Flush Head Screw (9), and remove each Cover (10) and Cover 2 (11).



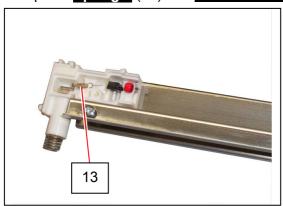
6. Loosen the screws (12) to lower the Height Adjuster.
(It becomes easy to remove the Corona Wire as it is unfastened by this treatment.)

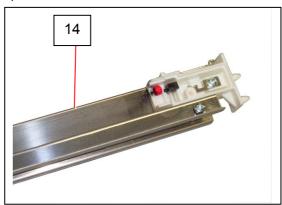




5-290 K124sm5eJ

7. Remove Spring 2 (13) and Corona Wire 1 Assy (14). Replace Spring 2 (13) and Corona Wire 1 Assy (14) with new ones.

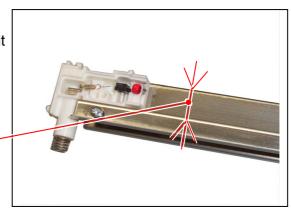




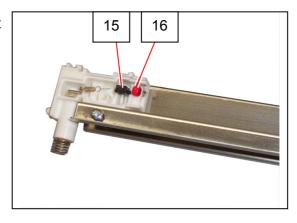
A NOTE

(1) Please keep 11mm between Corona Wire (14) and bottom plate of the Corona Unit after the replacement.

11mm



(2) Fit the Corona Wire into the groove of Height Adjuster (15).Also fit the beads (16) into the correct positions.

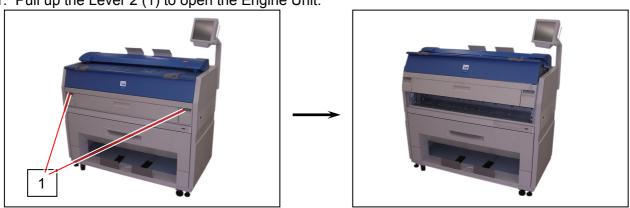


5-291 K124sm5eJ

5. 8 Transfer / Separation Corona

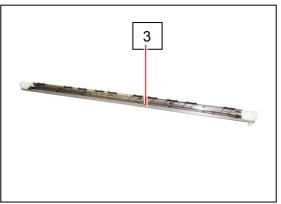
5. 8. 1 Removal of the Transfer / Separation Corona

1. Pull up the Lever 2 (1) to open the Engine Unit.



2. Holding both Corona Blocks (2: white plastic), remove the Transfer / Separation Corona (3) from the machine.







There is the Drum above the Transfer / Separation Corona. Do not touch it.

5-292 K124sm5eK

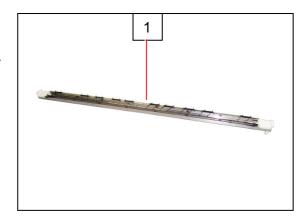
5. 8. 2 Replacement of Corona Wires

A NOTE

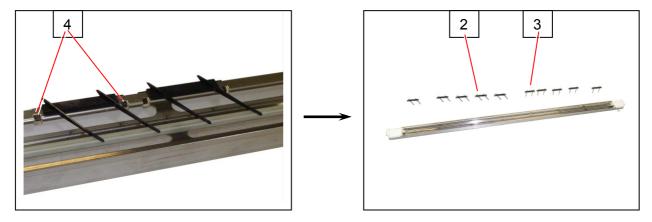
A periodic replacement for the following parts is recommended.

Item	Number of article	Remarks
Corona Wire	2	All of these parts are contained in
Wire Spring	4	"Corona Wire Kit" (Z160980200)

1. Remove the Transfer / Separation Corona (1) making reference to [5. 8. 1 Removal of the Transfer / Separation Corona] on the page 5-292.



2. There are 5 pieces of Corona Guards A (2) and Corona Guards B (3) on the housing. Remove them pressing the stoppers (4) with such tool as a screwdriver.

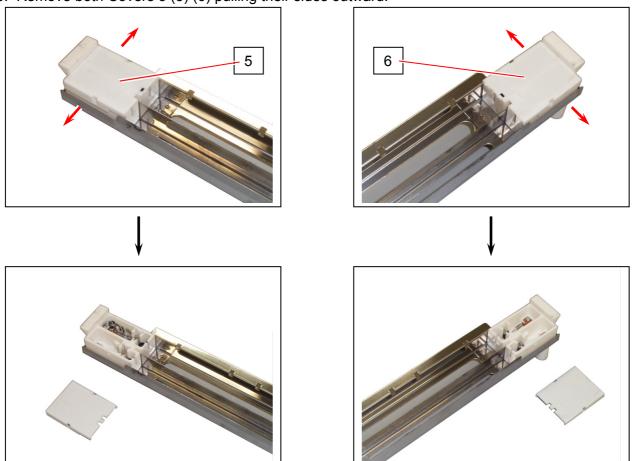




Do not replace the position of Corona Guards A (2) and Corona Guards B (3) at the time of reassembly.

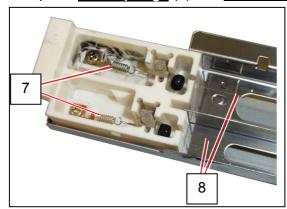
> K124sm5eK 5-293

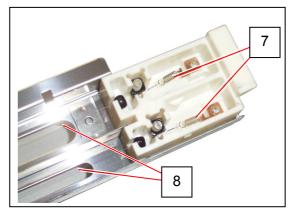
3. Remove both Covers 3 (5) (6) pulling their sides outward.



5-294 K124sm5eK

4. Remove 4 pieces of Wire Springs (7) and Corona Wires (8). Replace Wire Springs (7) and Corona Wires (8) with new ones.



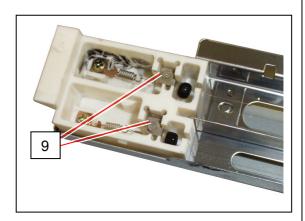


A NOTE

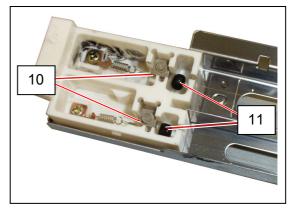
positions.

- (1) Do not touch the wire part. Pinch the hook part of both ends to handle Corona Wire.
- (2) Keep <u>11mm</u> distance (height) between each Corona Wire and bottom plate of the housing.

To adjust the distance, rotate the screws (9) with a flathead screwdriver.



(3) Fit the Corona Wire into the groove of Height Adjuster (10).
Also fit the beads (11) into the correct



5-295 K124sm5eK

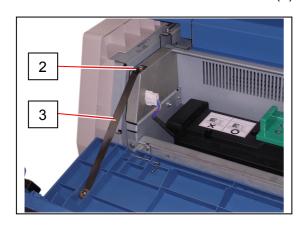
5. 9 Engine Frame

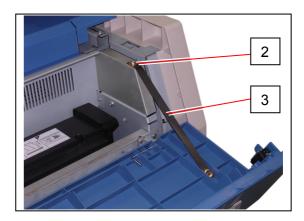
5. 9. 1 Replacement of DC Motor (M4) and Developer Press Sensor (PH4)

1. Open the Cover 4 (1).



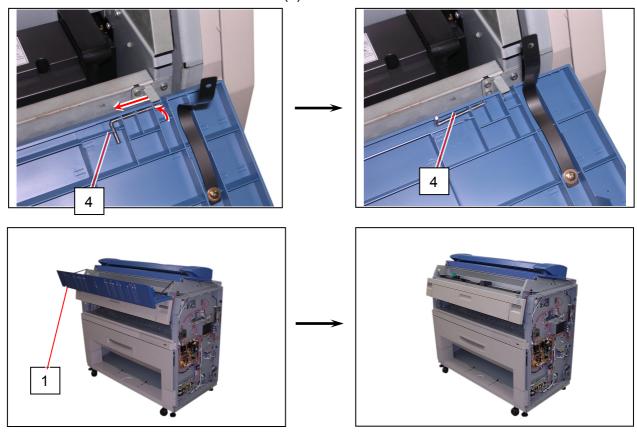
2. Remove the 4x6 screws and washers (2) at both sides to make the Bands (3) free.





5-296 K124sm5eK

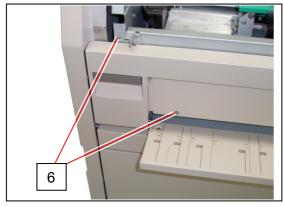
3. There are Pins (4) at both sides. Slide them inside to remove the Cover 4 (1).

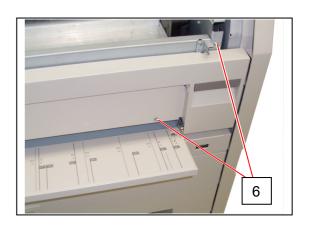


4. Open the Bypass Feeder (5).



5. Remove 4 pieces of 4x8 screw (6).





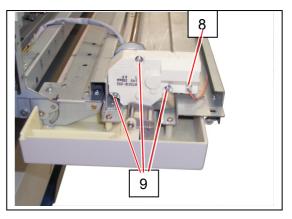
5-297 K124sm5eK

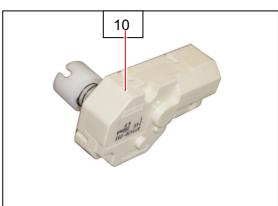
6. Close the Bypass Feeder, and then open the Developer Press Unit (7).



7. Disconnect the connector (8) and remove 3 pieces of screw (9), and remove the DC Motor (10). Replace DC Motor (10) with the new one.

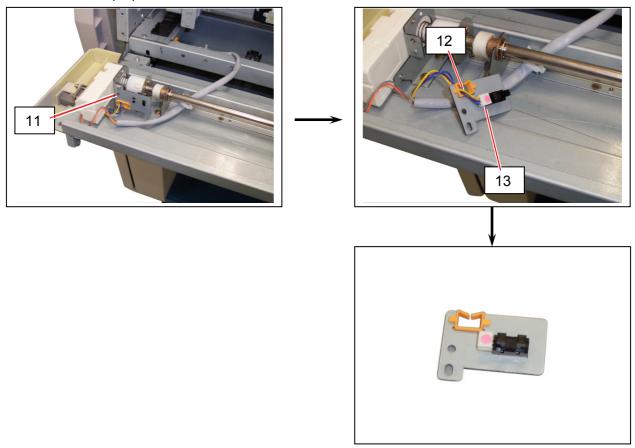




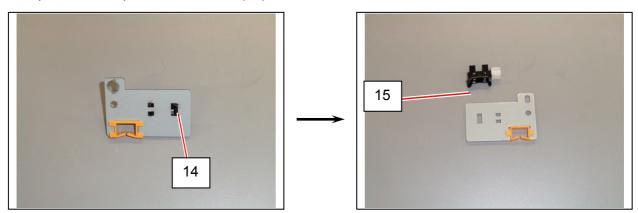


5-298 K124sm5eK

8. Remove the 4x6 screw (11), release the harness from the Edge Saddle (12), and disconnect the connector (13).



9. Pressing the stoppers (14) with such tool as a screwdriver, remove Developer Press Sensor (15). Replace Developer Press Sensor (15) with the new one.



5-299 K124sm5eK

5. 9. 2 Replacement of Manual Set Sensor (PH5) & Registration Sensor (PH1)

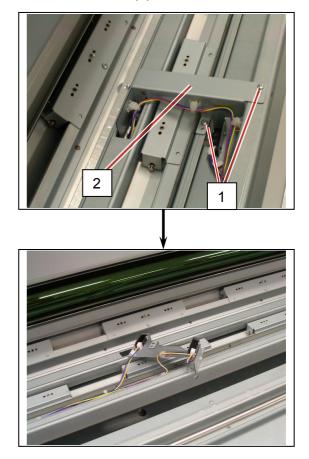
1. Remove the Developer Unit from the machine making reference to [5. 2. 1 Removal of the

Developer Unit] on the page 5-8.



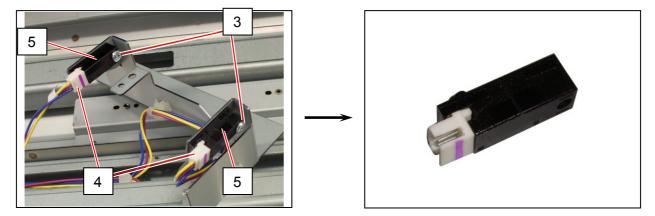
2. Remove 2 pieces of 3x6 screw (1), and then turn over the Bracket 11 (2).





5-300 K124sm5eK

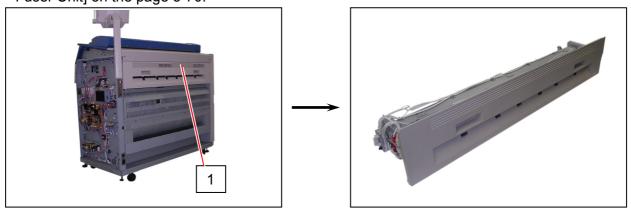
3. Remove the screw (3) and disconnect the connector (4) to remove each Sensor (5 : Manual Set Sensor or Registration Sensor). Replace Sensor (5) with the new one.



5-301 K124sm5eK

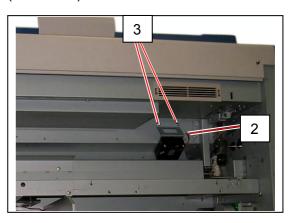
5. 9. 3 Replacement of Fans (BL5, BL6)

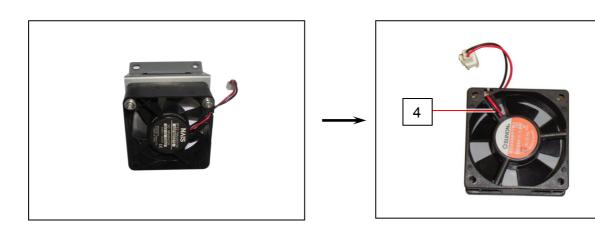
1. Remove the Fuser Unit (1) from the machine making reference to [5. 3. 1 Removal of the Fuser Unit] on the page 5-70.



2. Disconnect the connector (2), remove 2 screws (3), and remove each Fan (4) with the bracket. Remove 2 screws from the bracket and replace Fan(BL5 / BL6) with the new one.



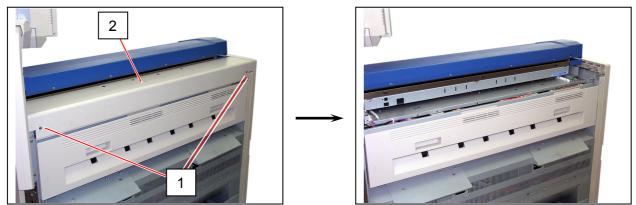




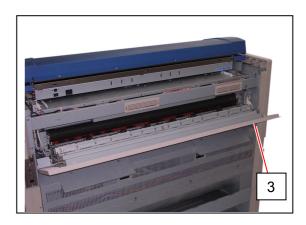
5-302 K124sm5eK

5. 9. 4 Replacement of Blowers (BL3, BL4)

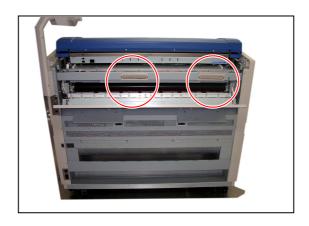
1. Remove 2 pieces of 4x6 screw (1) to remove the Cover 10 (2).

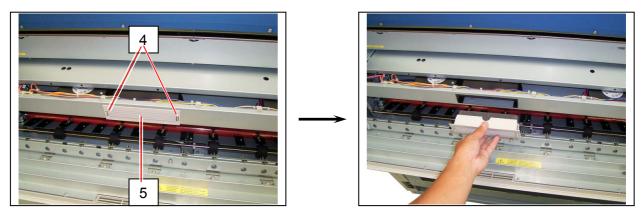


2. Open the Cover Assembly (3).



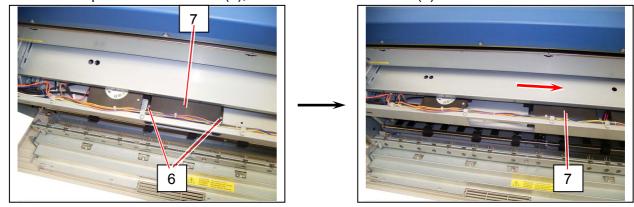
3. Moving the stopper levers (4) to the inside, remove each Duct 5 (5) with Filter 4.



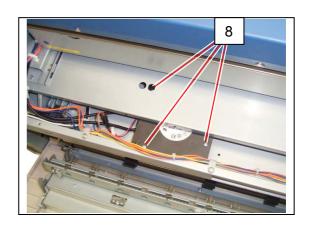


5-303 K124sm5eK

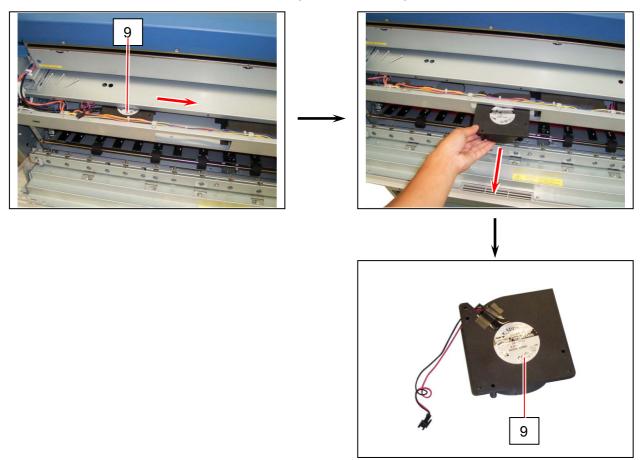
4. Remove 2 pieces of 4x6 screw (6), and then slide the Duct 6 (7) to the left.



5. Remove 3 pieces of 4x35 screw (8).



6. Remove the Blower (9 : BL3 & BL4) moving as the following photos.

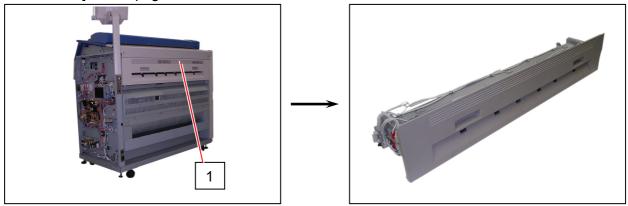


5-304 K124sm5eK

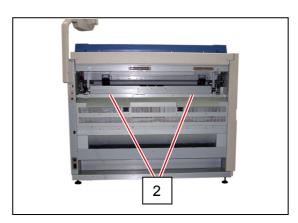
5. 10 Inner Transport Unit

5. 10. 1 Removal of the Inner Transport Unit

1. Remove the Fuser Unit (1) from the machine making reference to [5. 3. 1 Removal of the Fuser Unit] on the page 5-70.

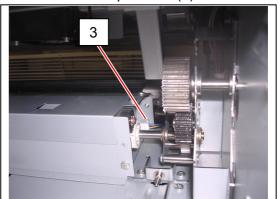


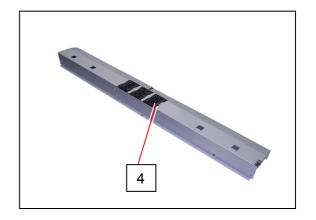
2. Remove 2 pieces of 4x6 screw (2).



3. Disconnect the connector on the left (3), and then remove Inner Transport Unit (4).



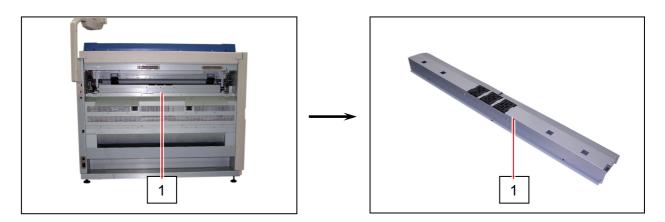




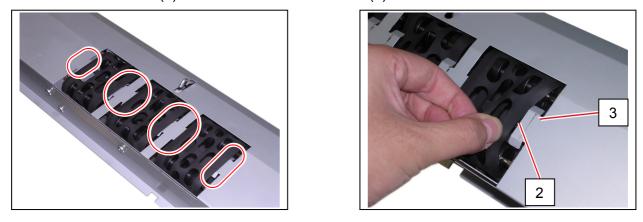
5-305 K124sm5eK

5. 10. 2 Replacement of Sensor (PH2) & Belt

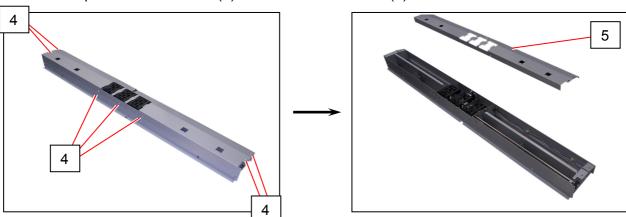
1. Remove the Inner Transport Unit (1) from the machine making reference to [5.10. 1 Removal of the Inner Transport Unit] on the page 5-305.



2. Tuck the rim of Belts (2) under the tab of Guide Plate (3)

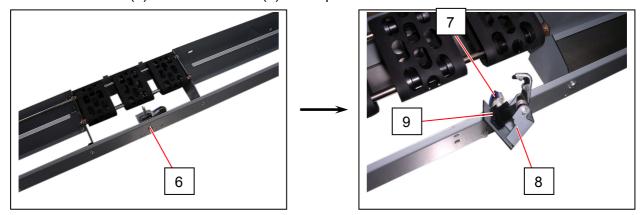


3. Remove 7 pieces of 4x6 screw (4) to remove Guide Plate (5).

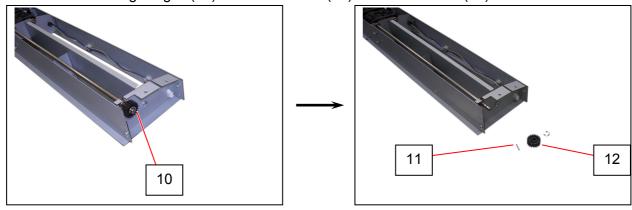


5-306 K124sm5eK

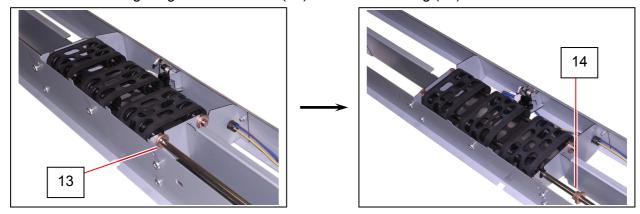
4. Remove 1 screw (6) and the harness (7) to release the sensor bracket (8). Remove Sensor (9) from the bracket (8) and replace Sensor with a new one.



5. Remove Retaining Ring-E (10) to remove Gear (11) and Parallel Pin (12).

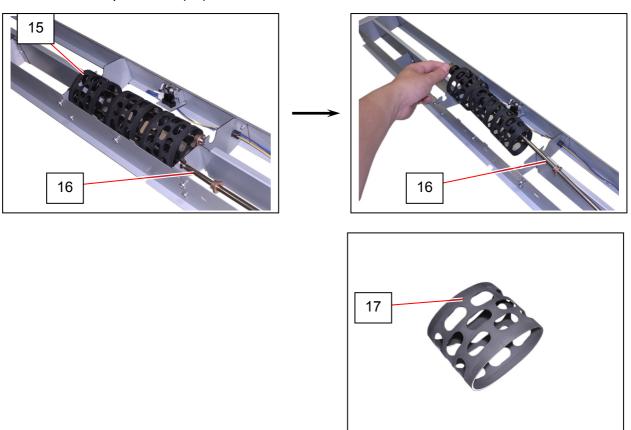


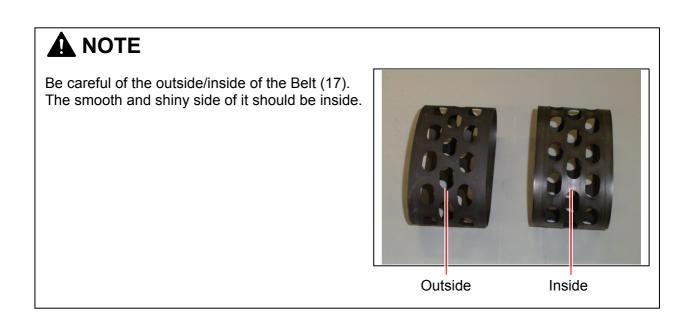
6. Remove Retaining Ring-E in the middle (13) to release Bearing (14).



5-307 K124sm5eK

7. Release Shaft 3 (15: shorter) to remove Shaft 2 (16: longer) from the unit. Remove and replace Belt (17) with new ones.





5-308 K124sm5eK

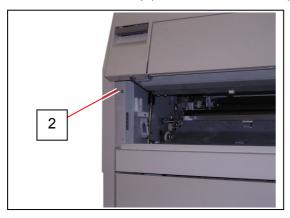
5. 11 Main Frame

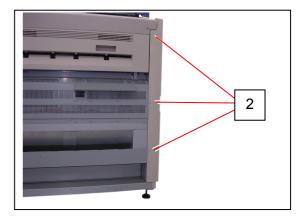
5. 11. 1 Replacement of DC Motors (M1, M2), Belt 8, Belt 9, Belt 7

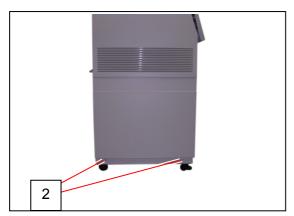
1. Pull up the Lever 2 (1) to open the Engine Unit.

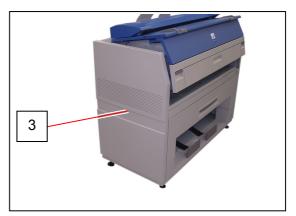


2. Remove 6 screws (2) to remove Cover 2 (3).



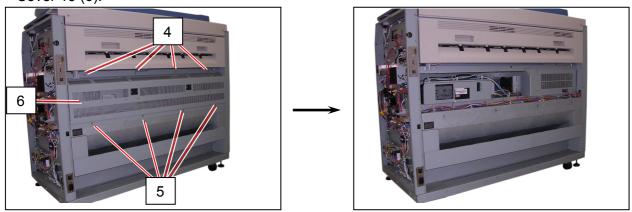




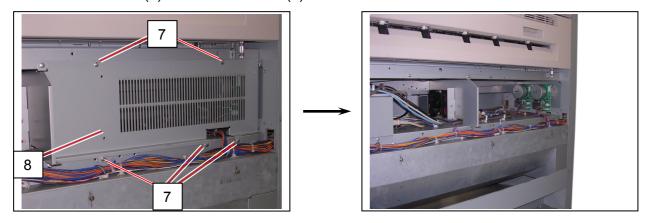


5-309 K124sm5eL

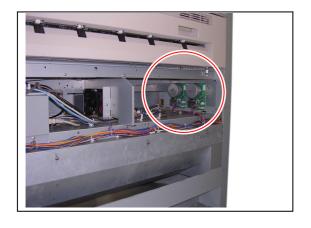
3. Remove 4 pieces of 4x6 screw (4), loosen 4 pieces of 4x6 screw (5), and then remove the Cover 15 (6).



4. Remove 5 screws (7) to remove Case 5 (8).



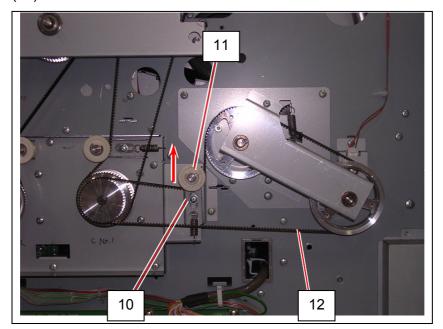
5. Disconnect 4 connectors (9).





5-310 K124sm5eL

6. Loosen the 4x6 screw (10). Move the Pulley 3 (11) toward the arrow mark and secure it to slacken Belt 8 (12).

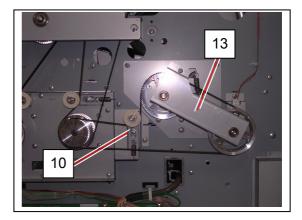


A NOTE

To adjust the tension of the Belt 8, do as follows.

If you do not make the following works, Belt 8 may slip because the tension is not correct.

- a) Replace Bracket (13) before tensioning.
- b) Giving the spring tension to the Belt 8, tighten the screw (10) of Pulley 3 (11).

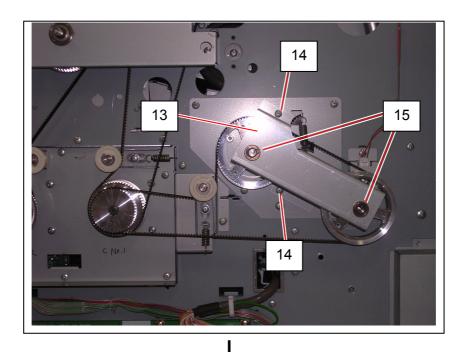


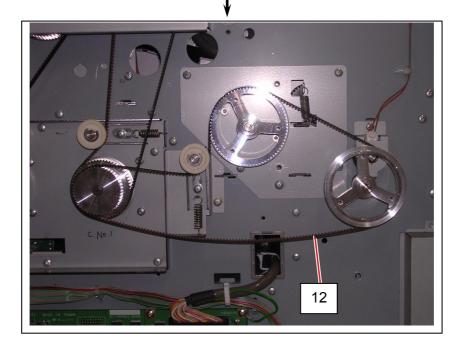
- c) Turn on the machine, and then turn it off some seconds later.

 The Belt 8 is driven by the motor, and it may be slackened around the Pulley 3 at this time.
- d) Loosen the screw to release the Pulley 3.
 The slack of Belt 8 generated by the above c) is removed because the Tension Spring pulls the Pulley 3.
 Then tighten the screw again.

5-311 K124sm5eL

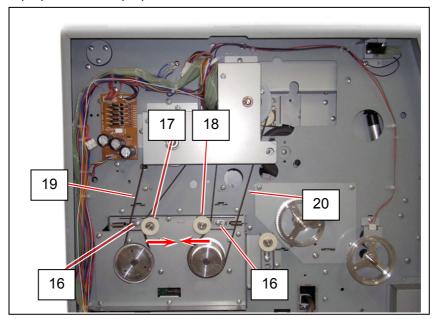
7. Remove 2 screws (14), Grip Ring and Bearing (15) to remove Bracket (13). Replace Belt 8 (12: 90S3M756) with the new one.





5-312 K124sm5eL

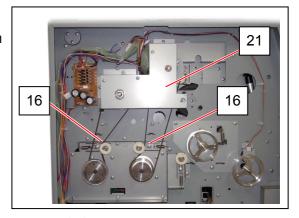
8. Loosen 2 screws (16). Move the Pulley (17) (18) toward the arrow mark and secure them to slacken Belt 9 (19) and Belt 7 (20).



M NOTE

To adjust the tension of the Belt 9 and Belt 7, do as follows. If you do not make the following works, the belts may slip because the tension is not correct.

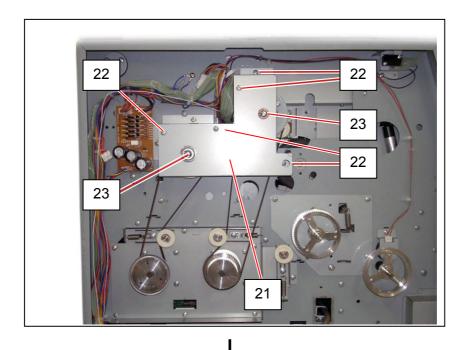
- a) Replace Bracket (21) before tensioning.
- b) Giving the spring tension to the belt, tighten the screw (16) of each Pulley.

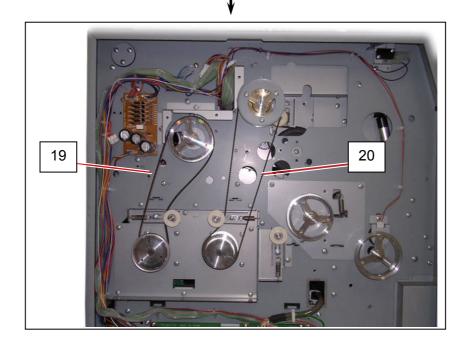


- c) Turn on the machine, and then turn it off some seconds later. The belts are driven by the motor, and it may be slackened around the Pulley at this time.
- d) Loosen the screw to release the Pulley.
 The slack of the belts generated by the above c) is removed because the Tension Spring pulls the Pulley.
 Then tighten the screw again.

5-313 K124sm5eL

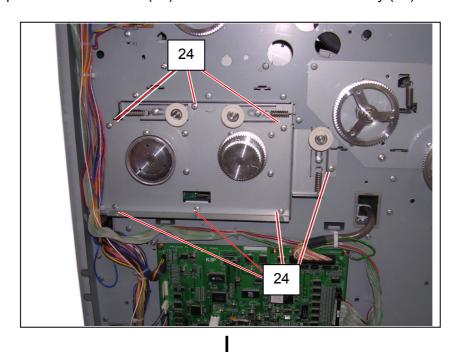
9. Remove 5 screws (22), Grip Ring and Bearing (23) to remove Bracket (21). Remove and replace Belt 9 (19: 90S3M576) and Belt 7 (20: 90S3M699) with new ones.

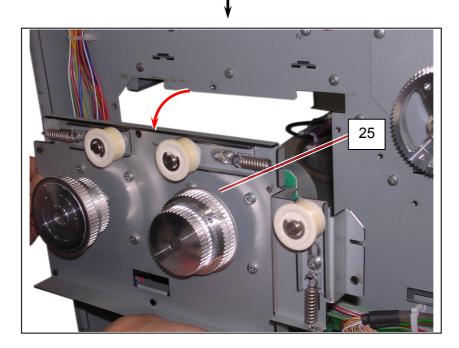




5-314 K124sm5eL

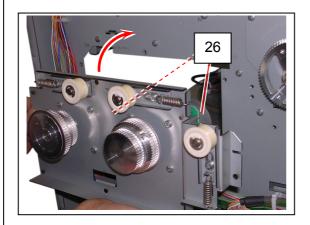
10. Remove 7 pieces of 4x10 screw (24) to remove the Plate 6 Assembly (25).

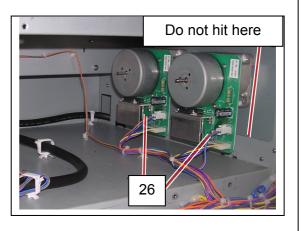




▲ NOTE

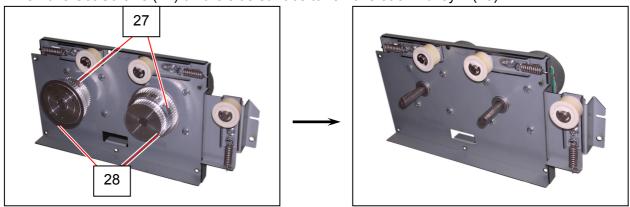
When reassembling, do not bump DC Motor (26) and its PCB on the frame rim.

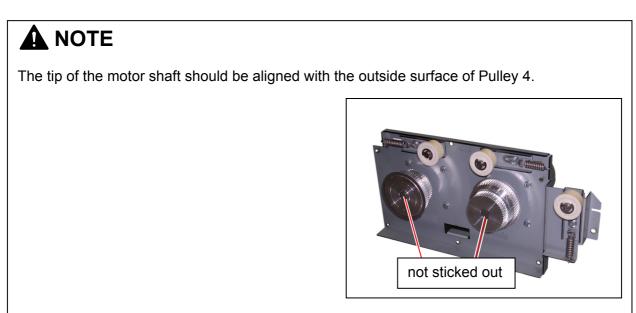




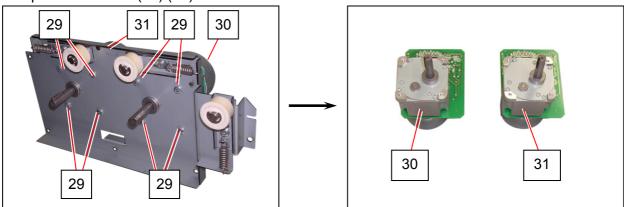
5-315 K124sm5eL

11. Remove Set Screws (27) on the side surface to remove each Pulley 4 (28).





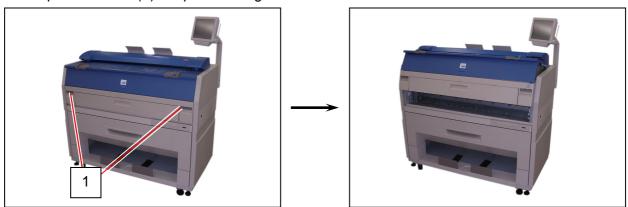
12. Remove 4 pieces of 4x10 screws (29) to remove DC Motor (30: Main) (31: Fuser). Replace DC Motor (30) (31) with a new one.



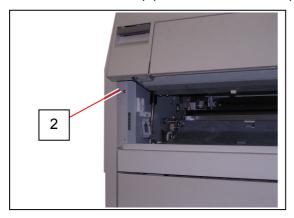
5-316 K124sm5eL

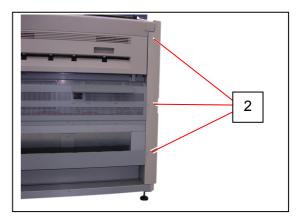
5. 11. 2 Replacement of Clutch (CL1)

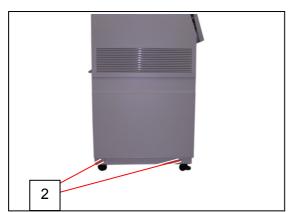
1. Pull up the Lever 2 (1) to open the Engine Unit.



2. Remove 6 screws (2) to remove Cover 2 (3).



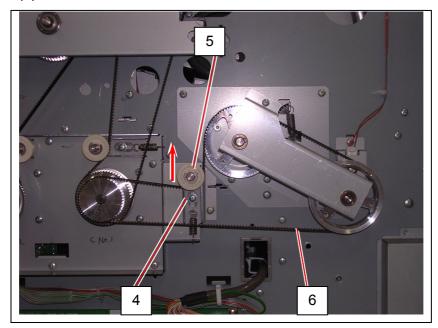






5-317 K124sm5eL

3. Loosen the 4x6 screw (4), move the Pulley 3 (5) toward the arrow mark and secure it to slacken Belt 8 (6).

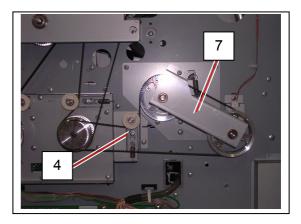


A NOTE

To adjust the tension of the Belt 8, do as follows.

If you do not make the following works, Belt 8 may slip because the tension is not correct.

- a) Replace Bracket (7) before tensioning.
- b) Giving the spring tension to the Belt 8, tighten the screw (4) of Pulley 3 (5).

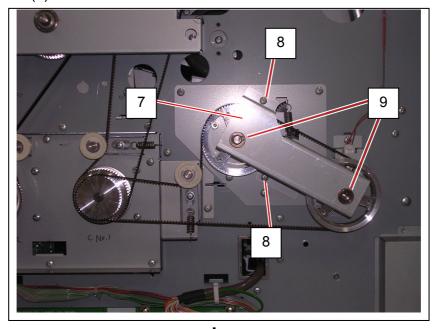


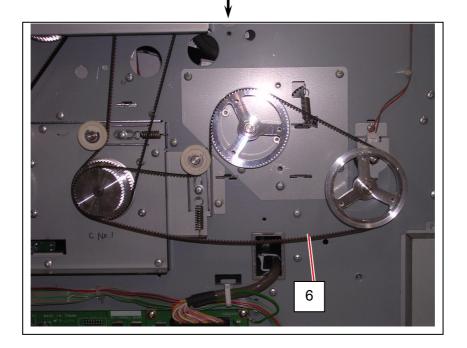
- c) Turn on the machine, and then turn it off some seconds later.

 The Belt 8 is driven by the motor, and it may be slackened around the Pulley 3 at this time.
- d) Loosen the screw to release the Pulley 3.
 The slack of Belt 8 generated by the above c) is removed because the Tension Spring pulls the Pulley 3.
 Then tighten the screw again.

5-318 K124sm5eL

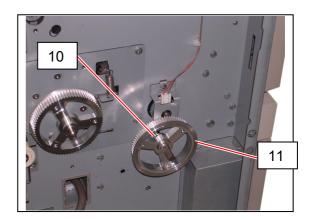
4. Remove 2 screws (8), Grip Ring and Bearing (9) to remove Bracket (7). Remove Belt 8 (6).





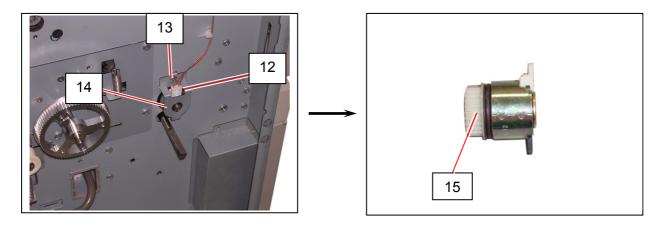
5-319 K124sm5eL

5. Remove the Hex. Cap Screw (10) to remove the Pulley 13 (11).



6. Disconnect the connector (12), and remove the 4x6 screw (13) to remove Bracket Clutch (14), Clutch (15).

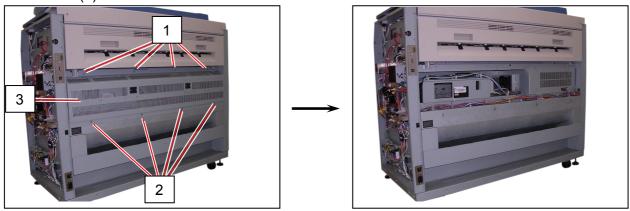
Replace Clutch (15) with the new one.



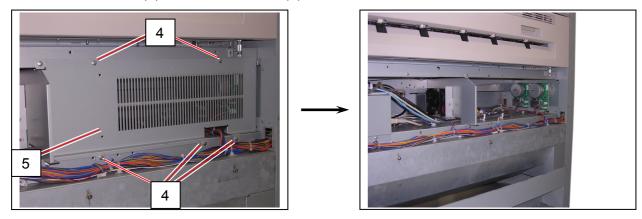
5-320 K124sm5eL

5. 11. 3 Replacement of Blower (BL7)

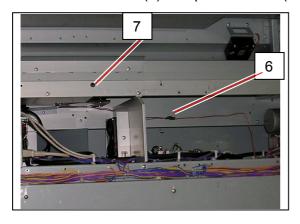
1. Remove 4 pieces of 4x6 screw (1), loosen 4 pieces of 4x6 screw (2), and then remove the Cover 15 (3).

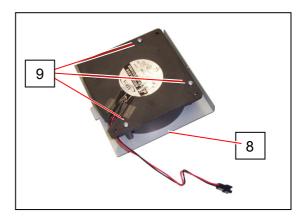


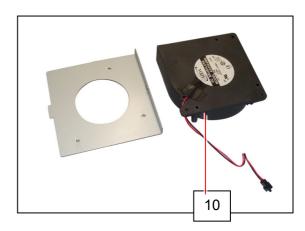
2. Remove 5 screws (4) to remove Case 5 (5).



3. Disconnect the connector (6), remove 1 screw (7), and then remove the Bracket Blower (8). Remove 3 screws (9) to replace Blower (10) with the new one.



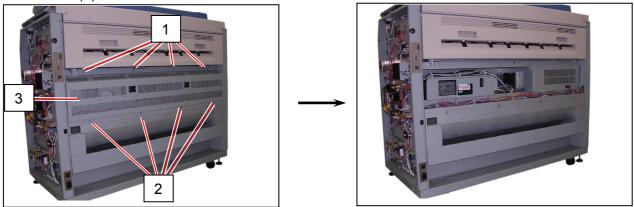




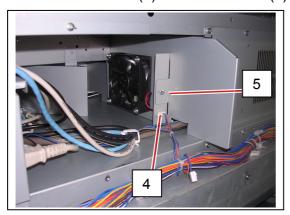
5-321 K124sm5eL

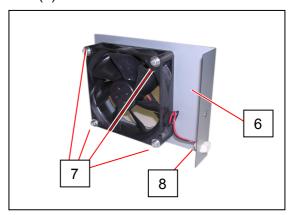
5. 11. 4 Replacement of Fan (BL8)

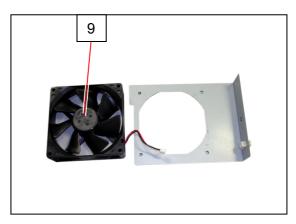
1. Remove 4 pieces of 4x6 screw (1), loosen 4 pieces of 4x6 screw (2), and then remove the Cover 15 (3).



2. Disconnect the connector (4), remove 1 screw (5), and then remove the Fan Bracket (6). Remove 4 screws (7) and 1 connector (8) to replace Fan (9) with a new one.





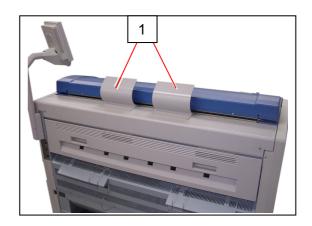


5-322 K124sm5eL

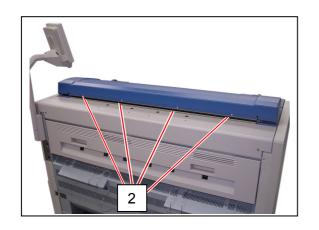
5. 12 Scanner Unit

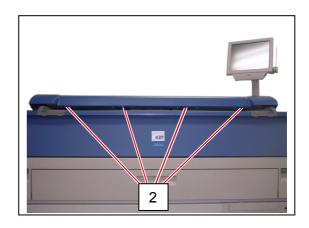
5. 12. 1 Removal of Scanner Unit

1. Remove 2 pieces of Guide 3 (1).



2. Remove 8 pieces of screws (2).



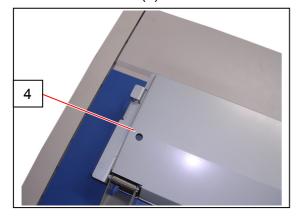


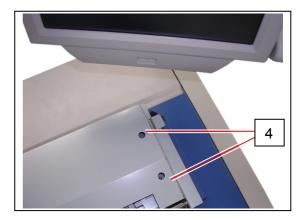
3. Remove Cover 14 (3).



5-323 K124sm5eM

4. Remove 3 screws (4).

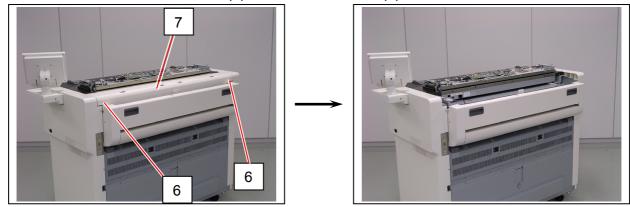




5. Remove Shield Cover N (5).

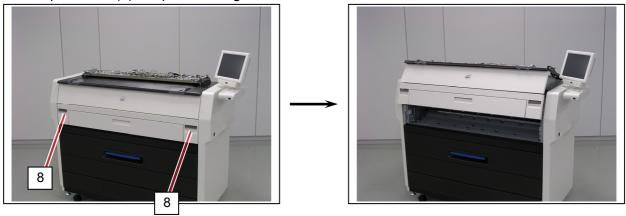


6. Remove 2 tooth washer screws (6) to remove Cover 10 (7)

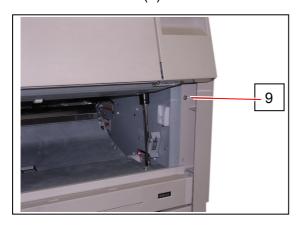


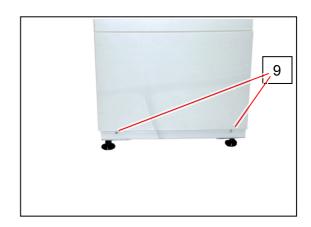
5-324 K124sm5eM

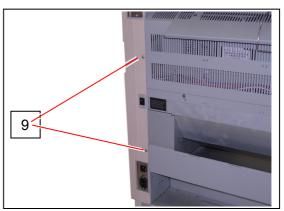
7. Pull up Lever 2 (8) to open the Engine Unit.



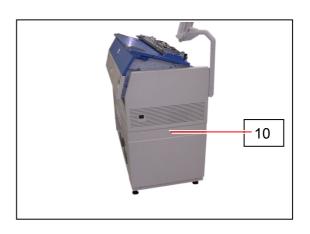
8. Remove 5 screws (9).





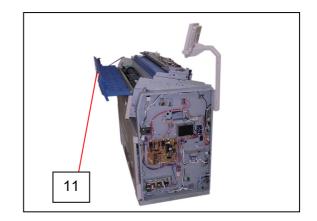


9. Remove Cover 2 (10).

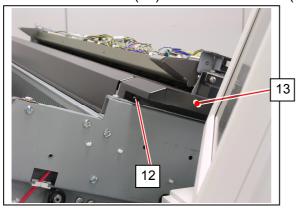


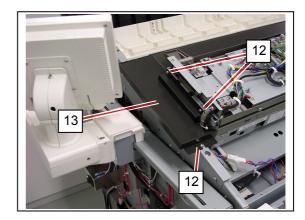
5-325 K124sm5eM

10. Open Cover 4 (11).

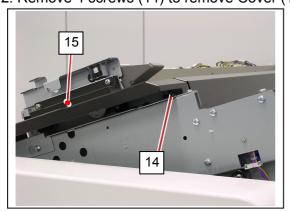


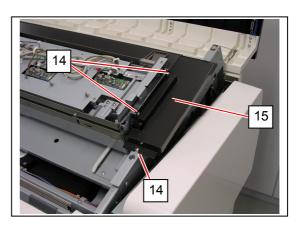
11. Remove 4 screws (12) to remove Cover 8 (13).



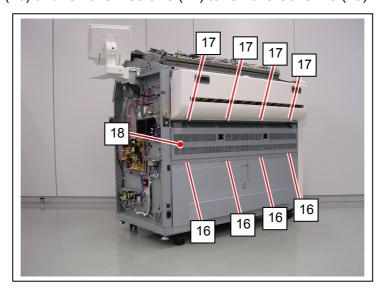


12. Remove 4 screws (14) to remove Cover (15).





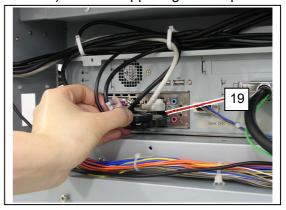
13. Loosen 4 screws (16) and remove 4 screws (17) to remove Cover 15 (18).



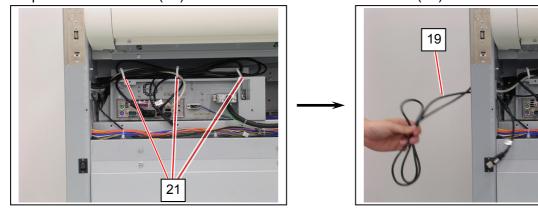
5-326 K124sm5eM

14. Disconnect the Scanner USB Cable (19: with the label "SC") from the upper right USB port of IPS.

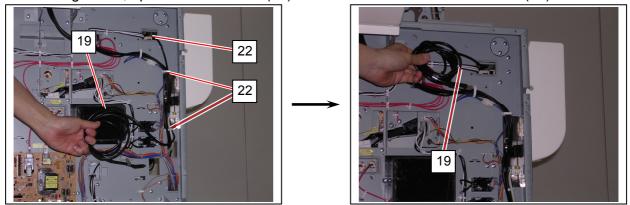




15. Open 3 wire saddles (21) to release the Scanner USB Cable (19).

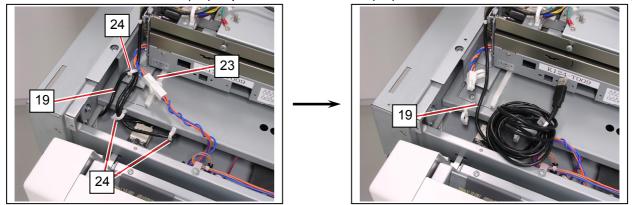


16. On the right side, open 3 wire saddles (22) to release the Scanner USB Cable (19).



5-327 K124sm5eM

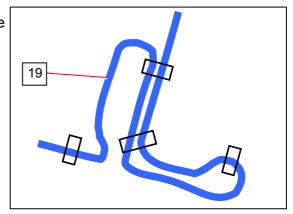
17. Disconnect the connector (23). Open the wire saddles (24) to release the Scanner USB Cable (19).



NOTE

Wind excessive length of the Scanner USB Cable (19) with the wire saddles (24) when reassembling.

Do not bundle the 2 cables in any of the wire saddles (24) together.



18. Close the Engine Unit.



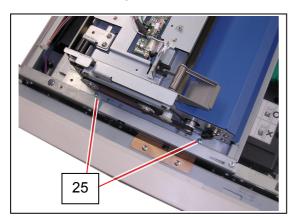


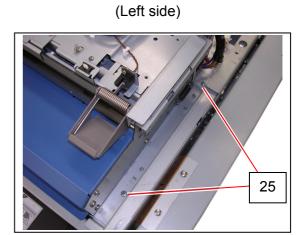
Be sure to close the Engine Unit before removing the screws which fix the Scanner Unit. Otherwise the Scanner Unit may fall down and damage.

> K124sm5eM 5-328

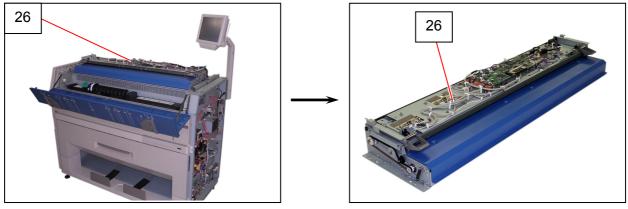
19. Remove 4 screws (25) which fix the Scanner Unit.

(Right side)





19. Remove the Scanner Unit (26) from the machine.





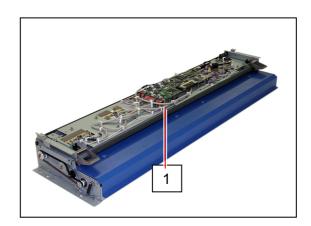
A CAUTION

Please carry the Scanner Unit by 2 persons as it is heavy.

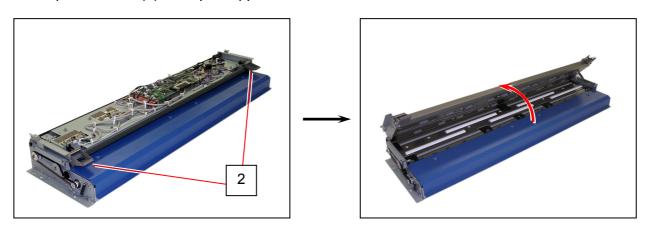
K124sm5eM 5-329

5. 12. 2 Replacement of Belt

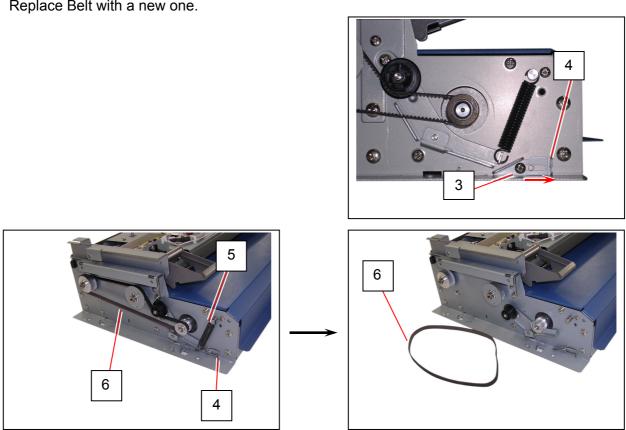
1. Remove the Scanner Unit (1) from the machine making reference to [5.12. 1 Removal of the Scanner Unit] on the page 5-323.



2. Pull up the Levers (2) and open Upper Unit.



3. Loosen 1 screw (3) to slide the stopper (4) and remove Spring (5) to remove Belt (6). Replace Belt with a new one.



5-329 K124sm5eN

▲ NOTE

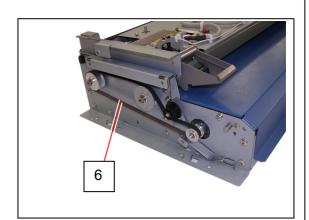
Belt (5) requires its tensioning when reassembling.

(1) Be sure to close Upper Unit prior to tensioning. Not doing so may prevent a proper tensioning.

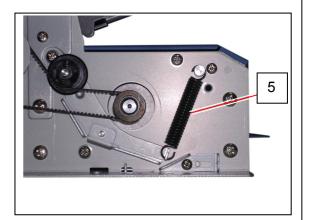
Press down Upper Unit on both sides to close it. Pressing only on one side may result in twisting the frame.



(2) Place Belt (6) in the original routing position. (No tension is applied to Belt at this time.)

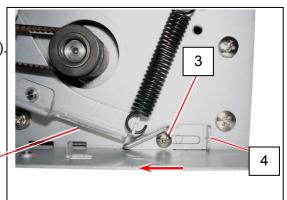


(3) Replace Spring (5) in the original position. (A proper tension is applied to Belt.)



(4) Move the stopper (4) to the arrow direction until it stops against Spring Hook (7).

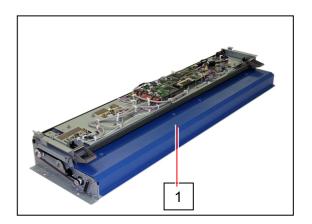
Tighten the screw (3) to secure the stopper (4)



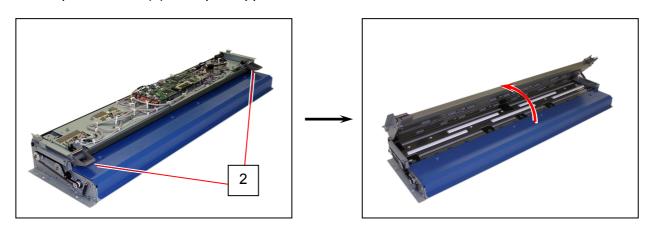
7

5. 12. 3 Replacement of Motor Assy

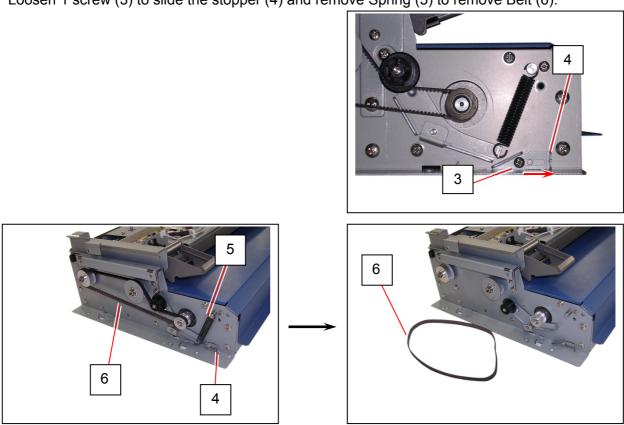
1. Remove the Scanner Unit (1) from the machine making reference to [5.12. 1 Removal of the Scanner Unit] on the page 5-323.



2. Pull up the Levers (2) and open Upper Unit.



3. Loosen 1 screw (3) to slide the stopper (4) and remove Spring (5) to remove Belt (6).



5-331 K124sm5eN

▲ NOTE

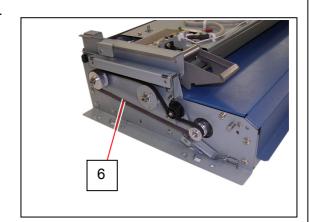
Belt (5) requires its tensioning when reassembling.

(1) Be sure to close Upper Unit prior to tensioning. Not doing so may prevent a proper tensioning.

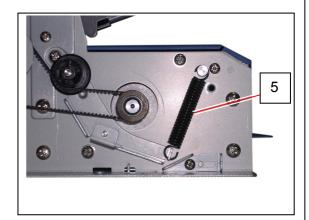
Press down Upper Unit on both sides to close it. Pressing only on one side may result in twisting the frame.



(2) Place Belt (6) in the original routing position. (No tension is applied to Belt at this time.)

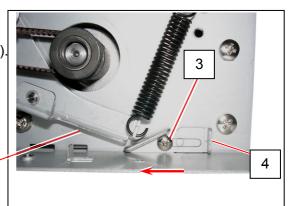


(3) Replace Spring (5) in the original position. (A proper tension is applied to Belt.)



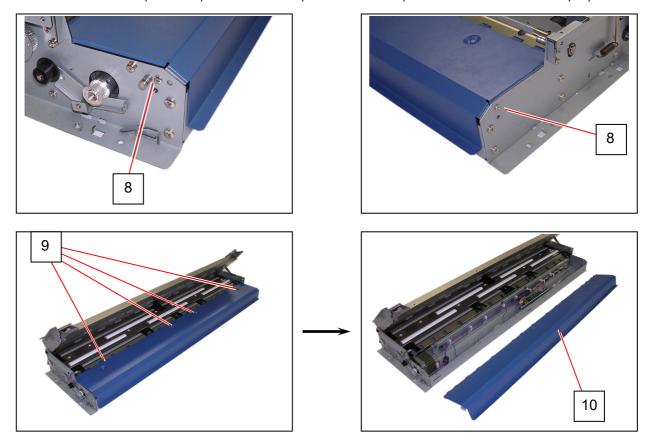
(4) Move the stopper (4) to the arrow direction until it stops against Spring Hook (7).

Tighten the screw (3) to secure the stopper (4)

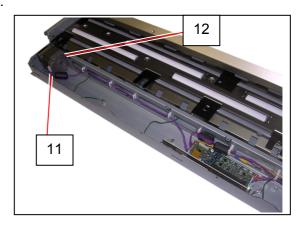


1

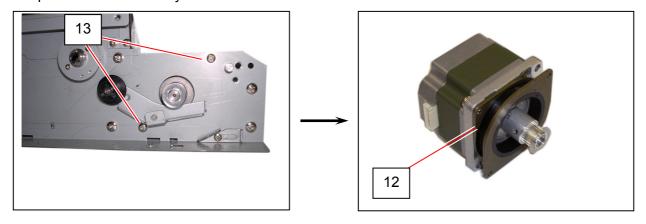
4. Remove 2 screws (8: M3x6) and 4 screws (9: M3x6 w/ FW) to remove Sheet Guide (10).



5. Disconnect the harness (11) from Motor Assy (12).



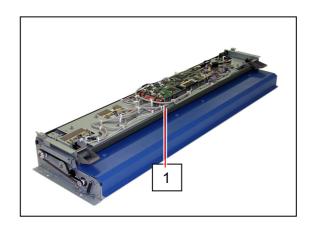
6. Remove 2 screws (13) to remove Motor Assembly (12). Replace Motor Assembly with a new one.



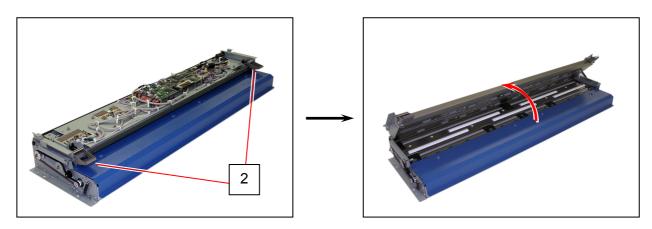
5-333 K124sm5eN

5. 12. 4 Replacement of Feed Roller

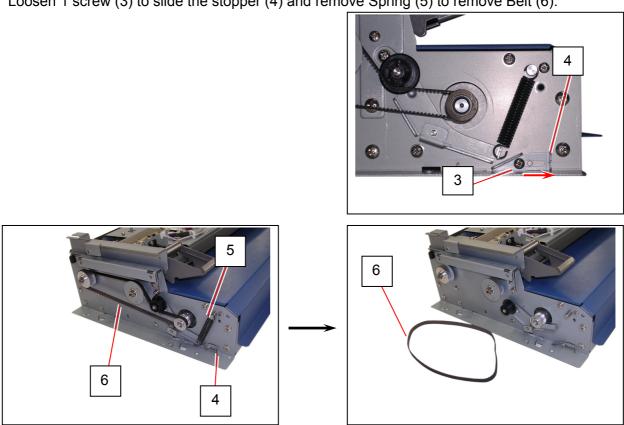
1. Remove the Scanner Unit (1) from the machine making reference to [5.12. 1 Removal of the Scanner Unit] on the page 5-323.



2. Pull up the Levers (2) and open Upper Unit.



3. Loosen 1 screw (3) to slide the stopper (4) and remove Spring (5) to remove Belt (6).



5-334 K124sm5eN

▲ NOTE

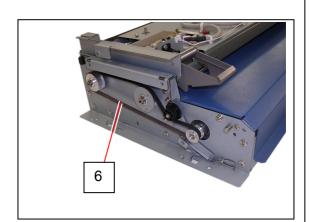
Belt (5) requires its tensioning when reassembling.

(1) Be sure to close Upper Unit prior to tensioning. Not doing so may prevent a proper tensioning.

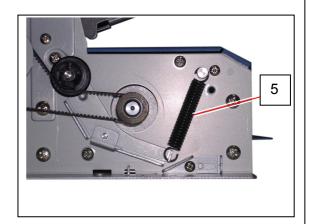
Press down Upper Unit on both sides to close it. Pressing only on one side may result in twisting the frame.



(2) Place Belt (6) in the original routing position. (No tension is applied to Belt at this time.)

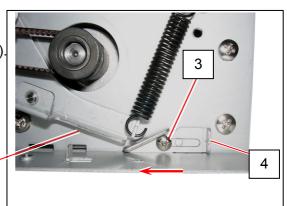


(3) Replace Spring (5) in the original position. (A proper tension is applied to Belt.)



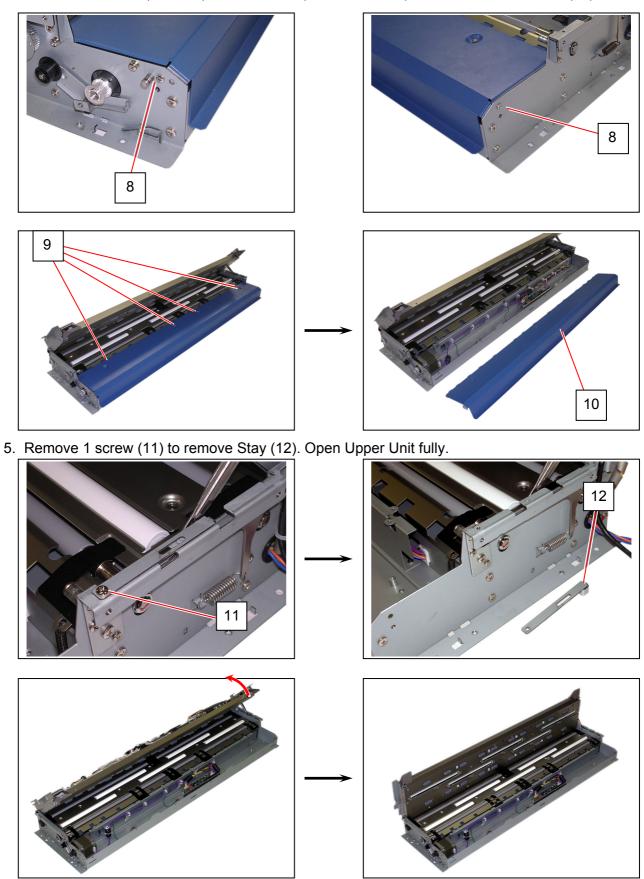
(4) Move the stopper (4) to the arrow direction until it stops against Spring Hook (7).

Tighten the screw (3) to secure the stopper (4)



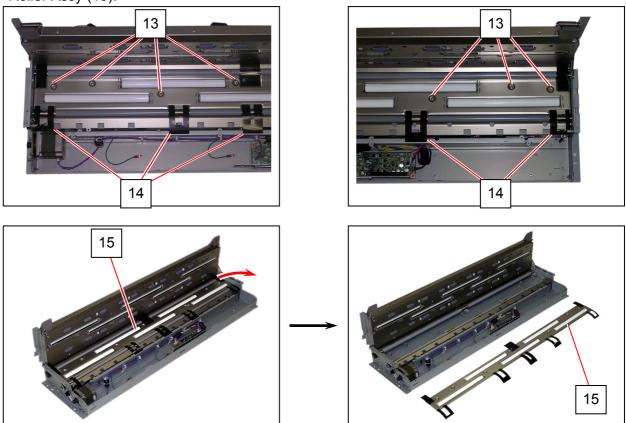
5-335 K124sm5eN

4. Remove 2 screws (8: M3x6) and 4 screws (9: M3x6 w/ FW) to remove Sheet Guide (10).



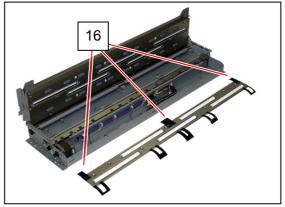
5-336 K124sm5eN

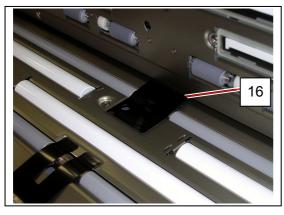
6. Remove 7 screws (13). Release the black plastic sheets (14) from the frame to remove Press Roller Assy (15).

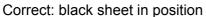


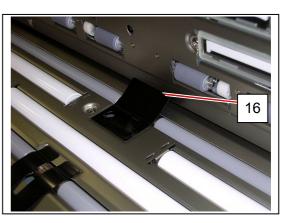


When reassembling, make sure that the 3 black plastic sheets on the rear of Press Roller Assy (16) are in position. Do not flip them up.





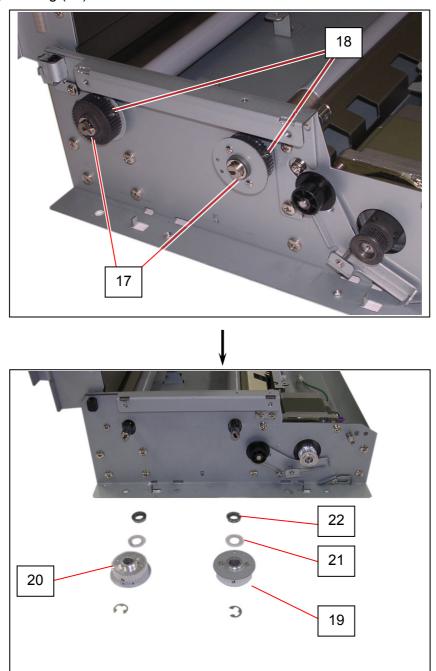




Wrong: flipping up

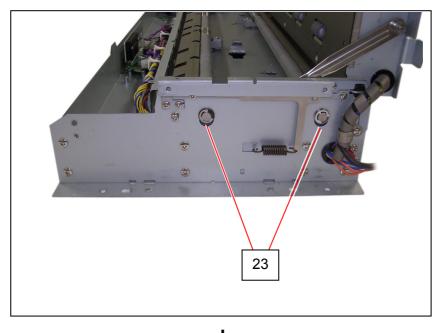
5-337 K124sm5eN

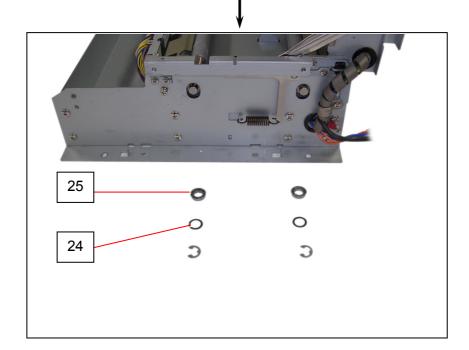
7. On the left side, remove Retaining Ring-E (17), Set Screw (18) to remove Pulley (19) (20), Spacer (21), Bearing (22) from each roller shaft.



5-338 K124sm5eN

8. On the right side, remove Retaining Ring-E (23) to remove Washer (24), Bearing (25) from each roller shaft.

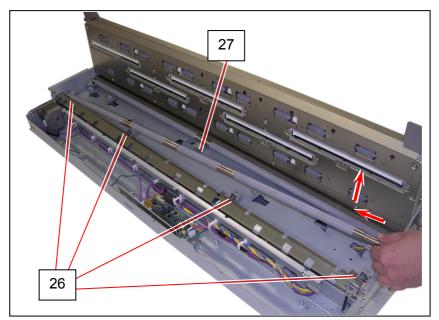


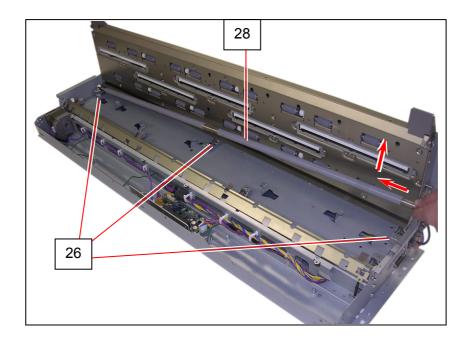


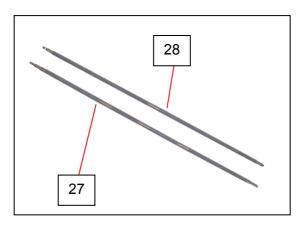
5-339 K124sm5eN

9. Pressing Press Assys (26) down, slide Feed Roller F (27: front) and Feed Roller R (28: rear) to the motor side and remove it.

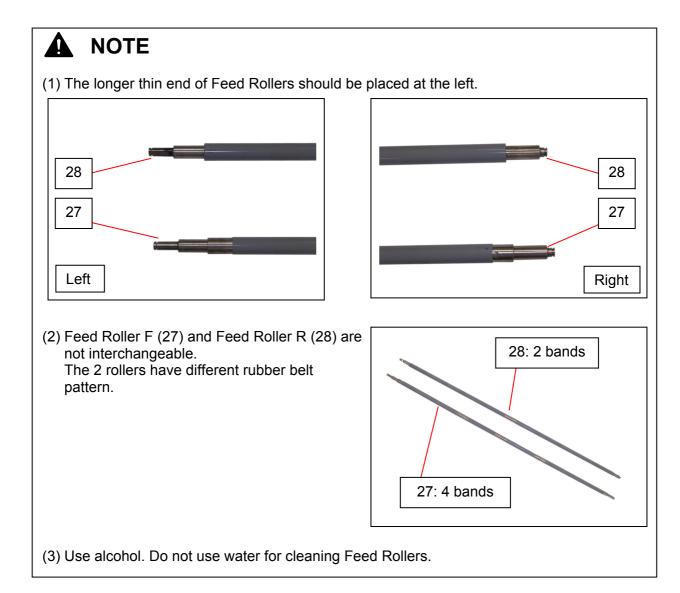
Replace Feed Roller F / Feed Roller R with a new one.







5-340 K124sm5eN



- 10. Replace all the parts in position.
- 11. Install Scanner Unit to the machine. Connect the USB cable of Scanner Unit to your PC.
- 12. Perform Feed Distance adjustment.



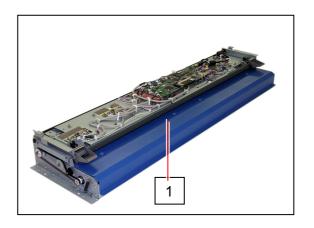
NOTE

Replacement of Feed Rollers requires Feed Distance adjustment. Refer to [8. 13 Scanner Utility] for adjustment.

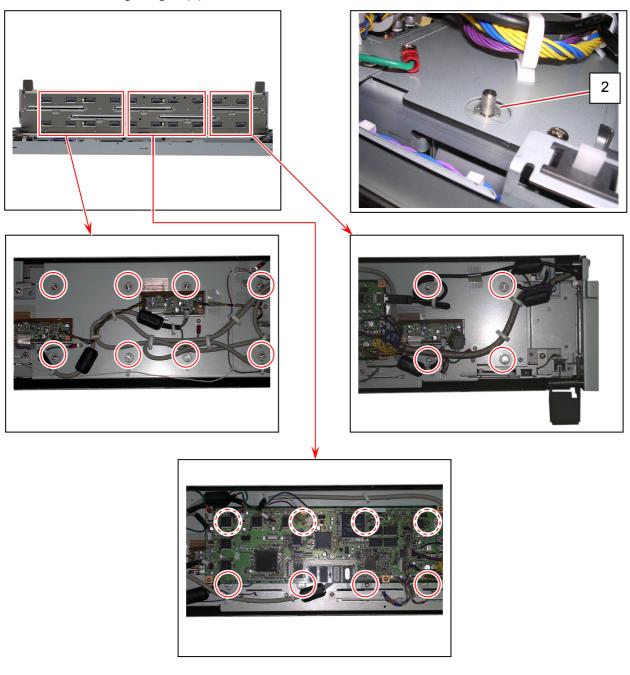
5-341 K124sm5eN

5. 12. 5 Replacement of Pinch Roller Assy

1. Remove the Scanner Unit (1) from the machine making reference to [5.12. 1 Removal of the Scanner Unit] on the page 5-323.



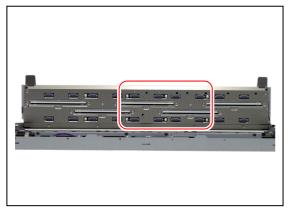
2. Remove Retaining Ring-E (2) from the shaft of Pinch Roller.

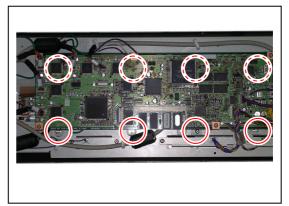


5-342 K124sm5eO

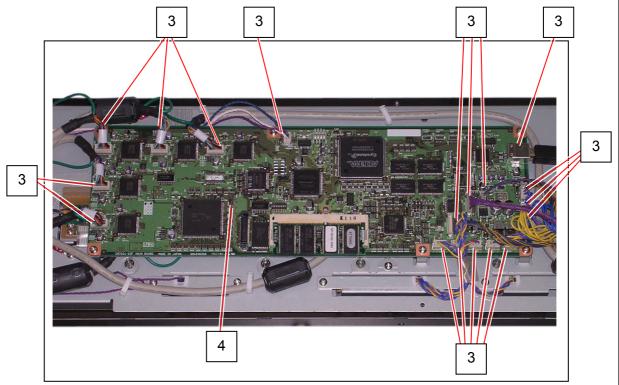


For replacement of Pinch Rollers beneath (or near) SVC Main BD K, remove Retaining Ring-E for the concerning Pinch Roller (shown below) after removing SVC Main BD K.

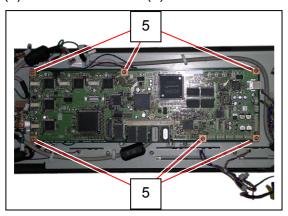


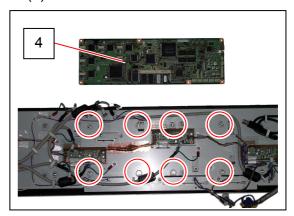


(1) Remove all the connectors (3) from SVC Main BD K (4).

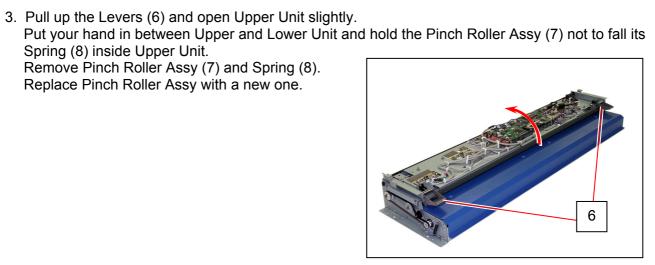


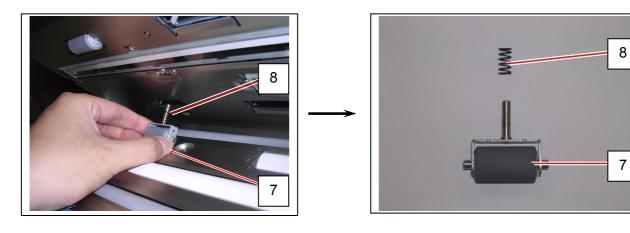
(2) Remove 6 screws (5) to remove SVC Main BD K (4).





5-343 K124sm5eO





K124sm5eO 5-344

5. 12. 6 Replacement of CIS

A NOTE

A CIS is divided into several classes according to wavelength variations of their LED.

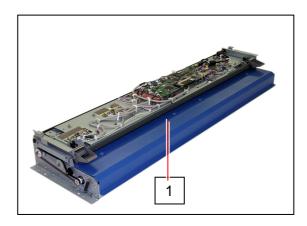
All the 5 pieces of CIS on a certain scanner should be the same class to assure even image quality (brightness, color quality and etc) among image blocks.

Be sure to check which CIS class is used to the scanner before replacing to avoid class mixing. Otherwise even image quality can not be expected.

Equipped CIS class can be identified on the label on the CIS unit, and can be checked with the label on the rear of the scanner.

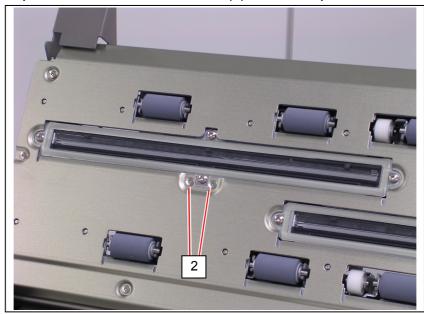


1. Remove the Scanner Unit (1) from the machine making reference to [5.12. 1 Removal of the Scanner Unit] on the page 5-323.

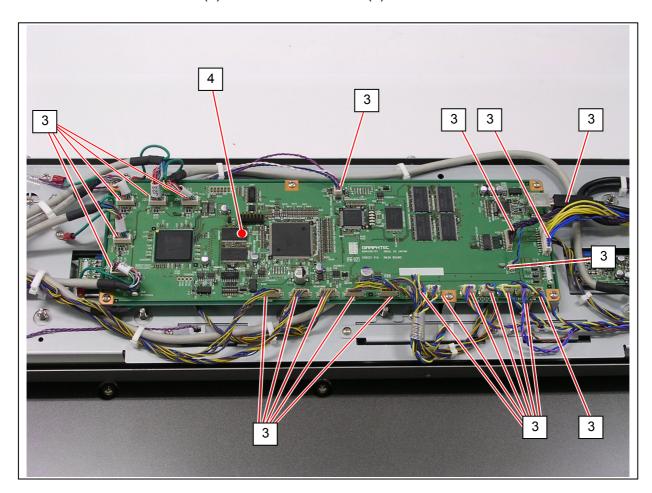


5-345 K124sm5eO

2. Open the Scanner Upper Unit.
On a CIS to be replaced, remove 2 small screws (2) with a sharp screwdriver.

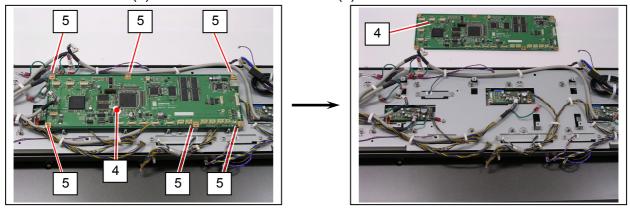


3. Remove all the connectors (3) from SVC Main BD K (3).

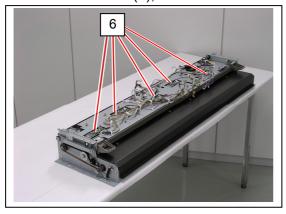


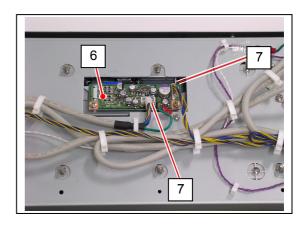
5-346 K124sm5eO

4. Remove 6 screws (5) to Remove SVC Main BD K (4).

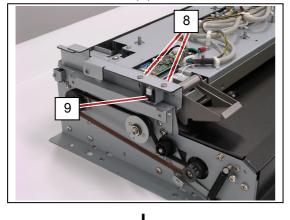


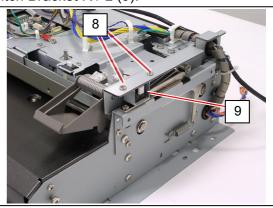
5. On all CIS Boards (6), remove 2 harnesses (7)

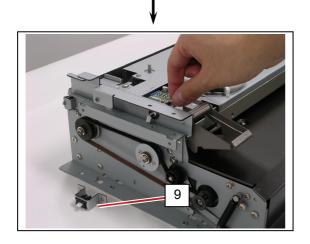


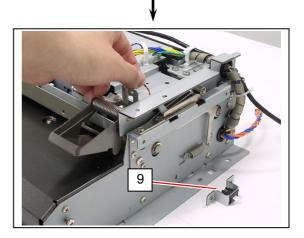


6. Remove 4 screws (8) and the harness to remove Switch Bracket R / L (9).



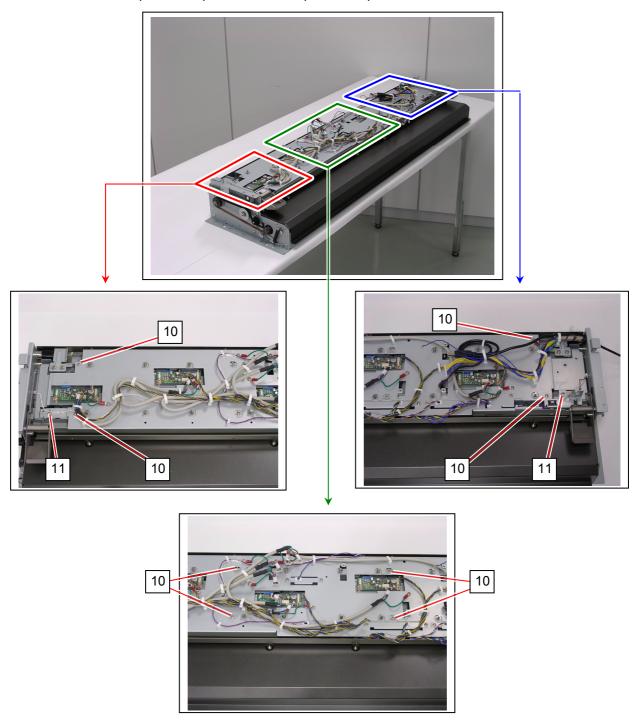




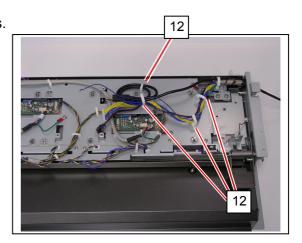


5-347 K124sm5eO

7. Remove 9 screws (10, M3x6) and 2 screws (11, M4x6).

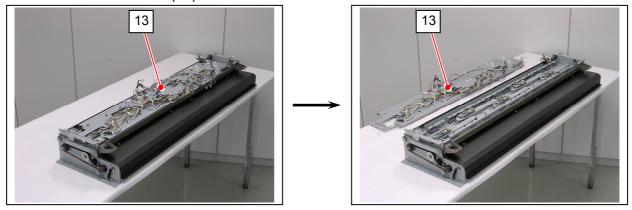


8. Open 4 wire saddles (12) to release the harnesses.

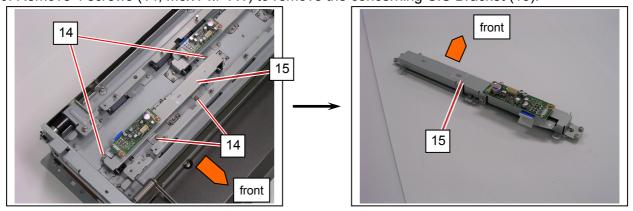


5-348 K124sm5eO

9. Remove the Base Plate (13).



10. Remove 4 screws (14, M3x4 w/ TW) to remove the concerning CIS Bracket (15).

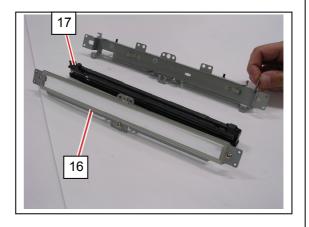


$oldsymbol{\Lambda}$

NOTE

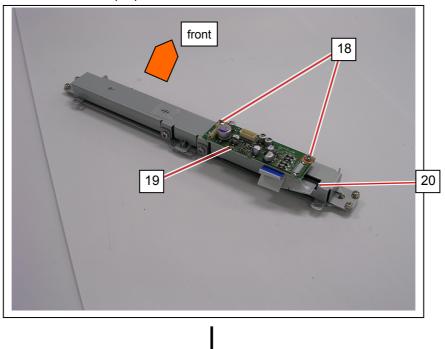
Place CIS Bracket on a soft cloth or anything to avoid damage on the Scan Glass Assy (16).

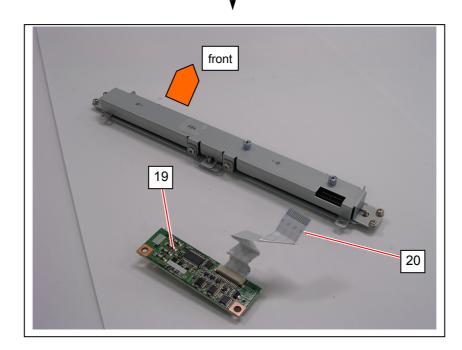
If you remove the Scan Glass Assy just in case, still you should prepare such to avoid damage on the sensor array of the CIS (17).



5-349 K124sm5eO

11. Remove 2 screws (18) to release CIS Board (19). Carefully remove the flat cable (20) from CIS.





A

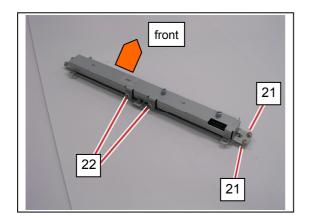
NOTE

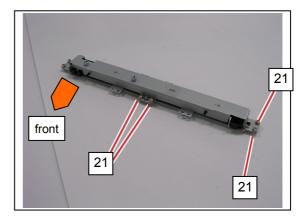
When reassembling, gently insert Flat Cable (20) all the way in the terminal on the CIS. Inserting incorrectly would lead abnormal scan image.

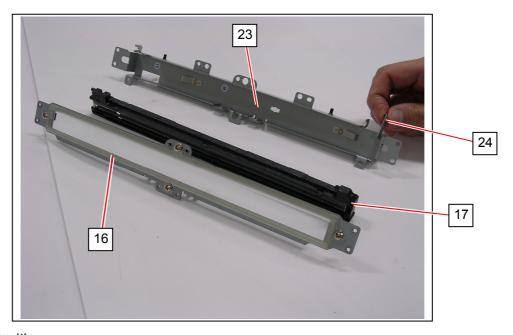
FRAGILE. Handle Flat Cable with great care.

5-350 K124sm5eO

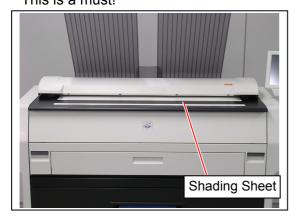
- 12. Remove 6 screws (21: M3x4 w/ SW) and 2 screws (22: M3x4) disassemble the CIS Unit.
 - upper bracket (23)
 - small spacer (24)
 - CIS (17)
 - lower bracket with Scan Glass Assy (16)

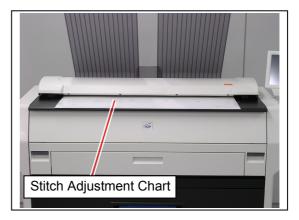






- 13. Replace **CIS** with a new one.
- 14. Return all the parts in position.
- 15. Perform the scanner calibration. See [8.13.4 Scanner Utility]. This is a must!





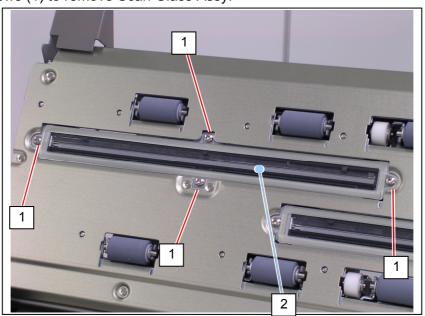
5-351 K124sm5eO

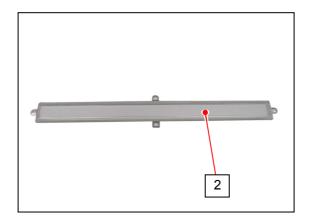
5. 12. 7 Replacement of Scan Glass Assy

Reference

Dismounting Scanner Unit is not mandatory to remove Scan Glass Assy.

1. Open the Scanner Upper Unit. Remove 4 screws (1) to remove Scan Glass Assy.





5-352 K124sm5eO

Chapter 6

Maintenance

6.	1 Recommended Periodic Replacement Parts	ра _: 6-	ge 2
6.	2 Maintenance Period 5. 2. 1 Cleaning	6- 6-	
	5. 2. 2 Lubrication	6-	
	6. 2. 2. 1 Driving Gears on Machine Frame	6-	
	6. 2. 2. Developer Unit	6-	5
	6. 2. 2. 3 Terminal Plates on Machine Frame	6-	5
6.	3 Service Kit	6-	6
6.	4 Service Tool List	6-	7

6-1

K124sm6e1

KIP 7100 - PM Schedule

- -Please keep this form with the KIP 7100; Please perform PMs as scheduled
- -As the PM comes due and items replaced or cleaned, please denote with an "X" in the Confirmation box. Please note nomenclature below.

Part / Description	Qty	Part Number		Square Feet X 1000																			
			Code	50	Complete	100	Complete	150	Complete	200	Complete	250	Complete	300	Complete	350	Complete	400	Complete	450	Complete	500	Complete
Document Glass (scanner)			#	С		С		С		С		С		С		С		С		С		С	
Document Rollers (scanner)			#			С				С				С				С				С	
Photoreceptor	1	SUP3000-101														R							
Main Charge Wire	1	SUP9810-104	#	С		С		С		R		С		С		С		R		С		С	
Transfer Wire	1	SUP3820-106	#	С		С		С		R		С		С		С		R		С		С	
Separation Wire	1	SUP3820-106	#	С		С		С		R		С		С		С		R		С		С	
Grid Screen			#			С				С				С				С				С	
LED Head			#	С		С		С		С		С		С		С		С		С		С	
Developer Space Discs			#			С				С				С				С				С	
Lube Gears						L				L				L				L				L	
Developer Roller - Kit	1	Z160980020								R								R				R	
Roll Compartment & Interior			@	С		С		С		С		С		С		С		С		С		С	
Knife			@							С								С					
Filters - Kit	1	Z160980220	@	С		С		С		С		С		С		R		С		С		С	
Fuser - Kit	1	Z160980040								С						С		С					
Lube Gears						L				L				L				L				L	
Fuser Fingers				С		С		С		С		С		С		С		С		С		С	
Pressure Roller										С								С					
Thermostat										С								С					
Thermistor										С								С					
Exterior Covers / GUI			#	С		С		С		С		С		С		С		С		С		С	

# = Clean with glass cleaner and wipe dry	C = Clean	R = Replace	L = Lubricate
@ = Clean with vacuum	I = Inspect	A = Adjust position	

KIP 7100 - PM Schedule

- -Please keep this form with the KIP 7100; Please perform PMs as scheduled
- -As the PM comes due and items replaced or cleaned, please denote with an "X" in the Confirmation box. Please note nomenclature below.

Part / Description	Qty	Part Number		Square Feet X 1000																			
			Code	550	Complete	600	Complete	650	Complete	700	Complete	750	Complete	800	Complete	850	Complete	900	Complete	950	Complete	1000	Complete
Document Glass (scanner)			#	С		С		С		С		С		С		С		С		С		С	
Document Rollers (scanner)			#			С				С				С				С				С	
Photoreceptor	1	SUP3000-101								R													
Main Charge Wire	1	SUP9810-104	#	С		R		С		С		С		R		С		С		С		R	
Transfer Wire	1	SUP3820-106	#	С		R		С		С		С		R		С		С		С		R	
Separation Wire	1	SUP3820-106	#	С		R		С		С		С		R		С		С		С		R	
Grid Screen			#			С								С				С				С	
LED Head			#	С		С		С		С		С		С		С		С		С		С	
Developer Space Discs			#			С								С				С				С	
Lube Gears						L				L				L				L				L	
Developer Roller - Kit	1	Z160980020				R						R		R								R	
Roll Compartment & Interior			@	С		С		С		С		С		С		С		С		С		С	
Knife			@			С								С								С	
Filter - Kit	1	Z160980220	@	С		С		С		R		С		С		С		С		С		С	
Fuser - Kit	1	Z160980040				С								С								С	
Lube Gears						L				L				L				L				L	
Fuser Fingers				С		С		С		С		С		С		С		С		С		С	
Pressure Roller						С								С								С	
Thermostat						С								С								С	
Thermistor						С								С								С	
Exterior Covers / GUI			#	С		С		С		С		С		С		С		С		С		С	

= Clean with glass cleaner and wipe dry

© = Clean with vacuum

C = Clean

R = Replace

L = Lubricate

A = Adjust position

6. 2. 2 Lubrication

Please apply an adequate amount of grease to the components shown in the following section. Recommended lubrication term is in every 18,000m. Use silicone grease unless otherwise noted.

6. 2. 2. 1 Driving Gears on Machine Frame

Remove Developer Unit and Fuser Unit. Apply grease to Gear 3 (1), Gear Helical 34T (2), Gear Helical 20T (3). Apply <u>heat-proof</u> grease to Gear 36T (4).



From rear, Fuser Unit removed

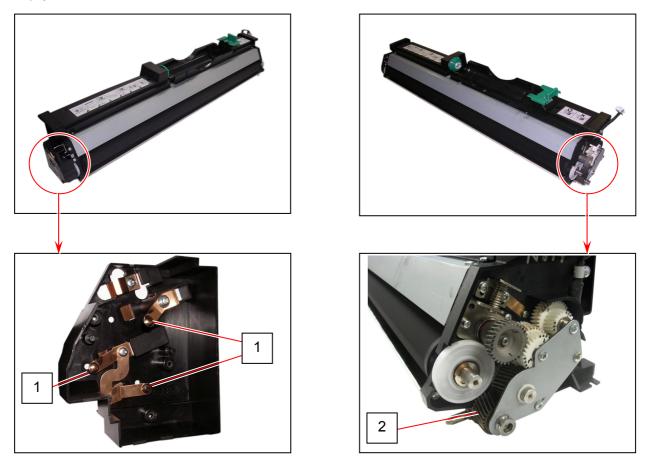
6-4 K124sm6e1

6. 2. 2. 2 Developer Unit

Remove Developer Unit.

Apply <u>conductive</u> grease to the contacting points for Developer/Blade/Toner Supply Rollers on the metal plates (1).

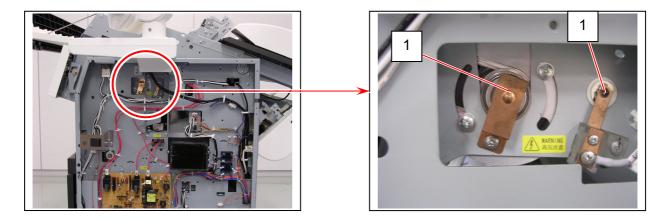
Apply grease to Gear Helical 28T (2).



6. 2. 2. 3 Terminal Plates on Machine Frame

Open Engine Unit.

Apply <u>conductive</u> grease to the contacting points for Photoconductive Drum / Cleaning Roller on the metal plates (1).



6-5 K124sm6e1

KIP 7100

Preventative Maintenance Procedure

- every 50,000 square feet -

Step #1 - Prepare Machine.
Ask User on Printer Performance / Image Quality
Run Test Print
☐ Locate the "KIP 7100 PM Schedule" Form
And check as each item completed.
Replace noted items as this procedure progresses.
Remove Drum (into Box) Remove side and top covers.
Step #2 - Corona Units
Clean Grid Screen (Simple Green, then rinse with water) let dry on paper towel.
☐ Clean 1 st Charge wires and case (Glass cleaner)
Clean transfer / separation wires and case. (Glass cleaner) Step #3 - LED Print Head.
Clean Selfoc lens. (Glass cleaner.) Step #4 - Clean Interior of Printer.
☐ Separation fans / air guides.
☐ Transport belts.
Transfer guide plates etc. Step #5 - Development Unit.
☐ Clean spacing rollers.
Vacuum any toner dust from ends of developer unit.
☐ Vacuum around toner hopper inlet.
Clean / lube gears (only as needed with G501 grease / Lithium grease see Chapter 6 in Service Manual)
Step #6 - Paper Decks.
☐ Vacuum paper dust.
☐ Inspect media spools. Step #7 - Air Flow.
☐ Vacuum Ozone Filters.
☐ Confirm all fans and blowers are clean. Step #8 - Fuser Section.
☐ Clean upper Nails.
Clean lower Nails.
☐ Clean and lube gears. (as needed with High temp. grease - see Chapter 6 in Service Manual)
Step #9 - Cutter Assembly.
☐ Clean paper dust.
Step #10 Run test pattern #1 and #3 and verify print quality. (save prints) Step #11 Scanner
Remove all glass and clean both sides.
☐ Clean original rollers Step #12 Clean Panels and Covers.
Step #13 Make copies / prints
Step #14 Speak with key operator on your evaluation / status.

6-6 K116sm6e1

6. 4 Service Tool List

Here is the table to list special tools for field service. It is recommended to check them through in Parts Manual and Publication Bulletin for the latest information.

Part Name (Part Number)	Appearance / Usage Requirement	Related Section
DEV HANDLE ASSY (Developer Handle) (Z050320050)		 5.2.2 Replacement of Recommended Replacement Parts 5.2.3 Replacement of Toner Supply Roller 5.2.8 Readjustment of the pressure of Regulation Roller
DRUM BLOCK FIX TOOL (Z168580040)		 5.5.2 How to fix the Aluminum Blocks 5.5.3 Cleaning of Photoconductive Drum 5.6.2 LED focus adjustment
SPACER SET (LED focus) t0.1mm t0.08mm t0.05mm (Z160980210)		5.6.2 LED focus adjustment
SHADING SHEET (mono/color calibration) (Z178300360)	(w/ bar code)	8.13.4.1 Shading (Calibration)
SCANNER ADJUSTMENT CHART (Feed Distance) (Z058501590)		8.13.4.2 Feed Distance (1:1)
STITCH ADJUSTMENT CHART (Position) (Z168300580)		8.13.4.3 Position (Stitching)
Scanner Utility Version 1.23 or later (Scanner adjustment)	Windows 2000/XP w/ scanner unit USB driver	8.13.4.1 Shading (Calibration) 8.13.4.2 Feed Distance (1:1) 8.13.4.3 Position (Stitching) 8.13.5 Scanner Firmware Update

K124sm6e1 6-7

Chapter 7

Troubleshooting

7 4 Tuovibles	shooting. Brinton France	Page
	shooting - Printer Errors	
	ntermeasures - Call Operator Errors	
7. 1. 1. 1	Roll 2 Feeding Jam "Delay" (J-0101)	
7. 1. 1. 2	Roll 1 Feeding Jam "Delay" (J-0102)	
7. 1. 1. 3	Feeding Jam "Delay" (J-0103) & "Early" (J-0303)	····· 7- 5
7. 1. 1. 4	Reg. Jam "Delay" (J-0104), "Stay" (J-0204)	
	"Early" (J-0304), "Remained" (J-1004)	····· 7- 6
7. 1. 1. 5	Internal Jam "Delay" (J-0106), "Stay" (J-0206)	
	"Early" (J-0306), "Remained" (J-1006)	····· 7- 6
7. 1. 1. 6	Fuser Jam "Delay" (J-0107), "Stay" (J-0207)	
	"Early" (J-0307), "Remained" (J-1007)	····· 7- 7
7. 1. 1. 7	Paper jam by opening the Roll Deck during printing (J-1100)	····· 7- 7
7. 1. 1. 8	Paper jam by opening the Exit Cover during printing (J-1200) —	····· 7- 7
7. 1. 1. 9	Deck Open	···· 7- 7
7. 1. 1.10	Deck Jam	
7. 1. 1.11	Manual Set NG	····· 7- 9
7. 1. 1.12	Toner Empty	7-10
7. 1. 1.13	The door opened during the print	
7. 1. 1.14	Abnormal variation in cut length	
	ntermeasures - Call Service Errors	
7. 1. 2. 1	Fuser Error (E-000, E-002 & E-004)	
7. 1. 2. 2	Fuser Error (E-001)	
7. 1. 2. 3	Fuser Error (E-003)	
7. 1. 2. 4	Main Motor Error (E-010)	
7. 1. 2. 7	Fuser Motor Error (E-011)	
7. 1. 2. 6	Developer Press Motor Error (E-012)	
7. 1. 2. 7	Counter Error (E-020)	7-10
7. 1. 2. 7	High Voltage Output Error (E-031, E-032 & E-033)	
7. 1. 2. 9	Bias Output Error (E-034)	
7. 1. 2.10	Cutter Error (E-040)	
7. 1. 2.11	FPGA Error (E-050)	
7. 1. 2.12	Developer Error (E-070)	7-19
7. 1. 2.13	Density Sensor Error (E-080)	7-19
7. 1. 2.14	Density Sensor Output Error (E-081)	7-19
7. 2 Troubles	shooting - Image Quality Defects	7-20
7. 2. 1 Basic	c Image Adjustment	7-20
	ntermeasures - Image Quality Defects	
7. 2. 2. 1	Halftone is too light	····· 7-21
7. 2. 2. 2	Halftone and solid black are too light	
7, 2, 2, 3	The whole image is extremely light	
7. 2. 2. 4	Density is uneven	7-25
7. 2. 2. 5	Totally appeared foggy image	
7. 2. 2. 6	Foggy image or blurred black wide line (vertical)	
7. 2. 2. 7	Clear black thin line (vertical)	
7. 2. 2. 8	White line (Vertical)	
7. 2. 2. 9	Void of image	
7. 2. 2. 10	Dirt on the back of the print	
1 . 2 . 2 . 10	Date of the book of the plant	1 20

7-1 K124sm7e1

7. 2. 2.11	Defective fusing	····· 7-29
7. 2. 2.12	Defective image placement, No Leading Edge	
7. 2. 2.13	Jitter	7-30
7. 2. 2.14	Image looks not sharp	
7. 2. 2.15	Uneven image density (vertical)	
7. 2. 2.16	Completely white (No image)	
7. 2. 2.17	Completely black	
7. 2. 2.18	Crease of paper	
7. 2. 2.19	Double image	
7. 2. 2.20	Dirt on the print (Offset)	
7. 2. 2.21	Image Void on Long Print without Crease	
7. 2. 2.22	Crease on Long Print (and image void at a time)	
7. 3 Troubles	hooting - Scanner Defects	7-38
	termeasures - scanner operation	
7. 3. 1. 1	Original can not be set (Scanner does not transport)	
7. 3. 1. 2	Scanner does not start scanning from the original set position	
7. 3. 1. 3	Original can not be set (Original feeding does not stop)	
7. 3. 1. 4	Original is mis-fed	
7. 3. 1. 5	Motor rotates endlessly at the time of turning on	····· 7-39
7. 3. 1. 6	Scanner is not recognized	····· 7-39
7. 3. 2 Coun	termeasures - scanner image quality	
7. 3. 2. 1	Completely black	····· 7-40
7. 3. 2. 2	Vertical black lines	
7. 3. 2. 3	Vertical white lines	····· 7-41
7. 3. 2. 4	Some image is lost at the boundary of Image Blocks	····· 7-41
7. 3. 2. 5	Vertical image gap between Image Blocks	
7. 3. 2. 6	Image quality is not good	
7. 3. 2. 7	Density is different between left and right	
7.4 Touch Sc	roon Calibration	····· 7-42

7-2 K124sm7e1

7. 1 Troubleshooting - Printer Errors

7. 1. 1 Countermeasures - Call Operator Errors

7. 1. 1. 1 Roll 2 Feeding Jam "Delay" (J-0101)

Reference

Delay : Paper arrives the sensor much later than required timing.
Stay : Paper exists on the sensor for longer time than required.
Early : Paper arrives the sensor much earlier than required timing.

Remained : Paper has already existed on the sensor when turning on the machine.

Cause	Checking order	Checking	Result	Treatment
Installation of roll paper	1	Is the roll paper correctly installed to the Roll Deck 2?	No	Install it correctly.
Roll 2 Set Sensor (PH9)	2	Check the status of Roll 2 Set Sensor in the Signal Status Mode of the Service Mode. Signal Code: 106 (Roll 2 Set Sensor) Is the status "H" when the roll paper is set?	No	 Is there any problem with the Drawer Connector which connects the machine and the Roll Deck. Check if there is any problem with the wire connected to the Roll 2 Set Sensor. Replace the Roll 2 Set Sensor if there is no problem with the wire.
Roll 2 Feed Clutch (CL6)	3	Check the operation of Roll 2 Feed Clutch in the Device Operation Mode of the Service Mode. Device Code: 08 (Roll 2 Feed Clutch) Does the clutch operate when you change the output signal from "L" to "H"?	No	Check if there is any problem with the wire connected to the Roll 2 Feed Clutch. Replace the Roll 2 Feed Clutch if there is no problem with the wire.
Main Motor (M1)	4	Check the status of Roll 2 Set Sensor in the Signal Status Mode of the Service Mode while making the following operation. (Signal Code: 106) 1. Set the leading edge of roll 2 between feeding rollers. (Leading edge must not pass over the Roll 2 Set Sensor.) 2. Close the Roll Deck. Does the status change from "L" to "H"	No	 Check the driving belts of the Roll Deck. Check if there is any problem with the wire connected to the Main Motor. Replace the Main Motor if there is no problem with the wire.
		when the machine is transporting the paper?	Yes	Remove the whole Roll Deck, and then re-install it to the machine correctly.

7-3 K124sm7e1

7. 1. 1. 2 Roll 1 Feeding Jam "Delay" (J-0102)

Cause	Checking order	Checking	Result	Treatment
Installation of roll paper	1	Is the roll paper correctly installed to the Roll Deck 2?	No	Install it correctly.
Roll 1 Set Sensor (PH7)	2	Check the status of Roll 1 Set Sensor in the Signal Status Mode of the Service Mode. Signal Code: 105 (Roll 1 Set Sensor) Is the status "H" when the roll paper is set?	No	 Is there any problem with the Drawer Connector which connects the machine and the Roll Deck. Check if there is any problem with the wire connected to the Roll 1 Set Sensor. Replace the Roll 1 Set Sensor if there is no problem with the wire.
Roll 1 Feed Clutch (CL4)	3	Check the operation of Roll 1 Feed Clutch in the Device Operation Mode of the Service Mode. Device Code: 06 (Roll 1 Feed Clutch) Does the clutch operate when you change the output signal from "L" to "H"?	No	Check if there is any problem with the wire connected to the Roll 1 Feed Clutch. Replace the Roll 1 Feed Clutch if there is no problem with the wire.
Main Motor (M1)	4	Check the status of Roll 1 Set Sensor in the Signal Status Mode of the Service Mode while making the following operation. (Signal Code: 105) 1. Set the leading edge of roll 1 between feeding rollers. (Leading edge must not pass over the Roll 1 Set Sensor.) 2. Close the Roll Deck. Does the status change from "L" to "H" when the machine is transporting the paper?	No Yes	 Check the driving belts of the Roll Deck. Check if there is any problem with the wire connected to the Main Motor. Replace the Main Motor if there is no problem with the wire. Remove the whole Roll Deck, and then re-install it to the machine correctly.

7-4 K124sm7e1

7. 1. 1. 3 Feeding Jam "Delay" (J-0103) & "Early" (J-0303)

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Does the paper mis-fed occur between Roll 1 Set Sensor and Feed Sensor?	Yes	Remove the mis-fed paper.
Feed Sensor (PH6)	2	Check the status of Feed Sensor in the Signal Status Mode of the Service Mode. Signal Code: 108 (Feed Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing beside the sensor?	No	 Is there any problem with the Drawer Connector which connects the machine and the Roll Deck. Check if there is any problem with the wire connected to the Feed Sensor. Replace the Feed Sensor if there is no problem with the wire.
Cutter Home Position Sensor (MS6 & MS7)	3	Check the status of Cutter Home Position Sensors in the Signal Status Mode of the Service Mode. Signal Code: 094 (Cutter Home Position Right) 095 (Cutter Home Position Left) Is the status "H" when the Cutter is at each home position? And is it "L" when the Cutter is not at the home position?	No	1. Check if there is any problem with the wire connected to the Cutter Home Position Sensor. 2. Replace the Cutter Home Position Sensors if there is no problem with the wire.
Driving mechanism	4	Check the operation of Feed Clutch in the Device Operation Mode of the Service Mode. Device Code: 10 (Feed Clutch) Also open and close the Roll Deck, and check if the Main Motor rotates correctly. Does each Feed Clutch and Main Motor operate correctly?	No	Replace the Feed Clutch or Main Motor if it is defective.

7-5 K124sm7e1

7. 1. 1. 4 Reg. Jam "Delay" (J-0104), "Stay" (J-0204) "Early" (J-0304), "Remained" (J-1004)

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Does the paper mis-fed occur around the Registration Roller?	Yes	Remove the mis-fed paper.
Registration Sensor (PH1)	2	Check the status of Registration Sensor in the Signal Status Mode of the Service Mode. Signal Code: 100 (Registration Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing beside the sensor?	No	 Check if there is any problem with the wire connected to the Registration Sensor. Replace the Registration Sensor if there is no problem with the wire.
Engine Unit	3	Is the Engine Unit closed firmly until it is locked? (Is the pressure around the Registration Roller correct?)	No	 Close the Engine Unit firmly. Adjust the pressure around the Registration Roller.
Driving mechanism	4	Check the operation of Registration Clutch in the Device Operation Mode of the Service Mode. Device Code: 11 (Registration Clutch) Also open and close the Roll Deck, and check if the Main Motor rotates correctly. Does each Registration Clutch and Main Motor operate correctly?	No	Replace the Registration Clutch or Main Motor if it is defective.

7. 1. 1. 5 Internal Jam "Delay" (J-0106), "Stay" (J-0206) "Early" (J-0306), "Remained" (J-1006)

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Does the paper mis-fed occur around the separation area?	Yes	Remove the mis-fed paper.
Separation Sensor (PH2)	2	Check the status of Separation Sensor in the Signal Status Mode of the Service Mode. Signal Code: 010 (Separation Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing beside the sensor?	No	 Check if there is any problem with the wire connected to the Separation Sensor. Replace the Separation Sensor if there is no problem with the wire.
Transfer / Separation Corona	3	Is the Transfer / Separation Corona Unit installed to the machine correctly?	Yes	Install the Transfer / Separation Corona Unit
ospananon oorona		metamen to ano macrimio con coay.		correctly.
		Is the Corona Wire broken?	Yes	Replace the Corona Wire.
HV Power Supply	4	Is the output from the HV Power Supply to the Separation Corona correct?	No	Replace the HV Power Supply.

7-6 K124sm7e1

7. 1. 1. 6 Fuser Jam "Delay" (J-0107), "Stay" (J-0207) "Early" (J-0307), "Remained" (J-1007)

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Does the paper mis-fed occur around the fuser area?	Yes	Remove the mis-fed paper.
Exit Sensor (PH3)	2	Check the status of Exit Sensor in the Signal Status Mode of the Service Mode. Signal Code: 011 (Exit Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing	No	 Check if there is any problem with the wire connected to the Exit Sensor. Replace the Exit Sensor if there is no problem with the wire.

7. 1. 1. 7 Paper jam by opening the Roll Deck during printing (J-1100)

Cause	Checking order	Checking	Result	Treatment
Opening the Roll Deck	1	Did you open the Roll Deck before the completion of printing? (Roll paper will be rewound after printing. J-1100 will be indicated if you open the deck at that time.)	Yes	Wait until the roll paper is completely rewound.
Lock of Roll Deck	2	Is the Roll Deck firmly locked?	No	Close it firmly.

7. 1. 1. 8 Paper jam by opening the Exit Cover during printing (J-1200)

Cause	Checking order	Checking	Result	Treatment
Opening the Exit Cover	1	Did you open the Exit Cover during printing?	Yes	Do not open it during printing.

7. 1. 1. 9 Deck Open

Cause	Checking	Checking	Result	Treatment
	order			
Roll Deck	1	Is the Roll Deck opened?	Yes	Close it firmly.
Switch (MS5)	2	Check the status of the following signal in the Signal Status Mode of the Service Mode. Signal Code: 009 (Roll Deck Open) Is the status "L" when the Roll Deck is closed? And is it "H" when the Roll Deck is opened?	No	 Check if there is any problem with the wire connected to the Switch (MS5). Replace the Switch (MS5) if there is no problem with the wire.

7-7 K124sm7e1

7. 1. 1.10 Deck Jam

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Does the paper mis-fed occur in the Roll Deck?	Yes	Remove the mis-fed paper.
Installation of roll paper	2	Is the roll paper correctly installed to the Roll Deck 2?	No	Install it correctly.
Roll 1 Set Sensor (PH7) Roll 2 Set Sensor (PH9)	3	Check the status of Roll 1 Set Sensor and Roll 2 Set Sensor in the Signal Status Mode of the Service Mode. Signal Code: 105 (Roll 1 Set Sensor) 106 (Roll 2 Set Sensor) Is the status of each sensor "H" when you set the roll paper?	No	 Is there any problem with the Drawer Connector which connects the machine and the Roll Deck. Check if there is any problem with the wire connected to each sensor. Replace the concerning sensor if there is no problem with the wire.
Roll 1 Feed Clutch (CL4) Roll 2 Feed Clutch (CL6) Roll 1 Back Clutch (CL5) Roll 2 Back Clutch (CL7)	4	Check the operation of the following clutches in the Device Operation Mode of the Service Mode. Device Code: 06 (Roll 1 Feed Clutch) 07 (Roll 1 Back Clutch) 08 (Roll 2 Feed Clutch) 09 (Roll 2 Back Clutch)	No	Check if there is any problem with the wire connected to each clutch. Replace the concerning clutch if there is no problem with the wire.
Main Motor (M1)	5	Check the status of Roll 1 Set Sensor and Roll 2 Set Sensor in the Signal Status Mode of the Service Mode while making the following operation. Signal Code: 105 (Roll 1 Set Sensor) 106 (Roll 2 Set Sensor) 1. Set the leading edge of each roll paper between the concerning feeding rollers. (Leading edge must not pass over each Roll 1 (2) Set Sensor.) 2. Close the Roll Deck. Does the status change from "L" to "H" when the machine is transporting the paper?	Yes	 Check the driving belts of the Roll Deck. Check if there is any problem with the wire connected to the Main Motor. Replace the Main Motor if there is no problem with the wire. Remove the whole Roll Deck, and then re-install it to the machine correctly.

7-8 K124sm7e1

7. 1. 1.11 Manual Set NG

Cause	Checking order	Checking	Result	Treatment
Mis-feed	1	Have you already set the cut sheet paper to the Bypass Feeder before you turned on the machine?	Yes	Remove the paper.
Manual Set Sensor	2	Check the status of Manual Feed Sensor in the Signal Status Mode of the Service Mode. Signal Code: 008 (Manual Set Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing beside the sensor?	No	1. Check if there is any problem with the wire connected to the Manual Set Sensor. 2. Replace the Manual Set Sensor if there is no problem with the wire.
Registration Sensor	3	Check the status of Registration Sensor in the Signal Status Mode of the Service Mode. Signal Code: 100 (Registration Sensor) Is the status "L" when the paper is not passing beside the sensor? And is it "H" when the paper is passing beside the sensor?	No	Check if there is any problem with the wire connected to Registration Sensor. Replace the Registration Sensor if there is no problem with the wire.
Engine Unit	4	Is Engine Unit closed firmly? (Is the pressure around Registration Roller correct?)	No	Close Engine Unit firmly. Adjust the pressure around Registration Roller.
Driving mechanism	5	Check the operation of Registration Clutch in the Device Operation Mode of the Service Mode. Device Code: 11 (Registration Clutch) Open and close Roll Deck and check if Main Motor rotates correctly. Does each Registration Clutch and Main Motor operate correctly?	No	Replace the Registration Clutch or Main Motor if it is defective.

7. 1. 1.12 Toner Empty

Cause	Checking order	Checking	Result	Treatment
Toner Cartridge	1	Is there enough toner in the Toner Cartridge?	No	Replace the Toner Cartridge.
Toner Supply Motor (M3)	2	Check the operation of Toner Supply Motor by the following 2 ways. 1. Turn on the machine and check the action of Toner Supply Motor at that time. 2. Enter Factory Adjustment Mode and carry out Sub Mode No.05. Press [*] Key when the machine is operating. (Toner Supply Motor rotates during [*] Key pressed.) Does Toner Supply Motor operate correctly in both cases?	No	Check if there is any problem with the wires among Toner Supply Motor, Driver PCB B and PW12420 PCB. Replace the Toner Supply Motor if there is no problem with the wire.

(continued on the next page)

7-9 K124sm7e1

Cause	Checking order	Checking	Result	Treatment
Toner Sensor (TLS1)	3	Confirm that the Toner Sensor is not buried in the toner. Then check the status of Toner Sensor in the Input/Output Mode of the Service Mode. I/O Signal Code : 107 (Toner Sensor) Is the status "H" when the Toner Sensor is covered with the toner? And is it "L" when the sensor is not covered?	No Yes	Replace the Toner Sensor. Replace the PW12420 PCB.

7. 1. 1.13 The door opened during the print

Cause	Checking order	Checking	Result	Treatment
Mis-feed of paper	1	Is there a paper anywhere in the machine?	Yes	Open the Exit Cover and the Engine Unit, and then remove the paper. (Cut the paper manually if it has not been cut yet.)
Switch (MS5)	2	Check the status of the following signal in the Signal Status Mode of the Service Mode. Signal Code: 009 (Roll Deck Open) Is the status "L" when the Roll Deck is closed? And is it "H" when the Roll Deck is opened?	No	 Check if there is any problem with the wire connected to the Switch (MS5). Replace the Switch (MS5) if there is no problem with the wire.
Fuse	3	Does the fuse (F2) have a proper conductivity?	No	Replace the fuse (F2).

7. 1. 1.14 Abnormal variation in cut length

Cause	Checking order	Checking	Result	Treatment
Sensor (PH12) with encoder	1	Check the status of the following signal in the Signal Status Mode of the Service Mode. Signal Code: 109 (Feed Encoder) Is the status changed "H" and "L" alternately when rotating the encoder by hand?	No	 Check if there is any problem with the wire connected to the Sensor (PH12). Replace the Sensor (PH12) if there is no problem with the wire.
	2	Does the encoder rotate smoothly when feeding media by Feed Knob?	No	Replace the shaft or bracket that supports the encoder.

7-10 K124sm7e1

7. 1. 2 Countermeasures - Call Service Errors

The followings are the names of Service Call Errors and the conditions that those errors occur.

Error Code	Error Indication	Conditions
E-000	Fuser Temperature Rising Error	Fuser Temperature does not reach 50 °C within 120 seconds after turning on.
E-001	Fuser Over Temperature Error	Fuser Temperature reaches over 230 °C.
E-002	Fuser Low Temperature Error	 Fuser Temperature at the time of turning on was 50 to 100 °C, but it does not rise up to 120 °C within 150 seconds after that. Fuser Temperature at the time of turning on was higher than 100 °C, but it does not rise up to the setting temperature within 330 seconds after that.
E-003	Fuser Temperature Abnormal Fall Error	The difference of temperature between center and side of fuser becomes 50 °C or more.
E-004	Fuser Temperature Abnormal Fall Error	The Lamp of fuser lights (Signal HEAT1 is "H") to heat up the Fuser Roller in the ready condition, but even 1 °C of temperature rise can not be accomplished within 30 seconds.
E-010	Main Motor Error	The Main Motor Output Detection Signal (MAINM_LD) continues to be "H" for 3 seconds or longer when the Main Motor is rotating.
E-011	Fuser Motor Error	The Fuser Motor Output Detection Signal (HEATM_LD) continues to be "H" for 3 seconds or longer when the Fuser Motor is rotating.
E-012	Developer Press Motor Error	The Developer Press Sensor Signal (PRESS_S) does not change to "L" within 30 seconds after turning on.
E-020	Counter Error	The Counter Connection Detection Signal (COUNT_OPN) continues to be "L" for 1 second or longer after turning on.
E-031	Image Corona Output Error	The Image Corona Output Detection Signal (IM_LD) continues to be "L" for 1 second or longer when the Image Corona is ON.
E-032	Separation Corona Output Error	The Separation Corona Output Detection Signal (AC_LD) continues to be "L" for 1 second or longer when the Separation Corona is ON.
E-033	Transfer Corona Output Error	The Transfer Corona Output Detection Signal (TR_LD) continues to be "L" for 1 second or longer when the Transfer Corona is ON.

7-11 K124sm7e1

Error Code	Error Indication	Conditions
E-034	Bias Output Error	Bias Output Detection Signal (BIAS_LD) continues to be "L" for 1 second or longer when a specified bias is supplied to the corresponding Developer Unit components.
E-040	Cutter Error	 The Cutter Home Sensor Signal (MSCUT_L or MSCUT_R) does not change to "H" within 100 millisecond since the Cutter has started the operation. The Cutter Home Sensor Signal (MSCUT_L or MSCUT_R) does not change to "L" within 1 second since the Cutter has started the operation.
E-050	FPGA Error	Initialization of FPGA is failed after turning on.
E-070	Developer Unit Set Error	 The Connector J-253 is not connected. The Switch (MS4) is "open" condition, which detects open/close of Engine Unit or Toner Hatch.
E-080	Density Sensor Error	The default output of Density Sensor reaches less than 0.1V or more than 1.3V.
E-081	Density Sensor Output Error	The gap between the default output and the standard output of Density Sensor reaches less than 2V.

7-12 K124sm7e1

7. 1. 2. 1 Fuser Error (E-000, E-002 & E-004)

E-000 : Fuser Temperature Rising Error E-002 : Fuser Low Temperature Error E-004 : Fuser Temperature Abnormal Fall Error

Cause	Checking order	Checking	Result	Treatment
Error clearance	1	Have you cleared the fuser error in the Error Clear Mode?	Yes	Wait until the Fuser Unit is enough cooled down. Then select the Error Clear Mode and clear the concerning error.
Wires	2	Are wires among Lamp (H1, H2), Solid State Relay (SSR1) and Thermistors (TH1 & TH2) connected properly?	No	Connect them properly.
Lamp (H1, H2)	3	Unplug the machine, and then check the resistance of Lamp (H1, H2) with the multi-meter. Is it 15k ohm or lower?	No	Replace the Lamp.
Thermistors (TH1 & TH2)	4	Select the Information Mode, and then check the temperature of fuser detected by Thermistors (TH1 & TH2). Item No. : 00 (Fuser temperature 1) 01 (Fuser temperature 2)	No	Replace the concerning Thermistor.
DC Power Supply (DCP1) or Fuse	5	Is each temperature normal? Confirm that the machine is turned on, and then check the voltage of the orange line (J220-4). Is it 24V?	No	Replace the DC Power Supply if there is no problem with the wires.
		Confirm that the machine is turned off, and then check whether or not each Fuse is broken. Is any Fuse broken?	Yes	Replace the Fuse.
Relay (RY1)	6	Select the Device Operation Mode, and then change the signal of the following signal to "H". Device Code: 22 (Fuser Relay) And check the resistance between the following points. Between RY1-2 and RY1-4 Between RY1-6 and RY1-8 Is the each resistance almost 0 ohm?	No	Replace the Relay.

K124sm7e1 7-13

Cause	Checking order	Checking	Result	Treatment
Solid State Relay (SSR1)	7	7 Select the Device Operation Mode, and then change the signal of the following signals to "H".	Yes	Replace the Solid State Relay
		3 - 1 - 1	No	Replace the PW12420 PCB.
		Device Code : 22 (Fuser Relay) 21 (Fuser Lamp 1)		
		Then check the voltage between J105-1 and J105-2. Is it 0V?		
		CAUTION Change the signal of "21" (Fuser Lamp 1) to "L" after checking!		

7. 1. 2. 2 Fuser Error (E-001)

Have you cleared the fuser error in the Error Clear Mode?	Yes	AMARICA CLOSA E ANALLISCA
(Refer to the page 8-154 as for the Error Clear Mode.)		Wait until the Fuser Unit is enough cooled down. Then select the Error Clear Mode and clear the concerning error.
Are wires among Lamp (H1, H2), Solid State Relay (SSR1) and Thermistors (TH1 & TH2) connected properly?	No	Connect them properly.
Does the error occur again even if you have cleared it in the Error Clear Mode?	Yes	Replace the Solid State Relay.
Select the Information Mode, and then check the temperature of fuser detected by Thermistors (TH1 & TH2). Item No.: 00 (Fuser temperature 1) 01 (Fuser temperature 2)	No	Replace the concerning Thermistor.
	check the temperature of fuser detected by Thermistors (TH1 & TH2). Item No. : 00 (Fuser temperature 1)	check the temperature of fuser detected by Thermistors (TH1 & TH2). Item No. : 00 (Fuser temperature 1) 01 (Fuser temperature 2)

7-14 K124sm7e1

7. 1. 2. 3 Fuser Error (E-003)

Cause	Checking order	Checking	Result	Treatment
Error clearance	1	Have you cleared the fuser error in the Error Clear Mode?	Yes	Wait until the Fuser Unit is enough cooled down. Then select the Error Clear Mode and clear the concerning error.
Wires	2	Are wires among Lamp (H1, H2), Solid State Relay (SSR1) and Thermistors (TH1 & TH2) connected properly?	No	Connect them properly.
Thermistors (TH1 & TH2)	3	Select the Information Mode, and then check the temperature of fuser detected by Thermistors (TH1 & TH2). Item No.: 00 (Fuser temperature 1) 01 (Fuser temperature 2) Is each temperature normal?	No	Replace the concerning Thermistor.

7. 1. 2. 4 Main Motor Error (E-010)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Main Motor and PW12420 PCB connected properly?	No	Connect it properly.
DC Power Supply (DCP1) or Fuse	2	Confirm that the machine is turned on, and then check the voltage of the orange line (J220-4). Is it 24V?	No	Replace the DC Power Supply if there is no problem with the wires.
		Confirm that the machine is turned off, and then check whether or not each Fuse is broken. Is any Fuse broken?	Yes	Replace the Fuse.
Main Motor (M1)	3	Check the operation of Main Motor in the Device Operation Mode of the Service Mode. Device Code: 00 (Main Motor) Does the Main Motor operate correctly?	No	Replace the Main Motor.

7-15 K124sm7e1

7. 1. 2. 5 Fuser Motor Error (E-011)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Fuser Motor and PW12420 PCB connected properly?	No	Connect it properly.
DC Power Supply (DCP1) or Fuse	2	Confirm that the machine is turned on, and then check the voltage of the orange line (J220-4). Is it 24V?	No	Replace the DC Power Supply if there is no problem with the wires.
		Confirm that the machine is turned off, and then check whether or not each Fuse is broken. Is any Fuse broken?	Yes	Replace the Fuse.
Fuser Motor (M2)	3	Check the operation of Fuser Motor in the Device Operation Mode of the Service Mode. Device Code: 01 (Fuser Motor) Does the Fuser Motor operate correctly?	No	Replace the Fuser Motor.

7. 1. 2. 6 Developer Press Motor Error (E-012)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Are the wires among Developer Press Sensor (PH4), PW12420 PCB, Driver PCB B (PW6654) and Developer Press Motor (M4) connected properly?	No	Connect them properly.
Developer Press Motor (M4) Driver PCB B (PW6654)	2	Turn off the machine, and then turn it on again. Is the Developer Unit moved to the Drum side?	No	Replace the Developer Press Motor or Driver PCB B.
Developer Press Sensor (PH4)	3	Select the Signal Code "104" (Developer Press Sensor) in the Signal Status Mode, and then turn on the machine again. Does the status change from "H" to "L" after turning on?	No	Replace the Developer Press Sensor.
Fuse	4	Does the fuse (F3) have a proper conductivity?	No	Replace the fuse (F3).

7-16 K124sm7e1

7. 1. 2. 7 Counter Error (E-020)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Counter and PW12420 PCB connected properly?	No	Connect it properly.
DC Power Supply (DCP1) or Fuse	2	Confirm that the machine is turned on, and then check the voltage of the orange line (J220-5). Is it 24V?	No	Replace the DC Power Supply if there is no problem with the wires.
		Turn off the machine. Does the fuse (F1) have a proper conductivity?	No	Replace the fuse (F1).
Counter	3	Check the operation of Counter in the Device Operation Mode of the Service Mode. Device Code: 26 (Counter)	No	Replace the Counter.
		Does the Counter operate correctly?		

7. 1. 2. 8 High Voltage Output Error (E-031, E-032 & E-033)

E-031 : Image Corona Output Error E-032 : Separation Corona Output Error E-033 : Transfer Corona Output Error

Cause	Checking order	Checking	Result	Treatment
Wires	1	Are wires among Image Corona, HV Power Supply PCB and PW12420 PCB connected properly?	No	Connect them properly.
Image Corona	2	Is the Image Corona dirty?	Yes	Clean each Corona Wire, Grid Plate and housing.
		Is the Corona Wire broken?	Yes	Replace the Corona Wire.
Cleaning Roller	3	Does the bias terminal plate touch to Cleaning Roller shaft properly?	No	Remove and reapply conductive grease to Cleaning Roller shaft. Relocate the bias terminal plates properly.
		Is grease applied enough?	No	Remove and reapply conductive grease to Cleaning Roller shaft.
Transfer Corona	4	Is the Transfer Corona dirty?	Yes	Clean each Corona Wire and housing.
		Is the Corona Wire broken?	Yes	Replace the Corona Wire.
Separation Corona	5	Is the Separation Corona dirty?	Yes	Clean each Corona Wire and housing.
		Is the Corona Wire broken?	Yes	Replace the Corona Wire.
HV Power Supply	6	Can you fix the problem if you replace the HV Power Supply?	Yes	OK

7-17 K124sm7e1

7. 1. 2. 9 Bias Output Error (E-034)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Are wires among Developer Unit, HV Power Supply PCB and PW12420 PCB connected properly?	No	Connect them properly.
Developer Unit	2	Is the toner spill out from the Developer Unit? (Or is there any similar problem?)	Yes	Clean each Corona Wire, Grid Plate and housing.
		Is the high voltage of Regulation Roller leaking? (The resistance between the central part of Regulation Roller and the Ground is 5 mega ohm or smaller if leaking.) GND Multi-meter	Yes	Replace the Regulation Roller.
HV Power Supply	3	Can you fix the problem if you replace the HV Power Supply?	Yes	OK

7. 1. 2. 10 Cutter Error (E-040)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Cutter Unit and PW12420 PCB connected properly?	No	Connect it properly.
Cutter Home Position Sensors (MS6 & MS7)	2	Check the status of the following signals in the Signal Status Mode of the Service Mode. Signal Code: 094 (Cutter Home Position Right) 095 (Cutter Home Position Left) Is the status "L" when the Cutter is at each home position?	No	Replace the Cutter Unit.
Developer Press Sensor (PH4)	3	Check the operation of Cutter in the Device Operation Mode of the Service Mode. Device Code: 27 (Cutter Motor 1) 28 (Cutter Motor 2) Does the Cutter operate?	No	Replace the Cutter Unit.

7-18 K124sm7e1

7. 1. 2. 11 FPGA Error (E-050)

Cause	Checking order	Checking	Result	Treatment
PW12420 PCB	1	Can you fix the problem if you replace the PW12420 PCB?	Yes	OK

7. 1. 2. 12 Developer Error (E-070)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Developer Unit and PW12420 PCB connected properly?	No	Connect it properly.
Switch (MS4)	2	Is the actuator of Switch correctly pressed down when you close the Engine Unit or Toner Hatch?	No	Adjust the positions of Switch (or Toner Hatch and Engine Unit).

7. 1. 2. 13 Density Sensor Error (E-080)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Toner Density Sensor and PW12420 PCB connected properly?	No	Connect it properly.
Density Sensor (PH11)	2	Can you fix the problem if you replace Density Sensor?	No	Replace PW12420 with a new one.

7. 1. 2. 14 Density Sensor Output Error (E-081)

Cause	Checking order	Checking	Result	Treatment
Wires	1	Is the wire between Toner Density Sensor and PW12420 PCB connected properly?	No	Connect it properly.
Density Sensor (PH11)	2	Can you fix the problem if you replace Density Sensor?	No	Replace PW12420 with a new one.

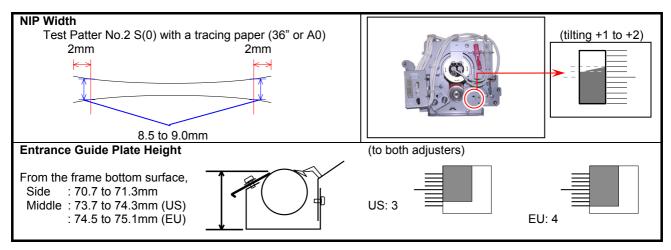
7-19 K124sm7e1

7. 2 Troubleshooting - Image Quality

7. 2. 1 Basic Image Adjustment

The followings are the settings specified to the image creation components. When a defective image is printed out, please check whether or not these settings are satisfied for the beginning.

Component	Check Point	Designated voltage	Way of adjustment	Corona Wire Height
	(PW12420)			
Image Corona	CP11 (+) CPCOM (-)	1.3 +/-0.05VDC	VR101	11mm
Transfer Corona	CP21 (+) CP22 (-)	Plain paper: 1.2 +/-0.05VDC other media: 1.0 +/-0.05VDC	Adjustment Mode No.029 (Plain) No.030 (Tracing) No.031 (Film)	11 mm
Separation Corona (AC)	CP31 (+) CPCOM (-)	5.0 +/-0.05V	VR302	11mm
Separation Corona (DC)	CP33 (+) Ground (-)	-250 +/-5VDC	VR303	
Negative Developer Roller Bias	OUTPUT2 (+) Ground (-)	-180 +/-5VDC	Adjustment Mode No.022 (Plain) No.023 (Tracing) No.024 (Film)	
Positive Developer Roller Bias	CP41 (+) CP42 (-)	0.350 +/-0.005V	VR401	
Toner Supply Roller Bias	OUTPUT1 (+) OUTPUT2 (-)	the same voltage as Developer Bias	-	
Regulation Roller Bias	OUTPUT2 (+) OUTPUT3 (-)	-80 +/-5VDC	Adjustment Mode No.622	
Positive Cleaning Roller Bias	OUTPUT5 (+) Ground (-)	+450 +/-5VDC	VR001	
Negative Cleaning Roller Bias	OUTPUT5 (+) Ground (-)	-550 +/-5VDC	VR002	



7-20 K124sm7e2

7. 2. 2 Countermeasures - Image Quality

7. 2. 2. 1 Halftone is too light

Check the following matters with the Test Pattern No.1 S(0) and No.3 S(0). If necessary use other Test Patterns.

Cause	Checking	Checking	Result	Treatment
	order	Total and the state of the stat	V : .	01/
	1	Try to readjust each image creation component according to [7.2.1 Basic Image Adjustment]. Is the problem fixed?	Yes	OK
LED Head	2	Is the Lens Array of LED Head dirty?	Yes	Clean it.
Paper	3	Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
Image Corona	4	Is the Image Corona dirty?	Yes	Clean each Corona Wire, Grid Plate and housing, or replace the Corona Wire if it is too dirty.
		Is the input voltage to the Image Corona correct?	No	Readjust the input voltage making reference to [4. 3. 2 Check & Adjustment of Analog Voltage to the Image Corona] on the page 4-31. Or replace the HV Power Supply PCB.
Eraser Lamp	5	Does the Eraser Lamp light properly?	No	Check the wire connected to the Eraser Lamp. Check or replace the Eraser Lamp.
Separation Lamp	6	Does the Separation Lamp light properly?	No	Check the wire connected to the Separation Lamp. Check or replace the Separation Lamp.
Transfer Corona	7	Is the Transfer / Separation Corona dirty?	Yes	Clean each Corona Wire and housing, or replace the Corona Wire if it is too dirty.
		Is the input voltage to the Transfer Corona correct?	No	Readjust the input voltage making reference to [4. 3. 3 Check & Adjustment of Analog Voltage to the Transfer Corona] on the page 4-33. Or replace the HV Power Supply PCB.
Contact points of Developer Bias	8	Is each Electrode Plate on the right of the Developer Unit surely contacted to the Electrode Plate on the machine side?	No	Try to install the Developer Unit so that they are contacted each other. And supply the conductive grease to the Electrode Plates.
HV Power Supply PCB	9	Can you fix the problem if you replace the HV Power Supply PCB?	Yes	OK

7-21 K124sm7e2

Cause	Checking order	Checking	Result	Treatment
Installation of Developer Unit	10	Is the driving gear on the left of the Developer Unit surely fitted to the driving mechanism on machine side?	No	Check whether or not the Cam of Developer Press Unit surely presses the Developer Unit. Check the concerning gears.
Developer Unit	11	Is the Developer Roller evenly covered with the toner?	No	Check the whole Developer Unit to find the cause.
			Yes	Replace the Photoconductive Drum.

7-22 K124sm7e2

7. 2. 2. 2 Halftone and solid black are too light

Check the following matters with the Test Pattern No.1 S(0) and No.3 S(0). If necessary use other Test Patterns.

Cause	Checking	Checking	Result	Treatment
	order	-		
	1	Try to readjust each image creation component according to [7.2.1 Basic Image Adjustment]. Is the problem fixed?	Yes	OK
	2	Turn off the machine in the middle of	Yes	Go on to the step 3.
		printing, and then check the toner image on the Drum. Is the toner image looks normal?	No	Go on to the step 7.
Transfer Corona	3	Is the Transfer/Separation Corona installed to the machine correctly?	No	Install it correctly.
		Is the high voltage of Transfer Corona leaking?	Yes	Clean the Transfer Corona.
Paper	4	Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
Lead Wire	5	Is the resistance of Lead Wire about 10 kilo ohm, which connects the HV Power Supply and the Transfer Corona?	No	Replace the Lead Wire.
Input voltage to the Transfer Corona	6	Is a correct voltage supplied from the HV Power Supply to the Transfer Corona?	No	Readjust the input voltage making reference to [4. 3. 3 Check & Adjustment of Analog Voltage to the Transfer Corona] on the page 4-33. Or replace the HV Power Supply PCB.
Dirt of the LED Head	7	Is the LED Head dirty?	Yes	Clean it.
Developer Unit	8	Is the Developer Roller evenly covered with the toner?	No	Check the whole Developer Unit to find the cause.
	9	Is the Developer Unit firmly pressed toward the Drum? (Do Counter Rollers at both sides of the Developer Roller touch the Drum Unit?)	No	Remove the Developer Unit, and then install it to the machine correctly. Check the Developer Press Unit.
Installation of Developer Unit	10	Is the driving gear on the left of the Developer Unit surely fitted to the driving mechanism on machine side?	No	Check whether or not the Cam of Developer Press Unit surely presses the Developer Unit. Check the concerning gears.
Toner Sensor	11	Is there enough toner in the Developer Unit?	No	 Check the wire or the connector connected to the Toner Sensor. Check the Toner Sensor.
			Yes	Replace the Photoconductive Drum.

7-23 K124sm7e2

7. 2. 2. 3 The whole image is extremely light

Check the following matters with the Test Pattern No.1 S(0) and No.3 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
	1	Try to readjust each image creation component according to [7.2.1 Basic Image Adjustment]. Is the problem fixed?	Yes	OK
Paper	2	Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
		Do you have the problem only when you use a film?	Yes	Change the setting of Item No.067 (Transfer Assist Setting) in the Adjustment Mode of Service Mode, so that the Separation Lamp works for the film.
	3	Turn off the machine in the middle of	Yes	Go on to the step 4.
		printing, and then check the toner image on the Drum. Is the toner image looks normal?	No	Go on to the step 8.
Transfer Corona	4	Is the Transfer/Separation Corona installed to the machine correctly?	No	Install it correctly.
		Is the high voltage of Transfer Corona leaking?	Yes	Clean the Transfer Corona.
Lead Wire	5	Is the resistance of Lead Wire about 10 kilo ohms, which connects HV Power Supply and the Transfer Corona?	No	Replace the Lead Wire.
Input voltage to the Transfer Corona	6	Is a correct voltage inputted from the HV Power Supply to the Transfer Corona?	No	Readjust the input voltage making reference to [4. 3. 3 Check & Adjustment of Analog Voltage to the Transfer Corona] on the page 4-33. Or replace the HV Power Supply PCB.
Driving mechanism of Developer Unit	7	Is the Developer Unit driving normally?	No	Check the driving mechanism.
Developer Unit	8	Is the Developer Unit firmly pressed toward the Drum? (Are Counter Rollers at both sides of the Developer Roller touch the Drum Unit?)	No	Remove the Developer Unit, and then install it to the machine correctly.
Lead Wire	9	Is the Lead Wire to supply the	No	Connect the Lead Wire
Developer Bias	10	Developer Bias correctly connected? Is the Developer Unit supplied with the Developer Bias correctly?	No	correctly. Check the contact points of Developer Bias, and also check the HV Power Supply.

7-24 K124sm7e2

7. 2. 2. 4 Density is uneven

Check the following matters with the Test Pattern No.1 S(0) and No.3 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Image Corona	1	Is the Image Corona dirty?	Yes	Clean the Image Corona, or replace the Corona Wire.
		Is the height of Corona Wire different between left and right?	Yes	Adjust the height properly.
Installation of Developer Unit	2	Is the Developer Unit firmly pressed toward the Drum? (Do Counter Rollers at both sides of the Developer Roller touch the Drum Unit?)	No	Remove the Developer Unit, and then install it to the machine correctly. Check the Developer Press Unit.
LED Head	3	Is the Lens Array dirty	Yes	Clean it.
Eraser Lamp	4	Are all LED of the Eraser Lamp light properly during the print?	No	 Replace the Eraser Lamp. Replace the PW12420 PCB.
Developer Unit	5	Is the Developer Roller evenly covered with the toner?	No	 Clean Regulation Roller. Reinstall Scraper.
		Is the toner accumulating evenly in the Developer Unit?	No	Level the machine correctly.

7. 2. 2. 5 Totally appeared foggy image

Check the following matters with the Test Pattern No.1 S(0) and No.4 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
	1	Try to readjust each image creation component according to [7.2.1 Basic Image Adjustment]. Is the problem fixed?	Yes	OK
Developer Unit	2	Is the Developer Roller insulated from the ground?	No	Check the Developer Roller and connector.
Image Corona	3	Is the foggy image printed even if you print a completely white pattern?	Yes	Check the output voltage from the HV Power Supply to the Image Corona. If it is not correct, readjust it.
Developer Bias	4	Is the Developer Unit supplied with a correct Developer Bias during the print?	No	Check the output voltage from the HV Power Supply to the Developer Unit. If it is not correct, readjust it. Or replace the HV Power Supply PCB
Photoconductive Drum	5	Have you used the Photoconductive Drum longer than its part life?	Yes	Replace the Photoconductive Drum.

7-25 K124sm7e2

7. 2. 2. 6 Foggy image or blurred black wide line (vertical)

Check the following matters with the Test Pattern No.1 S(0) and No.4 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Light from the outside	1	Is any light from the outside thrown onto the Drum?	Yes	Install the outer cover correctly.
Image Corona	2	Is the Image Corona dirty?	Yes	Clean the Image Corona, or replace the Corona Wire.
Developer Unit	3	Is the Developer Roller evenly covered with the toner?	No	Check if the Regulation Roller is fixed at the proper position. If not, fix it at the correct position.

7. 2. 2. 7 Clear black thin line (vertical)

Check the following matters with the Test Pattern No.1 S(0) and No.4 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Image Corona	1	Is there something like filament on the Grid Plate, which is contacted to the Drum?	Yes	Remove it.
		Is the Image Corona dirty?	Yes	Clean the Image Corona, or replace the Corona Wire.
Foreign substance	2	Is there some foreign substance on each Corona Unit or LED Head, which is contacted to the Drum?	Yes	Remove it.
Photoconductive Drum	3	Is there any black line or damage on the Drum, of which position corresponds with the black line on the print?	Yes	Clean the Drum making reference to [5. 5. 2 Cleaning of Photoconductive Drum]. Replace the Drum if it is damaged. Be sure to find the cause of the damage.

7-26 K124sm7e2

7. 2. 2. 8 White line (Vertical)

Check the following matters with the Test Pattern No.1 S(0) and No.7 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Image Corona	1	Is there something like filament on the Grid Plate, which is contacted to the Drum?	Yes	Remove it.
Dirt of the LED Head	2	Can you fix the problem if you clean the LED Head?	Yes	OK
Transfer/Separation Corona	3	Is there any foreign substance or dirt on the Transfer/Separation Corona?	Yes	Clean the Transfer / Separation Corona.
Developer Unit	4	Is the Developer Roller evenly covered with the toner?	No	Check whether or not there is damage or foreign substance on the Regulation Roller.
Entrance of Fuser Unit	5	Is there any foreign substance or dirt around the entrance area of the Fuser Unit?	Yes	Clean it off
Photoconductive Drum	6	Is there any damage on the Drum, which runs to the direction of Drum rotation.	Yes	Clean the Drum making reference to [5. 5. 2 Cleaning of Photoconductive Drum]. Replace the Drum if it is damaged. Be sure to find the cause of the damage.

7-27 K124sm7e2

7. 2. 2. 9 Void of image

Check the following matters with the Test Pattern No.1 S(0) and No.7 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
	1	Print out the Test Patter No.7 (halftone). Can you find void of image on the print?	Yes	Go to the step 2.
Paper	2	Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
Developer Unit	3	Does the void of image appear on the print constantly Keeping about 160mm of interval?	Yes	 Clean the Counter Rollers at both sides of the Developer Roller. Wipe the Developer Roller with a dry cloth. Replace the Developer Roller if damaged.
		Is the void of image mainly runs vertically as follows?	Yes	1. Check if there is enough toner in the Developer Unit. 2. Also select the Device Status Mode and check the Toner Sensor Signal (Device Code: 107). It must be "L" when the toner is not covering the Toner Sensor. If not, replace the Toner Sensor.
Photoconductive Drum	4	Does the void of image appear on the print constantly Keeping about 251mm of interval?	Yes	Clean Drum making reference to [5. 5. 2 Cleaning of Photoconductive Drum]. Replace Drum if damaged. Be sure to find the cause of the damage.

7. 2. 2.10 Dirt on the back of the print

Check the following matters with the Test Pattern No.1 S(0) and No.4 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
	1	Try to readjust each image creation component according to [7.2.1 Basic Image Adjustment]. Is the problem fixed?	Yes	OK
Transfer Guide Plates	2	Are Transfer Guides or the black rubber area of the guide plate near Transfer / Separation Corona dirty with the toner?	Yes	Clean them. After that, check the distance between Transfer Guide and Drum. (It should be 0.5 to 0.7mm.)
Developer Unit	3	Is too much toner accumulating under the Developer Roller?	Yes	Clean the Developer Unit.
Inner Transport Unit	4	Is the Inner Transport Unit dirty with the toner?	Yes	Clean it, and also find where the toner came.
Fuser Unit	5	Is the Guide Plate at the entrance of Fuser Unit dirty with the toner?	Yes	Clean it.
		Are Fuser Roller and Pressure Roller dirty with the toner?	Yes	Clean them

7-28 K124sm7e2

7. 2. 2.11 Defective fusing

Check the following matters with the Test Pattern No.1 S(0) and No.3 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Fuser Unit	1	Is the Fuser Roller properly heated up after turning on the machine?	No	Refer to [7. 1. 2. 1 Fuser Error (E-001, E-002 & E-004)] to check the Fuser Unit.
Paper	2	Is the type of paper selected on the UI same with that of actually installed paper?	No	Select the correct paper type on the UI.
		Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
Fusing temperature setting	3	Does the fusing temperature specified in the Service Mode suits with the weight (gram/square meter) of paper?	Yes	Is there any part which is burnt? Replace that part if burnt.
			No	Set the fusing temperature correctly.
Fusing pressure (Nip)	4	Print the Test Patter No.2 S(0) with a tracing paper (36" or A0), and turn off the machine in the middle of printing. Remove the print from the machine and check the "nip width". Is it 8.5 to 9.0mm? (Measure at 2 mm from the edge.)	No	Adjust the fusing pressure correctly.
		2mm 2mm 8.5 to 9.0mm		

7-29 K124sm7e2

7. 2. 2.12 Defective image placement, No Leading Edge

Correct leading margin is 5mm (+/-2mm). Check the following matters with the Test Pattern No.1 S(0) and No.7 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Setting of Leading Registration	1	Is the Leading Registration or Leading Margin properly adjusted in the Service Mode?	No	Adjust it properly.
Feed rollers	2	Have you used the feeding rollers for very long term?	Yes	Replace them.
Registration Clutch	3	Does the Registration Clutch operate correctly without slipping?	No	Replace Registration Clutch.

7. 2. 2.13 Jitter

Check the following matters with the Test Pattern No.1 S(0) and No.7 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Photoconductive Drum and its driving mechanism	1	Does the jitter appear on the print constantly keeping about 251mm of interval?	Yes	Check if there is any damage or foreign substance on Pulley on the drum shaft. Check if there is any foreign substance between Drum and Counter Rollers of Developer Unit.
		Does the jitter appear on the print constantly keeping about 3mm of interval?	Yes	Check the engagement of Pulley Gear on the Drum with Belt 4.
Developer Roller	2	Does the void of image appear on the print constantly keeping about 160mm of interval?	Yes	Replace Developer Roller if damaged.
Developer Unit	3	Does the jitter appear on the print constantly keeping about 7.5mm of interval?	Yes	Check if there is any damage or foreign substance on 30T Gear on Regulation Roller shaft (driving side).
		Does the jitter appear on the print constantly keeping about 6.4mm of interval?	Yes	Check if there is any damage or foreign substance on 30T Gear on Supply Roller shaft (driving side) or the driving gears (30T, 25T, 22T) on the electrode plate side.
		Does the jitter appear on the print constantly keeping about 8.6mm of interval?	Yes	Check if there is any damage or foreign substance on the driving gears (16/34T, 21/34T) on the driving side.
		Does the jitter appear on the print constantly keeping about 16.1mm of interval?	Yes	Check if there is any damage or foreign substance on 16T Gears on the screw shafts (driving side)
Fuser Unit	4	Does the jitter appear on the print constantly keeping about 155mm of interval?	Yes	Slightly slow down Fuser Motor Speed 1 or 2 step by step in a concerning media. First half: Speed 1 Last half: Speed 2
	5	Does the jitter appear 60mm from the trailing edge on the print?	Yes	Slightly speed up Fuser Motor Speed 2 step by step in a concerning media.

7-30 K124sm7e2

7. 2. 2.14 Image looks not sharp

Check the following matters with the Test Pattern No.1 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Dirt of the LED Head	1	Is the LED Head dirty?	Yes	Clean it.
Installation of LED	2	Remove the LED Head, and then re-	Yes	OK
Head		install it to the machine. Is the problem fixed?	No	Adjust the gap between LED Head and Drum by adding or removing the thin plates on the Aluminium Block at both sides of the Drum.
Transfer / Separation Corona	3	Is the Transfer / Separation Corona dirty?	Yes	Clean it.

7. 2. 2.15 Uneven image density (vertical)

Check the following matters with the Test Pattern No.1 S(0) and No.7 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Image Corona	1	Is the Image Corona dirty?	Yes	Clean it.
Transfer/Separation Corona	2	Is the Transfer/Separation Corona dirty?	Yes	Clean it.
Installation of LED Head	3	Remove the LED Head, and then reinstall it to the machine. Is the problem fixed?	Yes	OK
	4	Is the density of any image block different from that of other blocks?	Yes	Adjust the gap between LED Head and Drum by adding or removing the Spacers on the Aluminium Block.
	5	Is the width of abnormal density area about 8mm as follows?	Yes	Replace the LED Head.

7-31 K124sm7e2

7. 2. 2.16 Completely white (No image)

Check the following matters with the Test Pattern No.1 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Developer Press Unit	1	Is the Developer Unit correctly pressed to the Drum?	No	Check the Developer Press Unit.
Driving mechanism of Developer Unit	2	Does the Developer Roller rotate during the print?	No	Check the driving mechanism of Process Unit.
Developer Bias	3	Is each Electrode Plate on the right of the Developer Unit surely contacted to the Electrode Plate on the machine side?	No	Try to install the Developer Unit so that they are contacted each other. And supply the conductive grease to the Electrode Plates.
LED Head	4	Are connectors of signal cable firmly connected to the LED Head?	No	Connect them firmly.
		Turn off the machine in the middle of printing, and then check the toner image on the Drum. Is there any toner image on the Drum?	No	Replace the LED Head.
Transfer/Separation	5	Is the Transfer Corona Wire broken?	Yes	Replace it.
Corona		Is the Transfer/Separation Corona Unit correctly installed to the machine?	No	Install it correctly.
		If the high voltage leaking from the Transfer Corona?	Yes	Check the Transfer / Separation Corona to find the cause for leaking.
Lead Wire of Transfer Corona	6	Is the connection of Lead Wire correct?	No	Connect it correctly.
		Is the resistance of Lead Wire about 10 kilo ohms, which connects HV Power Supply and the Transfer Corona?	No	Replace the Lead Wire.
HV Power Supply	7	Can you fix the problem if you replace the HV Power Supply?	Yes	OK
PW12420 PCB	8	Can you fix the problem if you replace the PW12420 PCB?	Yes	OK

7. 2. 2.17 Completely black

Check the following matters with the Test Pattern No.1 S(0) and No.4 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
Image Corona or	1	Is the Image Corona Wire broken?	Yes	Replace it.
HV Power Supply PCB		Is the tension of the Corona Wire correct?	No	Replace it.
		Is the Corona Wire correctly stretched with the spring?	No	Check whether or not the spring is transformed.
		Is a proper high voltage supplied to the Image Corona?	No	Adjust the high voltage, or replace the HV Power Supply PCB
		Is the housing of Image Corona insulated from the ground?	No	Replace the Zener PCB.
PW12420 PCB	2	Can you fix the problem if you replace the PW12420 PCB?	Yes	OK

7-32 K124sm7e2

7. 2. 2.18 Crease of paper

Check the following matters with the Test Pattern No.1 S(0). If necessary use other Test Patterns.

Cause	Checking order	Checking	Result	Treatment
	1	Make a continuous printing. Can you find the crease on the 2nd or later prints?	Yes	Go to the following "8".
Paper	2	Is the type of paper selected on the UI same with that of actually installed paper?	No	Select the correct paper type on the UI.
		Can you fix the problem if you use a newly unpacked paper?	Yes	 If the paper was humidified, instruct the customer of the way store the paper. If the paper was not the specified one, explain the customer that some image problem may occur in that case.
		Is the Dehumidify Heater ON although the air is not humid.	Yes	Turn off the Dehumidify Heater.
Lamp (H1, H2) of Fuser	3	Does the Lamp light correctly?	No	Replace it.
Blower (Separation)	4	Is the Blower working properly during a print to help paper transportation?	No	Replace it.
Blower (Fuser Cooler)	5	Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser?	No	Replace it.
Fuser Entrance Guide	6	Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser Entrance Guide?	Yes	Clean or replace it.
Fusing pressure	7	Remove Pressure Roller and measure the location height of Fuser Entrance Guide. Is the height correct? From the frame bottom surface, Side : 70.7 to 71.3mm Middle : 73.7 to 74.3mm (US) : 74.5 to 75.1mm (EU)	No	Turn the adjuster screw(s) to reach the correct height. Guide Plate Height Adjuster (to both sides) US: +3 3rd from center EU: +4 highest
Fusing pressure (Nip)	/	Print the Test Patter No.2 S(0) with a tracing paper (36" or A0), and turn off the machine in the middle of printing. Remove the print from the machine and check the "nip width". Is it 8.5 to 9.0mm? (Measure at 2 mm from the edge.) 2mm 2mm 2mm	No	Adjust the fusing pressure correctly.
Fuser Motor speed	8	Is the paper slackened during the transportation when you make a long print?	Yes	Make the Fuser Motor speed faster.

7-33 K124sm7e2

7. 2. 2.19 Double Image

Check the following matters with the Test Pattern No.1 S(0). If necessary use other Test Patterns.

Paper 1 Lamp (H1, H2) of Fuser Blower (Separation) 3 Blower (Fuser Cooler)	Is the type of paper selected on the UI same with that of actually installed paper? Can you fix the problem if you use a newly unpacked paper? Does the Lamp light correctly? Is the Blower working properly during the print to help paper transportation? Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser? Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser	No Yes No No No Yes	Select the correct paper type on the UI. 1. If the paper was humidified, instruct the customer of the way store the paper. 2. If the paper was not the specified one, explain the customer that some image problem may occur in that case. Replace it. Replace it.
Fuser Blower (Separation) 3 Blower (Fuser Cooler)	Can you fix the problem if you use a newly unpacked paper? Does the Lamp light correctly? Is the Blower working properly during the print to help paper transportation? Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser? Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser	No No No	humidified, instruct the customer of the way store the paper. 2. If the paper was not the specified one, explain the customer that some image problem may occur in that case. Replace it.
Fuser Blower (Separation) 3 Blower (Fuser Cooler)	Is the Blower working properly during the print to help paper transportation? Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser? Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser	No No	Replace it.
Blower 4 (Fuser Cooler)	the print to help paper transportation? Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser? Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser	No	·
(Fuser Cooler)	Is the Blower working properly during a wide print (30"/ 34"/ 36"/ A0) to cool down the Fuser? Is the Fuser Entrance Guide transformed? Or Is there anything on the Fuser		Replace it.
	transformed? Or Is there anything on the Fuser	Yes	
Fuser Entrance 6 Guide	Entrance Guide?		Clean or replace it.
	Remove Pressure Roller and measure the location height of Fuser Entrance Guide. Is the height correct? From the frame bottom surface, Side : 70.7 to 71.3mm Middle : 73.7 to 74.3mm (US) : 74.5 to 75.1mm (EU)	No	Turn the adjuster screw(s) to reach the correct height. Guide Plate Height Adjuster (to both sides) US: +3 3rd from center EU: +4 highest
Fusing Pressure 6 (Nip)	Print the Test Patter No.2 S(0) with a tracing paper (36" or A0), and turn off the machine in the middle of printing. Remove the print from the machine and check the "nip width". Is it 8.5 to 9.0mm? (Measure at 2 mm from the edge.) 2mm 2mm 2mm	No	Adjust the fusing pressure correctly.
Fusing Temperature 7	Does the fusing temperature specified in the Service Mode suits with the weight (gram/square meter) of paper?	Yes	Is there any part which is burnt? Replace that part if burnt. Set the fusing temperature correctly.

7-34 K124sm7e2

7. 2. 2.20 Dirt on the print (Offset)

Check the following matters with the Test Pattern No.2 S(0). If necessary use other Test Patterns.

Cause	Checking	Checking	Result	Treatment
	order			
Paper	1	Is the type of paper selected on the UI same with that of actually installed paper?	No	Select the correct paper type on the UI.
Developer Unit or Transfer/Separation Corona	2	Does the paper have dirt before it enters the Fuser Unit?	Yes	Check the Developer Unit or Transfer/Separation Corona to find the cause.
Fuser Unit	3	Clean the Fuser Roller. Do you still have the problem even after the cleaning?	Yes	Decrease the setting value of fusing temperature (-3 to -5).
			No	OK

7. 2. 2. 21 Image Void on Long Print without Crease

The following procedure may address image void on a long print without creases. <u>Image void without creases</u> would result from a too fast feeding speed.

If you can see image void and a crease at a time, refer to [7.2.2.22 Crease (and image void at a time)].

Cause	Checking order	Checking	Result	Treatment
Except feeding	1	Is everything on [7.2.2.9 Void of Image] clear?	No	Refer to [7.2.2.9 Void of Image] and check all the points.
Cause analysis with image void location	2	Does image void appear before 2x standard length?	Yes	Before 2x standard; Go to step 9.
			No	After 2x standard; Go to step 3.
Feed Clutch Off Timing lack of slack at cutter region	3	Decrease Feed Clutch Off Timing in 30 (for shorter clutch operation) on Adjustment Mode. Sub Mode: 053 (Feed Clutch Off Timing for Roll 1) : 054 (Feed Clutch Off Timing for Roll 2) Does this fix image void problem?	Yes	OK
	4	Again decrease the Feed Clutch Off Timing in another 30 (for shorter clutch operation). Does this fix image void problem?	Yes No	OK Increase the Feed Clutch Off Timing in 60 to restore the original setting. Go to step 5.
Fuser Motor 4th Speed print pulled too much after 2x standard	5	Decrease Fuser Motor 4th Speed that corresponds to the media width/type in 1 (for slower speed) on Adjustment Mode. 4th Speed Plain Tracing	Yes	OK
	6	Decrease the 4th Speed in another 1 (slower). Does this fix image void problem?	Yes	OK

7-35 K124sm7e2

Fuser Motor 4th Speed (cont.)	7	Decrease the 4th Speed in another 1 (slower). Does this fix image void problem?	No	Increase the 4th Speed in 3 to restore the original setting. Go to step 8.
Fuser Motor 3rd	8	Decrease Fuser Motor 3rd Speed that	Yes	OK
Speed		corresponds to the media width/type in 1 (for slower speed) on Adjustment Mode. 3rd Speed Plain Tracing	No	Go back to step 5. Decrease the 4th Speed (slower) with remaining the 3rd Speed decreased. Follow step 5 to 8 until image void disappears.
Fuser Motor 3rd Speed print pulled too fast before 2x standard	9	Decrease Fuser Motor 3rd Speed that corresponds to the media width/type in 1 (for slower speed) on Adjustment Mode. 3rd Speed Plain Tracing	No	Decrease the 3rd Speed in another 1 (slower) until image void disappears.

7. 2. 2. 22 Crease on Long Print (and image void at a time)

The following procedure may address a crease on a long print. If a crease and image void can be seen at a time, follow this section.

Creases (and image void seen at a time) would result from a slack on the feeding media, which requires feeding speed adjustment (slightly faster).

Cause	Checking order		Checking			Result	Treatment
Except feeding	1	Is everything on [7.2.2.18 Crease of paper] clear?				No	Refer to [7.2.2.18 Crease of paper] and check all the points.
	2	If image void appears at a time, is everything on [7.2.2.9 Void of Image] on Service Manual clear?				No	Refer to [7.2.2.9 Void of Image] and check all the points.
Cause analysis with image void location	3	Does a crease appear before 2x standard length?			Yes	Before 2x standard; Go to step 4.	
						No	After 2x standard; Go to step 7.
Fuser Motor 3rd Speed	4	Increase Fuser Motor 3rd Speed that corresponds to the media width/type in 1 (for faster speed) on Adjustment				No	Increase the 3rd Speed in another 1 (faster) until creases disappear.
slack appears before 2x standard		Mode.					Go to step 5.
		3rd Speed	Plain	Tracing			
		A3 /12"/11"	074	080			
		A2 /18"/17"	110	116			
		A1 /24"/22"	146	152			
		30"	440	446			
		A0 /36"/34"	A0 /36"/34" 182 188				
		Does this fix cre	ease prob	lem?			

7-36 K124sm7e2

Image Void Check	5	Is there any image void after 2x standard length?	Yes	Image void remains, or has just come after step 4; Go to step 6.
		Note that step 4 would result in image void there.	Ne	OK
Fugar Matar 4th	6	Degrades Fuger Motor 4th Cheed that	No	OK
Fuser Motor 4th Speed print pulled too fast before 2x standard	6	Decrease Fuser Motor 4th Speed that corresponds to the media width/type in 1 (for slower speed) on Adjustment Mode. 4th Speed Plain Tracing A3 /12"/11" 678 A2 /18"/17" 690 A1 /24"/22" 702 30" 726 728 A0 /36"/34" 714 716 Does this fix image void problem?	Yes No	OK Decrease the 4th Speed in another 1 (slower) until image void disappears.
Fuser Motor 3rd Speed	7	Increase Fuser Motor 3rd Speed that corresponds to the media width/type in 1 (for faster speed) on Adjustment Mode. 3rd Speed Plain Tracing	Yes	Go to step 9.
	8	Yes	Go to step 10.	
		b) Crease and image void seen at a time up to step 7; Is there any image void shift from after 2x standard length to before 2x standard?	No	- no image void - no image void shift Go back to step 7.
	9	After crease disappears, is there any image void?	No	OK
Fuser Motor 4th Speed	10	First decrease the 3rd Speed (slower) in 1.	No	Increase the 4th Speed in another 1 (faster) until crease and image void
slack appears after 2x standard		Increase Fuser Motor 4th Speed that corresponds to the media width/type in 1 (for faster speed) on Adjustment Mode. 4th Speed Plain Tracing A3 /12"/11" 678 A2 /18"/17" 690 A1 /24"/22" 702 30" 726 728 A0 /36"/34" 714 716 Does this fix image void / crease problem?		disappear.

7-37 K124sm7e2

7. 3 Troubleshooting - Scanner Defects

7. 3. 1 Countermeasures - Scanner operation

7. 3. 1. 1 Original can not be set (Scanner does not transport)

Cause	Checking order	Checking	Result	Treatment
Sensor	1	Is the original detected? (Is it shown on the UI?)	No	1. Tap the UI screen to cancel the sleep mode. 2. Switch the UI screen to Copy or Scan mode. 3. Check the sensor which detects the leading edge of original. If broken replace it. Check this sensor.
USB Cable	2	Is the USB Cable connected correctly?	No	Connect it correctly.
Data Controller Board	3	Can you fix the problem if you replace the Data Controller Board?	Yes	ОК

7. 3. 1. 2 Scanner does not start scanning from the original set position

Cause	Checking	Checking	Result	Treatment
	order			
Foreign substance	1	Is there any foreign substance under the Upper Unit?	Yes	Remove it.
Motor	2	Does the Motor rotate?	No	Check the Motor, and replace it if broken.
+24VDC	3	Is +24VDC supplied to the scanner?	No	Check the DC Power Supply on the printer part. Replace it if broken.
Data Controller Board	4	Can you fix the problem if you replace the Data Controller Board?	Yes	ОК

7. 3. 1. 3 Original can not be set (Original feeding does not stop)

Cause	Checking	Checking	Result	Treatment
	order			
Sensor	1	Is any sensor broken?	Yes	Replace it.

7-38 K124sm7e2

7. 3. 1. 4 Original is mis-fed

Cause	Checking order	Checking	Result	Treatment
Foreign substance	1	Is there any foreign substance under the Upper Unit?	Yes	Remove it.

7. 3. 1. 5 Motor rotates endlessly at the time of turning on

Cause	Checking order	Checking	Result	Treatment
Foreign substance	1	Is there any foreign substance under the Upper Unit, which blocks the light of sensor?	Yes	Remove it.

7. 3. 1. 6 Scanner is not recognized

Cause	Checking order	Checking	Result	Treatment
USB Driver	1	Does the PC recognize USB?	No	Check the USB Driver in Device Manager.
USB Cable	2	Is there any problem with the USB cable, such as breakage, short-circuit and damage of connector pin?	Yes	Replace the USB Cable.
DC Power Supply	3	Is the DC Power Supply on the printer part normal?	No	Replace the DC Power Supply.
Data Controller Board	4	Prepare another PC which can recognize another type of USB Scanner. Is it also impossible to recognize the K124SC with this PC?	Yes	Replace the Data Controller PCB.

7-39 K124sm7e2

7. 3. 2 Countermeasures – Scan Image Quality

7. 3. 2. 1 Completely black

Cause	Checking order	Checking	Result	Treatment
Calibration	1	Can you fix the problem if you make Shading (Calibration)? (Refer to [8.13.4.1 Shading].)	Yes	OK
Cable of CIS	2	Is the cable of each CIS connected properly?	No	Connect it properly, or replace the cable if it is broken.
LED of CIS	3	Is the LED of each CIS lighting?	No	 Check the DC Power Supply (+24V) of the printer part. Replace it if broken. Replace the CIS. Replace the Data Controller Board.

7. 3. 2. 2 Vertical black lines

Cause	Checking order	Checking	Result	Treatment
Scan Glass	1	Is there any dirt or damage on the Scan Glass?	Yes	Clean / replace it.
Calibration	2	Can you fix the problem if you make Shading (Calibration)? (Refer to [8.13.4.1 Shading].)	Yes	ОК
Feeding rollers	3	Are feeding rollers dirty?	Yes	Clean them.
CIS	4	Can you fix the problem if you replace the CIS?	Yes	OK

7. 3. 2. 3 Vertical white lines

Cause	Checking order	Checking	Result	Treatment
Scan Glass	1	Is there any dirt or damage on the Scan Glass?	Yes	Clean / replace it.
Calibration	2	Can you fix the problem if you make Shading (Calibration)? (Refer to [8.13.4.1 Shading].)	Yes	ОК
Feeding rollers	3	Are feeding rollers dirty?	Yes	Clean them.
CIS	4	Can you fix the problem if you replace the CIS?	Yes	ОК

7-40 K124sm7e2

7. 3. 2. 4 Some image is lost at the boundary of Image Blocks

Cause	Checking order	Checking	Result	Treatment
Calibration	1	Can you fix the problem if you make Position? (Refer to [8.13.4.3 Position].)	Yes	OK

7. 3. 2. 5 Vertical image gap between Image Blocks

Cause	Checking order	Checking	Result	Treatment
Calibration	1	Can you fix the problem if you make Position? (Refer to [8.13.4.3 Position].)	Yes	OK

7. 3. 2. 6 Image quality is not good

Cause	Checking order	Checking	Result	Treatment
Scan Glass	1	Is there any dirt or damage on the Scan Glass?	Yes	Clean / replace it.
Resolution	2	Is the resolution setting proper?	No	Adjust it properly.

7. 3. 2. 7 Density is different between left and right

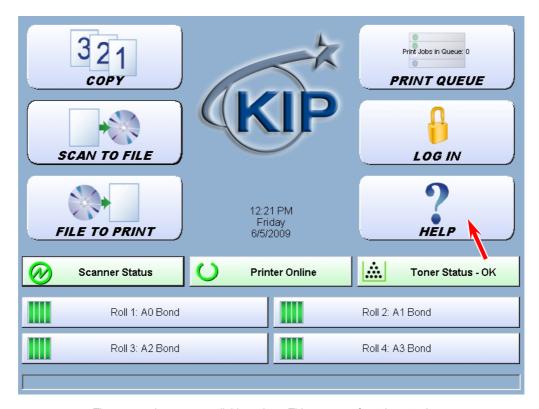
Cause	Checking order	Checking	Result	Treatment
Calibration	1	Can you fix the problem if you make Shading (Calibration)? (Refer to [8.13.4.1 Shading].)	Yes	OK

7-41 K124sm7e2

7. 4 Touch Screen Calibration

If the cursor position in the screen does not correctly match the tapped position on the panel, the touch screen should be calibrated so that the cursor is located directly underneath your finger or a stylus.

1. Press "? - Help" on Home screen.



The screen shows any available options. This may vary from the actual one

2. Press [Service].



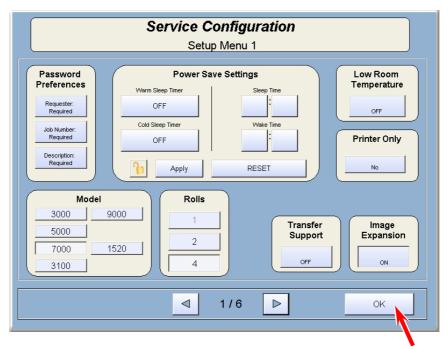
The screen shows any available options. This may vary by KIP model or your system

7-42 K124sm7e3

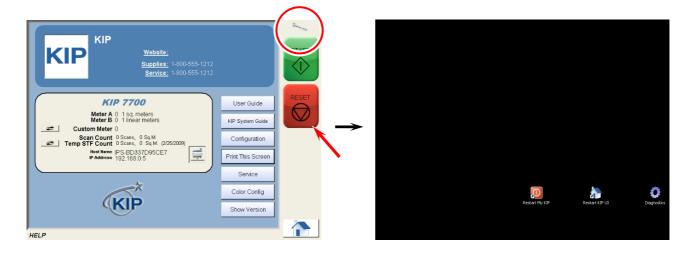
3. On-screen Keypad appears. Input "8495107" and press [Enter].



4. Service Configuration screen is displayed. Press [OK].

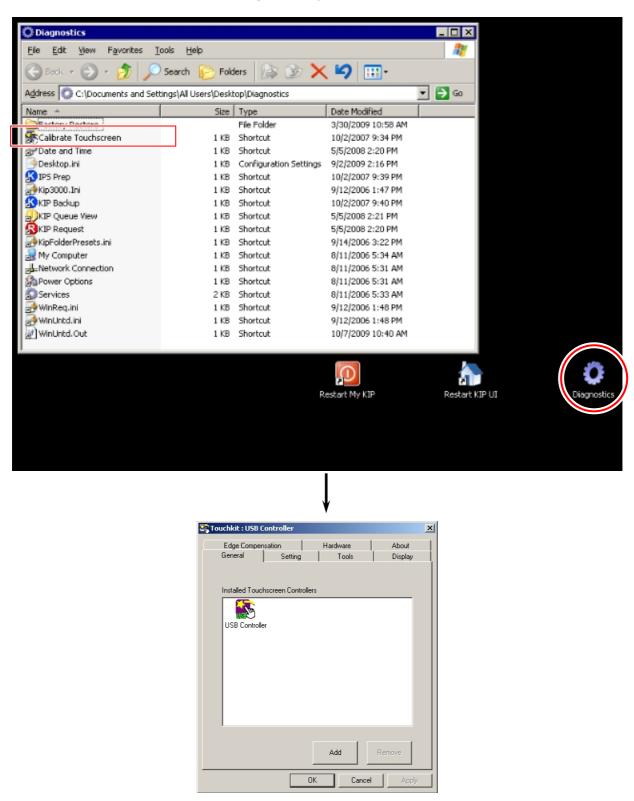


5. Make sure that a wrench symbol is indicated at the upper right of the screen. Press [Reset] to close UI operation window.



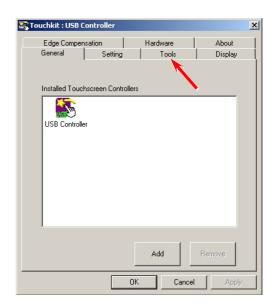
7-43 K124sm7e3

Tap Diagnostics folder twice as a double-click.Run the shortcut "TouchScreen Configure Utility" for touch screen calibration.

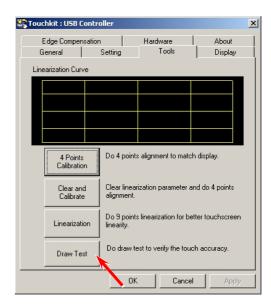


7-44 K124sm7e3

7. Select [Tools] tab.



8. Press [Draw Test] to check that the touch screen correctly detects a tapped position.





NOTE

Using a stylus is recommended for easy and accurate touch screen calibration. Do not use any sharp instrument.

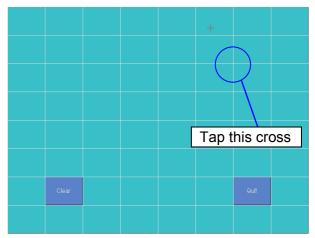
9. Test screen will appear.



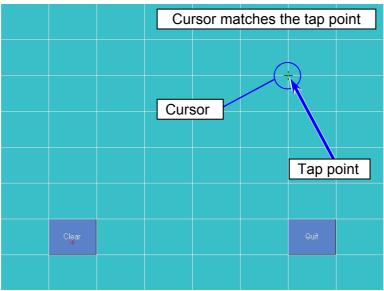
7-45 K124sm7e3

10. Tap a certain point and check the cursor appears directly underneath a stylus.

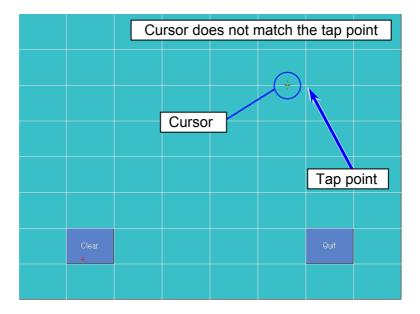
For example, suppose you tap the point shown the next figure.



The cursor will appear just underneath the tapped point in a correct condition (calibration is not necessary).

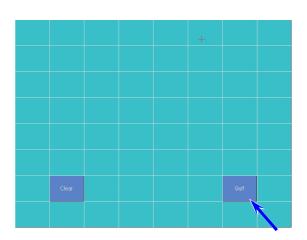


If the cursor appears an unintended position, the touch screen should be calibrated.

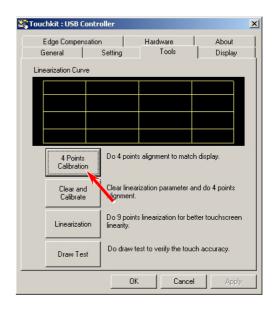


7-46 K124sm7e3

11. Tap [Quit] to close Test screen.



12. Press [4 Points Calibration].



13. On Calibration screen, a blinking X symbol on the bottom left can be seen. Press the X until it stops blinking with a beep.





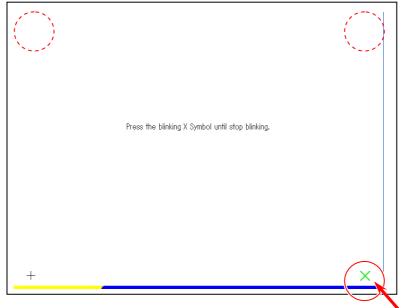
NOTE

Press the X symbol for several seconds before the progress bar at the bottom reaches the end.

7-47 K124sm7e3

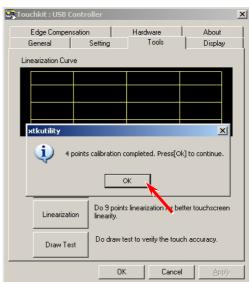
14. The X disappears and the next one will come in the following order: bottom right, top right, top left.

Perform the same way for the other 3 points.

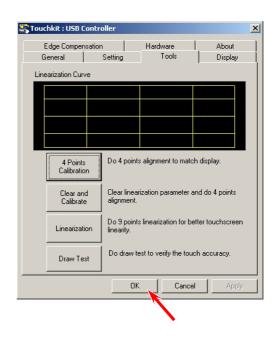


15. When all the 4 points are pressed successfully, Calibration screen disappears and the

following dialog appears. Press [OK].

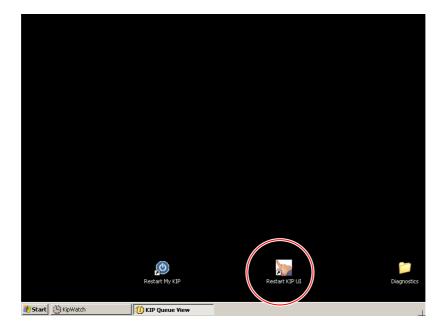


16. Press [OK] to finish touch screen calibration.



K124sm7e3 7-48

17. Run the shortcut "Restart KIP UI" for KIP UI operation.



7-49 K124sm7e3

Chapter 8

Service Mode / Utility

8. 1	G	eneral Information of KIP Service Software					
8. 2	KI	P Servi	ice Software Overview	······ 8- 2			
8. 2	2. 1	Laun	ching KIP Service Software	····· 8- 4			
8. 2	2. 2	Closi	ng KIP Service Software	····· 8- 7			
8. 2	2. 3		n screen				
8. 2	2. 4		ce Mode Home				
8. 3	Si	gnal St	atus Mode	8-10			
8. 3	3. 1	Monit	toring Signal Status	····· 8-11			
8. 3	3. 2	Input	/ Output Signal List	8-14			
8. 4	In		on Mode				
8. 4	4. 1	Monit	toring Analog Data	····· 8-20			
8. 4	4. 2		of Analog Data Monitor				
8. 4	4. 3	Brow	sing Jam History	····· 8-23			
8. 4	1. 4	Brow	sing Error History	····· 8-24			
			n Check Mode				
			king Device Operation				
8. 5	5. 2	Devic	ce List	8-28			
			ent Mode				
8. 6	3. 1		ging Setting Value				
	3. 2		ng Item List				
8. 6			ng Item Explanation				
			Leading Registration (No. 000 & 001)	8-52			
	8.	6. 3. 2					
	8.	6. 3. 3	Side Margin (Left & Right) (No. 004)				
	8.	6. 3. 4	Side Registration (No. 005 to 007)				
	8.	6. 3. 5	LED Strobe Time for Main Pixel of each Block (No.008 to 010)	8-55			
	8.	6. 3. 6	LED Strobe Time for IST (Supplemental Pixel) of each Block				
			(No.011 to 013) ······				
	8.	6. 3. 7	Vertical Alignment of Pixels between Blocks (No.014 & 015)	8-59			
		6. 3. 8	Cut Length 1 (length information provided) (No.016)	8-60			
	8.	6. 3. 9	Cut Length 2 (length information not provided) (No.017)	8-60			
	8.	6. 3.10	Cut Length 3 (Compensation of a long print) (No.018)	8-61			
	8.	6. 3.11	Leading Margin (No.019)	······ 8-63			
	8.	6. 3.12	Cut Length 4 (Compensation of a long print) (No.020)	8-64			
	8.	6. 3.13	Developer Bias (No.022 to 027)	8-65			
	8.	6. 3.14	Developer Bias compensation - 1st Drum revolution (No.028)	8-65			
	8.	6. 3.15	Transfer Voltage (No.029 to 034)	8-66			
	8.	6. 3.16	Separation Corona ON Timing (No.035)				
	8.	6. 3.17	Transfer Corona ON Timing (No.037)	····· 8-67			
		6. 3.18	Transfer Corona OFF Timing (No.038)	8-68			
	8.	6. 3.19	Print - Fuser Temperature Center (No.039 to 044)	····· 8-69			
	8.	6. 3.20	Fuser Temperature to start idling (No.045)	8-70			
	8.	6. 3.21	Warm Sleep – Fuser Temperature (No.046)	····· 8-70			
	8.	6. 3.22	Fuser Temperature Control Range (No.048 & 049)	8-71			
	8.	6. 3.23	Reaction Time of Toner Supply Motor (No.050)	····· 8-72			

8. 6. 3.24	Toner Supply Motor ON Time (No.051)	
8. 6. 3.25	Dot Enhancement Level (Dither) (No.052)	
8. 6. 3.26	Feed Clutch (CL3) OFF time applied to long print (No.053 & 054)	
8. 6. 3.27	Metric or Inch (No.055)	8-75
8. 6. 3.28	Language (No.056)	8-75
8. 6. 3.29	Interface Communication Setting (No.057)	8-75
8. 6. 3.30	Recognition of paper Tray (No.058)	
8. 6. 3.31	Counter Value (No.059)	
8. 6. 3.32	Maximum Length (No.060)	8-76
8. 6. 3.33	Stacking Device setting (No.061)	
8. 6. 3.34	Operation of Fuser Roller (No.062)	
	1 / /	0-70
8. 6. 3.35	Cut Length 5 & 6 (Compensation for Tracing Paper / Film)	0.77
0 0 0 00	(No. 063 & 064)	8-77
8. 6. 3.36	,	8-78
8. 6. 3.37	3 \ ,	
8. 6. 3.38		8-79
8. 6. 3.39	Compensation of Fuser Motor Speed for roll paper	
	(Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)	8-80
8. 6. 3.40	Compensation of Fuser Motor Speed for roll paper	
	(Tracing paper / A3, 12" & 11") (No.076 to 081, 680, 681)	8-83
8. 6. 3.41	Compensation of Fuser Motor Speed for roll paper	
	(Film / A3, 12" & 11") (No.082 to 087, 682, 683)	8-84
8. 6. 3.42		
	(Special plain paper / A3, 12" & 11") (No.088 to 093, 684, 685)	8-85
8. 6. 3.43	Compensation of Fuser Motor Speed for roll paper	
	(Special tracing paper / A3, 12" & 11") (No.094 to 099, 686, 687)	8-86
8. 6. 3.44	· · · · · · · · · · · · · · · · · · ·	0 00
0. 0. 0. 1 1	(Special film / A3, 12" & 11") (No.100 to 105, 688, 689)	8-87
8. 6. 3.45		0 01
0. 0. 0.40	(Plain paper / A2, 18" & 17") (No.106 to 111, 690, 691)	8-88
8. 6. 3.46		0-00
0. 0. 0.40	(Tracing paper / A2, 18" & 17") (No.112 to 117, 692, 693)	8-89
8. 6. 3.47		0-09
0. 0. 3.47		0 00
0 6 2 40	(Film / A2, 18" & 17") (No.118 to 123, 694, 695)	8-90
0. 0. 3.40	Compensation of Fuser Motor Speed for roll paper	0.04
0 0 0 10	(Special plain paper / A2, 18" & 17") (No.124 to 129, 696, 697)	8-91
8. 6. 3.49		0.00
	(Special tracing paper / A2, 18" & 17") (No.130 to 135, 698, 699)	8-92
8. 6. 3.50		
	(Special film / A2, 18" & 17") (No.136 to 141, 700, 701)	8-93
8. 6. 3.51	Compensation of Fuser Motor Speed for roll paper	
	(Plain paper / A1, 24" & 22") (No.142 to 147, 702, 703)	8-94
8. 6. 3.52	Compensation of Fuser Motor Speed for roll paper	
	(Tracing paper / A1, 24" & 22") (No.148 to 153, 704, 705)	8-95
8. 6. 3.53		
	(Film / A1, 24" & 22") (No.154 to 159, 706, 707)	8-96
8. 6. 3.54	Compensation of Fuser Motor Speed for roll paper	
	(Special plain paper / A1, 24 & 22") (No.160 to 165, 708, 709)	8-97
8. 6. 3.55	Compensation of Fuser Motor Speed for roll paper	
	(Special tracing paper / A1, 24" & 22") (No.166 to 171, 710, 711)	8-98
8. 6. 3.56	Compensation of Fuser Motor Speed for roll paper	
	(Special film / A1, 24" & 22") (No.172 to 177, 712, 713)	8-99
8.6 3.57	Compensation of Fuser Motor Speed for roll paper	
5. 5. 5.07	(Plain paper / A0, 36" & 34") (No.178 to 183, 714, 715)	8-100
8 6 3 58	Compensation of Fuser Motor Speed for roll paper	5 100
5. 5. 5.66	(Tracing paper / A0, 36" & 34") (No.184 to 189, 716, 717)	8-101
	(acg paper / //o, ac a or / (10.101 to 100, / 10, / 11/)	5 151

8. 6. 3.59	Compensation of Fuser Motor Speed for roll paper	
	(Film / A0, 36" & 34") (No.190 to 195, 718, 719)	8-102
8. 6. 3.60	Compensation of Fuser Motor Speed for roll paper	
	(Special plain paper / A0, 36 & 34") (No.196 to 201, 720, 721)	8-103
8. 6. 3.61	Compensation of Fuser Motor Speed for roll paper	
	(Special tracing paper / A0, 36" & 34") (No.202 to 207, 722, 723)	8-104
8. 6. 3.62	Compensation of Fuser Motor Speed for roll paper	
	(Special film / A0, 36" & 34") (No.208 to 213, 724, 725)	8-105
8. 6. 3.63	Main Motor Speed (No.310 to 315)	8-106
8. 6. 3.64	Fuser Motor Speed (36"/34"/30"/24"/22"/A0/B1/A1) (No.316 to 321)	
8. 6. 3.65	Separation Corona OFF Timing (No.322 to 327)	8-106
8. 6. 3.66	Compensation of Fuser Motor Speed for cut sheet paper	0-100
0. 0. 3.00	(Plain paper / A3, A2, 12", 11", 18" & 17") (No.328 to 333)	8-107
0 6 2 67		0-107
8. 6. 3.67	Compensation of Fuser Motor Speed for cut sheet paper	0.400
0 0 0 00	(Tracing paper / A3, A2, 12", 11", 18" & 17") (No.334 to 339)	8-108
8. 6. 3.68	Compensation of Fuser Motor Speed for cut sheet paper	0.400
	(Film / A3, A2, 12", 11", 18" & 17") (No.340 to 345)	8-109
8. 6. 3.69	Compensation of Fuser Motor Speed for cut sheet paper	
	(Special plain paper / A3, A2, 12", 11", 18" & 17") (No.346 to 351)	8-110
8. 6. 3.70	Compensation of Fuser Motor Speed for cut sheet paper	
	(Special tracing paper / A3, A2, 12", 11", 18" & 17") (No.352 to 357)	8-111
8. 6. 3.71	Compensation of Fuser Motor Speed for cut sheet paper	
	(Special film / A3, A2, 12", 11", 18" & 17") (No.358 to 363)	8-112
8. 6. 3.72	Compensation of Fuser Motor Speed for cut sheet paper	
	(Plain paper / A1, 24" & 22") (No.364 to 369)	8-113
8. 6. 3.73	Compensation of Fuser Motor Speed for cut sheet paper	
0. 0. 0 0	(Tracing paper / A1, 24" & 22") (No.370 to 375)	8-114
8 6 3 74	Compensation of Fuser Motor Speed for cut sheet paper	•
0. 0. 0.7 1	(Film / A1, 24" & 22") (No.376 to 381)	8-115
8 6 3 75	Compensation of Fuser Motor Speed for cut sheet paper	0-110
0. 0. 3.73	(Special plain paper / A1, 24" & 22") (No.382 to 387)	8-116
0 6 2 76		0-110
8. 6. 3.76	· · · · · · · · · · · · · · · · · · ·	0 447
	(Special tracing paper / A1, 24" & 22") (No.388 to 393)	8-117
8. 6. 3.77	Compensation of Fuser Motor Speed for cut sheet paper	
	(Special film / A1, 24" & 22") (No.394 to 399)	8-118
8. 6. 3.78	Compensation of Fuser Motor Speed for cut sheet paper	
	(Plain paper / A0, 36" & 34") (No.400 to 405)	8-119
8. 6. 3.79		
	(Tracing paper / A0, 36" & 34") (No.406 to 411)	8-120
8. 6. 3.80	Compensation of Fuser Motor Speed for cut sheet paper	
	(Film / A0, 36" & 34") (No.412 to 417)	8-121
8. 6. 3.81	Compensation of Fuser Motor Speed for cut sheet paper	
	(Special plain paper / A0, 36 & 34") (No.418 to 423)	8-122
8. 6. 3.82		_
0. 0. 0.0=	(Special tracing paper / A0, 36" & 34") (No.424 to 429)	8-123
8. 6. 3.83		0 120
0. 0. 0.00	(Special film / A0, 36" & 34") (No.430 to 435)	8_12/
8. 6. 3.84		0-12-
0. 0. 3.04	(Plain paper / 30") (No.436 to 441, 726, 727)	0 105
0 0 0 0 5		0-120
8. 6. 3.85	Compensation of Fuser Motor Speed for roll paper	0.400
	(Tracing paper / 30") (No.442 to 447, 728, 729)	8-126
8. 6. 3.86	Compensation of Fuser Motor Speed for roll paper	
	(Film / 30") (No.448 to 453, 730, 731)	8-127
8. 6. 3.87	Compensation of Fuser Motor Speed for roll paper	
	(Special plain paper / 30") (No.454 to 459, 732, 733)	8-128
8. 6. 3.88	Compensation of Fuser Motor Speed for roll paper	
	(Special tracing paper / 30") (No.460 to 465, 734, 735)	8-129
8. 6. 3.89	Compensation of Fuser Motor Speed for roll paper	
	(Special film / 30") (No.466 to 471, 736, 737)	8-130

	8. 6.	3.90	Compensation of Fuser Motor Speed for cut sheet paper	
			(Plain paper / 30") (No.472 to 477)	8-13
	8. 6.	3.91	Compensation of Fuser Motor Speed for cut sheet paper	
			(Tracing paper / 30") (No.478 to 483)	8-13
	8. 6.	3.92	Compensation of Fuser Motor Speed for cut sheet paper	
			(Film / 30") (No.484 to 489)	8-13
	8. 6.	3.93	Compensation of Fuser Motor Speed for cut sheet paper	
			(Special plain paper / 30") (No.490 to 495)	8-13
	8. 6.	3.94	Compensation of Fuser Motor Speed for cut sheet paper	
			(Special tracing paper / 30") (No.496 to 501)	8-13
	8. 6.	3.95	Compensation of Fuser Motor Speed for cut sheet paper	
			(Special film / 30") (No.502 to 507)	8-13
	8. 6.	3.96	Transfer Voltage applied at 100mm from trailing edge	
			(Plain paper / Tracing paper / Film) (No.508 to 510)	8-13
	8. 6.	3.97	Transfer Voltage applied at 70mm from trailing edge	
			(Plain paper / Tracing paper / Film) (No.511 to 513)	8-13
	8. 6.	3.98	Fuser Motor Speed applied at 30mm from trailing edge	
			(Plain paper / Tracing paper / Film) (No.514 to 516)	8-13
	8. 6.	3.99	Judgment Value for Additional Cut Length	
			for Non-standard Size Prints (No.613 to 616)	8-13
	8. 6.	3.100	Additional Cut Length for Non-standard Size Prints	
			(No 617 to 620)	8-13
	8. 6	3.101	Toner Supply Roller Bias (No.621)	8-13
	8. 6	3.102	Toner Supply Roller Bias (No.621) Regulation Bias (No.622)	8-13
	8 6	3 103	Density Sensor Standard Output (No.623)	8-13
	8.6	3 104	Density Sensor Analog Voltage (No.624)	8-13
	8.6	3 105	Print - Fuser Temperature Side (12"/11"/A3) (No.625 to 630)	8-14
			Print - Fuser Temperature Side (18"/17"/15"/A2) (No.631 to 636)	
			Print - Fuser Temperature Side (24"/22"/A1) (No.637 to 642)	
			Print - Fuser Temperature Side (36"/34"/30"/A0/B1) (No.643 to 648)	
			Density Sensor Output Monitor (No.649)	
			Regulation Bias Increment for Auto Adjustment Level 2 & 3 (No.650)	
			Total Increment of Regulation Bias Adjustment (No.651)	
			Density Compensation ON/OFF (No.652)	
	8.6	3.112	Minimum Density (No.653)	0-1 -1 - 8-14
	8.6	3 114	Regulation Bias Maximum (No.654)	. 8 ₋ 1⊿
			Density Measure Interval (No.655, 656)	
	0. U. 8 6	3.113	Developer Bias Increment for Auto Adjustment Level 1 (No.657)	Ω-14
	0.0.	2 117	Ready - Fuser Temperature Center (No.660 to 665)	0-14
	0.0.	2 110	Ready - Fuser Temperature Center (No.000 to 003) Ready - Fuser Temperature Side (No.666 to 671)	0-14
	0. 0.	3.110 2.110	Fuer Motor Charlet (19"/17"/16"/12"/11"/12"/14"/12"/14"/12"/14"/14"/14"/14"/14"/14"/14"/14"/14"/14	0-14
			Fuser Motor Speed (18"/17"/15"/12"/11"/A2/A3) (No.672 to 677)	
			Compensation of Fuser Motor Speed 4 for Roll (No.678 to 736)	
	0. 0.	3.121	Standby - Fuser Temperature (No.738, 739)	0-10
	σ. b.	3.122	Assist Fan Off Timing (No.740 to 742)	0-15
	გ. ნ.	3.123	Fuser Motor Speed applied at 100mm from trailing edge	0.45
	0 0	0.404	(36"/34"/30"/A0/B1) (No.643 to 648) Roll 2 Forward Standby ON/OFF (No.746)	์ ช-15
	გ. ნ.	3.124	ROII 2 FORWARD STANDAY UN/OFF (NO./46)	გ-15
	გ. ნ.	3.125	Roll 2 Forward Standby Position Adjustment (No.747)	გ-15
	გ. წ.	3.126	Roll 2 Rewind Timer (No. 748)	8-15
	8. 6.	3.127	Tracing Mode (No. 749)	8-15
			Roll 1 Setting Mode (No. 750)	
			Disable HV Error Detection Mode (No. 751)	
	8. 6.	3.130	Auto Initial Cut After Long Print (No. 753, 754)	8-15
			Length for Forced Initial Cut Before Print (No. 755)	
	8. 6.	3.132	Leading Registration for Paper Tray (No. 756)	8-15
	8. 6.	3.133	Trailing Margin for Paper Tray (No. 757)	8-15
	8. 6.	3.134	Side Registration for Paper Tray (No. 758)	8-15
	6. 4	Creati	ing Backup	8-15
8	6.5	Resto	ring Configuration from Backup	8-15

8. 7 Running Mode (Factory Use Only)	8-159
8. 8 Jam/Error Mask Mode	
8. 8. 1 Mask List	8-162
8. 8. 2 Masking Jam	8-163
8. 8. 3 Masking Error	8-166
8. 9 Test Print Mode	8-169
8. 9. 1 Making Test Print	8-171
8. 9. 2 Built-in Test Pattern	8-173
8. 10 Factory Adjustment Mode (Factory Use Only)	8-173
8. 11 Special Operation Mode	8-174
8.11.1 Special Operation List	8-176
8.11.2 Clearing Fuser Error, Jam/Error History	
8.11.3 Reset of Bias Adjustment by Density Compensation Process	8-179
8.11.4 Toner Supply Mode	8-181
8. 12 Send Firmware Mode	8-188
8.12.1 Sending Firmware to Printer	8-189
8. 13 KIP Scanner Utility	
8.14. 1 Installation	
8.13. 1. 1 Installing USB Driver	
8.13. 1. 2 Installing KIP Scanner Utility	
8.13. 2 Starting KIP Scanner Utility	
8.13. 3 Displaying Scanner Information	
8.13. 4 Scanner Adjustment	
8.13. 4. 1 Shading (Calibration)	
8.13. 4. 2 Feed Distance (1:1)	
8.13. 4. 3 Position (Stitching)	
8.13. 5 Updating Scanner Firmware	····· 8-226

8. 1 General Information of Service Mode

The system is equipped with advanced functions for field service to easily achieve its best performance.

Service Mode contains the following categories.

- Signal Status Mode
- Information Mode
- Operation Check Mode
- Adjustment Mode
- Running Mode
- Jam/Error Mask Mode
- Test Print Mode
- Factory Adjustment Mode
- Special Operation Mode
- Send Firmware Mode

Reference

"KIP Service Software" acts as an interface to efficiently utilize any functions in Service Mode.

For further information about how to operate KIP Service Software, see the next page.



NOTE

In Chapter 8, the screenshot images of KIP Service Software / UI screen / any other may vary by KIP Printer model / your choice of optional features. They are shown with available options.

8-1 K124sm8e2

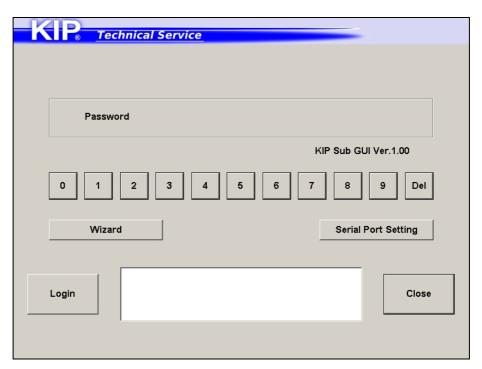
8. 2 KIP Service Software Overview

KIP Service Software is an integrated utility application that provides intuitive operability by using Touch Screen.

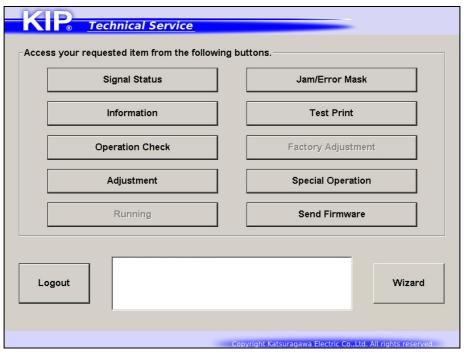
KIP Service Software is included in the controller and operates as an interface for monitoring, checking and setting configuration for field service.

Canceling the UI program (controlling user operation such as Copy screen) allows Touch Screen to be free to use Desktop on the controller's operating system.

Launch KIP Service Software and now it is ready to access the printer's Service Mode.



KIP Service Software Login Screen



Service Mode Home

8-2 K124sm8e2

KIP Service Software Tree Diagram of screen menu hierarchy

Login screen		
	Service Mode	Home
	<u> </u>	(Signal Status Mode) Signal Status Monitor screen
	<u> </u>	(Information Mode) Information List screen
		Data Monitor
		Jam History
		Error History
		(Operation Check Mode) Operation Check screen
	<u> </u>	(Adjustment Mode) Adjustment Menu screen
		Setting Configuration Setting Backup/Restore
		Setting Backup/Restore
	<u> </u>	(Jam/Error Mask Mode) Mask Target screen
		Jam Mask Error Mask
		Error Mask
	<u> </u>	(Test Print Mode) Basic Setting
		Sub Setting
		(Special Operation Mode) Operation Target screen
		Confirmation Dialog
		Counter Input screen
		Fuser Unit Error Clear
		Jam/Error History Clear
		└── Bias Adjustment Reset
		(Send Firmware Mode) Firmware screen
		Running Mode, Factory Adjustment Mode (not available)

8-3 K124sm8e2

8. 2. 1 Launching KIP Service Software

1. Press "? - Help" on Home screen.



2. Press [Service].

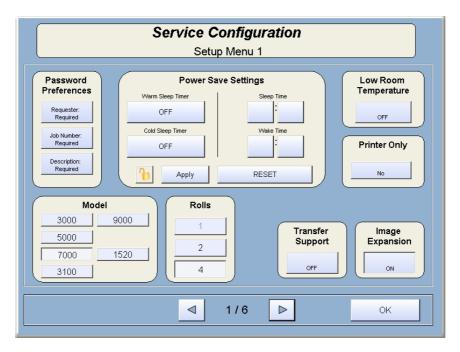


8-4 K124sm8e2

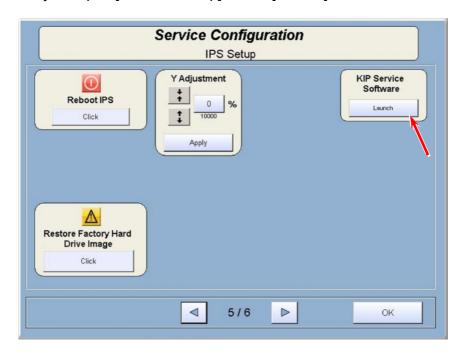
3. On-screen Keypad appears. Input "8495107" and press [Enter].



4. Service Configuration screen will appear.



5. Use the arrow keys to open [5/6 IPS Setup]. Press [Launch] in "KIP Service Software".

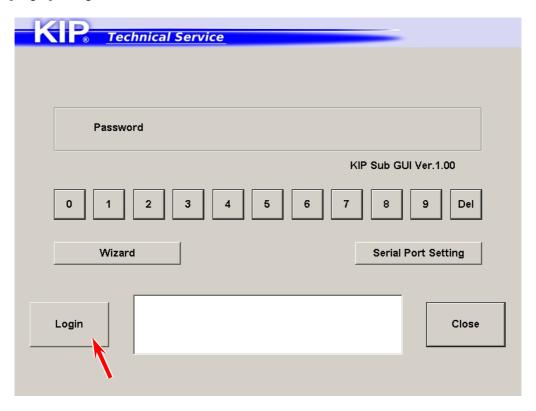


8-5 K124sm8e2

6. Press [Yes].



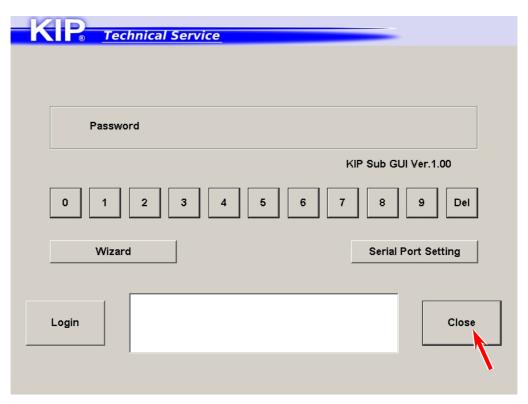
7. Press [Login] to log in Service Mode.

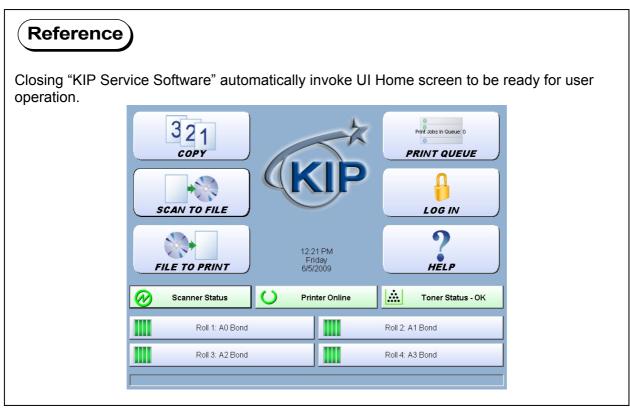


8-6 K124sm8e2

8. 2. 2 Closing KIP Service Software

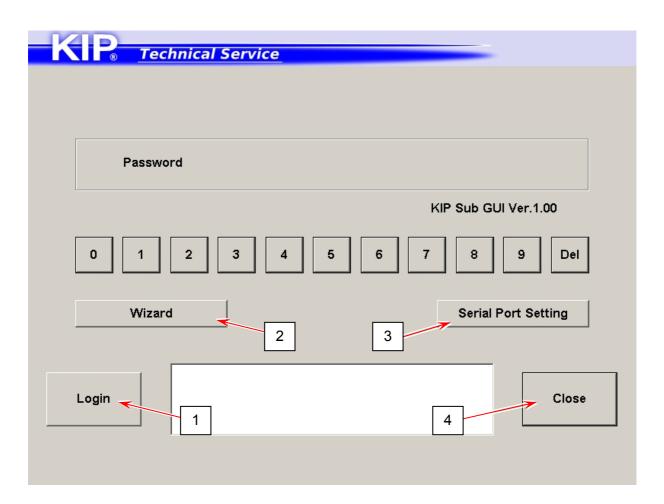
- 1. Return to Service Mode Home. Press [Logout].
- 2. In Login screen, press [Close].





8-7 K124sm8e2

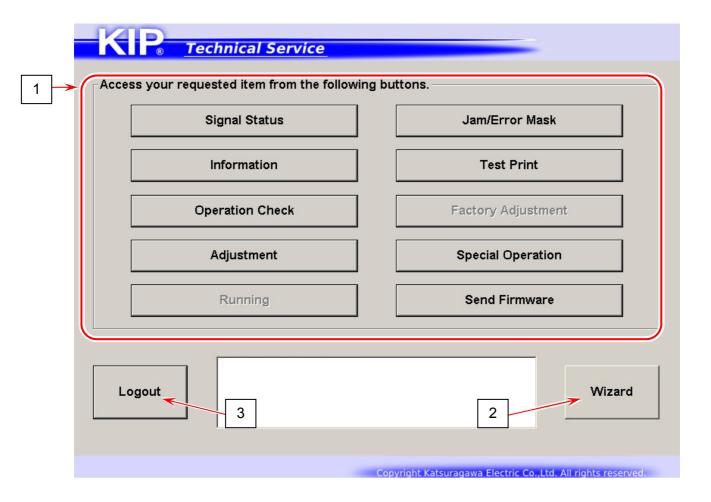
8. 2. 3 Log In screen



	Name	Function
1	Login	Log in Service Mode
2	Wizard	not available
3	Serial Port Setting	Configures Communication Port Settings between the controller and DC Controller PCB It is not necessary to use this button in normal condition.
4	Close	Press here to close KIP Service Software.

8-8 K124sm8e2

8. 2. 4 Service Mode Home



	Name	Function	
1	Mode Select	Press one of Mode Cate	egory buttons that you want to enter.
		Signal Status	Input / Output signal monitor
		Information	Analog data status monitor
		Operation Check	Electric device check
		Adjustment	Printer settings
		Running	not available
		Jam/Error Mask	Disables jam/error detection
		Test Print	Test pattern plot command
		Factory Adjustment	not available
		Special Operation	Clears history, error status
		·	Changes counter value
		Send Firmware	Sends firmware program to printer
2	Wizard	not available	
3	Logout	Press here to log out Se	
		Returns to Log In scree	n

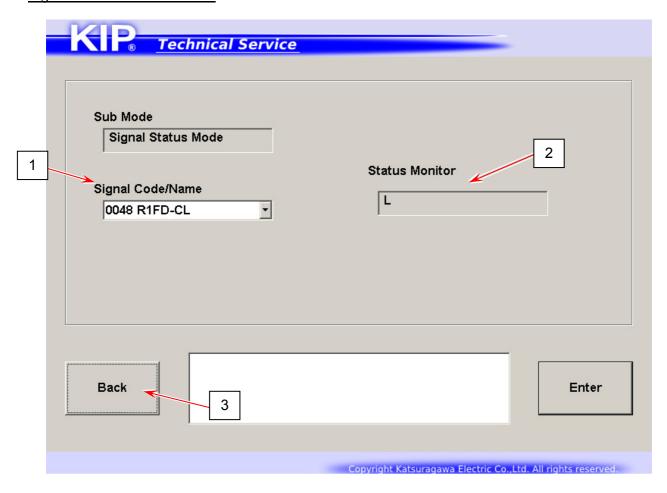
8-9 K124sm8e2

8. 3 Signal Status Mode

It is possible to monitor the status of any device signal input to / output from DC Controller PCB with making prints.

For information about Signal Codes, Signal Names and their contents, see [8.3.2 Input / Output Signal List].

Signal Status Monitor screen



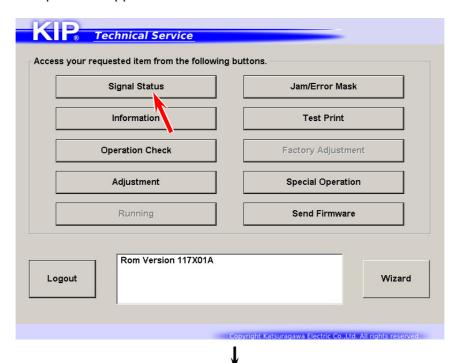
	Name	Function
1	Signal Code /	Displays Signal Code / Name in drop-down menu
	Name	Specify one item that you want to monitor.
2	Signal Monitor	Displays the current status of the selected signal
3	Enter	not available
4	Back	Returns to Service Mode Home

For procedures to monitor device status, follow the instruction on the next page.

8-10 K124sm8e2

8. 3. 1 Monitoring Signal Status

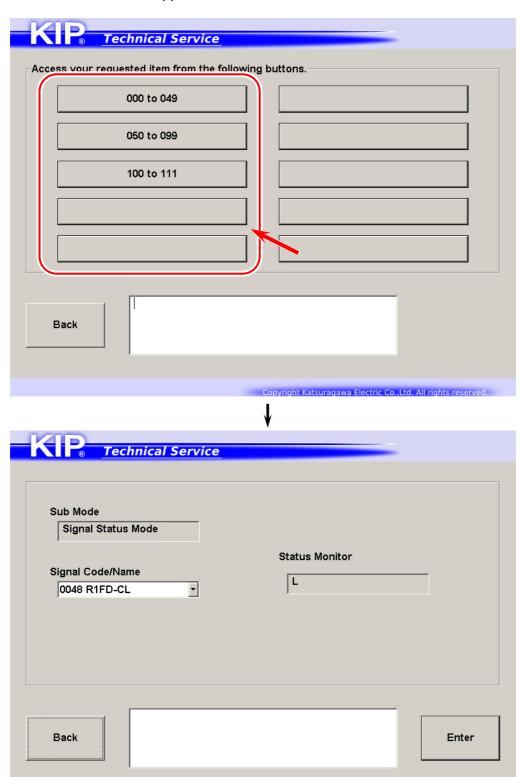
1. Press [Device Status] in Service Mode Home. Signal Code Group screen appears.





8-11 K124sm8e2

2. Press one Code Group button that contains the signal code that you want to monitor. Signal Status Monitor screen appears.



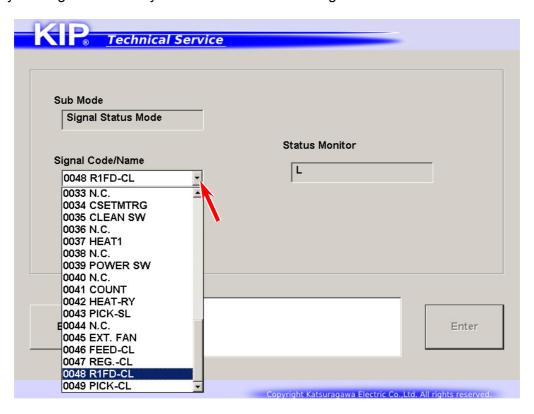
Reference

For Signal Name/Code, see [8.3.2 Input / Output Signal List].

8-12 K124sm8e2

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3. Specify one signal item that you want to monitor from Signal Name menu.



4. The current status of the device you have chosen is displayed in Status Monitor.

8-13 K124sm8e2

8. 3. 2 Input / Output Signal List

Code	Signal	Symbol	IC Port	Connector	Signal Name	Input /	Status
DOI		Cymbol	10 1 011	Connector	Oighai Name		Ciaido
1003 SW4 IC3-P23 J205-20 Input Switch 3 Input L:ON	000	SW1	IC3-P20	J205-17	Input Switch 1		L:ON
1004 SWS 103-P24 J205-21 Input Switch 4 Input L: ON	001	SW2	IC3-P21	J205-18	Input Switch 2	Input	L:ON
005						Input	
103-P27		SW5			Input Switch 5	Input	L:ON
103-P27 J215-3 Manual Feed Sensor Input H : Paper detected							
008 MAN S IG3-P41 J204-21 Manual Feed Sensor Input H : Paper detected 009 DOGR OPN IG3-P42 J204-21 Boll Deck Open Input L : Paper detected 010 SEP S IG3-P42 J204-23 Separation Sensor Input L : Paper detected 011 HEAT EXIT IG3-P44 J204-24 Exit Sensor Input L : Paper detected 013 HEAT DOOR IG3-P44 J207-16 Heater Hatch Open Input L : Open 014 IG3-P44 J207-16 Heater Hatch Open Input L : Open 015 SIG IN IG3-P47 J204-27 Stacker Input Input L : Open 016 ONLINE LED IG-8-80 J205-15 Online LED Output H : ON 017 IG-3-80 J207-12 Puser Blower (Low) Output H : ON 020 IG-3-84 J207-12 Fuser Blower (Low) Output H : ON 022 H							
DOOR OPN IC3-P41 J204-21 Roll Deck Open Input H : Open					Manual Food Conson	la a d	II. Dan an data ata d
OHEAN SEP S IC3-P42 J204-22 Separation Sensor Input L : Paper detected		MAN_S					
Dil							
1012							
Discrimination Disc		_			EXIT OCTISOI	прис	L. i apci detected
1014					Heater Hatch Open	Input	L : Open
015 SIG IN IC3-P47 J204-27 Stacker Input Input 016 ONLINE_LED IC3-60 J205-15 Online LED Output H : ON 017 — IC3-61 J207-14 Output H : ON 018 — IC3-62 J215-7 Output Output 020 — IC3-64 J207-13 Stacker Output Output 021 SIG OUT IC3-65 J207-12 Fuser Blower (Low) Output H : ON 022 HEAT BL L IC3-66 J207-12 Fuser Blower (Low) Output H : ON 024 MAMTR IC3-P10 J206-7 Main Motor Output H : Ontate 025 HEAT M IC3-P11 J206-8 Fuser Motor Output H : Rotate 026 HV 1ST IC3-P13 J206-10 Transfer Corona Output H : Output 027 HV TR IC3-P13 J206-12 Developer Bias Output H : Output H : Output							
016 ONLINE_LED IG3-60 J205-15 Online_LED Output H : ON 017 IG3-61 J207-14 Output H : ON 018 IG3-62 J215-7 Output Output 020 IG3-63 J215-8 Output Output 021 SIG OUT IG3-65 J204-28 Stacker Output Output H : ON 022 HEAT BL_H IG3-66 J207-12 Fuser Blower (High) Output H : ON 023 HEAT_M IG3-910 J206-7 Main Motor Output H : Rotate 025 HEAT_M IG3-912 J206-9 Image Corona Output H : Output 026 HV 1ST IG3-912 J206-9 Image Corona Output H : Output 027 HV TR IG3-914 J206-11 Separation Corona Output H : Output 028 HV AC IG3-915 J206-11 Separation Corona Output H : Output		SIG IN			Stacker Input	Input	
1018		ONLINE_LED	IC3-60				H:ON
103							
O20							
O21							
022 HEAT BL L IC3-66 J207-12 Fuser Blower (Low) Output H: ON 023 HEAT BL H IC3-67 J207-12 Fuser Blower (High) Output H: ON 024 MAMTR IC3-P10 J206-7 Main Motor Output H: Rotate 025 HEAT M IC3-P11 J206-9 Image Corona Output H: Rotate 026 HV TR IC3-P13 J206-10 Transfer Corona Output H: Output 027 HV_TR IC3-P13 J206-10 Transfer Corona Output H: Output 028 BIAS TRG IC3-P15 J206-12 Developer Bias Output H: Output 030 BIAS TRG IC3-P16 J206-13 Developer Bias Polarity Switch Output L: Positive Bias 031 TG-CV IC3-P30 J206-15 Main Motor Reversal Rotation Output L: Reverse 033 PRESS M IC3-P31 J206-16 Developer Press Motor Output H: Reverse 033 <th></th> <td></td> <td></td> <td></td> <td></td> <td>0 1 1</td> <td></td>						0 1 1	
O23							III. ON
024 MAMTR IC3-P10 J206-7 Main Motor Output H : Rotate 025 HEAT M IC3-P11 J206-8 Fuser Motor Output H : Rotate 026 HV 1ST IC3-P12 J206-9 Image Corona Output H : Output 027 HV TR IC3-P13 J206-10 Transfer Corona Output H : Output 028 HV AC IC3-P15 J206-12 Developer Bias Output H : Output 039 BIAS TRG IC3-P16 J206-13 Developer Bias Polarity Switch Output L : Positive Bias 031 — IC3-P17 J206-14 Main Motor Reversal Rotation Output L : Positive Bias 032 H I CW CCW IC3-P30 J206-15 Main Motor Reversal Rotation Output L : Positive Bias 033 PRESS M IC3-P31 J206-16 Developer Press Motor Output H : Rotate 034 TONER M IC3-P33 J206-17 Hopper Motor Output H : Rotate <							
025 HEAT_M IC3-P11 J206-8 Fuser Motor Output H : Rotate 026 HY_1ST IC3-P13 J206-10 Iransfer Corona Output H : Output 027 HV_TR IC3-P13 J206-10 Transfer Corona Output H : Output 028 HV_AC IC3-P14 J206-12 Developer Bias Output H : Output 039 BIAS_TRG IC3-P15 J206-13 Developer Bias Output H : Output 030 BIAS_SW IC3-P16 J206-13 Developer Bias Output H : Output 031					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
O26							
027 HV TR IC3-P13 J206-10 Transfer Corona Output H : Output 028 HV AC IC3-P14 J206-11 Separation Corona Output H : Output 029 BIAS TRG IC3-P16 J206-12 Developer Bias Output H : Output 030 BIAS SW IC3-P16 J206-13 Developer Bias Polarity Switch Output L : Positive Bias 031 IC3-P17 J206-14 Developer Bias Polarity Switch Output L : Positive Bias 032 H1 CW CCW IC3-P30 J206-15 Main Motor Reversal Rotation Output H : Reverse 033 PRESS M IC3-P31 J206-16 Developer Press Motor Output H : Rotate 034 TONER M IC3-P32 J206-17 Hopper Motor Output L : Positive 035 CLEAN_SW IC3-P33 J206-18 Cleaning Roller Voltage Output L : Positive 036 FEED BL IC3-P34 J206-22 Blower (BL7) Control Output							
Developer Bias							
Developer Bias							
031							
032 H1_CW_CCW IC3-P30 J206-15 Main Motor Reversal Rotation Output H: Reverse 033 PRESS_M IC3-P31 J206-16 Developer Press Motor Output H: Rotate 034 TONER_M IC3-P32 J206-17 Hopper Motor Output H: Rotate 035 CLEAN_SW IC3-P33 J206-18 Cleaning Roller Voltage Polarity Switch Output L: Positive 036 FEED_BL IC3-P34 J206-22 Blower (BL7) Control Output H: Rotate 037 HEAT1 IC3-P35 J206-25 SSR ON/OFF Signal 1 Output H: Heater Lamp lights 038 COOL_BL IC3-P36 J206-26 Fuser Cooling Fan Output H: Rotate 039 POWER_OFF IC3-P37 J206-27 Power Switch Output Output H: Otp 040 ER2 IC3-P50 J207-3 Separation Lamp Control Output H: Lighting 041 COUNT IC3-P51 J207-4 Counter Output H: Counting Up<	030			J206-13			
033 PRESS_M IC3-P31 J206-16 Developer Press Motor Output H : Rotate 034 TONER_M IC3-P32 J206-17 Hopper Motor Output H : Rotate 035 CLEAN_SW IC3-P33 J206-18 Cleaning Roller Voltage Polarity Switch Output L : Positive 036 FEED_BL IC3-P34 J206-22 Blower (BL7) Control Output H : Rotate 037 HEAT1 IC3-P35 J206-25 SSR ON/OFF Signal 1 Output H : Heater Lamp lights 038 COOL_BL IC3-P36 J206-26 Fuser Cooling Fan Output H : Rotate 039 POWER_OFF IC3-P37 J206-27 Power Switch Output Output H : OFF 040 ER2 IC3-P50 J207-3 Separation Lamp Control Output H : Counting up 041 COUNT IC3-P51 J207-4 Counter Output H : Counting up 042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H : ON <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
TONER_M IC3-P32 J206-17 Hopper Motor Output H : Rotate							
035 CLEAN_SW IC3-P33 J206-18 Cleaning Roller Voltage Polarity Switch Output L: Positive 036 FEED_BL IC3-P34 J206-22 Blower (BL7) Control Output H: Rotate 037 HEAT1 IC3-P35 J206-25 SSR ON/OFF Signal 1 Output H: H: Rotate 038 COOL_BL IC3-P36 J206-26 Fuser Cooling Fan Output H: Rotate 039 POWER_OFF IC3-P37 J206-27 Power Switch Output Output H: OFF 040 ER2 IC3-P50 J207-3 Separation Lamp Control Output H: Counter 041 COUNT IC3-P50 J207-4 Counter Output H: Counting up 042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H: ON 043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H: Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Back Clutch Output H: ON 045							
Polarity Switch Polarity Switch Polarity Spignal 1 Polarity Switch Polarity Switch Polarity Spignal 1 Polarity Switch Polarity Spignal 1 Polarity Switch Polarity Switch Polarity Switch Polarity Spignal 1 Polarity Switch Polarity Spignal 1 Polarity Switch Polarity Spignal 1 Polarity Spignal 1 Polarity Switch Polarity Spignal 1 Polarity S							
O37	035	_	IC3-P33	J206-18	Polarity Switch	Output	L : Positive
Separation Counter C							
039 POWER_OFF IC3-P37 J206-27 Power Switch Output Output H : OFF 040 ER2 IC3-P50 J207-3 Separation Lamp Control Output H : Lighting 041 COUNT IC3-P51 J207-4 Counter Output H : Counting up 042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H : ON 043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H : Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Feed Clutch Output H : ON 045 BACK_CL IC3-P55 J207-9(R1) Roll 1&2 Back Clutch Output H : ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P	037	HEAT1	IC3-P35	J206-25	SSR ON/OFF Signal 1	Output	
040 ER2 IC3-P50 J207-3 Separation Lamp Control Output H : Lighting 041 COUNT IC3-P51 J207-4 Counter Output H : Counting up 042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H : ON 043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H : Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Feed Clutch Output H : ON 045 BACK_CL IC3-P55 J207-9(R1) Roll 1&2 Back Clutch Output H : ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 050 FUMTR_LD IC3-P81 J203-14 Main Motor Output Detection Input 051 DIS_CN IC3-P84 J							H : Rotate
041 COUNT IC3-P51 J207-4 Counter Output H : Counting up 042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H : ON 043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H : Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Feed Clutch Output H : ON 045 BACK_CL IC3-P55 J207-9(R1) Roll 1&2 Back Clutch Output H : ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P84 J203-17							
042 HEAT_RY IC3-P52 J207-5 Fuser Relay Output H:ON 043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H:Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Feed Clutch Output H:ON 045 BACK_CL IC3-P55 J207-9(R1) Roll 1&2 Back Clutch Output H:ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H:ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H:ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P84 J203-17 Image Corona Output Input 052 HV1_LD IC3-P85 J203-18 Transfer Corona Output							
043 SLCT_CL IC3-P53 Clutch Selection (Roll 1 or 2) Output H : Roll 1 044 FOWE_CL IC3-P54 J207-6(R1) Roll 1&2 Feed Clutch Output H : ON 045 BACK_CL IC3-P55 J207-9(R1) Roll 1&2 Back Clutch Output H : ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output							
044 FOWE_CL IC3-P54 J207-6(R1) J207-8(R2) Roll 1&2 Feed Clutch Output H : ON 045 BACK_CL IC3-P55 J207-9(R1) J208-9(R2) Roll 1&2 Back Clutch Output H : ON 046 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON 047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input				J207-5			
J207-8(R2) J207-8(R2) Gold J207-9(R1) J208-9(R2) Gold Gold				1207 6/04\			
J208-9(R2) J208-9(R2) J208-9(R2) J208-9(R2) O46 FEED_CL IC3-P56 J207-10 Feed Clutch Output H : ON O47 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON O48 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input Input O49 M_LD IC3-P81 J203-14 Main Motor Output Detection Input O50 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input O51 DIS_CN IC3-P83 J203-16 Developer Connection Input Detection O52 HV1_LD IC3-P84 J203-17 Image Corona Output Input Detection O53 TR_LD IC3-P85 J203-18 Transfer Corona Output Input Input O53 TR_LD IC3-P85 J203-18 Transfer Corona Output Input Input O54 Input Input Input O55 Input I		_		J207-8(R2)			
047 REGIST_CL IC3-P57 J207-11 Registration Clutch Output H : ON 048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input		_		J208-9(R2)			
048 COUNT_OPEN IC3-P80 J207-4 Counter Connection Detection Input 049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input							
049 M_LD IC3-P81 J203-14 Main Motor Output Detection Input 050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input							H:ON
050 FUMTR_LD IC3-P82 J203-15 Fuser Motor Output Detection Input 051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input							ļ
051 DIS_CN IC3-P83 J203-16 Developer Connection Detection Input 052 HV1_LD IC3-P84 J203-17 Image Corona Output Detection Input 053 TR_LD IC3-P85 J203-18 Transfer Corona Output Input							
Detection Color							
Detection TR_LD IC3-P85 J203-18 Transfer Corona Output Input		_			Detection		
	052	HV1_LD	IC3-P84	J203-17		Input	
	053	TR_LD	IC3-P85	J203-18		Input	

8-14 K124sm8e2

0.1	Or marks of	10.5	0	Cinn al Mana	10	04-4
Signal	Symbol	IC Port	Connector	Signal Name	Input /	Status
Code	40.5	100 555	1000 :-		Output	
054	AC_LD	IC3-P86	J203-19	Separation Corona Output	Input	
				Detection		
055	BIAS_LD	IC3-P87	J203-20	Developer Bias Output	Input	
				Detection		
056	DA CLOCK	IC3-P70		DA Conversion Clock		
057	DA DI1	IC3-P71		DA Enable 1		
058	DA BS1	IC3-P72		DA Data 1		
059	DA DI2	IC3-P73		DA Enable 2		
060	DA BS2	IC3-P74		DA Data 2		
061	H2 CW CCW	IC3-P75	J215-4	Fuser Motor Reverse	Output	H : Reverse
062	HEAT2	IC3-P76	J215-5	SSR ON/OFF 2	Output	H : Heater Lamp
			02.00		Jacpar	lights
063		IC3-P77				95
064		IC3-P90	J215-9			
065		IC3-P91	J215-10			
066		IC3-P92	J215-10			
067	DENS SNS1	IC3-P92	J215-12 J215-13	Donaity Consor Output 1		Ll. On
	DEINO_SINS I			Density Sensor Output 1		H: On
068		IC3-P94	J215-14		-	
069		IC3-P95	J215-15			
070		IC3-P96	J215-16		1	
071	LED2	IC3-P97		PW12420 PCB LED	Output	H: Lights
072	IBUSY_H	IC1-P10		Data Output Busy	Output	H: Busy
073	IPRADY_L	IC1-P11		Printer Ready	Output	L : Ready
074	IPREQ_L	IC1-P12		Print Request	Output	L : Requested
075	PAGEBL	IC1-P13		Print Request	Output	L : Print ON
076	TEST_H	IC1-P14		Test Print	Output	H : Test Printing
077	I POW ON A	IC1-P15				· · · · · · · · · · · · · · · · · · ·
078	LED EN	IC1-P16		LED Enable		
079	CLEAN BIAS	IC1-P17	J206-5	Cleaning Roller Bias	Output	H : Output
080	LCD CLK	IC1-P20	3200-3	LCD Clock	Output	11. Ομίραι
081	LCD_CLR	IC1-P21		LCD Data		
082	LCD_DATA	IC1-P21	J205-6	LCD Bata LCD Enable		
					0.44	
083	LCD_RW	IC1-P24	J205-5	Data Read / Write Selection	Output	
084	LCD_RS	IC1-P22	J205-4	LCD Input Selection	Output	
085		IC1-P25	J206-28	Main Motor Clock		
086		IC1-P26	J206-6	Fuser Motor Clock		
087	RESET_SIG	IC1-P27		Reset Signal	Output	
880	RXD0	IC1-P32		Serial 0 Input	Input	
089	RXD1	IC1-P33		Serial 1 Input	Input	
090	RXD2	IC1-P51		Serial 2 Input	Input	
091	TXD0	IC1-P30		Serial 0 Output	Output	
092	TXD1	IC1-P31		Serial 1 Output	Output	
093	TXD2	IC1-P50		Serial 2 Output	Output	
094	MSCUTR	IC1-P60	J204-5	Cutter Home Position Sensor	Input	L : Staying at
'.		121100	120.0	(Right)		Home Position
095	MSCUTL	IC1-P61	J204-6	Cutter Home Position Sensor	Input	L : Staying at
	55512		3_3. 3	(Left)	,	Home Position
096	MCUTL	IC1-P63	J207-1	Cutter Motor 1	Output	H : Rotate
097	MCUTR	IC1-P62	J207-1	Cutter Motor 2	Output	H : Rotate
098	IPRINT L	IC1-P02	0201-2	Print Request	Input	L : Requested
098	IPCUT_L			Paper Cut Request		L : Cutting
		IC1-P64	1004.7		Input	
100	REGIST_S	IC1-P65	J204-7	Registration Sensor	Input	H : Paper detected
101	R1_ENC_S	IC1-P66	J204-8	Roll 1 Encoder	Input	
102	R2_ENC_S	IC1-P67	J204-9	Roll 2 Encoder	Input	11 1 2 2
103	VLC_OFF	IC1-PG0		LCD Indication ON/OFF	Output	H : Indicating
104	PRESS_S	IC1-PA5	J204-10	Developer Press Sensor	Input	L : Detecting
105	R1_SET_S	IC1-PA6	J204-11	Roll 1 Set Sensor	Input	H : Paper detected
106	R2_SET_S	IC1-PA7	J204-12	Roll 2 Set Sensor	Input	H : Paper detected
107	TONER_S	AN5	J203-6	Toner Sensor	Input	H : Toner detected
108	R_EDGE	IC1-PF7	J204-13	Feed Sensor	Input	H : Paper detected
	FEED ENC	IC1-PF1	J204-26	Feed Encoder		
109	I LLD LING					
109	TELD_LING	.01111				
	TELD_LING					

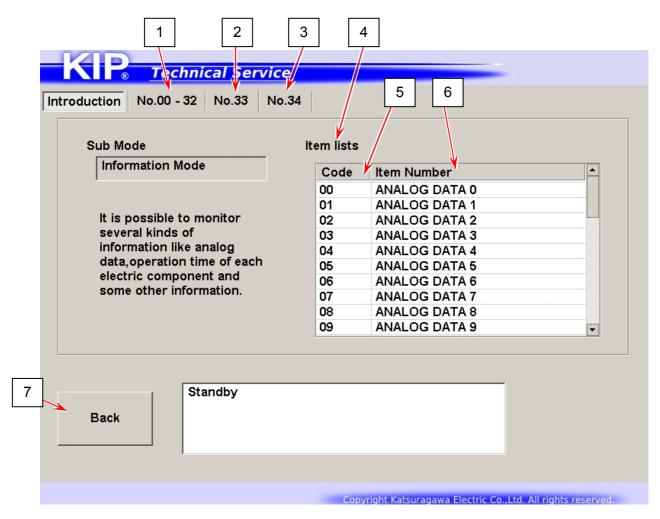
8-15 K124sm8e2

8. 4 Information Mode

It is possible to monitor the analog voltage input sent by devices (such as Thermistor) to DC Controller PCB. It is also possible to monitor the current Fuser temperature which is calculated from the input voltage.

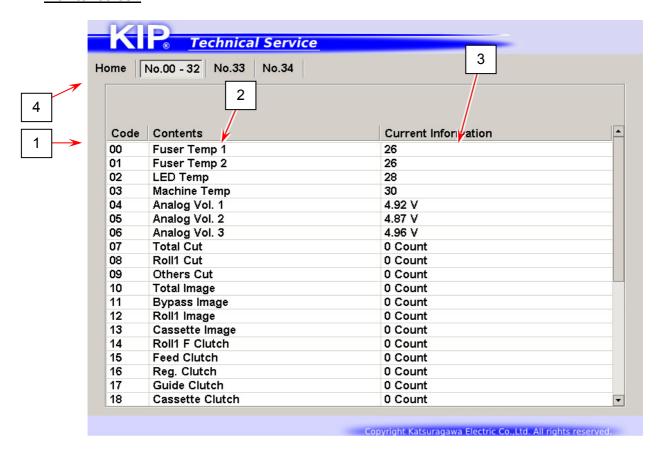
Information Mode includes the list of the latest 100 jam / service call error records.

Information Home screen



	Name	Function
1	No.00 - 32	Switches to Monitor screen
2	No.33	Switches to Jam History screen
3	No.34	Switches to Error History screen
4	Item List	List of Data items and codes
5	Code	Data Code 00 to 32
6	Item Number	Explains the contents of the item
7	Back	Returns to Service Mode Home

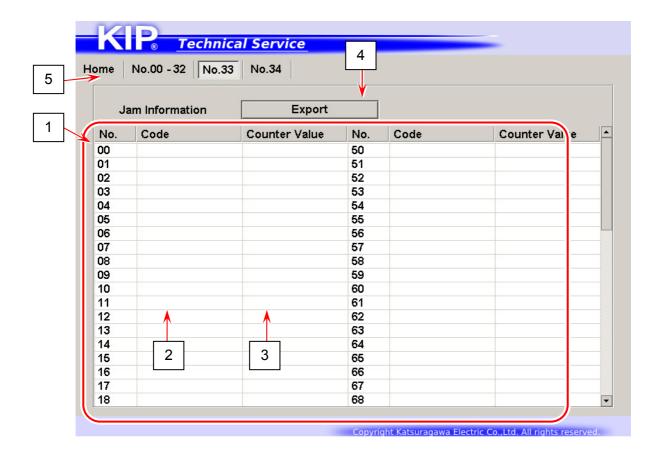
8-16 K124sm8e3



	Name	Function	
1	Code	Data Code 00 to 32	
2	Item Number	Explains the contents of the listed items	
3	Current	Displays the current Analog Voltage and its calculated value for	
	Information	the items to be monitored	
4	Introduction	Returns to Information Home screen	

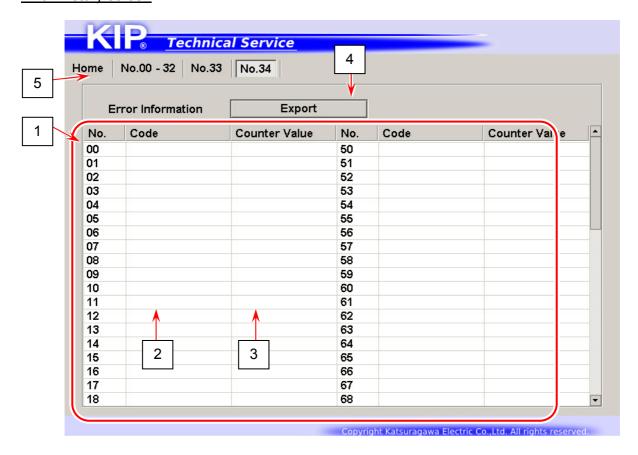
For information about items to be monitored, see [8.4.2 List of Analog Data Monitor].

8-17 K124sm8e3



	Name	Function		
1	Jam Information	Displays the latest 100 jam records		
2	Code	Displays Jam Code "J-****"		
3	Count	Displays the counter value that the concerning jam occurred		
4	Export	Saves the records as a file		
5	Introduction	Returns to Information Home screen		

8-18 K124sm8e3

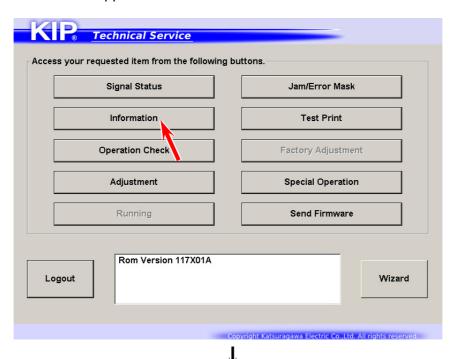


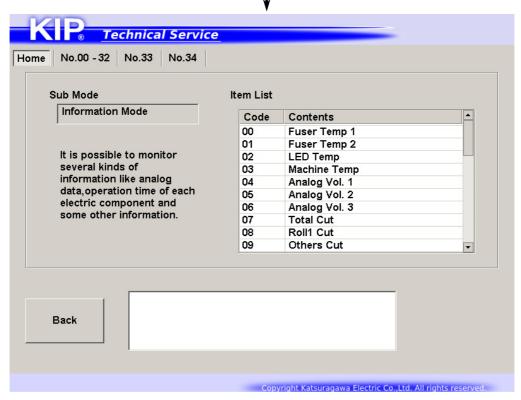
	Name	Function		
1	Error Information	Displays the latest 100 service call error records		
2	Code	Displays Jam Code "E-****"		
3	Count	Displays the counter value that the concerning error occurred		
4	Export	Saves the records as a file		
5	Introduction	Returns to Information Home screen		

8-19 K124sm8e3

8. 4. 1 Monitoring Analog Data

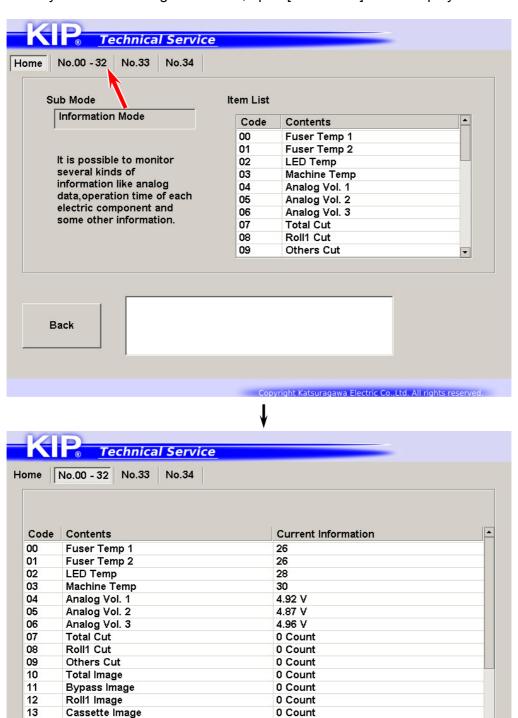
1. Press [Information] in Service Mode Home. Information Home screen appears.





8-20 K124sm8e3

2. To monitor any available Analog Data value, open [No.00 - 32] tab to display Monitor screen.



0 Count

0 Count

0 Count

0 Count

0 Count

Roll1 F Clutch

Feed Clutch

Reg. Clutch

Guide Clutch

Cassette Clutch

14

15

16

17

18

8-21 K124sm8e3

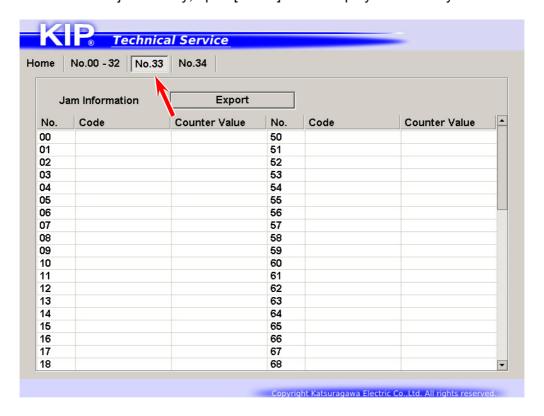
8. 4. 2 List of Analog Data Monitor

Data Code	Item	Unit	Remarks	Contents
00	Fuser Temp 1	Centigrade	Calculated Value	temperature detected by the thermistor on the center of the Fuser Unit
01	Fuser Temp 2	Centigrade	Calculated Value	temperature detected by the thermistor on the right of the Fuser Unit
02	(Reserved)	_	-	-
03	Machine Temp	Centigrade	Calculated Value	temperature detected on PW12420
04	(Reserved)	-	_	-
05	Total Cut			number of operation times in total for media cut with any source / situation
06	Roll 1 Cit			number of operation times for media cutting from Roll 1
07	Roll 2 Cit			number of operation times for media cutting from Roll 2
80	Others Cut			number of operation times for media cutting for trim cut
09	Total Image			number of operation times in total for printing operation with any source
10	R1 Image			number of operation times for printing operation on Roll 1
11	R2 Image			number of operation times for printing operation on Roll 2
12	M Image			number of operation times for printing operation on Bypass Feeder
13	Cassette Image			number of operation times for printing operation on Paper Tray
14	R1F Clutch			number of operation times of Roll 1 Feed Clutch
15	R2F Clutch			number of operation times of Roll 2 Feed Clutch
16	R1B Clutch			number of operation times of Roll 1 Back Clutch
17	R2B Clutch			number of operation times of Roll 2 Back Clutch
18	Feed Clutch			number of operation times of Feed Clutch
19	Reg. Clutch			number of operation times of Registration Clutch
20	Pickup Solenoid			number of operation times of Pickup Solenoid
21	(Reserved)	-	-	-
22	Stack Solenoid			number of operation times of Stack Solenoid
23	Motor 1 Time	minute		total operation time of Main Motor
24	Motor 2 Time	minute		total operation time of Fuser Motor
25	LED ON Time	minute		total lighting-up time of LED Head
26	Motor 3 Time	minute		total operation time of Paper Tray Motor
27	Bias 3 Time	minute		operation time of Main Motor from the last Density Measure
28	Density V0		no use	
29	Density V1		no use	
30	Density Vr		no use	
31	Density W Level		no use	
32	Density B Level		no use	

8-22 K124sm8e3

8. 4. 3 Browsing Jam History

To browse the machine's jam history, open [No.33] tab to display Jam History screen.



[Export] creates "jaminfo.dat" that contains the currently recorded Jam History.

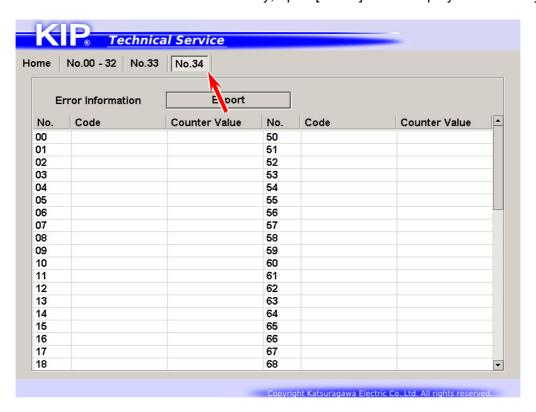
Reference

To clear the entire jam history record, see [8.11.1 Clearing Fuser Error, Jam/Error History].

8-23 K124sm8e3

8. 4. 4 Browsing Error History

To browse the machine's service call error history, open [No.34] tab to display Error History screen.



[Export] creates "errinfo.dat" that contains the currently recorded Error History.

Reference

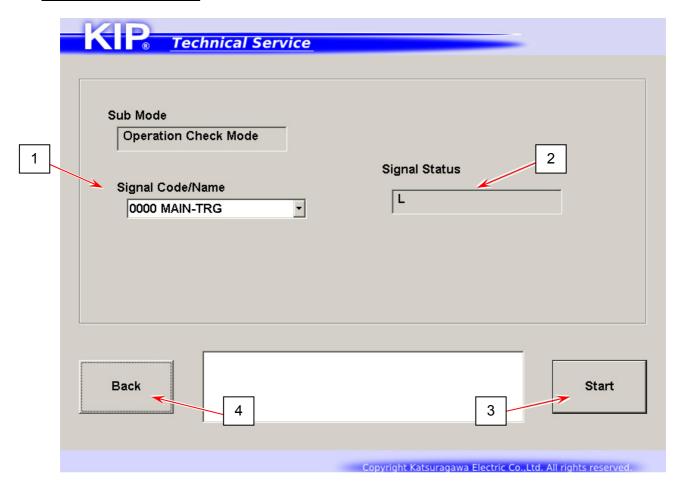
To clear the entire service call error history record, see [8.11.1 Clearing Fuser Error, Jam/Error History].

8-24 K124sm8e3

8. 5 Operation Check Mode

It is possible to operate several electrical components independently, such as motor, clutch, and fans.

Operation Check screen



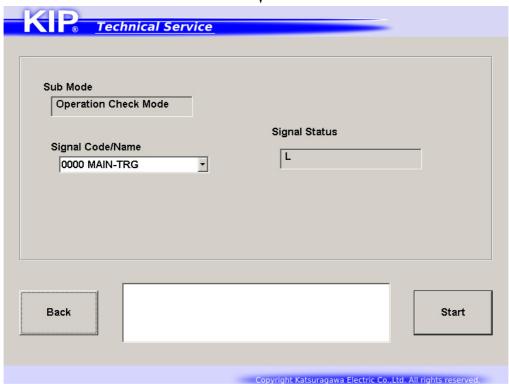
	Name	Function	
1	Signal Code /	Displays Signal Code/Name in drop-down menu	
	Name	Specify one item that you want to check.	
2	Signal Status	Displays the current status of the selected signal	
3	Start	Operates the electric device you have chosen	
		not available for sensors	
4	Back	Returns to Service Mode Home	

8-25 K124sm8e3

8. 5. 1 Checking Device Operation

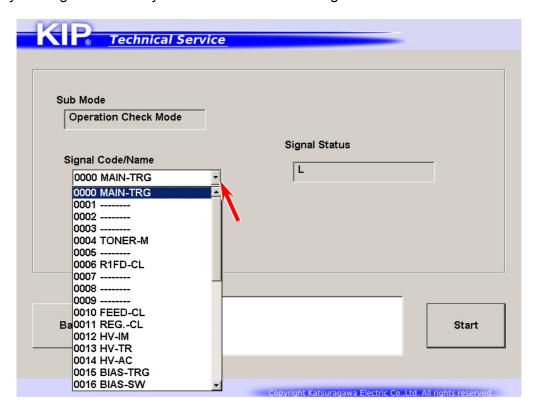
1. Press [Operation Check] in Service Mode Home. Operation Check screen appears.





8-26 K124sm8e3

2. Specify one signal item that you want to monitor from Signal Code/Name menu.



3. The current status of the device you have chosen is displayed in Signal Status field. Press [Enter] to operate / stop the device alone alternately.

8-27 K124sm8e3

8. 5. 2 Device List

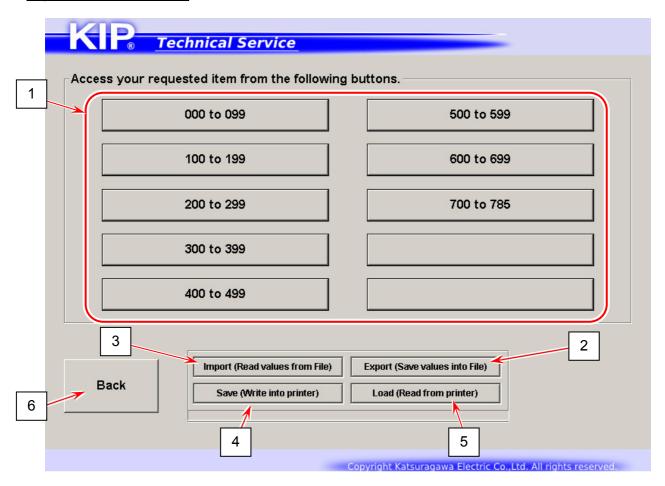
Signal	Signal Name	Target item
Code	MAIN TOO	Main Mater
00 01	MAIN-TRG FMTR-TRG	Main Motor Fuser Motor
02	FMTR-REV	Fuser Motor (reversal rotation)
03	PRESS-M	Developer Press Motor
03	TONER-M	
05		Toner Supply Motor
06	R1FD-CL	Reserved
06		Roll 1 Feed Clutch Roll 1 Back Clutch
	R1BK-CL	
08	R2FD-CL	Roll 2 Feed Clutch
09	R2BK-CL	Roll 2 Back Clutch
10	FEED-CL	Feed Clutch
11	REGCL	Registration Clutch
12	HV-IM	Image Corona
13	HV-TR	Transfer Corona
14	HV-AC	Separation Corona
15	BIAS-TRG	Developer Bias
16	BIAS-SW	Positive/Negative selection of Developer Bias
17	CLEANTRG	Cleaning Roller Bias
18	CLEAN-SW	Positive/Negative selection of Cleaning Roller
		Voltage
19		Reserved
20	TR LED	Transfer Assist LED
21	HEAT1	Fuser Lamp 1
22	HEAT-RY	Fuser Relay
23	H BLW(L)	Fuser Blower (Low speed)
24	H BLW(H)	Fuser Blower (High speed)
25	FEED-BLW	Paper Feed Blower
26	COUNT	Counter
27	M5_CUTL	Cutter Motor (blade moves to left)
28	M5_CUTR	Cutter Motor (blade moves to right)
29	POWER-SW	Main Switch
30		Reserved
31	COOLERBL	Cooling Fan
32	HEAT2	Fuser Lamp 2
33	DENS_S	Density Sensor
34		Reserved
35	CMTR-TRG	Paper Tray Motor
36	PICK-SL	Pickup Solenoid
37		Reserved
38	STACK_SL	Stacker Solenoid

8-28 K124sm8e3

8. 6 Adjustment Mode

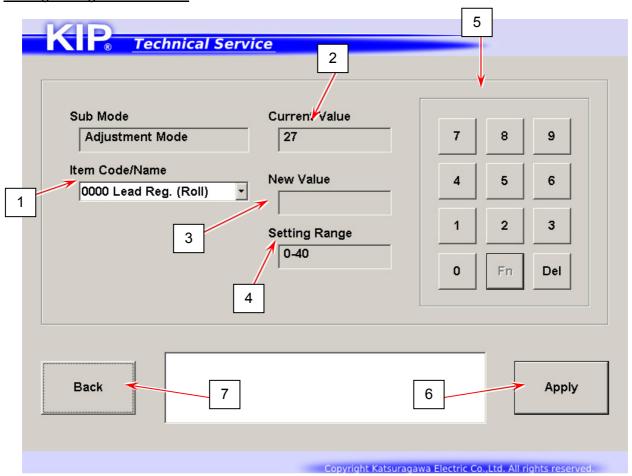
It is possible to configure fundamental settings on the printer. Every setting item has the corresponding Sub Mode Number.

Adjustment Menu screen



	Name	Function
1	Sub Mode Number Group Button	Press one Code Group button that contains the signal code that
	Group Bullon	you want to configure.
2	Export	Stores the current parameters in a RAM file for backup measure
3	Import	Reads parameters stored in RAM file
4	Save	Applies the parameters read by [Import]
5	Load	Reads the current parameters on the printer
6	Back	Returns to Service Mode Home

8-29 K124sm8e4

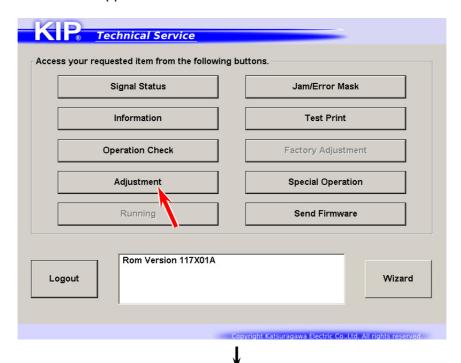


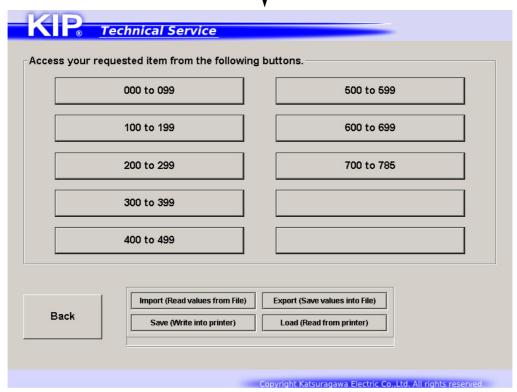
	Name	Function
1	Signal Name	Displays Signal Code/Name in drop-down menu
		Specify one item that you want to configure.
2	Preset	Displays the current value of the selected item
3	Modify	Displays an input value by using On-screen Keypad
4	Range Value	An input value must be set within this range.
5	Numeric Key	Use On-screen Keypad to input a value to be configured.
6	Apply	Applies a value in "Modify" to the selected item
7	Back	Returns to Service Mode Home

8-30 K124sm8e4

8. 6. 1 Changing Setting Value

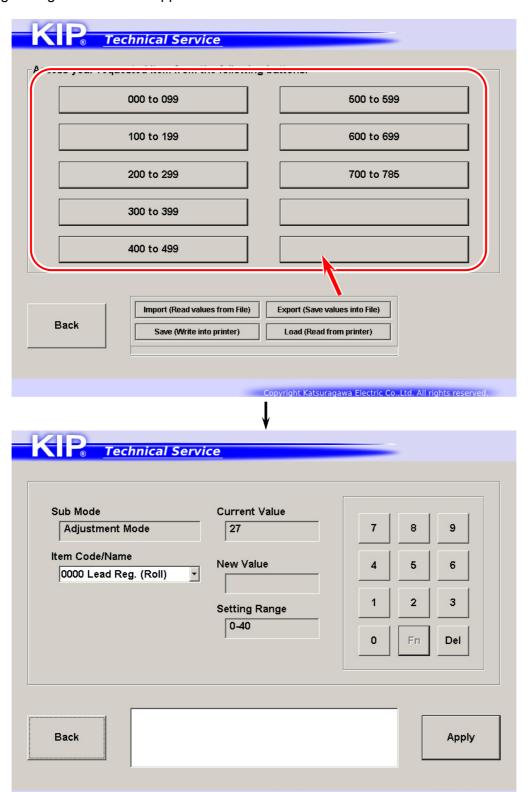
1. Press [Adjustment] in Service Mode Home. Adjustment Menu screen appears.





8-31 K124sm8e4

2. Press one Code Group button that contains the signal code that you want to configure. Setting Configuration screen appears.



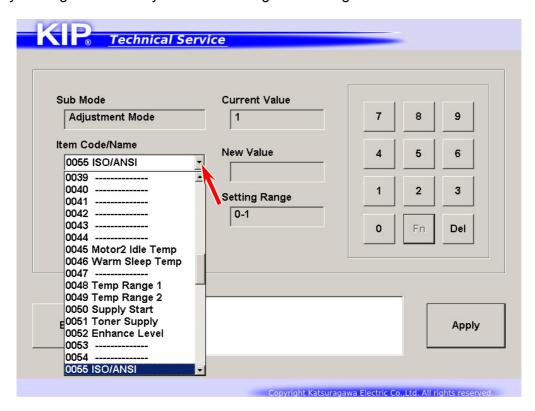
Reference

For correspondence between Signal Name/Code and Code Group button, see [8.6.2 Setting Item List].

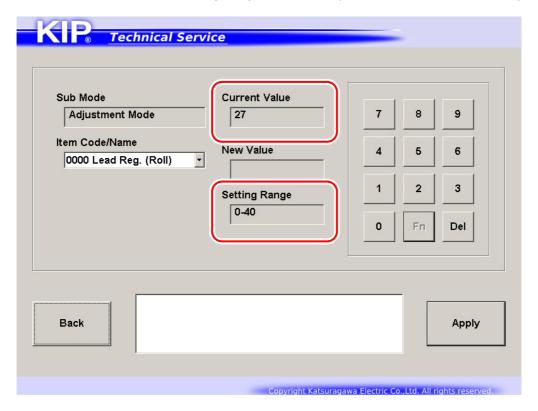
8-32 K124sm8e4

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3. Specify one signal item that you want to configure from Signal Name menu.

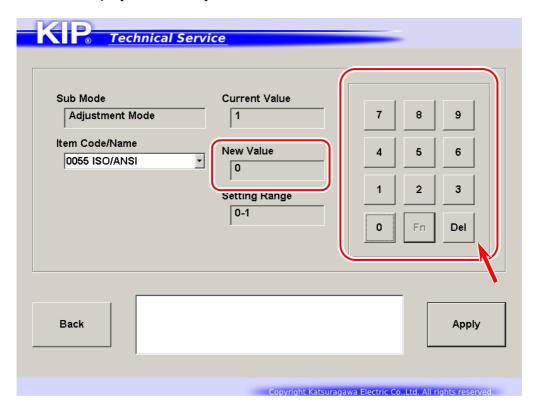


4. The current value and available setting range of the item you have chosen are displayed.

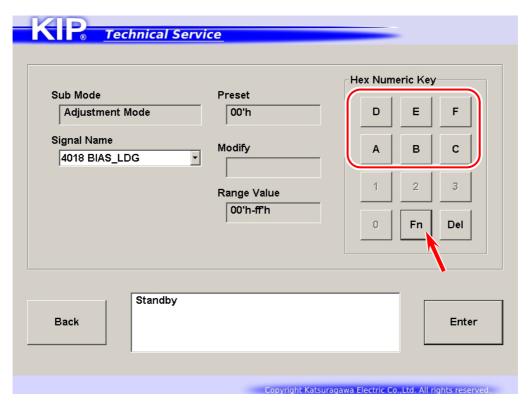


8-33 K124sm8e4

5. To change a setting value, input a desired value with On-screen Keypad. The value will be displayed in "Modify" area.

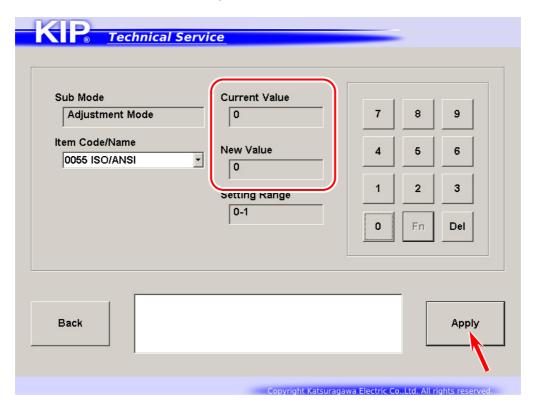


The setting item you have chosen is in hexadecimal, press [Fn] to input alphabetic characters A to F.



8-34 K124sm8e4

6. Press [Enter] to apply the new value to the printer.
The value in "preset" area will be changed to the new value.



8-35 K124sm8e4

8. 6. 2 Setting Item List

NOTE: All items grayed are not generally for field technician use

Item	Setting Item Setting Item	Unit	Default	t	Setting
No.	Cetting non	Onic	Value		range
			USA	EUR	Ĭ
				/ AS	
000	Leading Registration (Roll paper)	1mm	19	19	1 to 40
001	Leading Registration (Cut sheet paper)	1mm	19	19	1 to 40
002	Trailing Margin (Roll paper)	1mm	9	9	1 to 40
003	Trailing Margin (Cut sheet paper)	1mm	10	10	1 to 40
004	Side Margin (Left and right)	1mm	3	3	0 to 20
005	Side Registration (Cutsheet)	0.1mm	50	50	0 to 100
006	Side Registration (Roll 1)	0.1mm	50	50	0 to 100
007	Side Registration (Roll 2)	0.1mm	50	50	0 to 100
800	LED Strobe Time for Main Pixel (Block A)	1 microsecond	6	6	0 to 9
009	LED Strobe Time for Main Pixel (Block B)	1 microsecond	6	6	0 to 9
010	LED Strobe Time for Main Pixel (Block C)	1 microsecond	6	6	0 to 9
011	LED Strobe Time for IST (Supplemental Pixel) (Block A)	1 microsecond	0	0	0 to 9
012	LED Strobe Time for IST (Supplemental Pixel) (Block B)	1 microsecond	0	0	0 to 9
013	LED Strobe Time for IST (Supplemental Pixel) (Block C)	1 microsecond	0	0	0 to 9
014	Vertical Alignment of Pixels between Image Blocks A & B	-	8	8	2 to 14
015	Vertical Alignment of Pixels between Image Blocks B & C	-	8	8	2 to 14
016	Cut Length 1 (length information provided)	1mm	50	50	0 to 100
017	Cut Length 2 (length information not provided)	1mm	50	50	0 to 100
018	Cut Length 3 (Compensation of the length of a long print)	0.1mm	475	475	0 to 999
019	Leading Margin	0.1mm	30	30	0 to 50
020	Cut Length 4 (Individual Compensation for Roll 2)	0.16mm	50	50	0 to 100
021	Reserved		404	101	0.1.455
022	Developer Bias (Plain Paper)	-	161	161	0 to 4FF
023	Developer Bias (Tracing Paper)	-	161	161	0 to 4FF
024	Developer Bias (Film)	-	161	161	0 to 4FF
025	Developer Bias (Special Media/Plain Paper)	-	161	161	0 to 4FF
026	Developer Bias (Special Media/Tracing Paper)	-	161	161	0 to 4FF
027	Developer Bias (Special Media/Film)	-	161	161	0 to 4FF
028	Developer Bias compensation - 1st Drum revolution	-	0	0	0 to 255
029 030	Transfer Voltage (Plain Paper) Transfer Voltage (Tracing Paper)	-	366 28A	366	0 to 4FF 0 to 4FF
030	Transfer Voltage (Tracing Paper) Transfer Voltage (Film)	-	28A	28A 28A	0 to 4FF
031	Transfer Voltage (Film)	-	292	292	0 to 4FF
002	(Special Media/Plain Paper)		202	202	0 10 41 1
033	Transfer Voltage	_	292	292	0 to 4FF
	(Special Media/Tracing Paper)			-02	0 (0 11 1
034	Transfer Voltage	-	292	292	0 to 4FF
	(Special Media/Film)				
035	Separation Corona ON Timing	1mm	50	50	0 to 100
036	Reserved			Î	
037	Transfer Corona ON Timing	1mm	48	48	0 to 100
038	Transfer Corona OFF Timing	1mm	20	20	0 to 100
039	Print - Fuser Temperature Center (Plain)	1°C		165	120 to 180
040	Print - Fuser Temperature Center (Tracing)	1°C	160	170	120 to 180
041	Print - Fuser Temperature Center (Film)	1°C	177	170	120 to 180
042	Print - Fuser Temperature Center (Special / Plain)	1°C	160	160	120 to 180
043	Print - Fuser Temperature Center (Special / Tracing)	1°C	160	160	120 to 180
044	Print - Fuser Temperature Center (Special / Film)	1°C	177	177	120 to 180
045	Fuser temperature to Start Idling	1°C	120	120	100 to 140
046	Warm Sleep - Fuser Temperature	1°C	100	100	100 to 160
047	Reserved	. 0 =		<u> </u>	
048	Fuser Temperature Control Range (In the print cycle)	1°C	1	1	1 to 6
049	Fuser Temperature Control Range (Stand by)	1°C		2	1 to 6
050	Reaction Time of Toner Supply Motor	1 Second	15	15	1 to 30
051	Toner Supply Motor Time	1 Second	10	10	1 to 15
052	Dot Enhancement Level (Dither)	4	1	1	1 to 3
053	Feed Clutch OFF Time for Roll 1 Long Print	1msec.	230	230	80 to 360
054	Feed Clutch OFF Time for Roll 2 Long Print	1msec.		230	80 to 360
055	Metric or Inch	-	1	0	0 to 1
056	Language	-	2	2	0 to 1
057	Interface Communication Setting	-	_		0 to 2

8-36 K124sm8e4

Item	Setting Item	Unit	Default		Setting	
No.			Value		range	
			USA	EUR / AS		
058	Recognition of Paper Tray	-	0	0	0 to 1	
059	Counter Value	-	5	0	0 to 5	
060	Maximum Length	-	1	1	0 to 1	
061	Stacking Device Setting	-	0	0	0 to 1	
062	Operation of Fuser Roller	-	0	0	0 to 1	
063	Cut length 5 (Compensation for Tracing Paper)	-	100	100	0 to 200	
064	Cut length 6 (Compensation for Film)	4 million on a	100	86	0 to 200	
065 066	Drum Reverse Time Fuser Motor Reverse Setting	1 millisecond	30	30	10 to 70 0 to 1	
067	Operation of Separation Lamp	-	5	5	1 to 7	
068	Reserved		9		1 10 7	
069	Reserved			:		
070	Fuser Motor 1st Speed (Roll)	0.04mm/s	34	39	0 to 80	
	(Plain Paper / A3, 12" & 11")			!		
071	Switch Timing to Fuser Motor 1st Speed (Roll) (Plain Paper / A3, 12" & 11")	0.5 seconds	1	1	0 to 300	
072	Fuser Motor 2nd Speed (Roll) (Plain Paper / A3, 12" & 11")	0.04mm/s	35	42	0 to 80	
073	Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	1	1	0 to 300	
074	(Plain Paper / A3, 12" & 11") Fuser Motor 3rd Speed (Roll) (Plain Paper / A3, 12" & 11")	0.04mm/s	50	48	0 to 80	
075	Switch Timing to Fuser Motor 3rd Speed (Roll) (Plain Paper / A3, 12" & 11")	0.5 seconds	5	5	0 to 300	
076	Fuser Motor 1st Speed (Roll) (Tracing / A3, 12" & 11")	0.04mm/s	33	36	0 to 80	
077	Switch Timing to Fuser Motor 1st Speed (Roll) (Tracing / A3, 12" & 11")	0.5 seconds	1	1	0 to 300	
078	Fuser Motor 2nd Speed (Roll)	0.04mm/s	39	44	0 to 80	
079	(Tracing / A3, 12" & 11") Switch Timing to Fuser Motor 2nd Speed (Roll) (Tracing / A3, 12" & 11") Fuser Motor 3rd Speed (Roll)	0.5 seconds	1	3	0 to 300	
080	(Tracing / A3, 12" & 11")	0.04mm/s	44	44	0 to 80	
081	Switch Timing to Fuser Motor 3rd Speed (Roll) (Tracing / A3, 12" & 11")	0.5 seconds	5	5	0 to 300	
082	Fuser Motor 1st Speed (Roll) (Film / A3 12" & 11")	0.04mm/s	50	50	0 to 80	
083	Switch Timing to Fuser Motor 1st Speed (Roll) (Film / A3, 12" & 11")	0.5 seconds	2	2	0 to 300	
084	Fuser Motor 2nd Speed (Roll) (Film / A3, 12" & 11")	0.04mm/s	50	50	0 to 80	
085	Switch Timing to Fuser Motor 2nd Speed (Roll) (Film / A3, 12" & 11")	0.5 seconds	4	4	0 to 300	
086	Fuser Motor 3rd Speed (Roll) (Film / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
087	Switch Timing to Fuser Motor 3rd Speed (Roll) (Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
088	Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
089	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
090	Fuser Motor 2nd Speed Setting (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
091	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
092	Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
093	Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	

8-37 K124sm8e4

Item	Setting Item	Unit	Default		Setting
No.			Value USA	EUR / AS	range
094	Fuser Motor 1st Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.04mm/s	40	40	0 to 80
095	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
096	Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.04mm/s	40	40	0 to 80
097	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
098	Fuser Motor 3rd Speed (Roll) (Special Media / Tracing / A3, 12" & 11") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80
099	(Special Media / Tracing / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
100	Fuser Motor 1st Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.04mm/s	40	40	0 to 80
101	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
102	Fuser Motor 2nd Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.04mm/s	40	40	0 to 80
103	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
104	Fuser Motor 3rd Speed (Roll) (Special Media / Film / A3, 12" & 11") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80
105	(Special Media / Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300
106	Fuser Motor 1st Speed (Roll) (Plain Paper / A2, 18" & 17")	0.04mm/s	30	31	0 to 80
107	Switch Timing to Fuser Motor 1st Speed (Roll) (Plain Paper / A2, 18" & 17")	0.5 seconds	3	3	0 to 300
108	Fuser Motor 2nd Speed (Roll)	0.04mm/s	32	36	0 to 80
109	(Plain Paper / A2, 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Roll) (Plain Paper / A2, 18" & 17")	0.5 seconds	4	4	0 to 300
110	Fuser Motor 3rd Speed (Roll) (Plain Paper / A2, 18" & 17")	0.04mm/s	31	38	0 to 80
111	Switch Timing to Fuser Motor 3rd Speed (Roll) (Plain Paper / A2, 18" & 17") Fuser Motor 1st Speed (Roll)	0.5 seconds	6	6	0 to 300
112	Fuser Motor 1st Speed (Roll) (Tracing / A2, 18" & 17") Switch Timing to Fuser Motor 1st Speed (Roll)	0.04mm/s	33	40	0 to 80
113	(Tracing / A2, 18" & 17")	0.5 seconds	3	1	0 to 300
114	Fuser Motor 2nd Speed (Roll) (Tracing / A2, 18" & 17")	0.04mm/s	38	44	0 to 80
115	Switch Timing to Fuser Motor 2nd Speed (Roll) (Tracing / A2, 18" & 17")	0.5 seconds	3	5	0 to 300
116	Fuser Motor 3rd Speed (Roll) (Tracing / A2, 18" & 17")	0.04mm/s	38	45	0 to 80
117	Switch Timing to Fuser Motor 3rd Speed (Roll) (Tracing / A2, 18" & 17")	0.5 seconds	5	5	0 to 300
118	Fuser Motor 1st Speed (Roll) (Film / A2, 18" & 17") Switch Timing to Fuser Motor 1st Speed (Roll)	0.04mm/s	50	50	0 to 80
119	(Film / A2, 18" & 17")	0.5 seconds	2	2	0 to 300
120	Fuser Motor 2nd Speed (Roll) (Film / A2, 18" & 17")	0.04mm/s	50	50	0 to 80
121	Switch Timing to Fuser Motor 2nd Speed (Roll) (Film / A2, 18" & 17")	0.5 seconds	6	6	0 to 300
122	Fuser Motor 3rd Speed (Roll) (Film / A2, 18" & 17")	0.04mm/s	40	40	0 to 80
123	Switch Timing to Fuser Motor 3rd Speed (Roll) (Film / A2, 18" & 17")	0.5 seconds	0	0	0 to 300

8-38 K124sm8e4

Item	NOTE: All items grayed are not g	Unit	Default		Setting
No.			Value USA	EUR AS	range
124	Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.04mm/s	40	40	0 to 80
125	(Special Media / Plain Paper / A2, 18" & 17") Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.5 seconds	0	0	0 to 300
126	Fuser Motor 2nd Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80
127	(Special Media / Plain Paper / A2, 18" & 17")	0.5 seconds	0	0	0 to 300
128	Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.04mm/s	40	40	0 to 80
129	Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.5 seconds	0	0	0 to 300
130	Fuser Motor 1st Speed (Roll) (Special Media / Tracing / A2, 18" & 17")	0.04mm/s	40	40	0 to 80
131	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Tracing / A2, 18" & 17")	0.5 seconds	0	0	0 to 300
132	Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / A2, 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s 0.5 seconds	40	40	0 to 80 0 to 300
133	(Special Media / Tracing / A2, 18" & 17") Fuser Motor 3rd Speed (Roll)	0.5 seconds 0.04mm/s	40	40	0 to 300
134	(Special Media / Tracing / A2, 18" & 17") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300
136	(Special Media / Tracing / A2, 18" & 17") Fuser Motor 1st Speed (Roll)	0.04mm/s	40	40	0 to 80
137	(Special Media / Film / A2, 18" & 17") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	0	0	0 to 300
138	(Special Media / Film / A2, 18" & 17") Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80
139	(Special Media / Film / A2, 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	0	0	0 to 300
140	(Special Media / Film / A2, 18" & 17") Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80
141	(Special Media / Film / A2, 18" & 17") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300
142	(Special Media / Film / A2, 18" & 17") Fuser Motor 1st Speed (Roll)	0.04mm/s	37	35	0 to 80
143	(Plain Paper / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	3	3	0 to 300
144	(Plain Paper / A1, 24" & 22") Fuser Motor 2nd Speed (Roll)	0.04mm/s	30	33	0 to 80
145	(Plain Paper / A1, 24" & 22") Switch Timing to Fuser Motor 2nd Speed (Roll) (Plain Paper / A1, 24" & 22")	0.5 seconds	6	8	0 to 300
146	Fuser Motor 3rd Speed (Roll) (Plain Paper / A1, 24" & 22")	0.04mm/s	40	41	0 to 80
147	Switch Timing to Fuser Motor 3rd Speed (Roll) (Plain Paper / A1, 24" & 22")	0.5 seconds	6	8	0 to 300
148	Fuser Motor 1st Speed (Roll) (Tracing / A1, 24" & 22")	0.04mm/s	36	42	0 to 80
149	Switch Timing to Fuser Motor 1st Speed (Roll) (Tracing / A1, 24" & 22")	0.5 seconds	3	3	0 to 300
150	Fuser Motor 2nd Speed (Roll) (Tracing / A1, 24" & 22")	0.04mm/s	41	43	0 to 80
151	Switch Timing to Fuser Motor 2nd Speed (Roll) (Tracing / A1, 24" & 22")	0.5 seconds	9	9	0 to 300
152	Fuser Motor 3rd Speed (Roll) (Tracing / A1, 24" & 22")	0.04mm/s	39	40	0 to 80
153	Switch Timing to Fuser Motor 3rd Speed (Roll) (Tracing / A1, 24" & 22")	0.5 seconds	8	8	0 to 300

8-39 K124sm8e4

Item	Setting Item	Unit			Setting Setting	
No.			Value USA	EUR AS	range	
154	Fuser Motor 1st Speed (Roll) (Film / A1, 24" & 22")	0.04mm/s	42	42	0 to 80	
155	(Film / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Roll) (Film / A1, 24" & 22")	0.5 seconds	2	2	0 to 300	
156	(Film / A1, 24" & 22") Fuser Motor 2nd Speed (Roll) (Film / A1, 24" & 22") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s	42	42	0 to 80	
157	Switch Timing to Fuser Motor 2nd Speed (Roll) (Film / A1, 24" & 22") Fuser Motor 3rd Speed (Roll)	0.5 seconds	14	14	0 to 300	
158	(Film / A1, 24" & 22")	0.04mm/s	40	40	0 to 80	
159	Switch Timing to Fuser Motor 3rd Speed (Roll) (Film / A1, 24" & 22")	0.5 seconds	0	0	0 to 300	
160	Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A1, 24" & 22")	0.04mm/s	40	40	0 to 80	
161	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A1, 24" & 22")	0.5 seconds	0	0	0 to 300	
162	Fuser Motor 2nd Speed (Roll) (Special Media / Plain Paper / A1, 24" & 22") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80	
163 164	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Plain Paper / A1, 24" & 22") Fuser Motor 3rd Speed (Roll)	0.5 seconds 0.04mm/s	0 40	0 40	0 to 300	
	(Special Media / Plain Paper / A1, 24" & 22") Switch Timing to Fuser Motor 3rd Speed (Roll)			40	0 to 80	
165 166	(Special Media / Plain Paper / A1, 24" & 22") Fuser Motor 1st Speed (Roll)	0.5 seconds 0.04mm/s	0 40	40	0 to 300 0 to 80	
167	(Special Media / Tracing / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	0	0	0 to 300	
168	(Special Media / Tracing / A1, 24" & 22") Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80	
169	(Special Media / Tracing / A1, 24" & 22") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	0	0	0 to 300	
170	(Special Media / Tracing / A1, 24" & 22") Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80	
171	(Special Media / Tracing / A1, 24" & 22") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300	
172	(Special Media / Tracing / A1, 24" & 22") Fuser Motor 1st Speed (Roll)	0.04mm/s	40	40	0 to 80	
173	(Special Media / Film / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	0	0	0 to 300	
174	(Special Media / Film / A1, 24" & 22") Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80	
175	(Special Media / Film / A1, 24" & 22") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	0	0	0 to 300	
176	(Special Media / Film / A1, 24" & 22") Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80	
177	(Special Media / Film / A1, 24" & 22") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300	
178	(Special Media / Film / A1, 24" & 22") Fuser Motor 1st Speed (Roll)	0.04mm/s	26	26	0 to 80	
179	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	4	3	0 to 300	
180	(Plain Paper / A0, 36" & 34") Fuser Motor 2nd Speed (Roll)	0.04mm/s	27	27	0 to 80	
181	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	10	10	0 to 300	
182	(Plain Paper / A0, 36" & 34") Fuser Motor 3rd Speed (Roll) (Plain Paper / A0, 36" & 34")	0.04mm/s	33	37	0 to 80	
183	Switch Timing to Fuser Motor 3rd Speed (Roll) (Plain Paper / A0, 36" & 34")	0.5 seconds	8	8	0 to 300	

8-40 K124sm8e4

Item	Setting Item	NOTE: All items grayed are not generally for field to			Setting
No.	Ç		Default Value USA	EUR : / AS	range
184	Fuser Motor 1st Speed (Roll) (Tracing / A0, 36" & 34")	0.04mm/s	29	42	0 to 80
185	Switch Timing to Fuser Motor 1st Speed (Roll) (Tracing / A0, 36" & 34")	0.5 seconds	3	3	0 to 300
186	Fuser Motor 2nd Speed (Roll) (Tracing / A0, 36" & 34")	0.04mm/s	35	38	0 to 80
187	Switch Timing to Fuser Motor 2nd Speed (Roll) (Tracing / A0, 36" & 34")	0.5 seconds	13	13	0 to 300
188	Fuser Motor 3rd Speed (Roll) (Tracing / A0, 36" & 34")	0.04mm/s	36	39	0 to 80
189	Switch Timing to Fuser Motor 3rd Speed (Roll) (Tracing / A0, 36" & 34")	0.5 seconds	8	8	0 to 300
190	Fuser Motor 1st Speed (Roll) (Film / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Roll)	0.04mm/s	35	38	0 to 80
191	Switch Timing to Fuser Motor 1st Speed (Roll) (Film / A0, 36" & 34") Fuser Motor 2nd Speed (Roll)	0.5 seconds	2	2	0 to 300
192	Fuser Motor 2nd Speed (Roll) (Film / A0, 36" & 34") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	43	0 to 80
193	(Film / A0, 36" & 34")	0.5 seconds	18	18	0 to 300
194	Fuser Motor 3rd Speed (Roll) (Film / A0, 36" & 34") Switch Timing to Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80
195	(Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
196	Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
197	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
198	Fuser Motor 2nd Speed (Roll) (Special Media / Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80
199	(Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
200	Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
201	Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
202	Fuser Motor 1st Speed (Roll) (Special Media / Tracing / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Roll)	0.04mm/s	40	40	0 to 80
203	(Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
204	Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
205	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
206	Fuser Motor 3rd Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
207	Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
208	Fuser Motor 1st Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
209	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
210	Fuser Motor 2nd Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
211	Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
212	Fuser Motor 3rd Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
213	Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
214 to	Reserved	-			
309			I	!	

8-41 K124sm8e4

Item	Setting Item	Unit	Defaul	t	Setting
No.			Value	,	range
			USA	EUR / AS	
310	Main Motor Speed (Plain paper)	_	36	36	0 to 80
311	Main Motor Speed (Tracing paper)	_	40	40	0 to 80
312	Main Motor Speed (Film)	_	40	40	0 to 80
313	Main Motor Speed (Special plain paper)	-	40	40	0 to 80
314	Main Motor Speed (Special tracing paper)	-	40	40	0 to 80
315 316	Main Motor Speed (Special film) Fuser Motor Speed	-	40 31	40 35	0 to 80 0 to 80
310	(36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Plain)		01	. 55	0 10 00
317	Fuser Motor Speed	-	39	50	0 to 80
318	(36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Tracing) Fuser Motor Speed	 -	50	50	0 to 80
	(36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Film)			!	
319	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Special / Plain)	_	40	40	0 to 80
320	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Special / Tracing)	-	40	40	0 to 80
321	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (Special / Film)	-	40	40	0 to 80
322	Separation Corona OFF Timing (Plain paper)	1mm	25	25	0 to 100
323	Separation Corona OFF Timing (tracing paper)	1mm	25	25	0 to 100
324	Separation Corona OFF Timing (Film)	1mm	22	25	0 to 100
325	Separation Corona OFF Timing (Special plain paper)	1mm	18	18	0 to 100
326 327	Separation Corona OFF Timing (Special tracing paper) Separation Corona OFF Timing (Special film)	1mm 1mm	18 23	18 23	0 to 100 0 to 100
328	Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	30	31	0 to 80
	(Plain Paper / A3, A2, 12", 11", 18" & 17")				
329	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / A3, A2, 12", 11", 18" & 17")	0.5 seconds	3	3	0 to 300
330	Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / A3, A2, 12", 11", 18" & 17")	0.04mm/s	32	36	0 to 80
331	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / A3, A2, 12", 11", 18" & 17")	0.5 seconds	4	4	0 to 300
332	Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	31	38	0 to 80
333	(Plain Paper / A3, A2, 12", 11", 18" & 17") Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	6	6	0 to 300
334	(Plain Paper / A3, A2, 12", 11", 18" & 17") Fuser Motor 1st Speed (Roll)	0.04mm/s	33	40	0 to 80
335	(Tracing / A3, 12" & 11") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	2	1 1	0 to 300
336	(Tracing / A3, A2, 12", 11", 18" & 17") Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	38	44	0 to 80
337	(Tracing / A3, A2, ½", 1½", 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	3	5	0 to 300
	(Tracing / A3, A2, 12", 11", 18" & 17")			!	
338	Fuser Motor 3rd Speed (Cut sheet) (Tracing / A3, A2, 12", 11", 18" & 17")	0.04mm/s	38	45	0 to 80
339	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / A3, A2, 12", 11", 18" & 17")	0.5 seconds	5	2	0 to 300
340	Fuser Motor 1st Speed (Cut sheet) (Film / A3, A2, 12", 11", 18" & 17")	0.04mm/s	50	50	0 to 80
341	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Film / A3, A2, 12", 11", 18" & 17")	0.5 seconds	2	6	0 to 300
342	Fuser Motor 2nd Speed (Cut sheet) (Film / A3, A2, 12", 11", 18" & 17")	0.04mm/s	50	40	0 to 80
343	Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	6	0	0 to 300
344	(Film / A3, A2, 12", 11", 18" & 17") Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
345	(Film / A3, A2, 12", 11", 18" & 17") Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	0	0	0 to 300
346	(Film / A3, A2, 12", 11", 18" & 17") Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
347	(Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	0	0	0 to 300
348	(Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17") Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
349	(Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	0	0	0 to 300
	(Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17")			<u> </u>	
350	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	40	0 to 80
351	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300

8-42 K124sm8e4

Item	Setting Item	Unit	Default		Setting
No.			Value USA	EUR	range
352	Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	/ AS	0 to 80
353	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
354	Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
355	(Special Media / Tracing / A3, A2, 12", 11", 18" & 17") Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
356	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	40	0 to 80
357	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
358	Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	40	0 to 80
359	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
360	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	40	0 to 80
361	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
362	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.04mm/s	40	40	0 to 80
363	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / A3, A2, 12", 11", 18" & 17")	0.5 seconds	0	0	0 to 300
364	Fuser Motor 1st Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.04mm/s	37	35	0 to 80
365	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.5 seconds	3	3	0 to 300
366	Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.04mm/s	30	33	0 to 80
367	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.5 seconds	6	8	0 to 300
368	Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.04mm/s	40	41	0 to 80
369	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / A1, 24" & 22")	0.5 seconds	6	8	0 to 300
370	Fuser Motor 1st Speed (Cut sheet) (Tracing / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	36	42	0 to 80
371	(Tracing / A1, 24" & 22")	0.5 seconds	3	3	0 to 300
372	Fuser Motor 2nd Speed (Cut sheet) (Tracing / A1, 24" & 22")	0.04mm/s	41	43	0 to 80
373	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / A1, 24" & 22")	0.5 seconds	9	9	0 to 300
374	Fuser Motor 3rd Speed (Cut sheet) (Tracing / A1, 24" & 22")	0.04mm/s	39	40	0 to 80
375	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / A1, 24" & 22")	0.5 seconds	8	8	0 to 300
376	Fuser Motor 1st Speed (Cut sheet) (Film / A1, 24" & 22") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	42	42	0 to 80
377	(Film / A1, 24" & 22")	0.5 seconds	2	2	0 to 300
378	Fuser Motor 2nd Speed (Cut sheet) (Film / A1, 24" & 22")	0.04mm/s	42	42	0 to 80
379	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Film / A1, 24" & 22")	0.5 seconds	14	14	0 to 300
380	Fuser Motor 3rd Speed (Cut sheet) (Film / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
381	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Film / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
382	Fuser Motor 1st Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
383	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
384	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
385	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.5 seconds	0	0	0 to 300

8-43 K124sm8e4

Item	Setting Item	Unit	Defaul	t	Setting
No.			Value USA	EUR / AS	range
386	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
387	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
388	Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
389	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
390	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
391	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
392	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
393	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
394	Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
395	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A1, 24" & 22")	0.5 seconds	0	0	0 to 300
396	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / A1, 24" & 22")	0.04mm/s	40	40	0 to 80
397	Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	0	0	0 to 300
398	(Special Media / Film / A1, 24" & 22") Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
399	(Special Media / Film / A1, 24" & 22") Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	0	0	0 to 300
400	(Special Media / Film / A1, 24" & 22") Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	26	26	0 to 80
401	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	4	3	0 to 300
402	(Plain Paper / A0, 36" & 34") Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	27	27	0 to 80
403	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	10	10	0 to 300
404	(Plain Paper / A0, 36" & 34") Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	33	37	0 to 80
405	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	8	8	0 to 300
406	(Plain Paper / A0, 36" & 34") Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	29	42	0 to 80
407	(Tracing / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	3	3	0 to 300
408	(Tracing / A0, 36" & 34") Fuser Motor 2nd Speed (Cut sheet) (Tracing / A0, 36" & 34")	0.04mm/s	35	38	0 to 80
409	Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	13	13	0 to 300
410	(Tracing / A0, 36" & 34") Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	36	39	0 to 80
411	(Tracing / A0, 36" & 34") Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	8	8	0 to 300
412	(Tracing / A0, 36" & 34") Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	35	38	0 to 80
413	(Film / A0, 36" & 34") Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	2	2	0 to 300
414	(Film / A0, 36" & 34") Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	42	43	0 to 80
415	(Film / A0, 36" & 34") Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	18	18	0 to 300
416	(Film / A0, 36" & 34") Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
417	(Film / A0, 36" & 34") Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
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8-44 K124sm8e4

Item No.	NOTE: All items grayed are not ge	Unit	Defaul Value		Setting range
			USA	EUR / AS	
419	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
420	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
421	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
422	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
423	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
424	Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
425	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
426	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
427	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
428	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
429	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
430	Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
431	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
432	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
433	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
434	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.04mm/s	40	40	0 to 80
435	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / A0, 36" & 34")	0.5 seconds	0	0	0 to 300
436	Fuser Motor 1st Speed (Roll) (Plain Paper / 30")	0.04mm/s	28	28	0 to 80
437	Switch Timing to Fuser Motor 1st Speed (Roll) (Plain Paper / 30")	0.5 seconds	5	5	0 to 300
438	Fuser Motor 2nd Speed (Roll) (Plain Paper / 30")	0.04mm/s	30	33	0 to 80
439	Switch Timing to Fuser Motor 2nd Speed (Roll) (Plain Paper / 30")	0.5 seconds	9	9	0 to 300
440	Fuser Motor 3rd Speed (Roll) (Plain Paper / 30")	0.04mm/s	34	36	0 to 80
441	Switch Timing to Fuser Motor 3rd Speed (Roll) (Plain Paper / 30")	0.5 seconds	7	7	0 to 300
442	Fuser Motor 1st Speed (Roll) (Tracing / 30")	0.04mm/s	34	33	0 to 80
443	Switch Timing to Fuser Motor 1st Speed (Roll) (Tracing / 30")	0.5 seconds	4	4	0 to 300
444	Fuser Motor 2nd Speed (Roll) (Tracing / 30")	0.04mm/s	38	44	0 to 80
445	Switch Timing to Fuser Motor 2nd Speed (Roll) (Tracing / 30")	0.5 seconds	11	11	0 to 300
446	Fuser Motor 3rd Speed (Roll) (Tracing / 30")	0.04mm/s	40	41	0 to 80
447	Switch Timing to Fuser Motor 3rd Speed (Roll) (Tracing / 30")	0.5 seconds	8	8	0 to 300
448	Fuser Motor 1st Speed (Roll) (Film / 30")	0.04mm/s	40	40	0 to 80
449	Switch Timing to Fuser Motor 1st Speed (Roll) (Film / 30")	0.5 seconds	0	0	0 to 300
450	Fuser Motor 2nd Speed (Roll) (Film / 30")	0.04mm/s	40	40	0 to 80
451	Switch Timing to Fuser Motor 2nd Speed (Roll) (Film / 30")	0.5 seconds	0	0	0 to 300

8-45 K124sm8e4

452 Fuser Motor 3rd Speed (Roll) 0.04mm/s 40 40 0.05	Item	Setting Item	Unit	Default		Setting	
452 Fuser Motor 3rd Speed (Roti) 0.04mm/s 40 40 40 40 40 40 40 4				Value		range	
(Film / 30°) 453 Switch Timing to Fuser Motor 3rd Speed (Roll) 454 Switch Timing to Fuser Motor 3rd Speed (Roll) 455 (Film / 30°) 456 Fuser Motor 1st Speed (Roll) 457 Switch Timing to Fuser Motor 1st Speed (Roll) 458 Switch Timing to Fuser Motor 1st Speed (Roll) 459 Switch Timing to Fuser Motor 2nd Speed (Roll) 450 Fuser Motor 2nd Speed (Roll) 450 Fuser Motor 2nd Speed (Roll) 451 Switch Timing to Fuser Motor 2nd Speed (Roll) 452 Switch Timing to Fuser Motor 2nd Speed (Roll) 453 Switch Timing to Fuser Motor 2nd Speed (Roll) 454 Fuser Motor 3nd Speed (Roll) 455 Fuser Motor 3nd Speed (Roll) 456 Fuser Motor 3nd Speed (Roll) 457 Switch Timing to Fuser Motor 3nd Speed (Roll) 458 Switch Timing to Fuser Motor 3nd Speed (Roll) 459 Switch Timing to Fuser Motor 3nd Speed (Roll) 450 Switch Timing to Fuser Motor 3nd Speed (Roll) 450 Switch Timing to Fuser Motor 3nd Speed (Roll) 450 Fuser Motor 3nd Speed (Roll) 451 Switch Timing to Fuser Motor 3nd Speed (Roll) 452 Fuser Motor 2nd Speed (Roll) 453 Switch Timing to Fuser Motor 2nd Speed (Roll) 454 Fuser Motor 2nd Speed (Roll) 455 Switch Timing to Fuser Motor 2nd Speed (Roll) 456 Switch Timing to Fuser Motor 2nd Speed (Roll) 457 Fuser Motor 3nd Speed (Roll) 458 Switch Timing to Fuser Motor 3nd Speed (Roll) 459 Switch Timing to Fuser Motor 3nd Speed (Roll) 460 Switch Timing to Fuser Motor 3nd Speed (Roll) 461 Fuser Motor 3nd Speed (Roll) 462 Switch Timing to Fuser Motor 3nd Speed (Roll) 463 Switch Timing to Fuser Motor 3nd Speed (Roll) 464 Fuser Motor 3nd Speed (Roll) 465 Switch Timing to Fuser Motor 3nd Speed (Roll) 466 Fuser Motor 3nd Speed (Roll) 467 Switch Timing to Fuser Motor 3nd Speed (Roll) 468 Fuser Motor 3nd Speed (Roll) 469 Switch Timing to Fuser Motor 3nd Speed (Roll) 470 Switch Timing to Fuser Motor 3nd Speed (Roll) 471 Switch Timing to Fuser Motor 3nd Speed (Roll) 472 Fuser Motor 3nd Speed (Roll) 473 Switch Timing to Fuser Motor 3nd Speed (Cut sheet) 474 Switch Timing to Fuser Motor 3nd Speed (Cut sheet) 475 Switch Timing to Fuser Motor 3nd Speed (Cut sheet) 476 Sw					/ AS		
Switch Timing to Fuser Motor 3rd Speed (Roll) CFINITY 30" CFINITY	452		0.04mm/s	40	40	0 to 80	
Special Media / Plain Paper / 30" 0.94mm/s 40 40 0.5	453	Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300	
Switch Timing to Fuser Motor 1st Speed (Roll) 0.5 seconds 0 0 0 0 0 0 0 0 0	454	Fuser Motor 1st Speed (Roll)	0.04mm/s	40	40	0 to 80	
456 Fuser Motor Zand Speed (Roll) 0.04mm/s 40 40 0.05	455	Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	0	0	0 to 300	
Switch Timing to Fuser Motor 2nd Speed (Roll) 0.5 seconds 0 0 0 0 0 0 0 0 0	456	Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80	
Fuser Motor 3rd Speed (Roll) 0.04mm/s 40 40 0 0 0 0 0 0 0	457	Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	0	0	0 to 300	
Special Media / Plain Paper / 30" 0.04mm/s 40 40 60 60 60 60 60 60	458	Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80	
Special Media / Plain Paper / 30" 0.04mm/s 40 40 60 60 60 60 60 60	459	(Special Media / Plain Paper / 30") Switch Timing to Fuser Motor 3rd Speed (Roll)		0	0	0 to 300	
(Special Media / Tracing / 30")		(Special Media / Plain Paper / 30")			! !	0 to 80	
(Special Media / Tracing / 30°)		(Special Media / Tracing / 30")			!		
462 Fuser Motor 2nd Speed (Roll) (Special Media / Tracing / 30") 0.04mm/s 40 40 0 0 0 0 0 0 0	461	Switch Timing to Fuser Motor 1st Speed (Roll) (Special Media / Tracing / 30")	0.5 seconds	0	0	0 to 300	
Switch Timing to Fuser Motor 2nd Speed (Roll) 0.5 seconds 0 0 0 0 (Special Media / Tracing / 30") 0.04mm/s 40 40 0.04mm/s 40 40 0.04mm/s 40 40 0.04mm/s 40 40 60 60 60 60 60 60	462	Fuser Motor 2nd Speed (Roll)	0.04mm/s	40	40	0 to 80	
Fuser Motor 3rd Speed (Roll) 0.04mm/s 40 40 60	463	Switch Timing to Fuser Motor 2nd Speed (Roll)	0.5 seconds	0	0	0 to 300	
Switch Timing to Fuser Motor 3rd Speed (Roll) 0.5 seconds 0 0 0 0 0 0 0 0 0	464	Fuser Motor 3rd Speed (Roll)	0.04mm/s	40	40	0 to 80	
466 Fuser Motor 1st Speed (Roll) (Special Media / Film / 30") (Special Media / Film /	465	Switch Timing to Fuser Motor 3rd Speed (Roll)	0.5 seconds	0	0	0 to 300	
Switch Timing to Fuser Motor 1st Speed (Roll) 0.5 seconds 0 0 0 0	466	Fuser Motor 1st Speed (Roll)	0.04mm/s	40	40	0 to 80	
(Special Media / Film / 30") 468 Fuser Motor 2nd Speed (Roll) (Special Media / Film / 30") 469 Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Film / 30") 470 Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30") 471 Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30") 472 Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30") 473 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 474 Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 477 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 478 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 479 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 470 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 471 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 472 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 473 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 474 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 475 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 476 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 477 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 480 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 484 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 485 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 486 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 487 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 488 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 488 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30")	467	(Special Media / Film / 30") Switch Timing to Fuser Motor 1st Speed (Roll)	0.5 seconds	0	0	0 to 300	
(Special Media / Film / 30") 0.5 seconds 0 0 469 Switch Timing to Fuser Motor 2nd Speed (Roll) (Special Media / Film / 30") 0.5 seconds 0 0 470 Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30") 0.04mm/s 40 40 0 471 Switch Timing to Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30") 0.5 seconds 0 0 0 472 Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 28 28 0 473 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 5 5 0 474 Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 30 33 0 475 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 33 0 478 Fuser Motor 1st Speed (Cu		(Special Media / Film / 30")		40		0 to 80	
(Special Media / Film / 30") 40 40 40 40 40 40 40 40 40 40 60		(Special Media / Film / 30")					
(Special Media / Film / 30") 0.5 seconds 0 0 0 471 Switch Timing to Fuser Motor 3rd Speed (Roll) 0.5 seconds 0 0 0 472 Fuser Motor 1st Speed (Cut sheet) 0.04mm/s 28 28 0 473 Switch Timing to Fuser Motor 1st Speed (Cut sheet) 0.5 seconds 5 5 0 (Plain Paper / 30") 474 Fuser Motor 2nd Speed (Cut sheet) 0.04mm/s 30 33 0 474 Fuser Motor 3rd Speed (Cut sheet) 0.5 seconds 9 9 0 475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) 0.5 seconds 9 9 0 476 Fuser Motor 3rd Speed (Cut sheet) 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) 0.04mm/s 38 44 0		(Special Media / Film / 30")			1	0 to 300	
(Special Media / Film / 30") 0.04mm/s 28 28 0 472 Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 28 28 0 473 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 5 5 0 474 Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 30 33 0 475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 480 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 481 Switch Timing to Fuser Motor 3rd Sp		Fuser Motor 3rd Speed (Roll) (Special Media / Film / 30")		40	-	0 to 80	
472 Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 28 28 0.04mm/s 28 28 0.04mm/s 0.04m	471	(Special Media / Film / 30")	0.5 seconds	0	0	0 to 300	
473 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 5 5 0 474 Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 30 33 0 475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 9 9 0 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.05 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04	472	Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	28	28	0 to 80	
474 Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 30 33 0.04mm/s 475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 9 9 0 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.5 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.05 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s <	473	Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	5	5	0 to 300	
475 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 9 9 0 476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.5 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	474	Fuser Motor 2nd Speed (Cut sheet)	0.04mm/s	30	33	0 to 80	
476 Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.04mm/s 34 36 0.04mm/s 477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.5 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 11 11 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	475	Switch Timing to Fuser Motor 2nd Speed (Cut sheet)	0.5 seconds	9	9	0 to 300	
477 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Plain Paper / 30") 0.5 seconds 7 7 0 478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0 479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.5 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 11 11 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	476	Fuser Motor 3rd Speed (Cut sheet)	0.04mm/s	34	36	0 to 80	
478 Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.04mm/s 34 33 0.04mm/s 34 33 0.04mm/s 34 33 0.04mm/s 0.04mm/s 38 44 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 11 11 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	477	Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	7	7	0 to 300	
479 Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Tracing / 30") 0.5 seconds 4 4 0 480 Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 38 44 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 11 11 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	478	(Plain Paper / 30") Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	34	33	0 to 80	
(Tracing / 30") 0.04mm/s 38 44 0.02mm/s 0.04mm/s 38 44 0.02mm/s 0.04mm/s 0.04mm/s 0.02mm/s	479	(Tracing / 30")		4	4	0 to 300	
(Tracing / 30") 0.5 seconds 11 11 0 481 Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 11 11 0 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0		(Tracing / 30")			<u> </u>	0 to 80	
(Tracing / 30") 482 Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.04mm/s 40 41 0 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 0.5 seconds 8 8 0 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0		(Tracing / 30")			<u> </u>		
(Tracing / 30") 483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Tracing / 30") 484 Fuser Motor 1st Speed (Cut sheet) (Film / 30") 0.04mm/s 40 40 0	481	(Tracing / 30")			<u> </u>	0 to 300	
483 Switch Timing to Fuser Motor 3rd Speed (Cut sheet) 0.5 seconds 8 8 0 (Tracing / 30") 484 Fuser Motor 1st Speed (Cut sheet) 0.04mm/s 40 40 0 (Film / 30")	482	(Tracing / 30")	0.04mm/s	40	41	0 to 80	
484 Fuser Motor 1st Speed (Cut sheet) 0.04mm/s 40 40 (Film / 30")	483	Switch Timing to Fuser Motor 3rd Speed (Cut sheet)	0.5 seconds	8	8	0 to 300	
	484	Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	40	40	0 to 80	
485 Switch Timing to Fuser Motor 1st Speed (Cut sheet) 0.5 seconds 0 0 (Roll) (Film / 30")	485	Switch Timing to Fuser Motor 1st Speed (Cut sheet)	0.5 seconds	0	0	0 to 300	

8-46 K124sm8e4

Item No.	Setting Item	Unit	Default Value		Setting range
INO.			USA	EUR / AS	range
486	Fuser Motor 2nd Speed (Roll) (Cut sheet) (Film / 30")	0.04mm/s	40	40	0 to 80
487	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Film / 30")	0.5 seconds	0	0	0 to 300
488	Fuser Motor 3rd Speed (Cut sheet) (Film / 30")	0.04mm/s	40	40	0 to 80
489	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Film / 30")	0.5 seconds	0	0	0 to 300
490	Fuser Motor 1st Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.04mm/s	40	40	0 to 80
491	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.5 seconds	0	0	0 to 300
492	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.04mm/s	40	40	0 to 80
493	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.5 seconds	0	0	0 to 300
494	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.04mm/s	40	40	0 to 80
495	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Plain Paper / 30")	0.5 seconds	0	0	0 to 300
496	Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / 30")	0.04mm/s	40	40	0 to 80
497	Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Tracing / 30")	0.5 seconds	0	0	0 to 300
498	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / 30")	0.04mm/s	40	40	0 to 80
499	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Tracing / 30")	0.5 seconds	0	0	0 to 300
500	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / 30")	0.04mm/s	40	40	0 to 80
501	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Tracing / 30")	0.5 seconds	0	0	0 to 300
502	Fuser Motor 1st Speed (Cut sheet)	0.04mm/s	40	40	0 to 80
503	(Special Media / Film / 30") Switch Timing to Fuser Motor 1st Speed (Cut sheet) (Special Media / Film / 30")	0.5 seconds	0	0	0 to 300
504	Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / 30")	0.04mm/s	40	40	0 to 80
505	Switch Timing to Fuser Motor 2nd Speed (Cut sheet) (Special Media / Film / 30")	0.5 seconds	0	0	0 to 300
506	Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / 30")	0.04mm/s	40	40	0 to 80
507	Switch Timing to Fuser Motor 3rd Speed (Cut sheet) (Special Media / Film / 30")	0.5 seconds	0	0	0 to 300
508	Transfer Voltage applied at 100mm from trailing edge (Plain paper)	-	4ff	4ff	9fe
509	Transfer Voltage applied at 100mm from trailing edge (Tracing paper)	-	4ff	4ff	9fe
510	Transfer Voltage applied at 100mm from trailing edge (Film)	-	4ff	4ff	9fe
511	Transfer Voltage applied at 70mm from trailing edge (Plain paper)	-	62f	62f	9fe
512	Transfer Voltage applied at 70mm from trailing edge (Tracing paper)	-	69f	69f	9fe
513	Transfer Voltage applied at 70mm from trailing edge (Film)	-	4ff	4ff	9fe
514	Fuser Motor Speed applied at 30mm from trailing edge (Plain paper)	-	13	17	0 to 80
515	Fuser Motor Speed applied at 30mm from trailing edge (Tracing paper)	-	19	19	0 to 80
516	Fuser Motor Speed applied at 30mm from trailing edge (Film)	-	0	0	0 to 80
517 to	Reserved				
612				1	

8-47 K124sm8e4

Item No.	Setting Item	Unit	Default Value		Setting range
110.			USA	EUR / AS	Turige
613	Judgement Value for Additional Cut Length for Non-standard Size Prints (36"/ 34"/ 30"/ A0 / B1)	1mm	1	1	1 to 20
614	Judgement Value for Additional Cut Length for Non-standard Size Prints (24"/ 20"/ A1)	1mm	1	1	1 to 20
615	Judgement Value for Additional Cut Length for Non-standard Size Prints (18"/ 17"/ 15"/ A2)	1mm	1	1	1 to 20
616	Judgement Value for Additional Cut Length for Non-standard Size Prints (12"/ 11"/ A3)	1mm	1	1	1 to 20
617	Additional Cut Length for Non-standard Size Prints (36"/ 34"/ 30"/ A0 / B1) Additional Cut Length for Non-standard Size Prints	1mm	0	0	0 to 35
618	(24"/ 22"/ A2) Additional Cut Length for Non-standard Size Prints Additional Cut Length for Non-standard Size Prints	1mm 1mm	0	0	0 to 35 0 to 35
620	(18"/ 17"/ 15"/ A2) Additional Cut Length for Non-standard Size Prints	1mm	0	0	0 to 35
621	(12"/ 11"/ A3) Toner Supply Roller Bias	1111111	286	286	0 to 800
622	Regulation Bias		270	270	0 to 800
623	Density Sensor Standard Output		0	0	0 to 614
624	Density Sensor Analog Voltage		0	0	0 to 614
625	Print - Fuser Temperature Side (Plain) (12" / 11" / A3)	1°C	160	145	120 to 180
626	Print - Fuser Temperature Side (Tracing) (12" / 11" / A3)	1°C	160	150	120 to 180
627	Print - Fuser Temperature Side (Film) (12" / 11" / A3)	1°C	177	170	120 to 180
628	Print - Fuser Temperature Side (Special / Plain) (12" / 11" / A3)	1°C	160	160	120 to 180
629	Print - Fuser Temperature Side (Special / Tracing) (12" / 11" / A3)	1°C	160	160	120 to 180
630	Print - Fuser Temperature Side (Special media / Film) (12" / 11" / A3)	1°C	177	170	120 to 180
631	Print - Fuser Temperature Side (Plain) (18" / 17" / 15" / A2)	1°C	160	165	120 to 180
632	Print - Fuser Temperature Side (Tracing) (18" / 17" / 15" / A2)	1°C 1°C	160	170	120 to 180
633	Print - Fuser Temperature Side (Film) (18" / 17" / 15" / A2) Print - Fuser Temperature Side	1°C	177 160	170	120 to 180
634	(Special / Plain) (18" / 17" / 15" / A2) Print - Fuser Temperature Side	1°C	160	160	120 to 180
000	(Special / Tracing) (18" / 17" / 15" / A2)	100	477	470	100 1- 100
637	(Special / Film) (18" / 17" / 15" / A2) Print - Fuser Temperature Side	1°C	160	165	120 to 180
638	(Plain) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	160	170	120 to 180
639	(Tracing) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	177	170	120 to 180
640	(Film) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	160	160	120 to 180
641	(Special / Plain) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	160	160	120 to 180
642	(Special / Tracing) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	177	170	120 to 180
643	(Specia / Film) (24" / 22" / A1) Print - Fuser Temperature Side	1°C	160	165	120 to 180
644	(Plain) (36" / 34" / 30" / A0 / B1) Print - Fuser Temperature Side	1°C	160	170	120 to 180
645	(Tracing) (36" / 34" / 30" / A0 / B1) Print - Fuser Temperature Side	1°C	177	170	120 to 180
646	(Film) (36" / 34" / 30" / A0 / B1) Print - Fuser Temperature Side	1°C	160	160	120 to 180
647	(Special / Plain) (36" / 34" / 30" / A0 / B1) Print - Fuser Temperature Side	1°C	160	160	120 to 180
648	(Special / Tracing) (36" / 34" / 30" / A0 / B1) Print - Fuser Temperature Side	1°C	177	177	120 to 180
649	(Special / Film) (36" / 34" / 30" / A0 / B1) Density Sensor Output Monitor		1	1	0 to 4

8-48 K124sm8e4

Item	Setting Item	Unit	Default		Setting	
No.			Value		range	
			USA	EUR / AS		
650	Regulation Bias Increment forAuto Adjustment Level 2 and 3	0.5V	80	80	0 to 200	
651	Total Increment of Regulation Bias Adjustment	0.5V	0	0	0 to 800	
652	Density Compensation On/Off	-	1	1	0 to 1	
653	Minimum Density		135	135	110 to 150	
654 655	Regulation Bias Maximum Density Measure Interval at power on	1 hour	500 18	500	160 to 800 1 to 100	
656	Density Measure Interval at power on Density Measure Interval at Print Completion	1 hour	18	18	1 to 100	
657	Developer Bias Increment for Auto Adjustment Level 1 and after		158	158	0 to 400	
658	Reserved			1		
659	Reserved	400	100	100	1001 100	
660 661	Ready - Fuser Temperature Center (Plain) Ready - Fuser Temperature Center (Tracing)	1°C 1°C	160 160	160 170	120 to 180 120 to 180	
662	Ready - Fuser Temperature Center (Film)	1°C	177	177	120 to 180	
663	Ready - Fuser Temperature Center (Special / Plain)	1°C	160	160	120 to 180	
664	Ready - Fuser Temperature Center (Special / Tracing)	1°C	160	160	120 to 180	
665	Ready - Fuser Temperature Center (Special / Film)	1°C	177	170	120 to 180	
666	Ready - Fuser Temperature Side (Plain)	1°C	159	159	120 to 180	
667 668	Ready - Fuser Temperature Side (Tracing) Ready - Fuser Temperature Side (Film)	1°C 1°C	159 177	180 170	120 to 180 120 to 180	
669	Ready - Fuser Temperature Side (Film) Ready - Fuser Temperature Side (Special / Plain)	1°C	159	159	120 to 180	
670	Ready - Fuser Temperature Side (Special / Tracing)	1°C	159	159	120 to 180	
671	Ready - Fuser Temperature Side (Special / Film)	1°C	177	170	120 to 180	
672	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Plain)		50	50	0 to 80	
673	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Tracing)		57	60	0 to 80	
674	Fuser Motor Speed (18" / 17" / 12" / 11" / A2 / A3) (Film)		50	50	0 to 80	
675	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special / Plain)		40	40	0 to 80	
676	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special / Tracing)		40	40	0 to 80	
677	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special / Film)		40	40	0 to 80	
678	Fuser Motor 4th Speed (Roll) (Plain Paper / A3, 12" & 11")	0.04mm/s	34	37	0 to 80	
679	Switch Timing to Fuser Motor 4th Speed (Roll) (Plain Paper / A3, 12" & 11")	0.5 seconds	6	8	0 to 300	
680	Fuser Motor 4th Speed (Roll) (Tracing / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
681	Switch Timing to Fuser Motor 4th Speed (Roll) (Tracing / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
682	Fuser Motor 4th Speed (Roll) (Film / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
683	Switch Timing to Fuser Motor 4th Speed (Roll) (Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
684	Fuser Motor 4th Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
685	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Plain Paper / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
686	Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
687	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
688	Fuser Motor 4th Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.04mm/s	40	40	0 to 80	
689	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Film / A3, 12" & 11")	0.5 seconds	0	0	0 to 300	
690	Fuser Motor 4th Speed (Roll) (Plain Paper / A2, 18" & 17")	0.04mm/s	37	40	0 to 80	
691	Switch Timing to Fuser Motor 4th Speed (Roll) (Plain Paper / A2, 18" & 17")	0.5 seconds	10	0	0 to 300	
692	Fuser Motor 4th Speed (Roll) (Tracing / A2, 18" & 17")	0.04mm/s	40	40	0 to 80	
693	Switch Timing to Fuser Motor 4th Speed (Roll) (Tracing / A2, 18" & 17")	0.5 seconds	0	0	0 to 300	
694	Fuser Motor 4th Speed (Roll) (Film / A2, 18" & 17")	0.04mm/s	40	40	0 to 80	
695	Switch Timing to Fuser Motor 4th Speed (Roll) (Film / A2, 18" & 17")	0.5 seconds	0	0	0 to 300	

8-49 K124sm8e4

Item	Setting Item	Unit	Default		Setting	
No.			Value USA EUR		range	
	Fuera Makes 4th Coased (D. III)			/ AS		
696	Fuser Motor 4th Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.04mm/s	40	40	0 to 80	
697	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Plain Paper / A2, 18" & 17")	0.5 seconds	0	0	0 to 300	
698	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
699	(Special Media / Tracing / A2, 18" & 17") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
700	(Special Media / Tracing / A2, 18" & 17") Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
	(Special Media / Film / A2, 18" & 17")			:		
701	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Film / A2, 18" & 17")	0.5 seconds	0	0	0 to 300	
702	Fuser Motor 4th Speed (Roll) (Plain Paper / A1, 24" & 22")	0.04mm/s	35	36	0 to 80	
703	Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	16	16	0 to 300	
704	(Plain Paper / A1, 24" & 22") Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
	(Tracing / A1, 24" & 22")			! !		
705	Switch Timing to Fuser Motor 4th Speed (Roll) (Tracing / A1, 24" & 22")	0.5 seconds	0	0	0 to 300	
706	Fuser Motor 4th Speed (Roll) (Film / A1 24" & 22")	0.04mm/s	40	40	0 to 80	
707	(Film / A1, 24" & 22") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
708	(Film / A1, 24" & 22") Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
709	(Special Media / Plain Paper / A1, 24" & 22") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
	(Special Media / Plain Paper / A1, 24" & 22")			<u> </u>		
710	Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A1, 24" & 22")	0.04mm/s	40	40	0 to 80	
711	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A1, 24" & 22")	0.5 seconds	0	0	0 to 300	
712	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
713	(Special Media / Film / A1, 24" & 22") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
714	(Special Media / Film / A1, 24" & 22") Fuser Motor 4th Speed (Roll)	0.04mm/s	30	30	0 to 80	
715	(Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	20	20	0 to 300	
	(Plain Paper / A0, 36" & 34")			<u> </u>		
716	Fuser Motor 4th Speed (Roll) (Tracing / A0, 36" & 34")	0.04mm/s	34	40	0 to 80	
717	Switch Timing to Fuser Motor 4th Speed (Roll) (Tracing / A0, 36" & 34")	0.5 seconds	20	0	0 to 300	
718	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
719	(Film / A0, 36" & 34") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
720	(Film / A0, 36" & 34") Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
704	(Special Media / Plain Paper / A0, 36" & 34") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
721	(Special Media / Plain Paper / A0, 36" & 34")			!		
722	Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.04mm/s	40	40	0 to 80	
723	Switch Timing to Fuser Motor 4th Speed (Roll) (Special Media / Tracing / A0, 36" & 34")	0.5 seconds	0	0	0 to 300	
724	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
725	(Special Media / Film / A0, 36" & 34") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
726	(Special Media / Film / A0, 36" & 34") Fuser Motor 4th Speed (Roll)	0.04mm/s	36	30	0 to 80	
	(Plain Paper / 30")			<u> </u>		
727	Switch Timing to Fuser Motor 4th Speed (Roll) (Plain Paper / 30")	0.5 seconds	20	20	0 to 300	
728	Fuser Motor 4th Speed (Roll) (Tracing / 30")	0.04mm/s	34	40	0 to 80	
729	Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	20	0	0 to 300	
730	(Tracing / 30") Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
731	(Film / 30") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
.) !	(Film / 30")	0.0 30001103	J		0 10 000	

8-50 K124sm8e4

Item	Setting Item	Unit	Default		Setting	
No.			Value		range	
			USA	EUR		
				/ AS		
732	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
	(Special Media / Plain Paper / 30")			<u> </u>		
733	Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
70.4	(Special Media / Plain Paper / 30")	0.04/-	4.0	40	0.400	
734	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
735	(Special Media / Tracing / 30") Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
733	(Special Media / Tracing / 30")	0.5 Seconds	U		0 10 300	
736	Fuser Motor 4th Speed (Roll)	0.04mm/s	40	40	0 to 80	
700	(Special Media / Film / 30")	0.0411111/	-10		0 10 00	
737	Switch Timing to Fuser Motor 4th Speed (Roll)	0.5 seconds	0	0	0 to 300	
	(Special Media / Film / 30")					
738	Standby - Fuser Temperature Center	1°C	167	167	120 to 180	
739	Standby - Fuser Temperature Side	1°C	155	155	120 to 180	
740	Assist Fan Off Timing (18" / 17" / 15" / A2)		8	4	0 to 8	
741	Assist Fan Off Timing (24" / 22" / A1)		8	4	0 to 8	
742	Assist Fan Off Timing (36" / 34" / 30" / A0 / B1)		8	6	0 to 8	
743	Fuser Motor Speed applied at 100mm from trailing edge		0	0	0 to 80	
	(36" / 34" / 30" / A0 / B1) (Plain)			į		
744	Fuser Motor Speed applied at 100mm from trailing edge		0	0	0 to 80	
	(36" / 34" / 30" / A0 / B1) (Tracing)				0.4.00	
745	Fuser Motor Speed applied at 100mm from trailing edge		0	0	0 to 80	
746	(36" / 34" / 30" / A0 / B1) (Film) Roll 2 Forward Standby		0	0	0 to 1	
740	Roll 2 Forward Standby Roll 2 Forward Standby Position Adjustment	mm	0	0	0 to 50	
747	Roll 2 Rewind Timer	mm minute	15	15	1 to 15	
749	Tracing Mode	Hilliate	0	0	0 to 1	
750	Roll 1 Setting Mode		0	0	0 to 1	
751	Disable HV Error Detection Mode		0	0	0 to 1	
752	(Reserved)				0 10 1	
753	Auto Initial Cut After Long Print (Length)	100mm	10	10	10 to 60	
754	Auto Initial Cut After Long Print (Number of sheet)		0	0	0 to 3	
755	Length for Forced Initial Cut Before Print	mm	594	594	210 to 600	
756	Leading Registration for Paper Tray	mm		i		
757	Trailing Margin for Paper Tray	mm		1		
758	Side Registration for Paper Tray	mm		i		

8-51 K124sm8e4

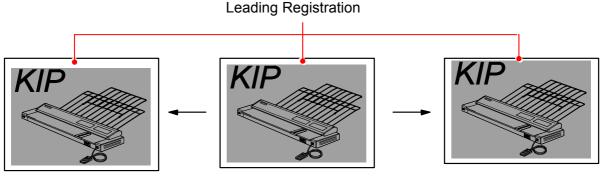
8. 6. 3 Setting Item Explanation

Item No. starts with "4". For example, KIP Service Software shows 4000, this section shows "No.000".

8. 6. 3. 1 Leading Registration (No. 000 & 001)

It is possible to specify where to start printing the image at the leading edge of the media. If you increase the setting value by "+1 ", the head of image is shifted 1mm downward toward the trailing edge As a result the leading margin becomes larger.

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
000	Leading Registration (Roll paper)	19	19	1 to 40	1mm
001	Leading Registration (Cut sheet paper)	19	19	1 to 40	1mm



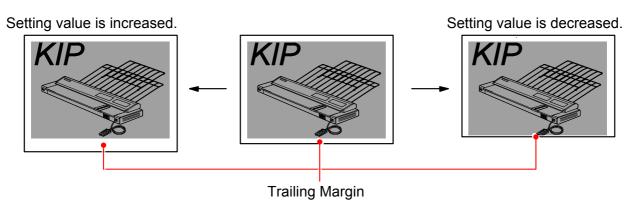
value is increased.

8. 6. 3. 2 Trailing Margin (No. 002 & 003)

It is possible to adjust the length of trailing margin.

The length of trailing margin becomes 1mm longer if you Increase the setting value by "+1".

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
002	Trailing Margin (Roll paper)	9	9	1 to 40	1mm
003	Trailing Margin (Cut sheet paper)	10	10	1 to 40	1mm





Some trailing image may be lost if you decrease the value too much.

8-52 K124sm8e5

value is decreased.

8. 6. 3. 3 Side Margin (Left & Right) (No. 004)

It is possible to adjust the amount of side margin. (Both left and right) Each side margin becomes 1mm wider if you increase the setting value. (As a result the width of print image becomes 2mm narrower.)

Default value		Setting range	Step of increment
USA EUR	R/ASIA		
3	3	0 to 20	1mm

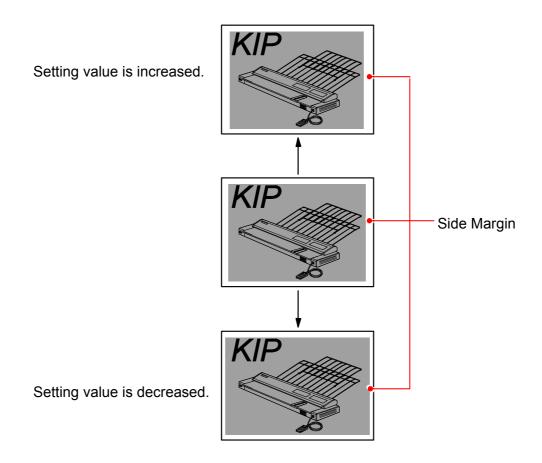




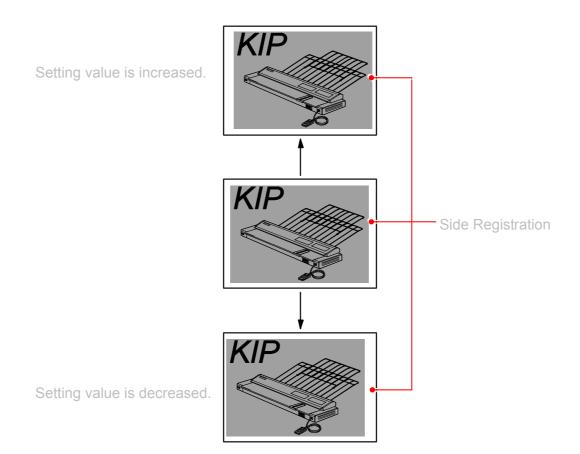
Image quality created with a reduced side margin (less than 3 in the setting value) is not guaranteed.

8-53 K124sm8e5

8. 6. 3. 4 Side Registration (No. 005 to 007)

It is possible to specify where to start printing the image at the side edge of the media. If you increase the setting value by "+1", image is shifted 0.1mm to the right.

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
005	Side Registration (Cutsheet)	50	50	0 to 100	0.1mm
006	Side Registration (Roll 1)	50	50	0 to 100	0.1mm
007	Side Registration (Roll 2)	50	50	0 to 100	0.1mm



8-54 K124sm8e5

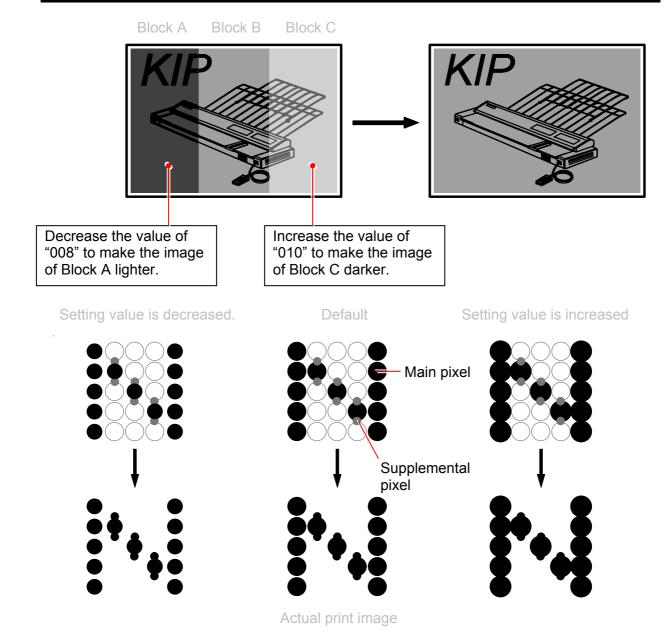
8. 6. 3. 5 LED Strobe Time for Main Pixel of each Block (No.008 to 010)

It is possible to make the whole image of each Image Block (A, B and C) darker or lighter independently by changing the LED Strobe Time for the Main Pixels.

As a result an even image density can be accomplished among 3 Image Blocks.

The whole image of the concerning Image Block becomes darker if you increase the setting value.

Item No.	o. Setting Item Default value		Default value		Step of
		USA	EUR/ASIA	range	increment
008	LED Strobe Time for Main Pixel (Image Block A : Left)	6	6	0 to 9	1 micro second
009	LED Strobe Time for Main Pixel (Image Block B : Center)	6	6	0 to 9	1 micro second
010	LED Strobe Time for Main Pixel (Image Block C : Right)	6	6	0 to 9	1 micro second



For the detail information about "Main Pixel" and "Supplemental Pixel", see the reference column in [8.6.3.6 LED Strobe Time for IST (Supplemental Pixel)].

8-55 K124sm8e5

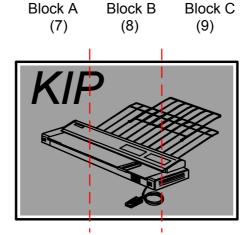


(1) The LED Strobe Times specified in these 008, 009 and 010 are directly applied to the Test Print.

If the setting values are 7 (for 008), 8 (for 009) and 9 (for 010), for example, the actual LED Strobe Times are also 7 (for block A), 8 (for block B) and 9 (for block C).

In case of Test Print

008: 7 microseconds 009: 8 microseconds 010: 9 microseconds



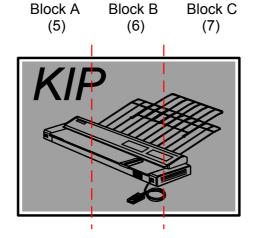
But in case of a copy or a plot, the density command (LED Strobe Time) sent from the output device (image scanner or controller) is applied to the Image Block A. And only the difference of setting values among 008, 009 and 010 are applied to the actual LED Strobe Time.

If the density command from the output device is 5 microsecond and the setting values are 7 (for 008), 8 (for 009) and 9 (for 010), for example, the actual LED Strobe Times are 5 (for block A), 6 (for block B) and 7 (for block C).

In case of copy or plot

Density command from output device: 5 microseconds

008: 7 microseconds 009: 8 microseconds 010: 9 microseconds



(2) If the value of density command (LED Strobe Time) sent from the output device is larger than "9 microsecond" (Max.), it is automatically corrected to "9 microsecond". If it is smaller than "0 microsecond" (Min.), it is corrected to "0 microsecond" similarly.

8-56 K124sm8e5

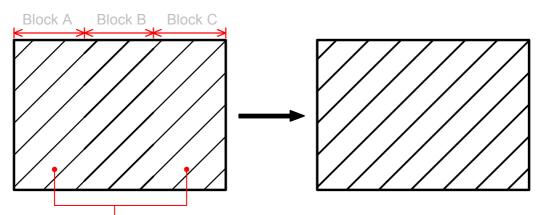
8. 6. 3. 6 LED Strobe Time for IST (Supplemental Pixel) of each Block (No.011 to 013)

If such image as a diagonal line looks too weak, you can make it clearer by changing the LED Strobe Time for the Supplemental Pixels.

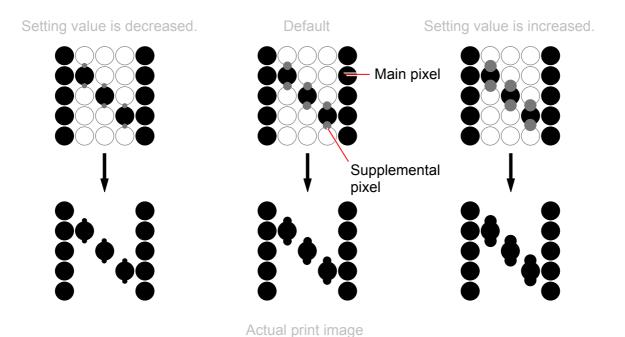
The adjustment is available for each Image Block independently.

A diagonal line comes to look clearer if you increase the setting value, as the LED Strobe Time for the Supplemental Pixels becomes longer.

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
011	LED Strobe Time for Supplemental Pixel (Image Block A : Left)	0	0	0 to 9	1 micro second
012	LED Strobe Time for Supplemental Pixel (Image Block B : Center)	0	0	0 to 9	1 micro second
013	LED Strobe Time for Supplemental Pixel (Image Block C : Right)	0	0	0 to 9	1 micro second



Increase the setting values of "011" and "013" to make the images of these blocks clearer.

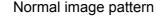


For the detail information about "Main Pixel" and "Supplemental Pixel", see the reference column on the next page.

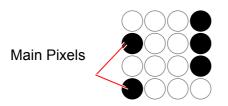
8-57 K124sm8e5

Reference

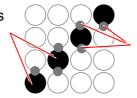
Normally the KIP 7100 takes 600 times of image exposure per inch for the vertical direction as its resolution is 600DPI. Pixels created by this normal timing are called [Main Pixel]. When a specific image pattern (like a diagonal line) is printed, however, the KIP 7100 will make additional image exposure between vertically neighboring 2 Main Pixels. This additional image exposure is completed within a very short time. The pixel created by this additional process is called [Supplemental Pixel].



In case of a certain image pattern



Main Pixels



Supplemental Pixels

Direction of

K124sm8e5

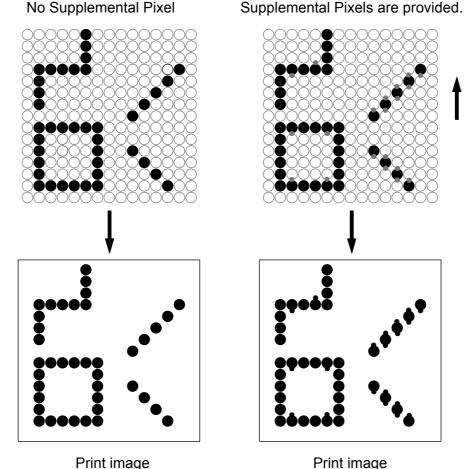
print

Supplemental Pixels are provided so as to fill the space between Main Pixels.

When we compare a vertical / horizontal 1 dot line and a diagonal 1 dot line, for example, the diagonal one looks vague and rough although the vertical / horizontal one looks clear and smooth.

This is because the diagonal line has a wider space between Main Pixels than the vertical / horizontal one.

If this space is filled with the Supplemental Pixel, diagonal line comes to look smoother and clearer.



(Diagonal line looks vague and rough.)

8-58

(Diagonal Line looks clear and smooth)

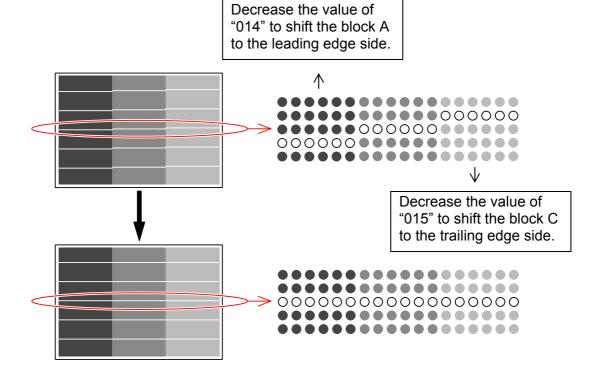
8. 6. 3. 7 Vertical Alignment of Pixels between Image Blocks (No.014 & 015)

It is possible to align the pixels between Image Blocks if there is a gap of pixels.

The Image Block B is the standard, and both the Image Blocks A and C can be shifted vertically. If you increase the setting value by "+1", the whole pixels of the concerning Image Block is shifted "1 line (pixel)" to the trailing edge side.

These can be used if a horizontal line has a step at the border of the Blocks.

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
	Horizontal Alignment of Pixels between Image Blocks A & B	8	8	2 to 14	1 pixel
	Horizontal Alignment of Pixels between Image Blocks B & C	8	8	2 to 14	1 pixel



8-59 K124sm8e5

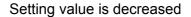
8. 6. 3. 8 Cut Length 1 (length information provided) (No.016)

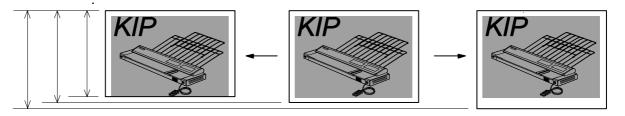
It is possible to make the print length longer or shorter.

This setting is applied when the print command (plot & copy) is provided with the length information. **(this is command used on all standard pages printed from the IPS)** If you increase the setting value by "+1", the print length becomes 1mm longer.

Default value		Setting range	Step of increment	
USA	EUR/ASIA			
50	50	0 to 100	1mm	

Setting value is increased.





Cut length

8. 6. 3. 9 Cut Length 2 (length information not provided) (No.017)

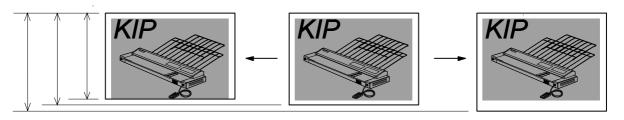
It is possible to make the print length longer or shorter.

This setting is applied when the print command (plot & copy) is not provided with the length information. (This is may only be used on LONG prints over 6 meters on the IPS) If you increase the setting value by "+1", the print length becomes 1mm longer.

Default value	Setting range	Step of increment
USA EUR/ASIA		
50 50	0 to 100	1mm

Setting value is increased.

Setting value is decreased



Cut length

8-60 K124sm8e6

Cut Length 3 (Compensation of the length of a long print) 8. 6. 3.10 (No.018)

When you make a long print, the actual print length may become shorter than expected because the paper is likely to shrink. It is possible in this mode to compensate the print length manually.

The length of long print is not compensated directly, but it is indirectly compensated by correcting the length of A1 print.

If you increase the setting value by "+1", the length of A1 print becomes 0.1mm longer per 10mm.

Default value	Setting range	Step of increment
USA EUR/ASIA		
475 475	0 to 999	0.1mm

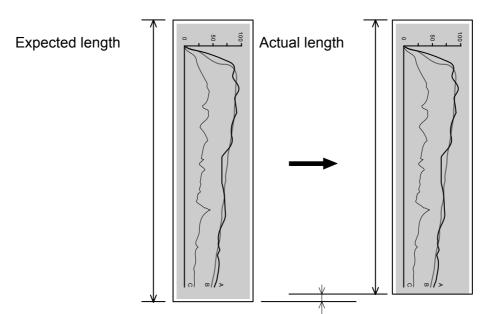


⚠ NOTE

It is necessary to finish the adjustment of Cut Length 1 (No.016) before starting the adjustment in this Cut Length 3 (No.018).

[Example of adjustment]

1. Supposing the actual length of a long print is shorter than expected.



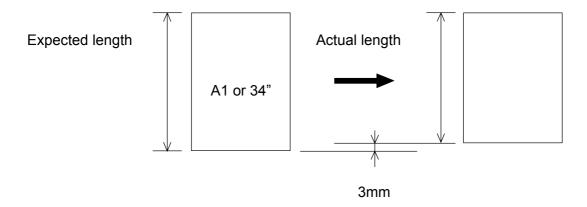
Actual length is shorter than expected.

K124sm8e6 8-61

2. Make an A1 (841mm long) or 34" long print.

Measure the actual length of this A1 or 34" print to know how long millimeter it is shorter than expected.

(Example: Print out is 838mm, so it is 3mm shorter than expected.)



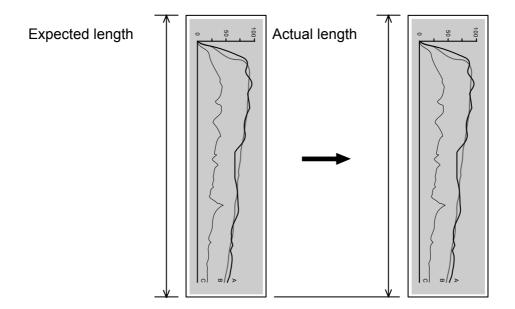
3. Necessary value for the compensation is 10 times as long as the difference between actual length and expected length.

It is "30" in this example. (3mm x 10 = 30)

Specify "30" as the setting value of No.018.

4. Make a long print.

The actual print out will be as long as expected.



8-62 K124sm8e6

8. 6. 3.11 Leading Margin (No. 019)

It is possible to adjust the length of the leading margin.

An image portion that corresponds to the given length of the leading margin is not printed.

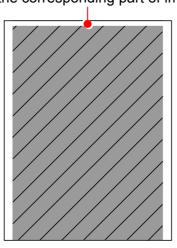
The length of the leading margin becomes 0.1mm longer if you Increase the setting value by "+1".

Changing the value to "0" removes whole the margin, thus a portion image on the leading edge will appear.

Default Value	Setting Range	Step of increment
30	0 to 50	0.1mm

Default: 30

A 3mm Leading Margin added to leading edge. Hides the corresponding part of image.



Example: 0

Leading Margin disappears.

Corresponding part of image printed.



A

NOTE

There is no guarantee of proper operation and image quality with a reduced leading margin (less than 30 in the setting value).

Reference)

Setting to "0" may result in a jam in Fuser Unit and a ghost image at approximately 252mm from the leading edge.

8-63 K124sm8e6

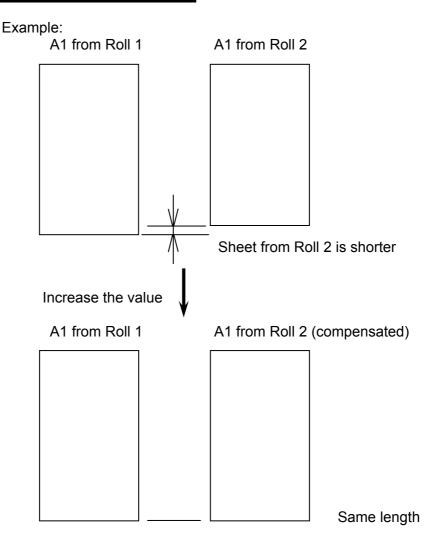
8. 6. 3.12 Cut Length 4 (Individual Compensation for Roll 2) (No.020)

It is possible to compensate the print length of Roll 2 individually. This setting would be used if a different cut length is provided to Roll 1 and Roll 2.

Measure the length gap between a piece of A1 size sheet from each Roll 1 and 2.

If you increase the setting value by "+1", the print length of Roll 2 becomes 0.16mm longer.

Default Value	Setting Range	Step of increment
50	0 to 100	0.16mm



A NOTE

It is necessary to finish the adjustment of Cut Length 1 (No.016) before starting the adjustment in this Cut Length 3 (No.018).

8-64 K124sm8e6

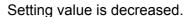
8. 6. 3.13 **Developer Bias (No.022 to 027)**

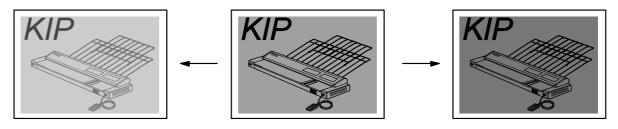
It is possible to make the print density darker or lighter by adjusting the Developer Bias (Negative Developer Roller Bias).

The print density becomes lighter if you increase the setting value.

Item No.	Setting Item	Default v	alue	Setting	Step of
		USA	EUR/ASIA	range	increment
022	Developer Bias (Plain paper)	161	161	0 to 4FF	1
023	Developer Bias (Tracing paper)	161	161	0 to 4FF	1
024	Developer Bias (Film)	161	161	0 to 4FF	1
025	Developer Bias	161	161	0 to 4FF	1
	(Special media / Plain paper)		!		
026	Developer Bias	161	161	0 to 4FF	1
	(Special media / Tracing paper)				
027	Developer Bias (Special media / Film)	161	161	0 to 4FF	1

Setting value is increased.







A NOTE

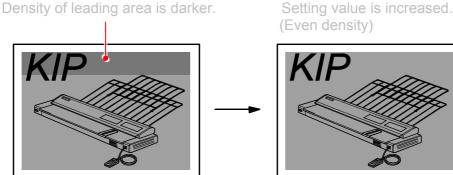
Please adjust the Developer Bias while checking the actual voltage with the multi-meter.

8. 6. 3.14 Developer Bias compensation - 1st Drum revolution (No.028)

It is possible to compensate the Developer Bias only for the 1st Drum revolution. The print density becomes lighter if you increase the setting value. (Developer Bias is not compensated at all if the setting value is "0")

Default	value	Setting range	Step of increment
USA	EUR/ASIA		
0	0	0 to 255	1







A NOTE

There may be the case that the density of leading area, which corresponds to the 1st revolution of Drum, is darker than other area.

In this case compensate the Developer Bias to have even density on both areas.

K124sm8e6 8-65

8. 6. 3.15 Transfer Voltage (No.029 to 034)

It is possible to adjust the analog voltage outputted to the Transfer Corona during the print cycle.

Item No.	Setting Item		value	Setting	Step of
		USA	EUR/ASIA	range	increment
029	Transfer Corona Analog Voltage (Plain paper)	366	366	0 to 4FF	1
030	Transfer Corona Analog Voltage (Tracing paper)	28A	28A	0 to 4FF	1
031	Transfer Corona Analog Voltage (Film)	28A	28A	0 to 4FF	1
032	Transfer Corona Analog Voltage	292	292	0 to 4FF	1
	(Special media / Plain paper)		į		
033	Transfer Corona Analog Voltage	292	292	0 to 4FF	1
	(Special media / Tracing paper)		1		
034	Transfer Corona Analog Voltage	292	292	0 to 4FF	1
	(Special media / Film)				



Please adjust Transfer Corona Analog Voltage while checking the actual voltage with the multi-meter.

8. 6. 3.16 Separation Corona ON Timing (No.035)

It is possible to adjust the timing that the Separation Corona starts discharging during the print cycle.

If you increase the setting value by "+1", the timing to start discharging is 1mm delayed.

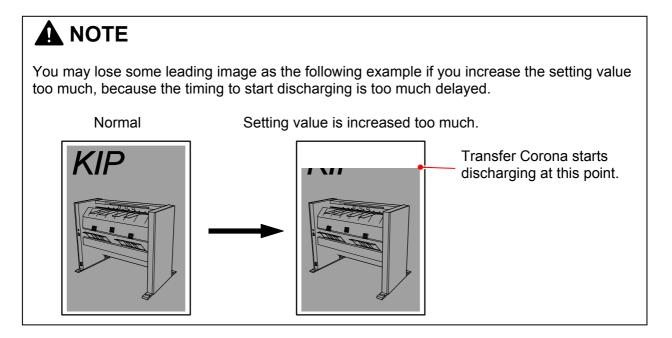
Default	value	Setting range	Step of increment
USA	EUR/ASIA		
50	50	0 to 100	1mm

8-66 K124sm8e6

8. 6. 3.17 Transfer Corona ON Timing (No.037)

It is possible to adjust the timing that the Transfer Corona starts discharging during the print cycle. If you increase the setting value by "+1", the timing to start discharging is 1mm delayed.

Default value		Setting range	Step of increment
USA	EUR/ASIA		
48	48	0 to 100	1mm

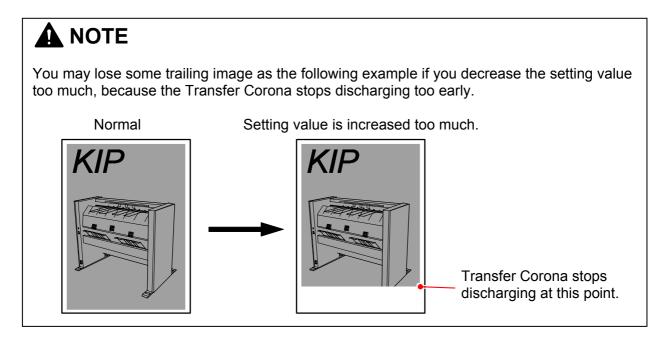


8-67 K124sm8e6

8. 6. 3.18 Transfer Corona OFF Timing (No.038)

It is possible to adjust the timing that the Transfer Corona stops discharging during the print cycle. If you increase the setting value by "+1", the timing to stop discharging is 1mm delayed.

Default value		Setting range	Step of increment
USA	EUR/ASIA		
20	20	0 to 100	1mm



8-68 K124sm8e6

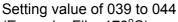
8. 6. 3.19 Print - Fuser Temperature Center (No.039 to 044)

It is possible to adjust the center part of Fuser Temperature in a print cycle.

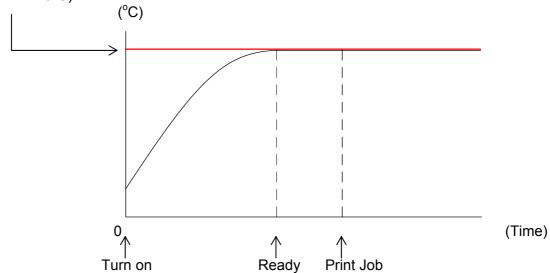
You can specify the temperature for each type of media separately.

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default v	alue	Setting	Step of
		USA	EUR/ASIA	range	increment
039	Print - Fuser Temperature Center	160	165	120 to 180	1°C
	(Plain paper)		<u> </u>		
040	Print - Fuser Temperature Center	160	170	120 to 180	1°C
	(Tracing paper)		!		
041	Print - Fuser Temperature Center	177	170	120 to 180	1°C
	(Film)				
042	Print - Fuser Temperature Center	160	160	120 to 180	1°C
	(Special media / Plain paper)				
043	Print - Fuser Temperature Center	160	160	120 to 180	1°C
	(Special media / Tracing paper)				
044	Print - Fuser Temperature Center	177	177	120 to 180	1°C
	(Special media / Film)				







Reference

- (1) The both sides part of Fuser Temperature will be controlled by Print Fuser Temperature Side (No. 625 to 648) separately.
- (2) Item List of Fuser Temperature Control (center / side)

	Fuser Center	Fuser Sides	
Print	No.039 to 044	No.625 to 648	
(for printing period)			
Ready	No.660 to 665	No.666 to 671	
(target temperature to get "Ready")			
Standby	No.738	No.739	
(during "standby")			
Warm Sleep	No.046 (common to both Center / Side)		

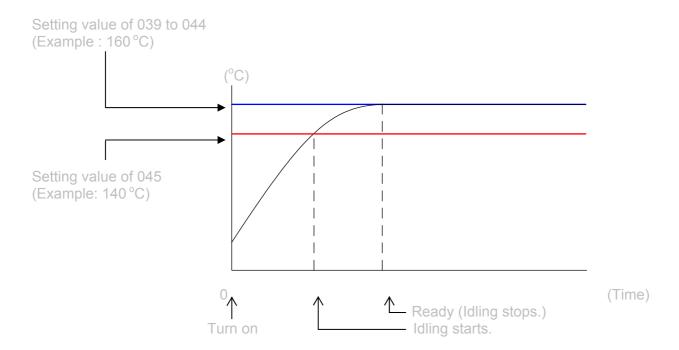
8-69 K124sm8e6

8. 6. 3.20 Fuser Temperature to start idling (No.045)

It is possible to decide the temperature to start idling.

When the Fuser Temperature reaches the value specified in this No.045 during the warming up, the Fuser Motor starts rotating to drive the Fuser Roller (idling).

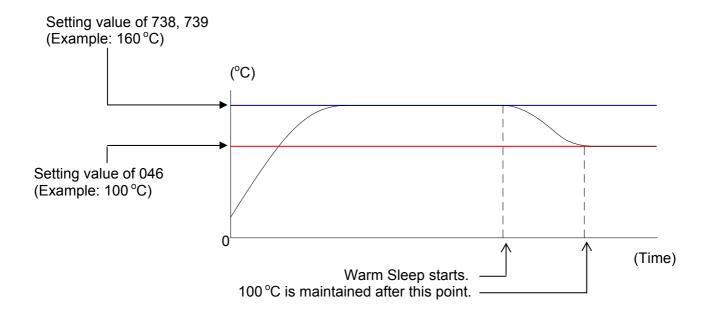
Default v	alue	Setting range	Step of increment
USA	EUR/ASIA		
120	120	100 to 140	1°C



8. 6. 3.21 Warm Sleep - Fuser Temperature (No.046)

It is possible to decide the temperature which is maintained in the Warm Sleep.

Default value		Setting range	Step of increment
USA	EUR/ASIA		
100	100	100 to 160	1°C



8-70 K124sm8e6

8. 6. 3.22 Fuser Temperature Control Range (No.048 & 049)

It is possible to specify the control range of temperature of Fuser Roller.

If you specify some setting value "X" on these No.048 and 049, for example, you can decide the highest limit and the lowest one of the control range of temperature.

The highest limit is "Fuser Temperature (Decided in No.039 to 044)" plus the setting value "X". And the lowest one is "Fuser Temperature" minus "X".

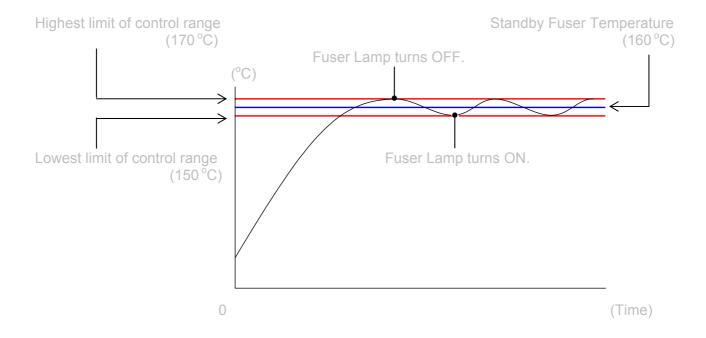
The Fuser Lamp continues to light up when the temperature of Fuser Roller is colder than the highest limit, and it is put out when the temperature reaches the highest limit.

The Fuser Roller gradually gets colder after that, and the Fuser Lamp lights again when the temperature reaches the lowest limit.

Control range can be decided separately to each condition "in the print cycle" and "stand by".

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
048	Fuser Temperature Control Range (In the print cycle)	1	1	1 to 6	1°C
049	Fuser Temperature Control Range (Stand by)	2	2	1 to 6	1°C

Example: Value of No.048 (Fuser Temperature Control Range) is "10" Value of No.739 Standby - Fuser Temperature Side) is "160"



8-71 K124sm8e6

8. 6. 3.23 Reaction Time of Toner Supply Motor (No.050)

It is possible to change the reaction time of Toner Supply Motor.

"Reaction time" is the time taken until the Toner Supply Motor starts working since "Toner Low" has been detected.

The reaction time becomes 1 second longer if you increase the setting value by "+1".

Default value USA EUR/ASIA	Setting range	Step of increment		
15 15	1 to 30	1 second		
Toner Low	Motor star	ts working	Motor stops	
▼	•	7	▼	
\leftarrow				(T
Setting val	ue of No.050			



A NOTE

The reaction time may be too long if the image gets lighter and lighter when you make large volume prints continuously.

In this case try to decrease the setting value of No.050 to shorten the reaction time.

8. 6. 3.24 Toner Supply Motor ON Time (No.051)

It is possible change the time the Toner Supply Motor works (ON time). The ON time becomes 1 second longer if you increase the setting value.

Default valu		Setting range	Step of increment		
JSA EU 10	R/ASIA 10	1 to 15	1 second		
-	Toner Lo	ow Mo	tor starts working	Motor stops	
	▼		▼	•	
			K	\rightarrow	
					(Tin



A NOTE

The ON time may be too short if the image gets lighter and lighter when you make large volume prints continuously.

In this case try to increase the setting value of No.051 to make the ON time longer.

K124sm8e6 8-72

8. 6. 3.25 Dot Enhancement Level (Dither) (No.052)

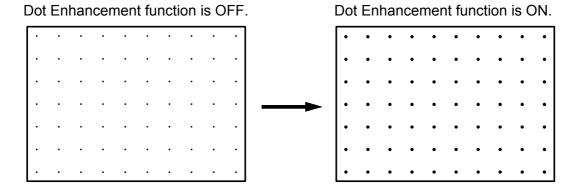
It is possible to validate the Dot Enhancement function which makes an isolated dot look clearer. An isolated dot image is more emphasized if you increase the setting value.

Setting value	Contents
1	Emphasized
(Default in USA, EUR & ASIA)	
2	More emphasized
3	Most emphasized

Reference

(1) An isolated dot image tends to look so weak.

The Dot Enhancement function emphasizes the isolated dot so that it looks clear. (Dot Enhancement function emphasizes only the isolated dot. It will not emphasize the dots coming together some degree.)



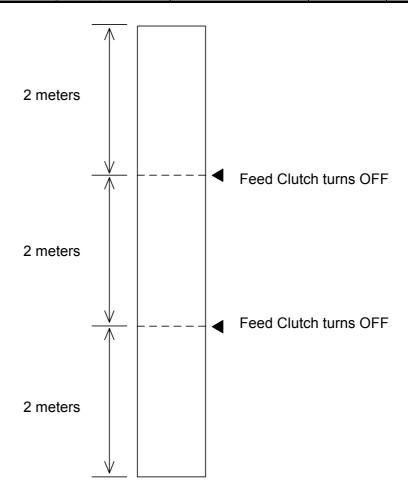
(2) The Dot Enhancement function can be validated in the User Mode. It will not work if not validated.

8-73 K124sm8e6

8. 6. 3.26 Feed Clutch OFF time (No.053, 054)

The Feed Clutch turns OFF for a very short period whenever the machine transports the paper 2 meters long, so as to remove the paper slack in a long printing. It is possible to specify how long period the Feed Clutch continues to be OFF.

Item No.	Setting Item	Default v	/alue	Setting	Step of
		USA	EUR/ASIA	range	increment
053	Feed Clutch Off Timing (Roll 1)	230	230	80 to 360	1msec.
054	Feed Clutch Off Timing (Roll 2)	230	230	80 to 360	1msec.



8-74 K124sm8e6

8. 6. 3.27 Metric or Inch (No.055)

It is possible to decide the base format of the print.

Setting value	Contents
0	Metric
(Default in EUR & ASIA)	
1	Inch
(Default in USA)	



No.055 is effective only to the size format selection available in the UI screen. This does not effect to the count unit.

8. 6. 3.28 Language (No.056)



This setting does not function. Keep the value unchanged.

8. 6. 3.29 Interface Communication Setting (No.057)

It is possible to specify the communication of Interface.

Setting value	Contents	
0	Both the A Channel and the B Channel are used alternately. Interface Board communicates with both the image scanner (through A Channel) and the controller (through B Channel) alternately.	
1	The A Channel only is used. Interface Board communicates with image scanner through the A Channel.	
2 (Default in USA, EUR & ASIA)	The B Channel only is used. Interface Board communicates with controller through the B Channel.	

8. 6. 3.30 Recognition of Paper Tray (No.058)

It is possible to make the machine recognize Paper Tray (multiple cut sheet feeder, option) if it is installed.

Setting value	Contents
0	Paper Tray not installed.
(Default in USA, EUR & ASIA)	
1	Paper Tray installed.

8. 6. 3.31 Counter Value (No.059)

It is possible to specify the counting unit of Counter.

Setting value	Contents
0	1 linear meter
1	0.1 linear meter
2	1 square meter
(Default in EUR & ASIA)	
3	0.1 square meter
4	1 linear foot
5	1 square foot
(Default in USA)	
6	Size Count



Size Count:

A4/A3: 1 count A2: 2 counts A1: 3 counts A0: 5 counts

K124sm8e6 8-75

8. 6. 3.32 Maximum Length (No.060)

It is possible to specify the maximum cut length.

Setting value	Contents
0 (Default in USA, EUR & ASIA)	Maximum cut length is 6.0m.
1	Maximum cut length is 200m.

A NOTE

We will not guarantee the print quality if the print is longer than the following sizes.

A0 / 36" plain paper 6.0m Other sizes of plain paper 5 times as long as each standard size Tracing paper Twice as long as each standard size Film Standard sizes

8. 6. 3.33 Stacking Device setting (No.061)

It is possible to make the KIP 7100 recognize the optional device (stacker or folder) if connected.

Setting value	Contents
0 (Default in USA, EUR & ASIA)	Optional device is not connected.
1	Auto Stacker

8. 6. 3.34 Operation of Fuser Roller (No.062)

It is possible to decide whether or not the Fuser Roller should rotate periodically in the stand by

Setting value	Contents
0	Fuser Roller rotates periodically in the stand by condition.
(Default in USA, EUR & ASIA)	
1	Fuser Roller does not rotate at all in the stand by condition.

Reference

Fuser Roller periodically rotates and stops when the machine is ready, so as to equalize the temperature at every point of Fuser Roller. If you feel it is so noisy, select the setting value "1".

In this case please note that the fusing quality may not be so good because the temperature of Fuser Roller is not equalized.

> K124sm8e6 8-76

8. 6. 3.35 Cut Length 5 & 6 (Length Compensation for Tracing Paper / Film)(No.063, 064)

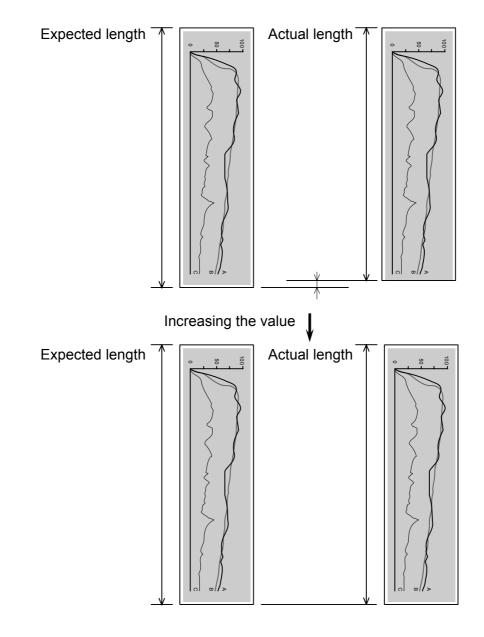
It is possible to compensate the print length for the tracing paper and film. If you increase the setting value by "+1", the length of the print becomes longer.

Item No.	Setting Item	Default value		Setting	Step of
		USA	EUR/ASIA	range	increment
063	Cut Length 5 (Tracing Paper)	100	100	0 to 200	depends on paper length
064	Cut Length 6 (Film)	100	86	0 to 200	depends on paper length

An amount of the length to be added / removed against "1" increment of the setting value will vary depending on the length of the media length to be printed.

[&]quot;1" increment will correspond to the length listed below to be compensated.

paper length	length to be added / removed (Approx.)
A0 (1189mm)	0.16mm
A1 (841mm)	0.11mm
A2 (594mm)	0.08mm
A3 (420mm)	0.05mm
A4 (297mm)	0.04mm



8-77 K124sm8e6

8. 6. 3.36 Drum Reverse Time (No.065)

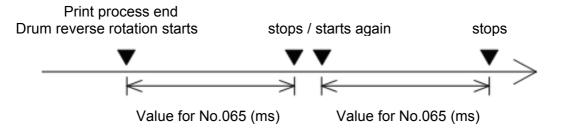
It is possible to change the period for the Drum reverse rotation.

Developer Roller is strongly pressed to the Drum and that may cause an indentation on Developer Roller's surface. The indentation may result in defective imaging.

The Drum makes a reverse rotation in a given period twice after finishing a job.

Setting a bigger value for No.065 makes the reverse rotation period longer.

Default value		Setting range	Step of increment
USA EUR/ASIA			
30	30	10 to 70	1 millisecond



Reference

- (1) Drum reverse rotations may produce a slight amount of toner sticking on Drum's surface. This causes a black line about 50mm below the leading edge on a print. Setting a smaller value will reduce such a line.
- (2) Setting an extremely small value may cause an indentation on Developer Roller.

8. 6. 3. 37 Fuser Motor Reverse Setting (No.066)

It is possible to make a decision to allow reverse operation of Fuser Motor at the time of Drum Reverse.

Setting value	Contents
0 (default)	Fuser Motor does not make a reverse operation at all
1	Fuser Motor makes a reverse operation in conjunction with Drum Reverse.

8-78 K124sm8e6

8. 6. 3.38 Operation of Separation Lamp (No.067)

There may be the case that some type of printing paper has a difficulty in paper separation. In this case it is possible to assist paper separation by lighting the Separation Lamp. It is possible in this No.067 to decide to which type of paper the Separation Lamp should light. Selectable values are from 1 to 7

Setting value	Contents
1	Separation Lamp lights for plain paper.
2	Separation Lamp lights for tracing paper.
3	Separation Lamp lights for plain paper and tracing paper.
4	Separation Lamp lights for film.
5	Separation Lamp lights for plain paper and film.
(Default in USA, EUR & ASIA)	
6	Separation Lamp lights for tracing paper and film.
7	Separation Lamp lights for all kinds of paper.

Reference

Sometimes you can avoid "defect of transfer (light image)" by making the Separation Lamp work.

So if you feel the print image is too light, try to make it work.

You may be able to fix the problem.

8-79 K124sm8e6

8. 6. 3.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd, 4th Speed. It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
070	Fuser Motor 1st Speed (Roll / Plain paper / A3, 12" & 11")	34	39	0 to 80	0.04mm/s
071	Switch Timing to Fuser Motor 1st Speed	1	1	0 to 300	0.5 sec
	(Roll / Plain paper / A3, 12" & 11")		i		
072	Fuser Motor 2nd Speed (Roll / Plain paper / A3, 12" & 11")	35	42	0 to 80	0.04mm/s
073	Switch Timing to Fuser Motor 2nd Speed	1	1	0 to 300	0.5 sec
	(Roll / Plain paper / A3, 12" & 11")		1		
074	Fuser Motor 3rd Speed (Roll / Plain paper / A3, 12" & 11")	50	48	0 to 80	0.04mm/s
075	Switch Timing to Fuser Motor 3rd Speed	5	5	0 to 300	0.5 sec
	(Roll / Plain paper / A3, 12" & 11")				
678	Fuser Motor 4th Speed (Roll / Plain paper / A3, 12" & 11")	34	37	0 to 80	0.04mm/s
679	Switch Timing to Fuser Motor 4th Speed	6	8	0 to 300	0.5 sec
	(Roll / Plain paper / A3, 12" & 11")		; !		

Please refer to the next page for further information.



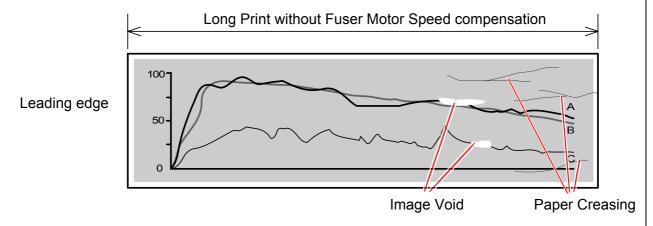
NOTE

- (1) Fuser Motor Speed is factory-adjusted based on an individual machine, and the result is written in the service sheet. Be sure to confirm the service sheet in case of a setting change on Fuser Motor Speed.
- (2) Fuser Motor Speed should be changed with visual check. Remove the right cover and see inside of the machine to check the feeding balance (media not to be pulled too much / without slack, etc).

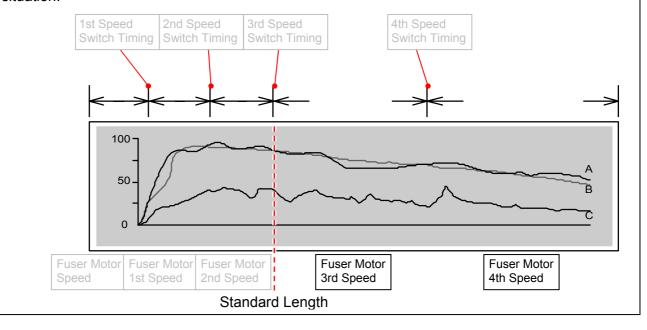
8-80 K124sm8e7

Reference

"Paper creasing" or "image void" on a long print may be removed by Fuser Motor Speed compensation.



Fuser Motor Speed, Fuser Motor 1/2/3/4 Speed correspond to the area shown as follows. To remove "paper creasing" or "image void", adjust Fuser Motor **3rd/4th** Speed according to the situation.



A

NOTE

(1) When "Switching Timing" is set to 0, the subsequent Fuser Motor Speed settings are not applied.

4th Speed is not used when Fuser Motor 4th Speed Switch Timing is set to "0". 3rd/4th Speed is not used when Fuser Motor 3rd Speed Switch Timing is set to "0".

(2) Fuser Motor 3rd/4th Speed are factory-adjusted for the following media width as follows.

	3rd Speed	4th Speed
plain	all width	all width
tracing/vellum	all width	A0/36"/34"/30" less than above: not used
film	not used	not used
cutsheet (except film)	factory-adjusted	not used

"not used" means that the previous Switch Timing is set to "0" because the corresponding print area exceeds the guaranteed length.

8-81 K124sm8e7

This page explains Fuser Motor Speed Compensation on A3/12"/11" width for example.

You can specify the Fuser Motor 1st Speed, 2nd, 3rd and 4th in each Item No.070, 072, 074, 678. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster. (The default setting value "40" corresponds to 80mm/second.)

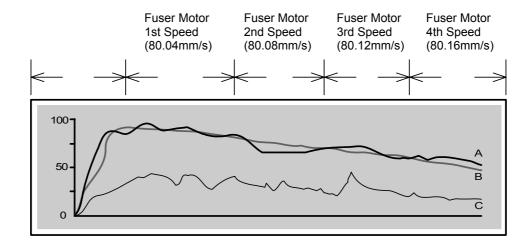
(Example)

Setting value of 070 is "41" —> Fuser Motor 1st Speed is 80.04mm/sec.

Setting value of 072 is "42" —> Fuser Motor 2nd Speed is 80.08mm/sec.

Setting value of 074 is "43" —> Fuser Motor 3rd Speed is 80.12mm/sec.

Setting value of 678 is "44" —> Fuser Motor 4th Speed is 80.16mm/sec.



You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.071, 073, 075, 679.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed. (If you specify "0", the Fuser Motor Speed does not change.)

(Example)

Setting value of 071 is "8"

Fuser Motor 1st Speed starts 4 seconds after the Registration Sensor detects the leading edge.

Setting value of 073 is "16"

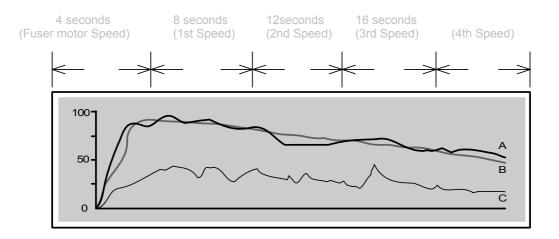
Fuser Motor 2nd Speed starts 8 seconds after the start of Fuser Motor 1st Speed.

Setting value of 075 is "24"

Fuser Motor 3rd Speed starts 12 seconds after the start of Fuser Motor 2nd Speed.

Setting value of 678 is "32"

Fuser Motor 4th Speed starts 16 seconds after the start of Fuser Motor 3rd Speed.



8-82 K124sm8e7

8. 6. 3.40 Compensation of Fuser Motor Speed for roll paper (Tracing paper / A3, 12" & 11") (No.076 to 081, 680, 681)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
076	Fuser Motor 1st Speed (Roll / Tracing / A3, 12" & 11")	33	36	0 to 80	0.04mm/s
077	Switch Timing to Fuser Motor 1st Speed (Roll / Tracing / A3, 12" & 11")	1	1	0 to 300	0.5 sec
078	Fuser Motor 2nd Speed (Roll / Tracing / A3, 12" & 11")	39	44	0 to 80	0.04mm/s
079	Switch Timing to Fuser Motor 2nd Speed (Roll / Tracing / A3, 12" & 11")	1	3	0 to 300	0.5 sec
080	Fuser Motor 3rd Speed (Roll / Tracing / A3, 12" & 11")	44	44	0 to 80	0.04mm/s
081	Switch Timing to Fuser Motor 3rd Speed (Roll / Tracing / A3, 12" & 11")	5	5	0 to 300	0.5 sec
680	Fuser Motor 4th Speed (Roll / Tracing / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
681	Switch Timing to Fuser Motor 4th Speed (Roll / Tracing / A3, 12" & 11")	0	0	0 to 300	0.5 sec

You can specify Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.076, 078, 080, 680. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.077, 079, 081, 681.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-83 K124sm8e7

8. 6. 3.41 Compensation of Fuser Motor Speed for roll paper (Film / A3, 12" & 11") (No.082 to 087, 682, 683)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
082	Fuser Motor 1st Speed (Roll / Film / A3, 12" & 11")	50	50	0 to 80	0.04mm/s
083	Switch Timing to Fuser Motor 1st Speed (Roll / Film / A3, 12" & 11")	2	2	0 to 300	0.5 sec
	Fuser Motor 2nd Speed (Roll / Film / A3, 12" & 11")	50	50	0 to 80	0.04mm/s
085	Switch Timing to Fuser Motor 2nd Speed (Roll / Film / A3, 12" & 11")	4	4	0 to 300	0.5 sec
086	Fuser Motor 3rd Speed (Roll / Film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
087	Switch Timing to Fuser Motor 4th Speed (Roll / Film / A3, 12" & 11")	0	0	0 to 300	0.5 sec
682	Fuser Motor 4th Speed (Roll / Film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
683	Switch Timing to Fuser Motor 4th Speed (Roll / Film / A3, 12" & 11")	0	040	0 to 300	0.5 sec

You can specify Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.082, 084, 086, 682. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.083, 085, 087, 683.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-84 K124sm8e7

8. 6. 3.42 Compensation of Fuser Motor Speed for roll paper (Special plain paper / A3, 12" & 11") (No.088 to 093, 684, 685)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
088	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A3, 12" & 11")		1 1 1		
089	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A3, 12" & 11")		1		
090	Fuser Motor 2nd Speed Setting	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A3, 12" & 11")		<u> </u>		
091	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A3, 12" & 11")		<u> </u>		
092	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A3, 12" & 11")		¦ !		
093	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A3, 12" & 11")		!		
684	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A3, 12" & 11")		; 		
685	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A3, 12" & 11")		1		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.088, 090, 092, 684. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.089, 091, 093, 685.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-85 K124sm8e7

8. 6. 3.43 Compensation of Fuser Motor Speed for roll paper (Special tracing paper / A3, 12" & 11") (No.094 to 099)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
094	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll/ Special Media / Tracing / A3, 12" & 11")		1 1 1		
095	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll/ Special Media / Tracing / A3, 12" & 11")		i 1		
096	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll/ Special Media / Tracing / A3, 12" & 11")		:		
097	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll/ Special Media / Tracing / A3, 12" & 11")		<u>i</u>		
098	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll/ Special Media / Tracing / A3, 12" & 11")		<u> </u>		
099	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll/ Special Media / Tracing / A3, 12" & 11")		i I		
686	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll/ Special Media / Tracing / A3, 12" & 11")		 		
687	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll/ Special Media / Tracing / A3, 12" & 11")		i !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.094, 096, 098, 686. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.095, 097, 099, 687.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-86 K124sm8e7

8. 6. 3.44 Compensation of Fuser Motor Speed for roll paper (Special film / A3, 12" & 11") (No.100 to 105, 688, 689)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A3, 12" and 11" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
100	Fuser Motor 1st Speed (Roll / Special film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
101	Switch Timing to Fuser Motor 1st Speed (Roll / Special film / A3, 12" & 11")	0	0	0 to 300	0.5 sec
102	Fuser Motor 2nd Speed (Roll / Special film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
103	Switch Timing to Fuser Motor 2nd Speed (Roll / Special film / A3, 12" & 11")	0	0	0 to 300	0.5 sec
104	Fuser Motor 3rd Speed (Roll / Special film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
105	Switch Timing to Fuser Motor 3rd Speed (Roll / Special film / A3, 12" & 11")	0	0	0 to 300	0.5 sec
688	Fuser Motor 4th Speed (Roll / Special film / A3, 12" & 11")	40	40	0 to 80	0.04mm/s
689	Switch Timing to Fuser Motor 4th Speed (Roll / Special film / A3, 12" & 11")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.100, 102, 104, 688. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.101, 103, 105, 689.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-87 K124sm8e7

8. 6. 3.45 Compensation of Fuser Motor Speed for roll paper (Plain paper / A2, 18" & 17") (No.106 to 111, 690, 691)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A2, 18" and 17" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
106	Fuser Motor 1st Speed (Roll / Plain paper / A2, 18" & 17")	30	31	0 to 80	0.04mm/s
107	Switch Timing to Fuser Motor 1st Speed (Roll / Plain paper / A2, 18" & 17")	3	3	0 to 300	0.5 sec
108	Fuser Motor 2nd Speed (Roll / Plain paper / A2, 18" & 17")	32	36	0 to 80	0.04mm/s
109	Switch Timing to Fuser Motor 2nd Speed (Roll / Plain paper / A2, 18" & 17")	4	4	0 to 300	0.5 sec
110	Fuser Motor 3rd Speed (Roll / Plain paper / A2, 18" & 17")	31	38	0 to 80	0.04mm/s
111	Switch Timing to Fuser Motor 3rd Speed (Roll / Plain paper / A2, 18" & 17")	6	6	0 to 300	0.5 sec
690	Fuser Motor 4th Speed (Roll / Plain paper / A2, 18" & 17")	37	40	0 to 80	0.04mm/s
691	Switch Timing to Fuser Motor 4th Speed (Roll / Plain paper / A2, 18" & 17")	10	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.106, 108, 110, 690. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.107, 109, 111, 691.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-88 K124sm8e7

8. 6. 3.46 Compensation of Fuser Motor Speed for roll paper (Tracing paper / A2, 18" & 17") (No.112 to 117, 692, 693)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A2, 18" and 17" sizes by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
112	Fuser Motor 1st Speed (Roll / Tracing / A2, 18" & 17")	33	40	0 to 80	0.04mm/s
113	Switch Timing to Fuser Motor 1st Speed (Roll / Tracing / A2, 18" & 17")	3	1	0 to 300	0.5 sec
114	Fuser Motor 2nd Speed (Roll / Tracing / A2, 18" & 17")	38	44	0 to 80	0.04mm/s
115	Switch Timing to Fuser Motor 2nd Speed	3	5	0 to 300	0.5 sec
	(Roll / Tracing / A2, 18" & 17")				
116	Fuser Motor 3rd Speed (Roll / Tracing / A2, 18" & 17")	38	45	0 to 80	0.04mm/s
117	Switch Timing to Fuser Motor 3rd Speed (Roll / Tracing / A2, 18" & 17")	5	5	0 to 300	0.5 sec
	Fuser Motor 4th Speed (Roll / Tracing / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
693	Switch Timing to Fuser Motor 4th Speed (Roll / Tracing / A2, 18" & 17")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.112, 114, 116, 692. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.113, 115, 117, 693.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-89 K124sm8e7

8. 6. 3.47 Compensation of Fuser Motor Speed for roll paper (Film / A2, 18" & 17") (No.118 to 123, 694, 695)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A2, 18" and 17" sizes by roll paper feeding.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
118	Fuser Motor 1st Speed (Roll / Film / A2, 18" & 17")	50	50	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 1st Speed (Roll / Film / A2, 18" & 17")	2	2	0 to 300	0.5 sec
120	Fuser Motor 2nd Speed (Roll / Film / A2, 18" & 17")	50	50	0 to 80	0.04mm/s
121	Switch Timing to Fuser Motor 2nd Speed (Roll / Film / A2, 18" & 17")	6	6	0 to 300	0.5 sec
122	Fuser Motor 3rd Speed (Roll / Film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
123	Switch Timing to Fuser Motor 3rd Speed (Roll / Film / A2, 18" & 17")	0	0	0 to 300	0.5 sec
694	Fuser Motor 4th Speed (Roll / Film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
695	Switch Timing to Fuser Motor 4th Speed (Roll / Film / A2, 18" & 17")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.118, 120, 122, 694. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.119, 121, 123, 695.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-90 K124sm8e7

8. 6. 3.48 Compensation of Fuser Motor Speed for roll paper (Special plain paper / A2, 18" & 17") (No.124 to 129, 696, 697)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A2, 18" and 17" sizes by roll paper feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
124	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A2, 18" & 17")		1		
125	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A2, 18" & 17")		, 1 1		
126	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A2, 18" & 17")		1 1 1		
127	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A2, 18" & 17")		i i		
128	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A2, 18" & 17")		1		
129	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A2, 18" & 17")		i i		
696	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A2, 18" & 17")		1 1 1		
697	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A2, 18" & 17")		<u>i</u>		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.124, 126, 128, 696. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.125, 127, 129, 697.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-91 K124sm8e7

8. 6. 3.49 Compensation of Fuser Motor Speed for roll paper (Special tracing paper / A2, 18" & 17") (No.130 to 135, 698, 699)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A2, 18" and 17" size by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
130	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A2, 18" & 17")		1		
131	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A2, 18" & 17")		I I		
132	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A2, 18" & 17")		1		
133	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A2, 18" & 17")		į		
134	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A2, 18" & 17")		1		
135	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A2, 18" & 17")		i		
698	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A2, 18" & 17")		1		
699	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A2, 18" & 17")		i !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.130, 132, 134, 698. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.131, 133, 135, 699.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-92 K124sm8e7

8. 6. 3.50 Compensation of Fuser Motor Speed for roll paper (Special film / A2, 18" & 17") (No.136 to 141, 700, 701)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A2, 18" and 17" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
136	Fuser Motor 1st Speed (Roll / Special film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
137	Switch Timing to Fuser Motor 1st Speed (Roll / Special film / A2, 18" & 17")	0	0	0 to 300	0.5 sec
138	Fuser Motor 2nd Speed (Roll / Special film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
139	Switch Timing to Fuser Motor 2nd Speed (Roll / Special film / A2, 18" & 17")	0	0	0 to 300	0.5 sec
140	Fuser Motor 3rd Speed (Roll / Special film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
141	Switch Timing to Fuser Motor 3rd Speed (Roll / Special film / A2, 18" & 17")	0	0	0 to 300	0.5 sec
700	Fuser Motor 4th Speed (Roll / Special film / A2, 18" & 17")	40	40	0 to 80	0.04mm/s
701	Switch Timing to Fuser Motor 4th Speed (Roll / Special film / A2, 18" & 17")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.136, 138,140, 700. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.137, 139, 141, 701.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-93 K124sm8e7

8. 6. 3.51 Compensation of Fuser Motor Speed for roll paper (Plain paper / A1, 24" & 22") (No.142 to 147, 702, 703)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A1, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
142	Fuser Motor 1st Speed (Roll / Plain paper / A1, 24" & 22")	37	35	0 to 80	0.04mm/s
143	Switch Timing to Fuser Motor 1st Speed (Roll / Plain paper / A1, 24" & 22")	3	3	0 to 300	0.5 sec
144	Fuser Motor 2nd Speed (Roll / Plain paper / A1, 24" & 22")	30	33	0 to 80	0.04mm/s
145	Switch Timing to Fuser Motor 2nd Speed (Roll / Plain paper / A1, 24" & 22")	6	8	0 to 300	0.5 sec
146	Fuser Motor 3rd Speed (Roll / Plain paper / A1, 24" & 22")	40	41	0 to 80	0.04mm/s
147	Switch Timing to Fuser Motor 3rd Speed (Roll / Plain paper / A1, 24" & 22")	6	8	0 to 300	0.5 sec
702	Fuser Motor 4th Speed (Roll / Plain paper / A1, 24" & 22")	35	36	0 to 80	0.04mm/s
703	Switch Timing to Fuser Motor 4th Speed (Roll / Plain paper / A1, 24" & 22")	16	16	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.142, 144, 146, 702. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.143, 145, 147, 703.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-94 K124sm8e7

8. 6. 3.52 Compensation of Fuser Motor Speed for roll paper (Tracing paper / A1, 24" & 22") (No.148 to 153, 704, 705)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A1, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
148	Fuser Motor 1st Speed (Roll / Tracing / A1, 24" & 22")	36	42	0 to 80	0.04mm/s
149	Switch Timing to Fuser Motor 1st Speed	3	3	0 to 300	0.5 sec
150	(Roll / Tracing / A1, 24" & 22") Fuser Motor 2nd Speed (Roll / Tracing / A1, 24" & 22")	41	43	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 2nd Speed	9	9	0 to 300	0.5 sec
	(Roll / Tracing / A1, 24" & 22")		¦ -!		
152	Fuser Motor 3rd Speed (Roll / Tracing / A1, 24" & 22")	39	40	0 to 80	0.04mm/s
153	Switch Timing to Fuser Motor 3rd Speed	8	8	0 to 300	0.5 sec
	(Roll / Tracing / A1, 24" & 22")		1		
704	Fuser Motor 4th Speed (Roll / Tracing / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
705	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Tracing / A1, 24" & 22")		1		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.148, 150, 152, 704. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.149, 151, 153, 705.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-95 K124sm8e7

8. 6. 3.53 Compensation of Fuser Motor Speed for roll paper (Film / A1, 24" & 22") (No.154 to 159, 706, 707)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A1, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
154	Fuser Motor 1st Speed (Roll / Film / A1, 24" & 22")	42	42	0 to 80	0.04mm/s
155	Switch Timing to Fuser Motor 1st Speed (Roll / Film / A1, 24" & 22")	2	2	0 to 300	0.5 sec
156	Fuser Motor 2nd Speed (Roll / Film / A1, 24" & 22")	42	42	0 to 80	0.04mm/s
157	Switch Timing to Fuser Motor 2nd Speed (Roll / Film / A1, 24" & 22")	14	14	0 to 300	0.5 sec
158	Fuser Motor 3rd Speed (Roll / Film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
159	Switch Timing to Fuser Motor 3rd Speed (Roll / Film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
	Fuser Motor 4th Speed (Roll / Film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
707	Switch Timing to Fuser Motor 4th Speed (Roll / Film / A1, 24" & 22")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.154, 156, 158, 706. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.155, 157, 159, 707.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-96 K124sm8e7

8. 6. 3.54 Compensation of Fuser Motor Speed for roll paper (Special plain paper / A1, 24 & 22") (No.160 to 165, 708, 709)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A1, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
160	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A1, 24" & 22")		1		
161	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A1, 24" & 22")		i 1		
162	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A1, 24" & 22")		1 1 1		
163	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A1, 24" & 22")		i i		
164	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A1, 24" & 22")		<u> </u>		
165	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A1, 24" & 22")		1		
708	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A1, 24" & 22")		¦		
709	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A1, 24" & 22")		i !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.160, 162, 164, 708. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.161, 163, 165, 709.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-97 K124sm8e7

8. 6. 3.55 Compensation of Fuser Motor Speed for roll paper (Special tracing paper / A1, 24" & 22") (No.166 to 171, 710, 711)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A1, 24" and 22" size by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
166	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A1, 24" & 22")		1 1		
167	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A1, 24" & 22")		1		
168	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A1, 24" & 22")		1		
169	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A1, 24" & 22")		1		
170	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A1, 24" & 22")		1		
171	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A1, 24" & 22")		1		
710	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special tracing / A1, 24" & 22")		-		
	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special tracing / A1, 24" & 22")		i !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.166, 168, 170, 710. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.167, 169, 171, 711.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-98 K124sm8e7

8. 6. 3.56 Compensation of Fuser Motor Speed for roll paper (Special film / A1, 24" & 22") (No.172 to 177, 712, 713)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A1, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
172	Fuser Motor 1st Speed (Roll / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
173	Switch Timing to Fuser Motor 1st Speed (Roll / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
174	Fuser Motor 2nd Speed (Roll / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
175	Switch Timing to Fuser Motor 2nd Speed (Roll / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
176	Fuser Motor 3rd Speed (Roll / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
177	Switch Timing to Fuser Motor 3rd Speed (Roll / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
712	Fuser Motor 4th Speed (Roll / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
713	Switch Timing to Fuser Motor 4th Speed (Roll / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.172, 174, 176, 712. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.173, 175, 177, 713.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-99 K124sm8e7

8. 6. 3.57 Compensation of Fuser Motor Speed for roll paper (Plain paper / A0, 36" & 34") (No.178 to 183, 714, 715)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A0, 36" and 34" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
178	Fuser Motor 1st Speed (Roll / Plain paper / A0, 36" & 34")	26	26	0 to 80	0.04mm/s
179	Switch Timing to Fuser Motor 1st Speed (Roll / Plain paper / A0, 36" & 34")	4	3	0 to 300	0.5 sec
	Fuser Motor 2nd Speed (Roll / Plain paper / A0, 36" & 34")	27	27	0 to 80	0.04mm/s
181	Switch Timing to Fuser Motor 2nd Speed (Roll / Plain paper / A0, 36" & 34")	10	10	0 to 300	0.5 sec
182	Fuser Motor 3rd Speed (Roll / Plain paper / A0, 36" & 34")	33	37	0 to 80	0.04mm/s
183	Switch Timing to Fuser Motor 3rd Speed (Roll / Plain paper / A0, 36" & 34")	8	8	0 to 300	0.5 sec
714	Fuser Motor 4th Speed (Roll / Plain paper / A0, 36" & 34")	30	30	0 to 80	0.04mm/s
715	Switch Timing to Fuser Motor 4th Speed (Roll / Plain paper / A0, 36" & 34")	20	20	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.178, 180, 182, 714. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.179, 181, 183, 715.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-100 K124sm8e7

8. 6. 3.58 Compensation of Fuser Motor Speed for roll paper (Tracing paper / A0, 36" & 34") (No.184 to 189, 716, 717)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A0, 36" and 34" sizes by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
184	Fuser Motor 1st Speed (Roll / Tracing / A0, 36" & 34")	29	42	0 to 80	0.04mm/s
185	Switch Timing to Fuser Motor 1st Speed (Roll / Tracing / A0, 36" & 34")	3	3	0 to 300	0.5 sec
186	Fuser Motor 2nd Speed (Roll / Tracing / A0, 36" & 34")	35	38	0 to 80	0.04mm/s
187	Switch Timing to Fuser Motor 2nd Speed (Roll / Tracing / A0, 36" & 34")	13	13	0 to 300	0.5 sec
188	Fuser Motor 3rd Speed (Roll / Tracing / A0, 36" & 34")	36	39	0 to 80	0.04mm/s
189	Switch Timing to Fuser Motor 3rd Speed (Roll / Tracing / A0, 36" & 34")	8	8	0 to 300	0.5 sec
	Fuser Motor 4th Speed (Roll / Tracing / A0, 36" & 34")	34	40	0 to 80	0.04mm/s
717	Switch Timing to Fuser Motor 4th Speed (Roll / Tracing / A0, 36" & 34")	20	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.184, 186, 188, 716. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.185, 187, 189, 717.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-101 K124sm8e7

8. 6. 3.59 Compensation of Fuser Motor Speed for roll paper (Film / A0, 36" & 34") (No.190 to 195, 718, 719)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A0, 36" and 34" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
190	Fuser Motor 1st Speed (Roll / Film / A0, 36" & 34")	35	38	0 to 80	0.04mm/s
191	Switch Timing to Fuser Motor 1st Speed (Roll / Film / A0, 36" & 34")	2	2	0 to 300	0.5 sec
192	Fuser Motor 2nd Speed (Roll / Film / A0, 36" & 34")	40	43	0 to 80	0.04mm/s
193	Switch Timing to Fuser Motor 2nd Speed (Roll / Film / A0, 36" & 34")	18	18	0 to 300	0.5 sec
	Fuser Motor 3rd Speed (Roll / Film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
195	Switch Timing to Fuser Motor 3rd Speed (Roll / Film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
718	Fuser Motor 4th Speed (Roll / Film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 4th Speed (Roll / Film / A0, 36" & 34")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.190, 192, 194, 718. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.191, 193, 195, 719.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-102 K124sm8e7

8. 6. 3.60 Compensation of Fuser Motor Speed for roll paper (Special plain paper / A0, 36 & 34") (No.196 to 201, 720, 721)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A0, 36" and 34" sizes by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
196	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A0, 36" & 34")		1 1		
197	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A0, 36" & 34")		i i		
198	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A0, 36" & 34")		1		
199	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A0, 36" & 34")		i 1		
200	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A0, 36" & 34")		1		
201	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A0, 36" & 34")		i 1		
720	Fuser Motor 4th Speed	40	40	0 to 80	0.04mm/s
	(Roll / Special plain paper / A0, 36" & 34")		1		
721	Switch Timing to Fuser Motor 4th Speed	0	0	0 to 300	0.5 sec
	(Roll / Special plain paper / A0, 36" & 34")		i !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.196, 198, 200, 720. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.197, 199, 201, 721.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-103 K124sm8e7

8. 6. 3.61 Compensation of Fuser Motor Speed for roll paper (Special tracing paper / A0, 36" & 34") (No.202 to 207, 722, 723)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A0, 36" and 34" size by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
202	Fuser Motor 1st Speed (Roll / Special tracing / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
203	Switch Timing to Fuser Motor 1st Speed (Roll / Special tracing / A0, 36" & 34")	0	0	0 to 300	0.5 sec
204	Fuser Motor 2nd Speed (Roll / Special tracing / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
205	Switch Timing to Fuser Motor 2nd Speed (Roll / Special tracing / A0, 36" & 34")	0	0	0 to 300	0.5 sec
206	Fuser Motor 3rd Speed (Roll / Special tracing / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
207	Switch Timing to Fuser Motor 3 rd Speed (Roll / Special tracing / A0, 36" & 34")	0	0	0 to 300	0.5 sec
722	Fuser Motor 4th Speed (Roll / Special tracing / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
723	Switch Timing to Fuser Motor 4th Speed (Roll / Special tracing / A0, 36" & 34")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.202, 204, 206, 722. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.203, 205, 207, 723.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-104 K124sm8e7

8. 6. 3.62 Compensation of Fuser Motor Speed for roll paper (Special film / A0, 36" & 34") (No.208 to 213, 724, 725)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A0, 24" and 22" sizes by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
208	Fuser Motor 1st Speed (Roll / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
209	Switch Timing to Fuser Motor 1st Speed (Roll / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
210	Fuser Motor 2nd Speed (Roll / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
211	Switch Timing to Fuser Motor 2nd Speed (Roll / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
212	Fuser Motor 3rd Speed (Roll / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
213	Switch Timing to Fuser Motor 3rd Speed (Roll / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
724	Fuser Motor 4th Speed (Roll / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
725	Switch Timing to Fuser Motor 4th Speed (Roll / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.208, 210, 212, 724. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.209, 211, 213, 725.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-105 K124sm8e7

8. 6. 3.63 Main Motor Speed (No.310 to 315)

It is possible to adjust the speed of Main Motor for each type of paper separately. If you increase the setting value by "+1", the motor speed becomes 0.04mm/second faster.

Item	Setting Item	Default v	Default value		Step of
No.		USA	EUR/ASIA	range	increment
310	Main Motor Speed (Plain paper)	36	36	0 to 80	0.04mm/s
311	Main Motor Speed (Tracing paper)	40	40	0 to 80	0.04mm/s
312	Main Motor Speed (Film)	40	40	0 to 80	0.04mm/s
313	Main Motor Speed (Special plain paper)	40	40	0 to 80	0.04mm/s
314	Main Motor Speed (Special tracing paper)	40	40	0 to 80	0.04mm/s
315	Main Motor Speed (Special film)	40	40	0 to 80	0.04mm/s

A CAUTION

The Main Motor Speed is the basis for many other print settings. So you have to re-adjust all of these print settings if you change the Main Motor Speed.

8. 6. 3.64 Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (No.316 to 321)

It is possible to adjust the speed of Fuser Motor for each type of paper separately. If you increase the setting value by "+1", the motor speed becomes 0.04mm/second faster.

Item	em Setting Item		/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
316	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	31	35	0 to 80	0.04mm/s
	(Plain paper)		;		
317	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	39	50	0 to 80	0.04mm/s
	(Tracing paper)		1 1 1		
318	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	50	50	0 to 80	0.04mm/s
	(Film paper)		;		
319	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	40	40	0 to 80	0.04mm/s
	(Special plain paper)		! !		
320	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	40	40	0 to 80	0.04mm/s
	(Special tracing paper)		! !		
321	Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1)	40	40	0 to 80	0.04mm/s
	(Special film)		! !		

Refer to [8. 6. 3.119 Fuser Motor Speed] on page 8-134 for narrower originals than the above.

8. 6. 3.65 Separation Corona OFF Timing (No.322 to 327)

It is possible to adjust the timing that the Separation Corona stops discharging during the print cycle.

You can specify the timing for each type of paper separately.

If you increase the setting value by "+1", the timing to start discharging is 1mm delayed.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
322	Separation Corona OFF Timing (Plain paper)	25	25	0 to 100	1mm
323	Separation Corona OFF Timing (tracing paper)	25	25	0 to 100	1mm
324	Separation Corona OFF Timing (Film)	22	25	0 to 100	1mm
325	Separation Corona OFF Timing (Special plain paper)	18	18	0 to 100	1mm
326	Separation Corona OFF Timing (Special tracing paper)	18	18	0 to 100	1mm
327	Separation Corona OFF Timing (Special film)	23	23	0 to 100	1mm

K124sm8e7 8-106

8. 6. 3.66 Compensation of Fuser Motor Speed for cut sheet paper (Plain paper / A3, A2, 12", 11", 18" & 17") (No.328 to 333)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A2, 18" and 17" sizes by cut sheet bypass feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
328	Fuser Motor 1st Speed	30	31	0 to 80	0.04mm/s
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")		1		
329	Switch Timing to Fuser Motor 1st Speed	3	3	0 to 300	0.5 sec
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")		, 1 1		
330	Fuser Motor 2nd Speed	32	36	0 to 80	0.04mm/s
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")				
331	Switch Timing to Fuser Motor 2nd Speed	4	4	0 to 300	0.5 sec
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")		i I		
332	Fuser Motor 3rd Speed	31	38	0 to 80	0.04mm/s
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")		! !		
333	Switch Timing to Fuser Motor 3rd Speed	6	6	0 to 300	0.5 sec
	(Cut sheet / Plain paper / A3, A2, 12", 11", 18" & 17")		; !		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.328, 330 and 332. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.329, 331 and 333.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-107 K124sm8e7

8. 6. 3.67 Compensation of Fuser Motor Speed for cut sheet paper (Tracing paper / A3, A2, 12", 11", 18" & 17") (No.334 to 339)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A2, 18" and 17" sizes by cut sheet bypass feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
334	Fuser Motor 1st Speed	33	40	0 to 80	0.04mm/s
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")		1 1 1		
335	Switch Timing to Fuser Motor 1st Speed	2	1	0 to 300	0.5 sec
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")		; ! !		
336	Fuser Motor 2nd Speed	38	44	0 to 80	0.04mm/s
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")		! !		
337	Switch Timing to Fuser Motor 2nd Speed	3	5	0 to 300	0.5 sec
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")		! !		
338	Fuser Motor 3rd Speed	38	45	0 to 80	0.04mm/s
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")				
339	Switch Timing to Fuser Motor 3rd Speed	5	2	0 to 300	0.5 sec
	(Cut sheet / Tracing / A3, A2, 12", 11", 18" & 17")		1		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.334, 336 and 338. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.335, 337 and 339.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-108 K124sm8e7

8. 6. 3.68 Compensation of Fuser Motor Speed for cut sheet paper (Film / A3, A2, 12", 11", 18" & 17") (No.340 to 345)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A2, 18" and 17" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
340	Fuser Motor 1st Speed	50	50	0 to 80	0.04mm/s
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		1 1 1		
341	Switch Timing to Fuser Motor 1st Speed	2	6	0 to 300	0.5 sec
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		; !		
342	Fuser Motor 2nd Speed	50	40	0 to 80	0.04mm/s
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		! !		
343	Switch Timing to Fuser Motor 2nd Speed	6	0	0 to 300	0.5 sec
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		i I		
344	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		! !		
345	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Film / A3, A2, 12", 11", 18" & 17")		i		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.340, 342 and 344. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.341, 343 and 345.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-109 K124sm8e7

8. 6. 3.69 Compensation of Fuser Motor Speed for cut sheet paper (Special plain paper / A3, A2, 12", 11", 18" & 17") (No.346 to 351)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A2, 18" and 17" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	alue /	Setting	Step of
No.		USA	EUR/ASIA	range	increment
346	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		! !		
347	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		i !		
348	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		! ! !		
349	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		i !		
350	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		! !		
351	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A3, A2, 12", 11", 18" & 17")		!		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.346, 348 and 350. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.347, 349 and 351.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-110 K124sm8e7

8. 6. 3.70 Compensation of Fuser Motor Speed for cut sheet paper (Special tracing paper / A3, A2, 12", 11", 18" & 17") (No.352 to 357)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A2, 18" and 17" size by cut sheet bypass feeding.

Item	Setting Item	Default v	Default value		Step of
No.		USA	EUR/ASIA	range	increment
352	Fuser Motor 1st Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	40	40	0 to 80	0.04mm/s
353	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	0	0	0 to 300	0.5 sec
354	Fuser Motor 2nd Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	40	40	0 to 80	0.04mm/s
355	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	0	0	0 to 300	0.5 sec
356	Fuser Motor 3rd Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	40	40	0 to 80	0.04mm/s
357	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Special tracing / A3, A2, 12", 11", 18" & 17")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.352, 354 and 356. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.353, 355 and 357.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-111 K124sm8e7

8. 6. 3.71 Compensation of Fuser Motor Speed for cut sheet paper (Special film / A3, A2, 12", 11", 18" & 17") (No.358 to 363)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A2, 18" and 17" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
358	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")		1 1 1		
359	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")		! !		
360	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")				
361	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")		i !		
362	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")				
363	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special film / A3, A2, 12", 11", 18" & 17")		- -		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.358, 360 and 362. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.359, 361 and 363.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-112 K124sm8e7

8. 6. 3.72 Compensation of Fuser Motor Speed for cut sheet paper (Plain paper / A1, 24" & 22") (No.364 to 369)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A1, 24" and 22" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
364	Fuser Motor 1st Speed (Cut sheet / Plain paper / A1, 24" & 22")	37	35	0 to 80	0.04mm/s
365	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Plain paper / A1, 24" & 22")	3	3	0 to 300	0.5 sec
366	Fuser Motor 2nd Speed (Cut sheet / Plain paper / A1, 24" & 22")	30	33	0 to 80	0.04mm/s
367	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Plain paper / A1, 24" & 22")	6	8	0 to 300	0.5 sec
368	Fuser Motor 3rd Speed (Cut sheet / Plain paper / A1, 24" & 22")	40	41	0 to 80	0.04mm/s
369	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Plain paper / A1, 24" & 22")	6	8	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.364, 366 and 368. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.365, 367 and 369.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-113 K124sm8e7

8. 6. 3.73 Compensation of Fuser Motor Speed for cut sheet paper (Tracing paper / A1, 24" & 22") (No.370 to 375)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A1, 24" and 22" sizes by cut sheet bypass feeding.

Item	tem Setting Item		Default value		Step of
No.		USA	EUR/ASIA	range	increment
370	Fuser Motor 1st Speed (Cut sheet / Tracing / A1, 24" & 22")	36	42	0 to 80	0.04mm/s
371	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Tracing / A1, 24" & 22")	3	3	0 to 300	0.5 sec
372	Fuser Motor 2nd Speed (Cut sheet / Tracing / A1, 24" & 22")	41	43	0 to 80	0.04mm/s
373	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Tracing / A1, 24" & 22")	9	9	0 to 300	0.5 sec
374	Fuser Motor 3rd Speed (Cut sheet / Tracing / A1, 24" & 22")	39	40	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Tracing / A1, 24" & 22")	8	8	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.370, 372 and 374. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.371, 373 and 375.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-114 K124sm8e7

8. 6. 3.74 Compensation of Fuser Motor Speed for cut sheet paper (Film / A1, 24" & 22") (No.376 to 381)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A1, 24" and 22" sizes by cut sheet bypass feeding.

Item	Item Setting Item Defa		Default value		Step of
No.		USA	EUR/ASIA	range	increment
376	Fuser Motor 1st Speed (Cut sheet / Film / A1, 24" & 22")	42	42	0 to 80	0.04mm/s
377	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Film / A1, 24" & 22")	2	2	0 to 300	0.5 sec
378	Fuser Motor 2nd Speed (Cut sheet / Film / A1, 24" & 22")	42	42	0 to 80	0.04mm/s
379	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Film / A1, 24" & 22")	14	14	0 to 300	0.5 sec
380	Fuser Motor 3rd Speed (Cut sheet / Film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
381	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Film / A1, 24" & 22")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.376, 378 and 380. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.377, 379 and 381.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-115 K124sm8e7

8. 6. 3.75 Compensation of Fuser Motor Speed for cut sheet paper (Special plain paper / A1, 24" & 22") (No.382 to 387)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A1, 24" and 22" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
382	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A1, 24" & 22")		1 1 1		
383	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A1, 24" & 22")		I I		
384	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A1, 24" & 22")		1 1 1		
385	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A1, 24" & 22")		i 1		
386	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A1, 24" & 22")		! !		
387	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A1, 24" & 22")		 		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.382, 384 and 386. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.383, 385 and 387.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-116 K124sm8e7

8. 6. 3.76 Compensation of Fuser Motor Speed for cut sheet paper (Special tracing paper / A1, 24" & 22") (No.388 to 393)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A1, 24" and 22" size by cut sheet bypass feeding.

Item	Setting Item	Default \	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
388	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A1, 24" & 22")		1		
389	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A1, 24" & 22")		I		
390	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A1, 24" & 22")		1		
391	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A1, 24" & 22")		i I		
392	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A1, 24" & 22")				
393	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A1, 24" & 22")		i		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.388, 390 and 392. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.389, 391 and 393.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-117 K124sm8e7

8. 6. 3.77 Compensation of Fuser Motor Speed for cut sheet paper (Special film / A1, 24" & 22") (No.394 to 399)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A1, 24" and 22" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	Default value		Step of
No.		USA	EUR/ASIA	range	increment
394	Fuser Motor 1st Speed (Cut sheet / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
395	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
396	Fuser Motor 2nd Speed (Cut sheet / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
397	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec
398	Fuser Motor 3rd Speed (Cut sheet / Special film / A1, 24" & 22")	40	40	0 to 80	0.04mm/s
399	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Special film / A1, 24" & 22")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.394, 396 and 398. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.395, 397 and 399.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-118 K124sm8e7

8. 6. 3.78 Compensation of Fuser Motor Speed for cut sheet paper (Plain paper / A0, 36" & 34") (No.400 to 405)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of A0, 36" and 34" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
400	Fuser Motor 1st Speed (Cut sheet / Plain paper / A0, 36" & 34")	26	26	0 to 80	0.04mm/s
401	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Plain paper / A0, 36" & 34")	4	3	0 to 300	0.5 sec
402	Fuser Motor 2nd Speed (Cut sheet / Plain paper / A0, 36" & 34")	27	27	0 to 80	0.04mm/s
403	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Plain paper / A0, 36" & 34")	10	10	0 to 300	0.5 sec
404	Fuser Motor 3rd Speed (Cut sheet / Plain paper / A0, 36" & 34")	33	37	0 to 80	0.04mm/s
405	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Plain paper / A0, 36" & 34")	8	8	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.400, 402 and 404. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.401, 403 and 405.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-119 K124sm8e7

8. 6. 3.79 Compensation of Fuser Motor Speed for cut sheet paper (Tracing paper / A0, 36" & 34") (No.406 to 411)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of A0, 36" and 34" sizes by cut sheet bypass feeding.

Item	Setting Item Default value		/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
406	Fuser Motor 1st Speed (Cut sheet / Tracing / A0, 36" & 34")	29	42	0 to 80	0.04mm/s
407	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Tracing / A0, 36" & 34")	3	3	0 to 300	0.5 sec
408	Fuser Motor 2nd Speed (Cut sheet / Tracing / A0, 36" & 34")	35	38	0 to 80	0.04mm/s
409	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Tracing / A0, 36" & 34")	13	13	0 to 300	0.5 sec
410	Fuser Motor 3rd Speed (Cut sheet / Tracing / A0, 36" & 34")	36	39	0 to 80	0.04mm/s
411	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Tracing / A0, 36" & 34")	8	8	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.406, 408 and 410. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.407, 409 and 411.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-120 K124sm8e7

8. 6. 3.80 Compensation of Fuser Motor Speed for cut sheet paper (Film / A0, 36" & 34") (No.412 to 417)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of A0, 36" and 34" sizes by cut sheet bypass feeding.

Item	Setting Item	Default	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
	Fuser Motor 1st Speed (Cut sheet / Film / A0, 36" & 34")	35	38	0 to 80	0.04mm/s
413	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Film / A0, 36" & 34")	2	2	0 to 300	0.5 sec
414	Fuser Motor 2nd Speed (Cut sheet / Film / A0, 36" & 34")	42	43	0 to 80	0.04mm/s
415	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Film / A0, 36" & 34")	18	18	0 to 300	0.5 sec
416	Fuser Motor 3rd Speed (Cut sheet / Film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Film / A0, 36" & 34")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.412, 414 and 416. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.413, 415 and 417.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-121 K124sm8e7

8. 6. 3.81 Compensation of Fuser Motor Speed for cut sheet paper (Special plain paper / A0, 36 & 34") (No.418 to 423)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of A0, 36" and 34" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
418	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A0, 36" & 34")		1 1 1		
419	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A0, 36" & 34")		 		
420	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A0, 36" & 34")		1 1 1		
421	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A0, 36" & 34")		 -		
422	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special plain paper / A0, 36" & 34")		! ! !		
423	Switch Timing to Fuser Motor 3rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special plain paper / A0, 36" & 34")		 -		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.418, 420 and 422. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.419, 421 and 423.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-122 K124sm8e7

8. 6. 3.82 Compensation of Fuser Motor Speed for cut sheet paper (Special tracing paper / A0, 36" & 34") (No.424 to 429)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of A0, 36" and 34" size by cut sheet bypass feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
424	Fuser Motor 1st Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A0, 36" & 34")		1		
425	Switch Timing to Fuser Motor 1st Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A0, 36" & 34")		: !		
426	Fuser Motor 2nd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A0, 36" & 34")		1		
427	Switch Timing to Fuser Motor 2nd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A0, 36" & 34")		i I		
428	Fuser Motor 3rd Speed	40	40	0 to 80	0.04mm/s
	(Cut sheet / Special tracing / A0, 36" & 34")				
429	Switch Timing to Fuser Motor 3 rd Speed	0	0	0 to 300	0.5 sec
	(Cut sheet / Special tracing / A0, 36" & 34")		i		

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.424, 426 and 428. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.425, 427 and 429.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-123 K124sm8e7

8. 6. 3.83 Compensation of Fuser Motor Speed for cut sheet paper (Special film / A0, 36" & 34") (No.430 to 435)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of A0, 24" and 22" sizes by cut sheet bypass feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
430	Fuser Motor 1st Speed (Cut sheet / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
431	Switch Timing to Fuser Motor 1st Speed (Cut sheet / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
432	Fuser Motor 2nd Speed (Cut sheet / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
433	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec
434	Fuser Motor 3rd Speed (Cut sheet / Special film / A0, 36" & 34")	40	40	0 to 80	0.04mm/s
435	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / Special film / A0, 36" & 34")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.430, 432 and 434. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.431, 433 and 435.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-124 K124sm8e7

8. 6. 3.84 Compensation of Fuser Motor Speed for roll paper (Plain paper / 30") (No.436 to 441, 726, 727)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of 30" size by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
436	Fuser Motor 1st Speed (Roll / plain paper / 30")	28	28	0 to 80	0.04mm/s
437	Switch Timing to Fuser Motor 1st Speed (Roll / plain paper / 30")	5	5	0 to 300	0.5 sec
438	Fuser Motor 2nd Speed (Roll / plain paper / 30")	30	33	0 to 80	0.04mm/s
439	Switch Timing to Fuser Motor 2nd Speed (Roll / plain paper / 30")	9	9	0 to 300	0.5 sec
440	Fuser Motor 3rd Speed (Roll / plain paper / 30")	34	36	0 to 80	0.04mm/s
441	Switch Timing to Fuser Motor 3rd Speed (Roll / plain paper / 30")	7	7	0 to 300	0.5 sec
726	Fuser Motor 4th Speed (Roll / plain paper / 30")	36	30	0 to 80	0.04mm/s
727	Switch Timing to Fuser Motor 4th Speed (Roll / plain paper / 30")	20	20	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.436, 438, 440, 726. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.437, 439, 441, 727.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-125 K124sm8e7

8. 6. 3.85 Compensation of Fuser Motor Speed for roll paper (Tracing paper / 30") (No.442 to 447, 728, 729)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of 30" size by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
442	Fuser Motor 1st Speed (Roll / tracing / 30")	34	33	0 to 80	0.04mm/s
443	Switch Timing to Fuser Motor 1st Speed (Roll / tracing / 30")	4	4	0 to 300	0.5 sec
444	Fuser Motor 2nd Speed (Roll / tracing / 30")	38	44	0 to 80	0.04mm/s
445	Switch Timing to Fuser Motor 2nd Speed (Roll / tracing / 30")	11	11	0 to 300	0.5 sec
446	Fuser Motor 3rd Speed (Roll / tracing / 30")	40	41	0 to 80	0.04mm/s
447	Switch Timing to Fuser Motor 3rd Speed (Roll / tracing / 30")	8	8	0 to 300	0.5 sec
728	Fuser Motor 4th Speed (Roll / tracing / 30")	34	40	0 to 80	0.04mm/s
729	Switch Timing to Fuser Motor 4th Speed (Roll / tracing / 30")	20	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.442, 444, 446, 728. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.443, 445, 447, 729.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-126 K124sm8e7

8. 6. 3.86 Compensation of Fuser Motor Speed for roll paper (Film / 30") (No.448 to 453, 730, 731)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of 30" size by roll paper feeding.

Item	em Setting Item		Default value		Step of
No.		USA	EUR/ASIA	range	increment
448	Fuser Motor 1st Speed (Roll / film / 30")	40	40	0 to 80	0.04mm/s
449	Switch Timing to Fuser Motor 1st Speed (Roll / film / 30")	0	0	0 to 300	0.5 sec
450	Fuser Motor 2nd Speed (Roll / film / 30")	40	40	0 to 80	0.04mm/s
451	Switch Timing to Fuser Motor 2nd Speed (Roll / film / 30")	0	0	0 to 300	0.5 sec
452	Fuser Motor 3rd Speed (Roll / film / 30")	40	40	0 to 80	0.04mm/s
453	Switch Timing to Fuser Motor 3rd Speed (Roll / film / 30")	0	0	0 to 300	0.5 sec
	Fuser Motor 4th Speed (Roll / film / 30")	40	40	0 to 80	0.04mm/s
731	Switch Timing to Fuser Motor 4th Speed (Roll / film / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.448, 450, 452, 730. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.449, 451, 453, 731.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-127 K124sm8e7

8. 6. 3.87 Compensation of Fuser Motor Speed for roll paper (Special plain paper / 30") (No.454 to 459, 732, 733)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of 30" size by roll paper feeding.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
454	Fuser Motor 1st Speed (Roll / special plain paper / 30")	40	40	0 to 80	0.04mm/s
455	Switch Timing to Fuser Motor 1st Speed (Roll / special plain paper / 30")	0	0	0 to 300	0.5 sec
456	Fuser Motor 2nd Speed (Roll / special plain paper / 30")	40	40	0 to 80	0.04mm/s
457	Switch Timing to Fuser Motor 2nd Speed (Roll / special plain paper / 30")	0	0	0 to 300	0.5 sec
458	Fuser Motor 3rd Speed (Roll / special plain paper / 30")	40	40	0 to 80	0.04mm/s
459	Switch Timing to Fuser Motor 3rd Speed (Roll / special plain paper / 30")	0	0	0 to 300	0.5 sec
732	Fuser Motor 4th Speed (Roll / special plain paper / 30")	40	40	0 to 80	0.04mm/s
733	Switch Timing to Fuser Motor 4th Speed (Roll / special plain paper / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.454, 456, 458, 732. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.455, 457, 459, 733.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-128 K124sm8e7

8. 6. 3.88 Compensation of Fuser Motor Speed for roll paper (Special tracing paper / 30") (No.460 to 465, 734, 735)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of 30" size by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
	Fuser Motor 1st Speed (Roll / special tracing / 30")	40	40	0 to 80	0.04mm/s
461	Switch Timing to Fuser Motor 1st Speed (Roll / special tracing / 30")	0	0	0 to 300	0.5 sec
462	Fuser Motor 2nd Speed (Roll / special tracing / 30")	40	40	0 to 80	0.04mm/s
463	Switch Timing to Fuser Motor 2nd Speed (Roll / special tracing / 30")	0	0	0 to 300	0.5 sec
464	Fuser Motor 3rd Speed (Roll / special tracing / 30")	40	40	0 to 80	0.04mm/s
465	Switch Timing to Fuser Motor 3rd Speed (Roll / special tracing / 30")	0	0	0 to 300	0.5 sec
734	Fuser Motor 4th Speed (Roll / special tracing / 30")	40	40	0 to 80	0.04mm/s
735	Switch Timing to Fuser Motor 4th Speed (Roll / special tracing / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.460, 462, 464, 734. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.461, 463, 465, 735.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-129 K124sm8e7

8. 6. 3.89 Compensation of Fuser Motor Speed for roll paper (Special film / 30") (No.466 to 471, 736, 737)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd, 3rd and 4th Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of 30" size by roll paper feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
466	Fuser Motor 1st Speed (Roll / special film / 30")	40	40	0 to 80	0.04mm/s
467	Switch Timing to Fuser Motor 1st Speed (Roll / special film / 30")	0	0	0 to 300	0.5 sec
468	Fuser Motor 2nd Speed (Roll / special film / 30")	40	40	0 to 80	0.04mm/s
469	Switch Timing to Fuser Motor 2nd Speed (Roll / special film / 30")	0	0	0 to 300	0.5 sec
470	Fuser Motor 3rd Speed (Roll / special film / 30")	40	40	0 to 80	0.04mm/s
471	Switch Timing to Fuser Motor 3rd Speed (Roll / special film / 30")	0	0	0 to 300	0.5 sec
736	Fuser Motor 4th Speed (Roll / special film / 30")	40	40	0 to 80	0.04mm/s
737	Switch Timing to Fuser Motor 4th Speed (Roll / special film / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.466, 468, 470, 736. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd, 4th in each Item No.467, 469, 471, 737.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-130 K124sm8e7

8. 6. 3.90 Compensation of Fuser Motor Speed for cut sheet paper (Plain paper / 30") (No.472 to 477)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default	Default value		Step of
No.		USA	EUR/ASIA	range	increment
472	Fuser Motor 1st Speed (Cut sheet / plain paper / 30")	28	28	0 to 80	0.04mm/s
473	Switch Timing to Fuser Motor 1st Speed (Cut sheet / plain paper / 30")	5	5	0 to 300	0.5 sec
474	Fuser Motor 2nd Speed (Cut sheet / plain paper / 30")	30	33	0 to 80	0.04mm/s
475	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / plain paper / 30")	9	9	0 to 300	0.5 sec
476	Fuser Motor 3rd Speed (Cut sheet / plain paper / 30")	34	36	0 to 80	0.04mm/s
477	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / plain paper / 30")	7	7	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.472, 474 and 476. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.473, 475 and 477.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-131 K124sm8e7

8. 6. 3.91 Compensation of Fuser Motor Speed for cut sheet paper (Tracing paper / 30") (No.478 to 483)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/ASIA	range	increment
478	Fuser Motor 1st Speed (Cut sheet / tracing / 30")	34	33	0 to 80	0.04mm/s
479	Switch Timing to Fuser Motor 1st Speed (Cut sheet / tracing / 30")	4	4	0 to 300	0.5 sec
480	Fuser Motor 2nd Speed (Cut sheet / tracing / 30")	38	44	0 to 80	0.04mm/s
481	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / tracing / 30")	11	11	0 to 300	0.5 sec
482	Fuser Motor 3rd Speed (Cut sheet / tracing / 30")	40	41	0 to 80	0.04mm/s
483	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / tracing / 30")	8	8	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.478, 480 and 482. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.479, 481 and 483.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-132 K124sm8e7

8. 6. 3.92 Compensation of Fuser Motor Speed for cut sheet paper (Film / 30") (No.484 to 489)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
484	Fuser Motor 1st Speed (Cut sheet / film / 30")	40	40	0 to 80	0.04mm/s
485	Switch Timing to Fuser Motor 1st Speed (Cut sheet / film / 30")	0	0	0 to 300	0.5 sec
	Fuser Motor 2nd Speed (Cut sheet / film / 30")	40	40	0 to 80	0.04mm/s
487	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / film / 30")	0	0	0 to 300	0.5 sec
488	Fuser Motor 3rd Speed (Cut sheet / film / 30")	40	40	0 to 80	0.04mm/s
489	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / film / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.484, 486 and 488. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.48. 6. 387 and 489.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8. 6. 3.93 Compensation of Fuser Motor Speed for cut sheet paper (Special plain paper / 30") (No.490 to 495)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a plain paper (special media) of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
	Fuser Motor 1st Speed (Cutsheet / special plain paper / 30")	40	40	0 to 80	0.04mm/s
491	Switch Timing to Fuser Motor 1st Speed (Cutsheet / special plain paper / 30")	0	0	0 to 300	0.5 sec
	Fuser Motor 2nd Speed (Cutsheet / special plain paper / 30")	40	40	0 to 80	0.04mm/s
493	Switch Timing to Fuser Motor 2nd Speed (Cutsheet / special plain paper / 30")	0	0	0 to 300	0.5 sec
	Fuser Motor 3rd Speed (Cutsheet / special plain paper / 30")	40	40	0 to 80	0.04mm/s
	Switch Timing to Fuser Motor 3rd Speed (Cutsheet / special plain paper / 30")	0	0	0 to 300	0.5 sec

You can specify the Fuser Motor 1st Speed, 2nd, 3rd in each Item No.490, 492 and 494. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.491, 493 and 495.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-133 K124sm8e7

8. 6. 3.94 Compensation of Fuser Motor Speed for cut sheet paper (Special tracing paper / 30") (No.496 to 501)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a tracing paper (special media) of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
496	Fuser Motor 1st Speed (Cut sheet / special tracing / 30")	40	40	0 to 80	0.04mm/s
497	Switch Timing to Fuser Motor 1st Speed (Cut sheet / special tracing / 30")	0	0	0 to 300	0.5 sec
498	Fuser Motor 2nd Speed (Cut sheet / special tracing / 30")	40	40	0 to 80	0.04mm/s
499	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / special tracing / 30")	0	0	0 to 300	0.5 sec
500	Fuser Motor 3rd Speed (Cut sheet / special tracing / 30")	40	40	0 to 80	0.04mm/s
501	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / special tracing / 30")	0	0	0 to 300	0.5 sec

You can specify Fuser Motor 1st Speed, 2nd, 3rd in each Item No.496, 498 and 500. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.497, 499 and 501.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8. 6. 3.95 Compensation of Fuser Motor Speed for cut sheet paper (Special film / 30") (No.502 to 507)

It is possible to compensate the Fuser Motor speed specifying each Fuser Motor 1st, 2nd and 3rd Speed.

It is also possible to specify when to switch the speed. (Switch timing)

These settings become effective when you use a film (special media) of 30" size by cut sheet bypass feeding.

Item	Setting Item	Default	Default value		Step of
No.		USA	EUR/ASIA	range	increment
502	Fuser Motor 1st Speed (Cut sheet / special film / 30")	40	40	0 to 80	0.04mm/s
503	Switch Timing to Fuser Motor 1st Speed (Cut sheet / special film / 30")	0	0	0 to 300	0.5 sec
504	Fuser Motor 2nd Speed (Cut sheet / special film / 30")	40	40	0 to 80	0.04mm/s
505	Switch Timing to Fuser Motor 2nd Speed (Cut sheet / special film / 30")	0	0	0 to 300	0.5 sec
506	Fuser Motor 3rd Speed (Cut sheet / special film / 30")	40	40	0 to 80	0.04mm/s
507	Switch Timing to Fuser Motor 3rd Speed (Cut sheet / special film / 30")	0	0	0 to 300	0.5 sec

You can specify Fuser Motor 1st Speed, 2nd, 3rd in each Item No.502, 504 and 506. If you increase the setting value by "+1", each Fuser Motor Speed becomes 0.04mm/second faster.

You can specify the switch timing to each Fuser Motor 1st Speed, 2nd, 3rd in each Item No.503, 505 and 507.

If you increase the setting value by "+1", the timing to switch the speed is 0.5 second delayed.

For the detail information above, see [8.6.5.39 Compensation of Fuser Motor Speed for roll paper (Plain paper / A3, 12" & 11") (No.070 to 075, 678, 679)].

8-134 K124sm8e7

8. 6. 3.96 Transfer Voltage applied at 100mm from trailing edge (Plain paper / Tracing paper / Film) (No.508 to 510)

It is possible to adjust the analog voltage to Transfer Corona on 100mm end of a print. This section does not function and is reserved for future update.

Item	Setting Item	Default value		Setting	Step of
No.		US EUR/		range	increment
		Α	ASIA		
508	Transfer Voltage applied at 100mm from trailing edge (Plain)	4FF	4FF	0 to 9FE	-
509	Transfer Voltage applied at 100mm from trailing edge (Tracing)	4FF	4FF	0 to 9FE	-
510	Transfer Voltage applied at 100mm from trailing edge (Film)	4FF	4FF	0 to 9FE	-

8. 6. 3.97 Transfer Voltage applied at 70mm from trailing edge (Plain paper / Tracing paper / Film) (No.511 to 513)

It is possible to adjust the analog voltage to Transfer Corona on 70mm end of a print. A setting combination among No.511 to No.516 can reduce ghost images on the bottom area of a print in some cases.

Item No.	Setting Item	US	Ilt value EUR/ ASIA	Setting range	Step of increment
511	Transfer Voltage applied at 70mm from trailing edge (Plain)	62F	62F	0 to 9FE	-
512	Transfer Voltage applied at 70mm from trailing edge (Tracing)	69F	69F	0 to 9FE	_
513	Transfer Voltage applied at 70mm from trailing edge (Film)	4FF	4FF	0 to 9FE	_

8. 6. 3.98 Fuser Motor Speed applied at 30mm from trailing edge (Plain paper / Tracing paper / Film) (No.514 to 516)

It is possible to adjust the speed of Fuser Motor driving on 30mm end of a print. A setting combination among No.511 to No.516 can reduce ghost images on the bottom area of a print in some cases.

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/	range	increment
			ASIA		
514	Fuser Motor Speed applied at 30mm from trailing edge (Plain)	13	17	0 to 80	0.04mm/s
515	Fuser Motor Speed applied at 30mm from trailing edge (Tracing)	19	19	0 to 80	0.04mm/s
516	Fuser Motor Speed applied at 30mm from trailing edge (Film)	0	0	0 to 80	0.04mm/s

8-135 K124sm8e7

8. 6. 3.99 Judgment value for Additional Cut Length for Non-standard Size Prints (No.613 to 616)

It is possible to avoid the lack of trailing image on the non-standard size print, by providing additional paper length by service modes 4-617 to 4-620 (Additional Cut Length for non-standard size print).

Additional Cut Length specified by service mode 4-617 to 4-620 is not always provided.

Whether or not it is provided is judged by service mode 4-613 to 4-616 (Judgment value for "Additional Cut Length for non-standard size print".)

Item	Setting Item	Default value		Setting	Step of
No.		USA	EUR/ASIA	range	increment
613	Judgment value for Additional Cut Length for Non-standard Size Prints (36"/ 34"/ 30"/ A0 / B1)	1	1	1 to 20	1mm
614	Judgment value for Additional Cut Length for Non-standard Size Prints (24"/ 20"/ A1)	1	1	1 to 20	1mm
	Judgment value for Additional Cut Length for Non-standard Size Prints (18"/ 17"/ 15"/ A2)	1	1	1 to 20	1mm
	Judgment value for Additional Cut Length for Non-standard Size Prints (12"/ 11"/ A3)	1	1	1 to 20	1mm

Reference

(1) Which Judgement Value / Additional Cut Length setting is applied to a non-standard size print depends on the corresponding roll width.

Roll Width	Standard Size	Standard Cut Length	Judgement Value	Additional Length		
36"	36"x48"	1219mm				
841mm	A0	1189mm	1189mm			
34"	34"x44"	1118mm	No.613	No.617		
30"	30"x42"	1067mm				
728mm	B1	1030mm				
24"	24"x36"	914mm				
22"	22"x34"	864mm	No.614	No.618		
594mm	A1	841mm				
18"	18"x24"	610mm				
420mm	A2	594mm	No.615	No.619		
17"	17"x22"	559mm	140.015	10.019		
15"	15"x21"	533mm				
12"	12"x18"	457mm				
11"	11"x17"	432mm	No.616	No.620		
297mm	A3	420mm				

(next page)

8-136 K124sm8e7

Reference

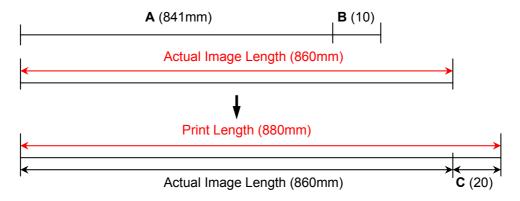
- (2) If the actual image length is longer than (or equal to) "A+B", "C" is provided to the trailing edge of non-standard size print.
 - A: Standard Cut Length (depends on roll width)
 - B: Value of "Judgement Value for "Additional Cut Length for Non-standard Size Prints"
 - C: Value of "Additional Cut Length for Non-standard Size Prints"

<Example> Actual Image Length: 860mm

A: 841mm (A1 roll width)

B: 10

C: 20



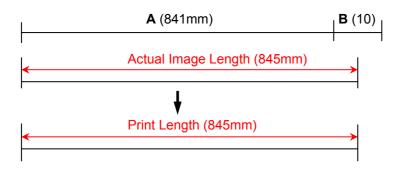
- (3) If the actual image length is shorter than "A+B", the print is cut as long as the actual image length. ("C" is not provided to the trailing edge of the print.)
 - A: Standard Cut Length (depends on roll width)
 - B: Value of "Judgement Value for "Additional Cut Length for Non-standard Size Prints"
 - C: Value of "Additional Cut Length for Non-standard Size Prints"

<Example> Actual Image Length: 845mm

A: 841mm (A1 roll width)

B: 10

C: 20



8-137 K124sm8e7

8. 6. 3.100 Additional Cut Length for Non-standard Size Prints (No.617 to 620)

It is possible to avoid the lack of trailing image on the non-standard size print, by providing additional paper length by service modes 4-617 to 4-620 (Additional Cut Length for non-standard size print).

Additional Cut Length specified by service mode 4-617 to 4-620 is not always provided.

Whether or not it is provided is judged by service mode 4-613 to 4-616 (Judgment value for "Additional Cut Length for non-standard size print".)

Item	Setting Item	Default v	Default value		Step of
No.		USA	EUR/ASIA	range	increment
617	Additional Cut Length for Non-standard Size Prints (36"/ 34"/ 30"/ A0 / B1)	0	0	0 to 35	1mm
618	Additional Cut Length for Non-standard Size Prints (24"/ 22"/ A2)	0	0	0 to 35	1mm
619	Additional Cut Length for Non-standard Size Prints (18"/ 17"/ 15"/ A2)	0	0	0 to 35	1mm
620	Additional Cut Length for Non-standard Size Prints (12"/ 11"/ A3)	0	0	0 to 35	1mm

Refer to page 8-121 and 122 for Additional Cut Length and its Judgment Value.

8. 6. 3. 101 Toner Supply Roller Bias (No.621)

It is possible to make bias adjustment for Toner Supply Roller.

Default Value	Setting Range	Step of increment
286	0 to 800	1



A NOTE

This setting does not function. Change of this setting has no effect on the machine operation.

8. 6. 3. 102 Regulation Bias (No.622)

It is possible to make the print density darker or lighter by adjusting Regulation Bias (Center). The print density becomes darker if you increase the setting value.

Default Value	Setting Range	Step of increment
270	0 to 800	1



Please adjust Regulation Bias while checking the actual voltage with the multi-meter.

K124sm8e7 8-138

8. 6. 3. 103 Density Sensor Standard Output (No.623)



This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change the default analog output of Density Sensor. "Density Sensor Standard Output" (No.623) and "Density Sensor Analog Voltage" (No.624) are used for Density Measure.

Default Value	Setting Range	Step of increment
0	0 to 614	1

8. 6. 3. 104 Density Sensor Analog Voltage (No.624)



A NOTE

This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change the default analog output of Density Sensor. "Density Sensor Standard Output" (No.623) and "Density Sensor Analog Voltage" (No.624) are used for Density Measure.

Default Value	Setting Range	Step of increment
0	0 to 614	1

K124sm8e7 8-139

8. 6. 3. 105 Print - Fuser Temperature Side (12"/11"/A3) (No.625 to 630)

It is possible to adjust the side part of Fuser Temperature in a print cycle.

You can specify the temperature for each type and size of media separately.

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default	value	Setting	Step of
		USA	EUR/ASIA	range	increment
625	Print - Fuser Temperature Side (Plain) (12" / 11" / A3)	160	145	120 to 180	1°C
626	Print - Fuser Temperature Side (Tracing) (12" / 11" / A3)	160	150	120 to 180	1°C
627	Print - Fuser Temperature Side (Film) (12" / 11" / A3)	177	170	120 to 180	1°C
628	Print - Fuser Temperature Side (Special / Plain) (12" / 11" / A3)	160	160	120 to 180	1°C
629	Print - Fuser Temperature Side (Special / Tracing) (12" / 11" / A3)	160	160	120 to 180	1°C
630	Print - Fuser Temperature Side (Special media / Film) (12" / 11" / A3)	177	170	120 to 180	1°C

Reference

The center part of Fuser Temperature will be controlled by Print - Fuser Temperature Center (No. 039 to 044) separately.

Refer to [8. 6. 3.19 Print - Fuser Temperature Center (No.039 to 044)] on page 8-53 for further information.

8. 6. 3. 106 Print - Fuser Temperature Side (18"/17"/15"/A2) (No.631 to 636)

It is possible to adjust the side part of Fuser Temperature in a print cycle. You can specify the temperature for each type and size of media separately.

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	No. Setting Item		value	Setting	Step of
		USA	EUR/ASIA	range	increment
631	Print - Fuser Temperature Side (Plain) (18" / 17" / 15" / A2)	160	165	120 to 180	1°C
632	Print - Fuser Temperature Side (Tracing) (18" / 17" / 15" / A2)	160	170	120 to 180	1°C
633	Print - Fuser Temperature Side (Film) (18" / 17" / 15" / A2)	177	170	120 to 180	1°C
634	Print - Fuser Temperature Side (Special / Plain) (18" / 17" / 15" / A2)	160	160	120 to 180	1°C
635	Print - Fuser Temperature Side (Special / Tracing) (18" / 17" / 15" / A2)	160	160	120 to 180	1°C
636	Print - Fuser Temperature Side (Special / Film) (18" / 17" / 15" / A2)	177	170	120 to 180	1°C

Reference

The center part of Fuser Temperature will be controlled by Print - Fuser Temperature Center (No. 039 to 044) separately.

Refer to [8. 6. 3.19 Print - Fuser Temperature Center (No.039 to 044)] on page 8-53 for further information.

8-140 K124sm8e7

8. 6. 3. 107 Print - Fuser Temperature Side (24"/22"/A1) (No.637 to 642)

It is possible to adjust the side part of Fuser Temperature in a print cycle.

You can specify the temperature for each type and size of media separately.

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default	value	Setting	Step of
		USA	EUR/ASIA	range	increment
637	Print - Fuser Temperature Side (Plain) (24" / 22" / A1)	160	165	120 to 180	1°C
638	Print - Fuser Temperature Side (Tracing) (24" / 22" / A1)	160	170	120 to 180	1°C
639	Print - Fuser Temperature Side (Film) (24" / 22" / A1)	177	170	120 to 180	1°C
640	Print - Fuser Temperature Side (Special / Plain) (24" / 22" / A1)	160	160	120 to 180	1°C
641	Print - Fuser Temperature Side (Special / Tracing) (24" / 22" / A1)	160	160	120 to 180	1°C
642	Print - Fuser Temperature Side (Special / Film) (24" / 22" / A1)	177	170	120 to 180	1°C

Reference

The center part of Fuser Temperature will be controlled by Print - Fuser Temperature Center (No. 039 to 044) separately.

Refer to [8. 6. 3.19 Print - Fuser Temperature Center (No.039 to 044)] on page 8-53 for further information.

8. 6. 3. 108 Print - Fuser Temperature Side (36"/34"/30"/A0/B1) (No.643 to 648)

It is possible to adjust the side part of Fuser Temperature in a print cycle. You can specify the temperature for each type and size of media separately.

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default	value	Setting	Step of
		USA	EUR/ASIA	range	increment
643	Print - Fuser Temperature Side (Plain) (36" / 34" / 30" / A0 / B1)	160	165	120 to 180	1°C
644	Print - Fuser Temperature Side (Tracing) (36" / 34" / 30" / A0 / B1)	160	170	120 to 180	1°C
645	Print - Fuser Temperature Side (Film) (36" / 34" / 30" / A0 / B1)	177	170	120 to 180	1°C
646	Print - Fuser Temperature Side (Special / Plain) (36" / 34" / 30" / A0 / B1)	160	160	120 to 180	1°C
647	Print - Fuser Temperature Side (Special / Tracing) (36" / 34" / 30" / A0 / B1)	160	160	120 to 180	1°C
648	Print - Fuser Temperature Side (Special / Film) (36" / 34" / 30" / A0 / B1)	177	177	120 to 180	1°C

Reference

The center part of Fuser Temperature will be controlled by Print - Fuser Temperature Center (No. 039 to 044) separately.

Refer to [8. 6. 3.19 Print - Fuser Temperature Center (No.039 to 044)] on page 8-53 for further information.

8-141 K124sm8e7

8. 6. 3. 109 Density Sensor Output Monitor (No.649)

A NOTE

This setting is factory-use only. Keep the value unchanged.

It is possible to change the mode to monitor the default analog output of Density Sensor.

Default Value	Setting Range
1	0 to 4

8. 6. 3. 110 Regulation Bias Increment for Auto Adjustment Level 2 and 3 (No.650)



▲ NOTE

This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change the amount (increment) of Regulation Bias on Auto Adjustment. A specified increment of Regulation Bias will be applied at switching to Auto Adjustment Level 2 and Level 3.

The default voltage value of the increment is about 40V (corresponding to "80" in the setting value) for switching to Auto Adjustment Level 2 and 3.

If you increase the setting value by "+1", the increment of Regulation Bias Adjustment becomes about 0.5V higher.

Default Value	Setting Range	Step of increment
80	0 to 200	0.5V

K124sm8e7 8-142

8. 6. 3. 111 Total Increment of Regulation Bias Adjustment (No.651)

▲ NOTE

This setting can be used for checking purpose only. Setting change is allowed to factory-use only. Keep the value unchanged.

It is possible to check the total amount (increment) of currently applied Regulation Bias Adjustment by Density Compensation.

It is possible to add a 0.5V to the total amount of Regulation Roller Bias Adjustment directly.

Default Value	Setting Range	Step of increment
0	0 to 800	0.5V

8-143 K124sm8e7

8. 6. 3. 112 Density Compensation ON/OFF (No.652)

It is possible to decide whether Density Compensation is enabled.

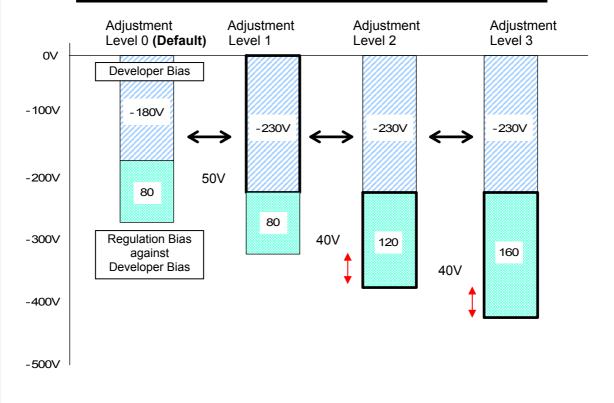
Setting value	Contents
0	Density Compensation Process is disabled
1	Density Compensation Process is enabled
(default)	

Reference

Density Compensation Process is performed as follows.

- Several solid patches are created on Drum and are measured by Density Sensor at a regular interval of Main Motor operating time (No.655).
 This is called Density Measure.
- 2. If the current density value (calculated based on Density Measure) does not meet Target Density (No.653), one of the Adjustment Level listed below will be applied.
- 3. Developer Bias and Regulation Bias (No.650) will be adjusted based on the current Adjustment Level.

	Adjustment Level 0 (Default)	Adjustment Level 1	Adjustment Level 2	Adjustment Level 3
Developer Bias (Negative)	-180V	-230V	-230V	-230V
Regulation Bias against Developer Bias	-80V	-80V	-120V	-160V



A

NOTE

Even if Developer Unit is replaced, still the current Auto Adjustment will continue to be applied.

An applied Auto Adjustment Level should be manually set to "0000000" after replacing Developer Unit / Developer overhaul.

8-144 K124sm8e7

8. 6. 3. 113 Target Density (No.653)



This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change Target Density that should be achieved and maintained for consistent print density.

If the current density does not meet Target Density, Regulation (Developer) Bias will be automatically adjusted based on the current Adjustment Level.

- If the current Density Value is judged "not enough" (lighter than required), the next level will be applied.
- If the current Density Value is judged "adequate", the current level remains.
- There is possibility for the Density Value to be judged "too much enough" (darker than required), then the previous level will be applied.

If you increase the setting value by "+1", Target Density will rise and thus Auto Adjustment Level would be switched to the next level earlier.

8. 6. 3. 114 Regulation Bias Maximum (No.654)



▲ NOTE

This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change the maximum of Regulation Bias.

When the total value amount of Regulation Bias (No.622) and Total Increment of Regulation Bias Adjustment (No.641) reaches to the value of this setting, Regulation Bias cannot raise any more.

If you increase the setting value by "+1", the maximum of Regulation Bias increases.

Default Value	Setting Range	Step of increment
500	160 to 800	1

8. 6. 3. 115 Density Measure Interval (No.655, 656)



A NOTE

This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change an interval of Density Measure.

When Bias 3 Time in Information Mode reaches a specified period in this setting, Density Measure

There are 2 kind of the trigger to check Bias 3 Time whether the period passes.

- (1) At the time of turning on the machine
- (2) After completion of the current print gueue

If you increase the setting value by "+1", the interval of Density Measure becomes 1 hour longer.

Item	Setting Item	Default	Setting	Step of
No.		Value	range	increment
655	Density Measure Interval at Power on	18	1 to 100	1 hour
656	Density Measure Interval at Print Completion	18	1 to 100	1 hour

8-145 K124sm8e7

8. 6. 3. 116 Developer Bias Increment for Auto Adjustment Level 1 and after (No.657)

A NOTE

This setting has been factory-adjusted. Keep the value unchanged.

It is possible to change the amount (increment) of Developer Bias Adjustment. A specified increment of Developer Bias will be applied at switching to and as of Auto Adjustment Level 1.

The default voltage value of the increment is approximately 50V (corresponding to "80" in the setting value) for switching to Auto Adjustment Level 1. The increased Developer Bias will be applied to the subsequent Auto Adjustment Level.

If you increase the setting value by "+1", the increment of Developer Bias Adjustment becomes higher.

Default Value	Setting Range	Step of increment
158	0 to 400	1

8-146 K124sm8e7

8. 6. 3. 117 Ready - Fuser Temperature Center (No.660 to 665)

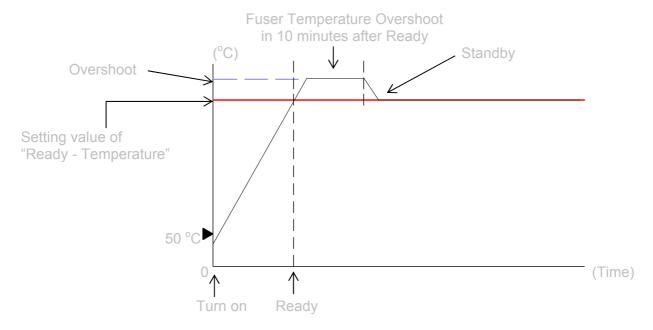
It is possible to specify "Ready" temperature.

You can specify the temperature for each type of media separately.

This setting will be applied only when Fuser Temperature is below 50°C at turning on the machine. The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default v	Default value		Step of
		USA	EUR/AS	range	increment
660	Ready - Fuser Temperature Center (Plain)	160	160	120 to 180	1°C
661	Ready - Fuser Temperature Center (Tracing)	160	170	120 to 180	1°C
662	Ready - Fuser Temperature Center (Film)	177	177	120 to 180	1°C
663	Ready - Fuser Temperature Center (Special / Plain)	160	160	120 to 180	1°C
664	Ready - Fuser Temperature Center (Special / Tracing)	160	160	120 to 180	1°C
665	Ready - Fuser Temperature Center (Special / Film)	177	170	120 to 180	1°C

After reaching "Ready", fuser temperature will rise 10 °C higher than "Ready" (Overshoot) in 10 minutes. Then it will be maintained within "Standby" temperature.



8. 6. 3. 118 Ready - Fuser Temperature Side (No.666 to 671)

It is possible to specify "Ready" temperature.

You can specify the temperature for each type of media separately.

This setting will be applied only when Fuser Temperature is below 50°C at turning on the machine. The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default v	Default value		Step of
		USA	EUR/AS	range	increment
666	Ready - Fuser Temperature Side (Plain)	159	159	120 to 180	1°C
667	Ready - Fuser Temperature Side (Tracing)	159	180	120 to 180	1°C
668	Ready - Fuser Temperature Side (Film)	177	170	120 to 180	1°C
669	Ready - Fuser Temperature Side (Special / Plain)	159	159	120 to 180	1°C
670	Ready - Fuser Temperature Side (Special / Tracing)	159	159	120 to 180	1°C
671	Ready - Fuser Temperature Side (Special / Film)	177	170	120 to 180	1°C

8-147 K124sm8e7

8. 6. 3. 119 Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (No. 672 to 677)

It is possible to adjust the speed of Fuser Motor for each type of paper separately. If you increase the setting value by "+1", the motor speed becomes 0.04mm/second faster.

Item	Setting Item	Default v	/alue	Setting	Step of
No.		USA	EUR/ASIA	range	increment
672	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Plain paper)	50	50	0 to 80	0.04mm/s
673	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Tracing paper)	57	60	0 to 80	0.04mm/s
674	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Film paper)	50	50	0 to 80	0.04mm/s
675	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special plain paper)	40	40	0 to 80	0.04mm/s
676	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special tracing paper)	40	40	0 to 80	0.04mm/s
677	Fuser Motor Speed (18" / 17" / 15" / 12" / 11" / A2 / A3) (Special film)	40	40	0 to 80	0.04mm/s

For Fuser Motor Speed in larger size, refer to [8. 6. 3.64 Fuser Motor Speed (36" / 34" / 30" / 24" / 22" / A0 / B1 / A1) (No.316 to 321) on page 8-90.

8. 6. 3. 120 Compensation of Fuser Motor Speed 4 (No.678 to 737)

Fuser Motor Speed 4 and its switch timing are explained on Fuser Motor Speed 1, 2, 3 together. Please refer to [8. 6. 3.39 Compensation of Fuser Speed 1 (No.070 to 075)] on page 8-64 to 66 and the concerning pages for media type / size.

8-148 K124sm8e7

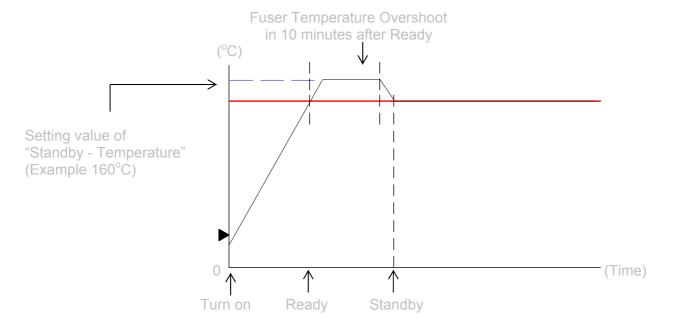
8. 6. 3. 121 Standby - Fuser Temperature (No.738, 739)

It is possible to adjust the Fuser Temperature to be maintained while waiting for a print job. You can specify the temperature for the center and the sides separately.

This setting is applied after the period of Fuser Temperature Overshoot (+10°C against "Ready - Temperature" in 10 minutes).

The Fuser Temperature becomes 1 degree higher if you increase the setting value by "+1".

Item No.	Setting Item	Default va	Default value		Step of
		USA	EUR/ASIA	range	increment
738	Standby - Fuser Temperature Center	167	167	120 to 180	1°C
739	Standby - Fuser Temperature Side	155	155	120 to 180	1°C



8. 6. 3. 122 Assist Fan Off Timing (No.740 to 742)

Assist Fan stops at a regular period after the trailing edge of a print of in 15" or wider reaches Registration Sensor. It is possible to change the timing of Assist Fan off. This setting may be a solution for image void on the trailing center.

If you increase the setting value by "+1", the timing of Assist Fan off becomes 0.125 seconds later.

Item	Setting Item	Default	value	Setting	Step of
No.		USA	EUR/AS	range	increment
740	Assist Fan Off Timing (18" / 17" / 15" / A2)	8	4	0 to 8	0.125 sec
741	Assist Fan Off Timing (24" / 22" / A1)	8	4	0 to 8	0.125 sec
742	Assist Fan Off Timing (36" / 34" / 30" / A0 / B1)	8	6	0 to 8	0.125 sec

8-149 K124sm8e7

8. 6. 3. 123 Fuser Motor Speed applied at 100mm from trailing edge (36" / 34" / 30" / A0 / B1 width) (No.743 to 745)

It is possible to adjust the speed of Fuser Motor driving on 100mm end of a print in 36" / 34" / 30" / A0 / B1 width.

This setting may be a solution for image void on the trailing center.

If you increase the setting value by "+1", speed of Fuser Motor driving becomes 0.04mm/s slower than the applied speed at that point.

Item No.	Setting Item		t value EUR/AS	Setting range	Step of increment
743	Fuser Motor Speed applied at 100mm from trailing edge (36" / 34" / 30" / A0 / B1 width) (Plain)	0	0	0 to 80	0.04mm/s
744	Fuser Motor Speed applied at 100mm from trailing edge (36" / 34" / 30" / A0 / B1 width) (Tracing)	0	0	0 to 80	0.04mm/s
745	Fuser Motor Speed applied at 100mm from trailing edge (36" / 34" / 30" / A0 / B1 width) (Film)	0	0	0 to 80	0.04mm/s

8. 6. 3. 124 Roll 2 Forward Standby ON/OFF (No.746)

The default Standby Position for the leading edge of Roll 2 is located directly below the set sensor (PH9). This setting will feed the leading edge to Forward Standby Position (approximately 252mm forward from the default Standby Position).

Setting value	Contents	
0	Roll 2 Leading Edge stays at the set sensor	
(default)		
1	Roll 2 Leading Edge goes Forward Standby Position	

8. 6. 3. 125 Roll 2 Forward Standby Position Adjustment (No.747)

This setting can adjust Roll 2 Forward Standby Position (approximately 202 to 252mm forward from the default Roll 2 Standby Position) with Roll 2 Forward Standby on. When the setting value increases by 1, Roll 2 Forward Standby Position will shift backward to the default Standby Position in 1mm. ("0" for 252mm forward, "50" for 202mm forward)

Default Value	Setting Range	Step of increment
0	0 to 50	1mm

8. 6. 3. 126 Roll 2 Rewind Timer (No. 748)

This setting can work as a timer to rewind Roll 2 media from Forward Standby Position to the default Standby Position with Roll 2 Forward Standby on. When the setting value decreases by 1, the interval of rewinding Roll 2 media to the default Standby Position becomes 1 minute shorter.

Default Value	Setting Range	Step of increment
15	1 to 15	1 min

8-150 K124sm8e7

8. 6. 3. 127 Tracing Mode (No. 749)

Even in "ready" condition, the fuser temperature is controlled slightly lower than "Print" temperature in order to reduce inside temperature.

It quickly rises up to "Print" temperature at the same time as the printer starts printing an output job. This setting will keep media feeding wait for the completion of the fuser temperature recovery.

Note that Tracing Mode is effective only for an extremely thin tracing paper (off-specification).

Setting value Contents	
0 (default)	Fuser temperature starts recovery as soon as a print job is sent.
1	A print on tracing paper will start after recovery of fuser temperature.

8. 6. 3. 128 Roll 1 Setting Mode (No. 750)

The default Standby Position for the leading edge of Roll 1 is located directly below the set sensor (PH7). This setting will allow the leading edge of a roll media that has kept waiting a long period in a special circumstance to move about 20mm forward from the default Standby Position. This will keep the edge from waving.

Note that Roll 1 Setting Mode is effective only for an extremely thin roll media (off-specification).

Setting value	Contents		
0 (default)	Roll 1 Leading Edge stays at the set sensor		
1	Roll 1 Leading Edge goes 20mm forward from the set sensor.		

8. 6. 3. 129 Disable HV Error Detection Mode (No. 751)

"Disable HV Error Detection Mode" functions just as Error Mask Mode for high voltage errors. This allows the system to ignore service call errors regarding high voltage power supply (E-31, E-32, E-33, E-34) and prevents the concerning error code from being displayed both on the sub UI and the touch screen.

"Disable HV Error Detection Mode" ON is not canceled by turning off the machine, but remains until set to OFF manually.

Setting value	Contents
0	HV error detection works normally.
(default)	T
1	The system ignores any HV Error.



TAKE GREAT CARE. The system ignores high voltage errors caused by ANY REASON while "Disable HV Error Detection Mode" is ON.

It is recommended that "Disable HV Error Detection Mode" remains OFF in the usual usage.

8-151 K124sm8e7

8. 6. 3. 130 Auto Initial Cut After Long Print (No. 753, 754)

Trimming the leading edge maintains feeding stability for the subsequent print right after a long print longer than the guarantee length.

"Auto Initial Cut After Long Print" ejects a 210mm sheet for initial cut right after completion of a long print that exceeds a specified length and number of sheets.

(The cut length is fixed in 210mm)

Item	Setting Item	Default		Setting	Step of
No.		USA	EUR/AS	range	increment
753	Auto Initial Cut After Long Print (Length)	10	10	10 to 60	100mm
754	Auto Initial Cut After Long Print (Number of sheet)	0	0	0 to 3	*number of
					sheets

^{* &}quot;Auto Initial Cut After Long Print" counts long prints (longer than No.753) beyond print jobs. It makes Initial Cut while the printer is proceeding only long prints (longer than No.753). If a print job contains a "Non long print" (shorter than No.753), the count will be reset. Such short print obtains the accurate cut length and just works as a "trim cut" for the next long print.

8. 6. 3. 131 Length for Forced Initial Cut Before Print (No. 755)

Under a certain usage environment, the first print of a job sometimes would have a wrinkle or an image void if the prints are made with a roll media left in the deck for a long period. "Forced Initial Cut Before Print" makes an automatic initial cut (almost 1 revolution of a roll media) at the leading edge before processing a job to obtain image quality and feed balance in such conditions.

Which media type to have "Forced Initial Cut Before Print" can be specified on the UI screen. (For further information of Configuration on the UI, see KIP IPS Touchscreen Operator's Guide)

No.755 can specify the length to be cut and ejected prior to start printing.

Default Value	Setting Range	Step of increment
594	210 to 600	1mm

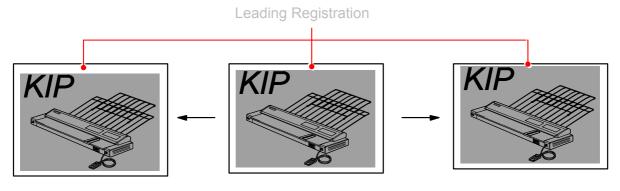
8-152 K124sm8e7

8. 6. 3. 132 Leading Registration for Paper Tray (No. 756)

It is possible to specify where to start printing the image at the leading edge of a sheet from the Paper Trav.

If you increase the setting value by "+1", the head of image is shifted 1mm downward toward the trailing edge As a result the leading margin becomes larger.

Default Value	Setting Range	Step of increment
not decided	1 to 40	1mm



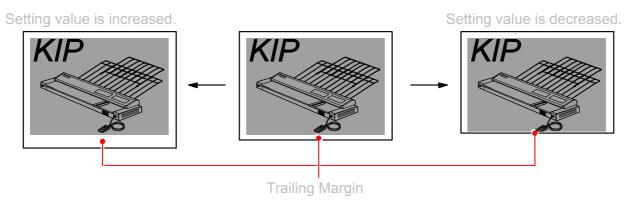
value is increased.

value is decreased.

8. 6. 3. 133 Trailing Margin for Paper Tray (No. 757)

It is possible to adjust the length of trailing margin of a sheet from the Paper Tray. The length of trailing margin becomes 1mm longer if you Increase the setting value by "+1".







A NOTE

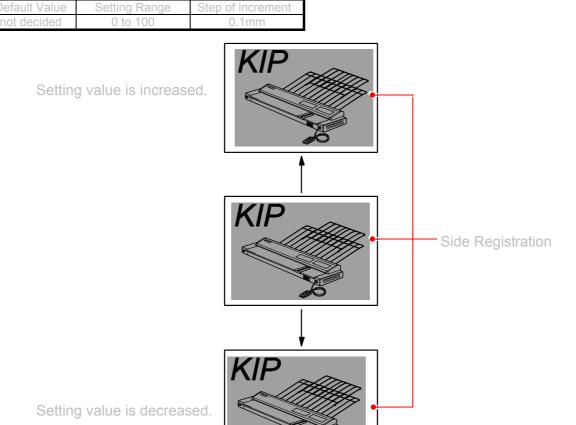
Some trailing image may be lost if you decrease the value too much.

K124sm8e7 8-153

8. 6. 3. 134 Side Registration for Paper Tray (No. 758)

It is possible to specify where to start printing the image at the side edge of a sheet from the Paper Tray.

If you increase the setting value by "+1", image is shifted 0.1mm to the right.



8-154 K124sm8e7

8. 6. 4 Creating Backup

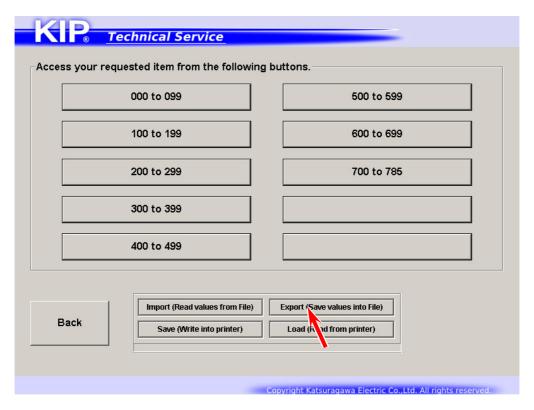
It is possible to save the current parameters in Adjustment Mode as RAM file. RAM file can be used for backup measure.



NOTE

Prior to any attempts at significant changes on Adjustment Mode, export the current parameters to .RAM file.

1. Press [Export] in Adjustment Menu screen.



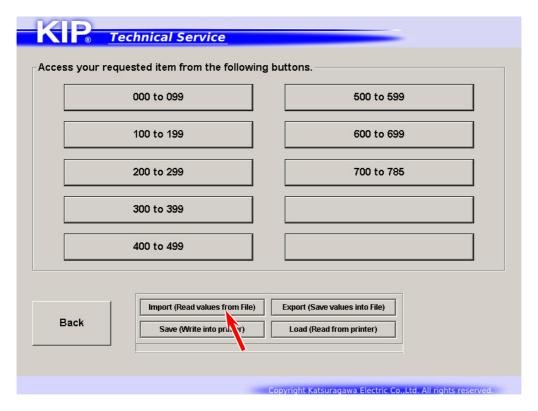
- 2. Specify a place to save the current parameter. It will be saved as both *.txt and *.ram in a folder that is automatically created there at this time. The printer's serial number will be automatically added to the folder.
 - *.ram is used for backup of the current parameter. You can use it to import the parameter to machines.
 - *.txt" is only used for simplified confirmation with an appropriate application such as Notepad.

8-156 K124sm8e8

8. 6. 5 Restoring Configuration from Backup

It is possible to restore the parameters by using a RAM file that has been saved before. This can be used for the following possible cases.

- If the current parameters have loss or damage of data.
- To apply parameters of a certain printer to another.
- 1. Press [Import] in Adjustment Menu screen.



- 2. Locate and open a RAM file that you want to apply.
- 3. The system reads all the parameters in the RAM file. Then the parameters will be applied to "**New Value**" field.



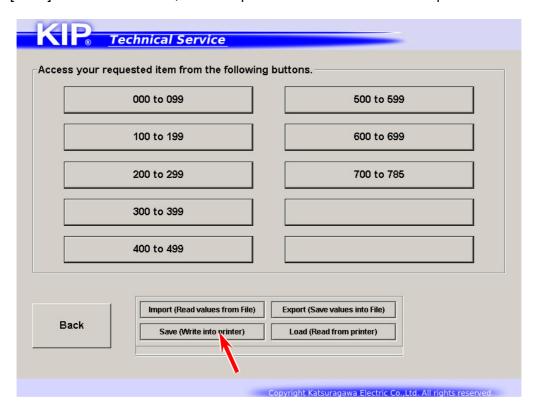
NOTE

At this point, KIP Service Software just reads and displays the parameters in the RAM file, but the parameters do not take effect on the printer yet.

Follow the later step to apply the read parameters to the printer.

8-157 K124sm8e8

4. Press [Save]. After confirmation, the read parameters will be sent to the printer.



8-158 K124sm8e8

8. 7 Running Mode

In Running Mode, the printer takes usual printing operation with no print media loaded. If you install any roll media, it is transported and ejected from the printer as usual as normal print. Note that the printer will continue printing till the media empty.



NOTE

Running Mode is not available in Service Mode. Factory Use Only.

8. 8 Jam/Error Mask Mode

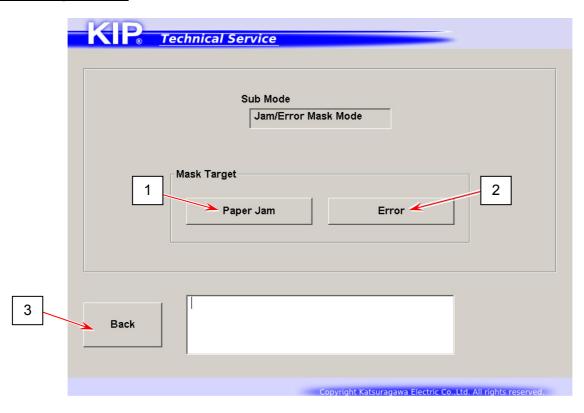
If the printer indicates any error (J-****/E-****), it is possible to mask (ignore, not to detect) it in Jam/Error Mask Mode. The error (J-****/E-****) you have chosen to mask will not be detected by masking. You can temporarily operate the printer as usual as normal condition even if a cause of the error is not removed yet.



NOTE

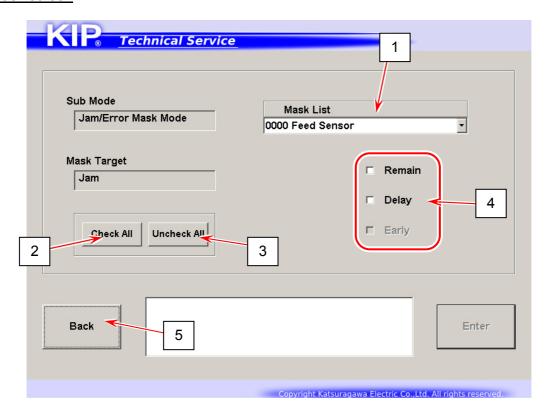
Masking condition will be automatically canceled once you quit KIP Service Software or turn off the printer.

Mask Target screen



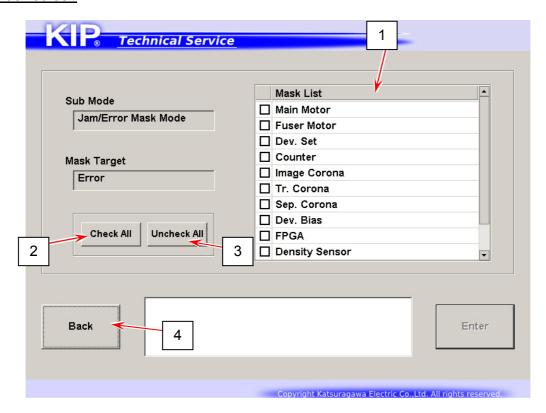
	Name	Function
1	Paper Jam	Switches to Jam Mask screen
2	Error	Switches to Error Mask screen
3	Back	Returns to Service Mode Home

8-159 K124sm8e8



	Name	Function
1	Mask List	Displays Mask items in drop-down menu
		Choose one item that you want to mask.
2	Check All	Starts jam masking against all the items
3	Uncheck All	Cancels jam masking against checked items
4	media situation	Specifies which situation to be masked.
	to be masked	
5	Back	Returns to Service Mode Home

8-160 K124sm8e8



	Name	Function
1	Mask List	Displays Mask items in the list
		Select mask target(s) that you want to mask.
		Starts error masking while item(s) is checked
2	Check All	Starts error masking against all the items
3	Uncheck All	Cancels error masking against checked items
4	Back	Returns to Service Mode Home

8-161 K124sm8e8

8. 8. 1 Mask List

Jam Mask

0000	Roll 2 Set	Roll 2 Deck Jam	PH9
0001	Roll 1 Set	Roll 1 Deck Jam	PH7
0002	Feed	Feeding Jam	PH6
0003	Regist	Registration Jam	PH1
0004	Manual	Manual Jam	PH5
0005	Sep	Internal Jam	PH2
0006	Exit	Fuser / Exit Cover Jam	PH3
0007	Pickup	Pickup Jam (Paper Tray)	PH13

Error Mask

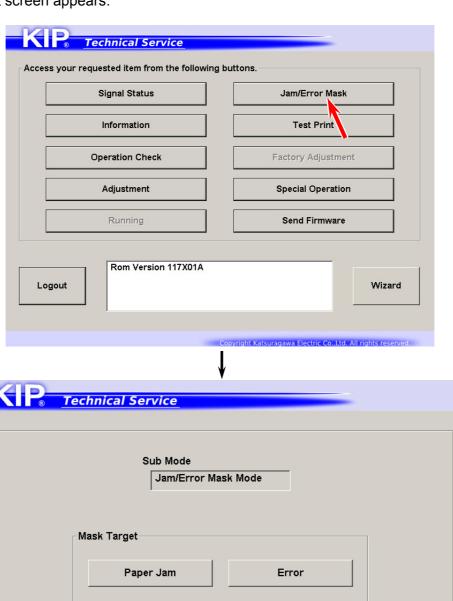
Main Motor	Main Motor Error	E-0010
Fuser Motor	Fuser Motor Error	E-0011
Press Motor	Developer Press Motor Error	E-0012
Dev. Set	Developer Unit Set Error	E-0070
Counter	Counter Error	E-0020
Im Corona	Image Corona Output Error	E-0031
Tr Corona	Transfer Corona Output Error	E-0033
Sp Corona	Separation Corona Output Error	E-0032
Dev. Bias	Developer Bias Error	E-0034
FPGA	FPGA Error	E-0050
Density Sensor	Density Sensor Error	E-0080
		E-0081

8-162 K124sm8e8

8. 8. 2 Masking Jam

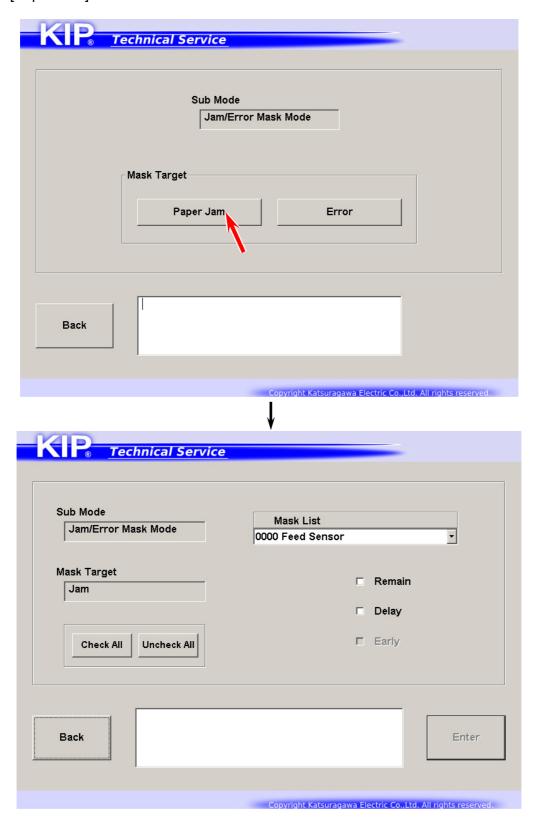
1. Press [Jam Error Mask] in Service Mode Home. Mask Target screen appears.

Back



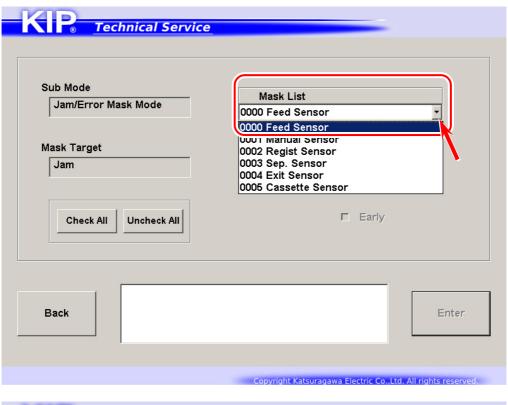
8-163 K124sm8e8

2. Press [Paper Jam].



8-164 K124sm8e8

Select the desired target from the pull-down menu.
 Check any of "Remain" / "Delay" / "Early" then the concerning sensor starts to ignore the checked jam.







NOTE

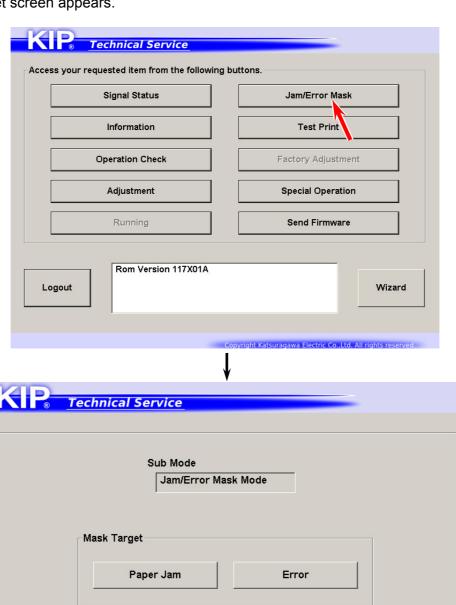
Available mask situation selection (Remain, Delay, Early) may vary by KIP printer model.

8-165 K124sm8e8

8. 8. 3 Masking Error

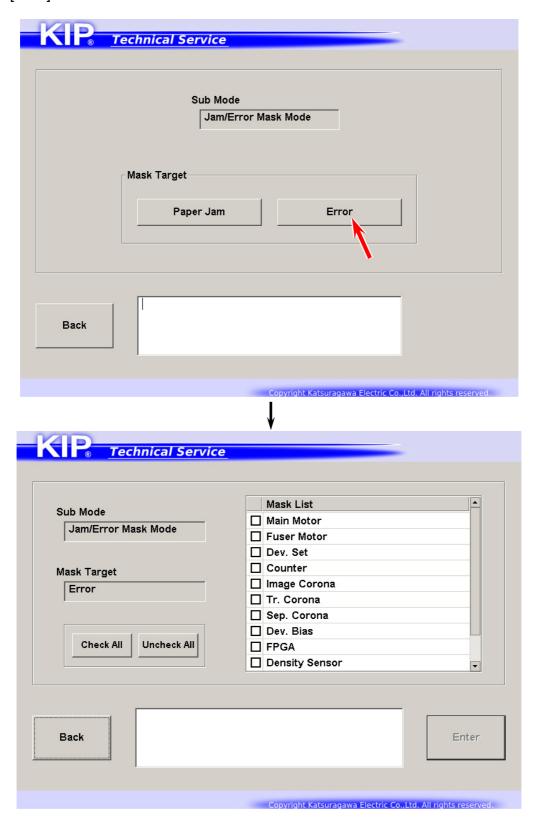
Back

1. Press [Jam Error Mask] in Service Mode Home. Mask Target screen appears.



8-166 K124sm8e8

2. Press [Error].



8-167 K124sm8e8

3. Check items that you want to mask. Then the concerning sensor starts to ignore the checked Error.





NOTE

No "Door Open" mask is available.

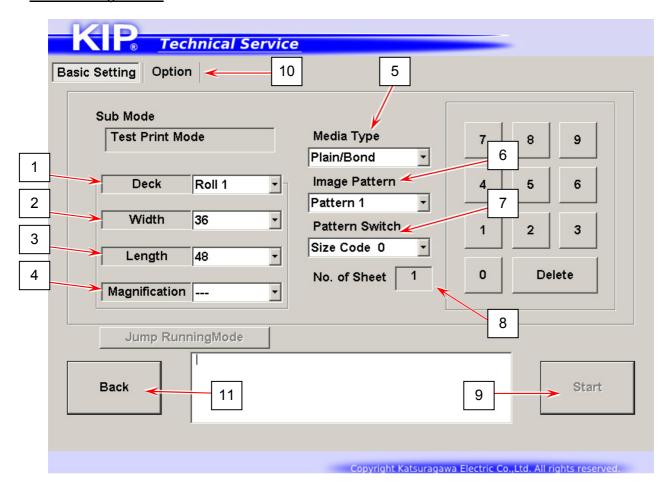
8-168 K124sm8e8

8. 9 Test Print Mode

It is possible to output some built-in test patterns as a stand alone plotter.

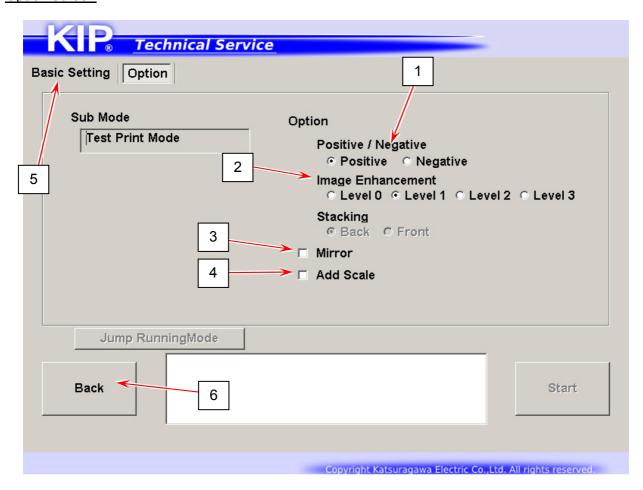
No external device (controller / scanner / network connection) is required for test pattern plotting.

Basic Setting screen



	Name	Function
1	Deck	Displays media source in drop-down menu
		Choose one item that you want to use for test print.
2	Width	Displays media width of the selected media source in drop-down
		menu
		You can set a different width from the actual media.
3	Length	Displays print length of the test print in drop-down menu
		Specify one item for test print.
4	Magnification	The print length will extend <i>n</i> times specified in "Magnifying".
5	Media Type	Displays media type in drop-down menu
		Specify one media type of the selected media source.
6	Image Pattern	Displays built-in image pattern number in drop-down menu
		Specify one pattern that you want to plot.
7	Pattern Switch	Specify a size code for the size of "repeated patterns" in a test
		print image. (ex. band pattern width, grid square size, etc)
8	Number of Sheet	Displays the number of sheets to be plotted
		You can change the number by using On-screen Keypad.
9	Start	Starts the configured test print
10	Option	Switches to Option screen
11	Back	Returns to Service Mode Home

8-169 K124sm8e8

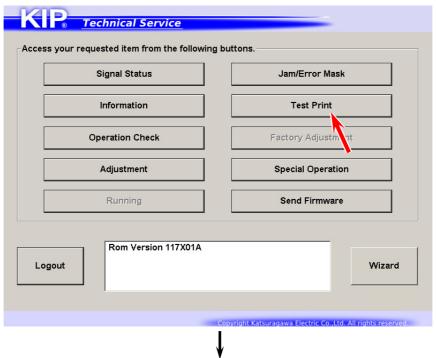


	Name	Function
1	Positive /	Choose "Negative" for B/W inverting.
	Negative	
2	Image	Displays Image Enhancement Level
	Enhancement	
3	Mirror	Enables horizontal reverse image
4	Add Scale	Adds scales on the test print
5	Basic Setting	Switches to Basic Setting screen
6	Back	Returns to Service Mode Home

8-170 K124sm8e8

8. 9. 1 Making Test Print

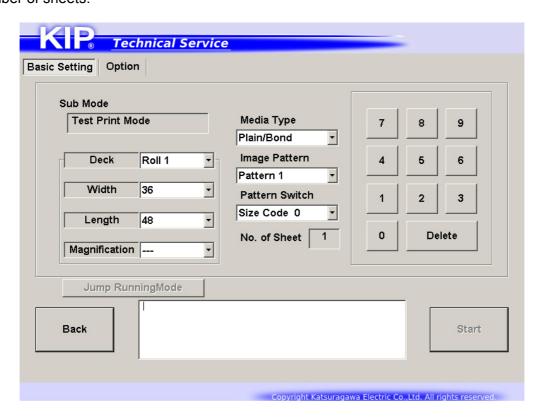
1. Press [Test Print] in Service Mode home.



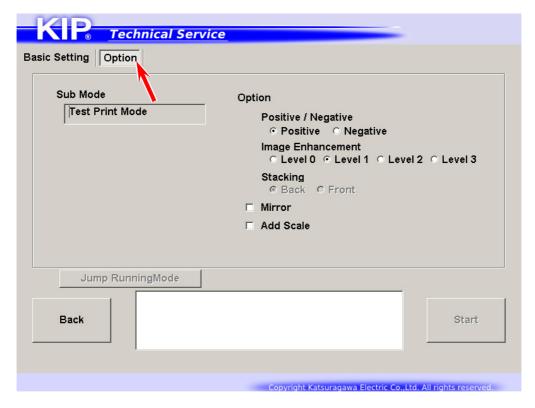


8-171 K124sm8e8

Configure a test print job.
 In Basic Setting tab, you can configure media source, type, length, image pattern selection, number of sheets.



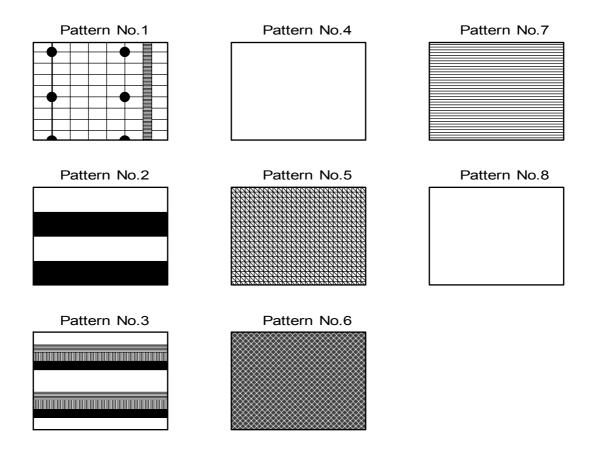
3. If necessary, open Sub Setting tab to configure some other settings.



4. Press [Enter] to start printing the configured test print.

8-172 K124sm8e8

8. 9. 2 Built-in Test Pattern



8. 10 Factory Adjustment Mode

This mode is mainly used at factory for adjustment and product operation test.



Factory Adjustment Mode is not available in Service Mode. Factory Use Only.

8-173 K124sm8e8

8. 11 Special Operation Mode

Special Operation Mode has several kinds of special important functions to the machine.

- (1) Clears the following recorded error
 - E-0000 Fuser Temperature Rising Error
 - E-0001 Fuser Over Temperature Error
 - E-0002 Fuser Low Temperature Error
 - E-0003 / 0004 Fuser Temperature Abnormal Fall Error
- (2) Clears the following history
 - Jam History
 - Error History
- (3) Resets bias adjustment by Density Compensation Process
- (4) Starts Toner Supply for initial toner
- (5) Resets any counting parameters in Information Mode

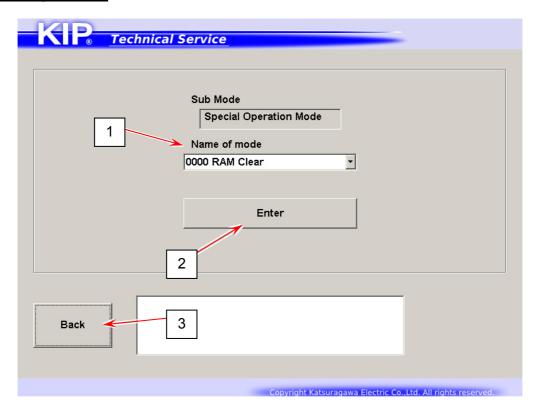


NOTE

E-0000 / 0001 / 0002 / 0003 / 0004 (regarding Fuser Error) do not disappear automatically even if you remove any cause of these errors.

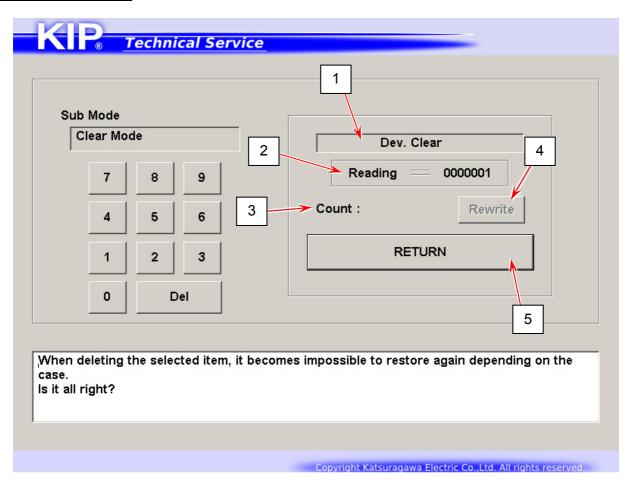
You should clear the error in Special Operation Mode to allow the printer to be ready for printing.

Operation Target screen



	Name	Function
1	Name of Mode	Displays items in drop-down menu
		Choose one item that you want to use.
2	Enter	Switches to Confirmation screen
		Clearing is not executed immediately once you press [Enter].
3	Back	Returns to Service Mode Home

8-174 K124sm8e9



	Name	Function
1	Counter Name	Displays the counter name you have chosen
2	Reading	Displays the current counter value stored in the memory
3	Count	Displays an input counter value by using On-screen Keypad
4	Rewrite	Applies a new counter value in "Count" to the selected counter
5	Return	Returns to Clear Target screen

8-175 K124sm8e9

8. 11. 1 List of Special Operation

Item No.	Name	Contents
0000	RAM Clear	Clears any stored data in the memory
0001	Error Clear	Clears E-0000 / 0001 / 0002 / 0003 / 0004
		from the memory
0002	Jam History	Clears Jam records J-**** in Jam History list
0003	Error History	Clears Error records E-**** in Error History list
0004	Print Count	Changes the counter value for Print Count (unit selectable)
0005	Total Count	Changes the counter value for Total Count (linear meter)
0006	Bias3 Count	Initializes Developer / Regulation Bias adjusted with
		Density Compensation Process
0007	Toner Supply1	Starts toner supply / agitation in Developer Unit
0008		(Reserved)
0009		(Reserved)
0010		(Reserved)
0011	Info Data Clear	Clears the Items 0012 to 0033 at a time
0012	Total Cut	Clears each Item used in Information Mode
0013	Roll1 Cut	See [8.4 Information Mode]
0014	Roll2 Cut	
0015	Others Cut	
0016	Total Image	
0017	Manual1 Image	
0018	Roll1 Image	
0019	Roll2 Image	
0020 0021	Cassette Image Roll1F CL	
0021	Roll2F CL	
0022	Roll1B CL	
0023	Roll2B CL	
0025	Feed CL	
0026	Reg. CL	
0027	Pickup SL	
0028	Sep. SL	
0029	Stack SL	
0030	Motor1 Time	
0031	Motor2 Time	
0032	LED Head on Time	
0033	Motor3 Time	

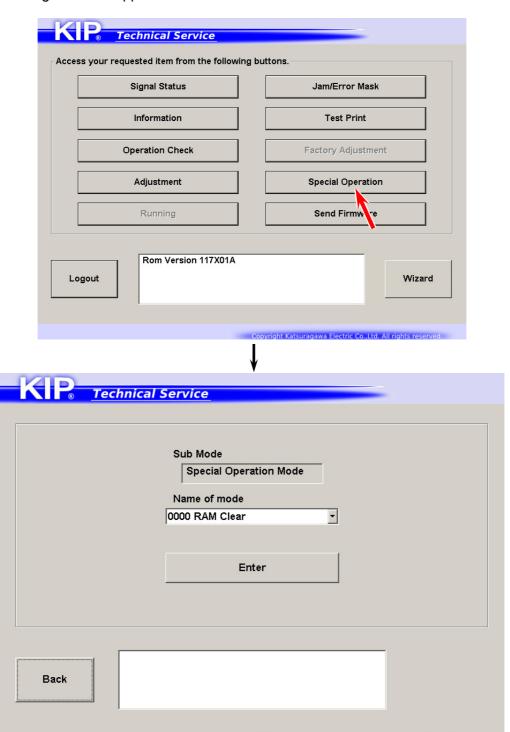


Total Count (0005) and Print Count (0004) are stored on both PW11720 and the IPS. The counting memory is always verified between them. If you replace one of them, the other will automatically override the Count memory to the replaced component.

> K124sm8e9 8-176

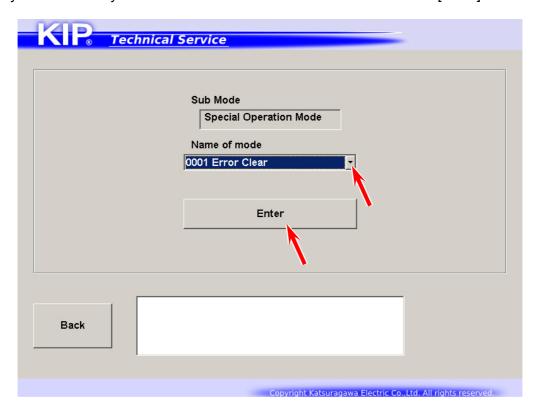
8. 11. 2 Clearing Fuser Error, Jam/Error History

1. Press [Special Operation] in Service Mode Home. Operation Target screen appears.



8-177 K124sm8e9

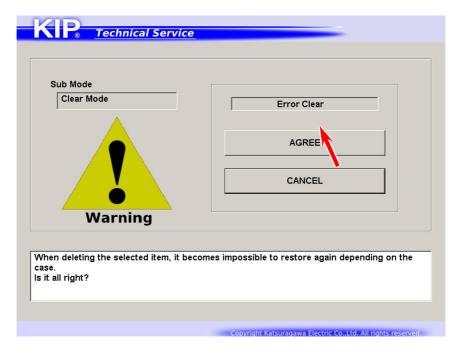
2. Specify one item that you want to use from Name of mode menu. Press [Enter].



Item No.	Clear Item	Contents
0001	Error Clear	Clears E-0000 / 0001 / 0002 / 0003 / 0004
		from the memory
0002	Jam History	Clears Jam records J-**** in Jam History list
0003	Error History	Clears Error records E-**** in Error History list

3. Confirmation screen appears.

Press [Agree] to clear the concerning record(s).



4. Once you press [Agree], it will turn deactivated. Press [RETURN].

8-178 K124sm8e9

8. 11. 3 Reset of Bias Adjustment by Density Compensation Process

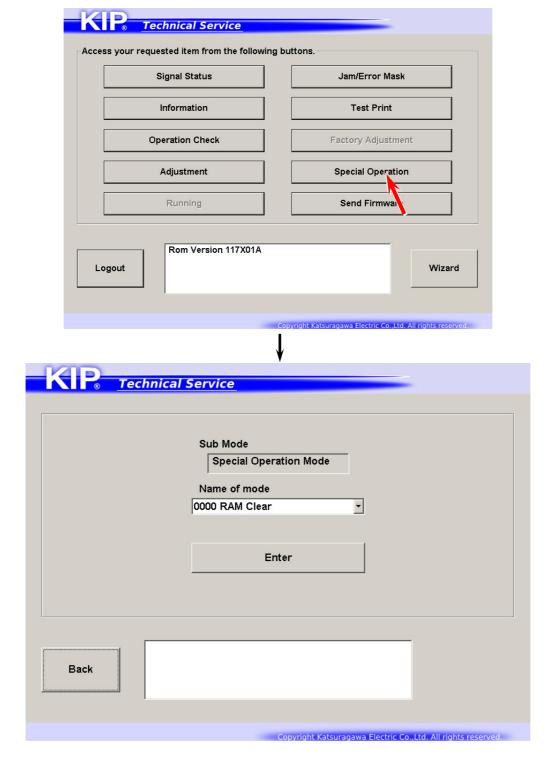


NOTE

After replacing Developer Roller / toner refreshment, you must reset bias adjustment by Density Compensation Process.

Otherwise a darker image appears because the adjusted values are too high voltage for the refreshed Developer Unit.

1. Press [Special Operation] in Service Mode Home. Operation Target screen appears.



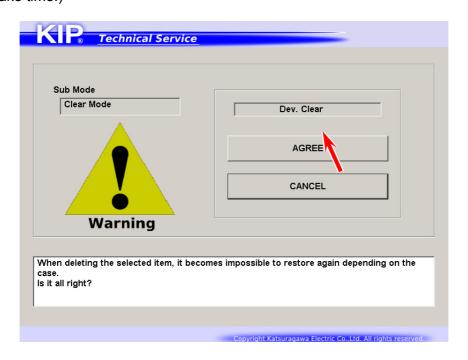
8-179 K124sm8e9

2. Select [0006 Bias3 Count] from Name of mode menu. Press [Enter].



0006	Bias3 Count	Initializes Developer / Regulation Bias adjusted with
		Density Compensation Process

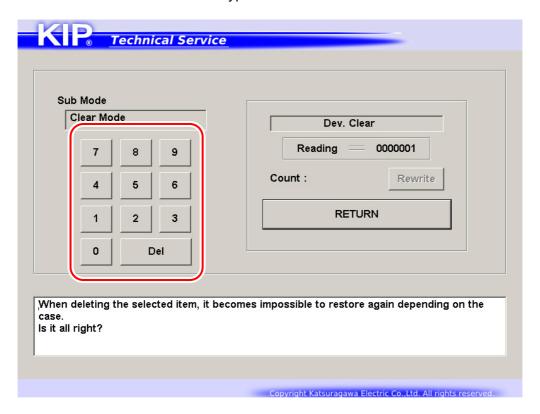
Confirmation screen appears.
 Press [Agree] to reset Bias Adjustment by Density Compensation Process.
 Then the system starts recalculation of the possible best Developer/Regulation Bias.
 (This will take time.)



8-180 K124sm8e9

4. Input screen appears.

Input "000000" with On-screen Keypad.





NOTE

The required value for the KIP 7100 to reset Bias Adjustment by Density Compensation Process is 000000.

"0000000" to "0000003" correspond to the <u>adjustment level</u> in Density Compensation Process.

For example, if you interchange the Developer Unit with your spare unit, you can manually set a certain adjustment level that would be suitable for your spare unit.

5. The value is displayed in "Count" area.

Once you input a seven digit value, [Rewrite] will be activated.

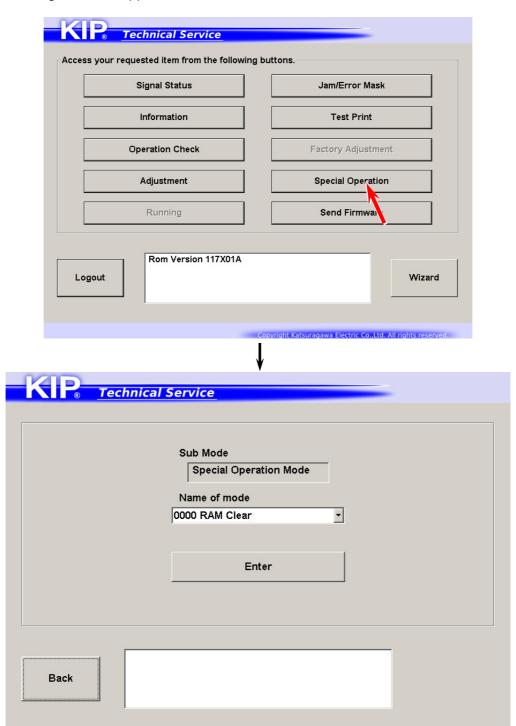
Press [Rewrite] to apply the new value to the printer.

The value in "Reading" area will be changed to the new value.

8-181 K124sm8e9

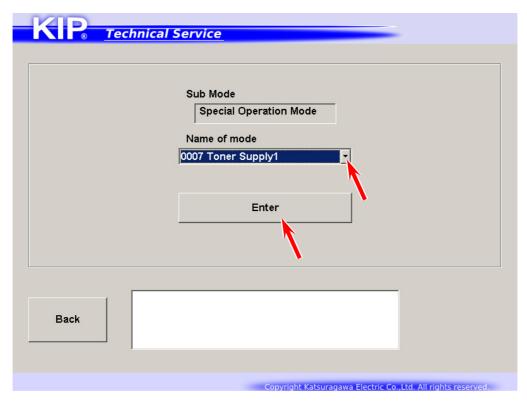
8. 11. 4 Toner Supply Mode

1. Press [Special Operation] in Service Mode Home. Operation Target screen appears.



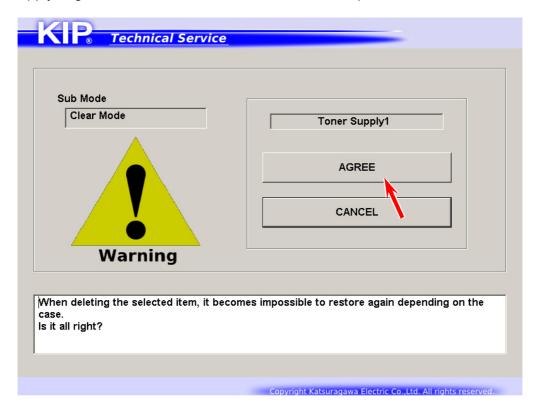
8-182 K124sm8e9

2. Select [0007 Toner Supply1] from Name of mode menu. Press [Enter].



0007 Toner Supply1 Starts toner supply / agitation in Developer Unit

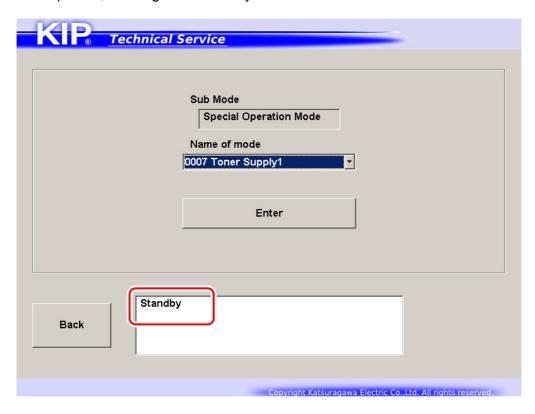
3. Confirmation screen appears. Press [Agree].
Toner supply / agitation starts. This will take minutes to complete.



8-183 K124sm8e9

- 4. Once you press [Agree], it will turn deactivated. Press [Return].
- 5. The screen goes back to Operation Target Screen. The status window shows "warm up" during toner supply / agitation.

After the completion, it changes to "standby".



8-184 K124sm8e9

8. 11. 5 Changing Counter Value

Reference

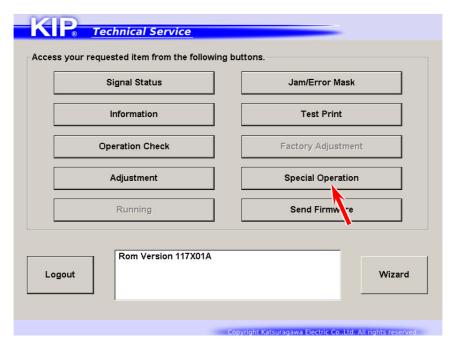
For any counting parameters, pressing [Enter] switches to Counter Input screen. This does not effect to the current counter value.



NOTE

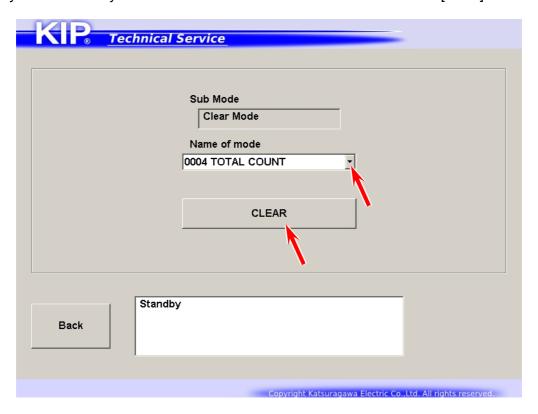
Total Count (0005) / Print Count (0004) are stored on both PW12420 and the controller. If you replace one of them, the other will automatically copy the stored Count memory to the replacement. For Total Count (0005) and Print Count (0004), this section would be required only if you replace both PW12420 and the controller at a time.

1. Press [Special Operation] in Service Mode Home.



8-185 K124sm8e9

2. Specify one item that you want to use from Name of mode menu. Press [Enter].

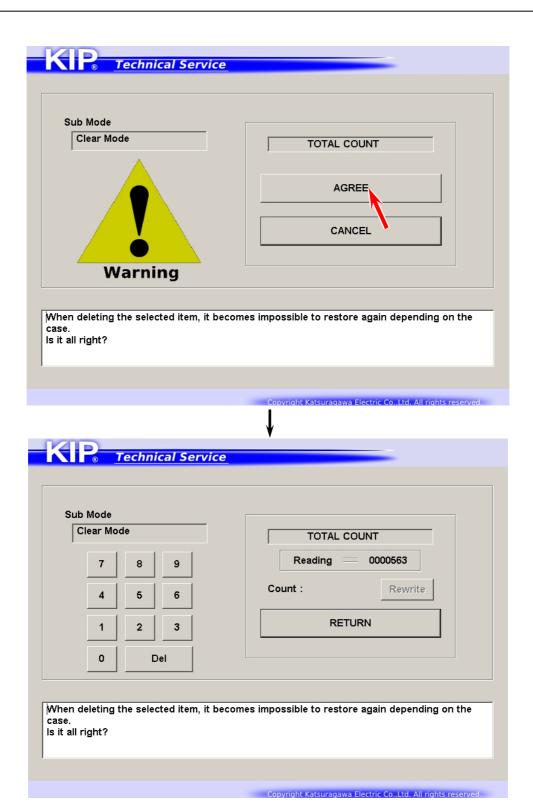


8-186 K124sm8e9

3. Confirmation screen appears.

Reference

For any counting parameters, pressing [Enter] switches to Counter Input screen. This does not effect to the current counter value.

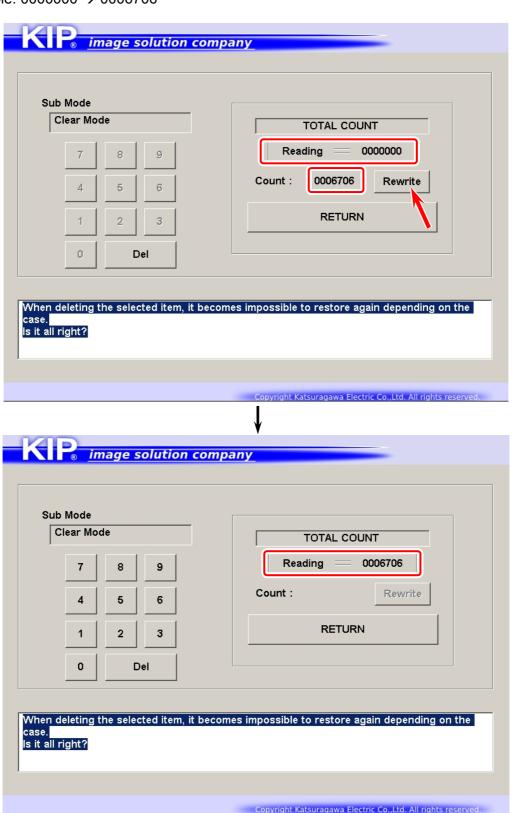


8-187 K124sm8e9

4. Input a desired value with On-screen Keypad. The value is displayed in "Count" area. Once you input a seven digit value, [Rewrite] will be activated. Press [Rewrite] to apply the new value to the printer.

The value in "Reading" area will be changed to the new value.

Example: 0000000 → 0006706



4. Press [RETURN].

8-188 K124sm8e9

8. 12 Send Firmware Mode

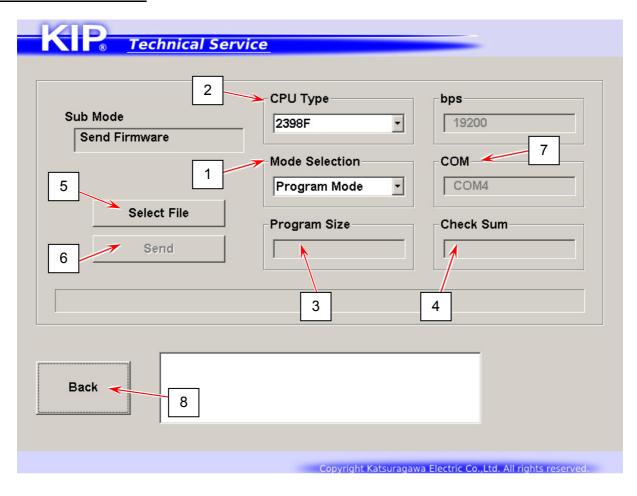
You can send a new version firmware program provided by the manufacturer to the printer. Note that the firmware program is named "K124X##A.mot".



NOTE

A firmware update does not effect to the current parameters. They remain unchanged. But please be sure to make a backup in .RAM prior to any firmware update just in case.

Send Firmware screen

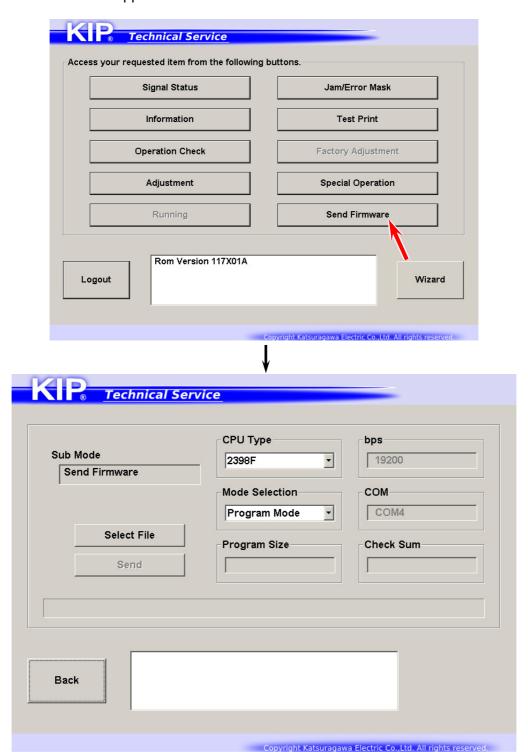


	Name	Function
1	Mode Select	Use "Program Mode" only.
2	CPU Type	Use "2398F" only.
3	Program Size	Displays the file size of a selected firmware program (.mot fie)
4	Checksum	Displays the checksum of a selected .mot file
5	Open File	Locates a .mot file that you want to send to the printer
6	Update	Sends a selected .mot file to the printer
7	COM	Displays a COM port number on the controller to be used for
		communication that has been configured in Serial Port Setting of
		Log In screen
8	Back	Returns to Service Mode Home

8-189 K124sm8e9

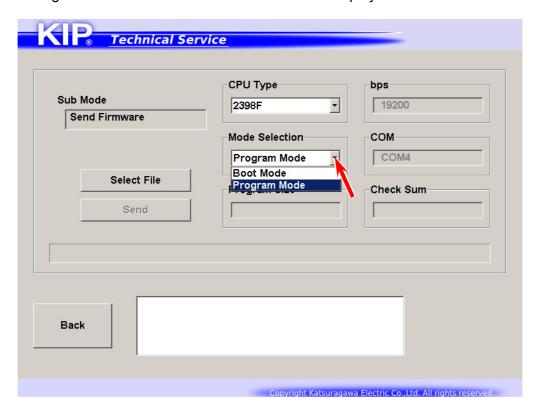
8. 12. 1 Sending Firmware to Printer

1. Press [Send Firmware] in Service Mode Home. Send Firmware screen appears.



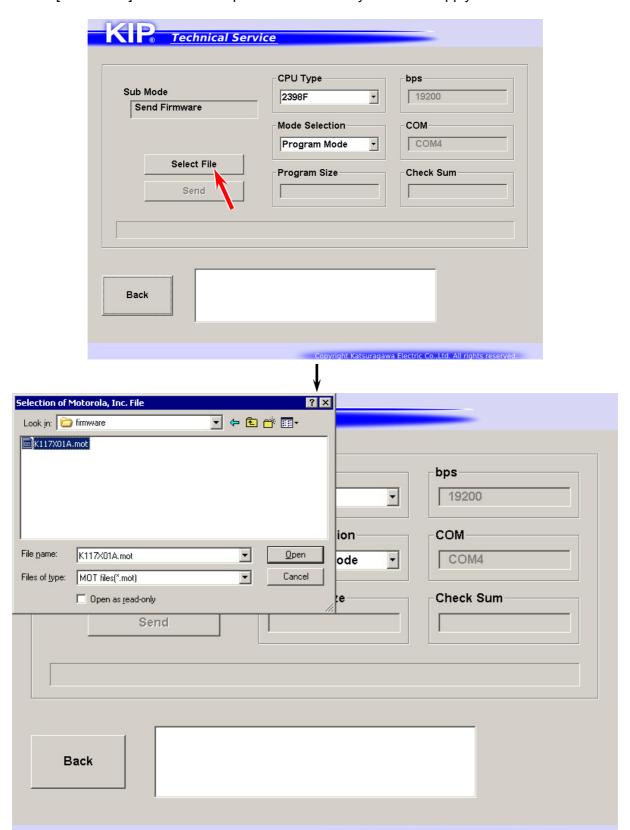
8-190 K124sm8e9

2. Choose "Program Mode" from Mode Select menu if not displayed.



8-191 K124sm8e9

3. Press [Select File] to locate and open a .mot file that you want to apply.





NOTE

For KIP 7100, its firmware program is always named "**K124X##A.mot**" Do not open any other file.

8-192 K124sm8e9

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4. Check for the program size and its checksum of the .mot file you have chosen. Press [Update] to send it to the printer.



▲ NOTE

- (1) "Program Size" and "Checksum" vary by the firmware version.
- (2) If you accidentally send an incorrect file to the printer, send a correct one when the current transmission is completed.

K124sm8e9 8-193

8. 13 KIP Scanner Utility

KIP Scanner Utility is a program that provides several scanner adjustments.

- Shading (mono/color calibration)
- Feed Distance (1:1)
- Position (stitch)

8. 13. 1 Installation



NOTE

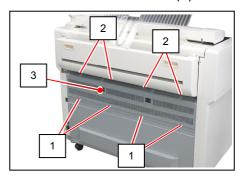
Below are the system requirements to operate KIP Scanner Utility.

- Windows 2000 / XP operating system
- USB 2.0 support

8. 13. 1. 1 Installing USB Driver

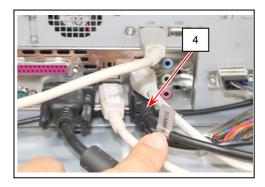
NOTE: Contact your KIP partner for the latest software and save it to any available storage on your service PC.

1. Loosen 4 screws (M4x6) (1), remove 4 screws (M4x6) (2), and then remove Cover 10 (3).



2. Disconnect Scanner USB Cable (4) from IPS Assy and connect it to your PC.

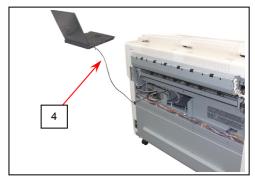






A NOTE

Scanner USB Cable (4) has a "SCANNER" tag near the plug. Disconnect this cable and connect it to your PC.

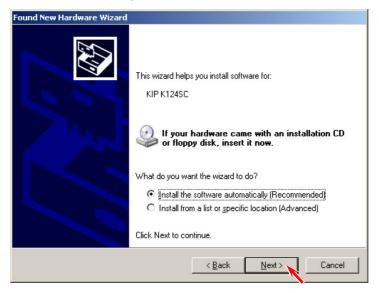


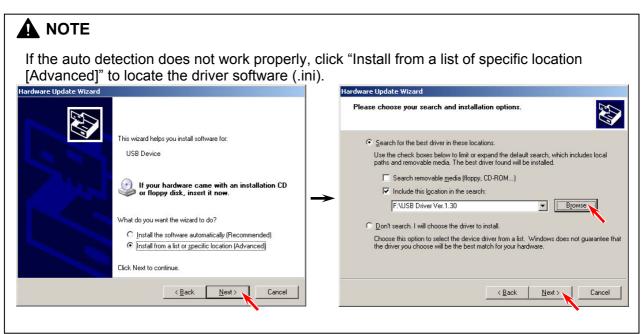
K124sm8eA 8-193

3. Turn on both your PC and the KIP 7100. [Found New Hardware Wizard] starts automatically. Click [Next]. If the following message appears, choose "No, not this time" and click [Next].



4. Choose "Install the software automatically [Recommended]". Click [Next].





8-194 K124sm8eA

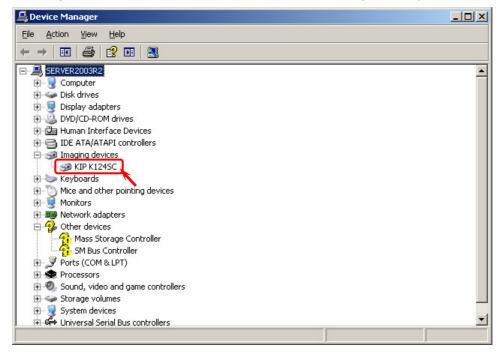
5. Click [Continue Anyway] when the following message is indicated.



6. Click [Finish] to close [Found New Hardware Wizard].



7. Open Device Manager, and confirm that "KIP K124SC" is operating properly.



8-195 K124sm8eA

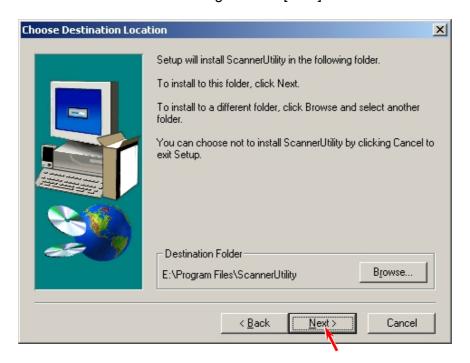
8. 13. 1. 2 Installing KIP Scanner Utility

NOTE: Contact your KIP partner for the latest software and save it to any available storage on your service PC.

- 1. Locate your SETUP.EXE for Scanner Utility and execute it.
- 2. The Setup program starts. Click [Next].



3. The destination of the software can be changed. Click [Next].



8-196 K124sm8eA

4. The name of the program folder can be changed. Click [Next].



5. The following message is indicated when all files have been copied. Click [Finish].



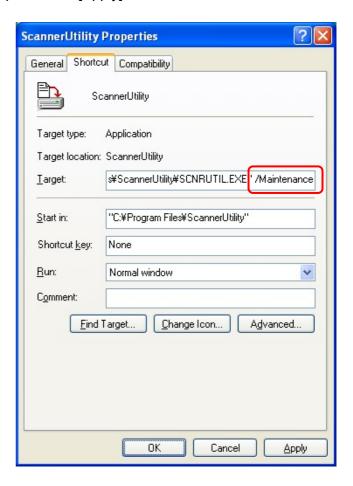
8-197 K124sm8eA

6. Open the properties panel for the "Scanner Utility" shortcut on "Start" _"Program" _ "Scanner Utility" _ "Scanner Utility". (ex. right click on the shortcut)



7. Add the following text to the end of the target path. Click [Apply].

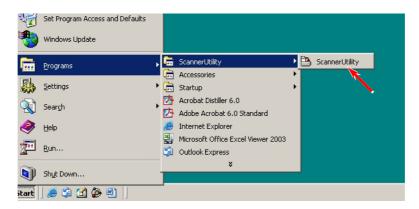
"(one byte space)/Maintenance"



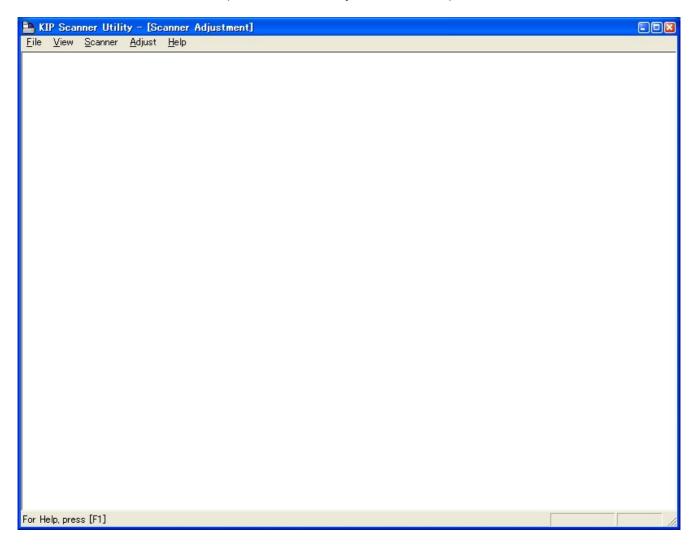
8-198 K124sm8eA

8. 13. 2 Starting KIP Scanner Utility

Start KIP Scanner Utility by; "Start" _"Program" _ "ScannerUtility" _ "ScannerUtility"



(KIP Scanner Utility's initial screen)

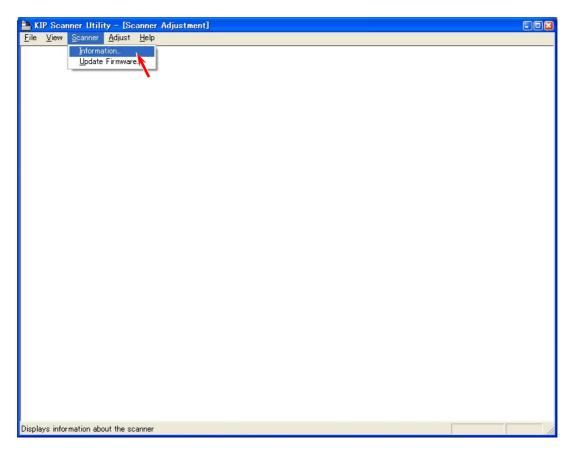


8-199 K124sm8eA

8. 13. 3 Displaying Scanner Information

It is possible to display the scanner information in the following way.

1. Select [Information] under [Scanner].



2. KIP Scanner Utility acquires the scanner information and displays it.

8-200 K124sm8eA

8. 13. 4 Scanner Adjustment Procedure

It is possible to make the following scanner adjustment with KIP Scanner Utility.

- Shading (calibration)
- Feed Distance (1:1)
- Position (stitching)

These adjustments are very important because they are greatly related with the image quality.

8. 13. 4. 1 Shading (calibration)

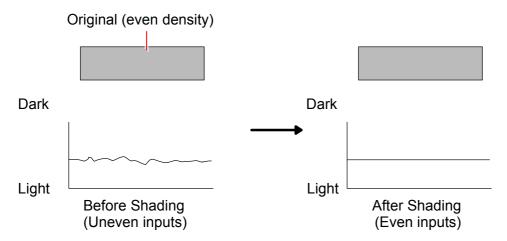
[Purpose of Shading (calibration)]

The pixels on the CIS are not same but they have their own characteristic.

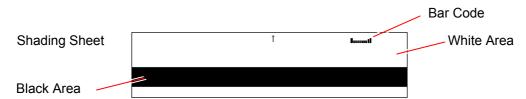
This may be a problem because the inputs (density) from those pixels are uneven although they read the same image (density).

But the Shading compensates the input from each pixel properly to remove the unevenness among the pixels.

As a result the even level of input can be expected from every pixel after Shading.



On Shading adjustment, the pixels on the CIS will be calibrated in the default for R/G/B light source by using input gaps between black and white on Shading Sheet.



The KIP 7100 uses R/G/B light sources not only for color reading but also for monochrome reading. The scanner unit will be calibrated in monochrome/color at the same time.

[Necessary situation]

Shading is required when;

- Machine installation
- After replacing;
 - (1) CIS
 - (2) CIS Controller PCB (SVC CIS BD)
 - (3) Data Controller PCB (SVC Main BD K)

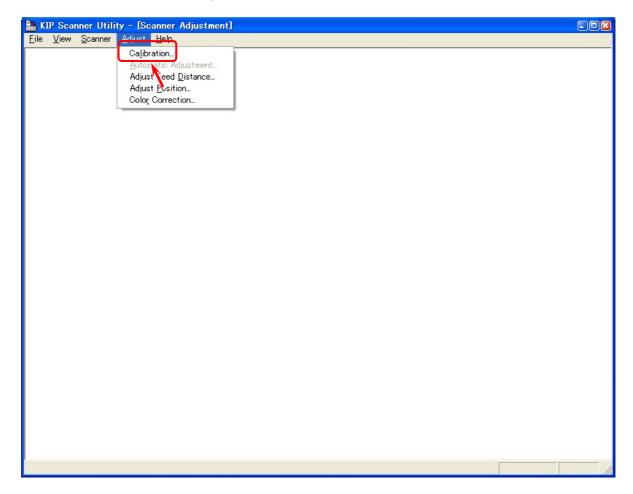
8-201 K124sm8eB



- (1) Shading adjustment should be performed with Shading Sheet (P/N: Z178300360, with a bar code).
 - 1 sheet of Shading Sheet is included in the product accessary. Keep it in safe custody.
- (2) Shading adjustment should be performed with "KIP Scanner Utility 1.23 (or later)". **No "K105Utility".**
- (3) Please clean Scan Glasses before Shading.

[Operation]

- 1. Connect the scanner unit and the PC directly with the USB 2.0 Cable.
- 2. Start KIP Scanner Utility.
- 3. Select [Calibration] under [Adjust].

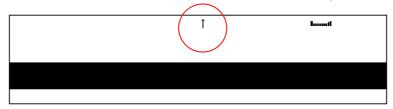


4. At first it is required to calibrate all pixels. Select [All] and then click [Execute]. You will be asked to set Shading Sheet.



8-202 K124sm8eB

5. Set Shading Sheet in the KIP 7100 accessory to the scanner noting the arrow direction.





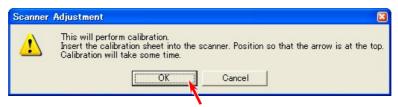


A NOTE

(1) Use the Shading Sheet in the KIP 7100 Accessory. The Shading Sheet has a bar code on the top right. A shading sheet without the bar code cannot properly calibrate the KIP 7100 Scanner Unit.



- (2) Handle Shading Sheet with great care. Keep it in safe custody for avoiding dirt, fold or tear.
- 6. Click [OK] after setting Shading Sheet, and the scanner reads it.





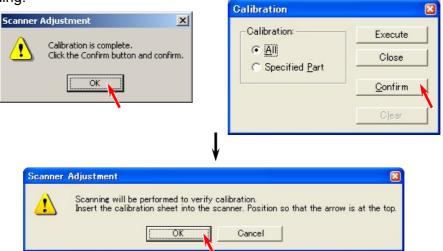
A NOTE

- (1) It takes about 7 minutes to complete Shading adjustment.
- (2) This operation will calibrate "white balance" (monochrome) and "Color" at a time with Shading Sheet.

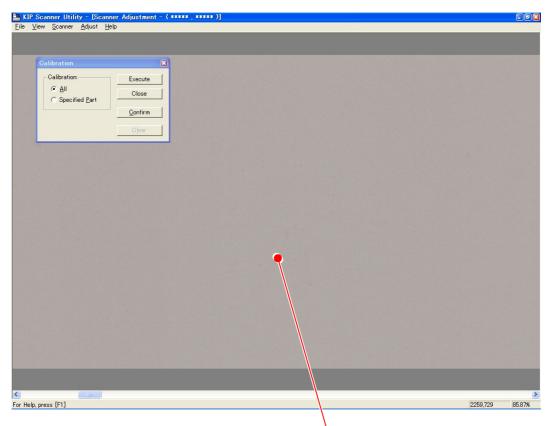
K124sm8eB 8-203

7. When Shading is finished, the following message appears. Click [OK].

Open the scanner and reload Shading Sheet to the scanner and click [Confirm] to check the result of Shading.



8. The scan image of Shading Sheet is displayed. (It looks gray due to "calibrating" scan)

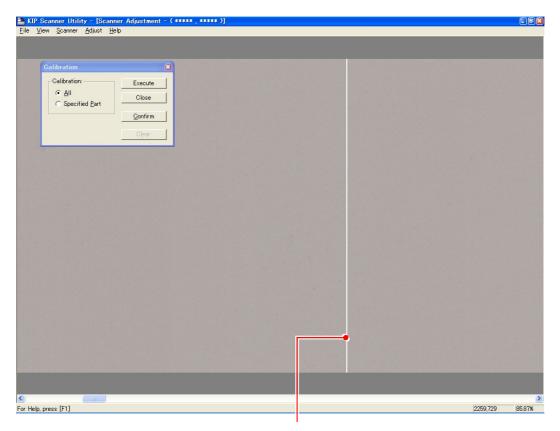


Scan image of Shading Sheet

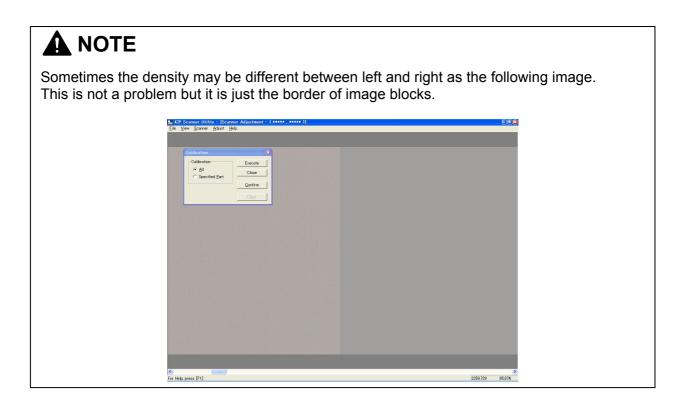
8-204 K124sm8eB

9. Scroll the image right and left to find a strong black/white line that runs vertically in one pixel wide. If there is no such line in the whole image, click [Close] to finish Shading.

The following picture is an example of the line (due to "defective pixel"). A defective pixel needs individual pixel calibration in the later steps.



Defective pixel

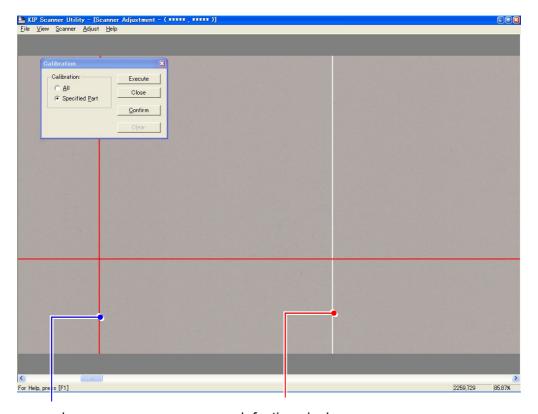


8-205 K124sm8eB

10. If you will calibrate an individual pixel, select [Specified part].



11. Move the pointer onto the scan image, and you will find a kind of red cursor.



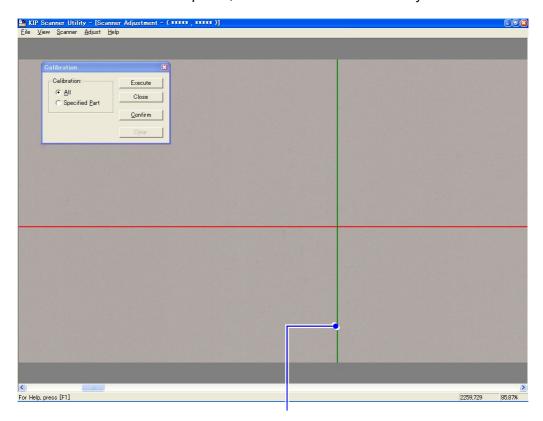
red cross cursor

defective pixel

8-206 K124sm8eB

12. Move the red cursor so that its vertical line matches the defective pixel and click it. The defective pixel is selected by this operation.

If there are some more defective pixels, select them in the same way.



Match the vertical line to a defective pixel.

13. Click [Execute], and the selected "defective pixel" is compensated individually.



14. You will be asked to set Shading Sheet again. Set Shading Sheet to the scanner and click [OK]. Check the result of Shading again. When finished, click [Close].





15. Shading ("white balance" / "color" calibration) is completed.

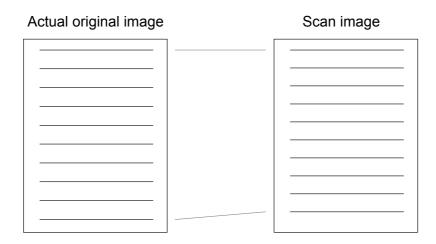
8-207 K124sm8eB

8. 13. 4. 2 Feed Distance (1:1)

[Purpose of Feed Distance (1:1)]

The lengths between actual original image and scan image may become different each other if you replace the Feed Roller of the Scanner Unit.

This is caused by the mechanical play that each Feed Roller has.



"Feed Distance" is the solution for this phenomenon.

It compares the actual original image and the scan image to know how much their lengths are different.

Then "Feed Distance" calculates the best compensation (motor speed) automatically so that both images should become as long as each other.

[Necessary situation]

Feed Distance is required when;

- · After replacing;
 - (1) Feed Roller R
 - (2) Feed Roller F

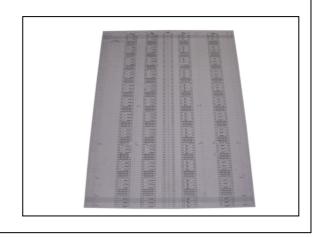
Also you need to check whether the Feed Distance is proper after replacing the following parts. (Please record the current setting value before the replacement and input the same value after the replacement.)

- (1) CIS
- (2) Data Controller PCB (SVC Main BD K)



- (1) Feeding Distance adjustment should be performed with Scanner Adjustment Chart (P/N: Z058501590).
- (2) Feeding Distance adjustment should be performed with "KIP Scanner Utility 1.23 (or later)".

No "K105Utility".

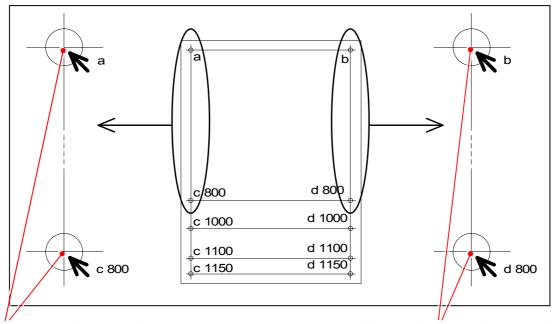


8-208 K124sm8eC

[Operation]

1. Measure the actual distance between "a point" and "c point" on the far left area of Scanner Adjustment Chart, and between "b point" and "d point" on the far right area.

Let's suppose that each distance is as follows. Between "a point" and "c point (800)" is "799.7mm" Between "b point" and "d point (800)" is 799.8mm



Measure between these 2 points.

Measure between these 2 points.



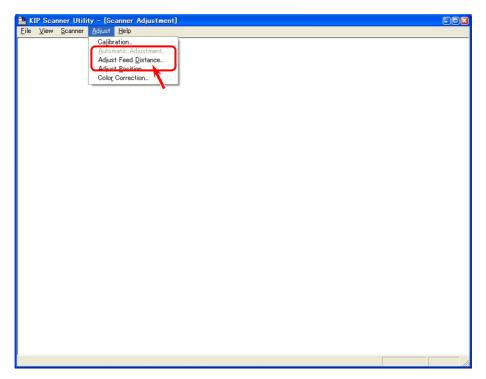
A NOTE

There are some number of "c point X" and "d point X" on the chart. You can select any one, but better adjustment can be expected if you measure a longer distance.

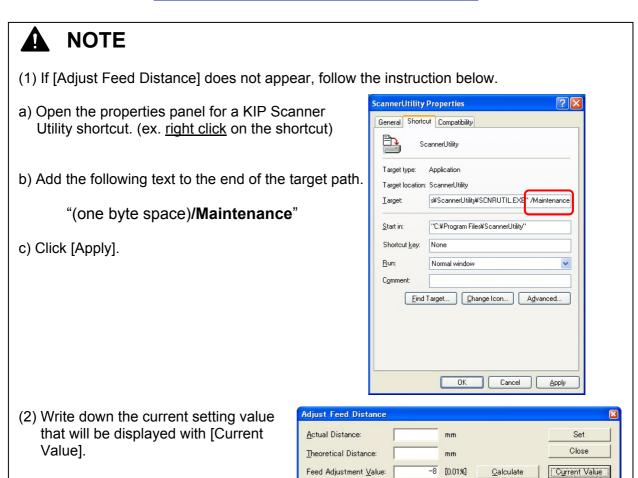
- 2. Connect the scanner unit and the PC directly with the USB 2.0 Cable.
- 3. Start KIP Scanner Utility.

K124sm8eC 8-209

4. Select [Adjust Feed Distance] from [Adjust]. Adjust Feed Distance Dialog is indicated.



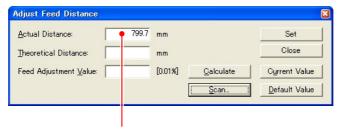




8-210 K124sm8eC

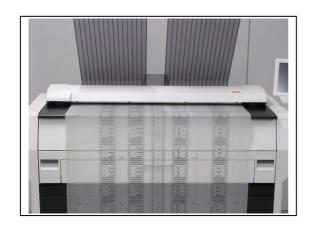
Default Vivue

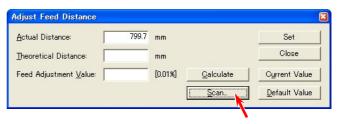
5. At first, input the actual distance between "a point" and "c point" in [Actual Distance], which you have measured at the former step "1".



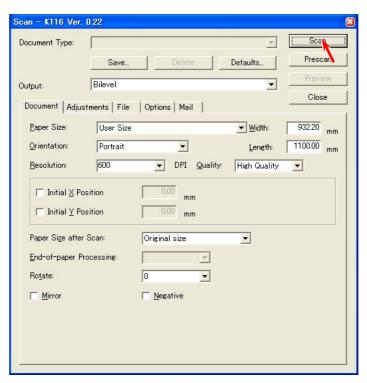
Actual distance between "a" and "b"

6. Set Scanner Adjustment Chart to the scanner unit, and then click [Scan].



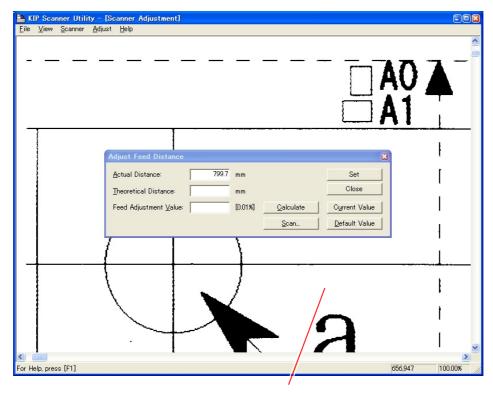


7. A dialog to specify the scan settings is indicated. Simply click [Scan] to scan the chart. (You do not have to change any setting this time.)



8-211 K124sm8eC

8. The scan image of Scanner Adjustment Chart is indicated in the screen of KIP Scanner Utility.

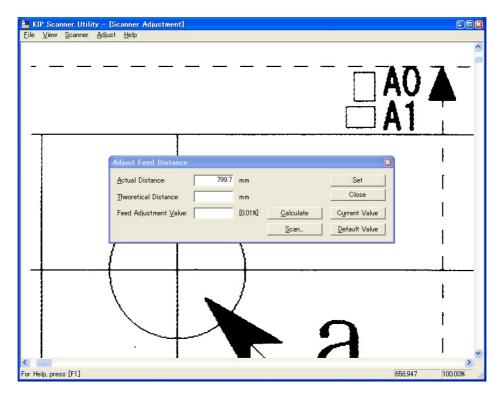


Scan image of the chart

Reference

You can enlarge the scan image by dragging with the right button of mouse. Press the F2 Key when you would like to go back to the reduced image.

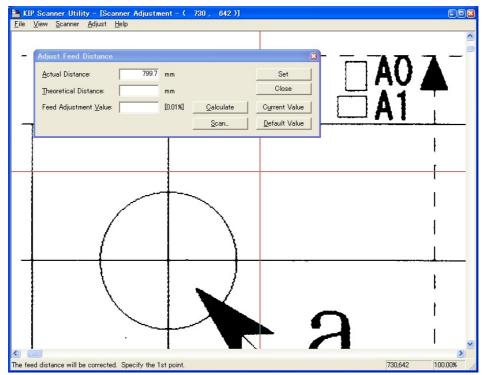
9. Indicate the enlarged image of "a point" on the screen, which was the measuring point at the former step "1".



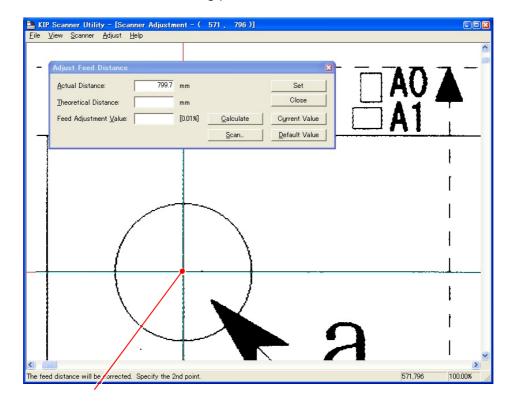
8-212 K124sm8eC

10. Click the input window of [Theoretical Distance]. A red cursor appears on the screen.





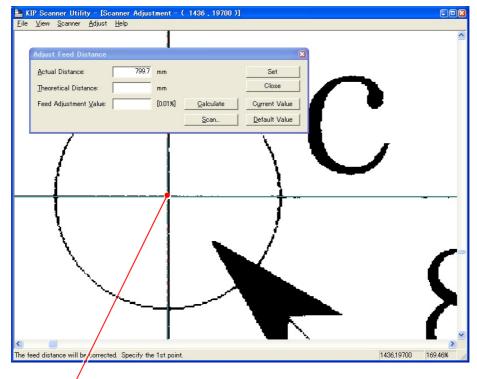
11. Click the mouse once at the measuring point.



Click on the measuring point "a".

8-213 K124sm8eC

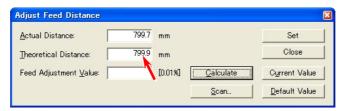
12. Similarly indicate the enlarged image of "c point" and click the mouse at the measuring point.



Click on the measuring point "c".

13. Some value is indicated in [Theoretical Distance] according to 2 measuring points you specified at both steps "9" and "10".

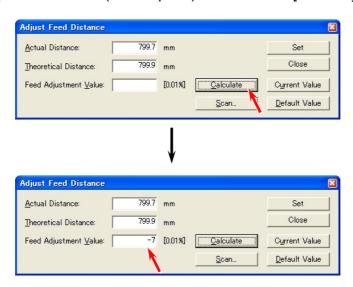
This value means the distance between "a point" and "b point" of the resulting scan image.



14. Click [Calculate].

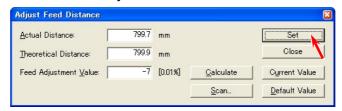
The program automatically calculates the best compensation value considering the difference of "Actual Distance" and "Theoretical Distance".

The calculated compensation value (motor speed) is indicated in [Feed Adjustment Value].



8-214 K124sm8eC

15. Click [Set], and the calculated Feed Adjustment Value is validated.



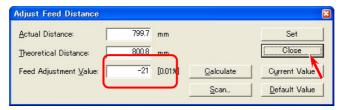
16. It is necessary to check the balance of original feeding between left and right after validating the new setting.

(Left side means "a-c points" side, and right side means "b-d points" side.)

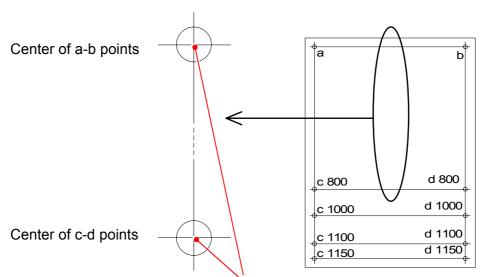
Repeat the former steps from "3" to "12" also for the right side (between "b point" and "d point"), and compare the values of Feed Adjustment Value between left (a-c points) and right (b-d points).

You do not have to do anymore thing if the difference between left and right is within 0.2%. ("within 0.2%" means the difference of indicated values is within +/-20.)

Please click [Close] without clicking [Set].

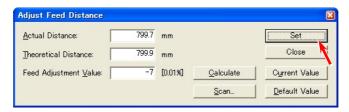


- 17. If the difference of the values of Feed Adjustment Value between left and right is larger than 0.2%, do as follows.
- a) Measure the actual distance between the center of a-b points and that of c-d points on the chart.



Measure between these 2 points.

- b) Repeat the former steps from "3" to "12" for the center area.
- c) Click [Set] to validate the Value indicated in [Feed Adjustment Value].

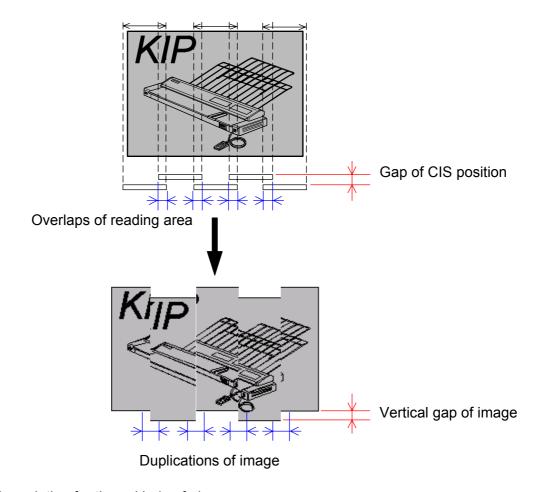


8-215 K124sm8eC

8. 13. 4. 3 Position (stitching)

[Purpose of Position (stitching)]

The scanner part of KIP 7100 reads the image of original with 5 - CIS (Contact Image Sensor). As these CIS are arranged in 2 rows, there occurs a vertical gap of image among the image blocks. Also the reading area of these 5 pieces of CIS overlaps each other some degree. As a result there occurs the duplication of image between neighboring Image Block (same image is commonly included in the neighboring two Image Blocks).



"Position" is the solution for these kinds of phenomenon.

It is possible remove the vertical gap of image by vertical positioning process (Y offset). And it is also possible to remove the duplication of image by horizontal positioning process (X overlap).

KIP 7100 has the function to adjust <u>X/Y positioning</u> by automatic. After X/Y positioning, adjustment for the <u>LE (leading edge) positioning</u> should be performed manually.

[Necessary situation]

Position is required when;

- After replacing;
 - (1) CIS
 - (2) Data Controller PCB (SVC Main BD K)

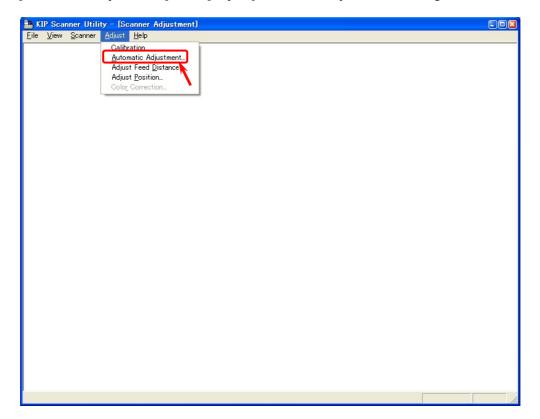


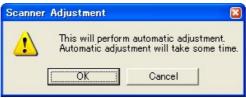
- (1) Position adjustment should be performed with Stitch Adjustment Chart (P/N: Z168300580).
- (2) Position adjustment should be performed with "KIP Scanner Utility 1.23 (or later)". No "K105Utility".

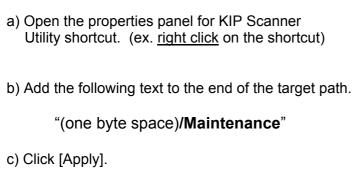
8-216 K124sm8eC

[Operation]

- 1. Connect the scanner unit and the PC directly with the USB 2.0 Cable.
- 2. Start KIP Scanner Utility.
- 3. Select [Automatic Adjustment] from [Adjust]. Scanner Adjustment Dialog is indicated.







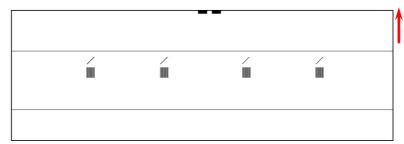
If [Automatic Adjustment] does not appear, follow the instruction below.

NOTE

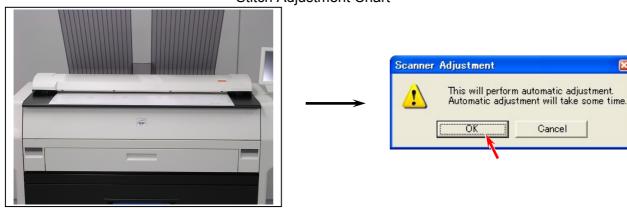


8-217 K124sm8eC

4. Set Stitch Adjustment Chart to the scanner noting the set direction and press [OK].



Stitch Adjustment Chart



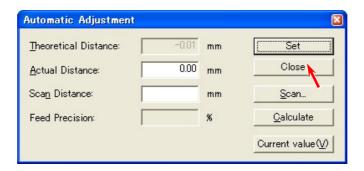
A

NOTE

An incorrect feeding of Stitch Adjustment Chart may result in an error. Position Stitch Adjustment Chart with the center of Original Table and avoid skewing.



5. After completing the scan, the following window will be displayed. Press [Close].



6. Automatic Adjustment for X/Y positioning is completed. Continue to the next step for the LE positioning.

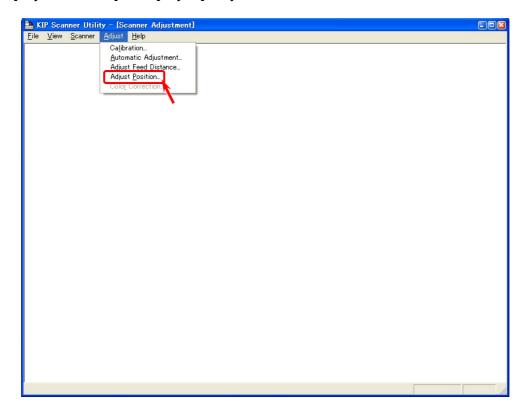


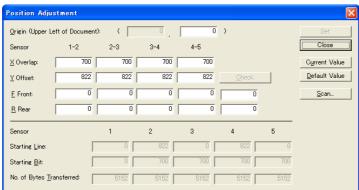
NOTE

After Automatic Adjustment for X/Y positioning, <u>LE positioning</u> is required. Be sure to follow the later procedure to adjust the <u>LE positioning</u>.

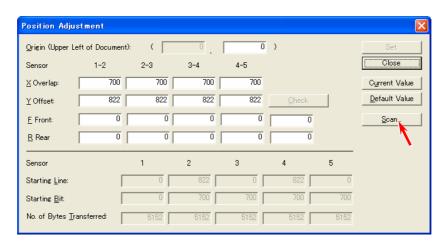
8-218 K124sm8eC

7. Select [Adjust Position] from [Adjust]. Adjust Position subscreen is indicated.

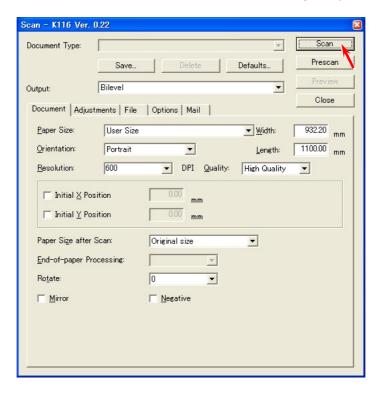




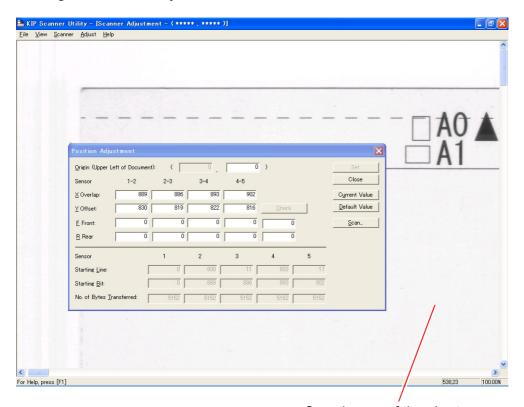
8. Set Stitch Adjustment Chart to the scanner again and press [Scan].



9. A dialog to specify the scan settings is indicated. Simply click [Scan] to scan the chart. (You do not have to change any setting this time.)

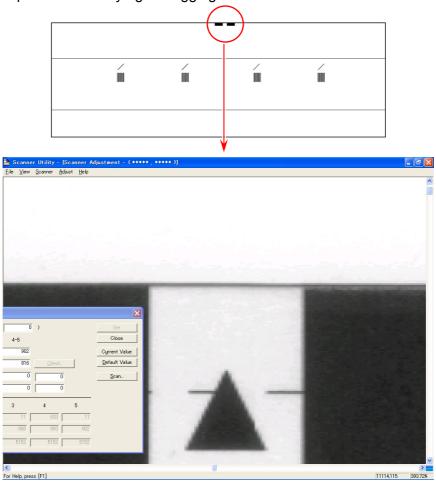


10. The scan image of Scanner Adjustment Chart is indicated in the screen of KIP Scanner Utility.



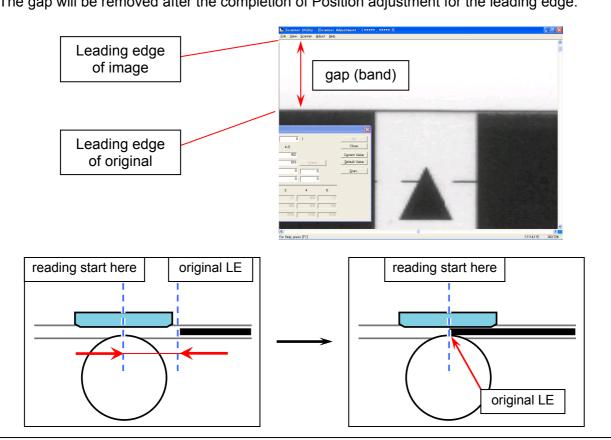
Scan image of the chart

11. Enlarge the top center area by right dragging.



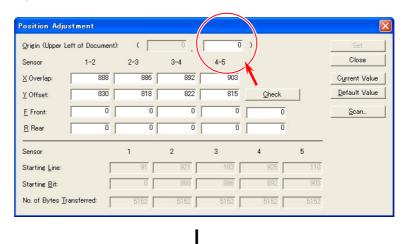
Reference

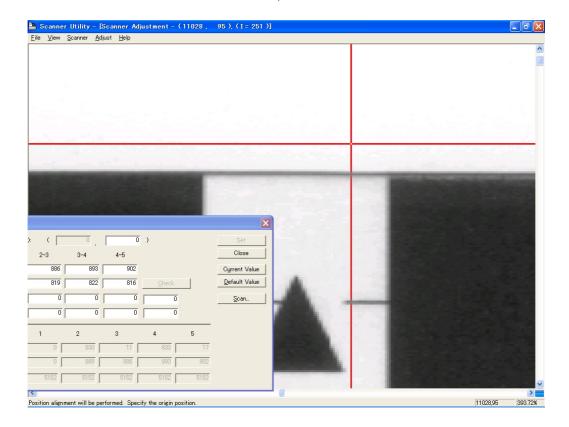
There is a gap between the leading edge of the scan image and the leading edge of the chart at this time. This band area shows that both of the edges do not match together. The gap will be removed after the completion of Position adjustment for the leading edge.



8-221 K124sm8eC

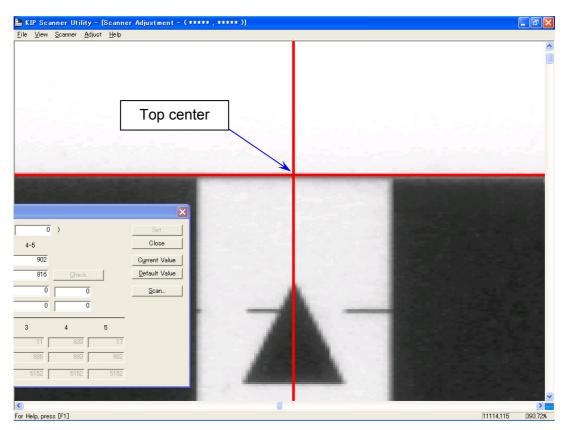
12. Click "Origin" entry field of the subscreen. A red cross cursor appears on the scan image.

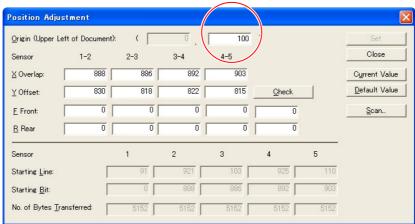




8-222 K124sm8eC

13. Click <u>once</u> on the top center of the chart in the scan image. A value appears in the field.





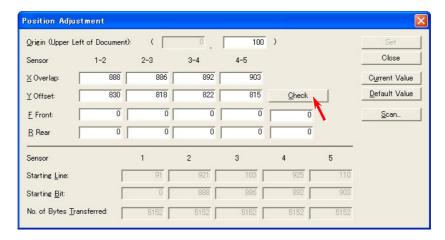


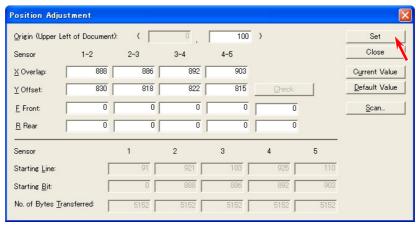
NOTE

If you make any unintended clicks on the image, press [Close] and go back to step 8.

8-223 K124sm8eC

14. Press [Check] then [Set].



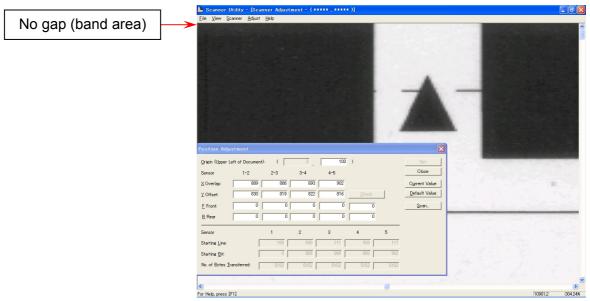


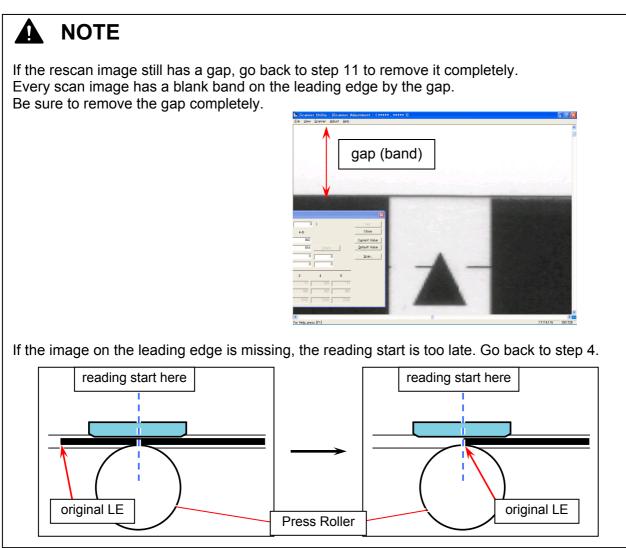
15. A dialog appears to prompt confirmation of the result. Press [OK].



16. Start Adjust Position again. Make a rescan of Stitch Adjustment Chart.

Confirm the result of the adjustment. If the gap disappears, <u>LE positioning</u> is completed.





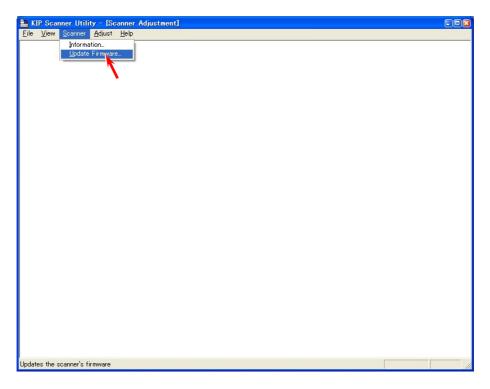
17. The entire Position adjustment is completed.

8-225 K124sm8eC

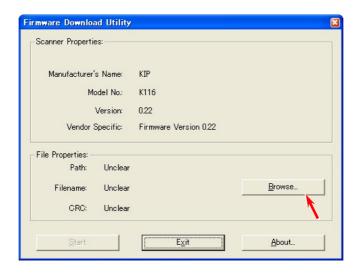
8. 13. 5 Updating Scanner Firmware

It is possible to install a new Firmware to the KIP 7100 with KIP Scanner Utility.

1. Select [Update Firmware] under [Scanner].

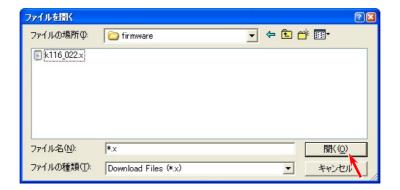


2. Firmware Download Utility is displayed. Click [Browse].



8-226 K124sm8eC

3. Select the Firmware component on the hard drive (or another drive). Click [Open].

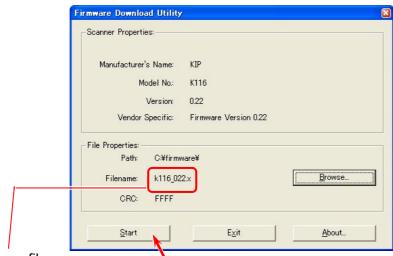




NOTE

- (1) A firmware file for KIP 7100 scanner unit should be named "k124_***.x".
- (2) Do not send any other file.

 Doing so may result in malfunction of the scanner.
- 4. Confirm that the file name you will install is displayed.Click [Start].(The name of the firmware file or the CRC value may vary as the picture below is an example)



name of firmware file

5. A dialog is displayed, which request you to turn off the KIP 7100. Turn off the machine.



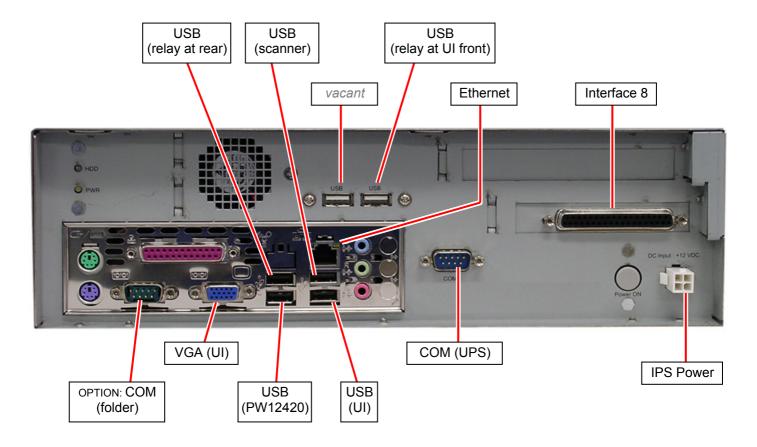
6. Click [Exit] finally.

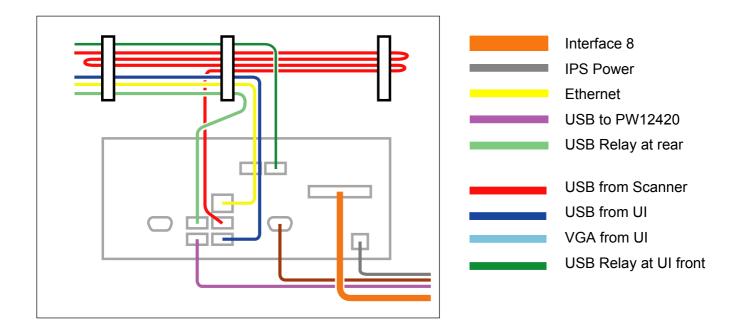
8-227 K124sm8eC

Chapter 9 Appendix

9. 1 Schematic Wiring around Controller

IPS Assy for KIP 7100 (DC1 type)

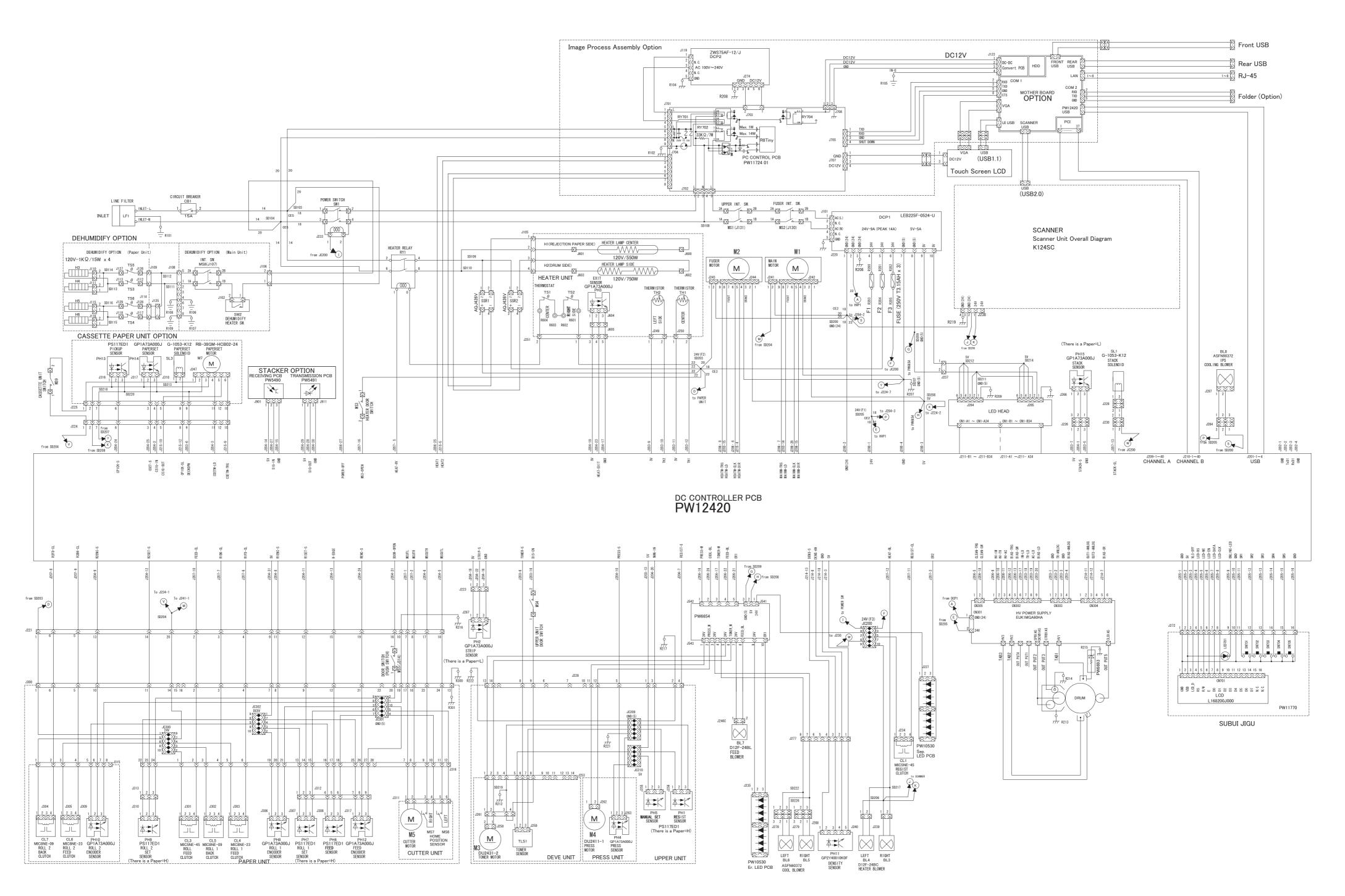


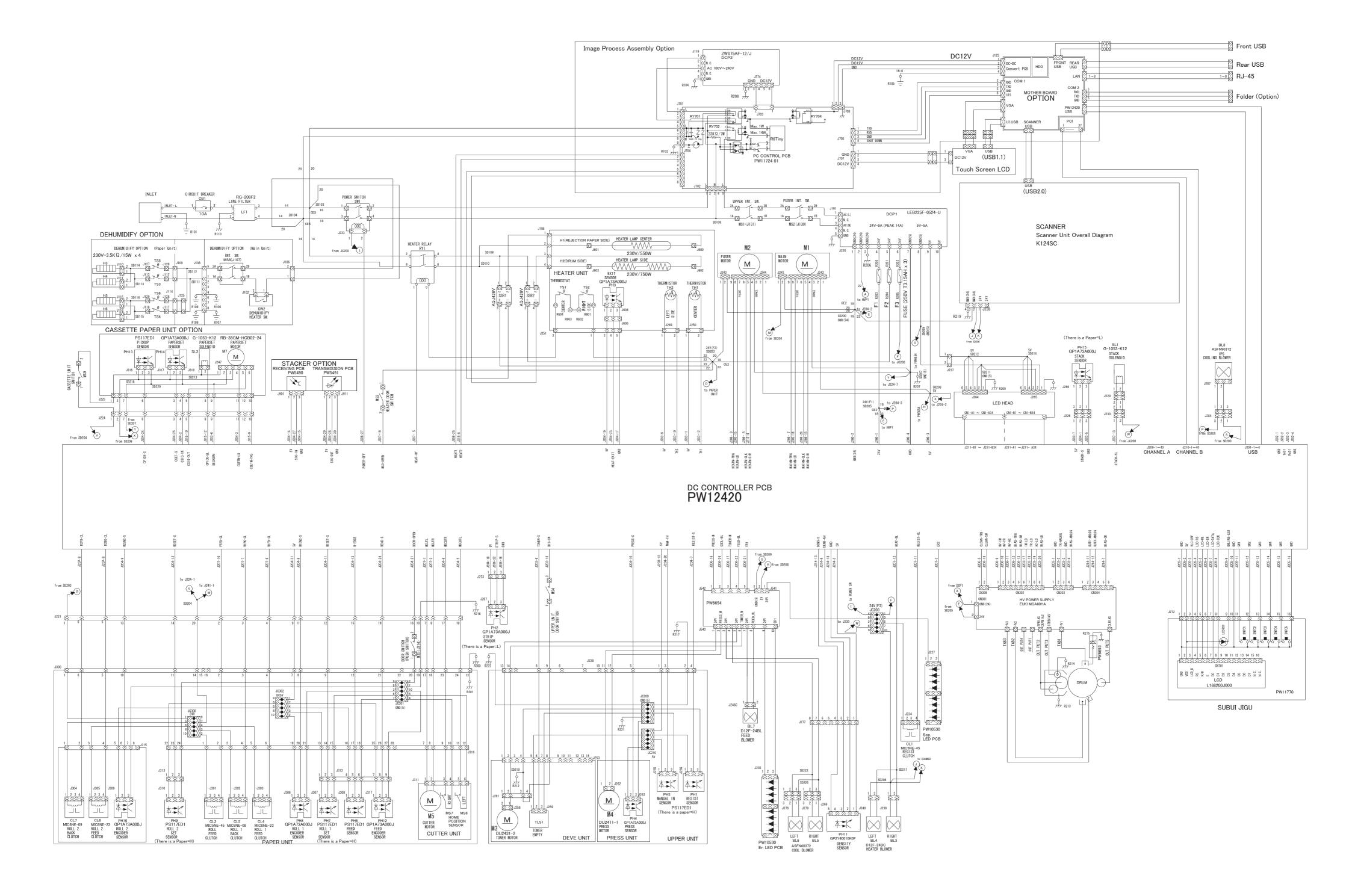


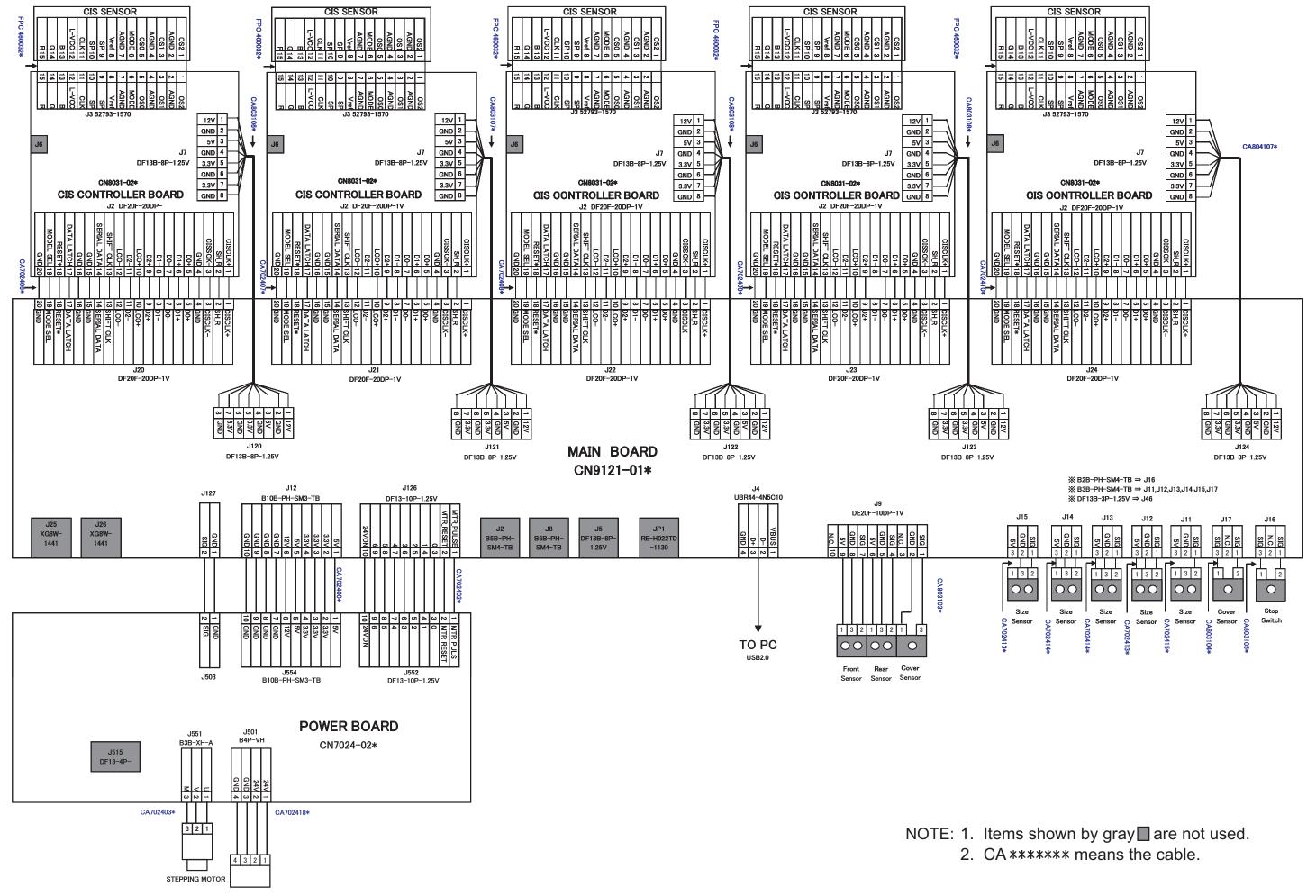
9-1 K124sm9e2

9. 2 Overall Diagram

9-2 K124sm9e2







KIP 7100 SCANNER DIAGRAM